

ST. JOHN BAPTIST CHURCH

VILLAGE OF LONGREACH

SECTION 1 / AREA 1

PARCEL 289 - LOT 581

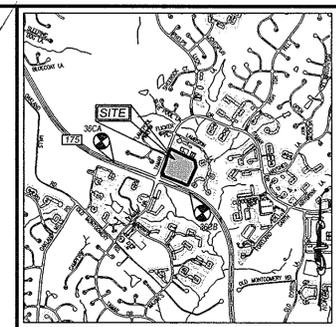
SITE DEVELOPMENT PLAN

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY STANDARDS AND SPECIFICATIONS PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:
 MISS UTILITY: 1-800-257-7777
 VERIZON TELEPHONE COMPANY: 1-410-954-6281
 HOWARD COUNTY BUREAU OF UTILITIES: 410-313-2366
 A&T CABLE TELEVISION: 410-393-3533
 B.G.&E. CO. CONTRACTOR SERVICES: 410-850-4820
 B.G.&E. CO. UNDERGROUND DAMAGE CONTROL: 410-787-4820
 STATE HIGHWAY ADMINISTRATION: 410-531-5533
- SITE ANALYSIS:
 AREA OF PARCEL: 10.0 AC.
 PRESENT ZONING: N/T
 USE OF STRUCTURE: RELIGIOUS FACILITY
 BUILDING COVERAGE ON SITE: 0.66 AC OR 6.6% OF GROSS AREA
 NOTE: PER FDP-77-A-III, NO MORE THAN 15% OF LAND DEVOTED TO OPEN SPACE
 LAND USES ON LOT 581 SHALL BE COVERED BY BUILDINGS OR MAJOR STRUCTURES.
 PAVED PARKING LOT/AREA ON SITE: 2.99 AC OR 29.9% OF GROSS AREA
 AREA OF LANDSCAPE ISLAND: 0.23 AC OR 2.3% OF GROSS AREA
 LIMIT OF DISTURBED AREA: 6.26 AC OR 62.6% OF GROSS AREA
 CUT: 16,445 CY FILL: 6,370 CY
- PROJECT BACKGROUND:
 LOCATION: COLUMBIA, MD.; TAX MAP 36, GRID 5, PARCEL 289, LOT 581
 ZONING: N/T
 SUBDIVISION: VILLAGE OF LONGREACH
 SECTION/AREA: 1/1
 SITE AREA: 10.0 AC.
 DPZ REFERENCES: F-76-54L; FDP-77-A-III; PLAT 3460, PB.18/F.62, F-01-003
- 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.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER EXTENSION PLANS AND DRAWINGS, RECORD DRAWINGS, AND APPROPRIATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S 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 CONSTRUCTION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 3,500 P.S.I.
- 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.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- 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 PRIOR TO CONSTRUCTION.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH TWO FOOT CONTOUR INTERVALS PREPARED BY ROBERT H. VOGEL ENGINEERING, DATED JUNE 2007. THE COORDINATES SHOWN HEREON ARE BASED UPON NAD 83 THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- ALL PAVING TO BE MINIMUM HOWARD COUNTY STANDARD DETAIL P-2 UNLESS OTHERWISE NOTED. (SEE DETAILS, SHEET 3) THE GEOTECHNICAL ENGINEER TO CONFIRM PAVING SECTION PRIOR TO CONSTRUCTION.
- ALL CURB AND GUTTER TO BE HOWARD COUNTY STANDARD DETAIL R-3.01 UNLESS OTHERWISE NOTED. (SEE DETAIL SHEET 2)
- CONTRACTOR RESPONSIBLE TO CONSTRUCT ALL HANDICAP RAMPS AND HANDICAP ACCESS IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
- WHERE DRAINAGE FLOWS AWAY FROM CURB, CONTRACTOR TO REVERSE THE GUTTER PAN.
- ALL ELEVATIONS ARE TO FLOWLINE/BOTTOM OF CURB UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- PUBLIC WATER AVAILABLE THROUGH CONTRACT 359-WAS.
- PUBLIC SEWER AVAILABLE THROUGH CONTRACT 24-0694-D.
- STORMWATER MANAGEMENT QUANTITY IS PROVIDED BY THE PROPOSED STORMWATER MANAGEMENT PONDS AND FOREBAYS, WHICH PROVIDES CPV & WOV. THE TWO PROPOSED STONE TRENCHES PROVIDE THE REV. THE PROPOSED STORMWATER MANAGEMENT SYSTEM AND WATER QUALITY SYSTEM ARE TO BE PRIVATELY OWNED AND MAINTAINED BY ST. JOHN BAPTIST CHURCH.
- ALL EXTERIOR LIGHTING TO CONFORM TO SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS. (DETAIL ON SHEET 4) THE LIGHT INTENSITY AT THE PROPERTY LINE WILL NOT EXCEED 0.1 FOOT CANDLES.
- GEOTECHNICAL REPORT PREPARED BY HERBST/BENSON AND ASSOCIATES DATED JULY 31, 2007.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
- ANY EXISTING STREET TREES DAMAGED OR DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$26,280.00 FOR THE REQUIRED 55 SHADE TREES, 52 EVERGREEN TREES AND 66 SHRUBS.
- TRAFFIC STUDY PREPARED BY STREET TRAFFIC STUDIES, DATED AUGUST 13, 2007; APPROVED JANUARY 2, 2008. THERE WILL NOT BE ANY SCHOOL OR DAYCARE OPERATIONS AT THE CHURCH, ADDITIONALLY, ANY ACTIVITIES DURING THE WEEKDAY PEAK HOUR TIMES WILL NOT GENERATE MORE THAN 20 TRIPS.
- ALL STORMDRAIN PIPE BEDDING TO BE IN ACCORDANCE WITH THE CURRENT HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
- BUILDING TO HAVE INSIDE WATER METER SETTING.
- THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THIS PLAN IS IN CONFORMANCE WITH FINAL DEVELOPMENT PLAN 77-A-III.
- SUBJECT PROPERTY ZONED NT PER THE 2-2-04 COMPREHENSIVE ZONING PLAN AND THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE 7/28/06.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS OR THEIR BUFFERS.
- THIS SUBDIVISION IS EXEMPT FROM THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BECAUSE THE PROPERTY IS ZONED NT AND HAS PRELIMINARY APPROVAL PRIOR TO 12-31-92, PER SECTION 16.1200(1)(iv).
- WETLAND DELINEATION PREPARED BY ECO-SCIENCE PROFESSIONALS, DATED SEPTEMBER 11, 2007.
- THERE IS NO FLOODPLAIN LOCATED ON SITE.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL VOLUME III (1993) AND AS MODIFIED BY GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993). A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY TREE.
- A KNOX BOX IS REQUIRED TO BE PLACED ON THE FRONT OF THE BUILDING. IT SHALL BE PLACED TO THE RIGHT OF THE MAIN ENTRANCE AT A RANGE OF 4'-5' IN HEIGHT AND NO MORE THAN 6' LATERALLY FROM THE DOOR. ITS LOCATION IS SHOWN ON THESE PLANS. THE BOX SHALL BE ELECTRONICALLY SUPERVISED TO NOTIFY THE OWNER THAT IT IS BEING ACCESSSED (INTEGRATED WITH THE FIRE ALARM SYSTEM).
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL PERFORATED TUBE POST (12 GAUGE) - LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- FIRE LANS SHOULD BE PROVIDED AT THE FRONT OF THE BUILDING. EITHER FIRE LANE SIGNAGE SHOULD BE INSTALLED, OR THE CURBS SHOULD BE PAINTED IN RED AND STENCILED.
- LANDSCAPING NOT PERMITTED WITHIN 7'-1/2' OF EACH SIDE OF THE FIRE DEPARTMENT CONNECTION. PROVIDE A CLEAR UNOBSTRUCTED ACCESS PATH TO THE FIRE DEPARTMENT CONNECTION. NFPA-1 13.1.4
- SIGNAGE SHALL BE PROVIDED ON THE BUILDING IDENTIFYING THE BUILDING ADDRESS, AND EACH SUITE SEPARATED BY LETTER.
- ANY EXPANSION BEYOND "FUTURE PARKING LOT", SHOWN ON SHEET 7, WILL REQUIRE ADDITIONAL STORMWATER MANAGEMENT.
- THIS PROJECT IS SUBJECT TO AN ALTERNATIVE COMPLIANCE, APPROVED JANUARY 10, 2008, TO DESIGN MANUAL, VOLUME I, SECTION 5.2.6.D.1.a, WHICH REQUIRES THAT A MAINTENANCE ACCESS BE PROVIDED AROUND THE ENTIRE POND, TO ALLOW FOR A TURN AROUND AREA.
- THIS PROJECT IS SUBJECT TO AN ALTERNATIVE COMPLIANCE, APPROVED JANUARY 10, 2008, TO DESIGN MANUAL, VOLUME I, SECTION 5.2.6.D.1.a, WHICH REQUIRES THE USE OF IMPERVIOUS COVER BASED ON ZONING (85%), TO ALLOW FOR THE USE OF SLOPED IMPERVIOUS COVER (34%), SECTION 5.2.7.A.1, WHICH REQUIRES THAT A POND BENTHIC DEVICE BE PROVIDED FOR ALL FACILITIES WITH A PERMANENT POOL, TO MAINTAIN THE POND DRAIN AND ALLOW FOR PUMPING IF IT NEEDS TO BE DRAINED AND SECTION 5.2.4.1, WHICH REQUIRES A 25' BUFFER FROM THE END OF THE RIPRAP AT A POND OUTFALL TO ALL EXISTING PROPERTY LINES, TO ALLOW FOR A REDUCTION TO 10' BETWEEN THE END OF THE RIPRAP OUTFALL AND THE PROPERTY LINE ALONG MD ROUTE 175.
- THERE ARE NO STEEP SLOPES GREATER THAN 20,000 SF OF CONTIGUOUS AREA LOCATED ON THIS PROPERTY.
- MDE DAM SAFETY PERMIT #200861951.

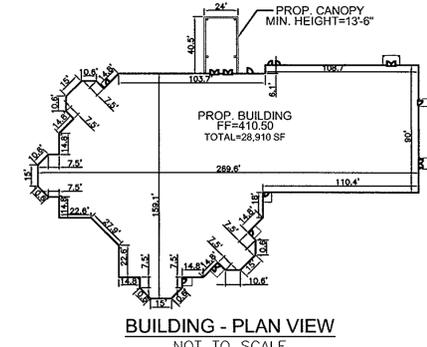
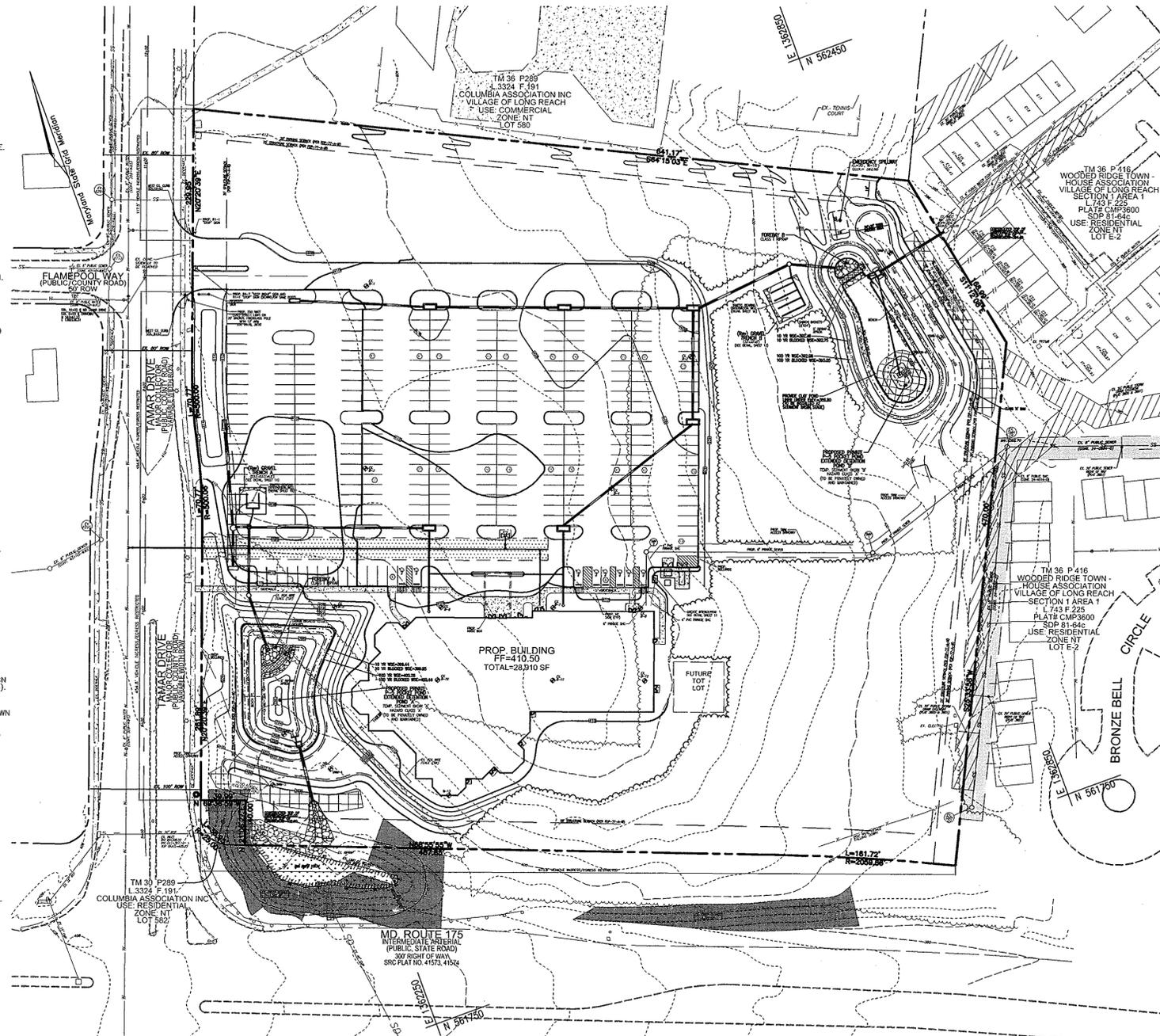
LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREES TO REMAIN
- LIGHT POLES: SINGLE OVERHEAD, DOUBLE OVERHEAD
- CONCRETE
- LIMIT OF WETLAND
- WETLAND BUFFER



BENCHMARKS

HOWARD COUNTY BENCHMARK 36CA	N 5762262.5382 E 1361002.9511	ELEV. 430.099
HOWARD COUNTY BENCHMARK 36CB	N 561571.5944 E 1362780.1897	ELEV. 388.340



OWNER	DEVELOPER
ST. JOHN THE EVANGELIST BAPTIST CHURCH 8910 COLUMBIAN RD COLUMBIA, MD 21045 410-992-6977	MV COMMERCIAL CONSTRUCTION LLC 4000 MILLER-VALENTINE COURT DAYTON, OH 45439 937-293-0900

NO.	REVISION	DATE
4	PARKING LOT EXPANSION	3/8/10
3	REVISE PLAN TO ADD 120 LF OF FENCE BETWEEN SIDEWALK AND SWIM POND A	10/2/09
1	REVISE PLAN TO ADD BERM, REVISE POND CONTROL STRUCTURE TO CAST-IN-PLACE, REPLACE ANTI-SLOP COLLAR WITH FILTER DAMPPAN AND REUSE PRINCIPAL SPILLWAY TO REFLECT SUBSTITUTION AT POND	8/15/08

SITE DEVELOPMENT PLAN

COVER SHEET

ST. JOHN BAPTIST CHURCH
VILLAGE OF LONGREACH
SECTION 1 / AREA 1
PLAT 3460, PB.18/F.62

TAX MAP 36 GRID 5
6TH ELECTION DISTRICT

PARCEL 289, LOT 581
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.

