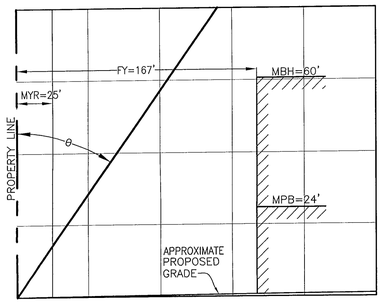


BULK PLANE SECTION

H: 1"= 50'
V: 1"= 20'

θ : ANGLE OF BULK PLANE	=	35'
MYR: MINIMUM YARD REQUIREMENTS	=	25'
MPB: MAXIMUM PROPOSED BUILDING HEIGHT	=	24'
MBH: MAXIMUM BUILDING HEIGHT	=	60'

ABBREVIATIONS

AC	-- ACRE	LP	-- LOW POINT
AC-FT	-- ACRE-FEET	M	-- METER
ASPH	-- ASPHALT	MAX	-- MAXIMUM
AVG	-- AVERAGE	MIN	-- MINIMUM
BF	-- BASEMENT FLOOR	MH	-- MANHOLE
BLDG	-- BUILDING	MM	-- MILIMETER
BMP	-- BEST MANAGEMENT PRACTICE	MON	-- MONUMENT
CB	-- CATCH BASIN	MW	-- MONITORING WELL
CIP	-- CAST IRON PIPE	N/F	-- NOW OR FORMERLY
CFS	-- CUBIC FEET PER SECOND	NO.	-- NUMBER
CMP	-- CORRUGATED METAL PIPE	OC	-- ON CENTER
CO	-- CLEAN OUT	OHE	-- OVER HEAD ELECTRIC
CONC	-- CONCRETE	PC	-- POINT OF CURVATURE
CTV	-- CABLE TV	PCC	-- POINT OF COMPOUND CURVE
CUM	-- CUMULATIVE	PG	-- PAGE
C&G	-- CURB AND GUTTER	PI	-- POINT OF INTERSECTION
D.I.	-- DROP INLET	PL	-- PROPERTY LINE
DIA	-- DIAMETER	PMP	-- PROBABLE MAXIMUM PRECIPITATION
DIP	-- DUCTILE IRON PIPE	PP	-- POWER POLE
DWG	-- DRAWING	PRC	-- POINT OF REVERSE CURVE
D/W	-- DRIVEWAY	PRECIP	-- PRECIPITATION
EC	-- EROSION CONTROL	PROP	-- PROPOSED
ECC	-- EDGE OF CONCRETE	PSI	-- POINTS PER SQUARE INCH
ELEC	-- ELECTRIC	PT	-- POINT OF TANGENCY
ELEV	-- ELEVATION	PVMT	-- PAVEMENT
EG	-- EDGE OF GRAVEL	Q	-- FLOW RATE
EP	-- EDGE OF PAVEMENT	RAD	-- RADIUS
ES	-- END SECTION	RC	-- REINFORCED CONCRETE
ESMT	-- EASEMENT	RCP	-- REINFORCED CONCRETE PIPE
EW	-- END WALL	REV	-- REVISION
EX	-- EXISTING	RPA	-- RESOURSE PROTECTION AREA
FC	-- FACE OF CURB	R/W	-- RIGHT-OF-WAY
FCWA	-- FAIRFAX COUNTY WATER AUTH.	SAN	-- SANITARY
FCPS	-- FAIRFAX COUNTY PUBLIC SCHOOLS	SEC	-- SECTION
FF	-- FINISH FLOOR	SCS	-- U.S. SOIL CONSERVATION SERVICE
FM	-- FORCE MAIN	SDF	-- SPILLWAY DESIGN FLOOD
FOY	-- FOYER	SHT	-- SHEET
FP	-- FLOOD PLAIN	SPEC	-- SPECIFICATION
FT	-- FEET	STD	-- STANDARD
G	-- GAS MAIN	STA	-- STATION
G/V	-- GAS VALVE	S/W	-- SIDEWALK
GALV	-- GALVANIZED	SWM	-- STORM WATER MANAGEMENT
GFA	-- GROSS FLOOR AREA	TC	-- TOP OF CURB
GR	-- GUARD RAIL	THR	-- THROAT
GW	-- GUY WIRE	TOB	-- TOP OF BANK
HC	-- HANDICAP	TYP	-- TYPICAL
HEC	-- HYDROLOGIC ENGINEERING CENTER	TW	-- TOP OF WALL
HGL	-- HYDRAULIC GRADE LINE	UD	-- UNDERDRAIN
HP	-- HIGH POINT	UG	-- UNDERGROUND
HR	-- HOUR	UGE	-- UNDERGROUND ELECTRIC
HT	-- HEIGHT	UP	-- UTILITY POLE
H20	-- HIGHWAY LOAD FOR TRUCKS	VDOT	-- VIRGINIA DEPT. OF TRANSPORTATION
I	-- INTENSITY	W	-- WATER
ID	-- INSIDE DIAMETER	WM	-- WATER METER
IN	-- INCHES	W/M	-- WATER MAIN
INV	-- INVERT	W/V	-- WATER VALVE
IP	-- IRON PIPE	YR	-- YEAR
IPF	-- IRON PIPE FOUND	%	-- PERCENT
IPS	-- IRON PIPE SET	'	-- FOOT OR MINUTE
JB	-- JUNCTION BOX	"	-- INCH/INCHES OR SECOND
L	-- LENGTH	#	-- POUND/NUMBER
LAT	-- LATERAL		

NOTES:

1. THE PROPERTY DELINEATED ON THIS PLAN IS LOCATED ON FAIRFAX COUNTY TAX MAP NO. 071-1 ((9)) 7A.
2. TOTAL SITE AREA OF SAINT MICHAEL'S PARISH IS APPROXIMATELY 45.24480 ACRES (1,970,863 SF). THE PROPOSED PRIEST RETIREMENT HOME AREA FOR THE PRIEST RETIREMENT HOME SHALL COMPRISE 7.13014 ACRES (310,589 SF)
3. THE EXISTING ZONE IS R-4. THE PROPOSED SPECIAL EXCEPTION USE: PROPOSED CONGREGATE LIVING FACILITY AND EXISTING PLACE OF WORSHIP AND PRIVATE SCHOOL OF GENERAL EDUCATION.
4. TOPOGRAPHIC INFORMATION IS FROM A FIELD RUN TOPOGRAPHIC SURVEY BY THIS FIRM IN AUGUST, 2004. THE DATUM IS USGS. CONTOUR INTERVAL IN TWO (2) FOOT.
5. BOUNDARY SURVEY IS BY LAND DEVELOPMENT CONSULTANTS, INC.
6. NO GRAVE OR BURIAL SITE IS KNOWN TO EXIST ON THIS PROPERTY.
7. THE SITE IS LOCATED WITHIN THE RESOURCE MANAGEMENT AREA OF THE CHESAPEAKE OVERLAY DISTRICT. THE RESOURCE PROTECTION AREAS (RPA) IS SHOWN FROM COUNTY CHESAPEAKE BAY MAPS AS ADOPTED NOVEMBER 11, 2004. THIS SITE IS ALSO LOCATED WITHIN EXISTING FLOOD PLAIN EASEMENT (DB 3750, PG 496).
8. THIS SITE IS SERVED BY PUBLIC WATER AND PUBLIC SANITARY SEWER. THERE ARE NO KNOWN PRIVATE WELLS OR SEPTIC FIELDS ARE PROPOSED ON THIS SITE.
9. THE OPEN SPACE AND PROPOSED LANDSCAPING SHALL BE MAINTAINED BY OWNER.
10. THE LIMITS OF CLEARING AND GRADING, UTILITIES, LANDSCAPING, STRUCTURE DIMENSIONS, SETBACKS AND SITE LAYOUT SHOWN HEREON ARE APPROXIMATE AND SUBJECT TO NECESSARY ADJUSTMENTS WITH FINAL ENGINEERING AND DESIGN.
11. ALL AREAS AND DIMENSIONS SHOWN HEREON ARE NECESSARILY APPROXIMATE AND THE APPLICANT RESERVES THE RIGHT TO INCREASE OR DECREASE AS NECESSARY TO FACILITATE FINAL DESIGN.
12. NO LOUD SPEAKER SYSTEM SHALL BE USED ON SITE EXTERIOR.
13. ALL LIGHTING SHALL BE BUILDING MOUNTED WITH FULL CUT OFF AND DIRECTED DOWNWARD TO MINIMIZE GLARE.
14. LANDSCAPING SHALL MEET OR EXCEED FAIRFAX COUNTY'S TREE REQUIREMENTS. EXISTING TREES SHALL BE SAVED WHERE FEASIBLE. ADDITIONALLY, THE QUANTITY AND LOCATION OF THE PROPOSED VEGETATION SHOWN HEREON IS APPROXIMATE. THE EXACT QUANTITY AND LOCATION SHALL BE DETERMINED AT THE TIME OF THE FINAL DESIGN. A MODIFICATION OF TRANSITIONAL SCREENING REQUIREMENTS FOR THE PRESERVATION OF EXISTING VEGETATION IS HEREBY REQUESTED.
15. LOCATION, DIMENSIONS AND LIGHTING OF ALL SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE 12.
16. THERE ARE NO UTILITY EASEMENTS HAVING A WIDTH OF 25 FEET OR MORE.
17. THIS DEVELOPMENT MAY BE CONSTRUCTED IN PHASES.
18. A PROPOSED 10' WIDE CLASS "I" TRAIL SHALL BE PROVIDED PER THE COMPREHENSIVE PLAN ALONG THE EAST SIDE OF RAVENSWORTH ROAD.
19. ALL EXISTING STRUCTURES SHALL BE RETAINED.

LEGEND

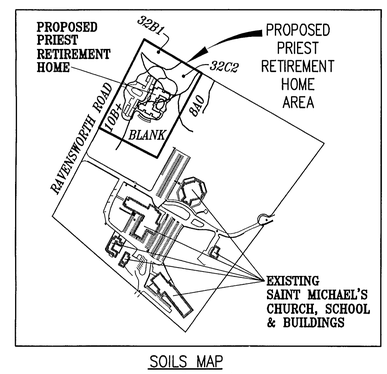
EXISTING INTERMEDIATE CONTOUR	132
EXISTING INDEX CONTOUR	130
EXISTING EDGE OF PAVEMENT	EX. E/P
EXISTING CURB AND GUTTER	EX. C & G
EXISTING TELEPHONE LINE	T
EXISTING TELEPHONE BOX	T
EXISTING STORM SEWER	EX. 15" RCP
EXISTING STORM SEWER MH	D
EXISTING SANITARY SEWER MH	S
EXISTING SANITARY SEWER	S
EXISTING SANITARY CLEANOUT	C.O.
EXISTING ELECTRIC SERVICE	E
EXISTING ELECTRIC SERVICE BOX	E
EXISTING SATELLITE DISH	
EXISTING GAS LINE	G
EXISTING GASE VALVE	GV
PROPERTY LINE	
CENTERLINE	℄
EXISTING SPOT ELEVATION	×85.10
EXISTING TREE DRIP LINE	
EXISTING TREE	15" OAK
EXISTING WHEELSTOP	
LIMITS OF CLEARING & GRADING	LOD
EX. FENCELINE	X
EXISTING WOODFENCE	
EXISTING CHAIN LINK FENCE	
EXISTING UTILITY POLE	
EXISTING WATERLINE MH	W
EXISTING WATERLINE W/ TEE	W
EXISTING WATER VALVE	WV
EXISTING FIRE HYDRANT	
EXISTING WATER METER	WM
EXISTING WELL	
EXISTING SIGN	
EXISTING HC RAMP/SPACE	
EXISTING PARKING INDICATOR INDICATES THE NUMBER OF TYPICAL PARKING SPACES	112
EXISTING BOLLARD	
EXISTING DOOR	
EXISTING STREET LIGHT	
EXISTING SIGHT LIGHT FIXTURE (SEE LIGHTING PLAN)	
EXISTING LANDSCAPE LIGHT	
EXISTING A/C UNIT	A/C
BENCHMARK	BM
MULTIPLE PRODUCT DISPENSER	MPD

