

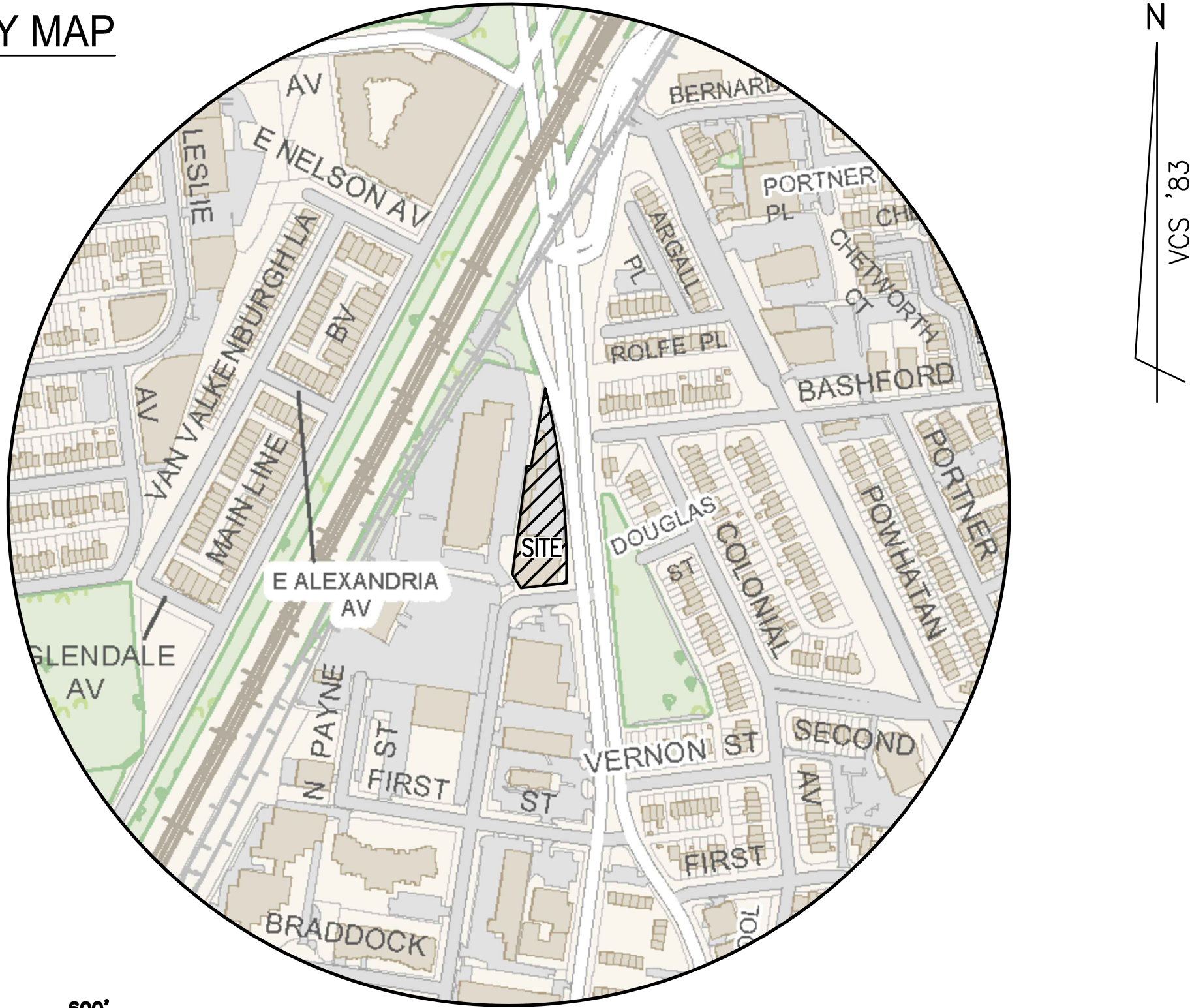
PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT
1200 NORTH HENRY STREET

CITY OF ALEXANDRIA, VIRGINIA

AREA TABULATIONS

TOTAL SITE AREA = 0.8017 AC 34,921 SF
TOTAL AREA OF TAX PARCELS = 0.8017 AC 34,921 SF
TOTAL EXISTING IMPERVIOUS AREA = 0.7604 AC 33,122 SF
TOTAL PROPOSED IMPERVIOUS AREA = 0.7517 AC 32,746 SF
TOTAL DISTURBED AREA = 1.28 AC 55,756 SF

VICINITY MAP



0' 300' 600'

TAX PARCEL NUMBER: 044.03-05-01

ZONING TABULATIONS

- 1. ZONE OF SITE: EXISTING: OCM(50) PROPOSED: CRMU-H
2. USE: EXISTING: INDUSTRIAL FLEX PROPOSED: MIXED USE RESIDENTIAL/RETAIL/DAY CARE
3. TOTAL SITE AREA: 34,921 SF OR 0.8017 AC MINIMUM LOT AREA: N/A
4. OPEN SPACE REQUIRED: 40%
... 11. YARDS: REQUIRED: N/A PROPOSED: YARD MINIMUM NORTH N/A, EAST 0.0', SOUTH 2.5', WEST 3.3

Table with columns: RESIDENTIAL, GROSS, NET. Values: 111,568 SF, 17,685 SF, 11,605 SF.

Table with columns: PERMITTED, BONUS, PROPOSED. Values: 2.5 WITH SUP, 30% PER SECTION 7-700 FOR RESIDENTIAL, 113,493 / 34,921 = 3.25

ENVIRONMENTAL SITE ASSESSMENT

- 1. THERE ARE NO TIDAL WETLANDS, TIDAL SHORES, TRIBUTARY STREAMS, FLOODPLAINS, CONNECTED TIDAL WETLANDS, ISOLATED WETLANDS, OR BUFFER AREAS ASSOCIATED WITH SHORES, STREAMS OR WETLANDS LOCATED ON THIS SITE.
2. THE CITY OF ALEXANDRIA DEPARTMENT OF TRANSPORTATION AND ENVIRONMENTAL SERVICES, DIVISION OF ENVIRONMENTAL QUALITY MUST BE NOTIFIED IF UNUSUAL OR UNANTICIPATED CONTAMINATION OR UNDERGROUND STORAGE TANKS, DRUMS AND CONTAINERS ARE ENCOUNTERED AT THE SITE.
... 4. ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH THE ALEXANDRIA NOISE CONTROL CODE TITLE 11, CHAPTER 5, WHICH PERMITS CONSTRUCTION ACTIVITIES TO OCCUR BETWEEN THE FOLLOWING HOURS:

ENVIRONMENTAL PERMITS NOTES

ALL REQUIRED PERMITS FROM VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY, ENVIRONMENTAL PROTECTION AGENCY, ARMY CORPS OF ENGINEERS, VIRGINIA MARINE RESOURCES MUST BE IN PLACE FOR ALL PROJECT CONSTRUCTION AND MITIGATION WORK PRIOR TO RELEASE OF THE FINAL SITE PLAN.

THIS PROJECT PROPOSES CONSTRUCTION ACTIVITIES WHICH DISTURB GREATER THAN 1 ACRE, THEREFORE A VPDES PERMIT IS REQUIRED.

ARCHAEOLOGY NOTES

THE APPLICANT/DEVELOPER SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVIES, CISTERNS, ETC.) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERED DURING DEVELOPMENT.

THE APPLICANT SHALL NOT ALLOW ANY METAL DETECTION AND/OR ARTIFACT COLLECTION TO BE CONDUCTED ON THE PROPERTY, UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY.

ALL REQUIRED ARCHAEOLOGICAL PRESERVATION MEASURES SHALL BE COMPLETED IN COMPLIANCE WITH SECTION 11-411 OF THE ZONING ORDINANCE.

GENERAL NOTES

- 1. PRIOR TO THE APPLICATION FOR NEW CERTIFICATE OF OCCUPANCY, THE APPLICANT SHALL SUBMIT A BUILDING PERMIT FOR A CHANGE OF USE. DRAWINGS PREPARED BY A LICENSED ARCHITECT OR PROFESSIONAL ENGINEER SHALL ACCOMPANY THE PERMIT APPLICATION.
2. NEW CONSTRUCTION MUST COMPLY WITH THE CURRENT EDITION OF THE UNIFORM STATEWIDE BUILDING CODE (USBC).
... 11. THIS SITE DOES NOT CONTAIN AREAS PREVIOUSLY MAPPED AS MARINE CLAYS.

PROJECT DESCRIPTION NARRATIVE

THE APPLICANT PROPOSES TO REDEVELOP THE SITE WITH A MIXED USE BUILDING THAT INCLUDES 115 DWELLING UNITS, 17,000 SQUARE FEET OF RETAIL, AND A 10,000 SQUARE FOOT DAY CARE CENTER.

REQUESTED APPLICATIONS AND MODIFICATIONS:

- MASTER PLAN AMENDMENT
• REZONING FROM OCM(50) TO CRMU-H
• DSUP FOR MULTIFAMILY RESIDENTIAL BUILDING WITH DAY CARE FACILITY AND GROUND FLOOR RETAIL
... • ENCROACHMENT OF CANOPY INTO THE RIGHT-OF-WAY

OWNER/DEVELOPER

OWNER: 1200 N HENRY, LLC
DEVELOPER: AVANTI HOLDINGS GROUP, LLC
1605 KING STREET, SUITE 3
ALEXANDRIA, VA 22314
INSTRUMENT #: 160015497
CONTACT: TEDDY KIM

SHEET INDEX:

Table listing sheet contents: COVER SHEET, CONTEXTUAL PLAN, EXISTING CONDITIONS, PRELIMINARY SITE PLAN, SITE DIMENSION PLAN, STORMWATER MANAGEMENT PLAN, ON-SITE BMP DESIGN AND DETAILS, OFF-SITE BMP DESIGN AND DETAILS, STORMWATER QUALITY COMPUTATIONS, STORMWATER OUTFALL ANALYSIS, SANITARY OUTFALL ANALYSIS, SIGHT DISTANCE PLAN AND PROFILE, TURNING MOVEMENTS, BUILDING PLANS, SITE DIMENSION PLAN, OVERALL LANDSCAPE PLAN ILLUSTRATIVE, etc.

ARCHITECT: DAVIS, CARTER, SCOTT, LTD
LANDSCAPE ARCHITECT: PARKER RODRIGUEZ, INC.
101 N. UNION STREET SUITE 320
ALEXANDRIA, VA 22314
(703) 558-9275
CONTACT: JASNA BUJELIC
CONTACT: TRINI RODRIGUEZ

COMPLETE STREETS INFORMATION:

Table with columns: CROSSWALKS (NUMBER), STANDARD, HIGH VISIBILITY, CURB RAMPS, SIDEWALKS (LF), BICYCLE PARKING (NUMBER SPACES), PUBLIC/VISITOR, PRIVATE/GARAGE, BICYCLE PATHS (LF), PEDESTRIAN SIGNALS. Values: 1, 1, N/A, 2, N/A, 58, 14, 44, N/A, N/A.

BUILDING CODE ANALYSIS:

Table with columns: USE, USE GROUP, TYPE OF CONSTRUCTION, NUMBER OF STORIES, FLOOR AREA (GROSS), FLOOR AREA (NET), BUILDING FOOT PRINT AREA, BUILDING HEIGHT, FIRE SUPPRESSION/DETECTION. Values: MIXED USE (RES., GARAGE, RETAIL, DAYCARE), R-2, S-2, M, A, B, E, IIIA OVER IA, 7 STORIES, 139,635 SF, 123,493 SF, 26,064 SF, 85.0 FT, FULLY SPRINKLERED, NFPA 13.

RCF FIELDS & ASSOCIATES, INC. ENGINEERING • LAND SURVEYING • PLANNING
730 S. Washington Street
Alexandria, Virginia 22314
PROJ. MANAGER: ANDREA SPRUCH
EMAIL: ASPRUCH@RCFASSOC.COM
DATE: MAY 2018
REV.
SCALE: AS NOTED



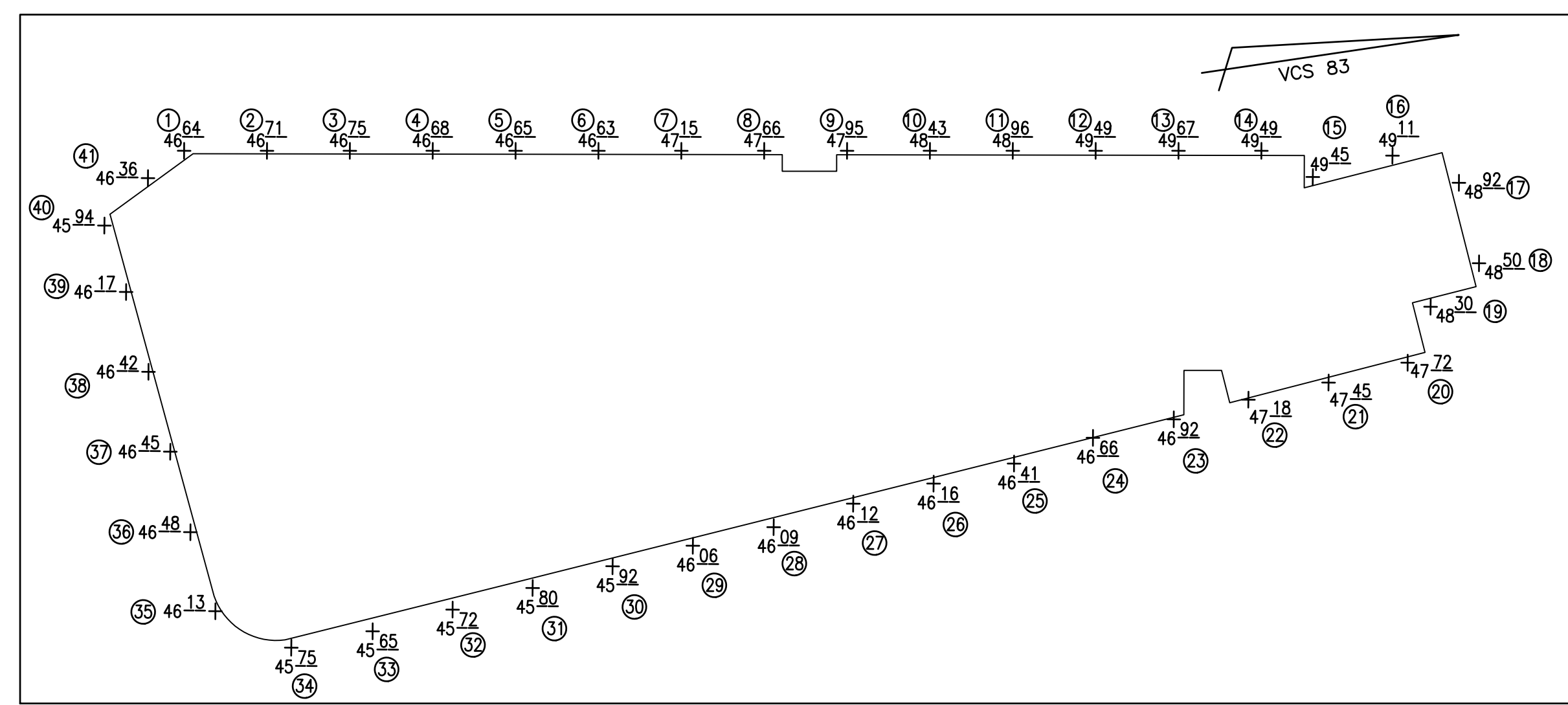
Table for Revision Approved By with columns: NO., DESCRIPTION, DATE, APPROVED, REV. BY.

PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT
1200 NORTH HENRY STREET
CITY OF ALEXANDRIA, VIRGINIA
COVER SHEET

APPROVED SPECIAL USE PERMIT NO. 2017-0020

Table with fields: DEPARTMENT OF PLANNING & ZONING, DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES, DIRECTOR, CHAIRMAN, PLANNING COMMISSION, INSTRUMENT NO., DEED BOOK NO., DATE.

