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11TH & VERMONT ST. ARLINGTON COUNTY, VIRGINIA

ADMINISTRATIVE REGULATION 4.1 PRELIMINARY SUBMISSION - 09/16/2016
 ADMINISTRATIVE REGULATION 4.1 PRELIMINARY SUBMISSION - 06/26/2017
 ADMINISTRATIVE REGULATION 4.1 PRELIMINARY SUBMISSION - 07/07/2017
 ADMINISTRATIVE REGULATION 4.1 FORMAL SUBMISSION - 08/25/2017
 ADMINISTRATIVE REGULATION 4.1 RESUBMISSION - 01/16/2018
ADMINISTRATIVE REGULATION 4.1 RESUBMISSION - 02/02/2018



CONCEPT RENDERING
NOT TO SCALE

DEVELOPMENT TEAM

OWNER / DEVELOPER

NVR, INC.
11700 PLAZA AMERICA DRIVE
SUITE 500
RESTON, VA. 20190
(703) 956-4775
CONTACT: MARK COLETTA AND JAY JOHNSON

ATTORNEY

MCGUIRE WOODS, LLP
1750 TYSONS BOULEVARD
18TH FLOOR
TYSONS CORNER, VA. 22102
(703) 712-5000
CONTACT: TAD LUNGER

ARCHITECT

R2L:ARCHITECTS
3222 N. ST NW #500
WASHINGTON, DC 20007
(202) 600-7230
CONTACT: LEE RUBENSTEIN

CIVIL ENGINEER

VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE
SUITE 200
MCLEAN, VA. 22102
(703) 442-7800
CONTACT: JEFF KREPS

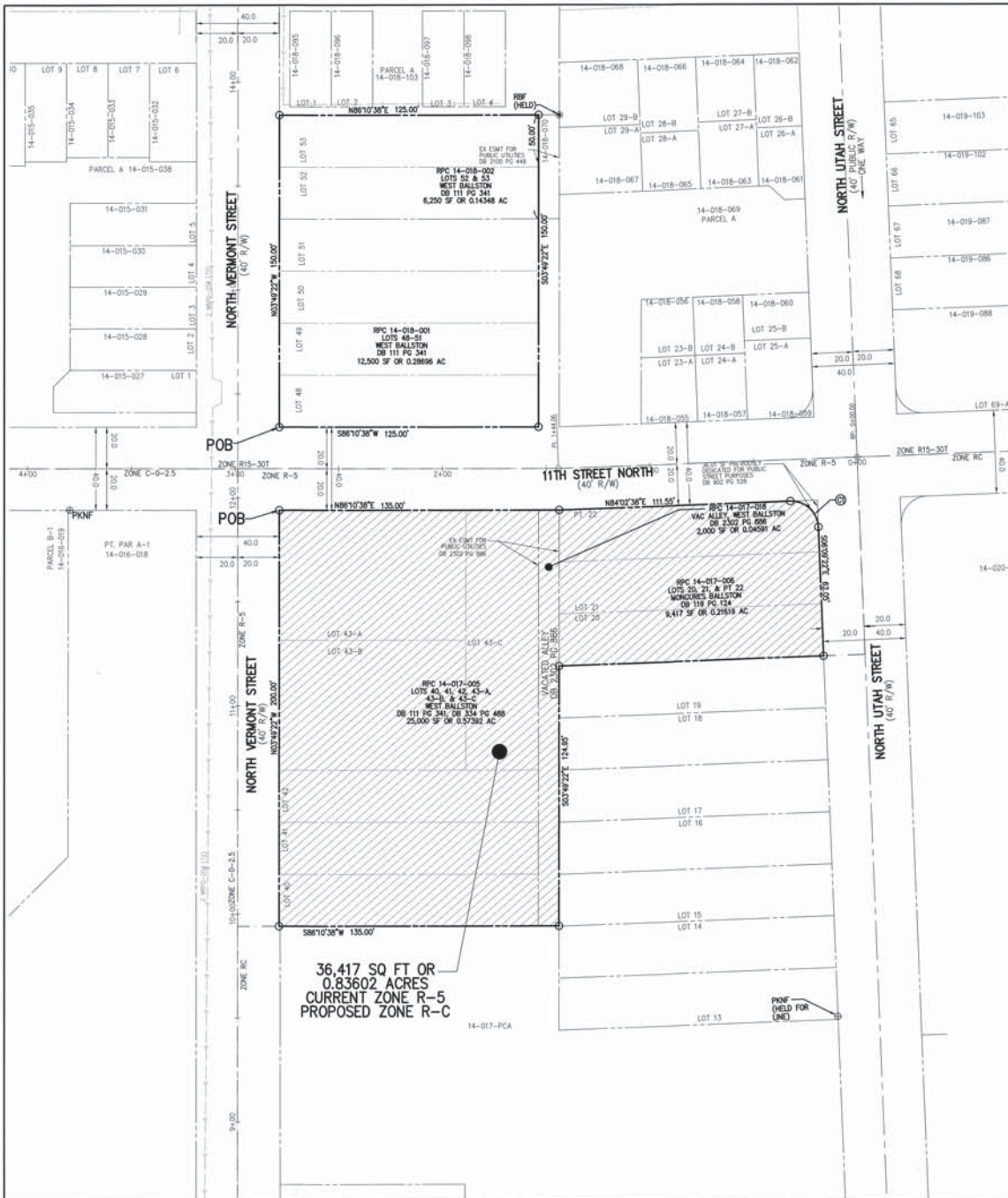
LANDSCAPE ARCHITECT

VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE
SUITE 200
MCLEAN, VA. 22102
(703) 442-7800
CONTACT: JEFF KREPS

ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ 3D LASER SCANNING

VIKA VIRGINIA, LLC
8180 GREENSBORO DRIVE, SUITE 200 ■ FRYDEN, VIRGINIA 22102
(703) 442-7800 ■ FAX (703) 955-2787
WWW.VIKACDM.COM

		ARLINGTON COUNTY, VIRGINIA DEPARTMENT OF ENVIRONMENTAL SERVICES	
VIKA REVISIONS		COVER SHEET	
COUNTY REVISIONS		11th & VERMONT 4.1 SUBMISSION Arlington County, Virginia	
NO.	DATE	DESCRIPTION	SCALE: NTS
		SHEET: C-01	
SUBMITTED DATE: SEPTEMBER 16, 2016		DESIGNED: JAK CHECKED: JAK	PROJECT/FILE NO. VY28498
VR 10.24			



NOTES:

- THE SUBJECT PROPERTIES ARE IDENTIFIED ON ARLINGTON COUNTY, VIRGINIA REAL PROPERTY IDENTIFICATION MAP AS RPC 14017005, 14017006, 14017018, 14018001, 14018002, AND 14018070 AND ARE ZONED R-5 AND R15-30T.
- THE PROPERTY SHOWN HEREON IS NOW IN THE NAME OF NORTHERN VIRGINIA CHURCH PROPERTIES, LLC AS RECORDED IN DEED BOOK 4712 AT PAGE 1 AMONG THE LAND RECORDS OF ARLINGTON COUNTY, VIRGINIA.
- THE SUBJECT PROPERTY IS LOCATED IN ZONE "R" (AS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) NUMBER 5103200506, COMMUNITY PANEL 510520 0036 C FOR ARLINGTON COUNTY, VIRGINIA, DATED AUGUST 19, 2013. ZONE "R" IS NOT IDENTIFIED AS A SPECIAL FLOOD HAZARD ZONE AREA.
- THE HORIZONTAL DATUM SHOWN HEREON IS BASED ON A GPS SURVEY PERFORMED BY VIKIA VIRGINIA, LLC ON APRIL 12, 2016, USING THE FOLLOWING CORRS STATIONS:
 LOT6 LORTON VA - 0278 (NCS PID 047969)
 LOT4 ANNAPOLIS MD - 370 (NCS PID 033640)
 LOT4 LEESBURG VA - 757 (NCS PID 043146)
- BOUNDARY SURVEY CONDUCTED BY VIKIA VIRGINIA, LLC UPON A FIELD RUSH SURVEY BY VIKIA VIRGINIA, LLC ON MAY 20, 2016. THE SURVEY CONTROL, ESTABLISHED BY VIKIA VIRGINIA, LLC AND USED TO DETERMINE THE BOUNDARY HAS A HORIZONTAL PRECISION OF 1:9220 WHICH EXCEEDS THE MINIMUM HORIZONTAL PRECISION OF 1:30000 AS REQUIRED BY THE COMMONWEALTH OF VIRGINIA.
- THE SUBJECT PROPERTIES ARE NOT LOCATED IN A HISTORIC DISTRICT PER ARLINGTON COUNTY LOCAL HISTORIC SITES AND DISTRICTS MAP DATED APRIL 2016. THE SUBJECT PROPERTIES ARE NOT CATEGORIZED ON ARLINGTON COUNTY HISTORIC RESOURCES INVENTORY (HRI).
- THE SUBJECT PROPERTY DOES NOT LIE IN A RESOURCE PROTECTION AREA (RPA) PER ARLINGTON COUNTY STREAMS, WATERSHEDS, AND RESOURCE PROTECTION AREAS (RPA) MAP DATED JUNE 2013.
- THE EXISTING CONDITIONS SURVEY WAS COMPLETED UNDER THE DIRECT RESPONSIBLE CHARGE OF FRANKLIN E. JENKINS, LS FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION, THAT THE ORIGINAL DATA WAS OBTAINED ON APRIL 20, 2016, AND THAT THIS PLAN/PLAT MEETS MINIMUM HORIZONTAL AND VERTICAL ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

ZONING AREA TABULATION:

RPC 14-017-005	25,000 SQ FT OR 0.57392 AC	ZONE R-5	PROPOSED ZONE R-C
RPC 14-017-006	9,417 SQ FT OR 0.21619 AC	ZONE R-5	PROPOSED ZONE R-C
RPC 14-017-018	2,000 SQ FT OR 0.04591 AC	ZONE R-5	PROPOSED ZONE R-C
RPC 14-018-001	12,500 SQ FT OR 0.28696 AC	ZONE R15-30T	PROPOSED ZONE R15-30T
RPC 14-018-002	8,250 SQ FT OR 0.14348 AC	ZONE R15-30T	PROPOSED ZONE R15-30T
TOTAL AREA	53,167 SQ FT OR 1.26846 AC		

ADJACENT OWNERS:

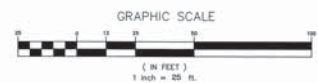
B/C	OWNER	DB/PG	ZONE	USE
14-015-027	DEKAY BROWN WILKINS TR, ET AL	4144/1195	R15-30T	512-TOWNHOUSE
14-015-028	BENJAMIN SHELZLE ET AL	4650/2542	R15-30T	512-TOWNHOUSE
14-015-029	ADNA POPOVICI, ET AL	4528/2491	R15-30T	512-TOWNHOUSE
14-015-030	NELLS S BURGESS, ET AL	2144/2684	R15-30T	512-TOWNHOUSE
14-015-031	WILLIAM O BANK, ET AL	2579/7799	R15-30T	512-TOWNHOUSE
14-015-032	JEFFREY H COLLIER	4132/7157	R15-30T	512-TOWNHOUSE
14-015-033	LOUIS S LONE	2225/707	R15-30T	512-TOWNHOUSE
14-015-038	VENOMY PLACE HOA, INC	2142/1029	R15-30T	540-NOT VALUED REED
14-018-018	JOHN HAMCOCK LIFE RESERVANCE CO	4409/853	C-O-2.5	1112-OFF BLDG 7+ STORES
14-018-025	TYLER J WILSON, ET AL	4271/2086	R15-30T	512-TOWNHOUSE
14-018-026	TYLER J WILSON, ET AL	3292/7275	R15-30T	512-TOWNHOUSE
14-018-027	CHRISTINE B KASSKORFT	4347/2601	R15-30T	512-TOWNHOUSE
14-018-028	BLET P DONES	2843/1637	R15-30T	512-TOWNHOUSE
14-018-029	LESLIE C HENWOODS	3854/2678	R15-30T	512-TOWNHOUSE
14-018-060	LAWRENCE S SHER	3299/1189	R15-30T	512-TOWNHOUSE
14-018-061	4752/2599	R15-30T	512-TOWNHOUSE	
14-018-068	STACE VALENTINE	3107/7709	R15-30T	512-TOWNHOUSE
14-018-069	VICTORIA B BALLSTON HOA	2454/457	R15-30T	540-NOT VALUED REED
14-018-070	NORTHERN VIRGINIA CHURCH PROPERTIES, LLC	4712/1	R15-30T	200-GENCOX VILLAGE
14-018-095	SUSAN ANNE MARTIN	4745/2268	R15-30T	512-TOWNHOUSE
14-018-096	ADAM H CHAPIN	4682/7181	R15-30T	512-TOWNHOUSE
14-018-097	JANE LINDO LEWIS, ET AL	4517/2663	R15-30T	512-TOWNHOUSE
14-018-098	DANE L ELLIS	3706/2444	R15-30T	512-TOWNHOUSE
14-018-163	VENOMY COURT HOA	3458/2433	R15-30T	540-NOT VALUED REED
14-018-088	WILLIAM DEVEREAUX JR, ET AL	4383/480	R15-30T	511-SINGLE FAMILY DETACHED
14-020-PCA	WINDSOR PLAZA CONDOMINIUM WESTERN AT BALLSTON METRO CONDOMINIUM	2765/1035	RC	612-CONDO MID-RISE
14-021-PCA	WESTERN AT BALLSTON METRO CONDOMINIUM	3679/1397	RC	611-CONDO HIGH-RISE