REQUIRED PARKING TABULATION

PLACES OF WORSHIP	
CHURCH SEATING = 1254 (PER ZONING ORDINANCE SECTION 11-106-3, ONE (1) SPACE PER FOUR (4) SEATS	314 SPACES
CHURCH STAFF = 9	4 SPACES
SCHOOL-ELEMENTARY & INTERMEDIATE	
JUNIOR SCHOOL (GRADE 1-4) = 202 FACULTY AND STAFF = 23 (PER ZONING ORDINANCE SECTION 11-106-17, ONE (1) SPACE FOR FACULTY AND STAFF MENBERS PLUS FOUR (4) SPACES FOR VISITORS)	27 SPACES
SENIOR SCHOOL (GRADE 5-8) = 147 FACULTY AND STAFF = 15 (PER ZONING ORDINANCE SECTION 11-106-17, ONE (1) SPACE FOR FACULTY AND STAFF MENBERS PLUS FOUR (4) SPACES FOR VISITORS)	19 SPACES
RECTORY	
RESIDENT = 6 PRIEST (PER ZONING ORDINANCE SECTION 11-106-10, ONE (1) SPACE PER GUEST ACCOMODATION)	6 SPACES
CONVENT	
RESIDENT = 7 (PER ZONING ORDINANCE SECTION 11-106-10, ONE (1) SPACE PER GUST ACCOMODATION)	7 SPACES
MAINTENANCE BUILDING	
BUILDING ONE (1) STORY, 2400 GFA (PER ZONING ORDINANCE SECTION 11-106-5, MINIMUM OF ONE (1) SPACE PER 1000 S.F. OF GROSS FLOOR AREA)	3 SPACES
PROPOSED CONGREGATE LIVING FACILITY	
RESIDENTS = 20 PRIESTS, 2 GUEST SUITES; STAFF MEMBERS = 4 (PER ZONING ORDINANCE SECTION 11-106-9, MINIMUM OF ONE (1) SPACE PER THREE (3) RESIDENTS, PLUS ONE (1) SPACE FOR EACH EMPLOYEE)	13 SPACES
REQUIRED HANDICAP SPACES	8 SPACES
TOTAL REQUIRED SPACES	406 SPACES

PROPOSED PARKING TABULATION

EXISTING STANDARD PARKING SPACES	382 SPACES
EXISTING HANDICAP PARKING SPACES	7 SPACES
PROPOSED STANDARD PARKING SPACES	25 SPACES
PROPOSED HANDICAP PARKING SPACES	4 SPACES
TOTAL PROPOSED SPACES	418 SPACES



SOILS MAP

SCALE: 1" = 500'

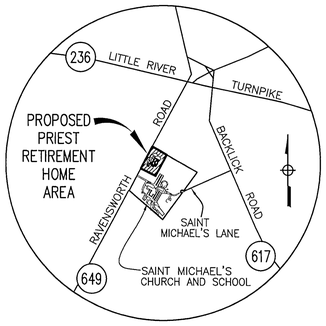
SOIL NO.	SOIL NAME	PROBLEM CLASS
8A0	WORSHAM	A
10B+	GLENVILLE	B
32B1	FAIRFAX (SIL)	B
32C2	FAIRFAX (SIL)	B

ADDRESS

4601 RAVENSWORTH RD
ANNANDALE, VA
TAX MAP #071-1 ((9)) 7A

OWNER & APPLICANT

THE MOST REVEREND PAUL S. LOVERDE,
BISHOP OF THE CATHOLIC DIOCESE OF
ARLINGTON, VIRGINIA, AND HIS
SUCCESSORS IN OFFICE
200 N. GLEBE RD.
ARLINGTON, VA 22203



VICINITY MAP

1" = 2000'

ZONING TABULATIONS:

ITEM	R-4 ZONE REQUIREMENTS	EXISTING	PROPOSED TOTAL LOT	PROPOSED PRIEST RETIREMENT HOME AREA
USE:	–	PLACE OF WORSHIP AND PRIVATE SCHOOL OF GENERAL EDUCATION	CONGREGATE LIVING FACILITY AND PLACE OF WORSHIP AND PRIVATE SCHOOL OF GENERAL EDUCATION	CONGREGATE LIVING FACILITY
LOT AREA	8,400 SF (MIN.)	1,970,864 SF	1,970,864 SF	310,589 SF
MIN. LOT WIDTH				
INTERIOR	70 FT	1,380 FT	1383 FT	689 FT
CORNER	95 FT	–	–	–
MAX. BUILDING HEIGHT	60 FT	29 FT	29 FT	24 FT
MIN. FRONT YARD	25 FT	396 FT	167 FT	167 FT
MIN. SIDE YARD	10 FT	53 FT	53 FT	231 FT
MIN. REAR YARD	25 FT	55 FT	55 FT	117 FT
OPEN SPACE	MIN. 15%	1,541,438 SF (80%)	1,485,785 SF (75%)	254,936 SF (82%)
TOTAL G.F.A.	–	125,986 SF	157,486 SF	31,500 SF
MAX. F.A.R.	0.35	0.064	0.079	0.101

Location No. SE 2006-PR-031 Staff [illegible]
APPROVED (SP) / SP PLAN
SEE DEV CONDS DATED 6/11/07
Date of (BOS) (BZA) approval 6/4/07
Sheet 1 of 11

RECEIVED
Department of Planning & Zoning
MAY 24 2007
Zoning Evaluation Division

SHEET INDEX

1. COVER SHEET
2. OVERALL SITE FOR ILLUSTRATIVE PURPOSES
3. EXISTING VEGETATION MAP
4. EXISTING CONDITIONS PLAN
5. APPROXIMATE LOCATION OF STREAM, FLOODPLAIN AND RPA AREA & FRONTAGE IMPROVEMENT PLAN
6. PROPOSED CONDITIONS PLAN
7. SWM/BMP & OUTFALL NARRATIVES AND COMPUTATIONS
8. DRAINAGE DIVIDES MAP AND IMPERVIOUS AREA CALCULATION
9. SWM POND VILLAGE AND PHOSPHORUS REMOVAL RATE COMPUTATION
10. LANDSCAPE PLAN
11. ARCHITECTURAL ELEVATIONS

LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING · LAND PLANNING · SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
ph. 703·591·5800 fax. 703·273·7951
www.landdevelopment.ws mail@landdevelopment.ws

REUSE OF DOCUMENTS
THIS DOCUMENT, AS A PROFESSIONAL SERVICE, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF LAND DEVELOPMENT CONSULTANTS, INC. AS AN INSTRUMENT OF SERVICE IS NOT TO BE USED, IN WHOLE OR IN PART BY ANY PROCESS WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
© LAND DEVELOPMENT CONSULTANTS, INC.

COVER SHEET
SPECIAL EXCEPTION PLAT
PRIEST RETIREMENT HOME

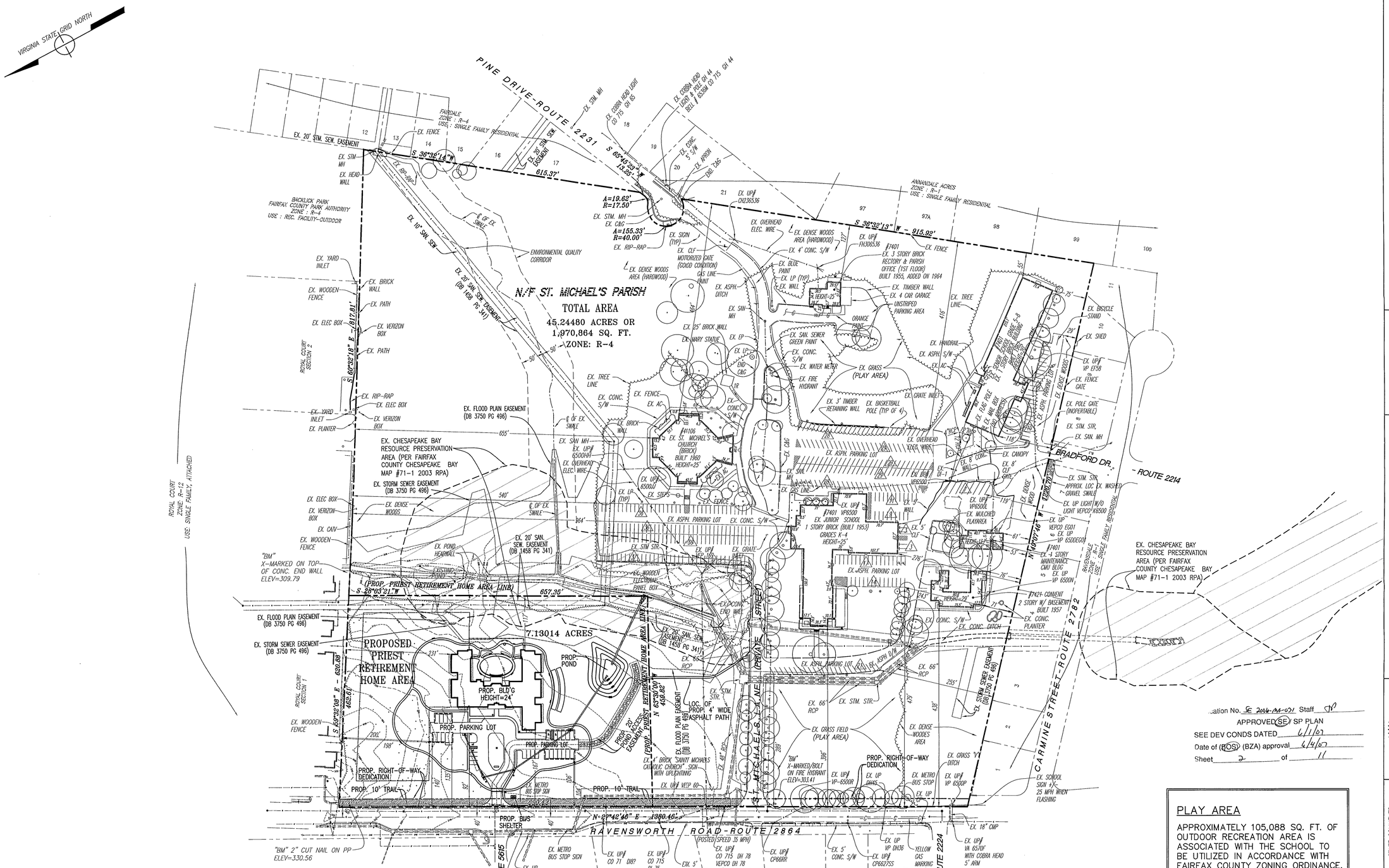
MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MASSARELLO
No. 020732
5-23-07
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL
6	5/23/07	STAFF COMMENTS
5	4/13/07	STAFF COMMENTS
4	4/3/07	STAFF COMMENTS
3	3/21/07	STAFF COMMENTS
2	3/3/07	STAFF COMMENTS
1	9/26/06	COUNTY COMMENTS

PROJ. NO.: 11441-SE
SCALE: AS SHOWN
DATE: 02/17/2006
SHEET: 1 OF 11

F:\PROJECTS\Priest Retirement Home\LDCS\dwg\SPH-PLAN.dwg



Application No. SE 2006-MA-021 Staff SP

APPROVED (SE) SP PLAN

SEE DEV CONDS DATED 6/1/07

Date of (BOS) (BZA) approval 6/4/07

Sheet 2 of 11

PLAY AREA

APPROXIMATELY 105,088 SQ. FT. OF OUTDOOR RECREATION AREA IS ASSOCIATED WITH THE SCHOOL TO BE UTILIZED IN ACCORDANCE WITH FAIRFAX COUNTY ZONING ORDINANCE.

100 0 50 100 200

1 INCH = 100 FT.

LAND DEVELOPMENT CONSULTANTS, INC.

CIVIL ENGINEERING · LAND PLANNING · SURVEYING

10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030

ph. 703·591·5800 fax. 703·273·7951

www.landdevelopment.ws mail@landdevelopment.ws

REUSE OF DOCUMENTS

THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF LAND DEVELOPMENT CONSULTANTS, INC. AND SHALL NOT BE COPIED OR USED, IN WHOLE OR IN PART BY ANY PROCESS WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.

© LAND DEVELOPMENT CONSULTANTS, INC.