\* SEE REQUESTED APPLICATIONS/MODIFICATIONS FOR DETAILED INFORMATION (THIS SHEET)



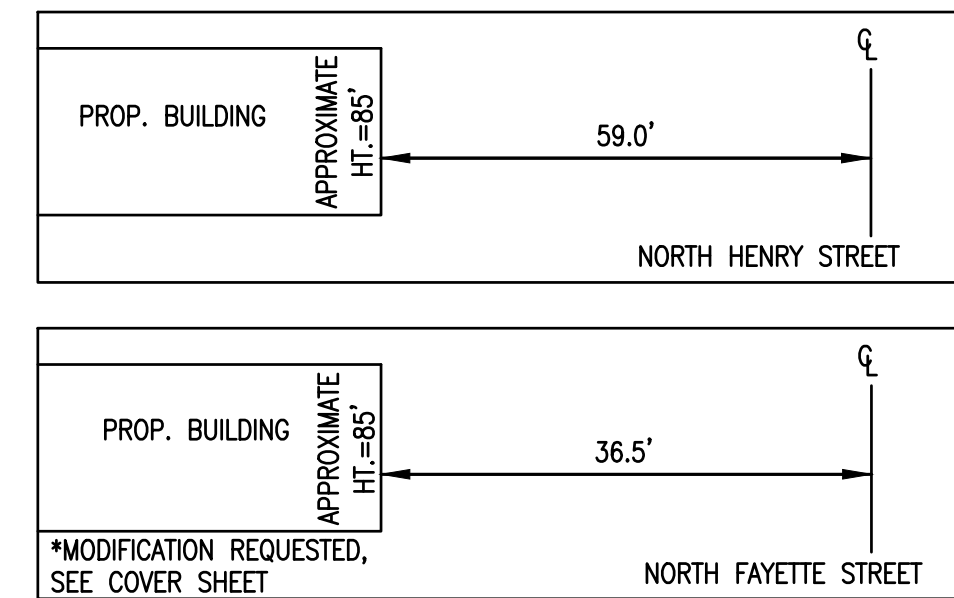
AVERAGE FINISHED GRADE  
SCALE: 1" = 30'

SPOT	ELEVATION
1	46.64
2	46.71
3	46.75
4	46.68
5	46.65
6	46.63
7	47.15
8	47.66
9	47.95
10	48.83
11	48.96
12	49.49
13	49.67
14	49.49
15	49.45
16	49.11
17	48.92
18	48.50
19	48.30
20	47.72
21	47.45
22	47.18
23	46.92
24	46.66
25	46.41
26	46.16
27	46.12
28	46.09
29	46.06
30	45.92
31	45.80
32	45.72
33	45.65
34	45.75
35	46.13
36	46.48
37	46.45
38	46.42
39	46.17
40	45.94
41	46.36
Average: 47.15	

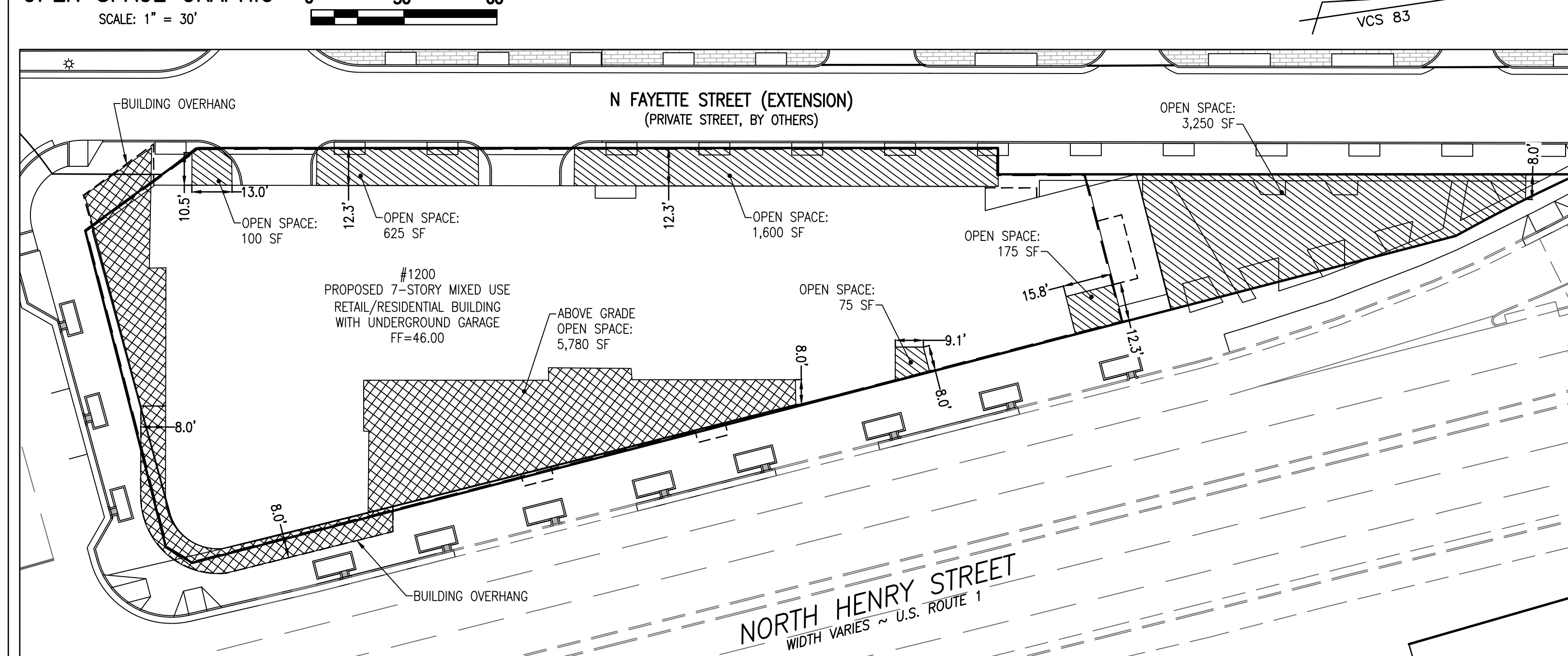
SECTION 6-403 COMPLIANCE NOTE:

SECTION 6-403 STATES "IN ALL HEIGHT DISTRICTS, THE ALLOWABLE HEIGHT OF A BUILDING AT ANY POINT SHALL NOT EXCEED TWICE THE DISTANCE FROM THE FACE OF THE BUILDING AT THAT POINT TO THE CENTERLINE OF THE STREET FACING SUCH BUILDING." SEE DETAILS BELOW FOR SECTION SHOWING COMPLIANCE.

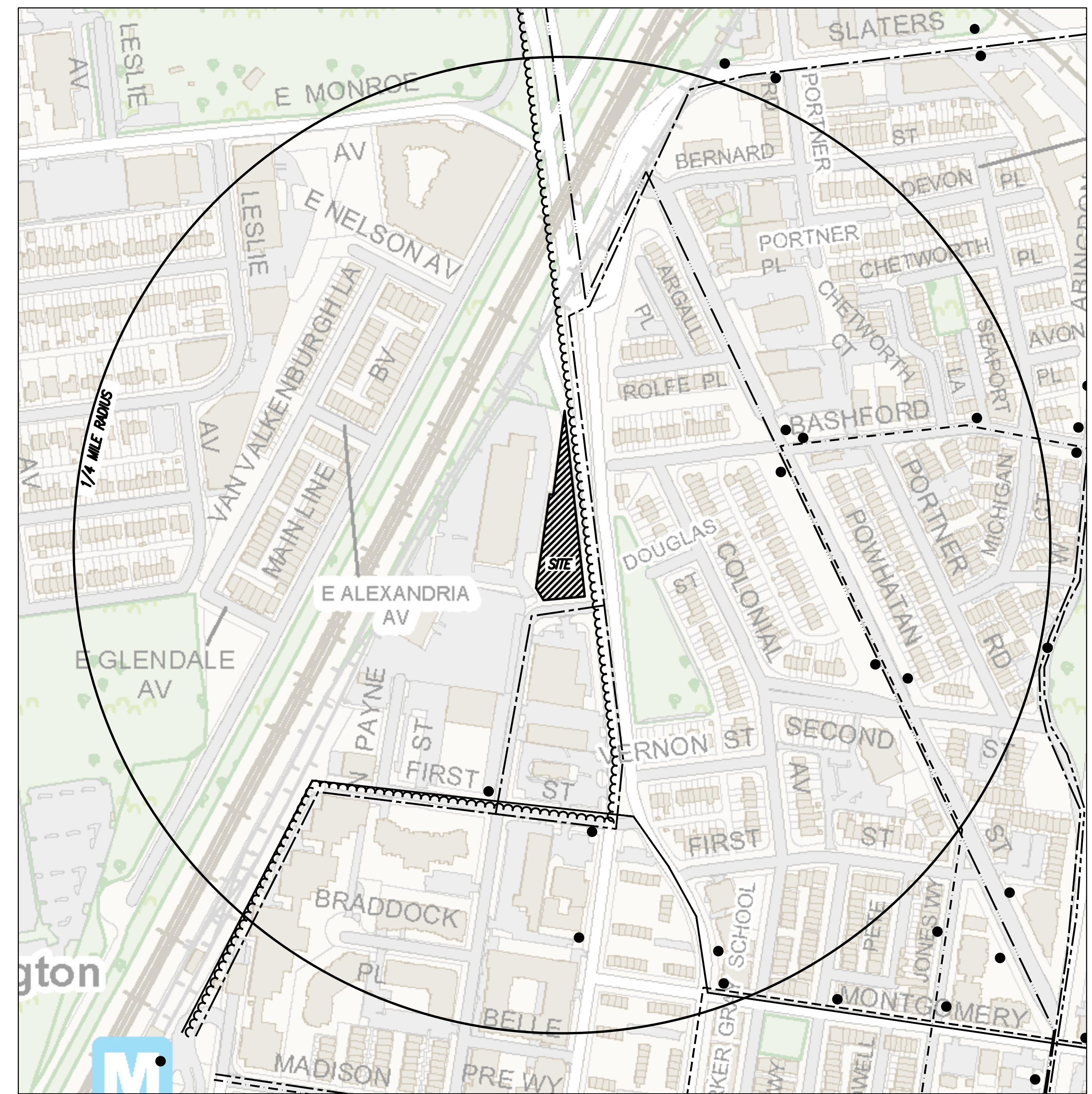
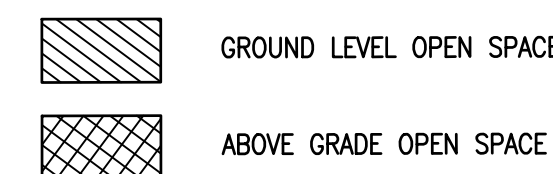
SECTION 6-403 DETAILS:  
NOT TO SCALE



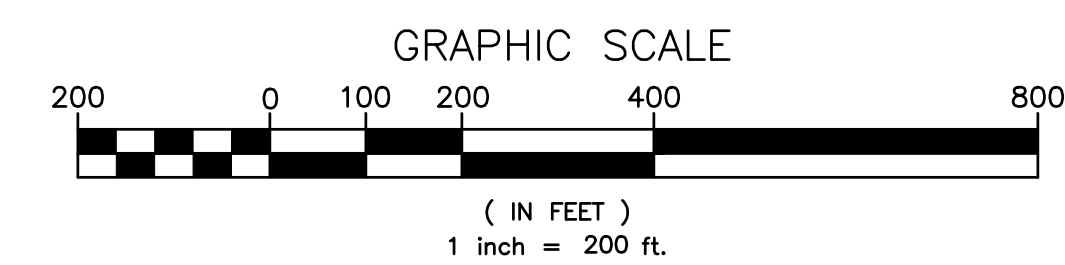
OPEN SPACE GRAPHIC



OPEN SPACE REQUIRED: 40% (13,968 SF)  
GROUND LEVEL OPEN SPACE PROVIDED: 5,825 SF OR 16.6%  
ABOVE GRADE OPEN SPACE PROVIDED: 5,780 SF OR 16.5%  
TOTAL OPEN SPACE PROVIDED: 11,605 SF OR 33.2%  
\*ALL OPEN SPACE IS USABLE SPACE



CONTEXTUAL MAP  
SCALE: 1" = 200'



(Symbol)	BUS STOP
(Symbol)	DASH ROUTE AT2
(Symbol)	DASH ROUTE AT4
(Symbol)	DASH ROUTE AT5
(Symbol)	DASH ROUTE AT8
(Symbol)	WMATA ROUTE 10E
(Symbol)	WMATA ROUTE 11Y
(Symbol)	METROWAY

**R. C. FIELDS & ASSOCIATES, INC.**  
ENGINEERING • LAND SURVEYING • PLANNING  
730 S. Washington Street  
Alexandria, Virginia 22314  
(703) 549-6422

ANDREA SPRUCH  
Lic. No. 047853  
JUNE 21, 2018  
PROFESSIONAL ENGINEER

PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT

1200 NORTH HENRY STREET

CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION

APPROVED SPECIAL USE PERMIT NO. 2017-0020	
DEPARTMENT OF PLANNING & ZONING	
DIRECTOR _____	DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	
SITE PLAN NO. _____	
DIRECTOR _____	DATE _____
CHAIRMAN, PLANNING COMMISSION _____	
DATE RECORDED _____	
INSTRUMENT NO. _____	DEED BOOK NO. _____
DATE _____	

DESIGN: ACS  
DRAWN: BAD  
SCALE: AS NOTED  
DATE: MAY 2018

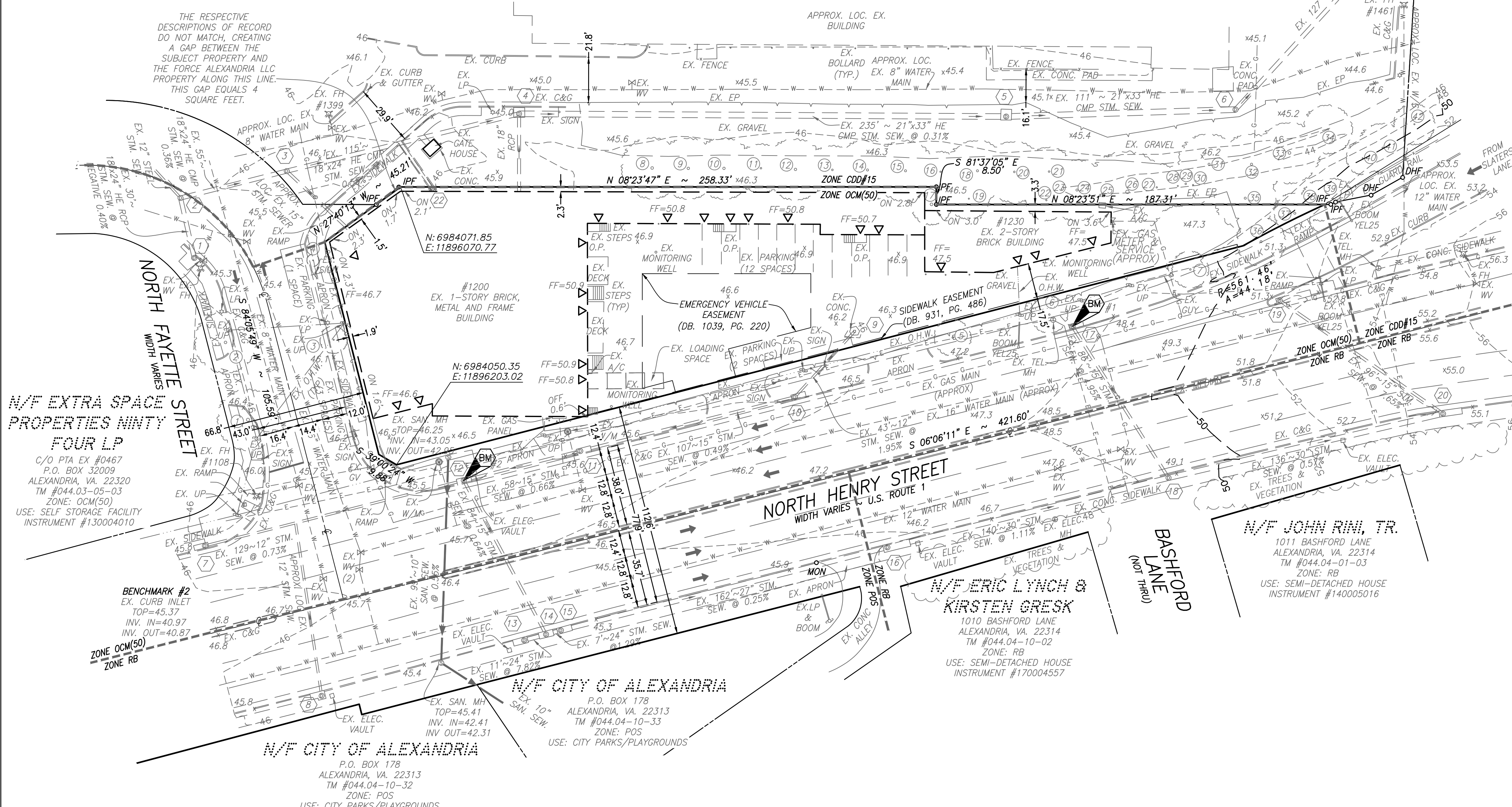
CONTEXTUAL PLAN

SHEET 2 OF 13  
FILE: 17-181

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EXISTING UTILITIES SHOWN ON THIS PLAN TAKEN FROM AVAILABLE RECORDS AND/OR FROM FIELD OBSERVATIONS. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-552-7001, 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION.  
LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. INTERFERENCE OR DISRUPTION OF SAME WILL NOT BE THE RESPONSIBILITY OF THIS OFFICE.  
ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF ALEXANDRIA.  
© 2018 R.C. FIELDS & ASSOCIATES, INC.

N/F FORCE ALEXANDRIA LLC

46859 HENRY BYRD HIGHWAY, SUITE 202 STERLING, VA 20164-2253 TM #044.03-06-03.L1 ZONE: CDD#15 USE: OFFICE/COMM W/USE INSTRUMENT #120018078



GENERAL NOTES:

- 1. TAX MAP: #044.03-05-01
2. ZONE: OCM(50)
3. OWNER: 1200 N HENRY, LLC ALEXANDRIA, VA 22313 INSTRUMENT #160015497
4. TOPOGRAPHIC SURVEY WAS RUN BY THIS FIRM. VERTICAL DATUM USED = NAVD '88 PER CITY OF ALEXANDRIA MONUMENT #600. ELEVATION = 46.05'.
5. A TITLE REPORT WAS FURNISHED BY CHICAGO TITLE INSURANCE COMPANY, FILE NO. VA15-0157, DATED 10/6/2016.
6. PLAT SUBJECT TO RESTRICTIONS OF RECORD.
7. TOTAL SITE AREA = 34,921 S.F. OR 0.8017 AC.
8. THERE ARE NO RESOURCE PROTECTION AREAS (RPA'S), TIDAL WETLANDS, SHORES, TRIBUTARY STREAMS, FLOOD PLAINS, OR BUFFER AREAS FOR SHORES, WETLANDS, CONNECTED TIDAL WETLANDS, ISOLATED WETLANDS OR HIGHLY ERODIBLE/PERMEABLE SOILS LOCATED ON THIS SITE.
9. THERE ARE NO KNOWN CONTAMINATED AREAS, CONTAMINATED SOILS OR ENVIRONMENTAL ISSUES ASSOCIATED WITH THIS SITE. THE SITE IS NOT KNOWN TO HAVE UNDERGROUND STORAGE TANKS, BE LOCATED WITHIN 1,000 FEET OF A FORMER SANITARY LANDFILL, DUMP, OR DISPOSAL AREA, OR CONTAIN AREAS WITH THE POTENTIAL OF GENERATING COMBUSTIBLE GASES.
10. THE "GENERALIZED ALEXANDRIA SOILS MAP" IDENTIFIES THE SOILS FOR THIS SITE AS KEYPORT SILT LOAM. THE KEYPORT SILT LOAM OCCURS IN THE LOW, SMOOTH TERRACES ALONG THE POTOMAC RIVER. IT IS SILENTLY UNDULATING WITH FAIRLY WELL ESTABLISHED DRAINAGE.
11. THIS SITE IS NOT IN AN AREA KNOWN TO CONTAIN MARINE CLAYS.