SURVEYOR'S CERTIFICATE:

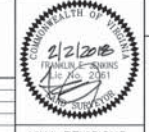
I, FRANKLIN E. JENKINS, A DULY LICENSED LAND SURVEYOR IN THE COMMONWEALTH OF VIRGINIA, DO HEREBY CERTIFY THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF THE INFORMATION SHOWN HEREON IS CORRECT, AND THAT THE SUBJECT PROPERTIES WERE ACQUIRED BY NORTHERN VIRGINIA CHURCH PROPERTIES, LLC BY DEED RECORDED IN DEED BOOK 4712 AT PAGE 1 AMONG THE LAND RECORDS OF ARLINGTON COUNTY, VIRGINIA.

FRANKLIN E. JENKINS
 LICENSED LAND SURVEYOR
 VAS0501
 EMAIL ADDRESS: jenkins@vikia.com

DATE OF PLAT OR MAP



VIKIA
 ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ 3D LASER SCANNING
 VIKIA VIRGINIA, LLC
 8180 GREENBROOK DRIVE, SUITE 200 ■ TYSONS, VIRGINIA 22102
 (703) 442-7800 ■ FAX (703) 761-2787
 WWW.VIKIA.COM



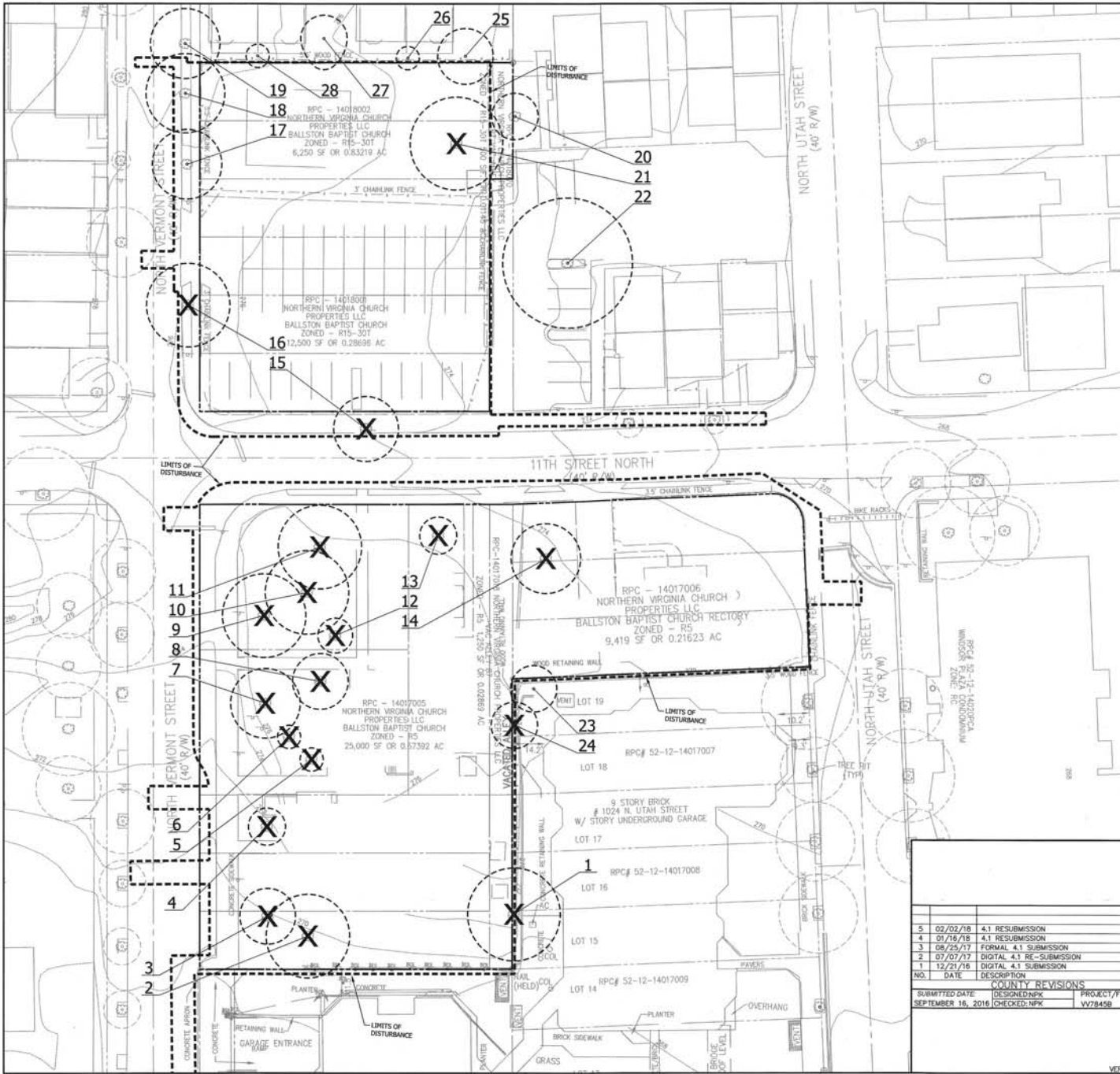
ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES

REZONING PLAT
11th & VERMONT
 4.1 SUBMISSION
 Arlington County, Virginia

NO.	DATE	DESCRIPTION
5	02/02/18	4.1 RESUBMISSION
4	01/16/18	4.1 RESUBMISSION
3	08/25/17	FORMAL 4.1 SUBMISSION
2	07/07/17	DIGITAL 4.1 RE-SUBMISSION
1	12/21/16	DIGITAL 4.1 SUBMISSION

COUNTY REVISIONS
 SUBMITTED DATE: SEPTEMBER 16, 2016
 DESIGNED: FEJ
 CHECKED: LMG
 PROJECT/FILE NO: VV7845B

SCALE: 1"=20' SHEET: C-04

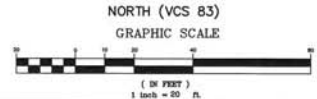


LEGEND

- XX EXISTING TREES TO BE REMOVED
- XX EXISTING TREES TO BE PRESERVED
- TREE PROTECTION FENCE
- LIMITS OF CLEARING AND GRADING

NOTES:

1. OFFSITE LOCATION / INVENTORY OF TREES IS FROM FIELD OBSERVATION.
2. THIS PLAN IS FOR EXISTING TREE INVENTORY AND PRESERVATION PLAN ONLY.



PLAN PREPARED BY: NELSON PAUL KRÖNER, PLLC
 ISA CERTIFIED ARBORIST No. 84-47254M
 SIGNATURE: *[Signature]*
 DATE: 2/2/2016

VKA
 ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ 3D LASER SCANNING
 VIRA VIRGINIA, LLC
 8980 GREENSBORO DRIVE, SUITE 200 ■ FRYSON, VIRGINIA 22102
 (703) 442-7800 ■ FAX (703) 781-2787
 WWW.VIRA.COM

COUNTY REVISIONS		
NO.	DATE	DESCRIPTION
5	02/02/18	4.1 RESUBMISSION
4	01/16/18	4.1 RESUBMISSION
3	08/25/17	FORMAL 4.1 SUBMISSION
2	07/07/17	DIGITAL 4.1 RESUBMISSION
1	12/21/16	DIGITAL 4.1 SUBMISSION

SUBMITTED DATE: SEPTEMBER 16, 2016	DESIGNED/PPK	CHECKED/NPK	PROJECT/FILE NO. VV78458
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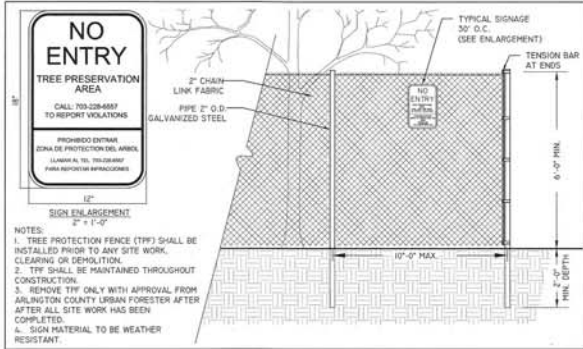
VKA REVISIONS

ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES

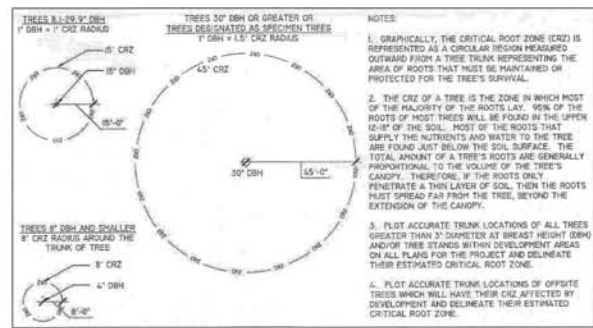
EXISTING TREE INVENTORY

11th & VERMONT
 4.1 SUBMISSION
 Arlington County, Virginia

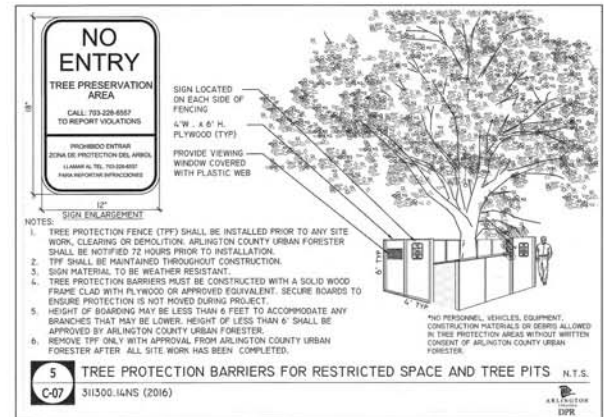
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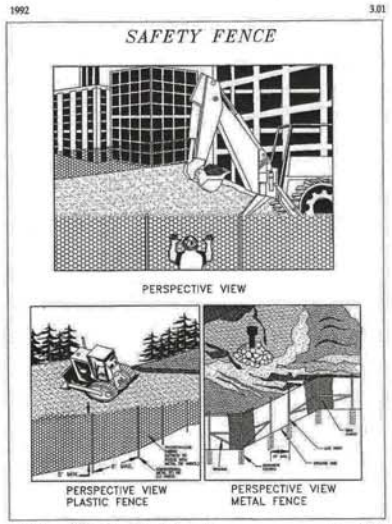
1 6' CHAIN LINK TREE PROTECTION FENCE
NOT TO SCALE
C-07



