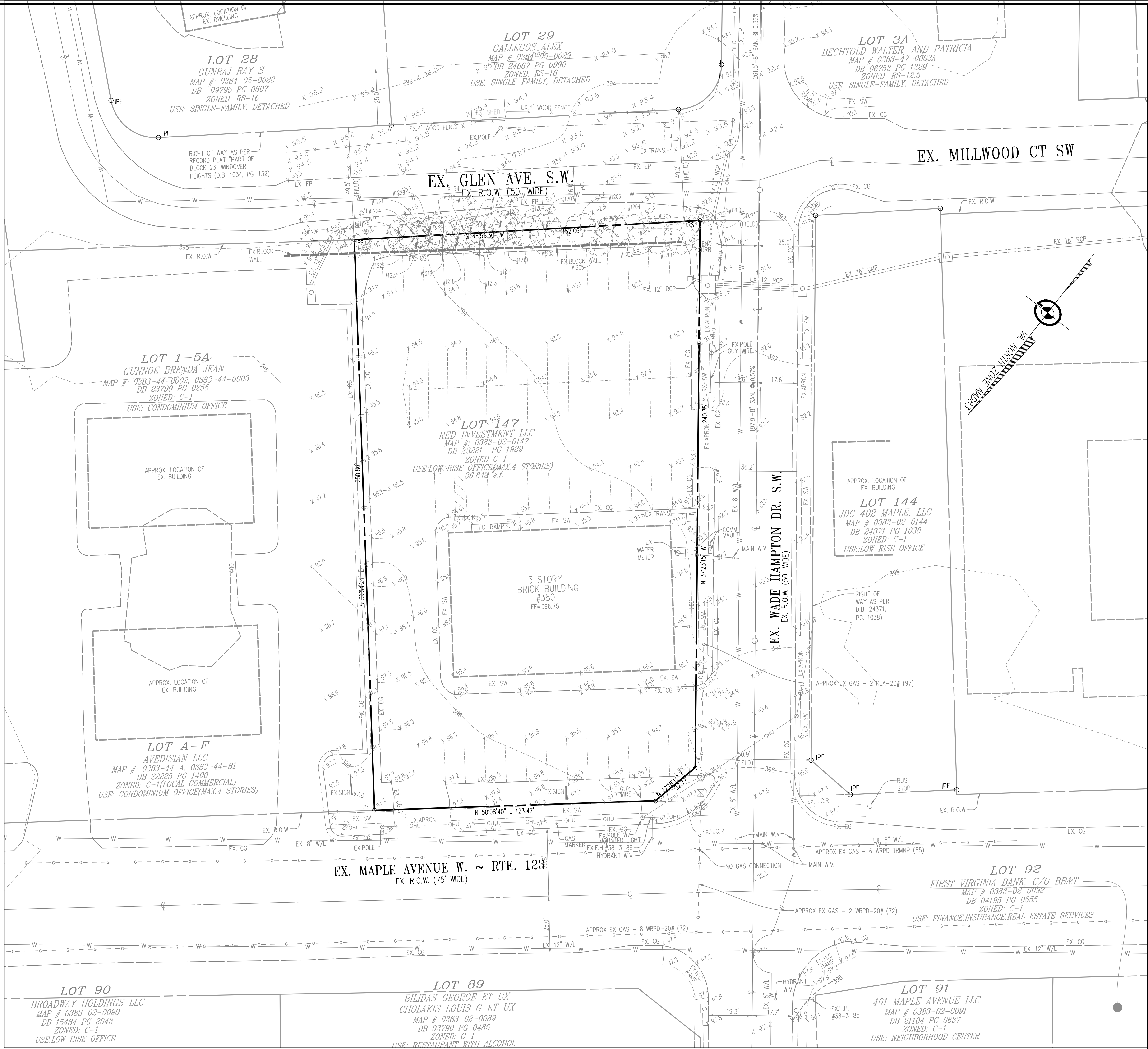


TREE TABULATION	
DL= DENOTES APPROX. DRIP LINE RADIUS	
NO.	DESCRIPTION
1200	16" LOCUST 16' DL
1201	12" LOCUST 12' DL
1202	18" LOCUST 16' DL
1203	12" LOCUST 12' DL
1204	8" LOCUST 10' DL
1205	18" TREE 14' DL
1206	8" LOCUST 10' DL
1207	6" LOCUST DEAD
1208	6" LOCUST DEAD
1209	6" LOCUST 8' DL
1210	6" LOCUST 8' DL
1211	8" LOCUST 8' DL
1212	8 LOCUST DEAD
1213	16 LOC 16DL
1214	16 LOC 16DL
1215	10" LOCUST 8' DL
1216	10" TREE 10' DL
1217	12" CHERRY 16' DL
1218	10" LOCUST 10' DL
1219	8 LOCUST 10' DL
1220	8" LOCUST 8' DL
1221	8" LOCUST 8' DL
1222	8" LOCUST 8' DL
1223	8" LOCUST 8' DL
1224	8" LOCUST 8' DL
1225	12" LOCUST 14' DL
1226	10" LOCUST 12' DL

NOTE: THERE ARE NO EXISTING UTILITY EASEMENTS ON-SITE



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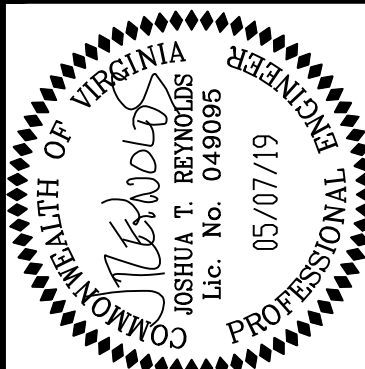
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EXISTING CONDITIONS