R.C. FIELDS & ASSOCIATES, INC. ENGINEERING, LAND SURVEYING, PLANNING. 730 S. Washington Street Alexandria, Virginia 22314

Professional Engineer seal for Andrea Spruch, License No. 047863, dated June 21, 2018.

N/F EXTRA SPACE PROPERTIES NINTY FOUR LP C/O PIA EX #0467 P.O. BOX 32009 ALEXANDRIA, VA 22320 TM #044.03-05-03 ZONE: OCM(50) USE: SELF STORAGE FACILITY INSTRUMENT #130004010

BENCHMARK #2 EX. CURB INLET TOP=45.37 INV. IN=40.97 INV. OUT=40.87

N/F CITY OF ALEXANDRIA P.O. BOX 178 ALEXANDRIA, VA 22313 TM #044.04-10-32 ZONE: POS USE: CITY PARKS/PLAYGROUNDS

N/F CITY OF ALEXANDRIA P.O. BOX 178 ALEXANDRIA, VA 22313 TM #044.04-10-33 ZONE: POS USE: CITY PARKS/PLAYGROUNDS

N/F ERIC LYNCH & KIRSTEN GRESK 1010 BASHFORD LANE ALEXANDRIA, VA 22314 TM #044.04-10-02 ZONE: RB USE: SEMI-DETACHED HOUSE INSTRUMENT #170004557

N/F JOHN RIN, TR. 1011 BASHFORD LANE ALEXANDRIA, VA 22314 TM #044.04-01-03 ZONE: RB USE: SEMI-DETACHED HOUSE INSTRUMENT #140005016

TOPOGRAPHY NOTE: THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF RONALD J. KELLER, LS FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION...

EXISTING CONDITIONS SURVEY NOTES: 1. UTILITY INFORMATION, AS SHOWN ON THIS PLAN, IS TAKEN FROM THE RECORDS AND/OR FIELD SURVEY COMPLETED AND CANNOT BE GUARANTEED...

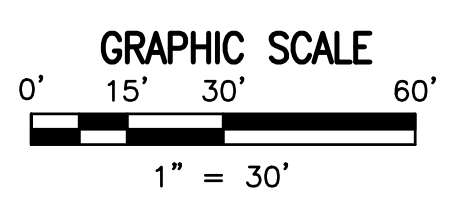
UTILITY OWNERSHIP NOTE: GAS: ALL GAS LINES SHOWN ON THIS PLAN ARE OWNED AND MAINTAINED BY WASHINGTON GAS COMPANY...

CIVIL LEGEND table with columns for ITEM, EXISTING, and PROPOSED. Includes symbols for CURB & GUTTER, SIDEWALK, FIRE HYDRANT, etc.

TEXT LEGEND table with columns for SYMBOL, DESCRIPTION, and UNIT. Includes symbols for DEGREES, FEET, INCHES, etc.

EXISTING TREE TABLE WITH TREE PRESERVATION DESIGNATIONS. Lists trees like 1) 18" OAK (TBS), 2) 15" OAK (TBS), etc.

EXISTING STORM SEWER SCHEDULE table with 4 columns of inlet/outlet data. Includes entries like EX. CURB INLET TOP=45.40, INV. OUT=42.40.



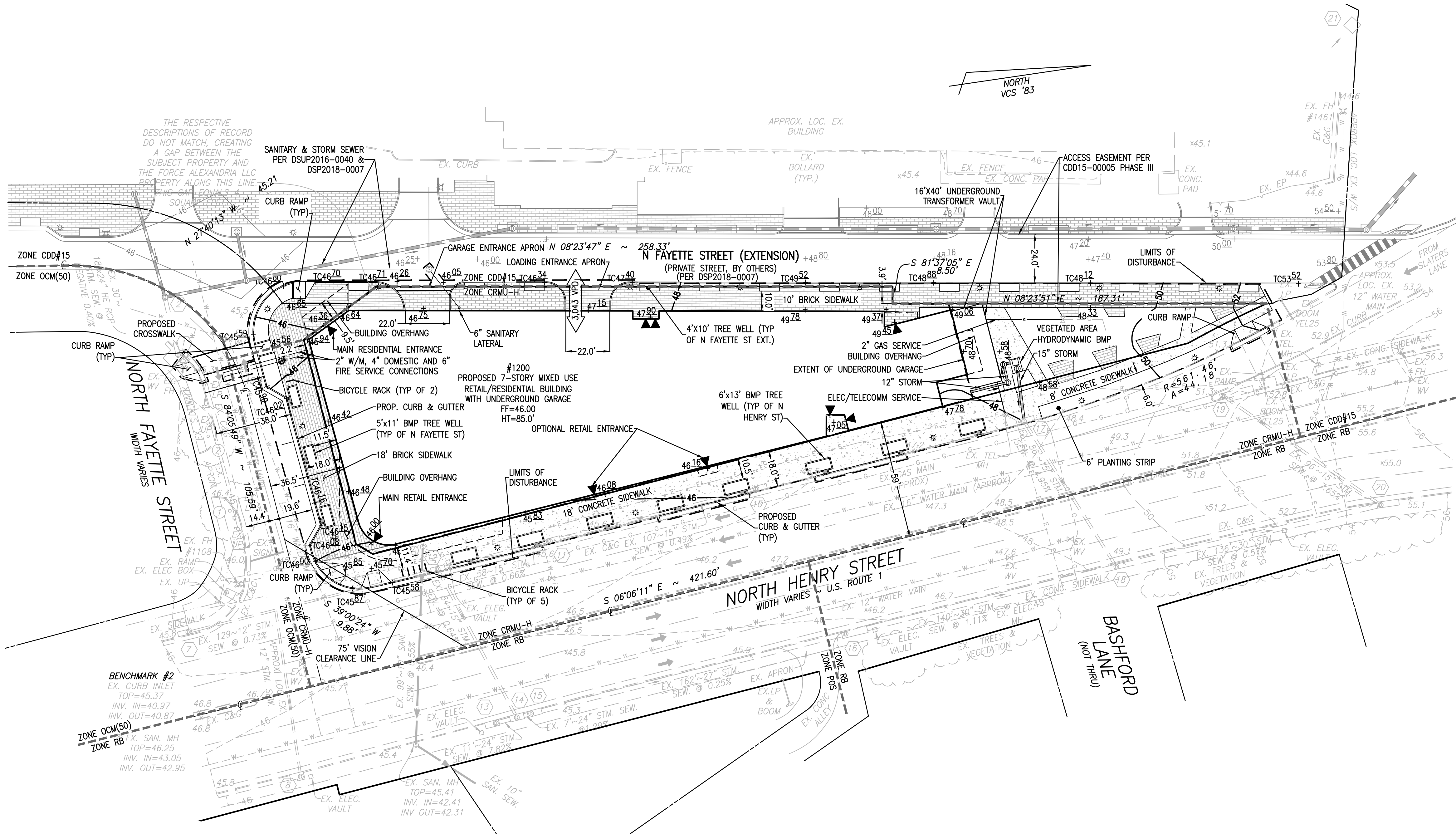
APPROVED SPECIAL USE PERMIT NO. 2017-0020. Includes fields for DEPARTMENT OF PLANNING & ZONING, DIRECTOR, DATE, etc.

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PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT 1200 NORTH HENRY STREET CITY OF ALEXANDRIA, VIRGINIA

DATE REVISION table with columns for DATE and REVISION.

DESIGN: ACS DRAWN: BAD SCALE: 1"=30' DATE: MAY 2018 EXISTING CONDITIONS PLAN SHEET 3 OF 13 FILE: 17-181



- GENERAL NOTES:**
- TAX MAP: #044.03-05-01
  - OWNER: 1200 N HENRY, LLC  
PO BOX 1924  
ALEXANDRIA, VA 22313  
INSTRUMENT #160015497
  - TOPOGRAPHIC SURVEY WAS RUN BY THIS FIRM. VERTICAL DATUM USED = NAVD '88 PER CITY OF ALEXANDRIA MONUMENT #600. ELEVATION = 46.05'.  
BOUNDARY REFERENCED TO VIRGINIA COORDINATE SYSTEM, 1983. MONUMENTS USED:  
CITY OF ALEXANDRIA GPS #600. N = 6,984,243.75 E = 11,896,279.33  
CITY OF ALEXANDRIA GPS #601. N = 6,983,459.024 E = 11,896,257.24
  - A TITLE REPORT WAS FURNISHED BY CHICAGO TITLE INSURANCE COMPANY, FILE NO. VA15-0157, DATED 10/6/2016.
  - PLAT SUBJECT TO RESTRICTIONS OF RECORD.
  - TOTAL SITE AREA = 34,921 S.F. OR 0.8017 AC.

**GREEN BUILDING NARRATIVE:**  
THIS PROJECT WILL COMPLY WITH THE CITY'S GREEN BUILDING POLICY. ADDITIONAL INFORMATION TO BE PROVIDED WITH SUBSEQUENT SUBMISSIONS.

**FIRE SERVICE NOTE:**  
EXISTING FIRE HYDRANTS LOCATED ON N HENRY STREET AND N FAYETTE STREET MAY BE USED TO SERVE THE PROPOSED DEVELOPMENT. BUILDING FIRE DEPARTMENT CONNECTION (FDC) LOCATIONS TO BE DETERMINED IN CONJUNCTION WITH THE FIRE FLOW ENGINEERING ANALYSIS AND WILL BE INCLUDED AS PART OF THE FINAL SITE PLAN SUBMISSION.

**REFUSE TRUCK NOTE:**  
THERE IS NO REFUSE VEHICLE ACCESS PROVIDED ON THE SITE. INTERIOR TRASH RECEPTACLES WILL BE WHEELED OUTSIDE TO NORTH FAYETTE STREET (EXTENSION) FOR COLLECTION.

**ARCHAEOLOGY NOTES:**  
CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIMES, CISTERNS, ETC.) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERED DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHAEOLOGIST COMES TO THE SITE AND RECORDS THE FINDS.

THE APPLICANT SHALL NOT ALLOW ANY METAL DETECTION AND/OR ARTIFACT COLLECTION TO BE CONDUCTED ON THE PROPERTY, UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY. FAILURE TO COMPLY SHALL RESULT IN PROJECT DELAYS.

ALL REQUIRED ARCHAEOLOGICAL PRESERVATION MEASURES SHALL BE COMPLETED IN COMPLIANCE WITH SECTION 11-411 OF THE ZONING ORDINANCE.

**CIVIL LEGEND:**

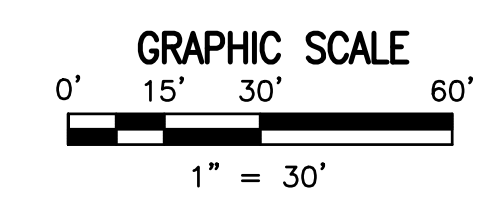
ITEM	EXISTING	PROPOSED
CURB & GUTTER	[Symbol]	[Symbol]
SIDEWALK	[Symbol]	[Symbol]
FIRE HYDRANT	[Symbol]	[Symbol]
STRUCTURES	[Symbol]	[Symbol]
WATER MAINS	[Symbol]	[Symbol]
GAS MAINS	[Symbol]	[Symbol]
TELEPHONE LINES	[Symbol]	[Symbol]
STORM SEWER	[Symbol]	[Symbol]
SANITARY SEWER	[Symbol]	[Symbol]
PAVING	[Symbol]	[Symbol]
FENCES	[Symbol]	[Symbol]
POWER LINES	[Symbol]	[Symbol]
SPOT ELEVATIONS	+ 124.5	+ 124.5
CONTOURS	-124	-124
BUILDING ENTRANCES	[Symbol]	[Symbol]
UTILITY POLE	[Symbol]	[Symbol]
LIGHT POLE	[Symbol]	[Symbol]
LIMITS OF DISTURBANCE	[Symbol]	[Symbol]

**TEXT LEGEND:**

*=DEGREES	DU=DWELLING UNIT	OHW=OVERHEAD WIRE
"=MINUTES (OR FEET)	E=EAST	OPT.=OPTIONAL
"=SECONDS (OR INCHES)	EX.=EXISTING	PF=PLANTER BOX FILTER
%=PERCENT	FDC=FIRE DEPT. CONNECTION	PP=POWER POLE
□=SQUARE FEET	FF=FINISHED FLOOR	PVC=POLYVINYL CHLORIDE
#=NUMBER	FH=FIRE HYDRANT	R=RADIUS
@=AT	FO=FIBER OPTIC	RCP=REINFORCED CONCRETE PIPE
A=ARC	FT.=FEET	REQ'D=REQUIRED
AC=ACRE	GL=GROUND LIGHT	RET.=RETAINING
A/C=AIR CONDITIONER	G/V=GAS VALVE	R/W=RIGHT-OF-WAY
AD=AREA DRAIN	G/M=GAS METER	S=SOUTH
APPROX.=APPROXIMATE(LY)	H.C.=HEADER CURB	SAN.=SANITARY
B.C.=BACK OF CURB	HDCP.=HANDICAP	SQ.=SQUARE
BF=BASEMENT FLOOR	HDPE=HIGH DENSITY POLYETHYLENE	SQ.FT.=SQUARE FEET
BLDG.=BUILDING	HVAC=HEATING, VENTILATION, AIR CONDITIONING	STM.=STORM
BOL.=BOLLARD	IPF=IRON PIPE FOUND	TBR.=TO BE REMOVED
BW=BOTTOM OF WALL	IPS=IRON PIPE SET	TBS.=TO BE SAVED
CATV=CABLE TV UTILITY	INV.=INVERT	TW.=TOP OF WALL
CL=CLASS	LOC.=LOCATION	UP.=UTILITY POLE
C/L=CENTERLINE	LP=LIGHT POLE	VCS=VIRGINIA COORDINATE SYSTEM
CLR=CLEARANCE	MAX.=MAXIMUM	VERT.=VERTICAL
COL=COLUMN	MH=MANHOLE	W=WEST
CMP=CORRUGATED METAL PIPE	MIN.=MINIMUM	W.S.E.=WATER SURFACE ELEVATION
C.I.=CURB INLET	MISC.=MISCELLANEOUS	WM=WATER MAIN
C.O.=CLEAN OUT	MPI=MILES PER HOUR	W/V=WATER VALVE
C&G=CURB & GUTTER	NAD=NORTH AMERICAN DATUM	W/M=WATER METER
DI=DROP INLET	NTS=NOT TO SCALE	W.W.=WINDOW WELL
D.S.=DOWNSPOUT	N=NORTH	

**HATCH LEGEND**

BRICK SIDEWALK	[Hatch Pattern]
CONCRETE SIDEWALK	[Hatch Pattern]
ZONING DISTRICT BOUNDARY	[Dashed Line]



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EXISTING UTILITIES SHOWN ON THIS PLAN TAKEN FROM AVAILABLE RECORDS AND/OR FROM FIELD OBSERVATIONS. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-552-7001, 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION.

LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. INTERFERENCE OR DISRUPTION OF SAME WILL NOT BE THE RESPONSIBILITY OF THIS OFFICE.

ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF ALEXANDRIA.

**APPROVED**  
SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

\_\_\_\_\_  
DIRECTOR

\_\_\_\_\_  
DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

\_\_\_\_\_  
SITE PLAN NO.

\_\_\_\_\_  
DATE

CHAIRMAN, PLANNING COMMISSION

\_\_\_\_\_  
DATE

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ENGINEERING • LAND SURVEYING • PLANNING  
www.rcfields.com  
730 S. Washington Street  
Alexandria, Virginia 22314  
(703) 549-6422

COMMONWEALTH OF VIRGINIA  
*Andrea Spruch*  
ANDREA SPRUCH  
Lic. No. 047853  
JUNE 21, 2018  
PROFESSIONAL ENGINEER

PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT  
1200 NORTH HENRY STREET  
CITY OF ALEXANDRIA, VIRGINIA

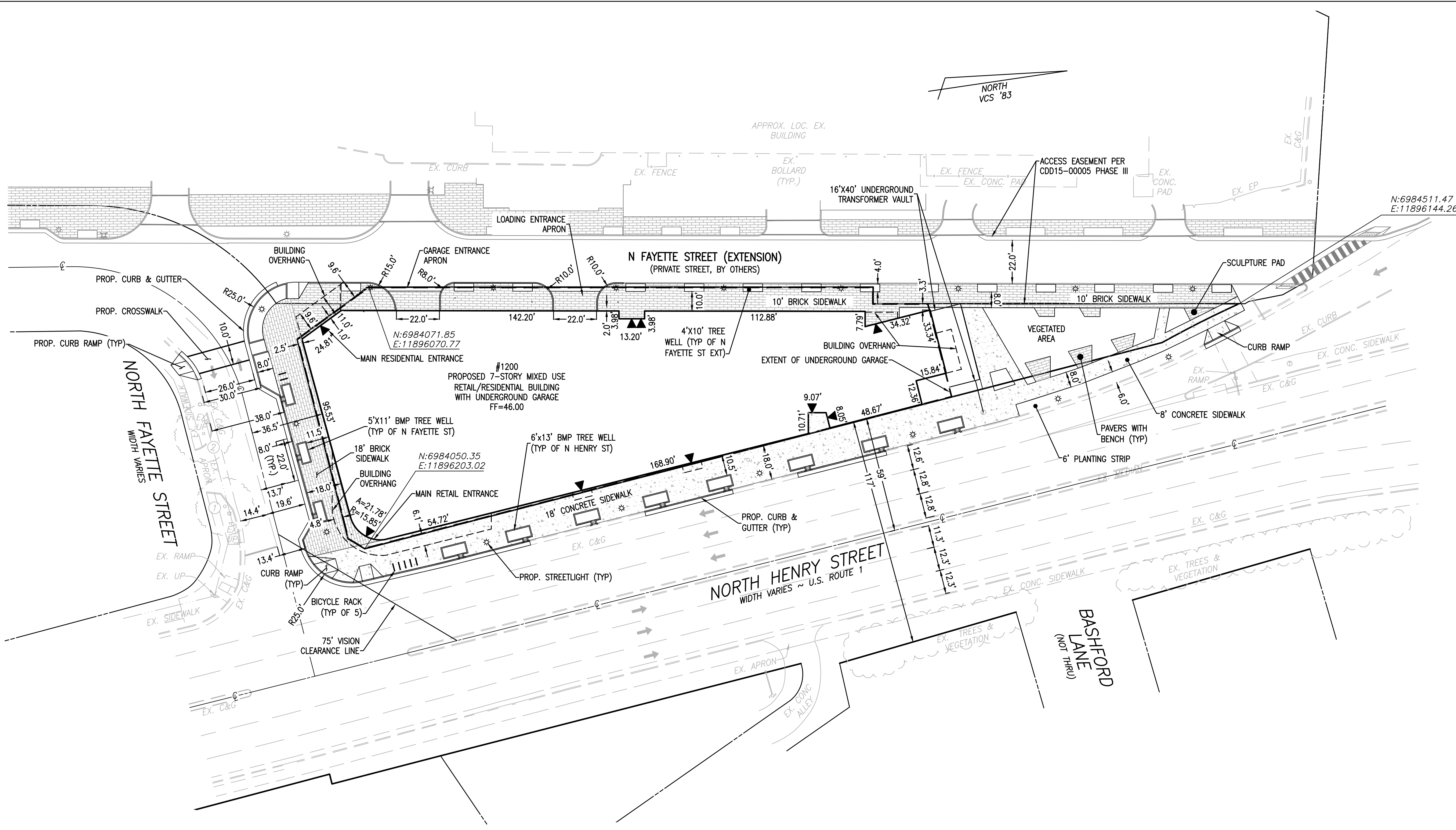
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DESIGN: ACS  
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DATE: MAY 2018

PRELIMINARY  
SITE PLAN

SHEET 4 OF 13  
FILE: 17-181

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**ARCHAEOLOGY NOTES:**  
 CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVES, CISTERNS, ETC.) OR CONCENTRATIONS OF ARTIFACTS ARE DISCOVERED DURING DEVELOPMENT. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHAEOLOGIST COMES TO THE SITE AND RECORDS THE FINDS.

