

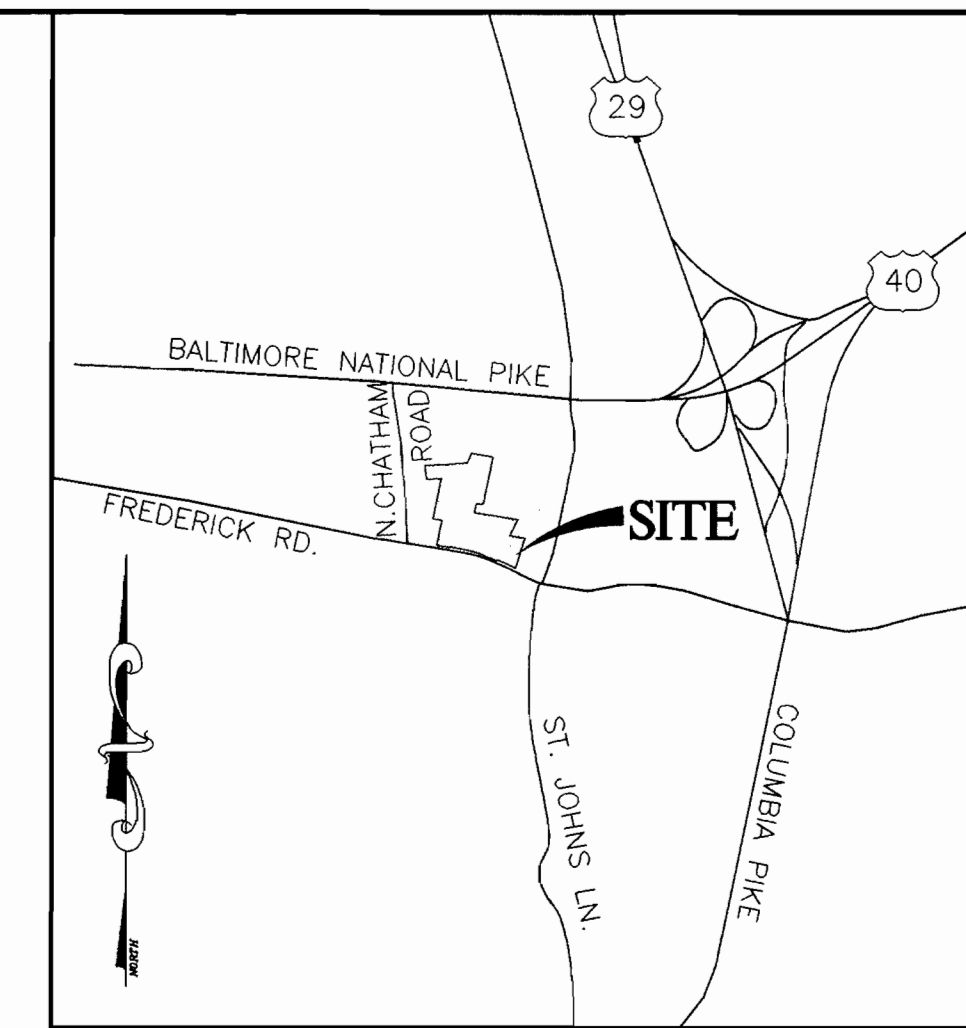
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# SITE DEVELOPMENT PLAN

# ST. JOHN'S EPISCOPAL CHURCH

## 2nd ELECTION DISTRICT

## HOWARD COUNTY, MARYLAND



**VICINITY MAP**  
SCALE: 1" = 2000'

### GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- 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.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM AERIAL SURVEY BY WINGS, INC AND FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RIEMER MUEGGE A DIVISION OF PHR&A JAN. 2001.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 24 AA AND 24 B5 WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. CONTRACT NO. 10-W
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: PATAPSCO CONTRACT NO. 31-S
- STORMWATER MANAGEMENT FOR THIS SITE IS PROVIDED BY PRIVATE GRASS SWALES, BIORETENTION AREAS AND UNDERGROUND PIPES FOR CHANNEL PROTECTION.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- NO 100-YEAR FLOODPLAIN IMPACTS THIS PROJECT.
- NO WETLANDS IMPACT THIS PROJECT.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP INC. DATED MAY, 2001.
- NO NOISE STUDY IS REQUIRED.
- THE GEOTECHNICAL STUDY FOR STORMWATER MANAGEMENT WAS PREPARED BY ECS, LTD DATED MARCH 2001.
- THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY RIEMER MUEGGE A DIVISION OF PHR&A. DATED JANUARY, 2000.
- SUBJECT PROPERTY ZONED R-20 PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S. BA-01-07 & ZV-00-18, BA-97-35E BA-90-55E, BA-87-48E, SDP-73-35, SDP-92-11, SDP-92-93.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
- BA-01-07 E & V - A SPECIAL EXCEPTION FOR AN EXISTING RELIGIOUS FACILITY AND PRIVATE SCHOOL FOR BUILDING ADDITIONS, PARKING LOT ENLARGEMENTS AND OTHER SITE REVISIONS AND A VARIANCE TO REDUCE THE 20 FOOT USE SETBACK TO 10 FEET FOR A DRIVEWAY WAS APPROVED BY DECISION AND ORDER DATED SEPT. 6, 2001 WITH THE FOLLOWING CONDITIONS:
  - THAT THE VARIANCE SHALL APPLY TO THE DRIVEWAY ENCROACHMENT BEING REQUESTED AND NOT TO ANY OTHER ACTIVITIES, OR STRUCTURES ON THE SUBJECT PROPERTY.
  - THE SPECIAL EXCEPTION SHALL APPLY ONLY TO THE PROPOSED BUILDING ADDITIONS, PARKING LOT ENLARGEMENTS, AND SITE REVISIONS AS DESCRIBED IN THE PETITION, AND AS DEPICTED ON THE PLAN FOR ST. JOHN'S EPISCOPAL CHURCH WITH A REVISION DATE OF MAY 2, 2001, AND AS REVISED BY PETITIONER'S EXHIBIT #1.A. SUBMITTED TO THE BOARD ON JULY 3, 2001, AND NOT TO ANY OTHER ACTIVITIES, USES, OR STRUCTURES ON THE SUBJECT PROPERTY.
  - IT IS RECOMMENDED THAT THE PETITIONER CONSIDER EXTENDING AN EVERGREEN HEDGE PLANTING ALONG THE WEST SIDE OF THE FRONT PARKING LOT, SIMILAR TO THE AREA ALONG THE SOUTH SIDE OF THE EXISTING SMALL FRONT PARKING LOT.
  - THE PETITIONER SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND COUNTY LAWS AND REGULATIONS.
- THERE ARE NO CEMETARIES ON THE SUBJECT PROPERTY. A CEMETARY IS LOCATED ON ADJACENT PARCEL 759.
- ALL LIGHTING TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.

### SITE DATA

<b>SITE ZONING:</b>	R-20
<b>GROSS SITE AREA:</b>	13.74 ACRES (591,565± SF)
<b>LESS: ROW TAKEN:</b>	0.15± ACRES (6,475± SF)
<b>PART OF PARCEL 103 ADDED TO PARCEL 535 BY DEED OF ADJOINERS:</b>	0.81± ACRES (35,264± SF)
<b>TOTAL SITE AREA:</b>	14.38± ACRES (625,322± SF)
<b>DISTURBED AREA:</b>	5.0 ACRES
<b>EXISTING USE:</b>	RELIGIOUS FACILITY AND SCHOOL
<b>PROPOSED USE:</b>	SAME AS EXISTING USE (350 STUDENTS/14.4 ACRES)
<b>PARKING:</b>	207 SPACES
<b>EXISTING PARKING:</b>	COUNTY REQUIREMENT: 1 SPACE PER 3 SEATS IN SANCTUARY
<b>COUNTY REQUIREMENT:</b>	594 SEATS (24 MAIN CHURCH & 300 MULTIPURPOSE ROOM)
<b>TOTAL SANCTUARY SEATING:</b>	105 SPACES
<b>PROPOSED PARKING (INCL. EX.):</b>	205 SPACES
<b>EX. PARKING TO BE REMOVED:</b>	55 SPACES
<b>NEW PARKING SPACES:</b>	151 SPACES
<b>MAX. BLDG. COVERAGE ALLOWED:</b>	3.54 ACRES (25.0% OF GROSS AREA)
<b>BUILDING FOOTPRINTS:</b>	
A. EX. CHURCH	0.12 AC. (5,367 SF)
B. EX. PRIVATE SCHOOL	0.15 AC. (6,606 SF)
C. EX. CHURCH AUDITORIUM	0.12 AC. (5,430 SF)
D. EX. RECTORY	0.04 AC. (1,768 SF)
E. EX. ROSE HILL BLDG.	0.05 AC. (2,071 SF)
F. EX. PARISH LIFE CENTER	0.05 AC. (1,482 SF)
G. EX. STONE CHAPEL	0.01 AC. (625 SF)
H. EX. MAINT. SHED	0.03 AC. (1,422 SF)
I. PROPOSED BLDG. EXPANSION	0.36 AC. (15,600 SF±)
<b>EX. COVERAGE (BUILDINGS TO REMAIN):</b>	0.58 AC. OR 25,125 SF (4.0%)
<b>PROP. BUILDINGS COVERAGE (INCL. EX.):</b>	0.44 AC. OR 19,233 SF (6.0%)
<b>FLOOR AREA:</b>	
A. EX. CHURCH	9,542 SF
B. EX. PRIVATE SCHOOL	13,372± SF
C. EX. CHURCH AUDITORIUM	10,876± SF
D. EX. RECTORY	4,764± SF
E. EX. ROSE HILL BLDG.	7,500± SF
F. EX. PARISH LIFE CENTER	3,964± SF
G. EX. STONE CHAPEL	625± SF
H. EX. MAINT. SHED	1,422± SF
I. PROPOSED BLDG. EXPANSION	30,000 SF
<b>CLASSROOM</b>	UPPER LEVEL 1483 SF
<b>MULTIPURPOSE</b>	UPPER LEVEL 1037 SF
	LOWER LEVEL 5210 SF
<b>BUILDING HEIGHTS:</b>	
A. PROPOSED BLDG. EXPANSION	MAX. ALLOWED 34'
	PROPOSED 35'
* SANCTUARY USE GENERATES A LARGER PARKING REQUIREMENT THAN THE SCHOOL. THE USES WILL NOT TAKE PLACE CONCURRENTLY.	

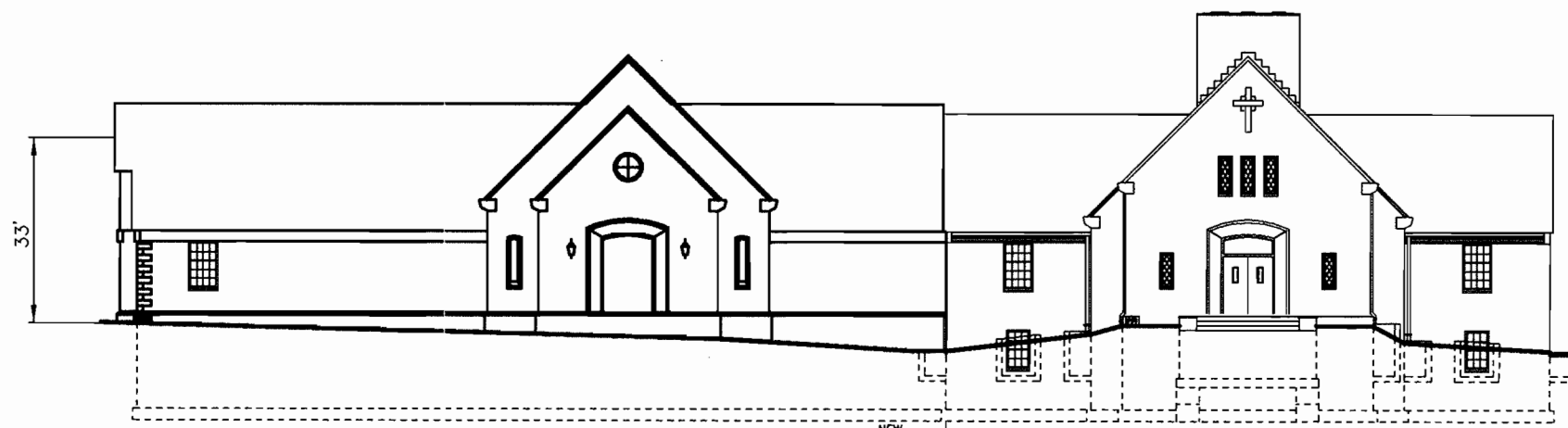
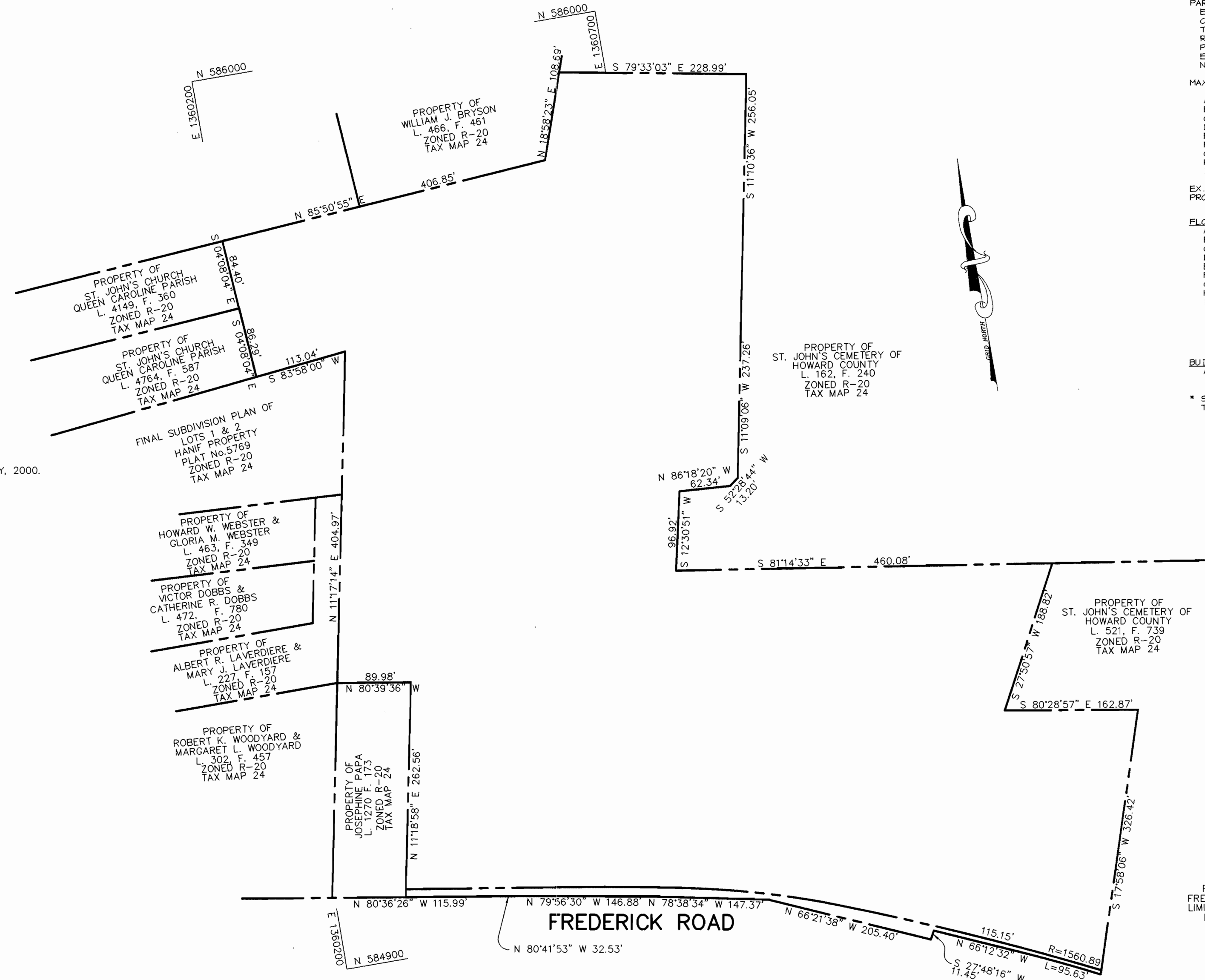
### BENCHMARKS

HOWARD COUNTY SURVEY CONTROL STATION: 24 AA  
N 587380.601 E 1352603.657

HOWARD COUNTY SURVEY CONTROL STATION: 24 B5  
N 586956.212 E 1356570.816

### PURPOSE NOTE

THE PURPOSE OF THIS SITE PLAN IS TO CONSTRUCT AN EXPANSION OF THE EDUCATION AND MULTIPURPOSE SPACES ON THE CAMPUS. SEVERAL PARKING EXPANSIONS ARE PROPOSED TO SUPPORT THE EXPANSION. ROAD WIDENING AND ENTRANCE MODIFICATIONS TO FREDERICK ROAD ARE ALSO PROPOSED. THIS PLAN ALSO ADDRESSES LANDSCAPING, FOREST CONSERVATION AND STORMWATER MANAGEMENT.



**SOUTH BUILDING ELEVATION**  
NO SCALE

AS BUILT CERTIFICATE	
DATE	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>James S. Roth</i> DIRECTOR	11/20/01 DATE
<i>Mark Muegge</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	11/16/01 DATE
<i>Wanda Hamlin</i> CHIEF, DIVISION OF LAND DEVELOPMENT	11/21/01 DATE

DATE	NO.	REVISION
OWNER / DEVELOPER		
THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLCOTT CITY, MARYLAND 21042		
PROJECT		
ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION		
AREA		
PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
TITLE SHEET		

**RIEMER MUEGGE**  
a division of  
**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

DESIGNED BY: M.N.R.
DRAWN BY: DAM
CHECKED BY:
PROJECT NO: 00286 SDP1.DWG
DATE: OCTOBER 26, 2001
SCALE: 1" = 100'
DRAWING NO. 1 OF 25

ADDRESS CHART			
BUILDING	STREET ADDRESS	SECT./AREA:	PARCEL:
-	9120 FREDERICK ROAD	-	103 & 535
SUBDIVISION NAME: ST. JOHN'S EPISCOPAL CHURCH			
PLAT # 15026	BLOCK # 5,10,11	ZONE: R-20	ELECT. DIST.: 2ND
L. 1622, F. 570			CENSUS TRACT: 6023.01
L. 5678, F. 056			
WATER CODE: F-07	SEWER CODE: 1402800		





- NOTES:**
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  5. P-1 PAVING, SEE DETAIL SHEET 5
  6. P-2 PAVING, SEE DETAIL SHEET 5
  7. CONCRETE
  8. PAVING TO BE REMOVED
  9. P-5 PAVING, SEE DETAIL SHEET 5
  10. GRASSCRETE, SEE DETAIL SHEET 5
  11. ASPHALT PATH, SEE DETAIL SHEET 5

**LEGEND**

EXISTING 2' CONTOUR	---	300
EXISTING 10' CONTOUR	---	300
PROPOSED 2' CONTOUR	---	300
PROPOSED 10' CONTOUR	---	300
PROPERTY LINE AND RIGHT OF WAY	---	
EASEMENT	---	
FENCE	---	
STORM DRAIN	---	15'D
OVERHEAD WIRES	---	OHW
EXISTING TREELINE	---	
PROPOSED TREELINE	---	
DRAINAGE AREA LINES	---	L.O.D.
LIMIT OF DISTURBANCE	---	
SUPER SILT FENCE	---	SSF
SILT FENCE	---	SF
FOREST CONSERVATION ESMT	---	
STABILIZED CONSTRUCTION ENTRANCE	---	
VEHICULAR INGRESS & EGRESS RESTRICTED	---	V.I.E.&R.
150 WATT HPS PENDANT FIXTURE ON A 15' ARM ATTACHED TO EXISTING POLES AS NOTED	---	

**AS BUILT CERTIFICATE**

DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR *James R. Smith* 11/20/01 DATE  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK 11/16/01 DATE  
 CHIEF, DIVISION OF LAND DEVELOPMENT *Wanda Hamer* 11/20/01 DATE

DATE	NO.	REVISION

OWNER / DEVELOPER  
 THE VESTRY AT ST. JOHN'S CHURCH  
 QUEEN CAROLINE PARISH  
 ALSO KNOWN AS  
 ST. JOHN'S EPISCOPAL CHURCH  
 9120 FREDERICK ROAD  
 ELLICOTT CITY, MARYLAND 21042

PROJECT  
 ST. JOHN'S EPISCOPAL CHURCH  
 EDUCATION AND MULTIPURPOSE  
 ROOM EXPANSION

AREA  
 ZONED R-20  
 PARCEL 103 & 535 - TAX MAP 24  
 2ND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE  
 SITE DEVELOPMENT PLAN

**RIEMER MUEGGE**  
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 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

10-25-01

DESIGNED BY: M.N.R.  
 DRAWN BY: DAM  
 CHECKED BY:  
 PROJECT NO: 00286  
 SDP2.DWG  
 DATE: OCTOBER 26, 2001  
 SCALE: 1" = 30'  
 DRAWING NO. 2 OF 25

STATE OF MARYLAND  
 CHRISTOPHER J. REID  
 PROFESSIONAL ENGINEER  
 19949

P:\project\00286\SDP2.dwg hrd Oct 31 08:29:00 2001 Planner: Muegge, a division of PHRCA



**NOTES:**

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- P-2 PAVING, SEE DETAIL SHEET 5
- CONCRETE
- PAVING TO BE REMOVED
- P-5 PAVING, SEE DETAIL SHEET 5
- GRASSCRETE, SEE DETAIL SHEET 5
- ASPHALT PATH, SEE DETAIL SHEET 5

**LEGEND**

EXISTING 2' CONTOUR	---	300
EXISTING 10' CONTOUR	---	300
PROPOSED 2' CONTOUR	---	300
PROPOSED 10' CONTOUR	---	300
PROPERTY LINE AND RIGHT OF WAY	---	
EASEMENT	---	
FENCE	---	
STORM DRAIN	---	15" D
OVERHEAD WIRES	---	OHW
EXISTING TREELINE	---	
PROPOSED TREELINE	---	
DRAINAGE AREA LINES	---	
LIMIT OF DISTURBANCE	---	L.O.D.
SUPER SILT FENCE	---	SSF
SILT FENCE	---	SF
STABILIZED CONSTRUCTION ENTRANCE	---	
FOREST CONSERVATION ESMT	---	

**AS BUILT CERTIFICATE**

APPROVED :	HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
<i>Janet Batts</i>	11/20/01
DIRECTOR	DATE
<i>Chris Drummer</i>	11/16/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	DATE
<i>Chris Drummer</i>	11/20/01
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE

DATE NO.	REVISION
OWNER / DEVELOPER	THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELlicott CITY, MARYLAND 21042
PROJECT	ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION
AREA	ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	<b>SITE DEVELOPMENT PLAN</b>

**RIEMER MUEGGE**  
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DATE: 10.25.01  
DESIGNED BY: M.N.R.  
DRAWN BY: DAM  
CHECKED BY:  
PROJECT NO: 00286  
SDP3.DWG  
DATE: OCTOBER 26, 2001  
SCALE: 1" = 30'  
DRAWING NO. 3 OF 25

*Christopher J. Reid*  
CHRISTOPHER J. REID #19949



2: \projects\00286\SDP3.dwg Thu Oct 25 09:23:36 2001 PATTON HARRIS RUST & ASSOCIATES

MATCH LINE SEE SHEET 2



MATCH LINE SEE SHEET 2

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  10. GRASSCRETE, SEE DETAIL SHEET 5
  11. ASPHALT PATH, SEE DETAIL SHEET 5

**LEGEND**

EXISTING 2' CONTOUR	---	300
EXISTING 10' CONTOUR	---	300
PROPOSED 2' CONTOUR	---	300
PROPOSED 10' CONTOUR	---	300
PROPERTY LINE AND RIGHT OF WAY	---	
EASEMENT	---	
FENCE	---	
STORM DRAIN	---	15" D
OVERHEAD WIRES	---	OHW
EXISTING TREELINE	---	
PROPOSED TREELINE	---	
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SUPER SILT FENCE	---	SSF
SILT FENCE	---	SF
STABILIZED CONSTRUCTION ENTRANCE	---	
VEHICULAR INGRESS & EGRESS RESTRICTED	---	V.I.E.&R.
FOREST CONSERVATION ESMT	---	

AS BUILT CERTIFICATE

DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*[Signature]* 11/20/01  
DIRECTOR DATE

*[Signature]* 11/16/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

*[Signature]* 11/21/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER / DEVELOPER  
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QUEEN CAROLINE PARISH  
ALSO KNOWN AS  
ST. JOHN'S EPISCOPAL CHURCH  
9120 FREDERICK ROAD  
ELLCOTT CITY, MARYLAND 21042

PROJECT **ST. JOHN'S EPISCOPAL CHURCH**  
EDUCATION AND MULTIPURPOSE  
ROOM EXPANSION

AREA  
ZONED R-20  
PARCEL 103 & 535 TAX MAP 24  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE  
**SITE DEVELOPMENT PLAN**

**RIEMER MUEGGE**  
a division of:  
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8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

10-25-01  
DATE

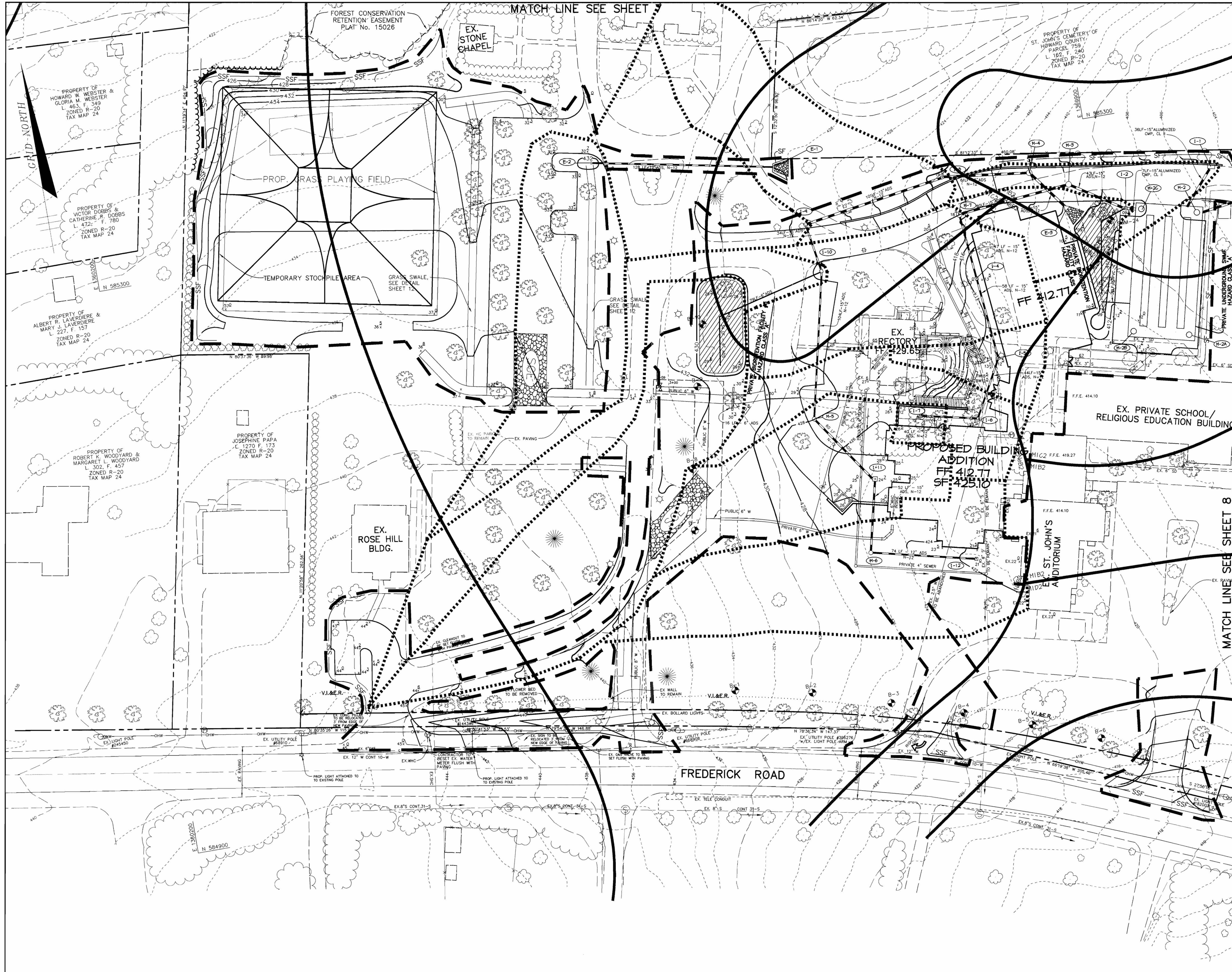
DESIGNED BY: M.N.R.  
DRAWN BY: DAM  
CHECKED BY:  
PROJECT NO: 00286  
DATE: OCTOBER 26, 2001  
SCALE: 1" = 30'  
DRAWING NO. 4 OF 25

CHRISTOPHER J. REID #19949









**LEGEND**

EXISTING TREENLINE	
PROPOSED TREENLINE	
DRAINAGE AREA LINES	
LIMIT OF DISTURBANCE	
SUPER SILT FENCE	
SILT FENCE	
STABILIZED CONSTRUCTION ENTRANCE	
VEHICULAR INGRESS & EGRESS RESTRICTED	
FOREST CONSERVATION ESMT	

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*William R. Shiplin* 10/26/01  
DEVELOPER DATE

BY THE ENGINEER :

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Chris J. Reid* 10-26-01  
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

*Jim Myers* 11/6/01  
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

*John Robertson* 11/6/01  
HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Paul A. Rantz* 11/26/01  
DIRECTOR DATE

*Chris Dammus* 11/16/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

*Andy Hunter* 11/21/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO.	REVISION

OWNER / DEVELOPER

THE VESTRY AT ST. JOHN'S CHURCH  
QUEEN CAROLINE PARISH  
ALSO KNOWN AS  
ST. JOHN'S EPISCOPAL CHURCH  
9120 FREDERICK ROAD  
ELlicOTT CITY, MARYLAND 21042

PROJECT ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION

AREA ZONED R-20  
PARCEL 103 & 535 - TAX MAP 24  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE GRADING, SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP

**RIEMER MUEGGE**  
a division of:

**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

10-26-01 DATE  
DESIGNED BY : M.N.R.  
DRAWN BY: DAM  
CHECKED BY:  
PROJECT NO : 00286  
SDP10.DWG  
DATE : OCTOBER 26, 2001  
SCALE : 1" = 30'  
DRAWING NO. 6 OF 25

*Christopher J. Reid*  
CHRISTOPHER J. REID #19949  
STATE OF MARYLAND PROFESSIONAL ENGINEER

D:\PROJECT\00286\SDP10.dwg Wed Oct 31 08:30:00 2001 Riemer Muegge, a division of PHRPA



**LEGEND**

EXISTING 2' CONTOUR	---	300
EXISTING 10' CONTOUR	---	300
PROPOSED 2' CONTOUR	---	300
PROPOSED 10' CONTOUR	---	300
PROPERTY LINE AND RIGHT OF WAY	---	
EASEMENT	---	
FENCE	---	
STORM DRAIN	---	15" D
OVERHEAD WIRES	---	OHW
EXISTING TREELINE	---	
PROPOSED TREELINE	---	
DRAINAGE AREA LINES	---	L.O.D.
LIMIT OF DISTURBANCE	---	
SUPER SILT FENCE	---	SSF
SILT FENCE	---	SF
STABILIZED CONSTRUCTION ENTRANCE	---	
FOREST CONSERVATION ESMT	---	



BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*William R. Stiff* 10/24/01  
DEVELOPER DATE

BY THE ENGINEER :

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Christopher J. Reid* 10.25.01  
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

*Jim Myers* 11/6/01  
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

*John Robertson* 11/6/01  
HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James K. Kutt* 11/20/01  
DIRECTOR DATE

*William D. Dammann* 11/16/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

*Wanda Hamstra* 11/2/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER / DEVELOPER  
THE VESTRY AT ST. JOHN'S CHURCH  
QUEEN CAROLINE PARISH  
ALSO KNOWN AS  
ST. JOHN'S EPISCOPAL CHURCH  
9120 FREDERICK ROAD  
ELLCOTT CITY, MARYLAND 21042

PROJECT ST. JOHN'S EPISCOPAL CHURCH  
EDUCATION AND MULTIPURPOSE ROOM EXPANSION

AREA ZONED R-20  
PARCEL 103 & 535 TAX MAP 24  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE  
**GRADING, SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP**

RIEMER MUEGGE  
a division of  
Patton Harris Rust & Associates, pc  
ENGINEERS & SURVEYORS & PLANNERS  
LANDSCAPE ARCHITECTS & ENVIRONMENTAL SPECIALISTS  
8818 Centre Park Drive, Columbia, MD 21045 • Tel 410.997.8600 Fax 410.997.9282

10.25.01  
DATE

DESIGNED BY : M.N.R.

DRAWN BY : DAM

CHECKED BY :

PROJECT NO : 00286  
SDP11.DWG

DATE : OCTOBER 26, 2001

SCALE : 1" = 30'

DRAWING NO. 7 OF 25

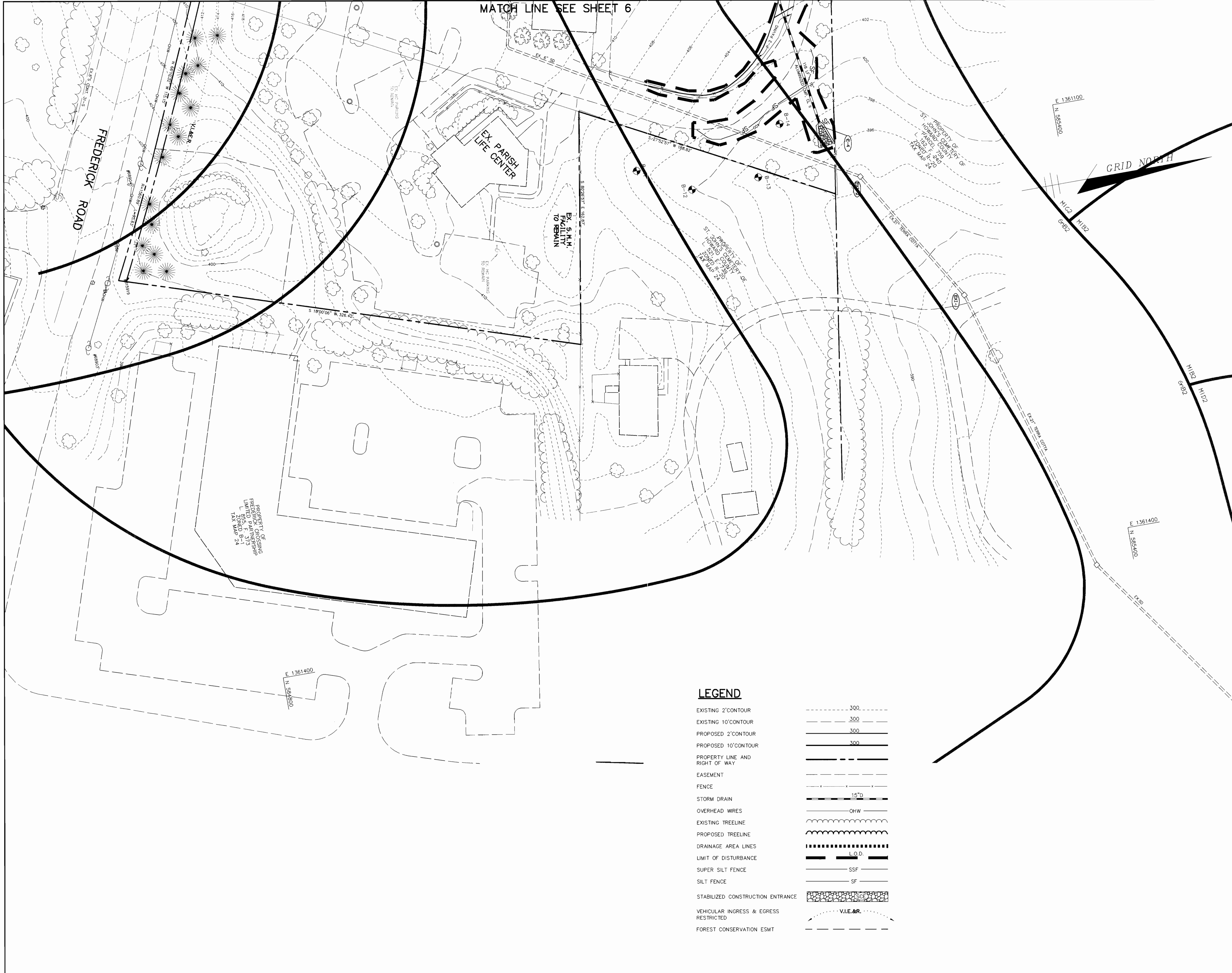
*Christopher J. Reid*  
CHRISTOPHER J. REID #19949



MATCH LINE SEE SHEET 6



MATCH LINE SEE SHEET 6



**LEGEND**

EXISTING 2' CONTOUR	---	300
EXISTING 10' CONTOUR	---	300
PROPOSED 2' CONTOUR	---	300
PROPOSED 10' CONTOUR	---	300
PROPERTY LINE AND RIGHT OF WAY	---	
EASEMENT	---	
FENCE	---	
STORM DRAIN	---	15"Ø
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EXISTING TREELINE	---	
PROPOSED TREELINE	---	
DRAINAGE AREA LINES	---	
LIMIT OF DISTURBANCE	---	L.O.D.
SUPER SILT FENCE	---	SSF
SILT FENCE	---	SF
STABILIZED CONSTRUCTION ENTRANCE	---	
VEHICULAR INGRESS & EGRESS RESTRICTED	---	V.I.E.&R.
FOREST CONSERVATION ESMT	---	

BY THE DEVELOPER :

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*William R. Stapp* 10/24/01  
DEVELOPER DATE

BY THE ENGINEER :

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Chad J. Reid* 10/25/01  
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

*Jim Myers* 11/6/01  
NATURAL RESOURCES CONSTRUCTION SERVICE DATE

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

*John R. Robertson* 11/6/01  
HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James R. Smith* 11/20/01  
DIRECTOR DATE

*Abdul D. Williams* 11/16/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

*Cindy Hanate* 11/29/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	NO.	REVISION

OWNER / DEVELOPER  
THE VESTRY AT ST. JOHN'S CHURCH  
QUEEN CAROLINE PARISH  
ALSO KNOWN AS  
ST. JOHN'S EPISCOPAL CHURCH  
9120 FREDERICK ROAD  
ELLCOTT CITY, MARYLAND 21042