ENGINEERS • SURVEYORS • PLANNERS

8407 MAIN STREET
ELLCOTT CITY, MD 21043

TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV
DRAWN BY: RHV
CHECKED BY: RHV
DATE: JUNE 2008
SCALE: AS SHOWN
W.O. NO.: 06-70

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18193, EXPIRATION DATE: 09-27-2008

1 SHEET OF 13

PARKING TABULATION

REQUIRE	PROVIDED
RELIGIOUS STRUCTURE	307 SPACES (INCLUDING 8 HANDICAP SPACES)
577 SEATS @ 1 SPACE/3 SEATS	193 SPACES

SHEET INDEX

DESCRIPTION	SHEET NO.
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SEDIMENT CONTROL NOTES AND DETAILS	6 of 13
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STORMWATER MANAGEMENT NOTES AND DETAILS	11 of 13
STORMWATER MANAGEMENT NOTES AND DETAILS	12 of 13
LANDSCAPE PLAN	13 of 13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* 7/11/08
 CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* 7/11/08
 DIRECTOR: *[Signature]* 7/14/08

ADDRESS CHART

LOT/PARCEL#	STREET ADDRESS
581/289	9055 TAMAR DR COLUMBIA, MD 21045

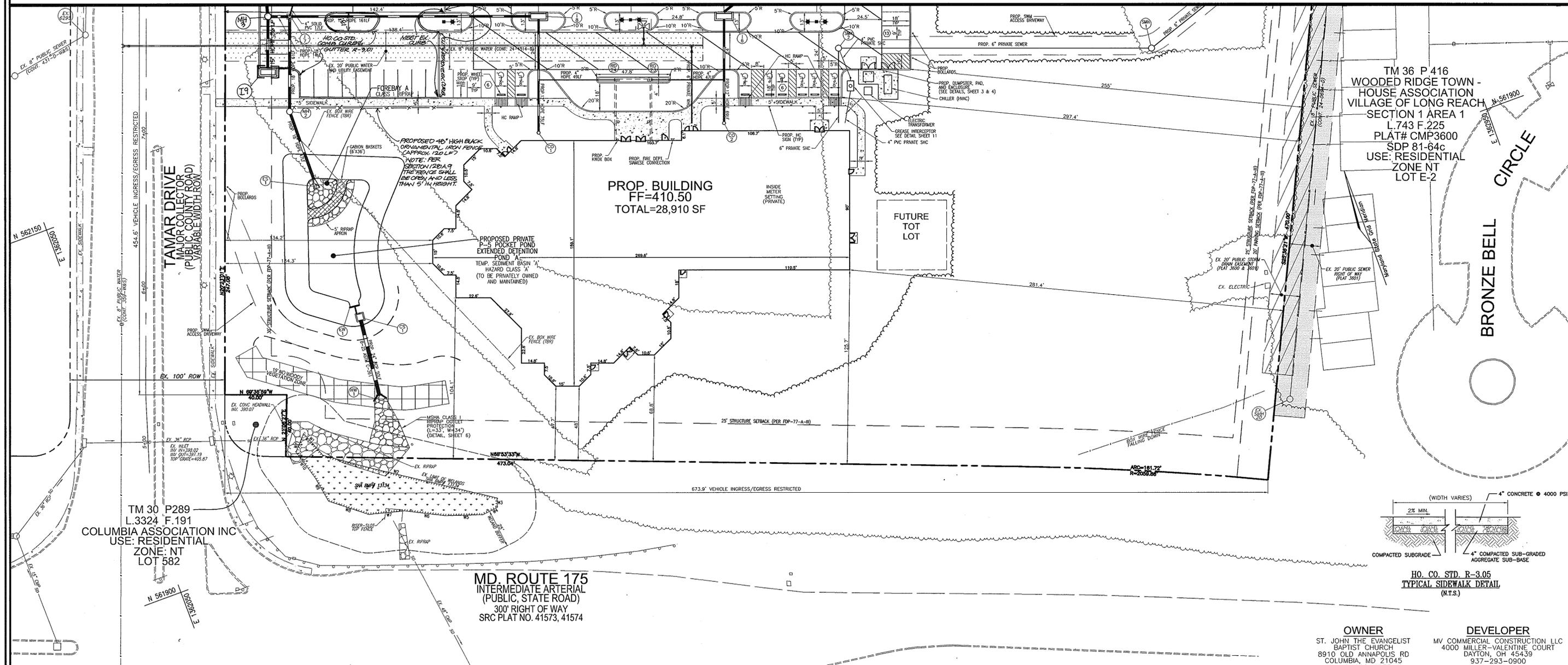
PERMIT INFORMATION CHART

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL NUMBER
VILLAGE OF LONGREACH	1/1	581/289
PLAT# OR L/F	BLOCK NO.	ZONING
PLAT 3460;	5	NT
LB74/F.479		
PB.18/F.62		
WATER CODE: 5336200	ELECT. DIST. 6TH	CENSUS TR. 6066.04
	SEWER CODE: G08	

APPROVED BY PLANNING BOARD of Howard County

5/22/08
 DIRECTOR DATE

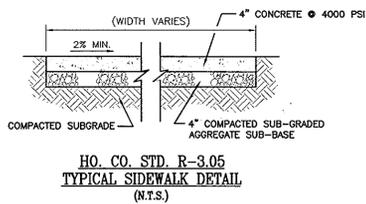
MATCHLINE SEE SHEET 2



TM 36 P 416
WOODED RIDGE TOWN -
HOUSE ASSOCIATION
VILLAGE OF LONGREACH
SECTION 1 AREA 1
L.743 F.225
PLAT# CMP3600
SDP 81-64c
USE: RESIDENTIAL
ZONE NT
LOT E-2

TM 30 P289
L.3324 F.191
COLUMBIA ASSOCIATION INC
USE: RESIDENTIAL
ZONE: NT
LOT 582

MD. ROUTE 175
INTERMEDIATE ARTERIAL
(PUBLIC, STATE ROAD)
300' RIGHT OF WAY
SRC PLAT NO. 41573, 41574



LEGEND:

-----	EXISTING CURB AND GUTTER	-----	EXISTING TREELINE (FIELD LOCATED)
-----	PROPOSED CURB AND GUTTER	-----	PROPOSED TREELINE
-----	EXISTING UTILITY POLE	-----	LIMIT OF WETLAND
-----	EXISTING LIGHT POLE	-----	25' WETLAND BUFFER
-----	EXISTING MAILBOX	-----	EXISTING FENCE
-----	EXISTING SIGN	-----	PROPERTY LINE
-----	EXISTING SANITARY MANHOLE	-----	RIGHT-OF-WAY LINE
-----	EXISTING SANITARY LINE	-----	SOILS BOUNDARY
-----	EXISTING CLEANOUT	-----	PROPOSED SIDEWALK
-----	EXISTING FIRE HYDRANT	-----	PROPOSED LIGHTPOLE
-----	EXISTING WATER LINE	-----	EX. 20" STORM DRAIN CASING
-----	PROPOSED STORM DRAIN	-----	EX. 20" PUBLIC SEWER AND UTILITY EASEMENT
-----	PROPOSED STORM DRAIN INLET	-----	INTERMEDIATE DUTY PAVING
-----	EXISTING TREES (FIELD LOCATED)		

PLAN VIEW
SCALE: 1"=30'

GEOTECH RECOMMENDED PAVING SECTIONS
N.T.S.

INTERMEDIATE DUTY	LIGHT DUTY
(ENTRANCE DRIVEWAYS AND AREAS SUBJECT TO OCCASIONAL TRUCKS AND BUS TRAFFIC)	(PARKING LOT PAVEMENTS SUBJECT TO PASSENGER VEHICLE TRAFFIC ONLY)
2" HOT MIX ASPHALT SURFACE (9.5MM SUPERPAVE LEVEL 1)	1.5" HOT MIX ASPHALT SURFACE (9.5MM SUPERPAVE)
2" HOT MIX ASPHALT BASE (12.5MM SUPERPAVE LEVEL 1)	1.5" HOT MIX ASPHALT BASE (12.5MM SUPERPAVE)
6" GRADED AGGREGATE (6A BASE)	5" GRADED AGGREGATE (6A BASE)
APPROVED COMPACTED SUBGRADE	APPROVED COMPACTED SUBGRADE

NOTE:
FOR WETLAND BUFFER METES AND BOUNDS,
SEE CHART ON SHEET 5.

APPROVED BY PLANNING BOARD of Howard County
DATE: 5/22/08

OWNER
ST. JOHN THE EVANGELIST BAPTIST CHURCH
8910 OLD ANNAPOLIS RD
COLUMBIA, MD 21045
410-992-6977

DEVELOPER
MV COMMERCIAL CONSTRUCTION LLC
4000 MILLER-VALENTINE COURT
DAYTON, OH 45439
937-293-0900

4	PARKING LOT EXPANSION	3/8/10
3	ADD 120 LF OF FENCE BETWEEN SIDEWALK AND SWM POND	10/2/09
NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
SITE LAYOUT
ST. JOHN BAPTIST CHURCH
VILLAGE OF LONGREACH
SECTION 1 / AREA 1
PLAT 3460, PB. 18/F.62
TAX MAP 36 GRID 5
6TH ELECTION DISTRICT
PARCEL 289, LOT 581
HOWARD COUNTY, MARYLAND

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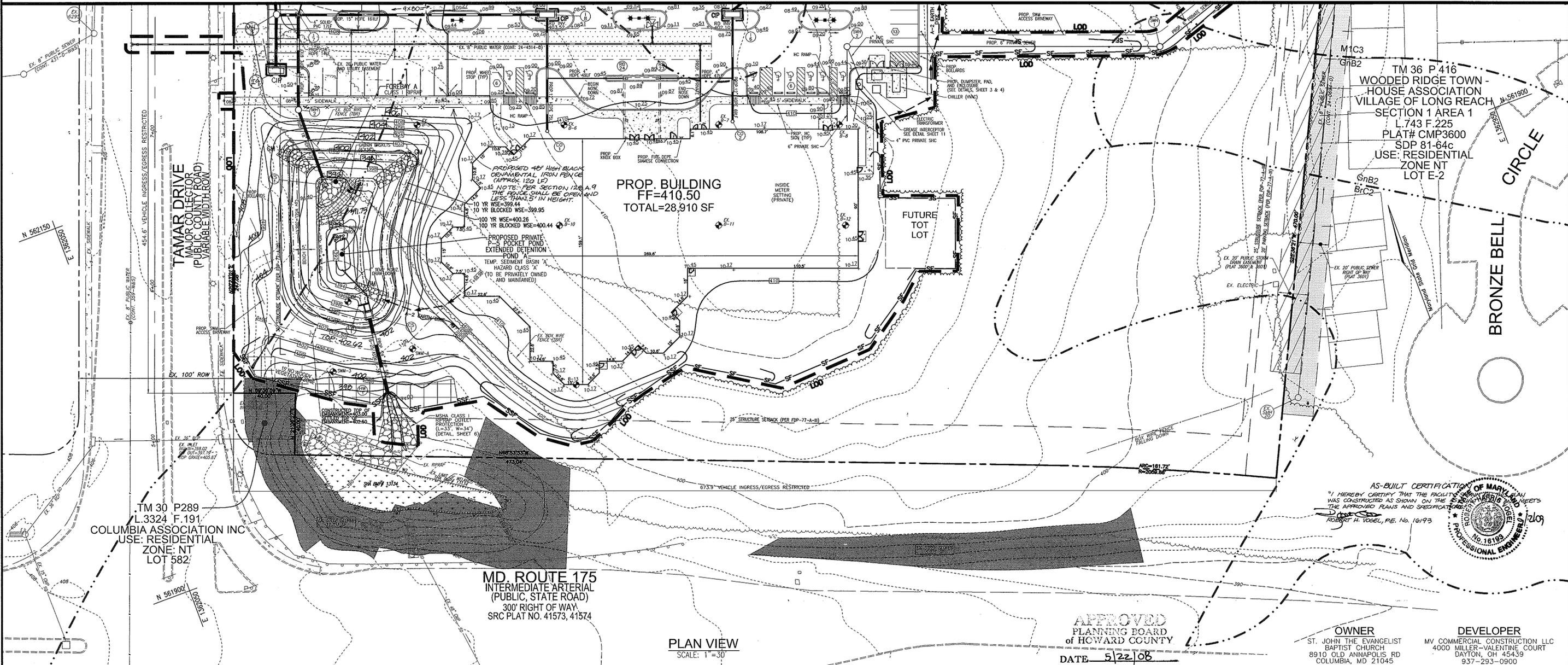
PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18193, EXPIRATION DATE 09-27-2008

DESIGN BY: RHV
DRAWN BY: RHV
CHECKED BY: RHV
DATE: JUNE 2008
SCALE: 1"=30'
W.O. NO.: 06-70

3 SHEET OF 13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
DATE: 7/14/08
DATE: 7/14/08
DATE: 7/13/08

MATCHLINE SEE SHEET 4



PROP. BUILDING
FF=410.50
TOTAL=28,910 SF

FUTURE TOT LOT

TM 36 P 416
WOODED RIDGE TOWN-HOUSE ASSOCIATION
VILLAGE OF LONG REACH
SECTION 1 AREA 1
L.743 F.225
PLAT# CMP3600
SDP 81-64c
USE: RESIDENTIAL
ZONE NT
LOT E-2

TM 30 P289
L.3324 F.191
COLUMBIA ASSOCIATION INC
USE: RESIDENTIAL
ZONE: NT
LOT 582

MD. ROUTE 175
INTERMEDIATE ARTERIAL
(PUBLIC, STATE ROAD)
300' RIGHT OF WAY
SRC PLAT NO. 41573, 41574

PLAN VIEW
SCALE: 1"=30'

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 5/22/08

AS-BUILT CERTIFICATION OF MARYLAND
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THESE PLANS AND SPECIFICATIONS WAS CONSTRUCTED AS SHOWN ON THE APPROVED PLANS AND SPECIFICATIONS.
ROBERT H. VOGEL, PE, No. 16193

OWNER
ST. JOHN THE EVANGELIST BAPTIST CHURCH
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COLUMBIA, MD 21045
410-992-6977

DEVELOPER
MV COMMERCIAL CONSTRUCTION LLC
4000 MILLER-VALENTINE COURT
DAYTON, OH 45424
937-293-0900

LEGEND:

- EXISTING CONTOUR
- - - - - PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN INLET
- EXISTING TREES (FIELD LOCATED)
- EXISTING TREELINE (FIELD LOCATED)
- PROP. TREELINE
- EXISTING FENCE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SILT FENCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- CURB INLET PROTECTION
- PROPOSED LIGHTPOLE
- STABILIZED CONSTRUCTION ENTRANCE
- EROSION CONTROL MATING
- EX. 20' PUBLIC SEWER AND UTILITY EASEMENT
- EX. 20' STORMDRAIN EASEMENT
- EX. 20' PUBLIC WATER AND UTILITY EASEMENT
- RIPRAP
- LIMIT OF WETLAND
- 25' WETLAND BUFFER
- STEEP SLOPES
- MIB2
- MIB3
- SOILS BOUNDARY
- PROPOSED SIDEWALK

SEDIMENT BASIN 'A'
PROPOSED D.A. = 1.75 AC.
EXISTING D.A. = 1.75 AC.
STORAGE REQUIRED (SEDIMENT) = 6300 CF
STORAGE PROVIDED (SEDIMENT) = 10,890 CF
TOP OF DAM = 402.00
WEIR CREST EL. = 398.50
BOTTOM EL. = 392.00
C/D EL. = 398.35
SIDE SLOPES = 3:1
WET VOLUME REQUIRED = 3150 CF
WET VOLUME PROVIDED = 398.19
NET STORAGE EL. = 3150 CF
DRY STORAGE PROVIDED = 7740 CF
DRY STORAGE EL. = 398.50
Q₁₀ (TSM) = 6.83 CFS.