THE APPLICANT SHALL NOT ALLOW ANY METAL DETECTION AND/OR ARTIFACT COLLECTION TO BE CONDUCTED ON THE PROPERTY, UNLESS AUTHORIZED BY ALEXANDRIA ARCHAEOLOGY. FAILURE TO COMPLY SHALL RESULT IN PROJECT DELAYS.

ALL REQUIRED ARCHAEOLOGICAL PRESERVATION MEASURES SHALL BE COMPLETED IN COMPLIANCE WITH SECTION 11-411 OF THE ZONING ORDINANCE.

**CIVIL LEGEND:**

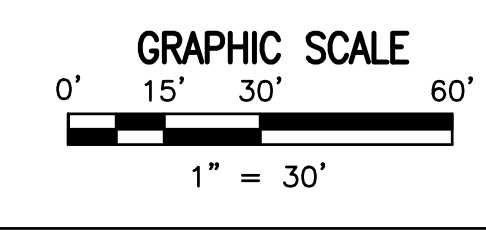
ITEM	EXISTING	PROPOSED
CURB & GUTTER	[Symbol]	[Symbol]
SIDEWALK	[Symbol]	[Symbol]
FIRE HYDRANT	[Symbol]	[Symbol]
STRUCTURES	[Symbol]	[Symbol]
WATER MAINS	[Symbol]	[Symbol]
GAS MAINS	[Symbol]	[Symbol]
TELEPHONE LINES	[Symbol]	[Symbol]
STORM SEWER	[Symbol]	[Symbol]
SANITARY SEWER	[Symbol]	[Symbol]
PAVING	[Symbol]	[Symbol]
FENCES	[Symbol]	[Symbol]
POWER LINES	[Symbol]	[Symbol]
SPOT ELEVATIONS	+124.5	+124.5
CONTOURS	-124	-124
BUILDING ENTRANCES	[Symbol]	[Symbol]
UTILITY POLE	[Symbol]	[Symbol]
LIGHT POLE	[Symbol]	[Symbol]
LIMITS OF DISTURBANCE	[Symbol]	[Symbol]

**TEXT LEGEND:**

*=DEGREES	DU=DWELLING UNIT	OHW=OVERHEAD WIRE
'=MINUTES (OR FEET)	E=EAST	OPT.=OPTIONAL
"=SECONDS (OR INCHES)	EX.=EXISTING	PF=PLANTER BOX FILTER
%=PERCENT	FDC=FIRE DEPT. CONNECTION	PP=POWER POLE
sq.=SQUARE FEET	FF=FINISHED FLOOR	PVC=POLYVINYL CHLORIDE
#=NUMBER	FH=FIRE HYDRANT	R=RADIUS
@=AT	FO=FIBER OPTIC	RCP=REINFORCED CONCRETE PIPE
A=ARC	FT.=FEET	REQ'D=REQUIRED
AC=ACRE	GL=GROUND LIGHT	RET.=RETAINING
A/C=AIR CONDITIONER	G/V=GAS VALVE	R/W=RIGHT-OF-WAY
AD=AREA DRAIN	G/M=GAS METER	S=SOUTH
APPROX.=APPROXIMATE(LY)	H.C.=HEADER CURB	SAN.=SANITARY
B.C.=BACK OF CURB	HDPC=HANDICAP	SQ.=SQUARE
BF=BASEMENT FLOOR	HDPE=HIGH DENSITY POLYETHYLENE	SQ.FT.=SQUARE FEET
BLDG.=BUILDING	HVAC=HEATING, VENTILATION, AIR CONDITIONING	STM.=STORM
BOL.=BOLLARD	IPF=IRON PIPE FOUND	TBR=TO BE REMOVED
BW=BOTTOM OF WALL	IPS=IRON PIPE SET	TBS=TO BE SAVED
CATV=CABLE TV UTILITY	INV.=INVERT	TW=TOP OF WALL
CL=CLASS	LOC.=LOCATION	TYP.=TYPICAL
C/L=CENTERLINE	LP=LIGHT POLE	UP=UTILITY POLE
CLR=CLEARANCE	MAX.=MAXIMUM	VCS=VIRGINIA COORDINATE SYSTEM
COL=COLUMN	MH=MANHOLE	VERT.=VERTICAL
CMP=CORRUGATED METAL PIPE	MIN.=MINIMUM	W=WEST
C.I.=CURB INLET	MISC.=MISCELLANEOUS	W.S.E.=WATER SURFACE ELEVATION
C.O.=CLEAN OUT	MPH=MILES PER HOUR	WM=WATER MAIN
D=DROP INLET	NAD=NORTH AMERICAN DATUM	W/V=WATER VALVE
D.S.=DOWNSPOUT	NTS=NOT TO SCALE	W/M=WATER METER
	N=NORTH	W.W.=WINDOW WELL

**HATCH LEGEND**

BRICK SIDEWALK	[Hatch Pattern]
CONCRETE SIDEWALK	[Hatch Pattern]



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**APPROVED**  
 SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. \_\_\_\_\_

CHAIRMAN, PLANNING COMMISSION

DATE RECORDED \_\_\_\_\_

INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE \_\_\_\_\_

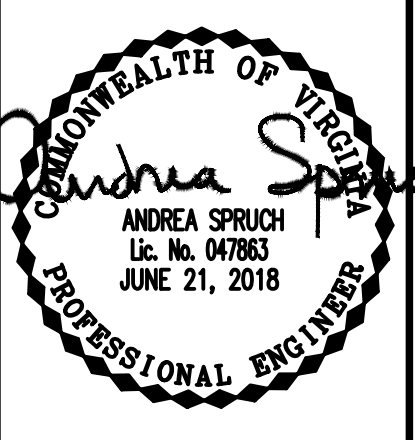
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**SITE DIMENSION PLAN**

SHEET **5** OF **13**  
 FILE: **17-181**

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### STORMWATER MANAGEMENT (CITY CODE SECTION 13-109F COMPLIANCE) NARRATIVE

**PRE-DEVELOPMENT CONDITIONS:**  
THIS 0.8017 ACRE PARCEL IS LOCATED IN THE POTOMAC RIVER WATERSHED. IN EXISTING CONDITIONS, THE SITE IS UTILIZED AS A SHOPPING CENTER. THE MAJORITY OF SITE DRAINAGE IS DIRECTED IN AN EASTERLY DIRECTION TOWARDS THE N HENRY STREET RIGHT-OF-WAY WHERE IT IS COLLECTED BY CURB INLETS WITHIN THE PUBLIC RIGHT-OF-WAY AND CONVEYED IN A NORTHERLY DIRECTION BY THE CITY MAINTAINED STORM SEWER SYSTEM UNTIL IT OUTFALLS TO THE POTOMAC GREEN STORMWATER POND AND ULTIMATELY TO THE POTOMAC RIVER.

**POST-DEVELOPMENT CONDITIONS:**  
THIS PROJECT PROPOSES THE CONSTRUCTION OF A 7 STORY RETAIL AND RESIDENTIAL MIXED USE BUILDING WITH UNDERGROUND PARKING AND IMPROVED STREETScape/OPEN SPACE. IN PROPOSED CONDITIONS, RUNOFF ASSOCIATED WITH ALL BUILDING ROOF TOPS WILL BE DIRECTED BY AN INTERNAL STORMWATER CONVEYANCE SYSTEM TO AN ON-SITE HYDRODYNAMIC BMP WITH AN OUTFALL TO AN EXISTING CURB INLET WITHIN THE PUBLIC RIGHT-OF-WAY. ALL OTHER RUNOFF FROM THE SITE WILL BE DIRECTED VIA SHEET FLOW UNTIL BEING COLLECTED BY CURB INLETS LOCATED WITHIN EITHER THE N. HENRY STREET RIGHT-OF-WAY, N. FAYETTE STREET RIGHT-OF-WAY, OR N. FAYETTE STREET (EXTENSION).

**CONCLUSION**  
DUE TO AN OVERALL DECREASE OF SITE IMPERVIOUS AREA, THE SITE RELEASES A POST-DEVELOPMENT PEAK RATE FOR THE 10-YEAR 24-HOUR STORM EVENT THAT IS LESS THAN THE PRE-DEVELOPMENT PEAK FLOW RATE FOR THE 10-YEAR 24-HOUR STORM EVENT (DUE TO ROUNDING THE CALCULATIONS SHOW NO CHANGE; SEE COMPUTATIONS PROVIDED ON THIS SHEET). THERE IS NO RUNOFF VOLUME INCREASE IN THE FORM OF SHEET FLOW RESULTING FROM PERVIOUS AREAS, DISCONNECTED IMPERVIOUS AREAS OR FROM PHYSICAL SPREADING OF CONCENTRATED FLOW ASSOCIATED WITH THE REDEVELOPMENT OF THIS SITE. THEREFORE, THE SMALL PORTION OF THE RUNOFF THAT EXISTS THE SITE IN THE FORM OF SHEET FLOW WILL HAVE NO ADVERSE IMPACTS ON DOWN-GRADIENT PROPERTIES OR RESOURCES. ALL PERVIOUS AREAS ON THE SITE WERE ASSUMED TO BE IN GOOD HYDROLOGIC CONDITION FOR PURPOSES OF COMPUTING PRE-DEVELOPMENT RUNOFF.

SINCE THIS SYSTEM EXPERIENCES LOCALIZED FLOODING IN EXISTING CONDITIONS (SEE STORM SEWER AND HYDRAULIC GRADE LINE COMPUTATIONS ON SHEET 10) AND THE PEAK FLOW RATE IS BEING REDUCED WITH THE PROPOSED DEVELOPMENT (SEE CALCULATIONS PROVIDED ON THIS SHEET), THE FLOOD PROTECTION FOR THIS SITE IS IN COMPLIANCE WITH SECTION 13-109F(2)(b)(ii). DUE TO SITE DRAINAGE OUTFALLING TO AN EXISTING UNDERSIZED STORM SEWER SYSTEM, NO OFFSITE IMPROVEMENTS TO THE SYSTEM ARE REQUIRED.

PER SECTION 13-109F-2(d)(i), A DRAINAGE SHED BOUNDARY ANALYSIS OF THE SITE OUTFALL WITH REDUCED POST-DEVELOPMENT RUNOFF RATE FOR THE 10-YEAR, 24-HOUR STORM IS PROVIDED ON SHEET 10. THE PROJECT POST-DEVELOPMENT RUNOFF WILL NOT EXACERBATE ANY EXISTING DOWNSTREAM CAPACITY CONDITIONS WITHIN THE LIMITS OF ANALYSIS.

BASED ON THE ABOVE MENTIONED JUSTIFICATIONS AND COMPUTATIONS, THE STORMWATER MANAGEMENT CRITERIA FOR THE PROPOSED DEVELOPMENT COMPLIES WITH THE CHANNEL PROTECTION AND FLOOD PROTECTION REQUIREMENTS PER CITY CODE SECTION 13-109F.

### STORMWATER RUNOFF COMPUTATIONS

I. PROJECT AREA = 34,921 SQ.FT. OR 0.8017 ACRES  
EXISTING IMPERVIOUS AREA = 33,123 SQ.FT. OR 0.7604 ACRES  
PROPOSED IMPERVIOUS AREA = 32,746 SQ.FT. OR 0.7517 ACRES

### VIRGINIA RUNOFF REDUCTION METHOD (PER TR-20, TYPE II, 24-HOUR STORM, USING CLASS D SOILS):

II. WEIGHTED CURVE NUMBER (CN) CALCULATIONS:  
CN PRE-DEVELOPMENT =  $(0.7604 \times 98 + 0.0413 \times 80) \div 0.8017 = 97$   
CN POST-DEVELOPMENT =  $(0.7517 \times 98 + 0.0500 \times 80) \div 0.8017 = 97$

III. PRE-DEVELOPMENT PEAK DISCHARGES: (Tc = 5 MINS.)  
PEAK Q<sub>2</sub> PRE-DEVELOPMENT = 2.44 cfs  
PEAK Q<sub>10</sub> PRE-DEVELOPMENT = 4.03 cfs

IV. POST-DEVELOPMENT PEAK DISCHARGES: (Tc = 5 MINS.)  
PEAK Q<sub>2</sub> POST-DEVELOPMENT = 2.44 cfs  
PEAK Q<sub>10</sub> POST-DEVELOPMENT = 4.03 cfs

Q<sub>2</sub> INCREASE = 0.00 CFS  
Q<sub>10</sub> INCREASE = 0.00 CFS

NOTE: SINCE THE LIMITS OF ANALYSIS DO NOT INCLUDE A NATURAL STORMWATER CONVEYANCE CHANNEL, 1-YEAR STORMWATER COMPUTATIONS ARE NOT REQUIRED/PROVIDED.

### PROJECT DESCRIPTION:

REDEVELOPMENT	IMPERVIOUS	PERVIOUS	TOTAL
PROJECT AREA	0.7517	0.0500	0.8017
ON-SITE TREATED	0.5983	0.0000	0.5983
OFF-SITE TREATED	0.0000	0.0000	0.0000
TOTAL TREATED	0.5983	0.0000	0.5983
ON-SITE IMPERVIOUS AREAS DISCONNECTED BY A VEGETATIVE BUFFER	N/A		
TOTAL TREATED OR DISCONNECTED			0.5983

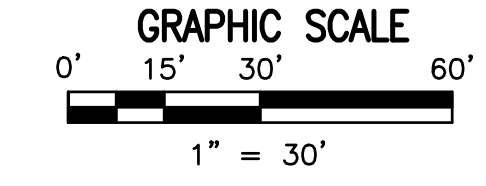
### WATER QUALITY VOLUME DEFAULT:

PROPOSED IMPERVIOUS: 0.7517 AC  
TREATMENT OF FIRST HALF INCH OF RUNOFF: 1,815 X 0.7146 = 1,364 CU. FT. WQV REQUIRED

WATER TREATMENT ON-SITE			
BMP TYPE	AREA TREATED BY BMP (ACRES)	IMPERVIOUS AREA TREATED BY BMP (ACRES)	BMP EFFICIENCY (%)
HYDRODYNAMIC BMP	0.5983	0.5983	25%

TOTAL WQV TREATED: NO  
WATER QUALITY VOLUME REQUIRED = 1,364 CU. FT.  
WATER QUALITY VOLUME TREATED = 1,815 X 0.5983 = 1,086 CU. FT.  
PERCENT OF WATER QUALITY VOLUME TREATED = 79.6%  
DETENTION ON SITE: NO  
PROJECT IS WITHIN WHICH WATERSHED? POTOMAC RIVER  
PROJECT DISCHARGES TO WHICH BODY OF WATER? POTOMAC RIVER

BMP COORDINATES: N6984378.26 & E11896163.95



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DEPARTMENT OF PLANNING & ZONING