380 W MAPLE AVENUE - OPTION 2
MAC ZONING PLAN

HUNTER MILL, TOWN OF VIENNA, TRANSPORT
TOWN OF VIENNA, VIRGINIA



No.	DATE	DESCRIPTION	REVISIONS

PLAN DATE
03/19/2019
04/02/2019
05/03/2019

DATE: FEB 2019

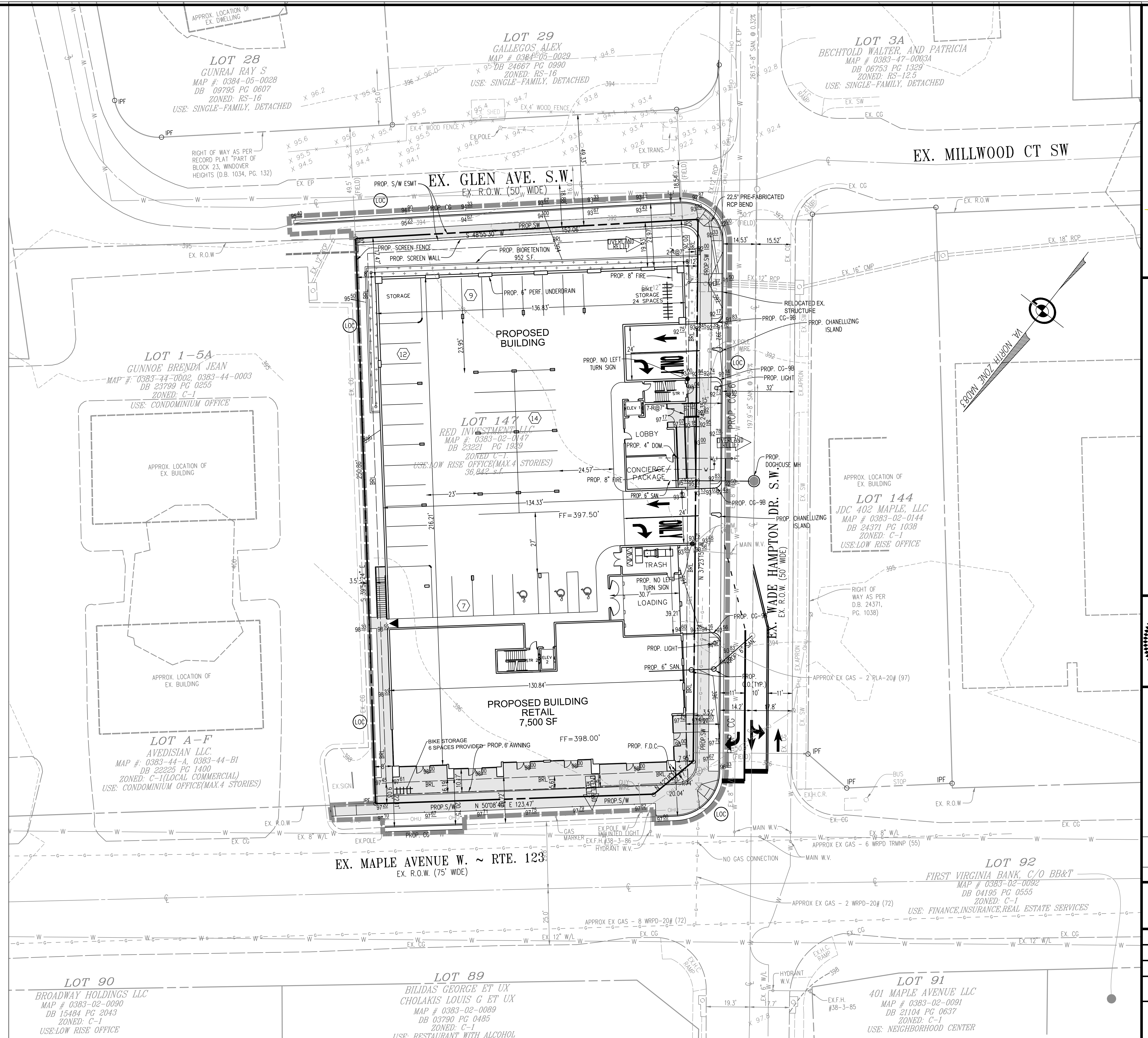
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SCALE: 1"=20'

FILE No.
N131

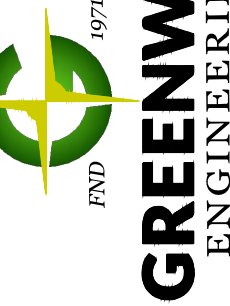
SHEET
02
OF
13

NOTES:
-THIS APPLICATION PROPOSES A SIDEWALK EASEMENT ALONG
GLEN AVENUE.
-THERE AREA NO KNOWN ENVIRONMENTAL OR HISTORICAL
FEATURES ON SITE

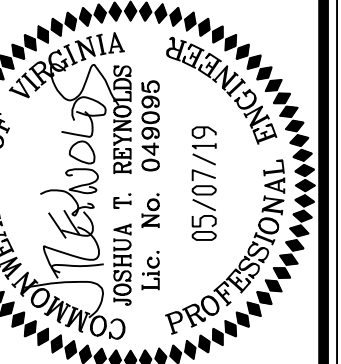


GREENWAY ENG. - Z:\N131 - 380 W Maple Avenue\Engineering\Site Plan\N131-06-CONCEPT.dwg May 07, 2019 - 2:30pm rhoffman

