APPLICATION ACCEPTED: April 27, 2015
BOARD OF ZONING APPEALS: December 2, 2015 @ 9:00 a.m.

County of Fairfax, Virginia

November 25, 2015

STAFF REPORT

SPECIAL PERMIT AMENDMENT (SPA) APPLICATION NO. SPA 76-M-086-06

MASON DISTRICT

APPLICANT/OWNER:	The Most Reverend Paul S. Loverde, Bishop of the Catholic Diocese of Arlington, Virginia and his successors in office (St. Ambrose Catholic Church and School)
STREET ADDRESS:	3825 Woodburn Road, Annandale, 22003
TAX MAP REFERENCE:	59-3 ((1)) 11A
LOT SIZE:	R-1: 9.4 acres R-2: 4.3 acres Total: 13.7 acres
ZONING DISTRICT:	R-1 and R-2
ZONING ORDINANCE PROVISIONS:	3-103 and 3-203
SPA PROPOSAL:	To amend SP 76-M-086 previously approved for a place of worship, private school of general education and nursery school to permit the construction of site improvements and modfications.

STAFF RECOMMENDATION: Staff recommends approval of SPA 76-M-086-06, subject to the approval of the proposed development conditions contained in Appendix 1.

Kelly M. Atkinson, AICP

It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions, relieve the applicants/owners from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendations of staff; it does not reflect the position of the Board of Zoning Appeals. A copy of the BZA's Resolution setting forth this decision will be mailed within five (5) days after the decision becomes final.

The approval of this application does not interfere with, abrogate or annul any easements, covenants, or other agreements between parties, as they may apply to the property subject to the application.

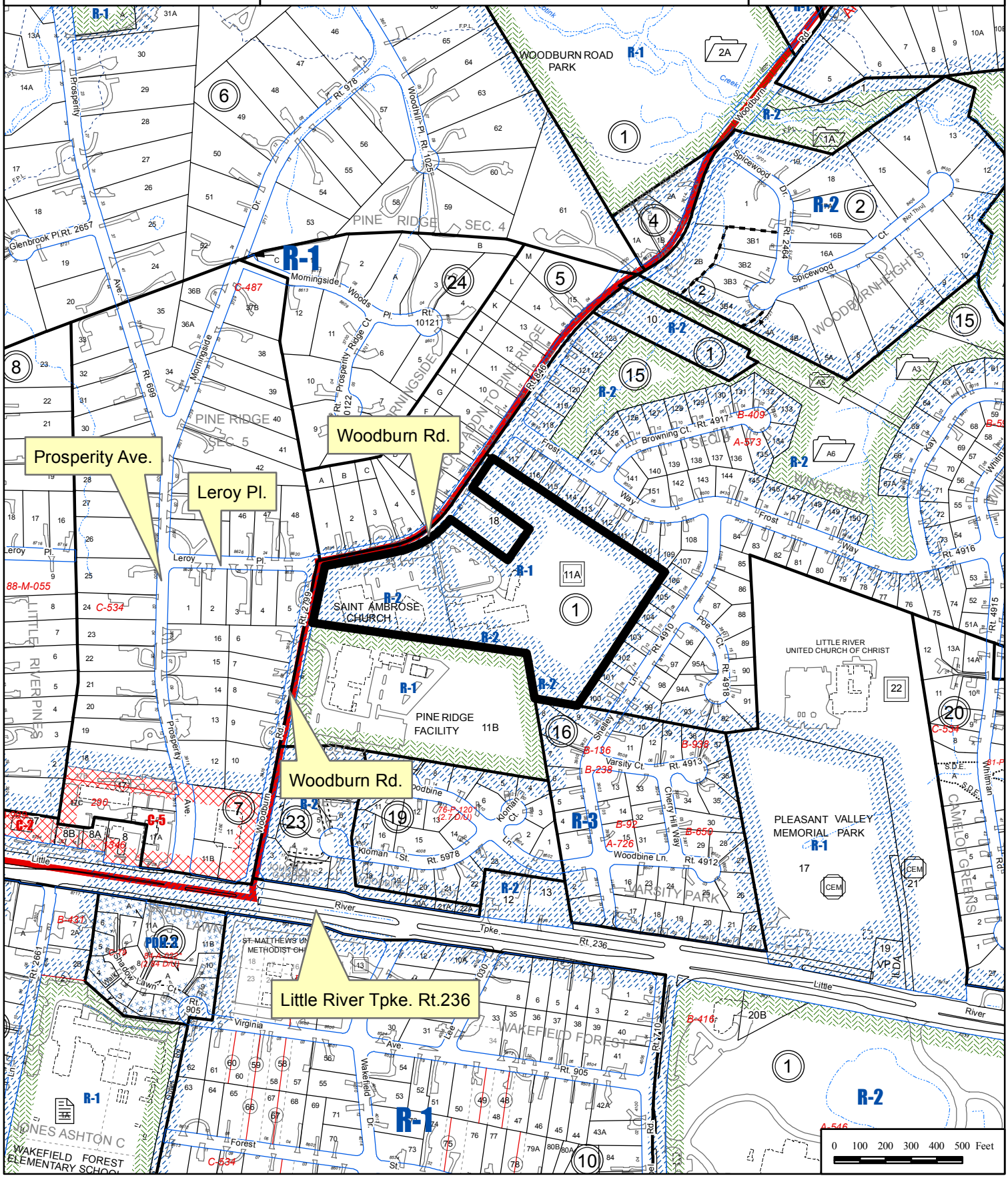
For additional information, call Zoning Evaluation Division, Department of Planning and Zoning at 703-324-1280, 12055 Government Center Parkway, Suite 801, Fairfax, Virginia 22035. **Board of Zoning Appeals' meetings are held in the Board Room, Ground Level, Government Center Building, 12000 Government Center Parkway, Fairfax, Virginia 22035-5505**.

Americans with Disabilities Act (ADA): Reasonable accommodation is available upon 48 hours advance notice. For additional information on ADA call (703) 324-1334 or TTY 711 (Virginia Relay Center).

Special Permit Amendment

SPA 76-M -086-06

THE MOST REVEREND PAUL S. LOVERDE, BISHOP OF THE CATHOLIC DIOCESE OF ARLINGTON, VIRGINIA, AND HIS SUCCESSORS IN OFFICE (ST. AMBROSE CATHOLIC CHURCH AND SCHOOL)



SPECIAL PERMIT AMENDMENT PLAT

SAINT AMBROSE PARISH

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

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	DUMPSTER	PL	PROPERTY LINE
D.I.	DROP INLET	PMP	PROBABLE MAXIMUM PRECIPITATION
DIA	DIAMETER	PP	POWER POLE
DIP	DUCTILE IRON PIPE	PRC	POINT OF REVERSE CURVE
DWG	DRAWING	PRECIP	PRECIPITATION
D/W	DRIVEWAY	PROP	PROPOSED
EC	EROSION CONTROL	PSI	POINTS PER SQUARE INCH
ECC	EDGE OF CONCRETE	PT	POINT OF TANGENCY
ELEC	ELECTRIC	PVMT	PAVEMENT
ELEV	ELEVATION	Q	FLOW RATE
EG	EDGE OF GRAVEL	RAD	RADIUS
EP	EDGE OF PAVEMENT	RC	REINFORCED CONCRETE
ES	END SECTION	RCP	REINFORCED CONCRETE PIPE
ESMT	EASEMENT	REV	REVISION
EW	END WALL	RPA	RESOURSE PROTECTION AREA
EX	EXISTING	R/W	RIGHT-OF-WAY
FC	FACE OF CURB	SAN	SANITARY
FCWA	FAIRFAX COUNTY WATER AUTH.	SEC	SECTION
FCPS	FAIRFAX COUNTY PUBLIC SCHOOLS	SCS	U.S. SOIL CONSERVATION SERVICE
FF	FINISH FLOOR	SDF	SPILLWAY DESIGN FLOOD
FM	FORCE MAIN	SHT	SHEET
FOY	FOYER	SPEC	SPECIFICATION
FP	FLOOD PLAIN	STD	STANDARD
FT	FEET	STA	STATION
	GAS MAIN	S/W	SIDEWALK
G/V	GAS VALVE	SWM	STORM WATER MANAGEMENT
GALV	GALVANIZED	TBR	TO BE REMOVED
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
	INTENSITY	W	WATER
	INSIDE DIAMETER	WM	WATER METER
	INCHES	W/M	WATER MAIN
INV	INVERT	W/V	WATER VALVE
	IRON PIPE	W.O.	WALK OUT
IPF	IRON PIPE FOUND	YR	YEAR
IPS	IRON PIPE SET	%	PERCENT
JB	JUNCTION BOX	'	FOOT OR MINUTE
	LENGTH	"	INCH/INCHES OR SECOND
L	LOADING SPACE	#	POUND/NUMBER
LAT	LATERAL		

LEGEND

EXISTING INTERMEDIATE CONTOUR	412	EXISTING UTILITY POLE	
EXISTING INDEX CONTOUR	410	EXISTING WATERLINE MH	W
EXISTING EDGE OF PAVEMENT	EX. E/P	EXISTING WATERLINE W/ TEE	W WV
EXISTING CURB AND GUTTER	EX. C & G	EXISTING WATER VALVE	
EXISTING TELEPHONE LINE	T T	EXISTING FIRE HYDRANT	
EXISTING TELEPHONE BOX	T	EXISTING WATER METER	WM
EXISTING STORM SEWER	EX. 15" RCP	EXISTING WELL	
EXISTING STORM SEWER MH	D	EXISTING SIGN	
EXISTING SANITARY SEWER MH	S	EXISTING HC RAMP/SPACE	
EXISTING SANITARY SEWER	S S	EXISTING PARKING INDICATOR INDICATES THE NUMBER OF TYPICAL PARKING SPACES	12
EXISTING SANITARY CLEANOUT	○ C.O.	EXISTING BOLLARD	
EXISTING ELECTRIC SERVICE	E E	EXISTING DOOR	△
EXISTING ELECTRIC SERVICE BOX	E	EXISTING STREET LIGHT	
EXISTING SATELLITE DISH		EXISTING SIGHT LIGHT FIXTURE (SEE LIGHTING PLAN)	
EXISTING GAS LINE	G GV G	EXISTING LANDSCAPE LIGHT	
EXISTING GASE VALVE			
PROPERTY LINE			
CENTERLINE	℄	EXISTING A/C UNIT	AC
EXISTING SPOT ELEVATION	×85.10	BENCHMARK	BM
EXISTING TREE DRIP LINE			
EXISTING TREE	15" OAK	PROPOSED WOOD FENCE	
		PROPOSED CHAIN LINK FENCE	
EXISTING WHEELSTOP		PROP. TREE	○
EX. FENCE LINE	x x		
EXISTING WOOD FENCE		PROP. TREE DRIP LINE	
EXISTING CHAIN LINK FENCE			

REQUIRED ZONING TABULATIONS

ZONING REQUIREMENTS:	R-1	R-2
MIN. LOT AREA	36,000 SF	15,000 SF
MIN. LOT WIDTH	150 FEET	125 FEET (CORNER LOT)
MAX. BUILDING HEIGHT	60 FEET	60 FEET
MIN. FRONT YARD	50° ANGLE OF BULK PLANE MIN. 40 FEET	45° ANGLE OF BULK PLANE MIN. 35 FEET
MIN. SIDE YARD	45° ANGLE OF BULK PLANE MIN. 20 FEET	40° ANGLE OF BULK PLANE MIN. 15 FEET
MIN. REAR YARD	45° ANGLE OF BULK PLANE MIN. 25 FEET	40° ANGLE OF BULK PLANE MIN. 25 FEET
MAX. F.A.R.	0.15	0.20

MINIMUM SETBACKS TO PROPOSED BUILDINGS

MIN. FRONT YARD SETBACK	140' (PROPOSED CHURCH BUILDING)
MIN. SIDE YARD SETBACK	31' (PROPOSED CHURCH BUILDING)
MIN. REAR YARD SETBACK	220' (PROPOSED GYMNASIUM)

EXISTING ZONING TABULATIONS

EXISTING USE: GROUP 3, INSTITUTIONAL USE, CHURCH

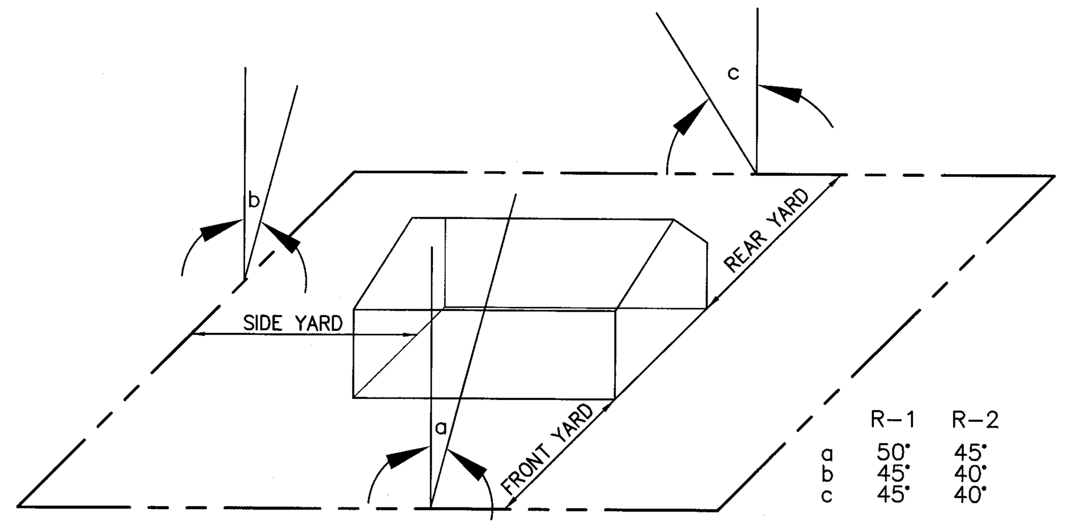
	TOTAL	R-1	R-2
TOTAL SITE AREA	595,544 SF 13.672 AC	409,388 SF 9.398 AC	186,156 SF 4.274 AC
EX. GROSS FLOOR AREA (GFA)	49,560 SF	28,660 SF	20,900 SF
EX. FLOOR AREA RATIO (FAR)	0.08	0.07	0.11
PROP. GROSS FLOOR AREA ADDED (GFA)	30,555 SF	17,571 SF	12,984 SF
TOTAL GROSS FLOOR AREA GFA	80,155 SF	46,231 SF	33,884 SF
PROP. FLOOR AREA RATIO (FAR)	0.14	0.11	0.18
PROPOSED OPEN SPACE PROVIDED	58%	60%	56%

REQUIRED PARKING TABULATION

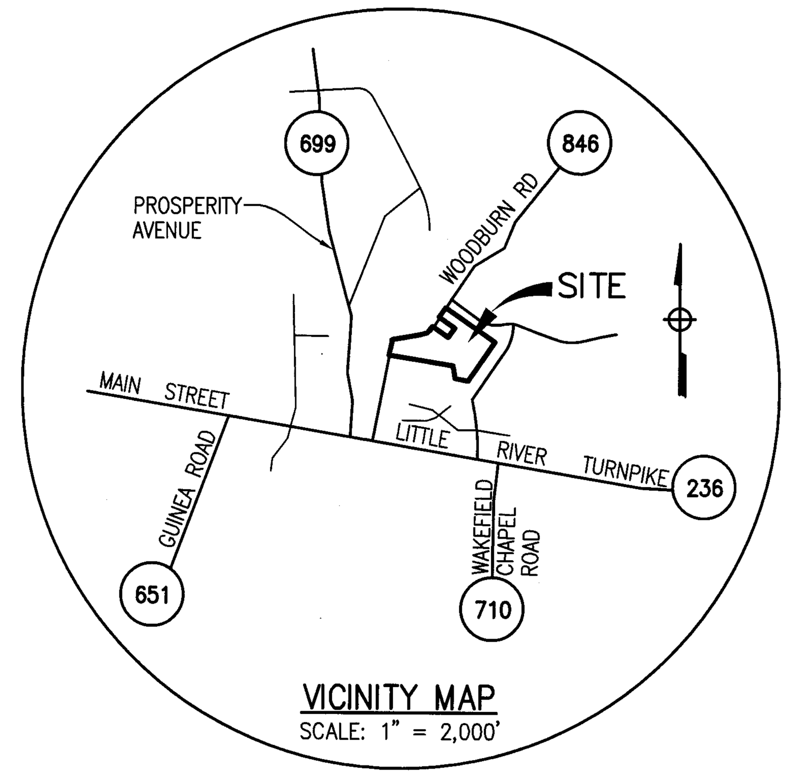
	SUNDAYS	WEEKDAYS
PLACES OF WORSHIP		
CHURCH SEATING = 800 (PER ZONING ORDINANCE SECTION 11-106-3, ONE (1) SPACE PER FOUR (4) SEATS)	200 SPACES	
SCHOOL		
PROP. NURSERY SCHOOL & CHILD CARE = 30 (AT ONE TIME) (PER ZONING ORDINANCE SECTION 11-106-2A, 0.19 SPACE PER CHILD FOR A CENTER OR SCHOOL WHICH HAS A MAXIMUM DAILY ENROLLMENT OF 99 CHILDREN OR LESS)		6 SPACES
ELEMENTARY SCHOOL (GRADE K-8) = 230 FACULTY AND STAFF = 32 (PER ZONING ORDINANCE SECTION 11-106-17, ONE (1) SPACE FOR FACULTY AND STAFF MEMBERS PLUS FOUR (4) SPACES FOR VISITORS)		36 SPACES
TOTAL REQUIRED SPACES (SUNDAYS)	200 SPACES	
TOTAL REQUIRED SPACES (WEEKDAYS)		42 SPACES

PROVIDED PARKING TABULATION WITH ALL PROPOSED CONSTRUCTION COMPLETE

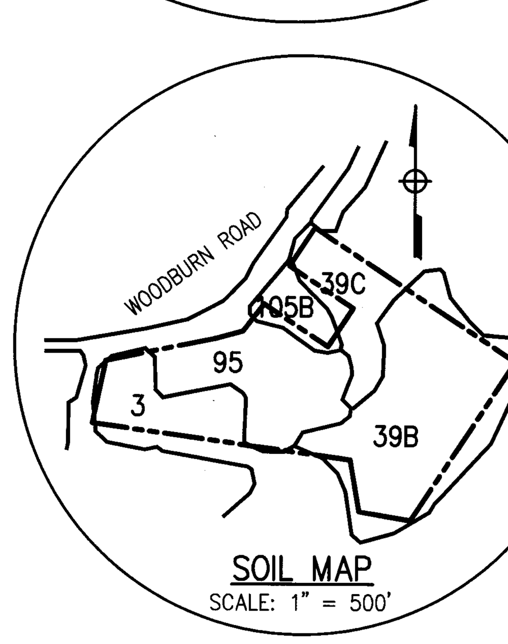
STANDARD PARKING SPACES	267 SPACES
HANDICAP PARKING SPACES	10 SPACES
TOTAL SPACES	277 SPACES



ANGLE OF BULK PLANE DETAIL



VICINITY MAP
SCALE: 1" = 2,000'

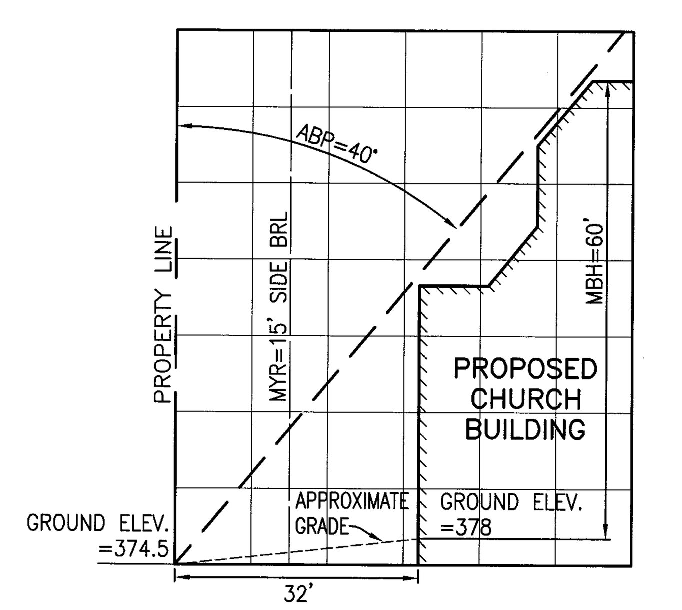


SOIL MAP
SCALE: 1" = 500'

SOIL TABULATION

SOIL#	SOIL NAME	FOUNDATION SUPPORT	EROSION POTENTIAL	PROBLEM OLD	CLASS NEW
3	BARKERS CROSSROADS LOAM	FAIR	MODERATE	NA	IVB
39	GLENELG SILT LOAM	GOOD	HIGH	C	I
95	URBAN LAND	NA	NA	NA	NA
105	WHEATON-GLENELG COMPLEX	GOOD	HIGH	C	IVB

*NO SOIL REPORT REQUIRED FOR THIS SUBMISSION.
(INFORMATION PER ■ FX. CO. MAPPING ☐ PRIVATE SOILS ENGINEER) ☐ NCRS DATA)



ABP: ANGLE OF BULK PLANE
MYR: MINIMUM YARD REQUIREMENTS
MBH: MAXIMUM PROPOSED BUILDING HEIGHT

DETAIL ANGLE OF BULK PLANE FOR PROPOSED CHURCH BUILDING
SCALE: 1" = 20'

ADDRESS

3825 WOODBURN ROAD
ANNANDALE, VA 22003
TAX MAP #0593 01 0011A

OWNER & APPLICANT

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

NOTES

1. THE PROPERTY DELINEATED ON THIS PLAN IS LOCATED ON FAIRFAX COUNTY TAX MAP NO. 059-3-((01))-0011A.
2. TOTAL SITE AREA = 13.672 ACRES.
3. THE EXISTING ZONES ARE R-1 AND R-2.
4. THE BOUNDARY INFORMATION SHOWN HEREON IS BASED ON A FIELD RUN SURVEY BY THIS FIRM.
5. THE PHYSICAL IMPROVEMENTS AND TOPOGRAPHY SHOWN HEREON ARE FROM AN AERIAL SURVEY BY McKENZIE SNYDER, INC. IN APRIL 2014 AND SUPPLEMENTED BY A FIELD RUN SURVEY BY THIS FIRM. THE HORIZONTAL DATUM FOR THIS SURVEY IS VCS 83 AND THE VERTICAL DATUM IS NGVD 29. CONTOURS SHOWN HERE ON ARE PROVIDED AT TWO FOOT CONTOUR INTERVALS.
6. BENCHMARKS:
   (1) TRAVERSE STATION MARKED BY AN IRON PIN NEAR THE NORTHWESTERLY CORNER OF A CROSS WALK IN THE FRONT OF AT LOT LOCATED AT #3814 WOODBURN ROAD. ELEVATION OF POINT = 386.60.
   (2) TRAVERSE STATION MARKED BY AN IRON PIN ADJACENT TO THE DRIVEWAY ENTRANCE FOR AT PROPERTY LOCATED AT #3714 WOODBURN ROAD. ELEVATION OF POINT = 371.89.
7. NO TITLE REPORT FURNISHED, THIS PLAT DOES NOT NECESSARILY REFLECT ALL EASEMENTS OR ENCUMBRANCES AFFECTING THE PROPERTY.
8. THERE ARE NO KNOWN UTILITY EASEMENTS HAVING A WIDTH OF 25 FEET OR MORE.
9. NO GRAVE OR BURIAL SITE IS KNOWN TO EXIST ON THIS PROPERTY.
10. THIS SITE IS SERVED BY PUBLIC WATER AND PUBLIC SANITARY SEWER. THERE ARE NO KNOWN PRIVATE WELLS OR SEPTIC FIELDS EXISTING ON THIS SITE.
11. THE OPEN SPACE AND LANDSCAPING SHALL BE MAINTAINED BY THE OWNER.
12. NO LOUD SPEAKER SYSTEM SHALL BE USED ON SITE IN CONJUNCTION WITH THE SCHOOL.
13. ALL LIGHTING SHALL BE FULL CUT-OFF FIXTURES TO DIRECT LIGHT DOWNWARD TO MINIMIZE GLARE. ALL SITE LIGHTING SHALL MEET THE REQUIREMENTS OF ARTICLE 14 OF THE FAIRFAX COUNTY ZONING ORDINANCE.
14. THE LIMITS OF CLEARING, GRADING, LANDSCAPING AND SITE LAYOUT SHOWN HEREON ARE APPROXIMATE AND SUBJECT TO NECESSARY ADJUSTMENTS WITH FINAL ENGINEERING AND DESIGN.
15. THE APPLICANT HEREBY REQUESTS A MODIFICATION OF TRANSITIONAL SCREENING AND BARRIER REQUIREMENTS IN FAVOR OF THOSE ILLUSTRATED ON THIS PLAN.
16. LANDSCAPING SHALL MEET OR EXCEED FAIRFAX COUNTY'S TREE COVER AND INTERIOR PARKING LOT LANDSCAPING REQUIREMENTS. EXISTING TREES SHALL BE SAVED WHERE FEASIBLE. ADDITIONALLY, THE QUANTITY AND LOCATION OF PROPOSED VEGETATION SHOWN HEREON IS APPROXIMATE, BUT WILL BE PROVIDED IN SUBSTANTIAL CONFORMANCE WITH THAT SHOWN IN THE SPECIAL PERMIT PLAT.
17. THE PROPOSED DEVELOPMENT WILL CONFORM TO THE PROVISIONS OF ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS OF FAIRFAX COUNTY UNLESS OTHERWISE WAIVED OR MODIFIED.
18. THE FAIRFAX COUNTY TRAILS PLAN REQUIRES A MINOR PAVED TRAIL FOR THE FULL FRONTAGE OF THIS PROPERTY ALONG WOODBURN ROAD. FIVE FOOT WIDE CONCRETE WALKS OR FOUR FOOT WIDE ASPHALT TRAILS CURRENTLY EXISTS ALONG WOODBURN ROAD TO SATISFY THIS REQUIREMENT.
19. THERE ARE NO 100-YEAR FLOODPLAINS ON SITE. NO FLOODPLAIN OR DRAINAGE STUDIES ARE REQUIRED FOR THIS PROJECT.
20. THERE ARE NO RESOURCE PROTECTION AREA (RPA) NOR ENVIRONMENTAL QUALITY CORRIDOR (EQCs) ON THIS SITE.
21. THE PROPOSED DEVELOPMENT MAY BE CONSTRUCTED IN PHASES.
22. THE NEW DEVELOPMENT SHALL COMPLY WITH THE FAIRFAX COUNTY FIRE MARSHALL REQUIREMENTS AT FINAL SITE PLAN.
23. THE APPLICANT SHALL PROVIDE ADEQUATE FIRE HYDRANT COVERAGE DURING SITE PLAN REVIEW AND APPROVAL TO SATISFY FAIRFAX COUNTY REQUIREMENTS.
24. ALL AREAS IDENTIFIED AS FIRE LANES, FIRE DEPARTMENT TURNAROUNDS, FIRE DEPARTMENT ACCESS AREAS OR OTHER RESTRICTED AREAS WILL HAVE BOLLARDS, PAINT, SIGNAGE AND OTHER REQUIRED IDENTIFICATION INSTALLED. THESE ITEMS ARE REQUIRED TO BE SHOWN ON THE SITE PLAN FOR APPROVAL AND MUST BE INSTALLED PRIOR TO OCCUPANCY OF THE STRUCTURE.
25. CONSTRUCTION OF BUILDING AND STRUCTURES SHALL REQUIRE FULL COMPLIANCE WITH FIRE PROTECTION AND ACCESS REQUIREMENTS LISTED IN THE STATEWIDE BUILDING CODE, THE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL AND THE STATEWIDE FIRE PROTECTION CODE AS AMENDED BY FAIRFAX COUNTY INCLUDING ALL NECESSARY FIRE LANE MARKINGS.
26. MODIFICATION OF ZONING ORDINANCE SECTION 17-201-2 IS HEREBY REQUESTED FOR TRAILS REQUIRED ALONG THE SOUTHERLY SIDE OF WOODBURN ROAD PER FAIRFAX COUNTY, COUNTY WIDE TRAILS PLAN. THE TRAILS PLAN REQUIRES A "MINOR PAVED TRAIL OF ASPHALT OR CONCRETE FROM 4' TO 7'-11" WIDE ALONG THE FULL FRONTAGE OF THIS PROPERTY. MODIFICATION IS REQUESTED TO ALLOW THE EXISTING SIDEWALK TO REMAIN, AS IT CURRENTLY EXIST WITH THE EXCEPTION OF TRAIL REQUIRED NORTH OF #3819 WOODBURN ROAD. IN THE LOCATION NORTH OF #3819 WOODBURN ROAD TO THE SOUTHERLY BOUNDARY OF WINTERSET SUBDIVISION THE FAIRFAX COUNTY OFFICE OF TRANSPORTATION HAS REQUESTED THAT CURB AND GUTTER AND A NEW 5' WIDE CONCRETER WALK BE INSTALLED. SAINT AMBROSE PARISH REQUEST THAT THE EXISTING AND PROPOSED WALK, AS DESCRIBED ABOVE, SHALL SATISFY THE FAIRFAX COUNTY, COUNTY WIDE TRAILS PLAN REQUIREMENTS FOR THIS PARCEL.

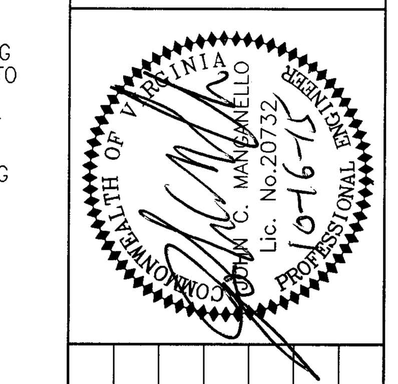
SHEET INDEX

1. COVER SHEET
2. EXISTING CONDITIONS PLAN & EXISTING VEGETATION MAP
3. OVERALL PROPOSED CONDITIONS PLAN
4. PROPOSED CONDITIONS PLAN
5. PROPOSED CONDITIONS PLAN
6. PARKING LOT LANDSCAPING AND TRANSITIONAL SCREENING PLAN
7. TRANSITIONAL SCREENING BARRIER MODIFICATION & WAIVER REQUEST SUMMARY
8. TREE PRESERVATION PLAN
9. TREE INVENTORY
10. TREE PRESERVATION NARRATIVE & DETAILS
11. PRELIMINARY OUTFALL, BMP AND STORMWATER ANALYSIS
12. PRELIMINARY RUNOFF REDUCTION METHOD SPREADSHEET ANALYSIS
13. SWM ROUTINGS
14. ST. AMBROSE CATHOLIC CHURCH ACTIVITIES CENTER E&S II PLAN (FOR INFORMATION PURPOSE)
15. ST. AMBROSE CATHOLIC CHURCH ACTIVITIES CENTER ROUTING (FOR INFORMATION PURPOSE)
16. ST. AMBROSE CATHOLIC CHURCH ACTIVITIES CENTER SWM (FOR INFORMATION PURPOSE)

LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING LAND PLANNING SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
phone: 703·591·5800
www.landdevelopmentconsultants.com

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.

COVER SHEET
SPECIAL PERMIT AMENDMENT PLAT
SAINT AMBROSE PARISH
MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA



REV. NO.	DATE	REVISION
4	10/16/15	STAFF COMMENTS
3	7/29/15	STAFF COMMENTS
2	6/08/15	STAFF COMMENTS
1	3/25/15	APPLICATION ACCEPTANCE

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.07
SCALE: AS SHOWN
DATE: JANUARY 27, 2015
SHEET: 1 OF 16

F:\PROJECTS\10817.07 - St Ambrose Parish-Master Plan\DWG\Special Permit Plat

11'
12" **ST. AMBROSE SCHOOL**

3'
8" **SAINT**

5'
8" **AMBROSE**

EXISTING WALL MOUNTED SIGNS
NOT TO SCALE

REMOVAL OF INVASIVE SPECIES OF VEGETATION NOTE

DURING CONSTRUCTION, THE OWNER SHALL REQUIRE THE CONTRACTOR TO REMOVE PLANT SPECIES THAT ARE PERCEIVED AS NOXIOUS OR INVASIVE. SUCH SPECIES INCLUDE POISON IVY, GREENBRIER, MULTI-FLORAL ROSE, MILE-A-MINUTE, GARLIC MUSTARD, PERIWINKLE, VINCA, AND PACASANDRA WITHIN THE UPLAND FOREST AND AUTUMN OLIVE AND MULTI-FLORA ROSE WITHIN THE EARLY SUCCESSIONAL FOREST COMMUNITY. THESE SPECIES ARE PROHIBITED AND SHALL BE REMOVED IF LOCATED IN TREE PRESERVATION AREAS, SUBJECT TO THE REVIEW AND APPROVAL BY FAIRFAX COUNTY OFFICE OF URBAN FOREST MANAGEMENT.

This plan was prepared by Donald E. Zimar, Maryland Registered Forester #377, ISA Certified Arborist MA-0039, ISA Certified Tree Risk Assessor #758, ASCA RCA #446, Maryland Licensed Tree Expert #587.

Zimar & Associates, Inc.
ARBORICULTURE FORESTRY CONSULTING
10105 Residency Road, Suite 207
Manassas, Virginia 20110
Tel (703) 331-3731 Fax (703) 331-1359

EXISTING VEGETATION EXHIBIT KEY

LEGEND	NUMBER	PRIMARY SPECIES	SUCCESSIONAL STAGE	CONDITION	AREA (SQ. FT.)	COMMENTS	PFM CHAPTER 12 DESCRIPTION
	UPLAND FOREST	RED OAK, WHITE OAK, TULIP POPLAR, RED MAPLE, BLACKGUM	SUB-CLIMAX	GOOD	335,800	FOREST GENERALLY IN GOOD CONDITION WITH HIGH QUALITY UNDERSTORY AND FEW EXOTIC INVASIVES (SEE REMOVAL OF INVASIVE SPECIES OF VEGETATION NOTE ABOVE). THERE IS SOME PORCELYN BERRY AND KOREAN BITTERSWEET IN DISTURBED EDGE AREAS. SMALL AMOUNT OF VINE HONEYSUCKLY THROUGHOUT. SOME AREAS HAVE HEAVY BLOW DUE TO PAST STORMS.	UPLAND HARDWOODS: OAK, HICKORY AND YELLOW-POPLAR UPLAND SOFTWOODS: VIRGINIA PINE
	EARLY SUCCESSIONAL FOREST COMMUNITY	VIRGINIA PINE, BLACK GUM, RED MAPLE, PIN OAK, DOGWOOD	EARLY SUCCESSIONAL	GOOD	15,000	OVERSTORY IS EXCLUSIVELY VA PINE THAT SHOULD BE REMOVED TO PREVENT DAMAGE TO POSER LINES. UNDERSTORY IS DENSE WITH SAPLINGS AND NEEDS NO PLANTING IF PINES ARE REMOVED. THEY WILL RELEASE AND MAY NEED TO BE THINNED (SEE REMOVAL OF INVASIVE SPECIES OF VEGETATION NOTE ABOVE).	AREAS OF EALY SUCCESSIONAL TREE CANOPY DOMINATED BY JUVENILE PIONEER SPECIES SUCH AS VIRGINIA PINE, RED CEDAR, TULIP POPLAR, BLACK LOCUST, BOX ELDER, SWEEETGUM, BLACK WILLOW, AILANTHUS, ETC. THESE AREAS MAY ALSO CONTAIN SIGNIFICANT LEVELS OF TURFGRASS AND OTHER HERBACEOUS PLANT MATERIALS.
	DEVELOPED LAND	N/A	N/A	N/A	170,146		AREAS OF CONSTRUCTED FEATURES INCLUDING BUILDINGS, PARKING AND ROADWAYS
	MAINTAINED GRASSLAND	N/A	N/A	N/A	49,423		GRASSED AND LANDSCAPED AREAS, ATHLETIC FIELDS OR OTHER GREEN AREAS DEVOID OF NATURAL VEGETATION
	LANDSCAPED TREE CANOPY	PIN OAK, RED MAPLE, SWEETGUM, AND VARIOUS OTHER LANDSCAPE TREES	N/A	GOOD	25,175	TREE PLANTED IN THE LANDSCAPE AREA THAT ARE COUNTED TOWARD EXISTING CANOPY AS DEPICTED.	TREE CANOPY ESTABLISHED THROUGH THE PLANTING OF NURSERY STOCK TREES THAT IS NOT PART OF A NATURAL FOREST COMMUNITY
				TOTAL	595,544		

LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING LAND PLANNING SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
phone: 703-591-5800
www.landdevelopmentconsultants.com

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.

EXISTING CONDITIONS PLAN & EXISTING VEGETATION MAP
SPECIAL PERMIT AMENDMENT PLAT
SAINT AMBROSE PARISH

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MANGANELLO
Lic. No.20732
10/16/15
PROFESSIONAL ENGINEER REGISTERED

REV. NO.	DATE	REVISION
4	10/16/15	STAFF COMMENTS
3	7/29/15	STAFF COMMENTS
2	6/08/15	STAFF COMMENTS
1	3/25/15	APPLICATION ACCEPTANCE

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.07
SCALE: 1"=50'
DATE: JANUARY 27, 2015
SHEET: 2 OF 16

P:\PROJECTS\10817.07 - St Ambrose Parish-Master Plan\DWG\Special Permit Plat

NOTES

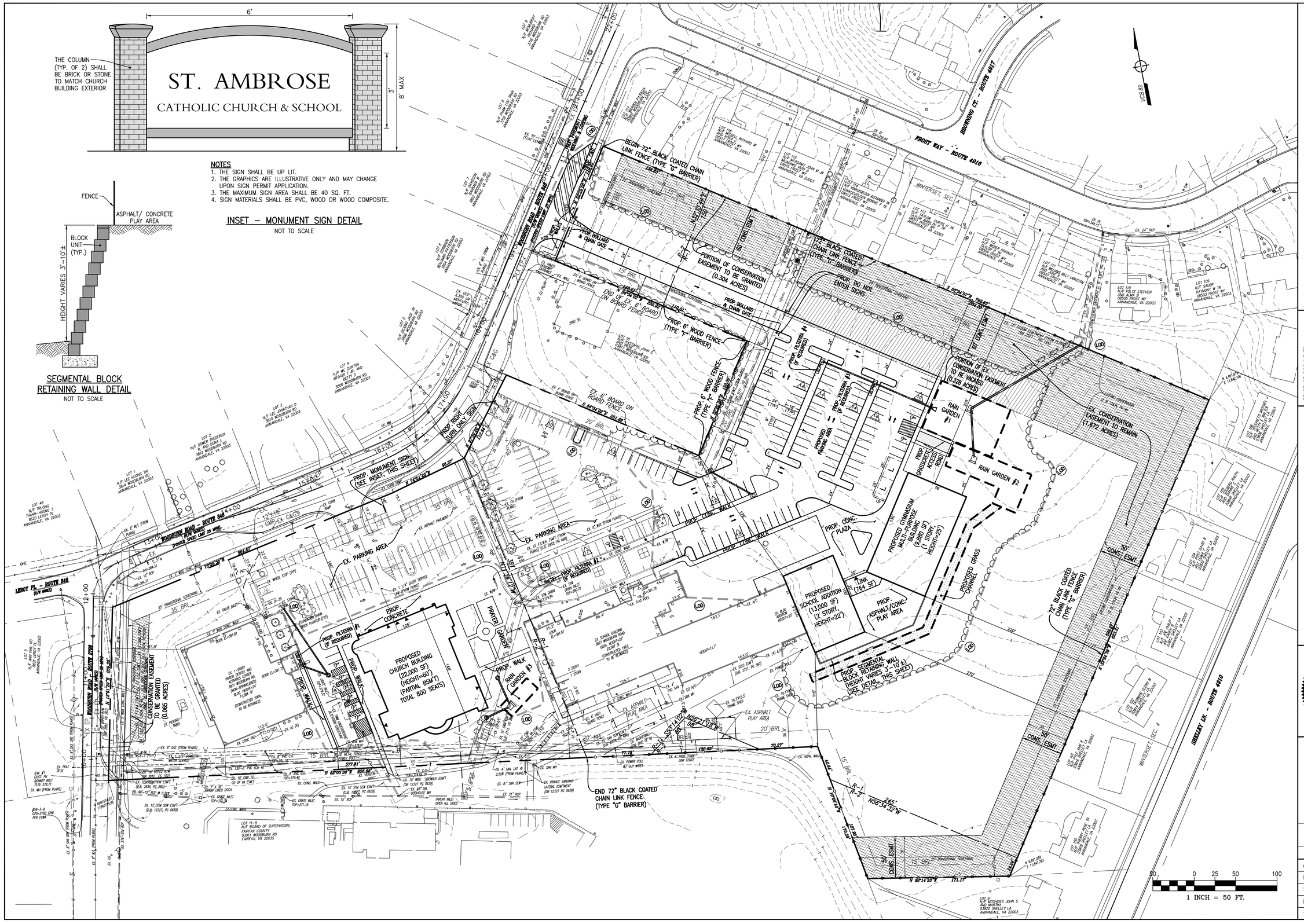
1. THE SIGN SHALL BE UP LIT.
2. THE GRAPHICS ARE ILLUSTRATIVE ONLY AND MAY CHANGE UPON SIGN PERMIT APPLICATION.
3. THE MAXIMUM SIGN AREA SHALL BE 40 SQ. FT.
4. SIGN MATERIALS SHALL BE PVC, WOOD OR WOOD COMPOSITE.

INSET – MONUMENT SIGN DETAIL

NOT TO SCALE

SEGMENTAL BLOCK RETAINING WALL DETAIL

NOT TO SCALE



LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING LAND PLANNING SURVEYING

10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
phone: 703-591-5800
www.landdevelopmentconsultants.com

REUSE OF DOCUMENTS

THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE AND SERVICE OF PLAN 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.

OVERALL PROPOSED CONDITIONS PLAN

SPECIAL PERMIT AMENDMENT PLAT

SAINT AMBROSE PARISH

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MANGANELLO
Lic. No.20732
10/16/15
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISION
4	10/16/15	STAFF COMMENTS
3	7/29/15	STAFF COMMENTS
2	6/08/15	STAFF COMMENTS
1	3/25/15	APPLICATION ACCEPTANCE

COUNTY PROJ. NO.:

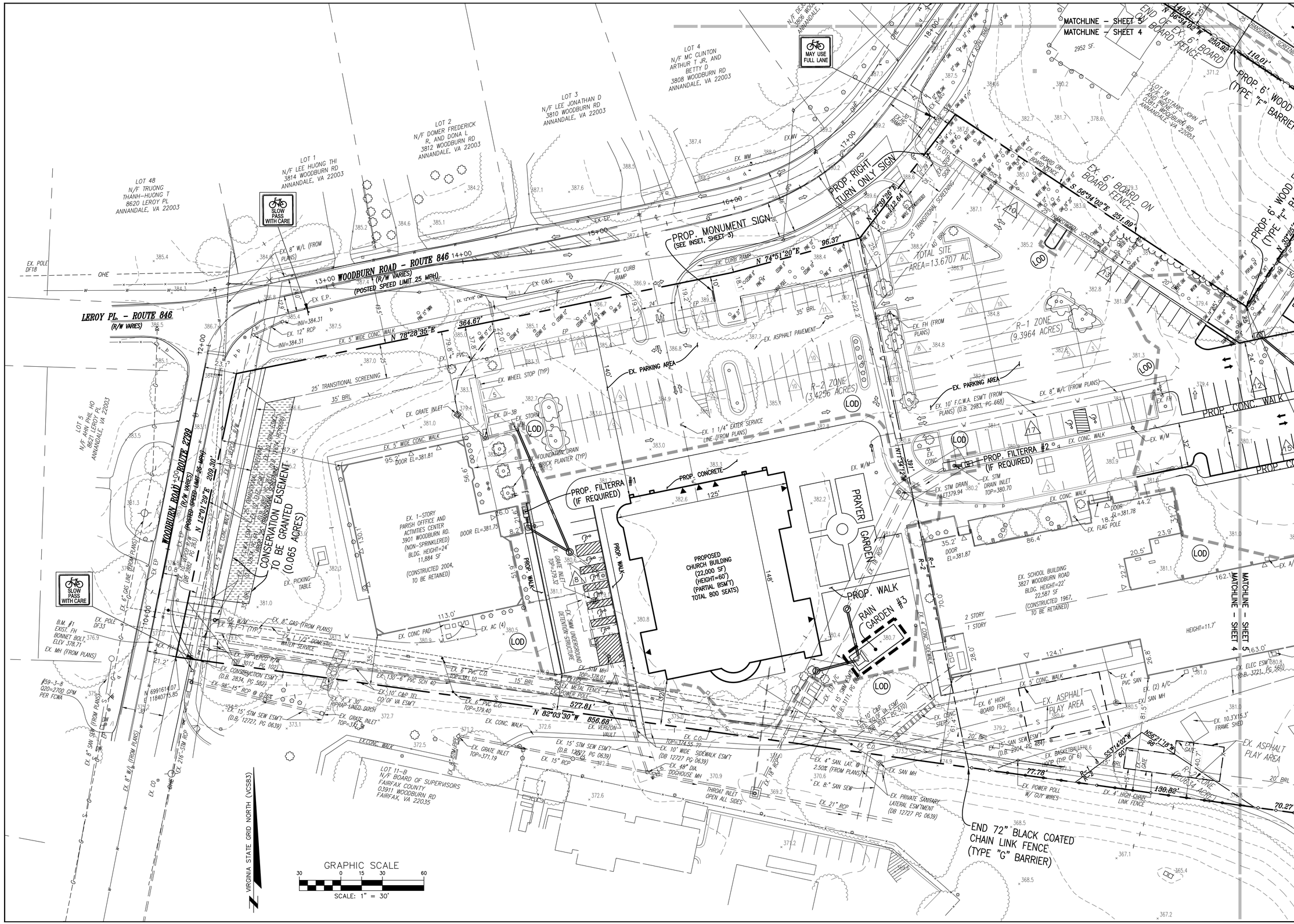
LDCI PROJ. NO.: 10817.07

SCALE: AS SHOWN

DATE: JANUARY 27, 2015

SHEET: 3 OF 16

P:\PROJECTS\10817.07 – St. Ambrose Parish-Master Plan\SPEC\Special Permit Plat



LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING LAND PLANNING SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
phone: 703-591-5800
www.landdevelopmentconsultants.com

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.

PROPOSED CONDITIONS PLAN

SPECIAL PERMIT AMENDMENT PLAT

SAINT AMBROSE PARISH

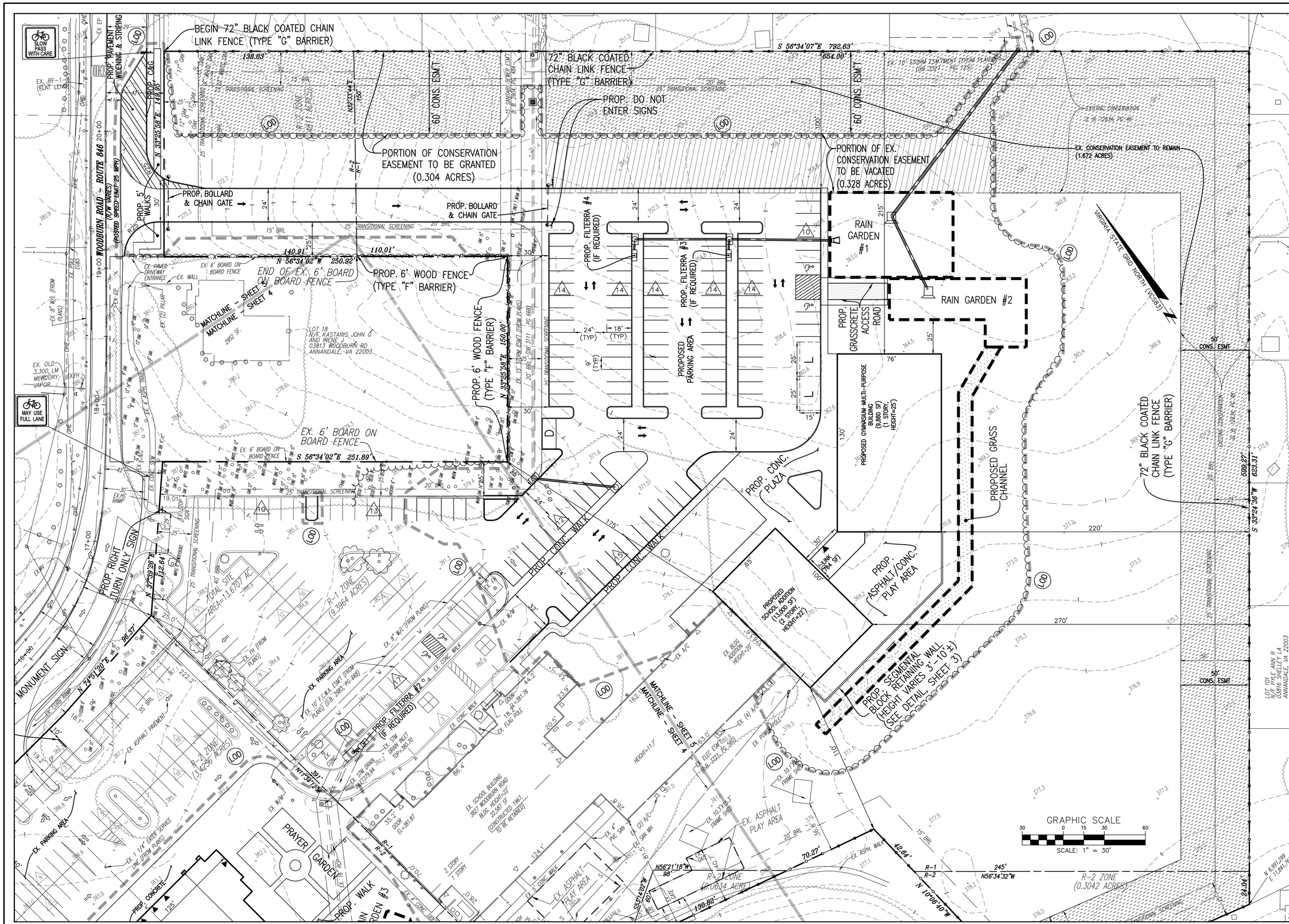
MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MANGANELLO
Lic. No.20732
10/16/15
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISION
4	10/16/15	STAFF COMMENTS
3	7/29/15	STAFF COMMENTS
2	6/08/15	STAFF COMMENTS
1	3/25/15	APPLICATION ACCEPTANCE

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.07
SCALE: 1" = 30'
DATE: JANUARY 27, 2015
SHEET: 4 OF 16

F:\PROJECTS\10817.07 - St Ambrose Parish-Master Plan\DWG\Special Permit Plat



LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING LAND PLANNING SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
phone: 703-591-5800
www.landdevelopmentconsultants.com

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.

PROPOSED CONDITIONS PLAN

SPECIAL PERMIT AMENDMENT PLAT

SAINT AMBROSE PARISH

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MARGANELLO
Lic. No.20732
10/16/15
PROFESSIONAL ENGINEER SEAL

REV. NO.	DATE	REVISION
4	10/16/15	STAFF COMMENTS
3	7/29/15	STAFF COMMENTS
2	6/08/15	STAFF COMMENTS
1	3/25/15	APPLICATION ACCEPTANCE

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.07
SCALE: 1" = 30'
DATE: JANUARY 27, 2015
SHEET: 5 OF 16

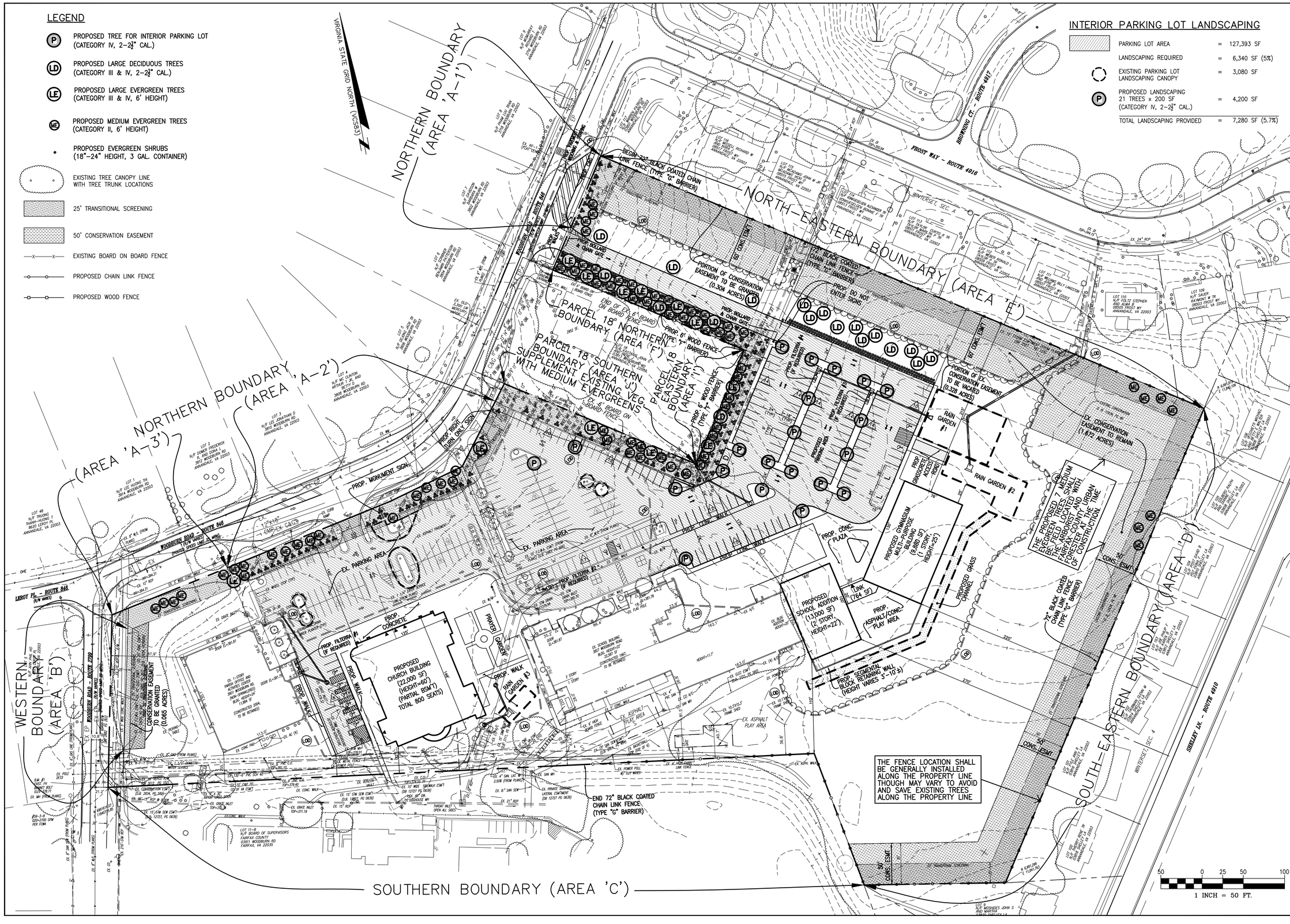
F:\PROJECTS\10817.07 - St. Ambrose Parish-Master Plan\DWG\Special Permit.Plat

LEGEND

- (P) PROPOSED TREE FOR INTERIOR PARKING LOT (CATEGORY IV, 2-2½" CAL.)
- (LD) PROPOSED LARGE DECIDUOUS TREES (CATEGORY III & IV, 2-2½" CAL.)
- (LE) PROPOSED LARGE EVERGREEN TREES (CATEGORY III & IV, 6' HEIGHT)
- (ME) PROPOSED MEDIUM EVERGREEN TREES (CATEGORY II, 6' HEIGHT)
- PROPOSED EVERGREEN SHRUBS (18"-24" HEIGHT, 3 GAL. CONTAINER)
- EXISTING TREE CANOPY LINE WITH TREE TRUNK LOCATIONS
- 25' TRANSITIONAL SCREENING
- 50' CONSERVATION EASEMENT
- EXISTING BOARD ON BOARD FENCE
- PROPOSED CHAIN LINK FENCE
- PROPOSED WOOD FENCE

INTERIOR PARKING LOT LANDSCAPING

PARKING LOT AREA	=	127,393 SF
LANDSCAPING REQUIRED	=	6,340 SF (5%)
EXISTING PARKING LOT LANDSCAPING CANOPY	=	3,080 SF
PROPOSED LANDSCAPING 21 TREES x 200 SF (CATEGORY IV, 2-2½" CAL.)	=	4,200 SF
TOTAL LANDSCAPING PROVIDED	=	7,280 SF (5.7%)



LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING LAND PLANNING SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
phone: 703-591-5800
www.landdevelopmentconsultants.com

REUSE OF DOCUMENTS
THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE AND THE PLANS 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.