OVERALL SITE FOR ILLUSTRATIVE PURPOSES SPECIAL EXCEPTION PLAT

PRIEST RETIREMENT HOME

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL
6	5/23/07	STAFF COMMENTS
5	4/13/07	STAFF COMMENTS
4	4/3/07	STAFF COMMENTS
3	3/31/07	STAFF COMMENTS
2	3/3/07	STAFF COMMENTS
1	9/26/06	COUNTY COMMENTS

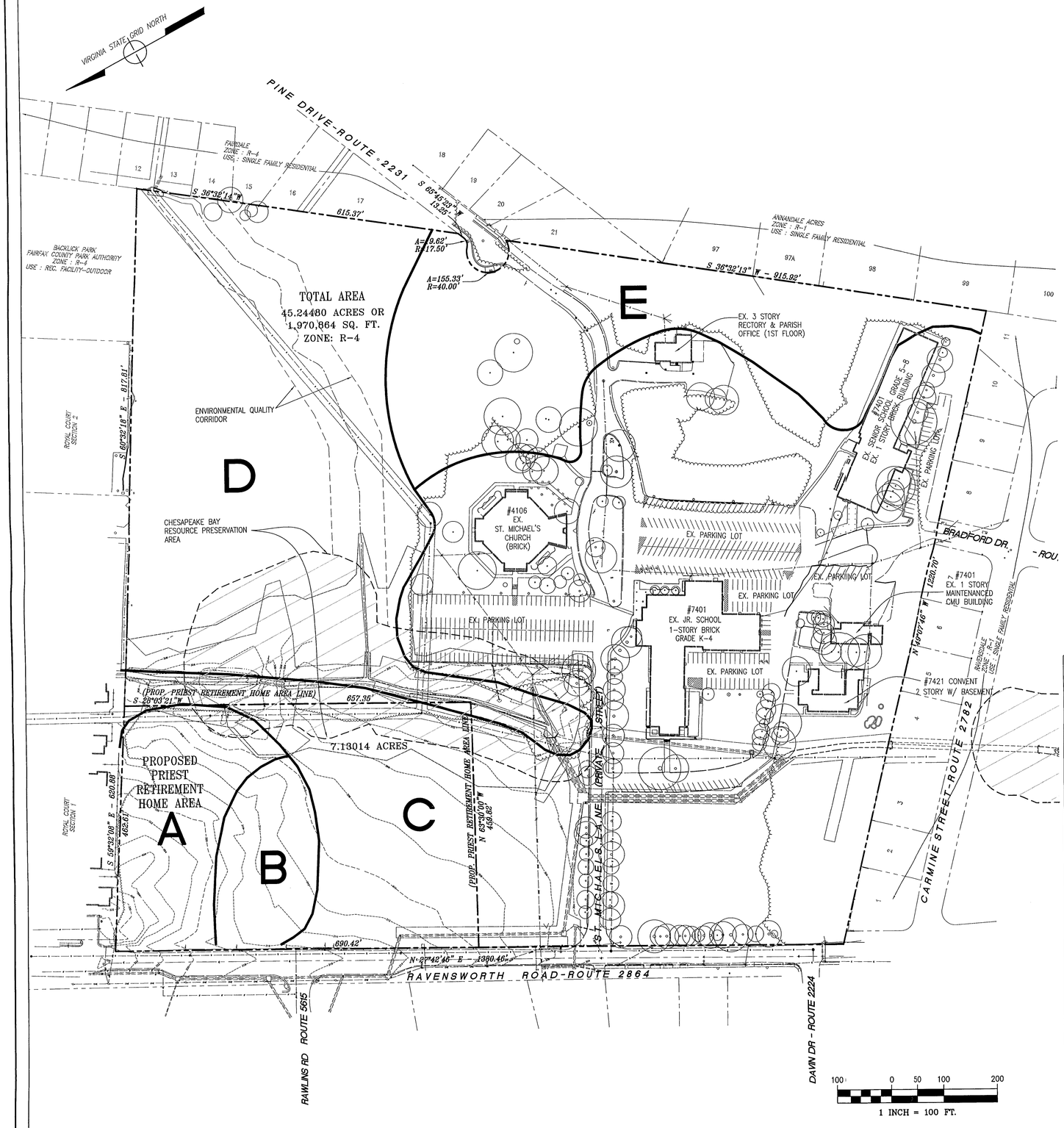
PROJ. NO.: 11441-SE

SCALE: 1"=100'

DATE: 02/17/2006

SHEET: 2 OF 11

F:\PROJECTS\Priest Retirement Home\L203\dwg\RPH-PLAN.dwg



ation No. SE 2006-MA-031 Staff 8

APPROVED (SE) SP PLAN

SEE DEV CONDS DATED 6/1/07

Date of (BOS) (BZA) approval 6/4/07

Sheet 3 of 11

TreesPlease®

P. O. Box 1025 Haymarket, Virginia 20168 703-927-2048
http://www.TreesPlease.com e-mail Ed@TreesPlease.com

Existing Vegetation Map **Priest Retirement Home**

EVM Only...Not For Tree Preservation Purposes

	Cover Type	Primary Species	Understory Species	Successional Stage	Condition	Area (SQ. FT.)
A	Bottomland Forest	*Pinus virginiana, Quercus palustris, Prunus serotina, Ulmus americana, Acer rubrum*	*Liquidamber styraciflua, Quercus alba, Ilex opaca, Ilex crenata, Lonicera japonica, Rhus raidcans, Rosa multiflora, Quercus phellos*	sub-climax	fair to good	97,837
	Comments	Virginia pine fading out, and being replaced by younger hardwoods; rampant vines and invasive exotic species. Tolerant of change.				
B	Bottomland Forest	*Pinus virginiana*	*Ilex crenata, Lonicera japonica, Ilex opaca*	sub-climax	varying from poor to good	58,188
	Comments	Almost entirely Virginia pine, with vines along southeast and northeast edges. These pines would be absolutely intolerant of change.				
C	Developed	N/A	Lawn and landscaping in open spaces.	N/A	N/A	1,069,399
	Comments	Lawn and landscaping in open spaces. Some landscape plants, and remnants of woodland, are high quality. South field not mowed.				
D	Bottomland Forest	*Liriodendron tulipifera, Pinus virginiana, Acer rubrum, Prunus serotina*	*Fagus grandifolia, Viburnum acerifolium, Quercus alba, Hedera helix, Ilex opaca, Rhus raidcans, Mitchella repens, Lycopodium* spp.	sub-climax	good to very good	489,065
	Comments	High quality forest in good condition and desirable. Trees intolerant of change due to size and age.				
E	Bottomland Forest	*Quercus alba, Nyssa sylvatica, Carya glabra, Liriodendron tulipifera*	*Carpinus caroliniana, Ilex opaca, Fagus grandifolia*	sub-climax	very good	256,373
	Comments	Very high quality woods that is highly desirable. Intolerant of change.				

LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING · LAND PLANNING · SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
ph. 703·591·5800 fax. 703·273·7951
www.landdevelopment.ws mail@landdevelopment.ws

REUSE OF DOCUMENTS
THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE, INCORPORATED HEREIN, IS THE PROPERTY OF LAND DEVELOPMENT CONSULTANTS, INC. AND IS NOT TO BE COPIED OR USED, IN WHOLE OR IN PART BY ANY PERSON WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
©LAND DEVELOPMENT CONSULTANTS, INC.

EXISTING VEGETATION MAP
SPECIAL EXCEPTION PLAT
PRIEST RETIREMENT HOME

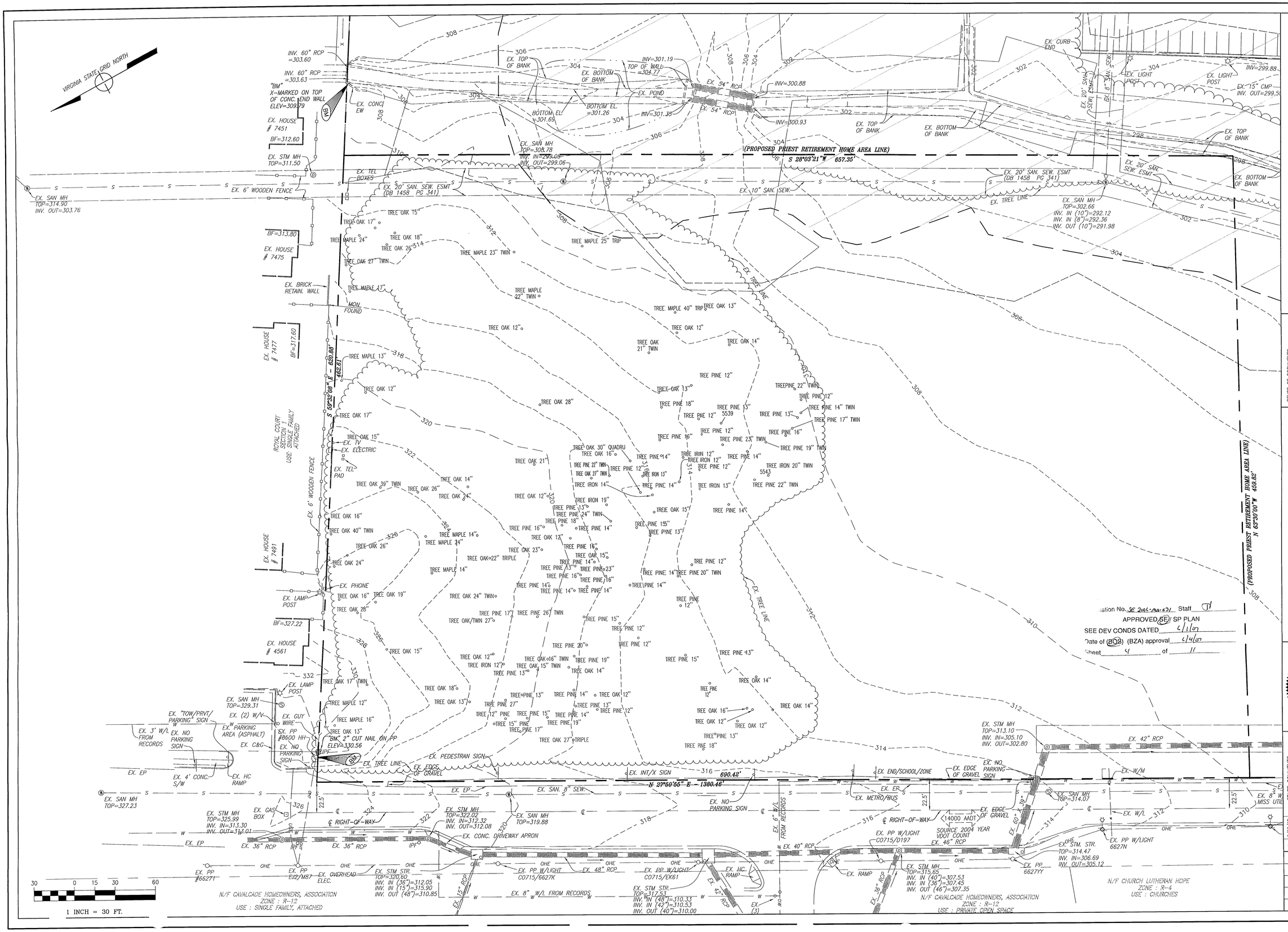
MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MANCINELLO
No. 020732
5-23-07
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL
6	5/23/07	STAFF COMMENTS
5	4/13/07	STAFF COMMENTS
4	4/3/07	STAFF COMMENTS
3	3/21/07	STAFF COMMENTS
2	3/3/07	STAFF COMMENTS
1	9/28/06	COUNTY COMMENTS

PROJ. NO.: 11441-SE
SCALE: 1"=100'
DATE: 02/17/2006
SHEET: 3 OF 11

F:\PROJECTS\Priest Retirement Home\LDCS\dwg\SPH-PLAN.dwg



LAND DEVELOPMENT CONSULTANTS, INC.

CIVIL ENGINEERING · LAND PLANNING · SURVEYING

10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
ph. 703·591·5800 fax. 703·273·7951
www.landdevelopment.ws mail@landdevelopment.ws

REUSE OF DOCUMENTS

THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF LAND DEVELOPMENT CONSULTANTS, INC. AND IS NOT TO BE COPIED OR USED IN WHOLE OR IN PART BY ANY PROCESS WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.