PROJECT ST. JOHN'S EPISCOPAL CHURCH  
EDUCATION AND MULTIPURPOSE  
ROOM EXPANSION

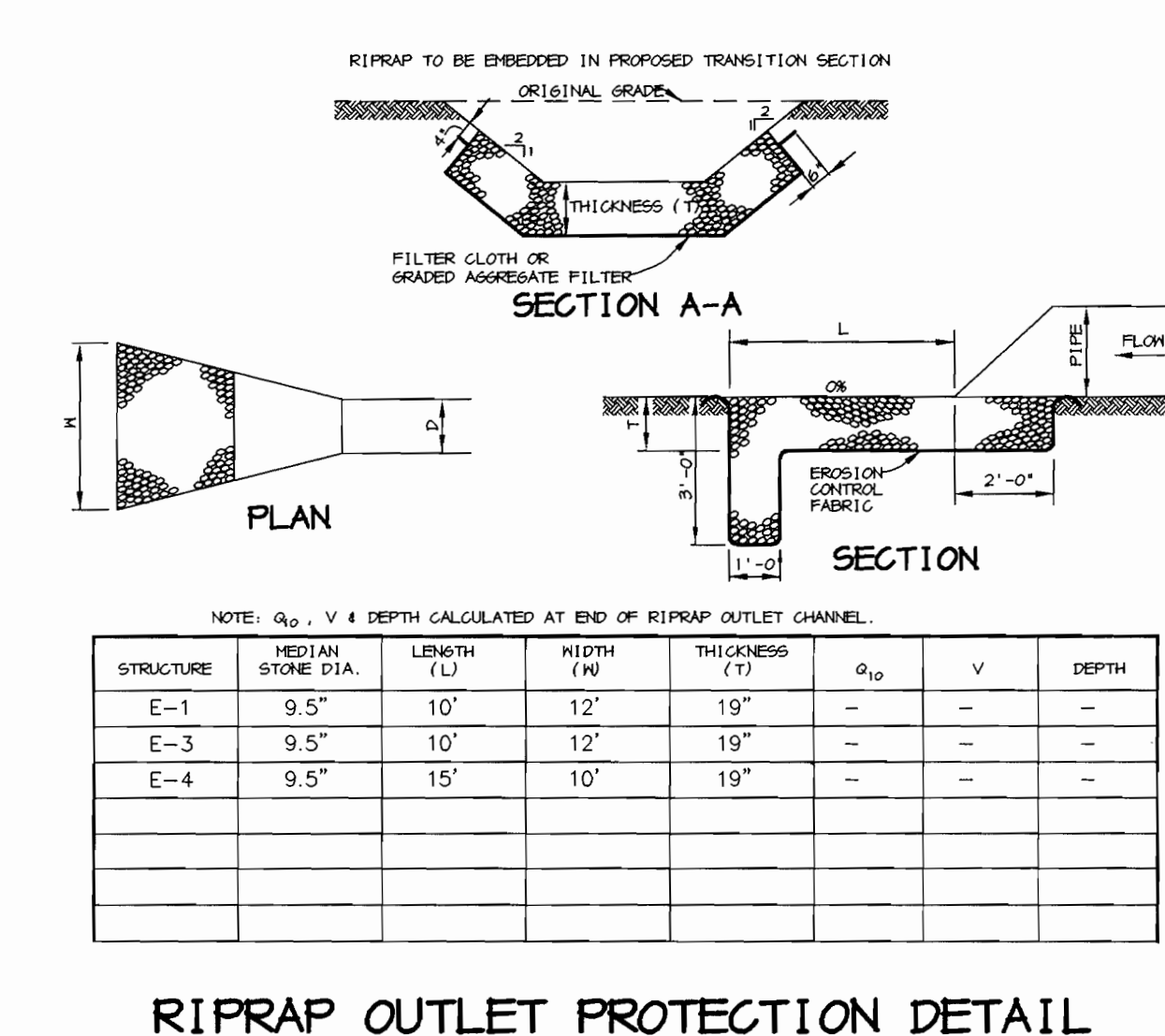
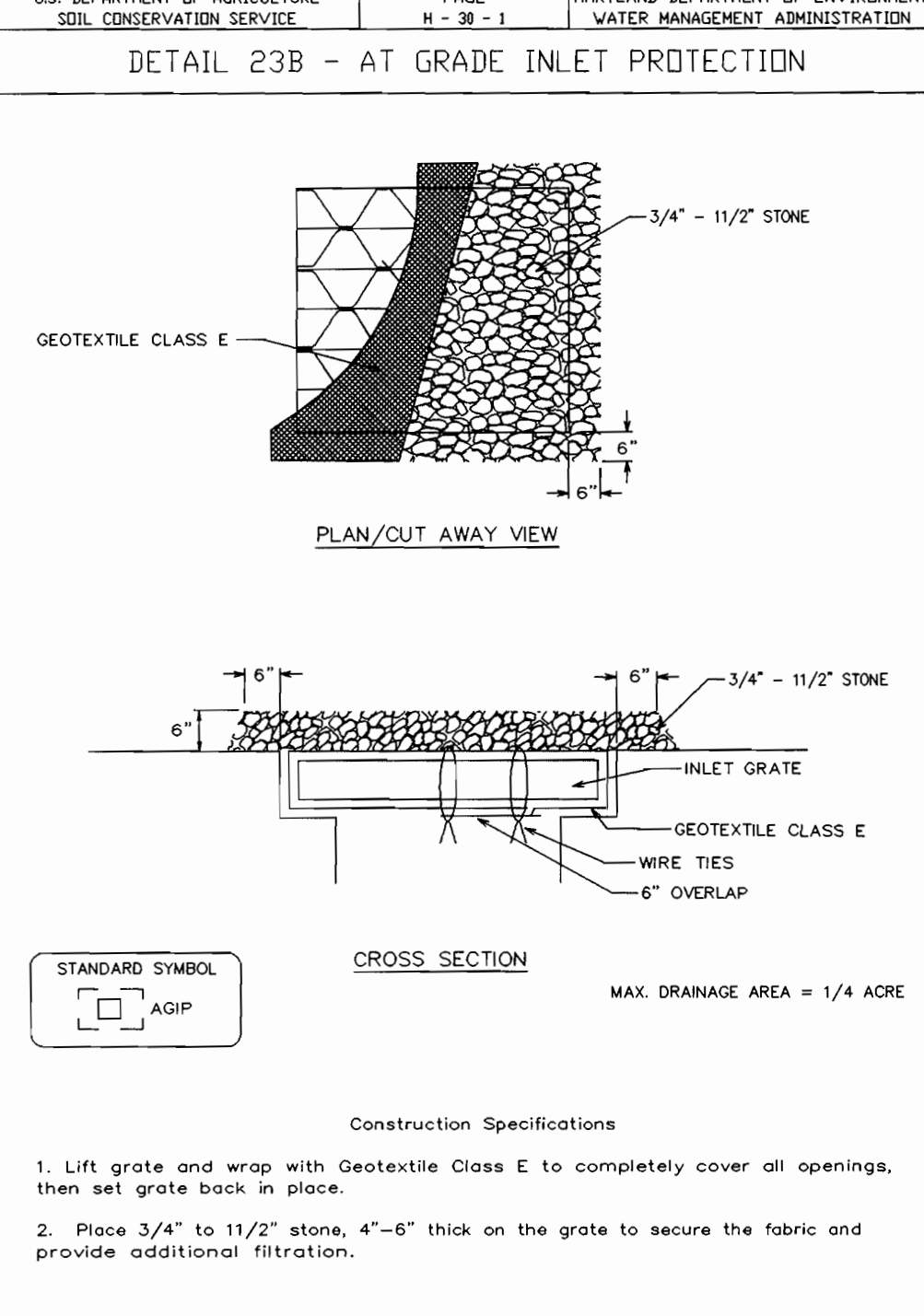
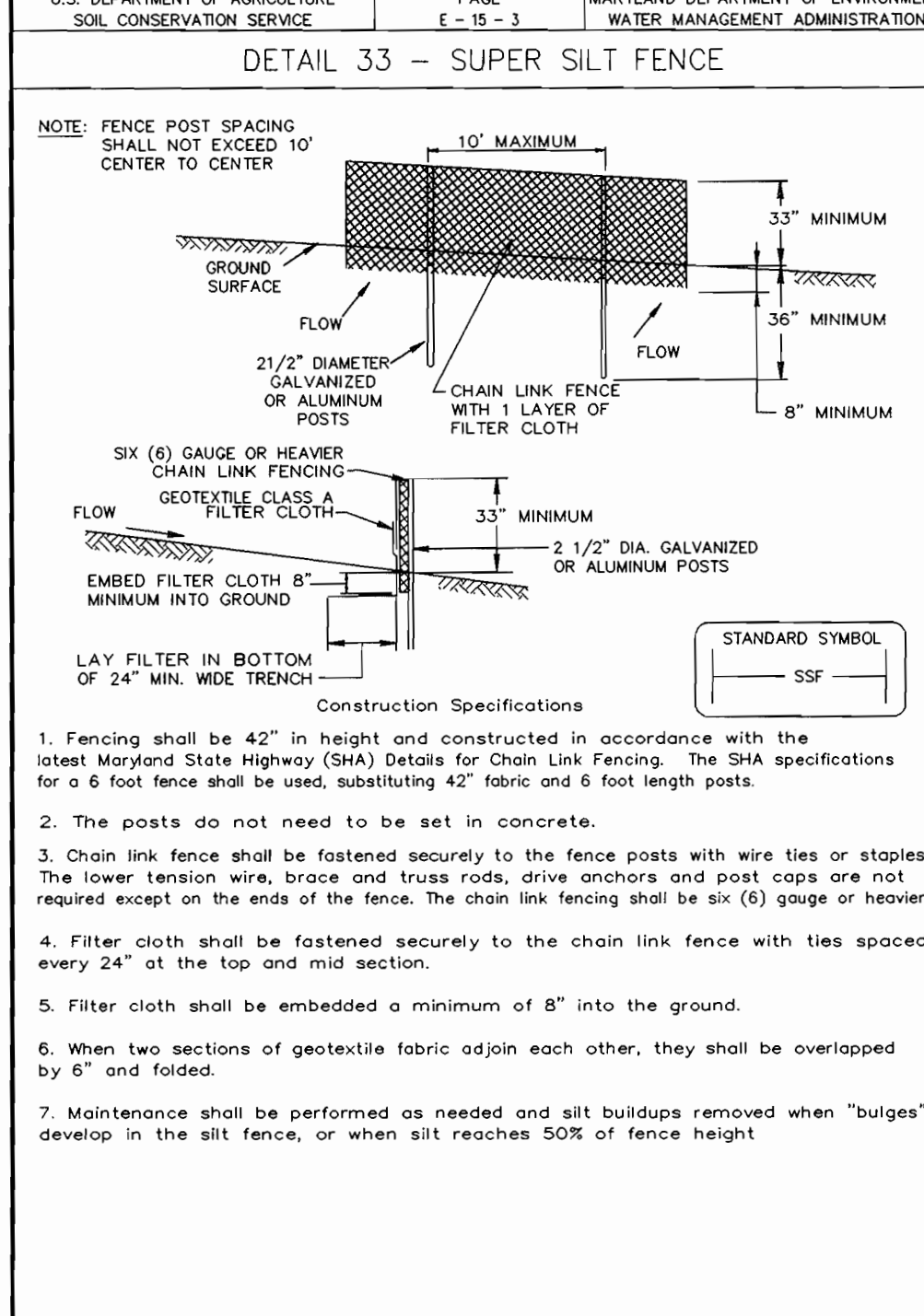
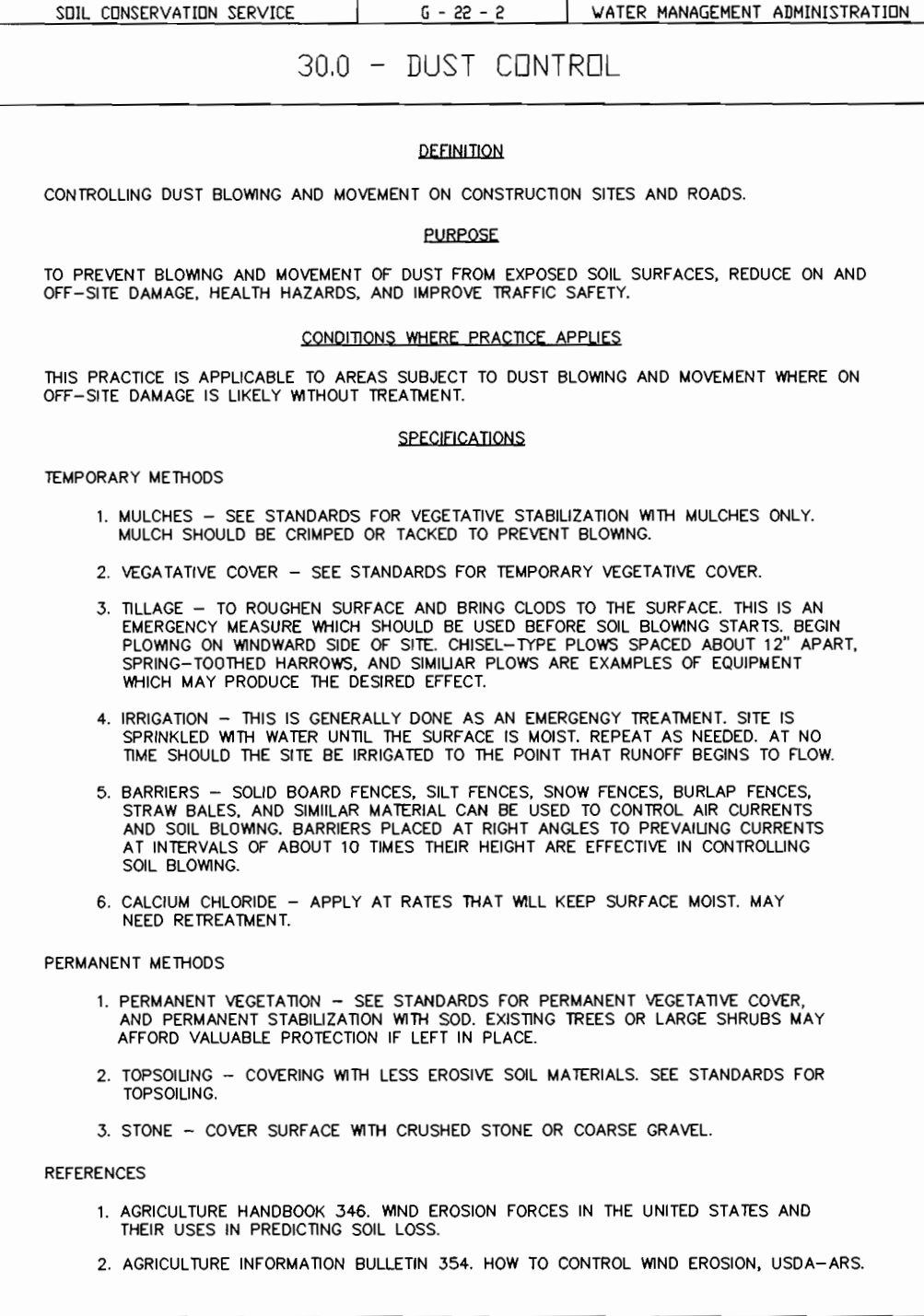
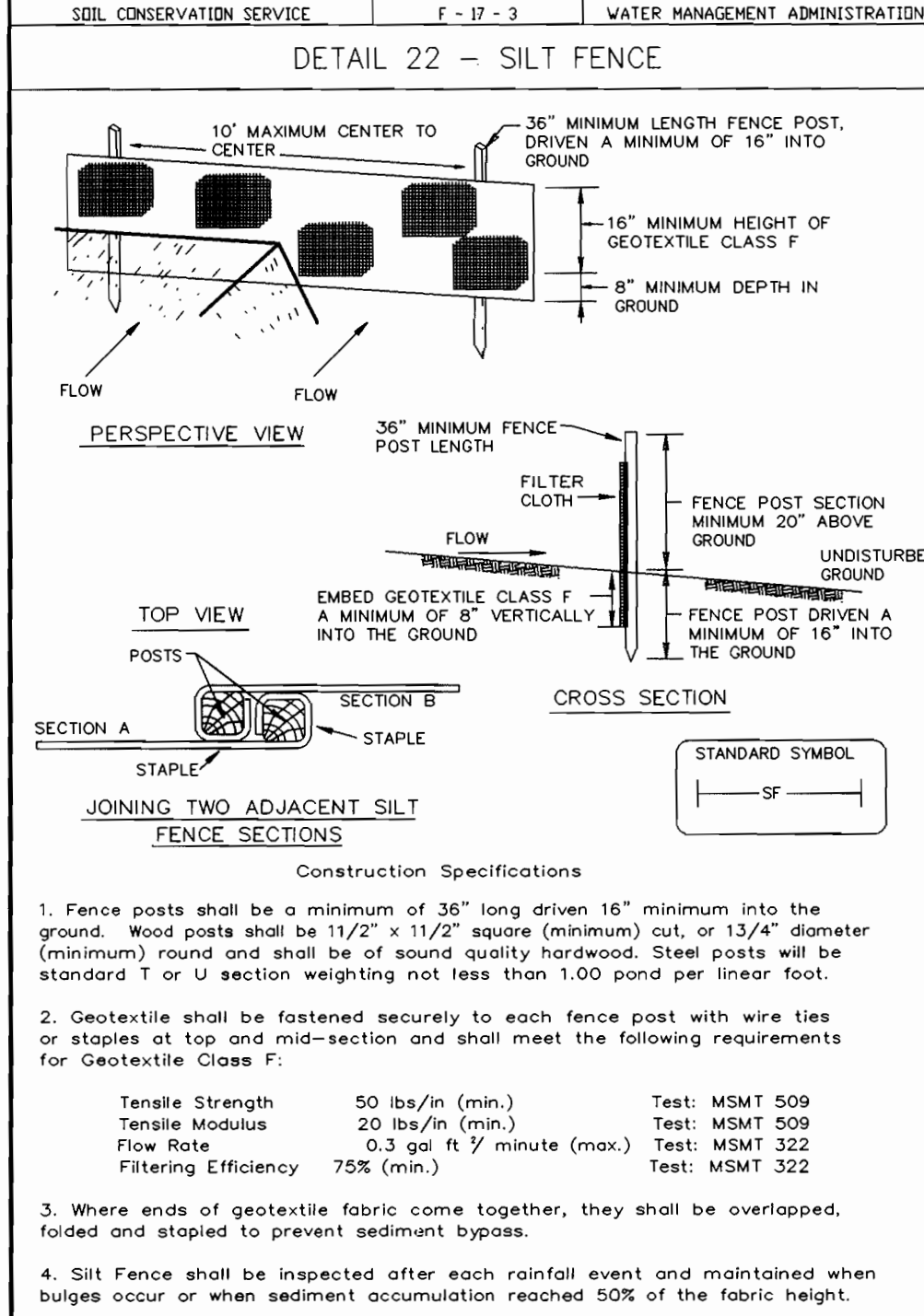
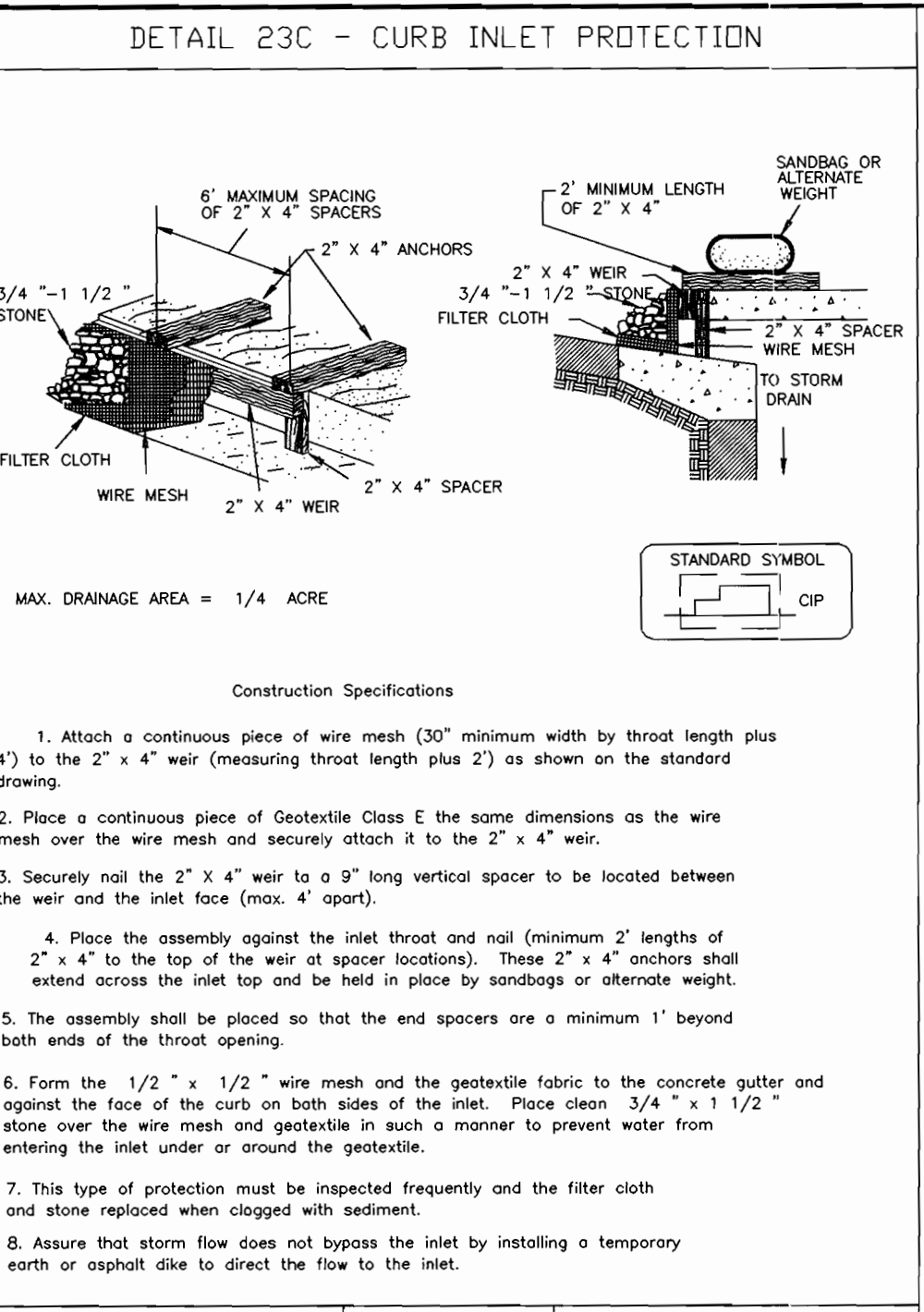
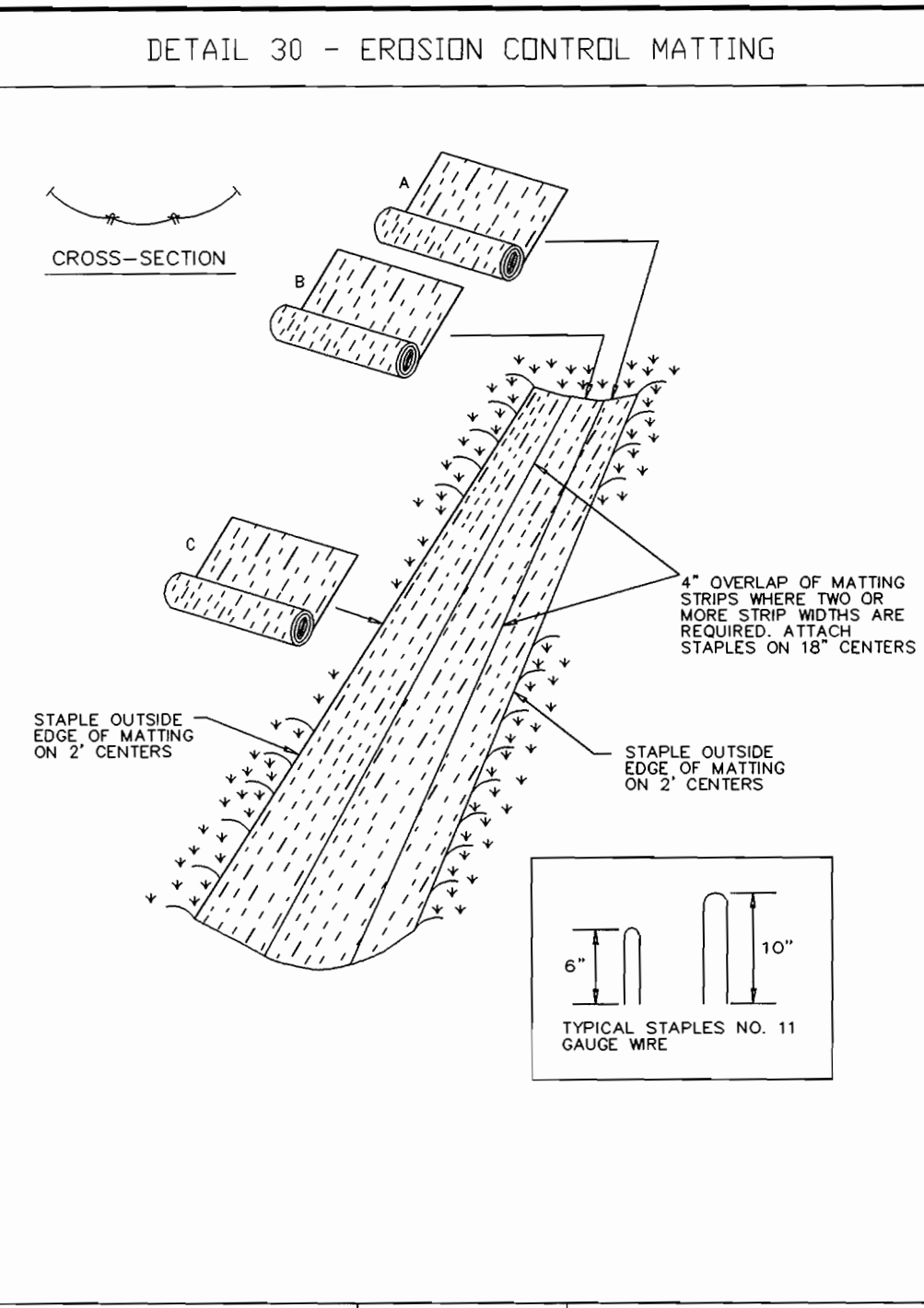
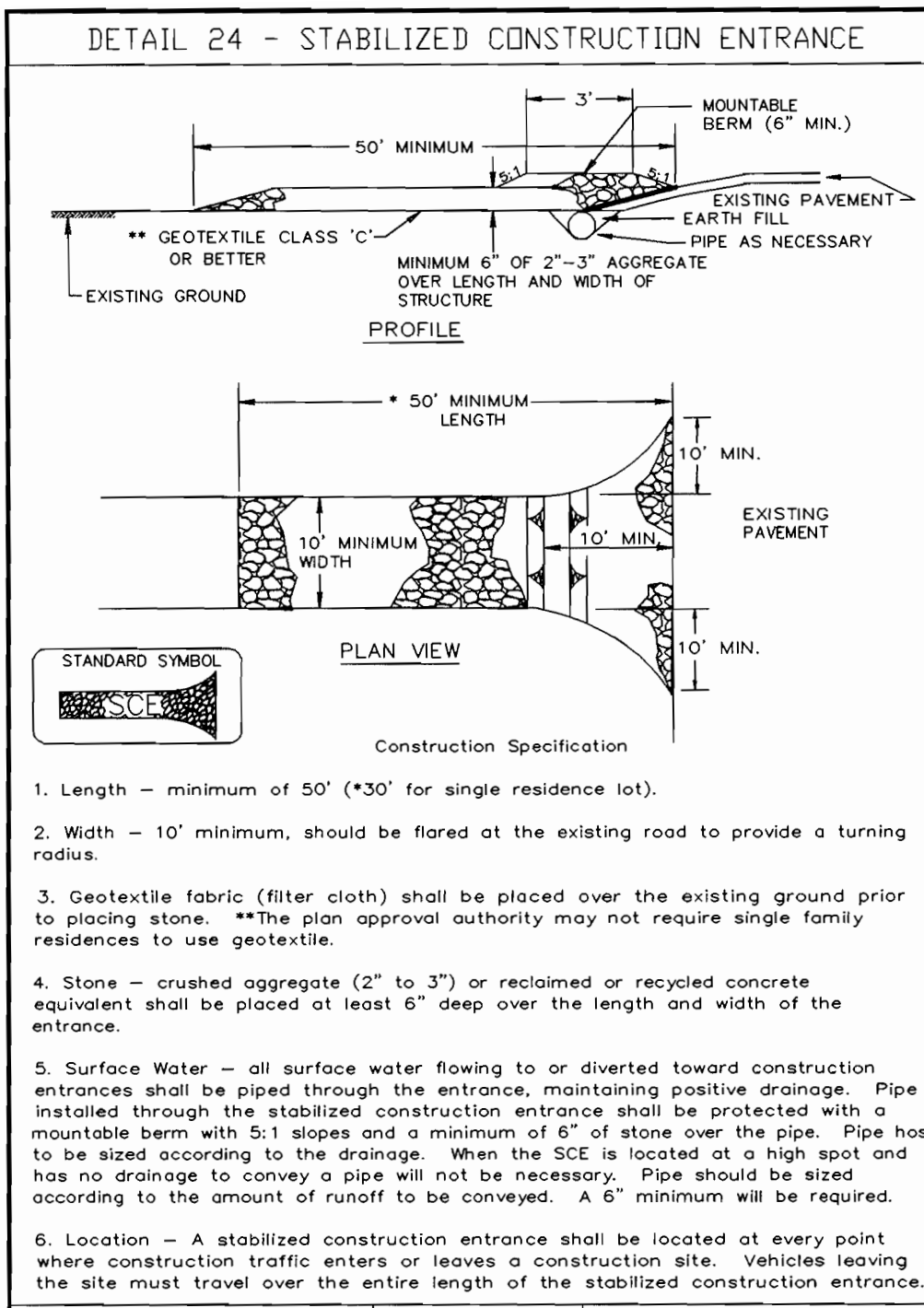
AREA  
PARCEL 103 & 535 TAX MAP 24  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE  
**GRADING, SEDIMENT CONTROL PLAN  
AND DRAINAGE AREA MAP**  
RIEMER MUEGGE  
a division of:  
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8818 Centre Park Drive, Columbia, MD 21045 • Tel 410.997.8900 Fax 410.997.9282

10/25/01  
DATE  
DESIGNED BY : M.N.R.  
DRAWN BY : DAM  
CHECKED BY :  
PROJECT NO : 00286  
SDP12.DWG  
DATE : OCTOBER 26, 2001  
SCALE : 1" = 30'  
DRAWING NO. 8 OF 25

*Christopher J. Reid*  
CHRISTOPHER J. REID #19949





NOTE: Q<sub>10</sub>, V<sub>1</sub> DEPTH CALCULATED AT END OF RIPRAP OUTLET CHANNEL.

STRUCTURE	MEDIAN STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)	Q <sub>10</sub>	V <sub>1</sub>	DEPTH
E-1	9.5"	10'	12'	19"	-	-	-
E-3	9.5"	10'	12'	19"	-	-	-
E-4	9.5"	15'	10'	19"	-	-	-

BY THE DEVELOPER :

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*William R. Slipp* / 10/26/01  
DEVELOPER DATE

BY THE ENGINEER :

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Christopher J. Reid* / 10.25.01  
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

*Jim Meyer* / 11/6/01  
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

*John R. DeLorenzo* / 11/6/01  
HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Joseph A. Smith* / 11/20/01  
DIRECTOR DATE

*Chris Drummond* / 11/16/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

*Chris Drummond* / 11/20/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

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PROJECT  
ST. JOHN'S EPISCOPAL CHURCH  
EDUCATION AND MULTIPURPOSE  
ROOM EXPANSION

AREA  
ZONED R-20  
PARCEL 103 & 535 TAX MAP 24  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE  
SEDIMENT CONTROL DETAILS

**RIEMER MUEGGE**  
a division of:  
**Patton Harris Rust & Associates, pc**  
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10.25.01  
DATE

DESIGNED BY : M.N.R.  
DRAWN BY: DAM  
CHECKED BY:  
PROJECT NO : 00286  
SDP6.DWG  
DATE : OCTOBER 26, 2001  
SCALE : AS SHOWN  
DRAWING NO. 9 OF 25

*Christopher J. Reid*  
CHRISTOPHER J. REID #19949



MD-370 STANDARDS AND SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-370. All references to ASTM and ASHTO specifications apply to the most recent version.

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Grassy banks and stone 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, fence, rubble and other material. The clearing shall be finished to the grade of 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.

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 of, CL, CH, or CL, and must have at least 50% passing the #20 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.

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

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment on compaction shall be achieved by a minimum of four complete passes of a caterpillar, rubber tire 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 98% of maximum dry density with a moisture content within 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by the ASTM Method (D-1557).

Cutoff 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 maximum 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 to 1 slope. 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.

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 to exceed those of the embankment. The material shall be placed in horizontal layers to exceed those of the embankment. The material shall be placed in horizontal layers to exceed those of the embankment. The material shall be placed in horizontal layers to exceed those 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 to exceed those of the embankment. The material shall be placed in horizontal layers to exceed those of the embankment. The material shall be placed in horizontal layers to exceed those of the embankment.

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21.0 STANDARD AND SPECIFICATIONS

FOR TOPSOIL

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

Conditions These Practice Applies

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

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

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

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

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

For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization.

Construction and Material Specifications

Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications.

Topsoil Specifications - Soil to be used as topsoil must meet the following:

i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority.

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

iii. Where subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

iv. For sites having disturbed areas under 5 acres:

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

2. For sites having disturbed areas over 5 acres:

a. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:

b. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.

c. Organic content of topsoil shall be not less than 1.5 percent by weight.

d. Topsoil having soluble salt content greater than 500 parts per million shall not be used.

e. No seed or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.

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

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

Topsoil Application

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

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

Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that seeding or sodding can proceed with a minimum of additional soil preparation and tillage.

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

Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:

a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.

b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 9.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.

c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.

d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Seeding, MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes, Revised 1973.

STANDARD SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (813-1855).

2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF.

3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 30 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES, AND ALL SLOPES STEEPER 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 THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS, SOD, TEMPORARY SEEDINGS, AND MULCHING (SEC. 6.). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHED 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:

Table with 2 columns: ANALYSIS OF SITE, AREA DISTURBED, AREA TO BE ROOFED OR PAVED, AREA TO BE VEGETATIVELY STABILIZED, TOTAL CUT, TOTAL FILL. Values include 13.7 ACRES, 5.0 ACRES, 1.5 ACRES, 19.5 ACRES, 15000 CU. YARDS, 15000 CU. YARDS.

8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROL, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

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.

12. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.

13. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.

14. CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT.

2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE AND SUPER SILT FENCE. (1 MONTH)

3. BEGIN CLEARING, PERFORM ROUGH GRADING AND BEGIN BUILDING CONSTRUCTION. (4 WEEKS)

4. AS SUBGRADE ELEVATIONS ARE ESTABLISHED, INSTALL STORM DRAINS, WATER, SEWER AND INLET PROTECTION. (4 WEEKS)

5. INSTALL CURB AND GUTTER AND PAVE ROADWAYS. (2 WEEKS)

6. APPLY TOPSOIL AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (1 WEEK)

7. PERFORM FINE GRADING, LANDSCAPING, AND SIDEWALKS. (3 WEEKS)

8. COMPLETE BUILDING CONSTRUCTION. (4 MONTHS)

9. UPON PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (2 WEEKS)

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Iselin R. Stille, DEVELOPER, 10/21/01 DATE

BY THE ENGINEER :

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Chute & Rea, ENGINEER, 10.25.01 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Jim M. Myers, NATURAL RESOURCES CONSERVATION SERVICE, 11/6/01 DATE

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

John R. Robertson, HOWARD SOIL CONSERVATION DISTRICT, 11/6/01 DATE

AS BUILT CERTIFICATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Director, 11/20/01 DATE

Chief, Development Engineering Division MK, 11/16/01 DATE

Chief, Division of Land Development, 11/20/01 DATE

OWNER / DEVELOPER: THE VESTRY AT ST. JOHN'S CHURCH, QUEEN CAROLINE PARISH, ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH, 9120 FREDERICK ROAD, ELLICOTT CITY, MARYLAND 21042

PROJECT: ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION

AREA: ZONED R-20, PARCEL 103 & 535 TAX MAP 24, 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

TITLE: SEDIMENT CONTROL NOTES

RIEMER MUEGGE, a Division of Patton Harris Rust & Associates, pc

ENGINEERS • SURVEYORS • PLANNERS, LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS, 8818 Centre Park Drive, Columbia, MD 21045, tel 410.987.8800, fax 410.987.9282

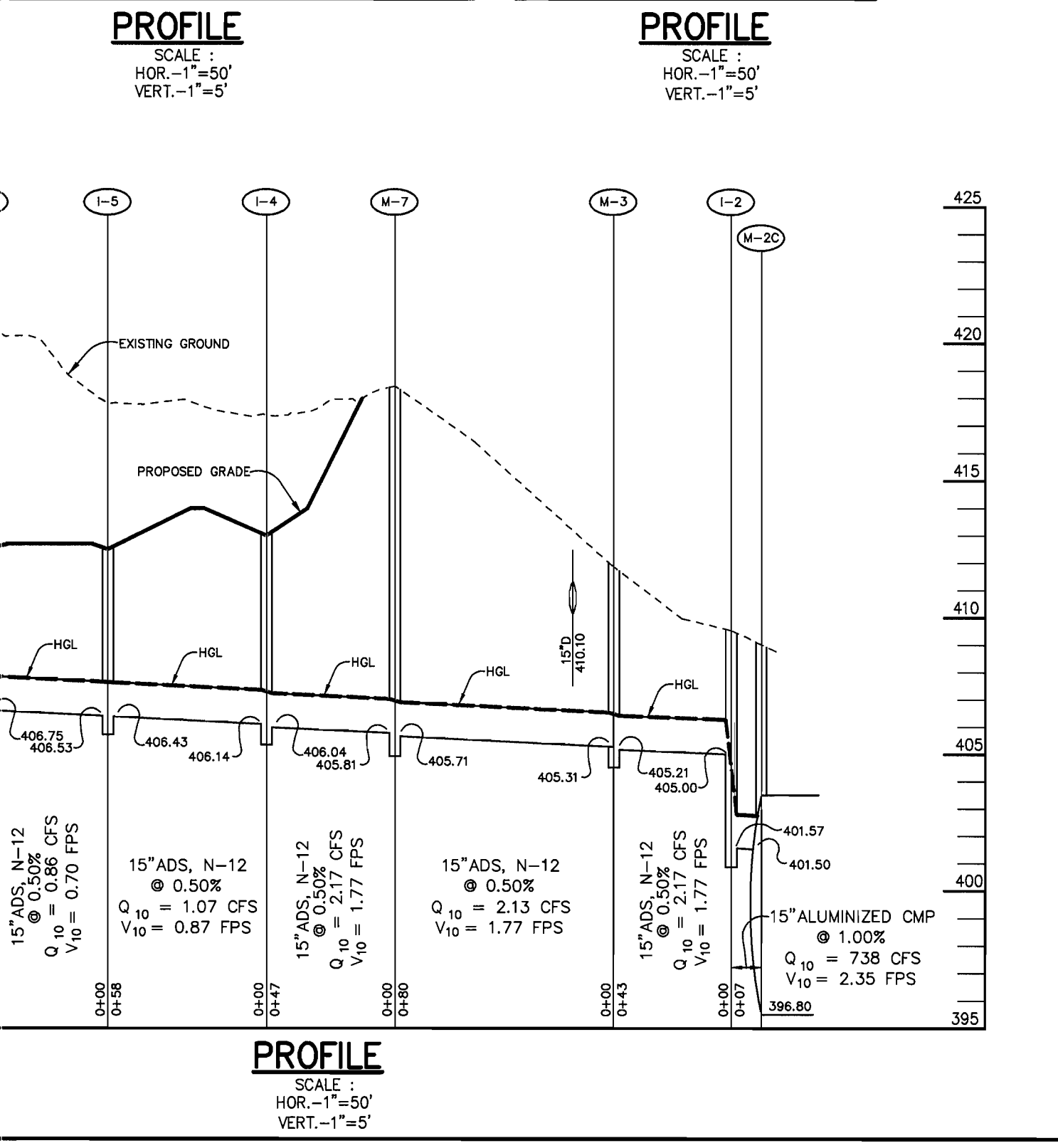
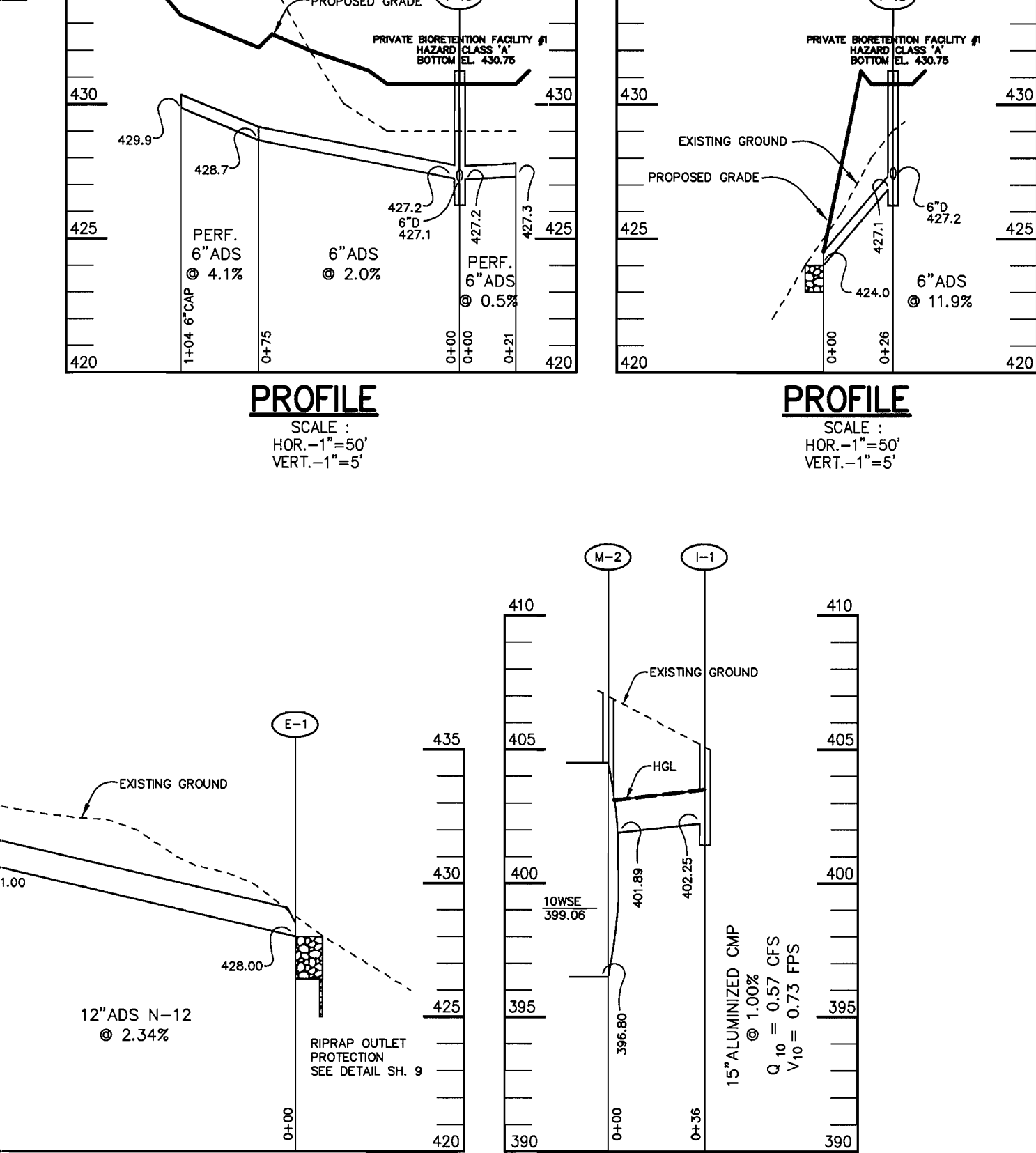
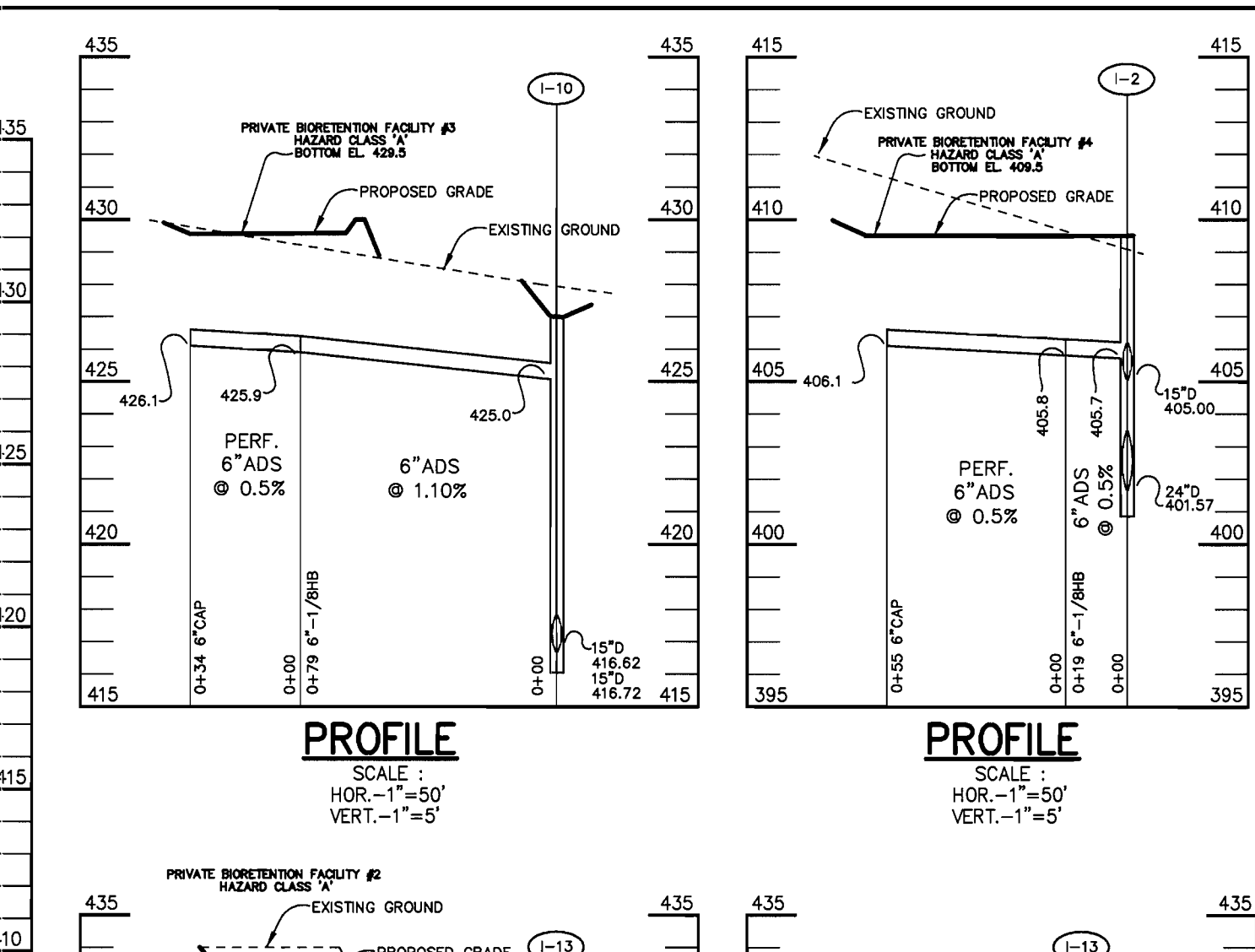
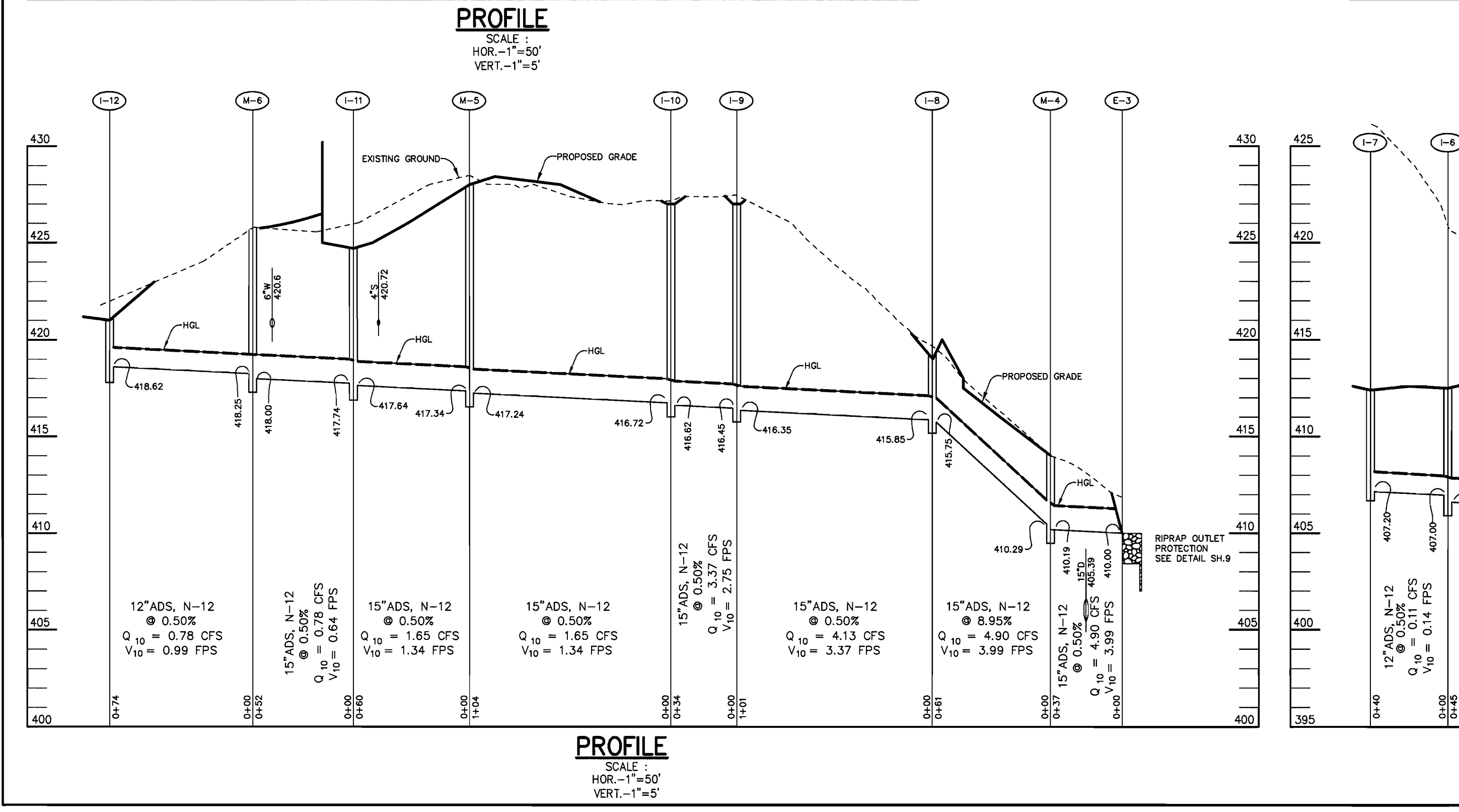
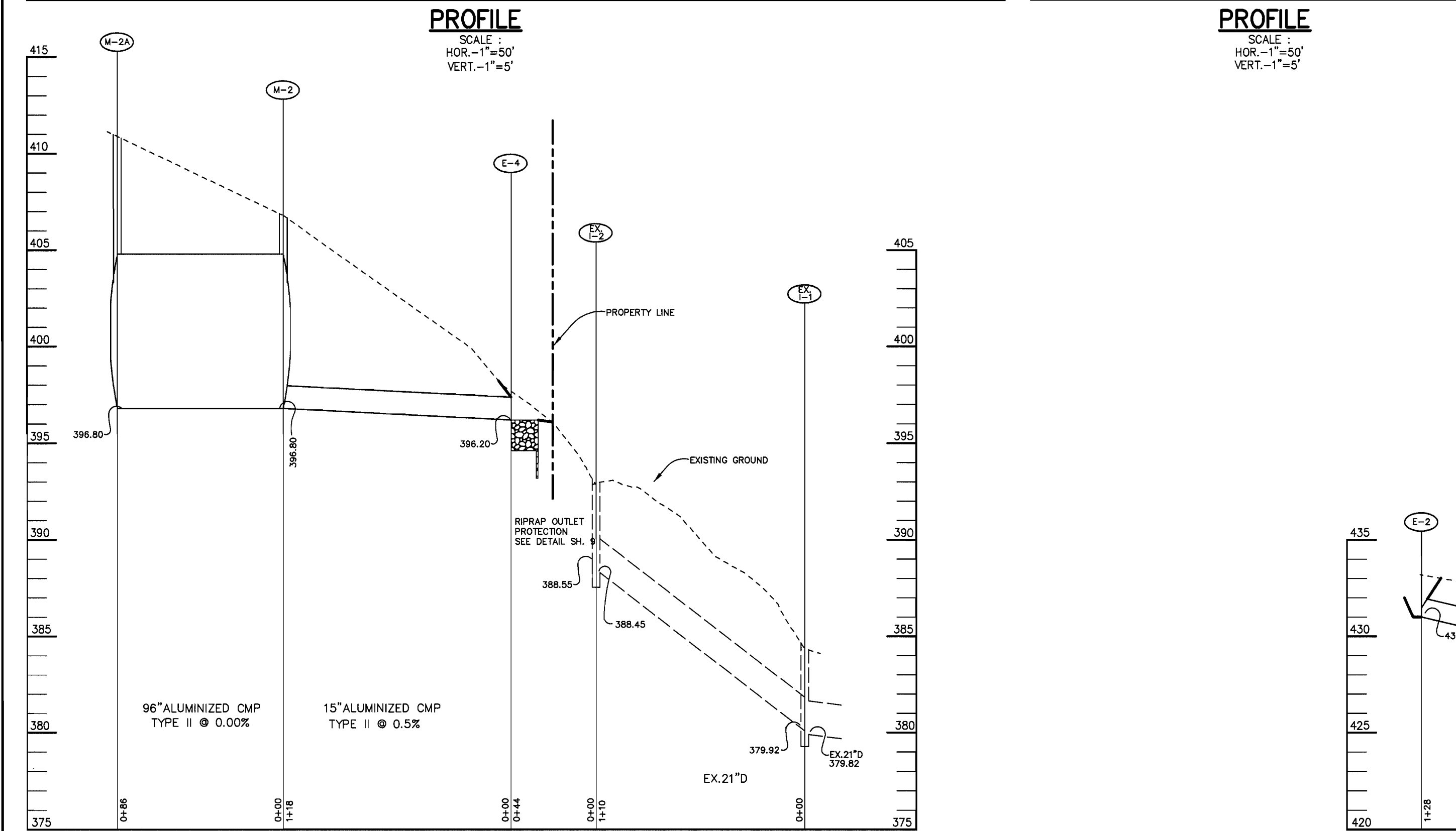
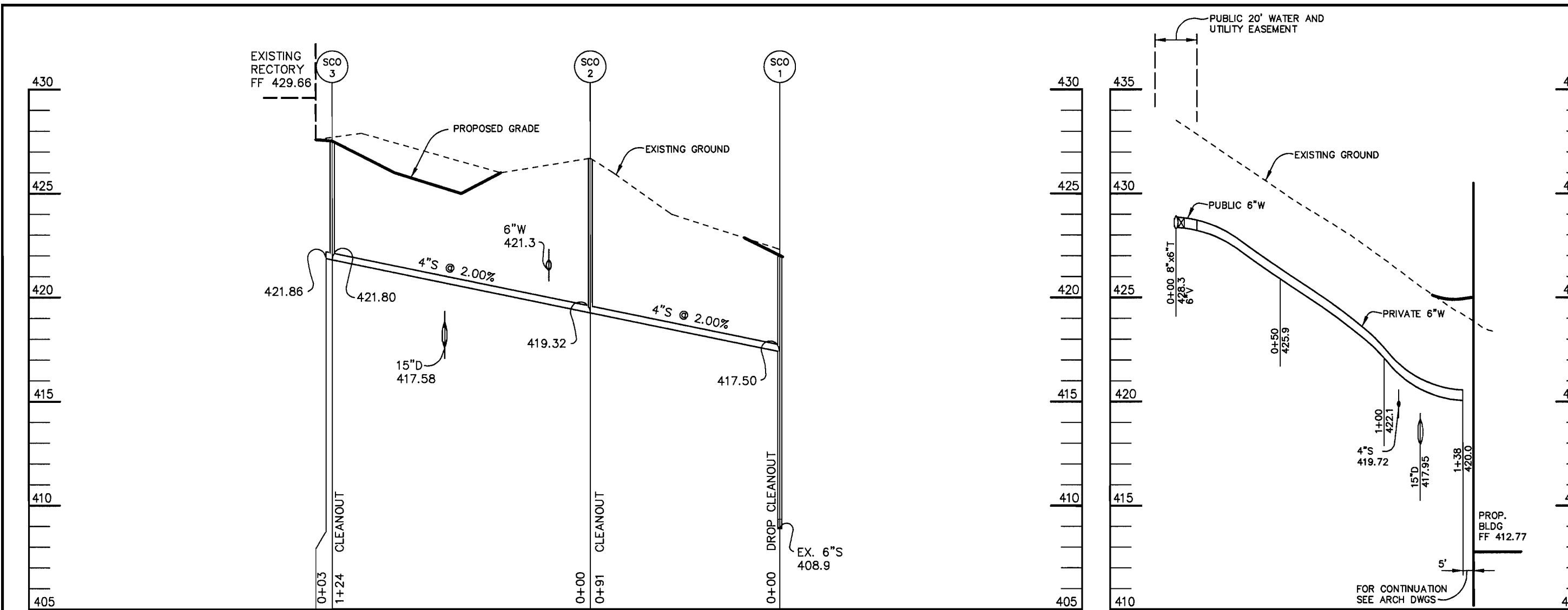
DESIGNED BY : M.N.R., DRAWN BY: DAM, CHECKED BY:

PROJECT NO : 00286 SDP7.DWG, DATE : OCTOBER 26, 2001

SCALE : AS SHOWN, DRAWING NO. 10 OF 25

STATE OF MARYLAND PROFESSIONAL ENGINEER REGISTERED, CHRISTOPHER J. REID #19949





### STRUCTURE SCHEDULE

STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
I-1	S COMB	N 585252 E 1360983	-	402.25	405.4	HOCO STD. DETAIL SD-4.32
I-2	S	N 585232 E 1360918	405.00 (15") 405.70 (6")	401.57	409.5	HOCO STD. DETAIL SD-4.22
I-4	S	N 585202 E 1360807	406.14	406.04	413.0	HOCO STD. DETAIL SD-4.22
I-5	S	N 585145 E 1360812	406.53	406.43	412.5	HOCO STD. DETAIL SD-4.22
I-6	S	N 585105 E 1360791	407.00	406.75	412.5	HOCO STD. DETAIL SD-4.22
I-7	S	N 585114 E 1360752	-	407.20	412.4	HOCO STD. DETAIL SD-4.22
I-8	S	N 585276 E 1360795	415.85	415.75	419.0	HOCO STD. DETAIL SD-4.22
I-9	S	N 585260 E 1360695	416.45	416.35	427.0	HOCO STD. DETAIL SD-4.22
I-10	S	N 585226 E 1360701	416.72 (15") 425.00 (6")	416.62	427.0	HOCO STD. DETAIL SD-4.22
I-11	S	N 585076 E 1360713	417.74	417.64	424.7	HOCO STD. DETAIL SD-4.22
I-12	S	N 585009 E 1360773	-	418.62	421.0	HOCO STD. DETAIL SD-4.22
I-13	S	N 585704 E 1360644	427.2 (6") 427.2 (6")	427.1	431.25	HOCO STD. DETAIL SD-4.22
M-2	4'-0" DIA.	N 585221 E 1360967	401.89	396.8	406.8	SEE SHEET 13
M-2A	4'-0" DIA.	N 585137 E 1360947	396.8	396.8	411.1	SEE SHEET 13
M-2B	4'-0" DIA.	N 585147 E 1360909	396.8	396.8	412.2	SEE SHEET 13
M-2C	4'-0" DIA.	N 585230 E 1360929	401.5	396.8	408.8	SEE SHEET 13
M-3	4'-0" DIA.	N 585256 E 1360882	405.31	405.21	411.9	HOCO STD. DETAIL G-5.11
M-4	4'-0" DIA.	N 585269 E 1360856	410.29	410.19	414.0	HOCO STD. DETAIL G-5.11
M-5	4'-0" DIA.	N 585125 E 1360678	417.34	417.24	428.0	HOCO STD. DETAIL G-5.11
M-6	4'-0" DIA.	N 585026 E 1360701	418.25	418.00	425.8	HOCO STD. DETAIL G-5.11
M-7	4'-0" DIA.	N 585248 E 1360803	405.81	405.71	418.4	HOCO STD. DETAIL G-5.11
E-1	12" ADS END SECTION	N 585304 E 1360681	-	428.00	-	HOCO STD. DETAIL SD-5.51
E-2	12" ADS END SECTION	N 585329 E 1360554	431.00	-	-	HOCO STD. DETAIL SD-5.51
E-3	15" ADS END SECTION	N 585239 E 1360878	-	410.00	-	HOCO STD. DETAIL SD-5.51
E-4	15" CMP END SECTION	N 585237 E 1361086	-	396.20	-	HOCO STD. DETAIL SD-5.51

NOTES: LOCATION OF INLETS AND MANHOLES IS AT CENTER OF TOP COVER; FOR "A" INLETS LOCATION IS GIVEN FOR CENTER OF THROAT OPENING AT FACE OF CURB; FOR END SECTIONS AND HEADWALLS THE LOCATION IS CENTER OF THROAT OPENING AT FACE OF STRUCTURE.

### PIPE SCHEDULE

PIPE LENGTH	SIZE	TYPE
84	6"	PERF. ADS
114	6"	ADS, N-12
242	12"	ADS, N-12
721	15"	ADS, N-12
161	15"	ALUM. CL I
7	24"	ALUM. CL I
402	46"	ALUM. CL I

### AS BUILT CERTIFICATE

DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James R. Smith* 11/20/01  
DIRECTOR DATE

*Mike D. Williams* 11/16/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

*Cindy H. Hester* 11/20/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO.	REVISION

OWNER / DEVELOPER  
THE VESTRY AT ST. JOHN'S CHURCH  
QUEEN CAROLINE PARISH  
ALSO KNOWN AS  
ST. JOHN'S EPISCOPAL CHURCH  
9120 FREDERICK ROAD  
ELLCOTT CITY, MARYLAND 21042

PROJECT  
ST. JOHN'S EPISCOPAL CHURCH  
EDUCATION AND MULTIPURPOSE  
ROOM EXPANSION

AREA  
ZONED R-20  
PARCEL 103 & 535 TAX MAP 24  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

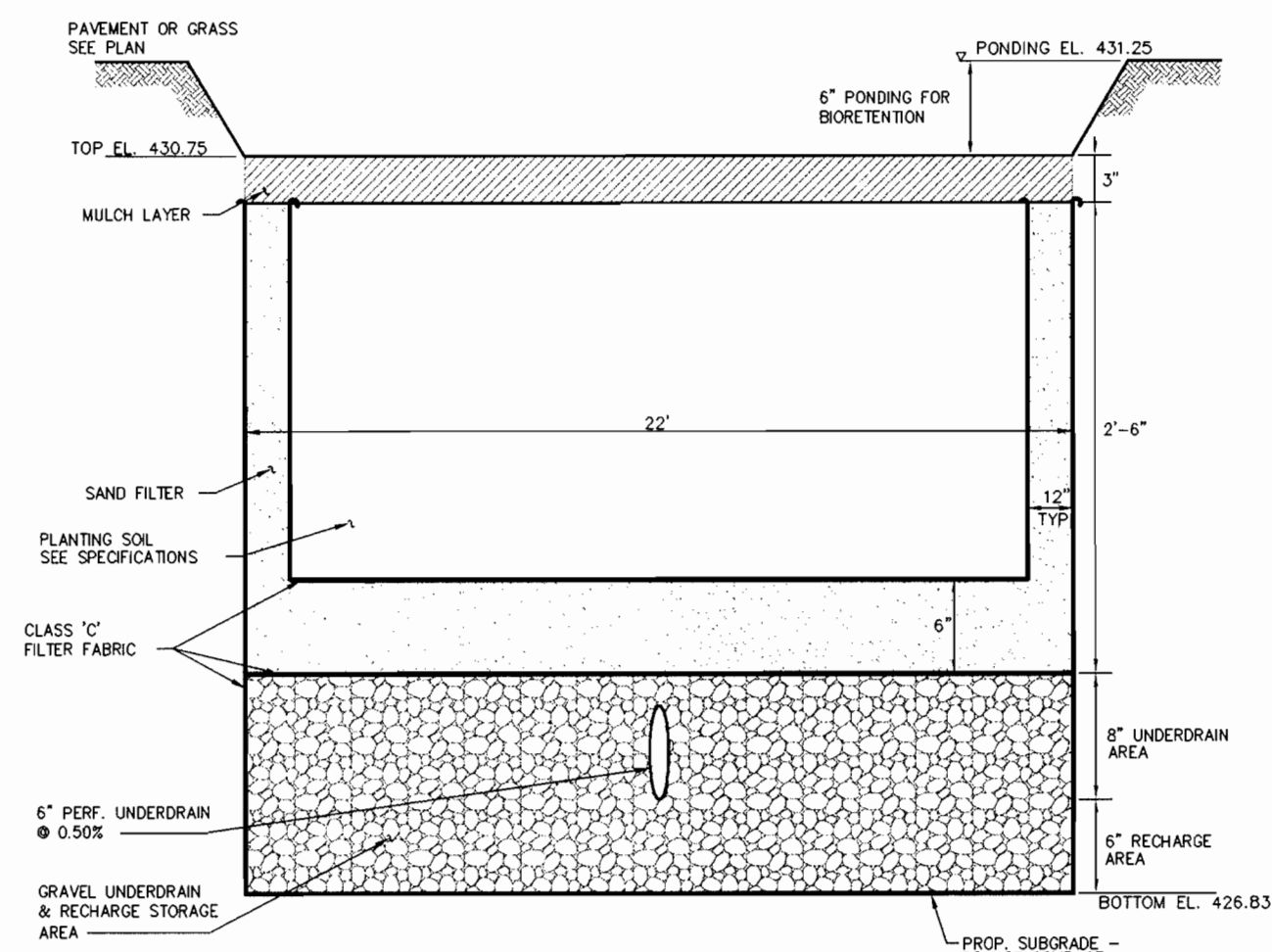
TITLE  
**PROFILES**

**RIEMER MUEGGE**  
a division of  
**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
5818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8800 fax 410.997.8282

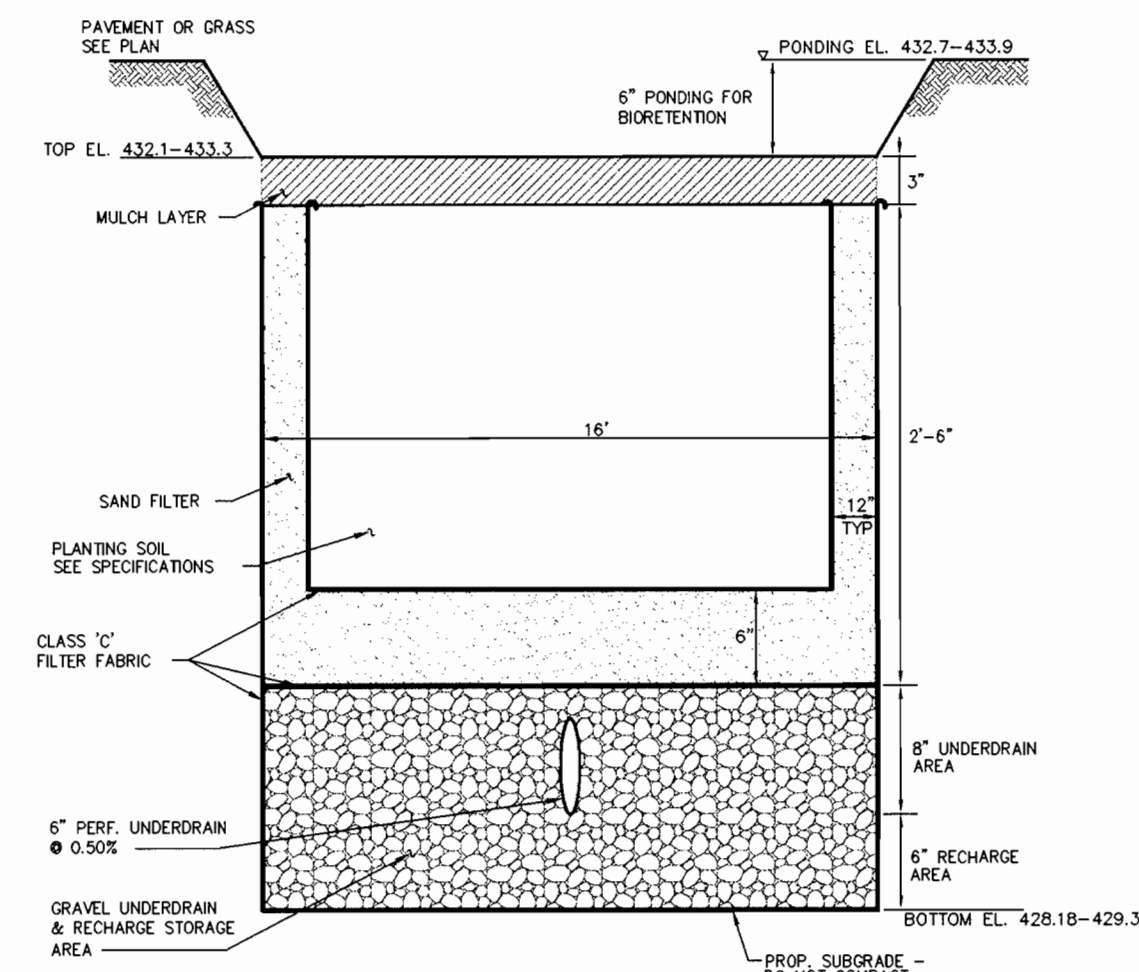
DATE 10.25.01 DESIGNED BY: M.N.R.  
DRAWN BY: DAM  
CHECKED BY:  
PROJECT NO: 00286  
SD1.DWG  
DATE: OCTOBER 26, 2001  
SCALE: AS SHOWN  
DRAWING NO. 11 OF 25

*Christopher J. Reid*  
CHRISTOPHER J. REID #19949

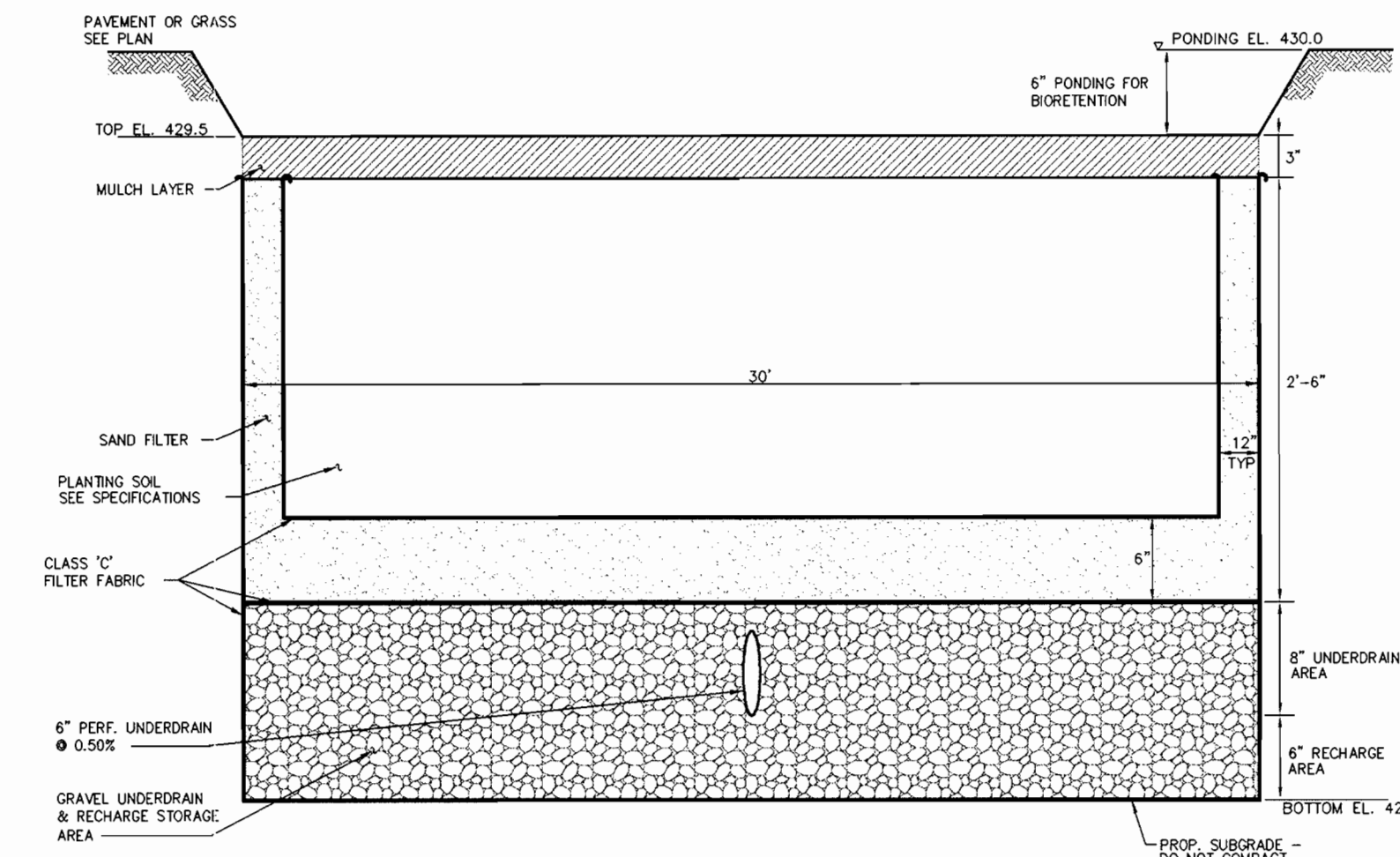




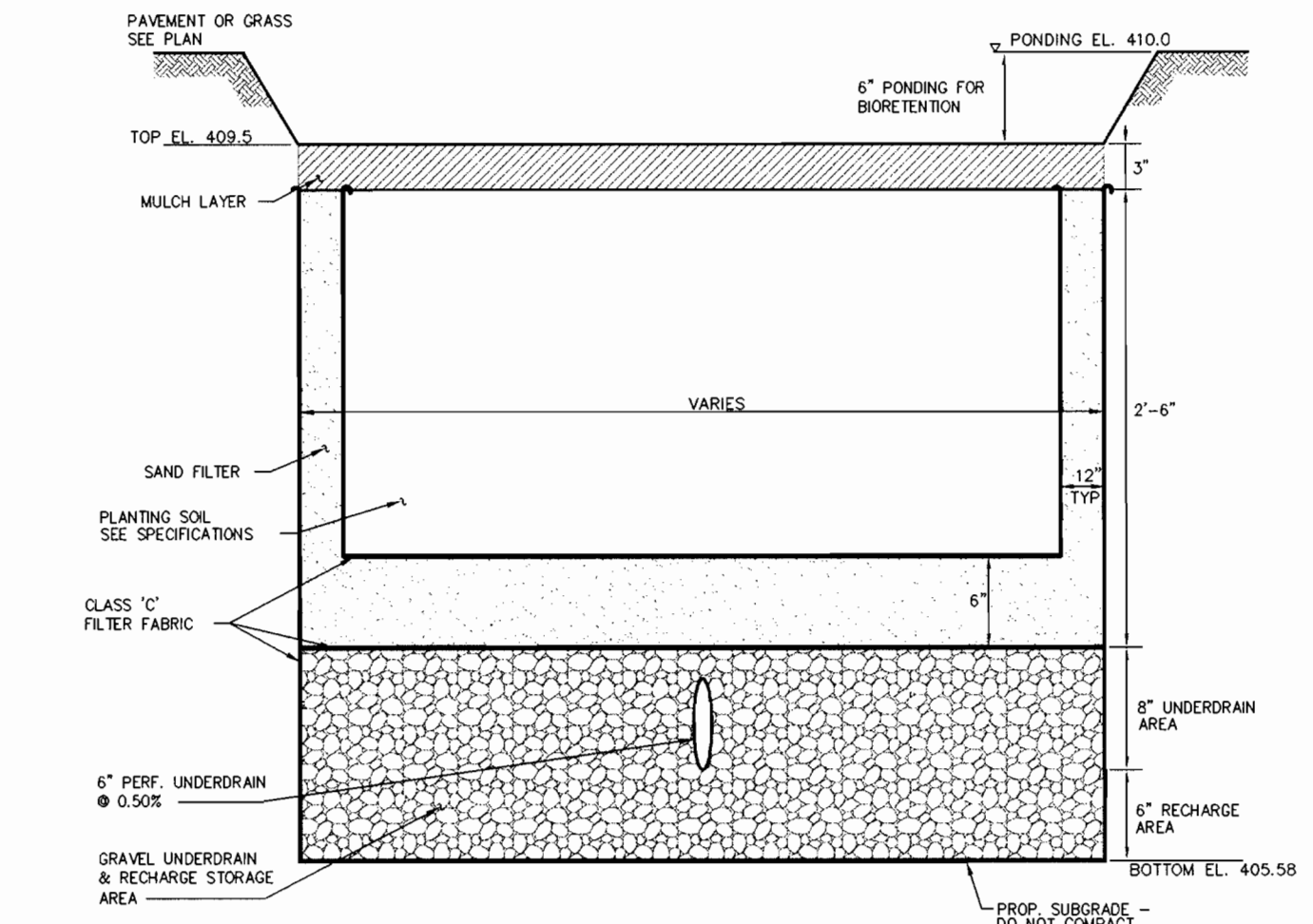
**BIORETENTION FACILITY #1 SECTION**  
SCALE: HOR. 1"=5', VERT. 1"=1'



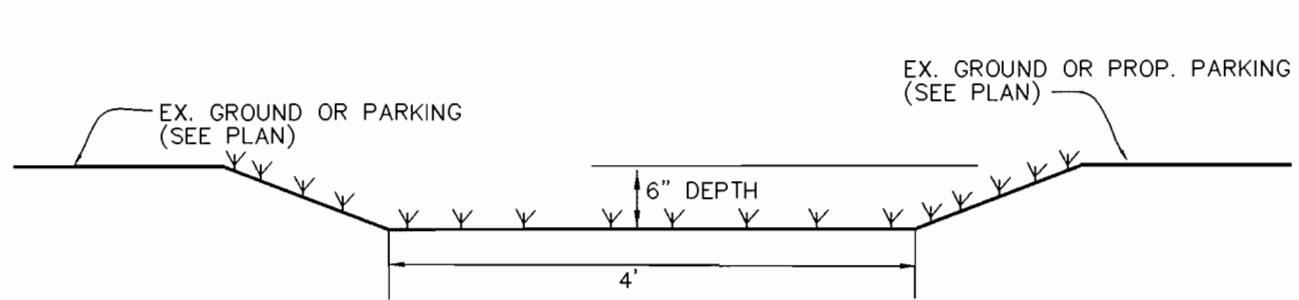
**BIORETENTION FACILITY #2 SECTION**  
SCALE: HOR. 1"=5', VERT. 1"=1'



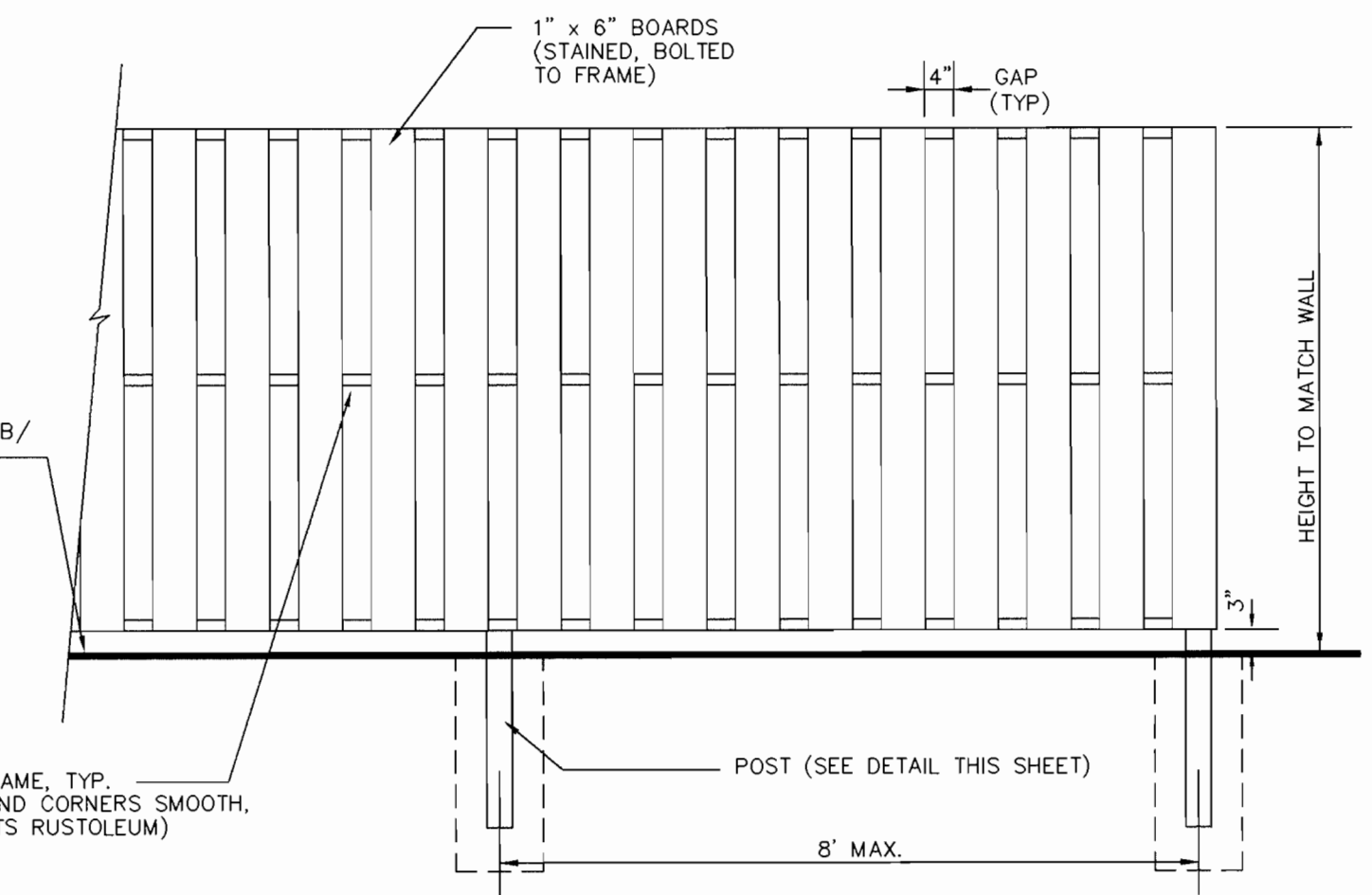
**BIORETENTION FACILITY #3 SECTION**  
SCALE: HOR. 1"=5', VERT. 1"=1'



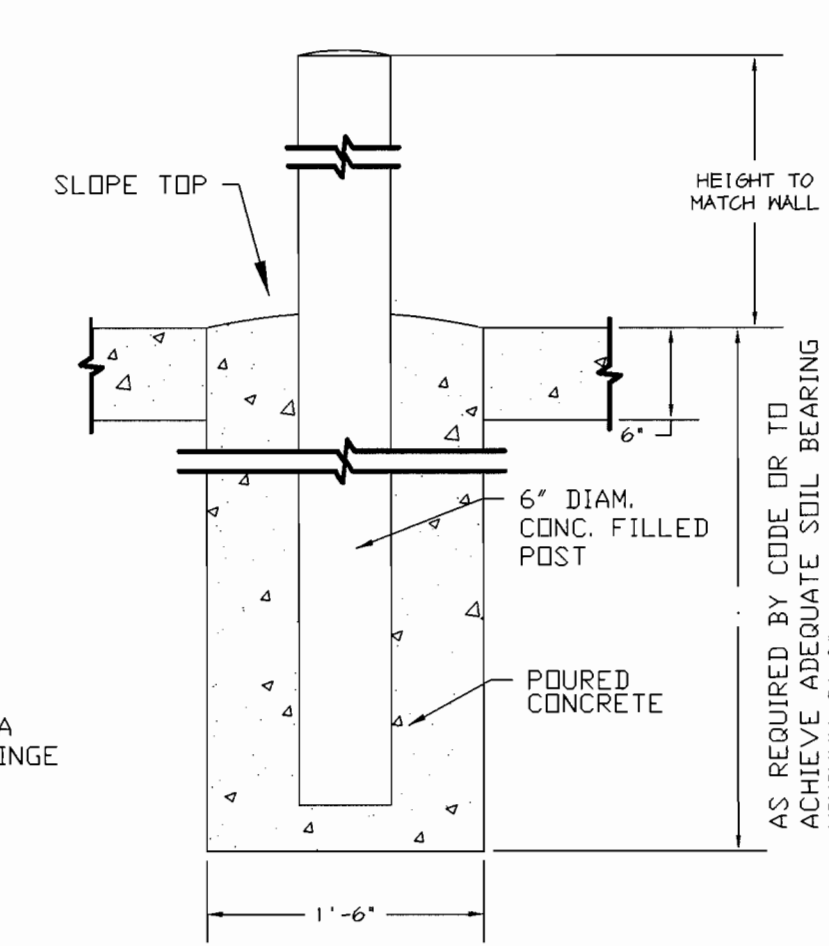
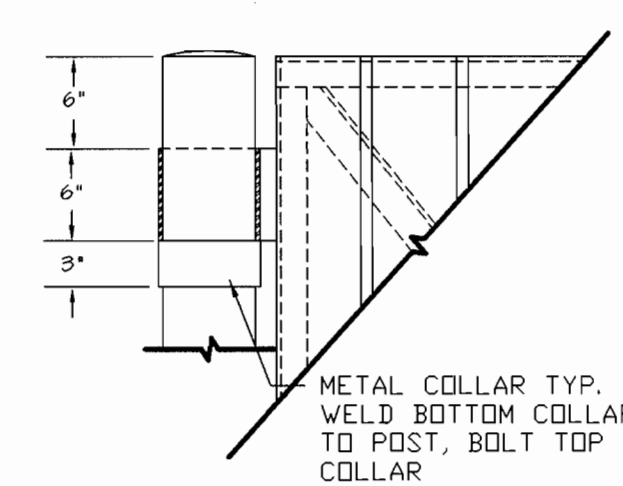
**BIORETENTION FACILITY #4 SECTION**  
SCALE: HOR. 1"=5', VERT. 1"=1'



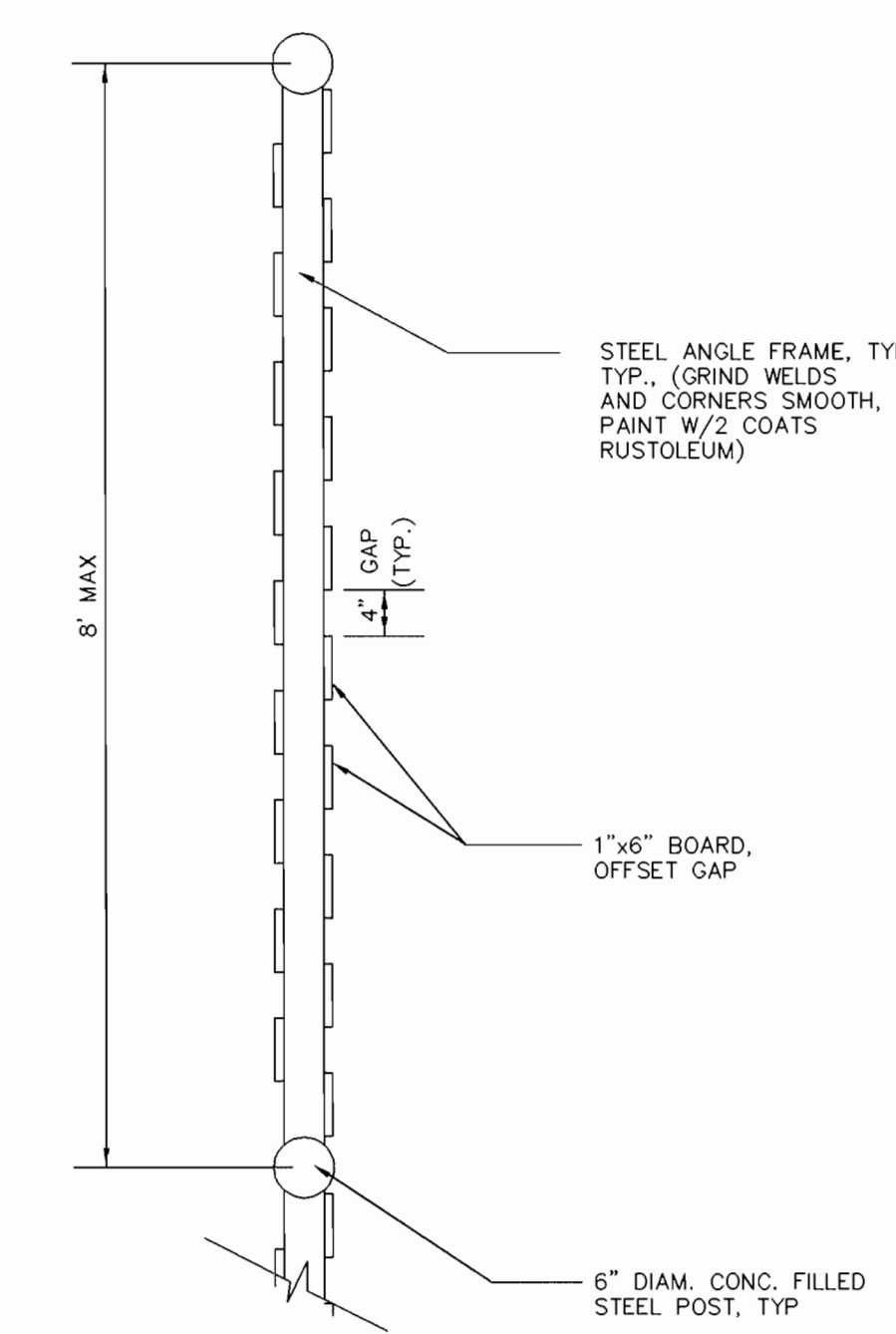
**TYPICAL GRASS SWALE DETAIL**  
NO SCALE  
NOTE: CHANNEL TO BE STABILIZED IMMEDIATELY UPON CONSTRUCTION



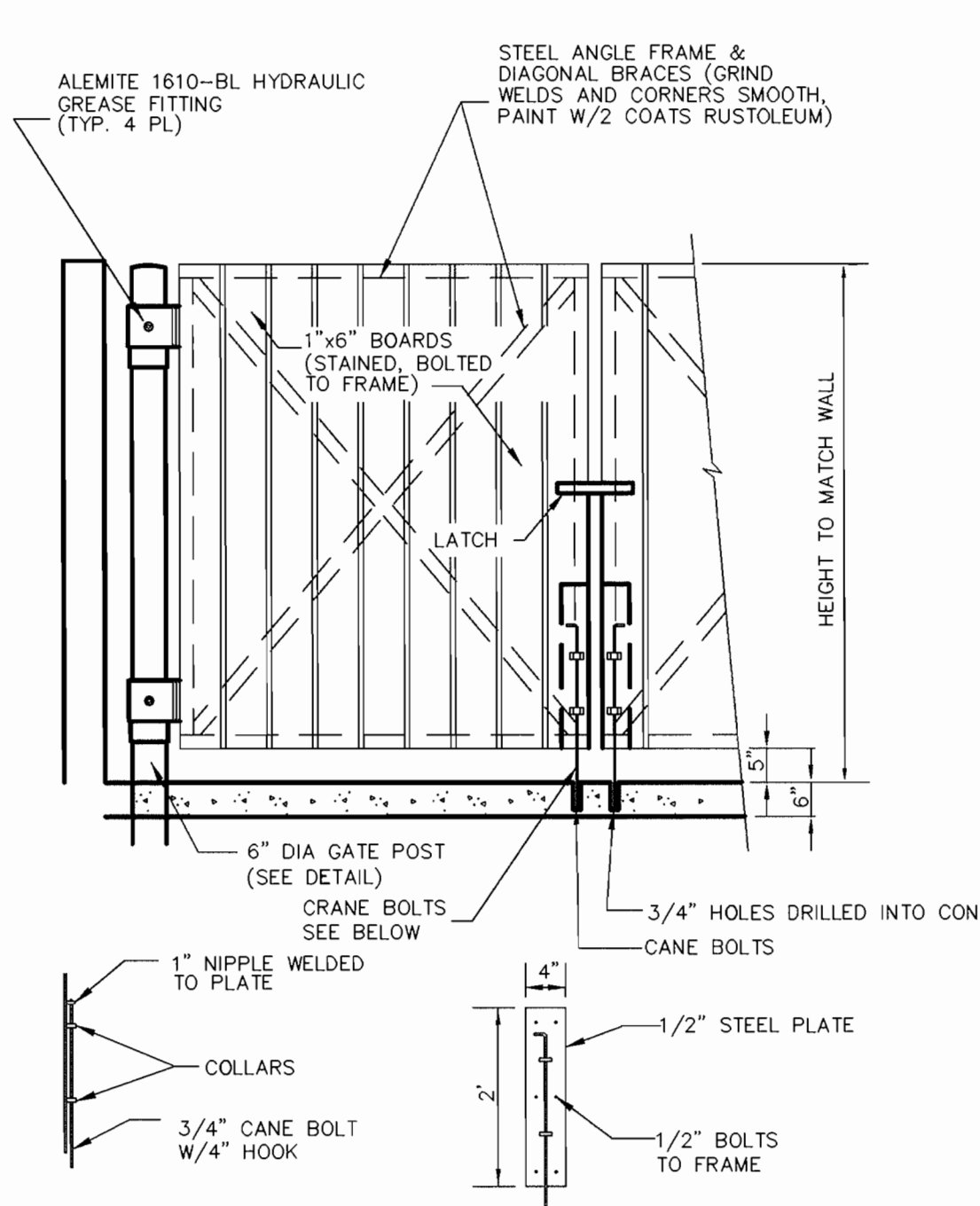
**TRASH ENCLOSURE ELEVATION**  
SCALE: 1/2" = 1'-0"



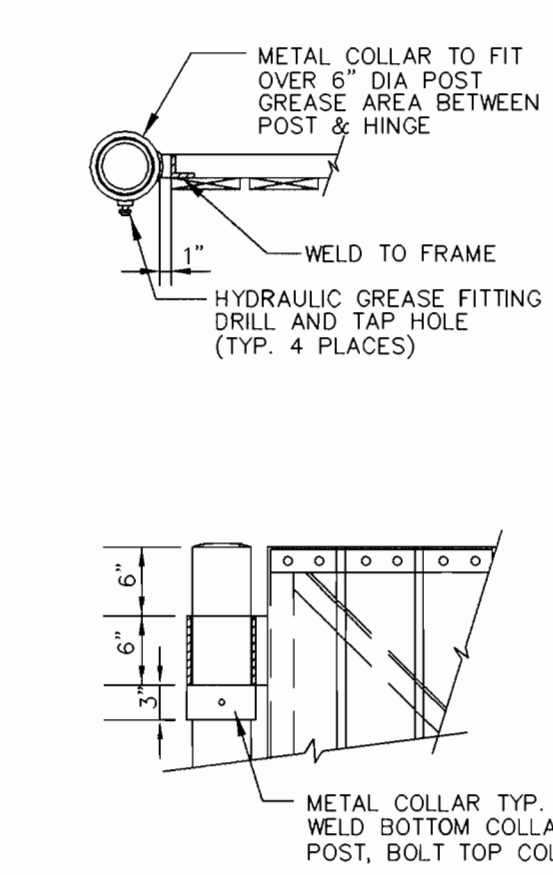
**TRASH ENCLOSURE POST**  
SCALE: 3/4" = 1'-0"



**ENCLOSURE PLAN DETAIL**  
SCALE: 3/4" = 1'-0"



**TRASH ENCLOSURE GATE & MOUNTING DETAILS**  
SCALE: 1/2" = 1'-0"



**GATE POST DETAILS**  
SCALE: 3/4" = 1'-0"

**Bioretention Facility Operation & Maintenance Schedule**

Inspections are an integral part of any maintenance program. Bioretention facilities shall be inspected on a semi-annual basis for the first year, and after major storm events. After the first year, annual inspections shall be sufficient, or as required by Howard County.