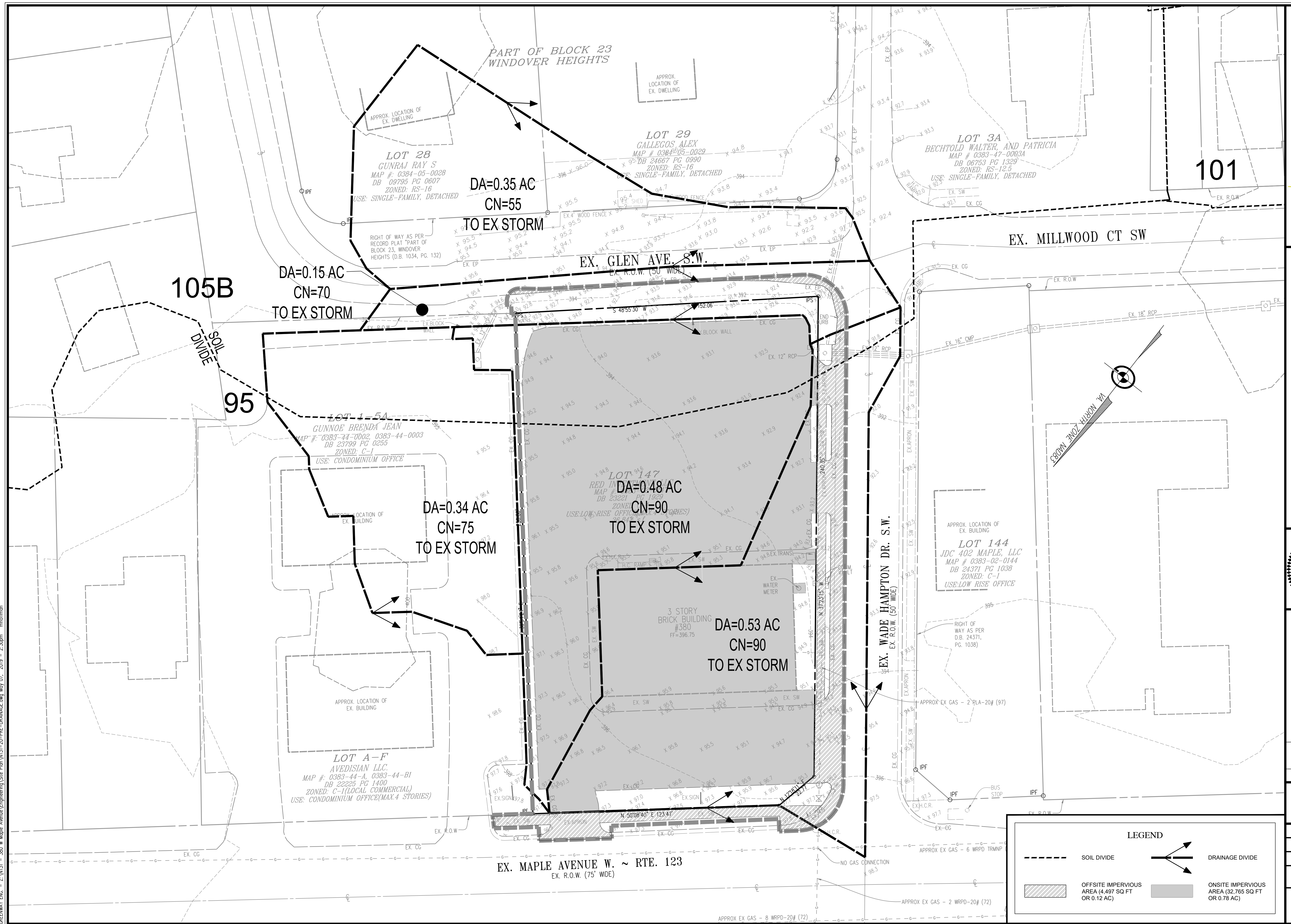
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380 W MAPLE AVENUE - OPTION 2
MAC ZONING PLAN
HUNTER MILL TOWN OF VIENNA TRANSPORT
TOWN OF VIENNA, VIRGINIA

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04/02/2019	
05/07/2019	
DATE: FEB 2019	
C.I. = 2'	
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N131	
SHEET	
03	
OF	
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Site Summary

Project Title: 380 West Maple
Date: 43537

Total Rainfall (in):	43
Total Disturbed Acreage:	1.01

Site Land Cover Summary

Pre-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.08	0.08	0.16	16
Impervious Cover (acres)	0.00	0.00	0.16	0.69	0.85	84
					1.01	100

Post-ReDevelopment Land Cover (acres)

	A soils	B Soils	C Soils	D Soils	Totals	% of Total
Forest/Open (acres)	0.00	0.00	0.00	0.00	0.00	0
Managed Turf (acres)	0.00	0.00	0.09	0.05	0.14	14
Impervious Cover (acres)	0.00	0.00	0.15	0.72	0.87	86
					1.01	100

Site Tv and Land Cover Nutrient Loads

	Final Post-Development (Post-ReDevelopment & New Impervious)	Post- ReDevelopment	Post- Development (New Impervious)	Adjusted Pre- ReDevelopment
Site Rv	0.85	0.85	0.95	0.85
Treatment Volume (ft ³)	3,117	3,048	69	3,048
TP Load (lb/yr)	1.96	1.92	0.04	1.92

Total TP Load Reduction Required (lb/yr)	0.42	0.38	0.04
--	------	------	------

	Final Post-Development Load (Post-ReDevelopment & New Impervious)	Pre-ReDevelopment
TN Load (lb/yr)	14.01	13.79