2 TREE PROTECTION DETAIL FOR DETERMINING CRITICAL ROOT ZONE
NOT TO SCALE
C-07



5 TREE PROTECTION BARRIERS FOR RESTRICTED SPACE AND TREE PITS
N.T.S.
311500.14NS (2016)
ARLINGTON COUNTY DPW



3 SAFETY FENCE
NOT TO SCALE
C-07



4 TREE PROTECTION FENCE SIGN DETAIL
NOT TO SCALE
C-07

TREE PRESERVATION NOTES

- 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), AND/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 ARLINGTON COUNTY URBAN FORESTER
- BEFORE ANY GRADING, DEMOLITION, OR OTHER DISTURBANCE, TREE PROTECTION NEEDS TO BE INSTALLED PER PLAN, AND INSPECTED BY AN ARLINGTON COUNTY PARKS AND RECREATION URBAN FORESTER. EROSION AND SEDIMENT CONTROLS ARE INSPECTED BY THE DEPARTMENT OF ENVIRONMENTAL SERVICES.
 - THE TREE PROTECTION PLAN MUST BE APPROVED BY ARLINGTON COUNTY PRIOR TO ISSUANCE OF A CLEARING AND GRADING PERMIT.
 - USE CRITICAL ROOT ZONE DETAIL (2) AS A MINIMUM REQUIREMENT FOR THE AREA TO BE PROTECTED. SPECIMEN TREES WILL BE DESIGNATED BY THE URBAN FORESTER AND PROTECTED ACCORDING TO DETAIL 2.7.7. (TREES 30" DBH AND GREATER)
 - TREE PROTECTION FENCING SHALL BE ERECTED AT THE CRITICAL ROOT ZONE OR BEYOND PRIOR TO START OF ANY CLEARING, GRADING OR OTHER CONSTRUCTION ACTIVITY. SIGNS STATING "NO ENTRY, TREE PROTECTION AREA, CALL 703-228-6557 TO REPORT VIOLATIONS" ARE TO BE POSTED IN BOTH ENGLISH AND SPANISH. SEE DETAIL (4).
 - TREE PROTECTION SHALL BE A MINIMUM OF 6' HIGH CHAIN LINK FENCE MOUNTED ON VERTICAL PIPES DRIVEN 2' INTO THE GROUND WITH NO GATES (2).
 - SUBMIT PHOTOGRAPHIC RECORD (2 PICTURES) OF ALL TREES TO BE PRESERVED OVER 3" DBH AFTER FENCE IS INSTALLED.
 - NO PERSON, MATERIALS OR EQUIPMENT SHALL BE PERMITTED WITHIN THE TREE PROTECTION AREA. ANY VIOLATION OF THIS REQUIREMENT MAY RESULT IN A FINE OF \$500 PER DAY OF VIOLATION.
 - ANY DAMAGE TO A TREE BEING PRESERVED SHALL RESULT IN A PAYMENT BY THE OWNER/DEVELOPER TO THE COUNTY FOR THE AMOUNT OF DAMAGE BASED ON THE LATEST EDITION OF "THE COUNCIL OF TREE AND LANDSCAPE APPRAISERS GUIDE FOR PLANT APPRAISALS" PUBLISHED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA). ALL TREES ARE TO BE VALUED AS LANDSCAPE TREES. FOR FURTHER GUIDANCE, SEE ARLINGTON COUNTY TREE APPRAISAL POLICY, ADOPTED BY THE ARLINGTON COUNTY BOARD OCTOBER 2004.
 - TREE PROTECTION SHALL NOT BE REMOVED UNTIL COMPLETION OF ALL CONSTRUCTION ACTIVITY.
 - WHEN EXCAVATION IS TO TAKE PLACE WITHIN THE CRITICAL ROOT ZONE, THE DEVELOPER SHALL EMPLOY A PROFESSIONAL ARBORIST TO ROOT PRUNE IMMEDIATELY BEYOND THE LIMITS OF EXCAVATION TO A DEPTH OF 18 INCHES, PRIOR TO EXCAVATION.
 - ANY EXCEPTIONS TO THE ABOVE REQUIREMENTS, SUCH AS CONSTRUCTION WITHIN THE CRITICAL ROOT ZONE, MUST BE APPROVED IN ADVANCE BY ARLINGTON COUNTY BY WAY OF THE TREE PRESERVATION PLAN.
 - ADDITIONAL REQUIREMENTS MAY BE NECESSARY ON A CASE-BY-CASE BASIS.
 - USE OF MOTORIZED EQUIPMENT IN TREE PRESERVATION AREAS SHALL BE LIMITED TO HAND-OPERATED EQUIPMENT SUCH AS CHAINSAWS, WHEEL BARROWS, RAKE AND SHOVELS. ANY WORK THAT REQUIRES THE USE OF MOTORIZED EQUIPMENT, SUCH AS TREE TRANSPLANTING SPADES, SKID LOADERS, TRACTORS, TRUCKS, STUMP-GRINDERS, ETC., OR ANY ACCESSORY OR ATTACHMENT CONNECTED TO THIS TYPE OF EQUIPMENT SHALL NOT OCCUR UNLESS PRE-APPROVED BY ARLINGTON COUNTY URBAN FORESTER.
 - CONTRACTOR SHALL NOT STORE BUILDING MATERIALS OR EQUIPMENT WITHIN THE TREE PROTECTION AREAS TO ENSURE NO COMPACTION OCCURS WITHIN THE DRILLPIECE OF THE TREES TO BE SAVED.

PLAN PREPARED BY: NELSON P. JORNER, RLA
ISA CERTIFIED ARBORIST No. 14147204H
SIGNATURE: [Signature]
DATE: 2/2/2015

VKA
ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ 3D LASER SCANNING
VKA VIRGINIA, LLC
8180 GREENBROOK DRIVE, SUITE 200 ■ TYSONS, VIRGINIA 22102
(703) 442-7800 ■ FAX (703) 761-2787
WWW.VKA.COM

NO.	DATE	DESCRIPTION
5	02/02/18	4.1 RESUBMISSION
4	01/16/18	4.1 RESUBMISSION
3	08/25/17	FORMAL 4.1 SUBMISSION
2	07/07/17	DIGITAL 4.1 RE-SUBMISSION
1	12/21/16	DIGITAL 4.1 SUBMISSION

COUNTY REVISIONS

SUBMITTED DATE	DESIGNED/NPK	PROJECT/FILE NO.
SEPTEMBER 16, 2016	CHECKED: NPK	VV78458

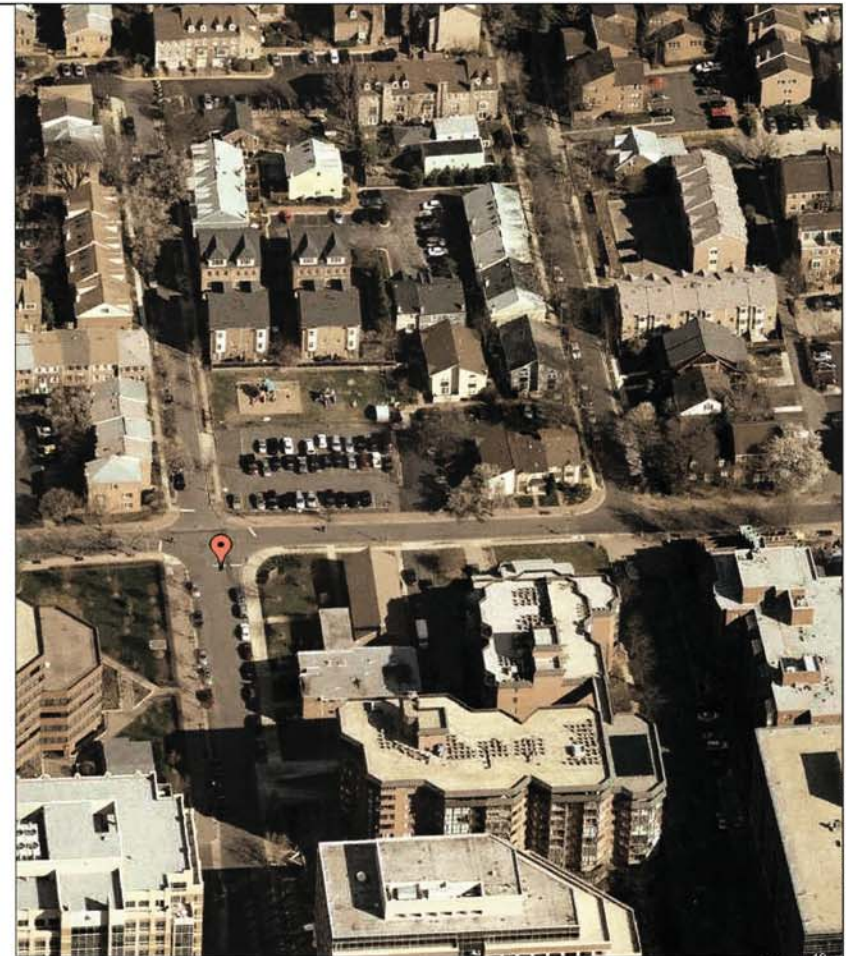
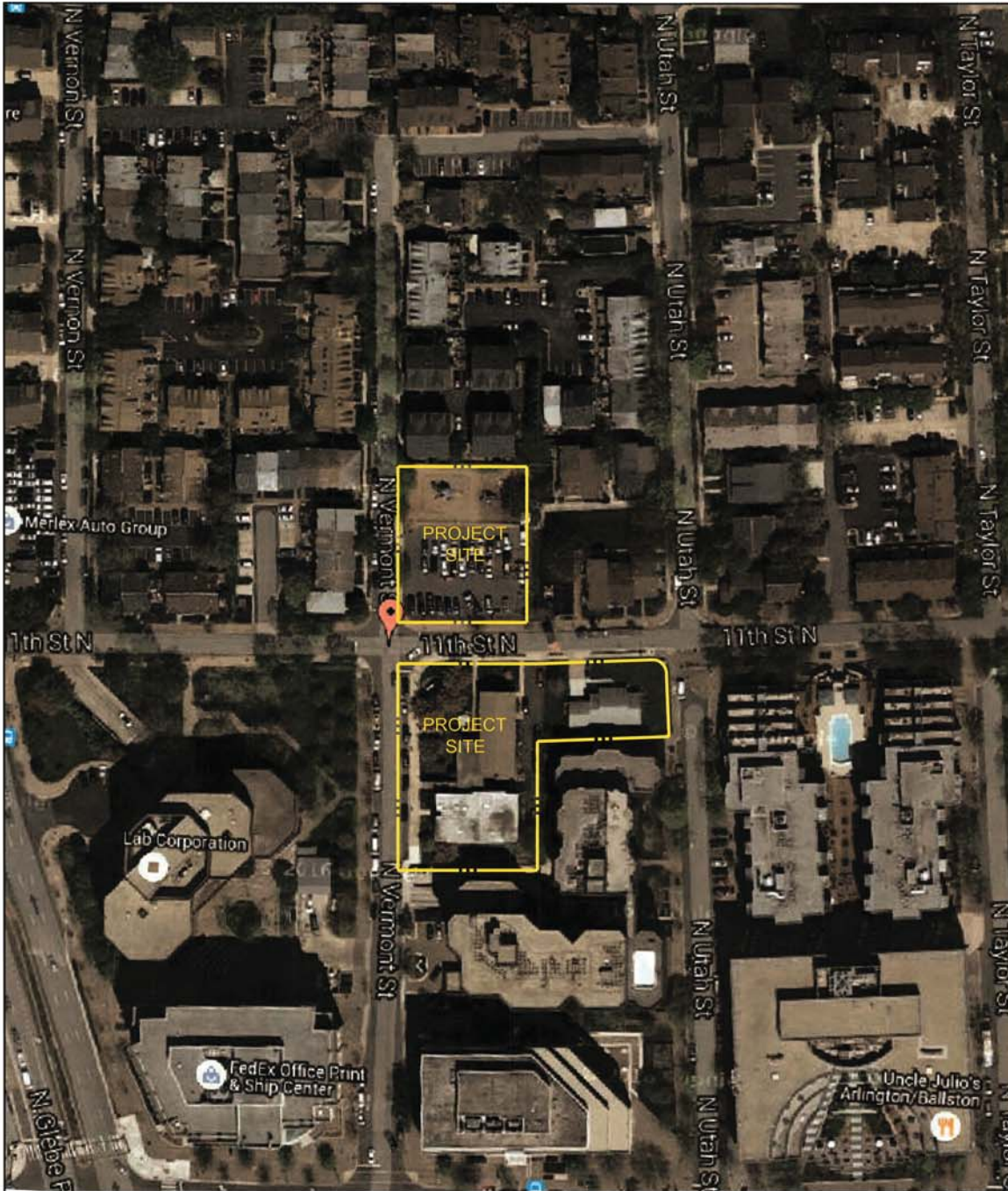
ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

TREE PRESERVATION NOTES AND DETAILS

11th & VERMONT
4.1 SUBMISSION
Arlington County, Virginia

SCALE: NTS SHEET: C-07

VER. 10.24



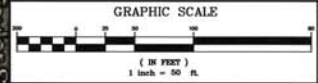
BIRDS EYE VIEW - N.T.S.