©LAND DEVELOPMENT CONSULTANTS, INC.

EXISTING CONDITIONS PLAN
SPECIAL EXCEPTION PLAT
PRIEST RETIREMENT HOME

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

ation No. SE 2006-MA-031 Staff
APPROVED SE/ SP PLAN
SEE DEV CONDS DATED 6/1/07
Date of (BOS) (BZA) approval 6/4/07
Sheet 4 of 11

COMMONWEALTH OF VIRGINIA
JOHN C. MANGANELLO
No. 020732
PROFESSIONAL ENGINEER

REV.	DATE	REVISIONS PRIOR TO APPROVAL
6	5/23/07	STAFF COMMENTS
5	4/13/07	STAFF COMMENTS
4	4/3/07	STAFF COMMENTS
3	3/21/07	STAFF COMMENTS
2	3/3/07	STAFF COMMENTS
1	9/26/06	COUNTY COMMENTS

PROJ. NO.: 11441-SE
SCALE: 1"=30'
DATE: 02/17/2006
SHEET: 4 OF 11

E:\PROJECTS\Priest Retirement Home\LDEV\dwg\PPH-PLAN.dwg

PINE DRIVE-ROUTE 2231

VIRGINIA STATE GRID NORTH

APPROXIMATE LOCATION OF RESOURCE PROTECTION AREA (RPA)

100 0 50 100 200

1 INCH = 100 FT.

ENVIRONMENTAL CONTROL CORRIDOR

EX. STREAM

EX. RECTORY

EX. CHESAPEAKE BAY RESOURCE PRESERVATION AREA (PER FAIRFAX COUNTY CHESAPEAKE BAY MAP #71-1 2003 RPA)

EX. FLOOD PLAIN EASEMENT (DB. 3750 PG. 496)

EX. STREAM

EX. CHURCH

EX. SCHOOL

EX. SCHOOL

EX. MAINTENANCE FACILITY

BRADFORD DR.

ROUTE 2214

EX. CHESAPEAKE BAY RESOURCE PRESERVATION AREA (PER FAIRFAX COUNTY CHESAPEAKE BAY MAP #71-1 2003 RPA)

EX. POND

EX. CONVENT

PROP. PRIEST RETIREMENT HOME

PROP. POND

ST. MICHAELS LANE (PRIVATE STREET)

EX. STORM DRAIN EASEMENT (DB. 3750 PG. 496)

EX. STORM DRAIN PIPES (TYP.)

CARMINE STREET-ROUTE 2782

EX. FLOOD PLAIN EASEMENT (DB. 3750 PG. 496)

RAVENSWORTH ROAD-ROUTE 2864

5615

TE 2224

Application No.: SE 2006-MA-031 Staff SP

APPROVED SE/SP PLAN

SEE DEV CONDS DATED 6/1/07

Date of BOS (BZA) approval 6/4/07

Sheet 5 of 11

SITE

1' FOR VDOT MAINTENANCE

PROP. RIGHT-OF-DEDICATION

PROP. 10' WIDE CLASS "1" ASPHALT TRAIL

PROP. FACE OF CURB

3' SHOULDER

PROP. ASPH. ROAD WIDENING

EX. PROPERTY LINE

EX. EDGE OF PAVEMENT

℄ RIGHT-OF-WAY

VARIES (16' TO 19')

PAVENSWORTH ROAD ROUTE 2864

DETAIL

SCALE: 1"=20'

PROPOSED ASPHALT ROAD WIDENING

PROP. RIGHT-OF-WAY DEDICATION

PROP. 10' WIDE CLASS "1" ASPHALT TRAIL

PROP. ENTR.

EX. EDGE OF PAVEMENT

PROP. ASPH. ROAD WIDENING

PROP. FACE OF CURB

ST. MICHALES LANE (PRIVATE)

℄ RIGHT-OF-WAY

PAVENSWORTH ROAD ROUTE 2864

SEE DETAIL ON THIS SHEET

RAWLINGS ROAD ROUTE 5615

DAVIN DRIVE ROUTE 2224

FRONTAGE IMPROVEMENT PLAN

SCALE: 1"=50'

LAND DEVELOPMENT CONSULTANTS, INC.

CIVIL ENGINEERING · LAND PLANNING · SURVEYING

10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030

ph. 703-591-5800 fax. 703-273-7951

www.landdevelopment.ws mail@landdevelopment.ws

REUSE OF DOCUMENTS

THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF LAND DEVELOPMENT CONSULTANTS, INC. AND IS NOT TO BE COPIED OR USED IN WHOLE OR IN PART BY ANY PROCESS WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.

©LAND DEVELOPMENT CONSULTANTS, INC.

APPROXIMATE LOCATION OF STREAM, FLOODPLAIN AND RPA AREA & FRONTAGE IMPROVEMENT PLAN

SPECIAL EXCEPTION PLAT

PRIEST RETIREMENT HOME

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA

JOHN C. MARGARELLO No. 020732

5-23-07

PROFESSIONAL ENGINEER SEAL

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL
6	5/23/07	STAFF COMMENTS
5	4/13/07	STAFF COMMENTS
4	4/3/07	STAFF COMMENTS
3	3/21/07	STAFF COMMENTS
2	3/3/06	STAFF COMMENTS
1	9/26/06	COUNTY COMMENTS

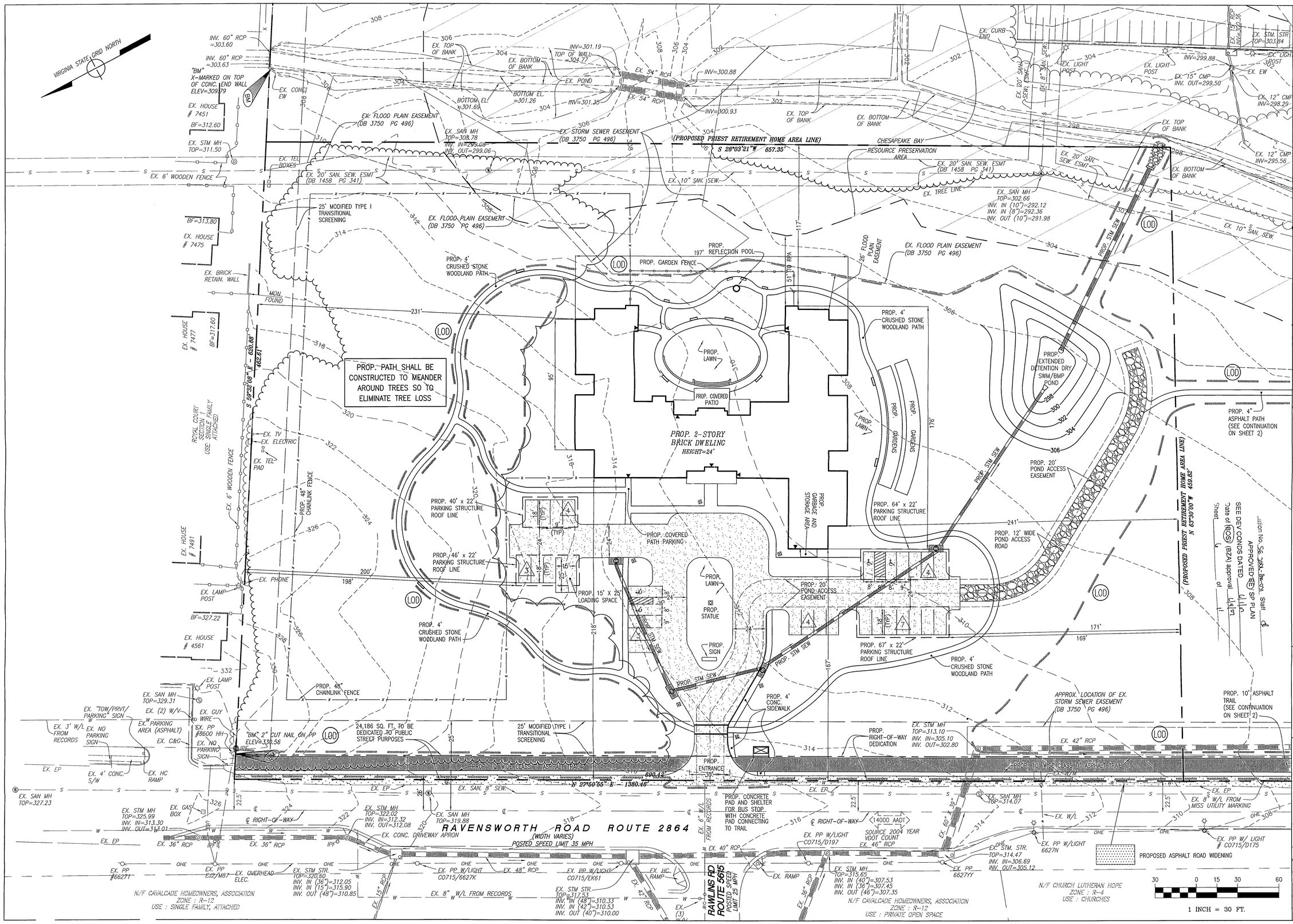
PROJ. NO.: 11441-SE

SCALE: 1"=100'

DATE: 02/17/2006

SHEET: 5 OF 11

F:\PROJECTS\Priest Retirement Home\LDCS\dwg\SPR1-PLAN.dwg



LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING · LAND PLANNING · SURVEYING

10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
ph. 703·591·5800 fax. 703·273·7951
www.landdevelopment.ws mail@landdevelopment.ws

REUSE OF DOCUMENTS
THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF LAND DEVELOPMENT CONSULTANTS, INC. AND SHALL NOT BE COPIED OR USED, IN WHOLE OR IN PART BY ANY PROCESS WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
©LAND DEVELOPMENT CONSULTANTS, INC.

PROPOSED CONDITIONS PLAN
SPECIAL EXCEPTION PLAT
PRIEST RETIREMENT HOME

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

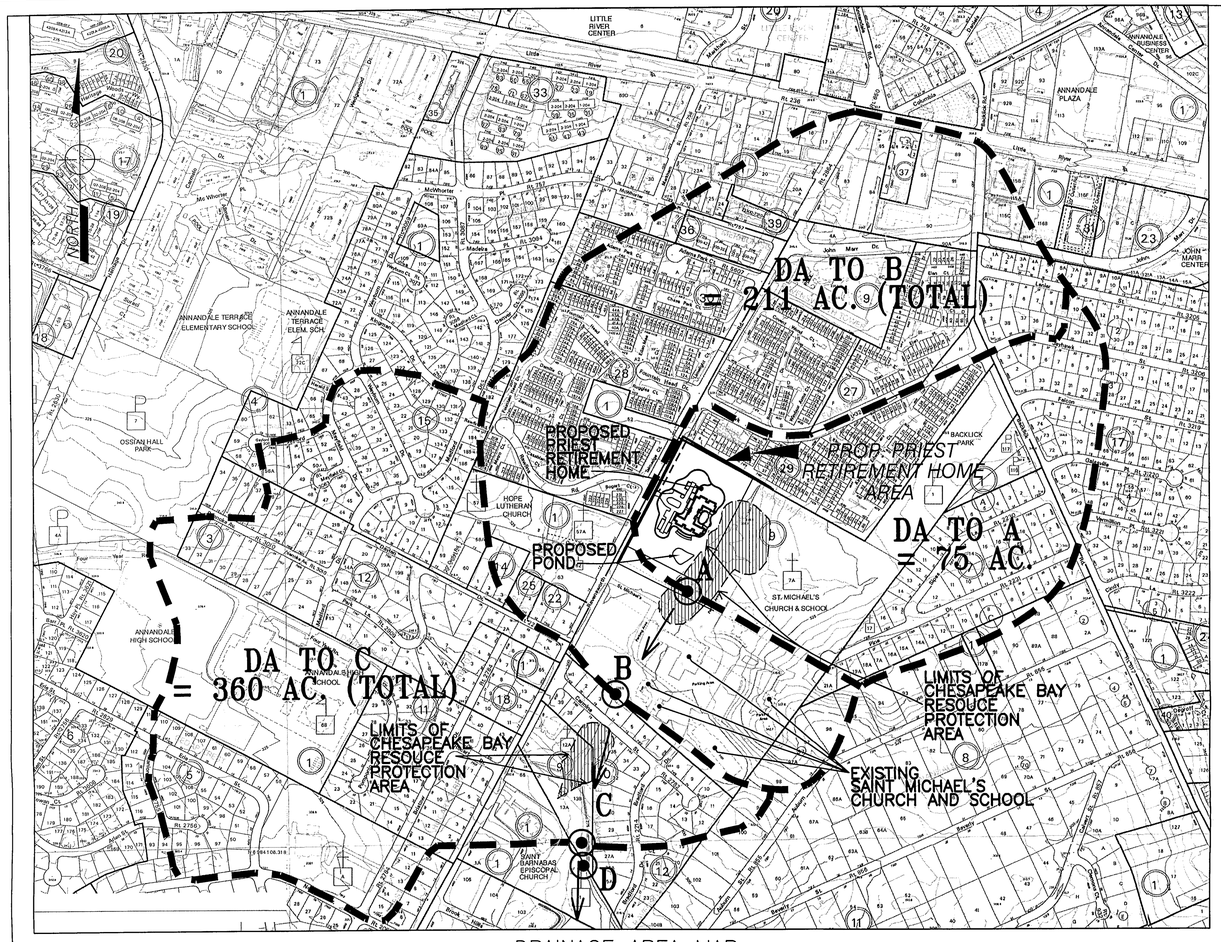
Application No. SE 2004-MA-001 Staff
APPROVED BY SE SP PLAN
SEE DEV CONDS DATED
Date of BOS approval
Sheet of