WETLAND BUFFER CHART

Course	Bearing	Distance
W1	S 21°09'14" E	19.00
W2	S 59°54'49" E	115.73
W3	S 17°49'59" W	6.12
W4	S 83°03'08" W	10.53
W5	N 71°14'24" W	23.87
W6	N 62°57'32" W	26.96
W7	N 75°20'44" W	23.21
W8	N 51°20'28" W	27.37
W9	N 09°24'36" W	17.59
W10	N 16°28'45" W	20.59
W11	N 42°18'13" E	13.06

NOTE:
SEE CHART ON THIS SHEET FOR WETLAND BUFFER METES AND BOUNDS.
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE 7/11/08

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE 7/11/08

DIRECTOR
 DATE 7/14/08

BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

SIGNATURE OF DEVELOPER
 DATE 6-23-08

BY THE ENGINEER:
 I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

SIGNATURE OF ENGINEER
 DATE 7/11/08

NO.	REVISION	DATE
4	PARKING LOT EXPANSION	3/8/10
3	ADD 120 LF OF FENCE BETWEEN SIDEWALK AND SWM POND	10/21/09

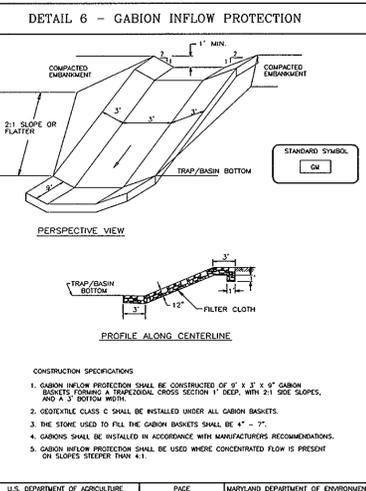
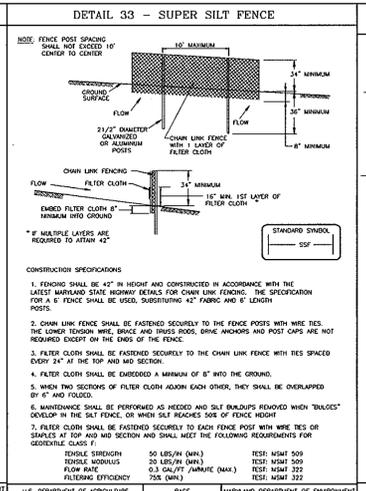
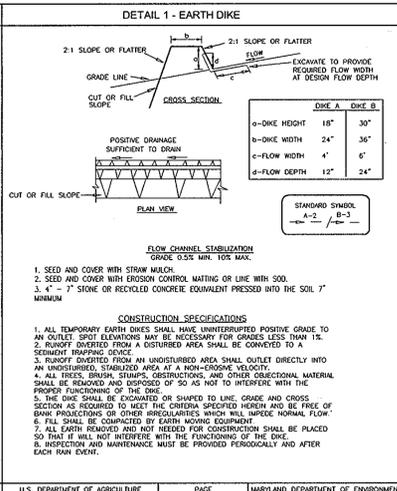
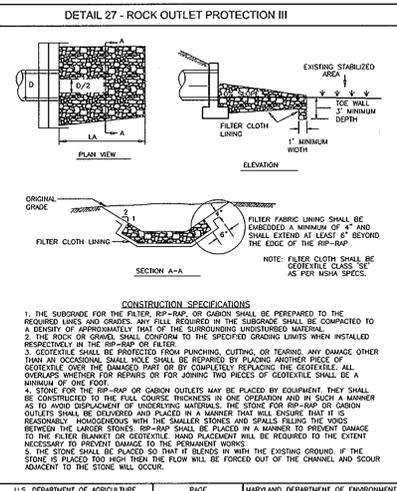
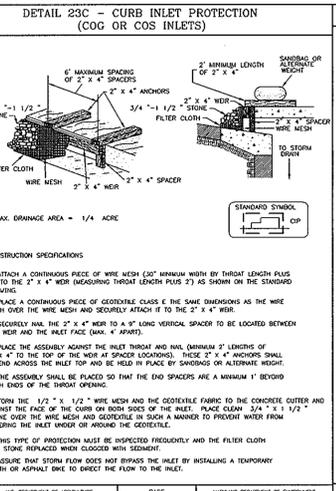
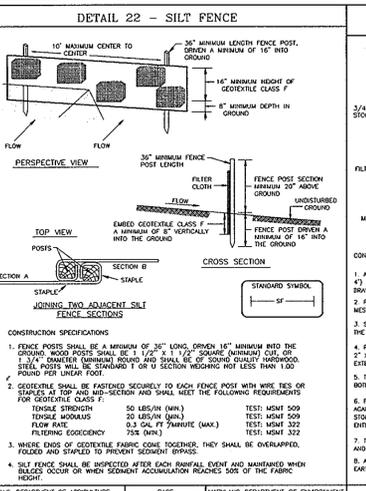
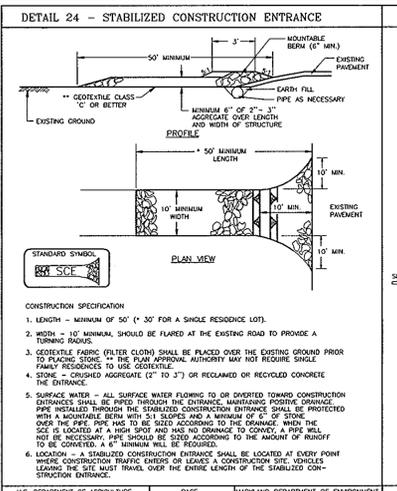
SITE DEVELOPMENT PLAN
SITE GRADING, PHASE 1 SEDIMENT AND EROSION CONTROL PLAN
 ST. JOHN BAPTIST CHURCH
 VILLAGE OF LONGREACH
 SECTION 1 / AREA 1
 PLAT 3460, PB. 18/F.62
 PARCEL 289, LOT 581
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2008

DESIGN BY: RHV
 DRAWN BY: DZ
 CHECKED BY: RHV
 DATE: JUNE 2008
 SCALE: AS SHOWN
 W.O. NO.: 06-70

5 SHEET OF 13



PERMANENT SEEDING NOTES
 APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-TERM VEGETATIVE COVER IS REQUIRED.
 SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
 SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
 1. PREPERIOD: APPLY 2 TONS/ACRE DOLICUM LIMESTONE (92 IBS/1000 SQ. FT.) AND 600 IBS/ACRE (14 IBS/1000 SQ. FT.) FERTILIZER (14 IBS/1000 SQ. FT.) BEFORE SEEDING.
 2. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL AT TIME OF SEEDING, APPLY 400 IBS/ACRE 30-0-0 UREAFORM FERTILIZER (9 IBS/1000 SQ. FT.) AND 600 IBS/ACRE (14 IBS/1000 SQ. FT.) FERTILIZER (14 IBS/1000 SQ. FT.) BEFORE SEEDING.
 3. SEEDING: PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15. SEED WITH 40 IBS/ACRE (1.4 IBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE FOR THE PERIOD MAY 1 THRU JULY 31. SEED WITH 60 IBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 IBS/ACRE (0.5 IBS/1000 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROJECT SITE BY OPTION 1: TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING.
 OPTION 2: USE SOO.
 OPTION 3: SEER: WITH 60 IBS/ACRE KENTUCKY 30 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.
 MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 IBS/1000 SQ. FT.) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.
 MAINTENANCE: INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.
TEMPORARY SEEDING NOTES
 APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RE-DISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.
 SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
 SOIL AMENDMENTS: APPLY 600 IBS/ACRE 10-10-10 FERTILIZER (14 IBS/1000 SQ. FT.).
 SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND FROM AUGUST 15 THRU OCTOBER 15. SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 IBS/1000 SQ. FT.) FOR THE PERIOD MAY 1 - AUGUST 14. SEED WITH 3 IBS/ACRE OF WEEPING LOVEGRASS (0.7 IBS/1000 SQ. FT.) FOR THE PERIOD NOVEMBER 16 - FEBRUARY 28. PROJECT SITE BY APPLYING 2 TONS/ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOO.
 MULCHING: APPLY 1-1/2 TO 2 TONS/ACRE (70 TO 90 IBS/1000 SQ. FT.) OF UNROTTED WOOD-FREE, SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL. PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FT. OR HIGHER, USE 348 GAL. PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.
 REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

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 VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CAPACITY, LOW INTRINSIC UNACCEPTABLE SOIL GRADATION.
CONDITIONS WHERE PRACTICE APPLIES
 I. THE PRACTICE SHALL BE APPLIED TO AREAS HAVING 2" OR FLATTER SLOPES WHERE:
 A. 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.
 B. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 C. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
 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 1:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 1:1 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 REPORT BY USDA. SOILS SHALL BE MAINTAINED WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
 II. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4\"/>

SEQUENCE OF CONSTRUCTION
 1. OBTAIN HOWARD COUNTY GRADING PERMIT AND THE MDE DMR SAFETY PERMIT. MDE DMR SAFETY PERMIT #200809151. (OVER 1)
 2. NOTIFY HOWARD COUNTY AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION. (2 DAYS)
 3. CONDUCT A PRE-CONSTRUCTION MEETING WITH THE SEDIMENT CONTROL INSPECTOR PRIOR TO ANY LAND DISTURBANCE. (1 WEEK)
PHASE 1
 1. INSTALL STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTAINABLE BERM. (1 DAY)
 2. INSTALL ALL SILT FENCE, SUPER SILT FENCE, SEDIMENT BASINS (INCLUDING SIDE SLOPE), INSTALL EARTH DIKES, WITH THE EXCEPTION OF THOSE LEADING TO PIPE SLOPE DRAIN AT BASIN 'B' PIPE SLOPE DRAIN AND SWALES LEADING TO BASIN 'B' SHOULD NOT BE INSTALLED AT THIS TIME. (2 WEEKS)
 3. ONCE BASIN 'B' IS CONSTRUCTED, INSTALL PIPE SLOPE DRAIN AND EARTH DIKES LEADING TO IT. (2 DAYS)
 4. WITH APPROVAL OF SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB SITE. (3 WEEKS)
 5. BEGIN SITE GRADING AND UTILITY CONSTRUCTION. (6 WEEKS)
 6. BEGIN BUILDING CONSTRUCTION. (12 WEEKS)
 7. INSTALL ALL ON-SITE CURB AND GUTTER. (1 WEEK)
 8. INSTALL ON-SITE PAVING BASE COURSE TO THE LIMITS PERMITTED BY THE SEDIMENT CONTROL INSPECTOR. (1 WEEK)
 9. COMPLETE BUILDING AND UTILITY CONSTRUCTION.
 10. INSTALL ALL PAVING. (1 WEEK)
 11. INSTALL SIDEWALKS. (1 WEEK)
 12. REMOVE STOCK PILE, FINE GRADE AND STABILIZE THE AREA NORTH OF THE SIDEWALKS, INCLUDING ANY EXPOSED EARTH AREAS, PARKING LOT AND BASIN 'B', INCLUDING ANY EXPOSED EARTH AREAS DRAINING TO THE LOT. (3 DAYS)
PHASE 2
 1. WITH THE INSPECTOR'S APPROVAL, REMOVE EARTH DIKES ALONG THE NORTH PARCEL LINE LEADING TO POND 'B' AND LINE WITH ECV. (3 DAYS)
 2. FINE GRADE AND STABILIZE ALL AREAS OF GRASS, INCLUDING ANY EXPOSED EARTH AREAS OUTSIDE THE LOT, REMOVE ALL TRASH JUNK AND DEBRIS FROM ENTIRE PARCEL. (2 WEEKS)
 3. REMOVE ALL REMAINING SEDIMENT CONTROL MEASURES AFTER RECEIVING APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR. (4 WEEKS)
 4. COMPLETE SITE LANDSCAPING. (2 WEEKS)
 5. STABILIZE SITE AND CONVERT BASINS TO PONDS. (2 WEEKS)
 6. OBTAIN AS-BUILT APPROVAL FROM MDE.
 7. DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES TO PREVENT TOPSOIL LOSS.
 8. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 A. 7 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL.
 B. 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.
 9. DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES TO PREVENT TOPSOIL LOSS.
 10. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 A. 7 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL.
 B. 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.
 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.

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 (410-311-1855).
 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 THEREOF.
 3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (A) 7 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL, STRUCTURES, DIKES, PERMETER 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 PERMETER 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, PERMANENT SEEDING, SOO, TEMPORARY SEEDING, AND MULCHING (SEC. C). TEMPORARY STABILIZATION WITH MULCH ANCHOR SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PERMANENT 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: 10.00 ACRES
 AREA DISTURBED: 6.26 ACRES
 AREA TO BE ROOFED OR PAVED: 0.75 ACRES
 AREA TO BE VEGETATIVELY STABILIZED: 3.71 ACRES
 TOTAL CUT: 16.435 CY
 TOTAL FILL: 6.370 CY
 WASTE/BORROW LOCATION: N/A
 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 9. ADDITIONAL SEDIMENT 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 PERMETER 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.

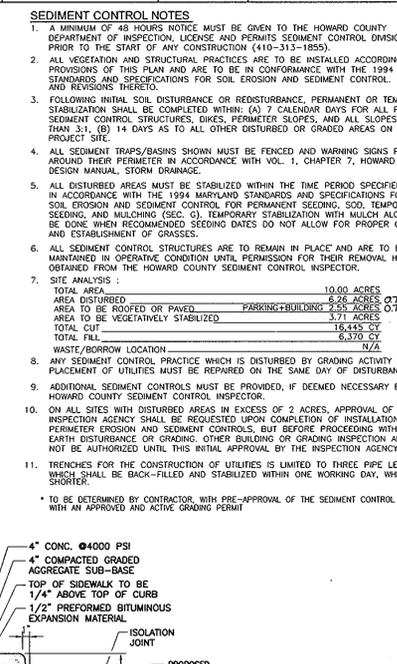


Table 6 Design Criteria for Pipe Slope Drain

Size	Pipe/Tubing Diameter (in)	Maximum Drainage Area (Acres)
PSD-12	12	0.5
PSD-16	16	1.5
PSD-24	24	2.5
PSD-24	24	3.5
PSD-24 (2)	24	5.0

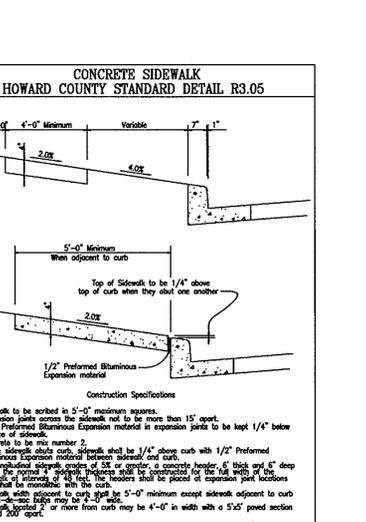
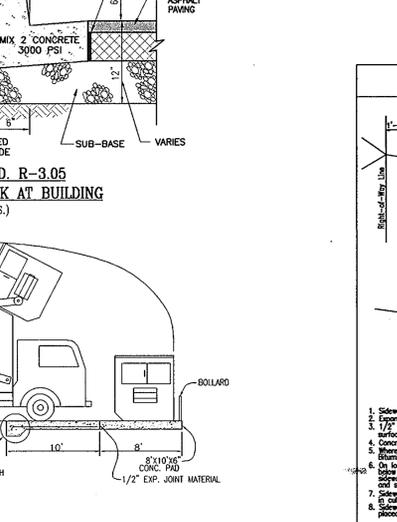
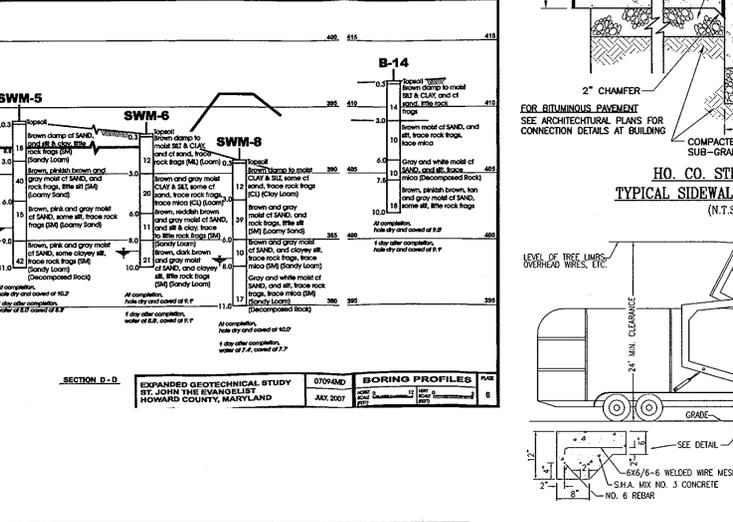
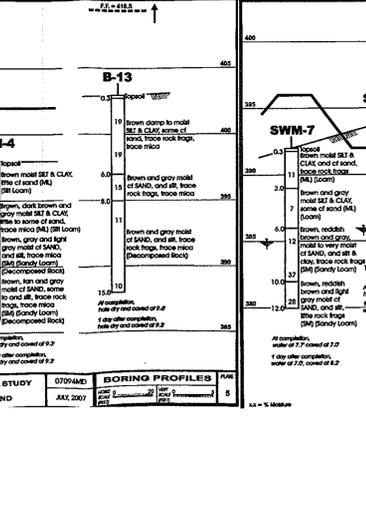
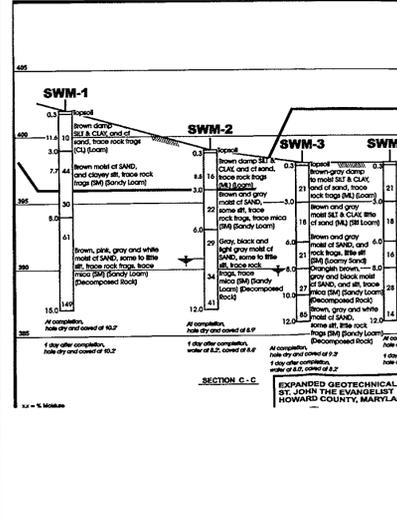
OWNER
 ST. JOHN THE EVANGELIST BAPTIST CHURCH
 8910 ANNEAPOLIS RD
 COLUMBIA, MD 21045
 410-992-6977