PARKING LOT LANDSCAPING AND TRANSITIONAL SCREENING PLAN
SPECIAL PERMIT AMENDMENT PLAT
SAINT AMBROSE PARISH

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MARGANELLO
Lic. No.20732
10/16/15
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISION
4	10/16/15	STAFF COMMENTS
3	7/29/15	STAFF COMMENTS
2	6/08/15	STAFF COMMENTS
1	3/25/15	APPLICATION ACCEPTANCE

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.07
SCALE: 1"=50'
DATE: JANUARY 27, 2015
SHEET: 6 OF 16

F:\PROJECTS\10817.07 - St. Ambrose Parish-Master Plan\DWG\Special Permit.Dwg

Table 12.10 10-year Tree Canopy Calculation Worksheet			
Step		Totals	Reference
A. Tree Preservation Target and Statement			
A1	Place the Tree Preservation Target calculations and statement here preceding the 10-year tree canopy calculations	see Table 12.3 below	see § 12-0508.2 for list of required elements and worksheet
	Table 12.3		
A	Pre-development area of existing tree canopy (from Existing Vegetation Map) = (335800+15000+25175)	375,975	
B	Percentage of gross site area covered by existing tree canopy =	62.7%	
C	Percentage of 10-year tree canopy required for site (see Table 12.4) =	30%	
D	Percentage of the 10-year tree canopy requirement that should be met through tree preservation =	19%	
E	Proposed percentage of canopy requirement that will be met through tree preservation =	116%	
F	Has the Tree Preservation Target minimum been met?	Yes	Provide Yes or No
G	If No for line F, then a request to deviate from the Tree Preservation Target shall be provided on the plan that states one or more of the justifications listed in § 12-0508.3 along with a narrative that provides site-specific explanation of why the Tree Presercation Target cannot be met. Provide sheet number where deviation request is located.	N/A	
H	If step G reuires a narrative, it shall be prepared in accordance with § 12-0508.4	N/A	
I	Place this information prior to the 10-year Tree Canopy Calculations as per instructions in Table 12.10		
B. Tree Canopy Requirement			
B1	Identify gross site area =	595,544	§ 12-0511.1A
B2	Subtract area dedicated to parks, road frontage, and	0	§ 12-0511.1B
B3	Subtract area of exemptions =	0	§ 12-0511.1C(1) through § 12-0511.1C(6)
B4	Adjusted gross site area (B1 - B2) =	595,544	
B5	Identify site's zoning and/ or use	R-1 & R-2	
B6	Persentage of 10-year tree canopy required =	30%	§ 12-0510.1 and Table 12.4
B7	Area of 10-year tree canopy required (B4 x B5) =	178,663	
B8	Modification of 10-year Tree Canopy Requirements requested?	No	Yes or No
B9	If B8 is yes, then list plan sheet where modification request is located	N/A	Sheet number
C. Tree Preservation			
C1	Tree Preservation Target Area =	113,153	
C2	Total canopy area meeting standards of § 12-0200 =	207,348	
C3	C2 x 1.25 = (NO CREDIT TAKEN)	207,348	§ 12-0510.3B
C4	Total canopy area provided by unique or valuable forest or woodland communities =	0	
C5	C4 x 1.5 =	0	§ 12-0510.3B(1)
C6	Total of canopy area provided by "Heritage," "Memorial," "Specimen," or "Street" trees =	0	
C7	C6 x 1.5 to 3.0 =	0	§ 12-0510.3B(2)
C8	Canopy area of trees within Resource Protection Areas and 100-year floodplains =		
C9	C8 x 1.0 =	0	§ 12-0510.3C(1)
C10	Total of C3, C5, C7 and C9 =	207,348	If area of C10 is less than B7 then remainder of requirement must be met through tree planting - go to D
D. Tree Planting			
D1	Area of canopy to be met through tree planting (B7-C10) =	N/A	
D2	Area of canopy planted for air quality benefits =	N/A	
D3	x 1.5 =	N/A	§ 12-0510.4B(1)
D4	Area of canopy planted for energy conservation =	N/A	
D5	x 1.5 =	N/A	§ 12-0510.4B(2)
D6	Area of canopy planted for water quality benefits =	N/A	
D7	x 1.25 =	N/A	§ 12-0510.4B(3)
D8	Area of canopy planted for wildlife benefits =	N/A	
D9	x 1.5 =	N/A	§ 12-0510.4B(4)
D10	Area of canopy provided by native trees =	N/A	
D11	x 1.5 =	N/A	§ 12-0510.4B(5)
D12	Area of canopy provided by improved cultivars and varieties =	N/A	
D13	x 1.25 =	N/A	§ 12-0510.4B(6)
D14	Area of canopy provided through tree seedlings =	N/A	
	x 1.0	N/A	§ 12-0510.4D(1)
D15	Area of canopy provided through native shrubs or woody seed mix =	N/A	
	x 1.0	N/A	§ 12-0510.4D(1)
D16	Percentage of D14 represented by D15 =	N/A	Must not exceed 33% of D14
D17	Total of canopy area provided through tree planting =	16,600	
D18	Is an offsite planting relief requested?	N/A	Yes or No
D19	Tree Bank or Tree Fund?	N/A	§ 12-0512
D20	Canopy area requested to be provided through offsite banking or tree fund	N/A	
D21	Amount to be deposited into the Tree Preservation and Planting Fund	N/A	
E. Total of 10-year Tree Canopy Provided			
E1	Total of canopy area provided through tree preservation (C10) =	207,348	
E2	Total of canopy area provided through tree planting (D17) =	16,600	
E3	Total of canopy area provided through offsite mechanism (D19) =	0	
E4	Total of 10-year Tree Canopy Provided = (E1+E2+E3)	223,948	Total of E1 through E3. Area should meet or exceed area required by B7

TRANSITIONAL SCREENING AND BARRIER MODIFICATION AND/OR WAIVER REQUEST SUMMARY

NORTH EASTERLY BOUNDARY, EAST OF PARCEL 18 (AREA 'A-1')

TRANSITIONAL SCREENING

REQUIRED ZONING CODE:
PER ZONING ORDINANCE, SECTION 13-303-3-A. TRANSITIONAL SCREENING 1 SHALL CONSIST OF AN UNBROKEN STRIP OF OPEN SPACE A MINIMUM OF TWENTY-FIVE (25) FEET WIDE AND PLANTED WITH ALL OF THE FOLLOWING:

(1) A MIXTURE OF LARGE AND MEDIUM EVERGREEN TREES AND LARGE DECIDUOUS TREES THAT ACHIEVE A MINIMUM TEN (10) YEAR TREE CANOPY OF SEVENTY-FIVE (75) PERCENT OR GREATER;
(2) A MIXTURE OF TREES CONSISTING OF AT LEAST SEVENTY (70) PERCENT EVERGREEN TREES, AND CONSISTING OF NO MORE THAN THIRTY-FIVE (35) PERCENT OF ANY SINGLE SPECIES OF EVERGREEN OR DECIDUOUS TREE; AND
(3) A MIXTURE OF PREDOMINATELY MEDIUM EVERGREEN SHRUBS AT A RATE OF THREE (3) SHRUBS FOR EVERY TEN (10) LINEAR FEET FOR THE LENGTH OF THE TRANSITION YARD AREA. THE SHRUBS SHALL GENERALLY BE LOCATED AWAY FROM THE BARRIER AND STAGGERED ALONG THE OUTER BOUNDARY OF THE TRANSITION YARD.

REQUIRED ON-SITE:
LG/MED EVG + LG DECID @ 75% = 2,400 SF x 0.75 = 1,800 SF (MINIMUM) AND 29 EVG SHRUBS FOR 96 LINEAR FEET OF THE LENGTH OF THE TRANSITIONAL SCREEN AREA.

PROVIDED:
A MODIFICATION OF THE TRANSITIONAL SCREENING REQUIREMENTS OF THE ZONING ORDINANCE SECTION 13-303-3-A IS REQUESTED IN FAVOR OF THAT SHOWN ON THIS PLAT. THE PROPOSED DEVELOPMENT HAS BEEN DESIGNED TO MINIMIZE ADVERSE IMPACTS TO NEIGHBORING LOTS BY PRESERVING AS MANY MATURE EXISTING TREES IN THE TRANSITIONAL AREA AS POSSIBLE. THE EXISTING TREES ARE PREDOMINATELY MATURE DECIDUOUS TREES AND PROVIDE A NATURAL BUFFER. THIS TRANSITIONAL SCREENING BUFFER HAS BEEN SUPPLEMENTED WITH 4 MEDIUM EVERGREEN TREES AND 30 SHRUBS TO PROVIDE A MORE COMPLETE BARRIER.
THE MEDIUM EVERGREEN TREES AND SHRUBS WILL BE ADDED TO FILL GAPS IN THE EXISTING TRANSITIONAL SCREENING AREA. THE FINAL LOCATION OF PROPOSED TREES AND SHRUBS WILL BE LOCATED AS DETERMINED BY A MEETING WITH THE OWNER'S REPRESENTATIVE AND THE FAIRFAX COUNTY URBAN FORESTER, UFMD DURING CONSTRUCTION.

CANOPY PROVIDED BY EXISTING DECIDUOUS TREES	2,400 SF
CANOPY TO BE PROVIDED BY PROPOSED MEDIUM & LARGE EVERGREEN TREES (70%)	
LARGE EVERGREEN TREES	0 SF
MEDIUM EVERGREEN TREES	400 SF (4 TREES)
DECIDUOUS TREES (30%)	0 SF
CANOPY COVERAGE PROPOSED	0 SF
TOTAL CANOPY COVERAGE PROVIDED	2,800 SF
LENGTH OF TRANSITIONAL AREA	96 LF
REQUIRED SHRUBS	29
PROVIDED SHRUBS	30

BARRIER

REQUIRED:
PER ZONING ORDINANCE 13-304-4 (TYPES D, E & F)

D. BARRIER D SHALL CONSIST OF A 42"-48" INCH CHAIN LINK FENCE AND MAY BE REQUIRED BY THE DIRECTOR TO HAVE INSERTS IN THE FENCE FABRIC, TO BE COATED, OR TO BE SUPPLEMENTED BY TREES AND/OR SHRUBS.

E. BARRIER E SHALL CONSIST OF A 6 FOOT WALL, BRICK OR ARCHITECTURAL BLOCK FACED ON THE SIDE FACING THE EXISTING USE AND MAY BE REQUIRED TO BE FACED ON BOTH SIDES AS DETERMINED BY THE DIRECTOR.

F. BARRIER F SHALL CONSIST OF A 6 FOOT HIGH SOLID WOOD OR OTHERWISE ARCHITECTURALLY SOLID FENCE.

PROVIDED:
A WAIVER OF BARRIER REQUIREMENT, REQUIRED BY ZONING ORDINANCE 13-304-4-D,E & F AND AS IDENTIFIED ON THE MATRIX IS HEREBY REQUESTED.
JUSTIFICATION FOR WAIVER OF THE BARRIER/FENCING REQUIREMENT ALONG SECTION "A-1", IS THE OWNERS DESIRE FOR THE CHURCH/SCHOOL TO BLEND WITH THE COMMUNITY. THERE APPEARS TO BE NO BENEFIT TO PROVIDING A BARRIER/FENCE ALONG THE UNDISTURBED AREA ADJACENT TO WOODBURN ROAD.

NORTHERN BOUNDARY ADJACENT TO PARKING LOT (AREA 'A-2')

TRANSITIONAL SCREENING

REQUIRED ZONING CODE:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE ABOVE.

REQUIRED ON-SITE:
LG/MED EVG + LG DECID @ 75% = 8,125 SF x 0.75 = 6,094 SF (MIN.) AND 98 EVG SHRUBS FOR 325 LINEAR FEET OF THE LENGTH OF THE TRANSITIONAL SCREEN AREA.

PROVIDED:
A MODIFICATION OF THE TRANSITIONAL SCREENING REQUIREMENTS OF ZONING ORDINANCE SECTION 13-303-3-A IS REQUESTED IN FAVOR OF THAT SHOWN ON THIS PLAT. THE PROPOSED DEVELOPMENT HAS BEEN DESIGNED TO MINIMIZE ADVERSE IMPACTS TO NEIGHBORING LOTS BY PRESERVING AS MANY MATURE EXISTING TREES IN THE TRANSITIONAL AREA AS POSSIBLE. THE EXISTING TREES WILL PROVIDE A MORE COMPLETE BARRIER THAN NEWLY PLANTED TREES. SHRUBS SHALL BE PLANTED TO SUPPLEMENT AND ENHANCE THIS BUFFER AND LARGE AND MEDIUM EVERGREENS WILL BE ADDED TO FILL IN GAPS IN THE EXISTING TRANSITIONAL SCREENING AREA. THE LOCATION OF THE PROPOSED TREES AND SHRUBS SHALL BE GENERALLY AS SHOWN ON THE THIS PLAN WITH THE FINAL LOCATION BEING DETERMINED BY A MEETING OF THE OWNER'S REPRESENTATIVE AND FAIRFAX COUNTY URBAN FORESTRY, (UFMD) DURING CONSTRUCTION.

PROPOSED PLANTINGS:

CANOPY PROVIDED BY EXISTING DECIDUOUS TREES	8,000 SF
CANOPY TO BE PROVIDED BY PROPOSED MEDIUM & LARGE EVERGREEN TREES (70%)	
LARGE EVERGREEN TREES	200 SF (1 TREE)
MEDIUM EVERGREEN TREES	1,400 SF (14 TREES)
DECIDUOUS TREES (30%)	0 SF
TOTAL CANOPY COVERAGE PROVIDED	9,400 SF
LENGTH OF TRANSITIONAL AREA	325 LF
REQUIRED SHRUBS	98
PROVIDED SHRUBS	99

BARRIER

REQUIRED:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE ABOVE.

PROVIDED:
WAIVER OF THE BARRIER REQUIREMENT, REQUIRED BY ZONING ORDINANCE 13-304-D, E & F AND AS IDENTIFIED ON THE MATRIX IS HEREBY REQUESTED.
JUSTIFICATION FOR WAIVER OF BARRIER/FENCING REQUIREMENTS ALONG SECTION "A-2", IS THE OWNERS DESIRE FOR THE CHURCH/SCHOOL TO BLEND WITH THE COMMUNITY. THERE APPEARS TO BE NO BENEFIT TO PROVIDING A BARRIER/FENCE ALONG THE INTERIOR OR THE PARKING LOT. THE CHAIN LINK BARRIER REQUIRED WOULD NOT EFFECT VEHICLES HEADLIGHTS AND FENCING THIS AREA WOULD DETRACT FROM THE EXISTING VEGETATION AND EVERGREEN SHRUBS AND TREES PROPOSED.

BOUNDARY ADJACENT TO PARISH OFFICE (AREA 'A-3')

TRANSITIONAL SCREENING

REQUIRED ZONING CODE:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE ABOVE.

REQUIRED ON-SITE:
LG/MED EVG + LG DECID @ 75% = 3,750 SF x 0.75 = 2,813 SF (MINIMUM) AND 45 EVG SHRUBS FOR 150 LINEAR FEET OF THE LENGTH OF THE TRANSITIONAL SCREEN AREA.

PROVIDED:
A MODIFICATION OF THE TRANSITIONAL SCREENING REQUIREMENTS OF ZONING ORDINANCE SECTION 13-303-3-A IS HEREBY REQUESTED, IN FAVOR OF THAT SHOWN ON THIS PLAT. THE PROPOSED DEVELOPMENT HAS BEEN DESIGNED TO MINIMIZE ADVERSE IMPACTS TO NEIGHBORING LOTS BY PRESERVING AS MANY MATURE EXISTING TREES IN THE TRANSITIONAL AREA AS POSSIBLE. THE EXISTING TREES WILL PROVIDE A MORE COMPLETE BARRIER THAN NEWLY PLANTED TREES. LARGE AND MEDIUM EVERGREENS SHALL BE ADDED TO FILL IN GAPS IN THE EXISTING TRANSITIONAL SCREENING AREA. FAIRFAX COUNTY URBAN FORESTRY DETERMINED THAT THE EXISTING BUFFER WAS SUFFICIENTLY DENSE, NOT TO REQUIRE PLANTING OF SHRUBS IN THE TRANSITIONAL SCREENING AREA. THE LOCATION OF THE PROPOSED TREES SHALL BE GENERALLY AS SHOWN ON THIS PLAN WITH THE FINAL LOCATION BEING DETERMINED BY A MEETING OF THE OWNER'S REPRESENTATIVE AND FAIRFAX COUNTY URBAN FORESTRY, (UFMD) DURING CONSTRUCTION.

CANOPY PROVIDED BY EXISTING DECIDUOUS & EVERGREEN TREES	3,200 SF
CANOPY TO BE PROVIDED BY PROPOSED MEDIUM & LARGE EVERGREEN TREES (70%)	
LARGE EVERGREEN TREES	200 SF (1 TREE)
MEDIUM EVERGREEN TREES	500 SF (5 TREES)
DECIDUOUS TREES (30%)	0 SF
TOTAL CANOPY COVERAGE PROVIDED	4,100 SF
LENGTH OF TRANSITIONAL AREA	150 LF
REQUIRED SHRUBS	45
PROVIDED SHRUBS	0

BARRIER

REQUIRED:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE ABOVE.

PROVIDED:
WAIVER OF THE BARRIER REQUIREMENT, REQUIRED BY ZONING ORDINANCE 13-304-D, E & F AND AS IDENTIFIED ON THE MATRIX IS HEREBY REQUESTED.
JUSTIFICATION FOR WAIVER OF BARRIER/FENCING REQUIREMENTS ALONG SECTION "A-3", IS THE OWNERS DESIRE FOR THE CHURCH/SCHOOL TO BLEND WITH THE COMMUNITY. THERE APPEARS TO BE NO BENEFIT TO PROVIDING AN OPEN BARRIER/FENCE ADJACENT TO THE PARISH OFFICES. THE CHAIN LINK BARRIER/FENCING WOULD DETRACT FROM EXISTING VEGETATION AND THE EVERGREEN TREES PROPOSED.

WESTERN BOUNDARY (AREA 'B')

TRANSITIONAL SCREENING

REQUIRED:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE ABOVE.

REQUIRED ON-SITE:
LG/MED EVG + LG DECID @ 75% = 5,225 SF x 0.75 = 3,919 SF (MINIMUM) + 63 EVERGREEN SHRUBS FOR 209 LINEAR FEET OF LENGTH OF TRANSITIONAL SCREENING AREA.

PROVIDED:
MODIFICATION OF THE TRANSITIONAL SCREENING REQUIREMENTS OF THE ZONING ORDINANCE SECTION 13-303-3-A IS REQUESTED IN FAVOR OF THAT SHOWN ON THIS PLAT. DUE TO EASEMENTS AND UTILITY LINES ALONG THE RIGHT-OF-WAY THE TRANSITIONAL SCREENING AREA HAS BEEN RELOCATED TO THE EAST OF THE EXISTING TRAIL EASEMENT, TO BETTER USE THE EXISTING VEGETATION ADJACENT TO WOODBURN ROAD. EXISTING VEGETATION IN THIS AREA PROVIDES A GOOD TRANSITIONAL SCREENING BUFFER AND A 20' WIDE CONSERVATION EASEMENT HAS BEEN PROVIDED ALONG A PORTION OF AREA "B". THE PROPOSED DEVELOPMENT HAS BEEN SPECIFICALLY DESIGNED TO MINIMIZE ADVERSE IMPACTS TO NEIGHBORING LOTS BY PRESERVING EXISTING TREES AND VEGETATION IN THE TRANSITIONAL AREA. THESE EXISTING TREES WILL PROVIDE A MORE COMPLETE BARRIER THAN NEWLY PLANTED TREES.

PROPOSED PLANTINGS:

CANOPY PROVIDED BY EXISTING DECIDUOUS TREES	4,100 SF
CANOPY TO BE PROVIDED BY PROPOSED MEDIUM & LARGE EVERGREEN TREES (70%)	0 SF
CANOPY COVERAGE PROVIDED	4,100 SF

EXISTING SCREENING BUFFER IS ADEQUATE

LENGTH OF TRANSITIONAL AREA	209 LF
REQUIRED SHRUBS	63
PROVIDED SHRUBS	0

BARRIER

REQUIRED:

SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE ABOVE.

PROVIDED:
WAIVER OF THE BARRIER REQUIREMENT, REQUIRED BY ZONING ORDINANCE 13-304-D, E & F AND AS IDENTIFIED ON THE MATRIX IS HEREBY REQUESTED.
JUSTIFICATION FOR WAIVER OF BARRIER/FENCING REQUIREMENTS ALONG SECTION "B", IS THE OWNERS DESIRE FOR THE CHURCH/SCHOOL TO BLEND WITH THE COMMUNITY. THERE APPEARS TO BE NO BENEFIT TO PROVIDING A BARRIER/FENCE ALONG THE INTERIOR OR THE TRANSITIONAL SCREENING AREA. FENCING THIS AREA WOULD DETRACT FROM THE EXISTING VEGETATION.

SOUTHERN BOUNDARY (AREA 'C')

TRANSITIONAL SCREENING

NOT REQUIRED.
THE ADJACENT PROPERTY IS OWNED AND OPERATED BY FAIRFAX COUNTY BOARD OF SUPERVISORS AS A POLICE STATION. TRANSITIONAL SCREENING IS NOT REQUIRED FOR SIMILAR OR HIGHER COMMERCIAL USES.

BARRIER

NOT REQUIRED:
HOWEVER, A 72" TALL, BLACK COATED CHAIN LINK FENCE IS PROVIDED ALONG APPROXIMATELY ONE-THIRD OF THIS SITE'S BOUNDARY AS SHOWN IN THE SPECIAL PERMIT PLAT.

SOUTHEASTERLY BOUNDARY (AREA 'D')

TRANSITIONAL SCREENING

REQUIRED:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE THIS SHEET.

REQUIRED ON-SITE:
LG/MED EVG + LG DECID @ 75% = 18,963 SF x 0.75 = 14,222 SF (MINIMUM) AND 238 EVG SHRUBS FOR 794 LINEAR FEET OF THE LENGTH OF THE TRANSITIONAL SCREEN AREA.

PROVIDED:
A MODIFICATION OF THE TRANSITIONAL SCREENING REQUIREMENTS OF ZONING ORDINANCE SECTION 13-303-3-A IS REQUESTED IN FAVOR OF THAT SHOWN ON THIS PLAT. THE SOUTHEASTERLY PORTION OF THE SITE HAS A LARGE STAND OF MATURE TREES. THE EXISTING TREES PROVIDE A MORE COMPLETE BARRIER THAN NEWLY PLANTED TREES AND SHRUBS. THE PROPOSED DEVELOPMENT HAS BEEN SPECIFICALLY DESIGNED TO MINIMIZE ADVERSE IMPACTS TO NEIGHBORING LOTS BY PRESERVING AS MANY MATURE EXISTING TREES AS POSSIBLE. THIS AREA PROVIDES A 50' CONSERVATION EASEMENT TO ASSURE PRESERVATION OF THE WOODED BUFFER. THREE (3) MEDIUM EVERGREENS ARE PROPOSED ADJACENT TO LOT 104 TO SUPPLEMENT EXISTING VEGETATION. THE THREE TREES SHALL BE PLANTED IN LOCATIONS DIRECTED BY THE OWNER'S REPRESENTATIVE AND THE FAIRFAX COUNTY URBAN FORESTER AT TIME OF CONSTRUCTION.

PROPOSED PLANTINGS:

CANOPY COVERAGE PROVIDED BY:	
EXISTING DECIDUOUS TREES	18,900 SF
CANOPY PROVIDED BY PROPOSED EVERGREENS	300 SF (3 TREES)
CANOPY COVERAGE PROVIDED BY PROPOSED DECIDUOUS TREES	0 SF
TOTAL CANOPY COVERAGE PROVIDED	19,350 SF
SHRUBS REQUIRED (794 LF)	238
SHRUBS PROVIDED	0

BARRIER

REQUIRED:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE THIS SHEET.

PROVIDED:
A MODIFICATION OF THE BARRIER REQUIREMENT, REQUIRED BY ZONING ORDINANCE SECTION 13-304-D, E & F AND AS IDENTIFIED ON THE MATRIX IS HEREBY REQUESTED.
THE OWNER PROPOSES TO MODIFY THE BARRIER REQUIREMENT BY INSTALLING A 72" TALL BLACK COATED CHAIN LINK FENCE, GENERALLY INSTALLED ALONG THE PROPERTY LINE; ITS LOCATION MAY VARY TO AVOID DAMAGE OR SAVE EXISTING TREES ALONG THE PROPERTY LINE.
JUSTIFICATION FOR THIS MODIFICATION OF BARRIER/FENCING REQUIREMENTS IS: (1) THIS BARRIER'S PROPOSED LOCATION AND HEIGHT REDUCES THE CHURCH'S LIABILITY, (2) PREVENTS ENCROACHMENTS OVER PROPERTY LINES, (3) PREVENTS DUMPING IN THE WOODED BUFFER.

NORTHEASTERLY BOUNDARY (AREA 'E')

TRANSITIONAL SCREENING

REQUIRED:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE THIS SHEET.

REQUIRED ON-SITE:
LG/MED EVG + LG DECID @ 75% = 19,150 SF X 0.75 = 14,363 SF (MINIMUM)
AND 238 EVG SHRUBS FOR 793 LINEAR FEET OF THE LENGTH OF THE TRANSITIONAL SCREEN AREA.

PROVIDED:
A MODIFICATION OF THE TRANSITIONAL SCREENING REQUIREMENTS OF ZONING ORDINANCE SECTION 13-303-3-A IS HEREBY REQUESTED, IN FAVOR OF THAT SHOWN ON THIS PLAT. THE NORTHEASTERLY PORTION OF THE SITE HAS A LARGE STAND OF MATURE TREES. THE EXISTING TREES PROVIDE A MORE COMPLETE BARRIER THAN NEWLY PLANTED TREES. THE PROPOSED DEVELOPMENT HAS BEEN DESIGNED TO MINIMIZE ADVERSE IMPACTS TO NEIGHBORING LOTS BY PRESERVING AS MANY EXISTING TREES IN THE REAR YARD. THIS AREA PROVIDES A 60' CONSERVATION EASEMENT OVER THE EASTERLY 80% OF THIS PROPERTY LINE TO ASSURE PRESERVATION OF THIS BUFFER. FOUR (4) MEDIUM EVERGREENS ARE PROPOSED ADJACENT TO LOTS 109 AND 110. THERE TREES ARE PROVIDED TO SUPPLEMENT EXISTING VEGETATION. THE FOUR TREES SHALL BE PLANTED IN LOCATIONS DIRECTED BY THE OWNER'S REPRESENTATIVE AND THE FAIRFAX COUNTY URBAN FORESTER AT TIME OF CONSTRUCTION.

PROPOSED PLANTINGS:

CANOPY COVERAGE PROVIDED BY	
EXISTING DECIDUOUS TREES	19,000 SF
CANOPY PROVIDED BY PROPOSED EVERGREENS	400 SF (4 TREES)
CANOPY COVERAGE PROVIDED BY PROPOSED DECIDUOUS TREES	0 SF
TOTAL CANOPY COVERAGE PROVIDED	19,400 SF
SHRUBS REQUIRED (793 LF)	238
SHRUBS PROVIDED	0

BARRIER

REQUIRED:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE THIS SHEET.

PROVIDED:
A MODIFICATION OF THE BARRIER REQUIREMENT, REQUIRED BY ZONING ORDINANCE 13-304-D, E & F AND AS IDENTIFIED ON THE MATRIX IS HEREBY REQUESTED.
THE OWNER PROPOSES TO MODIFY THE BARRIER REQUIREMENT BY INSTALLING A 72" TALL BLACK COATED CHAIN LINK FENCE, GENERALLY INSTALLED ALONG THE PROPERTY LINE; ITS LOCATION MAY VARY TO AVOID DAMAGE OR SAVE EXISTING TREES ALONG THE PROPERTY LINE.
JUSTIFICATION FOR THIS MODIFICATION OF BARRIER/FENCING REQUIREMENTS IS: (1) THIS BARRIER'S PROPOSED LOCATION AND HEIGHT REDUCES THE CHURCH'S LIABILITY, (2) PREVENTS ENCROACHMENTS OVER PROPERTY LINES, (3) PREVENTS DUMPING IN THE WOODED BUFFER.

PARCEL 18 NORTHERN BOUNDARY (AREA 'F')

TRANSITIONAL SCREENING

REQUIRED:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE THIS SHEET.

REQUIRED ON-SITE:
LG/MED EVG + LG DECID @ 75% = 6,250 SF x 0.75 = 4,688 SF (MINIMUM)
AND 75 EVG SHRUBS FOR 250 LINEAR FEET OF THE LENGTH OF THE TRANSITIONAL SCREEN AREA.

PROVIDED:
A MODIFICATION OF THE TRANSITIONAL SCREENING REQUIREMENTS OF ZONING ORDINANCE SECTION 13-303-3-A IS HEREBY REQUESTED, IN FAVOR OF THAT SHOWN ON THIS PLAT. THE PLAN PROPOSES 3 LARGE DECIDUOUS TREES, 6 LARGE EVERGREEN TREES, 21 MEDIUM EVERGREENS AND 81 SHRUBS TO SUPPLEMENT EXISTING VEGETATION THAT WILL REMAIN. THE LOCATION OF THESE TREES AND SHRUBS SHALL BE GENERALLY AS SHOWN ON THIS PLAN WITH THE FINAL LOCATION DETERMINED BY A MEETING WITH THE OWNER'S REPRESENTATIVE AND FAIRFAX COUNTY URBAN FORESTRY DURING CONSTRUCTION.

PROPOSED PLANTINGS:

CANOPY REQUIREMENT TO BE EVERGREEN (70%)	3,282 SF
DECIDUOUS TREES (30%) (MAXIMUM)	1,406 SF
CANOPY COVERAGE PROVIDED BY EXISTING DECIDUOUS TREES	400 SF
CANOPY COVERAGE PROVIDED BY PROPOSED	
LARGE DECIDUOUS TREES	600 SF (3 TREES)
LARGE EVERGREEN TREES	1,200 SF (6 TREES)
MEDIUM EVERGREEN TREES	2,100 SF (21 TREES)
TOTAL CANOPY COVERAGE PROVIDED	4,300 SF
SHRUBS REQUIRED (251 LF)	75
SHRUBS PROVIDED	81

BARRIER

REQUIRED:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE THIS SHEET.

PROVIDED:
A MODIFICATION OF FAIRFAX COUNTY ZONING ORDINANCE SECTION 13-304-D, E & F AND AS IDENTIFIED ON THE MATRIX IS HEREBY REQUESTED FOR THE BARRIER LOCATION. A 72"± TALL BOARD ON BOARD FENCE EXISTS ALONG THE NORTHWESTERLY PORTION OF THE PROPERTY LINE. 110± FEET OF 72" TALL BOARD ON BOARD FENCE (BARRIER TYPE "F") SHALL BE INSTALLED FROM THE END OF THE EXISTING FENCE TO THE NORTHEASTERLY CORNER OF PARCEL 18 TO COMPLETE THE BARRIER REQUIREMENT ON LOT 18.
THE BARRIER / FENCE SHALL GENERALLY BE LOCATED ALONG THE PROPERTY LINE, TO MATCH THE EXISTING FENCE ON PARCEL 18, THOUGH ITS LOCATION MAY VARY TO AVOID DAMAGE OR SAVE EXISTING TREES ALONG THE PROPERTY LINE.
JUSTIFICATION FOR THE MODIFICATION TO LOCATE THE BARRIER / FENCE ALONG THE PROPERTY LINE IS: (1) THE PROPOSED BARRIER MATCHES THE EXISTING FENCE ON PARCEL 18, (2) THE FENCES LOCATION AND HEIGHT REDUCES THE CHURCH'S LIABILITY, (3) PREVENTS ENCROACHMENTS OVER PROPERTY LINES AND (4) PREVENTS DUMPING IN THE WOODED BUFFER.

PARCEL 18 EASTERN BOUNDARY (AREA 'I')

TRANSITIONAL SCREENING

REQUIRED:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE THIS SHEET.

REQUIRED ON-SITE:
LG/MED EVG + LG DECID @ 75% = 4,925 SF X 0.75 = 3,694 SF (MINIMUM) AND 59 EVG SHRUBS FOR 197 LINEAR FEET OF THE LENGTH OF THE TRANSITIONAL SCREEN AREA.

PROVIDED:
A MODIFICATION OF THE TRANSITIONAL SCREENING REQUIREMENTS OF ZONING ORDINANCE SECTION 13-303-3-A IS HEREBY REQUESTED, IN FAVOR OF THAT SHOWN ON THIS PLAT. EXISTING STORM EASEMENTS, STORM STRUCTURES AND PIPING IN THIS AREAS LIMIT THE PLANTING OF TREES. THE PLAN PROPOSES 1 LARGE DECIDUOUS TREE, 2 LARGE EVERGREEN TREES AND 8 MEDIUM EVERGREENS TO SUPPLEMENT THE EXISTING VEGETATION. 81 SHRUBS ARE PROPOSED WITHIN THE EXISTING EASEMENTS. THE TREES AND SHRUBS SHALL BE PLANTED GENERALLY IN THE LOCATION SHOWN ON THE PLAN. THE FINAL LOCATION OF TREES AND SHRUBS PLANTED SHALL BE DETERMINED BY THE OWNER'S REPRESENTATIVE AND THE FAIRFAX COUNTY URBAN FORESTER AT TIME OF CONSTRUCTION.

PROPOSED PLANTINGS:

CANOPY REQUIREMENT TO BE EVERGREEN (70%)	2,586 SF
DECIDUOUS TREES (30%)	1,108 SF
CANOPY COVERAGE PROVIDED BY PROPOSED	
LARGE DECIDUOUS TREES	200 SF (1 TREES)
LARGE EVERGREEN TREES	400 SF (2 TREES)
MEDIUM EVERGREEN TREES	800 SF (8 TREES)
TOTAL CANOPY COVERAGE PROVIDED	1,400 SF
SHRUBS REQUIRED (197 LF)	59
SHRUBS PROVIDED	81

BARRIER

REQUIRED:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE THIS SHEET.

PROVIDED:
A MODIFICATION OF FAIRFAX COUNTY ZONING ORDINANCE, SECTION 13-304-D, E & F AND AS IDENTIFIED ON THE MATRIX IS HEREBY REQUESTED FOR THE BARRIER LOCATION. A 72" TALL BOARD ON BOARD FENCE (TYPE "F" BARRIER) SHALL BE PROVIDED ALONG THE SOUTHEASTERLY PROPERTY LINE OF PARCEL 18, TO MATCH THE EXISTING FENCE LOCATION ON OTHER PORTIONS OF PARCEL 18. THE FENCE'S LOCATION MAY VARY TO AVOID DAMAGE OR SAVE EXISTING TREES ALONG THE PROPERTY LINE.
JUSTIFICATION FOR LOCATING THE BARRIER / FENCE ALONG THE PROPERTY LINE IS: (1) THE PROPOSED FENCE/BARRIER LOCATION MATCHES THE EXISTING FENCE ON OTHER PARTS OF PARCEL 18, (2) REDUCES CHURCH'S LIABILITY AND (3) PREVENTS ENCROACHMENTS OVER PROPERTY LINES.

PARCEL 18 SOUTHERN BOUNDARY (AREA 'J')

TRANSITIONAL SCREENING

REQUIRED:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE THIS SHEET.

REQUIRED ON-SITE:
LG/MED EVG + LG DECID @ 75% = 6,250 SF X 0.75 = 4,688 SF (MINIMUM) AND 75 EVG SHRUBS FOR 250 LINEAR FEET OF THE LENGTH OF THE TRANSITIONAL SCREEN AREA.

PROVIDED:
A MODIFICATION OF THE TRANSITIONAL SCREENING REQUIREMENTS OF ZONING ORDINANCE SECTION 13-303-3-A IS HEREBY REQUESTED, IN FAVOR OF THAT SHOWN ON THIS PLAT.
THE PLAN PROPOSES 2 LARGE EVERGREEN TREES, 9 MEDIUM EVERGREEN TREES AND 36 SHRUBS TO SUPPLEMENT EXISTING VEGETATION. THE PROPOSED SHRUBS AND EVERGREEN TREES WILL BE ADDED TO FILL IN GAPS IN THE TRANSITIONAL SCREENING AREA. THE LOCATION OF THESE TREES AND SHRUBS SHALL BE GENERALLY AS SHOWN ON THIS PLAN WITH THE FINAL LOCATION DETERMINED BY A MEETING WITH THE OWNER'S REPRESENTATIVE AND FAIRFAX COUNTY URBAN FORESTRY DURING CONSTRUCTION.

PROPOSED PLANTINGS:

CANOPY REQUIREMENT TO BE EVERGREEN (70%)	3,516 SF
DECIDUOUS TREES (30% MAXIMUM)	1,406 SF
CANOPY COVERAGE PROVIDED BY	
EXISTING EVERGREEN TREES	400 SF
EXISTING DECIDUOUS TREES	3,000 SF
CANOPY COVERAGE PROVIDED BY PROPOSED	
LARGE DECIDUOUS TREES	0 SF
LARGE EVERGREEN TREES	400 SF (2 TREES)
MEDIUM EVERGREEN TREES	900 SF (9 TREES)
TOTAL CANOPY COVERAGE PROVIDED	4,700 SF
SHRUBS REQUIRED (197 LF)	75
SHRUBS PROVIDED	36

BARRIER

REQUIRED:
SAME AS NORTHERN BOUNDARY (AREA 'A-1'). SEE THIS SHEET.

PROVIDED:
PROVIDED:
A MODIFICATION OF FAIRFAX COUNTY ZONING ORDINANCE SECTION 13-304-D, E & F AND AS IDENTIFIED ON THE MATRIX IS HEREBY REQUESTED FOR THE BARRIER LOCATION. AN EXISTING 72"± TALL BOARD FENCE EXISTS ALONG THE PROPERTY LINE, COMMON WITH PARCEL 18.
JUSTIFICATION FOR THE MODIFICATION TO USE THE EXISTING 72" FENCE / BARRIER ALONG THE PROPERTY LINE IS: (1) EXISTING FENCE ON PARCEL 18 PROVIDES A SATISFACTORY BARRIER, (2) INSTALLATION OF AN ADDITIONAL PARALLEL BARRIER WOULD NOT SERVE A USEFUL PURPOSE, (3) EXISTING FENCE PREVENTS ENCROACHMENTS OVER PROPERTY LINES.

NOTES:
1. TRANSITIONAL SCREENING AND BARRIER MODIFICATIONS AND/OR WAIVERS ARE REQUESTED PURSUANT TO SECTIONS 13-305-2 AND 3 OF THE FAIRFAX COUNTY ZONING ORDINANCE.

2. SEE SHEET 8 FOR SUMMARY OF PROPOSED LANDSCAPING.

LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING LAND PLANNING SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
phone: 703·591·5800
www.landdevelopmentconsultants.com

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.

TRANSITIONAL SCREENING BARRIER MODIFICATION & WAIVER REQUEST SUMMARY
SPECIAL PERMIT AMENDMENT PLAT
SAINT AMBROSE PARISH
MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MANGANELLO
Lic. No.20732
10/16/15
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISION
4	10/16/15	STAFF COMMENTS
3	7/29/15	STAFF COMMENTS
2	6/08/15	STAFF COMMENTS
1	3/25/15	APPLICATION ACCEPTANCE

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.07
SCALE: N/A
DATE: JANUARY 27, 2015
SHEET: 7 OF 16

F:\PROJECTS\10817.07 - St Ambrose Parish-Master Plan\DWG\Special Permit Plat

SUMMARY OF PROPOSED 10-YR CANOPY FROM PLANTING

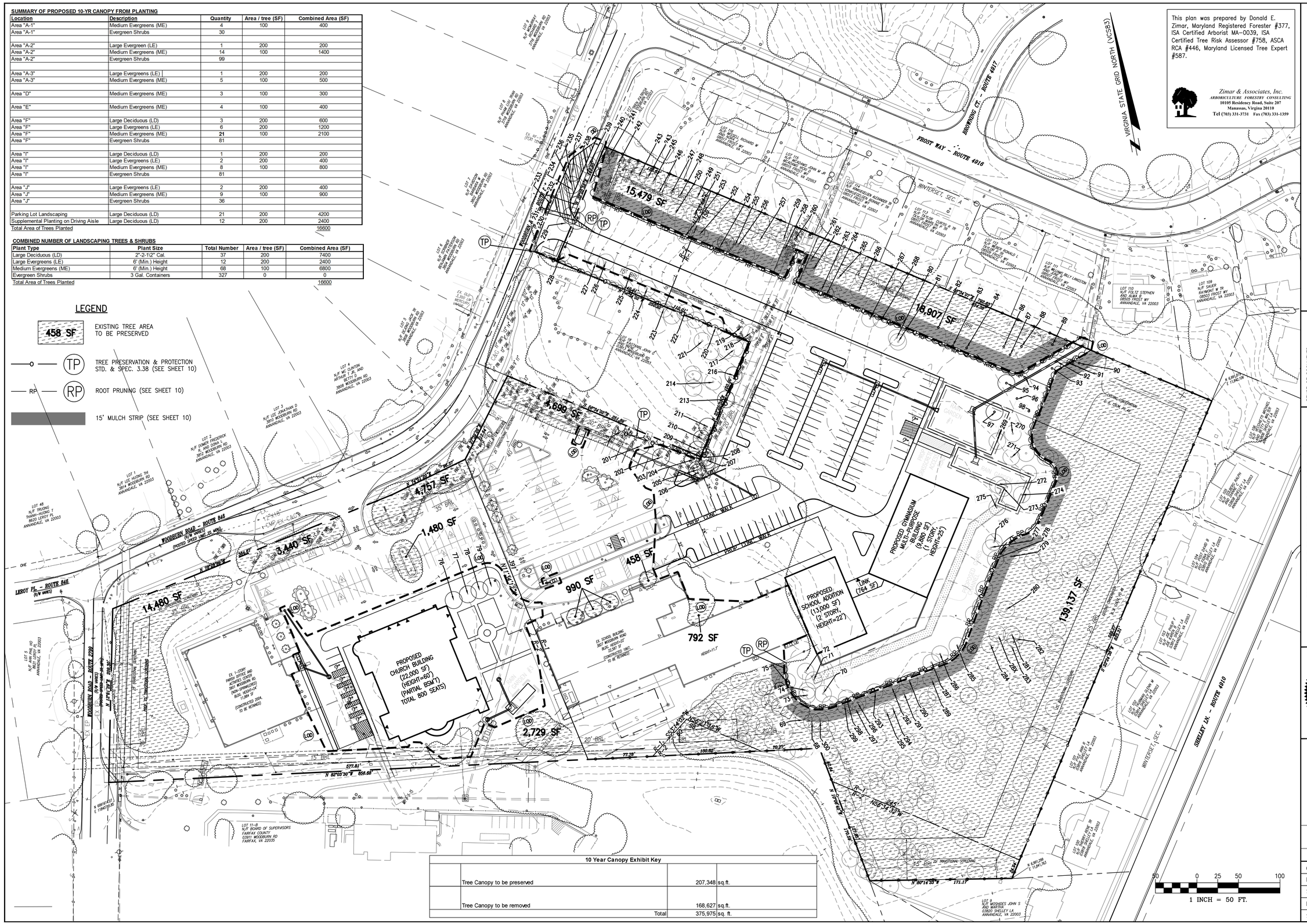
Location	Description	Quantity	Area / tree (SF)	Combined Area (SF)
Area "A-1"	Medium Evergreens (ME)	4	100	400
Area "A-1"	Evergreen Shrubs	30		
Area "A-2"	Large Evergreen (LE)	1	200	200
Area "A-2"	Medium Evergreens (ME)	14	100	1400
Area "A-2"	Evergreen Shrubs	99		
Area "A-3"	Large Evergreens (LE)	1	200	200
Area "A-3"	Medium Evergreens (ME)	5	100	500
Area "D"	Medium Evergreens (ME)	3	100	300
Area "E"	Medium Evergreens (ME)	4	100	400
Area "F"	Large Deciduous (LD)	3	200	600
Area "F"	Large Evergreens (LE)	6	200	1200
Area "F"	Medium Evergreens (ME)	21	100	2100
Area "F"	Evergreen Shrubs	81		
Area "I"	Large Deciduous (LD)	1	200	200
Area "I"	Large Evergreens (LE)	2	200	400
Area "I"	Medium Evergreens (ME)	8	100	800
Area "I"	Evergreen Shrubs	81		
Area "J"	Large Evergreens (LE)	2	200	400
Area "J"	Medium Evergreens (ME)	9	100	900
Area "J"	Evergreen Shrubs	36		
Parking Lot Landscaping	Large Deciduous (LD)	21	200	4200
Supplemental Planting on Driving Aisle	Large Deciduous (LD)	12	200	2400
Total Area of Trees Planted				16600

COMBINED NUMBER OF LANDSCAPING TREES & SHRUBS

Plant Type	Plant Size	Total Number	Area / tree (SF)	Combined Area (SF)
Large Deciduous (LD)	2"-2-1/2" Cal.	37	200	7400
Large Evergreens (LE)	6' (Min.) Height	12	200	2400
Medium Evergreens (ME)	6' (Min.) Height	68	100	6800
Evergreen Shrubs	3 Gal. Containers	327	0	0
Total Area of Trees Planted				16600

LEGEND

- 458 SF — EXISTING TREE AREA TO BE PRESERVED
- TP — TREE PRESERVATION & PROTECTION STD. & SPEC. 3.38 (SEE SHEET 10)
- RP — ROOT PRUNING (SEE SHEET 10)
- 15' MULCH STRIP (SEE SHEET 10)



This plan was prepared by Donald E. Zimar, Maryland Registered Forester #377, ISA Certified Arborist MA-0039, ISA Certified Tree Risk Assessor #758, ASCA RCA #446, Maryland Licensed Tree Expert #587.

Zimar & Associates, Inc.
ARBORICULTURE FORESTRY CONSULTING
10105 Residency Road, Suite 207
Manassas, Virginia 20110
Tel (703) 331-3731 Fax (703) 331-1359

10 Year Canopy Exhibit Key

Tree Canopy to be preserved	207,348	sq.ft.
Tree Canopy to be removed	168,627	sq.ft.
Total	375,975	sq. ft.

LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING LAND PLANNING SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
phone: 703-591-5800
www.landdevelopmentconsultants.com

REUSE OF DOCUMENTS
THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE. THE PLANS 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 ORGANIZATION WITHOUT WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
©LAND DEVELOPMENT CONSULTANTS, INC.

TREE PRESERVATION PLAN
SPECIAL PERMIT AMENDMENT PLAT
SAINT AMBROSE PARISH

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MANGANELLO
Lic. No.20732
10/16/15
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISION
4	10/16/15	STAFF COMMENTS
3	7/29/15	STAFF COMMENTS
2	6/08/15	STAFF COMMENTS
1	3/25/15	APPLICATION ACCEPTANCE

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.07
SCALE: 1"=50'
DATE: JANUARY 27, 2015
SHEET: 8 OF 16

F:\PROJECTS\10817.07 - St Ambrose Parish-Master Plan\DWG\Special Permit Plat

Tag #	Species	Size	**TRZ	***Condition	Canopy Position	Live Crown Ratio	Crown Density	Problems	Status	Activities										Comments
		*DBH (in.)	R (ft.)	%	%		%			Hand Remove	Grind Stump	Root Prune	Mulch	Fertilize	Prune	Cut Vines	Treat Pests	Cambistat	Cable	
201	Red Oak	24	24	70	codominant	75	n/a	large deadwood	Remove											
202	White Oak	14	14	65	codominant	55	n/a		Remove											
203	White Oak	19	19	70	codominant	65	n/a		Remove											
204	Red Oak	20	20	70	codominant	60	n/a		Remove											
205	Red Oak	19	19	70	codominant	65	n/a		Remove											
206	Red Oak	25	25	70	codominant	65	n/a		Remove											
207	Red Oak	20	20	70	codominant	60	n/a		Remove											
208	White Oak	18	18	75	codominant	65	n/a		Remove											
209	Red Oak	17	17	70	codominant	65	n/a		preserve			X								off site
210	tulip poplar	28	28	75	codominant	75	n/a		preserve			X								off site
211	tulip poplar	18	18	70	codominant	65	n/a		preserve			X								off site
212	Red Oak	15	15	0	codominant	0	n/a	Signs of trunk decay	Remove	X										
213	tulip poplar	14	14	70	codominant	70	n/a		Remove	X										
214	Red Oak	17	17	75	codominant	70	n/a		preserve			X								off site
216	White Oak	18	18	70	codominant	65	n/a		Remove	X										
217	Red Oak	18, 20	18, 20	70	codominant	60	n/a		preserve											off site
218	Red Oak	16	16	65	codominant	60	n/a		Remove											
219	White Oak	15	15	60	codominant	55	n/a		Remove											
220	White Oak	13	13	70	codominant	70	n/a		Remove	X										
221	tulip poplar	31	31	60	codominant	65	n/a	Hollow trunk and offsite	preserve			X								off site
222	White Oak	24	24	80	dominant	75	n/a		Remove	X										
223	Silver Maple	12	12	65	codominant	65	n/a		preserve			X								off site
224	Silver Maple	12,13	12,13	70	Intermediate	70	n/a		Remove											
225	White Oak	13,14	13,14	65	codominant	60	n/a		Remove											
226	White Oak	22	22	75	dominant	70	n/a		Remove											
227	tulip poplar	13	13	70	codominant	70	n/a		Remove											
228	Red Oak	13	13	70	codominant	65	n/a		Remove											
229	Red Oak	20	20	65	codominant	65	n/a		Remove											
230	Red Oak	17	17	70	codominant	65	n/a		Remove											
231	Red Oak	18	18	70	codominant	65	n/a		Remove											Off site in road right of way
232	Red Oak	16	16	65	codominant	65	n/a		Remove											Off site in road right of way
233	Red Oak	16	16	65	codominant	65	n/a		Remove	X	X									Off site in road right of way
234	Red Oak	21	21	70	codominant	70	n/a		preserve											Off site in road right of way
235	Red Oak	11	11	70	codominant	60	n/a		preserve											Off site in road right of way
236	Red Oak	21	21	70	codominant	60	n/a		preserve											Off site in road right of way
237	Red Oak	23	23	60	codominant	65	n/a	Hollow trunk	preserve											Off site in road right of way
238	tulip poplar	14	14	60	Intermediate	55	n/a		preserve											Off site in road right of way
239	Red Oak	16	16	70	Intermediate	65	n/a		preserve			X	X							Off site in road right of way
240	Red oak	11	11	70	codominant	70	n/a		Remove											
241	Red Oak	18	18	65	codominant	65	n/a		preserve			X	X							
242	Red Oak	14	14	70	codominant	60	n/a	#1348	preserve			X	X							
243	Red Oak	13	13	70	codominant	65	n/a		preserve											
244	White Oak	11	11	75	Intermediate	70	n/a	#1343	preserve											
245	tulip poplar	12	12	70	codominant	55	n/a	#1342	preserve											
246	tulip poplar	23	23	75	dominant	70	n/a		preserve											
247	Red Oak	13	13	65	codominant	65	n/a	#1339	preserve											
248	Red Oak	14	14	65	codominant	65	n/a	#1338	preserve											
250	tulip poplar	16	16	65	Intermediate	55	n/a	#1337	preserve			X	X							
249	White Oak	20,18	20,18	75	Intermediate	70	n/a	#1325	preserve			X	X							
251	tulip poplar	19	19	65	codominant	65	n/a	#1326	preserve			X	X							
253	tulip poplar	28	28	60	dominant	60	n/a	Hollow trunk #1330	Remove	X										
252	tulip poplar	24	24	70	dominant	65	n/a	#1328	preserve			X	X							
254	Red Oak	17	17	70	Intermediate	60	n/a	#1320	Remove	X										
255	tulip poplar	25	25	70	dominant	65	n/a		preserve			X	X							
256	Red Oak	19	19	0	codominant	0	n/a	Trunk wounds	preserve			X	X							
257	tulip poplar	26	26	75	dominant	65	n/a		preserve			X	X							
259	Red Oak	12	12	60	codominant	65	n/a	#1283	preserve			X	X							
258	White Oak	13	13	65	codominant	60	n/a	#1284	preserve			X	X							
260	Red Oak	22	22	70	codominant	70	n/a		preserve			X	X							
261	Silver Maple	13,6	13,6	75	codominant	75	n/a	#1265	preserve			X	X							
262	Silver Maple	12	12	70	codominant	70	n/a	#1266	preserve			X	X							
263	tulip poplar	36	36	75	dominant	65	n/a	#1231	Remove											
264	White Oak	15	15	65	codominant	70	n/a	#1230	Remove											
265	White Oak	13	13	70	Intermediate	75	n/a	#1267	preserve			X	X							
266	Red Oak	14	14	75	Intermediate	70	n/a	#1275	preserve			X	X							
267	Red Oak	20	20	70	Intermediate	70	n/a	#1223	Remove											
268	tulip poplar	19	19	70	dominant	65	n/a		Remove											
269	Red Oak	16	16	75	Intermediate	70	n/a	#1651	Remove	X										
270	Red Oak	15	15	70	Intermediate	70	n/a	#1650	Remove			X	X							
271	Red Oak	14	14	65	codominant	55	n/a		Remove			X	X							
272	Red Oak	18	18	70	codominant	65	n/a	#1655	Remove											
273	Red Oak	13	13	65	codominant	65	n/a	#1656	Remove	X										
274	Red Oak	12	12	70	codominant	65	n/a		Remove			X	X							
275	Red Oak	13	13	65	Intermediate	65	n/a	#1657	Remove											
276	Red Oak	14	14	70	codominant	70	n/a	#1642	Remove											
277	Red Oak	20	20	65	Intermediate	65	n/a	#1631	Remove											
278	Red Oak	13	13	75	codominant	65	n/a	#1632	Remove											
279	White Oak	16	16	75	Intermediate	60	n/a	#1633	preserve			X	X							
280	Red Oak	13	13	65	codominant	65	n/a	#1623	preserve			X	X							
281	Red Oak	14	14	70	Intermediate	65	n/a	#1614	preserve			X	X							
282	Red Oak	13	13	70	codominant	65	n/a	#1615	preserve			X	X							
283	Red Oak	24	24	70	dominant	60	n/a	#1616	preserve			X	X							
284	tulip poplar	27	27	75	dominant	65	n/a	#1612	preserve			X	X							
285	Red Oak	16	16	70	Intermediate	70	n/a		Remove											
286	tulip poplar	13	13	65	codominant	60	n/a	#1610	Remove											
287	tulip poplar	20	20	70	dominant	65	n/a	#1605	Remove											
288	Red Oak	22	22	70	Intermediate	70	n/a	#1604	Remove											
289	White Oak	15	15	75	Intermediate	70	n/a	#1592	preserve			X	X							
290	White Oak	12,13	12,13	75	codominant	75	n/a	#1504	Remove	X										
291	White Oak	14	14	70	Intermediate	70	n/a		preserve			X	X							
292	Red Oak	20	20	60	Intermediate	65	n/a	#1505	Remove	X										
293	White Oak	17	17	70	Intermediate	65	n/a	#1506	Remove											
294	tulip poplar	15	15	65	codominant	55	n/a	#1502	preserve			X	X							
295	White Oak	18	18	70	Intermediate	70	n/a	#1501	preserve											
296	Silver Maple	13	13	70	codominant	65	n/a	#1500	preserve			X	X							
297	White Oak	21	21	75	dominant	70	n/a	#1499	preserve			X	X							
298	White Oak	17	17	70	codominant	70	n/a	#1498	Remove	X										
299	Red Oak	15	15	75	codominant	70	n/a	#1497	Remove	X										
300	Red Oak	18	18	75	Intermediate	70	n/a	#944	preserve			X	X							

Tag #	Species	Size	**TRZ	***Condition	Canopy Position	Live Crown Ratio	Crown Density	Problems	Status	Activities										Comments
		*DBH (in.)	R (ft.)	%	%		%			Hand Remove	Grind Stump	Root Prune	Mulch	Fertilize	Prune	Cut Vines	Treat Pests	Cambistat	Cable	
68	white oak	13	13	70	codominant	65	n/a		Remove			X	X							
69	white oak	12,11	12,11	70	codominant	65	n/a		preserve			X	X							
70	white oak	17	17	65	Intermediate	65	n/a		Remove											
71	tulip poplar	19	19	70	codominant	60	n/a		Remove											
72	tulip poplar	13	13	65	codominant	66	n/a		Remove	X										
73	red oak	15	15	55	codominant	55	n/a		Remove											
74	white oak	17	17	70	codominant	70	n/a		Remove	X										
75	white oak	15	15	70	codominant	75	n/a		Remove											
76	Bradford pear	16	16	75	isolated	75	n/a		Remove											
77	Bradford pear	16	16	75	isolated	75	n/a		Remove											
78	Bradford pear	16	16	75	isolated	75	n/a		Remove											
79	Bradford pear	16	16	75	isolated	75	n/a		Remove											
80	Red Oak	12	12	70	codominant	70	n/a	#1221	Remove											
81	red oak	12	12	70	codominant	65	n/a	#1220	Remove											
82	red oak	17	17	75	Intermediate	70	n/a		preserve			X	X							
83	tulip poplar	27	27	70	Intermediate	65	n/a		Remove											
84	red oak	14	14	70	codominant	65	n/a		Remove											
85	tulip poplar	29	29	65	dominant	65	n/a		preserve											
86	Red Oak	13	13	65	codominant	60	n/a		preserve			X	X							
87	Red Oak	12	12	70	codominant	60	n/a		preserve			X	X							
88	Red Oak	17	17	60	codominant	55	n/a		preserve			X	X							
89	white oak	14	14	70	Intermediate	70	n/a		preserve			X	X							
90	Red Oak	27	27	75	Intermediate	70	n/a		Remove			X	X							
91	white oak oak	14	14	70	codominant	70	n/a		Remove			X	X							
92	Red Maple	13	13	70	codominant	70	n/a		Remove	X										
93	Red Oak	18	18	70	codominant	65	n/a		Remove											
94	White oak	12	12	75	Intermediate	70	n/a	#1722	Remove											
95	Red Oak	15	15	75	Intermediate	p	r		Remove											
96	Red Oak	13	13	70	codominant	65	n/a		Remove											
97	Red Oak	12	12	75	codominant	65	n/a		Remove											
98	Red Oak	18	18	75	Intermediate	65	n/a		Remove											

Inventory data collectected by Donald E. Zimar: Certified Arborist MA-0039, RCA #446

**DBH = Diameter at Breast Height (measured 4.5 feet above ground)

**TRZ = Typical Root Zone (1 foot of radius per inch of tree diameter)

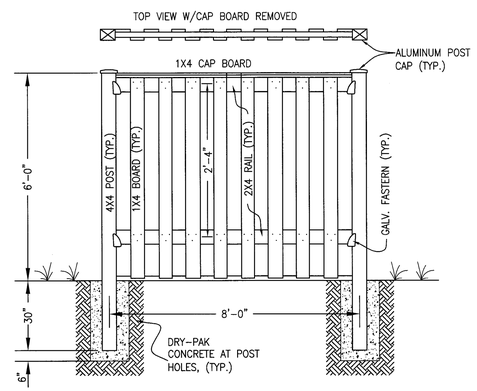
***Condition ratings provided as percentages based on methods outlined in the latest edition of the Guide for Plant Appraisal, published by the International Society of Arboriculture

TRZ for trees with multiple stems were calculated based on the diameter of a tree with the basal area equivalent to sum of the basal areas for all stems measured

Cable = # is number of recommended cables. Final determinatiion to arborist doing work

H= Hand Removal

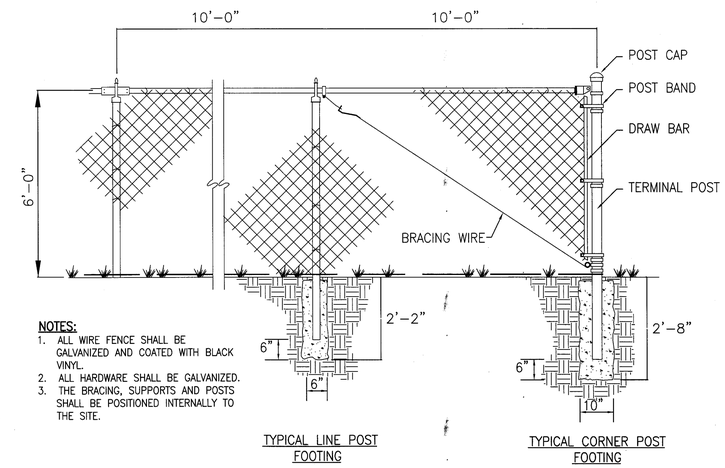
C = Crown cleaning by pruning dead, diseased, detached, and broken branches 2 inches in diameter and larger as close to the point of origin possible without cutting into branch collar tissue.