**PLANTING SOIL BED**

The soils of the planting bed shall be tested on an annual basis for pH to establish acidic levels. If the pH is below 5.2, lime shall be applied. If the pH is above 7.0 to 8.0, iron sulfate plus sulfur shall be added to reduce the pH. The soil bed may experience some erosion, particularly at the inflow points, periodic inspection and correction of erosion may be necessary. The surface of the bed may become clogged with fine sediments over time. Core aeration or cultivating of unvegetated areas shall be required to ensure adequate filtration.

**MULCH LAYER**

Annual mulching, as part of a regular landscape contract, is required. The previous mulch shall be removed and discarded to an appropriate disposal area or retained if it is decayed. The mulch shall be placed to depths not to exceed 3". Seeded ground cover or grass areas shall not receive mulching.

**PLANTING MATERIALS**

Annual inspection of plant materials is necessary. Dead or severely diseased species shall be replaced. Replacement of particular species shall be considered for species that fail to establish. Woody vegetation shall require periodic pruning, depending on the adjacent land uses, to avoid conflicts with overhead utilities, or hazards to people and property. Pruning shall follow the standard pruning practices (ANSI A300, National Arborist Association, Inc., 1995). Remove plant stakes after the first growing season. Cut grasses back to 3 inches annually in late winter (late February early March).

**PRETREATMENT, INFLOW LOCATIONS, AND OVERFLOW**

The sand, mulch, and planting soil shall be inspected annually for clogging. Sediment build-up shall be removed as needed. Replacement of the sand, mulch, and planting soil will be necessary when the voids are obviously filled with sediment and water is no longer infiltrating. The inflow location shall be inspected annually for clogging. Sediment build-up is a common problem with many practices where runoff leaves an impervious surface and enters a vegetative or earthen surface. Any build-up sediment shall be removed to avoid runoff by-passing the facility.

**WEED CONTROL**

To reduce the spread of weeds, grass clippings shall be collected and disposed of outside the bioretention planting areas.

**Specifications for Bioretention**

**1. Material Specifications**

The allowable materials to be used in bioretention area are detailed in Table "Materials Specifications for Bioretention on this sheet.

**2. Planting Soil**

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the bioretention area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:

pH range	5.2 - 7.0
organic matter	1.5 - 4% (by weight)
magnesium	35 lb./ac
phosphorus (phosphate - P2O5)	75 lb./ac
potassium (potash - K2O)	85 lb./ac
soluble salts	Not to exceed 500 ppm

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

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

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

**3. Compaction**

It is very important to minimize compaction of both the base of the bioretention area and the required backfill. When possible, use excavation hoes to remove original soil. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to restructure the soil profile through the 12-inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

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

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

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

**4. Plant Installation**

Mulch should be placed to a uniform thickness of 2" to 3". Shredded hardwood mulch is the only accepted mulch. Shredded mulch must be well aged (6 to 12 months) for acceptance.

Root stock of the planting material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

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

**Table: Materials Specifications for Bioretention**

Material	Specification	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site-specific
planting soil (2.5' to 4' deep)	sand silt clay	35 - 60% 30 - 55% 10 - 25%	n/a USDA soil types loamy sand, sandy loam or loam
mulch	shredded hardwood		aged 6 months, minimum
Sand	AASHTO-M-6 OR ASTM-C-33	0.02" TO 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND.
geotextile	Class "C" - apparent opening size (ASTM-D-4751), grab tensile strength (ASTM-D-4632), puncture resistance (ASTM-D-4822)	n/a	for use as necessary
underdrain gravel	AASHTO 43	0.375" to 0.75"	
underdrain piping	F758, TYPE PS 28 OR AASHTO M-278	4" TO 6" RIGID SCHEDULE 40PVC OR SDR35	

AS BUILT CERTIFICATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DATE: 11/29/01

DATE: 11/10/01

DATE: 11/29/01

DATE NO. REVISION

OWNER / DEVELOPER: THE VESTRY AT ST. JOHN'S CHURCH, QUEEN CAROLINE PARISH, ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH, 9120 FREDERICK ROAD, ELLICOTT CITY, MARYLAND 21042

PROJECT: ST. JOHN'S EPISCOPAL CHURCH, EDUCATION AND MULTIPURPOSE ROOM EXPANSION

AREA: ZONED R-20, PARCEL 103 & 535, TAX MAP 24, 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

TITLE: BIORETENTION DETAILS

RIEMER MUEGGE, a division of Patton Harris Rust & Associates, pc

DESIGNED BY: M.N.R.

DRAWN BY: DAM

CHECKED BY:

PROJECT NO.: 00286, SDP8.DWG

DATE: OCTOBER 26, 2001

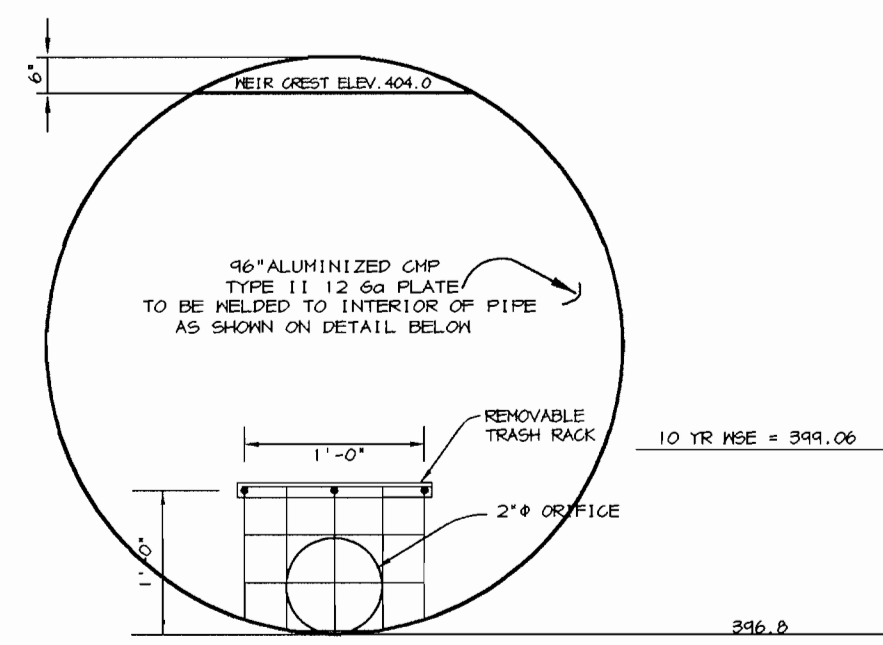
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DRAWING NO.: 12 OF 25

CHRISTOPHER J. REID #19949

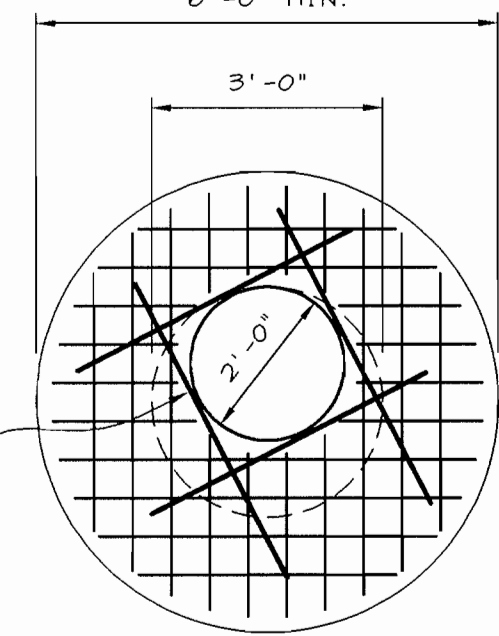
SDP-01-134





**PLATE DETAIL-SECTION B-B**  
NOT TO SCALE

RIM ELEVATIONS:



**MANHOLE CONCRETE CAP**  
NOT TO SCALE

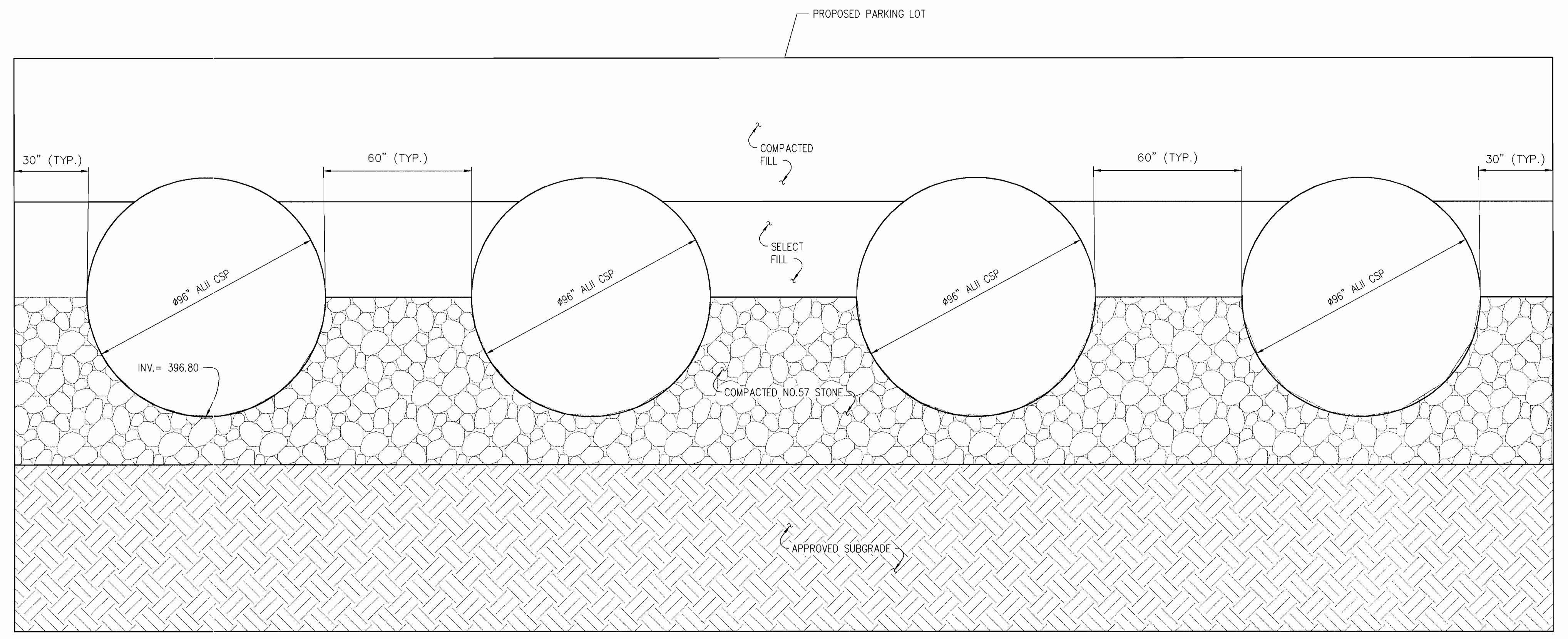
- MANHOLE NOTES**
1. CONCRETE TO BE MIX No. 3
  2. MANHOLE RISER TO BE SAME GA. AS MAINLINE PIPE.
  3. STEPS TO BE INSTALLED BELOW MANHOLE PER MANUFACTURER SPECIFICATIONS. COMPACT TOP 1" OF SUBGRADE TO LOOK OF MAXIMUM DRY DENSITY. (PER AASHTO T-99-C) UNDER CONCRETE CAP.
  4. CONCRETE CAP SHALL BE REINFORCED WITH #4 REBAR @ 6" C/C.
  5. SEE GEOMETRY PLAN FOR MANHOLE LOCATIONS AND PROVIDE 4 ADDITIONAL #4 REBAR AS SHOWN

**CORRUGATED METAL PIPE BACKFILL AND BEDDING SPECIFICATIONS**

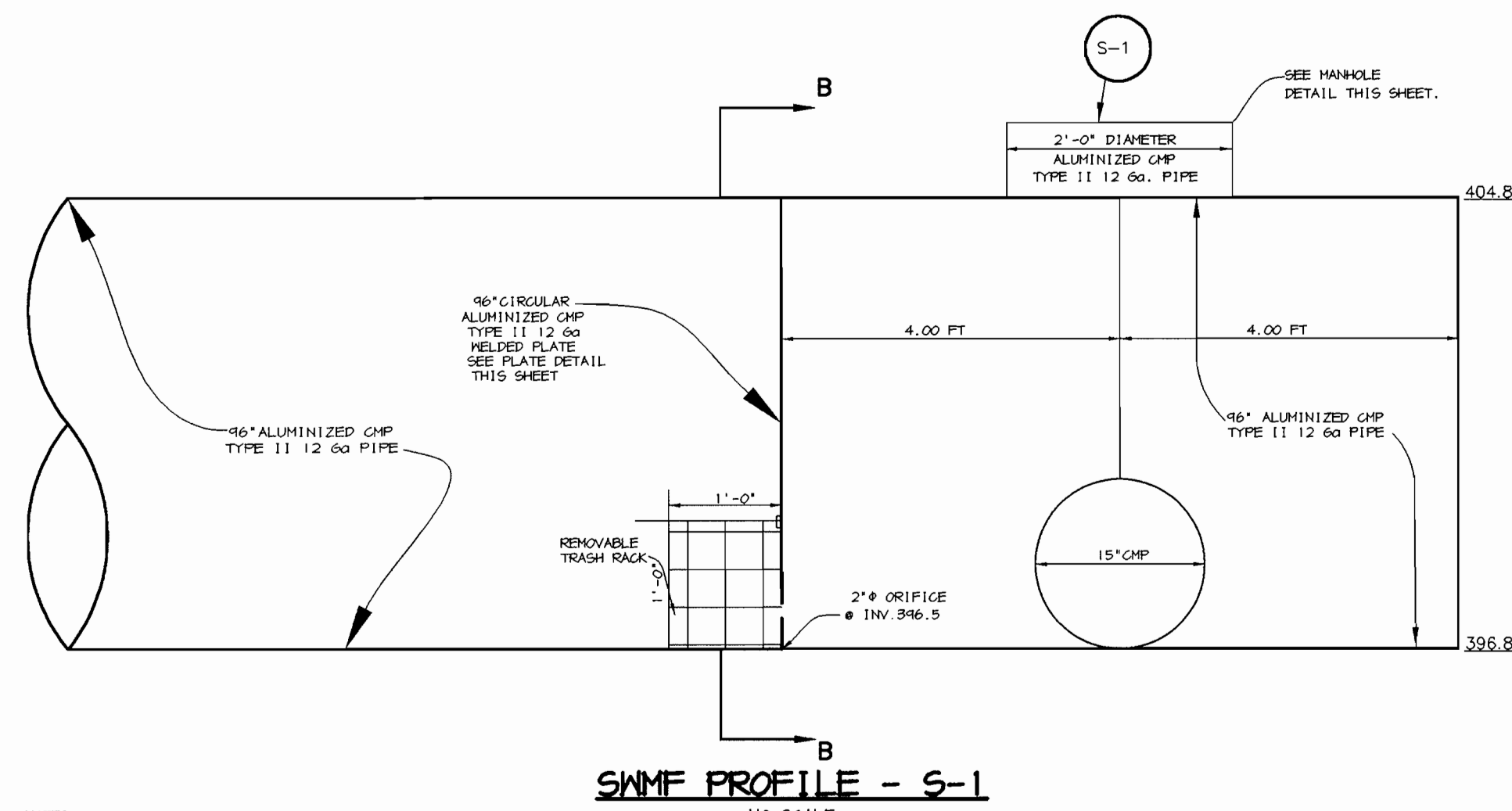
- 1.0 BACKFILL**
- 1.1 BACKFILL MATERIAL SHALL BE A WELL-GRADED GRANULAR MATERIAL AND SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY STANDARD SPECIFICATIONS FOR FILL UNDER ROADS.
  - 1.2 HIGHLY PLASTIC SILTS, HIGHLY PLASTIC CLAYS, ORGANIC SILTS, ORGANIC CLAYS, AND PEATS SHALL NOT BE USED AS BACKFILL MATERIALS.
  - 1.3 BACKFILL SHALL BE PLACED SYMMETRICALLY ON EACH SIDE OF THE STRUCTURE IN 6" TO 1" LOOSE LAYERS TO ONE (1) FOOT ABOVE THE TOP OF THE PIPE. EACH LAYER IS TO BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY. ALL COMPACTION SHALL BE AASHTO T-99-C.

- 2.0 BEDDING**
- 2.1 THE PIPE SHALL BE PLACED TO UNIFORM GRADE AND LINE TO ENSURE GOOD VERTICAL ALIGNMENT AND TO AVOID EXCESSIVE STRESSES AT THE PIPE JOINTS. THE BEDDING SHALL BE FREE OF ROCK FORMATIONS, PROTRUDING STONES, FROZEN LUMPS, ROOTS AND OTHER FOREIGN MATERIAL. THE BEDDING FOUNDATION MUST BE A STABLE WELL-GRADED GRANULAR MATERIAL. ANY SUBGRADE THAT HAS INADEQUATE BEARING CAPABILITY MUST BE REMOVED AND REPLACED WITH A COMPACTED SELECT FILL APPROVED BY THE ENGINEER.
  - 2.2 BEDDING MATERIALS SHALL BE NO. 57 STONE PER MSHA SPECIFICATIONS OR AN APPROVED EQUAL. SEE BEDDING DETAIL THIS SHEET.
  - 2.3 THE SELECT FILL SHALL BE AASHTO A-2-4. SEE DETAIL THIS SHEET.

- 3.0 MATERIALS**
- 3.1 PIPE - ALUMINIZED STEEL PIPE, TYPE II, 12 GA. THIS PIPE AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO 3.1 SPECIFICATIONS M-274 WITH WATER-TIGHT COUPLING BANDS OR FLANGES. ANY ALUMINUM COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING COMPOUND.
  - 3.2 WATER-TIGHT CONNECTIONS WILL BE HUGGARBAND-12" WIDE MINIMUM WITH SINGLE BAR AND STRAP CONNECTORS AND O-RING GASKETS.



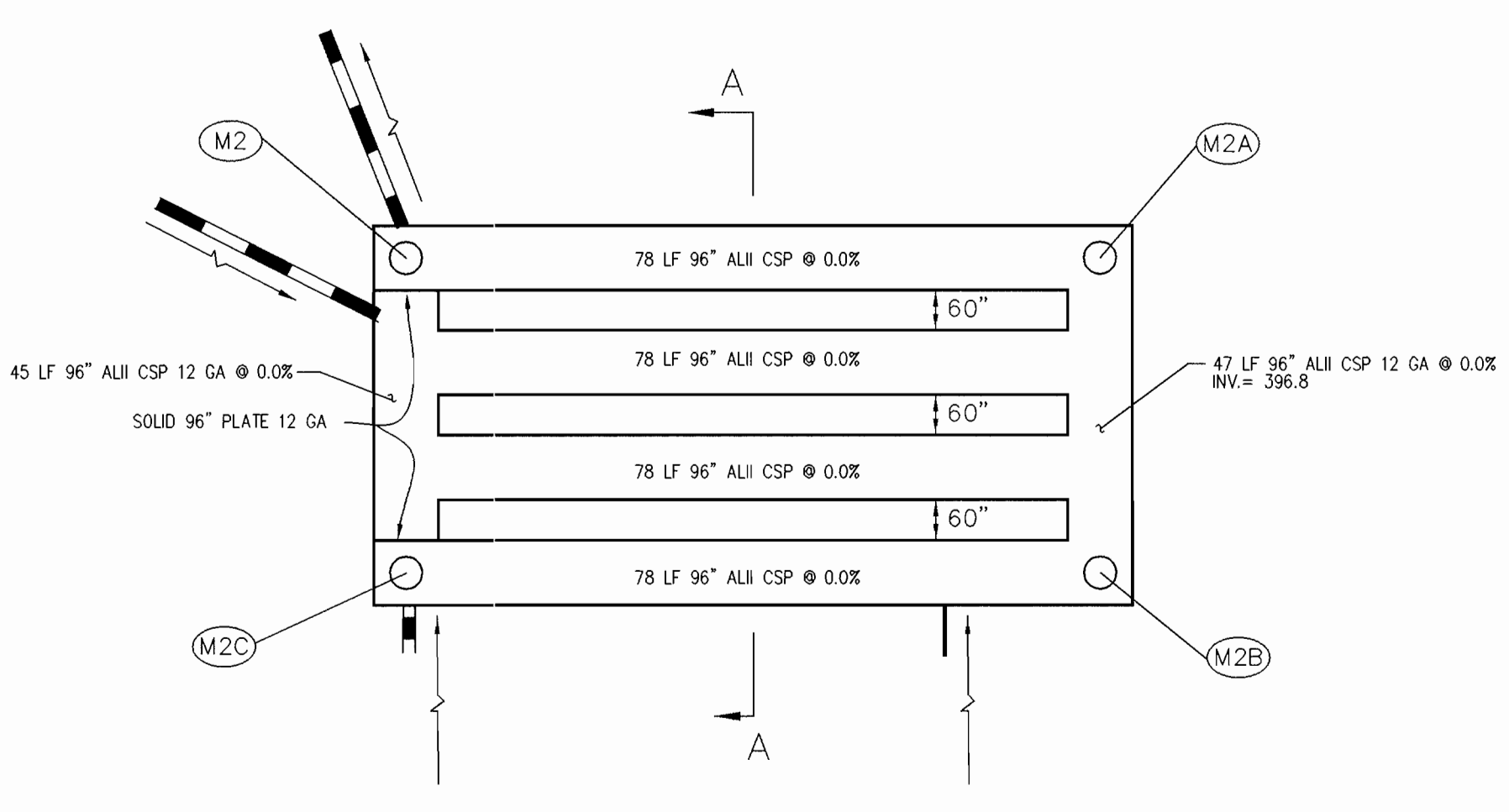
**SECTION A-A**  
NOT TO SCALE



**SWMF PROFILE - S-1**  
NO SCALE

- NOTES:**
1. STRUCTURE S-1 TO BE DESIGNED TO MEET ROADWAY LOAD STANDARDS.
  2. ALL CONSTRUCTION SHALL MEET THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
  3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.
  4. THE STRUCTURE FOUNDATION SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER.
  5. ALL DEBRIS SHALL BE KEPT OUT OF THE FACILITY DURING AND AFTER CONSTRUCTION.

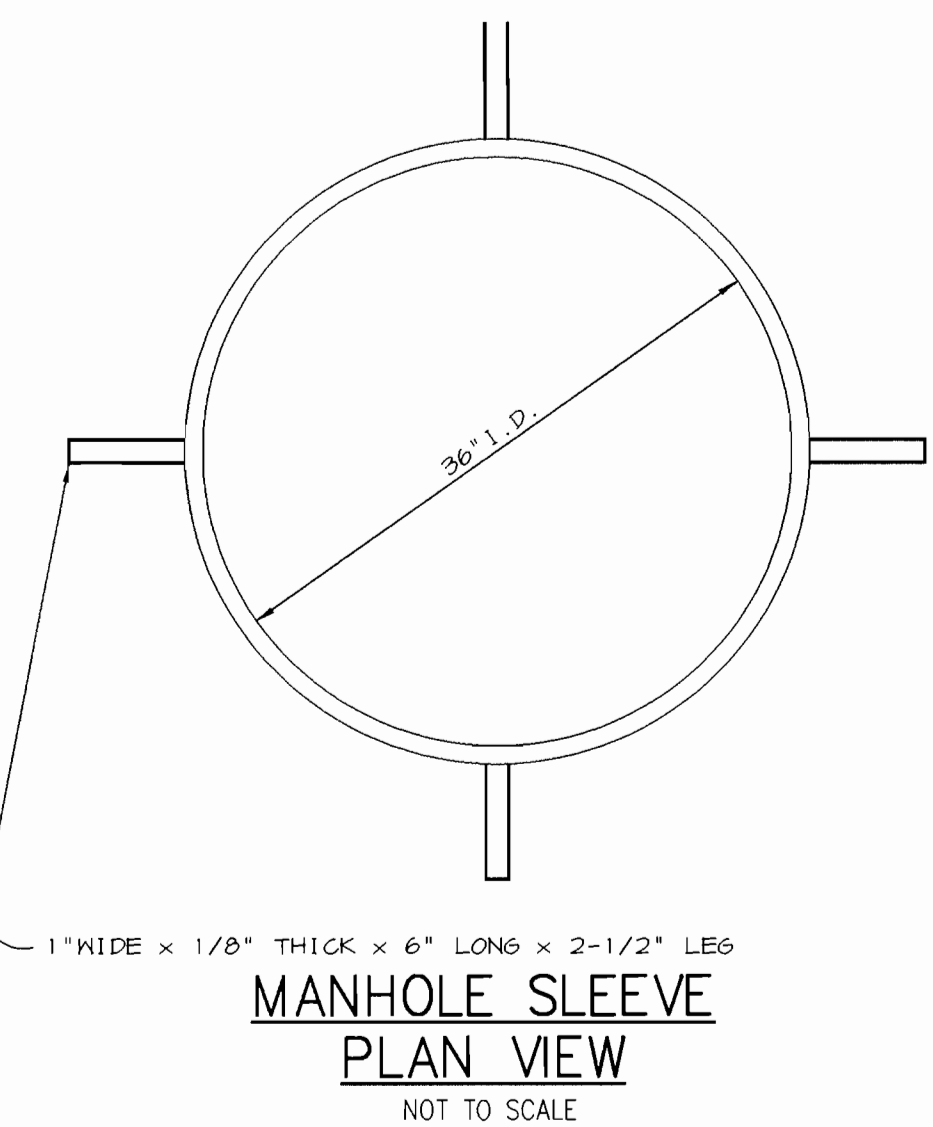
- TRASH RACK NOTES:**
1. STEEL TO CONFORM TO ASTM A-36. BARS TO BE SMOOTH.
  2. #4 REBARS @ 4" @ 1/2" HORIZONTALLY AND 4" @ 6" VERTICALLY.
  3. ALL REBAR TO BE HELDED AT ALL INTERSECTIONS.
  4. ALL BENDS TO BE 2" RADIUS.
  5. WELD BARS TO 2" x 1/8" STEEL PLATE AND BOLT STEEL PLATE TO STRUCTURE WITH 1/2" ANCHOR BOLTS.
  6. GALVANIZE TRASH RACK AFTER FABRICATION AND PAINT WITH 2 COATS OF BATTLESHIP GREY.



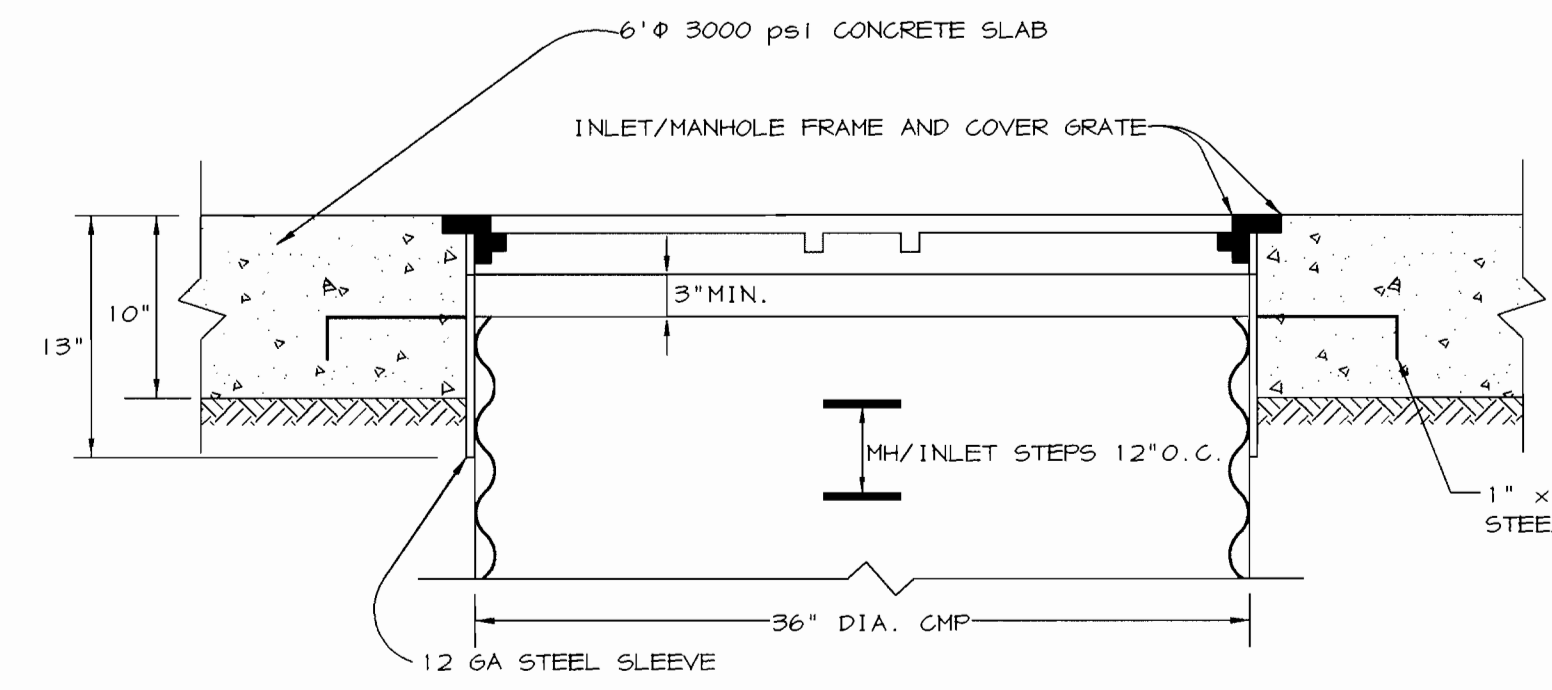
**UNDERGROUND S.W.M.F.**  
SCALE: 1" = 20"

**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED UNDERGROUND STORMWATER MANAGEMENT FACILITY**

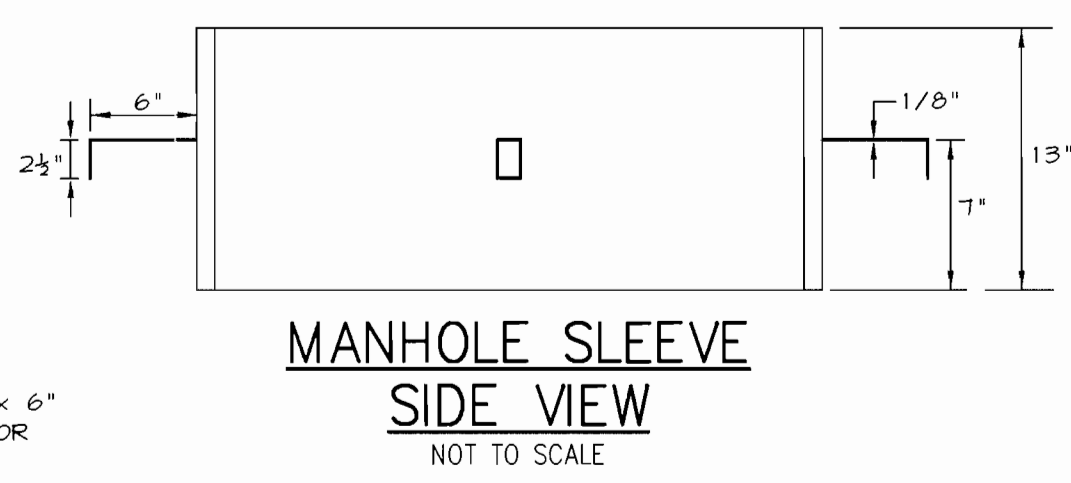
1. Underground structures will require periodic inspection and cleaning to maintain operation and function. Owners will have the underground structures inspected yearly or as Owners will have the underground structures inspected yearly or as required by Howard County, utilizing the underground units Inspection/Monitoring Form. Inspections can be done by using a clear Plexiglas tube ("sludge judge") to extract a water column sample. When sediment depths exceed 5" then cleaning of the structures is required.
2. Underground facility structures must be checked and cleaned immediately after petroleum spills. Contact appropriate regulatory agencies.
3. Maintenance of underground structures should be done by a vacuum truck which will remove the water, sediment, debris, floating hydrocarbons, and other materials in the unit. The proper cleaning and disposal of the removed materials and liquid must be followed.
4. Inlet and outlet pipes must be checked for any obstructions and if any obstructions are found they must be removed. Structural parts of the underground facility will be repaired as needed.
5. Owner shall retain and make underground facility Inspection/Monitoring forms available to Howard County officials upon their request.



**MANHOLE SLEEVE PLAN VIEW**  
NOT TO SCALE



**CMP RISER MANHOLE SLEEVE DETAIL**  
NOT TO SCALE



**MANHOLE SLEEVE SIDE VIEW**  
NOT TO SCALE

\*THIS SLEEVE SLIDES OVER THE OUTSIDE OF THE MANHOLE RISER AND REMOVES THE LIVE LOADS FROM THE PIPE ITSELF.

**GENERAL NOTES:**

1. ALL CONSTRUCTION SHALL MEET THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
2. CONCRETE STRENGTH SHALL BE 4,000 PSI MIN. AT 28 DAYS.
3. REINFORCEMENT SHALL BE CLEAN AND FREE OF RUST AND MEET ASTM-615 GRADE 60.
4. ALL REINFORCEMENT SHALL HAVE 2" MIN. COVER.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.
6. THE STRUCTURE FOUNDATION SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER.
7. GALVANIZE TRASH RACK AFTER FABRICATION AND PAINT WITH TWO COATS OF BATTLESHIP GREY PAINT.
8. ALL ALUMINIZED PIPE IN CONTACT WITH CONCRETE SHALL BE COATED WITH BITUMINOUS COATING.