DEVELOPER
 MV COMMERCIAL CONSTRUCTION LLC
 4000 MILLER-VALENTINE COURT
 ANNAPOLIS, MD
 937-293-0900

REVISIONS

NO.	REVISION	DATE
4	PARKING LOT EXPANSION	3/0/10

SITE DEVELOPMENT PLAN
SEDIMENT CONTROL NOTES AND DETAILS
 ST. JOHN BAPTIST CHURCH
 VILLAGE OF LONGREACH
 SECTION 1 / AREA 1
 PLAT 3460, PB.18/F.62
 TAX MAP 36 GRID 5
 6TH ELECTION DISTRICT
 PARCEL 289, LOT 581
 HOWARD COUNTY, MARYLAND



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 7/10/08

BY THE DEVELOPER:
 DATE: 6-23-08

BY THE ENGINEER:
 DATE: 7/10/08

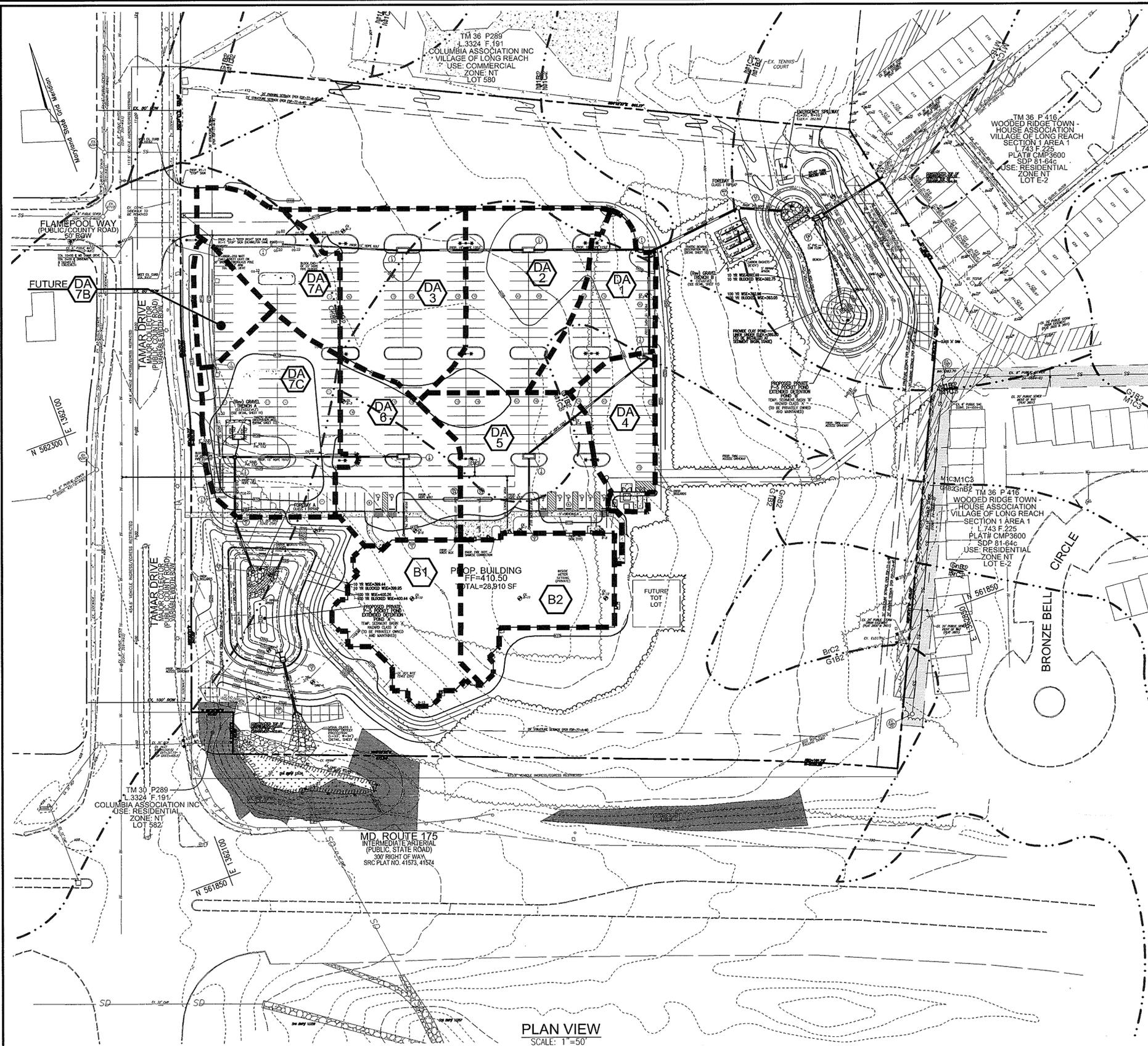
SOLID WASTE SERVICE PAD
 HOWARD COUNTY STD. R. 8.03
 NOT TO SCALE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT WITH AN AS-BUILT PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

APPROVED BY PLANNING BOARD of Howard County
 DATE: 5/22/08

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 CITY STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
 DESIGN BY: RHV
 DRAWN BY: RHV
 CHECKED BY: RHV
 DATE: JUNE 2008
 SCALE: 1"=30'
 W.O. NO.: 06-70
 6 SHEET OF 13



AREA AND "C" FACTOR TABULATION

DRAINAGE AREA	AREA (A)	"C" FACTOR (C)	%IMPERVIOUS (P)
DA-1	0.24	0.87	93
DA-2	0.44	0.81	91
DA-3	0.47	0.81	90
DA-4	0.20	0.85	97
DA-5	0.44	0.78	86
DA-6	0.37	0.78	92
DA-7A	0.27	0.80	88
DA-7B	0.12	0.84	95
DA-7C	0.50	0.81	89
B-1	0.33	0.87	100
B-2	0.33	0.87	100

- LEGEND:**
- 500 --- EXISTING CONTOUR
 - 400 --- PROPOSED CONTOUR
 - + 402.88 EXISTING SPOT ELEVATION
 - + 402.88 PROPOSED SPOT ELEVATION
 - ==== EXISTING CURB AND GUTTER
 - ==== PROPOSED CURB AND GUTTER
 - EXISTING UTILITY POLE
 - EXISTING LIGHT POLE
 - EXISTING MAILBOX
 - EXISTING SIGN
 - EXISTING SANITARY MANHOLE
 - EXISTING SANITARY LINE
 - EXISTING CLEANOUT
 - EXISTING FIRE HYDRANT
 - EXISTING WATER LINE
 - PROPOSED STORM DRAIN
 - PROPOSED STORM DRAIN INLET
 - EXISTING TREES (FIELD LOCATED)
 - EXISTING TREELINE (FIELD LOCATED)
 - PROP. TREELINE
 - EXISTING FENCE
 - PROPERTY LINE
 - RIGHT-OF-WAY LINE
 - PROPOSED LIGHTPOLE
 - EX. 20' PUBLIC SEWER AND UTILITY EASEMENT
 - EX. 20' STORMDRAIN EASEMENT
 - EX. 20' PUBLIC WATER AND UTILITY EASEMENT
 - RIPRAP
 - LIMIT OF WETLAND
 - 25' WETLAND BUFFER
 - STEEP SLOPES
 - M1B2 SOILS BOUNDARY
 - M1D3 SOILS BOUNDARY
 - PROPOSED SIDEWALK

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP
M1B2	MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
M1C2	MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
M1C3	MANOR LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	B
M1D2	MANOR LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	B
B/C2	BRANDYWINE LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	A
ChB2	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	D
GB2	GLENEG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
GnB2	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C

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DEVELOPER
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 4000 MILLER-VALENTINE COURT
 DAYTON, OH 45439
 937-293-0900

NO.	REVISION	DATE
4	PARKING LOT EXPANSION	3/8/10

SITE DEVELOPMENT PLAN
STORM DRAIN DRAINAGE AREA MAP AND SOILS MAP
ST. JOHN BAPTIST CHURCH
 VILLAGE OF LONG REACH
 SECTION 1 / AREA 1
 PLAT 3460, PB.18/F.62
 TAX MAP 36 GRID 5 6TH ELECTION DISTRICT
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PROFESSIONAL CERTIFICATE

DESIGN BY: RHV
 DRAWN BY: RHV
 CHECKED BY: RHV
 DATE: JUNE 2008
 SCALE: AS SHOWN
 W.O. NO.: 06-70

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18193, EXPIRATION DATE: 09-21-2008

7 SHEET OF 13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 7/16/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 7/16/08
 CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] 7/17/08
 DIRECTOR

BY THE DEVELOPER:

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

[Signature] 6-23-08
 SIGNATURE OF DEVELOPER

BY THE ENGINEER:

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

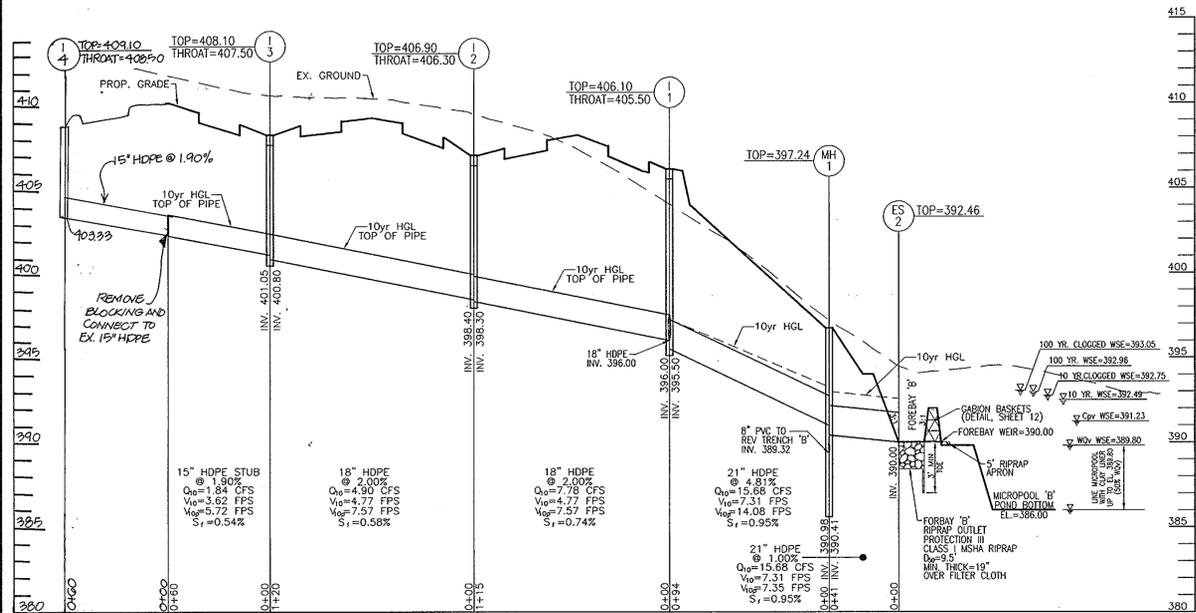
[Signature] 7/16/08
 SIGNATURE OF ENGINEER

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

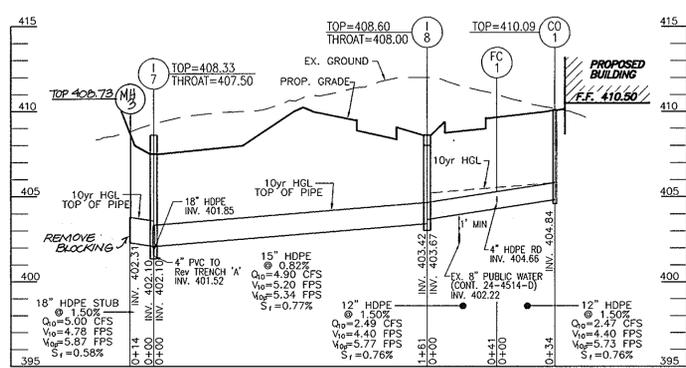
[Signature] 7/16/08
 HOWARD S.C.D.

APPROVED BY PLANNING BOARD of Howard County

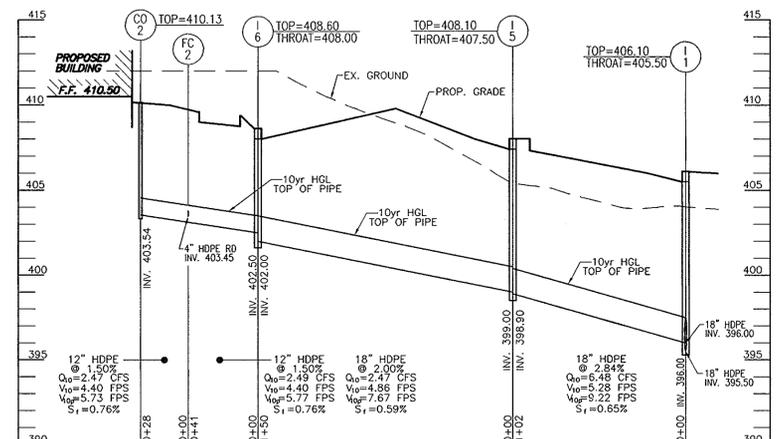
[Signature] 5/22/08
 DIRECTOR DATE



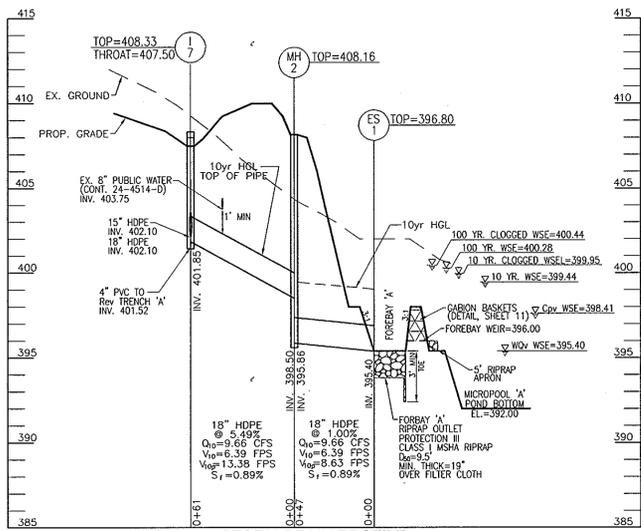
STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