NOTES:
1. ALL LUMBER SHALL BE PRESSURE TREATED #2 OR BETTER, OR COMPOSITE, OR MANMADE MATERIALS THAT ARE EARTH TONES AND LOOK LIKE WOOD.
2. ALL NAILS & FASTNERS SHALL BE GALV. STEEL.
3. ALL POST SHALL BE SET PLUMB AND BE (8') EIGHT FEET O-C.
4. MEASUREMENTS SHOWN ABOVE ARE NOMINAL DIMENSIONS IN ENGLISH UNITS (INCHES).

BOARD ON BOARD TYPE "F" FENCE DETAIL

NOT TO SCALE



NOTES:
1. ALL WIRE FENCE SHALL BE GALVANIZED AND COATED WITH BLACK VINYL.
2. ALL HARDWARE SHALL BE GALVANIZED.
3. THE BRACING, SUPPORTS AND POSTS SHALL BE POSITIONED INTERNALLY TO THE SITE.

CHAIN LINK / BARRIER TYPE "G" FENCE DETAIL
FOR USE ALONG PORTIONS OF PERIMETER BOUNDARY

NOT TO SCALE

NOTES FOR THE INSTALLATION OF FENCING

1. PRIOR TO INSTALLATION OF FENCING THE SUPERVISING ARBORIST FOR THE OWNER SHALL MEET IN THE FIELD WITH A REPRESENTATIVE FROM FAIRFAX COUNTY URBAN FORESTRY TO DETERMINE THE BEST LOCATION FOR THE PROPOSED FENCING TO MINIMIZE IMPACT TO EXISTING TREES.
2. INSTALLATION OF THE PROPOSED FENCE SHALL BE GENERALLY ALONG THE PROPERTY LINE; HOWEVER, THE FENCES LOCATION SHALL BE VARIED TO AVOID DAMAGE AND SAVE EXISTING TREES.
3. INSTALLATION OF FENCING AND TRANSPORTING OF FENCING MATERIAL SHALL BE BY HAND TO LIMIT IMPACT TO EXISTING VEGETATION AND AVOID DAMAGE TO THE CRITICAL ROOT ZONE OF EXISTING TREES.
4. FENCING AND FENCE SUPPORTS AND BRACES SHALL NOT BE ATTACHED TO TREES.

This plan was prepared by Donald E. Zimar, Maryland Registered Forester #377, ISA Certified Arborist MA-0039, ISA Certified Tree Risk Assessor #758, ASCA RCA #446, Maryland Licensed Tree Expert #587.

Zimar & Associates, Inc.
ARBORICULTURE FORESTRY CONSULTING
10185 Residency Road, Suite 207
Manassas, Virgina 20110
Tel (703) 331-3731 Fax (703) 331-1359

LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING LAND PLANNING SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
phone: 703·591·5800
www.landdevelopmentconsultants.com

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 REPRODUCED OR USED, IN WHOLE OR IN PART BY ANY PROCESS, WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
©LAND DEVELOPMENT CONSULTANTS, INC.

TREE INVENTORY

SPECIAL PERMIT AMENDMENT PLAT
SAINT AMBROSE PARISH

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MANGANELLO
Lic. No.20732
10/16/15
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISION
4	10/16/15	STAFF COMMENTS
3	7/29/15	STAFF COMMENTS
2	6/08/15	STAFF COMMENTS
1	3/25/15	APPLICATION ACCEPTANCE

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.07
SCALE: N/A
DATE: JANUARY 27, 2015
SHEET: 9 OF 16

F:\PROJECTS\10817.07 - St Ambrose Parish-Master Plan\DWG\Special Permit Plat

TREE PRESERVATION NOTES

1. ALL WORK PERFORMED SHALL MEET OR EXCEED INDUSTRY STANDARDS AS MOST RECENTLY PUBLISHED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), OR THE TREE CARE INDUSTRY ASSOCIATION (TCIA). IN THE EVENT TREATMENTS PRESCRIBED ARE NOT COVERED BY AN EXISTING STANDARD, WORK SHALL MEET OR EXCEED STANDARDS APPROVED BY FAIRFAX URBAN FOREST MANAGEMENT (FFX–UFM).

2. A PROFESSIONAL ISA CERTIFIED ARBORIST SHALL BE OBTAINED TO ENSURE THE PROPER IMPLEMENTATION OF THE TREE PRESERVATION PLAN AS THE "PROJECT ARBORIST".

3. ALL TREE PRESERVATION RELATED WORK OCCURRING IN OR ADJACENT TO TREE PRESERVATION AREAS SUCH AS ROOT PRUNING, INSTALLATION OF TREE PROTECTION FENCING AND SILT CONTROL DEVICES; REMOVAL OF TRASH AND DEBRIS; OR EXTRACTION OF TREES DESIGNATED TO BE REMOVED TO ELIMINATE HAZARDOUS CONDITIONS SHALL BE PERFORMED INA MANNER THAT MINIMIZES DAMAGE TO TREES, UNDERSTORY SHRUBS, HERBACEOUS PLANTS, LEAF LITTER, ROOT SYSTEMS AND SOIL CONDITIONS, REMOVAL OF ANY VEGETATION OR SOIL DISTURBANCE IN TREE PRESERVATION AREAS. THIS SHALL INCLUDE REMOVAL OF PLANT SPECIES THAT MAY BE PERCEIVED AS NOXIOUS OR INVASIVE, SUCH AS POISON IVY, GREENBRIER, MULTI–FLORAL ROSE, MILE–A–MINUTE, GARLIC MUSTARD, PERIWINKLE, VINCA, AND PACASANDRA WITHIN THE UPLAND FOREST AND AUTUMN OLIVE AND MULTI–FLORA ROSE WITHIN THE EARLY SUCCESSIONAL FOREST COMMUNITY SHALL BE PROHIBITED SUBJECT TO THE REVIEW AND APPROVAL BY FAIRFAX COUNTY OFFICE OF URBAN FOREST MANAGEMENT. THE USE OF EQUIPMENT IN TREE PRESERVATION AREAS WILL BE LIMITED TO HAND–OPERATED EQUIPMENT, SUCH AS CHAINSAW, WHEEL BARROWS, RAKE AND SHOVELS, ANY WORK THAT REQUIRES THE USE OF EQUIPMENT, SUCH AS SKID LOADERS, TRACTORS, TRUCKS, STUMP–GRINDERS, ETC., OR ANY ACCESSORY OR ATTACHMENT CONNECTED TO THIS TYPE OF EQUIPMENT SHALL BE PROHIBITED SUBJECT TO REVIEW AND APPROVAL BY FAIRFAX COUNTY URBAN FOREST MANAGEMENT.

4. TREES DESIGNATED IN THE APPROVED TREE CONSERVATION PLAN FOR "HAND REMOVAL" ALONG THE LIMITS OF DISTURBANCE SHALL BE REMOVED USING A CHAINSAW AS TO AVOID DAMAGE TO SURROUNDING TREES AND UNDERSTORY VEGETATION TO BE PRESERVED. IF A STUMP MUST BE REMOVED, THIS SHALL BE DONE USING A STUMP–GRINDING MACHINE IN A MANNER THAT CAUSES AS LITTLE DISTURBANCE AS POSSIBLE TO ADJACENT TREES, VEGETATION AND SOIL CONDITIONS. PROJECT ARBORIST SHALL BE ON–SITE TO MONITOR ALL STUMP GRINDING OPERATIONS.

5. ROOT PRUNING SHALL BE PERFORMED AS NEEDED TO COMPLY WITH THE REQUIREMENTS OF THE APPROVED TREE CONSERVATION PLAN. ALL TREATMENTS SHALL BE CLEARLY IDENTIFIED, LABELED, AND DETAILED ON THE EROSION AND SEDIMENT CONTROL SHEETS OF THE RESPECTIVE PUBLIC IMPROVEMENT/SITE PLAN SUBMISSION. THE DETAILS FOR THESE TREATMENTS SHALL BE REVIEWED AND APPROVED BY FFX–UFM, ACCOMPLISHED IN A MANNER THAT PROTECTS AFFECTED AND ADJACENT VEGETATION TO BE PRESERVED, AND MAY INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

- ROOT PRUNING SHALL BE DONE WITH A TRENCHER OR VIBRATORY PLOW TO A DEPTH OF 18 INCHES.
- ROOT PRUNING SHALL TAKE PLACE PRIOR TO ANY CLEARING AND GRADING.
- PROJECT ARBORIST SHALL BE ON–SITE TO MONITOR ALL ROOT PRUNING OPERATIONS.

6. MULCHING – FOLLOWING PHASE II E&S ACTIVITIES, TREES INDICATED FOR MULCHING IN THE APPROVED TREE CONSERVATION PLAN SHALL BE MULCHED. HARDWOOD CHIPS OR SHREDDED MULCH SHALL BE APPLIED AT A MAXIMUM DEPTH OF 4 INCHES AND ONLY WITHIN 10 FEET OF THE LIMITS OF DISTURBANCE.
DISTRIBUTION OF CHIPS:

- HEAVY EQUIPMENT IS PROHIBITED FROM ENTERING THE TREE PRESERVATION AREA(S) TO DISTRIBUTE MULCH.
- HEAVY EQUIPMENT MAY BE USED TO DISTRUBUTE CHIPS OVER TREE PROTECTION FENCING AT "DISTRIBUTION LOCATIONS" DETERMINED BY "PROJECT ARBORIST".
- DISTRIBUTION LOCATIONS SHALL BE FIELD LOCATED BY "PROJECT ARBORIST". LOCATIONS SHALL BE CHOSEN TO MINIMIZE DAMAGE TO EXISITNG OVERSTORY AND UNDERSTORY VEGETATION TO BE PRESERVED.
- DURING DISTRIBUTION OF MULCH "PROJECT ARBORIST" SHALL BE ON–SITE TO MONITOR OPERATIONS.
- MULCH SHALL BE SPREAD BY HAND INSIDE TREE PRESERVATION AREAS.
- HARDWOOD CHIPS OR SHREDDED MULCH FROM SITE CLEARING OPERATION SHOULD BE USED WHERE POSSIBLE.

7. ALL CONSTRUCTION ACTIVITY BEYOND THE LIMITS OF DISTURBANCE SHOWN ON THE TREE CONSERVATION PLAN SHALL BE PROHIBITED UNLESS PREVIOUSLY APPROVED. THE STORAGE OF EQUIPMENT, MATERIALS, CHEMICALS, AND DEBRIS AS WELL AS VEHICULAR TRAFFIC OR THE PARKING OF VEHICLES SHALL NOT BE PERMITTED WITHIN TREE PRESERVATION AREAS.

8. IF REQUIRED BY THE SITE IMPSECTOR AT THE TIME OF PRE–CONSTRUCTION MEETING, THE SERVICES OF THE "PROJECT ARBORIST" OR LANDSCAPE ARCHITECT SHALL BE RETAINED TO HAVE THE LIMITS OF CLEARING AND GRADING IN THE AREAS OF TREE PRESERVATION MARKED WITH A CONTINUOUS LINE OF FLAGGING PRIOR TO THE PRECONSTRUCTION MEETING WITH THE FFX–UFM TO BE HELD PRIOR TO ANY CLEARING AND GRADING. DURING THE PRECONSTRUCTION MEETING, THE "PROJECT ARBORIST" OR LANDSCAPE ARCHITECT SHALL WALK SUCH LIMITS OF CLEARING AND GRADING WITH AN FFX–UFM REPRESENTATIVE TO DETERMINE WHERE ADJUSTMENTS TO THE CLEARING LIMITS CAN BE MADE TO INCREASE THE AREA OF TREE PRESERVATION AND/OR TO INCREASE THE SURVIVABILITY OF TREES AT THE EDGE OF THE LIMITS OF CLEARING AND GRADING, AND SUCH ADJUSTMENT SHALL BE IMPLEMENTED; PROVIDED, HOWEVER, THAT NO ADJUSTMENT SHALL BE REQUIRED THAT WOULD AFFECT THE LOCATION AND/OR DESIGN OF THE DEVELOPMENT.

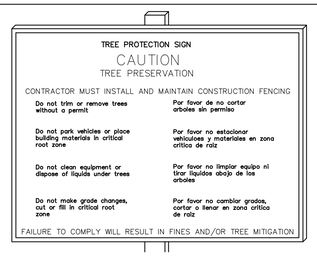
9. TREES LOCATED OUTSIDE OF THE LIMITS OF CLEARING AND WITHIN AREAS DESIGNATED TO BE PRESERVED THAT HAVE BEEN PRE–IDENTIFIED ON APPROVED TREE PRESERVATION PLANS AS "DEAD", "POOR CONDITION" OR "POTENTIAL HAZARD" SHALL BE EVALUATED BY URBAN FOREST MANAGEMENT DIVISION STAFF (OR ALTERNATIVE STAFF AS DETERMINED BY THE DIRECTOR) DURING THE PRE–CONSTRUCTION WALK–THROUGH FOR REMOVAL DURING THE DEVELOPMENT SITE'S INITIAL LAND CLEARING OPERATIONS.
IF DURING THE PRECONSTRUCTION WALK–THROUGH, OR DURING ANY OTHER INSPECTION OF THE SITE, THE DIRECTOR IDENTIFIES ADDITIONAL TREES THAT HAVE BECOME HAZARDOUS OR A MAINTENANCE NUISANCE DUE TO THE INTRODUCTION OF A TARGET SUCH AS A STURCTURE, OPEN SPACE FREQUENTED BY PEOPLE, OR OTHER IMPROVEMENT, REMOVAL OF THESE TREES SHALL BE REQUIRED. TREES SHALL BE REMOVED BY HAND WITH A CHAIN SAW AND THE STUMP SHALL BE LEFT IN PLACE UNLESS IT TOO IS DEEMED A HAZARD OR A MAINTENANCE NUISANCE. REMOVAL SHALL BE ACCOMPLISHED IN A MANNER THAT AVOIDS DAMAGE TO SURROUNDING TREES AND ASSOCIATED UNDERSTORY VEGETATION. THE REMOVAL OF THE TRUNK OR BRANCHES OF THE FELLED TREE(S) IS NOT REQUIRED WITHIN WOODED AREAS, UNLESS SPECIFICALLY REQUIRED BY THE DIRECTOR.

10. DURING ANY CLEARING OR TREE/VEGETATION REMOVAL IN THE AREAS ADJACENT TO THE TREE PRESERVATION AREAS, A REPRESENTATIVE OF THE DEVELOPER SHALL BE PRESENT TO MONITOR THE PROCESS AND ENSURE THAT THE ACTIVITIES ARE CONDUCTED AS CONDITIONED AND APPROVED BY UFM. THE SERVICES OF THE "PROJECT ARBORIST" OR LANDSCAPE ARCHITECT SHALL BE RETAINED TO MONITOR ALL ON–SITE CONSTRUCTION AND DEMOLITION WORK AND TREE PRESERVATION EFFORTS IN ORDER TO ENSURE CONFORMANCE WITH ALL TREE PRESERVATION CONDITIONS, AND UFM APPROVALS. SEE ARBORIST MONITORING SCHEDULE FOR DETAIL.

11. ALL TREES SHOWN TO BE PRESERVED ON THE TREE PRESERVATION PLAN SHALL BE PROTECTED BY TREE PROTECTION FENCE. TREE PROTECTION FENCING IN THE FORM OF FOUR (4) FOOT HIGH, FOURTEEN (14) GAUGE WELDED WIRE ATTACHED TO SIX (6) FOOT STEEL POSTS DRIVEN EIGHTEEN (18) INCHES INTO THE GROUND AND PLACED NO FURTHER THAN TEN (10) FEET APART OR, SUPER SILT FENCE TO THE EXTENT THAT REQUIRED TRENCHING FOR SUPER SILT FENCE DOES NOT SEVER OR WOUND COMPRESSION ROOTS WHICH CAN LEAD TO STRUCTURAL FAILURE AND/OR UPROOTING OF TREES, SHALL BE ERECTED AT THE LIMITS OF CLEARING AND GRADING ADJACENT TO THE TREE PRESERVATION AREAS AS SHOWN ON THE PHASE I & II EROSION AND SEDIMENT CONTROL SHEETS.

12. SIGNS STATING "TREE PRESERVATION AREA – KEEP OUT" SHALL BE AFFIXED TO THE TREE PRESERVATION FENCE AT LEAST EVERY 50 FEET. SIGNS SHALL ALTERNATE BETWEEN ENGLISH AND SPANISH.

13. POOR CONDITION TREES. TREES DESIGNATED POOR CONDITON IN THE APPROVED TREE CONSERVATION PLAN ARE SUBJECT TO ADDITIONAL INSPECTION, REMOVAL, PRUNING OR OTHER ARBORICUTURAL PRACTICES AT TIME OF INITIAL LAND CLEARING PHASE.



THE PERMITEE SHALL POST AND MAINTAIN BILINGUAL SIGNS AT THE LIMITS OF CLEARING AT A MINIMUM OF 50 FOOT (50.2–METTER) INTERVALS THAT CLEALY STATES THAT TREES AND FORESTED AREAS MUST BE PROTECTED AND LEFT UNDISTURBED. FOR EXAMPLE, SUCH SIGNAGE COULD READ "TREE PROTECTION ZONE – KEEP OUT – OFF LIMITS TO CONSTRUCTION EQUIPMENT, MATERIALS AND WORKERS." SIGNS SHALL BE POSTED IN ENGLISH AND SPANISH; OR, SHALL BE POSTED IN ANY OTHER COMBINATION OF LANGUAGES THAT THE DIRECTOR DETERMINES NECESSARY TO PROTECT TREES AND FORESTED AREAS. SIGNS SHALL REMAIN POSTED THROUGHOUT ALL PHASES OF CONSTRUCTION; SHALL BE ATTACHED TO THE TREE PROTECTION FENCING; AND, SHALL NOT BE NAILED OR IN ANY MANNER ATTACHED TO TREES OR VEGETATION TO BE PRESERVED.

TREE CONSERVATION PLAN – PHASING

PRE–CONSTRUCTION

1.) PRIOR TO THE PRE–CONSTRUCTION MEETING THE LIMITS OF CLEARING SHALL BE FLAGGED ON SITE.
2.) AREAS SHOW ON THE APPROVED PLANS TO BE PRESERVED THAT DO NOT CONTAIN SIGNIFICANT VEGETATION SHALL BE REVIEWD ON SITE. IF WARRANTED, APPROVAL FROM THE DIRECTOR FOR AN EXCEMPTION FROM PRESERVATION AND PROTECTION REQUIREMENTS SHALL BE DETERMINED AT THIS TIME.
3.) TREES LOCATED OUTSIDE OF THE LIMITS OF CLEARING AND WITHIN AREAS DESIGNATED TO BE PRESERVED THAT HAVE BEEN PRE–IDENTIFIED ON APPROVED TREE PRESERVATION PLANS AS "DEAD", "POOR CONDITION" OR "POTENTIAL HAZARD" SHALL BE EVALUATED BY URBAN FOREST MANAGEMENT DIVISION STAFF (OR ALTERNATIVE STAFF AS DETERMINED BY THE DIRECTOR) DURING THE PRE–CONSTRUCTION WALK–THROUGH FOR REMOVAL DURING THE DEVELOPMENT SITE'S INITIAL LAND CLEARING OPERATIONS.
4.) IF DURING THE PRECONSTRUCTION WALK–THROUGH, OR DURING ANY OTHER INSPECTION OF THE SITE, THE DIRECTOR IDENTIFIES ADDITIONAL TREES THAT HAVE BECOME HAZARDOUS OR A MAINTENANCE NUISANCE DUE TO THE INTRODUCTION OF A TARGET SUCH AS A STURCTURE, OPEN SPACE FREQUENTED BY PEOPLE, OR OTHER IMPROVEMENT, REMOVAL OF THESE TREES SHALL BE REQUIRED. TREES SHALL BE REMOVED BY HAND WITH A CHAIN SAW AND THE STUMP SHALL BE LEFT IN PLACE UNLESS IT TOO IS DEEMED A HAZARD OR A MAINTENANCE NUISANCE. REMOVAL SHALL BE ACCOMPLISHED IN A MANNER THAT AVOIDS DAMAGE TO SURROUNDING TREES AND ASSOCIATED UNDERSTORY VEGETATION. THE REMOVAL OF THE TRUNK OR BRANCHES OF THE FELLED TREE(S) IS NOT REQUIRED WITHIN WOODED AREAS, UNLESS SPECIFICALLY REQUIRED BY THE DIRECTOR.
5.) IF DEMOLITION OF EXISTING SITE FEATURES IS TO OCCUR NEXT TO TREES TO BE PRESERVED, TREE PROTECTION MEASURES SHALL BE INSTALLED BEFORE A DEMOLITION PERMIT CAN BE ISSUED.

INITIAL LAND CLEARING OPERATIONS

1.) TREE PROTECTION DEVICES. THE ABOVE AND BELOW–GROUND PORTIONS OF ALL VEGETATION SHOWN ON APPROVED PLAN TO BE PRESERVED WITHIN AND CONTIGUOUS TO THE SITE SHALL BE PROTECTED. PROTECTION DEVICES SHALL BE INSTALLED PRIOR TO ANY CLEARING AND GRADING WITH HEAVY EQUIPMENT AS SPECIFIED IN THE APPROVED TREE CONSERVATION PLAN.
2.) ROOT PRUNING. PRIOR TO LAND DISTURBING ACTIVITES, ROOT PRUNING WITH A VIBRATORY PLOW, TRENCHER OR OTHER DEVICE APPROVED BY THE DIRECTOR SHALL BE CONDUCTED ALONG THE LIMITS OF CLEARING ADJACENT TO TREE PRESERVATION AREAS WHERE CALLED FOR IN THE APPROVED TREE CONSERVATION PLAN. (SEE TREE PRESERVATION NARRATIVE AND ROOT PRUNING DETAIL PROVIDED)
3.) TREES ON THE EDGE OF THE LIMITS OF CLEARING "HAND REMOVALS" SHALL BE CUT DOWN BY HAND WITH A CHAIN SAW. REMAINING STUMPS SHALL EITHER BE LEFT IN PLACE OR GROUND DOWN WITH A STUMP GRINDER.
4.) TREES APPROVED TO BE REMOVED BY URBAN FOREST MANAGEMENT STAFF DURING PRE–CONSTRUCTION WALK–THROUGH SHALL BE REMOVED IN CONJUNCTION WITH THE DEVELOPMENT SITE'S INITIAL LAND CLEARING OPERATION.
5.) ONCE CLEARING IS COMPLETED AND PROTECTIVE DEVICES INSTALLED ACCORDING TO THE APPROVED PHASE I EROSION AND SEDIMENT CONTROL PLAN, AN INSPECTION SHALL BE REQUESTED BY THE PERMITTEE. THE PHASE 1 CLEARING AND EROSION AND SEDIMENT CONTROL DEVICES SHALL BE APPROVED BY THE DIRECTOR BEFORE ADDITIONAL CLEARING BEGINS.

CONSTRUCTION PHASE

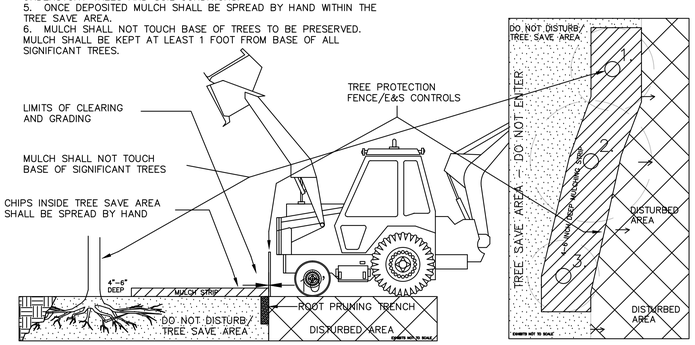
1.) TREES AND FORESTED AREAS SHALL BE PROTECTED AND MANAGED DURING ALL PHASES OF CONSTRUCTION IN ACCORDANCE WITH THE PROVISIONS AND SITE SPECIFIC GUIDANCE PROVIDED WITHIN THE APPROVED TREE CONSERVATION PLAN NARRATIVE.
2.) IN ADDITION TO PROTECTING TREES, THE PERMITTEE SHALL PROTECT ALL UNDERSTORY PLANTS, LEAF LITTER AND SOIL CONDITIONS FOUND IN THE FORESTED AREAS DESIGNATED FOR PRESERVATION EXCEPT AS ALLOWED BY THE APPROVED TREE CONSERVATION PLAN AND NARRATIVE.
3.) MONITORING: THE PERMITTEE SHALL ACTIVELY MONITOR THE CONSTRUCTION SITE TO ENSURE THAT INAPPROPRIATE ACTIVITES SUCH AS STORAGE OF CONSTRUCTION MATERIALS, DUMPING OF DEBRIS, AND TRAFFIC BY CONSTRUCTION EQUIPMENT AND PERSONEL DO NOT OCCUR WITHIN AREAS SHOWN PRESERVED OUTSIDE THE LIMITS OF CLEARING.
4.) TREE PROTECTION DEVICES SHALL BE MAINTAINED UNTIL ALL WORK IN THE VICINITY HAS BEEN COMPLETED AND SHALL NOT BE REMOVVED OR RELOCATED WITHOUT THE CONSENT OF THE DIRECTOR. IF THE DIRECTOR DEEMS THAT THE PROTECTIVE DEVICES ARE INSUFFICIENT, INSTALLTION OF ADDITIONAL PROTECTIVE DEVICES MAY BE REQUIRED.
5.) ANY DAMAGE INFLICTED TO THE ABOVE OR BELOW–GROUND PORTIONS OF THE TREES SHOWN TO BE PRESERVED SHALL BE REPAIRED IMMEDIATELY.
6.) ANY PORTION OF THE TREE PRESERVATION AREA THAT IS DISTURBED WITHOUT PRIOR APPROVAL OF THE DIRECTOR SHALL BE MULCHED IMMEDIATELY WITH A MINIMUM OF 4–INCHS OF WOOD CHIPS OR OTHER SUTIABLE MATERIAL AS APPROVED BY THE DIRECTOR OR TREE CONSERVATION PLAN NARRATIVE.

MULCH STRIP DETAIL

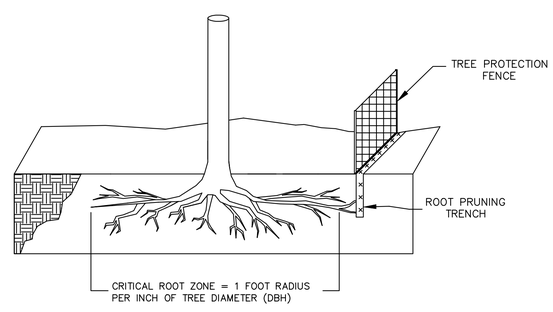
1. SHREDDED MULCH OR WOOD CHIPS SHALL BE INSTALLED IN DESIGNATED AREAS AT A DEPTH OF 4–6 INCHES IN A 10 FOOT STRIP EXTENDING FROM THE LIMIT OF THE CLEARING AND GRADING INTO THE TREE SAVE AREA.
2. HEAVY EQUIPMENT IS PROHIBITED FROM ENTERING THE TREE SAVE AREA TO DISTRIBUTE MULCH.
3. A LOADER OR SIMILAR OPERATING WITHIN THE LIMITS OF CLEAR AND GRADING MAY BE USED TO DUMP CHIPS OVER TREE PROTECTION FENCING AT LOCATIONS DETERMINED BY THE PROJECT ARBORIST.
4. MULCH DISTRIBUTION POINTS SHALL BE LOCATED AS TO MINIMIZE DAMAGE TO TREES TO BE PRESERVED, LOW HANGING BRANCHES, UNDERSTORY TREES AND SOIL CONDITIONS.
5. ONCE DEPOSITED MULCH SHALL BE SPREAD BY HAND WITHIN THE TREE SAVE AREA.
6. MULCH SHALL NOT TOUCH BASE OF TREES TO BE PRESERVED. MULCH SHALL BE KEPT AT LEAST 1 FOOT FROM BASE OF ALL SIGNIFICANT TREES.

This plan was prepared by Donald E. Zimar, Maryland Registered Forester #377, ISA Certified Arborist MA–0039, ISA Certified Tree Risk Assessor #758, ASCA RCA #446, Maryland Licensed Tree Expert #587.

Zimar & Associates, Inc.
ARBORICULTURE FORESTRY CONSULTING
10105 Residency Road, Suite 207
Manassas, Virgina 20110
Tel (703) 331-3731 Fax (703) 331-1359



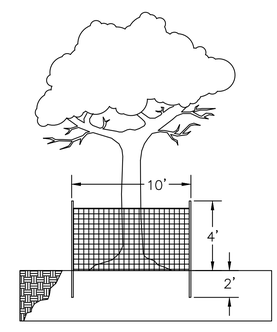
ROOT PRUNING DETAIL

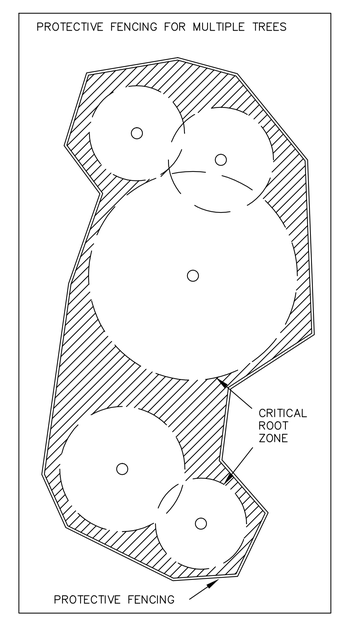


- TRENCH SHALL BE A MAXIMUM OF 6 INCHES WIDE
- TRENCH SHALL BE BETWEEN 18–24 INCHES DEEP
- TRENCH SHALL BE EXCAVATED USING AN AIR SPADE, VIBRATORY PLOW OR TRENCHER.
- TRENCH EXCAVATION SHALL BE IMMEDIATELY BACKFILLED.

TREE PROTECTION FENCE DETAIL

TREE PROTECTION FENCING SHALL CONSIST OF 4 FOOT 14–GUAGE WELDED WIRE FENCE ATTACHED TO 6 FOOT TALL T–POSTS DRIVEN 24 INCHES INTO THE GROUND. POSTS SHALL BE NO FURTHER THAN 10 FEET APART.





LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING LAND PLANNING SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
phone: 703·591·5800
www.landdevelopmentconsultants.com

REUSE OF DOCUMENTS
THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE AND SHALL NOT BE USED FOR 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.

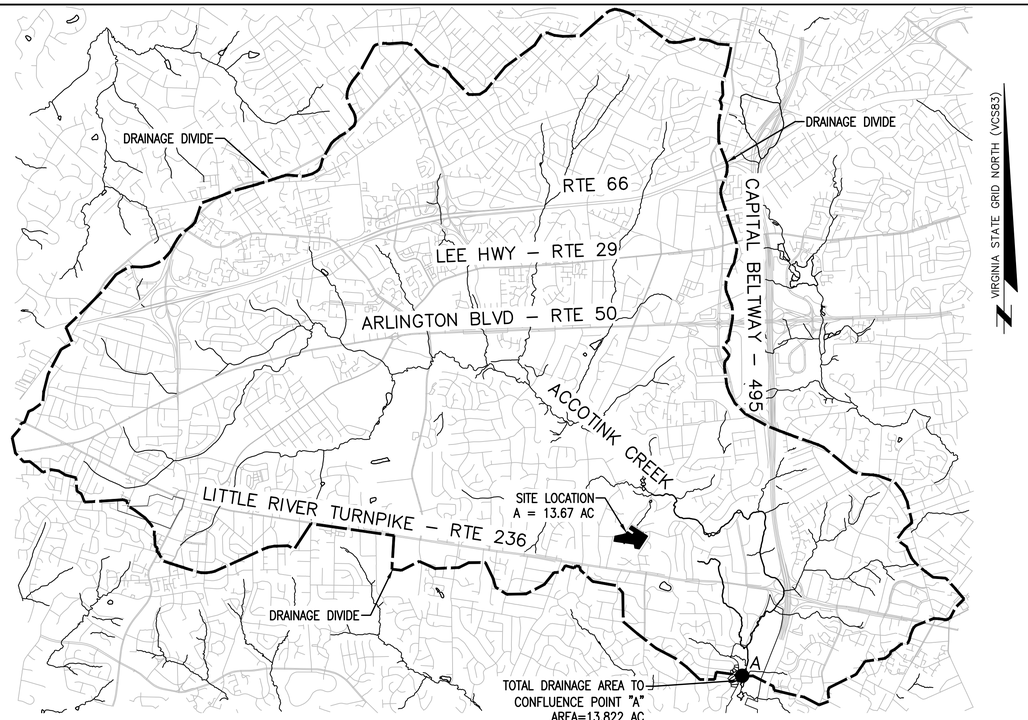
TREE PRESERVATION NARRATIVE & DETAILS
SPECIAL PERMIT AMENDMENT PLAT
SAINT AMBROSE PARISH
MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MANGANELLO
Lic. No.20732
10/16/15
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISION
4	10/16/15	STAFF COMMENTS
3	7/29/15	STAFF COMMENTS
2	6/08/15	STAFF COMMENTS
1	3/25/15	APPLICATION ACCEPTANCE

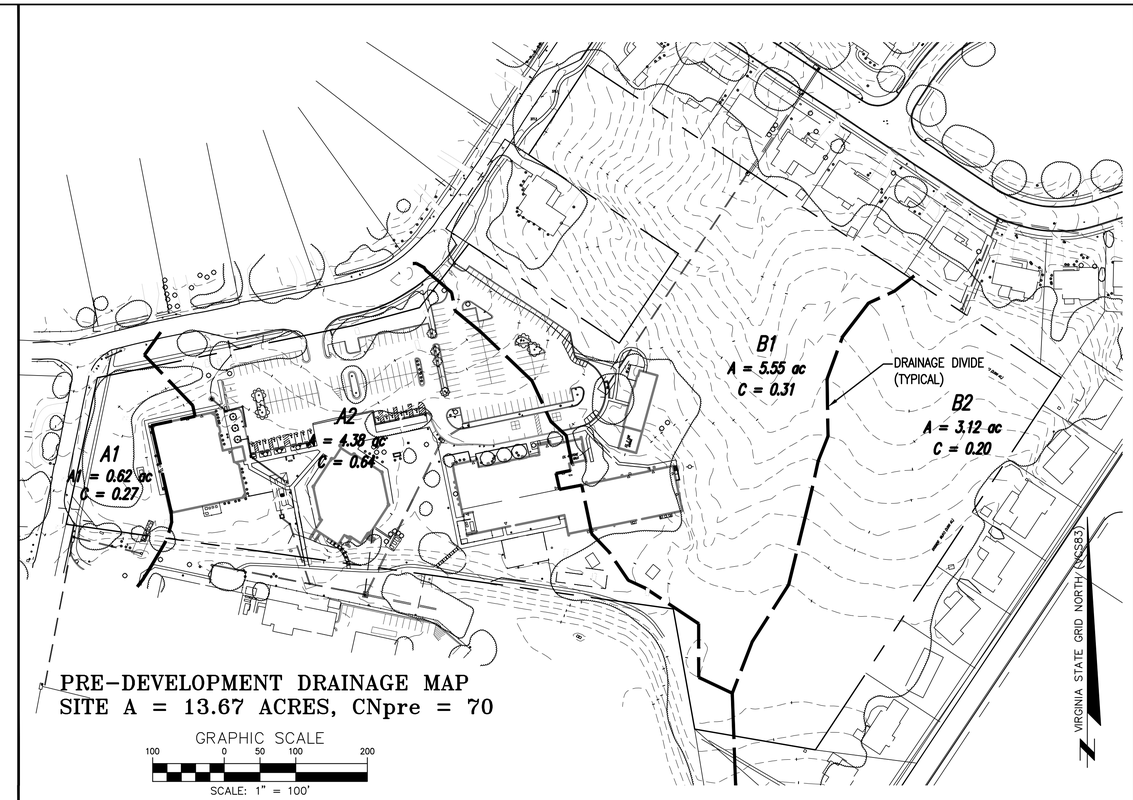
COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.07
SCALE: NOT TO SCALE
DATE: JANUARY 27, 2015
SHEET: 10 OF 16

F:\PROJECTS\10817.07 – St. Ambrose Parish–Master Plan\DWG\Special Permit Plat



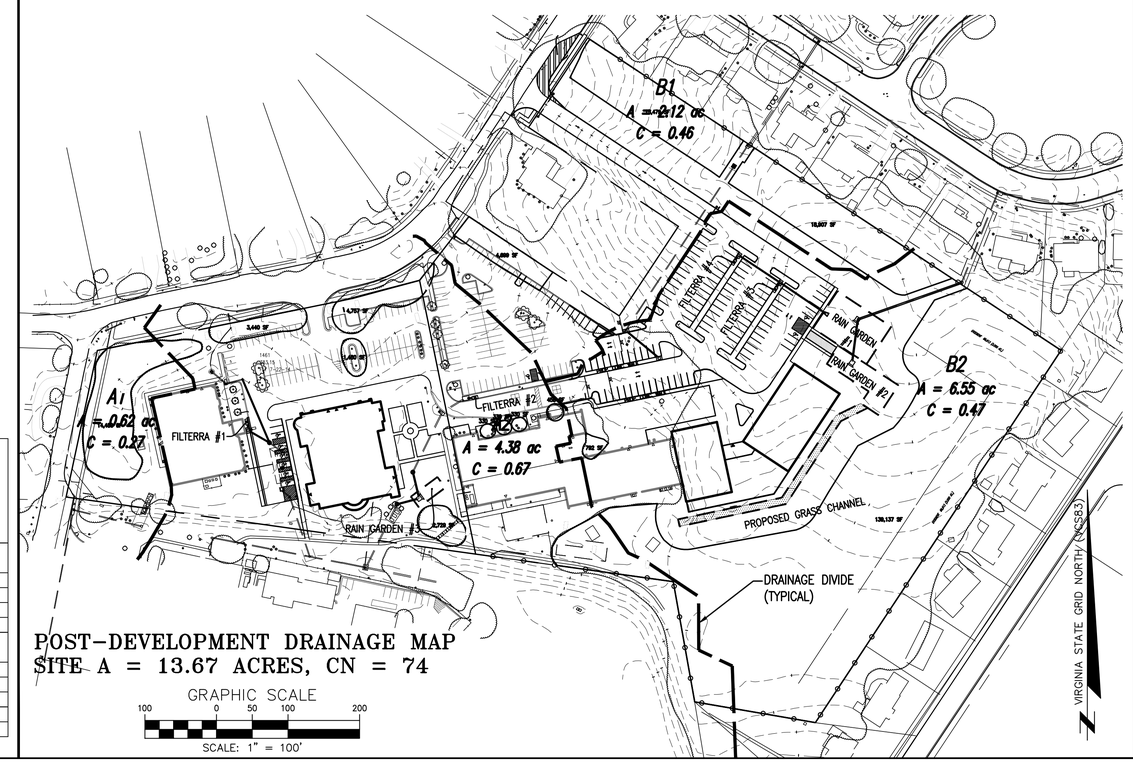
OVERALL DRAINAGE MAP

GRAPHIC SCALE
3,000 0 1,500 3,000 6,000
SCALE: 1" = 3,000'



PRE-DEVELOPMENT DRAINAGE MAP
SITE A = 13.67 ACRES, CNpre = 70

GRAPHIC SCALE
100 0 50 100 200
SCALE: 1" = 100'



POST-DEVELOPMENT DRAINAGE MAP
SITE A = 13.67 ACRES, CN = 74

GRAPHIC SCALE
100 0 50 100 200
SCALE: 1" = 100'

OUTFALL, SWM, AND BMP NARRATIVE:

PROJECT DESCRIPTION:

SITE CONSISTS OF 13.67 ACRES OF LAND THAT IS THE CENTRAL LOCATION OF THE CHURCH AND SCHOOL FOR SAINT AMBROSE PARISH. THE EXISTING SITE HAS AN EXISTING CHURCH BUILDING, ACTIVITIES CENTER, SCHOOL, RECTORY, PARKING AREAS WITH WALKS CONNECTING THE VARIOUS BUILDING ON-SITE.

IMPROVEMENTS PROPOSED BY THE PARISH INCLUDE A NEW/LARGER CHURCH BUILDING, ADDITION TO THE SCHOOL, GYM, RECTORY WITH ADDITIONAL PARKING PROPOSED TO SUPPORT THE FACILITIES. THE RESULTING CONSTRUCTION WILL REQUIRE APPROXIMATELY 5.21 ACRES OF LAND DISTURBED FOR THE PROPOSED CONSTRUCTION.

EXISTING DEVELOPMENT CONDITIONS:

THE WESTERLY PORTION OF THE SITE IS FULLY DEVELOPED WHILE THE EASTERLY PORTION IS HEAVILY WOODED. THE SITE'S DRAINAGE SPLITS IN TWO MAJOR DIRECTIONS. AREAS A1 & A2, SHOWN ON THIS SHEET, DRAIN IN A SOUTHWESTERLY DIRECTION FROM THE SITE IN AN EXISTING STORM SEWER SYSTEM. THIS EXISTING STORM SEWER SYSTEM CONVEYS BOTH ONSITE AND OFFSITE DRAINAGE.

THE REMAINDER OF THE SITE, SHOWN AS AREAS B1 & B2, DRAIN IN A EASTERLY DIRECTION TOWARD RESIDENTIAL LOTS IN WINTERSET SUBDIVISION, SECTION 4. THE EXISTING FAIRFAX COUNTY STORM SEWER SYSTEM CONSTRUCTED WITH WINTERSET SUBDIVISION, COLLECTS STORM DRAINAGE IN TWO LOCATIONS ALONG THE NORTHEASTLY BOUNDARY OF THE SUBDIVISION. THE SITE'S RUNOFF ULTIMATELY DISCHARGES INTO THE MAJOR FLOODPLAIN FOR ACCOTINK CREEK LOCATED IN A SOUTHEAST DIRECTION FROM THE SITE (SEE OVERALL DRAINAGE MAP THIS SHEET).

POST DEVELOPMENT CONDITIONS:

THE WESTERLY PORTION OF THE SITE HAS AN EXISTING UNDERGROUND DETENTION SYSTEM APPROVED AS PART OF MINOR SITE PLAN (COUNTY PLAN CONTROL #: 891-MSP-001-3). THIS SPECIAL PERMIT APPLICATION PROPOSES A BIO-RETENTION FACILITY WITH UNDERGROUND STORAGE (RAIN GARDEN) PROPOSED ADJACENT TO THE NEW CHURCH BUILDING. TWO FILTERRA SYSTEMS (TREE BOX FILTERS) ARE PROPOSED AND WILL DISCHARGE INTO THE EXISTING STORM DRAINAGE SYSTEM PROVIDED IN THIS AREA.

THE EASTERLY PORTION OF THE SITE PROPOSES TWO RAIN GARDENS WITH UNDERGROUND STORAGE SYSTEM, TWO FILTERRA SYSTEMS, A VEGETATED SWALE AND CONSERVATION EASEMENT AREAS. PRIOR TO SUBMISSION OF THE SITE PLAN, SOILS IN THE LOCATION OF THESE FACILITIES WILL BE TESTED FOR INFILTRATION. PRELIMINARY CALCULATIONS INCLUDED WITH THIS PLAN SHOW THAT THE TOTAL PHOSPHORUS REMOVAL IS IN COMPLIANCE WITH THE VIRGINIA RUNOFF REDUCTION METHOD (SEE SHEET 13 FOR SITE SUMMARY REPORT). THEREFORE, WATER QUALITY REQUIREMENTS WILL BE MET FOR THE PROPOSED RE-DEVELOPMENT OF THIS SITE.

POST DEVELOPMENT PEAK FLOW RATES FROM THE SITE WILL BE LESS THAN THE PRE-DEVELOPMENT PEAK FLOW RATES FOR THE 2 & 10-YEAR 24 HOUR STORM EVENTS.

SUMMARY OF STORMWATER MANAGEMENT AND ADEQUATE OUTFALL REQUIREMENTS:

THE OVERALL DRAINAGE MAP IS PROVIDED FOR INFORMATION PURPOSES, AND GRAPHICALLY DEPICTS DRAINAGE AREAS TO A POINT WHERE THE CONTRIBUTING DRAINAGE IS MORE THAN 100 TIMES THE CHURCH'S SITE AREA. THE POINT OF INTEREST IS IDENTIFIED AS POINT "A" ON THE "OVERALL DRAINAGE MAP". THE CONTRIBUTING AREA AT POINT "A" IS APPROXIMATELY 13,822 ACRES; POINT "A" BEING LOCATED IN A WELL-DEFINED BED AND BANK CHANNEL WITHIN THE MAJOR FLOOD PLAIN OF ACCOTINK CREEK. POINT "A" MARKS THE REQUIRED EXTENT OF REVIEW FOR EVALUATION OF ADEQUATE OUTFALL, PER PFM 6-0203.2A & SWMO, SEC 124-4-4(C)-(5).

THEREFORE AS ILLUSTRATED IN THE STORMWATER MANAGEMENT SUMMARY TABLE BELOW AND THE ACCOMPANYING CALCULATION ON SHEETS 14, 15, 16, & 17 THE TWO-YEAR AND TEN-YEAR STORMWATER RUNOFF WILL BE REDUCED BELOW PRE-DEVELOPMENT LEVELS BY THE PROPOSED STORMWATER IMPROVEMENTS. ADDITIONALLY, THROUGH THE USE BIO-RETENTION FACILITIES, FILTERRA STRUCTURES AND VEGETATED SWALES WATER QUANTITY REQUIREMENTS WILL BE SATISFIED FOR THIS SITE, AS SHOWN IN THE VIRGINIA RUNOFF REDUCTION SPREAD SHEET, PROVIDED ON SHEET 13 OF THIS PLAN.

THEREFORE AS OUTLINED ABOVE IT IS THE ENGINEER'S OPINION THAT THIS PLAN PROPOSES A STORMWATER SYSTEM THAT ADDRESSES STORMWATER MANAGEMENT QUALITY AND QUANTITY REQUIREMENTS AND THAT AN ADEQUATE OUTFALL EXISTS AS REQUIRED BY FAIRFAX COUNTY CODE CHAPTER 124 AND THE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL.

IT IS NOTED THAT BECAUSE THIS IS A PRELIMINARY EVALUATION IF DURING FINAL DESIGN IT IS DETERMINED THAT ADDITION STORMWATER QUALITY AND QUANTITY IMPROVEMENTS ARE REQUIRED THESE REQUIREMENTS COULD BE MET BY THE ADDITION OF UNDERGROUND STORMWATER MANAGEMENT FACILITIES WITHIN THE PARKING LOT OR AS INDICATED BY COUNTY SOILS MAPPING, SOILS ARE SUITABLE FOR INFILTRATION. THE BIO- RETENTION FACILITIES MAY BE SUITABLE FOR BIO-DETENTION THAT WOULD FURTHER REDUCING RUNOFF FROM THE SITE.

DRAINAGE DIVERSION NARRATIVE:

PER SECTION 6-0202.2A OF THE FAIRFAX COUNTY PFM, THIS DIVERSION REVIEW IS PROVIDED AS JUSTIFICATION FOR THE DRAINAGE DIVERSION PROPOSED WITH THIS DEVELOPMENT. WITH THE ADDITION OF THE NEW DRIVEWAY AND PARKING LOT A PORTION OF THE STORMWATER ORIGINALLY DRAINING TO THE INLET ADJACENT TO LOTS 114 AND 115, "WINTERSET SUBDIVISION" WILL BE DIVERTED TO THE EXISTING INLET AT THE REAR OF LOTS 110 AND 111, "WINTERSET SUBDIVISION" IN DRAINAGE AREA 2B.

THE DRIVEWAY AND PARKING LOT IS UPSTREAM OF THE EXISTING TREE SAVE AREA AND CONSERVATION EASEMENT THAT PROVIDED A NATURAL FILTER FOR SHEET FLOW DRAINAGE FROM ANY DISTURBED AREAS EAST OF THE PARKING LOT. THE PARKING LOT WILL ELIMINATE MOST OF THE SHEET FLOW DRAINAGE TO THE INLET AT THE REAR OF LOTS 110 AND 111, "WINTERSET SUBDIVISION". STORMWATER FROM THE NEW PARKING LOT WILL BE COLLECTED AND DISCHARGES INTO THE BIO-RETENTION FILTERS AT THE SOUTHEASTERLY CORNER OF THE PARKING AREA. THESE BIO RETENTION FILTERS PROVIDE STORMWATER QUANTITY AND QUALITY CONTROLS AND WILL SERVE TO ELIMINATE ADVERSE IMPACT TO THE DOWNSTREAM PROPERTIES.

STORMWATER DESIGN NOTE:

THIS PLAN PROVIDES A PRELIMINARY DESIGN TO MEET STORMWATER MANAGEMENT REQUIREMENTS. ITS HAS BEEN PREPARED WITHOUT A COMPLETE DESIGN FOR THE SITE THAT WILL ONLY BE AVAILABLE WITH PREPARATION OF THE FINAL SITE PLAN, INCLUDING EVALUATION OF SOILS FOR INFILTRATION AND FINAL DESIGN OF THE STORMWATER MANAGEMENT FACILITIES. THE ENGINEER RESERVES THE RIGHT TO MAKE CHANGES TO THE STORMWATER DESIGN TO MEET STORMWATER QUALITY AND QUANTITY REQUIREMENT DURING FINAL DESIGN. IT IS ACKNOWLEDGED THAT CHANGES TO THE STORMWATER MANAGEMENT DESIGN, IF NECESSARY, REQUIRE APPROVAL BY THE DIRECTOR OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

STORMWATER MANAGEMENT SUMMARY APPLICABLE AREAS (SWMO SECTION 124-4-4(b)(1)a.)					
SITE AREA	13.67 ACRES				
ONSITE TO RG-UGS	3.47 ACRES				
OFFSITE TO EX UDT	0.36 ACRES		(APPROVED PLAN 891-MSP-01-3)		
AREA TO EX UDT	1.98 ACRES		(APPROVED PLAN 891-MSP-01-3)		
ONSITE UNCONTROLLED	8.22 ACRES				
TOTAL APPLICABLE AREA	14.03 ACRES				
DETENTION REQUIREMENT	AREA (ACRES)	CN	2-YR 24 HR STORM Q2 (CFS)	10-YR 24 HR STORM Q10 (CFS)	
PRE-DEVELOPED SITE	13.67	70	18.76	45.44	
EX OFFSITE TO UDT	0.36	--	1.31	1.75	
TOTAL PRE-DEVELOPED SITE PEAK RATES			**20.07**	**47.19**	
ONSITE UNCONTROLLED	8.22	74	14.39	31.59	
EX UDT RELEASED (APPROVED PLAN 891-MSP-01-3)	TOTAL AREA TO UDT = 1.98	--	2.58	3.15	
UGS ALLOWABLE RELEASE			3.10	12.45	
RAIN GARDEN # 1&2 RELASED			2.1	3.68	
RAIN GARDEN #3 RELASED			0.56	1.11	
TOTAL UGS RELEASED			2.66	4.79	
TOTAL POST DEVELOPED SITE RELEASED			**19.63**	**39.53**	

SEE SHEETS 14 TO 17 FOR HYDROGRAPH ROUTING & PEAK FLOW RATES

LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING LAND PLANNING SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
phone: 703·591·5800
www.landdevelopmentconsultants.com

REUSE OF DOCUMENTS
THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE AND CONTAINS 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 WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
©LAND DEVELOPMENT CONSULTANTS, INC.

PRELIMINARY OUTFALL, BMP AND STORMWATER ANALYSIS

SPECIAL PERMIT AMENDMENT PLAT

SAINT AMBROSE PARISH

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MANGANELLO
Lic. No.20732
10/16/15
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISION
4	10/16/15	STAFF COMMENTS
3	7/29/15	STAFF COMMENTS
2	6/08/15	STAFF COMMENTS
1	3/25/15	APPLICATION ACCEPTANCE

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.07
SCALE: AS SHOWN
DATE: JANUARY 27, 2015
SHEET: 11 OF 16

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 (8-011 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 2 & 4L)	PRC Plan (16-303 1E & 10)
FDP P Districts (except PRC) 916-502 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 11

☒ 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.)
BIORETENTION FACILITY 1		0	2.30	3,100	7,595	N/A
(e.g. dry pond A, infil. Trench, underground vault, etc.)						
BIORETENTION FACILITY 2		0	0.78	900	2,205	N/A
BIORETENTION FACILITY 3		0	0.53	900	1,485	N/A
				Totals		

☒ 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 11.

☒ 5. Maintenance accesses (road) to stormwater management facility(ies) are shown on Sheet 3 & 4

☒ 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet 6 & 8

☒ 7. A "stormwater management narrative" which contains a description of how detention and best management practices requirements will be met is provided on Sheet 11.

☒ 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 11.

☒ 9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 11.

☒ 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 2.

N/A 11. A submission waiver is requester for _____.

N/A 12. Stormwater management is not required because _____.

	1-year storm	2-year storm	10-year storm
Target Rainfall Event (in)	2.63	3.19	4.89

Drainage Area A	
Drainage Area (acres)	4.99
Runoff Reduction Volume (cf)	1,244
Drainage Area B	
Drainage Area (acres)	8.67
Runoff Reduction Volume (cf)	7,236
Drainage Area C	
Drainage Area (acres)	0.00
Runoff Reduction Volume (cf)	0
Drainage Area D	
Drainage Area (acres)	0.00
Runoff Reduction Volume (cf)	0
Drainage Area E	
Drainage Area (acres)	0.00
Runoff Reduction Volume (cf)	0

Based on the use of Runoff Reduction practices in the selected drainage areas, the spreadsheet calculates an adjusted $RV_{Developed}$ and adjusted Curve Number.

Drainage Area A		A soils	B Soils	C Soils	D Soils
Forest/Open Space -- undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	0.34	0.00	0.31
	CN	30	55	70	77
Managed Turf -- disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	0.00	0.00	1.56
	CN	39	61	74	80
Impervious Cover	Area (acres)	0.00	0.00	0.00	2.78
	CN	98	98	98	98
				Weighted CN	S
				88	1.36

	1-year storm	2-year storm	10-year storm
$RV_{Developed}$ (in) with no Runoff Reduction	1.49	1.99	3.56
$RV_{Developed}$ (in) with Runoff Reduction	1.42	1.92	3.50
Adjusted CN	87	87	87

Drainage Area B		A soils	B Soils	C Soils	D Soils
Forest/Open Space -- undisturbed, protected forest/open space or reforested land	Area (acres)	0.00	3.87	0.00	0.00
	CN	30	55	70	77
Managed Turf -- disturbed, graded for yards or other turf to be mowed/managed	Area (acres)	0.00	1.81	0.00	0.04
	CN	39	61	74	80
Impervious Cover	Area (acres)	0.00	2.22	0.00	0.73
	CN	98	98	98	98
				Weighted CN	S
				71	4.08

	1-year storm	2-year storm	10-year storm
$RV_{Developed}$ (in) with no Runoff Reduction	0.56	0.87	2.03
$RV_{Developed}$ (in) with Runoff Reduction	0.33	0.64	1.80
Adjusted CN	64	66	68

Virginia Runoff Reduction Method ReDevelopment Worksheet - v2.8 - June 2014

Update Summary Sheet

Print

Site Data Summary

Total Rainfall = 43 inches

Site Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	4.22	0.00	0.31	4.53	*33.15*
Turf (acres)	0.00	1.85	0.00	1.56	3.41	*24.97*
Impervious (acres)	0.00	2.34	0.00	3.39	5.73	*41.88*
					13.67	*100.00*

Site Rv	0.46
Post Development Treatment Volume (ft^3)	22918
Post Development TP Load (lb/yr)	14.40
Post Development TN Load (lb/yr)	103.01
Total TP Load Reduction Required (lb/yr)	6.18

Total Runoff Volume Reduction (ft^3)	8480
Total TP Load Reduction Achieved (lb/yr)	6
Total TN Load Reduction Achieved (lb/yr)	43.75
Adjusted Post Development TP Load (lb/yr)	8.12
Remaining Phosphorous Load Reduction (Lb/yr) Required	0.00

Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.65	3.87	0.00	0.00	0.00	*4.52*
Turf (acres)	1.56	1.85	0.00	0.00	0.00	*3.41*
Impervious (acres)	2.78	2.95	0.00	0.00	0.00	*5.73*
						13.66

Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	1.20	5.07	0.00	0.00	0.00	*6.28*
TN Load Red. (lb/yr)	6.42	37.33	0.00	0.00	0.00	*43.75*

Drainage Area A Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.34	0.00	0.31	0.65	*13.06*
Turf (acres)	0.00	0.00	0.00	1.56	1.56	*31.32*
Impervious (acres)	0.00	0.00	0.00	2.78	2.78	*55.62*
					4.99	

BMP Selections

Practice	Credit Area (acres)		Downstream Practice
6.b. Bioretention #2 (Spec #9)	**Impervious:**	**0.42**	
	Turf (Pervious):	**0.1169**	
14. Filterra	**Impervious:**	**0.27**	
	Turf (Pervious):	**0.1166**	

Total Impervious Cover Treated (acres)	0.69
Total Turf Area Treated (acres)	0.23
Total TP Load Reduction Achieved in D.A. A (lb/yr)	1.20
Total TN Load Reduction Achieved in D.A. A (lb/yr)	6.42

Drainage Area B Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	3.87	0.00	0.00	3.87	*44.64*
Turf (acres)	0.00	1.81	0.00	0.04	1.85	*21.34*
Impervious (acres)	0.00	2.22	0.00	0.73	2.95	*34.02*
					8.67	

BMP Selections

Practice	Credit Area (acres)		Downstream Practice
5.b. Dry Swale #2 (Spec #10)	**Impervious:**	**0.33**	**6.b. Bioretention #2**
	Turf (Pervious):	**0.22**	**6.b. Bioretention #2**
6.b. Bioretention #2 (Spec #9)	**Impervious:**	**1.72**	
	Turf (Pervious):	**0.4**	
9.a. Sheetflow to Conservation Area with A/B Soils (Spec #2)	**Impervious:**	**0.04**	
	Turf (Pervious):	**0.22**	
14. FILTERRA	**Impervious:**	**0.29**	**6.b. Bioretention #2**
	Turf (Pervious):	**0.06**	**6.b. Bioretention #2**

Total Impervious Cover Treated (acres)	2.38
Total Turf Area Treated (acres)	0.90
Total TP Load Reduction Achieved in D.A. A (lb/yr)	5.07
Total TN Load Reduction Achieved in D.A. A (lb/yr)	37.33

Channel and Flood Protection

	Weighted CN	1-year storm Adjusted CN	2-year storm Adjusted CN	10-year storm Adjusted CN
Target Rainfall Event (in)		2.63	3.19	4.89
D.A. A CN	88	87	87	87
D.A. B CN	71	64	66	68

Virginia Runoff Reduction Method ReDevelopment Worksheet - v2.8 - June 2014
To be used w/ 2011 BMP Standards and Specifications
Site Data

Project Name: Saint Ambrose Parish	
Date: 06/10/2015	

data input cells
calculation cells
constant values

Post-ReDevelopment Project & Land Cover Information

Total Disturbed Acreage 5.15

Constants

Annual Rainfall (inches)	43		
Target Rainfall Event (inches)	1.00		
Phosphorus EMC (mg/L)	0.26	Nitrogen EMC (mg/L)	1.86
Target Phosphorus Target Load (lb/acre/yr)	0.41		
Pj	0.90		

Pre-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested land	0.00	7.70	0.00	0.31	8.01
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed	0.00	0.00	0.00	2.24	2.24
Impervious Cover (acres)	0.00	0.00	0.00	3.42	3.42
				Total	13.67

Post-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested land	0.00	4.22	0.00	0.31	4.53
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed	0.00	1.85	0.00	1.56	3.41
Impervious Cover (acres)	0.00	2.34	0.00	3.39	5.73
				Total	13.67
Area Check	Okay	Check Areas	Okay	Check Areas	

Rv Coefficients

	A soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

Land Cover Summary
Pre-ReDevelopment

	Listed	Adjusted[1]
Forest/Open Space Cover (acres)	8.01	5.67
Composite Rv(forest)	0.03	0.03
% Forest	59%	50%
Managed Turf Cover (acres)	2.24	2.24
Composite Rv(turf)	0.25	0.25
% Managed Turf	16%	20%
Impervious Cover (acres)	3.42	3.42
Rv(impervious)	0.95	0.95
% Impervious	25%	30%
Total Site Area (acres)	13.67	11.33
Site Rv	0.30	0.35
Pre-Development Treatment Volume (acre-ft)	0.3380	0.3321
Pre-Development Treatment Volume (cubic feet)	14,722	14,467
Pre-Development Load (TP) (lb/yr)	9.25	9.09

[1] *Adjusted* **Land Cover Summary** reflects the pre redevelopment land cover minus the pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover. The adjusted total acreage is consistent with the Post Redevelopment acreage (minus the acreage of new impervious cover). The load reduction requriement for the new impervious cover to meet the new development load limit is computed in **Column I**.