AS BUILT CERTIFICATE	
DATE	DATE
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Joseph R. Smith</i> DIRECTOR	11/20/01 DATE
<i>Chris Dammer</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	11/16/01 DATE
<i>Chris Hamstra</i> CHIEF, DIVISION OF LAND DEVELOPMENT	11/29/01 DATE

DATE	NO.	REVISION
<b>OWNER / DEVELOPER</b>		
THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLCOTT CITY, MARYLAND 21042		
<b>PROJECT</b>		
ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION		
<b>AREA</b>		
ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
<b>TITLE</b>		
STORMWATER MANAGEMENT DETAILS		

**RIEMER MUEGGE**  
a division of  
**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Centre Park Drive, Columbia, MD 21045 • Tel 410.997.8900 Fax 410.997.9282

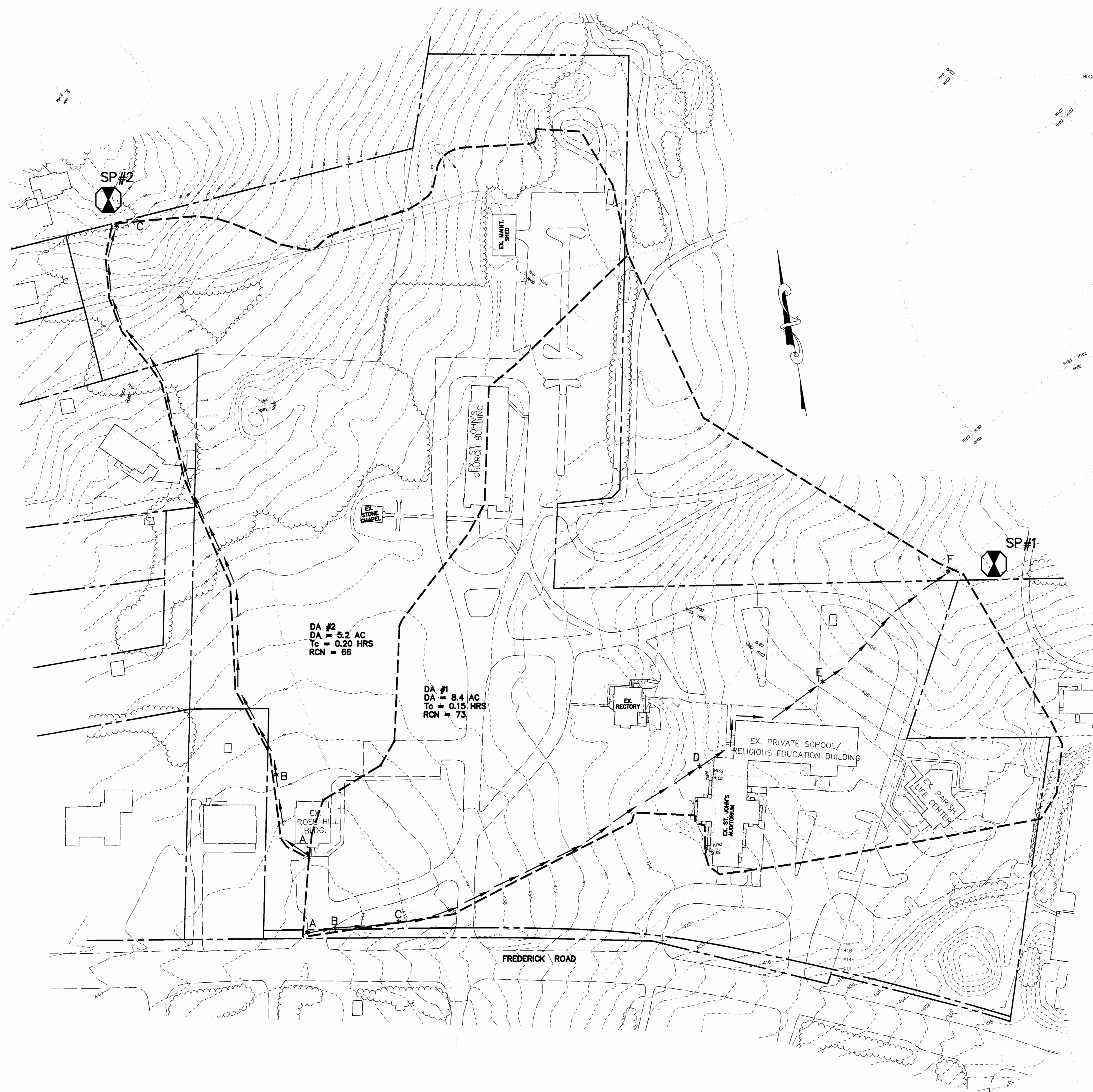
DATE: 10-25-01  
DESIGNED BY: M.N.R.  
DRAWN BY: DAM  
CHECKED BY:  
PROJECT NO.: 00286  
SDP9.DWG  
DATE: OCTOBER 26, 2001  
SCALE: AS SHOWN  
DRAWING NO.: 13 OF 25

STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER  
CHRISTOPHER J. REID #19949



**LEGEND**

- EX. TOPO
- - - PROP TOPO
- TC PATH
- DRAINAGE DIVIDE
- ~ EX. TREE LINE



AS BUILT CERTIFICATE	
	DATE
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Paul Rantz</i>	11/20/01 DATE
DIRECTOR	
<i>Allen Drummond</i>	11/16/01 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	
<i>Cindy Harvath</i>	11/21/01 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	
DATE NO.	REVISION
OWNER / DEVELOPER	
THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLCOTT CITY, MARYLAND 21042	
PROJECT ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION	
AREA ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE EXISTING SWM DRAINAGE AREA MAP	
RIEMER MUEGGE	
a division of <b>Patton Harris Rust &amp; Associates, pc</b> ENGINEERS • SURVEYORS • PLANNERS LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282	
DATE 10-25-01	DESIGNED BY : M.N.R.
	DRAWN BY: DAM
<i>Christopher J. Reid</i> CHRISTOPHER J. REID #19949	CHECKED BY: C.J.R.
	PROJECT NO : 00286 EXDA.DWG
	DATE : OCTOBER 26, 2001
	SCALE : 1"=60'
	DRAWING NO. 14 OF 25



**LEGEND**

- EX. TOPO
- PROP TOPO
- TC PATH
- DRAINAGE DIVIDE
- EX. TREE LINE

SWM SUMMARY		
	D.A. #1	D.A. #2
<b>TOTAL</b>	3440 CFS	2014 CFS
<b>REV</b>	313 CFS	305 CFS
<b>CPV</b>	5151 CFS	N/A @ 2 CFS
<b>10 YEAR FLOW</b>	26 CFS (EX) 14.1 CFS (PROP)	N/A

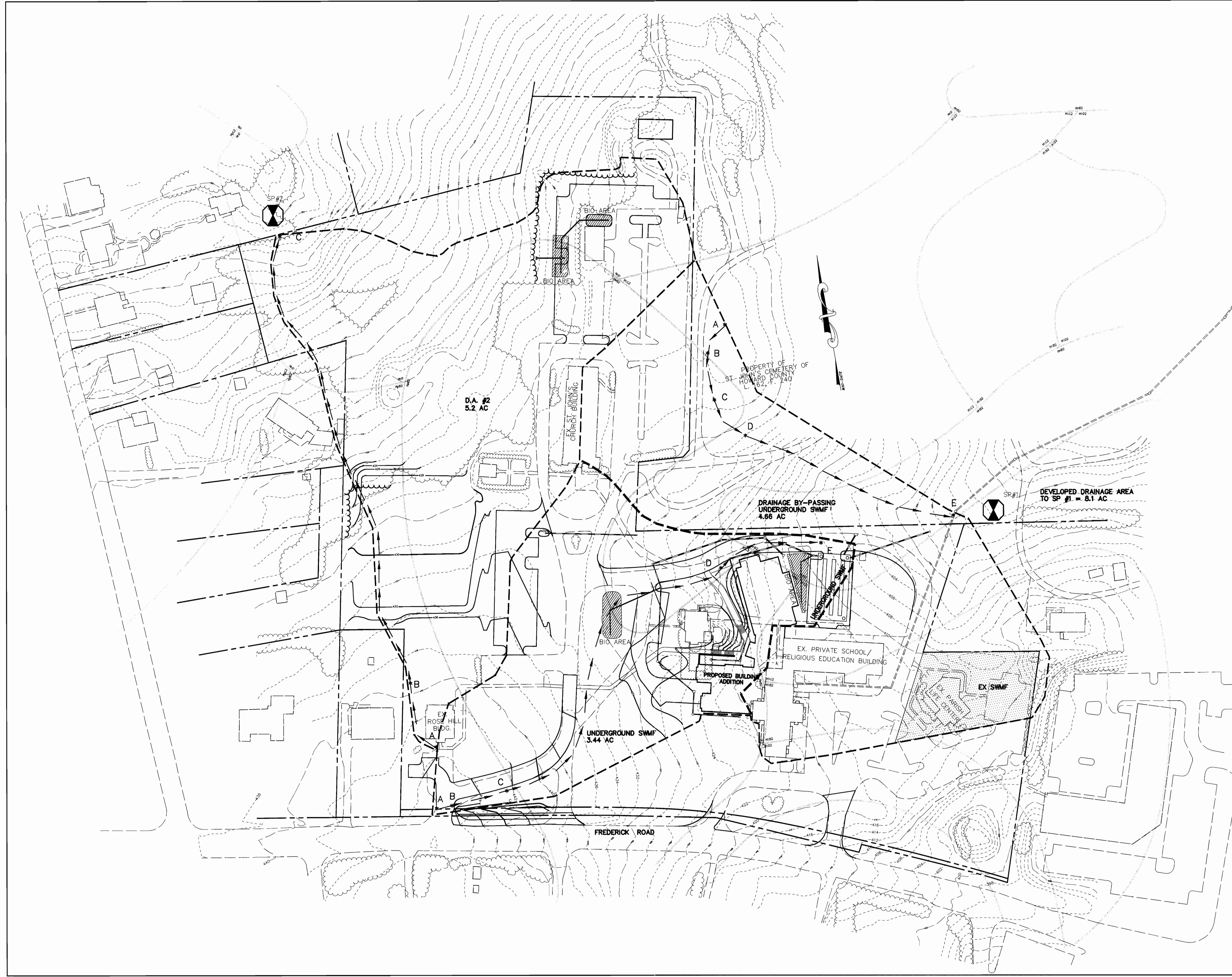
AS BUILT CERTIFICATE		
DATE	DATE	
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.		
<i>[Signature]</i> DIRECTOR	11/20/01 DATE	
<i>[Signature]</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	11/16/01 DATE	
<i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT	11/20/01 DATE	
DATE	NO.	REVISION
OWNER / DEVELOPER		
THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLCOTT CITY, MARYLAND 21042		
PROJECT		
ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION		
AREA		
ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
PROPOSED SWM DRAINAGE AREA MAP		

**RIEMER MUEGGE**  
a division of:  
**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

10.25.01  
DATE

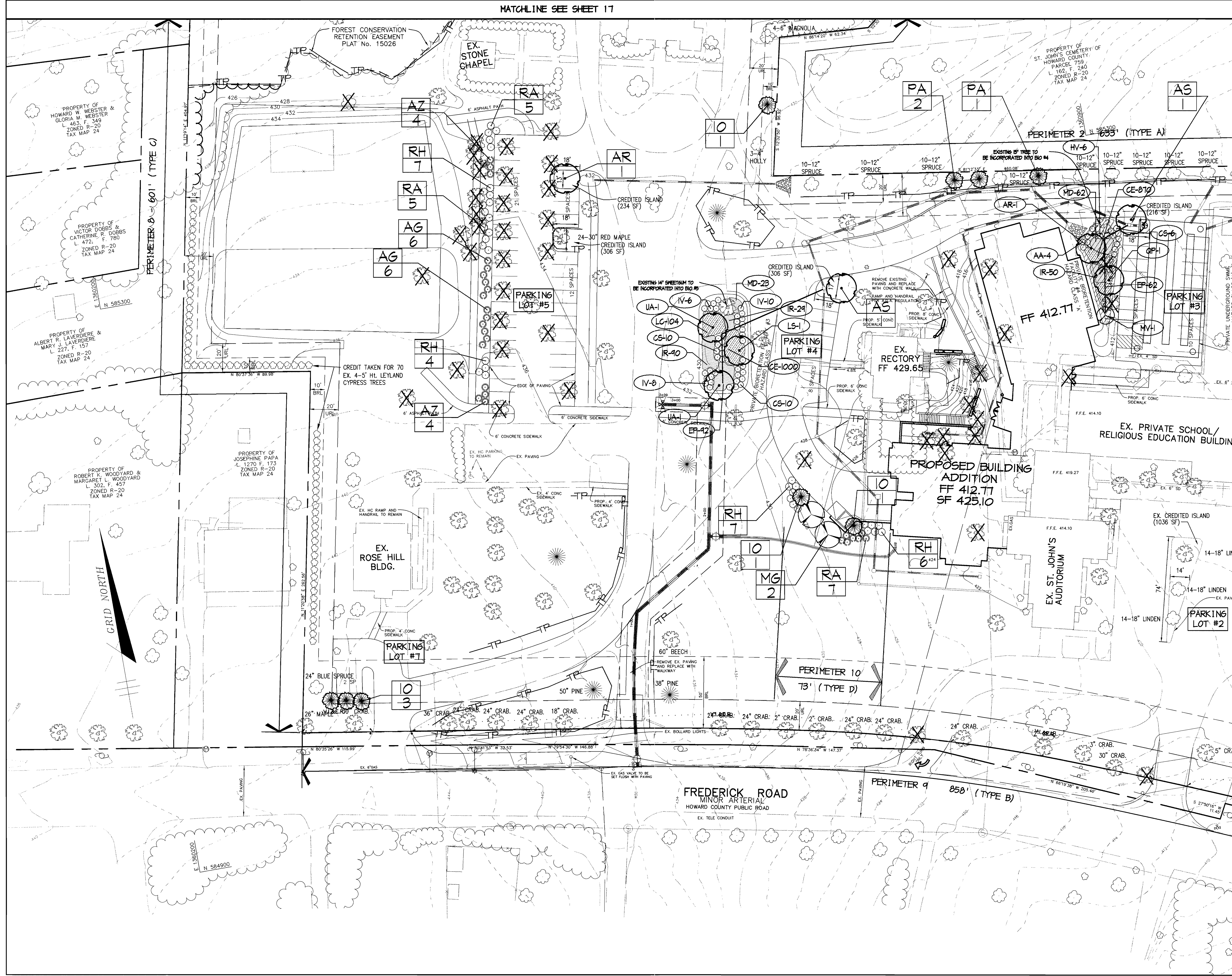
DESIGNED BY : M.N.R.  
DRAWN BY: DAM  
CHECKED BY:  
PROJECT NO : 00286  
PRD.A.DWG  
DATE : OCTOBER 26, 2001  
SCALE : 1" = 60'  
DRAWING NO. 15 OF 25

*[Signature]*  
CHRISTOPHER J. REID #19949



P:\PROJECT\00286\PRD.DWG Wed Oct 24 16:43:23 2001 PATTON HARRIS RUST & ASSOCIATES





PLANTING LEGEND	
PROP. SHADE TREE	
PROP. ORNAMENTAL TREE	
PROP. EVERGREEN TREE	
PROP. EVERGREEN SHRUB	
PROP. DECIDUOUS SHRUB	
PROP. TREELINE	
EXISTING TREELINE	
EXISTING PLANTS	
TREE PROTECTION FENCE	
PERIMETER CREDIT USED FOR EXISTING PLANTS	
CONFORMANCE LANDSCAPE REQUIREMENT	
BIORETENTION PLANTING (SEE SHEET 14 FOR PLANT LIST)	

MATCHLINE SEE SHEET 18

AS BUILT CERTIFICATE	
DATE	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Joseph Smith</i> DIRECTOR	11/29/01 DATE
<i>Mike Dammann</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	11/16/01 DATE
<i>Cindy Hamner</i> CHIEF, DIVISION OF LAND DEVELOPMENT	11/20/01 DATE

DATE	NO.	REVISION
OWNER / DEVELOPER		
THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLCOTT CITY, MARYLAND 21042		
PROJECT		
ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION		
AREA		
ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
LANDSCAPE PLAN		

**RIEMER MUEGGE**  
a division of:  
**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

DESIGNED BY: PJS  
DRAWN BY: GTH, PJS  
CHECKED BY: DTD  
PROJECT NO: 00286  
LSCP1.DWG  
DATE: OCTOBER 26, 2001  
SCALE: 1" = 30'  
DRAWING NO. 16 OF 25

10-25-01  
DATE  
SCOTT R. WOLFORD #797





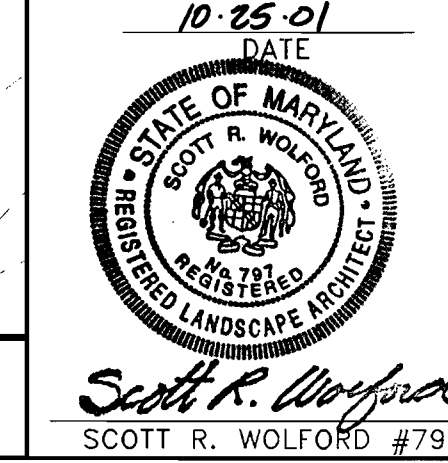
PLANTING LEGEND	
PROP. SHADE TREE	
PROP. ORNAMENTAL TREE	
PROP. EVERGREEN TREE	
PROP. EVERGREEN SHRUB	
PROP. DECIDUOUS SHRUB	
PROP. TREELINE	
EXISTING TREELINE	
EXISTING PLANTS	
TREE PROTECTION FENCE	
PERIMETER CREDIT USED FOR EXISTING PLANTS	
CONFORMANCE LANDSCAPE REQUIREMENT	
BIORETENTION PLANTING (SEE SHEET 14 FOR PLANT LIST)	

AS BUILT CERTIFICATE	
DATE	
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>James A. Smith</i> 11/29/01	DATE
DIRECTOR	
<i>Chris Dammann</i> 11/16/01	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	
<i>Andy Hanta</i> 11/29/01	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	

DATE	NO.	REVISION
OWNER / DEVELOPER		
THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLCOTT CITY, MARYLAND 21042		
PROJECT		
ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION		
AREA		
ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
LANDSCAPE PLAN		

**RIEMER MUEGGE**  
a division of:  
**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Carver Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

DESIGNED BY : PJS
DRAWN BY : GTH, PJS
CHECKED BY : DTD
PROJECT NO : 00286 LSCP2.DWG
DATE : OCTOBER 26, 2001
SCALE : 1" = 30'
DRAWING NO. 17 OF 25

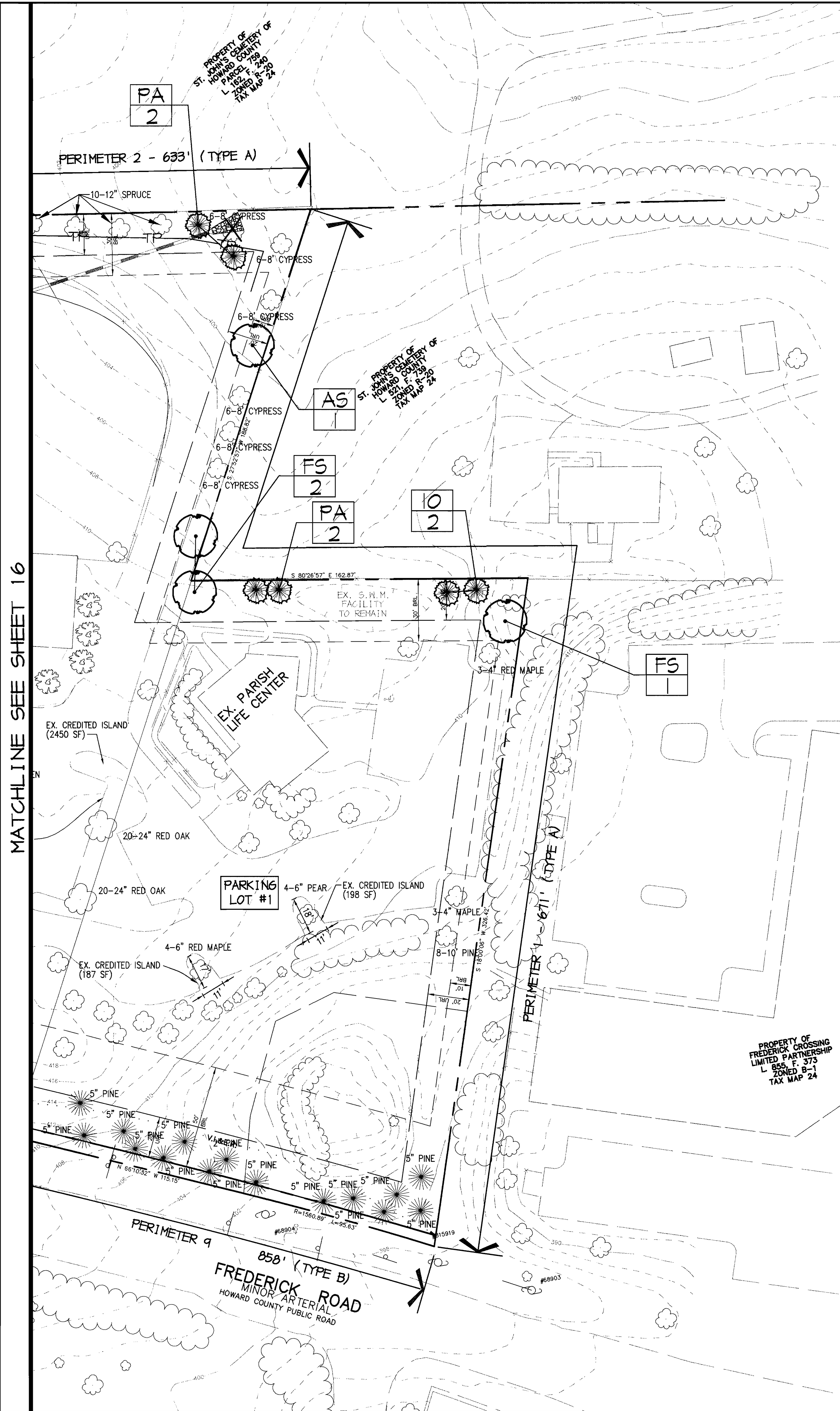


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MATCHLINE SEE SHEET 16



MATCHLINE SEE SHEET 16



PERIMETER	ADJACENT TO PERIMETER PROPERTIES								ADJACENT TO ROADWAYS	
	1	2	3	4	5	6	7	8	9	10
LANDSCAPE TYPE	A	A	A	A	C	C	C	C	B	D
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	671'±	633'±	256'±	229'±	343'±	457'±	157'±	601'±	858'±	73'±
CREDIT FOR EXISTING DRIVE AISLE (LINEAR FEET)	NO	NO	NO	NO	NO	NO	NO	NO	YES (72'±)	NO
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 330'±	YES 480'±	YES 256'±	YES 180'±	YES 343'±	YES 457'±	YES 157'±	YES 601'±	YES 786'±	NO 0'
LINEAR FEET REMAINING	341'±	153'±	0'	49'±	0'	0'	0'	0'	0'	73'±
CREDIT FOR WALL, FENCE, OR BERM (YES/NO/LINEAR FEET)	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES 40'±
NUMBER OF PLANTS REQUIRED										
SHADE TREES	6	3	0	1	0	0	0	0	0	1
EVERGREEN TREES	0	0	0	0	0	0	0	0	0	5
SHRUBS	0	0	0	0	0	0	0	0	0	0
NUMBER OF PLANTS PROVIDED										
SHADE TREES	4	0	0	1	0	0	0	0	0	4
EVERGREEN TREES	0	0	0	0	0	0	0	0	0	0
SMALL FLOWERING TREES	0	0	0	0	0	0	0	0	0	0
SHRUBS	0	0	0	0	0	0	0	0	0	20

**SCHEDULE 'A' SUBSTITUTION NOTES:**

**PERIMETER 1:**  
 (4) EVERGREEN TREES WERE SUBSTITUTED FOR (2) SHADE TREES  
 (2) EXISTING SHADE TREES WERE CREDITED FOR (2) SHADE TREES  
 (7) EXISTING EVERGREEN TREES WERE CREDITED FOR (3.5) SHADE TREES

**PERIMETER 2:**  
 (4) EVERGREEN TREES WERE SUBSTITUTED FOR (2) SHADE TREES  
 (17) EXISTING EVERGREEN TREES WERE CREDITED FOR (8.5) SHADE TREES

**PERIMETER 3:**  
 (4) EXISTING EVERGREEN TREES WERE CREDITED FOR (4.5) SHADE TREES

**PERIMETER 4:**  
 180 LF OF EXISTING FOREST WAS CREDITED FOR (3) SHADE TREES

**PERIMETER 5:**  
 343 LF OF EXISTING FOREST WAS CREDITED TO MEET ALL PERIMETER REQUIREMENTS

**PERIMETER 6:**  
 457 LF OF EXISTING FOREST WAS CREDITED TO MEET ALL PERIMETER REQUIREMENTS

**PERIMETER 7:**  
 157 LF OF EXISTING FOREST WAS CREDITED TO MEET ALL PERIMETER REQUIREMENTS

**PERIMETER 8:**  
 (1) EXISTING SHADE TREE WAS CREDITED FOR (1) SHADE TREE  
 (70) EVERGREEN TREES WERE CREDITED FOR (14) SHADE TREES AND (30) EVERGREEN TREES

**PERIMETER 9:**  
 (16) EXISTING SHADE TREES WERE CREDITED FOR (16) SHADE TREES  
 (17) EXISTING EVERGREEN TREES WERE CREDITED FOR (17) EVERGREEN TREES  
 (2) EXISTING SHADE TREES WERE CREDITED FOR (3) EVERGREEN TREES

**PERIMETER 10:**  
 (20) SHRUBS WERE SUBSTITUTED FOR (1) SHADE TREE AND 1 EVERGREEN TREE.  
 PROPOSED SCREENING WALL WAS SUBSTITUTED FOR (2) EVERGREEN TREES

PARKING LOT	1	2	3	4	5	6	7
NUMBER OF PARKING SPACES	36	27	20	8	44	151	2
NUMBER OF SHADE TREES REQUIRED (1/20 SPACES)	2	1	1	1	2	8	0
NUMBER OF TREES PROVIDED							
SHADE TREES	0	0	1	1	1	4	0
OTHER TREES (2:1 SUBSTITUTION)	-	-	-	-	-	2	-
NUMBER OF ISLANDS REQUIRED (200 SF. AREA / ISLAND)	2	1	1	1	2	8	0
NUMBER OF ISLANDS PROVIDED	2	1	1	1	2	8	0

**SCHEDULE 'B' SUBSTITUTION NOTES:**

**PARKING LOT 1:**  
 (2) EXISTING SHADE TREES WERE CREDITED TO MEET PARKING LOT REQUIREMENTS

**PARKING LOT 2:**  
 (4) EXISTING SHADE TREES WERE CREDITED TO MEET PARKING LOT REQUIREMENTS

**PARKING LOT 5:**  
 (1) EXISTING SHADE TREE WAS CREDITED TO MEET PARKING LOT REQUIREMENTS

**PARKING LOT 6:**  
 (3) EXISTING SHADE TREES WERE CREDITED TO MEET PARKING LOT REQUIREMENTS

PARKING LOT	5	6
SHRUBS	41	31
ORNAMENTAL TREES	0	2
EVERGREEN TREES	0	8
SHADE TREES	0	0

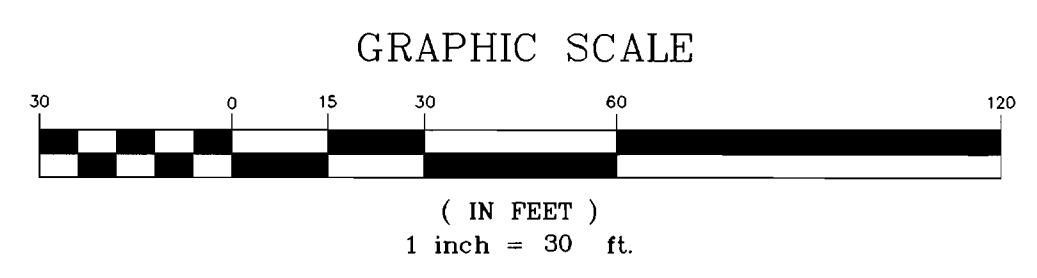
**DEVELOPER'S/BUILDER'S CERTIFICATE:**

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

*William S. [Signature]*  
 SIGNATURE DATE

**PLANTING LEGEND**

- PROP. SHADE TREE
- PROP. ORNAMENTAL TREE
- PROP. EVERGREEN TREE
- PROP. EVERGREEN SHRUB
- PROP. DECIDUOUS SHRUB
- PROP. TREELINE
- EXISTING TREELINE
- EXISTING PLANTS
- TREE PROTECTION FENCE
- PERIMETER CREDIT USED FOR EXISTING PLANTS
- CONFORMANCE LANDSCAPE REQUIREMENT
- BIORETENTION PLANTING (SEE SHEET 14 FOR PLANT LIST)



- 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.
  - FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$11,360.00.  
 13 SHADE TREES @ \$300 = \$3,900.00  
 4 ORNAMENTAL TREES @ \$150 = \$600.00  
 22 EVERGREEN TREES @ \$150 = \$3,300.00  
 42 SHRUBS @ \$30 = \$1,260.00  
 40 LF WALL @ \$20/LF = \$800.00
  - THE REQUIRED LANDSCAPING INCLUDES THAT LANDSCAPING REQUIRED BY THE LANDSCAPE MANUAL, AND THAT LANDSCAPING WHICH WAS REQUIRED BY THE SPECIAL EXCEPTION. THE 3 PICEA ABIES BY THE MAINTENANCE SHED AND 3 ILEX OPAGA IN FRONT OF THE ROSE HILL BUILDING ARE NOT REQUIRED AND WERE NOT BONDED.
  - THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
  - CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
  - ALL MATERIAL SELECTED SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
  - ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS CITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION.
  - AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED 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.
  - NO STORMWATER MANAGEMENT LANDSCAPING HAS BEEN PROVIDED WITH THIS PLAN BECAUSE ALL STORMWATER MANAGEMENT HAS BEEN ACCOMMODATED IN UNDERGROUND FACILITIES, IN BIORETENTION FACILITIES, OR IN GRASSED SWALES.
  - IN ORDER TO SATISFY THE CONDITIONS OF THE SPECIAL EXCEPTION, LANDSCAPE SCREENING HAS BEEN PROVIDED FOR PARKING LOTS 5 & 6. THE TYPE AND QUANTITY OF PLANT MATERIAL IS SHOWN IN SCHEDULE C.

**AS BUILT CERTIFICATE**

DATE: \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Joseph R. [Signature]* 11/26/01  
 DIRECTOR DATE

*Mike [Signature]* 11/16/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

*Chris [Signature]* 11/28/01  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER / DEVELOPER  
 THE VESTRY AT ST. JOHN'S CHURCH  
 QUEEN CAROLINE PARISH  
 ALSO KNOWN AS  
 ST. JOHN'S EPISCOPAL CHURCH  
 8120 FREDERICK ROAD  
 ELLICOTT CITY, MARYLAND 21042

PROJECT **ST. JOHN'S EPISCOPAL CHURCH**  
 EDUCATION AND MULTIPURPOSE  
 ROOM EXPANSION

AREA  
 ZONED R-20  
 PARCEL 103 & 535 TAX MAP 24  
 2ND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE  
**LANDSCAPE PLAN,  
 NOTES, AND SCHEDULES**

**RIEMER MUEGGEL**  
 a division of:  
**Patton Harris Rust & Associates, pc**  
 ENGINEERS • SURVEYORS • PLANNERS  
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

10-25-01 DESIGNED BY: PJS

DRAWN BY: GTH, PJS

CHECKED BY: DTD

PROJECT NO: 00286  
 LSCP3.DWG

DATE: OCTOBER 26, 2001

SCALE: 1" = 30'

DRAWING NO. 18 OF 25

*Scott R. Wolford*  
 SCOTT R. WOLFORD #797

P:\project\00286\1503.dwg Thu Oct 25 08:37:26 2001 PATTON HARRIS RUST & ASSOCIATES



**PLANTING SPECIFICATIONS**

- Plants, related material, and operations shall meet the detailed description, as given on the plans and as described herein. Where discrepancies exist between Standards & Guidelines referenced within these specifications and the Howard County Landscape Manual, the latter takes precedence.
- All plant material, unless otherwise specified, that is not nursery grown, uniformly branched, does not have a vigorous root system, and does not conform to the most recent edition of the American Association of Nurserymen (AAN) Standards will be rejected. Plant material that is not healthy, vigorous, free from defects, decay, disfiguring roots, sunscald injuries, abrasions of the bark, plant diseases, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements will be rejected. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will be rejected. All B & B plants shall be freshly dug; no heated-in plants or plants from cold storage will be accepted.
- Unless otherwise specified, all general conditions, planting operations, details and planting specifications shall conform to the most recent edition of the 'Landscape Specification Guidelines' by the Landscape Contractors Association of MD, DC, & VA', (hereinafter 'Landscape Guidelines') approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac chapter of the American Society of Landscape Architects.
- Contractor shall guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section on the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.
- Contractor shall be responsible for notifying all relevant and appropriate utility companies, utility contractors, and 'Miss Utility' a minimum of 48 hours prior to the beginning of any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Major changes will require the approval of the landscape architect. Damage to existing structure and utilities shall be repaired at the expense of the contractor.
- Protection of existing vegetation to remain shall be accomplished via the temporary installation of 4 foot high snow fence at the drip line, see detail.
- Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within growing season of completion of site construction. Do not plant Pinus strobus or Xpressacyparis leylandii between November 15 and March 15. Landscape plants are not to be installed before site is graded to final grade.
- Contractor to regrade, fine grade, sod, hydroseed and straw mulch all areas disturbed by their work.

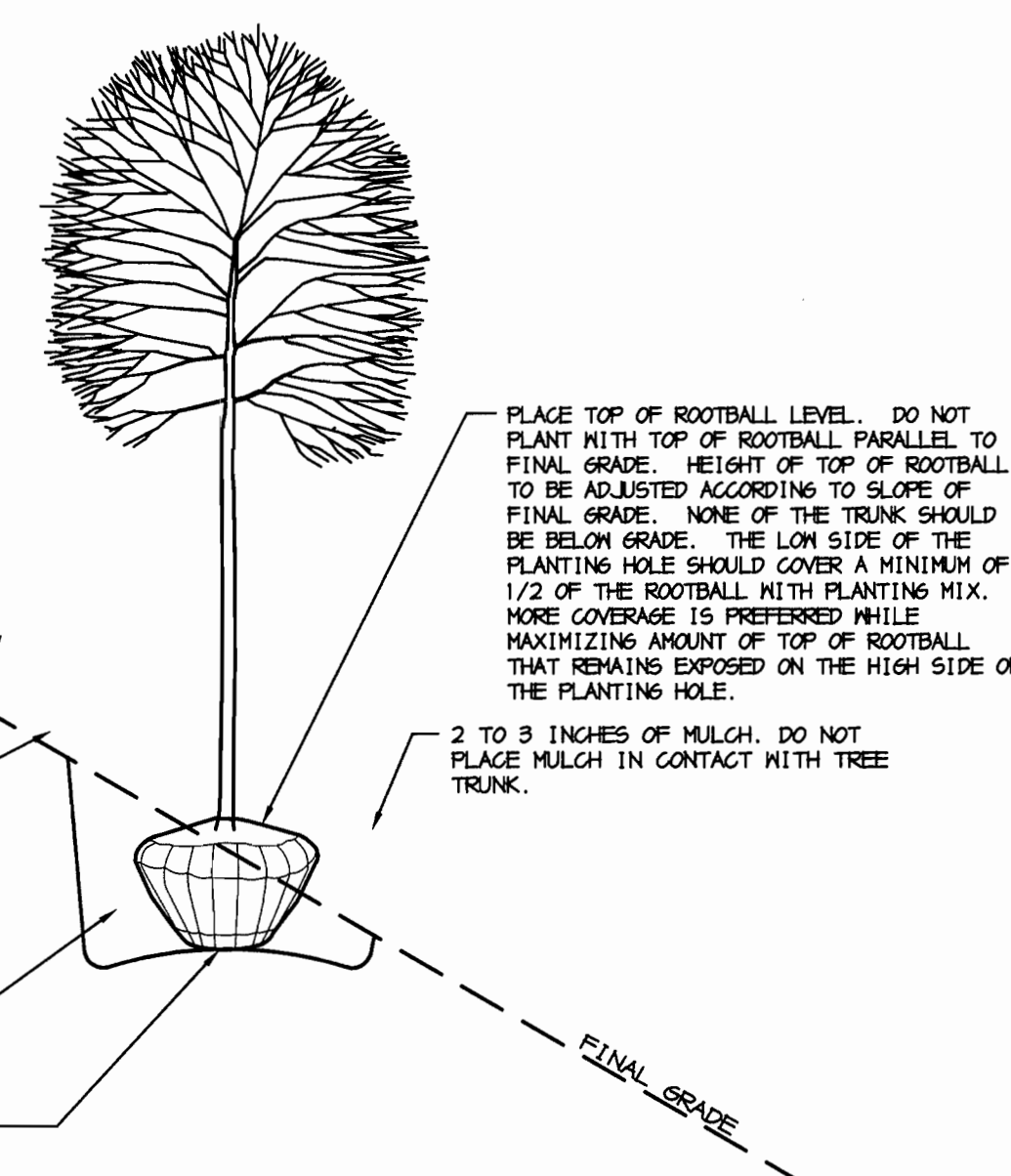
BIORETENTION PLANT LIST							
KEY	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	SPACING	ZONE*	
AR	2	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE	2 1/2" - 3" GAL	B&B	PLANT AS SHOWN	(3,4),5	
LS	1	LIGUIDANBAR STRYACIFLUA AMERICAN SWEETGUM	2 1/2" - 3" GAL.	B&B	PLANT AS SHOWN	(3,4),5	
MV	1	MAGNOLIA VIRGINIANA SHARP MAGNOLIA	6-8" HT.	B&B	PLANT AS SHOWN	***	
QP	1	QUERCUS PALUSTRIS PIN OAK	2 1/2" - 3" GAL.	B&B	PLANT AS SHOWN	4	
UA	2	ULMUS AMERICANA AMERICAN ELM	2 1/2" - 3" GAL.	B&B	PLANT AS SHOWN	***	
AA	20	ARONIA ARBUTIFOLIA RED CHOKEBERRY	2 1/2" - 3" HT.	CONT.	PLANT AS SHOWN	***	
CS	31	CORNUS SERICEA RED TWIG DOGWOOD	2 1/2" - 3" HT.	CONT.	PLANT AS SHOWN	***	
HV	6	HAMAMELIS VERNALIS VERNAL NITCHHAZEL	2 1/2" - 3" HT.	CONT.	PLANT AS SHOWN	***	
IT	5	ITEA VIRGINICA 'HENRY'S GARNET' VIRGINIA SWEETSPICE	2 1/2" - 3" HT.	CONT.	PLANT AS SHOWN	***	
IV	40	ILEX VERTICILLATA 'RED SPRITE' NINTERBERRY	2 1/2" - 3" HT.	CONT.	PLANT AS SHOWN	1,(2,3)	
CE	2470	CAREX ELATA 'AUREA'*** BONLES GOLDEN SEDGE	2" PEAT POT	CONT.	6" SPACING	(1,2),3	
EP	232	EUPATORIUM PURPUREA JOE PYE WEEED	1 GAL.	CONT.	18" SPACING	****	
IR	200	IRIS VERSICOLOR 'BLUE FLAG' BLUE FLAG IRIS	1 GAL.	CONT.	18" SPACING	(1,2),3	
LC	258	LOBELIA CARDINALIS CARDINAL FLOWER	1 GAL.	CONT.	18" SPACING	1,(2,3),4	
MD	85	MONARDA DIDYMA BEE BALM	1 GAL.	CONT.	18" SPACING	3,4,5	

- BIORETENTION PLANT LIST NOTES:**
- HYDROLOGIC ZONES ACCORDING TO APPENDIX A OF THE MARYLAND MODEL STORMWATER MANAGEMENT ORDINANCE JULY 2000.
  - ALSO KNOWN CAREX STRICTA 'AUREA'
  - KNOWN TO TOLERATE INUNDATION AS WELL AS DRY AREAS ACCORDING TO DIRR, MICHAEL A., MANUAL OF WOODY LANDSCAPE PLANTS
  - COMMONLY USED BIORETENTION SPECIES ACCORDING TO TABLE A.4 IN APPENDIX A OF THE MARYLAND MODEL STORMWATER MANAGEMENT ORDINANCE JULY 2000.

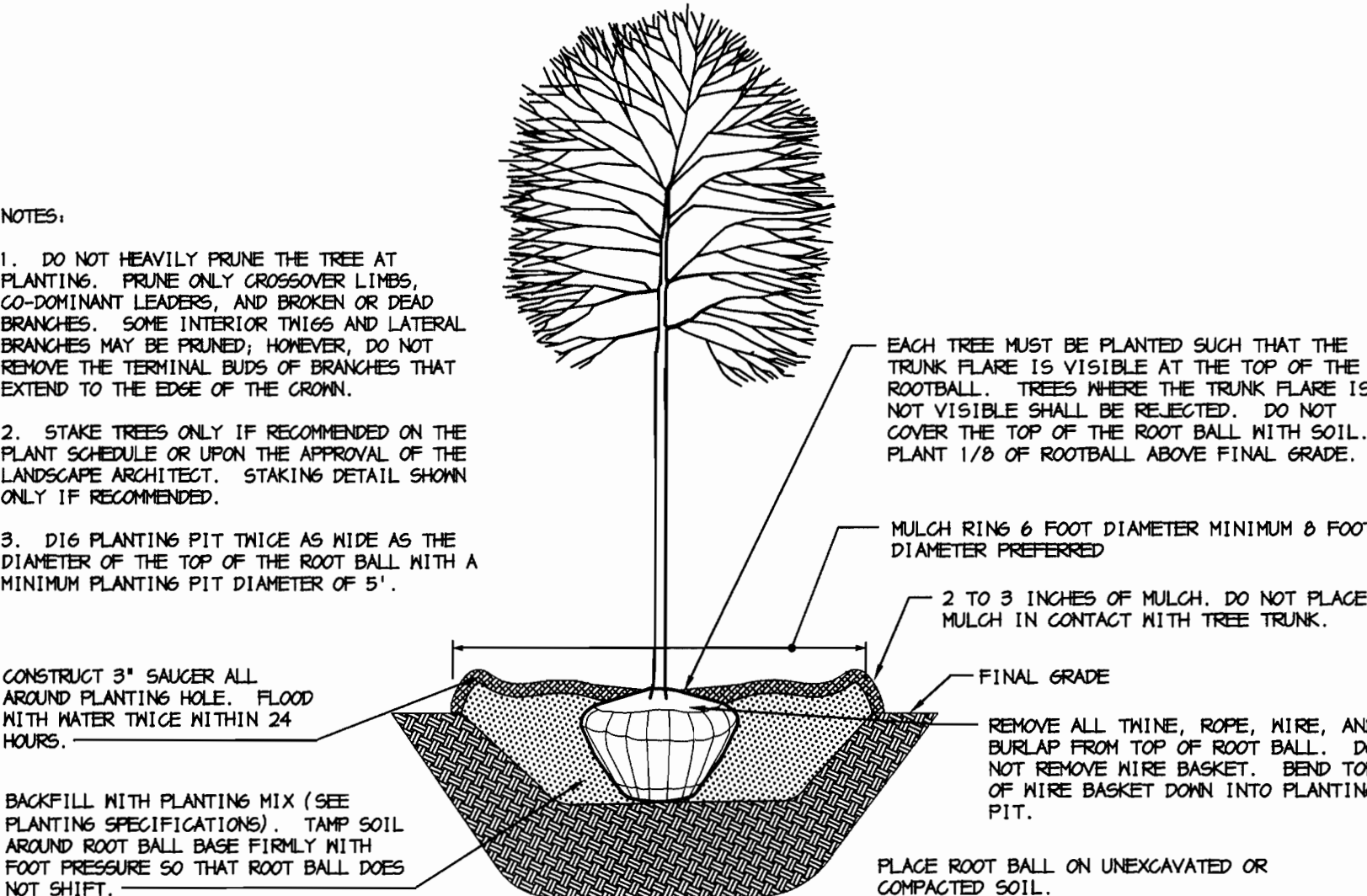
PLANT LIST							
KEY	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	SPACING		
AR	4	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE	2 1/2" - 3" GAL	B&B	PLANT AS SHOWN		
AS	4	ACER SACCHARUM 'GREEN MOUNTAIN' GREEN MOUNTAIN SUGAR MAPLE	2 1/2" - 3" GAL	B&B	PLANT AS SHOWN		
FS	4	FAGUS SYLVATICA EUROPEAN BEECH	2 1/2" - 3" GAL.	B&B	PLANT AS SHOWN		
LS	1	LIGUIDANBAR STRYACIFLUA AMERICAN SWEETGUM	2 1/2" - 3" GAL.	B&B	PLANT AS SHOWN		
IF	3	ILEX ATTENUATA 'FOSTERII' FOSTER'S HOLLY	5-6' HT.	CONT.	PLANT AS SHOWN		
IO	13	ILEX OPACA 'MERRY CHRISTMAS' AMERICAN HOLLY	5-6' HT.	B&B	PLANT AS SHOWN		
M6	2	MAGNOLIA GRANDIFLORA SOUTHERN MAGNOLIA	8-10' HT.	B&B	PLANT AS SHOWN		
PA	10	PICEA ABIES NORWAY SPRUCE	6-8' HT.	B&B	PLANT AS SHOWN		
AC	2	AMELANCHIER CANADENSIS SERVISEBERRY	8-10' HT.	B&B	PLANT AS SHOWN		
MV	2	MAGNOLIA VIRGINIANA SHARP MAGNOLIA	6-8' HT.	B&B	PLANT AS SHOWN		
A6	18	AZALEA 'GLACIER' GLACIER AZALEA	18-24" HT.	CONT.	PLANT AS SHOWN		
AZ	17	AZALEA 'GAIETY' GAIETY AZALEA	2 1/2" - 3" HT.	CONT.	PLANT AS SHOWN		
HV	10	HAMAMELIS VERNALIS VERNAL NITCHHAZEL	2 1/2" - 3" HT.	CONT.	PLANT AS SHOWN		
RA	17	RHODODENDRON CATANBIENSE 'ALBUM' WHITE CATANBA RHODODENDRON	2 1/2" - 3" HT.	CONT.	PLANT AS SHOWN		
R4	30	RHODODENDRON CATANBIENSE 'ROSEUM ELEGANS' ROSEUM ELEGANS CATANBA RHODODENDRON	2 1/2" - 3" HT.	CONT.	PLANT AS SHOWN		

- PLANT LIST NOTES:**
- SURETY AMOUNT IS BASED ON REQUIRED LANDSCAPE MATERIAL ONLY. SEE GENERAL NOTE #2 FOR SURETY TOTAL.
  - PLANTS SHOWN DO NOT INCLUDE PLANTING FOR THE BIORETENTION FACILITIES. SEE SEPARATE BIORETENTION PLANTING SCHEDULE.