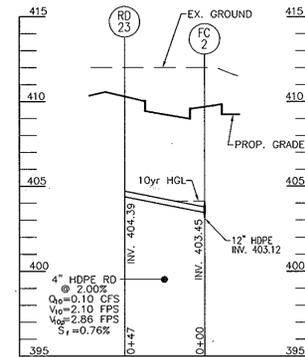
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SCALE: HORIZONTAL - 1"=50'
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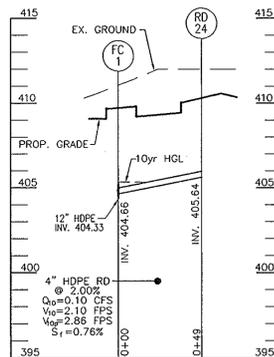
STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
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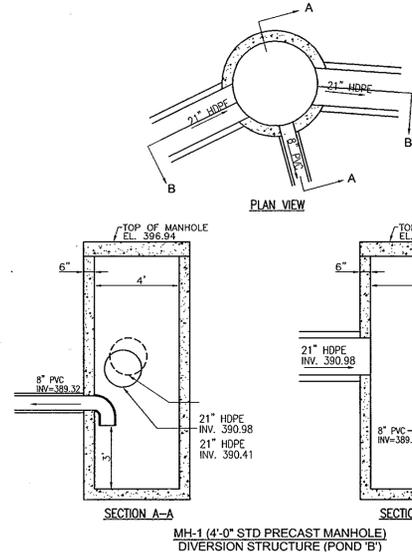
STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
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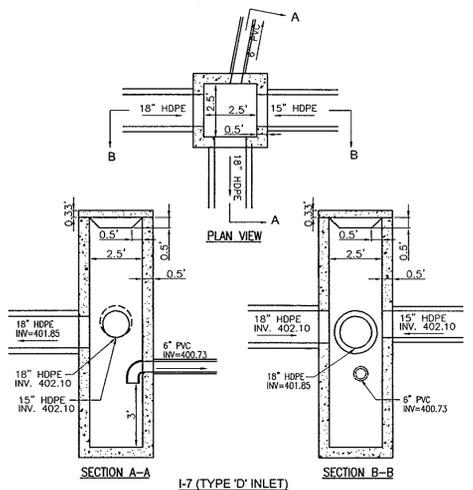
STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



STORM DRAIN PROFILE
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



MH-1 (4'-0" STD PRECAST MANHOLE)
DIVERSION STRUCTURE (POND 'B')



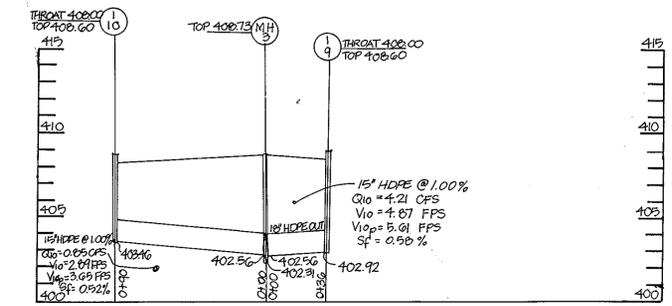
SECTION A-A
SECTION B-B
I-7 (TYPE 'D' INLET)

SIZE	TYPE	LENGTH
4"	PVC-SEWER	42 LF
6"	PVC-SEWER	403 LF
4"	HDPE	96 LF
12"	HDPE	144 LF
15"	HDPE	407 LF
18"	HDPE	609 LF
21"	HDPE	135 LF
6"	DIP (WHC & POND DRAIN)	135 LF
6"	SOLID PVC	28 LF
6"	PERF. PVC	28 LF
8"	SOLID PVC	39 LF
8"	PERF. PVC	92 LF
18	RCP	68 LF
24"	RCP	50 LF

NO.	TYPE	LOCATION	TOP ELEV.	THROAT ELEV.	INV. IN	INV. OUT	COMMENTS
I-4	TYPE 'A'-10' INLET	*	409.10	408.50	-	409.93	HO. CO. STD. SD-4-03
I-9	TYPE 'A'-10' INLET	*	408.60	408.00	-	402.92	HO. CO. STD. SD-4-03
I-10	TYPE 'A'-10' INLET	*	408.60	408.00	-	403.16	HO. CO. STD. SD-4-03
MH-7	4'-0" STANDARD PRECAST INLET		408.73	-	402.50	403.31	HO. CO. STD. G-5.12

NO.	TYPE	LOCATION	TOP ELEV.	THROAT ELEV.	INV. IN	INV. OUT	COMMENTS
I-1	TYPE 'A'-10' INLET	N 562270 E 1362684	406.10	405.50	398.00	395.50	HO. CO. STD. SD-4-03
I-2	TYPE 'A'-10' INLET	N 562310 E 1362576	406.90	406.30	398.40	398.30	HO. CO. STD. SD-4-03
I-3	TYPE 'A'-10' INLET	N 562351 E 1362463	408.10	407.50	401.05	400.80	HO. CO. STD. SD-4-03
I-5	TYPE 'A'-10' INLET	N 562174 E 1362649	408.10	407.50	399.00	398.90	HO. CO. STD. SD-4-03
I-6	TYPE 'A'-10' INLET	N 562130 E 1362509	408.60	408.00	402.50	402.00	HO. CO. STD. SD-4-03
I-7	TYPE 'D' INLET (DIVERSION STRUCTURE)	N 562225 E 1362245	408.33	407.50	403.18	402.66	HO. CO. STD. SD-4.10
I-8	TYPE 'A'-10' INLET	N 562169 E 1362396	408.60	408.00	403.67	403.42	HO. CO. STD. SD-4.03
MH-1	4'-0" STANDARD PRECAST MANHOLE	N 562280 E 1362779	397.24	-	390.98	390.41	HO. CO. STD. G-5.12
MH-2	4'-0" STANDARD PRECAST MANHOLE	N 562167 E 1362224	408.16	-	398.50	398.80	HO. CO. STD. G-5.12
SMH-1	4'-0" STANDARD PRECAST MANHOLE	N 562012 E 1362760	401.30	-	395.00	394.00	HO. CO. STD. G-5.12
SMH-2	4'-0" STANDARD PRECAST MANHOLE	N 562082 E 1362571	409.35	-	403.04	402.94	HO. CO. STD. G-5.12
ES-1	CONC. END SECTION	N 562121 E 1362223	396.90	-	395.40	HO. CO. STD. D-5.51	
ES-2	CONC. END SECTION	N 562263 E 1362817	392.46	-	390.00	HO. CO. STD. D-5.51	
CS-1	CONTROL STRUCTURE	N 562027 E 1362221	SEE DETAIL ON SHEET 12	-	-	-	-
CS-2	CONTROL STRUCTURE	N 562245 E 1362851	SEE DETAIL ON SHEET 11	-	-	-	-
CO-1	CLEANOUT	N 562098 E 1362370	410.09	-	404.84	HO. CO. STD. S-2.22	
CO-2	CLEANOUT	N 562263 E 1362817	410.13	-	403.54	HO. CO. STD. S-2.22	
HW-1	TYPE 'A' HEADWALL	N 561975 E 1362214	397.50	-	394.00	HO. CO. STD. S-2.22	

NOTE: 1. TOP ELEVATIONS ARE AT CENTER TOP OF HEADPIECE FOR TYPE 'A'-10', CENTER TOP OF MANHOLE FOR TYPE 'D' INLET, AND TOP OF MANHOLE COVER FOR PRECAST MANHOLES.
2. FOR TOP 5:48 SLOPES SEE GRADING PLAN.
3. SEE ARCHITECTURAL PLANS FOR DOWNSPOUT AND ROOF DRAIN DETAILS.
4. ALL CUSTOM AND NON-STANDARD STRUCTURES TO BE DESIGNED BY A QUALIFIED STRUCTURAL ENGINEER.
* CONTRACTOR TO MEET EXISTING GRADES AND ADJUST ELEVATIONS IF REQUIRED.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division: *[Signature]* 7/1/08
 Chief, Division of Land Development: *[Signature]* 7/1/08
 Director: *[Signature]* 7/14/08

BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
 Signature of Developer: *[Signature]* 6-23-08

BY THE ENGINEER:
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 Signature of Engineer: *[Signature]* 7/1/08

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *[Signature]* 7/1/08
 HOWARD S.C.D.

APPROVED BY PLANNING BOARD of Howard County
 Director: *[Signature]* 5/22/08

OWNER: ST. JOHN THE EVANGELIST BAPTIST CHURCH
 DEVELOPER: MV COMMERCIAL CONSTRUCTION LLC

NO.	REVISION	DATE
4	PARKING LOT EXPANSION	5/5/10

SITE DEVELOPMENT PLAN
 ST. JOHN BAPTIST CHURCH
 VILLAGE OF LONGREACH
 SECTION 1 / AREA 1
 PLAT 3460, PB.18/F.62
 TAX MAP 36 GRID 5
 6TH ELECTION DISTRICT
 PARCEL 289, LOT 581
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
 DESIGN BY: RHV
 DRAWN BY: RHV
 CHECKED BY: RHV
 DATE: JUNE 2008
 SCALE: 1"=30'
 W.O. NO.: 06-70
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. MY LICENSE NUMBER IS 16933 EXPIRATION DATE: 09-27-2008
 8 SHEET OF 13

**MARYLAND 378
STORMWATER MANAGEMENT POND CONSTRUCTION SPECIFICATIONS**

CONSTRUCTION SPECIFICATIONS

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

Site Preparation

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

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.

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

Earth Fill

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification CC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

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

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

When required by the reviewing agency the minimum required density shall not be less than 95% of maximum dry density with a moisture content within +1/-2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

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

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

Structure Backfill

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

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi, 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a maximum resistivity of 2,000 ohm-cm. Material shall be placed such that minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over, and on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill (flowable fill) zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

Pipe Conduits

All pipes shall be circular in cross section.

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

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

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.

**OPERATION AND MAINTENANCE SCHEDULE FOR
STORMWATER MANAGEMENT
EXTENDED DETENTION FACILITY**

STORMWATER MANAGEMENT FACILITY

ROUTINE MAINTENANCE

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

NON-ROUTINE MAINTENANCE

1. STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER, AND THE PIPES SHALL BE REPAIRED UPON DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.
2. SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCES THE DESIGN STORAGE, INTERFERES WITH THE FUNCTION OF THE RISER, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

POND BOTTOM SOIL CONDITIONS

If broken rock fragments are encountered at finished pond bottom, under cut a minimum of 12" below basin grade and to a horizontal distance of at least 18" beyond each edge of the broken rock and backfill with fine-grained ML or CL soils compacted to a firm condition. This procedure should be performed under the supervision of the project Geotechnical Engineer.

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER(S) AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION, AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

BY THE DEVELOPER:

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Signature of Developer: *B. John Plumb* DATE: 6-23-08

BY THE ENGINEER:

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Signature of Engineer: *[Signature]* DATE: 7/1/08

DEWATERING STRATEGY

Dewatering refers to the act of removing and discharging water from excavated areas on construction sites or from sediment traps or basins on construction sites. Standards and specifications for dewatering practices follow:

These standards apply to removal and discharge of water from any excavated area or sediment trap or basin at any construction site. Even the unique conditions of any particular construction site, any or all of the practices may apply. Regardless of the applicability of the practices listed herein, operators are required to use acceptable procedures for maintenance and dewatering. In all cases, every effort shall be made to eliminate sediment pollution associated with dewatering.

Designers shall specify the preferred procedures for dewatering on plans. In particular, designers should identify procedures for dewatering sediment traps and basins prior to activation of the last sediment control facility on the site or prior to conversion of sediment control facilities to stormwater management facilities. Recommended procedures shall be consistent with these standards. Applicable site conditions may require innovative dewatering designs. Dewatering measures not referenced in this standard may be used with the consent of the approval authority.

Dewatering of Excavated Areas

1. Designers shall specify on plans, and in sequences of construction included on plans, practices for dewatering of excavated areas. Plan reviewers shall check to see that procedures for dewatering are included on plans.
2. In all cases, water removed from excavated areas shall be discharged such that it shall pass through a sediment control device prior to entering receiving waters. Sediment control devices include sediment traps and basins, in addition to the practices in this section.

Approved Practices for Dewatering of Excavated Areas

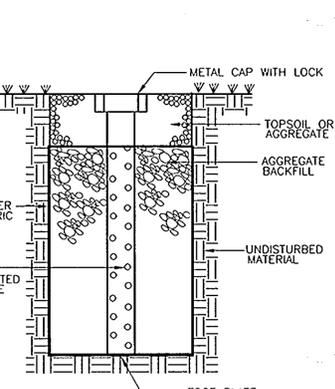
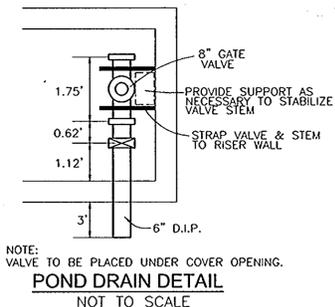
1. Pumping of water to an existing sediment basin or trap in which the entire volume of water from the area to be dewatered can be contained without discharge to receiving waters.
2. Pumping of water to an existing sediment basin or trap such that the entire volume of water from the area to be dewatered can be managed without exceeding the design outflow from the sediment control structure.
3. Removable Pumping Station? Standards and specifications for Removable Pumping Station are on Detail 20A.
4. Use of a Sump Pit. Standards and specifications for a sump pit are on Detail 20B.
5. Sediment Trench. Standards and specifications for a sump pit are on Detail 21.

Dewatering of Sediment Traps and Basins

Designers shall specify on plans, and in sequences of construction included on plans, the practices for dewatering of traps and basins. Plan reviewers shall check to see that procedures for dewatering to be used are included on plans. In all cases, water removed from traps and basins shall be discharged so that it passes through a sediment control device prior to entering receiving waters.

Approved Practices for Dewatering of Traps and Basins

1. Removable pumping station.
2. Use of a Sump Pit.
3. Use of a floating suction hose to pump the clearer water from the top of the pond. As the clearer water is pumped the suction hose will lower and eventually encounter sediment laden water. When this happens the pumping operation will cease. Provisions shall be made to filter water.



Cpv SUMMARY TABLES

SUMMARY TABLE AREA A (SITE)

DA. A 1.95AC	REQUIREMENT	VOLUME REQUIREMENT W/O CREDITS	CREDITS	VOLUME REQUIREMENT AFTER CREDITS	NOTES
1	CHANNEL PROTECTION VOLUME CPV	6538 CF	N/A	0	POCKET POND
2	OVERHEAD FLOOD PROTECTION, Q10P	N/A	N/A	N/A	
3	EXTREME FLOOD VOLUME, Q100P	N/A	N/A	N/A	

NOTE: Cpv + Wqv PROVIDED IN POCKET POND Rev PROVIDED IN GRAVEL TRENCH DRAINAGE AREA "A" INCLUDES POSSIBLE FUTURE PARKING LOT EXPANSION.

SUMMARY TABLE AREA A1 (SITE)

DA. A1 0.45AC	REQUIREMENT	VOLUME REQUIREMENT W/O CREDITS	CREDITS	VOLUME REQUIREMENT AFTER CREDITS	NOTES
1	CHANNEL PROTECTION VOLUME CPV	N/A	N/A	N/A	< 2.0 CFS (0.1 CFS)
2	OVERHEAD FLOOD PROTECTION, Q10P	N/A	N/A	N/A	
3	EXTREME FLOOD VOLUME, Q100P	N/A	N/A	N/A	

NOTE: NO IMPERVIOUS DRAINAGE AREA NO Wqv, Rev OR Cpv PROVIDED

SUMMARY TABLE AREA B (SITE)

DA. B 5.28AC	REQUIREMENT	VOLUME REQUIREMENT W/O CREDITS	CREDITS	VOLUME REQUIREMENT	NOTES
1	CHANNEL PROTECTION VOLUME CPV	10023 CF	0	10023	POCKET POND
2	OVERHEAD FLOOD PROTECTION, Q10P	N/A	N/A	N/A	
3	EXTREME FLOOD VOLUME, Q100P	N/A	N/A	N/A	

NOTE: Cpv + Wqv PROVIDED IN POCKET POND, Rev PROVIDED IN GRAVEL TRENCH

SUMMARY TABLE AREA B1 (SITE)

DA. B1 1.03AC	REQUIREMENT	VOLUME REQUIREMENT	CREDITS	VOLUME REQUIREMENT	NOTES
1	CHANNEL PROTECTION VOLUME CPV	N/A	N/A	N/A	< 2.0 CFS (0.40 CFS)
2	OVERHEAD FLOOD PROTECTION, Q10P	N/A	N/A	N/A	
3	EXTREME FLOOD VOLUME, Q100P	N/A	N/A	N/A	

NOTE: NO IMPERVIOUS DRAINAGE AREA NO Wqv, Rev OR Cpv PROVIDED

SUMMARY TABLE AREA C (SITE)

DA. C 0.41AC	REQUIREMENT	VOLUME REQUIREMENT	CREDITS	VOLUME REQUIREMENT	NOTES
1	CHANNEL PROTECTION VOLUME CPV	N/A	N/A	N/A	< 2.0 CFS (0.07 CFS)
2	OVERHEAD FLOOD PROTECTION, Q10P	N/A	N/A	N/A	
3	EXTREME FLOOD VOLUME, Q100P	N/A	N/A	N/A	

NOTE: NO IMPERVIOUS DRAINAGE AREA NO Wqv, Rev OR Cpv PROVIDED

WQv & Rev SUMMARY TABLES

SUMMARY TABLE AREA A (SITE)

DA. A 2.41AC	REQUIREMENT	VOLUME REQUIREMENT W/O CREDITS	CREDITS	VOLUME REQUIREMENT AFTER CREDITS	NOTES
1	WATER QUALITY VOLUME WQV	4256 CF	0	4256 CF	50% IN MICROPOOL 50% IN Cpv
2	RECHARGE VOLUME REV	902 CF	0	902 CF	GRAVEL TRENCH

NOTE: Cpv + Wqv PROVIDED IN POCKET POND Rev PROVIDED IN GRAVEL TRENCH DRAINAGE AREA "A" INCLUDES POSSIBLE FUTURE PARKING LOT EXPANSION.