Pre-Development Load (TN) (lb/yr)	66.17

Land Cover Summary
Post-ReDevelopment

Forest/Open Space Cover	4.53
Composite Rv(forest)	0.03
% Forest	40%
Managed Turf Cover (acres)	3.41
Composite Rv(turf)	0.22
% Managed Turf	30%
ReDev. Impervious Cover (acres)	3.42
Rv(impervious)	0.95
% Impervious	30%
Total ReDev. Site Area (acres)	11.37
ReDev. Site Rv	0.37
Post-ReDevelopment Treatment Volume (acre-ft)	0.3460
Post-ReDevelopment Treatment Volume (cubic feet)	15,072
Post-ReDevelopment Load (TP) (lb/yr)	9.47

Maximum % Reduction Required Below Pre-ReDevelopment Load	20%
TP Load Reduction Required for Redeveloped Area (lb/yr)	2.20
Total Load Reduction Required (lb/yr)	**6.18**
Post-Development Load (TN) (lb/yr)	103.01

Land Cover Summary
Post-ReDevelopment New Impervious

New Impervious Cover (acres)	2.31
Rv(impervious)	0.95
% Impervious	99%
Total New Dev. Site Area (acres)	2.31
New Dev. Site Rv	0.94
Post-Development Treatment Volume (acre-ft)	0.1801
Post-Development Treatment Volume (cubic feet)	7,847
Post-Development Load (TP) (lb/yr)	4.93
TP Load Reduction Required for New Impervious Area (lb/yr)	3.98

Site Results

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
IMPERVIOUS COVER	2.78	2.95	0.00	0.00	0.00	OK.
IMPERVIOUS COVER TREATED	0.69	2.38	0.00	0.00	0.00	OK.
TURF AREA	1.56	1.85	0.00	0.00	0.00	OK.
TURF AREA TREATED	0.23	0.90	0.00	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Phosphorous

TOTAL PHOSPHOROUS LOAD REDUCTION REQUIRED (LB/YEAR)	**6.18**
RUNOFF REDUCTION (cf)	**8480**
PHOSPHOROUS LOAD REDUCTION ACHIEVED (LB/YR)	**6.28**
ADJUSTED POST-DEVELOPMENT PHOSPHOROUS LOAD (TP) (lb/yr)	**8.12**

REMAINING PHOSPHOROUS LOAD REDUCTION (LB/YR) NEEDED: CONGRATULATIONS!! YOU EXCEEDED THE TARGET REDUCTION BY 0.1 LB/YEAR!!

Nitrogen (for information purposes)

RUNOFF REDUCTION (cf)	**8480**
NITROGEN LOAD REDUCTION ACHIEVED (LB/YR)	**43.75**
ADJUSTED POST-DEVELOPMENT NITROGEN LOAD (TP) (lb/yr)	**59.26**

LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING LAND PLANNING SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
phone: 703-591-5800
www.landdevelopmentconsultants.com

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 WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
©LAND DEVELOPMENT CONSULTANTS, INC.

PRELIMINARY RUNOFF REDUCTION METHOD SPREADSHEET ANALYSIS
SPECIAL PERMIT AMENDMENT PLAT
SAINT AMBROSE PARISH
MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

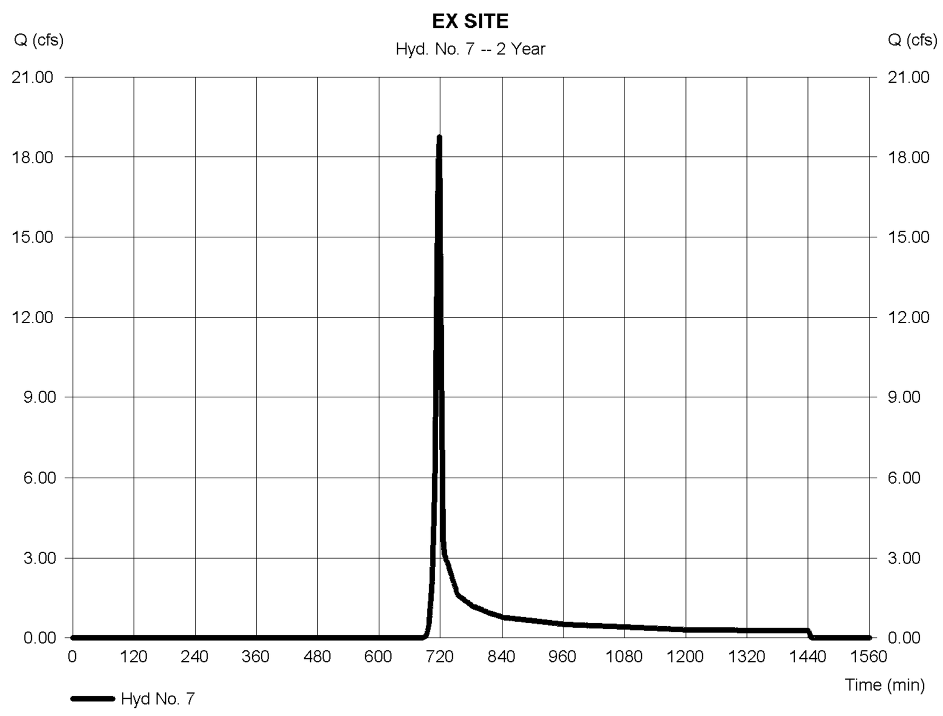
COMMONWEALTH OF VIRGINIA
JOHN C. MANGANELLO
Lic. No.20732
10/16/15
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISION
1	3/25/15	APPLICATION ACCEPTANCE
2	6/08/15	STAFF COMMENTS
3	7/29/15	STAFF COMMENTS
4	10/16/15	STAFF COMMENTS

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.07
SCALE: N/A
DATE: JANUARY 27, 2015
SHEET: 12 OF 16

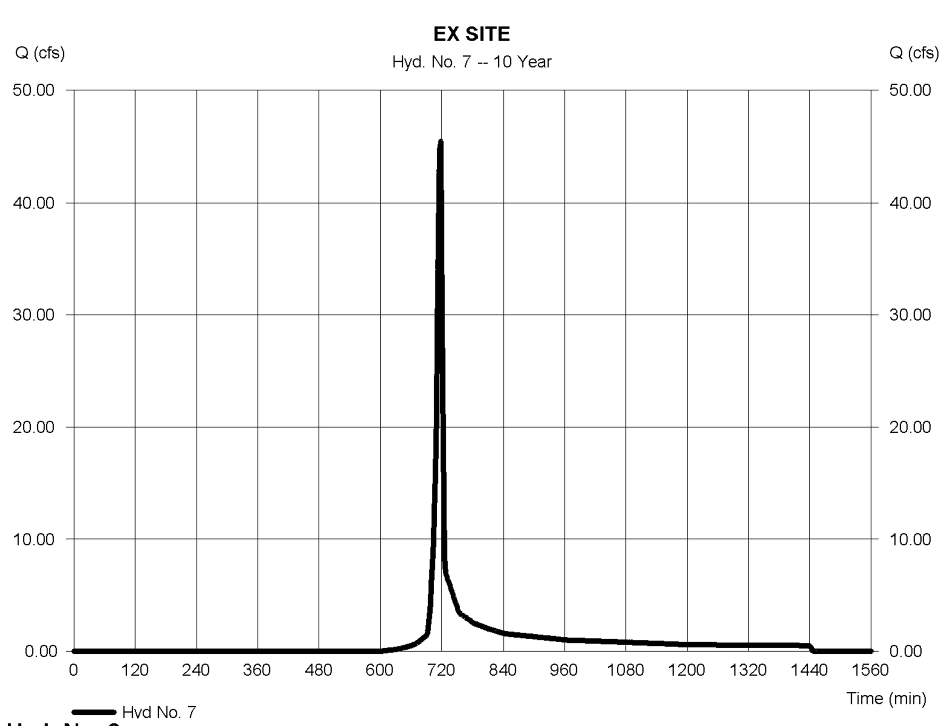
Hyd. No. 7
EX SITE

Hydrograph type	= SCS Runoff	Peak discharge	= 18.76 cfs
Storm frequency	= 2 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 38,252 cuft
Drainage area	= 13.670 ac	Curve number	= 70
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.19 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



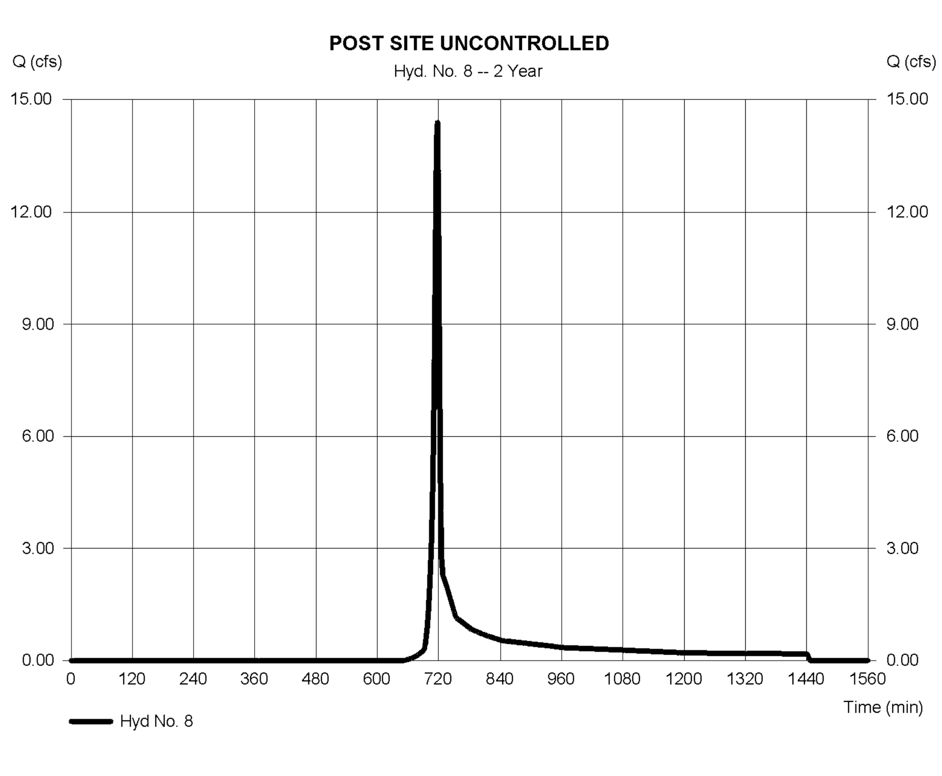
Hyd. No. 7
EX SITE

Hydrograph type	= SCS Runoff	Peak discharge	= 45.44 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 90,954 cuft
Drainage area	= 13.670 ac	Curve number	= 70
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.89 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



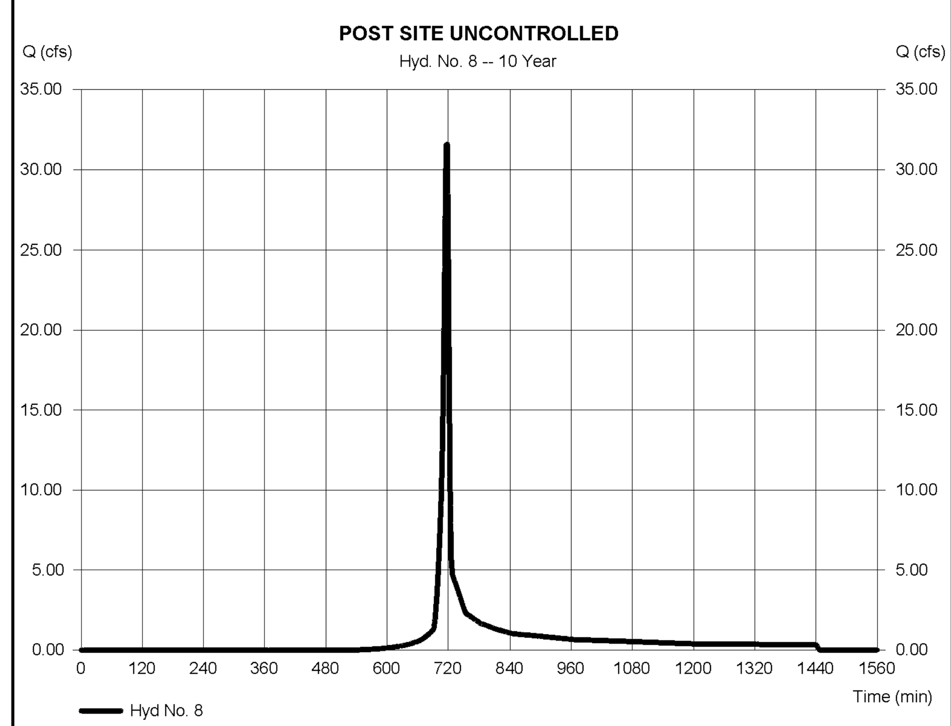
Hyd. No. 8
POST SITE UNCONTROLLED

Hydrograph type	= SCS Runoff	Peak discharge	= 14.39 cfs
Storm frequency	= 2 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 28,840 cuft
Drainage area	= 8.220 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.19 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



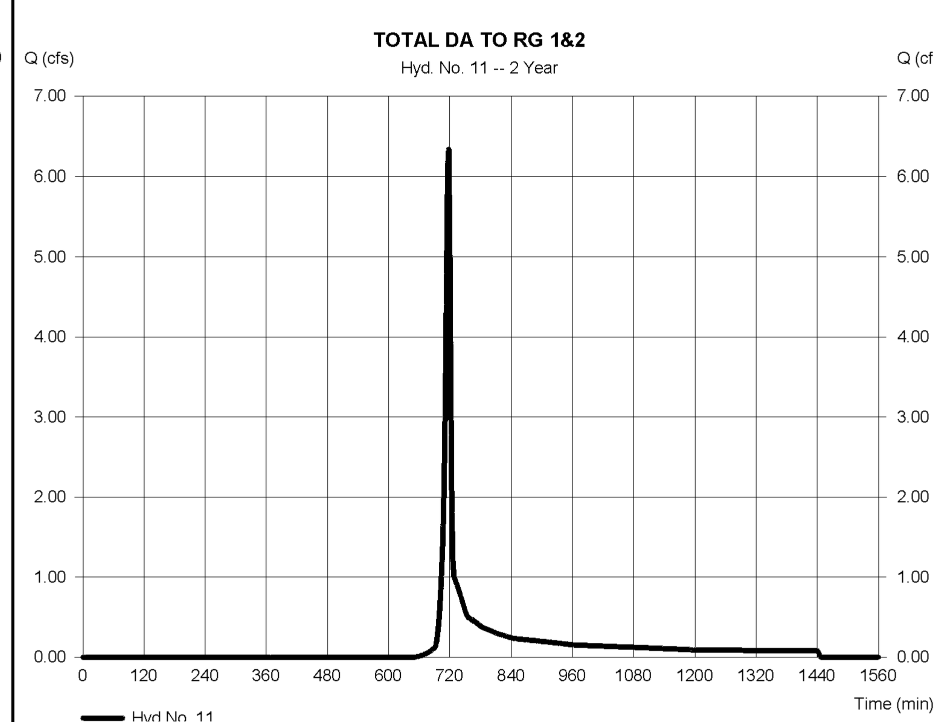
Hyd. No. 8
POST SITE UNCONTROLLED

Hydrograph type	= SCS Runoff	Peak discharge	= 31.59 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 63,691 cuft
Drainage area	= 8.220 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.89 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



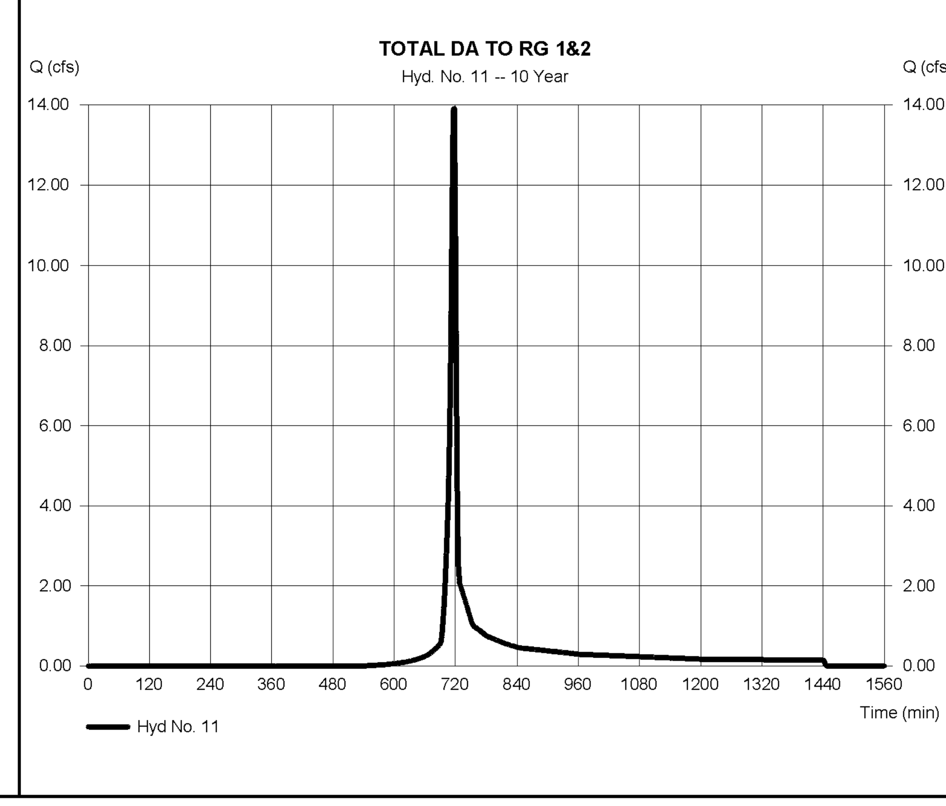
Hyd. No. 11
TOTAL DA TO RG 1&2

Hydrograph type	= SCS Runoff	Peak discharge	= 6.336 cfs
Storm frequency	= 2 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 12,701 cuft
Drainage area	= 3.620 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.19 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



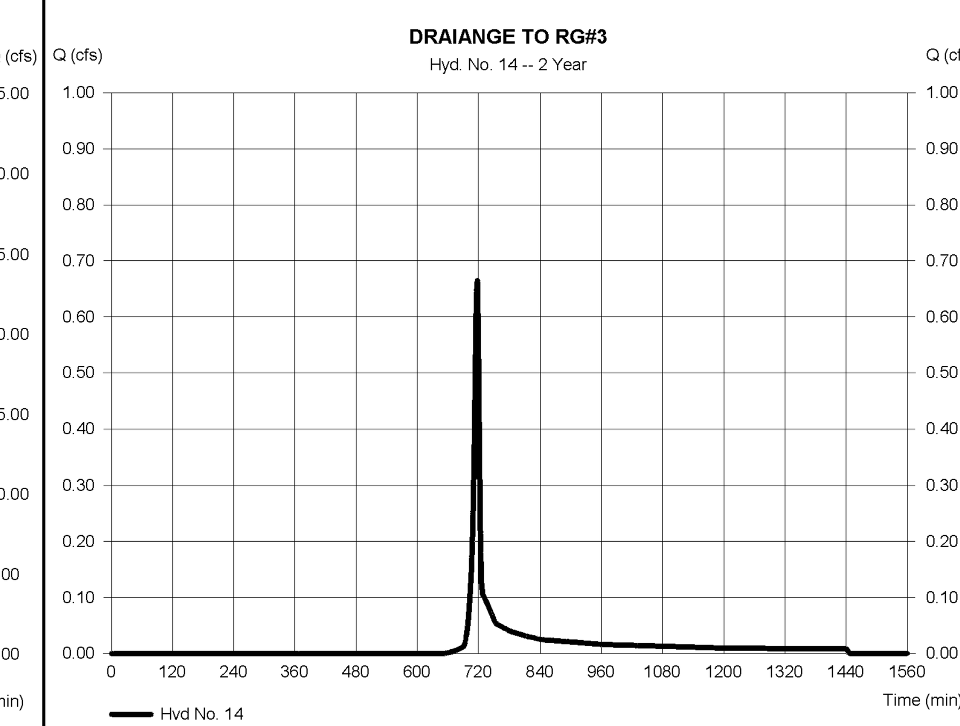
Hyd. No. 11
TOTAL DA TO RG 1&2

Hydrograph type	= SCS Runoff	Peak discharge	= 13.91 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 28,049 cuft
Drainage area	= 3.620 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.89 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



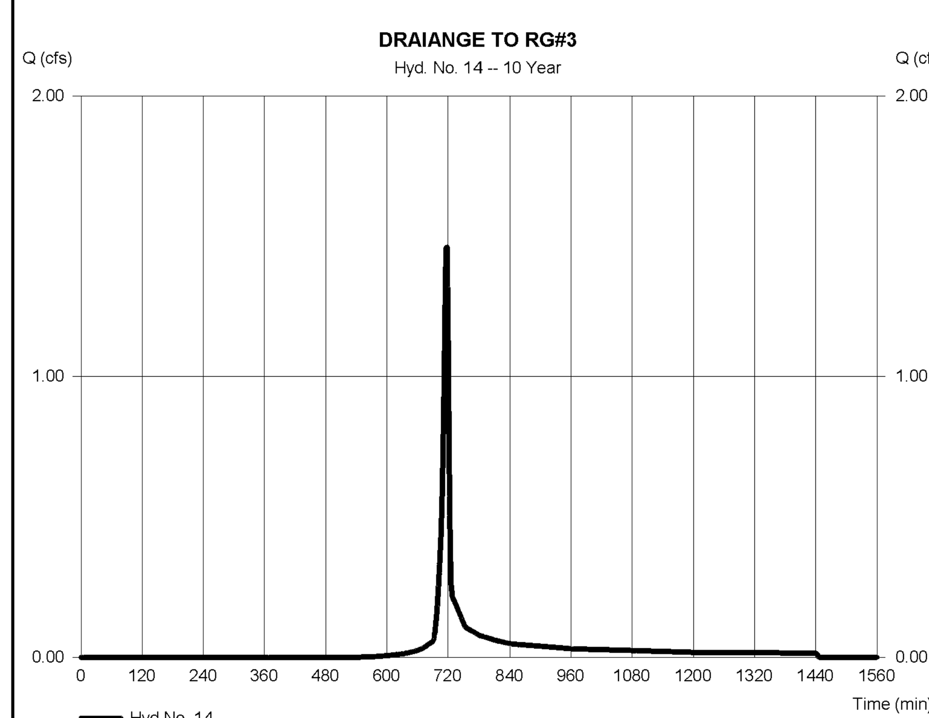
Hyd. No. 14
DRAIANGE TO RG#3

Hydrograph type	= SCS Runoff	Peak discharge	= 0.665 cfs
Storm frequency	= 2 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 1,333 cuft
Drainage area	= 0.380 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.19 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hyd. No. 14
DRAIANGE TO RG#3

Hydrograph type	= SCS Runoff	Peak discharge	= 1.460 cfs
Storm frequency	= 10 yrs	Time to peak	= 718 min
Time interval	= 2 min	Hyd. volume	= 2,944 cuft
Drainage area	= 0.380 ac	Curve number	= 74
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.89 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

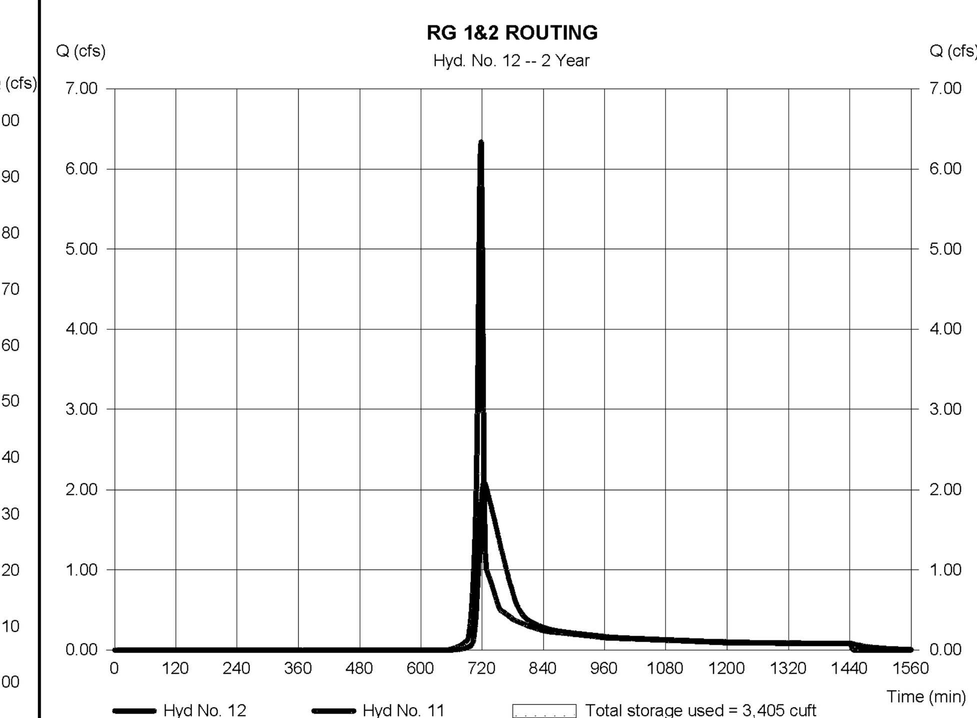


SEE SHEET 11 FOR DETAIL OUTFALL ANALYSIS & SWM SUMMARY AND SHEET 12 FOR RUNOFF REDUCTION CNs

Hyd. No. 12
RG 1&2 ROUTING

Hydrograph type	= Reservoir	Peak discharge	= 2.098 cfs
Storm frequency	= 2 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 12,698 cuft
Inflow hyd. No.	= 11 - TOTAL DA TO RG 1&2	Max. Elevation	= 358.27 ft
Reservoir name	= RAIN GARDEN 1&2	Max. Storage	= 3,405 cuft

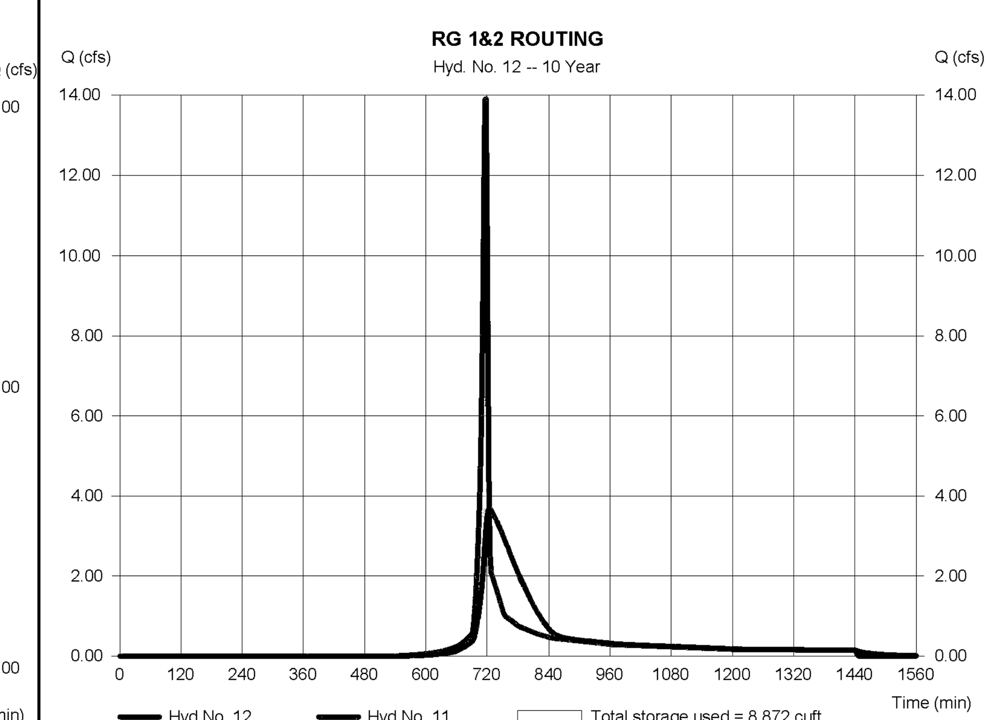
Storage Indication method used.



Hyd. No. 12
RG 1&2 ROUTING

Hydrograph type	= Reservoir	Peak discharge	= 3.684 cfs
Storm frequency	= 10 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 28,046 cuft
Inflow hyd. No.	= 11 - TOTAL DA TO RG 1&2	Max. Elevation	= 361.90 ft
Reservoir name	= RAIN GARDEN 1&2	Max. Storage	= 8,872 cuft

Storage Indication method used.



Pond No. 1 - RAIN GARDEN 1&2

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 356.00 ft. Voids = 37.70%

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	356.00	4,000	0	0
2.00	358.00	4,000	3,016	3,016
4.00	360.00	4,000	3,016	6,032
6.00	362.00	4,000	3,016	9,048
6.50	362.50	4,000	754	9,802

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 18.00	8.00	0.00	0.00
Span (in)	= 18.00	8.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 356.00	356.00	0.00	0.00
Length (ft)	= 50.00	0.50	0.00	0.00
Slope (%)	= 0.50	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 16.00	0.00	0.00	0.00
Crest El. (ft)	= 362.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= 1	---	---	---
Multi-Stage	= Yes	No	No	No

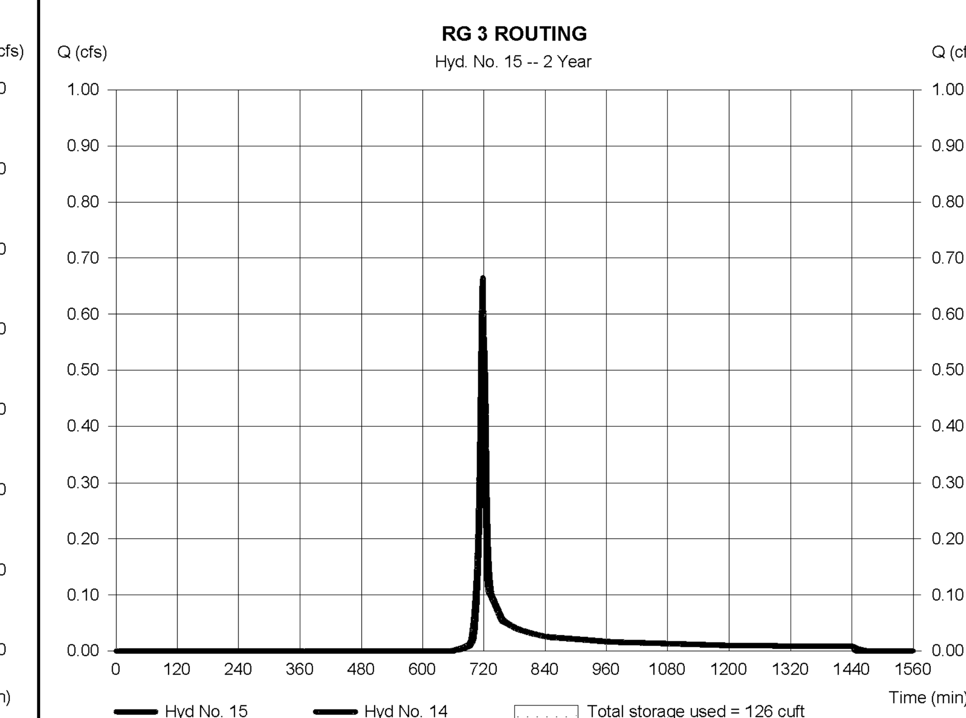
Exfil.(in/hr) = 0.000 (by Wet area)
TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Hyd. No. 15
RG 3 ROUTING

Hydrograph type	= Reservoir	Peak discharge	= 0.563 cfs
Storm frequency	= 2 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 1,333 cuft
Inflow hyd. No.	= 14 - DRAIANGE TO RG#3	Max. Elevation	= 376.18 ft
Reservoir name	= RG #3	Max. Storage	= 126 cuft

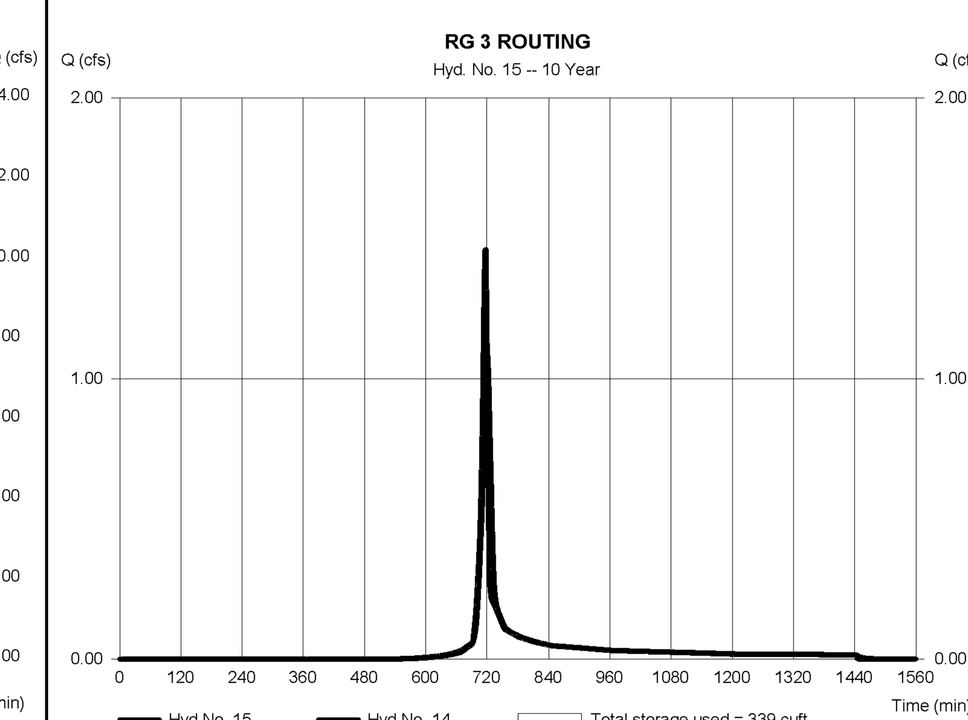
Storage Indication method used.



Hyd. No. 15
RG 3 ROUTING

Hydrograph type	= Reservoir	Peak discharge	= 1.105 cfs
Storm frequency	= 10 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 2,944 cuft
Inflow hyd. No.	= 14 - DRAIANGE TO RG#3	Max. Elevation	= 377.36 ft
Reservoir name	= RG #3	Max. Storage	= 339 cuft

Storage Indication method used.



Pond No. 2 - RG #3

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 375.50 ft. Voids = 37.00%

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	375.50	500	0	0
1.00	376.50	500	185	185
2.00	377.50	500	185	370
3.00	378.50	500	185	555
4.00	379.50	500	185	740
4.50	380.00	500	93	833

Culvert / Orifice Structures

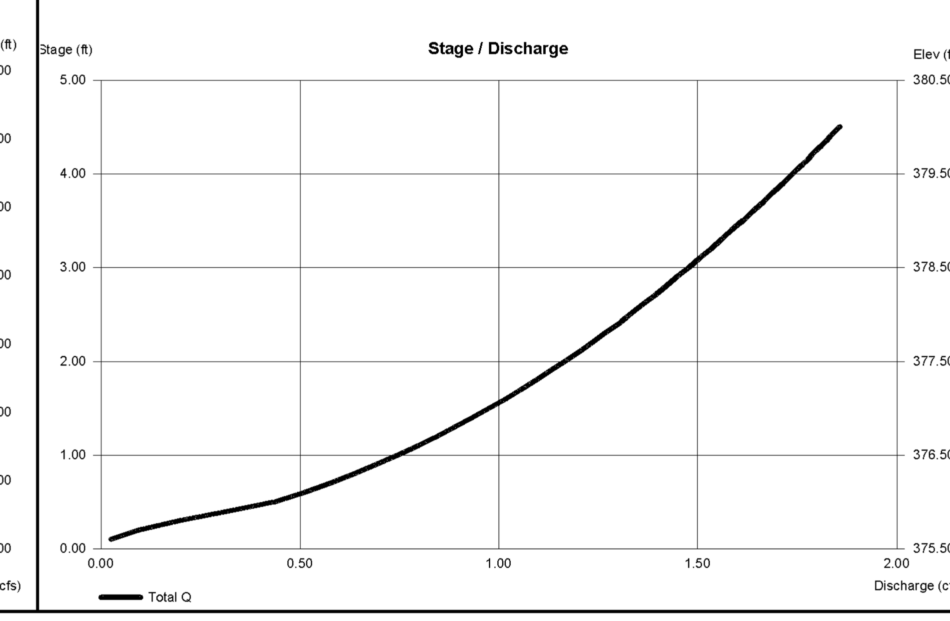
	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 18.00	6.00	0.00	0.00
Span (in)	= 18.00	6.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 375.50	375.50	0.00	0.00
Length (ft)	= 50.00	0.50	0.00	0.00
Slope (%)	= 0.50	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 8.00	0.00	0.00	0.00
Crest El. (ft)	= 380.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= 1	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)
TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING LAND PLANNING SURVEYING
10805 MAIN STREET, SUITE 700, FAIRFAX, VA 22030
phone: 703·591·5800
www.landdevelopmentconsultants.com

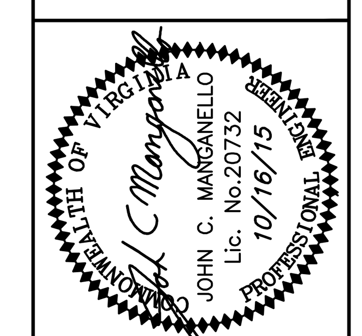
REUSE OF DOCUMENTS
THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF LAND DEVELOPMENT CONSULTANTS, INC. AND IS NOT TO BE COPIED OR USED, IN WHOLE OR IN PART BY ANY PROCESS WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS,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

SWM ROUTINGS

SPECIAL PERMIT AMENDMENT PLAT

SAINT AMBROSE PARISH

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA



REV. NO.	DATE	REVISION
4	10/16/15	STAFF COMMENTS
3	7/29/15	STAFF COMMENTS
2	6/08/15	STAFF COMMENTS
1	3/25/15	APPLICATION ACCEPTANCE

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.07
SCALE: N/A
DATE: JANUARY 27, 2015
SHEET: 13 OF 16

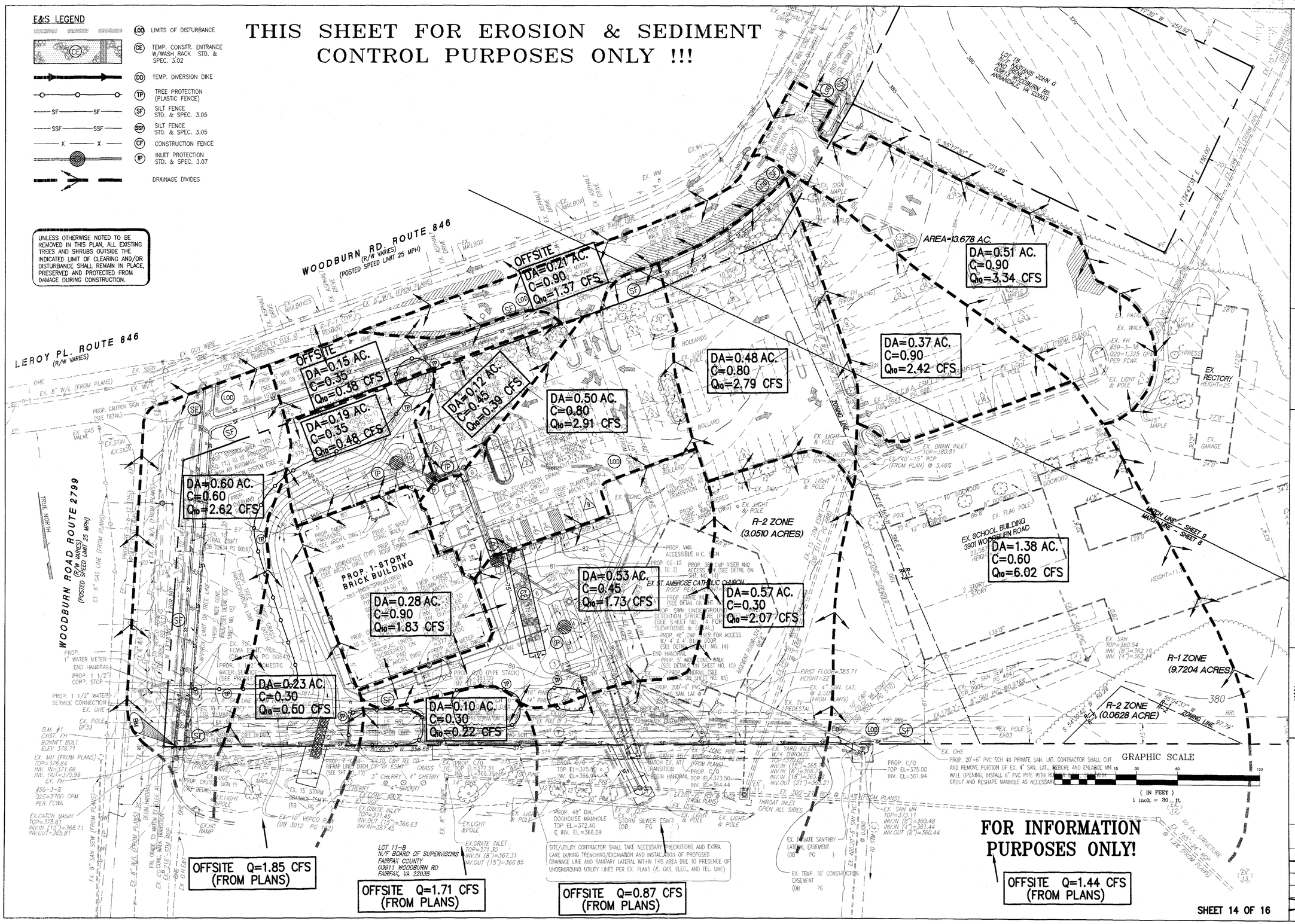
F:\PROJECTS\10817.07 – St Ambrose Parish–Master Plan\DWG\Special Permit Plat

THIS SHEET FOR EROSION & SEDIMENT CONTROL PURPOSES ONLY !!!

E&S LEGEND

- LOD — LIMITS OF DISTURBANCE
- CE — TEMP. CONSTR. ENTRANCE W/WASH RACK STD. & SPEC. 3.02
- DD — TEMP. DIVERSION DIKE
- TP — TREE PROTECTION (PLASTIC FENCE)
- SF — SILT FENCE STD. & SPEC. 3.05
- SSF — SILT FENCE STD. & SPEC. 3.05
- CF — CONSTRUCTION FENCE
- IP — INLET PROTECTION STD. & SPEC. 3.07
- DRAINAGE DIVIDES

UNLESS OTHERWISE NOTED TO BE REMOVED IN THIS PLAN, ALL EXISTING TREES AND SHRUBS OUTSIDE THE INDICATED LIMIT OF CLEARING AND/OR DISTURBANCE SHALL REMAIN IN PLACE, PRESERVED AND PROTECTED FROM DAMAGE DURING CONSTRUCTION.



SHEET 14 OF 16

MONACO & MANGANELLO
LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING • LAND PLANNING • SURVEYING
4248-B Chain Bridge Road • Fairfax, Virginia 22030
Phone: (703) 591-5800 • Fax: (703) 273-7951

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 WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
©LAND DEVELOPMENT CONSULTANTS, INC.

EROSION & SEDIMENT CONTROL PHASE II PLAN

ST. AMBROSE CATHOLIC CHURCH ACTIVITIES CENTER

MASON DISTRICT — FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA — JOHN C. MANGANELLO — No. 020732 — 2-26-02 — PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL
1	09/24/01	ADD 5' WIDE CONC. WALK (TRAIL)
2	10/31/01	UPGRADE (1) EXISTING ST. LIGHT
3	01/04/02	ADD (1) NEW ST. LIGHT / COUNTY COMMENTS

PLAN NO.:
SCALE: 1"= 30'
DATE: 03/01/01
SHEET

Hydrograph Summary Report

Page 1

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Return period (yrs)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
1	Manual	6.8	5	5	8,475	2	----	----	----	2-YR POST
2	Manual	9.1	5	5	11,274	10	----	----	----	10-YR POST
3	Reservoir	2.6	5	20	8,475	2	1	375.16	2,428	2-YR ROUT
4	Reservoir	3.2	5	25	11,274	10	2	376.42	3,570	10-YR ROUT

Proj. file: ST EMB.GPW | IDF file: New.IDF | Run date: 03-14-2001

Reservoir Report

Page 1

English

Reservoir No. 1 - UDT

Pond Data

Pipe diameter = 6.00 ft   Pipe length = 160.0 ft   Invert elevation = 372.00 ft

Stage / Storage Table

Stage ft	Elevation ft	Contour area sqft	Incr. Storage cuft	Total storage cuft
0.00	372.00	00	0	0
0.60	372.60	00	237	237
1.20	373.20	00	412	649
1.80	373.80	00	494	1,143
2.40	374.40	00	548	1,691
3.00	375.00	00	583	2,274
3.60	375.60	00	568	2,842
4.20	376.20	00	547	3,389
4.80	376.80	00	492	3,881
5.40	377.40	00	409	4,290
6.00	378.00	00	233	4,524

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise in	= 15.0	8.0	0.0	0.0
Span in	= 15.0	8.0	0.0	0.0
No. Barrels	= 1	1	0	0
Invert El. ft	= 372.00	372.00	0.00	0.00
Length ft	= 10.0	0.0	0.0	0.0
Slope %	= 5.00	0.00	0.00	0.00
N-Value	= .013	.013	.000	.000
Orif. Coeff.	= 0.60	0.60	0.00	0.00
Multi-Stage	= ----	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len ft	= 0.0	0.0	0.0	0.0
Crest El. ft	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.00	0.00	0.00	0.00
Eqn. Exp.	= 1.50	0.00	0.00	0.00
Multi-Stage	= No	No	No	No

Tailwater Elevation = 0.00 ft

Note: All outflows have been analyzed under inlet and outlet control.

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Discharge cfs
0.00	0	372.00	0.00	0.00	---	---	---	---	---	---	0.00
0.06	24	372.06	0.02	0.01	---	---	---	---	---	---	0.01
0.12	47	372.12	0.08	0.05	---	---	---	---	---	---	0.05
0.18	71	372.18	0.16	0.11	---	---	---	---	---	---	0.11
0.24	95	372.24	0.30	0.17	---	---	---	---	---	---	0.17
0.30	118	372.30	0.46	0.26	---	---	---	---	---	---	0.26
0.36	142	372.36	0.61	0.36	---	---	---	---	---	---	0.36
0.42	166	372.42	0.83	0.45	---	---	---	---	---	---	0.45
0.48	190	372.48	1.09	0.56	---	---	---	---	---	---	0.56
0.54	213	372.54	1.31	0.66	---	---	---	---	---	---	0.66
0.60	237	372.60	1.54	0.76	---	---	---	---	---	---	0.76

Continues on next page...

UDT

Page 2

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Discharge cfs
0.66	278	372.66	1.87	0.85	---	---	---	---	---	---	0.85
0.72	319	372.72	2.12	0.91	---	---	---	---	---	---	0.91
0.78	361	372.78	2.47	0.98	---	---	---	---	---	---	0.98
0.84	402	372.84	2.74	1.04	---	---	---	---	---	---	1.04
0.90	443	372.90	3.09	1.10	---	---	---	---	---	---	1.10
0.96	484	372.96	3.42	1.16	---	---	---	---	---	---	1.16
1.02	525	373.02	3.72	1.21	---	---	---	---	---	---	1.21
1.08	567	373.08	4.00	1.26	---	---	---	---	---	---	1.26
1.14	608	373.14	4.28	1.31	---	---	---	---	---	---	1.31
1.20	649	373.20	4.52	1.36	---	---	---	---	---	---	1.36
1.26	699	373.26	4.71	1.41	---	---	---	---	---	---	1.41
1.32	748	373.32	4.93	1.46	---	---	---	---	---	---	1.46
1.38	797	373.38	5.13	1.50	---	---	---	---	---	---	1.50
1.44	847	373.44	5.33	1.55	---	---	---	---	---	---	1.55
1.50	896	373.50	5.53	1.59	---	---	---	---	---	---	1.59
1.56	946	373.56	5.71	1.64	---	---	---	---	---	---	1.64
1.62	995	373.62	5.89	1.68	---	---	---	---	---	---	1.68
1.68	1,044	373.68	6.07	1.73	---	---	---	---	---	---	1.73
1.74	1,094	373.74	6.24	1.77	---	---	---	---	---	---	1.77
1.80	1,143	373.80	6.40	1.81	---	---	---	---	---	---	1.81
1.86	1,198	373.86	6.57	1.85	---	---	---	---	---	---	1.85
1.92	1,253	373.92	6.72	1.89	---	---	---	---	---	---	1.89
1.98	1,308	373.98	6.88	1.93	---	---	---	---	---	---	1.93
2.04	1,362	374.04	7.03	1.96	---	---	---	---	---	---	1.96
2.10	1,417	374.10	7.18	2.00	---	---	---	---	---	---	2.00
2.16	1,472	374.16	7.32	2.04	---	---	---	---	---	---	2.04
2.22	1,527	374.22	7.46	2.07	---	---	---	---	---	---	2.07
2.28	1,582	374.28	7.60	2.11	---	---	---	---	---	---	2.11
2.34	1,637	374.34	7.74	2.14	---	---	---	---	---	---	2.14
2.40	1,691	374.40	7.87	2.18	---	---	---	---	---	---	2.18
2.46	1,750	374.46	8.00	2.21	---	---	---	---	---	---	2.21
2.52	1,808	374.52	8.13	2.25	---	---	---	---	---	---	2.25
2.58	1,866	374.58	8.26	2.28	---	---	---	---	---	---	2.28
2.64	1,924	374.64	8.39	2.31	---	---	---	---	---	---	2.31
2.70	1,983	374.70	8.51	2.35	---	---	---	---	---	---	2.35
2.76	2,041	374.76	8.63	2.38	---	---	---	---	---	---	2.38
2.82	2,099	374.82	8.75	2.41	---	---	---	---	---	---	2.41
2.88	2,158	374.88	8.87	2.44	---	---	---	---	---	---	2.44
2.94	2,216	374.94	8.99	2.47	---	---	---	---	---	---	2.47
3.00	2,274	375.00	9.11	2.50	---	---	---	---	---	---	2.50
3.06	2,331	375.06	9.22	2.53	---	---	---	---	---	---	2.53
3.12	2,388	375.12	9.33	2.56	---	---	---	---	---	---	2.56
3.18	2,444	375.18	9.44	2.59	---	---	---	---	---	---	2.59
3.24	2,501	375.24	9.55	2.62	---	---	---	---	---	---	2.62
3.30	2,558	375.30	9.66	2.65	---	---	---	---	---	---	2.65
3.36	2,615	375.36	9.77	2.68	---	---	---	---	---	---	2.68
3.42	2,672	375.42	9.88	2.71	---	---	---	---	---	---	2.71
3.48	2,728	375.48	9.98	2.73	---	---	---	---	---	---	2.73
3.54	2,785	375.54	10.09	2.76	---	---	---	---	---	---	2.76
3.60	2,842	375.60	10.19	2.79	---	---	---	---	---	---	2.79
3.66	2,897	375.66	10.29	2.82	---	---	---	---	---	---	2.82
3.72	2,951	375.72	10.39	2.85	---	---	---	---	---	---	2.85
3.78	3,006	375.78	10.49	2.87	---	---	---	---	---	---	2.87
3.84	3,061	375.84	10.59	2.90	---	---	---	---	---	---	2.90
3.90	3,115	375.90	10.69	2.93	---	---	---	---	---	---	2.93
3.96	3,170	375.96	10.79	2.95	---	---	---	---	---	---	2.95
4.02	3,225	376.02	10.89	2.98	---	---	---	---	---	---	2.98
4.08	3,280	376.08	10.98	3.01	---	---	---	---	---	---	3.01
4.14	3,334	376.14	11.08	3.03	---	---	---	---	---	---	3.03
4.20	3,389	376.20	11.17	3.06	---	---	---	---	---	---	3.06
4.26	3,438	376.26	11.26	3.08	---	---	---	---	---	---	3.08
4.32	3,487	376.32	11.36	3.11	---	---	---	---	---	---	3.11
4.38	3,537	376.38	11.45	3.13	---	---	---	---	---	---	3.13
4.44	3,586	376.44	11.54	3.16	---	---	---	---	---	---	3.16
4.50	3,635	376.50	11.63	3.18	---	---	---	---	---	---	3.18
4.56	3,684	376.56	11.72	3.21	---	---	---	---	---	---	3.21
4.62	3,733	376.62	11.81	3.23	---	---	---	---	---	---	3.23
4.68	3,783	376.68	11.90	3.26	---	---	---	---	---	---	3.26
4.74	3,832	376.74	11.98	3.28	---	---	---	---	---	---	3.28
4.80	3,881	376.80	12.07	3.30	---	---	---	---	---	---	3.30
4.86	3,922	376.86	12.16	3.33	---	---	---	---	---	---	3.33
4.92	3,963	376.92	12.24	3.35	---	---	---	---	---	---	3.35
4.98	4,004	376.98	12.33	3.37	---	---	---	---	---	---	3.37
5.04	4,045	377.04	12.41	3.40	---	---	---	---	---	---	3.40
5.10	4,086	377.10	12.50	3.42	---	---	---	---	---	---	3.42
5.16	4,127	377.16	12.58	3.44	---	---	---	---	---	---	3.44
5.22	4,168	377.22	12.66	3.47	---	---	---	---	---	---	3.47
5.28	4,209	377.28	12.75	3.49	---	---	---	---	---	---	3.49
5.34	4,250	377.34	12.83	3.51	---	---	---	---	---	---	3.51
5.40	4,290	377.40	12.91	3.53	---	---	---	---	---	---	3.53
5.46	4,314	377.46	12.99	3.56	---	---	---	---	---	---	3.56
5.52	4,337	377.52	13.07	3.58	---	---	---	---	---	---	3.58
5.58	4,360	377.58	13.15	3.60	---	---	---	---	---	---	3.60
5.64	4,384	377.64	13.23	3.62	---	---	---	---	---	---	3.62
5.70	4,407	377.70	13.31	3.64	---	---	---	---	---	---	3.64
5.76	4,431	377.76	13.39	3.66	---	---	---	---	---	---	3.66
5.82	4,454	377.82	13.47	3.69	---	---	---	---	---	---	3.69
5.88	4,477	377.88	13.54	3.71	---	---	---	---	---	---	3.71
5.94	4,501	377.94	13.62	3.73	---	---	---	---	---	---	3.73
6.00	4,524	378.00	13.70	3.75	---	---	---	---	---	---	3.75

...End

Hydrograph Report

Page 1

English

Hyd. No. 1

2-YR POST

Hydrograph type = Manual   Peak discharge = 6.80 cfs
Storm frequency = 2 yrs   Time interval = 5 min

Total Volume = 8,475 cuft

Hydrograph Discharge Table

Time (min	-- Outflow cfs)
5	6.80 <<
10	4.38
15	3.24
20	2.59
25	2.15
30	1.82
35	1.60
40	1.37
45	1.25
50	1.11
55	1.02
60	0.92

...End

Hydrograph Report

Page 1

English

Hyd. No. 3

2-YR ROUT

Hydrograph type = Reservoir   Peak discharge = 2.58 cfs
Storm frequency = 2 yrs   Time interval = 5 min
Inflow hyd. No. = 1   Reservoir name = UDT
Max. Elevation = 375.16 ft   Max. Storage = 2,428 cuft