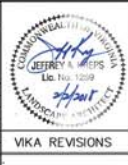
NORTH (VCS 83)



ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ 3D LASER SCANNING
 VIKI VIRGINIA LLC
 8180 GREENGROVE DRIVE SUITE 200 ■ FRYDEN, VIRGINIA 22102
 (703) 442-7800 ■ FAX (703) 761-2787
 WWW.VIKA.COM



NO.	DATE	DESCRIPTION
5	02/02/18	4.1 RESUBMISSION
4	01/16/18	4.1 RESUBMISSION
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2	07/07/17	DIGITAL 4.1 RE-SUBMISSION
1	12/21/16	DIGITAL 4.1 SUBMISSION



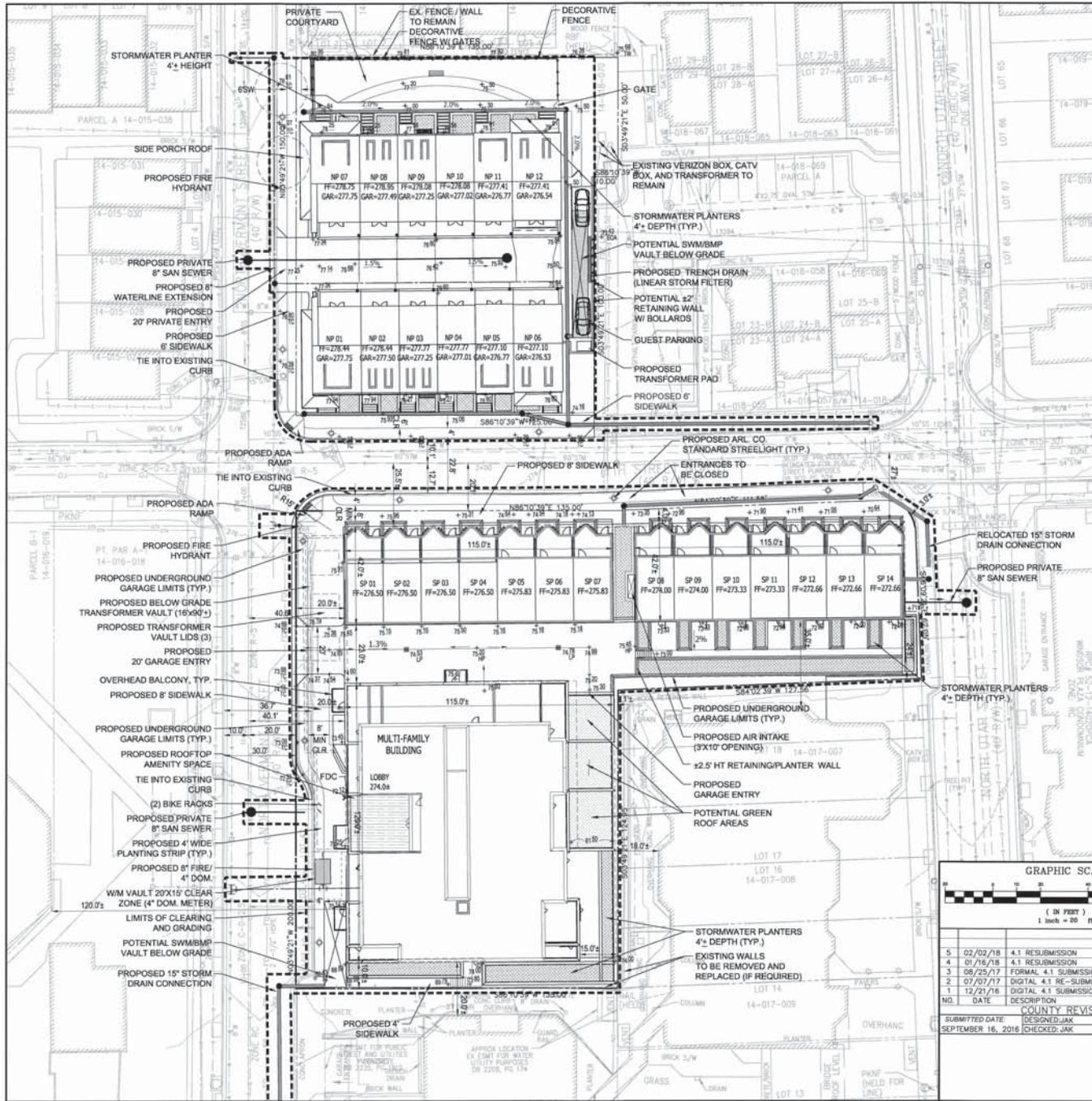
VIKA REVISIONS

COUNTY REVISIONS	
SUBMITTED DATE	PROJECT/FILE NO.
SEPTEMBER 16, 2016	V078459

ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES

AERIAL EXHIBIT
 11th & VERMONT
 4.1 SUBMISSION
 Arlington County, Virginia

SCALE: 1" = 50' SHEET: C-08



NOTES

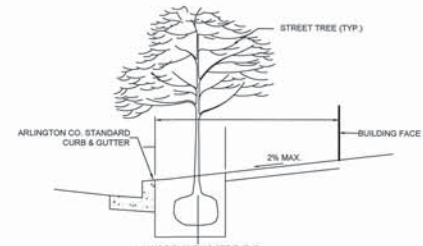
- UTILITY INFORMATION OBTAINED FROM AVAILABLE RECORDS AND FIELD SURVEY
- DATUM: SEE CERTIFIED SURVEY SHEET C-02
- CONTOUR INTERVAL: 2 FEET
- THE SUBJECT PROPERTIES ARE IDENTIFIED ON ARLINGTON COUNTY, VIRGINIA REAL PROPERTY IDENTIFICATION MAP AS RPC 14017005, 14017006, 14017016, 14018001 AND 14018002, AND ARE ZONED R-5 AND R15-30T
- THE AVERAGE SITE ELEVATION TAKEN AT THE PERIMETER OF THE SUBJECT PROPERTY (NORTH SITE) IS 275.74' AND THE AVERAGE SITE ELEVATION TAKEN AT THE PERIMETER OF THE SUBJECT PROPERTY (SOUTH SITE) IS 272.74'
- LOT AREA: PARCEL A: 18,750 SF OR 0.4304 AC | PARCEL B: 36,417 SF OR 0.8302 AC
- SITE COVERAGE: NORTH PARCEL = 414,851 SF OR 47% AND SOUTH PARCEL = 424,265 SF OR 66.6%
- THERE WILL BE NO PUBLIC STREET RIGHT OF WAY DEDICATION. THERE WILL BE PUBLIC ACCESS EASEMENTS OVER THE PUBLIC SIDEWALKS.
- THERE WILL BE NO PROPOSED VACATIONS.
- THERE WILL BE FUTURE ENCROACHMENTS INTO FUTURE PUBLIC SIDEWALK AND UTILITIES EASEMENTS.
- THERE ARE NO HISTORIC DISTRICTS AND/OR STRUCTURES ON THE SITE OR ADJACENT SITES.
- THERE ARE NO RESOURCE PROTECTION AREAS ON SITE.
- FINAL PROPOSED CURB LOCATIONS TO BE COORDINATED WITH ARLINGTON COUNTY AT TIME OF FINAL ENGINEERED SITE PLAN.
- ELECTRICAL TRANSFORMER IS TO BE SCREENED.
- TOWNHOUSE STEPS SHOWN ARE ILLUSTRATIVE. FINAL NUMBER OF STEPS WILL BE DETERMINED WITH FINAL GRADING PLAN AT TIME OF FINAL ENGINEERING.

UTILITY NOTES

THE UNDERGROUND UTILITY LOCATIONS SPECIFICALLY NOTED IN THE TABLE ON SHEET C-02 AND GRAPHICALLY SHOWN HEREON HAVE BEEN LOCATED FROM A COMBINATION OF FIELD SURVEY INFORMATION, AERIAL SURVEY LOCATIONS, AND/OR EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE INDICATED FROM THE INFORMATION NOTED IN THE TABLE BELOW WHICH COMPRISES THE RECORD INFORMATION OBTAINED BY THE SURVEYOR. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES, UNLESS THE UTILITY COMPANIES NOTED ON SHEET C-02 HAVE BEEN SOLICITED FOR THEIR PLANS AND RECORD UTILITY SPECIFICALLY NOTED ON THE DRAWING. DRAWINGS LISTED ON SHEET C-02 ARE SPECIFIC PLANS/SHEET NUMBERS OF DRAWINGS PROVIDED BY THE UTILITY COMPANY OR LACK OF RESPONSE IS NOTED.

STORMWATER MANAGEMENT NOTES

STORMWATER MANAGEMENT IS TO BE PROVIDED BY THROUGH A COMBINATION OF SWM PLANTERS, GREEN ROOF AREAS AND STRUCTURAL BMPs—THE FINAL LOCATIONS AND QUANTITIES OF THESE SWM FACILITIES WILL BE DETERMINED AT TIME OF FINAL ENGINEERED SITE PLAN.



OVERALL MINIMUM SIDEWALK DIMENSIONS REQUIRED (B.O.C. TO F.O.B.):

- NORTH VERMONT STREET (NORTH OF 11TH) = 10' MIN SIDEWALK (B.O.C. TO F.O.B.)
- NORTH VERMONT STREET (SOUTH OF 11TH) = 13' MIN SIDEWALK (B.O.C. TO F.O.B.)
- NORTH 11TH STREET (NORTH SIDE) = 10' MIN SIDEWALK (B.O.C. TO F.O.B.)
- NORTH 11TH STREET (SOUTH SIDE) = 13' MIN SIDEWALK (B.O.C. TO F.O.B.)

MINIMUM CLEAR SIDEWALK WIDTHS REQUIRED & PROVIDED:

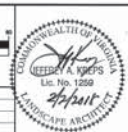
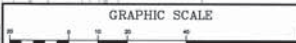
- NORTH VERMONT STREET (NORTH OF 11TH) = 8' MIN CLEAR
- NORTH VERMONT STREET (SOUTH OF 11TH) = 8' MIN CLEAR
- NORTH 11TH STREET (NORTH SIDE) = 8' MIN CLEAR
- NORTH 11TH STREET (SOUTH SIDE) = 8' MIN CLEAR

LEGEND

- STORMWATER PLANTERS TYP.
- GREEN ROOF TYP.



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NO.	DATE	DESCRIPTION
5	02/02/18	4.1 RESUBMISSION
4	01/16/18	4.1 RESUBMISSION
3	08/25/17	FORMAL 4.1 SUBMISSION
2	07/07/17	DIGITAL 4.1 RE-SUBMISSION
1	12/21/16	DIGITAL 4.1 SUBMISSION