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

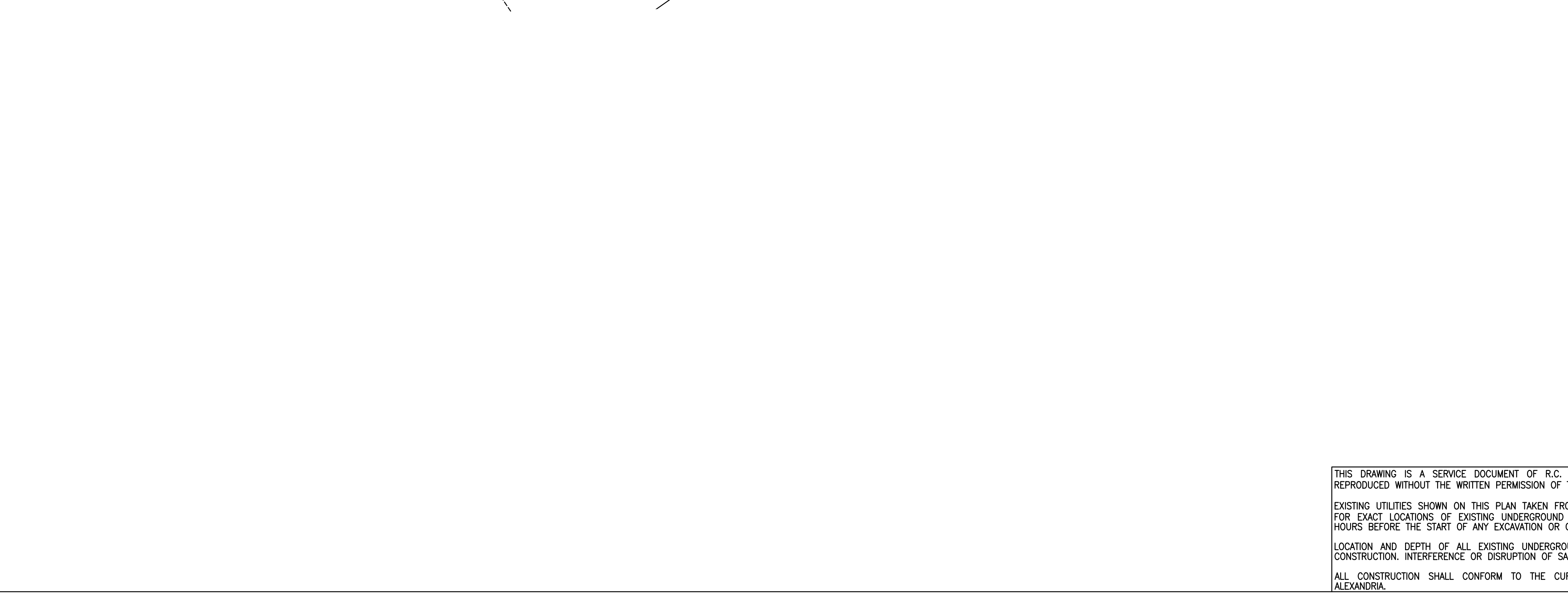
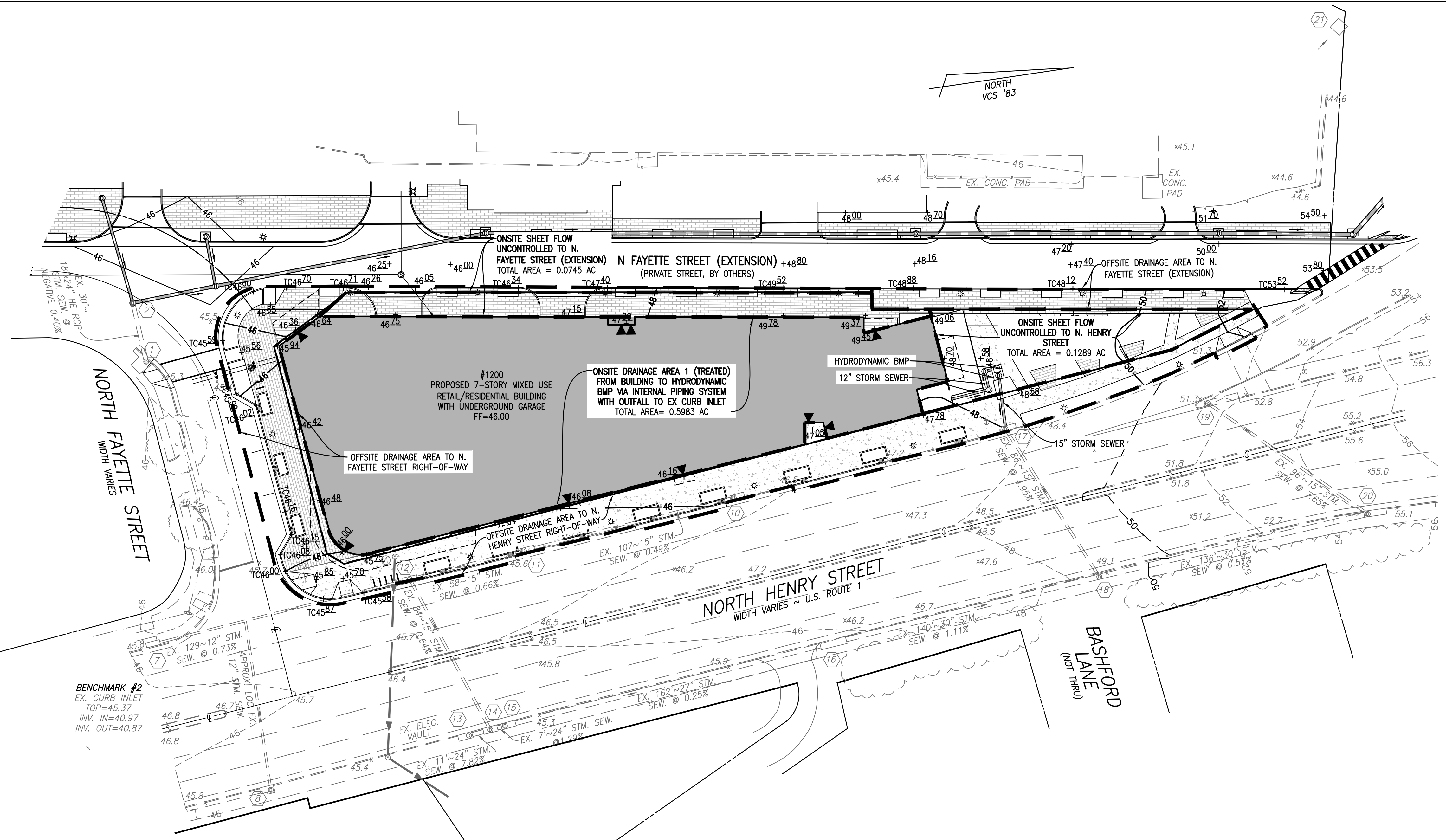
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. \_\_\_\_\_ DATE: \_\_\_\_\_

CHAIRMAN, PLANNING COMMISSION DATE: \_\_\_\_\_

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

INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE: \_\_\_\_\_



Water Quality Design Report

Alexandria, VA

Project: 1200 N. Henry Street
Engineer: R.C. Fields & Associates

Water Quality:

Calculation Method: 1 in. First Flush
Rainfall Data Area: Arlington, VA
Report Date: 5/7/2018

Project Data:

Total Area: 0.60 acres
Impervious Area: 0.60 acres
Pipe Size: 12 HDPE
Treatment Flow Limit: 5.55 cfs
WQ Flow: 0.89 cfs

CrystalStream Summary:

Model No: 646
This HLR: 16.61 gpm/sf
Max HLR: 31.00 gpm/sf

Special Note: All CrystalStream Technologies water quality devices offer no restrictions to storm water flow and are able to pass through all flows that are delivered to them.

Project Specific Data - Alexandria, VA

Water Quality Vault Specifications for 1200 N. Henry Street
CST-1 Model 646

This unit drains 0.60 acres, with a 25-year flow of 4.34 cfs. The target design flow for the Model 646 as configured is 6.00 cfs (for an internal vertical exit velocity of 1 fps).

The internal velocity at the 1" water quality (first flush) storm peak flow of 0.89 cfs (see calculation below) is 0.15 fps. During this peak, the scour velocity of 0.15 fps (0.05 m/s) for 8 micron particles is not exceeded, and all lesser storms will have lower velocities.

Calculation for Peak Discharge of Water Quality Storm

1" - 24 hour peak flow (Modified SCS Method, after Pitt)

Assumptions: A = 0.60 acres of drainage area = 26,062 sf.
CN = 98, Tc = 5 min. = 0.08 hr.
Ia read from TR-55 Table 4-1 for 98 = 0.041
P = 1"
Ia / P = 0.041 (See SCS Type II Unit Peak Discharge, read
Qa at 0.08 hr and Ia / P)
Qa = 1000 csm

%I = 0.60 ac. Impervious / 0.60 ac. Total X (100) = 100%
Rn = .009 (I) + .05 = .009 (100) + .05 = 0.95
WQRn = 1" \* 0.95 = 0.950 in./ac.

WQ Flow Calculation:

A = 0.60 ac. / 640 ac. / sq. mi. = 0.00093 sq. mi.
Qa = Qa \* A \* WQRn = 1000 csm / in. \* 0.00093 sq. mi. \* 0.950 in. / ac. = 0.89 cfs.

HLR Design Criterion (Per Figure 1 Chart)

Model 646 - Target HLR = 26.00 This Project HLR = 16.61 OK
[HLR = (0.89 cfs \* 448.8 gpm/cfs) / 24 sf = 16.61 gpm/sf]

General Specifications (See detail sheet)

The spill protection capacity, under normal conditions, where the ambient water level in the front portion of the vault can be replaced with spill material is 586 gallons. In an artificial or emergency situation where the downstream pipe is blocked, the maximum spill storage capacity, above the trapped ambient water, is 440 gallons. This volume does not include storage in the upstream piping system.

This unit is not subject to traffic loadings and is constructed with 5,000 psi, 6" reinforced concrete walls and floor.

The 0.50 ft. riser/lid combination above the unit is constructed in the same manner as the walls.

A 3' x 3' aluminum hatch and a 24" manhole in the reinforced concrete lid provide easy access for cleaning.

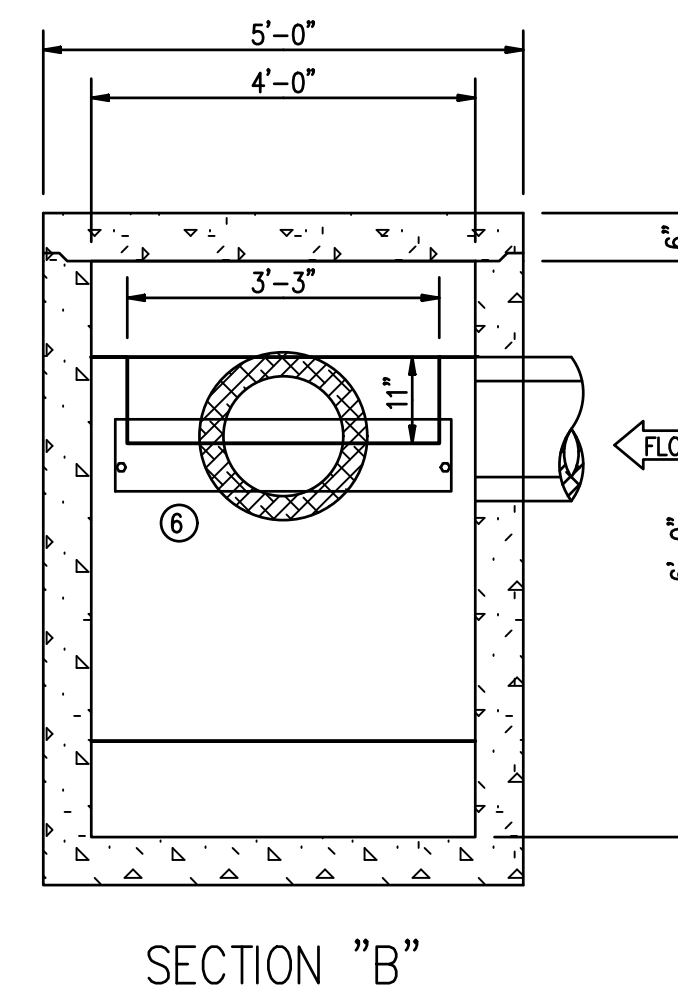
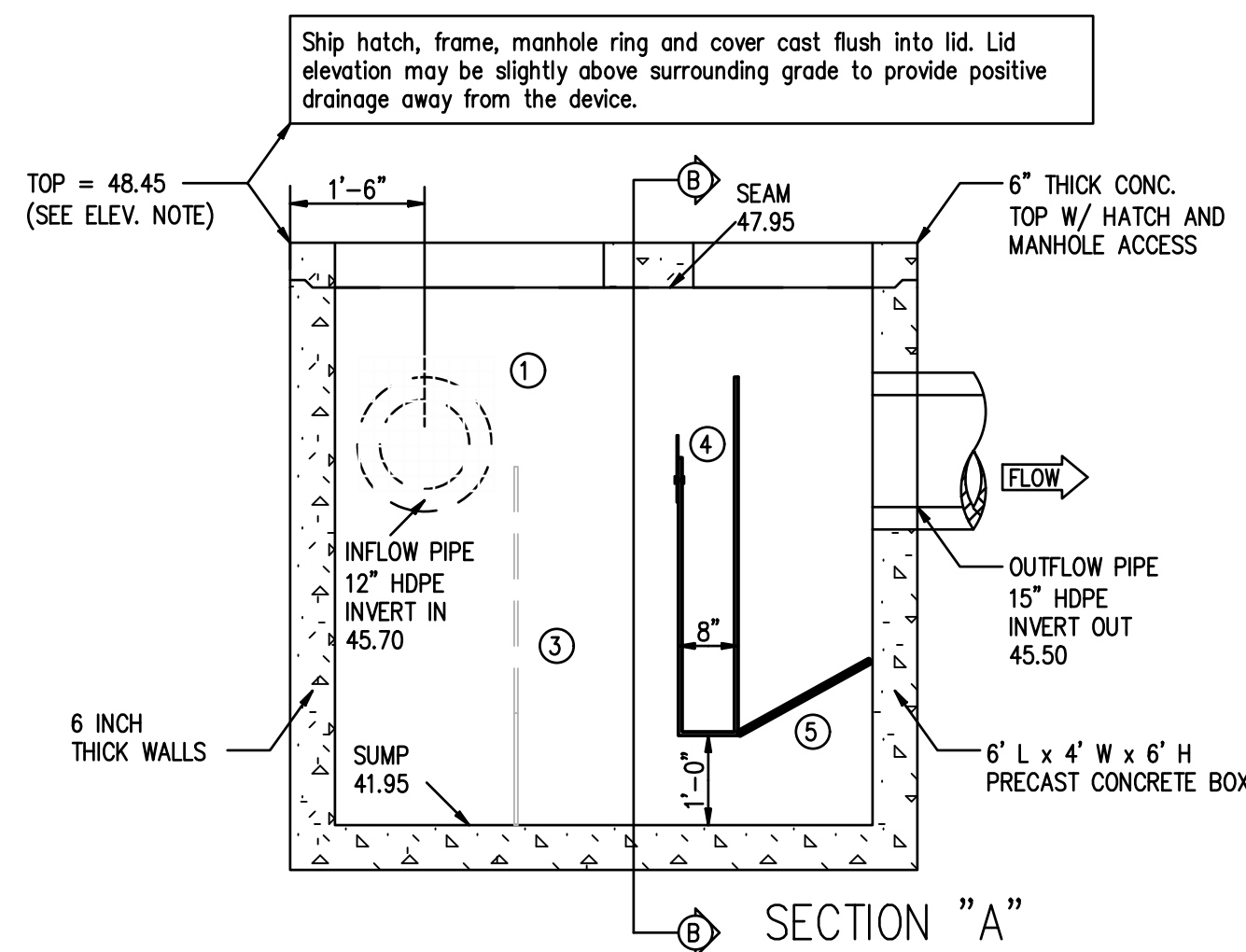
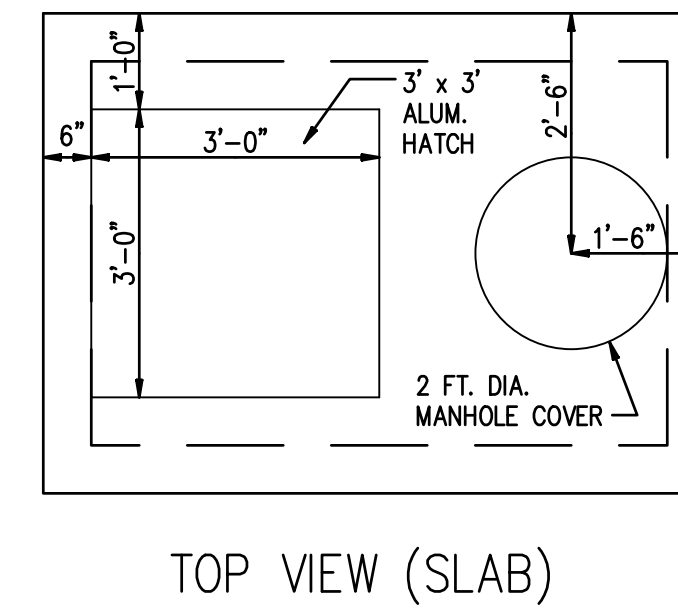
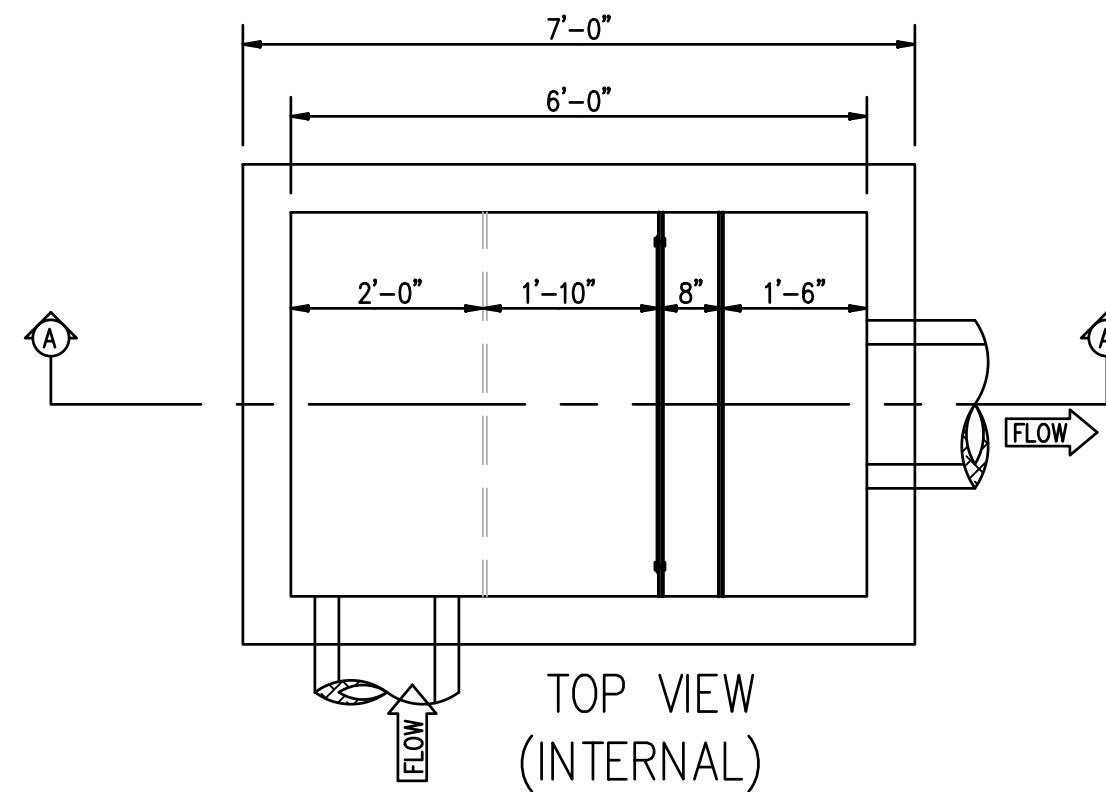
A separate oil chamber is provided with an adjustable weir. This weir will be set at the approximate 6 month, 30 minute storm intensity, so that oil should be pushed over the skimmer at least once during two clean out cycle periods. The weir will be adjusted based on actual field results.