Drainage Area A

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)			0.03		0.03	0.22
Impervious Cover (acres)			0.10	0.40	0.50	0.95
Total					0.53	

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft³)	Runoff Reduction (ft³)	Remaining Runoff Volume (ft³)	Total BMP Treatment Volume (ft³)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
6. Bioretention (RR)													
6.a. Bioretention #1 or Micro-Bioretention #1 or Urban Bioretention (Spec #9)	40	0.03	0.50	0	699	1,049	1,748	25	0.00	1.10	0.60	0.49	

Site Compliance Summary

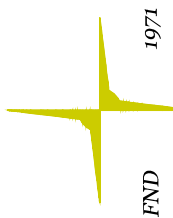
Maximum % Reduction Required Below Pre-ReDevelopment Load	20%
--	-----

Total Runoff Volume Reduction (ft³)	699
Total TP Load Reduction Achieved (lb/yr)	0.60
Total TN Load Reduction Achieved (lb/yr)	5.02
Remaining Post Development TP Load (lb/yr)	1.36
Remaining TP Load Reduction (lb/yr) Required	0.00

**** TARGET TP REDUCTION EXCEEDED BY 0.19 LB/YEAR ****

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PLAN DATE	03/19/2019 04/02/2019 05/07/2019
DATE: FEB 2019	
C.I.= N/A	
SCALE: N/A	
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SHEET 07 OF 13	

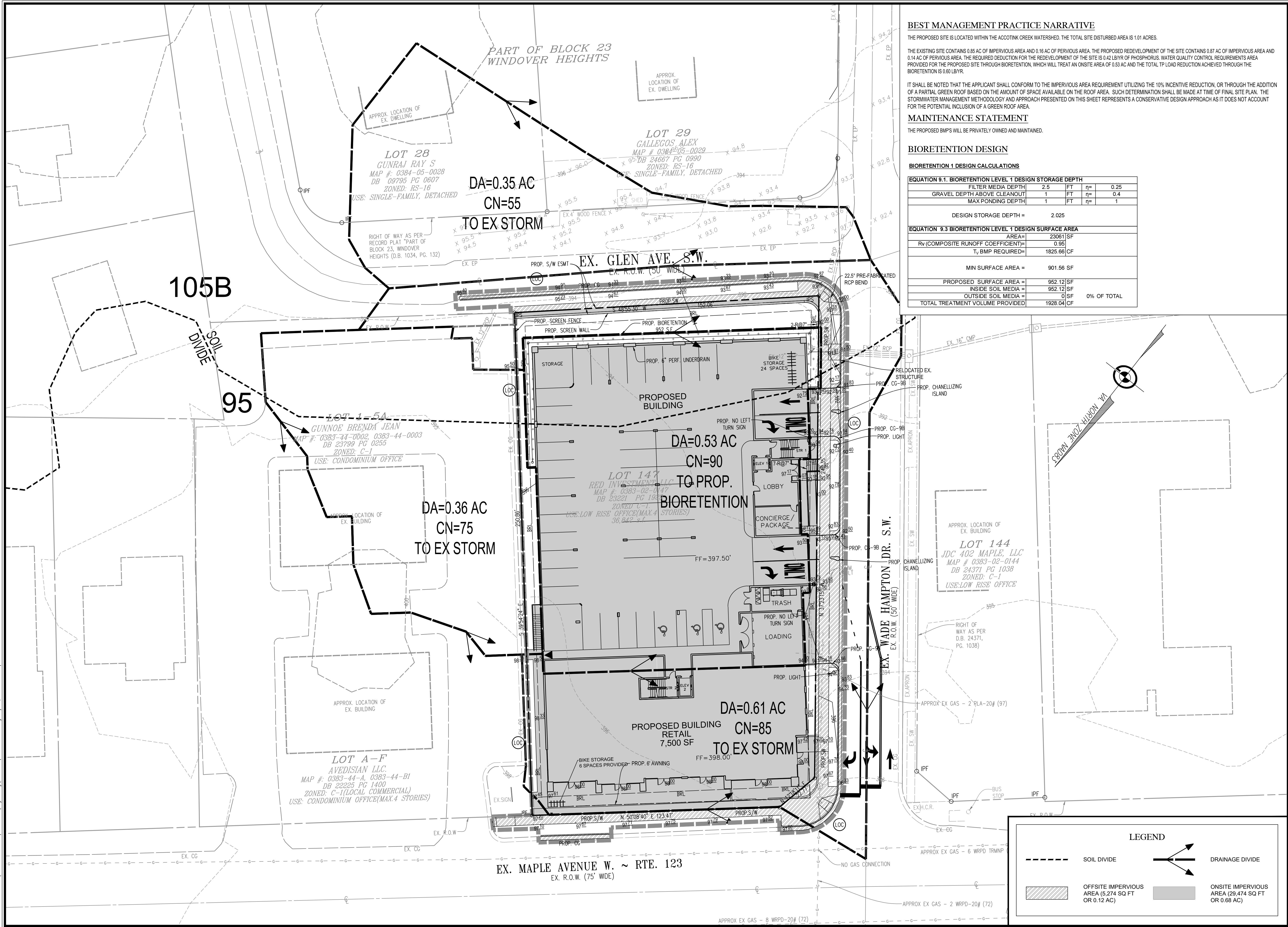


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BEST MANAGEMENT PRACTICE NARRATIVE

THE PROPOSED SITE IS LOCATED WITHIN THE ACCOTINK CREEK WATERSHED. THE TOTAL SITE DISTURBED AREA IS 1.01 ACRES.