NO. DATE DESCRIPTION

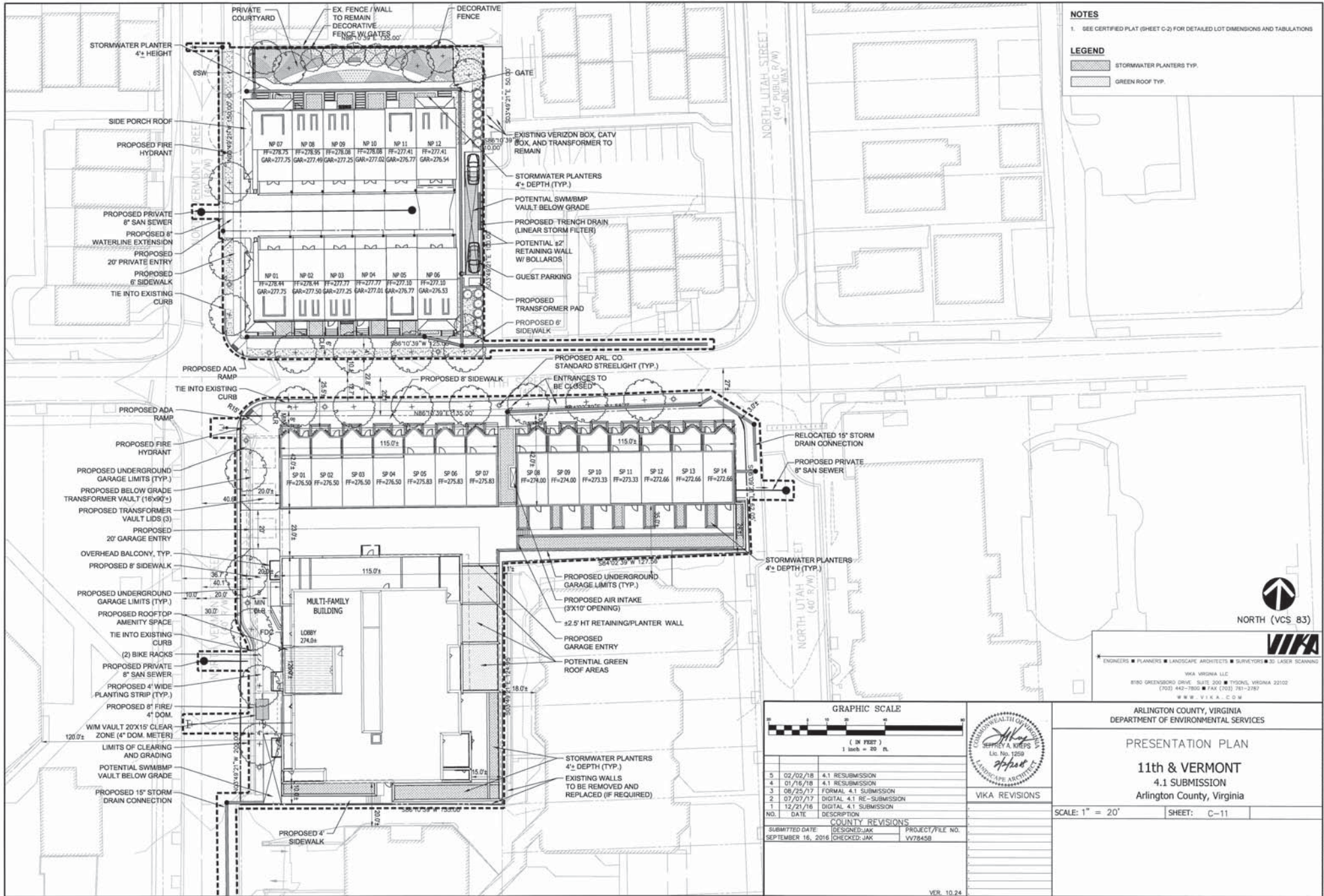
SUBMITTED DATE: DESIGNED: JAK PROJECT/FILE NO. V7845B
 CHECKED: JAK

ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES

PLOT & LOCATION PLAN

11th & VERMONT
 4.1 SUBMISSION
 Arlington County, Virginia

SCALE: 1" = 20'
 SHEET: C-10



NOTES
 1. SEE CERTIFIED PLAT (SHEET C-2) FOR DETAILED LOT DIMENSIONS AND TABULATIONS

LEGEND
 [Hatched Box] STORMWATER PLANTERS TYP.
 [Dotted Box] GREEN ROOF TYP.

NORTH (VCS 83)

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GRAPHIC SCALE

(IN FEET)
 1 inch = 20 ft

NO.	DATE	DESCRIPTION
3	02/02/18	4.1 RESUBMISSION
4	01/16/18	4.1 RESUBMISSION
3	08/25/17	FORMAL 4.1 SUBMISSION
2	07/07/17	DIGITAL 4.1 RE-SUBMISSION
1	12/21/16	DIGITAL 4.1 SUBMISSION

COUNTY REVISIONS

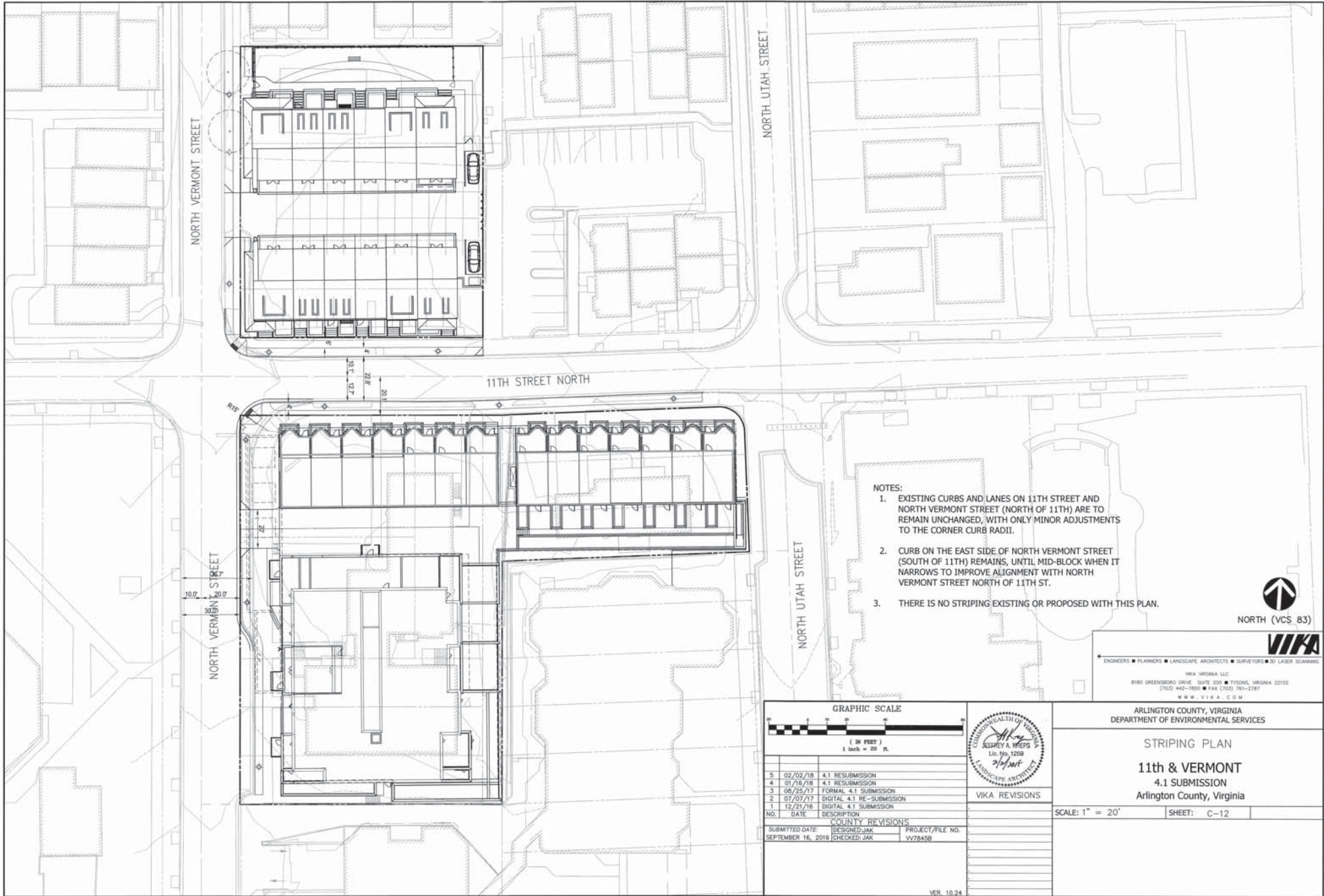
SUBMITTED DATE: SEPTEMBER 16, 2016	DESIGNED: JAK	CHECKED: JAK	PROJECT/FILE NO. VV78458
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VIKA REVISIONS

ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES

PRESENTATION PLAN
 11th & VERMONT
 4.1 SUBMISSION
 Arlington County, Virginia

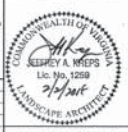
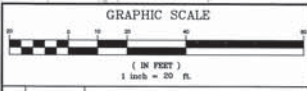
SCALE: 1" = 20' SHEET: C-11



- NOTES:**
1. EXISTING CURBS AND LANES ON 11TH STREET AND NORTH VERMONT STREET (NORTH OF 11TH) ARE TO REMAIN UNCHANGED, WITH ONLY MINOR ADJUSTMENTS TO THE CORNER CURB RADII.
 2. CURB ON THE EAST SIDE OF NORTH VERMONT STREET (SOUTH OF 11TH) REMAINS, UNTIL MID-BLOCK WHEN IT NARROWS TO IMPROVE ALIGNMENT WITH NORTH VERMONT STREET NORTH OF 11TH ST.
 3. THERE IS NO STRIPING EXISTING OR PROPOSED WITH THIS PLAN.



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NO.	DATE	DESCRIPTION
5	02/02/18	4.1 RESUBMISSION
4	01/16/18	4.1 RESUBMISSION
3	08/25/17	FORMAL 4.1 SUBMISSION
2	07/07/17	DIGITAL 4.1 RESUBMISSION
1	12/21/16	DIGITAL 4.1 SUBMISSION

COUNTY REVISIONS

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1	SEPTEMBER 16, 2016	DESIGNED: JAK
2		CHECKED: JAK

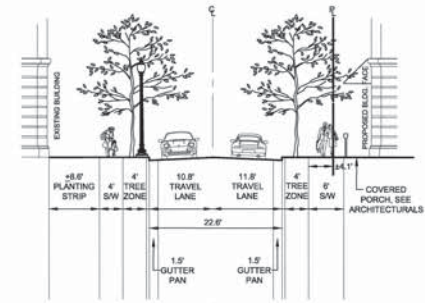
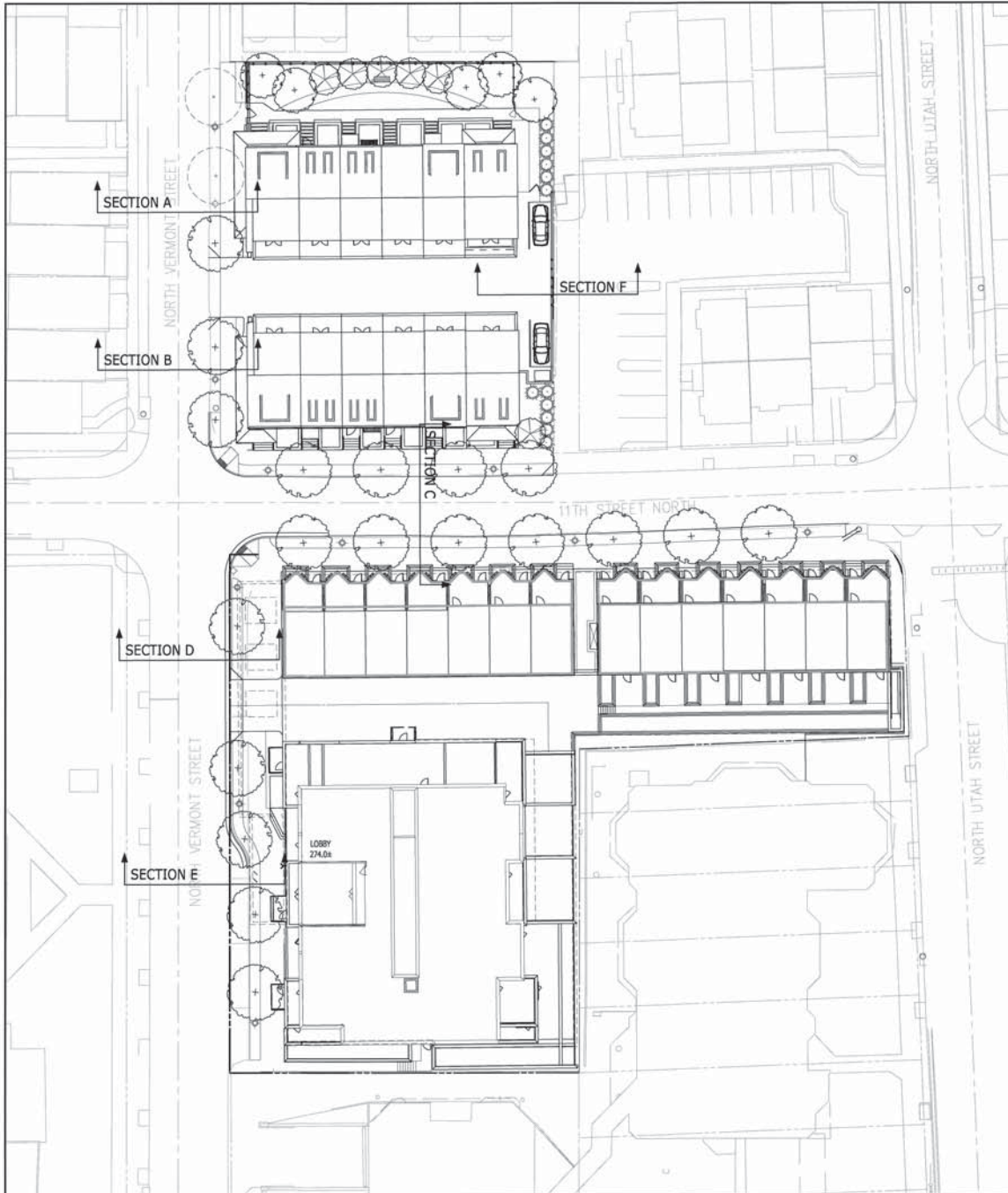
PROJECT/FILE NO.
V7845B

ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES

STRIPING PLAN

11th & VERMONT
 4.1 SUBMISSION
 Arlington County, Virginia

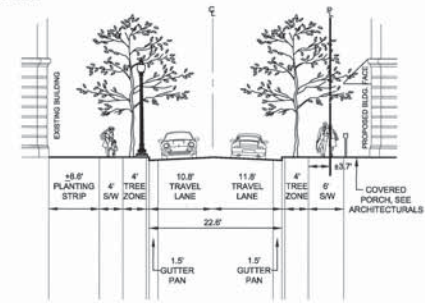
SCALE: 1" = 20' SHEET: C-12



SECTION A
NORTH VERMONT STREET (LOOKING NORTH)

NOTES:

- EXISTING CURBS AND LANES ON 11TH STREET AND NORTH VERMONT STREET (NORTH OF 11TH) ARE TO REMAIN UNCHANGED, WITH ONLY MINOR ADJUSTMENTS TO THE CORNER CURB RADII.
- CURB ON THE EAST SIDE OF NORTH VERMONT STREET (SOUTH OF 11TH) REMAINS, UNTIL MID-BLOCK WHEN IT NARROWS TO IMPROVE ALIGNMENT WITH NORTH VERMONT STREET NORTH OF 11TH ST.

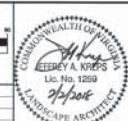
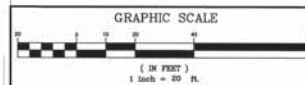


SECTION B
NORTH VERMONT STREET (LOOKING NORTH)

NORTH (VCS 83)



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VIA REVISIONS

NO.	DATE	DESCRIPTION
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4	01/16/18	4.1 RESUBMISSION
3	08/25/17	FORMAL 4.1 SUBMISSION
2	07/07/17	DIGITAL 4.1 RE-SUBMISSION
1	12/21/16	DIGITAL 4.1 SUBMISSION

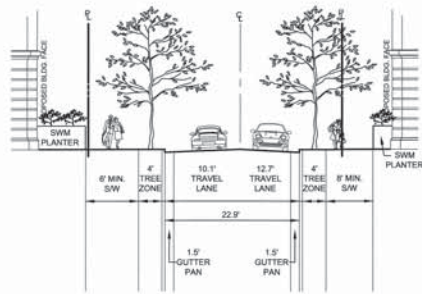
COUNTY REVISIONS
SUBMITTED DATE: DESIGNED:JAK PROJECT/FILE NO. SEPTEMBER 16, 2016 CHECKED:JAK WV7845B

ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

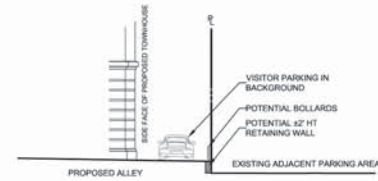
STREET SECTIONS

11th & VERMONT
4.1 SUBMISSION
Arlington County, Virginia

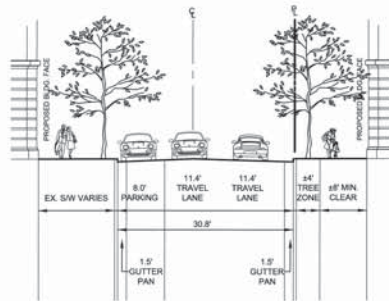
SCALE: 1" = 20' SHEET: C-13



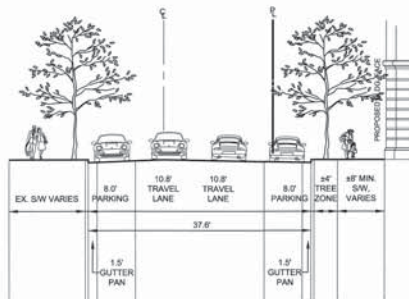
SECTION C
11TH STREET NORTH (LOOKING EAST)



SECTION F
SECTION THROUGH EAST END OF NORTH BLOCK ALLEY



SECTION D
NORTH VERMONT STREET (LOOKING NORTH)

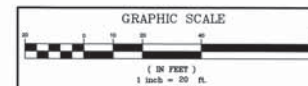


SECTION E
NORTH VERMONT STREET (LOOKING NORTH)



VIFA
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VIFA REVISIONS

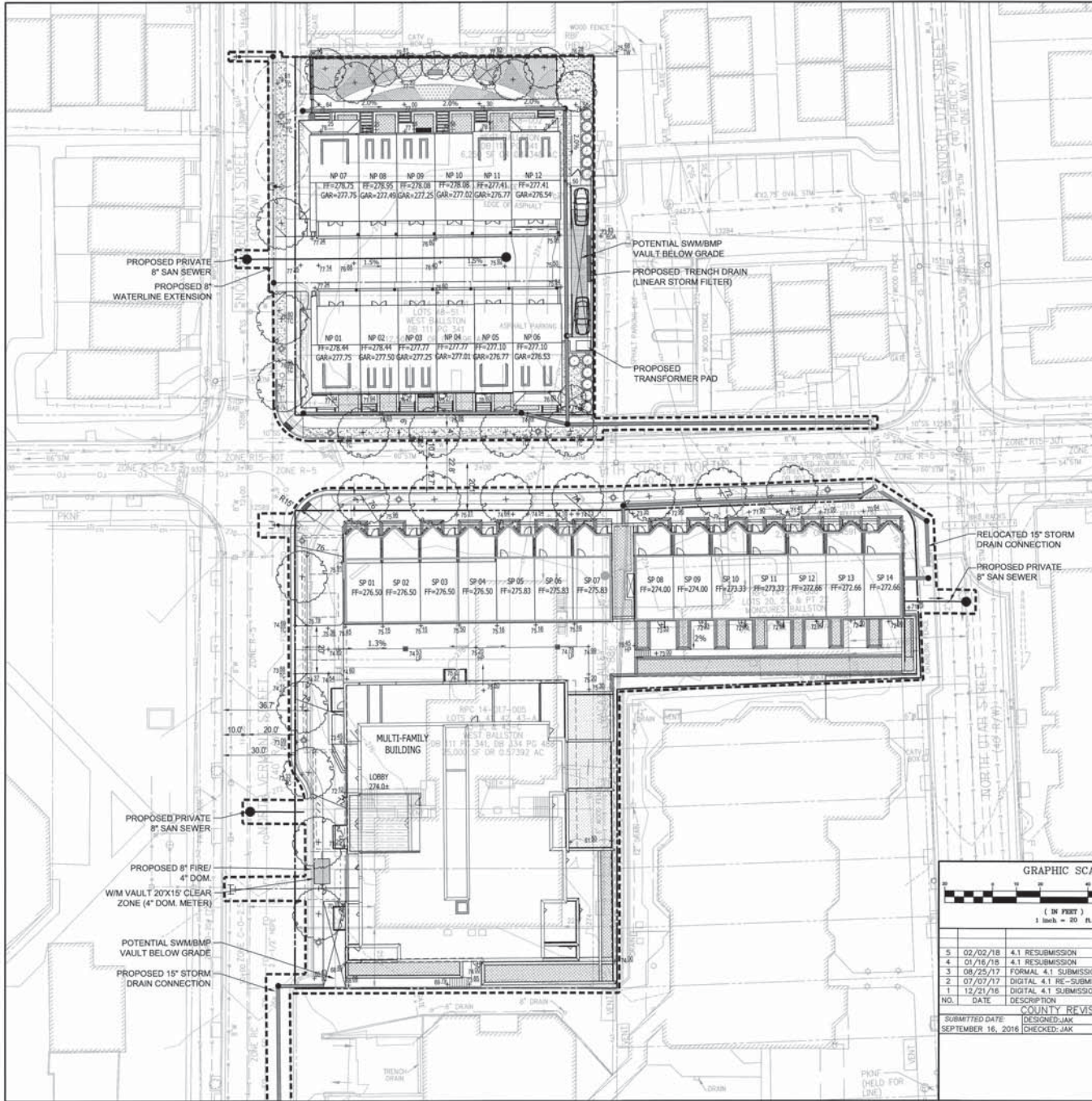
NO.	DATE	DESCRIPTION
5	02/02/18	4.1 RESUBMISSION
4	01/16/18	4.1 RESUBMISSION
3	08/25/17	FORMAL 4.1 SUBMISSION
2	07/07/17	DIGITAL 4.1 RE-SUBMISSION
1	12/21/16	DIGITAL 4.1 SUBMISSION

COUNTY REVISIONS	
SUBMITTED DATE	PROJECT/FILE NO.
SEPTEMBER 16, 2016	WV7845B

ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

STREET SECTIONS
11th & VERMONT
4.1 SUBMISSION
Arlington County, Virginia

SCALE: 1" = 20' SHEET: C-13A



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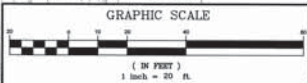
VIKA VIRGINIA, LLC
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ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES

UTILITY AND GRADING PLAN

11th & VERMONT
 4.1 SUBMISSION
 Arlington County, Virginia

SCALE: 1" = 20' SHEET: C-14

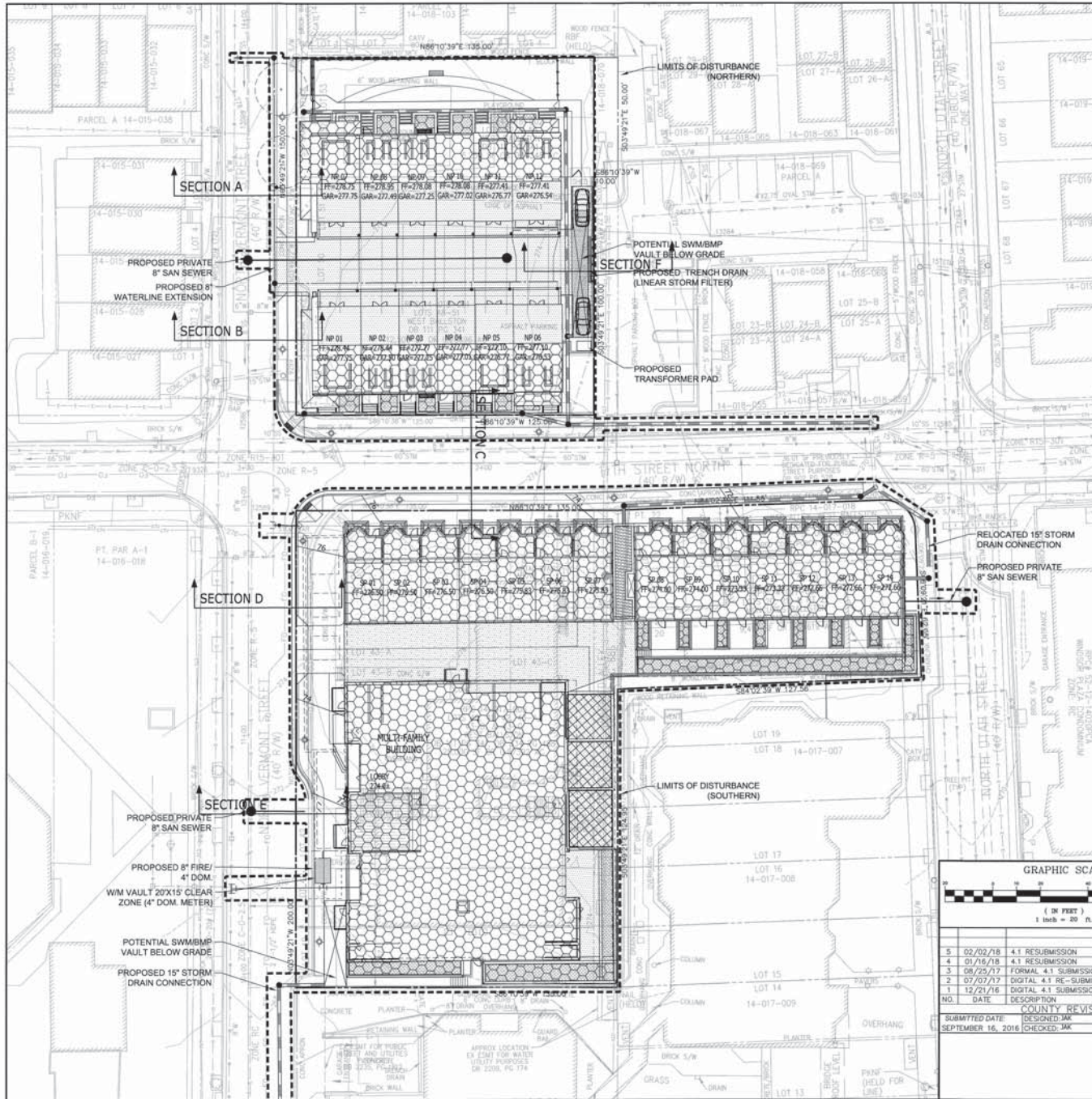


VIKA REVISIONS




NO.	DATE	DESCRIPTION
5	02/02/18	4.1 RESUBMISSION
4	01/16/18	4.1 RESUBMISSION
3	08/25/17	FORMAL 4.1 SUBMISSION
2	07/07/17	DIGITAL 4.1 RE-SUBMISSION
1	12/21/16	DIGITAL 4.1 SUBMISSION