COMMONWEALTH OF VIRGINIA
JOHN C. MANGUSO
No. 020752
PROFESSIONAL ENGINEER
5-23-07

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL
6	5/23/07	STAFF COMMENTS
5	4/13/07	STAFF COMMENTS
4	4/3/07	STAFF COMMENTS
3	3/21/07	STAFF COMMENTS
2	3/3/07	STAFF COMMENTS
1	9/26/06	COUNTY COMMENTS

PROJ. NO.: 11441-SE
SCALE: 1"=30'
DATE: 02/17/2006
SHEET: 6 OF 11

F:\PROJECTS\Priest Retirement Home\LDCS\dwg\SPH-PLAN.dwg

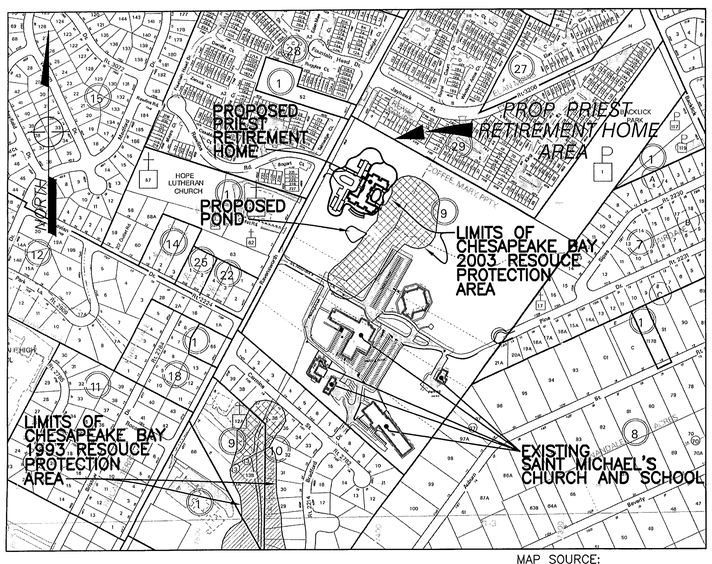


DRAINAGE AREA MAP

SCALE: 1" = 400'

400 0 200 400 800

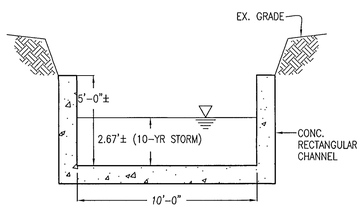
1 INCH = 400 FT.



CHESAPEAKE BAY PRESERVATION AREA MAP

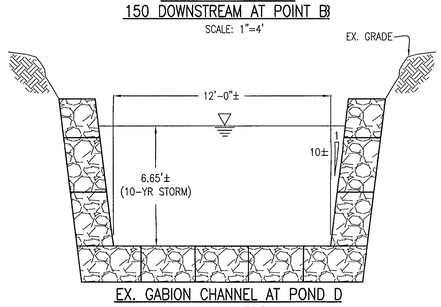
SCALE: 1" = 400'

MAP SOURCE:
DEPARTMENT OF INFORMATION TECHNOLOGY, FAIRFAX COUNTY
CHESAPEAKE BAY PERSERVATION AREAS
REVISED 08/01/05



EX. CONC. CHANNEL
150 DOWNSTREAM AT POINT B

SCALE: 1"=4'



EX. GABION CHANNEL AT POND D

SCALE: 1"=4'

NOTE: FURTHER DETAILED HYDRAULIC COMPUTATIONS WILL BE PERFORMED IF REQUIRED, WHEN THE TRAIL SIZE PLAN IS SUBMITTED.

STORMWATER MANAGEMENT (SWM) / BEST MANAGEMENT PRACTICES (BMP) NARRATIVE :

THIS SITE, WHICH IS APPROXIMATELY 45.24 ACRES, IS LOCATED ON THE EASTERN SIDE OF RAVENSWORTH ROAD AND APPROXIMATELY 2200 FEET EAST OF LITTLE RIVER TURNPIKE. THE SITE IS CURRENTLY DEVELOPED WITH BUILDINGS AND PARKING LOTS FOR ST. MICHAEL'S CHURCH AND A JR. SCHOOL, AND OTHER SUPPORTING FACILITIES. THESE EXISTING FACILITIES ARE LOCATED ON THE NORTH SIDE OF THE EXISTING SWALE AND TWIN 66" RCP STORM SEWER RUNNING THROUGH THE MIDDLE OF THE LOT FROM NORTH TO SOUTH.

THE PROPOSED DEVELOPMENT IS A CONGREGATE LIVING FACILITY WHICH WILL BE CONSTRUCTED ON THE WEST SIDE OF THE EXISTING SWALE AND THE TWIN 66" RCP PIPE. THIS AREA IS NOW UNDEVELOPED AND COVERED WITH TREES AND GRASS. THE PROPOSED DEVELOPMENT WILL ADD 1.14 ACRES OF IMPERVIOUS AREA AND WILL INCREASE RUNOFF BY 4.16 CFS AND 5.30 CFS FOR THE 2 YEAR AND 10-YEAR STORM EVENT RESPECTIVELY.

A EXTENDED DETENTION DRY POND IS PROVIDED FOR THE SWM AND BMP. THE POND VOLUME WILL BE APPROXIMATELY 8,500 CF AND REDUCE BY 7.15 CFS FOR THE 10-YEAR STORM EVENT(THE POND VOLUME WILL BE GOVERNED BY THE 10-YEAR STORM). THEREFORE, THE SWM REQUIREMENTS ARE MET.

THE PROPOSED EXTENDED DETENTION DRY POND COVERS 100% OF THE PROPOSED AREA AND PROPOSED CONSERVATION EASEMENTS FOR BMP ARE PROVIDED ALONG THE EXISTING FLOODPLAIN AREAS. HOWEVER, THE COMPOSITE TOTAL PHOSPHORUS REMOVAL RATE IS ONLY 16.6%. THE PROPOSED CONSTRUCTION AREA IS LESS THAN 4 ACRES BUT THE ENTIRE SITE IS 46.2 ACRES. DUE TO THE AREA RATIO, THE PHOSPHORUS REMOVAL RATE OF THE PROPOSED POND IS NEGLIGIBLE, ALTHOUGH THE POND COVERS 100% THE PROPOSED CONSTRUCTION AREA.

BMP SHALL BE PROVIDED FOR THE PROPOSED IMPROVEMENTS.

UNLESS EXTENSIVE BMP MEASURES ARE PROVIDED FOR THE EXISTING FACILITIES, THE REQUIRED MINIMUM 40% CAN NOT BE ACHIEVED. A BMP PARTIAL WAIVER WILL BE SUBMITTED WITH THE FINAL SITE PLAN.

OUTFALL NARRATIVE:

THE SITE, WHICH IS APPROXIMATELY 45.24 ACRES, IS A TRIBUTARY OF BACKLICK RUN WITHIN THE CAMERON RUN WATERSHED. IT IS LOCATED ON THE EAST SIDE OF RAVENSWORTH ROAD, APPROXIMATELY 2,200 FT EAST FROM LITTLE RIVER TURNPIKE. THE SITE IS CURRENTLY DEVELOPED WITH BUILDINGS AND PARKING LOTS FOR ST. MICHAEL'S CHURCH AND A JR. SCHOOL, AND OTHER SUPPORTING FACILITIES. IN THE MIDDLE OF THE LOT AN EXISTING SWALE AND TWIN 66" RCP STORM SEWERS RUN FROM NORTH TO SOUTH WHICH DISCHARGES TO THE EXISTING CONCRETE CHANNEL AND THEN TO THE EXISTING LARGE SIZE STONE GABION CHANNEL.

THE PROPOSED DEVELOPMENT IS A CONGREGATE LIVING FACILITY. THIS DEVELOPMENT ADDS APPROXIMATELY 1.14 ACRES OF IMPERVIOUS AREA TO THE PROPERTY. HOWEVER, THERE WILL BE NO STORM RUNOFF INCREASES IN THE EVENTS OF 2-YEAR AND 10-YEAR STORM WITH THE PROPOSED SWM POND. SEE THE SWM/BMP NARRATIVE.

THREE POINTS OF THE EXISTING CHANNEL WERE ANALYZED TO CHECK THE OUTFALL ADEQUACY.

POINT "A", "B" AND "D":
- POINT "A" IS 150 FEET FROM THE PROPOSED SWM POND OUTFALL
- POINT "B" IS THE PROPERTY LINE OF THE SITE
- POINT "D" IS 150 FEET DOWN STREAM OF A POINT THAT THE CONTRIBUTING AREA IS 360 ACRES, CRITICAL POINT FOR OUTFALL ADEQUACY CHECKING FOR THIS PROJECT BASED ON THE FAIRFAX COUNTY GUIDELINE TO STORMWATER OUTFALL ANALYSIS.

ALL DISCHARGES ARE EQUAL OR LESS THAN IT'S PRE-DEVELOPMENT RUNOFF RATE AND THE 10-YEAR STORM RUNOFF DOES NOT OVERTOP THE EXISTING MANMADE CHANNELS NOR EXCEEDING THE EROSION PERMISSIBLE VELOCITIES (FOR CONCRETE CHANNEL & LARGE SIZE STONE GABION). THIS PROJECT SHALL NOT CAUSE ANY ADVERSE EFFECT TO THE DOWNSTREAM PROPERTIES. THEREFORE, IN OUR OPINION, ADEQUATE OUTFALL SHALL BE PROVIDED FOR THIS DEVELOPMENT.

SEE THE SWM/BMP NARRATIVE AND THE SUMMARY OF THE OUTFALL HYDLOLOGIC AND HYDRAULIC ANALYSES ON THIS SHEET.

150' DS POINT B
Worksheet for Rectangular Channel

Project Description	
Project File	f:\projects\priest retirement home\swm_bmp\conc sec.fm2
Worksheet	CONC SECTION
Flow Element	Rectangular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Mannings Coefficient	0.013	
Channel Slope	0.020000	ft/ft
Bottom Width	10.00	ft
Discharge	625.40	cfs

Results		
Depth	2.67	ft
Flow Area	26.73	ft²
Wetted Perimeter	15.35	ft
Top Width	10.00	ft
Critical Depth	4.95	ft
Critical Slope	0.003618	ft/ft
Velocity	23.40	ft/s
Velocity Head	8.51	ft
Specific Energy	11.18	ft
Froude Number	2.52	
Flow is supercritical.		

GABION CHANNEL
Worksheet for Trapezoidal Channel

Project Description	
Project File	f:\projects\priest retirement home\swm_bmp\conc sec.fm2
Worksheet	GABION CHANNEL
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data		
Mannings Coefficient	0.040	
Channel Slope	0.020000	ft/ft
Left Side Slope	0.100000	H : V
Right Side Slope	0.100000	H : V
Bottom Width	12.00	ft
Discharge	984.50	cfs

Results		
Depth	6.65	ft
Flow Area	84.21	ft²
Wetted Perimeter	25.36	ft
Top Width	13.33	ft
Critical Depth	5.84	ft
Critical Slope	0.028837	ft/ft
Velocity	11.69	ft/s
Velocity Head	2.12	ft
Specific Energy	8.77	ft
Froude Number	0.82	
Flow is subcritical.		