THE EXISTING SITE CONTAINS 0.85 AC OF IMPERVIOUS AREA AND 0.16 AC OF PERVIOUS AREA. THE PROPOSED REDEVELOPMENT OF THE SITE CONTAINS 0.87 AC OF IMPERVIOUS AREA AND 0.14 AC OF PERVIOUS AREA. THE REQUIRED DEDUCTION FOR THE REDEVELOPMENT OF THE SITE IS 0.42 LB/YR OF PHOSPHORUS. WATER QUALITY CONTROL REQUIREMENTS AREA PROVIDED FOR THE PROPOSED SITE THROUGH BIORETENTION, WHICH WILL TREAT AN ONSITE AREA OF 0.53 AC AND THE TOTAL TP LOAD REDUCTION ACHIEVED THROUGH THE BIORETENTION IS 0.60 LB/YR.

IT SHALL BE NOTED THAT THE APPLICANT SHALL CONFORM TO THE IMPERVIOUS AREA REQUIREMENT UTILIZING THE 10% INCENTIVE REDUCTION, OR THROUGH THE ADDITION OF A PARTIAL GREEN ROOF BASED ON THE AMOUNT OF SPACE AVAILABLE ON THE ROOF AREA. SUCH DETERMINATION SHALL BE MADE AT TIME OF FINAL SITE PLAN. THE STORMWATER MANAGEMENT METHODOLOGY AND APPROACH PRESENTED ON THIS SHEET REPRESENTS A CONSERVATIVE DESIGN APPROACH AS IT DOES NOT ACCOUNT FOR THE POTENTIAL INCLUSION OF A GREEN ROOF AREA.

MAINTENANCE STATEMENT

THE PROPOSED BMP'S WILL BE PRIVATELY OWNED AND MAINTAINED.

BIORETENTION DESIGN

BIORETENTION 1 DESIGN CALCULATIONS

EQUATION 9.1. BIORETENTION LEVEL 1 DESIGN STORAGE DEPTH			
FILTER MEDIA DEPTH	2.5	FT	n= 0.25
GRAVEL DEPTH ABOVE CLEANOUT	1	FT	n= 0.4
MAX PONDING DEPTH	1	FT	n= 1
DESIGN STORAGE DEPTH = 2.025			
EQUATION 9.3 BIORETENTION LEVEL 1 DESIGN SURFACE AREA			
AREA	23061	SF	
Rv (COMPOSITE RUNOFF COEFFICIENT)	0.95		
Tv BMP REQUIRED	1825.66	CF	
MIN SURFACE AREA = 901.56 SF			
PROPOSED SURFACE AREA	952.12	SF	
INSIDE SOIL MEDIA	952.12	SF	
OUTSIDE SOIL MEDIA	0	SF	0% OF TOTAL
TOTAL TREATMENT VOLUME PROVIDED	1928.04	CF	

LEGEND

SOIL DIVIDE

OFFSITE IMPERVIOUS AREA (5,274 SQ FT OR 0.12 AC)

ONSITE IMPERVIOUS AREA (28,474 SQ FT OR 0.68 AC)

DRAINAGE DIVIDE

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BEST MANAGEMENT PRACTICES - POST-DEVELOPMENT

380 W MAPLE AVENUE - OPTION 2

MAC ZONING PLAN

HUNTER MILL, TOWN OF VIENNA, TRANSPORT

TOWN OF VIENNA, VIRGINIA

COMMONWEALTH OF VIRGINIA

Professional Engineer

Joshua T. Reynolds

Lic. No. 049095

05/07/19

PLAN DATE	DATE	DESCRIPTION
03/19/2019		
04/02/2019		
05/07/2019		

DATE: FEB 2019

C.I. = 2'

SCALE: 1"=20'