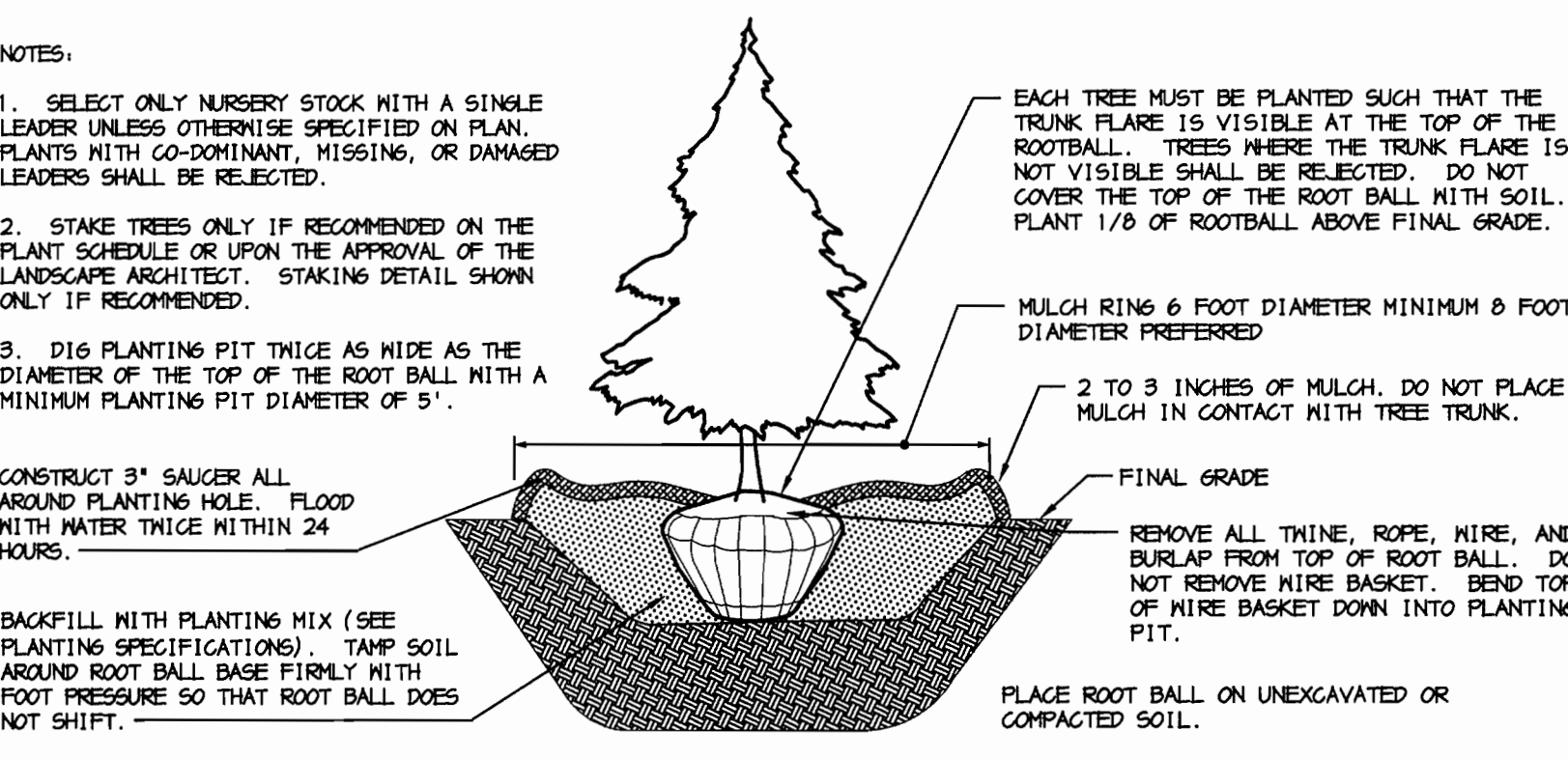
- NOTES:**
- DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
  - STAKE TREES ONLY IF RECOMMENDED ON THE PLANT SCHEDULE OR UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. STAKING DETAIL SHOWN ONLY IF RECOMMENDED.



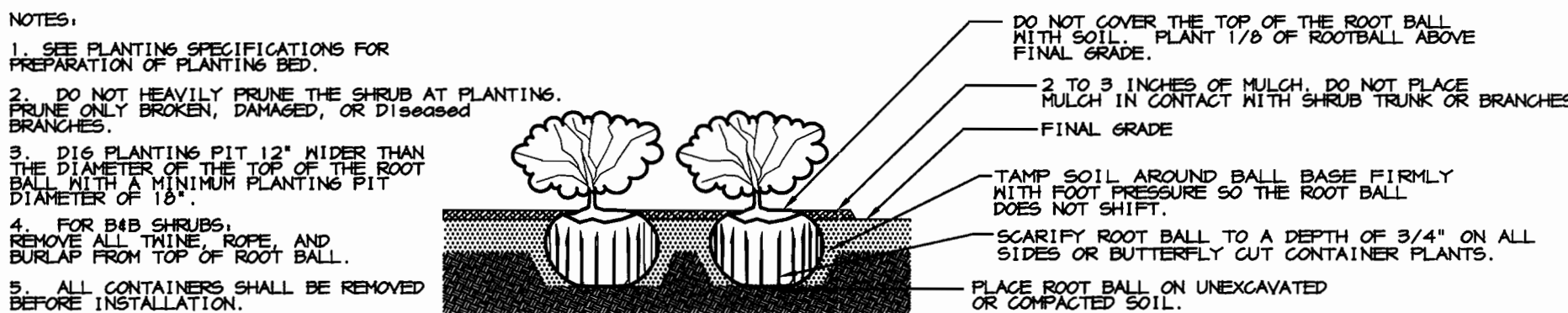
**DECIDUOUS B&B AND CONTAINERIZED TREE PLANTING DETAIL FOR STEEP SLOPES**  
NOT TO SCALE



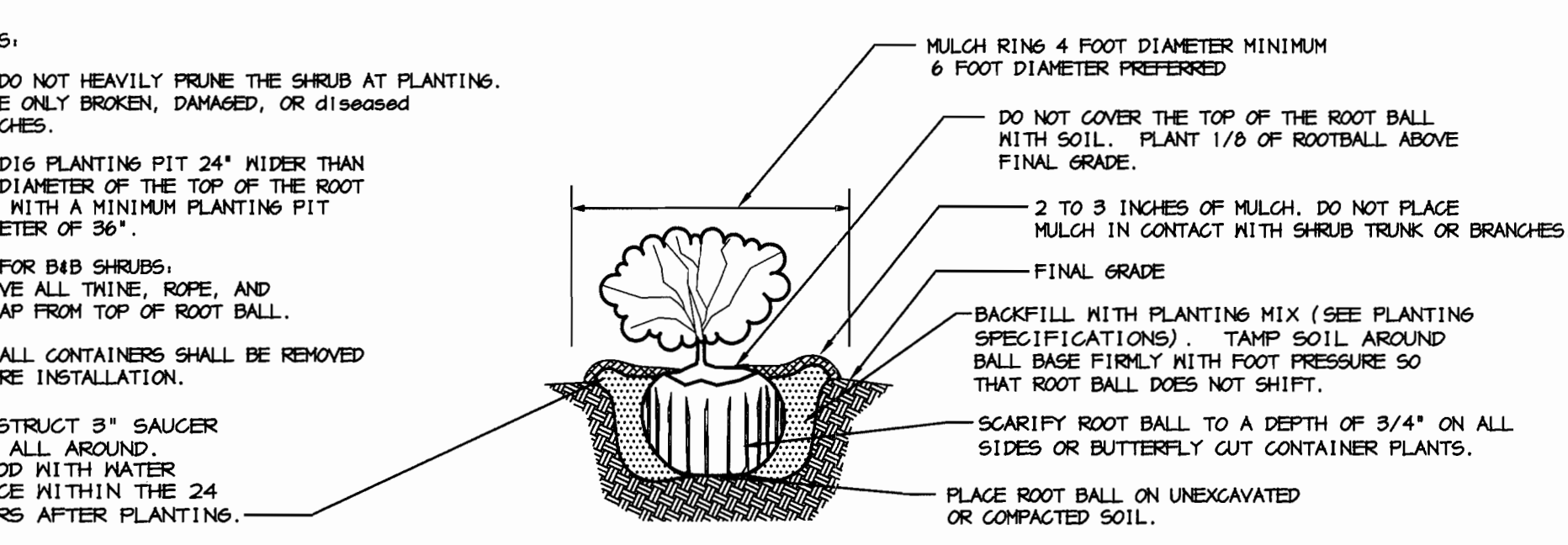
**DECIDUOUS B&B TREE PLANTING DETAIL**  
NOT TO SCALE



**EVERGREEN B&B TREE PLANTING DETAIL**  
NOT TO SCALE



**SHRUB BED PLANTING DETAIL - B&B AND CONTAINER SHRUBS**  
NOT TO SCALE



**INDIVIDUAL SHRUB PLANTING DETAIL - B&B AND CONTAINER SHRUBS**  
NOT TO SCALE

AS BUILT CERTIFICATE

DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James R. Rust* 11/20/01  
DIRECTOR DATE

*Michael M. McK...* 11/16/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

*Cindy St...* 11/20/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE NO. REVISION

OWNER / DEVELOPER  
THE VESTRY AT ST. JOHN'S CHURCH  
QUEEN CAROLINE PARISH  
ALSO KNOWN AS  
ST. JOHN'S EPISCOPAL CHURCH  
9120 FREDERICK ROAD  
ELLCOTT CITY, MARYLAND 21042

PROJECT ST. JOHN'S EPISCOPAL CHURCH  
EDUCATION AND MULTIPURPOSE  
ROOM EXPANSION

AREA ZONED R-20  
PARCEL 103 & 535 TAX MAP 24  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE LANDSCAPE NOTES,  
SCHEDULES, AND DETAILS

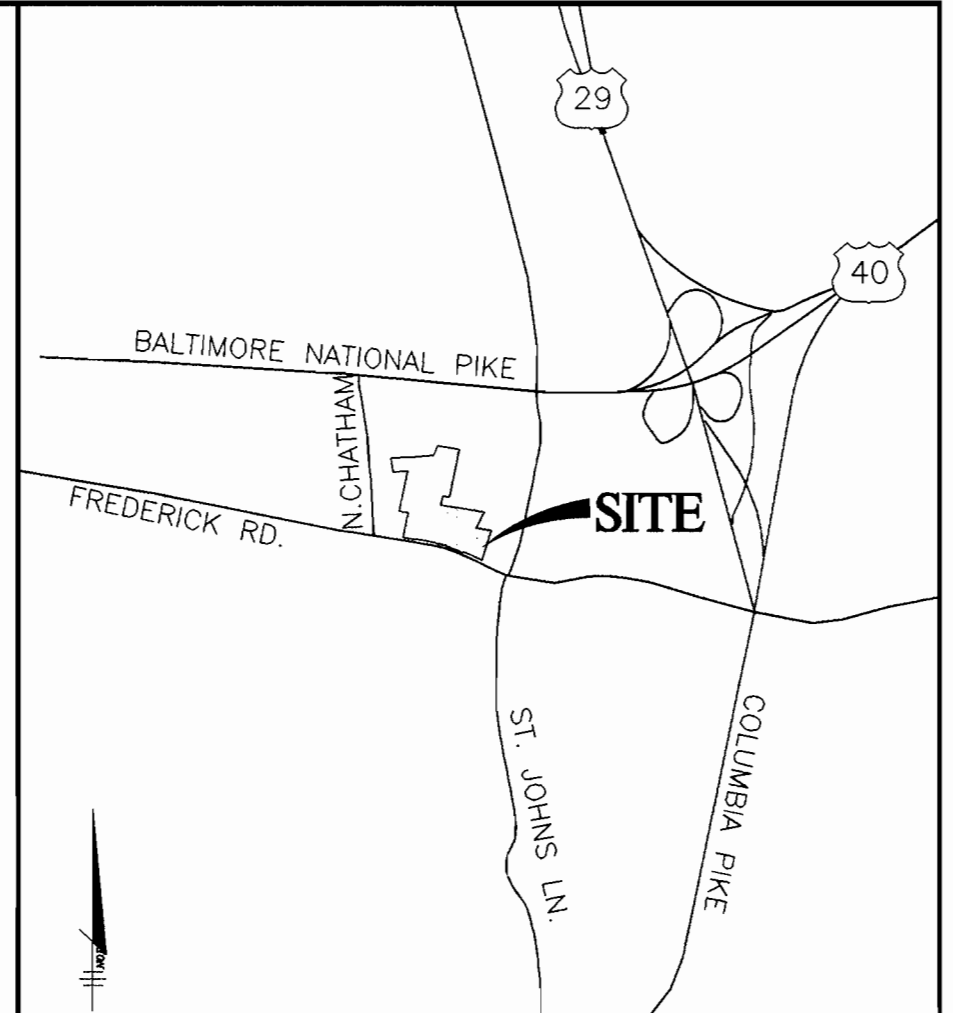
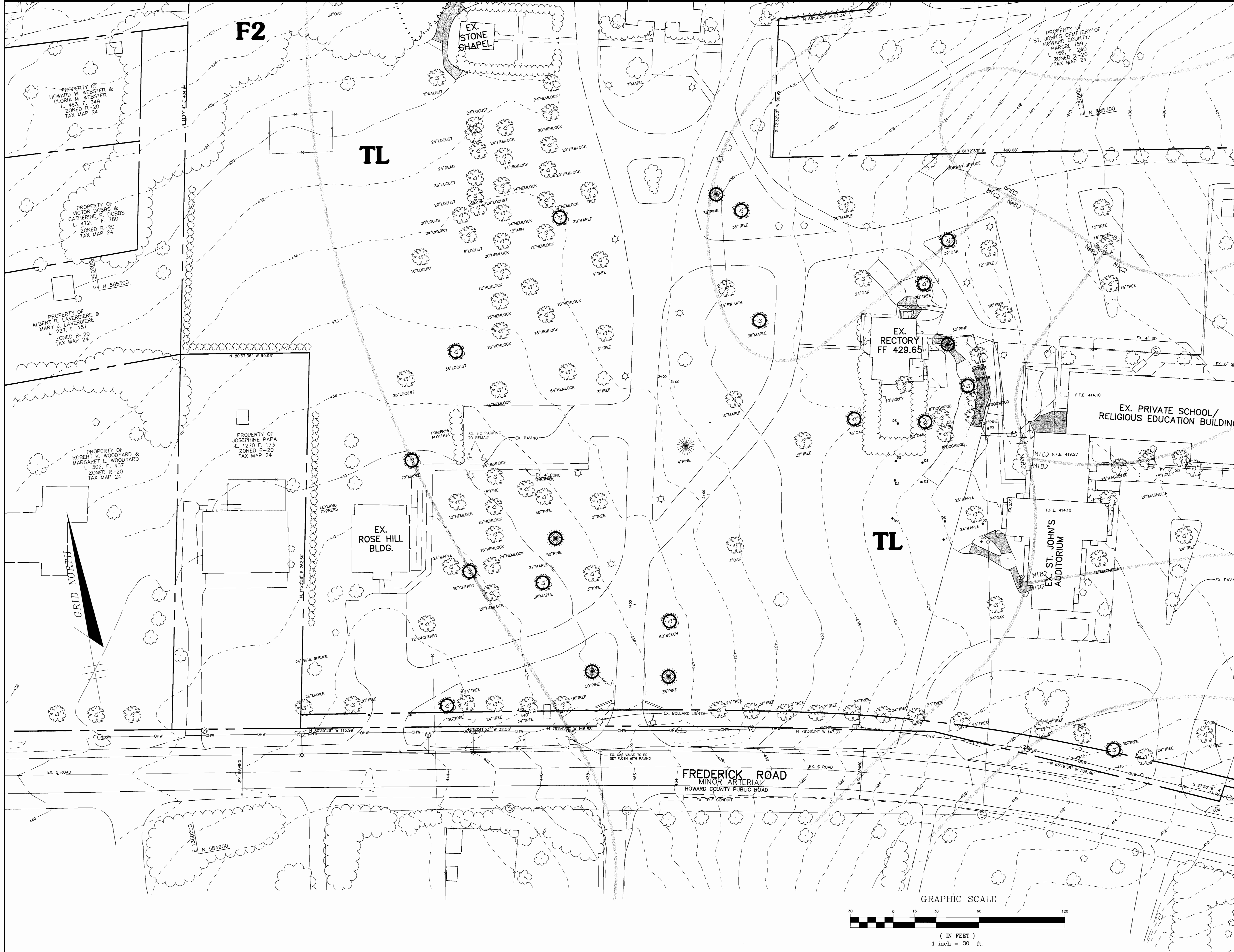
RIEMER MUEGGE  
a division of  
Patton Harris Rust & Associates, pc  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

DESIGNED BY: PJS  
DRAWN BY: GTH, PJS  
CHECKED BY: RAF, DTD  
PROJECT NO.: 00286  
LSCP4.DWG  
DATE: OCTOBER 26, 2001  
SCALE: 1" = 30'  
DRAWING NO. 19 OF 25

10-25-01  
STATE OF MARYLAND  
SCOTT R. WOLFORD  
SCOTT R. WOLFORD #797



MATCH LINE SEE SHEET 21



VICINITY MAP  
SCALE: 1" = 2000'

MATCH LINE SEE SHEET 22

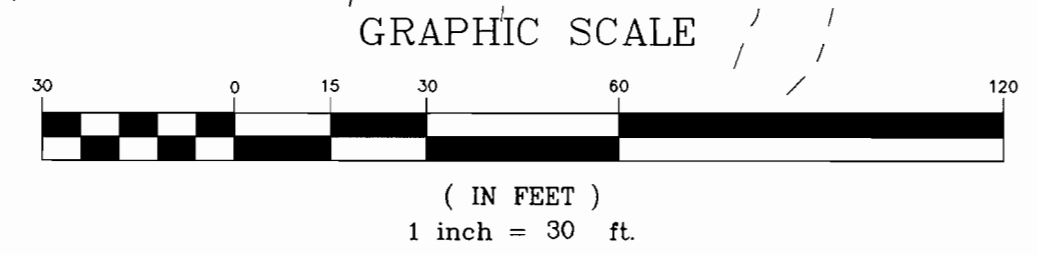
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APPROVED :	DATE
<i>James R. Rust</i> DIRECTOR	11/20/01 DATE
<i>Mark D. Williams</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	11/10/01 DATE
<i>Charles S. Krumholz</i> CHIEF, DIVISION OF LAND DEVELOPMENT	11/10/01 DATE

DATE NO.	REVISION
OWNER / DEVELOPER	
THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLCOTT CITY, MARYLAND 21042	
PROJECT	
ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION	
AREA	
ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE	
FOREST STAND DELINEATION	

**RIEMER MUEGGE**  
a division of:  
**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

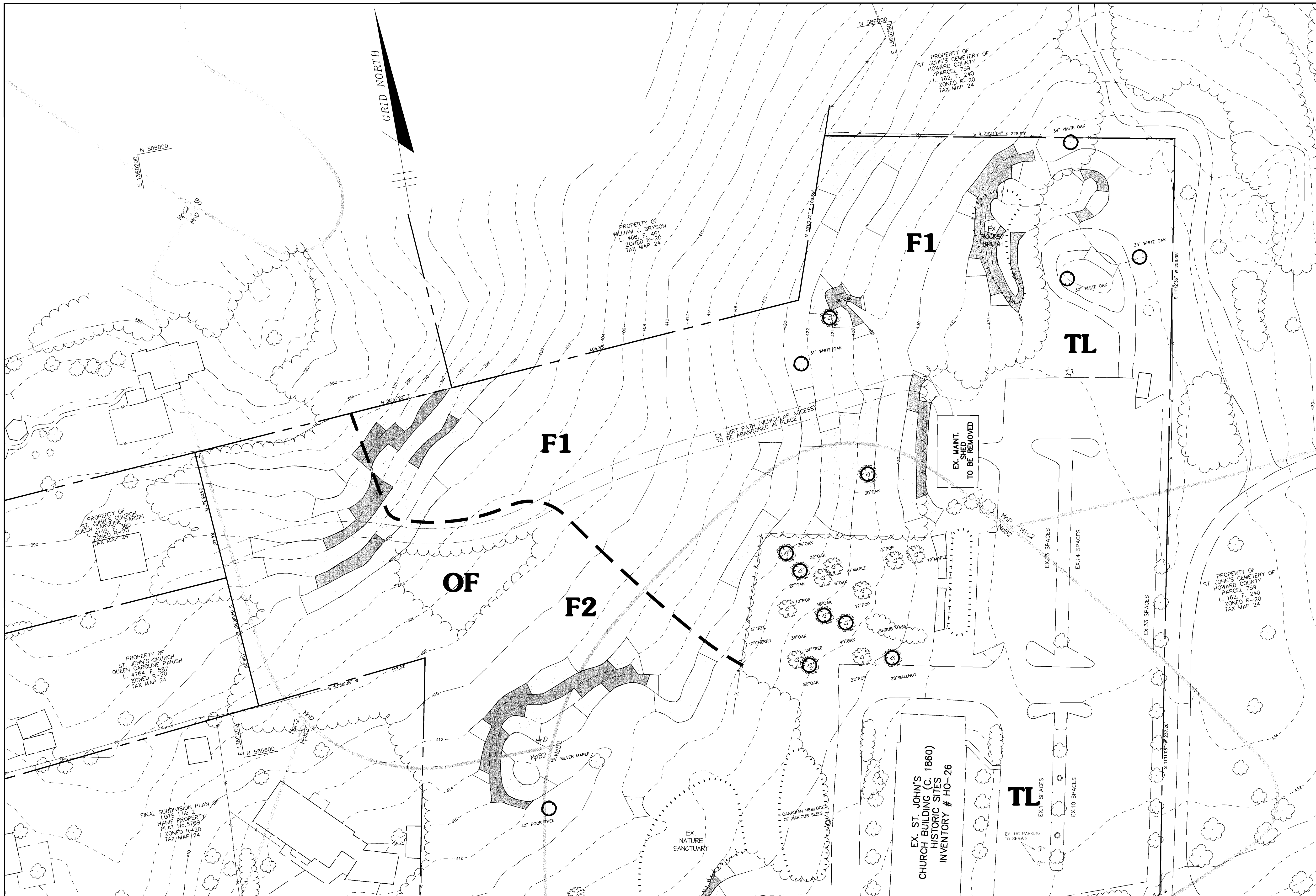
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PROJECT NO : 00286  
FSD1.DWG  
DATE : OCTOBER 26, 2001  
SCALE : 1" = 30'  
DRAWING NO. 20 OF 25

*Scott R. Wolford*  
SCOTT R. WOLFORD #797



2: \project\00286\FSD1.dwg Thu Oct 25 08:33:59 2001 PATTON HARRIS RUST & ASSOCIATES

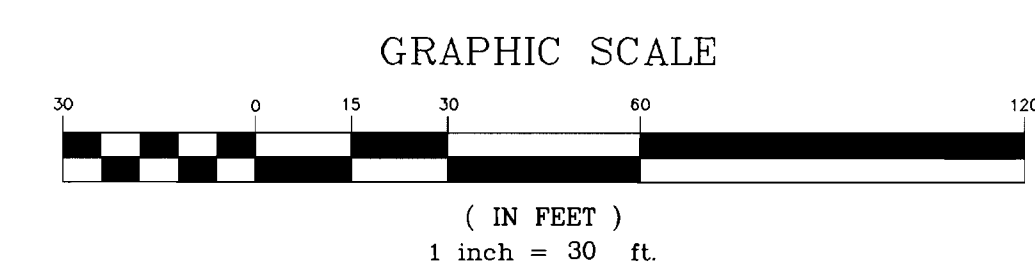
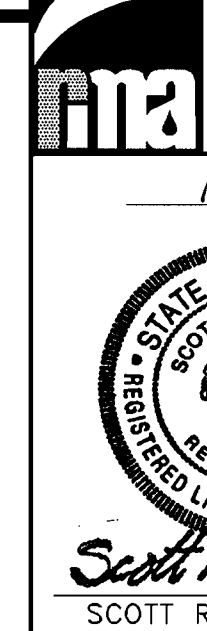




AS BUILT CERTIFICATE	
DATE	
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>David S. Smith</i> DIRECTOR	11/20/01 DATE
<i>Chris Hunter</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	4/16/01 DATE
<i>Chris Hunter</i> CHIEF, DIVISION OF LAND DEVELOPMENT	11/23/01 DATE
DATE NO.	REVISION
OWNER / DEVELOPER	
THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLCOTT CITY, MARYLAND 21042	
PROJECT	
ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION	
AREA	
ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE	
FOREST STAND DELINEATION	

**RIEMER MUEGGE**  
a division of:  
**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
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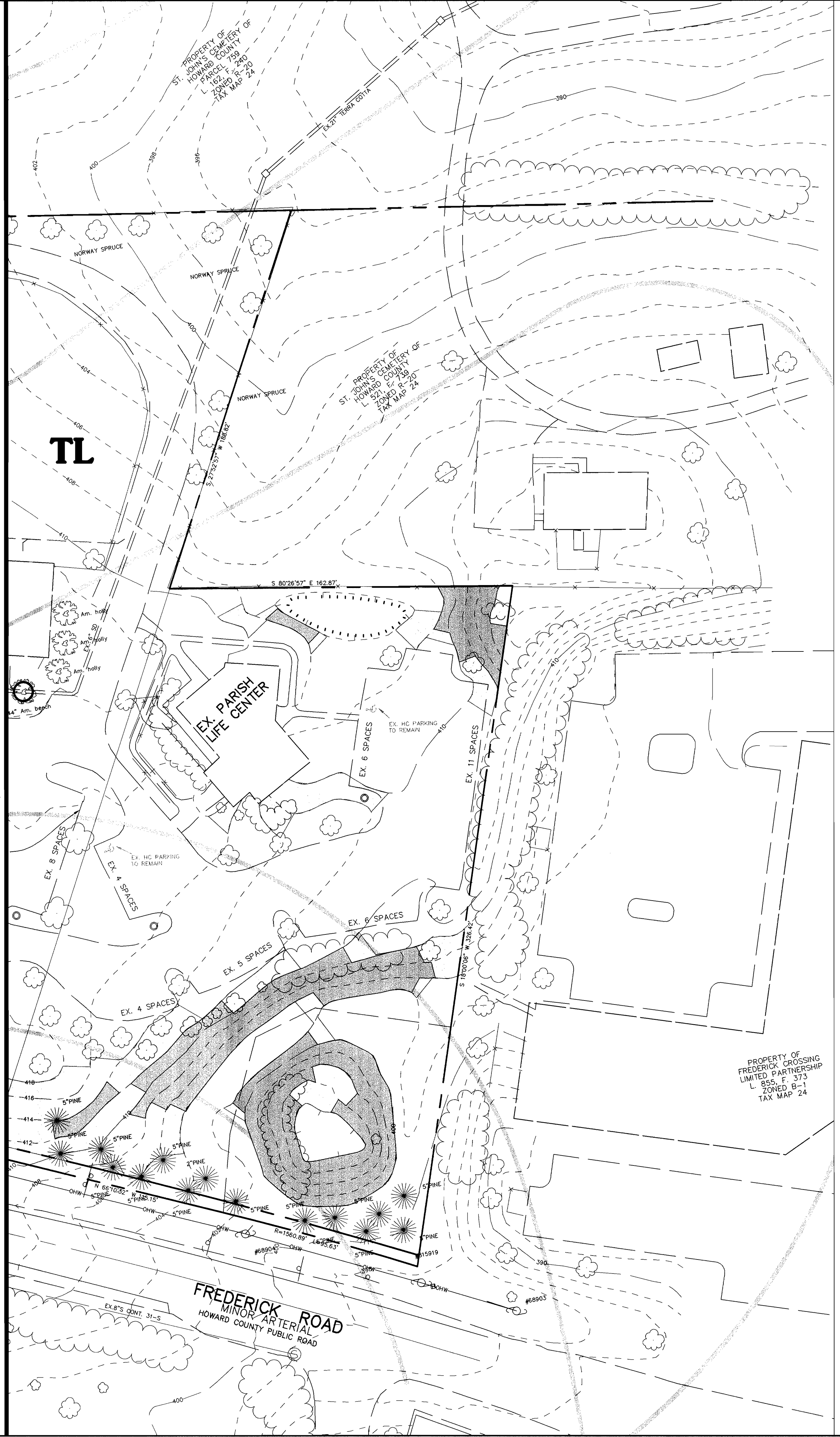
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DRAWN BY:  
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PROJECT NO : 00286  
FSD2.DWG  
DATE : OCTOBER 26, 2001  
SCALE : 1" = 30'  
DRAWING NO. 21 OF 25



2: \project\00286\FSD2.dwg Thu Oct 25 08:17:29 2001 PATTON HARRIS RUST & ASSOCIATES



MATCHLINE SEE SHEET 20



**SITE CHARACTERISTICS:**

1. GROSS SITE AREA	14.51 ACRES
LESS FLOODPLAIN	0.00 ACRES
NET SITE AREA	14.51 ACRES
2. GROSS/NET FORESTED AREA	3.34 ACRES

**GENERAL NOTES:**

1. THIS SITE CONTAINS NO HYDRIC SOILS AND ONE SOIL WITH POSSIBLE HYDRIC INCLUSIONS, GLENVILLE (GMB2).
2. NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
3. NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED.
4. THERE ARE NO KNOWN CEMETERY OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY HISTORIC & CEMETERY SITE MAP, ALTHOUGH THE ADJACENT CEMETERY IS LISTED.
5. THIS SITE DOES NOT CONTAIN WETLANDS, 100-YEAR FLOODPLAIN, OR STREAMS.
6. THE EXISTING ST. JOHN'S CHURCH BUILDING (SANCTUARY) IS A HISTORIC STRUCTURE LISTED ON THE HOWARD COUNTY HISTORIC REGISTER.
7. SEE FOREST STAND DELINEATION REPORT DATED MAY 7, 2001 FOR FIELD INVESTIGATION NARRATIVE.

**PLANT COMMUNITY SUMMARY**

SYMBOL	COMMUNITY	AREA (AC.)
F1	FOREST	1.60
F2	FOREST	1.74
OF	OPEN FIELD	0.07
TL	TREES/LAWN/ IMPERVIOUS AREAS	11.10
TOTAL AREA		14.51

**LEGEND**

EX. TREELINE	
EX. TREES & SHRUBS (SURVEYED)	
EX. TREES (FIELD APPROXIMATED)	
PROPERTY LINE	
SPECIMEN TREES (230" DBH)	
PLANT COMMUNITY TYPE	<b>F1</b>
PLANT COMMUNITY LINE	
SLOPES: 15-24.9%	
SLOPES: 25%+	
SOILS	M1C2 M1B2 GMB2

AS BUILT CERTIFICATE

DATE \_\_\_\_\_

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR DATE 11/20/01

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE 11/16/01

CHIEF, DIVISION OF LAND DEVELOPMENT DATE 11/20/01

DATE	NO.	REVISION

OWNER / DEVELOPER  
 THE VESTRY AT ST. JOHN'S CHURCH  
 QUEEN CAROLINE PARISH  
 ALSO KNOWN AS  
 ST. JOHN'S EPISCOPAL CHURCH  
 9120 FREDERICK ROAD  
 ELLICOTT CITY, MARYLAND 21042

PROJECT ST. JOHN'S EPISCOPAL CHURCH  
 EDUCATION AND MULTIPURPOSE  
 ROOM EXPANSION

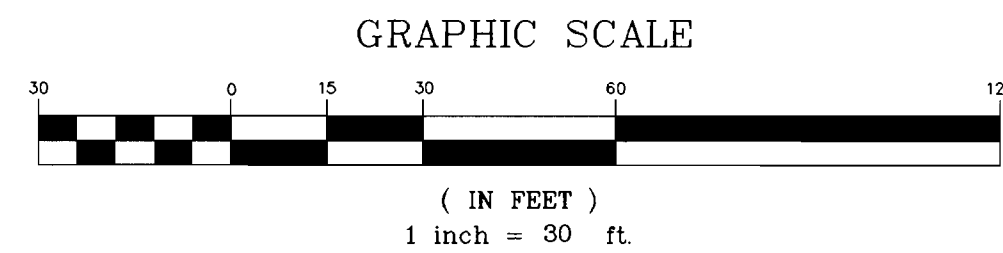
AREA  
 ZONED R-20  
 PARCEL 103 & 535 TAX MAP 24  
 2ND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

TITLE  
**FOREST STAND DELINEATION**

**RIEMER MUEGGE**  
 a division of:  
**Patton Harris Rust & Associates, pc**  
 ENGINEERS • SURVEYORS • PLANNERS  
 LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
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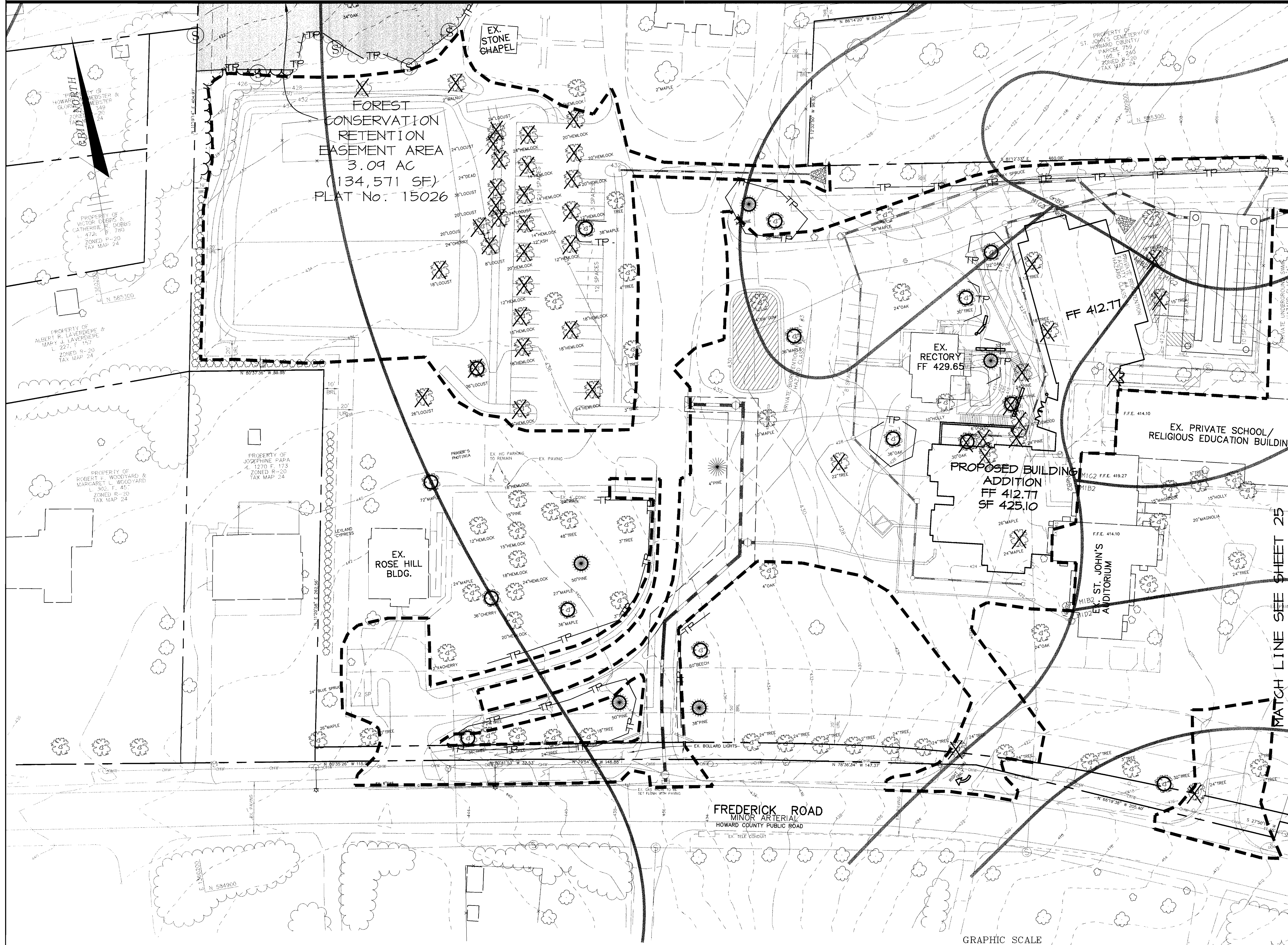
DATE 10-25-01  
 DESIGNED BY : R.A.F.  
 DRAWN BY:  
 CHECKED BY: R.A.F.  
 PROJECT NO : 00286  
 FSD3.DWG  
 DATE : OCTOBER 26, 2001  
 SCALE : 1" = 30'  
 DRAWING NO. 22 OF 25

SCOTT R. WOLFORD #797





MATCH LINE SEE SHEET 24



**LEGEND**

EX. TREELINE	
PROP. TREELINE	
EX. TREES & SHRUBS (SURVEYED)	
EX. TREES (FIELD APPROXIMATED)	
SPECIMEN TREES (>30" DBH)	
EX. TREE TO BE REMOVED	
PROPERTY LINE	
PROP. CONTOURS	
EX. CONTOURS	
LIMIT OF DISTURBANCE	
FOREST RETENTION AREA	
SOILS	
TREE PROTECTION SIGNAGE (SEE DETAIL SHEET 25)	
TREE PROTECTION FENCE	

MATCH LINE SEE SHEET 25

APPROVED :	HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	DATE
<i>James Rust</i>	DIRECTOR	11/20/01 DATE
<i>Mike DeMunn</i>	CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	11/16/01 DATE
<i>Cindy Hamstra</i>	CHIEF, DIVISION OF LAND DEVELOPMENT	11/29/01 DATE

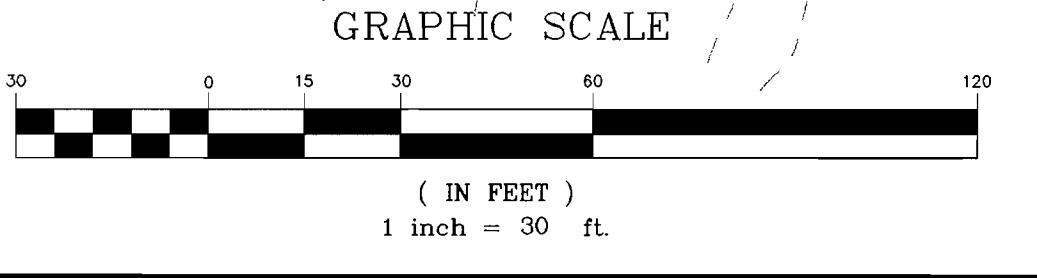
DATE	NO.	REVISION
OWNER / DEVELOPER		
THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLICOTT CITY, MARYLAND 21042		
PROJECT		
ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION		
AREA		
ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
FOREST CONSERVATION PLAN		

**RIEMER MUEGGE**  
a division of:  
**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

10-25-01  
DATE

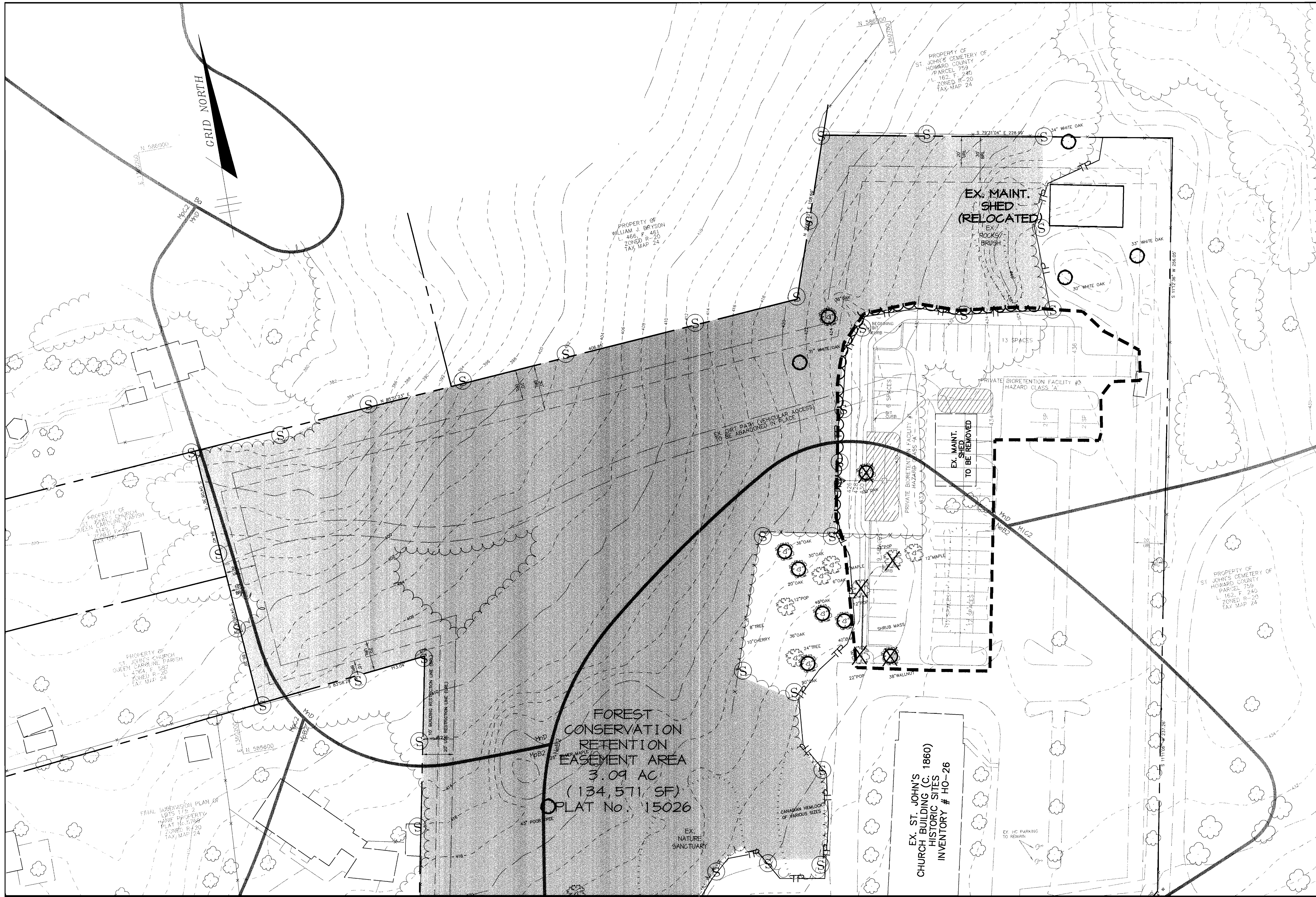
DESIGNED BY : PJS  
DRAWN BY : PJS, GTH  
CHECKED BY : RAF, DTD  
PROJECT NO : 00286  
FCP1.DWG  
DATE : OCTOBER 26, 2001  
SCALE : 1" = 30'  
DRAWING NO. 23 OF 25

*Scott R. Wolford*  
SCOTT R. WOLFORD #797



p:\project\00286\FCP1.dwg Tue Oct 30 16:57:01 2001 Riemer Muegge, a division of PHGA