OUTFALL SUMMARY
HYDROLOGY ANALYSIS

POINT	DESCRIPTION	DRAINAGE AREA (AC)	Tc (MIN)	C VALUE	1.5 YR PEAK DISCHARGE (CFS)	2-YR PEAK DISCHARGE (CFS)	10-YEAR PEAK (CFS)
A	150' DOWN STREAM FROM THE DISTURBED AREA (MINOR FLOOD PLAIN AREA)	75	15	0.50	124.3	146.3	191.3
B	PROPERTY LINE	211	20	0.65	398.7	469.1	625.4
C	A POINT THAT THE CONSTRUCTING AREA IS 360 ACRES	360	20	0.60	627.9	739.0	984.5

HYDRAULIC ANALYSIS

POINT	DESCRIPTION	CHANNEL SIZE BOTTOM (FT)	CHANNEL SIZE DEPTH (FT)	CHANNEL SIZE SIDE SLOPE (W/D)	CHANNEL SLOPE (FT/FT)	N VALUE	WATER DEPTH (FT)	VELOCITY (FPS)	REMARKS
A	TRAPEZOIDAL NATURAL CHANNEL, SIDE SLOPE 1:1, LOOKING DOWNSTREAM, LEFT BANK 1:1 SLOPE WITH 2 FEET HIGH, RIGHT BANK 1:1 SLOPE WITH 1 FOOT TO 2 FEET HIGH, BANK AND CHANNEL BOTTOMS ARE VERY STABILIZED, NO EROSION OR SEDIMENTATION ARE OCCURRING, GRAYISH DARK BROWN SOIL, RIGHT OVERBANK WITH APPROX. 20% SLOPE WITH TREES, LEFT OVERBANK WITH APPROX. 10% SLOPE COVERED WITH GRASS.	5	2	1:1	0.025	0.030	2.32	5.42	THE WATER DEPTH IS SLIGHTLY HIGHER THAN THE CHANNEL DEPTH AND THE 2-YEAR STORM FLOW SPREAD OUTSIDE THE BED AND BANK, BUT THE SPREAD IS STILL INSIDE THE EXISTING FLOODPLAIN. THIS IS THE EXISTING CONDITION AND THE PROPOSED CONDITION WILL NOT BE WORSEN.
B	CONCRETE RECTANGULAR CHANNEL	10	5	VERTICAL	0.020	0.013	2.67	23.4*	ANALYSIS IS FOR 10-YR STORM PERMISSIBLE VELOCITY FOR CONC. CHANNEL
C	150' DOWNSTREAM POINT "C" LARGE STONE GABION PROTECTED CHANNEL WITH ENERGY DISSIPATERS	12	8	0.1 (H) 1.0 (V)	0.020	0.040	6.65	11.69*	ANALYSIS IS FOR 10-YR STORM PERMISSIBLE VELOCITY FOR GABION CHANNEL

Application No. SE 2004-MA-031 Staff
APPROVED SE / SP PLAN
SEE DEV CONDS DATED 6/1/07
Date of (BOS) (BZA) approval 6/14/07
Sheet 7 of 11

LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING · LAND PLANNING · SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
ph. 703·591·5800 fax. 703·273·7951
www.landdevelopment.ws mail@landdevelopment.ws

REUSE OF DOCUMENTS
THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE, AND AS SUCH, THE DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF LAND DEVELOPMENT CONSULTANTS, INC. AND IS NOT TO BE COPIED OR USED IN WHOLE OR IN PART BY ANY PROCESS WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
© LAND DEVELOPMENT CONSULTANTS, INC.

SWM/BMP & OUTFALL NARRATIVES AND COMPUTATIONS
SPECIAL EXCEPTION PLAT
PRIEST RETIREMENT HOME

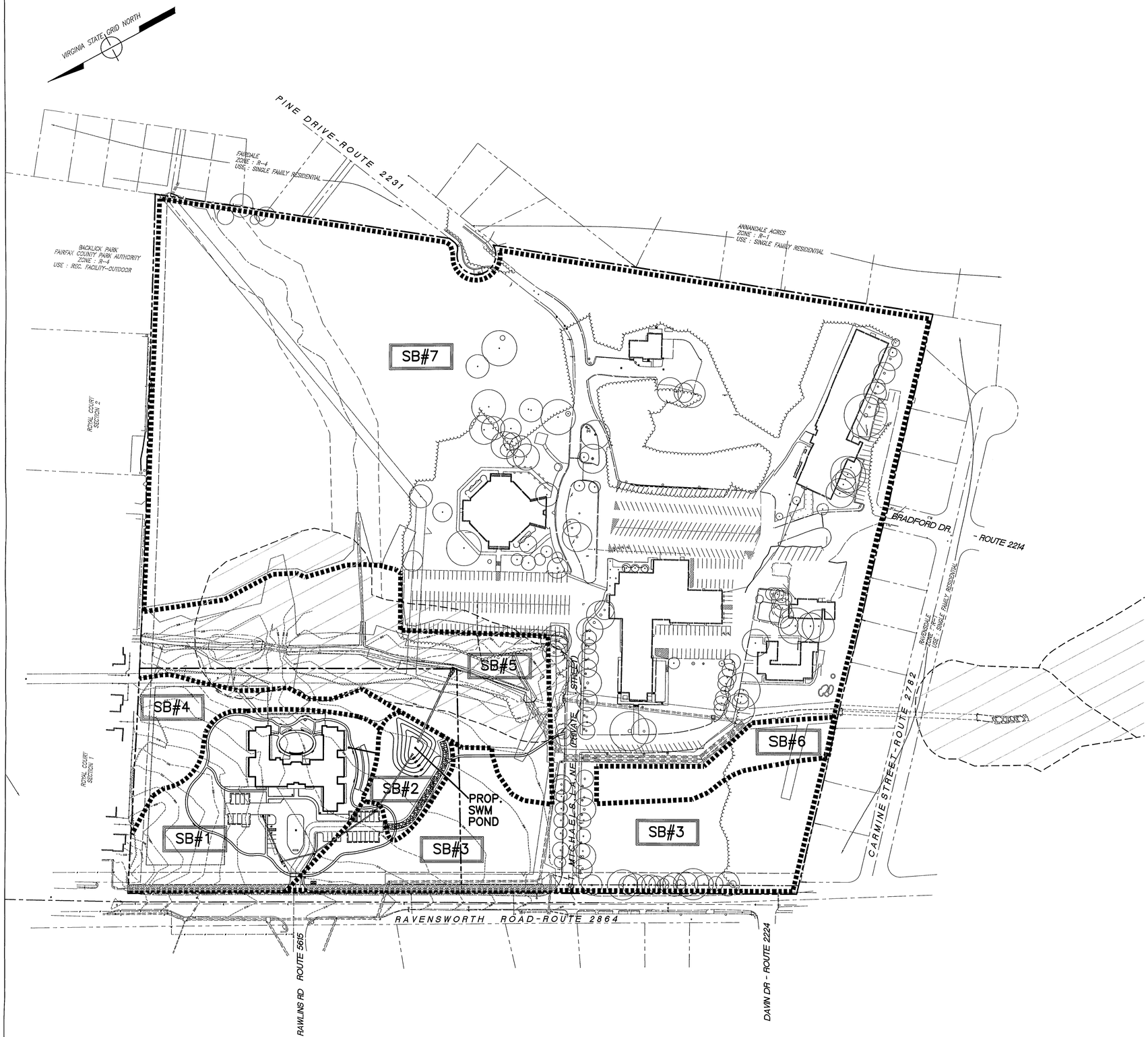
MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MORGANELLO
No. 020732
5-23-07
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL
6	5/23/07	STAFF COMMENTS
5	4/13/07	STAFF COMMENTS
4	4/3/07	STAFF COMMENTS
3	3/21/07	STAFF COMMENTS
2	3/3/07	STAFF COMMENTS
1	9/26/06	COUNTY COMMENTS

PROJ. NO.: 11441-SE
SCALE: 1" = 400'
DATE: 10/14/2004
SHEET: 7 OF 11

F:\PROJECTS\Priest Retirement Home\LDEV\dwg\6 of 7 Priest Retirement Home-SWM-BMP-Plan.dwg



DRAINAGE DIVIDES & C VALUE COMPUTATIONS

EXISTING CONDITIONS FOR TOTAL SITE

	AREA (AC)	POST C VALUE		REMARKS
SB #1	3.15	0.30	0.95	
SB #2	0.68	0.30	0.20	
SB #3	5.66	0.32	1.81	
SB #4	0.68	0.30	0.20	
SB #5	4.75	0.30	1.43	
SB #6	0.87	0.30	0.26	
SB #7	29.38	0.45	13.22	
TOTAL	45.17	0.40	18.07	
EX. ROAD	0.14	0.87		OFF-SITE ROAD

PROPOSED CONDITIONS FOR TOTAL SITE

	AREA (AC)	POST C VALUE		REMARKS
SB #1	3.15	0.52	1.64	PROP. CONSTRUCTIONS
SB #2	0.68	0.32	0.22	PROP. CONSTRUCTIONS
SB #3	5.66	0.32	1.81	
SB #4	0.68	0.30	0.20	
SB #5	4.75	0.30	1.43	
SB #6	0.87	0.30	0.26	
SB #7	29.38	0.45	13.22	
TOTAL	45.17	0.42	18.78	

PROP. CONDITIONS, SB #1 IMPERVIOUS AREA & C VALUE

AREA #1	AC	C VALUE	C X A	REMARKS
BUILDING	0.39	0.90	0.35	
PARKING & COVER	0.57	0.90	0.51	
WALKWAY & PLAZA	0.20	0.90	0.18	
GRASS & WOODS	1.99	0.30	0.60	
TOTAL	3.15		1.64	
	AVE. C=	0.52		

PROP. CONDITIONS, SB #2 IMPERVIOUS AREA & C VALUE

AREA #2	AC	C VALUE	C X A	REMARKS
BUILDING	-	0.90	-	
PARKING & COVER	-	0.90	-	
WALKWAY & PLAZA	0.02	0.90	0.02	
GRASS & WOODS	0.66	0.30	0.20	
TOTAL	0.68		0.22	
	AVE. C=	0.32		

EX. CONDITIONS, SB #7 IMPERVIOUS AREA & C VALUE

AREA #7	AC	C VALUE	C X A	REMARKS
BUILDING, PARKING & OTHER IMPERVIOUS AREA	7.21	0.90	6.49	
GRASS & WOODS	22.17	0.30	6.65	
TOTAL	29.38		13.14	
	AVE. C=	0.45		

RUNOFF INCREASE FROM THE ENTIRE SITE
Tc pre = 10 min I2 pre = 4.60 in/hr I10 pre=5.92 in/hr

2-YR STORM INCREASE
2-YR STORM PRE= (0.40*5.92*45017)= 83.11 CFS
2-YR STORM POST= (0.42*4.60*45.17)= 87.27 CFS
2-YE INCREASE (4.16) CFS

10-YR STORM INCREASE
10-YR STORM PRE= (0.40*5.92*45.17)= 107.00 CFS
10-YR STORM POST= (0.42*5.92*45.173)= 112.30 CFS
10-YE INCREASE (5.30) CFS

SWM VOLUME CALCULATION

EXISTING CONDITIONS FOR AREA DRAINING TO POND

SUBAREA	AC	C VALUE	C X A	REMARKS
SB #1	3.15	0.30	0.95	
SB #2	0.68	0.30	0.20	
			-	
TOTAL	3.83	0.30	1.15	

PROPOSED CONDITIONS FOR AREA DRAINING TO POND

SUBAREA	AC	C VALUE	C X A	REMARKS
SB #1	3.15	0.52	1.64	
SB #2	0.68	0.32	0.22	
			-	
TOTAL	3.83	0.49	1.86	

10-YEAR STORM GOVERNS THE REQUIRED SWM VOLUME

PRE Q10 = C*I*A = 0.30*7.27*3.83= 8.35 CFS
POST Q10=C*I*A= 0.49*7.27*3.83= 13.64 CFS

REQUIRED SWM VOLUME = 5,000 CF (SEE ATTACHED POND INFLOW HYDROGRAPH AND POND VOLUME COMPUTATIONS.