FILE No. N131

SHEET 08 OF 13

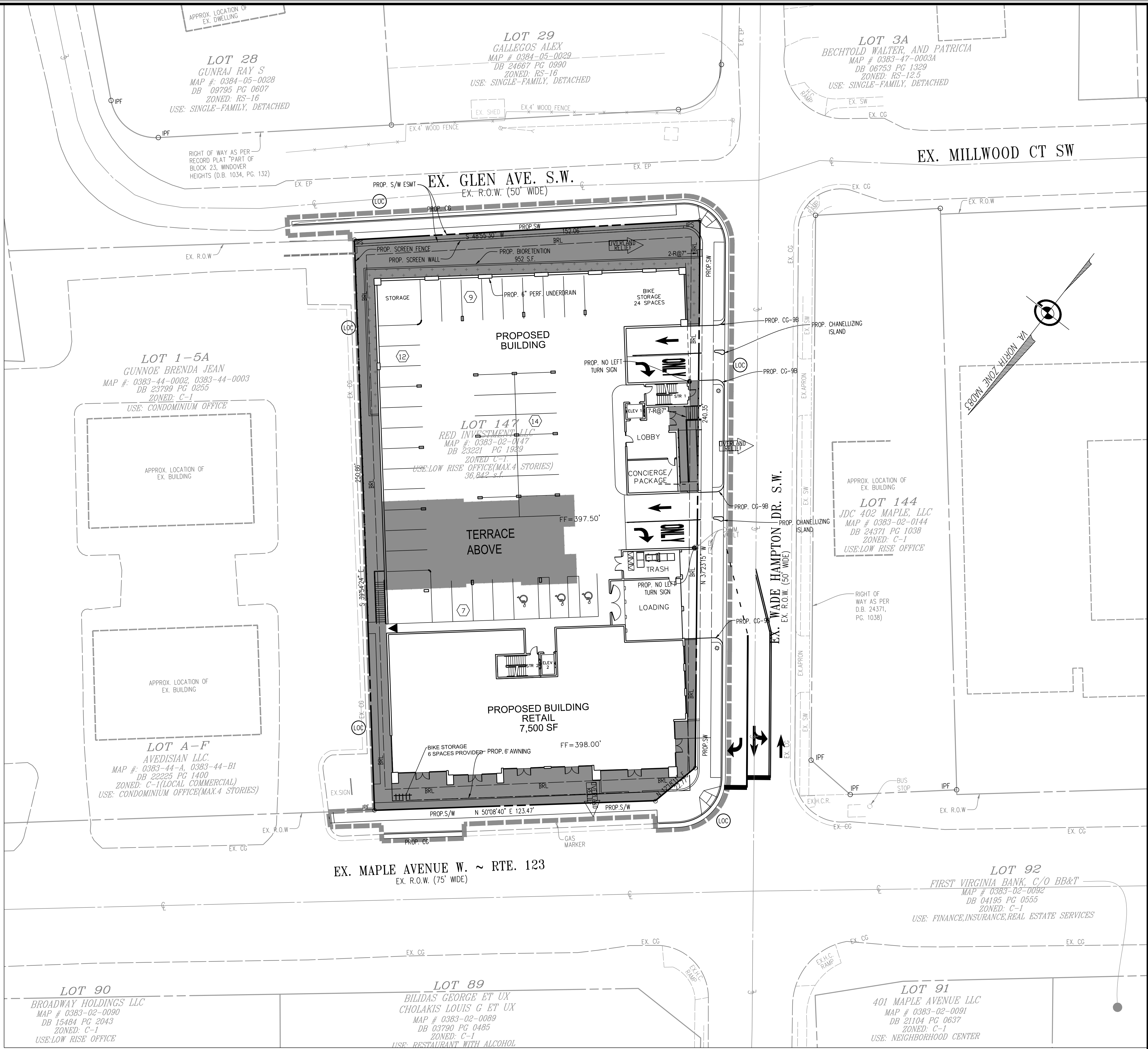
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LEGEND



PROP. OPEN SPACE

PROP. OPEN SPACE = 9,010 SQ FT
/36,842 SQ FT
= 24.46%



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OPEN SPACE EXHIBIT

380 W MAPLE AVENUE - OPTION 2

MAC ZONING PLAN

HUNTER MILL TOWN OF VIENNA, TRANSPORT

TOWN OF VIENNA, VIRGINIA

COMMONWEALTH OF VIRGINIA

JOSHUA T. REYNOLDS
Lic. No. 049095
05/07/19
PROFESSIONAL ENGINEER

PLAN DATE	DATE	DESCRIPTION
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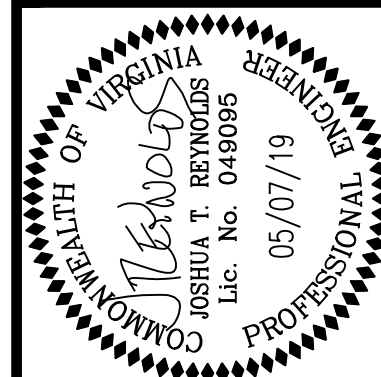
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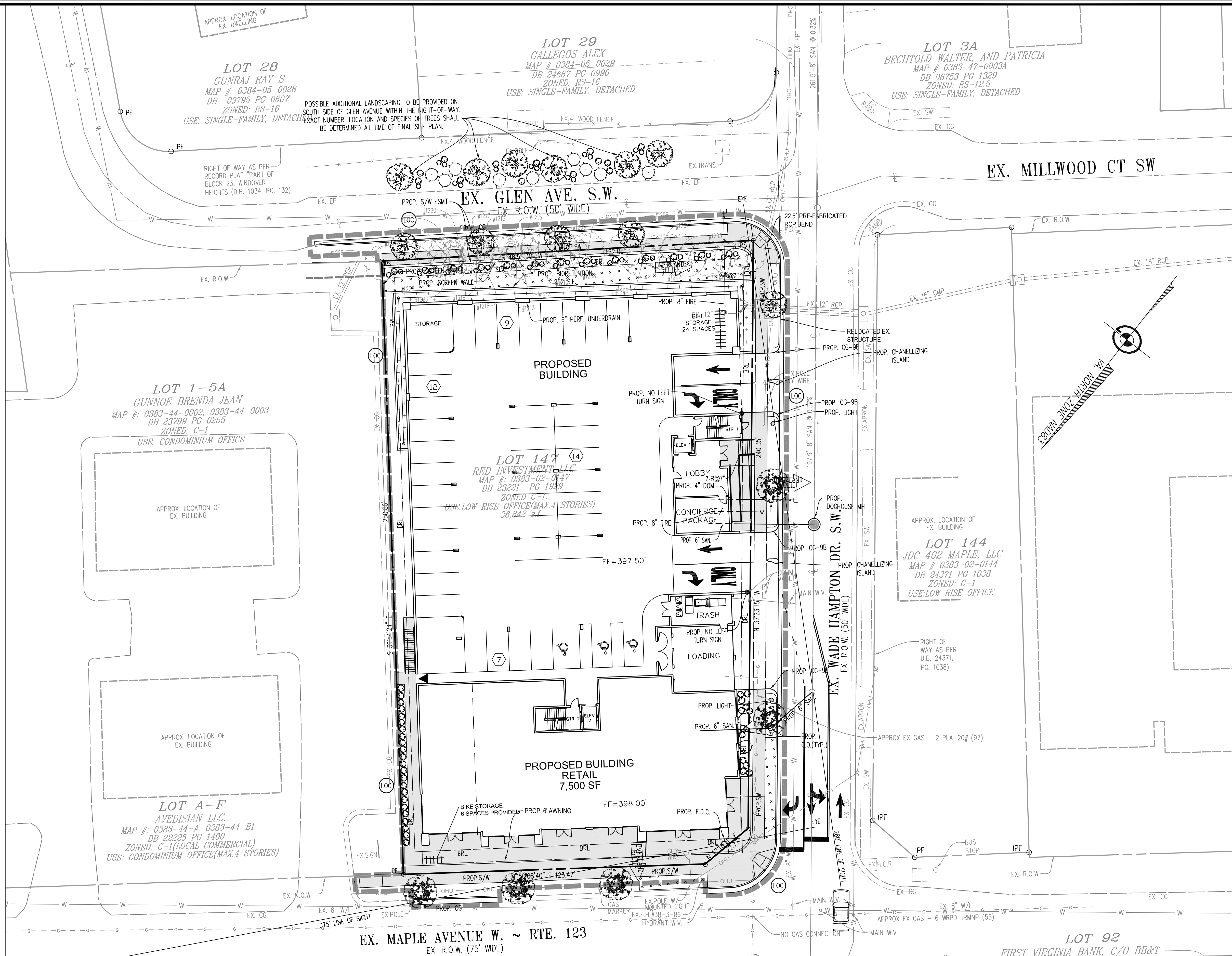
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FILE No. N131