Storage indication method used.   Total Volume = 8,475 cuft

Hydrograph Discharge Table

Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Outflow cfs
5	6.80 <<	373.38	5.12	1.50	-----	-----	-----	-----	-----	-----	1.50
10	4.38	374.62	8.34	2.30	-----	-----	-----	-----	-----	-----	2.30
15	3.24	375.05	9.20	2.53	-----	-----	-----	-----	-----	-----	2.53
20	2.59	375.16 <<	9.41	2.58	-----	-----	-----	-----	-----	-----	2.58 <<
25	2.15	375.10	9.29	2.55	-----	-----	-----	-----	-----	-----	2.55
30	1.82	374.93	8.98	2.47	-----	-----	-----	-----	-----	-----	2.47
35	1.60	374.72	8.55	2.35	-----	-----	-----	-----	-----	-----	2.35
40	1.37	374.47	8.03	2.22	-----	-----	-----	-----	-----	-----	2.22
45	1.25	374.20	7.42	2.06	-----	-----	-----	-----	-----	-----	2.06
50	1.11	373.94	6.77	1.90	-----	-----	-----	-----	-----	-----	1.90
55	1.02	373.68	6.07	1.73	-----	-----	-----	-----	-----	-----	1.73
60	0.92	373.44	5.33	1.55	-----	-----	-----	-----	-----	-----	1.55
65	0.00	373.07	3.97	1.26	-----	-----	-----	-----	-----	-----	1.26
70	0.00	372.62	1.67	0.80	-----	-----	-----	-----	-----	-----	0.80

...End

Hydrograph Report

Page 1

English

Hyd. No. 2

10-YR POST

Hydrograph type = Manual   Peak discharge = 9.07 cfs
Storm frequency = 10 yrs   Time interval = 5 min

Total Volume = 11,274 cuft

Hydrograph Discharge Table

Time (min	-- Outflow cfs)
5	9.07 <<
10	5.84
15	4.32
20	3.46
25	2.86
30	2.42
35	2.10
40	1.83
45	1.63
50	1.47
55	1.35
60	1.23

...End

Hydrograph Report

Page 1

English

Hyd. No. 4

10-YR ROUT

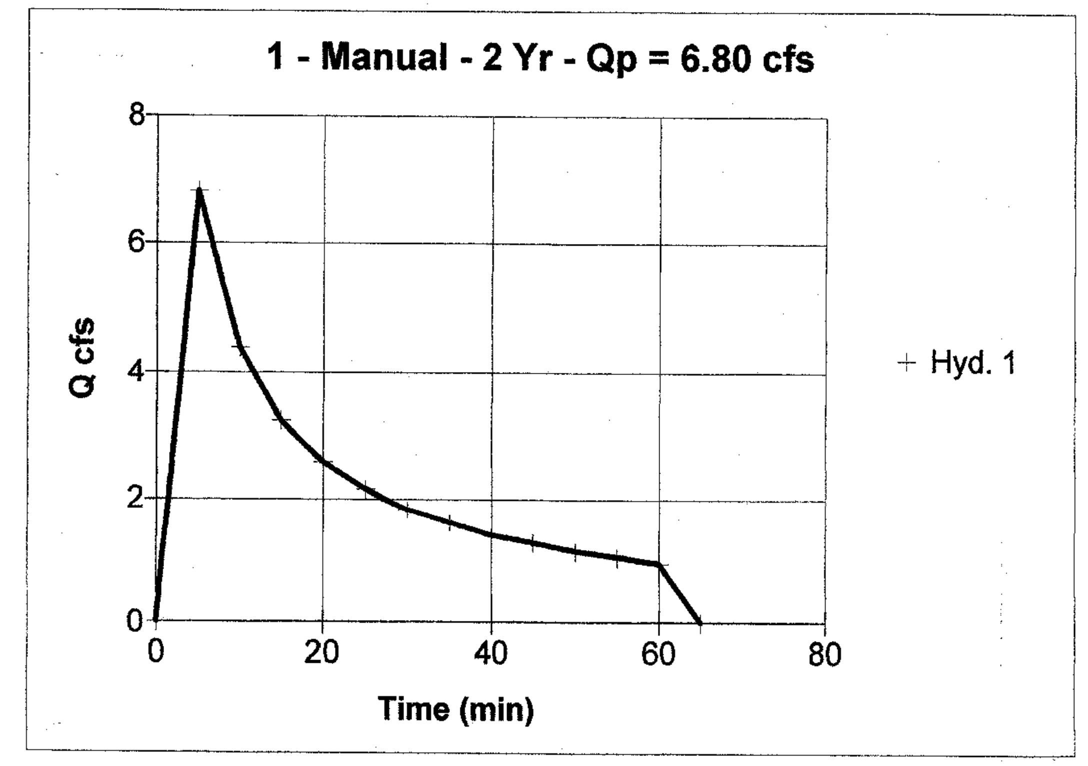
Hydrograph type = Reservoir   Peak discharge = 3.15 cfs
Storm frequency = 10 yrs   Time interval = 5 min
Inflow hyd. No. = 2   Reservoir name = UDT
Max. Elevation = 376.42 ft   Max. Storage = 3,570 cuft

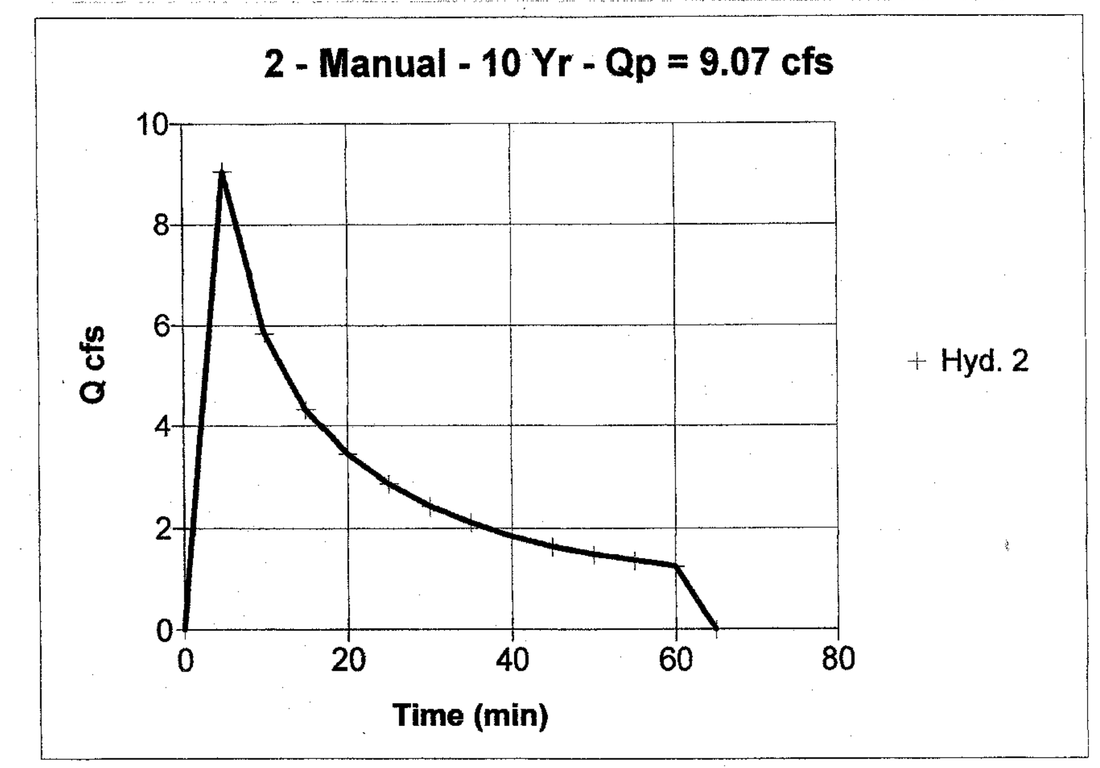
Storage indication method used.   Total Volume = 11,274 cuft

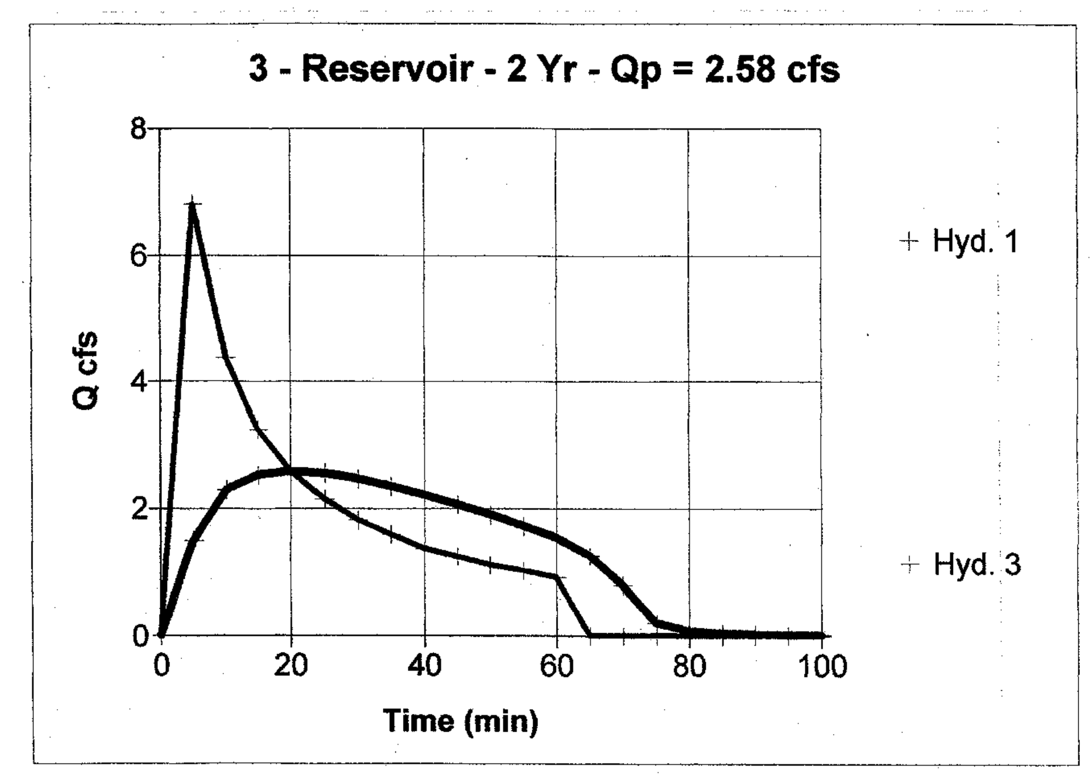
Hydrograph Discharge Table

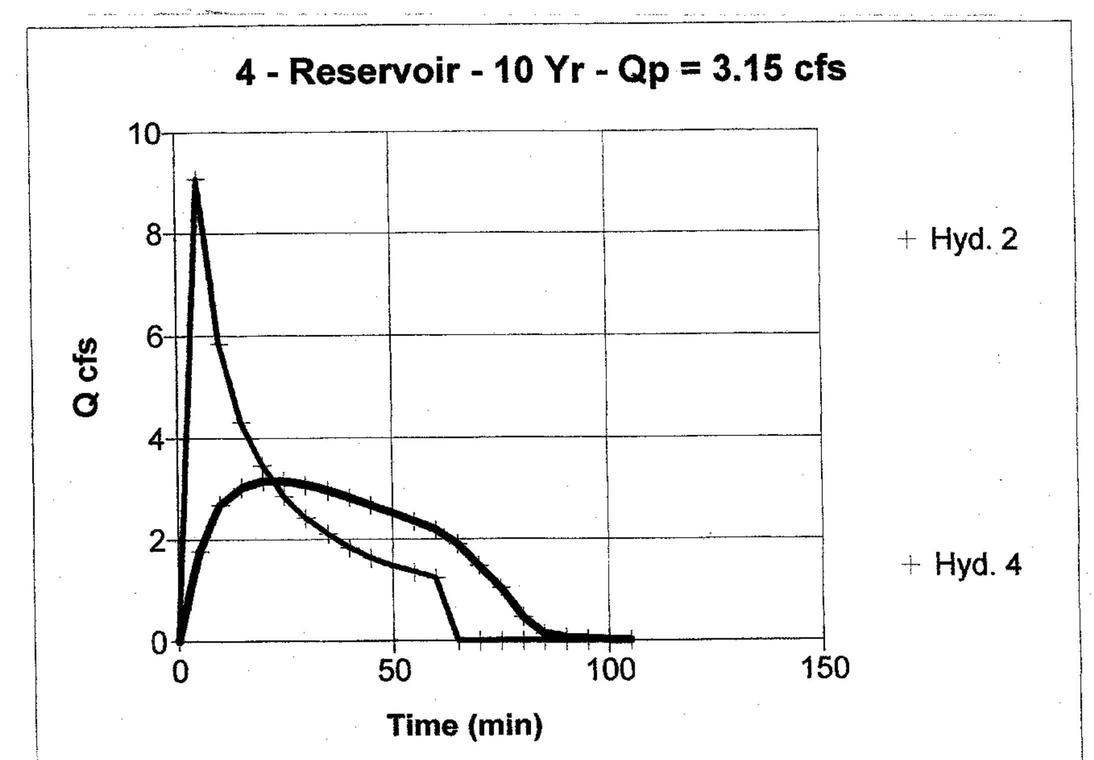
Time (min)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Outflow cfs
5	9.07 <<	373.74	6.24	1.77	-----	-----	-----	-----	-----	-----	1.77
10	5.84	375.41	9.86	2.70	-----	-----	-----	-----	-----	-----	2.70
15	4.32	376.13	11.06	3.03	-----	-----	-----	-----	-----	-----	3.03
20	3.46	376.42	11.50	3.15	-----	-----	-----	-----	-----	-----	3.15
25	2.86	376.42 <<	11.51	3.15	-----	-----	-----	-----	-----	-----	3.15 <<
30	2.42	376.25	11.24	3.08	-----	-----	-----	-----	-----	-----	3.08
35	2.10	375.99	10.84	2.97	-----	-----	-----	-----	-----	-----	2.97
40	1.83	375.68	10.33	2.83	-----	-----	-----	-----	-----	-----	2.83
45	1.63	375.36	9.77	2.68	-----	-----	-----	-----	-----	-----	2.68
50	1.47	375.03	9.15	2.52	-----	-----	-----	-----	-----	-----	2.52
55	1.35	374.71	8.53	2.35	-----	-----	-----	-----	-----	-----	2.35
60	1.23	374.41	7.89	2.18	-----	-----	-----	-----	-----	-----	2.18
65	0.00	373.94	6.77	1.90	-----	-----	-----	-----	-----	-----	1.90
70	0.00	373.34	5.00	1.47	-----	-----	-----	-----	-----	-----	1.47
75	0.00	372.82	2.66	1.02	-----	-----	-----	-----	-----	-----	1.02
80	0.00	372.42	0.85	0.46	-----	-----	-----	-----	-----	-----	0.46

...End









FOR INFORMATION PURPOSES ONLY!

FOR EXISTING UNDERGROUND STORMWATER MANAGEMENT FACILITY

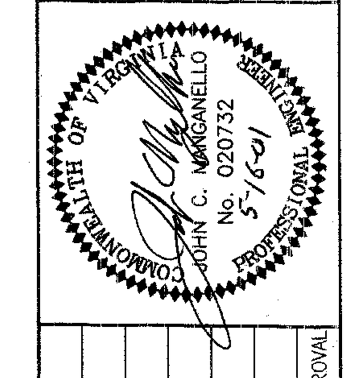
MONACO & MANGANELLO
LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING • LAND PLANNING • SURVEYING
4248-B Chain Bridge Road • Fairfax, Virginia 22030
Phone: (703) 591-5800 • Fax: (703) 273-7951

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.

SWM/BMP COMPUTATIONS

ST. AMBROSE CATHOLIC CHURCH ACTIVITIES CENTER

MASON DISTRICT   FAIRFAX COUNTY, VIRGINIA



REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL

PLAN NO.:
SCALE: NA
DATE: 03/01/01
~~SHEET 13 OF 19~~
FILE NO:

SHEET 15 OF 16

G:\CTS\Diocese of Arlington\St Ambrose Catholic Church\Special permit\Plot\11 swm&bmp comput.dwg

OUTFALL NARRATIVE

THE EXISTING SITE TO BE REDEVELOPED (AREA = 13.678 ACRES) CONTAINS AN EXISTING CHURCH BUILDING, A ONE AND TWO STORY SCHOOL BUILDING, A RECTORY, CONCRETE WALKS, ASPHALT PAVED DRIVEWAY AND PARKING AREAS, LANDSCAPED AND GRASSED AREAS INCLUDING OTHER FORM OF VEGETATION. THE PROPERTY IS BORDERED ON THE NORTHEAST AND SOUTHEAST SIDES BY SINGLE FAMILY DETACHED HOMES, ON THE SOUTH BY COUNTY PROPERTY, AND ON THE NORTH AND EAST SIDES BY WOODBURN ROAD.

A TRIBUTARY AREA (DEVELOPED SECTION) OF 5.50 ACRES OF THE SITE DRAINS OFFSITE ON A SOUTHERNLY DIRECTION THROUGH SEVERAL INLET STRUCTURES THAT OUTFALLS INTO AN EXISTING AND ADEQUATE STORM SYSTEM. THE REMAINDER OF THE SITE SHEET FLOWS IN A NORTHERNLY DIRECTION THROUGH ADJACENT RESIDENTIAL LOTS.

THE PROPOSED REDEVELOPMENT COMPRISES OF SITE GRADING, CONSTRUCTION OF A ONE (1) STORY ACTIVITIES CENTER BUILDING, ADDITIONAL ASPHALT PAVED PARKING AREAS, CONCRETE WALKS, DOMESTIC WATER AND SANITARY SEWER LINES, STORM SEWER SYSTEM AND A STORMWATER DETENTION FACILITY. THESE SITE IMPROVEMENTS WILL RESULT AND CREATE AN INCREASED PEAK RUN-OFF AND IT IS PROPOSED TO CONSTRUCT AND INSTALL STORM SEWER LINES AND INLET STRUCTURES TO PICK-UP AND CONVEY THE ANTICIPATED POST-DEVELOPMENT RUN-OFF AND DETAIN THE COLLECTED STORMWATER IN AN UNDERGROUND CMP DETENTION TANK W/ RISER STRUCTURE. THIS SWM STORAGE FACILITY IS DESIGNED TO DISCHARGE COLLECTED RUN-OFF TO MEET SWM REQUIREMENTS. THE EXISTING 15" OUTFALL PIPE THAT RUNS ALONG THE SOUTHERN BOUNDARY OF THE PROJECT SITE WAS EVALUATED TO HAVE A CAPACITY OF 4.57 CFS (15" RCP @ 0.50% SLOPE) WHICH IS SLIGHTLY LESSER THAN THE COMPUTED 10-YEAR STORM DISCHARGE OF 4.86 CFS FROM OFF-SITE AND THE SWM TANK. THIS EXISTING STORM SEWER LINE WILL BE SLIGHTLY SURCHARGED. HYDRAULIC GRADE ANALYSIS WAS PERFORMED AND PROVIDED ON THIS PLAN. ADDITIONAL RUNS OF THE EXISTING DOWNSTREAM STORM SYSTEM WERE ANALYZED AND WERE FOUND TO HAVE SUFFICIENT FLOW CAPACITIES TO ACCOMMODATE THE ANTICIPATED FLOW DUE TO THIS DEVELOPMENT (SEE STORM DESIGN TABULATION ON THIS SHEET).

BASED ON THE ABOVE, IT IS THE OPINION OF THE SUBMITTING ENGINEER THAT THE EXISTING STORM SEWER SYSTEM/OUTFALL PIPE IS ADEQUATE AND HAS THE CAPACITY TO CONVEY THE 10-YEAR POST DEVELOPMENT RUN-OFF WITHOUT ANY ADVERSE IMPACT ON THE EXISTING CONDITION OF THE DOWNSTREAM STRUCTURES AND PROPERTIES.

BMP NARRATIVE

THE DETAILED DRAINAGE ANALYSIS FOR THE CHURCH SITE CONSIDERED BOTH PRE- AND POST-DEVELOPED IMPERVIOUS AND DISCHARGES ARE GIVEN AS FOLLOWS:

RATIONAL FORMULA: Q = CAI, tc = 5 minutes, I2 = 5.45 in/hr, I10 = 7.27 in/hr.

PRE-DEVELOPMENT PEAK DISCHARGE:

10.728 Ac. @ C = 0.30 = 3.2184 IMPERVIOUS ACRES
2.950 Ac. @ C = 0.90 = 2.6550 IMPERVIOUS ACRES

13.678 Ac. @ CA = 5.8734 IMPERVIOUS ACRES
C = 0.4294
10 YEAR PEAK DISCHARGE = CAI = (5.8734) (7.27) = 42.70 cfs.
2 YEAR PEAK DISCHARGE = CAI = (5.8734) (5.45) = 32.10 cfs.

POST-DEVELOPMENT PEAK DISCHARGE:

10.337 Ac. @ C = 0.30 = 3.1011 IMPERVIOUS ACRES
3.341 Ac. @ C = 0.90 = 3.0069 IMPERVIOUS ACRES

13.678 Ac. @ CA = 6.1080 IMPERVIOUS ACRES
C = 0.4466
10 YEAR PEAK DISCHARGE = CAI = (6.1080) (7.27) = 48.16 cfs.
2 YEAR PEAK DISCHARGE = CAI = (6.1080) (5.45) = 33.29 cfs.

1. THE INCREASE IN IMPERVIOUS AREA IS 3.99% < 20% THEREFORE THE FORMULA FOR REQUIRED PHOSPHORUS REMOVAL IS:

[1-0.9 ("C" pre/"C" post)] x 100 = % P REMOVAL

WHERE "C" pre IS THE PRE-DEVELOPMENT "C" FACTOR
AND "C" post IS THE POST-DEVELOPMENT "C" FACTOR

2. PRE-DEVELOPMENT "C" = 0.43
POST-DEVELOPMENT "C" = 0.45

[1 - 0.9 (0.43/0.45)] x 100 = 14.00% P REMOVAL REQUIRED

3. SITE AREA REQUIRED FOR CONSERVATION:
14.00% (13.678) = 1.91 AC.

PHOSPHOURS REMOVAL REQUIREMENTS TO BE PROVIDED ON-SITE BY DEDICATING 2.00 AC. OF THE SITE FOR A CONSERVATION EASEMENT (PERPETUALLY UNDISTURBED OPEN SPACE). THIS 2.00 ACRE AREA WILL PROVIDE A 14.60% REMOVAL RATE FOR THE ST. AMBROSE CHURCH ACTIVITIES CENTER DEVELOPMENT.

REMOVAL EFFECIENCY: 100%
AREA RATIO: 2.0000 / 13.678 = 0.146
"C" FACTOR = 1
100 x 0.146 x 1 = 14.60%

STORMWATER MANAGEMENT NARRATIVE

1. Area draining to SWM and peak flow

A	0.21 ac	C=0.90
B	1.77 ac	C=0.60
Total	1.98 ac	C=0.63

Q10 = C*I*A = 0.63 x 7.27 x 1.98 = 9.07 cfs
Q2 = 0.63 x 5.45 x 1.98 = 6.80 cfs

2. Increase in peak flows from the entire site

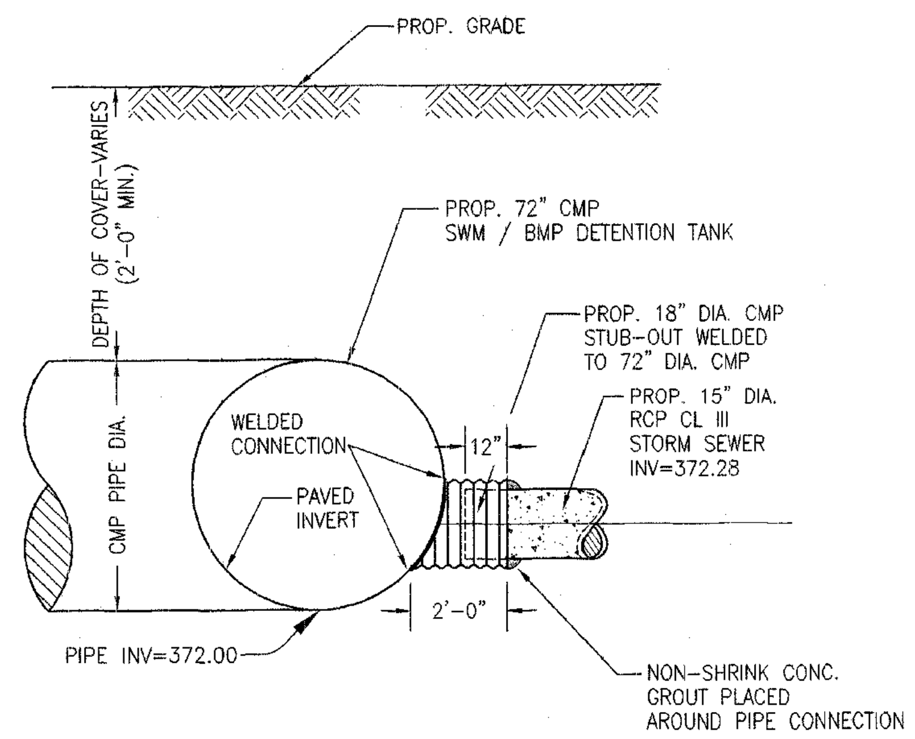
a) 10-year storm
Qpost = C/A = 13.678 (7.27) (0.4466) = 44.41 cfs
Qpre = C/A = 13.678 (7.27) (0.4294) = 42.70 cfs
Increase Q10 = 44.41 - 42.70 = 1.71 cfs

b) 2-year storm
Qpost = C/A = 13.678 (5.45) (0.4466) = 33.29 cfs
Qpre = C/A = 13.678 (5.45) (0.4294) = 32.01 cfs
Increase Q2 = 33.29 - 32.01 = 1.28 cfs

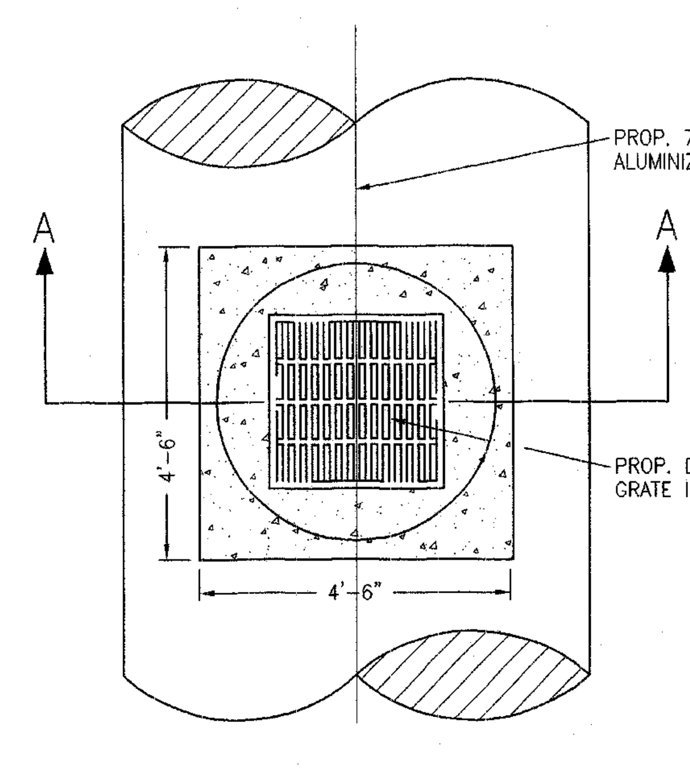
3. Allowable peak flow from the SWM facilitiy
Q10 allow = 9.07 -1.71 = 7.36 cfs
Q2 allow = 6.80 - 1.28 = 5.52 cfs

4. Summary:

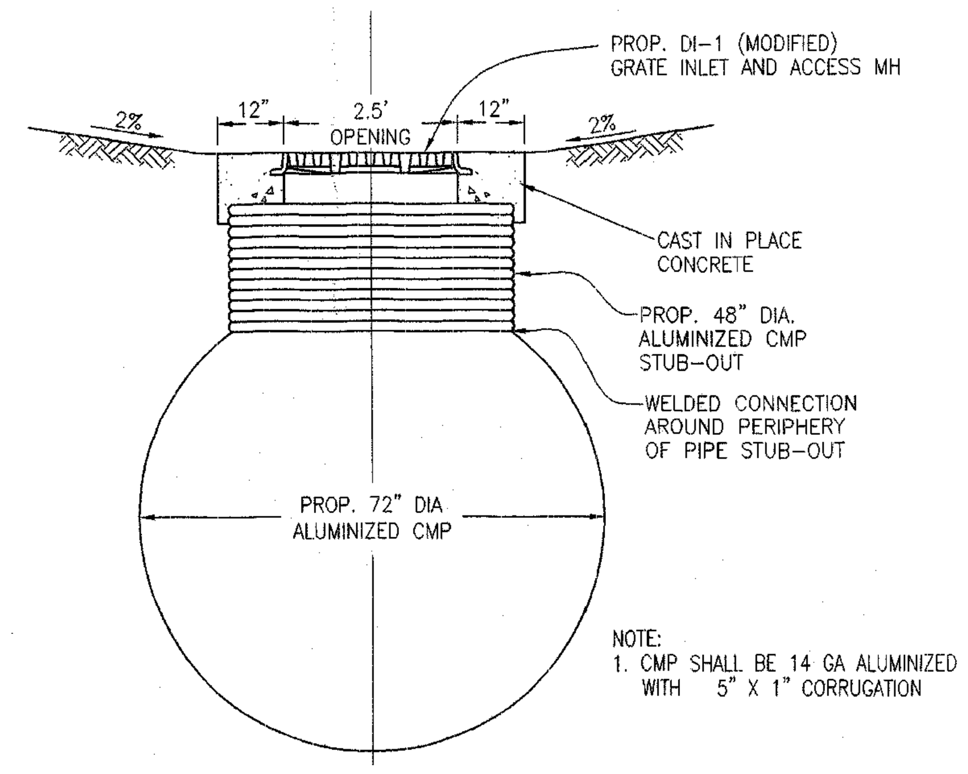
An underground SWM detention system is provided. The peak outflow from the underground is 2.6 cfs and 3.15 cfs for the 2-year and 10-year storm event respectively, which are much less than the allowable peak flows. Therefore, the SWM requirements are met.



TYP. PIPE CONNECTION DETAIL
NTS

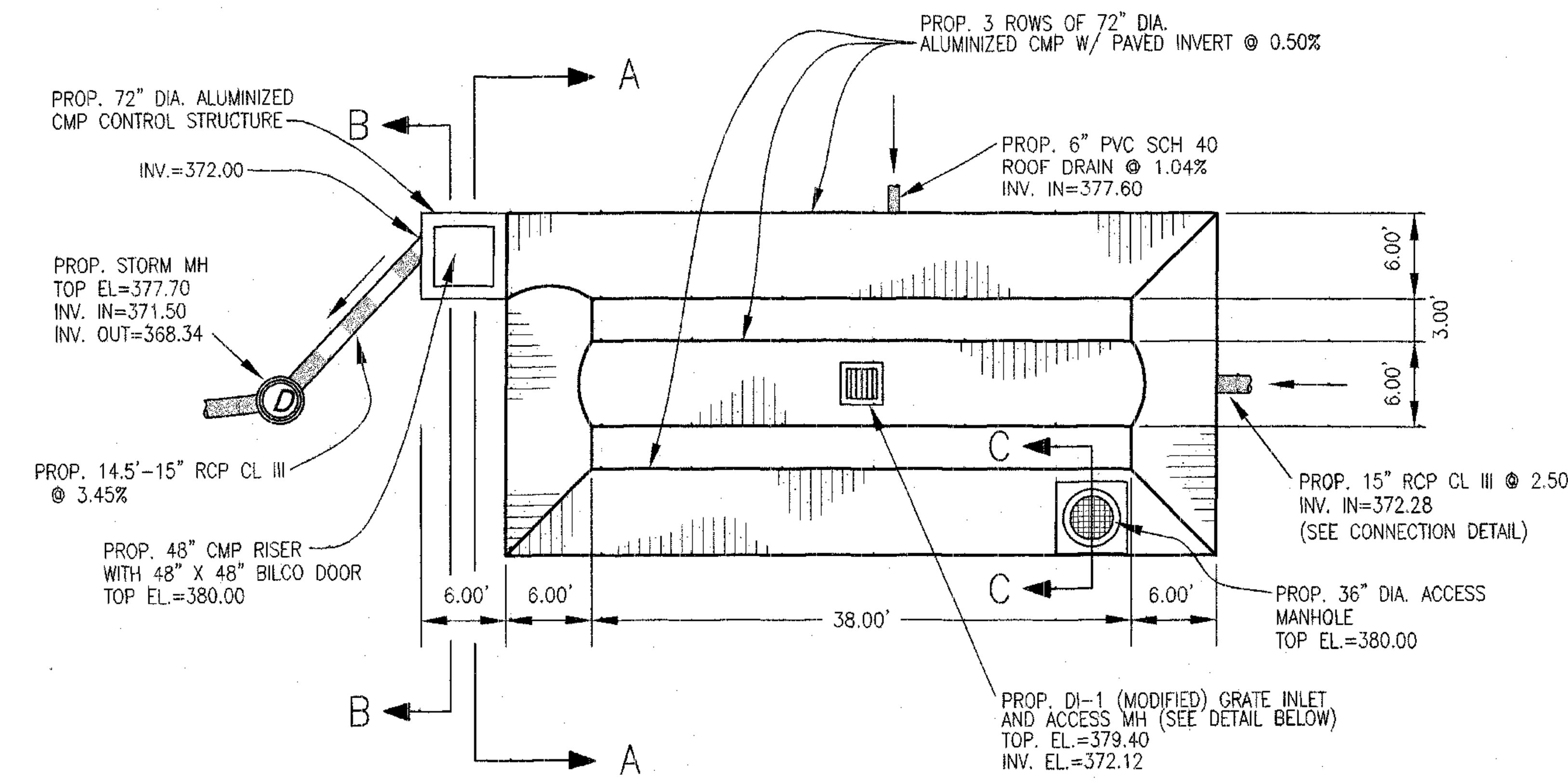


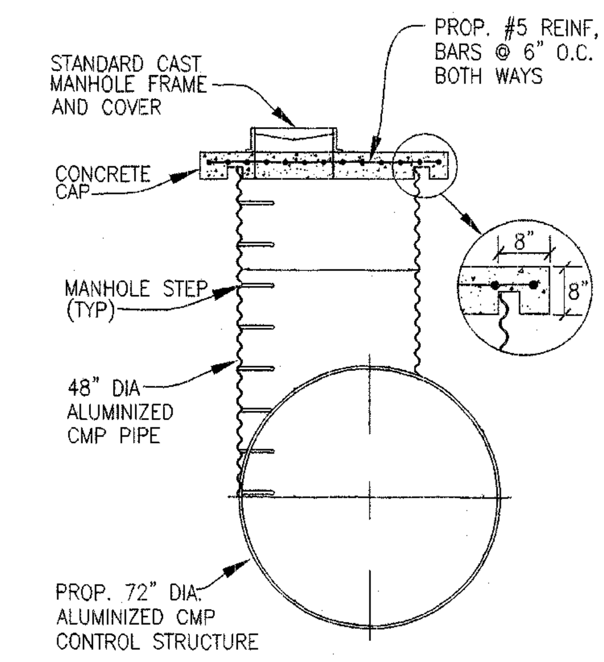
PLAN



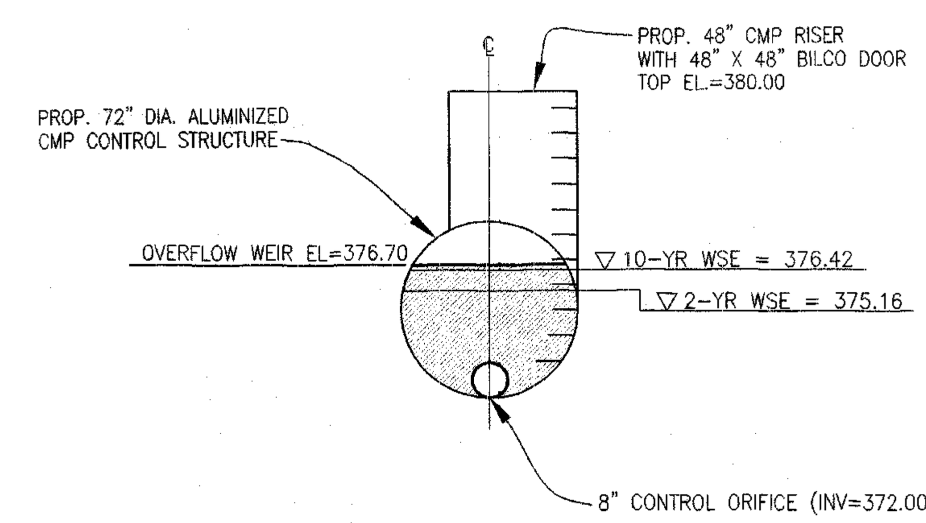
NOTE:
1. CMP SHALL BE 14 GA ALUMINIZED WITH 5" X 1" CORRUGATION

SECTION
DETAIL (GRATE INLET)
NTS

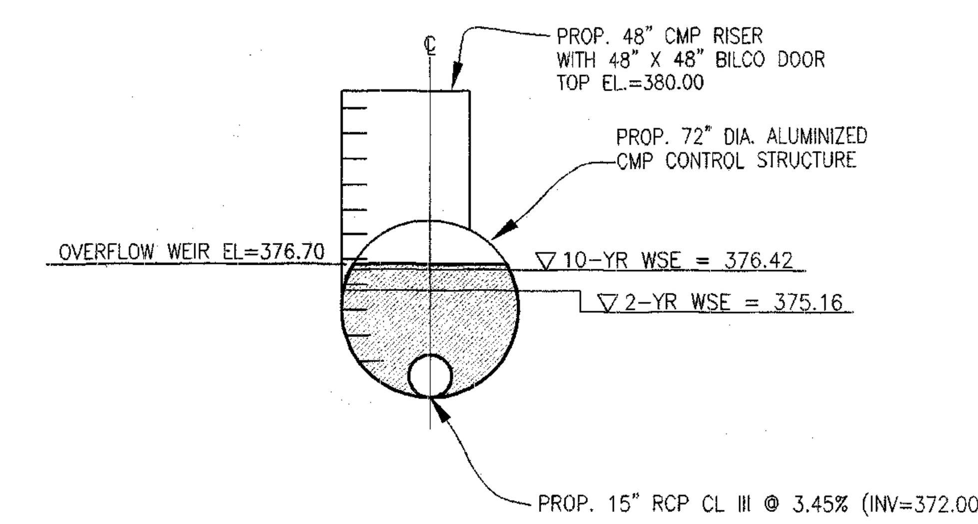




SECTION C-C
CMP ACCESS RISER DETAIL



SECTION A-A
MANHOLE RISER DETAIL



SECTION B-B
MANHOLE RISER DETAIL

UNDERGROUND SWM DETENTION TANK
NTS

NOTES :

1) 72" ø CORRUGATED METAL PIPE SHALL BE ALUMINIZED STEEL TYPE 2 PIPE, MINIMUM 14 GAGE, 5" X 1" CORRUGATED WITH SMOOTH CONTOURED BOTTOM (ASPHALT PAVED INVERT) OR APPROVED EQUAL.
2) BULKHEAD AND INTERIOR PARTITION WALLS SHALL BE ALUMINIZED STEEL PLATE REINFORCED WITH ANGLES. THE PLATE THICKNESS, ANGLE SIZES, SPACING, AND WELDING SHALL BE DESIGNED BY THE STRUCTURAL ENGINEER OF THE MANUFACTURER.
3) PIPE CONNECTIONS SHALL BE LOCK-SEAM WITH ADDITIONAL WELDING ALL AROUND THE JOINTS, NOT RIVETED CONSTRUCTION.
4) BACKFILLING AND COMPACTION SHALL BE DONE IN ACCORDANCE WITH THE PIPE SUPPLIER'S SPECIFICATION.
5) STORM WATER MANAGEMENT FACILITIES WILL BE MAINTAINED BY THE OWNER.

FOR INFORMATION PURPOSES ONLY!
FOR EXISTING UNDERGROUND STORMWATER MANAGEMENT FACILITY

MONACO & MANGANELLO
LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING • LAND PLANNING • SURVEYING
4248-B Chain Bridge Road • Fairfax, Virginia 22030
Phone: (703) 591-5800 • Fax: (703) 273-7951

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.

SWM/BMP COMPUTATIONS, NARRATIVES, AND MISC. DETAILS
ST. AMBROSE CATHOLIC CHURCH ACTIVITIES CENTER
MASON DISTRICT FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MANGANELLO
No. 020732
2-20-02
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL
3	01/04/02	COUNTY COMMENTS
2	10/31/01	ADD (1) NEW ST. LIGHT / UPGRADE (1) EXISTING ST. LIGHT
1	09/24/01	ADD 5' WIDE CONC. WALK (TRAIL)

PLAN NO.:
SCALE: AS SHOWN
DATE: 03/01/01
~~SHEET 14 OF 19~~

SHEET 16 OF 16

F:\PTS\Diocese of Arlington\St Ambrose Catholic Church\Special permit\Plot\14 swm&bmp comput.dwg Wed Feb 20 09:35:43 2002

SPECIAL PERMIT AMENDMENT REQUEST

The applicant requests special permit amendment approval to permit the construction of site improvements and modfications. Specifically, the applicant requests approval to remove the existing sanctuary and construct a new sanctuary containing 22,000 square feet and 800 seats. The applicant is also requesting approval to construct a 22,880 square foot building addition to St. Ambrose Catholic School. The rectory will be removed and relocated offsite. As part of these improvements, the applicant also proposes to construct additional parking, an additional entrance to Woodburn Road and stormwater management facilities. Figure 1 depicts the subject property.

Figure 1: Aerial Map, Source: Fairfax County Pictometry, 2015

The subject property was previously approved for a church with 600 seats, and a private school of general education and a nursery school with a total of 260 students daily.

EXISTING AND PROPOSED CONDITIONS		
	Existing	**Proposed**
Lot Size	R-1: 9.4 acres R-2: 4.3 acres	No Change
FAR	R-1: 0.07 R-2: 0.11	R-1: 0.11 R-2: 0.18
Parking Spaces	183	277
Number of Seats	600	800
Number of Students **Private School** **Nursery School** **Total number of students onsite daily**	205 students currently enrolled between both schools. Maximum of 260 students daily permitted.	No change No change
Playground Area	2,365 square feet	7,405 square feet
Hours of Operation		
Mass Schedule	Monday-Friday 7:00 am and 9:00am Saturday 9:00 am and 5:00 pm Sunday 8:00am, 10:00am and 12:00pm	No Change
Private School	Maximum of Monday-Friday 8:00 am – 3:30 pm	No Change
Nursery School	Monday-Friday - 8:30 am – 11:30 am (morning session) 12:30 pm – 3:30 pm (afternoon session)	No Change
Number of Employees		
Church	2 Priests 1 Religious Education Director 1 Choir Director	No Change

	1 Administrative Assistant 1 Business Manager 1 Office Manager 2 Custodians Several Part Time Office Staff	
Private School **Nursery School** **<u>Total</u> number of employees onsite daily**	Maximum of 32 Included with Private School Maximum of 32 employees daily	No Change No Change No Change

A copy of the special permit amendment plat titled "Special Permit Amendment Plat Saint Ambrose Parish," prepared by John C. Manganello, P.E., dated January 27, 2015, as revised through October 16, 2015, is included at the front of the staff report. The proposed special permit amendment development conditions, statement of justification, and affidavit are contained in Appendices 1 to 3, respectively.

CHARACTER OF THE SITE AND SURROUNDING AREA

The 13.7 acre property is located on the southeastern side of Woodburn Road. The site is developed with six structures including a sanctuary (9,016 square feet), a school (22,587 square feet), a parish office and activities center (11,884 square feet), a rectory (6,073 square feet) and two sheds. A parking lot containing 183 spaces is located in front of the buildings and adjacent to Woodburn Road. The property has an elevation of 388 feet along Woodburn Road and slopes downward towards Frost Way to an elevation of 344 feet. The subject property contains a number of existing utility easements on site.

The site has two vehicular access points from Woodburn Road, which both consist of one ingress lane and one egress lane. The westernmost access allows for full turning movements into and out of the site due to a median break. The easternmost access is reserved for right-in and right-out only movements.

The property is generally flat and contains a large wooded area on the northeastern and southeastern portion of the lot. Part of this area was previously designated as a forested "recreation area" associated with SPA 76-M-086-3. A two acre conservation easement is located along the northeastern and southeastern property lines.

The subject property is zoned R-1 and R-2. Property to the north is zoned R-1 and R-2 and contains single-family detached dwellings. Property to the south is zoned R-1 and R-3 and contains the Pine Ridge police facility and single-family detached dwellings, respectively. The properties to the east and west are developed as single-family

detached dwellings and zoned R-2 and R-1, respectively. Parcel 18, an outparcel that contains a single-family house, is zoned R-2 and surrounded by St. Ambrose Church on three sides.

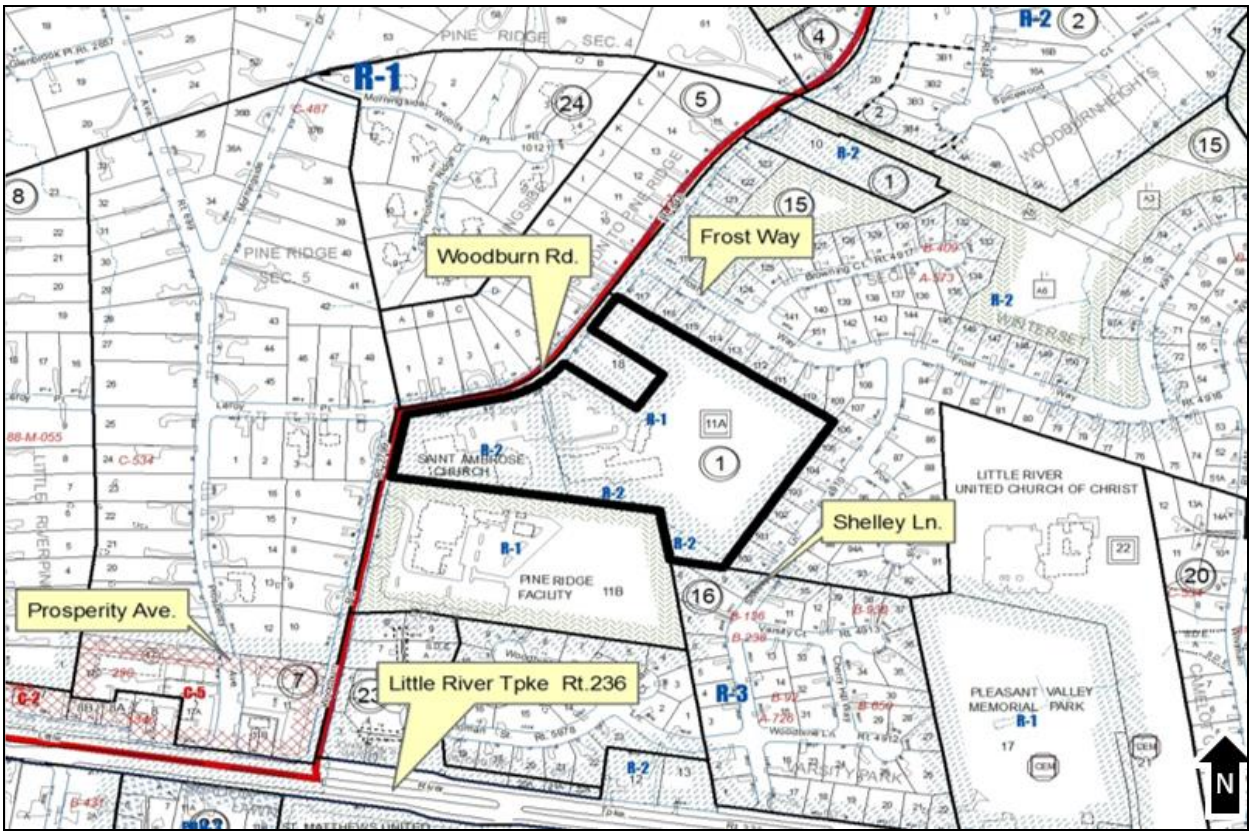


Figure 2: Zoning Map, Source: Fairfax County, 2015

SURROUNDING AREA DESCRIPTION			
Direction	**Use**	**Zoning**	**Plan**
North	Single family detached dwellings	R-1 R-2	Residential, 1-2 du/ac Residential, 2-3 du/ac
East	Single family detached dwellings	R-2	Residential, 2-3 du/ac
South	Pine Ridge Police Facility Single family detached dwellings	R-1 R-3	Public Facilities, Governmental and Institutional Residential, 2-3 du/ac
West	Single family detached dwellings	R-1	Residential, 1-2 du/ac

BACKGROUND

St. Ambrose Catholic church was established prior to the adoption of the Zoning Ordinance Amendment that required special permit approval for a place of worship. On November 15, 1967, a Non-Residential Use Permit (Non-RUP) was issued for a sanctuary. At that time, the sanctuary was located in another building, approximately in the center of the property. The existing sanctuary was constructed in 1978 and the existing rectory was constructed in 1972. The property was purchased by the current Archdiocese in 1975.

There have been a number of special permit applications and amendments on the subject property. A summary of these applications and Board of Zoning Appeals (BZA) action is provided below. Further information on these specific applications can be found on file at the Zoning Evaluation Division, Department of Planning and Zoning. Copies of applicable building permits and Non-Residential Use Permits are on file with the Zoning Permit Review Branch of the Department of Planning and Zoning.

- S-601-67 (5/23/1967) – Approved for a private school for 300 children with grades 1 through 8, ages 6 through14 and hours of operation between 8:30 a.m. and 3:30 p.m. The private school approved with this application was never implemented.
- S-111-69 (6/10/1969) – Approved for a nursery school with 40 children ages 2 through 5. A maximum of two sessions per day were approved between 9 a.m. to12 p.m. and 12:30 p.m. to 3:30 p.m. The nursery school approved with this application was never implemented.
- S-185-74 (12/11/1974) – Approved for an addition of 61 parking spaces. Also brought the entire property under special permit for the first time as a church. The existing sanctuary had 600 seats.
- S-86-76 (6/8/1976) – Approved for construction of a new sanctuary with 600 seats.
- SPA 76-M-086-1 (8/2/1983) – Approved for a parking addition and garage addition to the rectory. The garage addition to the rectory approved with this application was never constructed.
- SPA 76-M-086-2 (7/9/1991) – Approved for a building addition to the rectory, garage addition to the rectory, and bell tower within the sanctuary.
- SPA 76-M-086-3 (3/15/1995) – Approved for a private school of general education with an enrollment of 250 children maximum and building additions to the sanctuary and school.
- SPA 76-M-086-4 (12/12/2000) – Approved for a new parish office, site modifications and a change in development conditions.
- SPA 76-M-086-5 (6/19/2013) – Approved for a nursery school with a maximum enrollment of 260 students, when combined with the private school of general education. A copy of the resolution and plat approved in conjunction with this amendment is included as Appendix 4.

DESCRIPTION OF THE APPLICATION

Proposed Layout

The applicant requests approval of a special permit amendment to permit a new sanctuary and building addition to the existing school. The proposed sanctuary will contain 22,000 square feet and 800 seats and will replace an existing sanctuary containing 9,016 square feet and 600 seats. According to the applicant's statement of justification, the existing octagonal sanctuary and interior layout is not easily accessible. The proposed sanctuary will contain a more regular shape and continue to be one story.

St. Ambrose Catholic School provides instruction from Kindergarten to eighth grade and also includes a nursery school, which was permitted with SPA 76-M-086-5. In conjunction with this special permit amendment, the applicant is proposing a 22,880 square foot building addition to the school. Approximately 13,000 square feet of the addition with be comprised of rooms used for science and choir, which currently exist in shared facilities within the existing building. This portion of the addition will contain two stories. The remaining 9,880 square feet will be constructed as a one-story gymnasium/multi-purpose building for indoor recreation, assemblies and similar activities, which currently take place in the cafeteria. The applicant does not propose any additional classrooms or increase in enrollment as a result of this addition.

As a result of the proposed improvements, the existing rectory will be removed from the subject property and will be relocated off site.

At this time, the applicant proposes phasing the improvements, which will be constructed as funding is available and in one or more phases. It is anticipated that the first phase will contain the proposed sanctuary, additional parking and stormwater management facilities and removal of the existing rectory and the second phase will contain the school addition. The total square footage of the existing and proposed structures is 93,554 square feet.

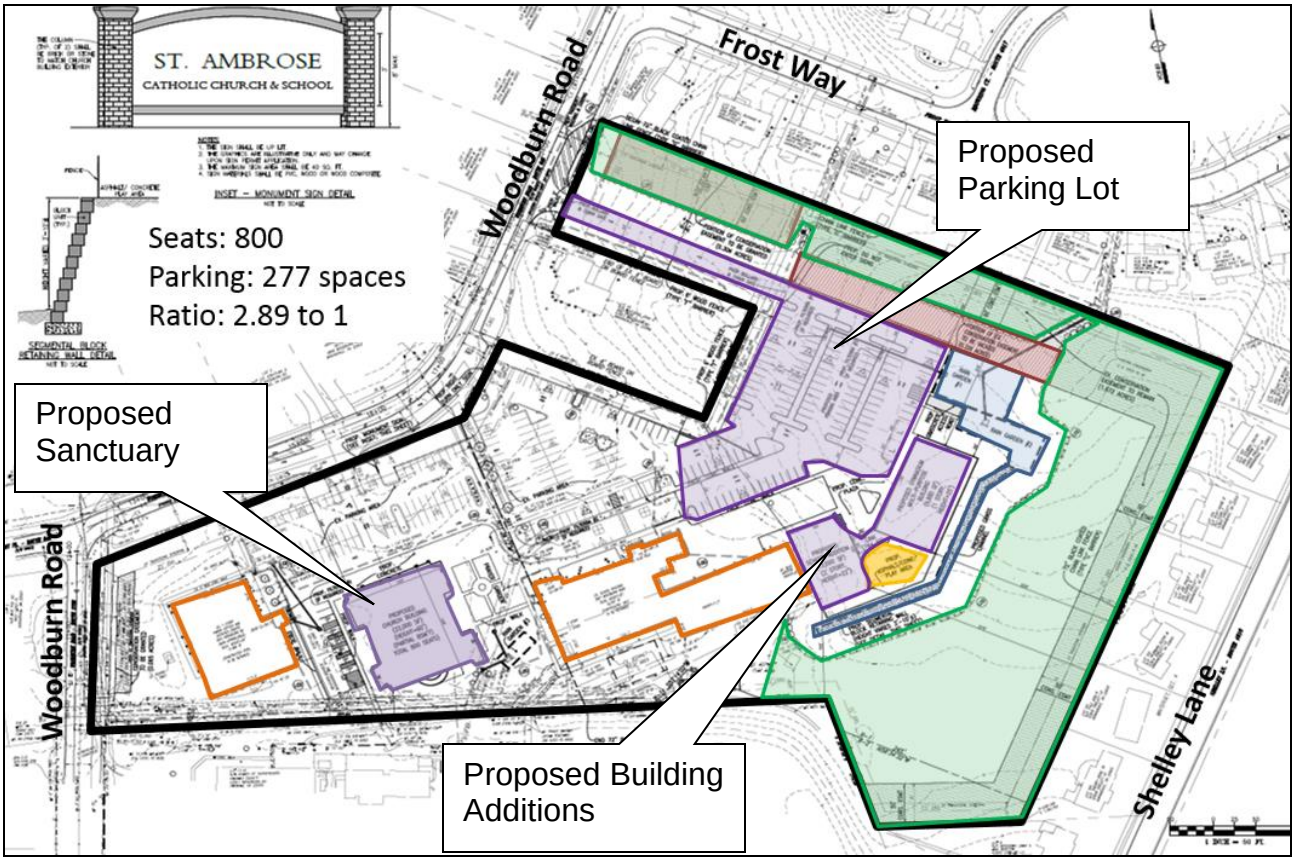


Figure 3: Proposed Layout, Source: Applicant with Added Graphics from Staff

Vehicle Access and Parking

In accordance with Paragraph 3 of Article 11-106 of the Zoning Ordinance, a church requires one parking space per four seats in the principal place of worship. Per Paragraph 2A of Article 11-106 of the Zoning Ordinance, a child care center or nursery school requires 0.19 parking spaces per child for a center or school which has a maximum daily enrollment of 99 children or less. Finally, per Paragraph 17 of Article 11-106 of the Zoning Ordinance, a private school of general education requires parking based on a review of each proposal; however no less than one parking space per faculty and staff member plus four visitor spaces shall be provided.

The site generates a requirement of 242 parking spaces based on a maximum capacity of 800 seats in the sanctuary, 30 children in the nursery school, and 32 faculty, staff and visitors in the private school. The SPA plat proposes 277 spaces, which exceeds the Zoning Ordinance requirement. The existing parking lot will be retained and the additional parking concentrated in the eastern portion of the property. The property is currently accessed from two entrances on Woodburn Road. The westernmost entrance is a full access entrance while the easternmost entrance is right-in and right-out only. The applicant is also proposing an additional entrance at the far eastern portion of the property, which will be restricted to ingress only on weekends for services due to the need for an offsite sight distance easement. The applicant originally proposed a full

access entrance to provide an additional means of ingress and egress to the proposed parking lot. Staff noted that sight distance was substandard at this location and did not meet VDOT requirements without obtaining an offsite sight distance easement. The applicant was unable to acquire this offsite easement and this entrance was revised to ingress only for use only on weekends during church services.

Trees, Landscaping, and Open Space

With the proposed development, the subject property will contain approximately 58 percent open space. Of this, approximately 34.8 percent of the site is proposed to remain as undisturbed open space. According to the SPA plat, the applicant plans to meet all tree canopy and tree preservation targets. Conditions have been included requiring a tree preservation plan and narrative to be fully outlined and fulfilled by the time of site plan.

Stormwater Management/Best Management Practices

The subject property maintains two existing drainage patterns. Drainage areas A1 and A2 drain in a southwesterly direction from the site into an existing storm sewer system in Woodburn Road. Drainage areas B1 and B2 drain in an easterly direction towards residential lots in the Winterset Subdivision, Section 4. The existing storm sewer constructed in this subdivision collects storm drainage in two locations along the northeasterly boundary of the subdivision. This runoff ultimately discharges into the major floodplain for Accotink Creek, located southeast of the subject property, which is an adequate outfall.

Due to the proposed building and parking additions, the subject property will be required to provide stormwater management/best management practices (SWM/BMP) for the increase in impervious area. Under the post-development condition, existing and proposed stormwater management/best management practices (SWM/BMP's) will be utilized to meet the water quantity and quality requirements. The westerly portion of the subject property has an existing underground detention system, which will be supplemented by a proposed bio-retention facility with underground storage (Rain Garden) and two Filterra systems (Tree Box Filters).The easterly portion of the subject property will be served by two Rain Gardens, two Filterra systems, a vegetated swale and conservation easement. Based on information provided by the applicant and subject to final review at site plan, the water quantity and quality requirements will be met per the current Stormwater Ordinance and the post development peak flows will be less than the pre development peak flows.