BMP VOLUME REQUIRED:

FROM PFM PLATE 2-6, BMP VOL = 1,300 CF/AC
TOTAL REQUIRED BMP VOLUME = 1,300 CF X 3.83 = 4,979 CF

SUBAREA	AC	C VALUE	C X A	REMARKS
SB #1	3.15	0.52	1.64	
SB #2	0.68	0.32	0.22	
			-	
TOTAL	3.83		1.86	
	AVE. C=	0.49		

PROVIDE SWM+BMP = 8,500 CF

Application No. SE 2004-AN-031 Staff
APPROVED (SE) / SP PLAN
SEE DEV CONDS DATED 4/1/07
Date of (BOS) (BZA) approval 4/9/07
Sheet 8 of 11

LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING · LAND PLANNING · SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
ph. 703-591-5800 fax. 703-273-7951
www.landdevelopment.ws mail@landdevelopment.ws

REUSE OF DOCUMENTS
THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF LAND DEVELOPMENT CONSULTANTS, INC. AND MAY NOT BE COPIED OR USED, IN WHOLE OR IN PART, BY ANY PROCESS WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
© LAND DEVELOPMENT CONSULTANTS, INC.

DRAINAGE DIVIDES MAP AND IMPERVIOUS AREA CALCULATION
SPECIAL EXCEPTION PLAT
PRIEST RETIREMENT HOME

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MASSARELLA
No. 020732
5-23-07
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL
6	5/23/07	STAFF COMMENTS
5	4/13/07	STAFF COMMENTS
4	4/3/07	STAFF COMMENTS
3	3/21/07	STAFF COMMENTS
2	3/3/07	STAFF COMMENTS
1	9/28/06	COUNTY COMMENTS

PROJ. NO.: 11441-SE
SCALE: 1"=100'
DATE: 02/17/2006
SHEET: 8 OF 11

F:\PROJECTS\Priest Retirement Home\11003\dwg\XPH-PLAN.dwg

MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

The following information is required to be shown or provided in all zoning applications, or a waiver request of the submission requirement with justification shall be attached. Note: Waivers will be acted upon separately. Failure to adequately address the required submission information may result in a delay in processing this application.

This information is required under the following Zoning Ordinance paragraphs:

Special Permits (9-011 2J & 2L)	Special Exceptions (9-011 2J & 2L)
Cluster Subdivision (9-615 1G & 1N)	Commercial Revitalization Districts (9-622 2A (12) & (14))
Development Plans PRC District (16-302 3 & 4L)	PRC Plan (16-303 1E & 1O)
FDP P Districts (except PRC) (16-502 1F & 1Q)	Amendments (18-202 10F & 10I)

☒ 1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').

☒ 2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on Sheet 6 & 8

☒ 3. Provide:

Facility Name/ Type & No.	On-site area served (acres)	Off-site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf)	If pond, dam height (ft)
(e.g. Hydrodyn, wet pond, underground vault, etc.)						
EXTENDED DRY POND	3.83 AC	0	3.83	5,863	8,500	2.0 FT
					Totals	

☒ 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 6 & 8
Pond inlet and outlet pipe systems are shown on Sheet 6 & 8

☒ 5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet 6 & 8
Type of maintenance access road surface noted on the plat is GRAVEL (asphalt, geoblock, gravel, etc.).

☒ 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet 10.

☒ 7. A 'stormwater management narrative' which contains a description of how detention and best management practices requirements will be met is provided on Sheet 7.

☒ 8. A description of the existing conditions of each numbered site outfall extended downstream from the site to a point which is at least 100 times the site area or which has a drainage area of at least one square mile (640 acres) is provided on Sheet 7.

☒ 9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 7.

☒ 10. Existing topography with maximum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheets 1, 7 & 8

☒ 11. A submission waiver is requested for A PARTIAL WAIVER FOR PHOSPHORUS REMOVAL RATE WILL BE SUBMITTED WHEN THE SITE PLAN IS SUBMITTED

☐ 12. Stormwater management is not required because SWM REQUIREMENTS ARE MET

RATIONAL METHOD

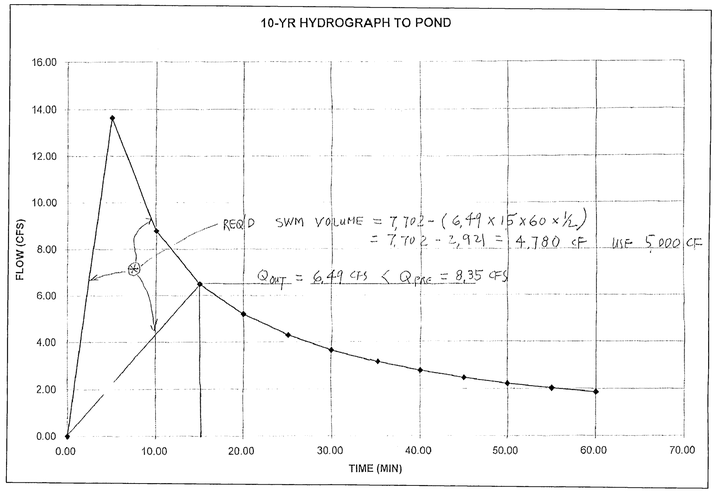
10-YR INFLOW HYDROGRAPH TO POND

RETURN INTERVAL:	10.00	Tc:	5.00
POST-DEVELOPMENT AREAS TO POND	3.83	c:	0.49
c X A =	1.88		

TIME	Cf	INTENSITY	FLOW	VOLUME
0.00	1.00	0.00	0.00	0
5.00	1.00	7.27	13.64	2,047
10.00	1.00	4.68	8.78	5,411
15.00	1.00	3.46	6.49	7,702
20.00	1.00	2.77	5.20	9,456
25.00	1.00	2.29	4.30	10,880
30.00	1.00	1.94	3.64	12,071
35.00	1.00	1.68	3.15	13,090
40.00	1.00	1.47	2.76	13,977
45.00	1.00	1.31	2.46	14,759
50.00	1.00	1.18	2.21	15,460
55.00	1.00	1.08	2.03	16,096
60.00	1.00	0.99	1.86	16,679

$Q_{10\ PRE}$ = 8.35 CFS

10-YR STORM REDUCTION FROM THE POND = 13.64 - 6.49 = 7.15 CFS



POND VOLUME CALCULATION

PARKRIDGE V EXISTING POND

EL (FT) [1]	DEPTH (FT) [2]	AREA (SF) [3]	AVE AREA (SF) [4]	VOL (CF) [5]	TOTAL VOLUME (CF) [6]	REMAARKS [10]
298.00	0.00	0	0	0	0	
300.00	2.00	2,152	1,076	2,152	2,152	
302.00	2.00	4,123	3,138	6,275	8,427	
304.00	2.00	5,863	4,993	9,986	18,413	

TOP OF DAM = 307.00 FT

PHOSPHORUS REMOVAL RATE COMPUTATION

SUBAREA NAME	AREA (ACRE)	C	C X A	AREA RATIO	C FACTOR RATIO	BMP	BMP %	TOTAL BMP %
SB #1	3.15	0.52	1.638	0.07	1.27	EXTENDED DRY POND	40	3.56
SB #2	0.68	0.32	0.218	0.02	0.78	E.D.P.	40	0.62
SB #3	5.66	0.32	1.811	0.13	0.78	NO BMP	0	0.00
SB #4	0.68	0.30						
SB #5	4.75	0.30	1.425	0.11	1.00	CONSERVATION AREA	100	11.00
SB #6	0.87	0.30	0.261	0.02	0.73	CONSERVATION AREA	100	1.46
SB #7	29.38	0.45	13.221	0.65	1.10	NO BMP		
TOATL ON-SITE	45.17		18.574			SUBTOATL %		16.64
Weighted Average C=		0.41						
Off-site credit								
EX. STREET	0.14	0.87	0.122	0.00	2.12	E.D.P	40	0.00
TOTAL OFF-SITE	0.14					SUBTOTAL %		0.00
			TOTAL PHOSPHORUS REMVAL RATE %					16.64

ALTHOUGH THE PROPOSED POND PROVIDED MORE THAN 100% BMP VOLUME, THE PHOSPHORUS REMOVAL RATE IS 16% BECAUSE THE SMALL AREA RATIO. THEREFORE, BMP PARTIAL WAIVER WILL BE REQUESTED WHEN THE SITE PLAN WILL BE SUBMITTED.

Application No. SE 2006-MA-031 Staff
APPROVED (SE) SP PLAN
SEE DEV CONDS DATED 6/1/07
Date of (BOS) (BZA) approval 6/4/07
Sheet 9 of 11

LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING · LAND PLANNING · SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
ph. 703·591·5600 fax. 703·273·7951
www.landdevelopment.ws mail@landdevelopment.ws

REUSE OF DOCUMENTS
THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF LAND DEVELOPMENT CONSULTANTS, INC. AND IS NOT TO BE COPIED, OR USED, IN WHOLE OR IN PART BY ANY PERSON OR ENTITY WITHOUT WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
© LAND DEVELOPMENT CONSULTANTS, INC.

SWM POND VILLAGE AND PHOSPHORUS REMOVAL RATE COMPUTATION
SPECIAL EXCEPTION PLAT
PRIEST RETIREMENT HOME

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MARCHELLO
No. 025732
PROFESSIONAL ENGINEER
5-23-07

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL
6	5/23/07	STAFF COMMENTS
5	4/13/07	STAFF COMMENTS
4	4/3/07	STAFF COMMENTS
3	3/21/07	STAFF COMMENTS
2	3/3/07	STAFF COMMENTS
1	9/26/06	COUNTY COMMENTS

PROJ. NO.: 11441-SE
SCALE: NOT TO SCALE
DATE: 02/17/2006
SHEET: 9 OF 11

F:\PROJECTS\Priest Retirement\Dwg\LDCI\11441-PLAN.dwg

LANDSCAPE LEGEND

KEY	CATEGORY	SIZE	10 YR. CANOPY (SF)	QUANTITY	TOTAL (SF)
	PROPOSED DECIDUOUS SHADE TREE	2" CAL.	200	23	4,600
	PROPOSED DECIDUOUS FLOWERING TREE	2" CAL.	100	12	1,200
	PROPOSED LARGE EVERGREEN TREE	6' HT.	125	30	3,750
	PROPOSED SMALL EVERGREEN TREE	6' HT.	50	67	3,350
	PROPOSED SHRUBS				
	TOTAL				12,900

TREE COVER REQUIREMENT CALCULATIONS

GROSS SITE AREA	310,589 SF
− BUILDING FOOT PRINT	17,063 SF
= ADJUSTED GROSS SITE AREA	293,526 SF
x % TREE COVER REQUIRED 20%	
= TREE COVER REQUIRED	58,705 SF
CREDIT FOR TREES PRESERVED*	130,328 SF
+ CREDIT FOR TREES PROPOSED	12,900 SF
= TREE COVER PROVIDED	143,218 SF OR 46%

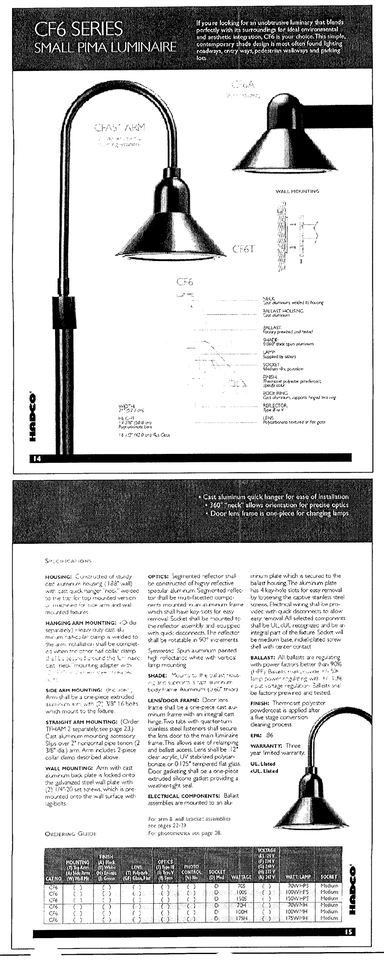
* CREDIT FOR TREES PRESERVED = AREA OF EXISTING TREES TO REMAIN x 125%
104,254 (1.25) = 130,318 SF