SHEET 09 OF 13

AUTOTURN EXHIBIT

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LEGEND:

- PROPOSED CANOPY TREE
- PROPOSED UNDERSTORY TREE
- PROPOSED SHRUB
- PROPOSED GROUNDCOVER

GENERAL PLANT PALETTE

BOTANICAL NAME	COMMON NAME
CANOPY SPECIES	
ACER RUBRUM	RED MAPLE
TILIA AMERICANA	AMERICAN LINDEN
UNDERSTORY SPECIES	
CARPINUS CAROLINIANA	AMERICAN HORNBEE
CERCIS CANADENSIS	EASTERN REDBUD
SHRUB SPECIES	
CONRUS SERICEA	RED OSIER DOGWOOD
FORSYTHIA X INTERMEDIA 'NIMBUS'	NIMBUS FORSYTHIA
ILEX GLABRA	INKBERRY
PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS

LANDSCAPING NOTES:

THIS LANDSCAPING PLAN IS CONCEPTUAL IN NATURE, AND CAN BE MODIFIED AT TIME OF FINAL SITE PLAN GIVEN THAT THE APPLICATION MEETS ALL COUNTY REQUIREMENTS FOR CANOPY COVERAGE, SCREENING AND BUFFERS. THE APPLICANT RESERVES THE RIGHT TO SUPPLEMENT THE LANDSCAPING PLAN WITH THE POTENTIAL ADDITION OF A GREEN ROOF. DETERMINATION OF PROVIDING A GREEN ROOF SHALL BE DETERMINED AT TIME OF FINAL SITE PLAN. STREET TREES SHALL BE CANOPY TREES IF THEY ARE NOT LOCATED UNDER UTILITY LINES, AND SHALL BE UNDERSTORY TREES IF THEY ARE LOCATED UNDER UTILITY LINES, PER SECTION 18-95.12.C.1 OF THE TOWN CODE.

ALL LANDSCAPING SHALL BE INSTALLED TO NOT CONFLICT WITH LINES OF SIGHT. DETERMINATION OF FINAL SPECIES, LOCATION AND NUMBER OF LANDSCAPING ELEMENTS SHALL BE DETERMINED AT TIME OF FINAL SITE PLAN.

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PRELIMINARY LANDSCAPE PLAN
380 W MAPLE AVENUE - OPTION 2
MAC ZONING PLAN
HUNTER MILL TOWN OF VIENNA TRANSPORT
TOWN OF VIENNA, VIRGINIA