Architecture

The elevations below detail the proposed sanctuary building. The applicant has indicated that the materials will primarily consist of masonry, such as brick or stone, with stained glass windows and a sloping shingled roof.

A development condition has been included requiring the sanctuary building to be generally consistent with the submitted architectural elevations. While the applicant has not provided elevations of the proposed school addition, staff has provided a development condition that the construction shall be generally consistent with the existing school building.

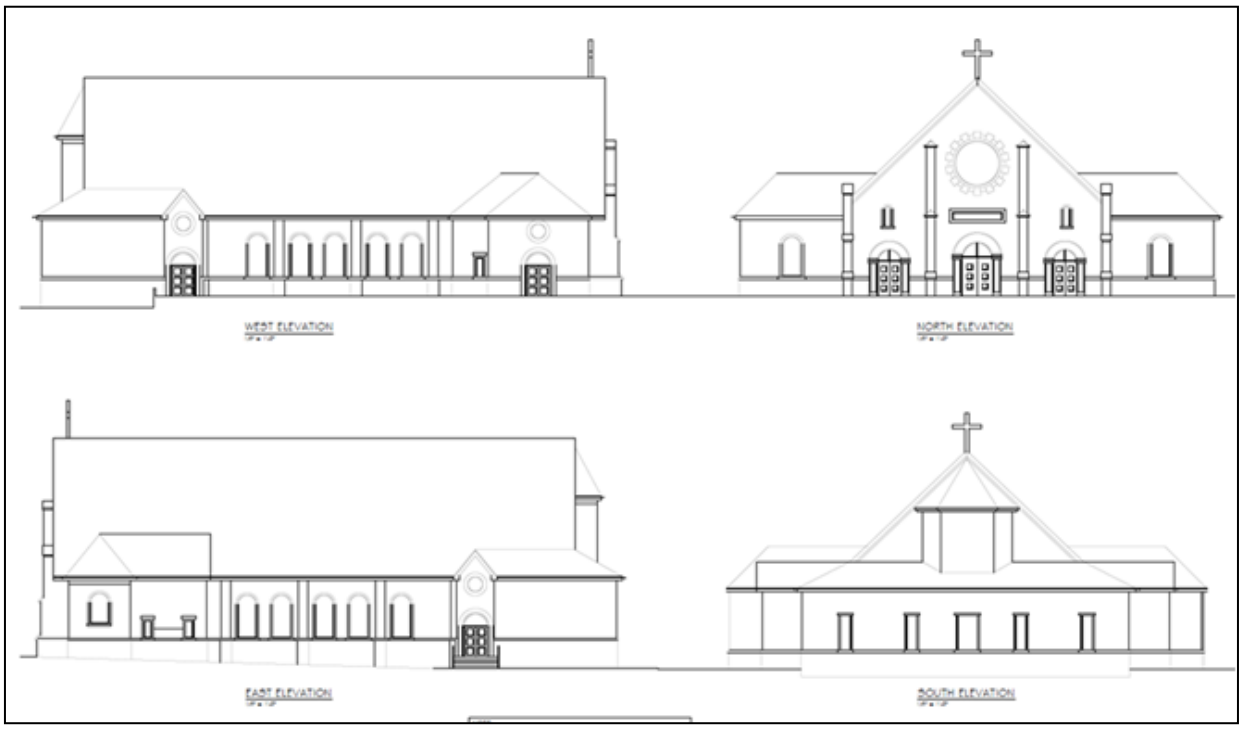


Figure 4: Architectural Elevations for Proposed Sanctuary, Source: Applicant

ANALYSIS

Comprehensive Plan Provisions

Plan Area:	I
Planning District:	Annandale
Planning Sector:	Pine Ridge (A8)
Plan Map:	Public Facilities, Governmental and Institutional

Environmental Planning Analysis (Appendix 5)

The subject property is located within the Accotink Creek watershed. The western portion of the site is currently developed with an existing sanctuary, parish building, rectory, private school and parking lot. The eastern portion of the site is undeveloped and contains existing vegetation. As part of the proposed development, approximately

5.21 acres of existing vegetation will be disturbed. The subject property does not contain any regulated environmentally sensitive features such as floodplain, Resource Protection Area or Environmental Quality Corridor.

The Comprehensive Plan provides specific guidelines for the preservation of groundwater resources. Specifically, the Plan states: *"Prevent and reduce pollution of surface and groundwater resources. Protect and restore the ecological integrity of streams in Fairfax County."* As noted in further detail below, the property is currently served by an existing underground detention system. The proposed impervious area will be served by a series of Rain Gardens, Filterra systems, vegetated swale and existing and proposed conservation easements, which are established best management practices and low impact development techniques. The applicant has provided detailed calculations which demonstrate that the post development peak flow rates for the two and ten year 24 hour storm events will be reduced to pre-development condition. Further, the applicant has provided the Virginia Runoff Reduction spreadsheet which notes the subject property will meet the County's current water quality requirements. An adequate outfall analysis and conformance with the County's Stormwater Management Ordinance will be reviewed in further detail at time of site plan.

The Comprehensive Plan also provides specific energy and water efficiency guidelines and other green building practices in the design and construction of development. Specifically, the Plan states: *"Design and construct building and associated landscapes to use energy water resources efficiently and to minimize short and long term negative impacts on the environment and building occupants."* The applicant has agreed to a development condition which outlines a number of energy conservation measures to be implemented during construction and occupancy of the proposed buildings. Some of the measures include the use of native species for landscaping, LED or compact fluorescent lamps, motion sensor faucets and flush valves, low flow plumbing fixtures, and green building materials such as paint, carpet, tile and appliances. The applicant has also agreed to employ a LEED-Accredited Professional (AP) to work with the applicant's consultants to incorporate sustainable design elements and innovative technologies into the proposed buildings. Prior to final construction bond release, the LEED-AP shall submit a certification statement to the Environment and Development Review Branch (EDRB) of the Department of Planning and Zoning confirming that the green building elements have been incorporated into the design and construction of the buildings.

Stormwater Analysis (Appendix 6)

As stated, there are no Resource Protection Area (RPA) or floodplain on the subject properties, nor are there downstream drainage complaints on file. The applicant is proposing an increase in impervious area associated with the buildings and parking lot. Under the post-development condition, existing and proposed stormwater management/best management practices (SWM/BMP's) will be utilized to meet the water quantity and quality requirements, which will be met per the current Stormwater Ordinance.

Urban Forestry Analysis (Appendix 7)

Staff from the Urban Forest Management Division (UFMD) have extensively reviewed this application and worked closely with the applicant to address outstanding comments, which also include compliance with previous development conditions. While the applicant has made great progress in addressing staff's concerns, a few issues remain, which are discussed in greater detail below.

Clearing and Grading

UFMD has requested the applicant provide the minimum amount of clearing and grading necessary to construct the proposed improvements. While the applicant states that the minimum has been provided, staff has not seen an exhibit which illustrates the grading required to construct the proposed improvements. In some locations on site, it appears as if grading is proposed 30 to 40 feet away from proposed improvements, which may be excessive based on topography. Staff from UFMD requests the applicant further reduce the limits of clearing and grading adjacent to the proposed grass swale and continuing north along the northeastern property line to Woodburn Road. Specifically, staff requests the clearing limits be adjusted approximately ten feet inward to provide greater protection to trees to be preserved for canopy credit as well as those proposed for removal, which may be preserved. Additionally, staff requests the applicant revise the limits of clearing and grading along the eastern side of the existing school building to protect the critical root zone of the Japanese cryptomeria located within the proposed limits of clearing and grading. The applicant has indicated that these changes cannot be made without the use of a retaining wall. The applicant has requested the limits of clearing and grading remain as shown, which UFMD does not support.

Transitional Screening

In conjunction with SPA 76-M-085-05, the applicant received a modification of the transitional screening requirements along the southeastern and northeastern property lines in lieu of the preservation of existing vegetation. Subsequent to approval of that SPA, several large trees within the southeastern and northeastern transitional screening yards died. In late 2014, the applicant was required to replace this dead vegetation with eight, one and half inch blackgum trees. During a site visit on September 15, 2015, UFMD staff noted that these eight trees have since died and been removed from the site. Staff believes this vegetation should be replaced to comply with previous modification requests as well as development condition #20 from SPA 76-M-085-05, located in Appendix 4. Staff believes this issue can be addressed at time of site plan and has included a development condition to this effect.

Finally, UFMD staff notes that the applicant should provide proper justification in accordance with Section 13-305 of the Zoning Ordinance for the barrier waiver requested along the northern and western property lines. Additionally, staff from UFMD is in support of the applicant's request to modify the barrier location along the

southeastern and northeastern property lines provided a six foot board on board fence is provided along the property line. At this time, the applicant is proposing a six foot vinyl chain link fence along the property line. In the event the applicant continues to propose a chain link fence, staff from UFMD will not support the modification request and require the fence be depicted on the internal side of the screening yard, as required per the Zoning Ordinance. This continues to be an unresolved issue as further discussed below in the Waivers/Modification section.

Transportation Analysis (Appendix 8)

During review of this special permit amendment, both the Virginia Department of Transportation (VDOT) and Fairfax County Department of Transportation (FCDOT) raised concerns regarding the applicant's proposal.

Proposed Eastern Access Point

Both VDOT and FCDOT expressed concern regarding the proposed eastern entrance. The applicant originally proposed a full access entrance to provide an additional means of ingress and egress to the proposed parking lot located on the eastern portion of the property. Staff noted that sight distance was substandard at this location and did not meet VDOT requirements without obtaining an offsite sight distance easement. The applicant was unable to acquire this offsite easement and this entrance was revised to ingress only for use on the weekend during church services. Based on concerns from the surrounding community, a series of bollards and chains will be located at both ends of the entrance to preclude use during the remainder of the week. Staff has provided a development condition to this effect requiring the bollards and chains to be in use Monday-Friday and only removed on Saturday and Sunday for use during church services. To address staff's concern that parishioners may try to exit the property in between services, the applicant is proposing two "Do Not Enter" signs. A development condition is proposed that requires the church to provide volunteers to direct pedestrian and parking traffic during services. As a result of these changes and conditions, staff believes this issue has been resolved.

Frontage Improvements

FCDOT requested the applicant provide frontage improvements for the ultimate road section in the vicinity of the proposed eastern entrance to include pavement widening, striping (for the interim condition) curb, gutter and a re-aligned five-foot sidewalk. These improvements have been shown on the special permit amendment plat. As will be discussed below, a minor paved trail is also required along the property's Woodburn Road frontage. In lieu of constructing a parallel facility adjacent to a sidewalk, FCDOT will support a waiver of this requirement provided the applicant realigns the existing meandering sidewalk as shown on the SPA plat. It is staff's opinion that the applicant has addressed this concern.

Operational Analysis

Due to the increase in sanctuary seats and proposed third entrance, both VDOT and FCDOT requested the applicant provide an Operational Analysis (OA) to determine the need for turn lanes and/or tapers at the proposed and existing entrances. The study reached the following conclusions:

- The existing conditions at the site intersections and entrances generally operate at an acceptable level of service (LOS) during peak hours except the signalized intersections on Little River Turnpike, which operate at a LOS F in the PM peak. This will remain the same in the proposed condition.
- Traffic control officers are not needed on a typical Sunday or weekday.
- The proposed increase in the number of seats in the sanctuary will result in an increase of 57 peak AM trips, 70 peak PM trips and 370 daily trips on Sundays.
- The results of the intersection capacity analysis for the future conditions showed the following:
    - Turning movements at the existing and proposed entrances will continue to operate at an acceptable LOS.
    - The westbound left turn lane on Woodburn will accommodate the forecasted traffic demand and queue on weekdays and Sundays.
    - The proposed entrance on Woodburn will operate at an acceptable LOS under future Sunday conditions. Separate left and right turn lanes are not required assuming use of the entrance is limited to non-school peak conditions.
- Based on current parking demands, the expanded sanctuary will demand 264 parking spaces and 277 are shown on the plat.

Accordingly, the OA concludes that the proposed improvements will not have a detrimental impact to the overall traffic operations on a daily basis. No increase to school enrollment is proposed and only a minor increase in volume is anticipated on Sunday associated with the increase in sanctuary seats. The school continues to manage an existing carpool program. Currently 57 percent of families have more than one child attending the school, which results in trip reduction opportunities. According to the applicant, all pick-up and drop-off is accommodated on site. While the proposed gymnasium offers opportunity for additional events sponsored by the applicant, these will occur during non-peak periods and can be accommodated with the proposed and existing parking lots. Both VDOT and FCDOT concur and have approved the OA, which resolves this issue.

Access Management Exception

The applicant originally applied for an Access Management Exception from VDOT due to the proximity of the new commercial entrance to an adjacent private entrance on Parcel 18. The applicant is meeting VDOT's 200 foot spacing requirement between the

new entrance and Frost Way as well as between the existing church eastern entrance and new entrance. However the centerline to centerline separation between the new commercial entrance and Parcel 18's private entrance is only 50 feet and the curb return to curb return separation is 0 feet. VDOT has determined the 50 foot spacing requirement between curb returns located in Figure 4-11 of the VDOT Road Design Manual only pertains to separation between commercial entrances, commercial entrances and intersections or between intersection/interchanges – not a commercial entrance and private entrance (see Appendix 8). As a result, VDOT has determined that an Access Management Exception is not required for the entrance and the applicant was asked to withdraw this request.

The applicant is proposing approximately fifty peak hour trips into their entrance on Sunday only and the entrance will not be in use during the week. Further, the standard trips per day associated with a residential use are ten trips. Based on the anticipated low volume of traffic using these entrances and occasional use, specifically on the weekend during services, and the results of the Operational Analysis, staff does not believe the placement of this entrance will adversely impact the adjacent property or transportation network.

ZONING ORDINANCE REQUIREMENTS (Appendix 9)

The subject property is zoned R-1 and R-2; however at the time of special permit application beginning in 1967, the property was zoned RE-1 and RE-0.5 and met the lot size and bulk regulations at the time of development as shown below. With the adoption of the 1978 Zoning Ordinance, the RE-1 District was converted to the R-1 District and the RE-0.5 District was converted to the R-2 District.

BULK REQUIREMENTS (R-1 and R-2)			
STANDARD	**RE-1 and RE-0.5 REQUIRED**	**R-1 and R-2 REQUIRED**	**PROVIDED**
Minimum Lot Area	RE-1: 1 acre RE-0.5: 21,780 sq. ft.	R-1: 36,000 sq. ft. R-2: 15, 000 sq. ft.	R-1: 9.4 acres R-2: 4.3 acres
Minimum Lot Width	RE-1: 150 feet RE-0.5: 125 feet (corner lot)	R-1: 150 feet R-2: 125 feet (corner lot)	R-1: 112 feet R-2: 149 feet (corner lot)
Maximum Building Height	Maximum of 60 feet	Maximum of 60 feet	Maximum of 60 feet
Front Yard	50 feet from the front lot line or 75 feet from the center line of the abutting street, whichever is greater	R-1: 50° angle of bulk plane not less than 40 feet R-2: 45° angle of bulk plane not less than 35 feet	140 feet (proposed sanctuary)
Side Yard	20 feet	R-1: 45° angle of bulk plane not less than 20 feet R-2: 40° angle of bulk plane not less than 15 feet	31 feet (proposed sanctuary)
Rear Yard	25 feet	R-1: 45° angle of bulk plane not less than 25 feet R-2: 40° angle of bulk plane not less than 25 feet	220 feet (proposed gymnasium)
Maximum Floor Area Ratio	Not Required	R-1: 0.15 R-2: 0.20	R-1: 0.11 R-2: 0.18
Parking Spaces	Place of Worship: 120 spaces	**Total: 242 spaces** Place of Worship: 200 spaces Proposed Nursery School: 6 spaces Private school: 36 spaces	277

Special Permit Amendment Requirements

This special permit amendment is subject to the following provisions of the Zoning Ordinance, which are provided in Appendix 9. Subject to the development conditions, the special permit amendment must meet these standards.

- General Standards (Sect. 8-006)
- Standards for all Group 3 Uses (Sect. 8-303)
- Additional Standards for Churches, Chapels, Temples, Synagogues, or Other Such Places of Worship With a Child Care Center, Nursery School or Private School (Sect 8-308)

The following is staff's analysis of the Zoning Ordinance provisions and the proposal to permit a sanctuary and building addition on the subject property.

General Standards (Sect. 8-006)

General Standard 1 states *that the proposed use at the specified location shall be in harmony with the adopted Comprehensive Plan*. The Land Use Policy Plan of the Comprehensive Plan states that *"Fairfax County should seek to establish areas of community focus which contain a mixture of compatible land uses providing for housing…institutional/public services…"* The Plan also *"encourages a land use pattern that protects, enhances and/or maintains stability in established residential neighborhoods."* Further the Plan *"should seek to achieve a harmonious and attractive development pattern, which minimizes undesirable visual, auditory, environmental and other impacts created by potentially incompatible uses."* (Fairfax County Comprehensive Plan Land Use Objectives 2, 8 and 14).

The Comprehensive Plan recommends low density single-family, detached residential use in the immediate vicinity of the subject property and the subject property is planned for institutional uses. A number of other institutional uses and public facilities are located on Tax Map 59-3 to include three churches, one memorial garden, one police station, an elementary school and community college as well as a commercial strip at the intersection of Little River Turnpike and Woodburn Road.

A church has been located on the subject property as early as 1967 and the current private school has been located on the subject property since 1995 (though previously approved in 1967). Subsequent to the church's establishment, the adjacent property was developed into the Winterset, Section 4 subdivision in 1970. The existing church and school have served the community for a number of years.

In conjunction with this application, the applicant has provided a number of measures to ensure the proposed improvements are compatible with the surrounding neighborhood and there will be no adverse impacts on public facilities, transportation systems, and the environment.

While the applicant is proposing an increase in the number of seats and gross floor area with the new sanctuary, the applicant has concentrated this development in the approximate footprint of the existing sanctuary and sited it further into the property and away from the adjacent Pine Ridge police facility. In order to construct the school addition and parking lot expansion, a number of existing mature trees will be removed. Some of these trees were previously designated for preservation in conjunction with prior amendment applications. However, the applicant continues to provide tree preservation and screening above the minimum required, to include a minimum 60 foot preserved buffer along the northeastern property line and minimum 140 foot preserved buffer along the southeastern property lines. With this amendment the area north and east of adjacent parcel 18 will be developed with a parking lot and travelway. The need for the additional parking is generated by the increase in sanctuary seats and the applicant has requested a new entrance to facilitate ingress into this parking lot on weekends only during services. To screen these items, the applicant is proposing significant re-vegetation of existing transitional screening yards surrounding adjacent parcel 18 and completion of a barrier surrounding this property. Staff believes these items will help minimize any impact associated with these improvements.

Overall, staff believes that the proposed site modifications to an existing church and private school use are in conformance with the land use recommendations of the Comprehensive Plan and therefore standard 1 is met.

General Standard 2 states that *the proposed use shall be in harmony with the general purpose and intent of the applicable zoning district regulations*. The R-1 and R-2 Districts were established to provide for single-family detached dwellings and to allow other selected uses which are compatible with the low density residential character of the district. A church and private school of education is a special permit use within the R-1 and R-2 Districts. While the applicant is proposing an increase in the number of seats, the applicant has provided an Operational Analysis which demonstrates no functional impact to the surrounding transportation network. Additionally, this use occurs primarily at non-peak hours. The proposed addition to the private school will provide additional areas of instruction with no increase in students. Staff believes that the proposed modifications to the existing church and private school will continue to be in harmony with the purpose and intent of the R-1 and R-2 Districts. Therefore, in staff's opinion, the application satisfies this standard.

General Standard 3 requires that the proposed use *shall be such that it will be harmonious with and will not adversely affect the use or development of neighboring properties in accordance with the applicable zoning district regulations and the adopted comprehensive plan. The location, size and height of buildings, structures, walls and fences, and the nature and extent of screening, buffering and landscaping shall be such that the use will not hinder or discourage the appropriate development and use of adjacent or nearby land and/or buildings or impair the value thereof.* The church has been in operation since 1967 and the school since 1995, and staff believes that this proposal will not adversely affect the use or development of neighboring properties. The surrounding area contains a number of institutional and public facility uses; however the

applicant is proposing an amendment to an existing institutional use and not the creation of a new use. While there is an increase in gross floor area proposed, the applicant has worked to minimize the impact to adjacent properties through the location of the buildings, tree preservation, transitional screening and barriers, and landscaping.

The proposed sanctuary building will replace an existing sanctuary building in the same general location as the existing sanctuary building. While the proposed sanctuary is larger and taller than the existing sanctuary, the applicant has provided architectural elevations illustrating the proposed design, and the applicant has sited the proposed sanctuary further from the southwestern property line than the existing structure. This portion of the site is adjacent to the Pine Ridge police facility, which is a governmental use. Therefore staff does not believe the proposed sanctuary will have an adverse impact on the adjacent property owner.

The applicant has stated that the proposed gymnasium will provide space for indoor recreation, assemblies and similar activities, which currently take place in the cafeteria. Staff has provided development conditions that limit use of the gymnasium to those affiliated with or sponsored by the Catholic Diocese and have also limited houses of operation to 6:30PM to 10:00PM, Monday through Friday and 9AM to 10PM on weekends. Further, any interior lighting associated with the gymnasium will be conditioned to turn off by 10PM. Any other new lighting on site will be required to comply with the County's lighting standards listed in Article 14 of the Zoning Ordinance. The applicant has also noted that between the existing and proposed play area, the school will meet the County and State required standards for outdoor play areas. A development condition has been included to this effect.

The proposed school addition and gymnasium building have been located adjacent to the existing school building, which is a logical extension of this use. The most recent approval for the nursery school (Amendment 5) did not impact the forested "recreation area" designated with SPA 76-M-086-3. While the applicant is proposing the removal of previously preserved vegetation within this "recreation area", the applicant is still maintaining an approximately 140 foot to 240 foot preserved buffer along the southeastern property line and a minimum 60 foot preserved buffer along the northeastern property line. The northeastern and southeastern transitional screening yards will be supplemented with medium evergreen trees where existing vegetation has been removed. The applicant will also supplement the existing transitional screening yards around parcel 18 with a mixture of evergreen and deciduous trees and shrubs. The applicant will also install eleven large deciduous trees and a series of shrubs adjacent to the new travelway (adjacent to the northeastern property line) to minimize the impact of any vehicle light glare from the proposed travelways on the adjacent properties to the northeast. A 6 foot tall barrier will be provided along the northeastern and southeastern property line and around adjacent parcel 18. As noted below in the Waivers/Modifications section, the final location is still an unresolved issue.

Overall, more than half of the subject property will remain as open space. Staff believes the proposed building locations, screening and vegetation adequately shields the

church and school use from adjacent properties. Therefore, staff finds that this standard has been met.

General Standard 4 states that *the proposed use shall be such that pedestrian and vehicular traffic associated with such use will not be hazardous or conflict with the existing and anticipated traffic in the neighborhood.* As part of this application, the applicant is proposing to remove the existing sanctuary and construct a new sanctuary in the same general area. The number of seats will increase from 600 to 800 seats. Additionally, the applicant is proposing an addition to the proposed school as well as a new gymnasium. However there is no proposed increase in the number of students in the private school of general education or nursery school. Due to the increase in seats, the applicant is proposing 94 new parking spaces along the eastern portion of the property. A third entrance, which will be restricted to ingress only on weekends during services, is also proposed to facilitate the flow of traffic on site and frontage improvements will be provided along Woodburn Road in the vicinity of this entrance. This entrance cannot be utilized for egress due to the need for a sight distance easement from Tax Map 59-3 ((1)) parcel 18. Due to the proposed changes, Staff requested the applicant provide an Operational Analysis to VDOT and FCDOT for review. This study has been reviewed and approved by both VDOT and FCDOT and the results have been summarized in the Transportation Analysis section above. This study demonstrates the existing (to remain) and proposed structures will provide adequate parking and traffic mitigation measures that ease the impacts of traffic entering and exiting the site. As a result, the proposed improvements will not have a detrimental impact to the overall traffic operations on a daily basis and Staff believes that the proposal will not conflict with the existing traffic and that this standard has been met.

General Standard 5 states that *in addition to the standards which may be set forth in this Article for a particular group or use, the BZA shall require landscaping and screening in accordance with the provisions of Article 13.* The application has been reviewed by the Urban Forestry Management Division. The applicant has demonstrated that tree preservation above the minimum requirements has been provided (207,348 square feet provided versus 178,663 square feet required). This tree preservation has been concentrated primarily along the northeastern and southeastern property lines as well as adjacent to Woodburn Road along the western property line and portions of the northern property line. This preservation combined with the proposed new vegetation will result in approximately 37.6 percent tree cover, which is in excess of the 30 percent required in the R-1 and R-2 Districts.

In addition, the applicant is requesting a reaffirmation of the previously approved modification of the transitional screening requirements and waiver of the barrier requirements. The applicant is also requesting a modification of the barrier location and barrier type. Further details on these requests can be found in the Waivers and Modification section.

Staff notes that the applicant is proposing to vacate portions of an existing conservation

easement along the northeastern portion of the property. This conservation easement was initially established in 2002 in conjunction with a Minor Site Plan (891-MSP-001-3) for the proposed parish office approved with SPA 76-M-086-4. The purpose of this easement was to satisfy the BMP (phosphorus removal efficiency) requirements for the increase in impervious area associated with the parish office and was to remain as perpetually undisturbed open space.

As part of this application, the applicant is proposing to remove approximately 0.328 acres from the conservation easement and grant a new conservation area of approximately 0.304 acres as shown on the special permit amendment plat. Per DPWES, Site Development and Inspections Division (SDID), this easement may be vacated and a new easement granted in conjunction with the site plan for the proposed uses. As noted in the Stormwater Management/Best Management Practices Analysis, the applicant is proposing additional on-site measures to meet BMP requirements for the existing and proposed impervious area due, in part, to the removal of a portion of the conservation easement.

During the course of this application, Staff has worked closely with the applicant and surrounding community to mitigate the extent of the conservation easement to be vacated. The applicant originally proposed encroachment into the conservation easement for the purposes of constructing parking, a SWM/BMP access road, a rain garden and clearing and grading. The applicant has removed the parking, access road and rain garden from the conservation easement; however this easement is still being partially vacated to accommodate proposed grading associated with the construction of the new travelway. Based on the existing topography, staff believes the limits of clearing and grading may be further reduced and the area of vacation further minimized. Staff has asked the applicant to provide a minimum of ten additional feet of preservation adjacent to the travelway and the applicant has noted this is not feasible without providing a retaining wall. Staff would encourage the applicant to further review the ability to reduce the clearing limits at the time of site plan. Staff also notes that the applicant has made efforts to reduce the amount of existing easement to be vacated and more than doubled the proposed new easement along the northeastern property line. The applicant has proposed re-vegetation of this area with eleven large deciduous trees and shrubs, a new conservation easement area and additional SWM/BMP measures on site to treat the runoff previously being treated in this conservation easement.

On balance, staff believes that the application meets this standard.

General Standard 6 requires that *open space be provided in an amount equivalent to that specified for the zoning district in which the proposed use is located.* As stated, there is no specific open space requirement for the proposed use and the applicant has proposed a total of 58 percent of the subject property as open space; therefore, this standard has been met.

General Standard 7 requires that *adequate utility, drainage, parking, loading and other necessary facilities to serve the proposed use shall be provided. Parking requirements are proposed to be in accordance with the provisions of Article 11*. The applicant proposes 277 parking spaces, which exceeds the Zoning Ordinance requirement of 242 parking spaces and the 264 spaces required per the Operational Analysis. Staff has also included a development condition stating all parking shall be located on-site. In the event additional off-site parking is required, staff has proposed a development condition requiring the applicant to coordinate with the operator of Fairfax County Tax Map Parcel 59-3 ((1)) parcel 11B (Pine Ridge police facility) prior to a large event**.** The approved additions will be served by public water and sewer. An increase in impervious area is proposed from the previous special permit amendment approval. The applicant is providing stormwater management and best management practices to detain and treat the increase in impervious area, as well as capture the existing runoff which currently drains uncontrolled to adjacent properties. A development condition has been included requiring on-site stormwater detention and BMPs as approved by DPWES. Staff believes that Standard 7 has been met.

General Standard 8 requires that *signs be regulated by the provisions of Article 12; however, the BZA may impose more strict requirements for a given use than those set forth in this Ordinance.* Per an inspection by the Department of Planning and Zoning, Zoning Inspections Branch (ZIB), the applicant has existing signage onsite that does not meet the requirements of Article 12 of the Zoning Ordinance. Specifically, ZIB noted that two building mounted signs do not contain proper permits. Additionally, the existing monument sign does not meet the minimum setback requirements. The applicant has shown a revised location for this sign on the special permit amendment plat. Staff has also included a development condition that all existing and proposed signage must be in conformance with the provisions of Article 12 of the Zoning Ordinance. With this condition, this standard has been met.

With the approval and adoption of the proposed development conditions, the general standards for all have been met.

<u>Standards for all Group 3 Uses (Sect. 8-303)</u>

Standard 1 *states that all uses shall comply with the lot size and bulk regulations of the zoning district in which located.* As previously summarized in the bulk requirements chart above, the application meets this standard.

Standard 2 *stipulates that all uses shall comply with the performance standards for the applicable zoning district.* This use does not have any increased effect on performance standards applicable to a place of worship and nursery school / private school of general education, specifically on noise or outdoor lighting. The use complies with the performance standards of Article 14, as required by the Zoning Ordinance.

Standard 3 *specifies that all uses shall be subject to the provisions of Article 17, Site Plans.* The applicant will be required to submit a site plan for the proposed improvements.

Additional Standards for Churches, Chapels, Temples, Synagogues, or Other Such Places of Worship with a Child Care Center, Nursery School or Private School (Sect 8-308)

Places of worship with a child care center, nursery school or private school of general or special education are subject to the additional standards set forth in Sections 9-309 (Child Care Centers and Nursery Schools) and 9-310 (Private Schools of General Education and Special Education).

Section 9-309 requires an adequate outdoor play area, appropriate street types, and on-site drop-off and pick-up of children. As noted, the applicant is not proposing any increase in enrollment in conjunction with the proposed school additions. The subject property currently contains an existing outdoor play area behind the existing school and the applicant will increase the size of this play area with the proposed additions. Specifically, the applicant is proposing an additional approximately 5,040 square foot play area between the proposed addition and gymnasium. The applicant has also indicated that they will comply with County and State requirements regarding the number of children occupying the outdoor play area at one time.

In regards to access, the subject property maintains existing access to Woodburn Road, which is a collector road. The applicant has submitted an Operational Analysis to VDOT and FCDOT due to the additional seats proposed in the sanctuary and proposed third entrance to Woodburn Road. Per the results of this study, the surrounding road network should not experience any decrease in functionality as a result of these improvements.

Finally, the applicant maintains an existing carpool program in conjunction with previous development conditions, which facilitates the drop-off and pick-up on site. The applicant has provided information stating all vehicles coming to the school are able to stack on-site and there is no traffic concerns associated with the queuing. Therefore staff believes these standards have been met.

Section 9-310 further requires outdoor play area and minimum lot size for a private school of general education. As discussed above and as demonstrated on the special permit amendment plat, in staff's opinion, the use meets the standards and will be demonstrated at time of site plan.

With the adoption of the proposed development conditions, it is staff's opinion that the standards for Group 3 uses have been met.

WAIVERS/MODIFICATIONS REQUESTED

Modification of Transitional Screening Requirements

The applicant is requesting a reaffirmation of the previous waivers and modifications approved with SPA 76-M-086-05. A reaffirmation of the modification of transitional screening requirements is requested to allow existing vegetation to serve as natural screening along the northern, eastern and western property lines in accordance with Paragraph 3 of Section 13-305 of the Zoning Ordinance. Per an onsite meeting with the Urban Forest Management Division, these lot lines and existing vegetation will be supplemented with a combination of large deciduous, medium evergreen and/or large evergreen trees and/or shrubs as noted below and shown on the special permit amendment plat. This proposed vegetation will address current gaps in the existing screening yards where previously preserved vegetation has been removed or died. Staff is in support of the requested modifications of the transitional screening yard requirements.

Waiver of Barrier Requirements

A reaffirmation of the waiver of the barrier requirements along the northern (Areas ‘A-1’, ‘A-2’ and ‘A-3’) and western (Area ‘B’) property lines is requested in accordance with Section 13-305 of the Zoning Ordinance. It is the applicant’s intent for the church and school to blend in with the surrounding community and a fence located adjacent to Woodburn Road providing no tangible benefit would detract from existing vegetation. Staff is in support of the requested waiver.

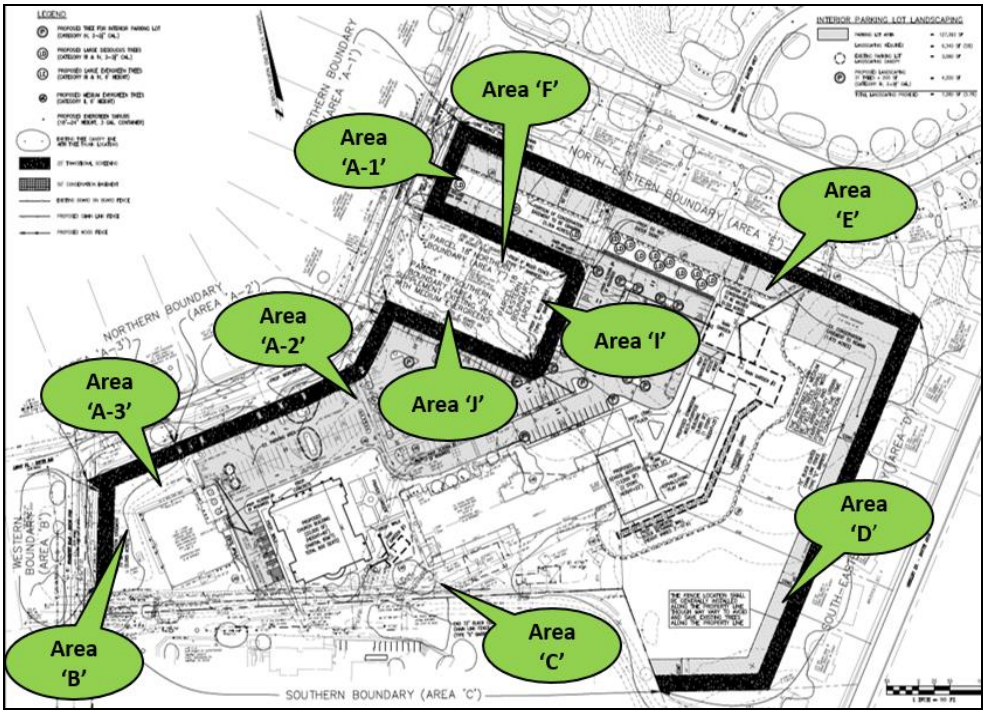


Figure 5: Transitional Screening Area, Source: Applicant

In conjunction with the request below, the applicant is also requesting a waiver of the barrier requirement along Area 'F' and 'J'. A portion of the Parcel 'F' property line and the entire Area 'J' property line contain an existing 6 foot board on board fence. The applicant has requested this waiver to allow the existing fence to remain and be used to satisfy the barrier requirement in these areas. The applicant is proposing a new 6 foot board on board fence to complete the missing link along the Parcel 'F' property line and will continue this fence along the Parcel 'I' property line until it reaches the existing fence in Area 'J'. Staff recognizes that the existing fence was constructed by adjacent parcel 18 and not the applicant. However staff does not believe a second parallel fence is necessary at this time and will prove to be a maintenance burden. As such, staff is in support of this waiver. Staff has included a development condition that in the event parcel 18 removes the existing fence, the applicant shall construct a new 6 foot board on board fence within sixty days of removal.

Modification of Barrier Location

The applicant is also requesting a modification of the barrier location along the Area 'C', 'D', 'E', 'F', 'I' and 'J' property lines in accordance with Section 13-305 of the Zoning Ordinance. The applicant is requesting a modification to permit the proposed 6 foot barrier to be located generally along the property line rather than on the interior of the screening yard as required. The applicant has stated that the final location will be determined at time of installation, in consultation with a representative from the Urban Forest Management Division, to minimize impact to existing vegetation. Per the applicant, this modification is requested to provide a clear demarcation of the property line for purpose of maintenance of the existing and proposed vegetation and to prevent unauthorized encroachments onto the subject property. The community has requested the barrier be located as required per Article 13-304 of the Zoning Ordinance and placed directly adjacent to the more intense use, which is the church and private school. As noted previously, staff from UFMD have reviewed this request and are in support of the requested modification, provided the fence is constructed as a board on board fence versus the proposed chain link fence.

Modification of Barrier Type

The applicant is also requesting a modification of the barrier type in accordance with Section 13-305 of the Zoning Ordinance. Specifically, the applicant is requesting a modification to permit a 6 foot, Type G black vinyl chain link fence to be located along the Area 'C', 'D', and 'E' property lines. Staff, as well as the surrounding community, are not in support of the applicant's use of a 6 foot black vinyl chain link fence. It is the preference of both staff and the surrounding community that the applicant installs a 6 foot board on board fence in these areas due to the residential nature of the adjacent property. Further, a board on board fence is more compatible with the surrounding fences. As noted above, the applicant is requesting a modification to the location regulations to permit the proposed barrier to be located on the peripheral lot lines. Staff believes that if it is the applicant's desire to install the barrier on the property line and directly adjacent to a residential neighborhood, a board on board fence is more

appropriate and more consistent with a residential use. Staff has proposed a condition requiring a board on board fence along the southeastern (Area 'D'), northeastern (Area 'E'), portion of the parcel 18 northern (Area 'F') and parcel 18 eastern (Area 'I') boundaries.

Waiver of the Minor Paved Trail

Finally, the applicant requests a waiver of the minor paved trail required along Woodburn Road in lieu of the proposed five foot wide concrete sidewalk and existing four foot wide asphalt trail located along Woodburn Road. The applicant has agreed to provide modifications to this existing sidewalk to provide a more linear path along Woodburn Road. As the need for an additional parallel facility is unnecessary and will be a maintenance burden, staff is in support of this waiver.

CONCLUSIONS AND RECOMMENDATIONS

Staff Conclusions

The applicant requests approval of a special permit amendment to permit the construction of a new sanctuary building and a building addition to the existing private school of general education.

The existing church use has been in operation on the subject property since 1967. While a private school of education was originally approved on site in 1967, it was not constructed and a new application for a private school of general education and nursery school were approved via a special permit amendment in 1995 and 2013, respectively. While the applicant is proposing an increase in impervious area and gross floor area with this amendment, staff believes that the proposed uses will not alter the overall character of the church and schools (as previously approved) or negatively affect the surrounding area. While the applicant has not adequately addressed all of staff's concerns regarding the conservation easement, clearing limits, and fence, the applicant has worked to minimize the impact to adjacent properties through the location of the buildings, tree preservation, transitional screening, barriers, and landscaping. In staff's opinion, the application has met all requirements of the Zoning Ordinance and is consistent with the Comprehensive Plan.

Staff Recommendation

Staff recommends approval of SPA 76-M-086-6 subject to the proposed development conditions in Appendix 1 of the staff report.

It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendations of staff; it does not reflect the position of the Board of Zoning Appeals.

The approval of a portion this application does not interfere with, abrogate or annul any easements, covenants, or other agreements between parties, as they may apply to the property subject to the application.

APPENDICES

1. Proposed Development Conditions
2. Statement of Justification and Photographs
3. Affidavit
4. Development Conditions and Plat Associated with SPA 76-M-086-5
5. Environmental Analysis
6. Stormwater Analysis
7. Urban Forestry Analysis
8. Fairfax County Department of Transportation/Virginia Department of Transportation Analysis
9. Applicable Zoning Ordinance Provisions

DRAFT DEVELOPMENT CONDITIONS
November 25, 2015

SPA 76-M-086-6

If it is the intent of the Board of Zoning Appeals to approve SPA 76-M-086-6 located at Tax Map 59-3 ((1)) 11A to amend SP 76-M-086 previously approved for a place of worship, private school of general education and nursery school to permit the construction of improvements and site modifications, pursuant to Sect(s). 3-103 and 3-203 of the Fairfax County Zoning Ordinance, staff recommends that the Board condition the approval by requiring conformance with the following development conditions. Those conditions carried forward from previous special permits are marked with an asterisk. Minor edits have been made to these conditions to conform to current terminology. Previous edits have been underlined and more recent edits are **bold.**

1. This approval is granted to the applicant only, The Most Reverend Paul S. Loverde, Bishop of the Catholic Diocese of Arlington, Virginia and his successors in office (St. Ambrose Catholic Church and School) and is not transferable without further action of this Board, and is for the location indicated on the application, 3825 Woodburn Road (13.68 acres), and is not transferable to other land.*

2. This special permit amendment is granted only for the purpose(s), structure(s) and/or use(s) indicated on the special permit plat titled "Special Permit Amendment Plat, Saint Ambrose Parish," prepared by John C. Manganello, P.E., Land Development Consultants. Inc. dated January 9, 2013 and as revised through October 16, 2015 (the "Special Permit Amendment Plat") and approved with this application, as qualified by these development conditions.*

3. **The proposed worship area ("church building") shall be generally consistent with the architectural renderings as shown on Attachment 1 to these conditions. The proposed school addition and gymnasium/multi-purpose building shall be generally consistent with the architectural design of the existing school building. Compliance with these conditions shall be demonstrated at the time of building permit for the respective buildings.**

4. A copy of this special permit amendment, conditions and the Non-Residential Use Permit (non-RUP) SHALL BE POSTED in a conspicuous place on the property of the use and be made available to all departments of the County of Fairfax during the hours of operation of the permitted use.*

5. **The applicant reserves the right to phase the improvements shown on the Special Permit Amendment Plat; however the proposed main worship area ("Church Building"), additional parking and stormwater management facilities shall be constructed in the first phase. Further, the existing**

rectory shall be removed in the first phase and prior to issuance of the first new non-RUP.

6. This special permit amendment is subject to the provisions of Article 17, Site Plans, as may be determined by the Director, Department of Public Works and Environmental Services (DPWES). Any plan submitted pursuant to this special permit shall be in substantial conformance with these conditions. Minor modifications to the approved special permit may be permitted pursuant to Par. 4 of Sect. 8-004 of the Zoning Ordinance.*

7. **Exclusive of games and activities associated with the private school of general education and nursery school, and special Parish events, the primary hours of operation of the gymnasium shall be limited to 6:30 p.m. to 10:00 p.m. Monday-Friday and 9:00 a.m. to 10:00 p.m. Saturday-Sunday.**

8. **The gymnasium shall not be leased, rented, or otherwise made available to groups not affiliated with or sponsored by the Catholic Diocese. This restriction does not apply to church sponsored groups.**

9. The maximum number of seats in the Church Building shall not exceed eight hundred (800) seats.*

10. All parking shall be on site as depicted on the Special Permit Amendment Plat.*

11. **Arrangements shall be made for church volunteers to direct parking and pedestrian traffic during high holiday and other heavily attended services.**

12. **The applicant shall designate a neighborhood liaison and parking contact person. This individual shall be responsible for posting information regarding on-site parking in the church bulletins and on the church website on a weekly basis. The name and phone number of the contact person shall be provided to the president(s) of the Winterset Varsity Park Civic Association and the office of the Mason District Supervisor within 90 days of approval of this special permit amendment.**

13. **If additional parking is required during any special event, the applicant shall obtain permission from the operator of the public facility located on Fairfax County Tax Map Parcel 59-3 ((1)) Parcel 11B at least one week prior to the event to permit off-site parking. In the event this permission cannot be obtained or additional parking is needed, shuttle service shall be provided by the applicant.**

14. The applicant shall manage a formal carpool program with a goal of 40% of the students in the school and nursery school participating in the program. The applicant shall take the following measures to encourage the carpooling of students:

i. The school shall maintain zip code records and provide a matching service for parents;

ii. A table shall be provided at the welcome back social event to provide information regarding carpooling and to introduce parents with the goal of establishing carpools;

iii. A priority lane shall be identified for carpool vehicles and a diagram of the carpool lane shall be posted on the school's website; and

iv. Information shall be included on the school's website regarding the benefits of carpooling.*

15. The easternmost access to the property shall be designed and constructed subject to approval by DPWES and VDOT and limited to ingress only on weekends for services . Pavement markings and signage describing the use restrictions shall be located on the property at the entrance as well as on site. A bollard and chain gate preventing access to the driveway shall be in use Monday-Friday.

16. The private school of general education and nursery school shall be limited to a total maximum daily enrollment of 260 students between the two uses.*

17. The maximum total number of employees between the private school of general education and nursery school shall be limited to 32.*

18. The hours of operation for the private school of general education shall be limited to 8:15 a.m. to 3:30 p.m., Monday through Friday, with reasonable accommodation for drop-off and pick-up of students before and after school. Evening hours until 11:00 p.m. shall be permitted for related school activities.*

19. The hours of operation for the nursery school shall be limited to a maximum of two sessions of three hours each starting no earlier than 8:15 a.m. and ending by 3:30 p.m., Monday through Friday.*

20. The applicant shall at all times ensure compliance with the applicable laws and regulations regarding the number of children using the provided playground area at any one time.

21. Invasive Species Management Plan: An invasive species management plan shall be submitted as part of the first and all subsequent site plan submissions detailing how the invasive and undesirable vegetation will be removed and managed. The detailed invasive species management plan shall include the following information:

- **Identify targeted undesirable and invasive plant species to be suppressed and managed.**
- **Identify targeted area of undesirable and invasive plant management plan, which shall be clearly identified on the landscape or tree preservation plan.**
- **Recommended government and industry method(s) of management, i.e. hand removal, mechanical equipment, chemical control, other. Identify potential impacts of recommended method(s) on surrounding trees and vegetation not targeted for suppression/management and identify how these trees and vegetation will be protected (for example, if mechanical equipment is proposed in save area, what will be the impacts to trees identified for preservation and how will these impacts be reduced).**
- **Identify how targeted species will be disposed.**
- **If chemical control is recommended, treatments shall be performed by or under direct supervision of a Virginia Certified Pesticide Applicator or Registered Technician and under the general supervision of Project Arborist).**
- **Provide information regarding timing of treatments, (hand removal, mechanical equipment or chemical treatments) when will treatments begin and end during a season and proposed frequency of treatments per season.**
- **Identify potential areas of reforestation and provide recommendation**
- **Monthly monitoring reports provided to Urban Forest Management Division (UFMD) and Site Development and Inspections Division (SDID) staff.**
- **Duration of management program; until Bond release or release of Conservation Deposit or prior to release if targeted plant(s) appear to be eliminated based on documentation provided by Project Arborist and an inspection by UFMD staff.**

22. <u>Tree Preservation</u>: The applicant shall submit a Tree Preservation Plan and Narrative as part of the first and all subsequent site plan submissions. The preservation plan and narrative shall be prepared by a Certified Arborist or a Registered Consulting Arborist, and shall be subject to the review and approval of UFMD.

The tree preservation plan shall include a tree inventory that identifies the location, species, critical root zone, size, crown spread and condition analysis percentage rating for all individual trees located within the tree save area living or dead with trunks 12 inches in diameter and greater (measured at 4 ½ -feet from the base of the trunk or as otherwise allowed in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture) and 25 feet outside of the proposed limits of clearing, in the undisturbed area and within 10 feet of the proposed limits of clearing in the area to be disturbed. All trees

inventoried shall be tagged in the field so they can be easily identified. If permission is not allowed from the offsite property owner to tag trees, it shall be noted on the tree preservation plan and the applicant shall provide documentation showing that the applicant requested such permission by certified mail, return receipt requested The tree preservation plan shall provide for the preservation of those areas shown for tree preservation, those areas outside of the limits of disturbance shown on the SPA Plat and those additional areas in which trees can be preserved as a result of final engineering. The tree preservation plan and narrative shall include all items specified in PFM 12-0507 and 12-0509. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, soil testing and recommended fertilization, Cambistat, airspading within the critical root zone to incorporate the application of compost and bio-char shall be included in the plan. Tree preservation activities shall be completed prior to completion of the Phase I Erosion and Sediment Control Plan before moving into Phase II, unless seasonal timing or other circumstances does not allow them to be effectively completed during that period.

23. <u>Tree Preservation Walk-Through</u>. The Applicant shall retain the services of a Certified Arborist or Registered Consulting Arborist, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant's Certified Arborist or Registered Consulting Arborist shall walk the limits of clearing and grading with an UFM, representative to determine where adjustments to the clearing limits can be made to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions.

24. <u>Limits of Clearing and Grading</u>: The Applicant shall conform strictly to the limits of clearing and grading as shown on the Special Permit Amendment Plat, subject to allowances specified in these proffered conditions and for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the Special Permit Amendment Plat, they shall be located in the least disruptive manner necessary as determined by the UFMD. A replanting plan shall be developed and implemented, subject to approval by the UFMD, for any areas protected by the limits of clearing and grading that must be disturbed for such trails or utilities.

25. <u>Tree Preservation Fencing:</u> All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super silt fence does not sever or wound compression roots which can lead to structural failure and/or uprooting of trees shall be erected at the limits of clearing and grading as shown on the demolition, and phase I & II erosion and sediment control sheets, as may be modified by the "Root Pruning" condition below.

All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing structures. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by the UFMD.

26. <u>Root Pruning</u>: The Applicant shall root prune, as needed to comply with the tree preservation requirements of these development conditions. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the site plan submission. The details for these treatments shall be reviewed and approved by the UFMD, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:

- **Root pruning shall be done with a trencher or vibratory plow to a depth of 18 - 24 inches.**
- **Root pruning shall take place prior to any clearing and grading, or demolition of structures.**
- **Root pruning shall be conducted with the supervision of a Certified Arborist or Registered Consulting Arborist.**
- **An UFMD, representative shall be informed when all root pruning and tree protection fence installation is complete.**

27. <u>Site Monitoring</u>: During any clearing or tree/vegetation on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as conditioned and as approved by the UFMD. The Applicant shall retain the services of a Certified Arborist or Registered Consulting Arborist to monitor all construction and demolition work and tree preservation efforts in order to ensure conformance with all tree preservation development conditions, and UFMD approvals. The monitoring schedule shall be described and

detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD.

28. **<u>Landscape Pre-Inspection Meeting</u>: Prior to installation of plants to meet requirements of the approved landscape plan, the Contractor/Developer shall coordinate a pre-installation meeting on site with the landscape contractor and a representative of the County UFMD. Any proposed changes to the location of planting, size of trees/shrubs, and any proposed plant substitutions for species specified on the approved plan shall be reviewed at this time and must be approved prior to planting. The installation of plants not specified on the approved plan, and not previously approved by UFMD, may require submission of a revision to the landscape plan or removal and replacement with approved material.**

    Field location of planting material, when required by the approved plan, shall be reviewed at the pre-installation meeting. The Landscape Contractor shall stake proposed individual planting locations in consultation with the Contractor/Developer prior to the pre-installation meeting, for review by UFMD staff. Stakes shall be adjusted, as needed, during the course of the meeting as determined by UFMD staff based on discussion with the Contractor/Developer and the Landscape Contractor.

29. **<u>Native Species Landscaping</u>: All landscaping provided shall be native to the middle Atlantic region to the extent feasible and non-invasive as determined by UFMD. In addition, the quality and quantity of landscaping provided shall be in substantial conformance with the Special Permit Amendment Plat.**

30. **Post-development canopy preservation and coverage shall be as shown on Sheet 7 of 16 of the Special Permit Amendment Plat.**

31. The applicant shall monitor the health of the trees within the existing conservation easement. If it is determined by a Certified Arborist that trees within the conservation easement pose an unacceptable level of risk to the adjacent residential properties, the applicant shall clearly identify these trees in the field and shall contact the UFMD to seek approval for their removal. Subject to concurrence by the UFMD, trees identified as hazardous shall be removed and replacement plantings installed, if required by the UFMD. Said plantings shall be installed in a timely manner, but dependent upon the season in an effort to maximize survival. The applicant shall provide the name and telephone number of a contact person, at both the Parish and Diocese of Arlington, to the president of the Winterset Varsity Park Civic Association <u>and the office of the Mason District Supervisor within 90 days of approval of this special permit amendment</u> for the purpose of reporting a potentially hazardous tree by an adjacent neighbor.*

32. Interior parking lot landscaping shall be maintained in accordance with Article 13 of the Zoning Ordinance.* The landscaping shall be maintained in a healthy condition and dead and/or dying plant materials replaced. Prior to the issuance of the first new Non-RUP, UFMD shall inspect the site and shall require replacement and/or new vegetation to meet the intent of the parking lot landscaping requirements.

33. The existing and/or proposed vegetation shall be deemed to fulfill the requirements for transitional screening as shown on the Special Permit Amendment Plat. Prior to the issuance of the first new Non-RUP, the applicant shall coordinate an inspection of transitional screening by the UFMD. Replacement plantings as recommended by the UFMD for any vegetation which is dead, dying or less than six (6) feet in height shall be installed in a timely manner, but dependent upon the season in an effort to maximize survival.*

34. The applicant shall install eight one and one half inch (1.5") caliper blackgum trees, or alternative species as coordinated with UFMD, within the southeastern and northeastern transitional screening yards in order to meet the intent of the transitional screening requirements in accordance with development conditions issued in accordance with SPA 76-M-086-05. The final location and species of these trees shall be determined in consultation with UFMD at time of site plan.

35. **At time of site plan submission, the applicant shall provide written justification in accordance with Article 13-305 of the Zoning Ordinance for each barrier modification requested in the Special Permit Amendment Plat. Subject to providing the written justification in accordance with Article 13-305 of the Zoning Ordinance, as determined by UFMD, the requested barrier modifications shall be approved at the time of site plan approval.**

36. In the event the existing six foot (6') board on board fence located on Tax Map 59-3 ((1)) Lot 18 and referenced in condition #35 is removed, the applicant shall install a six foot (6') board on board fence along the perimeter of that property approximately one foot inwards to the applicant's property within sixty days of removal of the fence.

37. The applicant shall install a six foot (6') board on board fence along the perimeter of the southeastern (Area 'D'), northeastern (Area 'E'), portion of the Parcel 18 northern (Area 'F') and Parcel 18 eastern (Area 'I') boundary approximately one foot inwards to the applicant's property and as depicted on the Special Permit Amendment Plat. The final location of the fence shall be determined in consultation with UFMD and the owner of Parcel 18 at time of site plan.

38. Stormwater Management Best Management Practices (BMPs) shall be provided as generally depicted on the Special Permit Amendment Plat or as approved by

DPWES. The facilities shall be maintained as determined by DPWES.*

39. **The areas designated on the Special Permit Amendment Plat as "Portion of Conservation Easement to be Granted" shall be dedicated without cost to the Board of Supervisors at the time of the first site plan approval or upon demand by Fairfax County, whichever should first occur. The proposed six foot (6') barrier may be located within the easement as shown on the Special Permit Amendment Plat or qualified by these conditions. No other structures shall be added to this area. No clearing or grading shall be permitted in this area. Removal of dead or dying trees and management of exotics and invasive species shall be permitted as needed by hand or by a method approved by UFMD.**

40. **All new lighting, including security lighting, shall be in conformance with Part 9 of Article 14 of the Zoning Ordinance. Any new light fixtures provided on the site shall be limited to a maximum height of twelve (12) feet, from ground level to the top of the fixture. The new lights shall be low intensity design, full-cut-off fixtures, which focus the light directly onto the subject property and does not create glare or a nuisance off the property. Shields shall be installed on new lighting, if necessary, to prevent the light and glare from projecting beyond the lot lines. The new lights shall be controlled with an automatic shut-off device and shall be turned off when the site is not in use, except for security lighting directly adjacent to the building. There shall be no up-lighting of the proposed or existing buildings. Except as provided by Condition 7 above, all interior lights in the gymnasium and school shall be turned off no later than 10:00 p.m.**

41. **In order to promote substainable design, the following measures shall be taken in conjunction with the construction of the proposed buildings. A LEED-AP shall be included as a member of the design team. The LEED-AP will work with the team to incorporate sustainable design elements and innovative technologies into the proposed buildings. At the time of site plan submission, documentation will be provided to the Environment and Development Review Branch of DPZ (EDRB) demonstrating compliance with the commitment to engage such a professional.**

    Prior to final construction bond release, the LEED-AP shall submit a certification statement to EDRB including supporting documentation as detailed below, confirming that the green building elements listed below have been incorporated into the design and construction of the building(s).

    Green building elements for inclusion in the project:

    A. **Native and non-invasive species, including perennials and seed mixes, shall be used exclusively for landscape and other plantings**

on the property. Planting lists showing species and location of plantings on the landscape plan shall be submitted with the site plan.

B. LED or fluorescent lamps shall be incorporated in interior building light fixtures.

C. Motion sensor faucets and flush valves and ultralow-flow plumbing fixtures that have a maximum water usage listed below shall be used. Manufacturers' product data shall be provided prior to the issuance of a Non-RUP.

Water Closet (gallons per flush, gpf): 1.28
Urinal (gpf): 0.5
Showerheads (gallons per minute, gpm*): 20
Lavatory faucets (gpm): 1.5**
Kitchen and janitor sink faucets: 2.20
Metering faucets: 0.25

***When measured at a flowing water pressure of 80 pounds per square inch (psi).**

****When measured at a flowing water pressure of 60 pounds per square inch (psi).**

D. Low-emitting materials shall be used for all adhesives, sealants, paints, coatings, floor systems, composite wood, and agrifiber products, as well as furniture and furnishings, if available. Low-emitting is defined according to the following table:

Application	(VOC Limit g/L less water)
Carpet Adhesive	50
Rubber floor adhesive	60
Ceramic tile adhesive	65
Anti-corrosive/anti-rust paint	250
Clear wood finishes	350

Manufacturers' product data shall be provided prior to the issuance of a Non-RUP.

E. Carpet and carpet padding shall be installed that meets the testing and product requirements of the Carpet and Rug Institute Green Label Plus Program. Manufacturers' product data shall be provided prior to the issuance of a Non-RUP.

F. Vinyl composition tile and rubber tile flooring shall be installed that meets the requirements of the FloorScore certification program. Manufacturers' product data and certification letter shall be provided prior to the issuance of a Non-RUP.