SUMMARY TABLE AREA B (SITE)

DA. B 7.09AC	REQUIREMENT	VOLUME REQUIREMENT W/O CREDITS	CREDITS	VOLUME REQUIREMENT AFTER CREDITS	NOTES
1	WATER QUALITY VOLUME WQV	8467 CF	0	8467 CF	50% IN MICROPOOL 50% IN Cpv
2	RECHARGE VOLUME REV	2087 CF	0	2087 CF	GRAVEL TRENCH

NOTE: Cpv + Wqv PROVIDED IN POCKET POND, Rev PROVIDED IN GRAVEL TRENCH

SUMMARY TABLE AREA C (SITE)

DA. C 0.41AC	REQUIREMENT	VOLUME REQUIREMENT W/O CREDITS	CREDITS	VOLUME REQUIREMENT AFTER CREDITS	NOTES
1	WATER QUALITY VOLUME WQV	74 CF	0	74 CF	NO IMPERVIOUS
2	RECHARGE VOLUME REV	0	0	0	NO IMPERVIOUS

NOTE: NO IMPERVIOUS DRAINAGE AREA NO Wqv, Rev OR Cpv PROVIDED

OWNER
ST. JOHN THE EVANGELIST BAPTIST CHURCH
8910 OLD ANNAPOLIS RD
COLUMBIA, MD 21045
410-992-6977

DEVELOPER
MV COMMERCIAL CONSTRUCTION LLC
4000 MILLER-VALENTINE COURT
DAYTON, OH 45439
937-293-0900

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN

STORMWATER MANAGEMENT NOTES

ST. JOHN BAPTIST CHURCH
VILLAGE OF LONGREACH
SECTION 1 / AREA 1
PLAT 3460, PB. 18/F.62

TAX MAP 36 GRID 5
6TH ELECTION DISTRICT

PARCEL 289, LOT 581
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: *RHV*

DRAWN BY: *RHV*

CHECKED BY: *RHV*

DATE: JUNE 2008

SCALE: 1"=30'

W.O. NO.: 06-70

10 SHEET OF 13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Signature: *[Signature]* DATE: 7/1/08

Signature: *[Signature]* DATE: 7/1/08

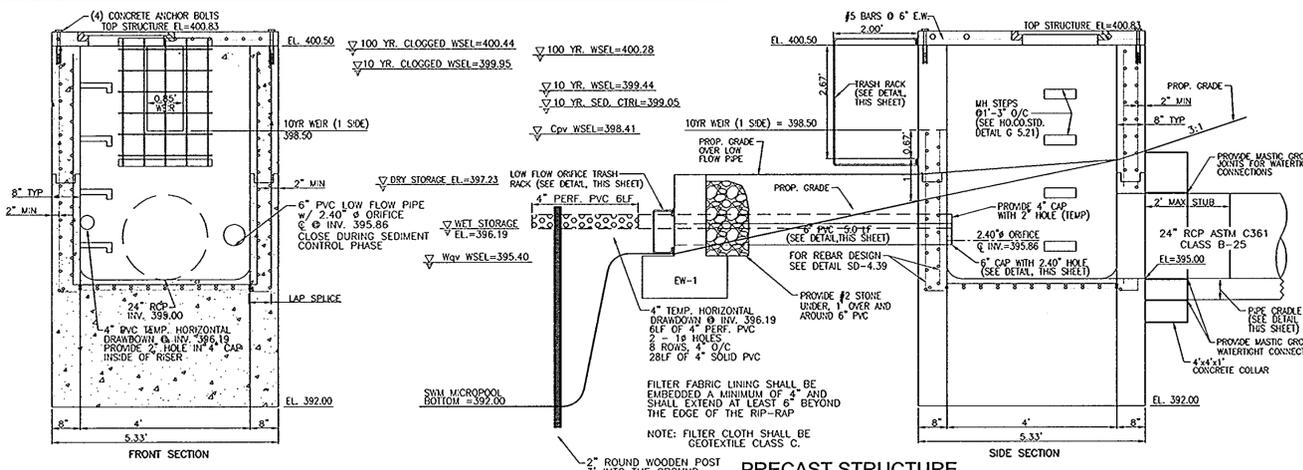
Signature: *[Signature]* DATE: 7/1/08

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

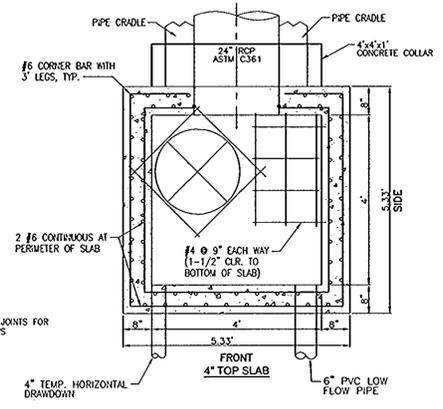
Signature: *[Signature]* DATE: 7/1/08

APPROVED BY PLANNING BOARD of Howard County

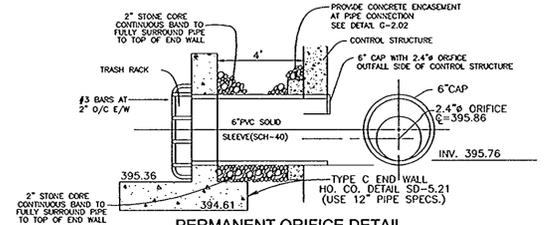
Signature: *[Signature]* DATE: 5/22/08



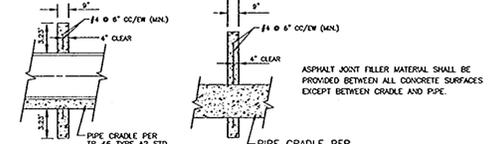
PRECAST STRUCTURE (CS-1) POND 'A'
SCALE: 1/2"=1'



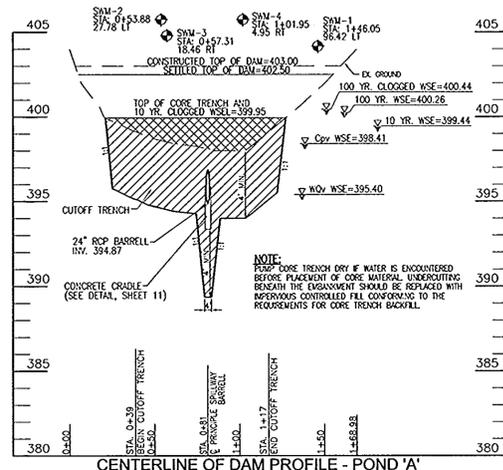
PIPE CRADLE DETAIL POND 'A'
NOT TO SCALE



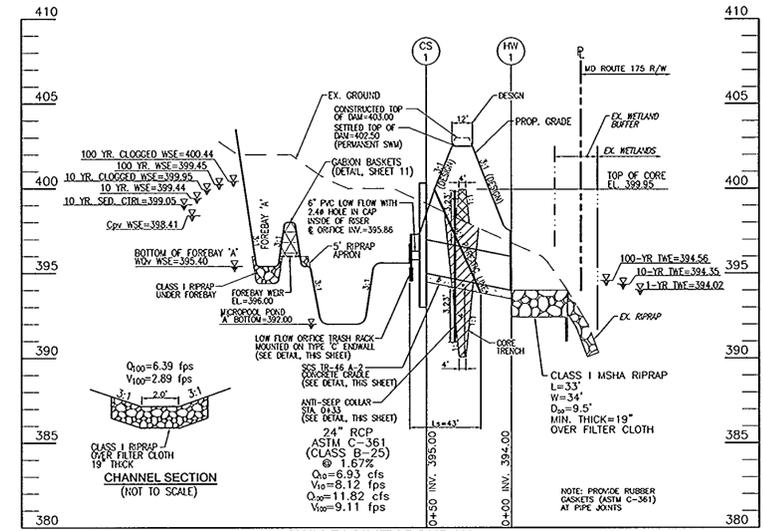
PERMANENT ORIFICE DETAIL CS-1 (POND A)
NOT TO SCALE



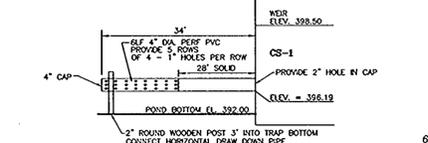
CONCRETE ANTI-SEEP COLLAR DETAIL POND 'A'
NOT TO SCALE



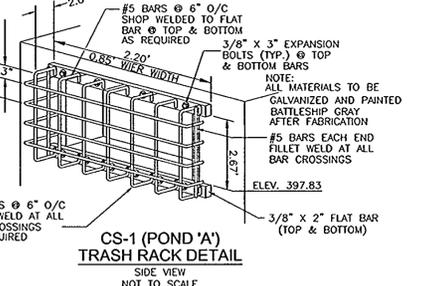
CENTERLINE OF DAM PROFILE - POND 'A'
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



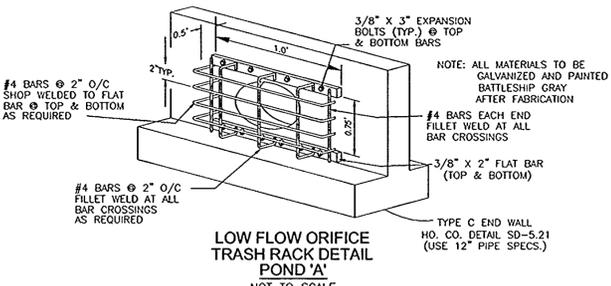
SECTION THROUGH PRINCIPAL SPILLWAY SWM FACILITY POND 'A'
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



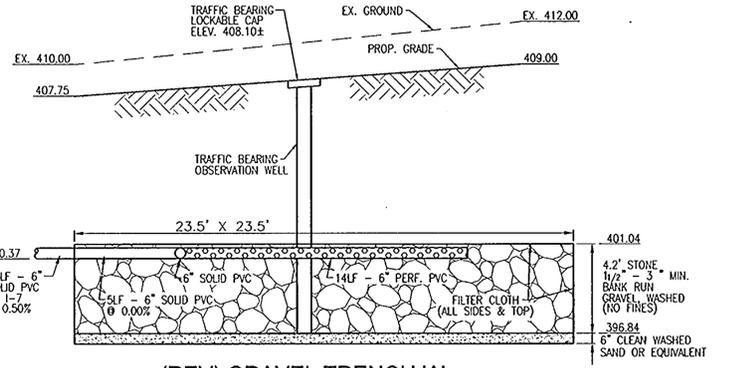
TEMP. SEDIMENT BASIN HORIZONTAL DRAW-DOWN DEVICE (POND A)
NOT TO SCALE



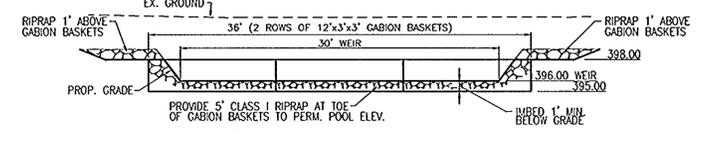
CS-1 (POND 'A') TRASH RACK DETAIL
NOT TO SCALE



LOW FLOW ORIFICE TRASH RACK DETAIL POND 'A'
NOT TO SCALE



(REV) GRAVEL TRENCH 'A'
SCALE: 1"=4'



GABION BASKET WEIR DETAIL (POND 'A')
SCALE: 1"=8'

OWNER
ST. JOHN THE EVANGELIST BAPTIST CHURCH
8910 OLD ANNAPOLIS RD
COLUMBIA, MD 21045
410-992-6977

DEVELOPER
MV COMMERCIAL CONSTRUCTION LLC
4000 MILLER-VALENTINE COURT
DAYTON, OH 45439
937-293-0900

NO.	REVISION	DATE

SITE DEVELOPMENT PLAN
STORMWATER MANAGEMENT DETAILS (POND A)
ST. JOHN BAPTIST CHURCH
VILLAGE OF LONGREACH
SECTION 1 / AREA 1
PLAT 3460, PB. 18/F.62
TAX MAP 36 GRID 5
6TH ELECTION DISTRICT
PARCEL 289, LOT 581
HOWARD COUNTY, MARYLAND

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ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 09-27-2008.

DESIGN BY: RHY
DRAWN BY: RHY
CHECKED BY: RHY
DATE: JUNE 2008
SCALE: 1"=30'
W.O. NO.: 06-70

APPROVED BY PLANNING BOARD of Howard County
DATE: 5/22/08
DIRECTOR

11 SHEET OF 13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT
DIRECTOR

DATE: 7/11/08
DATE: 7/11/08
DATE: 7/11/08

BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

B. Taylor Plank
SIGNATURE OF DEVELOPER
6-23-08
DATE

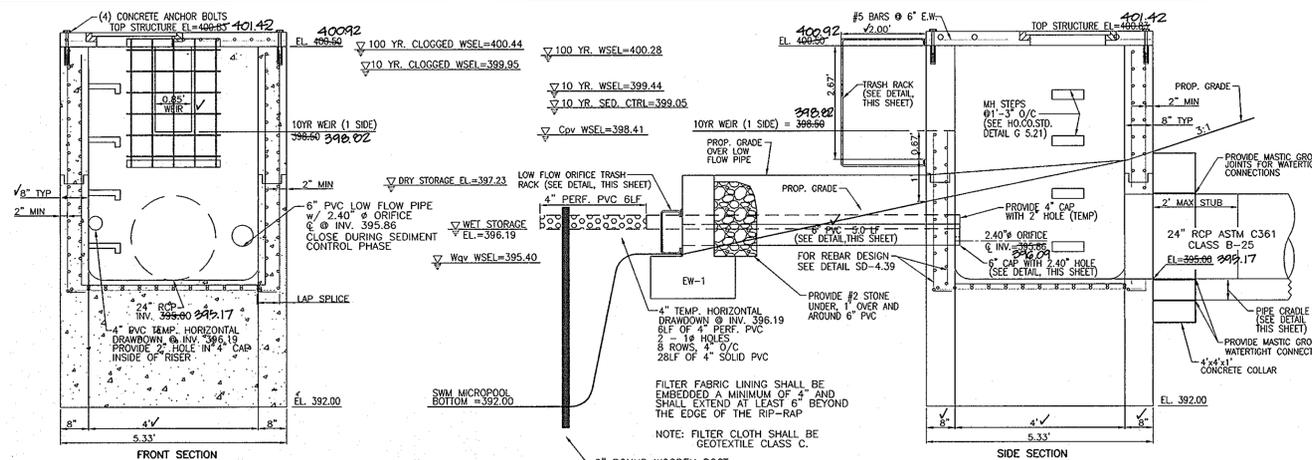
BY THE ENGINEER:
I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

DATE: 7/11/08
SIGNATURE OF ENGINEER

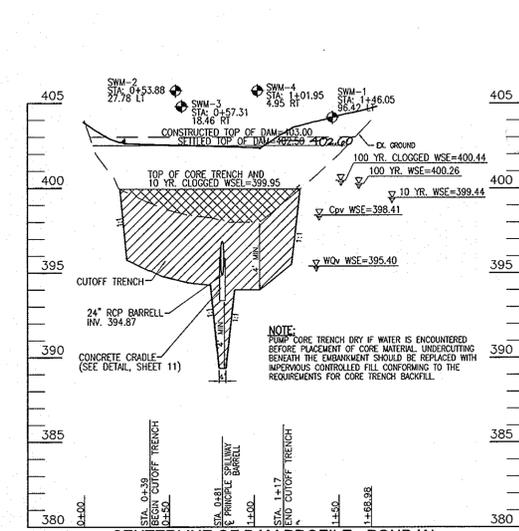
THESE PLANS FOR SMALL-POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 7/8/08
HOWARD S.C.D.