LEGEND	
EX. TREELINE	
PROP. TREELINE	
EX. TREES & SHRUBS (SURVEYED)	
EX. TREES (FIELD APPROXIMATED)	
SPECIMEN TREES (≥30" DBH)	
EX. TREE TO BE REMOVED	
PROPERTY LINE	
PROP. CONTOURS	
EX. CONTOURS	
LIMIT OF DISTURBANCE	
FOREST RETENTION AREA	
SOILS	
TREE PROTECTION SIGNAGE (SEE DETAIL SHEET 25)	
TREE PROTECTION FENCE	

AS BUILT CERTIFICATE

APPROVED :	DATE
<i>Howard County</i> DIRECTOR	11/20/01 DATE
<i>Mike</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	11/16/01 DATE
<i>Janet</i> CHIEF, DIVISION OF LAND DEVELOPMENT	11/20/01 DATE

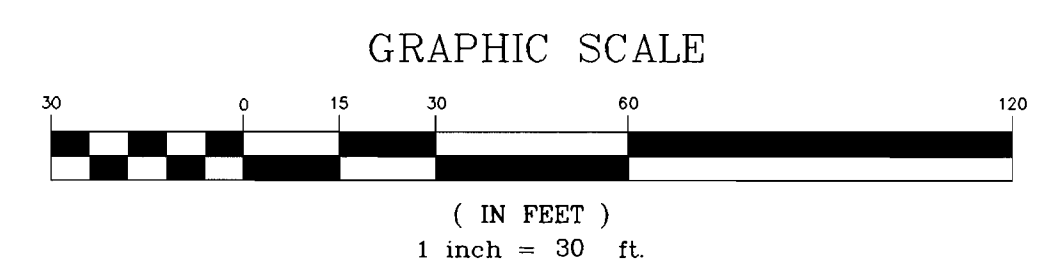
DATE	NO.	REVISION
OWNER / DEVELOPER		
THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLCOTT CITY, MARYLAND 21042		
PROJECT		
ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION		
AREA		
ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
FOREST CONSERVATION PLAN		

**RIEMER MUEGGE**  
a division of:  
**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Centre Park Drive, Columbia, MD 21046 • tel 410.997.8800 fax 410.997.8282

DESIGNED BY : PJS  
DRAWN BY : PJS, GTH  
CHECKED BY : RAF, DTD  
PROJECT NO : 00286  
DATE : OCTOBER 26, 2001  
SCALE : 1" = 30'  
DRAWING NO. 24 OF 25

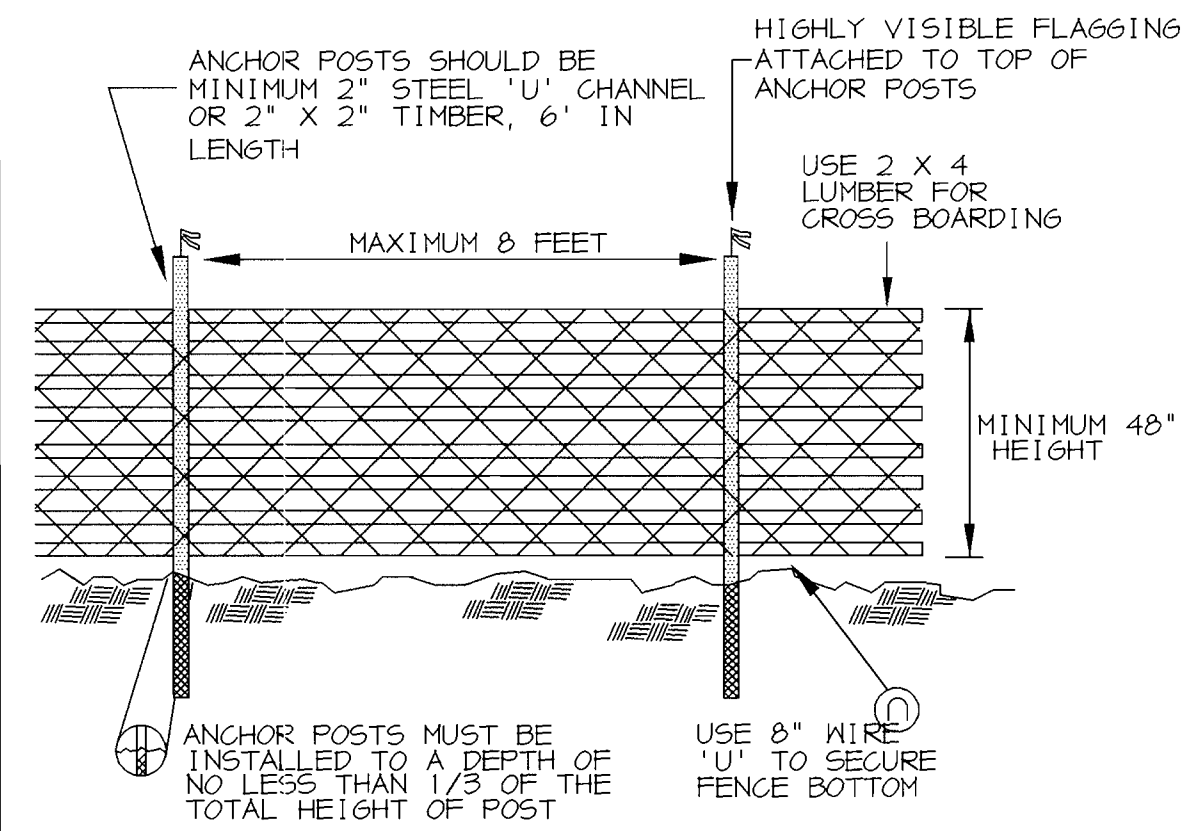
DATE: 10-25-01  
STATE OF MARYLAND  
SCOTT R. WOLFFORD  
REGISTERED LANDSCAPE ARCHITECT  
SCOTT R. WOLFFORD #797

MATCH LINE SEE SHEET 23





MATCHLINE SEE SHEET 23



- NOTES: 1. BLAZE ORANGE OR BLUE PLASTIC MESH FENCE FOR FOREST PROTECTION DEVICE, ONLY. 2. SUPER SILT FENCE MAY BE SUBSTITUTED FOR TREE PROTECTION FENCING. 3. BOUNDARIES OF RETENTION AREA WILL BE ESTABLISHED AS PART OF THE FOREST CONSERVATION PLAN REVIEW PROCESS. 4. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE. 5. AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS. 6. PROTECTION SIGNS ARE REQUIRED. SEE SIGN DETAIL. 7. FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

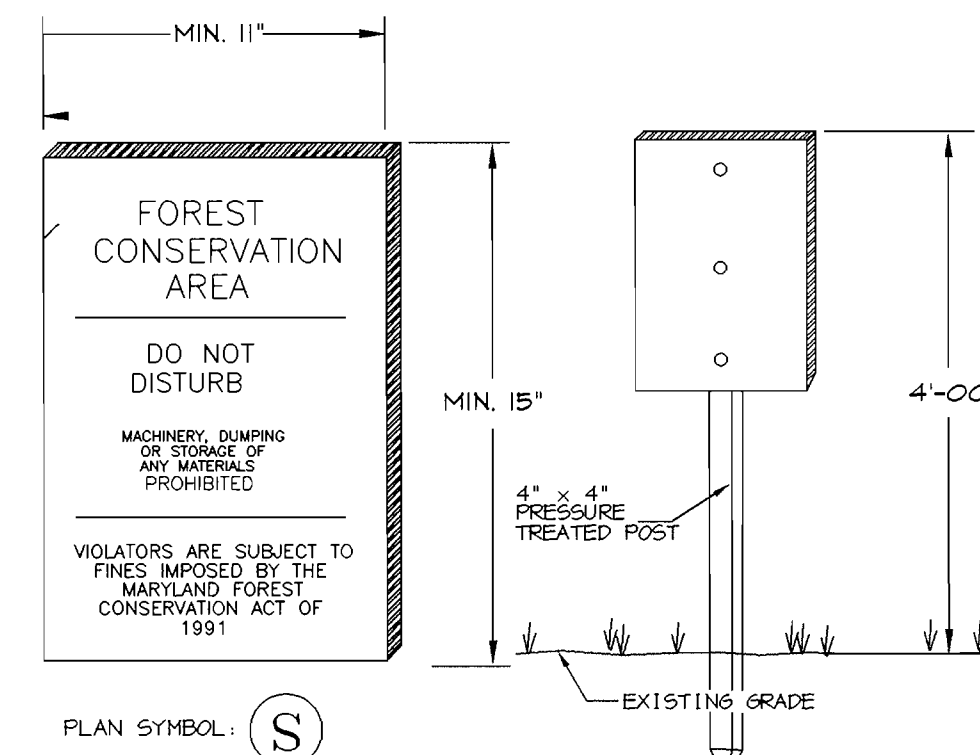
TREE PROTECTION FENCING NOT TO SCALE

FOREST CONSERVATION SEQUENCE OF OPERATIONS

- 1. Prior to beginning any grading operations on this site or on a respective lot, there shall be a pre-construction meeting held at the site which is to include the contractor and representatives from Riemer Muegge, a division of Patton Harris Rust & Associates. 2. The Limits of Disturbance (LOD) pertinent to the preservation of wooded areas shall be staked in the field with final adjustments being made as necessary to insure adequate protection of the Critical Root Zone of trees designated for retention. 3. All forest retention areas shall be protected by highly visible, well anchored temporary protection devices (see detail), which shall be securely in place prior to any clearing or grading operations. 4. Install tree protection signage. 5. Grading operations or other construction operations which could dislodge or otherwise damage the protective devices shall be avoided along the edges of the LOD lines if possible. 6. After site grading, utility access road, and driveway construction have been completed, all trees adjacent to the LOD line shall be inspected for indications of crown die-back (summer indicator), damage within respective critical root zones or any dead wood or other conditions which might be hazardous to pedestrians, buildings, utility lines vehicular access ways or parked vehicles. 7. Should there be evidence of any damage to tree trunks, branches or the critical root zone of trees within the protected areas, or to isolated specimen trees to be preserved, the damage shall be examined within a period of two (2) days from the date of observance by a licensed tree care professional. 8. Remove damaged, dead or dying trees or limbs only if the trees or limbs pose an immediate safety hazard to buildings, utility lines, vehicles, or access and egress drives or pedestrian areas. 9. All temporary forest protection devices will be carefully removed after all general construction, necessary tree surgery, removal of debris, etc. regrading and reseeding of sediment and erosion control disturbance have been completed and acceptance and approval of the work and site conditions have been given by the DPZ.

FOREST CONSERVATION PROGRAM

- I. OBJECTIVE: IT IS THE OBJECTIVE OF THE FOREST RETENTION PORTION OF THE ST. JOHN'S CHURCH EXPANSION TO RETAIN ENVIRONMENTAL INTEGRITY BY PRESERVING EXISTING WOODED AREAS. II. PRESERVATION: FOREST PRESERVATION AREAS SHALL BE PERMANENTLY PROTECTED BY FOREST CONSERVATION EASEMENTS. III. POST CONSTRUCTION MANAGEMENT PRACTICE: A TWO (2) YEAR POST-CONSTRUCTION AND MANAGEMENT PROGRAM TO ENSURE PROBABILITY OF A HIGH SURVIVAL RATE INCLUDES THE FOLLOWING: - MAINTENANCE OF SIGNS, FENCES AND TREE PROTECTION DEVICES TO PREVENT UNWARRANTED INTRUSIONS AND DAMAGE. - CAREFUL REMOVAL OF ALL TEMPORARY STRUCTURES AFTER CONSTRUCTION. - ROUTINE INSPECTIONS OF FOREST CONSERVATION EASEMENTS.



FOREST CONSERVATION SIGN DETAIL NOT TO SCALE

- NOTES: 1. SIGNAGE SHALL BE LOCATED ON FOREST CONSERVATION EASEMENT BORDER. 2. SEE PLAN FOR SPACING.

Howard County Forest Conservation Worksheet

PROJECT NAME: St. Johns E.C. COUNTY FILE #: DATE: 7/9/01 RMA PROJECT #: 00286

Table with 2 columns: Category and Value. Includes Site Data (Total site area, Areas in 100 year floodplain, Areas in agriculture use and preservation parcels, Net Tract Area, Forest Cover, Amount of Net Tract Area Forest to be cleared, Reforestation requirement, Afforestation requirement).

Table with 2 columns: Category and Value. Includes Break Even Point (Area of forest above conservation threshold, Amount of forest to retain w/o mitigation, Forest clearing permitted w/o mitigation).

Table with 2 columns: Category and Value. Includes Reforestation Calculations (Net Tract Area, Total forest within Net Tract Area, Net Tract Area forests to be cleared, Forest area remaining, Reforestation threshold, Reforestation Debt, Reforestation credit, REFORESTATION OBLIGATION).

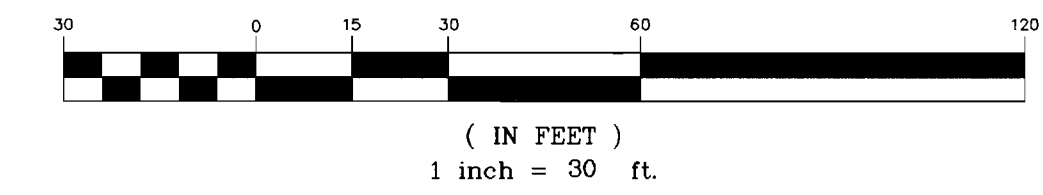
Table with 2 columns: Category and Value. Includes Afforestation Calculations (Net Tract Area, Total forest within Net Tract Area, Afforestation requirement, AFFORESTATION OBLIGATION (C-B)).

TOTAL REFORESTATION + AFFORESTATION OBLIGATION 0.00

GENERAL NOTES:

- 1. SOME SPECIMEN TREE LOCATIONS AND PORTIONS OF THE TREE LINE ARE FIELD APPROXIMATED. 2. NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED. 3. NO TREES, SHRUBS, OR PLANTS IDENTIFIED AS RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED. 4. THERE ARE NO KNOWN CEMETERIES OR BURIAL PLOTS LOCATED ON THE SITE, ACCORDING TO THE HOWARD COUNTY CEMETERIES INVENTORY. 5. THE EXISTING ST. JOHN'S CHURCH BUILDING (SANCTUARY) IS A HISTORIC STRUCTURE LISTED ON THE HOWARD COUNTY HISTORIC REGISTER. OTHER STRUCTURES EXIST ON SITE AS SHOWN ON THE PLANS. 6. THIS SITE CONTAINS NO HYDRIC SOILS, AND ONE SOIL WITH POSSIBLE HYDRIC INCLUSIONS, GLENVILLE GMB2. 7. THE FSD, DATED MAY 7, 2001, HAS BEEN PREPARED BY RIEMER MUEGGE IN CONJUNCTION WITH THIS PROJECT. 8. JUSTIFICATION FOR FOREST REMOVAL: IN ORDER TO EXPAND THE EXISTING CHURCH AND SCHOOL USES, SMALL PORTIONS OF THE FORESTED AREA NEED TO BE CLEARED. 9. THE HOWARD COUNTY FOREST CONSERVATION MANUAL SUPERCEDES ANY DISCREPANCIES BETWEEN THE MANUAL AND THESE PLANS. 10. THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION. 11. THE FOREST CONSERVATION OBLIGATION FOR THE PROPOSED SITE DEVELOPMENT HAS BEEN MET BY FLAGGING 3.04 AC OF FOREST IN FOREST RETENTION EASEMENTS. SURETY IN THE AMOUNT OF \$26,914.20 (134,571 SF x \$0.20) HAS BEEN POSTED FOR THESE EASEMENTS. 12. THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED. 13. BEARINGS AND DISTANCES FOR THE FOREST CONSERVATION EASEMENT ARE PROVIDED ON A PLAT OF FOREST CONSERVATION EASEMENT AS PLAT NO. 15026 ON OCTOBER 23, 2001.

GRAPHIC SCALE



LEGEND

- EX. TREELINE
PROP. TREELINE
EX. TREES & SHRUBS (SURVEYED)
EX. TREES (FIELD APPROXIMATED)
SPECIMEN TREES (>30" DBH)
EX. TREE TO BE REMOVED
PROPERTY LINE
PROP. CONTOURS
EX. CONTOURS
LIMIT OF DISTURBANCE
FOREST RETENTION AREA
SOILS
TREE PROTECTION SIGNAGE (SEE DETAIL THIS SHEET)
TREE PROTECTION FENCE

AS BUILT CERTIFICATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
OWNER / DEVELOPER: THE VESTRY AT ST. JOHN'S CHURCH
PROJECT: ST. JOHN'S EPISCOPAL CHURCH
AREA: ZONED R-20
TITLE: FOREST CONSERVATION PLAN NOTES AND DETAILS
RIEMER MUEGGE
Patton Harris Rust & Associates, pc
DESIGNED BY: PJS
DRAWN BY: PJS, GTH
CHECKED BY: RAF, DTD
PROJECT NO: 00286
DATE: OCTOBER 26, 2001
SCALE: 1" = 30'
DRAWING NO. 25 OF 25





**NOTES:**

1. ALL RADII ARE 5' UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE NOTED.
3. ALL ON-SITE ROADS ARE PRIVATE.
4. ALL LIGHTING IS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
5. P-1 PAVING, SEE DETAIL SHEET 5
6. P-2 PAVING, SEE DETAIL SHEET 5
7. CONCRETE
8. PAVING TO BE REMOVED
9. P-5 PAVING, SEE DETAIL SHEET 5
10. GRASSCRETE, SEE DETAIL SHEET 5
11. ASPHALT PATH, SEE DETAIL SHEET 5

**LEGEND**

EXISTING 2' CONTOUR	---	300
EXISTING 10' CONTOUR	---	300
PROPOSED 2' CONTOUR	---	300
PROPOSED 10' CONTOUR	---	300
PROPERTY LINE AND RIGHT OF WAY	---	
EASEMENT	---	
FENCE	---	
STORM DRAIN	---	15'D
OVERHEAD WIRES	---	OHW
EXISTING TREELINE	---	
PROPOSED TREELINE	---	
DRAINAGE AREA LINES	---	L.O.D.
LIMIT OF DISTURBANCE	---	
SUPER SILT FENCE	---	SSF
SILT FENCE	---	SF
FOREST CONSERVATION ESMT	---	
STABILIZED CONSTRUCTION ENTRANCE	---	
VEHICULAR INGRESS & EGRESS RESTRICTED	---	V.I.&E.R.
150 WATT HPS PENDANT FIXTURE ON A 15' ARM ATTACHED TO EXISTING POLES AS NOTED	---	

**AS BUILT CERTIFICATE**

DATE	
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
DIRECTOR	<i>James R. Batts</i> 11/20/01 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	<i>Mike M...</i> 11/16/01 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	<i>Windy...</i> 11/26/01 DATE

01-07-02	REVISED LABEL ON EX. RECTORY TO PROP. OFFICE.
DATE NO.	REVISION
OWNER / DEVELOPER	THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELlicott CITY, MARYLAND 21042
PROJECT	ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION
AREA	ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	SITE DEVELOPMENT PLAN

**RIEMER MUEGGE**  
a division of:  
**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.9900 fax 410.997.9922

10.25.01	DESIGNED BY: M.N.R.
	DRAWN BY: DAM
	CHECKED BY:
	PROJECT NO: 00286 SDP2.DWG
	DATE: OCTOBER 26, 2001
	SCALE: 1" = 30'
	DRAWING NO. 2 OF 25



P:\project\00286\SDP2.dwg Wed Oct 31 08:29:00 2001: Riemer Muegge, a division of PHRA



**NOTES:**

1. ALL RADII ARE 5' UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDINGS UNLESS OTHERWISE NOTED.
2. ALL ON-SITE ROADS ARE PRIVATE.
4. ALL LIGHTING IS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
5. [Symbol] P-1 PAVING, SEE DETAIL SHEET 5
6. [Symbol] P-2 PAVING, SEE DETAIL SHEET 5
7. [Symbol] CONCRETE
8. [Symbol] PAVING TO BE REMOVED
9. [Symbol] P-5 PAVING, SEE DETAIL SHEET 5
10. [Symbol] GRASSCRETE, SEE DETAIL SHEET 5
11. [Symbol] ASPHALT PATH, SEE DETAIL SHEET 5

**LEGEND**

EXISTING 2' CONTOUR	---	300
EXISTING 10' CONTOUR	---	300
PROPOSED 2' CONTOUR	---	300
PROPOSED 10' CONTOUR	---	300
PROPERTY LINE AND RIGHT OF WAY	---	
EASEMENT	---	
FENCE	---	
STORM DRAIN	---	15" D
OVERHEAD WIRES	---	OHW
EXISTING TREELINE	---	
PROPOSED TREELINE	---	
DRAINAGE AREA LINES	---	
LIMIT OF DISTURBANCE	---	L.O.D.
SUPER SILT FENCE	---	SSF
SILT FENCE	---	SF
STABILIZED CONSTRUCTION ENTRANCE	---	
FOREST CONSERVATION ESMT	---	

AS BUILT CERTIFICATE

DATE	
APPROVED BY: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	
<i>[Signature]</i>	11/20/01
DIRECTOR	DATE
<i>[Signature]</i>	11/16/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	DATE
<i>[Signature]</i>	11/21/01
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE

01-08-02	REVISED PROP. MAINTENANCE SHED
DATE NO.	REVISION

OWNER / DEVELOPER	THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLCOTT CITY, MARYLAND 21042
PROJECT	ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION

AREA	ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	SITE DEVELOPMENT PLAN

**RIEMER MUEGGE**  
a division of  
**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Centre Park Drive, Columbia, MD 21045 • Tel 410.997.8800 fax 410.997.8282

10.25.01	DATE	DESIGNED BY: M.N.R.
		DRAWN BY: DAM
		CHECKED BY:
		PROJECT NO: 00286 SDP3.DWG
		DATE: OCTOBER 26, 2001
		SCALE: 1" = 30'
		DRAWING NO. 3 OF 25

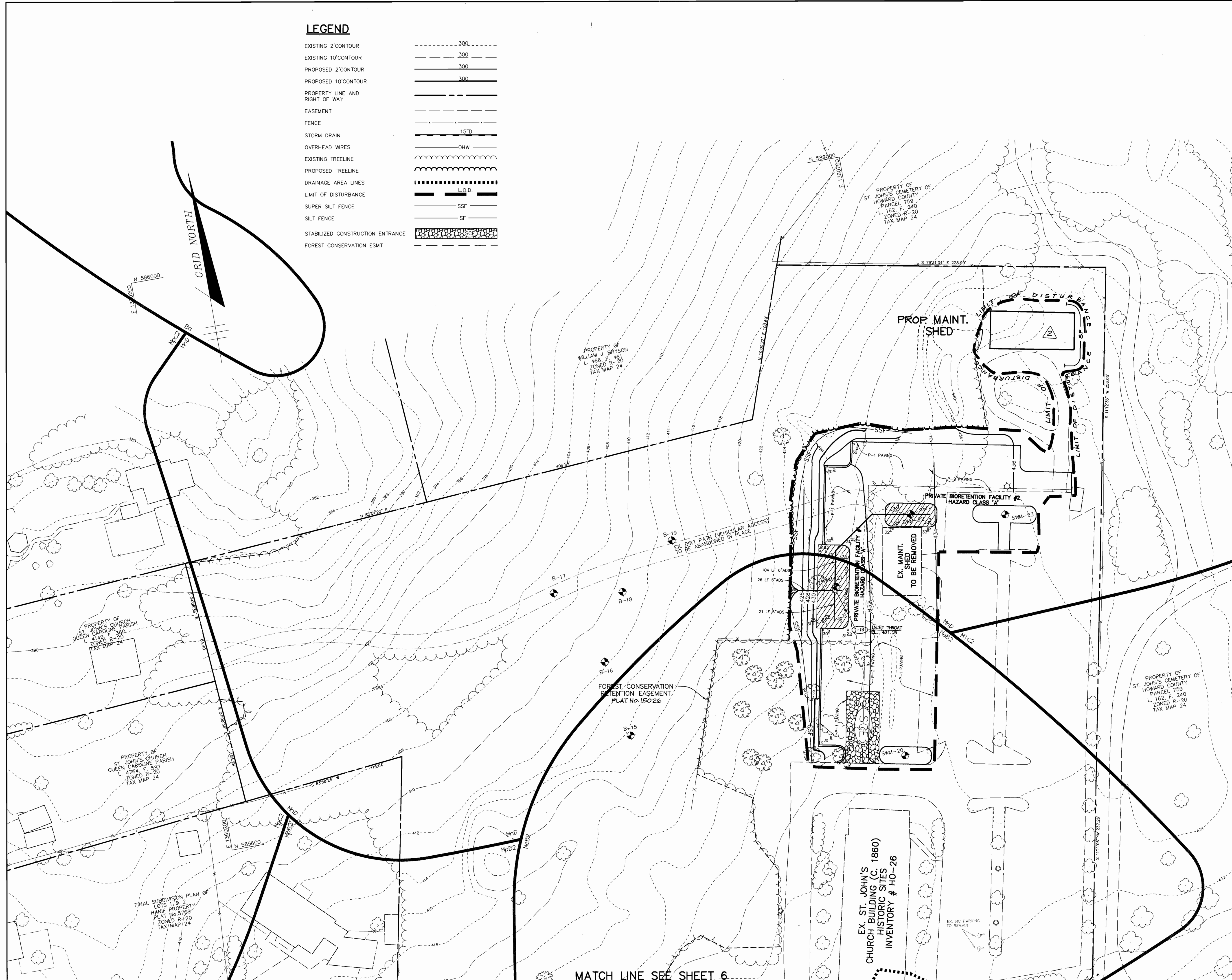


MATCH LINE SEE SHEET 2



**LEGEND**

EXISTING 2' CONTOUR	---	300
EXISTING 10' CONTOUR	---	300
PROPOSED 2' CONTOUR	---	300
PROPOSED 10' CONTOUR	---	300
PROPERTY LINE AND RIGHT OF WAY	---	
EASEMENT	---	
FENCE	---	
STORM DRAIN	---	15" D
OVERHEAD WIRES	---	OHW
EXISTING TREELINE	---	
PROPOSED TREELINE	---	
DRAINAGE AREA LINES	---	L.O.D.
LIMIT OF DISTURBANCE	---	
SUPER SILT FENCE	---	SSF
SILT FENCE	---	SF
STABILIZED CONSTRUCTION ENTRANCE	---	
FOREST CONSERVATION ESMT	---	



BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*William R. St. John* 10/25/01  
DEVELOPER DATE

BY THE ENGINEER :

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Christopher J. Reid* 10.25.01  
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

*Jim Myers* 11/6/01  
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

*John Robertson* 11/6/01  
HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

DATE

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James R. Smith* 11/20/01  
DIRECTOR DATE

*William R. St. John* 11/16/01  
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

*David Hamilton* 11/20/01  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

01-08-02/2 MODIFIED MAINTENANCE SHED, ADDED L.O.D.  
DATE NO. REVISION

OWNER / DEVELOPER  
THE VESTRY AT ST. JOHN'S CHURCH  
QUEEN CAROLINE PARISH  
ALSO KNOWN AS  
ST. JOHN'S EPISCOPAL CHURCH  
9120 FREDERICK ROAD  
ELLCOTT CITY, MARYLAND 21042

PROJECT ST. JOHN'S EPISCOPAL CHURCH  
EDUCATION AND MULTIPURPOSE  
ROOM EXPANSION

AREA ZONED R-20  
PARCEL 103 & 535 TAX MAP 24  
2ND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE  
GRADING, SEDIMENT CONTROL PLAN  
AND DRAINAGE AREA MAP

RIEMER MUEGGE  
a division of  
Patton Harris Rust & Associates, pc  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Carver Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

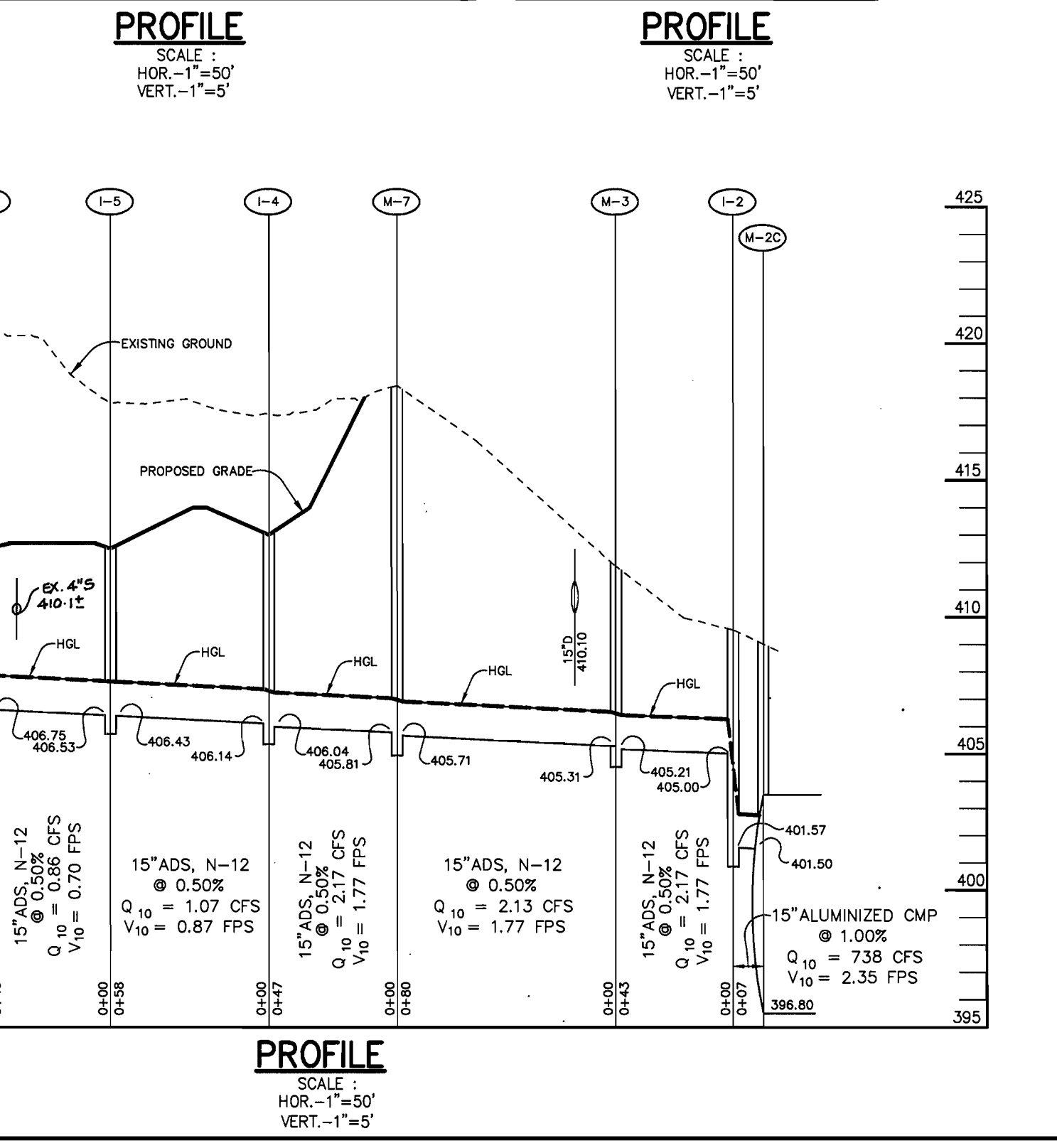
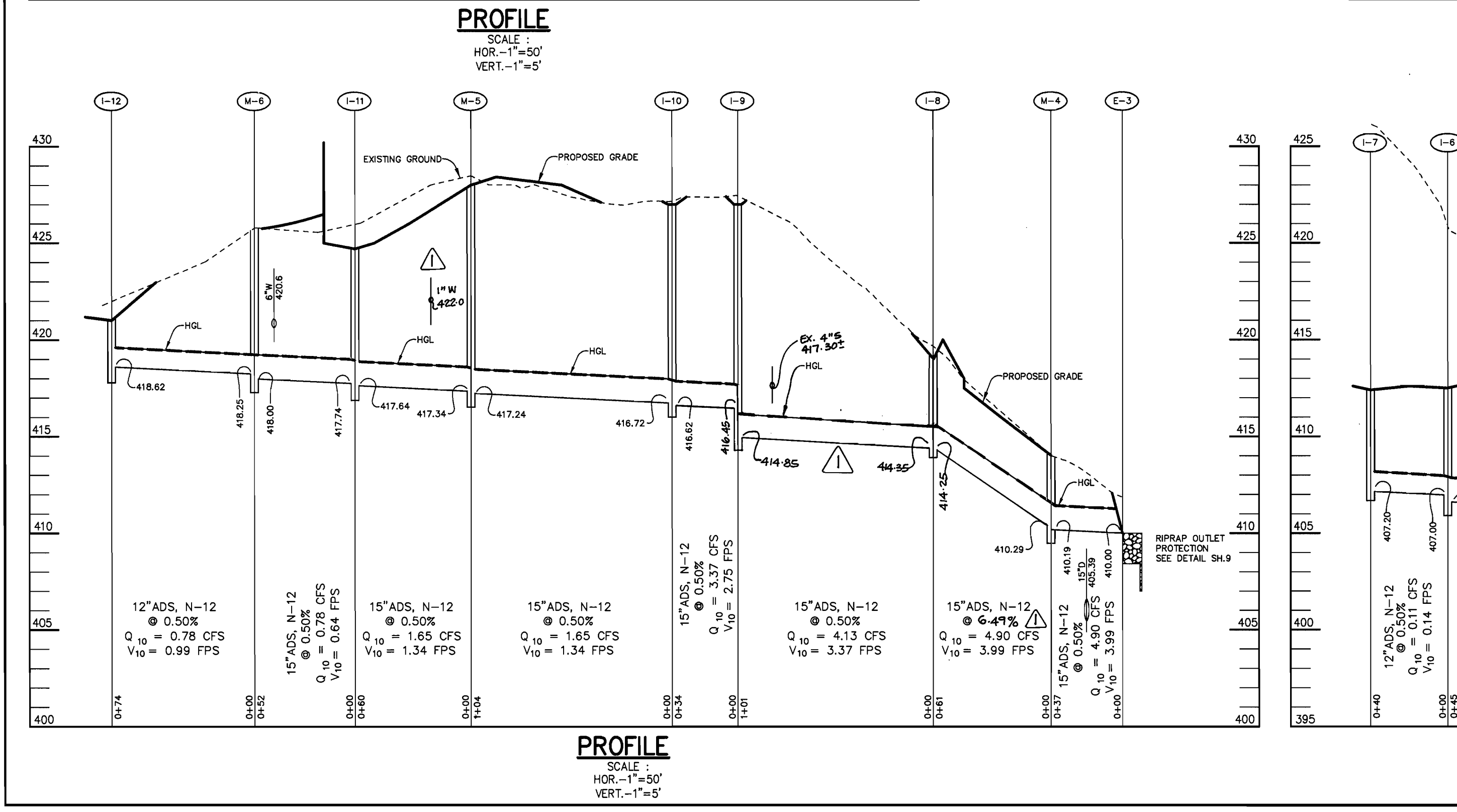
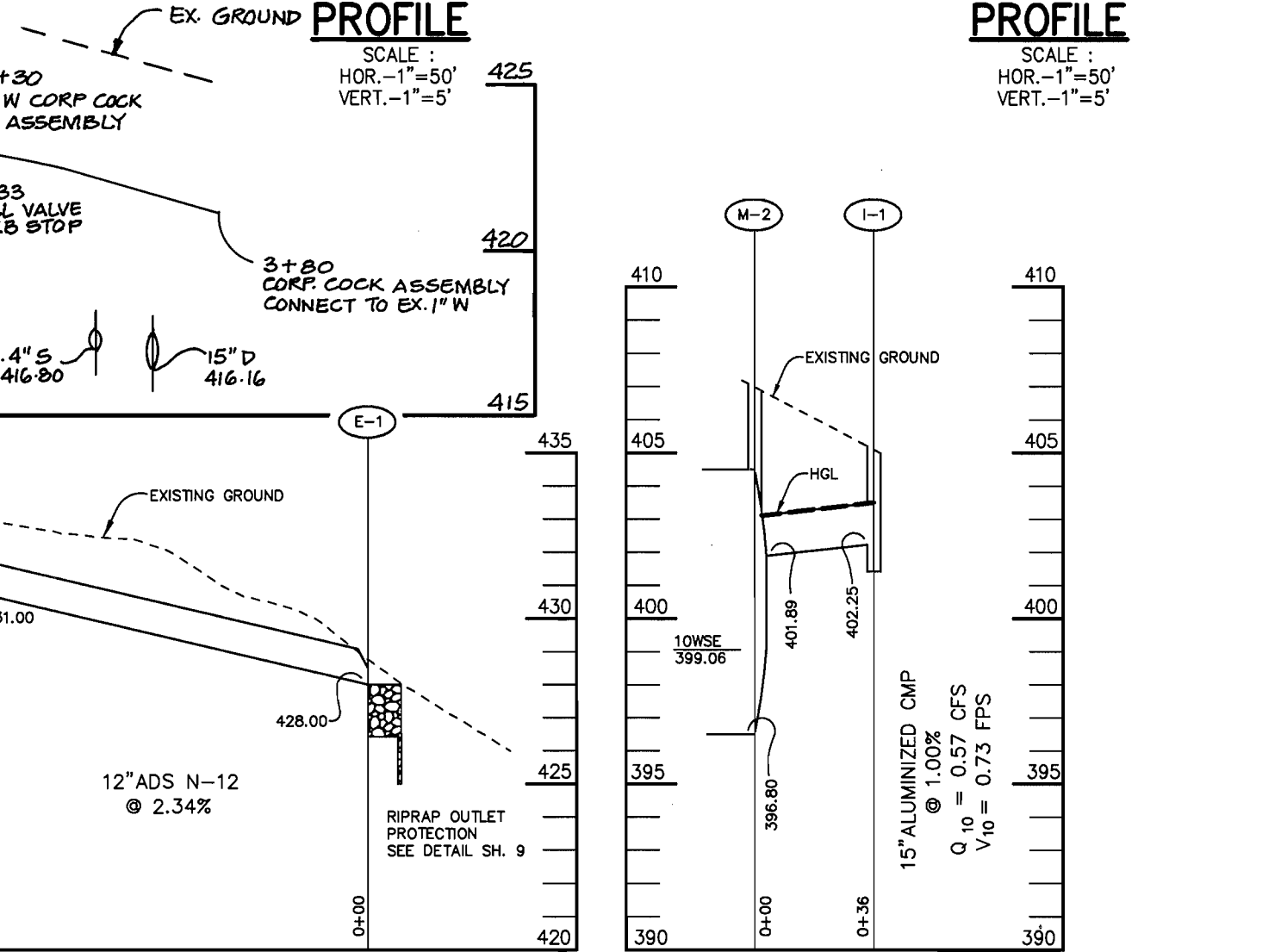
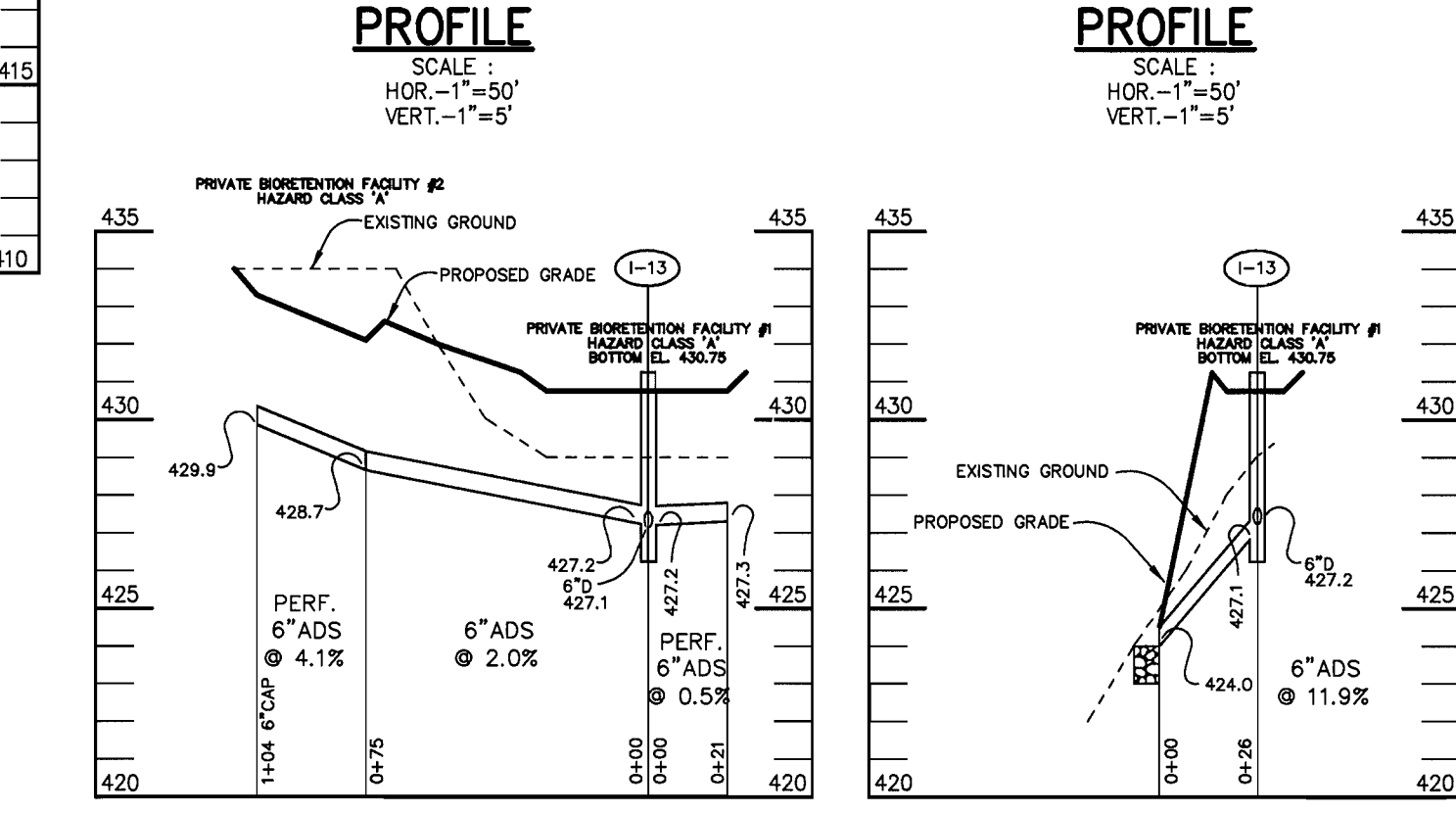
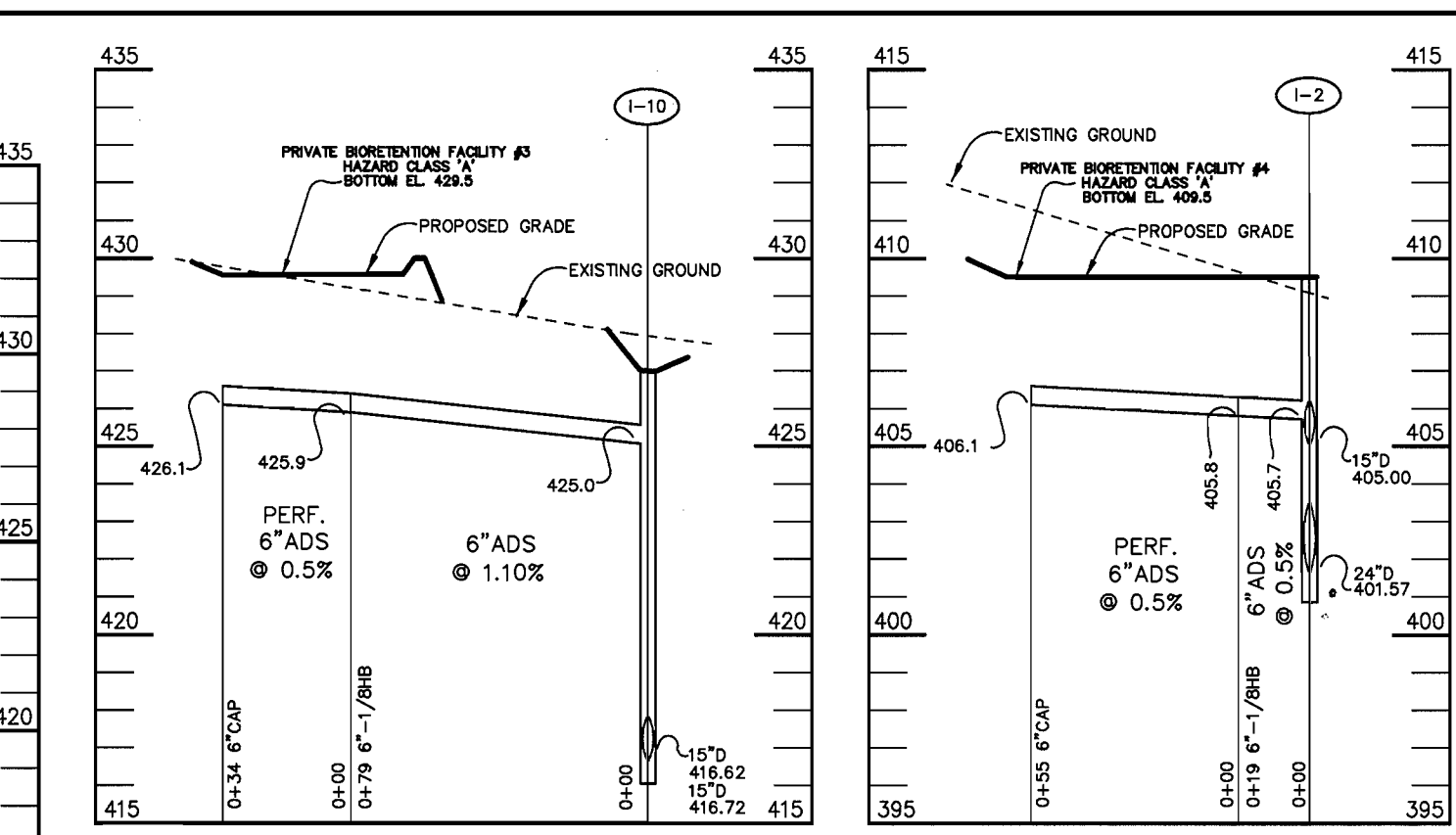
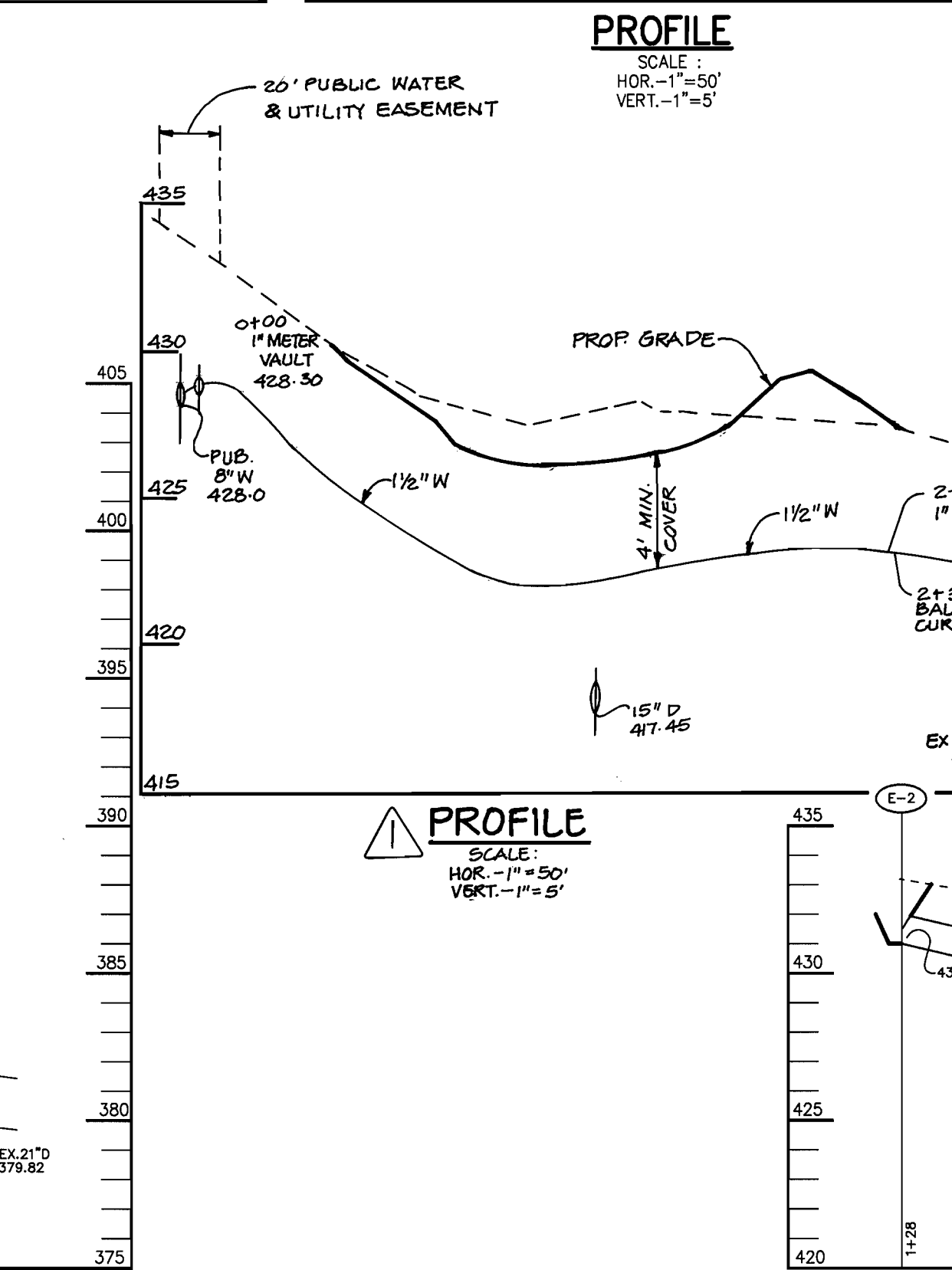
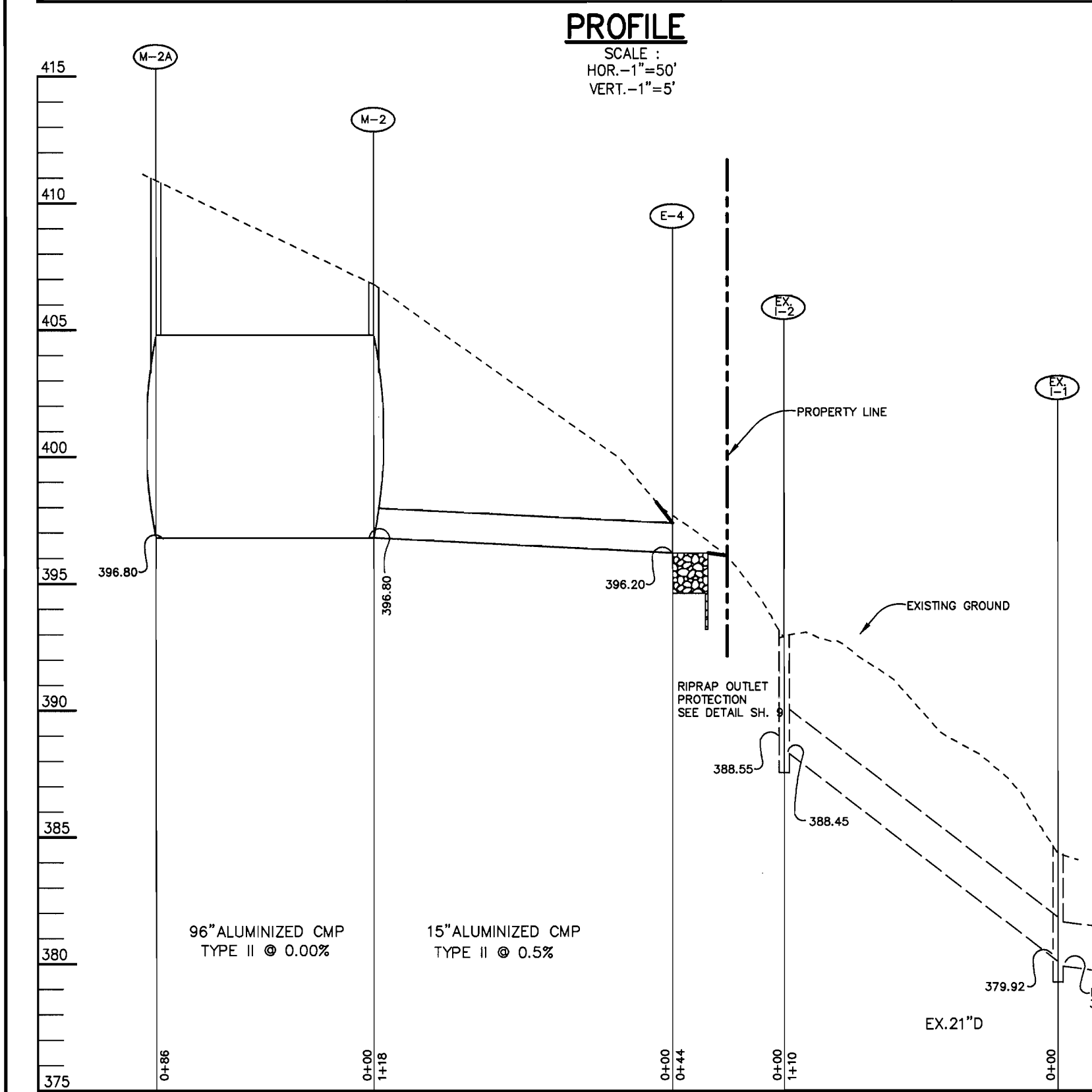
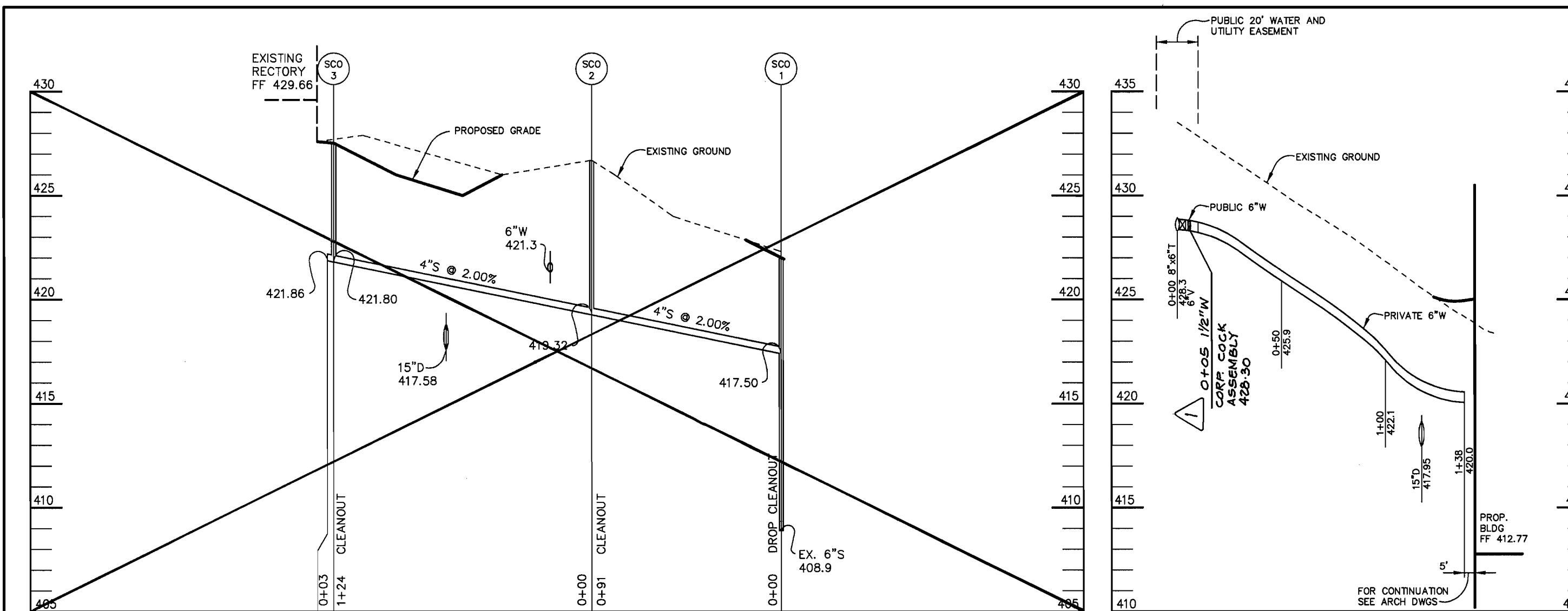
10.25.01  
DATE  
DESIGNED BY : M.N.R.  
DRAWN BY: DAM  
CHECKED BY:  
PROJECT NO : 00286  
SDP11.DWG  
DATE : OCTOBER 26, 2001  
SCALE : 1" = 30'  
DRAWING NO. 7 OF 25