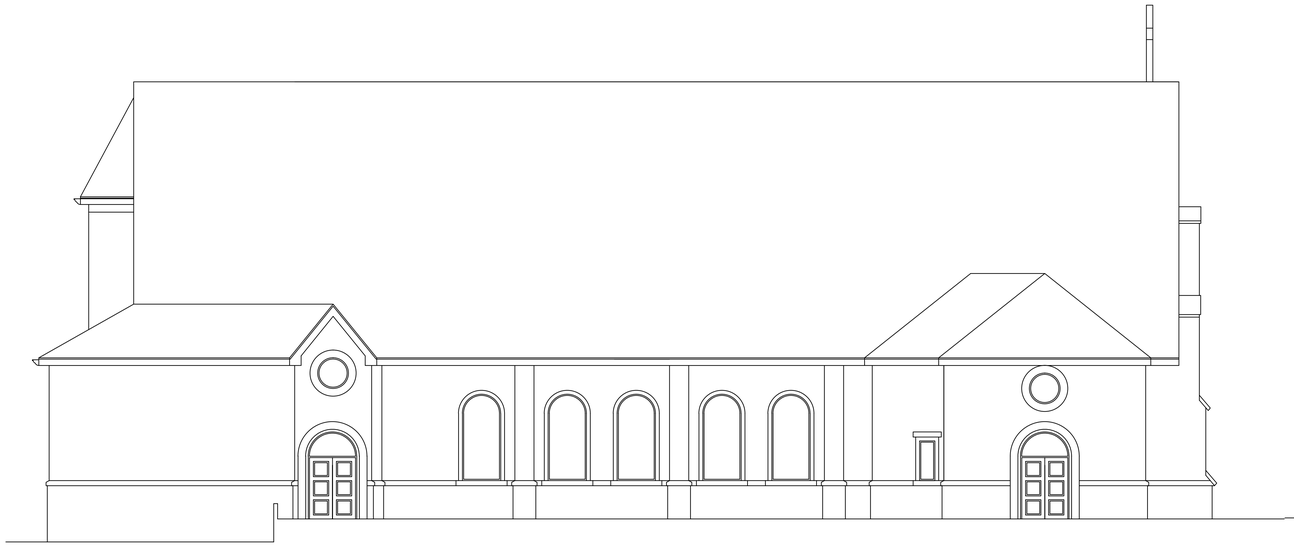
G. Energy Star, or equivalent, appliances and equipment for all refrigerators, water heaters, computers, monitors, water coolers, and other appliances and office equipment (if available) shall be installed. Installation locations and manufacturers' product data, including the Energy Star energy guide if installed, shall be provided prior to the issuance of a Non-RUP.

42. Signs may be permitted and must be located and designed in accordance with the provisions of Article 12 of the Zoning Ordinance. The applicant must submit and obtain approval of sign permit(s) for the existing unpermitted signs within ninety (90) days of approval of this special permit amendment.

43. If required by DPWES or VDOT, the applicant shall relocate the Flood Warning System located northeast of the proposed 3rd entrance. The final location of the Flood Warning System shall be determined in consultation with DPWES or VDOT at time of site plan.

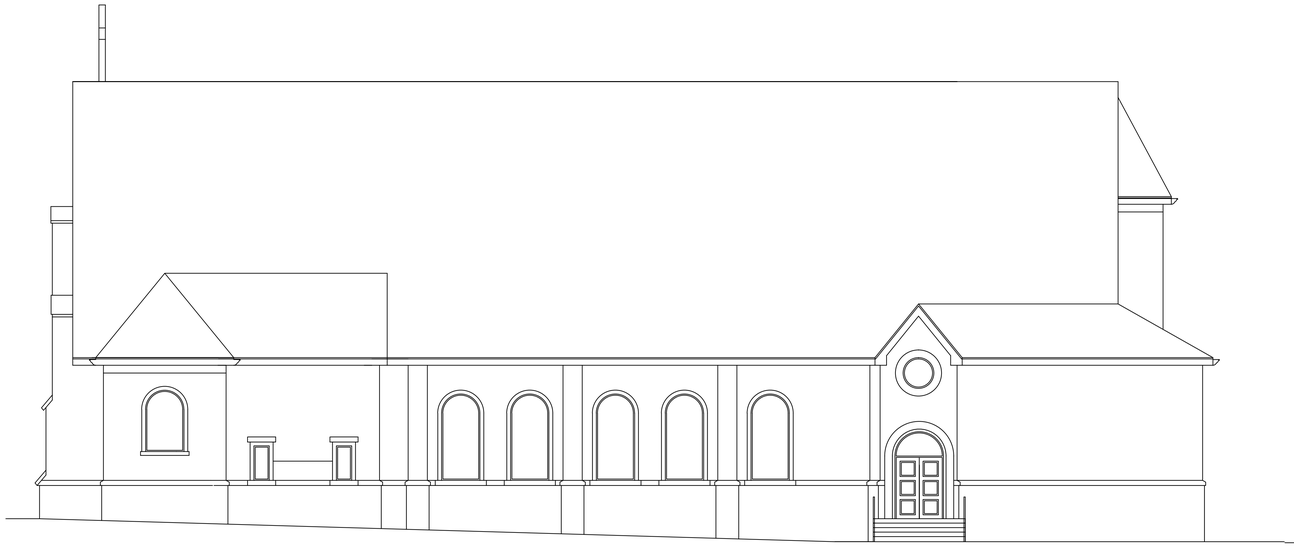
This approval, contingent on the above-noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be responsible for obtaining the required Non-Residential Use Permit through established procedures, and this special permit shall not be valid until this has been accomplished.

Pursuant to Sect. 8-015 of the Zoning Ordinance, this special permit shall automatically expire, without notice, thirty (30) months after the date of approval unless the use has been established. The Board of Zoning Appeals may grant additional time to establish the use if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the special permit. The request must specify the amount of additional time requested, the basis for the amount of time requested and an explanation of why additional time is required.*

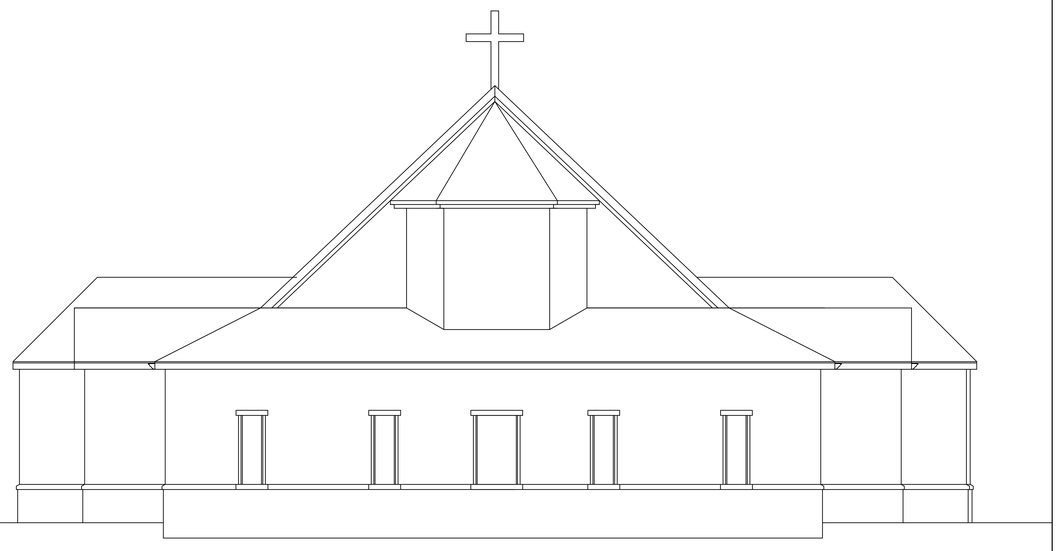


WEST ELEVATION
1/8" = 1'-0"

NORTH ELEVATION
1/8" = 1'-0"



EAST ELEVATION
1/8" = 1'-0"



SOUTH ELEVATION
1/8" = 1'-0"

NOTE:
THESE DRAWINGS ARE CONCEPTUAL AND ARE INTENDED TO ILLUSTRATE THE GENERAL CHARACTER OF THE BUILDING. THESE DRAWINGS ARE NOT INTENDED TO REPRESENT FINAL BUILDING DESIGN OR TO BE INTERPRETED AS A COMMITMENT TO SPECIFIC DIMENSIONS OR BUILDING ELEMENTS INCLUDING, BUT NOT LIMITED TO, THE ROOF LINE, AND THE NUMBER AND PLACEMENT OF WINDOWS AND DOORS. FINAL DESIGN WILL BE DETERMINED AT THE TIME OF THE SITE PLAN SUBMISSION.

TYPICAL MATERIALS

- SLOPING SHINGLE ROOF
- MASONRY FACADES

DELIZZIO SELIGSON ARCHITECTS
DELIZZIO ARCHITECTS & PLANNERS
A PROFESSIONAL CORPORATION
12 SOUTH ADAMS STREET, ROCKVILLE, MD 20850
301.424.8944

SUBMISSION
SCHEMATIC
9/23/15
6/22/15

© 2015

St. Ambrose Church
3901 Woodburn Rd, Annandale, VA 22003

Concept Exterior Elevations

SPA1

WALSH COLUCCI
LUBELEY & WALSH PC

Lynne J. Strobel
(703) 528-4700 Ext. 5418
lstrobel@arl.thelandlawyers.com

REVISED
October 16, 2015

Via E-mail and Hand Delivery

Barbara Berlin, Director
Fairfax County Department of Planning & Zoning
Zoning Evaluation Division
12055 Government Center Parkway, Suite 801
Fairfax, Virginia 22035

Re: Proposed Special Permit Amendment Application
Applicant: The Most Reverend Paul S. Loverde, Bishop of the Catholic Diocese of Arlington, Virginia and his successors in office
St. Ambrose Catholic Church and School

Dear Ms. Berlin:

Please accept the following as a statement of justification for a special permit amendment application to construct improvements and make site modifications to St. Ambrose Catholic Church (the "Church") and School (the "School").

The Applicant is the owner of approximately 13.68 acres identified among the Fairfax County tax assessment records as 59-3 ((1)) 11A (the "Subject Property"). The Subject Property is located on the south and east sides of Woodburn Road near its intersection with Leroy Place. Surrounding uses include single family residential communities zoned to the R-1 and R-2 Districts and the Pine Ridge Facility, which is a public use. The Subject Property is split zoned to the R-1 and R-2 Districts and located in the Mason Magisterial District.

The Church and School have been located on the Subject Property for many years and have served the community by providing religious and educational services. Existing improvements on the Subject Property consist of a place of worship with related facilities, including a rectory, a multi-purpose building, and a school building with typical supporting improvements. A number of land use approvals have previously been granted for the Subject Property. Most recently, the Board of Zoning Appeals approved SPA 76-M-086-5 on June 19, 2013. The current approval permits the operation of a place of worship, a private school of general education, and a nursery school subject to 23 development conditions.

The Church has thoughtfully designed a master plan to address the needs of its current membership. The proposed modifications and improvements are the result of input from parishioners, architects, engineers and the Diocese of Arlington. The primary objective of the master plan is to replace the existing sanctuary located on the Subject Property. The existing sanctuary design is outdated and not conducive to a number of religious services, such as weddings and funerals. In addition, the building has an octagonal shape and its interior layout is not easily accessible to older parishioners and those with physical challenges. Lastly, the building has incurred high maintenance costs over the years due to its design. The Church proposes to replace the sanctuary with a more traditionally shaped rectangular building that will result in a more functional interior layout, improved accessibility features, and compliance with current building code requirements. The building will continue to be one story and the capacity will increase from 600 to 800 seats. The proposed sanctuary is designed to better serve existing parishioners and the Church does not anticipate a large increase in the number of parishioners.

In conjunction with the new sanctuary, the Church is proposing additional parking. Additional parking will accommodate the increase in the number of sanctuary seats, but also ensure that parishioners park on site and not on adjacent roads. The sanctuary currently generates a requirement for 150 parking spaces that will increase to a requirement of 200 parking spaces with the increase in seating capacity. With the completion of all improvements, a total of 277 parking spaces are proposed on the Subject Property, or approximately one parking space for every 2.8 seats. The parking ratio exceeds the Fairfax County Zoning Ordinance (the "Zoning Ordinance") requirement of one parking space for every four seats. In addition, the handicapped parking spaces are more conveniently located in proximity to the front door of the sanctuary.

The Subject Property will continue to be accessed by Woodburn Road and a new ingress driveway is proposed to be used on weekends to facilitate vehicular movements. Stormwater management, including low-impact development techniques, will be provided with these improvements. As part of the sanctuary construction, a more formalized prayer garden will be located between the sanctuary and the existing School building. The sanctuary, together with its related parking, stormwater management and access, will be the first phase of construction.

Another important component of the master plan is the construction of facilities to support the existing School, which offers educational instruction from kindergarten to eighth grade and includes a nursery school. The School's approved enrollment will not increase and the grade levels will remain the same. As a result, there will be no impacts on day-to-day operations. The School currently administers a carpool program to minimize traffic impacts which will continue with the proposed improvements. The School proposes an addition to the existing building to better serve the needs of its students. The addition will be a total of approximately 22,880 square feet and include several uses. One component of the addition will be comprised of subject specific rooms for supporting instruction such as choir and science. These activities will supplement daily education and are currently offered in shared facilities within the existing building. The second component of the addition is a new gymnasium/multi-purpose building to allow for indoor recreation, assemblies, and similar activities. Currently, indoor recreation, assemblies and the like are held in the cafeteria. Multiple uses in a single space limits important supplemental activities for the children. No additional classrooms are proposed and the approved enrollment will not increase.

Lastly, the Church proposes to remove the existing rectory located on the Subject Property in proximity to the School. The rectory is no longer needed because housing for the two priests who serve the Parish will be provided off-site.

The Church has maintained generous setbacks around the periphery of the Subject Property to ensure preservation of an existing treed buffer to the adjacent residential community. The conservation easement located at the perimeter of the Subject Property is more than double the twenty-five (25) foot transitional screening width as required by the Zoning Ordinance. The required twenty-five (25) foot wide transitional screening yard with plantings is proposed adjacent to Lot 18, which is surrounded by the Subject Property. An existing fence, supplemented by the Applicant's construction of a six foot high wooden fence on one side of the shared boundary, satisfies the barrier requirement to Lot 18. A fence may be installed at the outer perimeter of the Subject Property to address the Zoning Ordinance's barrier requirement and to provide security.

Construction of the improvements described herein will be phased with the sanctuary being the first phase of construction as it is the Parish's greatest need. The remaining improvements will be constructed as funding is available and may be constructed in one or more phases.

The Subject Property is located within the Pine Ridge Community Planning Sector of the Annandale Planning District in Area I of the Fairfax County Comprehensive Plan (the "Plan"). There are no specific land use recommendations for the development of the Subject Property, however, the Plan generally encourages development of compatible uses and intensities to existing development. The Plan map identifies the Subject Property as appropriate for residential development at a density of one (1) to two (2) dwelling units per acre. Places of worship and schools are generally accepted as compatible uses within residential areas. The Applicant's proposed modifications result in an FAR of .14 which is consistent with the Subject Property's zoning. The proposed layout includes setbacks and buffers that incorporate existing vegetation to minimize any impacts on the adjacent residentially developed properties. Therefore, the proposed improvements are in harmony with the recommendations of the Plan and are compatible with surrounding development.

In accordance with the Zoning Ordinance requirements of Section 8-011, please accept the following information regarding the special permit amendment application:

- The type of operation will continue to be a place of worship, a private school of general education offering instruction from kindergarten to 8th grade, and a nursery school. No changes are proposed to the existing uses. In addition to religious services and classes, the Church offers programs typically found in association with a place of worship including religious education, community outreach, and other activities.

- The hours of operation, existing and proposed, are as follows:

  - Mass Schedule: Monday through Friday – 7:00 a.m. and 9:00 a.m.

Saturday – 9:00 a.m. and 5:00 p.m.
Sunday – 8:00 a.m., 10:00 a.m., 12:00 p.m.

The Church will also hold funeral masses, receptions, weddings, baptisms and other special religious services as needed to serve its parishioners.

- Private School of General Education: Monday through Friday – 8:00 a.m. to 3:30 p.m. Some students participate in before and/or after school programs that are offered in addition to the standard school day.

- Nursery School: Monday through Friday –
  8:30 a.m. – 11:30 a.m. – morning session
  12:30 p.m. – 3:30 p.m. – afternoon session

- Approximately 930 families are currently registered as parishioners at the Church. Attendance varies for each service or event. The sanctuary capacity will increase from 600 seats to 800 seats, but the total number of parishioners is not anticipated to significantly increase. The total daily enrollment for the private school of general education and nursery school combined is 260 students. A maximum of 14 children are enrolled in each session of the nursery school.

- The Church is currently served by two (2) priests, a religious education director, a choir director, an administrative assistant, an office manager, a business manager, two (2) custodians and a number of part-time office staff. The School employs a principal, an assistant, a school secretary, a librarian, a part-time clinic health aide, teachers and assistant teachers. The maximum number of employees, some of which are part-time, for the private school of general education and nursery school combined is 32.

- The proposed improvements will have minimal impacts on existing traffic patterns. The increase in the number of sanctuary seats is not intended to significantly increase the number of parishioners coming to the Subject Property, but to provide parishioners with a more spacious, comfortable and traditional religious environment. Daily morning masses are not typically heavily attended and are primarily attended by individuals. The number of attendees range from 40 to 50 persons. On the weekends, the peak period of traffic is between 9:15 a.m. and 11:45 a.m. as parishioners arrive and depart from the 10:00 a.m. mass. The average number of parishioners at this service is approximately 600. The masses held on Saturday and early Sunday morning are also well attended and include many couples and families. The vehicle trips to the School and nursery school are at different times than the peak operation of the Church. During the week, all trips to the School and nursery school are by private vehicle. The School operates a carpool program that minimizes the number of daily vehicle trips. In addition, the arrival and departure of vehicles is staggered as some students participate in before and after school activities. The a.m. peak for

vehicular traffic arriving at the School is approximately 7:15 a.m. to 8:15 a.m. when approximately 100 vehicles enter and leave the Subject Property. The afternoon peak is from approximately 2:45 p.m. to 3:45 p.m. when approximately 80 vehicles enter and leave the Subject Property. Therefore, the maximum number of trips to the Subject Property during its peak hour of operation during the week is approximately 200.

- The Church serves a radius of approximately twelve (12) miles with a majority of parishioners and parents living in Annandale, Fairfax and Falls Church.

- A new sanctuary will replace the existing sanctuary and its capacity will increase by 200 seats. The proposed building is one story and will be constructed in a traditional architectural style within the approximate footprint of the existing sanctuary. Exterior building materials will be predominately brick, stone or similar masonry with stained glass windows. A sloping shingled roof is proposed. The addition to the School building will be constructed primarily of brick with sloping shingle or flat roofs. The addition will be one and two story and compatible with the existing building.

- The Applicant is not aware of any hazardous or toxic substances located on the Subject Property.

- The proposed development complies with all adopted standards, ordinances and regulations except as may have been previously approved and as noted on the special permit plat.

The Applicant's proposal is a carefully conceived master plan that will allow for the continued vibrancy of St. Ambrose Catholic Church and School. A new sanctuary will replace an outdated structure that has been difficult to maintain. The proposal includes additional parking to ensure that parishioners park on-site. The improvements to the School will ensure that it continues to be a top ranking educational institution in Fairfax County that provides convenient and quality instruction to Fairfax County residents without increasing its capacity. St. Ambrose Catholic Church and School is an integral part of the surrounding community and the Applicant's proposal will ensure its continued vitality.

Should you have any questions regarding this application, or require additional information, please do not hesitate to contact me. I would appreciate the acceptance of this application and the scheduling of a public hearing before the Fairfax County Board of Zoning Appeals at your earliest convenience.

As always, I appreciate your assistance and cooperation.

Very truly yours,

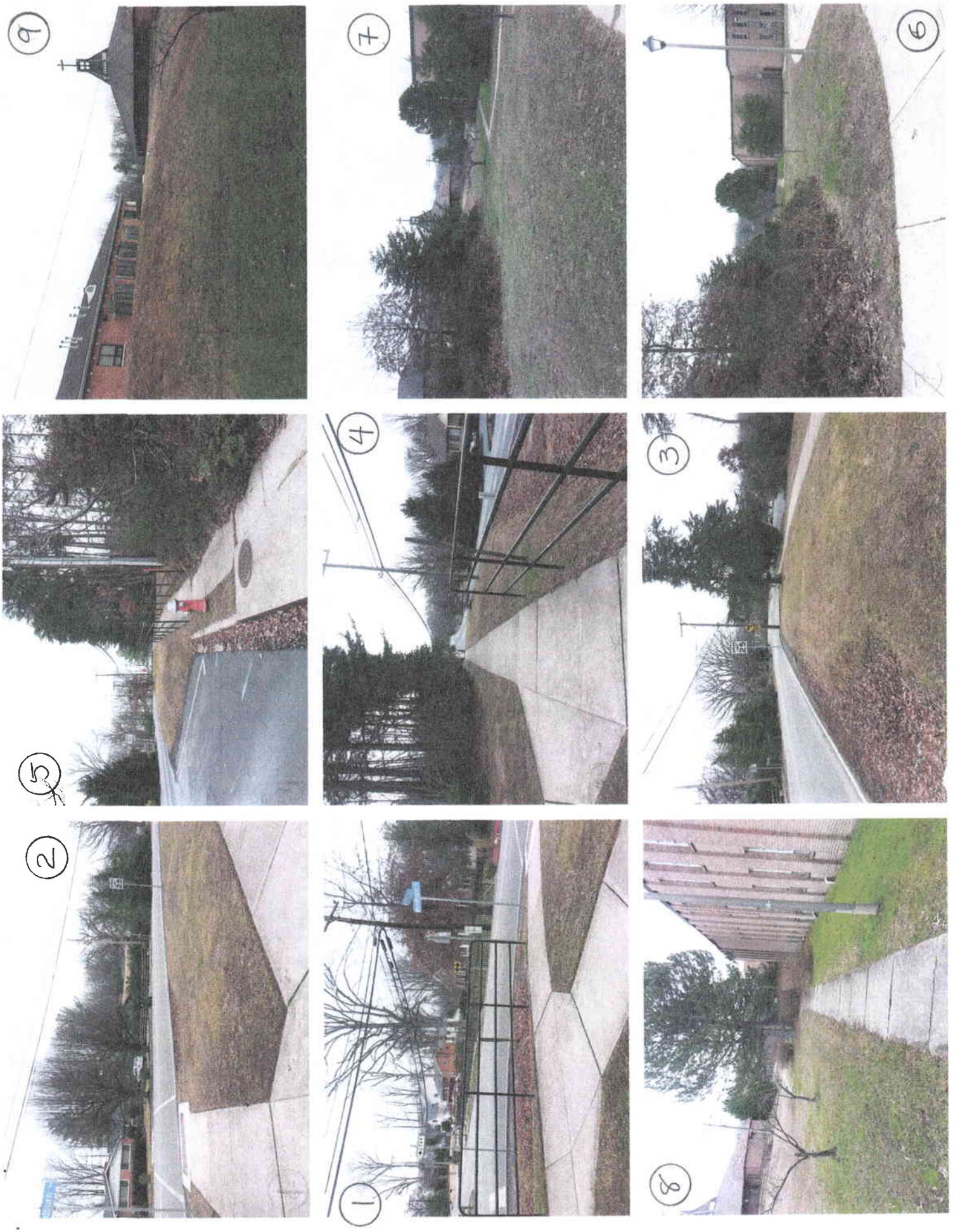
WALSH, COLUCCI, LUBELEY & WALSH, P.C.

Lynne J. Strobel

LJS/kae

cc: Father Andrew Fisher
Barbara Dalmut
J. Reid Herlihy
Robert Nashed
Dennis DeLizzio
John Manganello
Michael Workosky
John Schick

A0683077.DOC / 1 10.16.15 Revised Statement of Justification 000714 000039

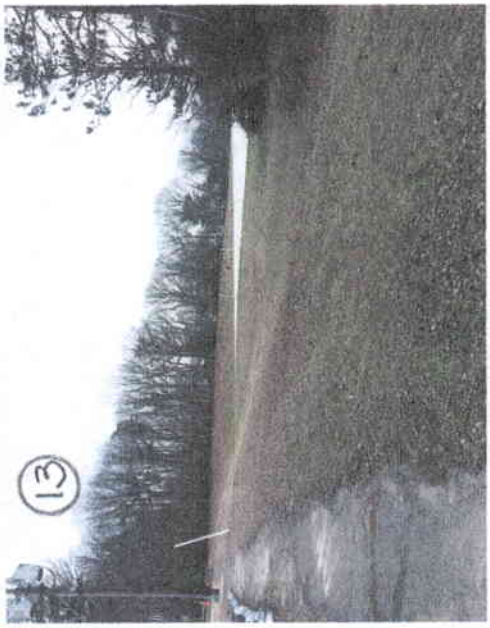

9
7
6
5
4
3
2
1
8

10

11

18

14



13

12

17

16

15

19

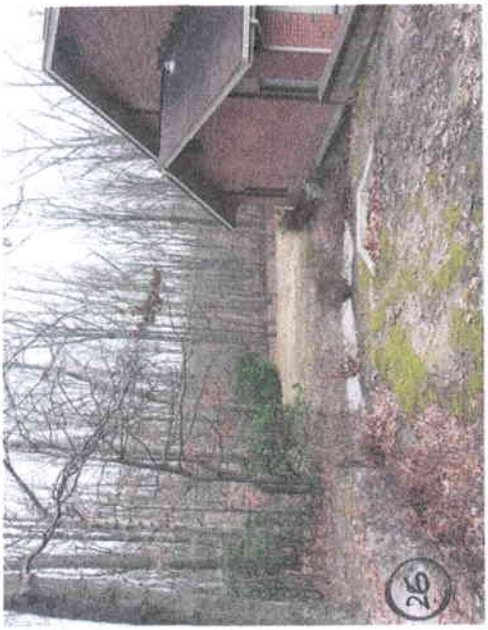
20

21

24

22

25


26

23

27

34

33

32

32

31

30

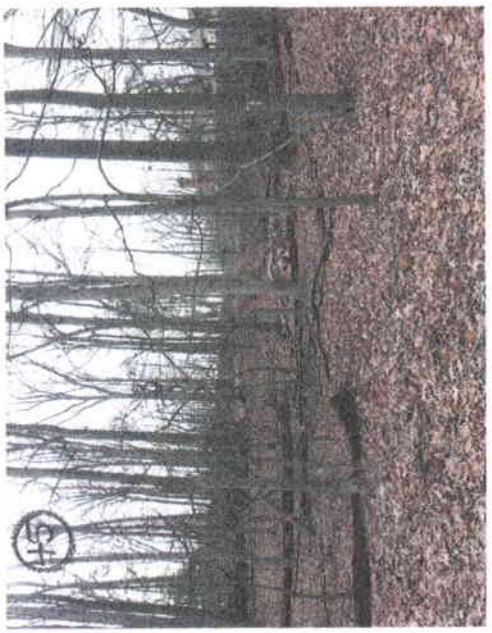
29

28

36

42

43


47

40

41

44

37

38

39

46

47

48

Application No.(s): SPA 76-M-086-06
(county-assigned application number(s), to be entered by County Staff)

SPECIAL PERMIT/VARIANCE AFFIDAVIT

DATE: August 27, 2015
(enter date affidavit is notarized)

131557

I, Sara V. Mariska, attorney/agent, do hereby state that I am an
(enter name of applicant or authorized agent)

(check one) [ ] applicant
[✓] applicant's authorized agent listed in Par. 1(a) below

and that, to the best of my knowledge and belief, the following is true:

==========

1(a). The following constitutes a listing of the names and addresses of all **APPLICANTS, TITLE OWNERS, CONTRACT PURCHASERS,** and **LESSEES** of the land described in the application,* and, if any of the foregoing is a **TRUSTEE,**** each **BENEFICIARY** of such trust, and all **ATTORNEYS** and **REAL ESTATE BROKERS,** and all **AGENTS** who have acted on behalf of any of the foregoing with respect to the application:

(**NOTE**: All relationships to the application listed above in **BOLD** print must be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel(s) for each owner(s) in the Relationship column.)

NAME (enter first name, middle initial, and last name)	**ADDRESS** (enter number, street, city, state, and zip code)	**RELATIONSHIP(S)** (enter applicable relationships listed in **BOLD** above)
The Most Reverend Paul S. Loverde, Bishop of the Catholic Diocese of Arlington, Virginia and his successors in office (St. Ambrose Catholic Church and School)	200 North Glebe Road, Suite 704 Arlington, Virginia 22203	Applicant/Title Owner of Tax Map 59-3 ((1)) 11A
Rev.Andrew J. Fisher		Agent
J. Reid Herlihy		Agent
Robert W. Nashed		Agent
Barbara S. Dalmut (former)		Agent
Mark E. Herrmann		Attorney/Agent
Angela M. Rowley		Agent

(check if applicable) [✓] There are more relationships to be listed and Par. 1(a) is continued on a "Special Permit/Variance Attachment to Par. 1(a)" form.

* In the case of a condominium, the title owner, contract purchaser, or lessee of 10% or more of the units in the condominium.

** List as follows: Name of trustee, Trustee for (name of trust, if applicable), for the benefit of: (state name of each beneficiary).

Application No.(s): SPA 76-M-086-06
(county-assigned application number(s), to be entered by County Staff)

Special Permit/Variance Attachment to Par. 1(a)

DATE: August 27, 2015
(enter date affidavit is notarized)

131557

(**NOTE**: All relationships to the application are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel (s) for each owner(s) in the Relationship column.)

NAME (enter first name, middle initial, and last name)	**ADDRESS** (enter number, street, city, state, and zip code)	**RELATIONSHIP(S)** (enter applicable relationships listed in **BOLD** above)
Walsh, Colucci, Lubeley & Walsh, P.C.	2200 Clarendon Boulevard Suite 1300 Arlington, Virginia 22201	Attorneys/Planners/Agent
Agents:		
Martin D. Walsh		Attorney/Agent
Lynne J. Strobel		Attorney/Agent
Timothy S. Sampson (former)		Attorney/Agent
M. Catharine Puskar		Attorney/Agent
Sara V. Mariska		Attorney/Agent
G. Evan Pritchard		Attorney/Agent
Andrew A. Painter		Attorney/Agent
Matthew J. Allman		Attorney/Agent
Jeffrey R. Sunderland		Attorney*/Agent
Elizabeth D. Baker		Planner/Agent
Inda E. Stagg		Planner/Agent
Amy E. Friedlander		Planner/Agent
		*Admitted in New York and California. Admission to Virginia Bar pending.
Land Development Consultants, Inc.	10805 Main Street, Suite 700 Fairfax, Virginia 22030	Engineer/Agent
Agent: John C. Manganello		
DeLizzio Architects & Planners, PC	12 S. Adams Street Rockville, MD 20850	Architect/Agent
Agents: Dennis J. DeLizzio Barbara R. Seligson		

(check if applicable) [✓] There are more relationships to be listed and Par. 1(a) is continued further on a "Special Permit/Variance Attachment to Par. 1(a)" form.

Application No.(s): SPA 76-M-086-02
(county-assigned application number(s), to be entered by County Staff)

Special Permit/Variance Attachment to Par. 1(a)

DATE: August 27, 2015
(enter date affidavit is notarized)

131557

(**NOTE**: All relationships to the application are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel (s) for each owner(s) in the Relationship column.)

NAME (enter first name, middle initial, and last name)	**ADDRESS** (enter number, street, city, state, and zip code)	**RELATIONSHIP(S)** (enter applicable relationships listed in **BOLD** above)
M.J. Wells & Associates, Inc. Agents: Robin L. Antonucci Michael J. Workosky John A. Schick	1420 Spring Hill Road, Suite 610 Tysons, VA 22102	Transportation Consultant/ Agent
Zimar and Associates, Inc. Agent: Donald E. Zimar	10105-C Residency Road Manassas, Virginia 20110	Arborist/Agent

(check if applicable) [ ] There are more relationships to be listed and Par. 1(a) is continued further on a "Special Permit/Variance Attachment to Par. 1(a)" form.

Application No.(s): SPA 76-M-086-06
(county-assigned application number(s), to be entered by County Staff)

SPECIAL PERMIT/VARIANCE AFFIDAVIT

DATE: August 27, 2015
(enter date affidavit is notarized)

131557

1(b). The following constitutes a listing*** of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 10 or less shareholders, a listing of all of the shareholders:

(**NOTE**: Include **SOLE PROPRIETORSHIPS**, **LIMITED LIABILITY COMPANIES,** and **REAL ESTATE INVESTMENT TRUSTS** herein.)

CORPORATION INFORMATION

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)
Walsh, Colucci, Lubeley & Walsh, P.C.
2200 Clarendon Boulevard, 13th Floor
Arlington, Virginia 22201

DESCRIPTION OF CORPORATION: (check one statement)

[ ] There are 10 or less shareholders, and all of the shareholders are listed below.
[✓] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[ ] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF SHAREHOLDERS: (enter first name, middle initial, and last name)

Wendy A. Alexander, David J. Bomgardner, E. Andrew Burcher, Thomas J. Colucci, Michael J. Coughlin, Peter M. Dolan, Jr., Jay du Von, William A. Fogarty, John H. Foote, H. Mark Goetzman, Bryan H. Guidash, Michael J. Kalish, J. Randall Minchew, Andrew A. Painter, G. Evan Pritchard, M. Catharine Puskar, John E. Rinaldi, Kathleen H. Smith, Lynne J. Strobel, Garth M. Wainman, Nan E. Walsh

(check if applicable) [✓] There is more corporation information and Par. 1(b) is continued on a "Special Permit/Variance Attachment 1(b)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. ***In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed.*** Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

Application No.(s): SPA 76-M-082-06
(county-assigned application number(s), to be entered by County Staff)

Special Permit/Variance Attachment to Par. 1(b)

DATE: August 27, 2015
(enter date affidavit is notarized)

131557

==========

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)
Land Development Consultants, Inc.
10805 Main Street, Suite 700
Fairfax, Virginia 22030

DESCRIPTION OF CORPORATION: (check one statement)

[✓] There are 10 or less shareholders, and all of the shareholders are listed below.
[ ] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[ ] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)
John C. Manganello, Sole Shareholder

==========

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)
DeLizzio Architects & Planners, PC
12 S. Adams Street
Rockville, MD 20850

DESCRIPTION OF CORPORATION: (check one statement)

[✓] There are 10 or less shareholders, and all of the shareholders are listed below.
[ ] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[ ] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)
Dennis J. Delizzio

==========

(check if applicable) [✓] There is more corporation information and Par. 1(b) is continued further on a "Special Permit/Variance Attachment to Par. 1(b)" form.

Application No.(s): SPA 76-M-086-06
(county-assigned application number(s), to be entered by County Staff)

Special Permit/Variance Attachment to Par. 1(b)

DATE: August 27, 2015
(enter date affidavit is notarized)

131557

==========

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)
M.J. Wells & Associates, Inc.
1420 Spring Hill Road, Suite 610
Tysons, VA 22102

DESCRIPTION OF CORPORATION: (check one statement)

[ ] There are 10 or less shareholders, and all of the shareholders are listed below.
[✓] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[ ] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)
M.J. Wells & Associates, Inc. Employee Stock Ownership Trust. All employees are eligible plan participants; however, no one employee owns 10% or more of any class of stock.

==========

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)
Zimar and Associates, Inc.
10105-C Residency Road
Manassas, Virginia 20110

DESCRIPTION OF CORPORATION: (check one statement)

[✓] There are 10 or less shareholders, and all of the shareholders are listed below.
[ ] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[ ] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)
Donald E. Zimar, Sole shareholder

==========

(check if applicable) [ ] There is more corporation information and Par. 1(b) is continued further on a "Special Permit/Variance Attachment to Par. 1(b)" form.

Application No.(s): SPA 76-M-086-06
(county-assigned application number(s), to be entered by County Staff)

SPECIAL PERMIT/VARIANCE AFFIDAVIT

DATE: August 27, 2015
(enter date affidavit is notarized)

131557

==========

1(c). The following constitutes a listing*** of all of the **PARTNERS,** both **GENERAL** and **LIMITED**, in any partnership disclosed in this affidavit:

PARTNERSHIP INFORMATION

PARTNERSHIP NAME & ADDRESS: (enter complete name, number, street, city, state, and zip code)
None

(check if applicable) [ ] The above-listed partnership has no limited partners·

NAMES AND TITLE OF THE PARTNERS (enter first name, middle initial, last name, and title, e.g. **General Partner, Limited Partner, or General and Limited Partner**)

(check if applicable) [ ] There is more partnership information and Par. 1(c) is continued on a "Special Permit/Variance Attachment to Par. 1(c)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. ***In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed.*** Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

Application No.(s): SPA 76-M-086-06
(county-assigned application number(s), to be entered by County Staff)

SPECIAL PERMIT/VARIANCE AFFIDAVIT

DATE: August 27, 2015
(enter date affidavit is notarized)

131557

==========

1(d). One of the following boxes **must** be checked:

[ ] In addition to the names listed in Paragraphs 1(a), 1(b), and 1(c) above, the following is a listing of any and all other individuals who own in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER,** or **LESSEE*** of the land:

[✓] Other than the names listed in Paragraphs 1(a), 1(b), and 1(c) above, no individual owns in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER,** or **LESSEE*** of the land.

2. That no member of the Fairfax County Board of Zoning Appeals, Planning Commission, or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or through an interest in a partnership owning such land.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "**NONE**" on the line below.**)**
None

(check if applicable) [ ] There are more interests to be listed and Par. 2 is continued on a "Special Permit/Variance Attachment to Par. 2" form.

Application No.(s): SPA 76-M-086-06
(county-assigned application number(s), to be entered by County Staff)

SPECIAL PERMIT/VARIANCE AFFIDAVIT

DATE: August 27, 2015
(enter date affidavit is notarized)

131557

3. That within the twelve-month period prior to the public hearing of this application, no member of the Fairfax County Board of Zoning Appeals, Planning Commission, or any member of his or her immediate household, either directly or by way of partnership in which any of them is a partner, employee, agent, or attorney, or through a partner of any of them, or through a corporation in which any of them is an officer, director, employee, agent, or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has, or has had any business or financial relationship, other than any ordinary depositor or customer relationship with or by a retail establishment, public utility, or bank, including any gift or donation having a value of more than $100, singularly or in the aggregate, with any of those listed in Par. 1 above.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "**NONE**" on line below.**)**
None

(NOTE: Business or financial relationships of the type described in this paragraph that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings. See Par. 4 below.)

(check if applicable) [ ] There are more disclosures to be listed and Par. 3 is continued on a "Special Permit/Variance Attachment to Par. 3" form.

4. **That the information contained in this affidavit is complete, that all partnerships, corporations, and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land have been listed and broken down, and that prior to each and every public hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including business or financial relationships of the type described in Paragraph 3 above, that arise on or after the date of this application.**

WITNESS the following signature:

Sara V. Mariska

(check one) [ ] Applicant [✓] Applicant's Authorized Agent

Sara V. Mariska, attorney/agent
(type or print first name, middle initial, last name, and title of signee)

Subscribed and sworn to before me this 27 day of August 2015, in the State/Comm. of Virginia, County/City of Arlington.

Kimberly K. Follin
Notary Public

My commission expires: 11/30/2015

KIMBERLY K. FOLLIN
Registration # 283945
Notary Public
COMMONWEALTH OF VIRGINIA

COUNTY OF FAIRFAX, VIRGINIA

SPECIAL PERMIT RESOLUTION OF THE BOARD OF ZONING APPEALS

THE MOST REVEREND PAUL S. LOVERDE, BISHOP OF THE CATHOLIC DIOCESE OF ARLINGTON, VIRGINIA, AND HIS SUCCESSORS IN OFFICE (ST. AMBROSE CATHOLIC CHURCH AND SCHOOL), SPA 76-M-086-05 Appl. under Sect(s). 8-308 of the Zoning Ordinance to amend SP 76-M-086 previously approved for a place of worship and private school of general education to permit the addition of a nursery school and site modifications. Located at 3825 Woodburn Rd., Annandale, 22003, on approx. 13.68 ac. of land zoned R-1 and R-2. Mason District. Tax Map 59-3 ((1)) 11A. (Admin. moved from 5/8/13 at appl. req.)(Decision deferred from 6/12/13.) Mr.Smith moved that the Board of Zoning Appeals adopt the following resolution:

WHEREAS, the captioned application has been properly filed in accordance with the requirements of all applicable State and County Codes and with the by-laws of the Fairfax County Board of Zoning Appeals; and

WHEREAS, following proper notice to the public, a public hearing was held by the Board on June 19, 2013;

WHEREAS, the Board has made the following findings of fact:

1. The owner of the property is the applicant.
2. The present zoning is R-1 and R-2.
3. The total area of the lot is 13.68 acres.
4. There has been a great deal of discussion and analysis on this application and rightly so.
5. A number of the Board of Zoning Appeals members, subsequent to last hearing, went out and visited the property. It does require extensive walking on the property. Mr. Smith was out there on Saturday and had an opportunity to speak to the pastor and the school principal and walked through towards the end of the Stations of the Cross and all through the perimeter of the property.
6. There are a significant number of trees that are down, and it is hard to tell why. Some of that is just the natural progression of things. When you see a heavily wooded area like this which provides substantial screening, it does provide a very nice benefit to the surrounding property owners.
7. A key concern of all is the safety issue, and that was the large reason the Board deferred this for a week, to make sure to have the I's dotted and the T's crossed on that issue.
8. Mr. Smith saw a lot of trees that were down and two standing trees that caused concern that were dead.
9. The Board got the December 3, 2012, letter from the Urban Forest Management Division that referenced the number of tress that will be removed. There has been a fair amount of homework that has been done, and the Board is able to cover this issue in a development condition because the Church wants to make sure that those trees are removed and done in compliance with all County requirements and make sure they have the proper approvals to do that.
10. The Board has a development condition that will address that issue because everybody's concerns are aligned on making sure that public health, safety, and welfare are protected and removing any trees that pose any type of a danger.
11. There are a number of fallen trees that just seems to be the natural progression of things and provides some level of wildlife habitat. The issue is things that are going to pose a safety hazard, and that is why the development condition is so important.

12. In the scheme of things, this application itself has very little impact on the surrounding community. The is no change in floor area ratio, no change in the parking lot, no increase in impervious area, and no change in number of employees, so it is a relatively modest impact.
13. The Department of Transportation did not have any concerns.
14. There is a small increase in the number of students up to 10, for a maximum of 260.
15. There is a reference in the staff report that 300 children were approved back when this thing was originally approved.
16. Be that as it may, it is a relatively minor impact from this new development, so the focus has been on making sure that there is compliance with the existing development conditions.
17. With the changes that have been proposed by the applicant in the conditions dated June 15, 2013, the issues have been addressed that were raised last week regarding the carpool program and the additional measures that would be taken by the church to ensure and encourage carpooling of students. That was well covered in the proposed development conditions from the applicant.
18. The concern regarding the transitional screening and vegetation was addressed in proposed Development Condition 20 that was modified by the applicant. There is significantly more screening here in many areas than you would normally require, which is a benefit to the community.
19. The proposed Development Condition 23, which is largely addressing the concerns about the health and safety issues, making sure that any trees that are dead are removed, covers it.
20. The applicant proposed a condition and the County staff revised the condition, and both were distributed at the meeting. The condition as modified by the County is appropriate.

AND WHEREAS, the Board of Zoning Appeals has reached the following conclusions of law:

THAT the applicant has presented testimony indicating compliance with the general standards for Special Permit Uses as set forth in Sect. 8-006 and the additional standards for this use as contained in the Zoning Ordinance.

NOW, THEREFORE, BE IT RESOLVED that the subject application is **APPROVED** with the following limitations:

1. This approval is granted to the applicant only, The Most Reverend Paul S. Loverde, Bishop of the Catholic Diocese of Arlington, Virginia and his successors in office (St. Ambrose Catholic Church and School) and is not transferable without further action of this Board, and is for the location indicated on the application, 3825 Woodburn Road (13.68 acres), and is not transferable to other land.

2. This special permit amendment is granted only for the purpose(s), structure(s) and/or use(s) indicated on the special permit plat titled "Special Permit Amendment Plat, Saint Ambrose Parish," prepared by John C. Manganello, P.E., Land Development Consultants. Inc. dated January 9, 2013 and as revised through May 31, 2013 and approved with this application, as qualified by these development conditions.

3. A copy of this special permit amendment and the Non-Residential Use Permit SHALL BE POSTED in a conspicuous place on the property of the use and be made available to all departments of the County of Fairfax during the hours of operation of the permitted use.

4. This special permit amendment is subject to the provisions of Article 17, Site Plans, as may be determined by the Director, Department of Public Works and Environmental Services (DPWES). Any plan submitted pursuant to this special permit shall be in substantial conformance with these conditions. Minor modifications to the approved special permit may be permitted pursuant to Par. 4 of Sect. 8-004 of the Zoning Ordinance.

5. The maximum number of seats in the church shall be six hundred (600).

6. All parking shall be on site as depicted on the special permit amendment plat. A parking reduction shall be obtained through DPWES as required for Sect. 11-106.3 of the Zoning Ordinance prior to issuance of a Non-RUP for the nursery school to permit the shared use of the church, parking lot for both the church use and school uses. If approval of a parking reduction is not obtained, the number of seats in the worship area and/or the number of children in the school of general education or nursery school shall be reduced to meet the parking requirements as determined by DPWES.

7. The applicant shall manage a formal carpool program with a goal of 40% of the students in the school and nursery school participating in the program. The applicant shall take the following measures to encourage the carpooling of students:

   (i) The school shall maintain zip code records and provide a matching service for parents;

   (ii) A table shall be provided at the welcome back social event to provide information regarding carpooling and to introduce parents with the goal of establishing carpools;

   (iii) A priority lane shall be established for carpool vehicles; and

   (iv) Information shall be included on the school's website regarding the benefits of carpooling.

8. The private school of general education and nursery school shall be limited to a total maximum daily enrollment of 260 students between the two uses.

9. The maximum total number of employees between the private school of general education and nursery school shall be limited to 32.

10. The hours of operation for the private school of general education shall be limited to a maximum time period of between 8:15 a.m. and 3:30 p.m. with reasonable accommodation for drop-off and pick-up of students before and after school. Evening hours until 11:00 p.m. shall be permitted for related school activities.

11. The hours of operation for the nursery school shall be limited to a maximum of two sessions of three hours each starting no earlier than 8:15 a.m. and ending by 3:30 p.m.

12. Prior to construction of the playground area and issuance of a Non-RUP for the nursery school, the services of a Certified Arborist or Registered Consulting Arborist shall be retained, and the limits of disturbance marked shall be marked with stakes and a continuous line of

flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant's Certified Arborist or Registered Consulting Arborist shall walk the limits of disturbance with a Urban Forestry Management Division (UFMD) representative to determine where adjustments can be made to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of disturbance, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed by hand as part of the clearing operation. All trees that are designated to be removed that are within the limits of disturbance shall be removed by hand through the use of a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. Any stump removal shall be done through the use of a stump-grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions.

13. The limits of disturbance shall be limited to the area as shown on the special permit amendment plat, subject to allowances specified in these conditions.

14. All trees outside the limits of disturbance are to be preserved and shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart shall be erected at the limits of disturbance as shown on the SPA.

    All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any tree removals. The installation of all tree protection fencing shall be performed by hand under the supervision of a Certified Arborist or Registered Consulting Arborist and accomplished in a manner that does not harm existing vegetation that is to be preserved.

15. All site work including but not limited to tree and shrub removal, tree pruning, play equipment installation, both tree preservation and playground fencing installation, and wood fiber installation shall be performed by hand, under the supervision of a Certified Arborist or Registered Consulting Arborist, in order to ensure that activities are conducted in a manner that does not negatively impact trees or their critical root zones within and surrounding the playground as approved by the UFMD. No wheeled or tracked equipment shall be used for any work onsite, unless specifically approved in writing by the UFMD.

16. Elevational pruning or pruning to raise, according to the most recent version of the ANSI A300 Pruning Standards, shall be done by an ISA Certified Arborist or Registered Consulting Arborist to provide the minimum clearance necessary for the play equipment.

17. Prior to issuance of the new non-residential use permit (Non-RUP), a field inspection shall be requested and be conducted by UFMD to verify all tree preservation activities have been completed and no additional tree preservation work is necessary.

18. All foundation plantings shall be maintained along the northern and eastern sides of the proposed structure. The species, size and location of the vegetation shall be as determined by the UFMD.

19. Interior parking lot landscaping shall be maintained in accordance with Article 13 of the Zoning Ordinance.

20. The existing vegetation may be utilized to fulfill the requirements for transitional screening on the northern, western and eastern lot lines, including the boundaries of adjacent Lot 18, as determined by the UFMD. Prior to the issuance of a new non-residential use permit (Non-RUP), the applicant shall coordinate an inspection of transitional screening by the UFMD. Replacement plantings as recommended by the UFMD for any vegetation which is dead, dying or less than six (6) feet in height shall be installed in a timely manner, but dependent upon the season in an effort to maximize survival.

21. The barrier requirement shall be waived along the northern, eastern and western lot lines.

22. Stormwater Management Best Management Practices (BMPs) shall be maintained as determined by DPWES.

23. The applicant shall monitor the health of the trees within the existing conservation easement. If it is determined by a Certified Arborist that trees within the conservation easement pose an unacceptable level of risk to the adjacent residential properties, the applicant shall clearly identify these trees in the field and shall contact the Urban Forest Management Division to seek approval for their removal. Subject to concurrence by the UFMD, trees identified as hazardous shall be removed and replacement plantings installed, if required by the UFMD. Said plantings shall be installed in a timely manner, but dependent upon the season in an effort to maximize survival. The applicant shall provide the name and telephone number of a contact person, at both the Parish and the Diocese of Arlington, to the president of the Winterset Varsity Park Civic Association for the purpose of reporting a potentially hazardous tree by an adjacent neighbor. Those trees identified in a letter dated December 3, 2012 to Mr. Paul Moeller from Nick Drunasky of the Urban Forest Management Division shall be removed no later than the issuance of a new non-residential use permit.(See Attachment 1)

This approval, contingent on the above-noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be responsible for obtaining the required Non-Residential Use Permit through established procedures, and this special permit shall not be valid until this has been accomplished.

Pursuant to Sect. 8-015 of the Zoning Ordinance, this special permit shall automatically expire, without notice, thirty (30) months after the date of approval unless the use has been established. The Board of Zoning Appeals may grant additional time to establish the use if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the special permit. The request must specify the amount of additional time requested, the basis for the amount of time requested, and an explanation of why additional time is required.

THE MOST REVEREND PAUL S. LOVERDE, BISHOP OF THE CATHOLIC DIOCESE OF ARLINGTON, VIRGINIA, AND HIS SUCCESSORS IN OFFICE (ST. AMBROSE CATHOLIC CHURCH AND SCHOOL), SPA 76-M-086-05

Mr. Beard seconded the motion, which carried by a vote of 5-0-1. Mr. Hammack abstained from the vote. Mr. Byers was absent from the meeting.

A Copy Teste:

Tameca N. Brown, Deputy Clerk
Board of Zoning Appeals

County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

December 3, 2012

Mr. Paul Moeller
3901 Woodburn Road
Annandale, VA 22003

RE: Request to remove trees in transitional screening yard at Saint Ambrose Catholic Church and School

Dear Mr. Moeller:

The Urban Forest Management Division (UFMD) staff received your phone request on November 15, 2012 to remove several trees located within the transitional screening yard and replace with new trees to maintain the intent of required transitional screening. On November 27, 2012, Nick Drunasky, Urban Forester II and Paul Moeller, Plant and Facilities Manager for Saint Ambrose met onsite to review trees identified in the field with orange flagging by Mr. Dane Kielsgard, Certified Arborist contracted by Saint Ambrose Catholic Church and School. The site inspection revealed that transitional screening consisted of the forest type known as Upland Forest (oak, hickory, yellow poplar, and Virginia pine, some of which had been impacted (uprooted) by Hurricane Sandy. The majority of the uprooted trees appeared to be in areas of lower elevation that likely experienced an increased level of drainage, combined with high winds during the storm. None of the site appears to be located within any Fairfax County Resource Protection Area or floodplain and the soils did not appear to be excessively moist anywhere within the transitional screening.

A visual evaluation of the trees of concern within the transitional screening area, conducted from the ground by UFMD, revealed evidence that would warrant removal of the following trees identified with red and white stripped flagging:

- Approximately 18 inch diameter scarlet oak with a hollow base and basal decay located on the side of 3801 Woodburn Road. To replace the lost canopy of this tree, one (1) Category IV tree such as swamp white oak, northern red oak, white oak, scarlet oak, chestnut oak, tulip poplar, American beech, pignut hickory, mockernut hickory, and bitternut hickory shall be planted during the spring planting season (March 1 – May 1). All deciduous trees being planted shall have a minimum caliper of two (2) inches.

- Approximately 12 inch diameter white oak with significant dieback and basal decay located behind 8517 Frost Way. No replacements are required due to existing vegetation present.

Department of Public Works and Environmental Services
Urban Forest Management Division
12055 Government Center Parkway, Suite 518
Fairfax, Virginia 22035-5503
Phone 703-324-1770, TTY: 703-324-1877, Fax: 703-803-7769
www.fairfaxcounty.gov/dpwes

- Approximately 25 inch diameter sweeping, one-sided scarlet oak with some evidence of soil heaving located directly behind the shed at 8511 Frost Way. No replacements are required due to existing vegetation.

- Approximately 17 inch diameter scarlet oak in decline, with sweep, and some trunk decay located behind 8507 Frost Way. No replacements are required due to existing vegetation.

- Approximately 19 inch diameter dead scarlet oak located behind 8505 Frost Way. No replacements are necessary due to existing vegetation.

- Approximately 26 inch diameter scarlet oak with sweep and basal decay located behind 3810 Shelley Lane. To replace the lost canopy of this tree, four (4) Category IV tree such as swamp white oak, northern red oak, white oak, scarlet oak, chestnut oak, tulip poplar, American beech, pignut hickory, mockernut hickory, and bitternut hickory shall be planted during the spring planting season (March 1 – May 1). All deciduous trees being planted shall have a minimum caliper of two (2) inches.

- Approximately 18 inch diameter scarlet oak with soil heaving that is hung up on another tree located behind 3810 Shelley Lane. No replacements are required due to existing vegetation.

- Approximately 14 inch diameter dead scarlet oak located behind 3818 Shelley Lane. No replacements are required due to existing vegetation.

The Urban Forest Management Division does not believe there is sufficient reason identified or evidence regarding structural deficiencies to allow for the removal of the 14 other trees. All trees from the list that are approved for removal shall be removed by hand through the use of a chain saw and the stumps cut flush to the ground. Absolutely no heavy equipment shall be allowed within the transitional screening area. All branches shall be removed from the transitional screening area, while the trunks shall be cut into moveable pieces (18 inches long) and either removed from the site or left in place. Care shall be taken to minimize damage to nearby trees and vegetation during the tree removal. If further assistance is desired, please contact me at 703-324-1770.

Sincerely,

Nick Drunasky, Urban Forester II
Urban Forest Management Division

/NJD
ID#: 176500

SPECIAL PERMIT AMENDMENT PLAT
SAINT AMBROSE PARISH
3825 WOODBURN ROAD, ANNANDALE VA
MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

REQUIRED ZONING TABULATIONS

ZONING REQUIREMENTS:	R-1	R-2
MIN. LOT AREA	36,000 SF	15,000 SF
MIN. LOT WIDTH	150 FEET	150 FEET (CORNER LOT)
MAX. BUILDING HEIGHT	60 FEET	60 FEET
MIN. FRONT YARD	50' ANGLE OF BULK PLANE MIN. 40 FEET	45' ANGLE OF BULK PLANE MIN. 35 FEET
MIN. SIDE YARD	45' ANGLE OF BULK PLANE MIN. 20 FEET	40' ANGLE OF BULK PLANE MIN. 15 FEET
MIN. REAR YARD	45' ANGLE OF BULK PLANE MIN. 25 FEET	40' ANGLE OF BULK PLANE MIN. 25 FEET
MAX. F.A.R.	0.15	0.20
MIN. OPEN SPACE	30%	30%

EXISTING ZONING TABULATIONS

EXISTING USE: GROUP 3 INSTITUTIONAL USE, CHURCH

	TOTAL	R-1	R-2
TOTAL SITE AREA	595,940 SF 13.678 AC	408,483 SF 9.377 AC	187,457 SF 4.303 AC
MAX. BUILDING HEIGHT			30 FEET
MIN. FRONT YARD	74'		
MIN. SIDE YARD	87'		
MIN. REAR YARD	27'		
EXISTING GROSS FLOOR AREA (GFA)	47,105 SF	23,877 SF	23,228 SF
EXISTING FLOOR AREA RATIO (FAR)	0.08	0.06	0.14
OPEN SPACE PROVIDED		75%	62%

REQUIRED PARKING TABULATION

PLACES OF WORSHIP

CHURCH SEATING = 600

(PER ZONING ORDINANCE SECTION 11-106-3, ONE (1) SPACE PER FOUR (4) SEATS) — 150 SPACES

SCHOOL

PROP. NURSERY SCHOOL
~~A. CHILD CARE = 30 (AT ONE TIME)~~

(PER ZONING ORDINANCE SECTION 11-106-2A, 0.19 SPACE PER CHILD FOR A CENTER OR SCHOOL WHICH HAS A MAXIMUM DAILY ENROLLMENT OF 99 CHILDREN OR LESS) — 6 SPACES

ELEMENTARY SCHOOL (GRADE K-8) = 230
FACULTY AND STAFF = 32

(PER ZONING ORDINANCE SECTION 11-106-17, ONE (1) SPACE FOR FACULTY AND STAFF MEMBERS PLUS FOUR (4) SPACES FOR VISITORS) — 36 SPACES

TOTAL REQUIRED SPACES (SUNDAYS) — 150 SPACES

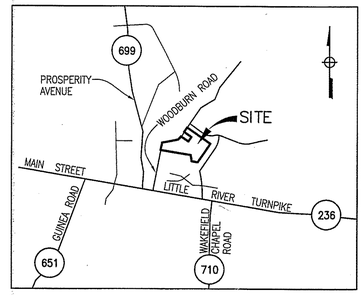
TOTAL REQUIRED SPACES (WEEKDAYS) — 42 SPACES

PROVIDED PARKING TABULATION

EXISTING STANDARD PARKING SPACES	170 SPACES
EXISTING HANDICAP PARKING SPACES	13 SPACES
TOTAL SPACES	183 SPACES

INTERIOR PARKING LOT LANDSCAPING

TOTAL PARKING AREA	76,226 SF.
LANDSCAPING REQUIRED (5%)	3,811 SF.
LANDSCAPING PROVIDED (5.8%)	4,386 SF.