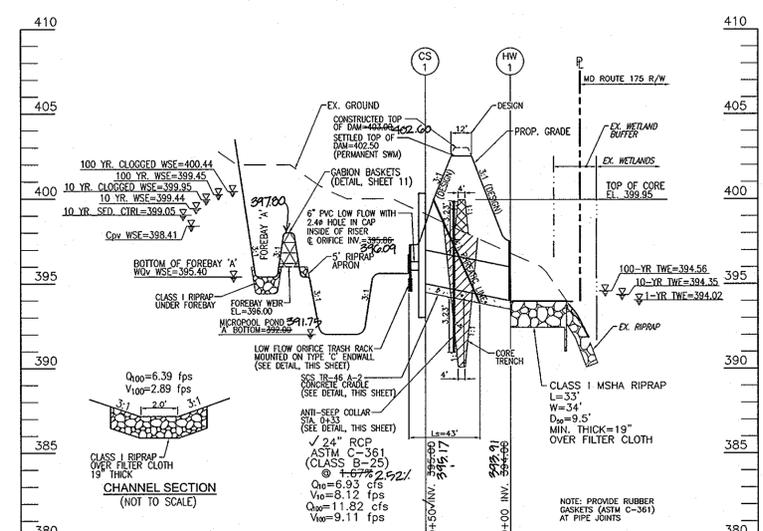
APPROVED BY PLANNING BOARD of Howard County
DATE: 5/22/08
DIRECTOR



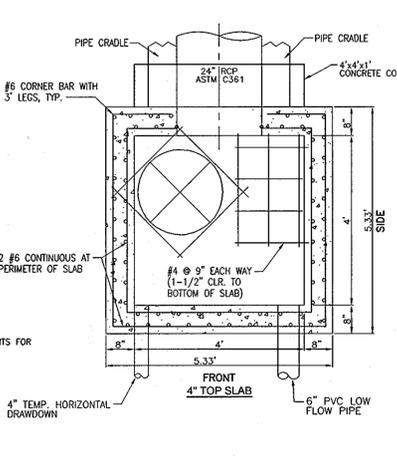
PRECAST STRUCTURE (CS-1) POND 'A'
SCALE: 1/2"=1'



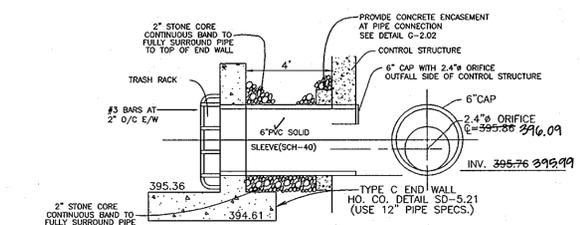
CENTERLINE OF DAM PROFILE - POND 'A'
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



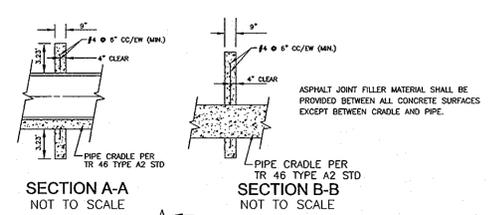
SWM FACILITY POND 'A' SECTION THROUGH PRINCIPAL SPILLWAY
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



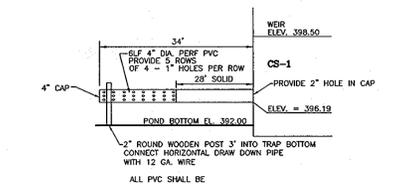
PIPE CRADLE DETAIL POND 'A'
NOT TO SCALE



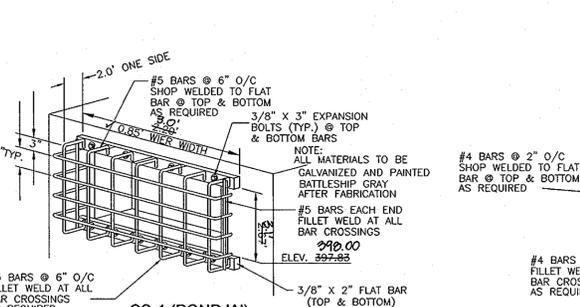
PERMANENT ORIFICE DETAIL CS-1 (POND A)
NOT TO SCALE



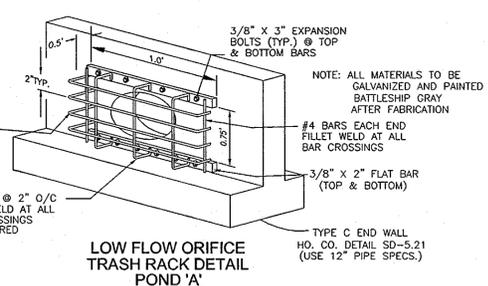
CONCRETE ANTI-SEEP COLLAR DETAIL POND 'A'
NOT TO SCALE



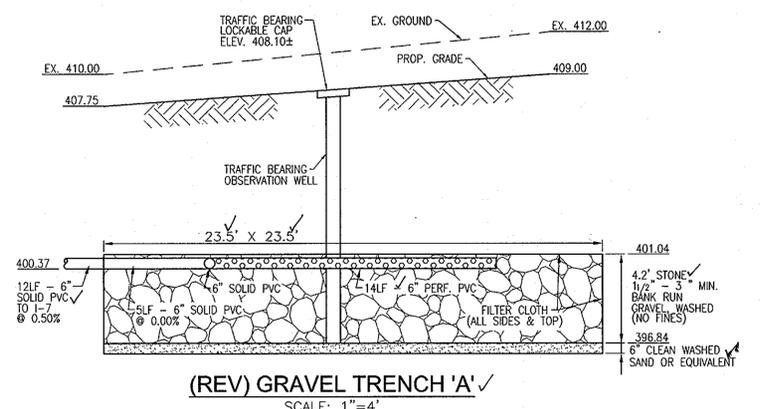
TEMP SEDIMENT BASIN HORIZONTAL DRAW-DOWN DEVICE (POND A)
NOT TO SCALE



CS-1 (POND 'A') TRASH RACK DETAIL
NOT TO SCALE



LOW FLOW ORIFICE TRASH RACK DETAIL POND 'A'
NOT TO SCALE

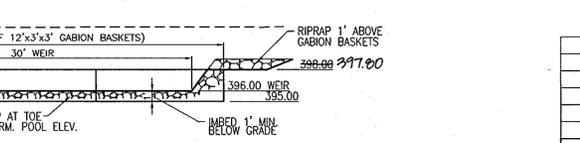


(REV) GRAVEL TRENCH 'A'
SCALE: 1"=4'

- CONSTRUCTION SPECIFICATIONS**
1. THE TOTAL AREA OF THE PERFORATIONS MUST BE GREATER THAN 4 TIMES THE AREA OF THE INTERNAL ORIFICE.
 2. THE PERFORATED PORTION OF THE DRAW-DOWN DEVICE SHALL BE WRAPPED WITH 1/2" HARDWARE CLOTH AND GEOTEXTILE FABRIC. THE GEOTEXTILE FABRIC SHALL MEET THE SPECIFICATIONS FOR GEOTEXTILE CLASS E.
 3. PROVIDE SUPPORT OF DRAW-DOWN DEVICE TO PREVENT SAGGING AND FLOATION. AN ACCEPTABLE PREVENTATIVE MEASURE IS TO STAKE BOTH SIDES OF DRAW-DOWN DEVICE WITH 1" STEEL ANGLE OR 1" x 4" SQUARE OR 2" ROUND WOODEN POSTS SET 3" MINIMUM INTO THE GROUND THEN JOINING THEM TO THE DEVICE BY WRAPPING WITH 12 GAUGE MINIMUM WIRE.

- GABION BASKET WEIR DETAIL (POND 'A')**
SCALE: 1"=8'

- NOTES:**
1. ALL WIRE USED IN GABION CONSTRUCTION SHALL BE GALVANIZED AND PLASTIC COATED.
 2. FILTER CLOTH SHALL BE PLACED WHEREVER GABIONS COME INTO CONTACT WITH SOIL.
 3. STONE FILL SHALL CONSIST OF HARD, DURABLE, CLEAN STONE 4"-8" IN DIAMETER.
 4. CONSTRUCTION MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 5. RIP-RAP TO BE PLACED BELOW GABION WEIR TO BOTTOM OF FOREBAY, AND TO PERM. POOL ELEVATION.



GABION BASKET WEIR DETAIL (POND 'A')
SCALE: 1"=8'

AS-BUILT CERTIFICATION STATE OF MARYLAND
I HEREBY CERTIFY THAT THIS FACILITY SPILLWAY CONSTRUCTION WAS CONSTRUCTED AS SHOWN ON THE AS-BUILT PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.
ROBERT H. VOGEL, P.E. NO. 16193

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division: *[Signature]* 7/11/08
 Chief, Division of Land Development: *[Signature]* 7/11/08
 Director: *[Signature]* 7/11/08

BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
 Signature of Developer: *[Signature]* 6-23-08

BY THE ENGINEER:
 I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
 Signature of Engineer: *[Signature]* 7/11/08

THESE PLANS FOR SMALL-POUND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *[Signature]* 7/8/08
 HOWARD S.C.D. DATE

APPROVED BY PLANNING BOARD of Howard County
 Director: *[Signature]* 5/22/08
 DATE

OWNER
 ST. JOHN THE EVANGELIST BAPTIST CHURCH
 8910 OLD ANNAPOLIS RD
 COLUMBIA, MD 21045
 410-992-6977

DEVELOPER
 MV COMMERCIAL CONSTRUCTION LLC
 4000 MILLER-VALENTINE COURT
 DAYTON, OH 45439
 937-293-0900

NO.	REVISION	DATE

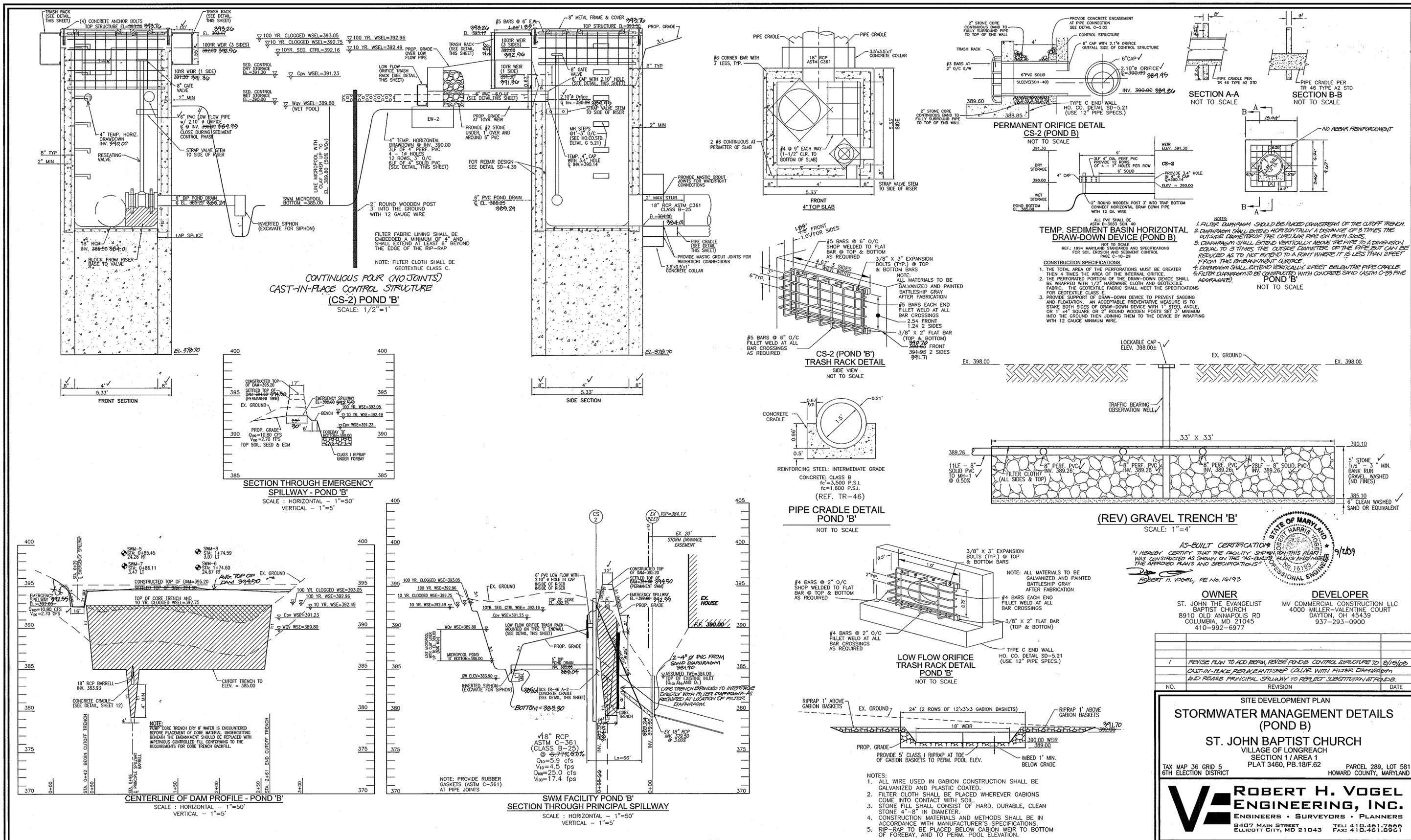
SITE DEVELOPMENT PLAN
STORMWATER MANAGEMENT DETAILS (POND A)
ST. JOHN BAPTIST CHURCH
 VILLAGE OF LONGREACH
 SECTION 1 / AREA 1
 PLAT 3460, PB.18/F.62
 TAX MAP 36 GRID 5
 6TH ELECTION DISTRICT
 PARCEL 289, LOT 581
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE
 DESIGN BY: RHV
 DRAWN BY: RHV
 CHECKED BY: RHV
 DATE: JUNE 2008
 SCALE: 1"=30'
 W.O. NO.: 06-30

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly licensed PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2008

11 SHEET OF 13



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 7/11/08
 DIRECTOR: DATE: 7/11/08

BY THE DEVELOPER:
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
 SIGNATURE OF DEVELOPER: DATE: 6-23-08

BY THE ENGINEER:
 I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
 SIGNATURE OF ENGINEER: DATE: 7/11/08

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF HOWARD S.C.D.: DATE: 7/11/08

APPROVED BY PLANNING BOARD of Howard County
 DIRECTOR: DATE: 5/22/08

PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly licensed PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 EXPIRATION DATE: 06-27-2008
 12 SHEET OF 13