The exit pipe, when evaluated as a submerged circular orifice under inlet control will flow a maximum of 5.55 cfs with the water level in the vault at the top of the oil reservoir. This is sufficient to pass the 100+ year flow coming to the unit as configured.

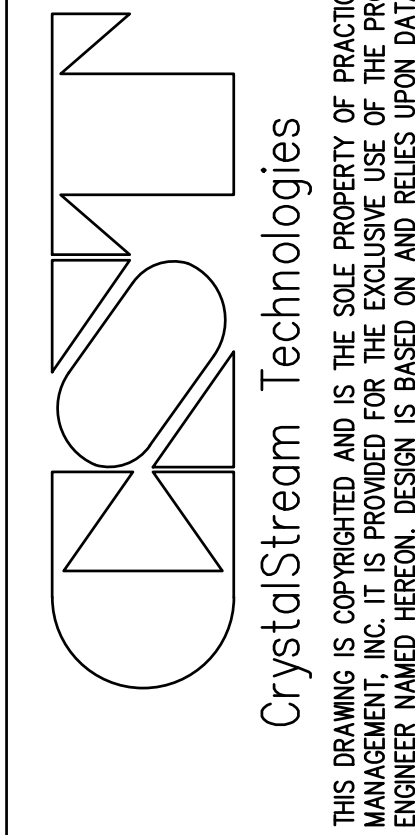
Signature of Carl Duckert

CrystalStream Technologies
Principal Engineer

Manufactured by: Practical Best Management - 1-800-748-6945 www.crystalstream.com



- 1. ALL PIPES SHALL BE CONSTRUCTED TO BE FLUSH WITH THE INSIDE WALLS.
2. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL PIPES AND STRUCTURES BETWEEN AND AROUND THE WATER QUALITY VAULTS.
3. ALL VAULT LIFTING CONNECTIONS SHALL BE LOCATED ON THE OUTSIDE OF THE VAULT WALLS.
4. CONCRETE VAULT PRE-CASTER IS RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE CONCRETE VAULTS. WALL AND SLAB THICKNESSES SHALL BE ALTERED ACCORDINGLY.



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Protected by U.S. Patent Nos.: 6,797,161; 6,936,163; 6,939,461; 6,951,607; 6,994,763; 7,011,743; 7,037,436

SPECIFICATIONS

- 1. TOTAL FLOW CAPACITY SHALL BE 6 CFS.
2. WATER QUALITY FLOW OF 0.89 CFS MUST BE TREATED WITH A HYDRAULIC LOADING RATE OF 17 GPM/SF OR LESS.
3. SPILL PROTECTION CAPACITY SHALL BE 586 GALLONS BEFORE OVERFLOW.
4. ANY CHANGES OR SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER AND THE REVIEWING AUTHORITY.

JOB NAME: 1200 N. Henry St.

Device No.: CST-1

VAO-002-050718

DESIGN FIRM: R.C. Fields & Associates

LEGEND

- 1 EXPANDED ALUMINUM BASKET W/ 1/4" MESH LINING, 1'-6" H x 1'-6" L x 4'-0" W, Uprft 3'-9" FROM SUMP
2 2ND INTERNAL BAFFLE W/ 1" HOLES DRILLED AT 1 1/4" O.C., 4'-0" H.
3 SPILL PROTECTION RESERVOIR 4'-0" H. WITH A 0'-11" FRONT CUT.
4 3/4" COCONUT FIBER FILTER IN ALUMINUM FRAME 1'-8" LONG.
5 1/4" ALUMINUM PLATE, 9" H., 3'-6" WIDE.

CRYSTALSTREAM "CRYSTALCLEAN" WATER QUALITY VAULT MODEL "646"

JURISDICTION: Alexandria, VA

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Alexandria, Virginia 22314
(703) 549-6422

Professional Engineer seal for Andrea Spruch, License No. 047863, June 21, 2018.

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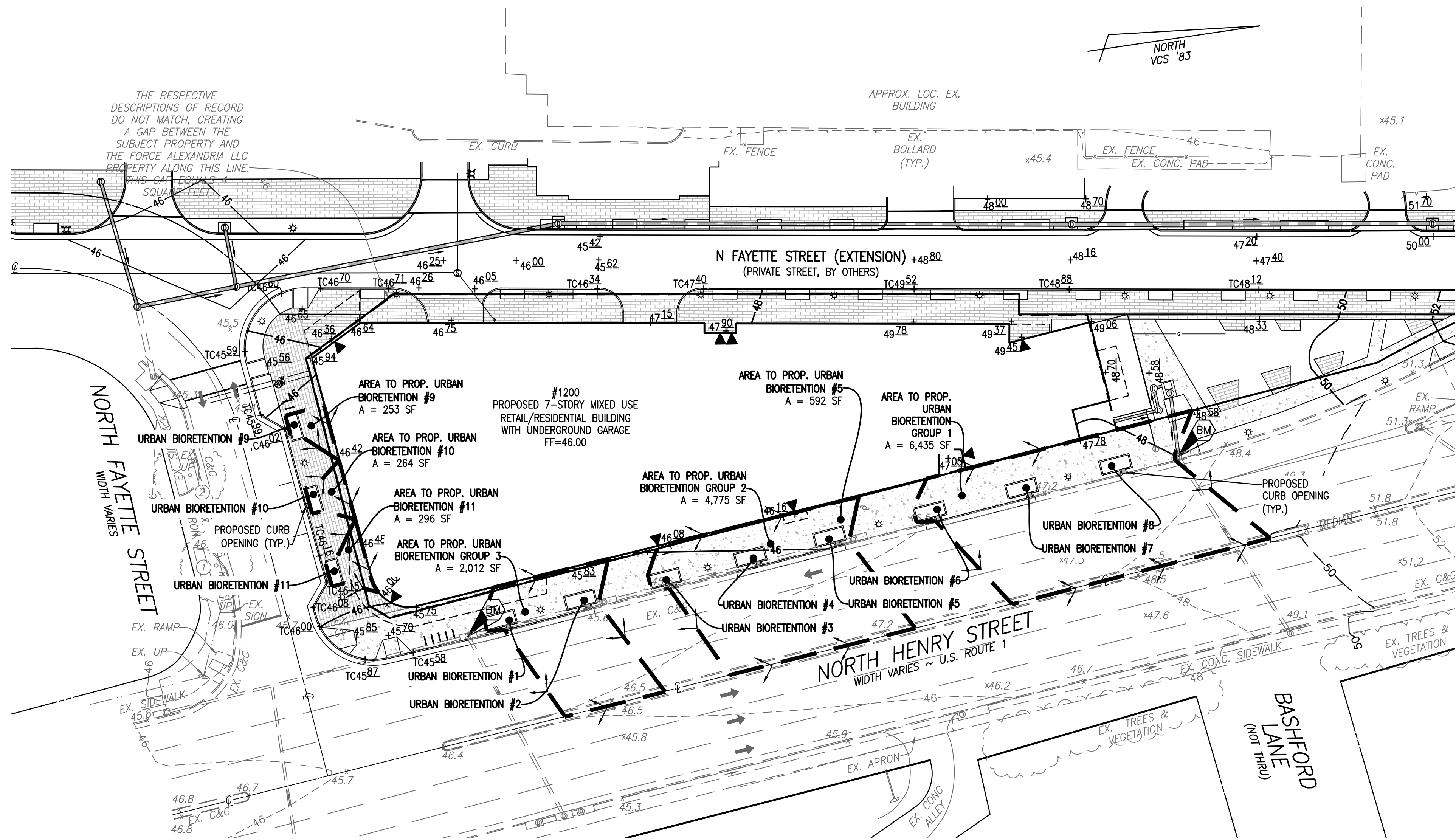
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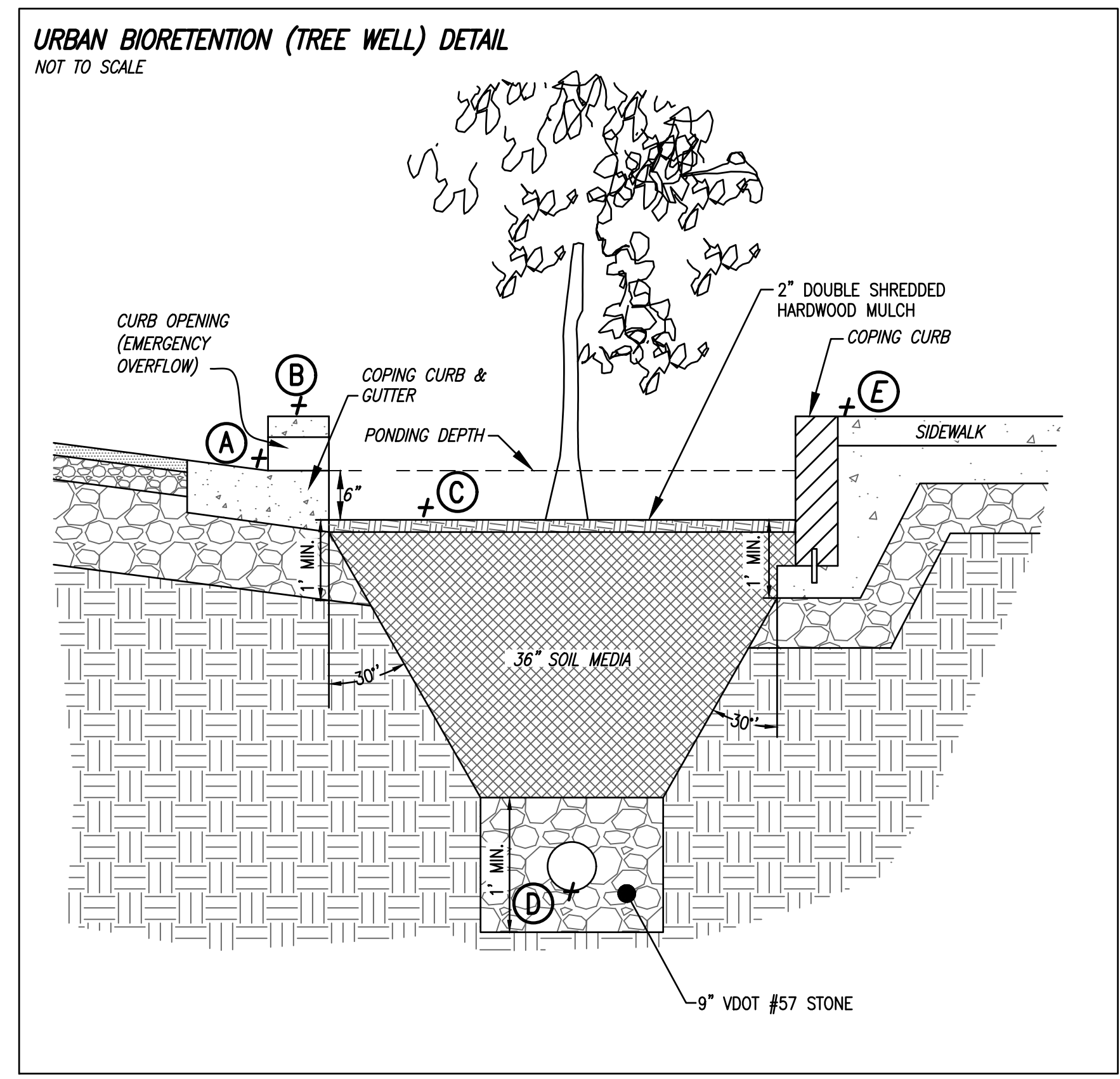
ON-SITE BMP DESIGN AND DETAILS

SHEET 7 OF 13
FILE: 17-181

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AREA TO URBAN BIORETENTION (TREE WELL) DETAIL  
SCALE: 1" = 30'



URBAN BIORETENTION	SQ. FT. OF SURFACE AREA	ELEVATIONS					COORDINATES	
		A	B	C	D	E	NORTH	EAST
1	60	44.9	45.4	44.4	40.7	45.6	6984095.07	11896210.85
2	60	45.1	45.6	44.6	40.9	45.8	6984128.12	11896207.29
3	60	45.2	45.7	44.7	41	45.9	6984165.35	11896203.30
4	60	45.3	45.8	44.8	41.1	46	6984201.78	11896199.49
5	60	45.5	46	45	41.3	46.2	6984235.60	11896196.67
6	60	46	46.5	45.5	41.8	46.7	6984278.22	11896192.07
7	60	46.6	47.1	46.1	42.4	47.3	6984315.41	11896187.87
8	60	47	47.5	46.5	42.8	47.7	6984356.38	11896184.40
9	40	45.5	46	45	41.3	46.2	6984023.18	11896120.47
10	40	45.6	46.1	45.1	41.4	46.3	6984026.70	11896150.44
11	40	45.6	46.1	45.1	41.4	46.3	6984030.95	11896181.67

**WATER QUALITY VOLUME CALCULATIONS FOR GROUP 1:**

Contributing Drainage Area	
Roadway to be Treated	4,425 SF
Sidewalk to be Treated	2,030 SF
Contributing Drainage Area	6,455 SF
Treatment Volume Required	268.96 CF
Water Quality Sizing Computations	
Min. Surface Area (Gross)	537.92 SF
Infiltration Ponding	0.00 FT
Min. Surface Area (Net)	537.92 SF
Fill Time	1 HR
Infiltration	0.0000 FT/HR
Depth of Soil	3.00 FT
Ponding Depth	0.50 FT
Landscape Sizing Computations	
Type of Practice	Tree Wells
Tree Spacing	40 FT
Number of Practices Proposed	3
Surface Area per Practice	179.31 SF
Width of Practice	5.00 FT
Min. Length of Practice	35.86 FT
Length of Practice	12.00 FT
Depth of Soil	2.50 FT
Soil Volume Provided	150.00 CF
Additional Soil Volume Required	300.00 CF

**WATER QUALITY VOLUME CALCULATIONS FOR GROUP 2:**

Contributing Drainage Area	
Roadway to be Treated	3,187 SF
Sidewalk to be Treated	1,588 SF
Contributing Drainage Area	4,775 SF
Treatment Volume Required	198.96 CF
Water Quality Sizing Computations	
Min. Surface Area (Gross)	397.92 SF
Infiltration Ponding	0.00 FT
Min. Surface Area (Net)	397.92 SF
Fill Time	1 HR
Infiltration	0.0000 FT/HR
Depth of Soil	3.00 FT
Ponding Depth	0.50 FT
Landscape Sizing Computations	
Type of Practice	Tree Wells
Tree Spacing	35 FT
Number of Practices Proposed	3
Surface Area per Practice	132.64 SF
Width of Practice	5.00 FT
Min. Length of Practice	26.53 FT
Length of Practice	12.00 FT
Depth of Soil	3.00 FT
Soil Volume Provided	180.00 CF
Additional Soil Volume Required	270.00 CF

**WATER QUALITY VOLUME CALCULATIONS FOR GROUP 3:**

Contributing Drainage Area	
Roadway to be Treated	1,701 SF
Sidewalk to be Treated	870 SF
Contributing Drainage Area	2,571 SF
Treatment Volume Required	107.13 CF
Water Quality Sizing Computations	
Min. Surface Area (Gross)	214.25 SF
Infiltration Ponding	0.00 FT
Min. Surface Area (Net)	214.25 SF
Fill Time	1 HR
Infiltration	0.0000 FT/HR
Depth of Soil	3.00 FT
Ponding Depth	0.50 FT
Landscape Sizing Computations	
Type of Practice	Tree Wells
Tree Spacing	35 FT
Number of Practices Proposed	2
Surface Area per Practice	107.13 SF
Width of Practice	5.00 FT
Min. Length of Practice	21.43 FT
Length of Practice	12.00 FT
Depth of Soil	3.00 FT
Soil Volume Provided	180.00 CF
Additional Soil Volume Required	270.00 CF

**WATER QUALITY VOLUME CALCULATIONS FOR BOX 9:**

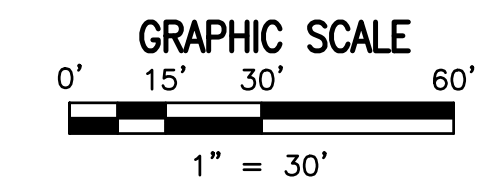
Contributing Drainage Area	
Roadway to be Treated	0 SF
Sidewalk to be Treated	253 SF
Contributing Drainage Area	253 SF
Treatment Volume Required	10.54 CF
Water Quality Sizing Computations	
Min. Surface Area (Gross)	21.08 SF
Infiltration Ponding	0.00 FT
Min. Surface Area (Net)	21.08 SF
Fill Time	1 HR
Infiltration	0.0000 FT/HR
Depth of Soil	3.00 FT
Ponding Depth	0.50 FT
Landscape Sizing Computations	
Type of Practice	Tree Wells
Tree Spacing	32 FT
Number of Practices Proposed	1
Surface Area per Practice	21.08 SF
Width of Practice	4.00 FT
Min. Length of Practice	5.27 FT
Length of Practice	10.00 FT
Depth of Soil	3.00 FT
Soil Volume Provided	120.00 CF
Additional Soil Volume Required	330.00 CF