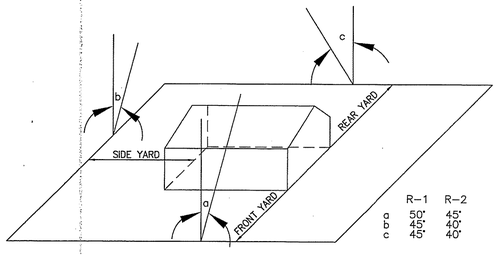
VICINITY MAP
SCALE : 1" = 2000'

ADDRESS

3825 WOODBURN ROAD
ANNANDALE, VA 22003
TAX MAP #0593 01 0011A

OWNER & APPLICANT

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



ANGLE OF BULK PLANE DETAIL

NOTES

1. THE PROPERTY DELINEATED ON THIS PLAN IS LOCATED ON FAIRFAX COUNTY TAX MAP NO. 0593 01 0011A.
2. TOTAL SITE AREA IS APPROXIMATELY 13.678 ACRES. (595,940 SQUARE FEET).
3. THE EXISTING ZONES ARE R-1 AND R-2.
4. THE BOUNDARY INFORMATION IS SHOWN HEREON IS FROM EXISTING RECORDS AND NOT AS A RESULT OF A FIELD RUN SURVEY BY THIS FIRM.
5. THE PHYSICAL IMPROVEMENTS AND TOPOGRAPHY SHOWN HEREON ARE FROM EXISTING RECORDS AND NOT AS A RESULT OF A FIELD RUN SURVEY BY THIS FIRM.
6. NO TITLE REPORT FURNISHED, THIS PLAT DOES NOT NECESSARILY REFLECT ALL EASEMENTS OR ENCUMBRANCES AFFECTING THE PROPERTY.
7. NO GRAVE OR BURIAL SITE IS KNOWN TO EXIST ON THIS PROPERTY.
8. THE SITE IS LOCATED WITHIN THE RESOURCE MANAGEMENT AREA AS DELINEATED ON THE COUNTY'S CHESAPEAKE BAY PRESERVATION AREA MAP. NO RESOURCE PROTECTION AREAS (RPA) OR FLOOD PLAINS ARE LOCATED ON THE SITE.
9. THIS SITE IS SERVED BY PUBLIC WATER AND PUBLIC SANITARY SEWER. THERE ARE NO KNOWN PRIVATE WELLS OR SEPTIC FIELDS EXIST ON THIS SITE.
10. THE OPEN SPACE AND LANDSCAPING SHALL BE MAINTAINED BY THE OWNER.
11. NO LOUD SPEAKER SYSTEM SHALL BE USED ON SITE EXTERIOR.
12. ALL LIGHTING SHALL BE BUILDING MOUNTED WITH FULL CUT OFF AND DIRECTED DOWNWARD TO MINIMIZE GLARE.
13. LOCATION, DIMENSIONS AND LIGHTING OF ALL SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH ARTICLE 12.
14. REQUEST FOR REAFFIRMATION OF THE TRANSITIONAL SCREENING REQUIREMENTS.
15. THERE ARE NO UTILITY EASEMENTS HAVING A WIDTH OF 25 FEET OR MORE.
16. ALL EXISTING STRUCTURES SHALL BE RETAINED.

Application No. SPA 76-M-086-05
Chairman, Board of Zoning Appeals

RECEIVED
Department of Planning & Zoning
MAY 31 2013
Zoning Evaluation Division

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.landdevelopmentconsultants.com

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.

COVER SHEET
SPECIAL PERMIT AMENDMENT PLAT
SAINT AMBROSE PARISH
3825 WOODBURN ROAD, ANNANDALE VA
MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA — JOHN C. WAGNER — LIC. NO. 022032 — 5-31-13 — PROFESSIONAL ENGINEER

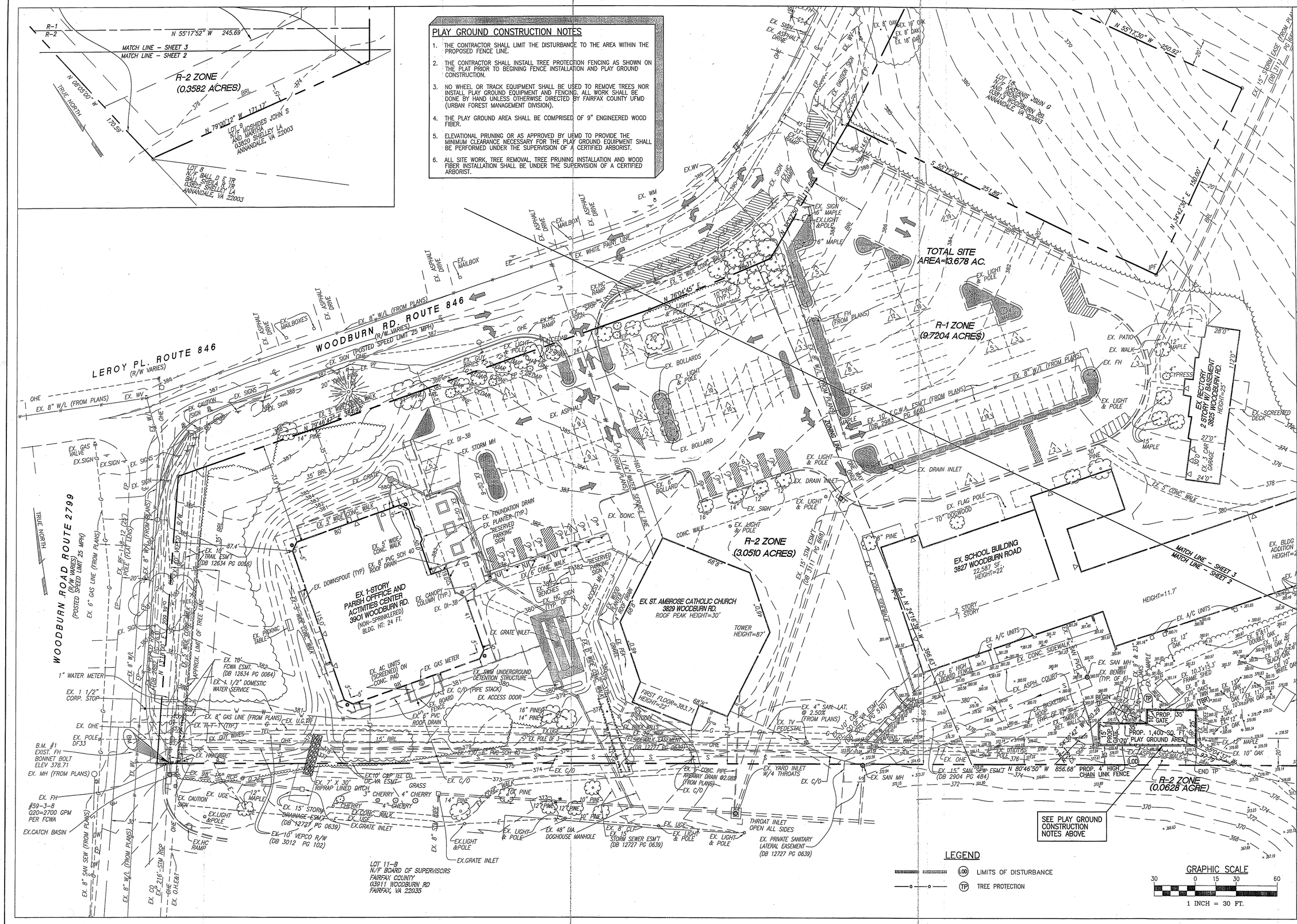
REV. NO.	DATE	REVISION
3.	5/31/13	URBAN FORESTER COMMENTS
2.	5/17/13	PLAY GROUND RELOCATION
1.	4/22/13	PLAYGROUND ADDED

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.05
SCALE: AS SHOWN
DATE: 1/9/2013
SHEET: 1 OF 4

F:\PROJECTS\10817 - St Ambrose Parish\DWG\St Ambrose Parish - SEP.dwg

PLAY GROUND CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL LIMIT THE DISTURBANCE TO THE AREA WITHIN THE PROPOSED FENCE LINE.
2. THE CONTRACTOR SHALL INSTALL TREE PROTECTION FENCING AS SHOWN ON THE PLAT PRIOR TO BEGINING FENCE INSTALLATION AND PLAY GROUND CONSTRUCTION.
3. NO WHEEL OR TRACK EQUIPMENT SHALL BE USED TO REMOVE TREES NOR INSTALL PLAY GROUND EQUIPMENT FOR THE PLAY GROUND EQUIPMENT SHALL BE DONE BY HAND UNLESS OTHERWISE DIRECTED BY FAIRFAX COUNTY UFMD (URBAN FOREST MANAGEMENT DIVISION).
4. THE PLAY GROUND AREA SHALL BE COMPRISED OF 9" ENGINEERED WOOD FIBER.
5. ELEVATIONAL PRUNING OR AS APPROVED BY UFMD TO PROVIDE THE MINIMUM CLEARANCE NECESSARY FOR THE PLAY GROUND EQUIPMENT SHALL BE PERFORMED UNDER THE SUPERVISION OF A CERTIFIED ARBORIST.
6. ALL SITE WORK, TREE REMOVAL, TREE PRUNING INSTALLATION AND WOOD FIBER INSTALLATION SHALL BE UNDER THE SUPERVISION OF A CERTIFIED ARBORIST.



LEGEND

LOD — LIMITS OF DISTURBANCE

TP — TREE PROTECTION

GRAPHIC SCALE

30 0 15 30 60

1 INCH = 30 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.landdevelopmentconsultants.com

BEUSE OF DOCUMENTS
THIS DOCUMENT IS AN INSTRUMENT OF PROFESSIONAL SERVICE AND THE INFORMATION, DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF LAND DEVELOPMENT CONSULTANTS, INC. AND IS NOT TO BE COPIED OR USED FOR ANY PURPOSE NOT ENTERED BY ANY PROCESS WITHOUT THE WRITTEN AUTHORIZATION OF LAND DEVELOPMENT CONSULTANTS, INC.
©LAND DEVELOPMENT CONSULTANTS, INC.

PLAN SHEET
SPECIAL PERMIT AMENDMENT PLAT
SAINT AMBROSE PARISH

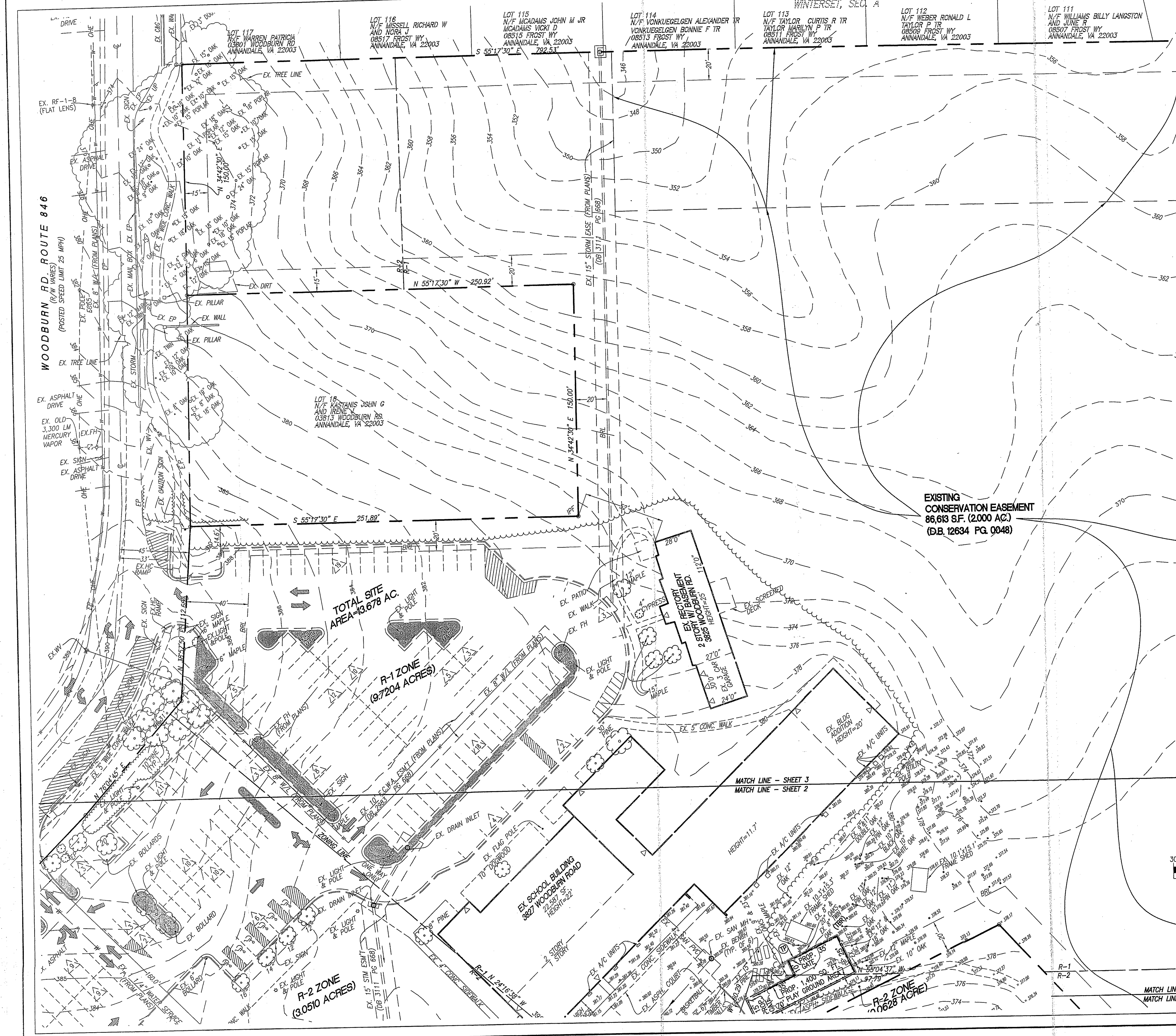
3825 WOODBURN ROAD, ANNANDALE VA
MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA — JOHN C. MANGRUM — Lic. No.20732 — 5-31-13 — PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISION
3.	5/31/13	URBAN FORESTER COMMENTS
2.	5/17/13	PLAY GROUND RELOCATION
1.	4/22/13	PLAY GROUND ADDED

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.05
SCALE: 1" = 30'
DATE: 1/9/2013
SHEET: 2 OF 4

F:\PROJECTS\10817 – St Ambrose Parish – SEP.dwg



PLAN SHEET

SPECIAL PERMIT AMENDMENT PLAT

SAINT AMBROSE PARISH

3825 WOODBURN ROAD, ANNANDALE VA

MASON DISTRICT, FAIRFAX COUNTY, VIRGINIA

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.landdevelopmentconsultants.com

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.

COMMONWEALTH OF VIRGINIA
JOHN C. MANGANELLO
Lic. No.20732
5-3-13
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISION
3.	5/31/13	URBAN FORESTER COMMENTS
2.	5/17/13	PLAY GROUND RELOCATION
1.	4/22/13	PLAYGROUND ADDED

COUNTY PROJ. NO.:
LDCI PROJ. NO.: 10817.05
SCALE: 1" = 30'
DATE: 1/9/2013
SHEET: 3 OF 4

F:\PROJECTS\10817 – St Ambrose Parish\DWG\St Ambrose Parish – SEP.dwg

VICINITY MAP
SCALE: 1"=2000'

PLOT #1

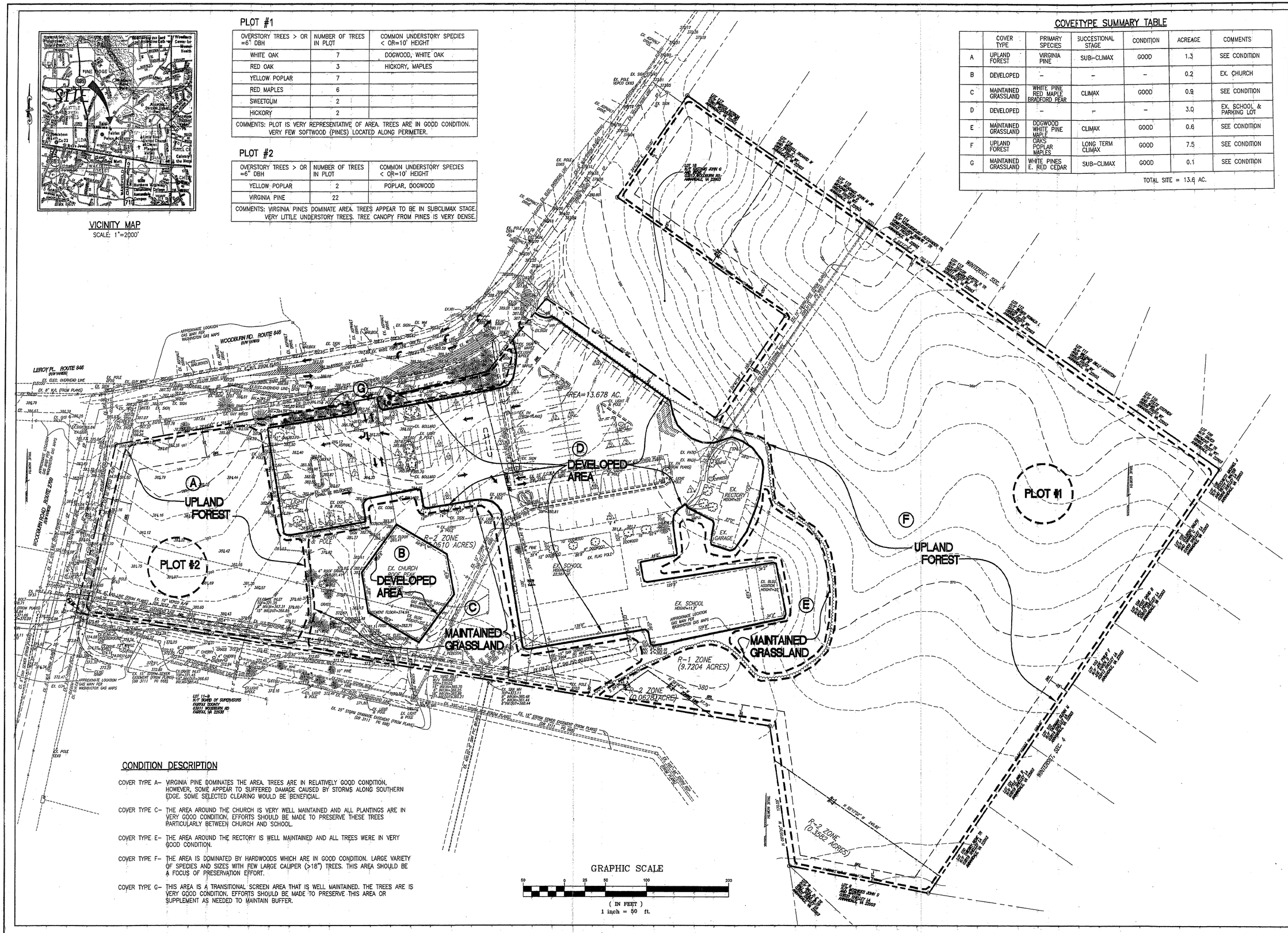
OVERSTORY TREES > OR =6" DBH	NUMBER OF TREES IN PLOT	COMMON UNDERSTORY SPECIES < OR=10' HEIGHT
WHITE OAK	7	DOGWOOD, WHITE OAK
RED OAK	3	HICKORY, MAPLES
YELLOW POPLAR	7	
RED MAPLES	6	
SWEETGUM	2	
HICKORY	2	
COMMENTS: PLOT IS VERY REPRESENTATIVE OF AREA. TREES ARE IN GOOD CONDITION. VERY FEW SOFTWOOD (PINES) LOCATED ALONG PERIMETER.		

PLOT #2

OVERSTORY TREES > OR =6" DBH	NUMBER OF TREES IN PLOT	COMMON UNDERSTORY SPECIES < OR=10' HEIGHT
YELLOW POPLAR	2	POPLAR, DOGWOOD
VIRGINIA PINE	22	
COMMENTS: VIRGINIA PINES DOMINATE AREA. TREES APPEAR TO BE IN SUBCLIMAX STAGE. VERY LITTLE UNDERSTORY TREES. TREE CANOPY FROM PINES IS VERY DENSE.		

COVERTYPE SUMMARY TABLE

	COVER TYPE	PRIMARY SPECIES	SUCCESSIONAL STAGE	CONDITION	ACREAGE	COMMENTS
A	UPLAND FOREST	VIRGINIA PINE	SUB-CLIMAX	GOOD	1.3	SEE CONDITION
B	DEVELOPED	–	–	–	0.2	EX. CHURCH
C	MAINTAINED GRASSLAND	WHITE PINE RED MAPLE BRADFORD PEAR	CLIMAX	GOOD	0.9	SEE CONDITION
D	DEVELOPED	–	–	–	3.0	EX. SCHOOL & PARKING LOT
E	MAINTAINED GRASSLAND	DOGWOOD WHITE PINE MAPLE	CLIMAX	GOOD	0.6	SEE CONDITION
F	UPLAND FOREST	OAKS POPLAR MAPLES	LONG TERM CLIMAX	GOOD	7.5	SEE CONDITION
G	MAINTAINED GRASSLAND	WHITE PINES E. RED CEDAR	SUB-CLIMAX	GOOD	0.1	SEE CONDITION
TOTAL SITE = 13.6 AC.						



CONDITION DESCRIPTION

COVER TYPE A– VIRGINIA PINE DOMINATES THE AREA. TREES ARE IN RELATIVELY GOOD CONDITION, HOWEVER, SOME APPEAR TO SUFFERED DAMAGE CAUSED BY STORMS ALONG SOUTHERN EDGE. SOME SELECTED CLEARING WOULD BE BENEFICIAL.

COVER TYPE C– THE AREA AROUND THE CHURCH IS VERY WELL MAINTAINED AND ALL PLANTINGS ARE IN VERY GOOD CONDITION. EFFORTS SHOULD BE MADE TO PRESERVE THESE TREES PARTICULARLY BETWEEN CHURCH AND SCHOOL.

COVER TYPE E– THE AREA AROUND THE RECTORY IS WELL MAINTAINED AND ALL TREES WERE IN VERY GOOD CONDITION.

COVER TYPE F– THE AREA IS DOMINATED BY HARDWOODS WHICH ARE IN GOOD CONDITION. LARGE VARIETY OF SPECIES AND SIZES WITH FEW LARGE CALIPER (>18") TREES. THIS AREA SHOULD BE A FOCUS OF PRESERVATION EFFORT.

COVER TYPE G– THIS AREA IS A TRANSITIONAL SCREEN AREA THAT IS WELL MAINTAINED. THE TREES ARE IS VERY GOOD CONDITION. EFFORTS SHOULD BE MADE TO PRESERVE THIS AREA OR SUPPLEMENT AS NEEDED TO MAINTAIN BUFFER.

MONACO & MANGANELLO
LAND DEVELOPMENT CONSULTANTS, INC.
CIVIL ENGINEERING • LAND PLANNING • SURVEYING
4248-B Chain Bridge Road • Fairfax, Virginia 22030
Phone: (703) 591-5800 • Fax: (703) 273-7951

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

EXISTING VEGETATION MAP

ST. AMBROSE CATHOLIC CHURCH
PARISH CENTER
MASON DISTRICT FAIRFAX COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOHN C. MANGANELLO
No. 022032
9-7-00
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS PRIOR TO APPROVAL
2	9/06/00	EVM ADDED
1	8/15/00	BPZ COMMENTS

PLAN NO.:
SCALE: 1"=50'
DATE: 07/17/2000
SHEET 4 OF 4
FILE NO:

F:\PROJECTS\10817 – St. Ambrose Parish\DWG\St Ambrose Parish – SEP.dwg

County of Fairfax, Virginia

MEMORANDUM

DATE: November 4, 2015

TO: Barbara Berlin, Director
Zoning Evaluation Division, DPZ

FROM: Denise M. James, Chief
Environment and Development Review Branch, DPZ

SUBJECT: **ENVIRONMENTAL ASSESSMENT** **SPA 76-M-086-06**
St. Ambrose Catholic Church,
Diocese of Arlington

This memorandum, prepared by Mary Ann Welton, includes citations from the Comprehensive Plan that provide guidance for the evaluation of the subject Special Permit Amendment application, revised through October 16, 2015. The extent to which this application is in harmony with the Comprehensive Plan is noted. Possible solutions to remedy identified issues are suggested. Other solutions may be acceptable, provided that they achieve the desired degree of mitigation and are in harmony with Plan policies.

DESCRIPTION:

The 13.68 acre St. Ambrose Catholic Church property is generally situated north of Little River Turnpike off Woodburn Road in the Mason District. The subject property is currently zoned R-1 & R-2 and this application proposes to amend a previously approved application in order to construct a new 22,000 square foot sanctuary with 800 seats which will replace the existing 9,016 square foot sanctuary with 600 seats. Parking will be increased from 200 spaces to 277 spaces. Other improvements include 22,880 square feet for a gymnasium and school addition.

COMPREHENSIVE PLAN CITATIONS:

The Comprehensive Plan is the basis for the evaluation of this application. The assessment of the proposal for harmony with the environmental recommendations of the Comprehensive Plan is guided by the following citations:

In the Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, on pages 7-9, the Plan states:

Department of Planning and Zoning
Planning Division
12055 Government Center Parkway, Suite730
Fairfax, Virginia 22035-5509
Phone 703-324-1380
Fax 703-653-9447
www.fairfaxcounty.gov/dpz/

DEPARTMENT OF PLANNING & ZONING

"Objective 2: **Prevent and reduce pollution of surface and groundwater resources. Protect and restore the ecological integrity of streams in Fairfax County.**

Policy a. Maintain a best management practices (BMP) program for Fairfax County and ensure that new development and redevelopment complies with the County's best management practice (BMP) requirements. . . .

Policy c. Minimize the application of fertilizers, pesticides, and herbicides to lawns and landscaped areas through, among other tools, the development, implementation and monitoring of integrated pest, vegetation and nutrient management plans. . . ."

In the Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, on page 10, the Plan states:

"**Objective 3:** **Protect the Potomac Estuary and the Chesapeake Bay from the avoidable impacts of land use activities in Fairfax County.**

Policy a. Ensure that new development and redevelopment complies with the County's Chesapeake Bay Preservation Ordinance...."

In the Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, on pages 17-18, the Plan states:

"The retention of environmental amenities on developed and developing sites is also important. The most visible of these amenities is the county's tree cover. It is possible to design new development in a manner that preserves some of the existing vegetation in landscape plans. It is also possible to restore lost vegetation through replanting. An aggressive urban forestry program could retain and restore meaningful amounts of the county's tree cover.

Objective 10: **Conserve and restore tree cover on developed and developing sites. Provide tree cover on sites where it is absent prior to development.**

Policy a: Protect or restore the maximum amount of tree cover on developed and developing sites consistent with planned land use and good silvicultural practices. . . . "

In the Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, on pages 19 -20 the Plan states:

"Objective 13: **Design and construct buildings and associated landscapes to use energy water resources efficiently and to minimize short- and long-term negative impacts on the environment and building occupants.**

Policy a. In consideration of other Policy Plan objectives, encourage the application of energy conservation, water conservation and other green building practices in the design and construction of new development and redevelopment projects. These practices may include, but are not limited to:

- Environmentally-sensitive siting and construction of development;
- Application of low impact development practices, including minimization of impervious cover (See Policy k under Objective 2 of this section of the *Policy Plan*);
- Optimization of energy performance of structures/energy-efficient design;
- Use of renewable energy resources;
- Use of energy efficient appliances, heating/cooling systems, lighting and/or other products;
- Application of best practices for water conservation, such as water efficient landscaping and innovative wastewater technologies, that can serve to reduce the use of potable water and/or reduce stormwater runoff volumes;
- Reuse of existing building materials for redevelopment projects;
- Recycling/salvage of non-hazardous construction, demolition, and land clearing debris;
- Use of recycled and rapidly renewable building materials;
- Use of building materials and products that originate from nearby sources;
- Reduction of potential indoor air quality problems through measures such as increased ventilation, indoor air testing and use of low-emitting adhesives, sealants, paints/coatings, carpeting and other building materials;
- Reuse, preservation and conservation of existing buildings, including historic structures;

- Retrofitting of other green building practices within existing structures to be preserved, conserved and reused;

- Energy and water usage data collection and performance monitoring;

- Solid waste and recycling management practices; and

- Natural lighting for occupants.

Encourage commitments to implementation of green building practices through certification under established green building rating systems for individual buildings (e.g., the U.S. Green Building Council's Leadership in Energy and Environmental Design for New Construction [LEED-NC®] or the U.S. Green Building Council's Leadership in Energy and Environmental Design for Core and Shell [LEED-CS®] program or other equivalent programs with third party certification). An equivalent program is one that is independent, third-party verified, and has regional or national recognition or one that otherwise includes multiple green building concepts and overall levels of green building performance that are at least similar in scope to the applicable LEED rating system. Encourage commitments to the attainment of the ENERGY STAR® rating where available. . . . Encourage the inclusion of professionals with green building accreditation on development teams. Encourage commitments to the provision of information to owners of buildings with green building/energy efficiency measures that identifies both the benefits of these measures and their associated maintenance needs. . . ."

ENVIRONMENTAL ANALYSIS

This section characterizes the environmental concerns raised by an evaluation of this site and the proposed land use. Solutions are suggested to remedy the concerns that have been identified by staff. There may be other acceptable solutions. Particular emphasis is given to opportunities provided by this application to conserve the County's remaining natural amenities.

Water Quality Protection and Stormwater Best Management Practices: The 13.68 acre subject property is located within the Accotink Creek watershed. The church property is currently developed on the western portion of the property with a densely vegetated conservation easement on the eastern portion of the site. The proposed 13,000 square foot school addition, the 9,880 square foot single story gymnasium, the new play area and new parking area are all proposed to be located within the heavily treed conservation easement along the southeastern boundary of the current church and school.

The stormwater narrative indicates that the site is currently served by an approved underground detention system. This application proposes to address water quality and quantity requirements for the proposed additional impervious surface by adding three rain gardens with underground detention, several filterra and a grassy swale which will be placed southeast of the proposed new school facilities. Runoff from the subject property currently drains to the Accotink Creek floodplain located north and east of the subject property. The applicant's engineer states that the outfall is adequate and that the post development peak flow rates for the 2 and 10 year, 24 hour storm events will be reduced to pre-development conditions.

The adequacy of stormwater management/best management practice (SWM/BMP) facilities and outfall, as well as conformance with the requirements of the County's Stormwater Management Ordinance (Chapter 124 of the Code of Fairfax County) will be subject to further review and approval by the Department of Public Works and Environmental Services (DPWES).

http://www.fairfaxcounty.gov/dpwes/stormwaterordinance/chapter_124.pdf

Tree Preservation: As noted previously, the building expansion is proposed to occur within the existing conservation easement southeast of the church. The conservation easement area is densely vegetated with a deciduous forest of predominately red oak, white oak and tulip poplar. Much of the conservation easement area will be removed and a fence is proposed along the southeastern perimeter of the property. Staff strongly encouraged the applicant to reduce the limits of clearing and grading and make an exerted effort to preserve more of the deciduous canopy which characterizes the conservation easement which is an irreplaceable asset to the property. Since this application has been in the development review process, the applicant has demonstrated a good faith effort to accommodate staff recommendations. In response to the comment regarding excessive building intensity within an existing residential area, the applicant eliminated the proposed rectory on the site.

Green Building: The Policy Plan incorporates guidance in support of the application of energy conservation, water conservation and other green building practices in the design and construction of new development and redevelopment projects. In support of the County's green building policy, the applicant has provided a draft development condition which enumerates energy conservation measures to be implemented during the construction and operation of this facility. However, staff requests that the applicant modify the green building condition to clarify how and when the achievement of these commitments will be demonstrated to the Environment and Development Review Branch.

DMJ: MAW

County of Fairfax, Virginia

MEMORANDUM

DATE: October 28, 2015

TO: Kelly Atkinson, Staff Coordinator
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Mohan Bastakoti, P.E., Senior Engineer III
South Branch
Site Development and Inspections Division
Department of Public Works and Environmental Services

SUBJECT: Application # SPA 76-M-086-06; 891-ZONA-002-1; St. Ambrose Catholic Church and School Tax Map #059-3-01-0011A; Mason District

We have reviewed the subject application and offer the following stormwater management comments:

Chesapeake Bay Preservation Ordinance (CBPO)
There is no Resource Protection Area on this site.

Floodplain
There is a no regulated floodplain on this site.

Downstream Drainage Complaints
There is no storm water complaint on file within the property.

Drainage Diversion
During the development, the natural drainage divide shall be honored. If natural drainage divides cannot be honored, a drainage diversion justification narrative must be provided. The increase and decrease in discharge rates, volumes, and durations of concentrated and non-concentrated Stormwater runoff leaving a development site due to the diverted flow shall not have an adverse impact (e.g., soil erosion; sedimentation; yard, dwelling, building, or private structure flooding; duration of ponding water; inadequate overland relief) on adjacent or downstream properties. (PFM 6-0202.2A)

Department of Public Works and Environmental Services
Land Development Services, Site Development and Inspections Division
12055 Government Center Parkway, Suite 535
Fairfax, Virginia 22035-5503
Phone 703-324-1720 • TTY 711 • FAX 703-324-8359

Water Quality Control

Water quality controls must be satisfied for this development (PFM 6-0401.2). The plan indicates that filterra, dry swale, sheet flow to conservation area, and Bioretention facilities will be used to meet water quality requirements. The applicant has provided VRRM spreadsheets and shows that water quality requirements of SWMO Chapter 124-4-4-3 have been met.

BMP sizing computations, setbacks and construction specifications shall be provided/reviewed during site plan review.

Stormwater Detention

Unless waived by the Director, the postdevelopment peak flow for the 2-year 24-hour storm event shall be released at a rate that is equal to or less than the predevelopment peak flow rate from the 2-year 24-hour storm event and the postdevelopment peak flow for the 10-year 24-hour storm event shall be released at a rate that is less than or equal to the predevelopment peak flow rate from the 10-year 24-hour storm event. SWMO 124-4-4.D.

Sheet#11 shows that the 2-yr 24-hr and 10-yr 24-hr stormwater peak release from the site at post development condition is less than that at the predevelopment condition. This satisfies the above detention requirements. The details of the H&H computation will be reviewed with site plan review.

Water Quantity Control

The applicant shall provide a narrative and a summary of computations to demonstrate how the concentrated stormwater flow will be released into a stormwater conveyance system and shall meet criteria (1), (2) or (3) of 124-4-4B, where applicable, from the point of discharge to a point to the limits of analysis in Section 124-4-4(b)(5) as demonstrated by use of acceptable hydrologic and hydraulic methodologies during site plan review.

The applicant shall provide a narrative and a summary of computations to demonstrate how the concentrated stormwater flow shall be released into a stormwater conveyance system and shall meet criteria subsections (1), (2), or (3) of 124-4-4C, where applicable, from the point of discharge to a point to the limits of analysis in Section 124-4-4(c)(5) as demonstrated by use of acceptable hydrologic and hydraulic methodologies during site plan review.

The details of the hydrological and hydraulic computations will be reviewed during site plan review.

Downstream Drainage System

An outfall narrative has been provided for each numbered outfall and the applicant has identified the location of Accotink Creek where the total drainage area is 100 times the area of the site. The engineer has expressed his opinion that an adequate outfall exists and if required additional detention will be provided to meet the adequate outfall requirements. The details of the

computation for channel protection requirements and flood protection requirements of each outfall channel will be submitted and reviewed during site plan review.

cc: Don Demetrius, Chief, Watershed Projects Evaluation Branch, SPD, DPWES
Fred Rose, Chief, Watershed Planning & Assessment Branch, SPD, DPWES
Bijan Sistani, Chief, South Branch, SDID, DPWES
Zoning Application File

County of Fairfax, Virginia

MEMORANDUM

DATE: October 30, 2015

TO: Kelly Atkinson, Staff Coordinator
Zoning Evaluation Division, DPZ

FROM: Nicholas Drunasky, Urban Forester II
Forest Conservation Branch, UFMD

SUBJECT: Saint Ambrose Parish, SPA 76-M-086-06

This review is based upon the Special Exception Amendment SEA 76-M-086-06 stamped "Received, Department of Planning & Zoning October 16, 2015." Site visits were conducted on May 28, 2015 and September 15, 2015 as part of the review of this application.

Site Description: The site consists of four buildings and is partially developed. The developed area contains landscaping around the periphery that is used towards transitional screening requirements, interior parking lot landscaping, and some scattered landscape trees consisting primarily of eastern red cedar, white pine, dogwood, bradford pear, and red maple. The undeveloped area of the site consists primarily of upland hardwood forest containing species such as white oak, northern red oak, black oak, scarlet oak, blackgum, tulip poplar, red maple and Virginia pine. Some of the trees within the upland hardwood forest blew down and were significantly impacted during storms that occurred in 2012.

1. **Comment:** These proposed limits of clearing and grading will remove a large percentage of the high quality upland hardwood forest remaining and will negatively impact the critical root zones of several offsite trees. In addition, the SPA proposes to clear areas where it does not appear necessary with the proposed layout (40 feet beyond where improvements are proposed to be constructed), which will remove many trees, including areas of transitional screening. Pulling in the limits of clearing and grading would better protect and preserve trees where canopy credit is and is not being applied and help reduce impacts and preserve additional areas of existing high quality forest present.

   Recommendation: The applicant should adjust the limits of clearing and grading inward to provide better protection to trees receiving canopy credit and a few that are proposed to be removed that could be preserved to help protect the following off and on-site trees: shift the limits of clearing and grading inward and utilize the current location of the existing sidewalk on the eastern side of the existing school building to protect the critical root zone of the Japanese cryptomeria currently within the proposed limits of clearing

Department of Public Works and Environmental Services
Urban Forest Management Division
12055 Government Center Parkway, Suite 518
Fairfax, Virginia 22035-5503
Phone 703-324-1770, TTY: 711, Fax: 703-653-9550
www.fairfaxcounty.gov/dpwes

and grading, shift the limits of clearing and grading inward starting at the edge of rain garden number two and continue along the northeastern property line around the proposed rectory remaining as far outside of **all** the transitional screening surrounding the rectory as possible and parcel 18 all the way the right-of-way where it exits the transitional screening on the southern side of parcel 18.

2. **Comment:** A site visit revealed that the existing concrete sidewalk appears to be in good condition along Woodburn Road in front of the proposed rectory was constructed in a manner that preserved several trees between the sidewalk and the road, which is a nice asset for the site and would allow vegetation that is additional to the transitional screening to be preserved. However, this area is proposed to be located within the limits of clearing and grading, which does not appear necessary for the scope of the work and would remove all transitional screening as well. In addition, the asphalt section of the existing sidewalk in front of parcel 18 was constructed in a manner to preserve trees between the road and sidewalk, which is not shown to be disturbed and will protect the exiting trees within that area.

   Recommendation: The proposed limits of clearing and grading should be re-evaluated and adjusted inward so they are located inside the existing transitional screening vegetation, which will allow the existing sidewalk section to be utilized and existing vegetation between Woodburn Road and the sidewalk to be preserved along with the vegetation behind the sidewalk which will serve as transitional screening and provide a shade and safer corridor for pedestrians.

3. **Comment:** Based on a site visit on September 15, 2015, it appears that the eight, one and one half inch blackgums that were provided in late 2014 as replacement trees for several larger trees that have died and been removed from within the southeastern and northeastern transitional screening areas. This replacement vegetation was a requirement per development conditions for SPA 76-M-086-05.

   Recommendations: These eight, one and one half inch caliper blackgums shall be depicted to be planted on Landscape Plan within the southeastern boundary (Area D) and Northeastern Boundary (Area E) in order to meet the intent of the transitional screening ordinance in accordance with development conditions from SPA 76-M-086-05.

4. **Comment:** It appears that a request to waive the barrier (Type D, E, or F) required by the Zoning Ordinance for the church in the areas adjacent to the single family detached dwellings has been requested in favor of using no barrier along the northern and western sides of the site, but no site specific justification has been provided for why this is necessary.

   Recommendations: The applicant should revise the modification request to include the proper justification from the Zoning Ordinance 13-305 to waive the barrier along with providing a site specific justification for why this is necessary along the northern and western boundaries of the site. If this cannot be properly justified, the applicant should

provide a Type D, E, or F barrier along the northern and western sides of the property in accordance with ZO 13-304.

5. **Comment:** The barrier (six foot tall black coated chain link fence) is proposed along the property line on the southeastern and northeastern sides of the property (adjacent to Winterset Subdivision), which does not benefit the adjacent properties visually. If this type of fencing material is going to be utilized, it should be provided between the transitional screening and the use they are screening, which would be the church in accordance with Zoning Ordinance 13-304.1. Therefore, the location of the barrier should be relocated internal to the transitional screening.

   Recommendations: The location of the barrier on the southeastern and northeastern sides of the property should be depicted on the internal side of the screening or a six foot tall board on board fence should be provided.

If you have any questions, please feel free to contact me at 703-324-1770.

NJD/

UFMDID #: 200846

cc: DPZ File

County of Fairfax, Virginia

MEMORANDUM

DATE: November 12, 2015

TO: Barbara Berlin, Director
Zoning Evaluation Division, DPZ

FROM: Michael Davis, Acting Chief JCA for MAD
Site Analysis Section, DOT

SUBJECT: SPA 76-M-086-06– St. Ambrose Parish
Land Identification Maps: 59-3 ((01)) 11A

This department has reviewed the subject Special Permit amendment submittal dated October 19, 2015. The applicant is proposing to replace the existing 600-seat sanctuary on the property with a larger 800-seat sanctuary and expand the school on the site by 28,000 square feet to include choir, science and recreational facilities. Additional parking and a new entrance are proposed to accommodate these modifications.

Staff requested an operational analysis from the applicant to identify potential transportation issues associated with expansion of the site. The applicant fulfilled this request and provided an operational analysis that addressed staff concerns related to increased trips to/from the church, internal circulation on Sundays, and turn lane warrants for the existing and proposed entrances. The document concluded that there is no need for any additional transportation improvements.

The new entrance that leads to the additional parking lot was a significant issue noted by staff. This entrance would have required a sight distance easement from Lot 18, a property located on Woodburn Road adjacent to the St. Ambrose property, which would have been difficult to obtain. The applicant solved the sight distance issue by restricting this entrance to inbound only, and restricting its use to Sunday masses. The entrance will be chained off during all other times. Staff concluded that this mitigates the sight distance issue and regulates the amount of cars using this entrance.

MAD/BMC
Cc: Kelly Atkinson, DPZ

Fairfax County Department of Transportation
4050 Legato Road, Suite 400
Fairfax, VA 22033-2895
Phone: (703) 877-5600 TTY: 711
Fax: (703) 877-5723

FCDOT
Serving Fairfax County for 30 Years and More

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
4975 Alliance Drive
Fairfax, VA 22030

CHARLES A. KILPATRICK, P.E.
COMMISSIONER

October 8, 2015

Mr. Michael J. Workosky and Mr. John A Schick
Wells + Associates, Inc.
1420 Spring Hill Road, Suite 600
Mclean, Virginia 22102

Subject: **St. Ambrose Parish**
Access Management Exception

Dear Sirs:

VDOT has completed our review of the Access Management Exception you submitted for the distance between the proposed entrance to the site and an existing driveway for this project.

We have determined that an exception is not required as the ordinance only pertains to separation between commercial entrances, commercial entrances and intersections, or between intersection/interchanges.

Please contact me if you have any questions.

Sincerely,

Paul J. Kraucunas, P.E.
Land Development Program Manager

cc: Barbara Berlin, ZED
Kelly M. Atkinson, ZED
Michael Davis, FCDOT
Bree Clohessy, FCDOT

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
4975 Alliance Drive
Fairfax, VA 22030

CHARLES A. KILPATRICK, P.E.
COMMISSIONER

November 6, 2015

Mr. Michael J. Workosky
WELLS + ASSOCIATES
1420 Spring Hill Road, Suite 610
Tysons, Virginia 22102

Re: St. Ambrose Parish
SPA 76-M-086-06

Dear Mr. Workosky:

VDOT has completed our review of the Traffic Study submitted for this project submitted on October 7, 2013. The results of our review are provided below.

Project Description
St. Ambrose Parish and school are located on the south side of Woodburn Road north of Little River Turnpike (VA 236) in the Mason District of Fairfax County, Virginia.

The site is currently occupied by a Catholic Church and school. The school serves pre-kindergarten through 8th grade and is approved for up to a maximum of 260 students and 32 staff members per the approved special permit. The church includes a sanctuary of 600 seats. The site is served by 160 surface parking spaces.

The Special Permit Application is to increase in seating capacity of the sanctuary from 600 to 800 seats only. No increase in student enrolment is proposed.

Trip Generation
The existing church and school would generate 727 average daily (24-hour) trips. The site currently generates 1,110 daily trips on Sunday. The proposed increase to 800 seats would generate 1,480 average daily trips on Sundays, an increase of 370 daily trips.

Site Access
The existing vehicular driveways serving St. Ambrose on Woodburn Road would remain under future conditions.

The west driveway on Woodburn Rd. operates under stop control. An eastbound right turn lane (50 feet storage/75-foot taper) and a westbound left turn lane (60 feet storage/75-foot taper) is provided at this location.

The east driveway operates under stop control and is restricted to right turn out only.

A new driveway is proposed approximately 250 feet to the east that would primarily serve the new parking area provided on site. The new site driveway is proposed to be used as an entrance only on weekends. During the week, access would be restricted via signs. A residential property is located between the existing and newly proposed driveway.

Existing Conditions
All intersections generally operate at acceptable levels of service during the AM, Midday, PM and Sunday peak periods with the exception of two off-site intersections along Little River Turnpike at Woodburn and Prosperity that operate over capacity in the Midday and PM peak periods.

Future Conditions without Development
The operation of the all intersections in the study area generally remains unchanged in comparison with the Existing conditions with the exception of Leroy Place at Prosperity Avenue which would worsen to LOS F from LOS E.

Future (2025) Conditions with Development
The total future conditions analyses for Sunday indicate that the additional traffic generated by the church expansion would not have a significant impact on the overall road network. All of the turning movements at the existing and proposed site driveways will continue to operate at acceptable levels of service without additional improvements. The westbound left turn lane on Woodburn Road will adequately accommodate the forecasted traffic demand and queue on Sundays.

The signalized intersections on Little River Turnpike at both Prosperity Avenue and Woodburn Road would continue to fail in 2025 as compared to Existing and "2025 Without Development" conditions. Sunday traffic however will operate fine at these two intersections.

The proposed site driveway on Woodburn Road would operate at acceptable levels of service under future conditions considering that it's an entrance only which is limited to Sunday use. The study mentions that the proposed driveway is blocked at all other times.

MITIGATIONS RECOMMENDATIONS

The study does not propose any mitigation measure.

VDOT Findings:

The study is generally acceptable and no more revisions are necessary. It should be noted that traffic conditions will worsen in the study area mainly due to regional growth. The westbound approach on Leroy Street at Prosperity Road is forecasted to operate beyond capacity (at LOS "F") during the AM peak hour. The signalized intersections of Prosperity Road and Woodburn Road on Little River Turnpike (VA 236) would continue to operate at overall acceptable levels of service during the AM peak hour, but at LOS "F" during the midday and PM peak hour unchanged from current conditions.

Please contact me if you have any questions.

Sincerely,

Paul J. Kraucunas

Paul J. Kraucunas
Land Development Program Manager

PART 1 3-100 R-1 RESIDENTIAL DISTRICT, ONE DWELLING UNIT/ACRE

3-101 Purpose and Intent

The R-1 District is established to provide for single family detached dwellings; to allow other selected uses which are compatible with the low density residential character of the district; and otherwise to implement the stated purpose and intent of this Ordinance.

3-102 Permitted Uses

1. Accessory uses and home occupations as permitted by Article 10.
2. Agriculture, as defined in Article 20.
3. Dwellings, single family detached.
4. Public uses.

3-103 Special Permit Uses

For specific Group uses, regulations and standards, refer to Article 8.
1. Group 2 - Interment Uses.
2. Group 3 - Institutional Uses.
**(See the Zoning Ordinance for a full list of Special Permit and Special Exception Uses)

3-106 Lot Size Requirements

1. Minimum district size for cluster subdivisions: 10 acres
2. Average lot area: No Requirement
3. Minimum lot area
    A. Conventional subdivision lot: 36,000 sq. ft.
    B. Cluster subdivision lot: 25,000 sq. ft.
4. Minimum lot width
    A. Conventional subdivision lot:
        (1) Interior lot - 150 feet
        (2) Corner lot - 175 feet
    B. Cluster subdivision lot:
        (1) Interior lot - No Requirement
        (2) Corner lot - 125 feet
5. The minimum district size requirement presented in Par. 1 above may be waived by the Board in accordance with the provisions of Sect. 9-610.

3-107 Bulk Regulations

1. Maximum building height
    A. Single family dwellings: 35 feet
    B. All other structures: 60 feet
2. Minimum yard requirements
    A. Single family dwellings
        (1) Conventional subdivision lot
            (a) Front yard: 40 feet
            (b) Side yard: 20 feet
            (c) Rear yard: 25 feet
        (2) Cluster subdivision lot

(a) Front yard: 30 feet
(b) Side yard: 12 feet, but a total minimum of 40 feet
(c) Rear yard: 25 feet

B. All other structures
(1) Front yard: Controlled by a 50° angle of bulk plane, but not less than 40 feet
(2) Side yard: Controlled by a 45° angle of bulk plane, but not less than 20 feet
(3) Rear yard: Controlled by a 45° angle of bulk plane, but not less than 25 feet

3. Maximum floor area ratio:
A. 0.15 for uses other than residential or public
B. 0.20 for public uses

PART 2 3-200 R-2 RESIDENTIAL DISTRICT, TWO DWELLING UNITS/ACRE

3-201 Purpose and Intent

The R-2 District is established to provide for single family detached dwellings at a density not to exceed two (2) dwelling units per acre; to provide for affordable dwelling unit developments at a density not to exceed two and four-tenths (2.4) dwelling units per acre; to allow other selected uses which are compatible with the low density residential character of the district; and otherwise to implement the stated purpose and intent of this Ordinance.

3-202 Permitted Uses

1. Accessory uses and home occupations as permitted by Article 10.
2. Affordable dwelling unit developments.
3. Dwellings, single family detached.
4. Public uses.

3-203 Special Permit Uses

For specific Group uses, regulations and standards, refer to Article 8.
1. Group 2 - Interment Uses.
2. Group 3 - Institutional Uses.
**(See the Zoning Ordinance for a full list of Special Permit and Special Exception Uses)

3-206 Lot Size Requirements

1. Minimum district size for cluster subdivisions: 2 acres
2. Average lot area
A. Conventional subdivision lot: 18,000 sq. ft.
B. Cluster subdivision lot: No Requirement
3. Minimum lot area
A. Conventional subdivision lot: 15,000 sq. ft.
B. Cluster subdivision lot: 13,000 sq. ft., except that if any portion of a cluster subdivision lot is located within 25 feet of a peripheral boundary of the cluster subdivision, and any portion of any lot located outside of the cluster subdivision that is contiguous to that cluster subdivision's peripheral boundary is zoned to a district that permits a maximum density equal to or less than 2 dwelling units per acre and contains a single family detached dwelling or is vacant, then such cluster subdivision lot shall contain a minimum lot area of 15,000 square feet. Notwithstanding the above, when the contiguous

development is zoned to the PDH-2 District or to an R-2 District and is developed with and/or approved for a cluster subdivision, all lots within the proposed cluster subdivision shall contain a minimum lot area of 13,000 square feet.

4. Minimum lot width
    A. Conventional subdivision lot:
        (1) Interior lot - 100 feet
        (2) Corner lot - 125 feet
    B. Except as qualified below, cluster subdivision lot:
        (1) Interior lot - No Requirement
        (2) Corner lot - 100 feet
        If any portion of a cluster subdivision lot is located within 25 feet of a peripheral boundary of the cluster subdivision, and any portion of any lot located outside of the cluster subdivision that is contiguous to that peripheral cluster subdivision's boundary is zoned to a district that permits a maximum density equal to or less than 2 dwelling units per acre and contain a single family detached dwelling or is vacant, then such cluster subdivision lot shall contain a minimum lot width of 100 feet for interior lots and 125 feet for corner lots. Notwithstanding the above, when the contiguous development is zoned to the PDH-2 District or to an R-2 District and is developed with and/or approved for a cluster subdivision, all lots within the proposed cluster subdivision shall have no minimum required lot width for interior lots and shall contain a minimum lot width of 100 feet for corner lots.

3-207 Bulk Regulations

1. Maximum building height
    A. Single family dwellings: 35 feet
    B. All other structures: 60 feet
2. Minimum yard requirements
    A. Single family dwellings
        (1) Conventional subdivision lot
            (a) Front yard: 35 feet
            (b) Side yard: 15 feet
            (c) Rear yard: 25 feet
        (2) Cluster subdivision lot
            (a) Front yard: 25 feet
            (b) Side yard: 8 feet, but a total minimum of 24 feet
            (c) Rear yard: 25 feet
    B. All other structures
        (1) Front yard: Controlled by a 45° angle of bulk plane, but not less than 35 feet
        (2) Side yard: Controlled by a 40° angle of bulk plane, but not less than 15 feet
        (3) Rear yard: Controlled by a 40° angle of bulk plane, but not less than 25 feet
3. Maximum floor area ratio:
    A. 0.20 for uses other than residential or public
    B. 0.25 for public uses

8-006 General Standards

In addition to the specific standards set forth hereinafter with regard to particular special permit uses, all special permit uses shall satisfy the following general standards:

1. The proposed use at the specified location shall be in harmony with the adopted comprehensive plan.

2. The proposed use shall be in harmony with the general purpose and intent of the applicable zoning district regulations.

3. The proposed use shall be such that it will be harmonious with and will not adversely affect the use or development of neighboring properties in accordance with the applicable zoning district regulations and the adopted comprehensive plan. The location, size and height of buildings, structures, walls and fences, and the nature and extent of screening, buffering and landscaping shall be such that the use will not hinder or discourage the appropriate development and use of adjacent or nearby land and/or buildings or impair the value thereof.

4. The proposed use shall be such that pedestrian and vehicular traffic associated with such use will not be hazardous or conflict with the existing and anticipated traffic in the neighborhood.

5. In addition to the standards which may be set forth in this Article for a particular group or use, the BZA shall require landscaping and screening in accordance with the provisions of Article 13.

6. Open space shall be provided in an amount equivalent to that specified for the zoning district in which the proposed use is located.

7. Adequate utility, drainage, parking, loading and other necessary facilities to serve the proposed use shall be provided. Parking and loading requirements shall be in accordance with the provisions of Article 11.

8. Signs shall be regulated by the provisions of Article 12; however, the BZA, under the authority presented in Sect. 007 below, may impose more strict requirements for a given use than those set forth in this Ordinance.

8-303 Standards for all Group 3 Uses

In addition to the general standards set forth in Sect. 006 above, all Group 3 special permit uses shall satisfy the following standards:

1. Except as may be qualified in the following Sections, all uses shall comply with the lot size and bulk regulations of the zoning district in which located; however, subject to the provisions of Sect. 9-607, the maximum building height for a Group 3 use may be increased.

2. All uses shall comply with the performance standards specified for the zoning district in which located.

3. Before establishment, all uses, including modifications or alterations to existing uses, except home child care facilities, shall be subject to the provisions of Article 17, Site Plans.

8-308 Additional Standards for Churches, Chapels, Temples, Synagogues or Other Such Places of Worship With a Child Care Center, Nursery School or Private School

Churches, chapels, temples, synagogues and other such places of worship with a child care center, nursery school or private school of general or special education may be approved as a special permit use in accordance with the provisions of this Part or as a special exception use in accordance with the provisions of Part 3 of Article 9. The choice of whether to file an application for a special permit or special exception shall be at the applicant's discretion. In either event, such use shall be subject to the additional standards set forth in Sections 9-309 and 9-310.

9-309 Additional Standards for Child Care Centers and Nursery Schools

1. In addition to complying with the minimum lot size requirements of the zoning district in which located, the minimum lot area shall be of such size that 100 square feet of usable outdoor recreation area shall be provided for each child that may use the space at any one time. Such area shall be delineated on a plat submitted at the time the application is filed.

For the purpose of this provision, usable outdoor recreation area shall be limited to:

A. That area not covered by buildings or required off-street parking spaces.

B. That area outside the limits of the minimum required front yard, unless specifically approved by the Board in commercial and industrial districts only.

C. Only that area which is developable for active outdoor recreation purposes.

D. An area which occupies no more than eighty (80) percent of the combined total areas of the required rear and side yards.

2. All such uses shall be located so as to have direct access to an existing or programmed public street of sufficient right-of-way and cross-section width to accommodate pedestrian and vehicular traffic to and from the use as determined by the Director. To assist in making this determination, each applicant, at the time of application, shall provide an estimate of the maximum expected trip generation, the distribution of these trips by mode and time of day, and the expected service area of the facility. As a general guideline, the size of the use in relation to the appropriate street type should be as follows, subject to whatever modification and conditions the Board deems to be necessary or advisable:

Number of Persons	**Street Type**
1-75	Local
76-660	Collector
660 or more	Arterial

3. All such uses shall be located so as to permit the pick-up and delivery of all persons on the site.

4. Such use shall be subject to the regulations of Chapter 30 of The Code or Title63.2, Chapter 17 of the Code of Virginia.

9-310 Additional Standards for Private Schools of General Education and Private Schools of Special Education

1. In addition to complying with the minimum lot size requirements of the zoning district in which located, the minimum lot area for a private school of general education shall be of such size that:

A. 200 square feet of usable outdoor recreation area shall be provided for each child in grades K-3 that may use the space at any one time, and

B. 430 square feet of usable outdoor recreation area shall be provided for each child in grades 4-12 that may use the space at any one time.

Such usable outdoor recreation area shall be delineated on a plat submitted at the time the application is filed.

For the purpose of this provision, usable outdoor recreation area shall be limited to:

A. That area not covered by buildings or required off-street parking spaces.

B. That area outside the limits of the required front yard.

C. Only that area which is developable for active outdoor recreation purposes.

D. An area which occupies no more than eighty (80) percent of the combined total areas of the required rear and side yards.

2. In addition to complying with the minimum lot size requirements of the zoning district in which located, the minimum lot area of a private school of special education shall be based upon a determination made by the Board; provided, however, that the proposed use conforms with the provisions set forth in Sect. 304 above.

3. All private schools shall be subject to the provisions set forth in Par. 2 and 3 of Sect. 309 above. If applicable, such uses shall also be subject to the regulations of Chapter 30 of The Code or Title 63.2, Chapter 17 of the Code of Virginia.