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

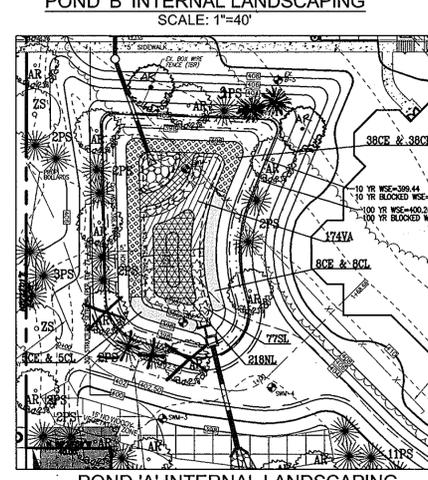
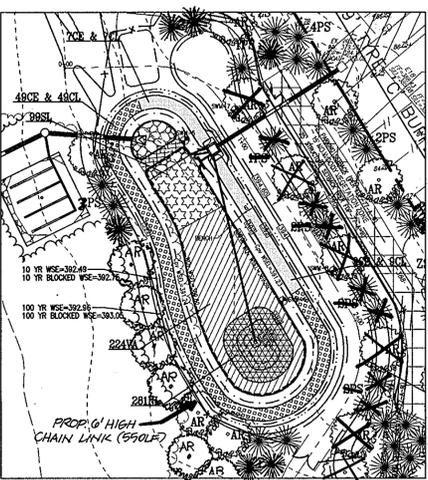
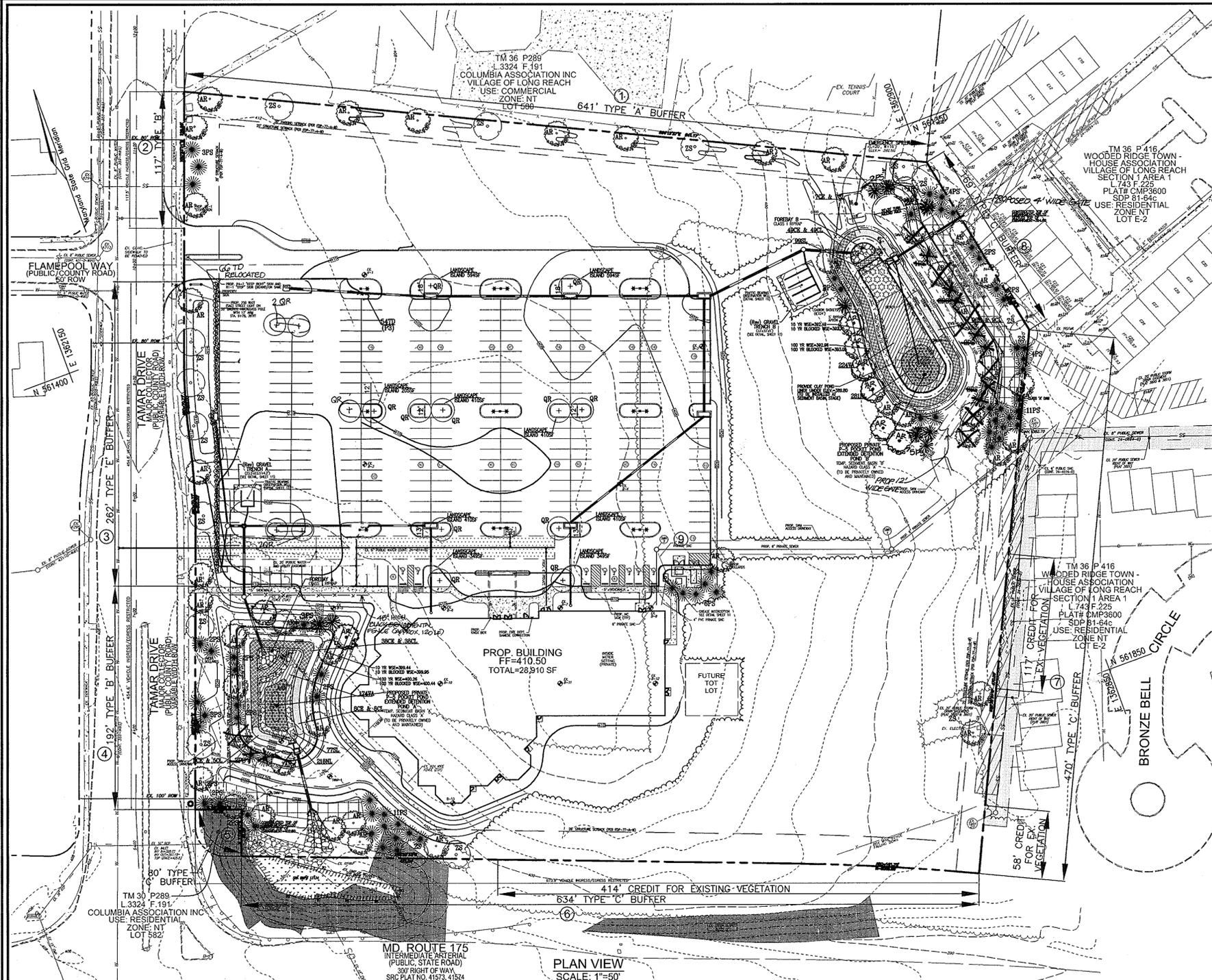
SITE DEVELOPMENT PLAN
STORMWATER MANAGEMENT DETAILS (POND B)
ST. JOHN BAPTIST CHURCH
 VILLAGE OF LONGREACH
 SECTION 1 / AREA 1
 PLAT 3460, PB. 18/F.62 PARCEL 289, LOT 581
 TAX MAP 36 GRID 5 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



AS-BUILT CERTIFICATION
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.
 ROBERT H. VOGEL, PE No. 16193

OWNER: ST. JOHN THE EVANGELIST BAPTIST CHURCH, 8910 OLD ANNEPARK RD, COLUMBIA, MD 21045, 410-992-6977
 DEVELOPER: MV COMMERCIAL CONSTRUCTION LLC, 4000 MILLER-VALENTINE COURT, DAYTON, OH 45438, 937-293-0900

NO.	REVISION	DATE
1	REVISE PLAN TO ADD BERM, REVISE POND B CONTROL STRUCTURE TO 8/15/08	
	CAST-IN-PLACE REPLACE ANTISEEP COLLAR WITH FILTER DIAPHRAGM	
	AND REVISE PRINCIPAL SPILLWAY TO REFLECT SUBSTITUTION AT POND B	



SCHEDULE D - POND 'B'
STORMWATER MANAGEMENT AREA LANDSCAPING

Linear feet of perimeter	493
Number of trees required	
Shade Trees (1-50)	10
Evergreen Trees (1-40)	12
Credit for existing vegetation	NO
Credit for other landscaping	NO
Number of trees provided	
Shade Trees	10
Evergreen Trees	12

POND 'B' - 2' DEEP STORMWATER POND
HERBACEOUS LANDSCAPE SCHEDULE

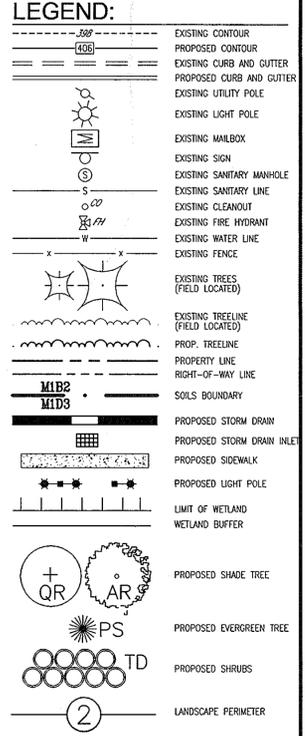
KEY	QUAN.	BOTANICAL NAME	SIZE	REMARKS
IP	16	IRIS PSEUDACORIS	PLUG 1.5' OC	
IV	16	IRIS VERSICOLOR	PLUG 1.5' OC	
CE	49	CYPERUS ESCULENTUS	PLUG 2' OC	
CL	49	CAREX LACUSTRIS	PLUG 2' OC	
SL	99	SAGITTARIA LATIFOLIA	PLUG 4' OC	
VA	224	VALISNERIA AMERICANA	PLUG 2' OC	
NL	281	NUPHAR LUTEUM	PLUG 1.5' OC	

SCHEDULE D - POND 'A'
STORMWATER MANAGEMENT AREA LANDSCAPING

Linear feet of perimeter	340
Number of trees required	
Shade Trees (1-50)	7
Evergreen Trees (1-40)	9
Credit for existing vegetation	NO
Credit for other landscaping	NO
Number of trees provided	
Shade Trees	7
Evergreen Trees	9

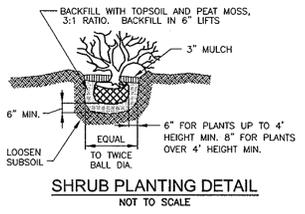
POND 'A' - 2' DEEP STORMWATER POND
HERBACEOUS LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	REMARKS
IP	13	IRIS PSEUDACORIS	PLUG 1.5' OC	
IV	13	IRIS VERSICOLOR	PLUG 1.5' OC	
CE	38	CYPERUS ESCULENTUS	PLUG 2' OC	
CL	38	CAREX LACUSTRIS	PLUG 2' OC	
SL	77	SAGITTARIA LATIFOLIA	PLUG 4' OC	
VA	174	VALISNERIA AMERICANA	PLUG 2' OC	
NL	218	NUPHAR LUTEUM	PLUG 1.5' OC	



EXISTING ON-SITE VEGETATIVE COMMUNITIES

COVER TYPE	DOMINANT VEGETATION	COMMENTS
LAWN	KENTUCKY FESCUE	MOWED AND MAINTAINED
FOREST	BLACK CHERRY, TULIP POPLAR, RED BANGLE, LARGE POPLAR, JAPANESE HONEYSUCKLE, POISON IVY, ORIENTAL Bittersweet	DOMINANT CHERRIES IN THE 4-10 INCH RANGE. LARGE POPLAR, JAPANESE HONEYSUCKLE, POISON IVY, ORIENTAL Bittersweet ARE SCATTERED THROUGHOUT THE STAND. VINE COVER IS HEAVY AND INFILTRATING STAND SUCCESSION. STAND IS ISOLATED AND PROVIDES LIMITED HABITAT.
BRUSH	RASPBERRY, MULTIFLORA ROSE, JAPANESE HONEYSUCKLE	OCCURS ALONG THE EDGES OF THE FOREST CREATING A BUFFER BETWEEN THE FOREST AND THE LAWN.



GENERAL NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. THE REQUIRED PARKING AND PERIMETER LANDSCAPING WILL BE BONDED PER THIS SUBMISSION.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$28,280.00 FOR THE REQUIRED 55 SHADE TREES, 52 EVERGREEN TREES AND 66 SHRUBS.

LANDSCAPE SCHEDULE NOTE:

- ALL PLANT MATERIALS SHALL BE FULL AND HEAVY, BE WELL FORMED AND SYMMETRICAL, CONFORM TO THE MOST CURRENT JAN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH HSD PLANTING SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- 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.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO BIDDING. IF PLAN DIFFERS FROM LANDSCAPE SCHEDULE, THE PLAN SHALL GOVERN.

NOTES:

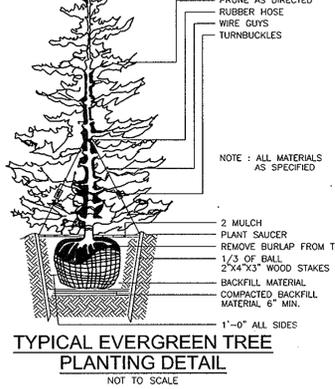
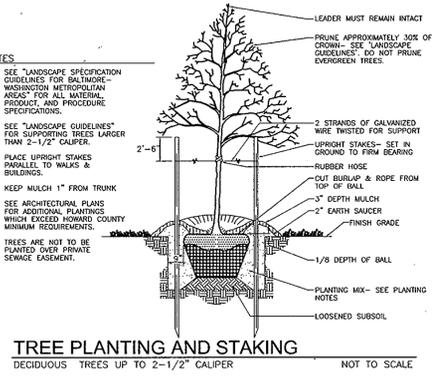
- THE OWNER, TENDANT AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING, INCLUDING BOTH LAND MATERIALS AND BERMS, FENCES & WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN APPLICABLE REGULATIONS, ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION AND WHEN NECESSARY, REPAIRED OR REPLACED.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS & OTHER PLANTINGS HEREWITH LISTED & APPROVED FOR THIS SITE SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW & APPROVAL FROM THE DEPARTMENT OF PLANNING & ZONING. ANY DEVIATION FROM THIS APPROVAL LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATES.
- SHOULD ANY TREE DESIGNATED FOR PRESERVATION FOR WHICH LANDSCAPE SURETY IS GIVEN DIE PRIOR TO RELEASE OF BONDS, THE OWNER WILL BE REQUIRED TO REPLACE THE TREE WITH THE EQUIVALENT SPACES OR WITH A TREE WHICH WILL OBTAIN THE SAME HEIGHT, SPREAD & GROWTH CHARACTERISTICS. THE REPLACEMENT TREE MUST BE A MINIMUM 1/2" INCHES IN CALIPER & INSTALLED AS REQUIRED IN THE HOWARD COUNTY LANDSCAPE MANUAL.

LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL NAME	SIZE	CAT
AR	41	ACER RUBRUM	2 1/2"-3" CAL.	B & B
ZS	16	OCTOBER GLORY RED MAPLE	2 1/2"-3" CAL.	B & B
QR	16	ZELKOVA SERATA 'VILLAGE GREEN'	2 1/2"-3" CAL.	B & B
OR	16	VILLAGE GREEN JAPANESE ZELKOVA	2 1/2"-3" CAL.	B & B
PS	73	QUERCUS PHellos	2 1/2"-3" CAL.	B & B
PS	73	WILLOW OAK	6"-8" HT.	B & B
PS	73	FRINIS SIRIBUS	6"-8" HT.	B & B
TO	27	EASTERN WHITE PINE	6"-8" HT.	B & B
TO	27	TAXUS MEDIA 'DENSIFORMIS'	2 1/2"-3" HT.	B & B
TO	27	DENSIFORMIS YEW	2 1/2"-3" HT.	B & B

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO PERIMETER AND ROADWAYS									ADJACENT TO DUMPSTER
	1	2	3	4	5	6	7	8	9	
Perimeter/Frontage Designation	A	B	E	B	C	C	C	C	D	D
Linear Feet of Roadway Frontage/Perimeter	641	117	262	192	80	634	470	169	64	64
Credit for Existing Vegetation (Yes, No, Linear Feet)	No	No	No	No	No	Yes 414LF	Yes 175LF	No	No	No
Credit for Wall, Fence or Berm (Yes, No, Linear Feet)	No	No	No	No	No	No	No	No	No	No
Number of Plants Required	1:60	1:50	1:40	1:50	1:40	1:20	1:40	1:40	1:40	1:60
Shade Trees	1:40	3	1:16	1:40	1:20	1:20	1:20	1:20	1:20	1:10
Evergreen Trees	1:40	3	1:16	1:40	1:20	1:20	1:20	1:20	1:20	1:10
Number of Plants Provided	11	2	7	4	2	6	7	4	1	1
Shade Trees	3	1	5	2	1	11	15	8	6	6
Evergreen Trees	3	1	5	2	1	11	15	8	6	6
Other Trees (2:1 Substitution)	-	-	66	-	-	-	-	-	-	-
Shrubs (10:1 Substitution)	-	-	-	-	-	-	-	-	-	-
Describe Plant Substitution Credits (Below if needed)	-	-	-	-	-	-	-	-	-	-



SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

Number of parking spaces	312
Number of trees required	16
Number of trees provided	16
Shade Trees	16
Other Trees (2:1 Substitution)	-

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 CERTIFICATE OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

B. John Plank 6-23-08 DATE
SIGNATURE OF DEVELOPER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

William D. ... 7/16/08 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Michelle ... 7/16/08 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT

Sheela ... 7/14/08 DATE
DIRECTOR

OWNER
ST. JOHN THE EVANGELIST BAPTIST CHURCH
8910 OLD ANNAPOLIS RD
COLUMBIA, MD 21045
410-992-6977

DEVELOPER
MV COMMERCIAL CONSTRUCTION LLC
4000 MILLER-VALENTINE COURT
DAYTON, OH 45459
937-293-0900

LANDSCAPE PLAN
ST. JOHN BAPTIST CHURCH
VILLAGE OF LONGREACH
SECTION 1 / AREA 1
PLAT 3460, PB.18/F.62
PARCEL 289, LOT 581
HOWARD COUNTY, MARYLAND

TAX MAP 36 GRID 5
6TH ELECTION DISTRICT

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

DESIGN BY: RHV
DRAWN BY: RHV
CHECKED BY: RHV
DATE: JUNE 2008
SCALE: AS SHOWN
W.O. NO.: 06-70

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18183 EXPIRATION DATE: 06-27-2008

APPROVED BY PLANNING BOARD of Howard County
... 5/22/08 DATE
DIRECTOR

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