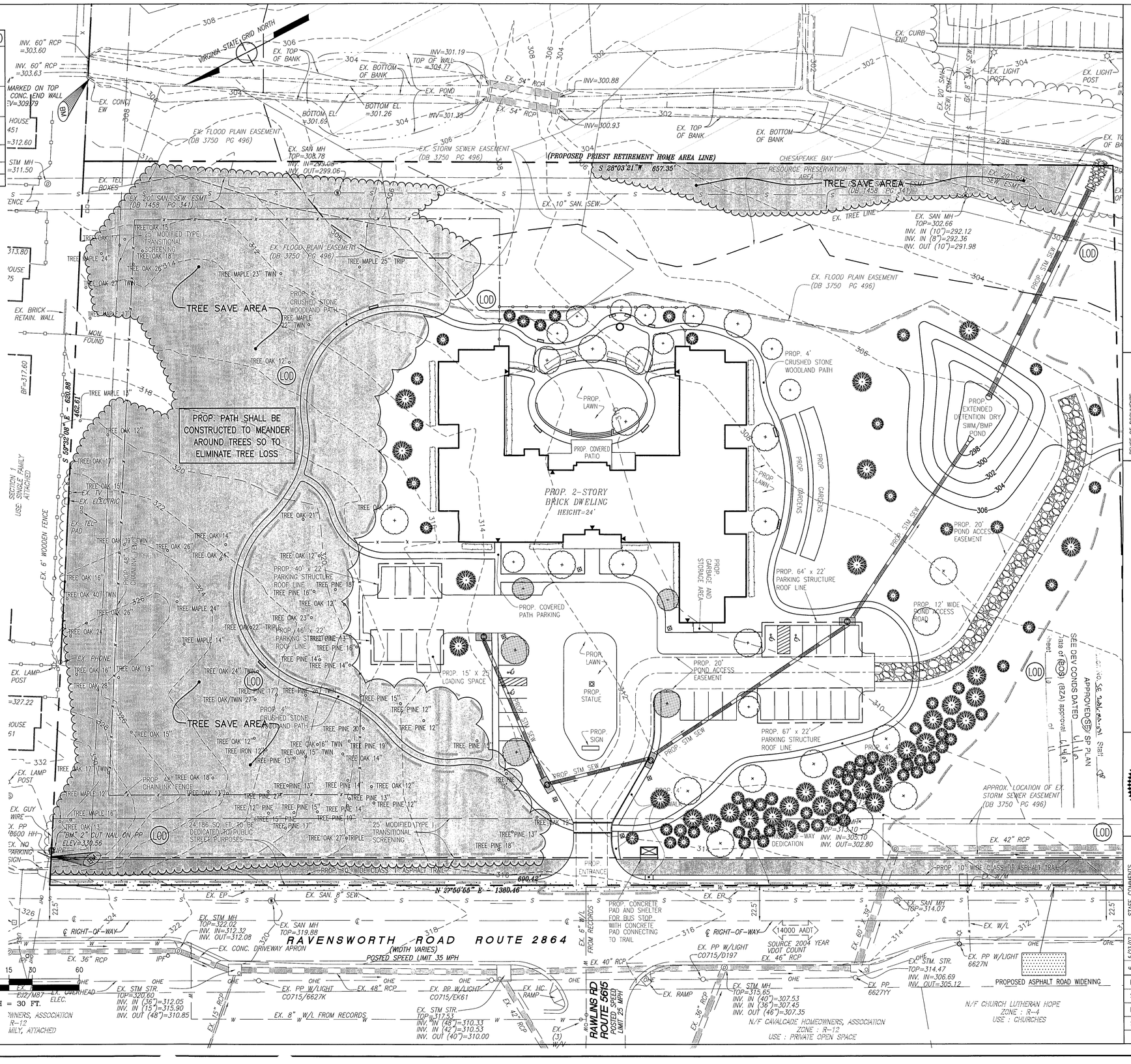
INTERIOR PARKING LOT LANDSCAPING:

PARKING LOT AREA	=	10,000 S.F. (OPEN PARKING)
LANDSCAPING REQUIRED	=	500 S.F. (5%)
LANDSCAPING PROVIDED	=	800 S.F. (8%)

LIGHTING LEGEND AND DETAIL

⊕ PROPOSED LIGHT POLE





LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING · LAND PLANNING · SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
ph. 703 591 5800 fax. 703 273 7951
www.landdevelopment.ws mail@landdevelopment.ws

REUSE OF DOCUMENTS
THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF LAND DEVELOPMENT CONSULTANTS, INC. AND IS NOT TO BE COPIED OR DUPLICATED IN WHOLE OR IN PART BY ANY PROCESS WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
© LAND DEVELOPMENT CONSULTANTS, INC.

LANDSCAPE PLAN
SPECIAL EXCEPTION PLAT
PRIEST RETIREMENT HOME

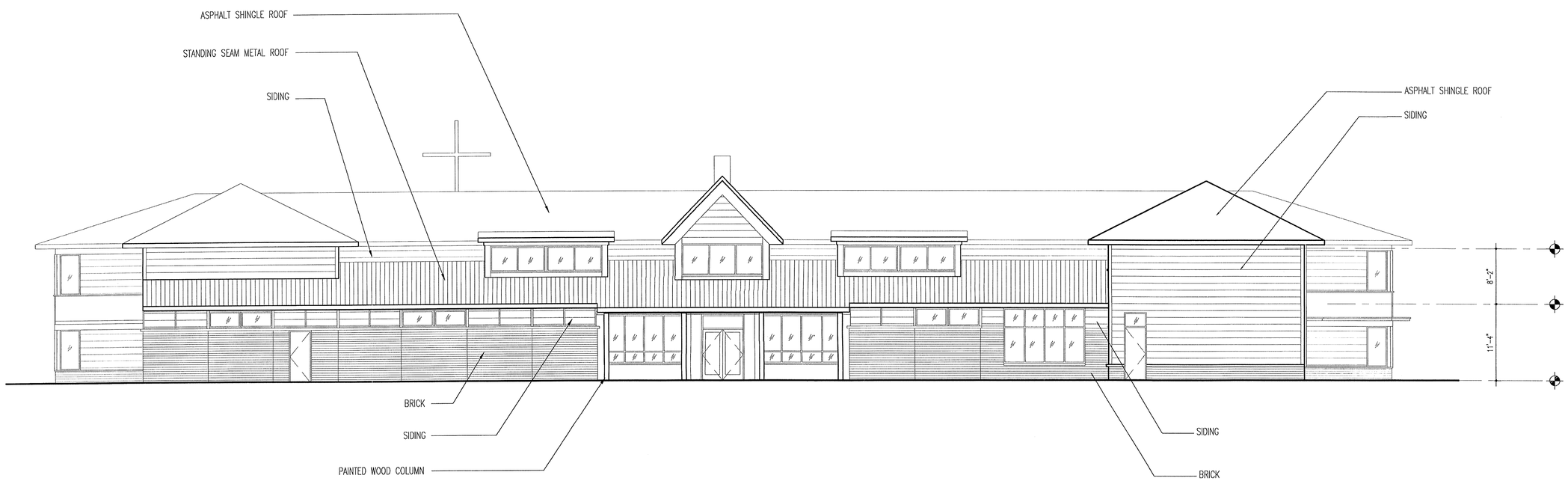
MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MANGANIELLO
No. 022032
5-23-07
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL	COUNTY COMMENTS
1	9/26/06		
2	3/3/07		STAFF COMMENTS
3	3/21/07		STAFF COMMENTS
4	4/3/07		STAFF COMMENTS
5	4/13/07		STAFF COMMENTS
6	5/23/07		STAFF COMMENTS

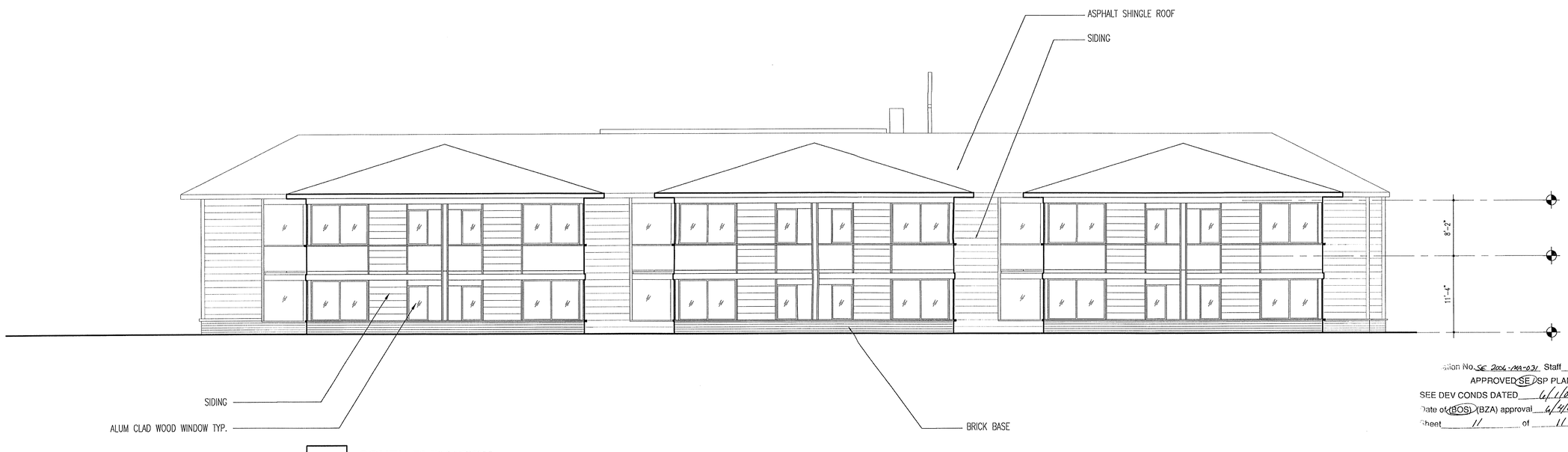
PROJ. NO.: 11441-SE
SCALE: 1"=30'
DATE: 02/17/2006
SHEET: 10 OF 11

F:\PROJECTS\Priest Retirement Home\LDD3\Dwg\SPH-PLAN.dwg



1 WEST ELEVATION

SCALE: 1/8" = 1'-0"



2 SOUTH ELEVATION

SCALE: 1/8" = 1'-0"

FOR ILLUSTRATIVE PURPOSED ONLY

Application No. SE 2006-MA-031 Staff VP

APPROVED SE/SP PLAN

SEE DEV CONDS DATED 6/1/07

Date of BOS/BZA approval 6/4/07

Sheet 11 of 11

LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING · LAND PLANNING · SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
ph. 703·591·5600 fax. 703·273·7951
www.landdevelopment.ws mail@landdevelopment.ws

REUSE OF DOCUMENTS
THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE, AND THE IDEAS AND PROPOSALS INCORPORATED HEREIN, IS THE PROPERTY OF LAND DEVELOPMENT CONSULTANTS, INC. AND IS NOT TO BE DISCLOSED OR USED, IN WHOLE OR IN PART BY ANY PERSON OR ORGANIZATION WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
© LAND DEVELOPMENT CONSULTANTS, INC.

ARCHITECTURAL ELEVATIONS
SPECIAL EXCEPTION PLAT
PRIEST RETIREMENT HOME

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MASTRONARDO
No. 020732
PROFESSIONAL ENGINEER
5-23-07

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL
6	5/23/07	STAFF COMMENTS
5	4/13/07	STAFF COMMENTS
4	4/3/07	STAFF COMMENTS
3	3/21/07	STAFF COMMENTS
2	3/3/07	STAFF COMMENTS
1	9/28/06	COUNTY COMMENTS

PROJ. NO.: 11441-SE

SCALE: NOT TO SCALE

DATE: 02/17/2006

SHEET: 11 OF 11

F:\PROJECTS\Priest Retirement Home\LDS3\dwg\PH-ELAS.dwg