COUNTY REVISIONS		
SUBMITTED DATE	DESIGNED/JAK	PROJECT/FILE NO.
SEPTEMBER 16, 2016	CHECKED/JAK	VV78458

VER 10.24



LEGEND

-  AREA TO SWM PLANTERS
-  AREA TO STRUCTURAL BMP
-  AREA OF GREEN ROOFS

SITE STORMWATER MANAGEMENT NARRATIVE

THE SUBJECT DEVELOPMENT CONSISTS OF TWO DRAINAGE AREAS. THE NORTHERN SITE AREA IS 0.4407 ACRES AND CONSISTS OF AN EXISTING PARKING LOT AND PLAYGROUND AND IS APPROXIMATELY 60.0% IMPERVIOUS WITH NO EVIDENCE OF EXISTING STORMWATER MANAGEMENT. THE SOUTHERN SITE AREA IS APPROXIMATELY 0.8448 ACRES AND CONSISTS OF AN EXISTING CHURCH AND ASSOCIATED PARKING AND IS APPROXIMATELY 50.8% IMPERVIOUS WITH NO EVIDENCE OF EXISTING STORMWATER MANAGEMENT. THE PROPOSED STORMWATER BOUNDARY ENCOMPASSES THE SITE AREA AND ADDITIONAL AREAS OF DISTURBANCE.

THE PROPOSED REDEVELOPMENT CONSISTS OF THE FOLLOWING: NORTHERN AREA: 22 SINGLE FAMILY ATTACHED HOMES WITH ONE CAR GARAGES AND A PRIVATE DRIVE AND WILL BE APPROXIMATELY 80.0% IMPERVIOUS AREA. SOUTHERN AREA: 7-STORY RESIDENTIAL BUILDING, 14 TOWNHOUSES/CONDOMINIUMS, DRIVE AISLE, LANDSCAPING ATOP A TWO STORY BELOW GRADE PARKING GARAGE AND IS APPROXIMATELY 95% IMPERVIOUS.

FOR PURPOSES OF STORMWATER COMPLIANCE, EACH AREA IS BEING TREATED AS TWO SEPARATE DEVELOPMENTS. STORMWATER COMPLIANCE FOR EACH DEVELOPMENT WILL BE PROVIDED IN ACCORDANCE WITH THE NEW 2014 VIRGINIA STATE REGULATIONS FOR REDEVELOPMENT. AS SHOWN ON SHEETS C-15 AND C-16 THE REQUIRED PHOSPHORUS REMOVAL RATE IS 0.2446 LBS/YR. FOR THE NORTHERN SITE AREA AND 0.799 LBS/YR FOR THE SOUTHERN SITE AREA AND WILL BE PROVIDED BY THE STORMWATER PRACTICES INTEGRATED INTO EACH DEVELOPMENT. STORMWATER PRACTICES INCLUDE STORMWATER PLANTERS, STRUCTURAL BMP AND GREEN ROOFS.

THE PROPOSED SITE IMPERVIOUSNESS FOR EACH SITE IS GREATER THAN THE EXISTING IMPERVIOUSNESS. THE PROPOSED SWM DETENTION VAULTS WILL PROVIDE ANY ADDITIONAL DETENTION TO SUPPLEMENT THE RUNOFF REDUCTION STRATEGIES PROVIDED TO MEET DETENTION REQUIREMENTS. RUNOFF REDUCTION STRATEGIES HAVE BEEN PROVIDED TO THE MAXIMUM EXTENT POSSIBLE, BUT ARE LIMITED DUE TO SITE CONSTRAINTS.

THE USE OF STRUCTURAL STORMWATER TREATMENT SYSTEMS ON THE SUBJECT DEVELOPMENTS IS IN ACCORDANCE WITH THE SEPTEMBER 15, 2015 MEMORANDUM.

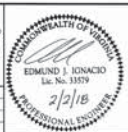
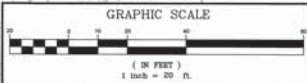
THE FINAL SIZES AND LOCATIONS OF THE PROPOSED SWM/BMP FACILITIES MAY BE ADJUSTED WITH THE FINAL ENGINEERED SITE PLAN. ADDITIONAL SWM/BMP FACILITIES MAY BE PROVIDED AT FINAL ENGINEERED SITE PLAN AS NECESSARY TO COMPLY WITH 2014 SWM REGULATIONS.



V I K A

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ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES

STORMWATER PLAN AND NARRATIVE

11th & VERMONT
4.1 SUBMISSION
 Arlington County, Virginia

COUNTY REVISIONS		
NO.	DATE	DESCRIPTION
5	02/02/18	4.1 RESUBMISSION
4	01/16/18	4.1 RESUBMISSION
3	08/25/17	FORMAL 4.1 SUBMISSION
2	07/07/17	DIGITAL 4.1 RE-SUBMISSION
1	12/21/16	DIGITAL 4.1 SUBMISSION

SUBMITTED DATE: SEPTEMBER 16, 2016	DESIGNED: JAK	CHECKED: JAK	PROJECT/FILE NO: VV7845B
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SCALE: 1" = 20'

SHEET: C-15

VER: 10.24

NORTHERN AREA SITE INFORMATION

DCD Virginia Runoff Reduction Method for Development Compliance Spreadsheet - Version 3.0

2013 BMP Standards and Specifications
 Project Name: **11TH AND VERMONT**
 Date: **2/2/2018**
 Linear Development Project?

CLEAR ALL
 Runoff coefficients
 Land cover values
 Runoff results

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area (acres) → **0.1322**
 Maximum reduction required (acres) **0.225**
 The site's net increase in impervious cover (acres) **0.0561**
 Post-Development TP Load Reduction (lb/yr) **0.2448**

Check:
 BMP Design Specifications List: 2013 Draft S&S
 Linear project?
 Land cover areas entered correctly?
 Total disturbed area entered?

Pre-Development Land Cover (acres)

Pre-Development Land Cover (acres)	A	B	C	D	Totals
Forest/Open Space (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Grass/Open Space (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Managed Turf Cover (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Impervious Cover (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Water Bodies (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Other (acres)	0.0000	0.0000	0.0000	0.0000	0.0000

Post-Development Land Cover (acres)

Post-Development Land Cover (acres)	A	B	C	D	Totals
Forest/Open Space (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Grass/Open Space (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Managed Turf Cover (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Impervious Cover (acres)	0.0561	0.0000	0.0000	0.0000	0.0561
Water Bodies (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Other (acres)	0.0000	0.0000	0.0000	0.0000	0.0000

Runoff Coefficients (ft)

Runoff Coefficients (ft)	A	B	C	D	Totals
Forest/Open Space (ft)	0.00	0.00	0.00	0.00	0.00
Grass/Open Space (ft)	0.00	0.00	0.00	0.00	0.00
Managed Turf (ft)	0.00	0.00	0.00	0.00	0.00
Impervious Cover (ft)	0.85	0.85	0.85	0.85	0.85
Water Bodies (ft)	0.00	0.00	0.00	0.00	0.00
Other (ft)	0.00	0.00	0.00	0.00	0.00

LAND COVER SUMMARY - PRE-DEVELOPMENT

Pre-Development	Land	Adjusted*
Forest/Open Space (acres)	0.0000	0.0000
Grass/Open Space (acres)	0.0000	0.0000
Managed Turf Cover (acres)	0.0000	0.0000
Impervious Cover (acres)	0.0000	0.0000
Water Bodies (acres)	0.0000	0.0000
Other (acres)	0.0000	0.0000
Total Site Area (acres)	0.0000	0.0000

LAND COVER SUMMARY - POST DEVELOPMENT

Post-Development	Land	Adjusted*
Forest/Open Space (acres)	0.0000	0.0000
Grass/Open Space (acres)	0.0000	0.0000
Managed Turf Cover (acres)	0.0000	0.0000
Impervious Cover (acres)	0.0561	0.0561
Water Bodies (acres)	0.0000	0.0000
Other (acres)	0.0000	0.0000
Total Site Area (acres)	0.0561	0.0561

Treatment Volume and Nutrient Load

Pre-Development Treatment Volume (cfs)	0.0000	0.0000
Pre-Development Treatment Volume (cfs)	1,382,182.2	1,374,087.5
Pre-Development TP Load (lb/yr)	0.8854	0.7908
Pre-Development TN Load (lb/yr)	1.0000	1.0000
TP Load Reduction Required for Post-Development (lb/yr)	0.6406	0.6406

Treatment Volume and Nutrient Load

Post-Development Treatment Volume (cfs)	0.0000	0.0000
Post-Development Treatment Volume (cfs)	1,382,182.2	1,374,087.5
Post-Development TP Load (lb/yr)	0.2448	0.2448
Post-Development TN Load (lb/yr)	1.0000	1.0000
TP Load Reduction Required for Post-Development (lb/yr)	0.6406	0.6406

SOUTHERN AREA SITE INFORMATION

DCD Virginia Runoff Reduction Method for Development Compliance Spreadsheet - Version 3.0

2013 BMP Standards and Specifications
 Project Name: **11TH AND VERMONT**
 Date: **2/2/2018**
 Linear Development Project?

CLEAR ALL
 Runoff coefficients
 Land cover values
 Runoff results

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area (acres) → **0.2968**
 Maximum reduction required (acres) **0.225**
 The site's net increase in impervious cover (acres) **0.2968**
 Post-Development TP Load Reduction (lb/yr) **0.7998**

Check:
 BMP Design Specifications List: 2013 Draft S&S
 Linear project?
 Land cover areas entered correctly?
 Total disturbed area entered?