COMMONWEALTH OF VIRGINIA
JOSHUA T. REYNOLDS
Lic. No. 049095
05/07/19
PROFESSIONAL ENGINEER

No.	DATE	DESCRIPTION	REVISIONS

PLAN DATE
03/19/2019
04/02/2019
05/07/2019

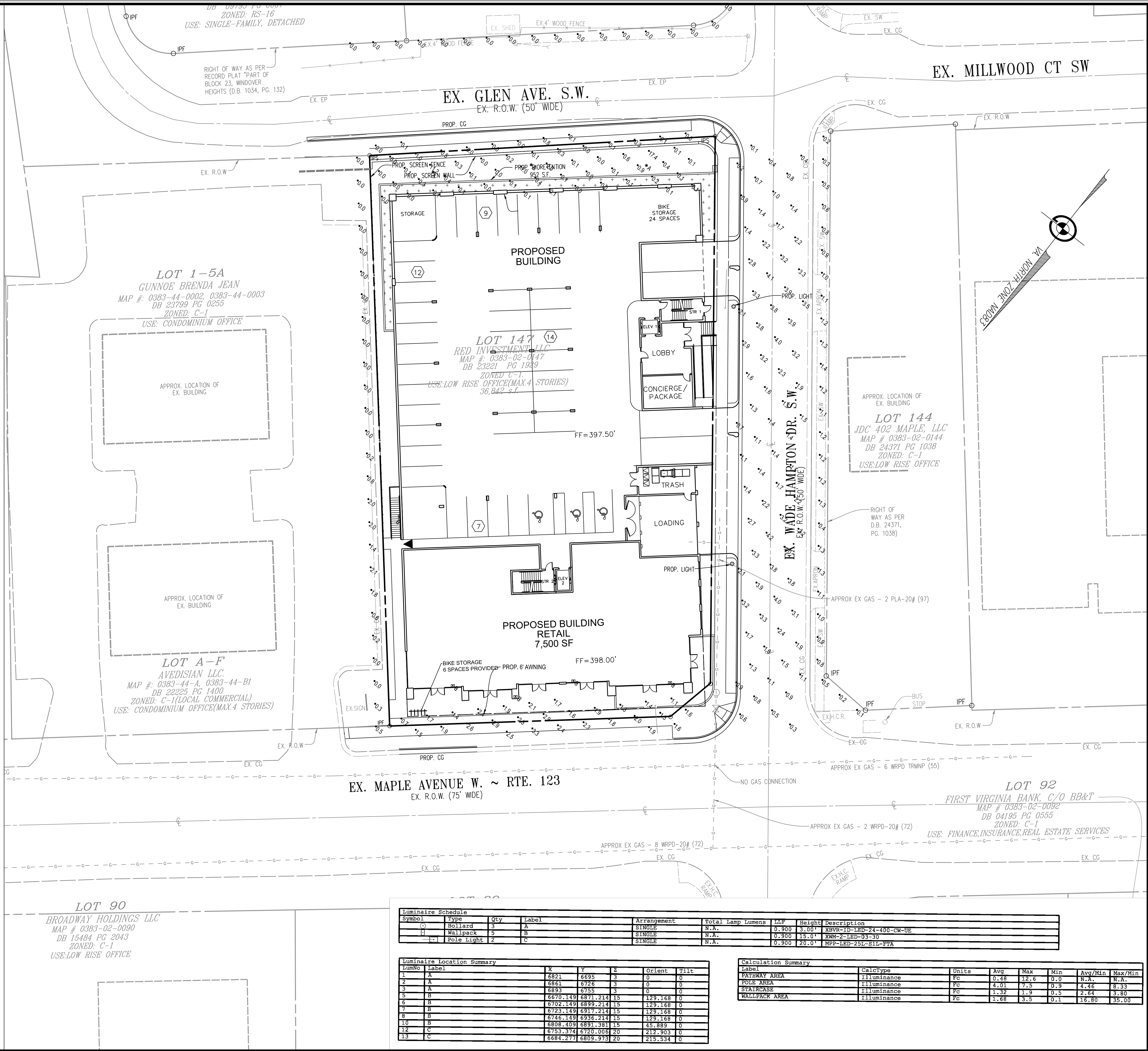
DATE: FEB 2019

C.I.= 2'

SCALE: 1"= 20'

FILE No.
N131

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13

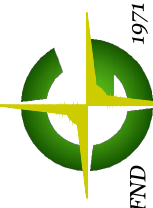


Luminaire Schedule									
Symbol	Type	Qty	Label	Arrangement	Total Lamp Lumens	LUF	Height	Description	
(A)	Bollard	3	A	SINGLE	N.A.	0.900	3.00'	XBVR-15-LED-24-400-CW-UE	
(B)	Wallpack	5	B	SINGLE	N.A.	0.900	15.0'	XBVR-2-150-0.3-30	
(C)	Pole Light	2	C	SINGLE	N.A.	0.900	20.0'	MPP-LED-251-SII-PTA	

Luminaire Location Summary						
LumNo	Label	X	Y	Z	Orient	Tilt
1	A	6821	6695	3	0	0
2	A	6861	6726	3	0	0
3	A	6893	6755	3	0	0
4	B	6670.149	6801.214	15	129.168	0
5	B	6702.149	6839.214	15	129.168	0
6	B	6723.149	6917.214	15	129.168	0
7	B	6746.149	6936.214	15	129.168	0
8	B	6808.409	6891.381	15	45.889	0
9	B	6753.374	6720.008	20	212.903	0
10	B	6753.374	6720.008	20	212.903	0
11	B	6753.374	6720.008	20	212.903	0
12	C	6684.277	6809.973	20	215.354	0
13	C	6684.277	6809.973	20	215.354	0

Calculation Summary									
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min		
PATHWAY AREA	Illuminance	Fc	0.48	12.6	0.0	N/A	N/A		
POLE AREA	Illuminance	Fc	4.01	7.5	0.9	4.46	8.33		
STAIRCASE	Illuminance	Fc	1.32	1.9	0.5	2.64	3.80		
WALLPACK AREA	Illuminance	Fc	1.68	3.5	0.1	16.80	35.00		

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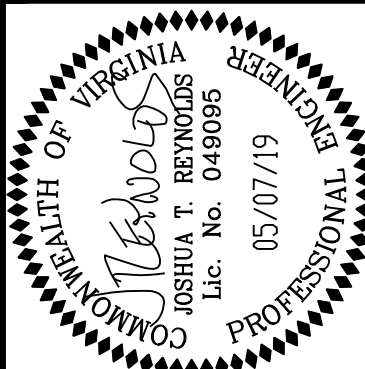
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LIGHTING EXHIBIT

380 W MAPLE AVENUE - OPTION 2
MAC ZONING PLAN

HUNTER MILL, TOWN OF VIENNA, TRANSPORT
TOWN OF VIENNA, VIRGINIA



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PLAN DATE
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SCALE: 1"=20'
FILE No.
N131
SHEET
12
OF
13

[illegible][illegible]

DATE: FEB 2019

C.I. = 2'

SCALE: 1"=20'

FILE No.
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SHEET
13
OF
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