*Christopher J. Reid*  
CHRISTOPHER J. REID #19949



MATCH LINE SEE SHEET 6





STRUCTURE SCHEDULE						
STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
I-1	S COMB	N 585252 E 1360983	-	402.25	405.4	HOCO STD. DETAIL SD-4.32
I-2	S	N 585232 E 1360918	405.00 (15\"/>			

NOTES: LOCATION OF INLETS AND MANHOLES IS AT CENTER OF TOP COVER; FOR "A" INLETS LOCATION IS GIVEN FOR CENTER OF THROAT OPENING AT FACE OF CURB; FOR END SECTIONS AND HEADWALLS THE LOCATION IS CENTER OF THROAT OPENING AT FACE OF STRUCTURE.

PIPE SCHEDULE		
PIPE LENGTH	SIZE	TYPE
84	6"	PERF. ADS
114	6"	ADS, N-12
242	12"	ADS, N-12
721	15"	ADS, N-12
161	15"	ALUM. CL I
7	24"	ALUM. CL I
402	46"	ALUM. CL I

AS BUILT CERTIFICATE

DATE: 11/20/01

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR: *James R. Smith* DATE: 11/16/01

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *Mike M...* DATE: 11/20/01

CHIEF, DIVISION OF LAND DEVELOPMENT: *Cindy H...* DATE: 11/20/01

3-22-02 ADDED WATER PROFILE FOR 1\"/>

DATE	NO.	REVISION

OWNER / DEVELOPER: THE VESTRY AT ST. JOHN'S CHURCH, QUEEN CAROLINE PARISH, ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH, 9120 FREDERICK ROAD, ELLICOTT CITY, MARYLAND 21042

PROJECT: ST. JOHN'S EPISCOPAL CHURCH, EDUCATION AND MULTIPURPOSE ROOM EXPANSION

AREA: ZONED R-20, PARCEL 103 & 535, TAX MAP 24, 2ND ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

TITLE: PROFILES

RIEMER MUEGGE, a division of Patton Harris Rust & Associates, pc

ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
5818 Centre Park Drive, Columbia, MD 21045 • Tel 410.997.8800 fax 410.997.8282

DATE: 10-25-01 DESIGNED BY: M.N.R.

DRAWN BY: DAM

CHECKED BY:

PROJECT NO: 00286 SD1.DWG

DATE: OCTOBER 26, 2001

SCALE: AS SHOWN

DRAWING NO. 11 OF 25

CHRISTOPHER J. REID #19949



P:\project\00286\SDP2.dwg Thu Oct 25 09:39:53 2001 PATTON HARRIS RUST & ASSOCIATES



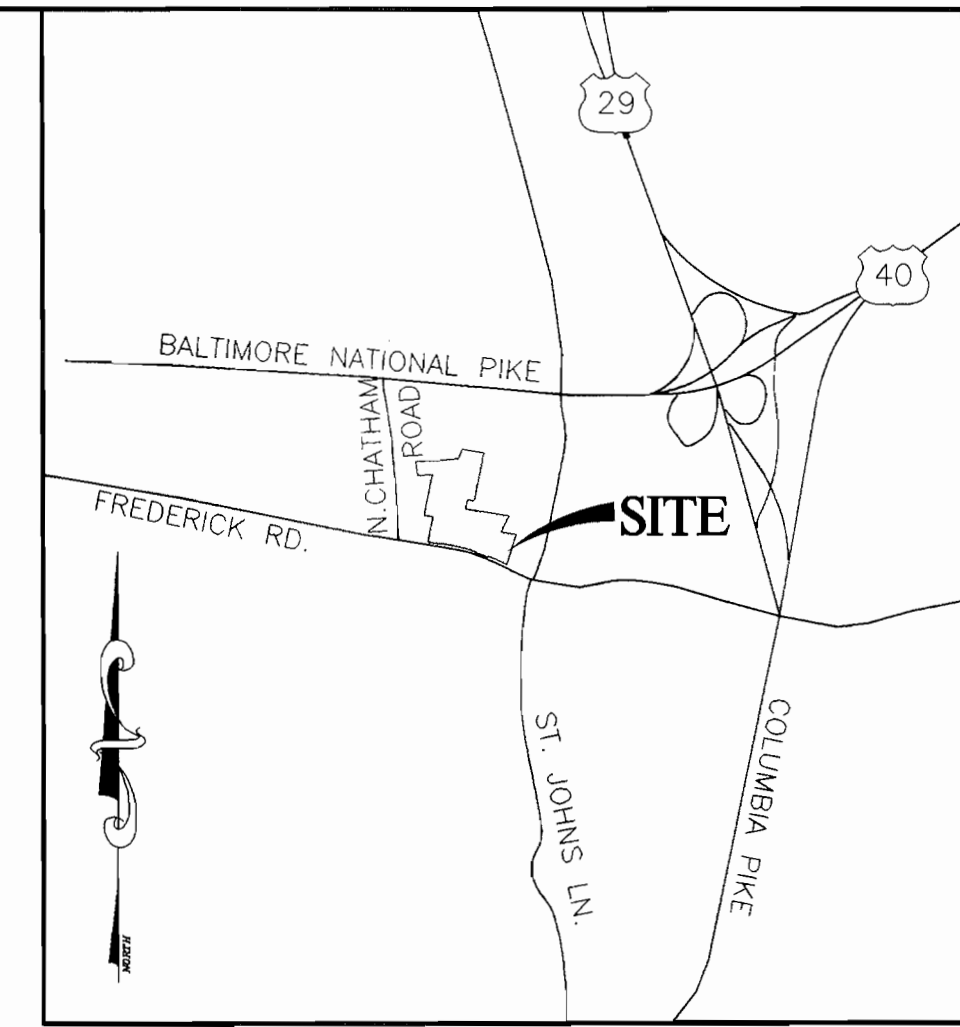
PLANTING LEGEND	
PROP. SHADE TREE	
PROP. ORNAMENTAL TREE	
PROP. EVERGREEN TREE	
PROP. EVERGREEN SHRUB	
PROP. DECIDUOUS SHRUB	
PROP. TREELINE	
EXISTING TREELINE	
EXISTING PLANTS	
TREE PROTECTION FENCE	TP
PERIMETER CREDIT USED FOR EXISTING PLANTS	CREDIT
CONFORMANCE LANDSCAPE REQUIREMENT	MP 6
BIORETENTION PLANTING (SEE SHEET 19 FOR PLANT LIST)	IV-4

AS BUILT CERTIFICATE	
DATE	
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>James H. Smith</i> 11/20/01	DATE
DIRECTOR	
<i>John J. ...</i> 11/10/01	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	
<i>Carly ...</i> 11/20/01	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	
01-08-02/2	MODIFIED MAINTENANCE SHED, PLANTING
DATE NO.	REVISION
OWNER / DEVELOPER	
THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELlicott CITY, MARYLAND 21042	
PROJECT	
ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION	
AREA	
ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE	
LANDSCAPE PLAN	
RIEMER MUEGGE a division of Patton Harris Rust & Associates, pc ENGINEERS • SURVEYORS • PLANNERS LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS 8818 Centre Park Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282	
10-25-01 DATE	DESIGNED BY : PJS
	DRAWN BY : GTH, PJS
	CHECKED BY : DTD
	PROJECT NO : 00286 LSCP-2.DWG
	DATE : OCTOBER 26, 2001
	SCALE : 1" = 30'
<i>Scott R. Wolford</i> SCOTT R. WOLFORD #797	DRAWING NO. 17 OF 25

MATCHLINE SEE SHEET 16



# SITE DEVELOPMENT PLAN ST. JOHN'S EPISCOPAL CHURCH 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

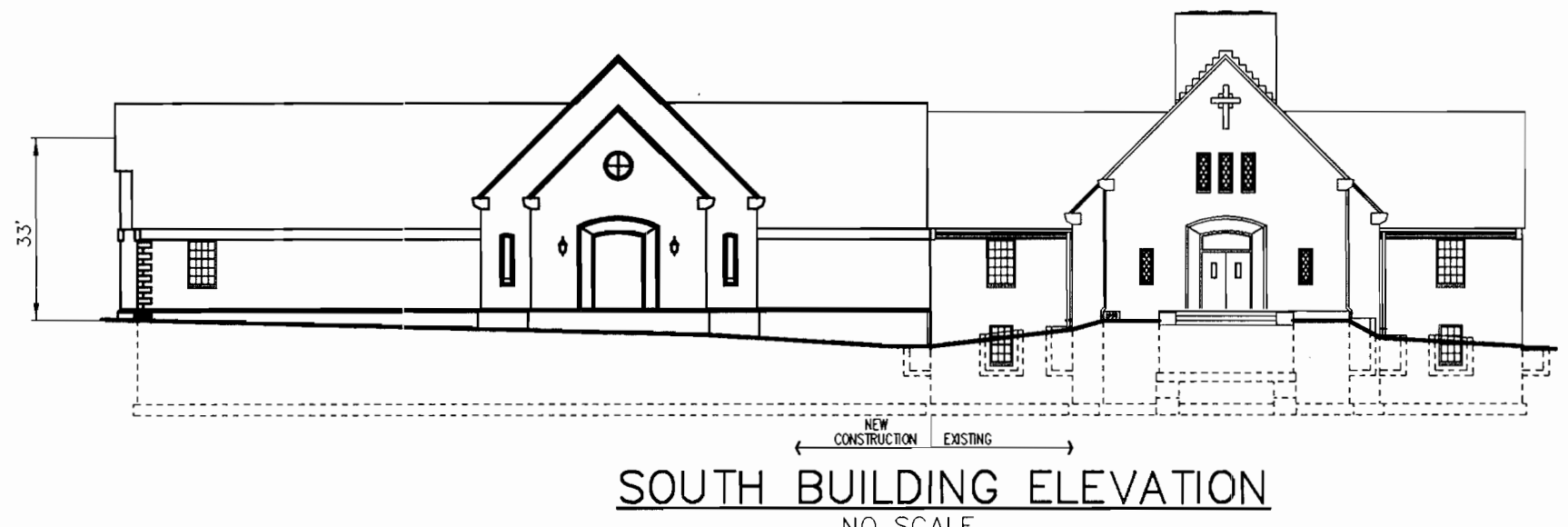
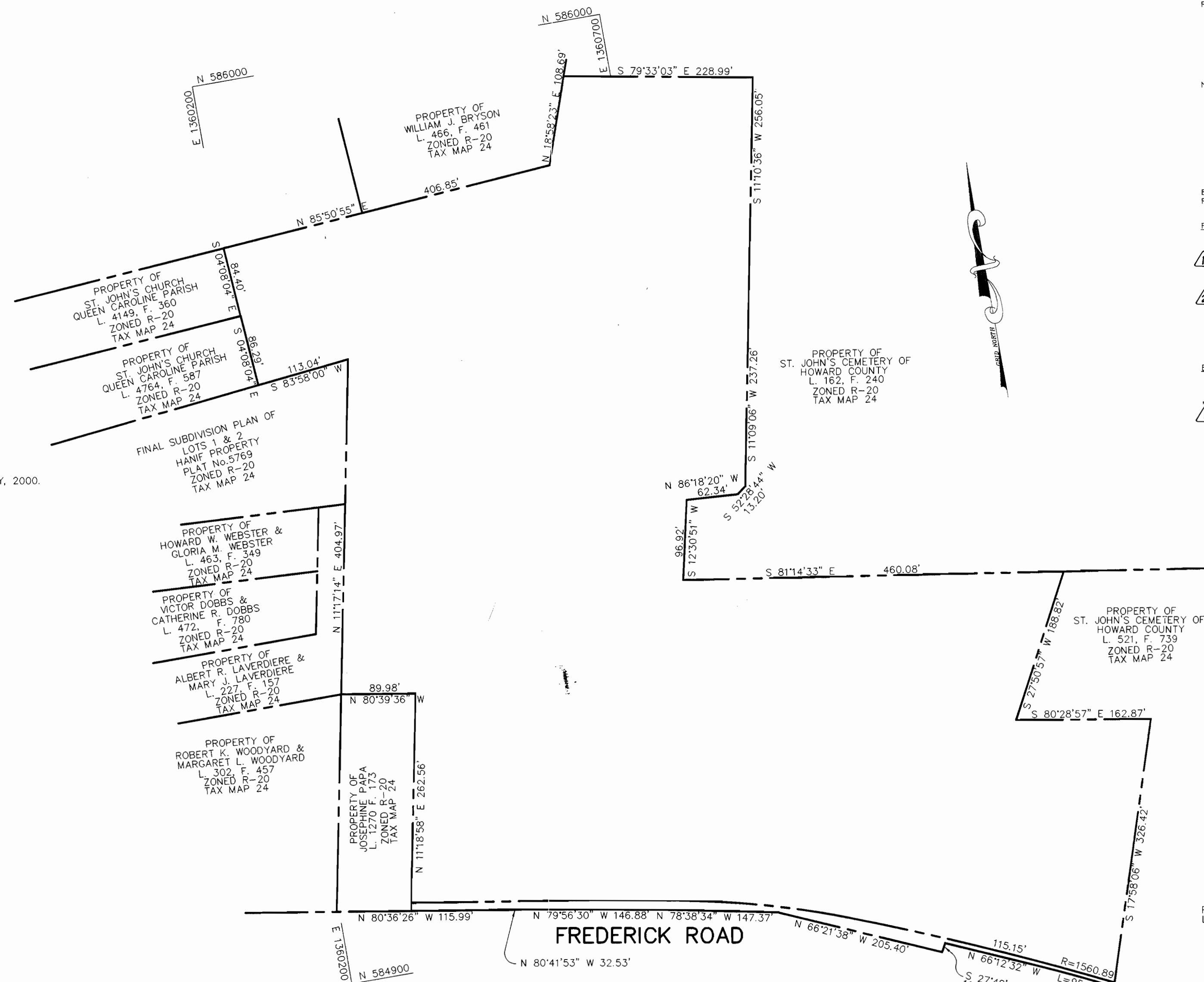


VICINITY MAP  
SCALE: 1" = 2000'

SHEET INDEX	
No.	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	SITE DEVELOPMENT PLAN
4	SITE DEVELOPMENT PLAN
5	SITE DEVELOPMENT PLAN AND DETAILS
6	GRADING, SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP
7	GRADING, SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP
8	GRADING, SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP
9	SEDIMENT CONTROL DETAILS
10	SEDIMENT CONTROL NOTES
11	PROFILES
12	BIORETENTION DETAILS
13	STORM WATER MANAGEMENT DETAILS
14	EXISTING SWM DRAINAGE AREA MAP
15	PROPOSED SWM DRAINAGE AREA MAP
16	LANDSCAPE PLAN
17	LANDSCAPE PLAN
18	LANDSCAPE PLAN, NOTES AND SCHEDULES
19	LANDSCAPE NOTES, SCHEDULES AND DETAILS
20	FOREST STAND DELINEATION
21	FOREST STAND DELINEATION
22	FOREST STAND DELINEATION
23	FOREST CONSERVATION PLAN
24	FOREST CONSERVATION PLAN
25	FOREST CONSERVATION PLAN, NOTES AND DETAILS

### GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- 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.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM AERIAL SURVEY BY WINGS, INC AND FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RIEMER MUEGGE A DIVISION OF PHR&A JAN. 2001
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 24-AA AND 24-B5 WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. CONTRACT NO. 10-W
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: PATAPSCO CONTRACT NO. 31-S
- STORMWATER MANAGEMENT FOR THIS SITE IS PROVIDED BY PRIVATE GRASS SWALES, BIORETENTION AREAS AND UNDERGROUND PIPES FOR CHANNEL PROTECTION.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- NO 100-YEAR FLOODPLAIN IMPACTS THIS PROJECT.
- NO WETLANDS IMPACT THIS PROJECT.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP INC. DATED MAY, 2001.
- NO NOISE STUDY IS REQUIRED.
- THE GEOTECHNICAL STUDY FOR STORMWATER MANAGEMENT WAS PREPARED BY ECS, LTD DATED MARCH 2001.
- THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY RIEMER MUEGGE A DIVISION OF PHR&A, DATED JANUARY, 2000.
- SUBJECT PROPERTY ZONED R-20 PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S. BA-01-07 & ZV-00-18, BA-97-35E BA-90-55E, BA-87-48E, SDP-73-35, SDP-92-11, SDP-92-93.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNLESS LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T180.
- BA-01-07 E & V - A SPECIAL EXCEPTION FOR AN EXISTING RELIGIOUS FACILITY AND PRIVATE SCHOOL FOR BUILDING ADDITIONS, PARKING LOT ENLARGEMENTS AND OTHER SITE REVISIONS AND A VARIANCE TO REDUCE THE 20 FOOT USE SETBACK TO 10 FEET FOR A DRIVEWAY WAS APPROVED BY DECISION AND ORDER DATED SEPT. 6, 2001 WITH THE FOLLOWING CONDITIONS:
  - THAT THE VARIANCE SHALL APPLY TO THE DRIVEWAY ENCROACHMENT BEING REQUESTED AND NOT TO ANY OTHER ACTIVITIES, OR STRUCTURES ON THE SUBJECT PROPERTY.
  - THE SPECIAL EXCEPTION SHALL APPLY ONLY TO THE PROPOSED BUILDING ADDITIONS, PARKING LOT ENLARGEMENTS, AND SITE REVISIONS AS DESCRIBED IN THE PETITION, AND AS DEPICTED ON THE PLAN FOR ST. JOHN'S EPISCOPAL CHURCH WITH A REVISION DATE OF MAY 2, 2001, AND AS REVISED BY PETITIONER'S EXHIBIT #1.A. SUBMITTED TO THE BOARD ON JULY 3, 2001, AND NOT TO ANY OTHER ACTIVITIES, USES, OR STRUCTURES ON THE SUBJECT PROPERTY.
  - IT IS RECOMMENDED THAT THE PETITIONER CONSIDER EXTENDING AN EVERGREEN HEDGE PLANTING ALONG THE WEST SIDE OF THE FRONT PARKING LOT, SIMILAR TO THE AREA ALONG THE SOUTH SIDE OF THE EXISTING SMALL FRONT PARKING LOT.
  - THE PETITIONER SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND COUNTY LAWS AND REGULATIONS.
- THERE ARE NO CEMETARIES ON THE SUBJECT PROPERTY. A CEMETARY IS LOCATED ON ADJACENT PARCEL 759.
- ALL LIGHTING TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
- THE FOREST CONSERVATION OBLIGATION FOR THE PROPOSED SITE DEVELOPMENT PLAN HAS BEEN MET BY PLACING 3.09 AC. OF FOREST IN FOREST RETENTION EASEMENT. THE PLAT OF FOREST CONSERVATION EASEMENT IS RECORDED AS PLAT NO. 15026.
- NO NEW EXTERIOR LIGHTING FIXTURES ARE PROPOSED WITH THIS SITE DEVELOPMENT PLAN.



### SITE DATA

<b>SITE ZONING:</b>	R-20
GROSS SITE AREA:	13.74 ACRES (591,565 SF)
LESS SWM TAKEN:	0.154 ACRES (6,494 SF)
PART OF PARCEL 103 ADDED TO PARCEL 535 BY DEED OF ADJOINERS:	0.814 ACRES (35,284 SF)
TOTAL SITE AREA:	14.364 ACRES (625,522 SF)
DISTURBED AREA:	0 ACRES
EXISTING USE:	RELIGIOUS FACILITY AND SCHOOL
PROPOSED USE:	SAME AS EXISTING USE (350 STUDENTS/14.4 ACRES)
<b>PARKING:</b>	207 SPACES
EXISTING PARKING:	1 SPACE PER 9 SEATS IN SANCTUARY
COUNTY REQUIREMENT:	554 SEATS (254 MAIN CHURCH + 300 MULTIPURPOSE ROOM)
TOTAL SANCTUARY SEATING:	185 SPACES
REQUIRED PARKING:	222 SPACES
PROPOSED PARKING (INCL. EX.):	222 SPACES
EX. PARKING TO BE REMOVED:	58 SPACES
NEW PARKING SPACES:	180 SPACES
<b>MAX. BLDG COVERAGE ALLOWED:</b>	3.54 ACRES (25.0% OF GROSS AREA)
<b>BUILDING FOOTPRINTS:</b>	
A. EX. CHURCH	0.12 AC. (5,307 SF)
B. EX. PRIVATE SCHOOL	0.15 AC. (6,686 SF)
C. EX. CHURCH AUDITORIUM	0.12 AC. (5,486 SF)
D. EX. RECTORY	0.04 AC. (1,808 SF)
E. EX. ROSE HILL BLDG.	0.05 AC. (2,077 SF)
F. EX. PARISH LIFE CENTER	0.05 AC. (1,802 SF)
G. EX. STONE CHAPEL	0.01 AC. (625 SF)
H. EX. MAINT. SHED	0.03 AC. (1,422 SF)
I. PROPOSED BLDG. EXPANSION	0.50 AC. (21,600 SF)
<b>EX. COVERAGE (BUILDINGS TO REMAIN):</b>	0.58 AC. or 25,185 SF (4.0%)
<b>PROP. BUILDING COVERAGE (INCL. EX.):</b>	0.94 AC. or 40,960 SF (6.0%)
<b>FLOOR AREA:</b>	
A. EX. CHURCH	9,542 SF
B. EX. PRIVATE SCHOOL	15,372 SF
C. EX. CHURCH AUDITORIUM	10,278 SF
D. EX. RECTORY (PROP. OFFICE)	4,764 SF
E. EX. ROSE HILL BLDG.	7,500 SF
F. EX. PARISH LIFE CENTER	3,964 SF
G. EX. STONE CHAPEL	625 SF
H. PROP. MAINT. SHED	1,541 SF
I. PROPOSED BLDG. EXPANSION	30,000 SF
MULTIPURPOSE	1,488 SF
CLASSROOM	1,488 SF
UPPER LEVEL 1448 SF	
UPPER LEVEL 1007 SF	
UPPER LEVEL 5210 SF	
<b>BUILDING HEIGHTS:</b>	
A. PROPOSED BLDG. EXPANSION	MAX. ALLOWED 34' PROPOSED 33'
A SANCTUARY USE GENERATES A LARGER PARKING REQUIREMENT THAN THE SCHOOL, OR OFFICE USE. THE USES WILL NOT TAKE PLACE CONCURRENTLY.	

### BENCHMARKS

HOWARD COUNTY SURVEY CONTROL STATION: 24 AA  
N 587380.601 E 1352603.657

HOWARD COUNTY SURVEY CONTROL STATION: 24 B5  
N 586956.212 E 1356570.816

### PURPOSE NOTE

THE PURPOSE OF THIS SITE PLAN IS TO CONSTRUCT AN EXPANSION OF THE EDUCATION AND MULTIPURPOSE SPACES ON THE CAMPUS. SEVERAL PARKING EXPANSIONS ARE PROPOSED TO SUPPORT THE EXPANSION. ROAD WIDENING AND ENTRANCE MODIFICATIONS TO FREDERICK ROAD ARE ALSO PROPOSED. THIS PLAN ALSO ADDRESSES LANDSCAPING, FOREST CONSERVATION AND STORMWATER MANAGEMENT.

### AS BUILT CERTIFICATE

DATE		
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.		
<i>James S. Butts</i> DIRECTOR	11/20/01 DATE	
<i>Mike DeLuca</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	4/16/01 DATE	
<i>Carole Hamble</i> CHIEF, DIVISION OF LAND DEVELOPMENT	4/26/01 DATE	
01-02-02	REVISED SITE TABULATION	
01-07-02	REVISED SITE TABULATION	
DATE	NO.	REVISION
OWNER / DEVELOPER		
THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLCOTT CITY, MARYLAND 21042		
PROJECT		
ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION		
AREA		
ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE		
TITLE SHEET		

**RIEMER MUEGGE**  
a division of  
**Patton Harris Rust & Associates, pc**  
ENGINEERS • SURVEYORS • PLANNERS  
LANDSCAPE ARCHITECTS • ENVIRONMENTAL SPECIALISTS  
8818 Centre Drive Drive, Columbia, MD 21045 • tel 410.997.8900 fax 410.997.9282

DATE	10.25.01	DESIGNED BY:	M.N.R.
DRAWN BY:	DAM	CHECKED BY:	
PROJECT NO.:	00286 SDP1.DWG	DATE:	OCTOBER 26, 2001
SCALE:	1" = 100'	DRAWING NO.:	1 OF 25
		CHRISTOPHER J. REID #19949	

ADDRESS CHART			
BUILDING	STREET ADDRESS		
-	9120 FREDERICK ROAD		
SUBDIVISION NAME: ST. JOHN'S EPISCOPAL CHURCH			
SECT./AREA: 103 & 535			
PLAT # 15026	BLOCK # 5,10,11	ZONE: R-20	PARCEL: 6023.01
L. 1822, F. 570	TAX MAP NO.: 24	ELECT. DIST.: 2ND	CENSUS TRACT: 6023.01
L. 6678, F. 098	SEWER CODE: 1402800		
WATER CODE: F-07			





**NOTES:**

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2. ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE NOTED.
3. ALL ON-SITE ROADS ARE PRIVATE.
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5. P-1 PAVING, SEE DETAIL SHEET 5
6. P-2 PAVING, SEE DETAIL SHEET 5
7. CONCRETE
8. PAVING TO BE REMOVED
9. P-5 PAVING, SEE DETAIL SHEET 5
10. GRASSCRETE, SEE DETAIL SHEET 5
11. ASPHALT PATH, SEE DETAIL SHEET 5

**LEGEND**

EXISTING 2' CONTOUR	300
EXISTING 10' CONTOUR	300
PROPOSED 2' CONTOUR	300
PROPOSED 10' CONTOUR	300
PROPERTY LINE AND RIGHT OF WAY	
EASEMENT	
FENCE	15'D
STORM DRAIN	
OVERHEAD WIRES	OHW
EXISTING TREELINE	
PROPOSED TREELINE	
DRAINAGE AREA LINES	L.O.D.
LIMIT OF DISTURBANCE	
SUPER SILT FENCE	SSF
SILT FENCE	SF
FOREST CONSERVATION ESMT	
STABILIZED CONSTRUCTION ENTRANCE	
VEHICULAR INGRESS & EGRESS RESTRICTED	V.I.E.&R.
150 WATT HPS PENDANT FIXTURE ON A 15' ARM ATTACHED TO EXISTING POLES AS NOTED	

**AS BUILT CERTIFICATE**

DATE	
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	

Director	11/20/01	DATE
Chief, Development Engineering Division	11/16/01	DATE
Chief, Division of Land Development	11/20/01	DATE
08-22-02/21	REVISED WNC/SHC FOR OFFICE, DELETED SHC	
01-07-02/1	REVISED LABEL ON EX. RECTORY TO PROP. OFFICE	

DATE NO.	REVISION
OWNER / DEVELOPER	THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLCOTT CITY, MARYLAND 21042

PROJECT	ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION
AREA	ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**TITLE**

**RIEMER MUEGGE**  
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8618 Centre Park Drive, Columbia, MD 21045 • tel 410.397.8900 fax 410.997.9282

10.25.01	DESIGNED BY: M.N.R.
	DRAWN BY: DAN
	CHECKED BY:
	PROJECT NO: 00286 SDP2.DWG
	DATE: OCTOBER 26, 2001
	SCALE: 1" = 30'
	DRAWING NO. 2 OF 25



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5. [Symbol] P-1 PAVING, SEE DETAIL SHEET 5
6. [Symbol] P-2 PAVING, SEE DETAIL SHEET 5
7. [Symbol] CONCRETE
8. [Symbol] PAVING TO BE REMOVED
9. [Symbol] P-5 PAVING, SEE DETAIL SHEET 5
10. [Symbol] GRASSCRETE, SEE DETAIL SHEET 5
11. [Symbol] ASPHALT PATH, SEE DETAIL SHEET 5

**LEGEND**

EXISTING 2' CONTOUR	---	300
EXISTING 10' CONTOUR	---	300
PROPOSED 2' CONTOUR	---	300
PROPOSED 10' CONTOUR	---	300
PROPERTY LINE AND RIGHT OF WAY	---	
EASEMENT	---	
FENCE	---	
STORM DRAIN	---	15" D
OVERHEAD WIRES	---	OHW
EXISTING TREELINE	---	
PROPOSED TREELINE	---	
DRAINAGE AREA LINES	---	L.O.D.
LIMIT OF DISTURBANCE	---	
SUPER SILT FENCE	---	SSF
SILT FENCE	---	SF
STABILIZED CONSTRUCTION ENTRANCE	---	
FOREST CONSERVATION ESMT	---	

AS BUILT CERTIFICATE	
DATE	

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>[Signature]</i>	11/20/01
DIRECTOR	DATE
<i>[Signature]</i>	11/16/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	DATE
<i>[Signature]</i>	11/2/01
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
03.22.02	ADDED EX. UTILITIES TO CHURCH BLDG.
01.08.02	REVISED PROP. MAINTENANCE SHED
DATE NO.	REVISION

OWNER / DEVELOPER	THE VESTRY AT ST. JOHN'S CHURCH QUEEN CAROLINE PARISH ALSO KNOWN AS ST. JOHN'S EPISCOPAL CHURCH 9120 FREDERICK ROAD ELLCOTT CITY, MARYLAND 21042
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PROJECT	ST. JOHN'S EPISCOPAL CHURCH EDUCATION AND MULTIPURPOSE ROOM EXPANSION
---------	---

AREA	ZONED R-20 PARCEL 103 & 535 TAX MAP 24 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
------	---

TITLE	SITE DEVELOPMENT PLAN
-------	-----------------------

**RIEMER MUEGGE**  
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10.25.01  
DATE  
DESIGNED BY : M.N.R.  
DRAWN BY : DAM  
CHECKED BY :  
PROJECT NO : 00286  
SDP.3.DWG  
DATE : OCTOBER 26, 2001  
SCALE : 1" = 30'  
DRAWING NO. 3 OF 25

STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER  
CHRISTOPHER J. REID #19949



D:\project\00286\SDP3.dwg Thu Oct 25 09:23:36 2001 PATTON HARRIS RUST & ASSOCIATES

MATCH LINE SEE SHEET 2