Pre-Development Land Cover (acres)

Pre-Development Land Cover (acres)	A	B	C	D	Totals
Forest/Open Space (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Grass/Open Space (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Managed Turf Cover (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Impervious Cover (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Water Bodies (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Other (acres)	0.0000	0.0000	0.0000	0.0000	0.0000

Post-Development Land Cover (acres)

Post-Development Land Cover (acres)	A	B	C	D	Totals
Forest/Open Space (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Grass/Open Space (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Managed Turf Cover (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Impervious Cover (acres)	0.2968	0.0000	0.0000	0.0000	0.2968
Water Bodies (acres)	0.0000	0.0000	0.0000	0.0000	0.0000
Other (acres)	0.0000	0.0000	0.0000	0.0000	0.0000

Runoff Coefficients (ft)

Runoff Coefficients (ft)	A	B	C	D	Totals
Forest/Open Space (ft)	0.00	0.00	0.00	0.00	0.00
Grass/Open Space (ft)	0.00	0.00	0.00	0.00	0.00
Managed Turf (ft)	0.00	0.00	0.00	0.00	0.00
Impervious Cover (ft)	0.85	0.85	0.85	0.85	0.85
Water Bodies (ft)	0.00	0.00	0.00	0.00	0.00
Other (ft)	0.00	0.00	0.00	0.00	0.00

LAND COVER SUMMARY - PRE-DEVELOPMENT

Pre-Development	Land	Adjusted*
Forest/Open Space (acres)	0.0000	0.0000
Grass/Open Space (acres)	0.0000	0.0000
Managed Turf Cover (acres)	0.0000	0.0000
Impervious Cover (acres)	0.0000	0.0000
Water Bodies (acres)	0.0000	0.0000
Other (acres)	0.0000	0.0000
Total Site Area (acres)	0.0000	0.0000

LAND COVER SUMMARY - POST DEVELOPMENT

Post-Development	Land	Adjusted*
Forest/Open Space (acres)	0.0000	0.0000
Grass/Open Space (acres)	0.0000	0.0000
Managed Turf Cover (acres)	0.0000	0.0000
Impervious Cover (acres)	0.2968	0.2968
Water Bodies (acres)	0.0000	0.0000
Other (acres)	0.0000	0.0000
Total Site Area (acres)	0.2968	0.2968

Treatment Volume and Nutrient Load

Pre-Development Treatment Volume (cfs)	0.0000	0.0000
Pre-Development Treatment Volume (cfs)	1,382,182.2	1,374,087.5
Pre-Development TP Load (lb/yr)	1.1473	1.1443
Pre-Development TN Load (lb/yr)	1.0000	1.0000
TP Load Reduction Required for Post-Development (lb/yr)	0.3475	0.3475

Treatment Volume and Nutrient Load

Post-Development Treatment Volume (cfs)	0.0000	0.0000
Post-Development Treatment Volume (cfs)	1,382,182.2	1,374,087.5
Post-Development TP Load (lb/yr)	0.3498	0.3498
Post-Development TN Load (lb/yr)	1.0000	1.0000
TP Load Reduction Required for Post-Development (lb/yr)	0.7998	0.7998

*Adjusted Land Cover Summary
 An Adjusted Land Cover Summary is calculated by multiplying the land cover area by the runoff coefficient for each land cover type.
 All land cover types are assumed to be pervious unless otherwise specified in the BMP Design Specifications List.
 Values in parentheses indicate values that were inputted into the spreadsheet.

*Adjusted Land Cover Summary
 An Adjusted Land Cover Summary is calculated by multiplying the land cover area by the runoff coefficient for each land cover type.
 All land cover types are assumed to be pervious unless otherwise specified in the BMP Design Specifications List.
 Values in parentheses indicate values that were inputted into the spreadsheet.

Post-Development Requirement for Site Area
 TP Load Reduction Required (lb/yr) **0.2448**

Nitrogen Loads (Informational Purposes Only)
 Pre-Development TN Load (lb/yr) **1.0000**
 Post-Development TN Load (lb/yr) **0.2552**

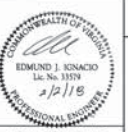
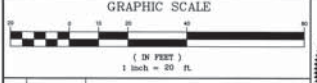
Post-Development Requirement for Site Area
 TP Load Reduction Required (lb/yr) **0.7998**

Nitrogen Loads (Informational Purposes Only)
 Pre-Development TN Load (lb/yr) **1.0000**
 Post-Development TN Load (lb/yr) **0.2002**



NORTH (VCS 83)

VIKA
 ENGINEERS ■ PLANNERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS ■ 3D LASER SCANNING
 VIKA VIRGINIA, LLC
 8180 GREENBORO DRIVE, SUITE 200 ■ FRYSON, VIRGINIA 22102
 (703) 442-7800 ■ FAX (703) 761-2787
 WWW.VIKA.COM



ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES
STORMWATER CALCULATIONS & DETAILS
11th & VERMONT
4.1 SUBMISSION
 Arlington County, Virginia

NO.	DATE	DESCRIPTION
5	02/02/18	4.1 RESUBMISSION
4	01/16/18	4.1 RESUBMISSION
3	08/25/17	FORMAL 4.1 SUBMISSION
2	07/07/17	DIGITAL 4.1 RESUBMISSION
1	12/21/16	DIGITAL 4.1 SUBMISSION

COUNTY REVISIONS
 SUBMITTED DATE: SEPTEMBER 16, 2016
 DESIGNED: JAK
 CHECKED: JAK
 PROJECT/FILE NO.: VV7845B

SCALE: 1" = 20' SHEET: C-16

NORTHERN AREA

Drainage Area A

Drainage Area A Land Cover (acres)	A Soils	B Soils	C Soils	D Soils	Total	Land Cover Pct
Forest/Open Space (acres)					0.0000	0.0000
Managed Turf (acres)					0.1037	0.2500
Impervious Cover (acres)					0.4157	0.9500
Total					0.5194	

CLEAR BMP AREAS

Total Phosphorus Available for Removal in D.A. A (lb/yr) **0.9597**
 Post Development Treatment Volume in D.A. A (ft³) **1,527.4677**

Stormwater Best Management Practices (RR = Runoff Reduction)

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft ³)	Runoff Reduction (ft ³)	Remaining Runoff Volume (ft ³)	Total BMP Treatment Volume (ft ³)	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
1. Stormwater Detention (RR)													
2. To Stormwater Ponds (Other Detention (Open #), Appendix A)	40	0.0000	0.0000	137.9400	200.0000	144.0500	200.0000	20	0.0000	0.2500	0.1750	0.0000	
3. To Stormwater Ponds (Detention (Closed #), Appendix A)													
14. Manufacturer Treatment Device (Filtering)	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.2500	0.0000	0.2500	

Stormwater Best Management Practices (RR = Runoff Reduction)

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft ³)	Runoff Reduction (ft ³)	Remaining Runoff Volume (ft ³)	Total BMP Treatment Volume (ft ³)	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
2. Stormwater Detention (RR)													
2. To Stormwater Ponds (Other Detention (Open #), Appendix A)	40	0.0000	0.0000	137.9400	200.0000	144.0500	200.0000	20	0.0000	0.2500	0.1750	0.0000	
14. Manufacturer Treatment Device (Filtering)	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.2500	0.0000	0.2500	

Site Results (Water Quality Compliance)

Area Checks	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
FOREST/OPEN SPACE (ac)	0.0000	0.0000	0.0000	0.0000	0.0000	OK
IMPERVIOUS COVER (ac)	0.4157	0.0000	0.0000	0.0000	0.0000	OK
IMPERVIOUS COVER TREATED (ac)	0.2210	0.0000	0.0000	0.0000	0.0000	OK
MANAGED TURF AREA (ac)	0.1035	0.0000	0.0000	0.0000	0.0000	OK
MANAGED TURF AREA TREATED (ac)	0.0000	0.0000	0.0000	0.0000	0.0000	OK
AREA CHECK	OK	OK	OK	OK	OK	

Site Treatment Volume (ft³) **1,527.4677**

Runoff Reduction Volume and TP By Drainage Area

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft ³)	137.9400	0.0000	0.0000	0.0000	0.0000	137.9400
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	0.9597	0.0000	0.0000	0.0000	0.0000	0.9597
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.2500	0.0000	0.0000	0.0000	0.0000	0.2500
TP LOAD REMAINING (lb/yr)	0.7097	0.0000	0.0000	0.0000	0.0000	0.7097
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.9509	0.0000	0.0000	0.0000	0.0000	0.9509

Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	0.9597
TP LOAD REDUCTION REQUIRED (lb/yr)	0.2446
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.2500
TP LOAD REMAINING (lb/yr)	0.7097
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.0000 **

** TARGET TP REDUCTION EXCEEDED BY 0.0054 LB/YEAR **

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	6.8856
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.9509
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	5.8747

SOUTHERN AREA

Drainage Area A

Drainage Area A Land Cover (acres)	A Soils	B Soils	C Soils	D Soils	Total	Land Cover Pct
Forest/Open Space (acres)					0.0000	0.0000
Managed Turf (acres)					0.0257	0.2500
Impervious Cover (acres)					0.6823	0.9500
Total					0.7080	

CLEAR BMP AREAS

Total Phosphorus Available for Removal in D.A. A (lb/yr) **0.4920**
 Post Development Treatment Volume in D.A. A (ft³) **783.9853**

Stormwater Best Management Practices (RR = Runoff Reduction)

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft ³)	Runoff Reduction (ft ³)	Remaining Runoff Volume (ft ³)	Total BMP Treatment Volume (ft ³)	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
1. Stormwater Detention (RR)													
2. To Stormwater Ponds (Other Detention (Open #), Appendix A)	40	0.0000	0.0000	137.9400	200.0000	144.0500	200.0000	20	0.0000	0.2500	0.1750	0.0000	
14. Manufacturer Treatment Device (Filtering)	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.2500	0.0000	0.2500	

Drainage Area B

Drainage Area B Land Cover (acres)	A Soils	B Soils	C Soils	D Soils	Total	Land Cover Pct
Forest/Open Space (acres)					0.0000	0.0000
Managed Turf (acres)					0.0257	0.2500
Impervious Cover (acres)					0.6823	0.9500
Total					0.7080	

CLEAR BMP AREAS

Total Phosphorus Available for Removal in D.A. B (lb/yr) **1.4882**
 Post Development Treatment Volume in D.A. B (ft³) **2,368.6476**

Stormwater Best Management Practices (RR = Runoff Reduction)

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft ³)	Runoff Reduction (ft ³)	Remaining Runoff Volume (ft ³)	Total BMP Treatment Volume (ft ³)	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
1. Stormwater Detention (RR)													
2. To Stormwater Ponds (Other Detention (Open #), Appendix A)	40	0.0000	0.0000	137.9400	200.0000	144.0500	200.0000	20	0.0000	0.2500	0.1750	0.0000	
14. Manufacturer Treatment Device (Filtering)	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0.0000	0.2500	0.0000	0.2500	

Site Results (Water Quality Compliance)

Area Checks	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
FOREST/OPEN SPACE (ac)	0.0000	0.0000	0.0000	0.0000	0.0000	OK
IMPERVIOUS COVER (ac)	0.2225	0.6801	0.0000	0.0000	0.0000	OK
IMPERVIOUS COVER TREATED (ac)	0.2197	0.3449	0.0000	0.0000	0.0000	OK
MANAGED TURF AREA (ac)	0.0184	0.0257	0.0000	0.0000	0.0000	OK
MANAGED TURF AREA TREATED (ac)	0.0000	0.0000	0.0000	0.0000	0.0000	OK
AREA CHECK	OK	OK	OK	OK	OK	

Site Treatment Volume (ft³) **3,152.9817**

Runoff Reduction Volume and TP By Drainage Area

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft ³)	303.0542	398.2569	0.0000	0.0000	0.0000	701.3111
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	0.4926	1.4882	0.0000	0.0000	0.0000	1.9808
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.2615	0.5403	0.0000	0.0000	0.0000	0.8018
TP LOAD REMAINING (lb/yr)	0.2311	0.9479	0.0000	0.0000	0.0000	1.1790
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	2.1770	2.7518	0.0000	0.0000	0.0000	4.9287

Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	1.9810
TP LOAD REDUCTION REQUIRED (lb/yr)	0.7998
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.8018
TP LOAD REMAINING (lb/yr)	1.1792
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.0000 **

**No further TP load reduction required

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	14.1718
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	4.9287
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	9.2431



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 (703) 442-7800 ■ FAX (703) 781-2787
 WWW.VIKA.COM

GRAPHIC SCALE
 (IN FEET)
 1 inch = 20 ft

EDMUND J. KONACIO
 Lic. No. 33579
 PROFESSIONAL SURVEYOR

V.I.K.A. REVISIONS

NO.	DATE	DESCRIPTION
5	02/02/18	4.1 RESUBMISSION
4	01/16/18	4.1 RESUBMISSION
3	08/25/17	FORMAL 4.1 SUBMISSION
2	07/07/17	DIGITAL 4.1 RE-SUBMISSION
1	12/21/16	DIGITAL 4.1 SUBMISSION

COUNTY REVISIONS

SUBMITTED DATE	DESIGNED-JAK	PROJECT/FILE NO.
SEPTEMBER 16, 2016	CHECKED-JAK	VV7845B

VER. 10.24

ARLINGTON COUNTY, VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL SERVICES

STORMWATER CALCULATIONS & DETAILS

11th & VERMONT
 4.1 SUBMISSION
 Arlington County, Virginia

SCALE: 1" = 20'
 SHEET: C-17