**WATER QUALITY VOLUME CALCULATIONS FOR BOX 10:**

Contributing Drainage Area	
Roadway to be Treated	0 SF
Sidewalk to be Treated	264 SF
Contributing Drainage Area	264 SF
Treatment Volume Required	11.00 CF
Water Quality Sizing Computations	
Min. Surface Area (Gross)	22.00 SF
Infiltration Ponding	0.00 FT
Min. Surface Area (Net)	22.00 SF
Fill Time	1 HR
Infiltration	0.0000 FT/HR
Depth of Soil	3.00 FT
Ponding Depth	0.50 FT
Landscape Sizing Computations	
Type of Practice	Tree Wells
Tree Spacing	32 FT
Number of Practices Proposed	1
Surface Area per Practice	22.00 SF
Width of Practice	4.00 FT
Min. Length of Practice	5.50 FT
Length of Practice	10.00 FT
Depth of Soil	3.00 FT
Soil Volume Provided	120.00 CF
Additional Soil Volume Required	330.00 CF

**WATER QUALITY VOLUME CALCULATIONS FOR BOX 11:**

Contributing Drainage Area	
Roadway to be Treated	0 SF
Sidewalk to be Treated	295 SF
Contributing Drainage Area	295 SF
Treatment Volume Required	12.29 CF
Water Quality Sizing Computations	
Min. Surface Area (Gross)	24.58 SF
Infiltration Ponding	0.00 FT
Min. Surface Area (Net)	24.58 SF
Fill Time	1 HR
Infiltration	0.0000 FT/HR
Depth of Soil	3.00 FT
Ponding Depth	0.50 FT
Landscape Sizing Computations	
Type of Practice	Tree Wells
Tree Spacing	32 FT
Number of Practices Proposed	1
Surface Area per Practice	24.58 SF
Width of Practice	4.00 FT
Min. Length of Practice	6.15 FT
Length of Practice	10.00 FT
Depth of Soil	3.00 FT
Soil Volume Provided	120.00 CF
Additional Soil Volume Required	330.00 CF



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**APPROVED**  
SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. \_\_\_\_\_

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_

DATE RECORDED \_\_\_\_\_

INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE \_\_\_\_\_

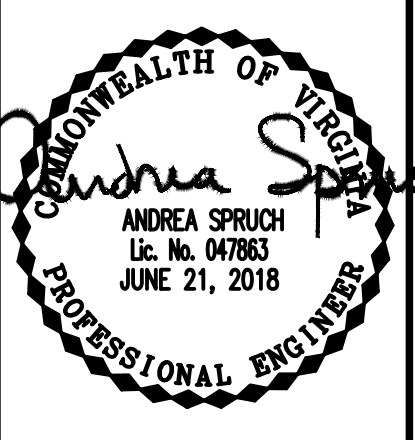
DATE	REVISION

DESIGN: ACS  
DRAWN: BAD  
SCALE: AS NOTED  
DATE: MAY 2018

OFF-SITE  
BMP DESIGN  
AND DETAILS

SHEET **8** OF **13**  
FILE: **17-181**

**R.C. FIELDS & ASSOCIATES, INC.**  
ENGINEERING • LAND SURVEYING • PLANNING  
730 S. Washington Street  
Alexandria, Virginia 22314  
(703) 549-6422



PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT  
**1200 NORTH HENRY STREET**  
CITY OF ALEXANDRIA, VIRGINIA

A:\2017\17181\DWG\DELV08 OFF-SITE BMP DESIGN AND DETAIL.dwg  
Mod: Jun 20 2018 - 11:18:37am



Project Name: 1200 North Henry Street  
 Date: Linear Development Project? No

CLEAR ALL (Ctrl+Shift+R)

data input cells  
 constant values  
 calculation cells  
 final results

### Site Information

### Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area (acres) → 1.28

Maximum reduction required: 20%  
 The site's net increase in impervious cover (acres) is: 0  
 Post-Development TP Load Reduction for Site (lb/yr): 0.32

Check:  
 BMP Design Specifications List: 2013 Draft Stds & Specs  
 Linear project? No  
 Land cover areas entered correctly?   
 Total disturbed area entered?  Total disturbed area > Post-Development area!

Pre-Development Land Cover (acres)	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed forest/open space					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be				0.04	0.04
Impervious Cover (acres)				0.76	0.76
					0.80

Post-Development Land Cover (acres)	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be				0.05	0.05
Impervious Cover (acres)				0.75	0.75
Area Check	OK	OK	OK	OK	0.80

Runoff Coefficients (Rv)	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

Constants	Value
Annual Rainfall (inches)	43
Target Rainfall Event (inches)	1.00
Total Phosphorus (TP) EMC (mg/L)	0.26
Total Nitrogen (TN) EMC (mg/L)	1.86
Target TP Load (lb/acre/yr)	0.41
Pj (unitless correction factor)	0.90

#### LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Land Cover Summary-Pre		
Pre-Development	Listed	Adjusted <sup>1</sup>
Forest/Open Space Cover (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
% Forest	0%	0%
Managed Turf Cover (acres)	0.04	0.04
Weighted Rv(turf)	0.25	0.25
% Managed Turf	5%	5%
Impervious Cover (acres)	0.76	0.76
Rv(impervious)	0.95	0.95
% Impervious	95%	95%
Total Site Area (acres)	0.80	0.80
Site Rv	0.91	0.91

#### LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary-Post (Final)		Land Cover Summary-Post		Land Cover Summary-Post	
Post-Dev. & New Impervious	Post-Development New Impervious	Post-Development	Post-Development	Post-Development	Post-Development
Forest/Open Space Cover (acres)	0.00	Forest/Open Space Cover (acres)	0.00	Forest/Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00	Weighted Rv(forest)	0.00	Weighted Rv(forest)	0.00
% Forest	0%	% Forest	0%	% Forest	0%
Managed Turf Cover (acres)	0.05	Managed Turf Cover (acres)	0.05	Managed Turf Cover (acres)	0.05
Weighted Rv (turf)	0.25	Weighted Rv (turf)	0.25	Weighted Rv (turf)	0.25
% Managed Turf	6%	% Managed Turf	6%	% Managed Turf	6%
Impervious Cover (acres)	0.75	ReDev. Impervious Cover (acres)	0.75	ReDev. Impervious Cover (acres)	0.75
Rv(impervious)	0.95	Rv(impervious)	0.95	Rv(impervious)	0.95
% Impervious	94%	% Impervious	94%	% Impervious	94%
Total Site Area (acres)	0.80	Total ReDev. Site Area (acres)	0.80	Total ReDev. Site Area (acres)	0.80
Final Post Dev Site Rv	0.91	ReDev Site Rv	0.91	ReDev Site Rv	0.91

#### Treatment Volume and Nutrient Load

Pre-Development	Final Post-Development
Pre-Development Treatment Volume (acre-ft)	0.0611
Pre-Development Treatment Volume (cubic feet)	2,660
Pre-Development TP Load (lb/yr)	1.67
Pre-Development TP Load per acre (lb/acre/yr)	2.08
Baseline TP Load (lb/yr) (0.41 lbs/acre/yr applied to pre-redevelopment area excluding previous land proposed for new impervious cover)	0.33

#### Treatment Volume and Nutrient Load

Post-Development	Post-Development
Post-Development Treatment Volume (acre-ft)	0.0606
Post-Development Treatment Volume (cubic feet)	2,638
Post-Development TP Load (lb/yr)	1.66
Post-Development TP Load per acre (lb/acre/yr)	2.07
Max. Reduction Required (Below Pre-Development Load)	20%

<sup>1</sup>Adjusted Land Cover Summary:  
 Pre-Development land cover minus pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-Development acreage (minus acreage of new impervious cover).

Column 1 shows load reduction requirement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).

TP Load Reduction Required for Redeveloped Area (lb/yr)	TP Load Reduction Required for New Impervious Area (lb/yr)
0.32	0

#### Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	0.32
------------------------------------	------

#### Nitrogen Loads (Informational Purposes Only)

Pre-Development TN Load (lb/yr)	11.95	Final Post-Development TN Load (Post-Development & New Impervious) (lb/yr)	11.86
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### 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)					0.00	0.00
Impervious Cover (acres)				0.60	0.60	0.95
<b>Total</b>					<b>0.60</b>	

CLEAR BMP AREAS

Total Phosphorus Available for Removal in D.A. A (lb/yr)	1.30
Post Development Treatment Volume in D.A. A (ft <sup>3</sup> )	2,063

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft <sup>3</sup> )	Runoff Reduction (ft <sup>3</sup> )	Remaining Runoff Volume (ft <sup>3</sup> )	Total BMP Treatment Volume (ft <sup>3</sup> )	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
<b>14. Manufactured Treatment Devices (no RR)</b>													
14.a. Manufactured Treatment Device- Hydrodynamic	0		0.60	0	0	2,063	2,063	25	0.00	1.29	0.32	0.97	

### 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)	0.00	0.00	0.00	0.00	0.00	OK
IMPERVIOUS COVER (ac)	0.60	0.00	0.00	0.00	0.00	OK
IMPERVIOUS COVER TREATED (ac)	0.60	0.00	0.00	0.00	0.00	OK
MANAGED TURF AREA (ac)	0.00	0.00	0.00	0.00	0.00	OK
MANAGED TURF AREA TREATED (ac)	0.00	0.00	0.00	0.00	0.00	OK
AREA CHECK	OK	OK	OK	OK	OK	

Site Treatment Volume (ft<sup>3</sup>) 2,638

### 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 <sup>3</sup> )	0	0	0	0	0	0
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	1.30	0.00	0.00	0.00	0.00	1.30
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.32	0.00	0.00	0.00	0.00	0.32
TP LOAD REMAINING (lb/yr)	0.97	0.00	0.00	0.00	0.00	0.97
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00

#### Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	1.66
TP LOAD REDUCTION REQUIRED (lb/yr)	0.32
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.32
TP LOAD REMAINING (lb/yr)	1.33
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.00 **
**No further TP load reduction required	

#### Total Nitrogen (For Informational Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	11.86
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.00
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	11.86

### STORM WATER QUALITY NARRATIVE (CITY CODE SECTION 13-109E COMPLIANCE):

THE PROPOSED REDEVELOPMENT (APPROXIMATELY 1.28 ACRES OF DISTURBANCE) GENERATES A NET DECREASE OF IMPERVIOUS AREA FROM PRE-DEVELOPMENT CONDITIONS. PER CITY CODE SECTION 13-109E-(5)(a), DEVELOPMENT OF PRIOR DEVELOPED LANDS RESULTING IN NO NET INCREASE IN IMPERVIOUS AREA AND DISTURBING GREATER THAN 1 ACRE MUST RESULT IN A 20% DECREASE IN PHOSPHORUS LOADING FROM THE PRE-DEVELOPMENT TOTAL PHOSPHORUS LOAD.

THE VIRGINIA RUNOFF REDUCTION METHOD WAS UTILIZED TO DETERMINE THE STORM WATER QUALITY MANAGEMENT PERFORMANCE REQUIREMENTS FOR THIS PROJECT. A MANUFACTURED TREATMENT DEVICE (HYDRODYNAMIC FACILITY) IS PROPOSED WITH THIS DEVELOPMENT TO TREAT THE MAJORITY OF RUNOFF FROM THE ROOF OF THE PROPOSED BUILDING. THE REQUIRED REDUCTION IN TOTAL PHOSPHORUS IS 0.32 LB AND THE REDUCTION ACHIEVED (0.32 LB) MEETS THE REQUIRED 20% REDUCTION (SEE SPREADSHEET ON THIS SHEET). THEREFORE, THE WATER QUALITY MANAGEMENT PERFORMANCE REQUIREMENTS FOR THE PROPOSED DEVELOPMENT PER CITY CODE SECTION 13-109E-(5)(a) HAVE BEEN MET.

A CONTRIBUTION TO THE ALEXANDRIA WATER QUALITY IMPROVEMENT FUND WILL BE MADE FOR THAT PORTION OF THE WATER QUALITY VOLUME NOT TREATED IN COMPLIANCE WITH CITY CODE SECTION 13-109E-(9) AND SECTION 13-110.

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**APPROVED**  
 SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. \_\_\_\_\_

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_

DATE RECORDED \_\_\_\_\_

INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE \_\_\_\_\_

PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT

1200 NORTH HENRY STREET

CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION

DESIGN: ACS  
 DRAWN: BAD  
 SCALE: AS NOTED  
 DATE: MAY 2018

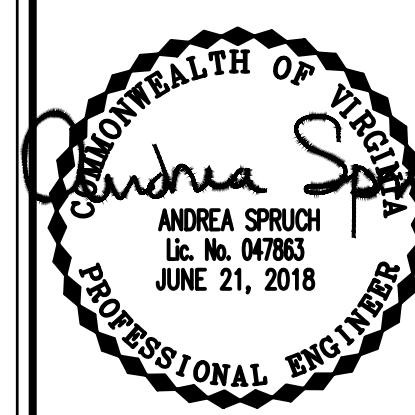
STORMWATER QUALITY COMPUTATIONS

SHEET 9 OF 13  
 FILE: 17-181

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 Alexandria, Virginia 22314

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**STORMWATER OUTFALL NARRATIVE:**

**PRE-DEVELOPMENT CONDITIONS:**

THE 0.80 ACRE SITE IS LOCATED IN THE POTOMAC RIVER WATERSHED. IN EXISTING CONDITIONS, THE SITE CONSISTS OF A RETAIL CENTER WITH ASSOCIATED PARKING AND VERY LITTLE LANDSCAPED OPEN SPACE. THE PROJECT SITE HAS TWO OUTFALL POINTS.

**OUTFALL #1:** THE MAJORITY OF THE PROJECT SITE DRAINS TO THE EXISTING STORM SYSTEM IN THE NORTH HENRY STREET RIGHT-OF-WAY. RUNOFF FROM A PORTION OF THE BUILDING AND THE MAJORITY OF THE SURFACE PARKING IS COLLECTED IN AN UNDERGROUND STORM SEWER SYSTEM THAT CONNECTS TO THE CITY MAINTAINED STORM SEWER SYSTEM LOCATED IN THE NORTH HENRY STREET RIGHT-OF-WAY. DRAINAGE IS CONVEYED EAST INTO THE CITY STORM SEWER WHERE IT IS CONVEYED NORTH BY A 30" STORM SEWER, INTO A 48" STORM SEWER, AND EVENTUALLY OUTFALLS TO THE POTOMAC RIVER.

**OUTFALL #2:** THE REMAINDER OF THE RUNOFF FROM THE PROJECT SITE IS CONVEYED BY PIPED DOWNSPOUTS TO THE EXISTING CITY STORM SEWER IN NORTH FAYETTE STREET RIGHT-OF-WAY. ONCE WITHIN THE CITY STORM SEWER, IT IS CONVEYED NORTH TO A POINT WHERE IT JOINS WITH THE RUNOFF FROM OUTFALL #1. AT THIS POINT, THE TWO FLOW REGIMES COMBINE AND CONTINUE NORTH WITHIN A 48" STORM SEWER AND EVENTUALLY OUTFALL TO THE POTOMAC RIVER.

**POST-DEVELOPMENT CONDITIONS:**

THE REDEVELOPMENT OF THE PROJECT PROPOSES A MIXED USE BUILDING WITH IMPROVED STREETScape/OPEN SPACE. OVERALL IMPERVIOUS AREA WILL DECREASE WITH THE PROPOSED CONSTRUCTION AND THERE WILL BE ONE OUTFALL POINT (OUTFALL #1).

AS IN EXISTING CONDITIONS, RUNOFF FROM THE PROPOSED BUILDING IS COLLECTED IN AN UNDERGROUND STORM SEWER SYSTEM THAT CONNECTS TO THE CITY MAINTAINED STORM SEWER SYSTEM LOCATED IN THE NORTH HENRY STREET RIGHT-OF-WAY. THE OPEN SPACE ON-SITE WILL SHEETFLOW TO THE NORTH HENRY STREET RIGHT-OF-WAY AND BE COLLECTED BY THE EXISTING STORM SYSTEM IN PLACE. DRAINAGE IS CONVEYED EAST AND NORTH WHERE IT IS CONVEYED WITHIN A 30" AND 48" STORM PIPES AND EVENTUALLY OUTFALL TO THE POTOMAC RIVER.

**CONCLUSION:**

THE POINT OF OUTFALL FOR OUTFALL #1 IS AN EXISTING CURB INLET (LABELED EXISTING STRUCTURE 1 ON THIS SHEET) LOCATED EAST OF THE PROPERTY WITHIN NORTH HENRY STREET. THE DRAINAGE AREA TO THE OUTFALL POINT IS 1.22 ACRES. THE POINT OF CONFLUENCE IS WHERE THIS RECEIVING PIPE IS JOINED BY ANOTHER WATERSHED THAT IS AT LEAST 90% OF THE FIRST DRAINAGE AREA AT THE OUTFALL POINT. FOR OUTFALL #1, THE POINT OF CONFLUENCE IS AN EXISTING MANHOLE (LABELED AS EXISTING STRUCTURE 2) WITH A DRAINAGE AREA OF 6.62 ACRES (54.3% OF THE FIRST DRAINAGE AREA). THE LIMITS OF ANALYSIS INCLUDES ANALYZING THE OUTFALL SYSTEM 150' DOWNSTREAM OF THE POINT OF CONFLUENCE (ENDING AT THE EXISTING INLET LABELED AS EXISTING 4 ON THIS SHEET).

COMPUTATIONS SHOWN ON THIS SHEET DEMONSTRATE THAT THE EXISTING SYSTEM EXPERIENCES LOCALIZED FLOODING IN EXISTING CONDITIONS. THE PEAK FLOW RATE IS BEING REDUCED WITH THE PROPOSED DEVELOPMENT AS SHOWN ON SHEET 6. THE FLOOD PROTECTION FOR THIS SITE IS THEREFORE IN COMPLIANCE WITH SECTION 13-109F(2)(b)(ii). DUE TO SITE DRAINAGE OUTFALLING TO AN EXISTING UNDERSIZED MANMADE STORM SEWER SYSTEM, NO OFFSITE IMPROVEMENTS TO THE SYSTEM ARE REQUIRED.

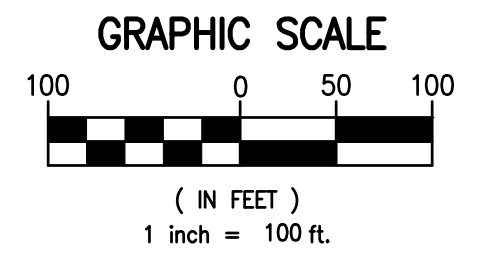
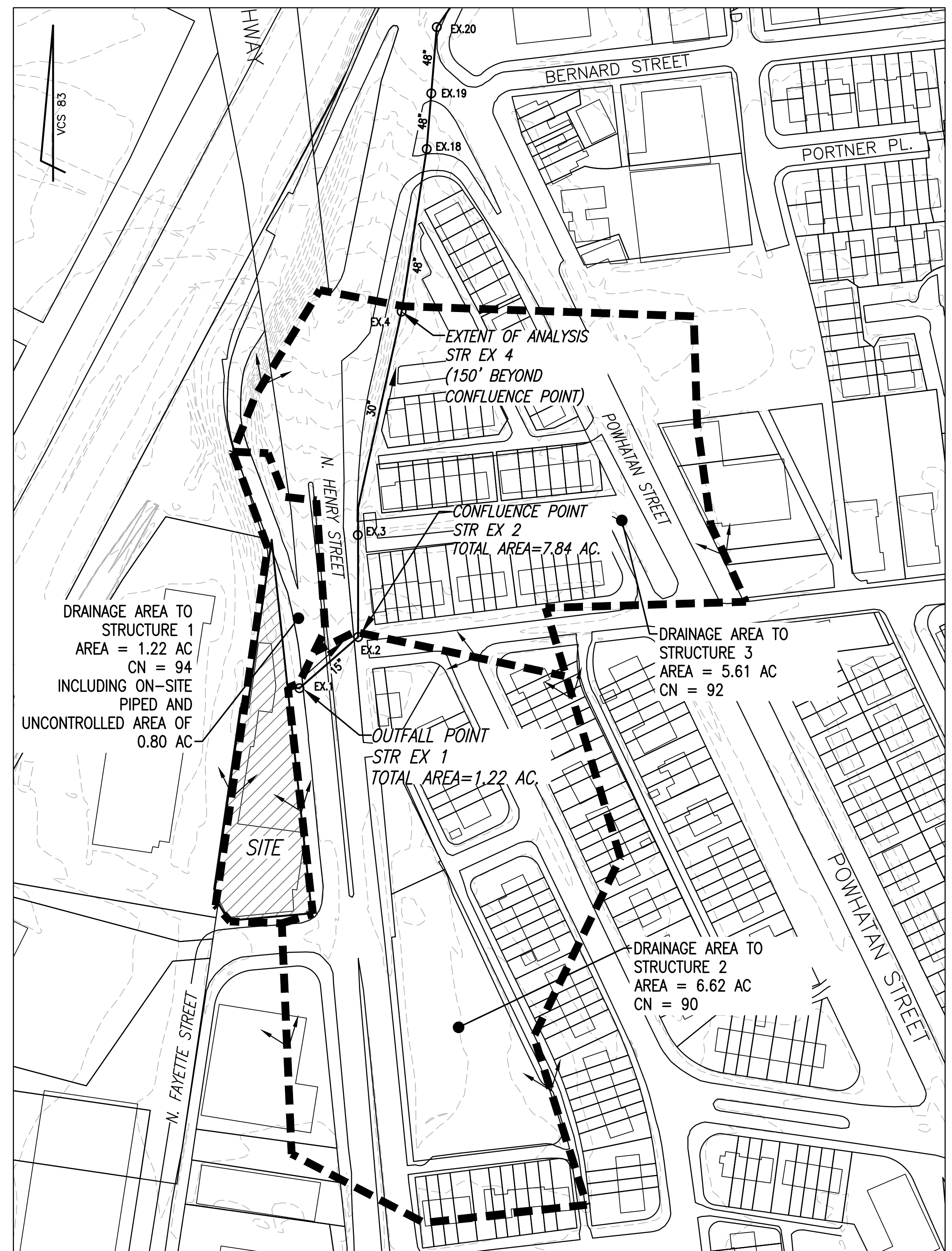
PER THE LIMITS OF ANALYSIS PER CITY CODE SECTION 13-109F-2(d)(i) AND REDUCED POST-DEVELOPMENT RUNOFF RATE FOR THE 10-YEAR, 24-HOUR STORM, THE PROJECT POST-DEVELOPMENT RUNOFF WILL NOT EXACERBATE ANY EXISTING DOWNSTREAM CAPACITY CONDITIONS.

**STORM SEWER OUTFALL COMPUTATIONS**

STRUCTURE	FROM	TO	INC. DRAINAGE AREA (AC)	ACCUM. DRAINAGE AREA (AC)	CURVE NUMBER (CN)	RAINFALL DEPTH (IN)	T <sub>c</sub> (MINUTES)	INCREMENTAL "Q" (CFS)	ACCUMULATED "Q" (CFS)	PIPE DIAMETER (IN)	SLOPE (%)	"n"	MAXIMUM "Q" (CFS)	MAXIMUM VELOCITY (FPS)	LENGTH OF RUN (FT)	UPPER INVERT	LOWER INVERT	FALL (FT)
	SITE	1	1.22	1.22	94	5.20	5	5.95	5.95	15	1.88%	0.013	8.85	7.23	96	45.00	43.20	1.80
	1	2	6.62	7.84	90	5.20	5	30.45	36.40	15	3.28%	0.013	11.70	9.56	136	43.20	38.74	4.46
	2	3	2.25	10.09	92	5.20	5	10.69	47.09	30	0.57%	0.013	31.06	6.35	136	37.49	36.71	0.78
	3	4	3.36	13.45	92	5.20	5	15.96	63.05	30	0.76%	0.013	35.79	7.31	310	36.61	34.25	2.36

**STORM SEWER OUTFALL HGL COMPUTATIONS**

INLET ID	OUTLET WSE	D <sub>o</sub> (in)	Q <sub>o</sub>	L <sub>o</sub>	S <sub>10</sub> %	H <sub>t</sub>	JUNCTION LOSS										FINAL H	INLET WSE	RIM/THROAT ELEV	FREE BOARD		
							V <sub>o</sub>	H <sub>o</sub>	Q <sub>i</sub>	V <sub>i</sub>	Q <sub>i</sub> /V <sub>i</sub>	V <sub>i</sub> <sup>2</sup> /2g	H <sub>i</sub>	ANGLE	H <sub>b</sub>	H <sub>t</sub>					1.3 H <sub>t</sub>	0.5 H <sub>t</sub>
4	36.25	30.00	63.05	310.00	0.148%	0.4591	7.30	0.207	47.09	6.33	298.08	0.62	0.22	0.00	0.000	0.42	-	0.21	0.67	36.92	56.00	19.08
3	38.71	30.00	47.09	136.00	0.083%	0.1124	6.33	0.156	36.40	9.56	347.98	1.42	0.50	0.00	0.000	0.65	-	0.33	0.44	39.15	54.71	15.56
2	39.74	15.00	36.40	136.00	1.988%	2.7039	9.56	0.355	5.95	7.24	43.08	0.81	0.28	45.00	0.250	0.64	-	0.32	3.02	42.76	48.94	6.18
1	44.20	15.00	5.95	96.00	0.046%	0.0442	7.24	0.203	5.95	7.24	43.08	0.81	0.28	45.00	0.250	0.74	-	0.37	0.41	44.61	47.50	2.89



**NOTE: STORM SEWER OUTFALL INFORMATION PROVIDED BY FIELD SURVEY AND CITY GIS DATA.**

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**APPROVED**  
SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. \_\_\_\_\_

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_

DATE RECORDED \_\_\_\_\_

INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE \_\_\_\_\_

DESIGN: ACS  
DRAWN: BAD  
SCALE: AS NOTED  
DATE: MAY 2018

**STORMWATER OUTFALL ANALYSIS**

SHEET **10** OF **13**  
FILE: **17-181**

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Alexandria, Virginia 22314  
(703) 549-6422

COMMONWEALTH OF VIRGINIA  
*Andria Spruch*  
ANDREA SPRUCH  
Lic. No. 047853  
JUNE 21, 2018  
PROFESSIONAL ENGINEER

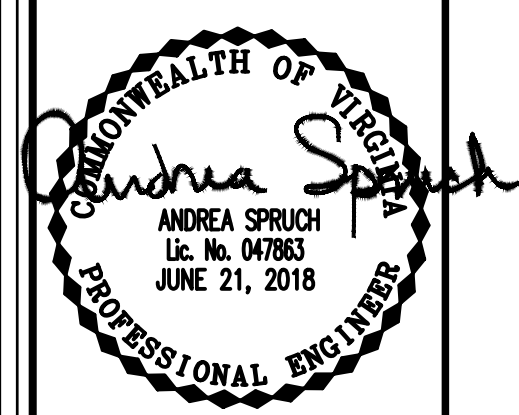
PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT

**1200 NORTH HENRY STREET**

CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION

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Wed, Jun 20, 2018 - 11:16:56am



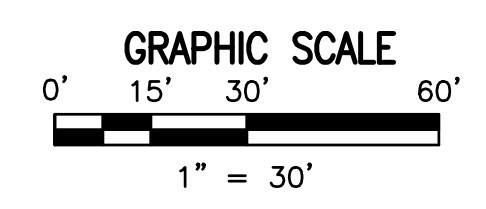
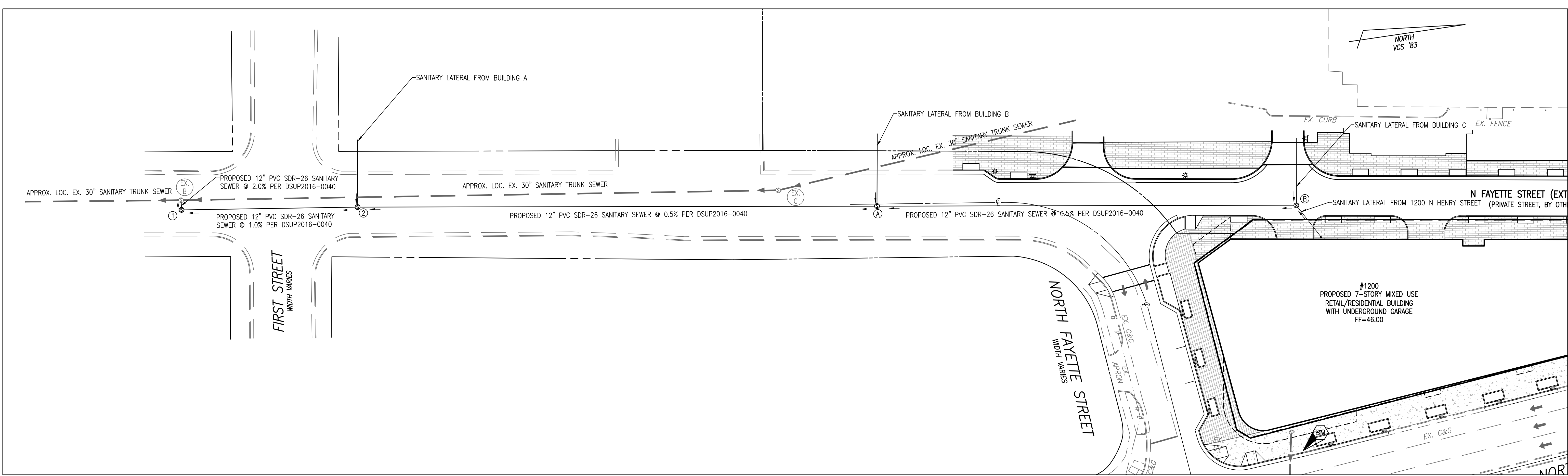
PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT  
**1200 NORTH HENRY STREET**  
 CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION

DESIGN: ACS  
 DRAWN: BAD  
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 DATE: MAY 2018

**SANITARY  
 OUTFALL  
 ANALYSIS**

SHEET **11** OF **13**  
 FILE: **17-181**



EXISTING CONDITION							
BLD #	NAME	USE	DESIGN FLOW UNIT	SIZE	GAL/DAY	CFS	PEAK CFS (X4)
C	BRADDOCK GATEWAY PHASE III	RETAIL	200 SF	8,242	1,648	0.003	0.010
C	BRADDOCK GATEWAY PHASE III	MULTI-FAMILY	300 UNIT	370	111,000	0.172	0.687
B	BRADDOCK GATEWAY PHASE II	RETAIL	200 SF	8,169	1,634	0.003	0.010
B	BRADDOCK GATEWAY PHASE II	MULTI-FAMILY	300 UNIT	258	77,400	0.120	0.479
A	BRADDOCK GATEWAY PHASE I	RETAIL	200 SF	1,500	300	0.000	0.002
A	BRADDOCK GATEWAY PHASE I	MULTI-FAMILY	300 UNIT	270	81,000	0.125	0.501
				TOTAL	272,982	0.422	1.690
PROPOSED CONDITION							
1200	1200 N HENRY	RETAIL	200 SF	28,500	5,700	0.009	0.035
1200	1200 N HENRY	MULTI-FAMILY	300 unit	115	34,500	0.053	0.214
				TOTAL	40,200	0.062	0.249

**SANITARY SEWER OUTFALL CALCULATIONS:**  
 THE AVERAGE DAY AND PEAK HOUR WASTEWATER DISCHARGE FLOW CALCULATIONS WERE COMPUTED USING THE METHOD PROVIDED BY THE CITY OF ALEXANDRIA IN MEMORANDUM TO INDUSTRY NO. 06-14. THE PROPOSED USE FOR THIS PROJECT WILL BE RETAIL AND MULTI-FAMILY. THE AVERAGE DAILY FLOW IS DESCRIBED BELOW:

RETAIL: 200 GPD/1000 SF = 200 GPD/1000 SF X 28,500 SF = 5,700 GPD  
 MULTI-FAMILY: 300 GPD/UNIT: 300 GPD/UNIT X 115 UNITS = 34,500 GPD

TO ACCOUNT FOR THE DAILY PEAK PERIOD, THE ABOVE FLOW IS MULTIPLIED BY A FACTOR OF 4:

5,700 GPD X 4 = 22,800 GPD  
 34,500 CFS X 4 = 138,000 CFS  
**TOTAL PEAK FLOW = 160,800 GPD OR 0.25 CFS**

ADEQUATE SANITARY OUTFALL COMPUTATIONS																
STRUCTURE		BUILDING FLOW INCLUDED	INCREMENTAL "Q" (CFS)	ACCUMULATED "Q" (CFS)	PIPE DIAMETER (IN)	SLOPE (%)	"n"	FULL FLOW "Q" (CFS)	FULL FLOW VELOCITY (FPS)	LENGTH OF RUN (FT)	UPPER INVERT	LOWER INVERT	FALL (FT)	ACTUAL VELOCITY (FPS)	ACTUAL DEPTH (FT)	GRAVITY FLOW
FROM	TO															
B	A	1200, BUILDING C	0.95	0.95	12	0.50%	0.010	3.41	4.17	255.45	30.80	29.53	1.27	3.600	0.360	YES
A	2	BUILDING B	0.49	1.44	12	0.50%	0.010	3.42	4.18	327.44	29.28	27.64	1.64	4.090	0.470	YES
2	1	BUILDING A	0.50	1.94	12	1.00%	0.010	4.84	5.92	110.88	27.39	26.28	1.11	5.780	0.470	YES
1	EX B	-	0.00	1.94	12	2.00%	0.010	6.84	8.36	6.00	26.03	25.91	0.12	7.480	0.390	YES

**SANITARY HGL COMPUTATIONS**

INLET ID	OUTLET WSE	D <sub>0</sub> (in)	Q <sub>0</sub>	L <sub>0</sub>	S <sub>10</sub> %	H <sub>i</sub>	JUNCTION LOSS										INLET WSE	RIM/THROAT ELEV	FREE BOARD			
							V <sub>0</sub>	H <sub>0</sub>	Q <sub>1</sub>	V <sub>1</sub>	Q <sub>1</sub> /V <sub>1</sub>	V <sub>1</sub> <sup>2</sup> /2g	H <sub>1</sub>	ANGLE	H <sub>d</sub>	H <sub>f</sub>				1.3 H <sub>f</sub>	0.5 H <sub>f</sub>	FINAL H
1	26.71	12	1.94	6.00	0.199%	0.0119	7.48	0.217	1.94	5.78	11.21	0.52	0.18	90.00	0.360	0.76	-	0.38	0.39	27.10	46.00	18.90
2	27.10	12	1.94	110.88	0.199%	0.2207	5.78	0.130	1.44	4.09	5.89	0.26	0.09	0.00	0.000	0.22	-	0.11	0.33	27.43	47.23	19.80
A	28.44	12	1.44	327.44	0.018%	0.0596	4.09	0.065	0.96	3.60	3.46	0.20	0.07	0.00	0.000	0.14	-	0.07	0.13	28.57	45.02	16.45
B	30.33	12	0.95	255.45	0.001%	0.0025	3.60	0.050	0.96	3.60	3.46	0.20	0.07	0.00	0.000	0.12	-	0.06	0.06	30.39	46.25	15.86

**SANITARY SEWER OUTFALL NOTE:**  
 THIS PROJECT IS ANTICIPATED TO GENERATE AN INCREASE IN EXCESS OF 10,000 GPD IN SANITARY WASTE OUTFLOW. A FLOW OF APPROXIMATELY 40,200 GPD IS EXPECTED FOR THIS DEVELOPMENT RESULTING IN A PEAK FLOW OF 160,800 GPD. THEREFORE, THE PROJECT IS SUBJECT TO A SANITARY SEWER OUTFALL ANALYSIS. THIS SANITARY SEWER OUTFALL ANALYSIS SHOWS ADEQUACY OF SANITARY SEWER OUTFALL IN ACCORDANCE WITH MEMO TO INDUSTRY 06-14.

THIS PROJECT WILL CONNECT TO A CITY OF ALEXANDRIA 12" SANITARY SEWER AT STRUCTURE B (PROPOSED PER DSUP2016-0040), ADJACENT TO THIS SITE WITHIN NORTH FAYETTE STREET EXTENSION (A PRIVATE STREET). SANITARY FLOW IS THEN CONVEYED SOUTH THROUGH A CITY OF ALEXANDRIA 12" SANITARY SEWER AND CONTINUE THROUGH STRUCTURES A, 2, AND 1 BEFORE ULTIMATELY CONNECTING INTO AN EXISTING 30" SANITARY TRUNK SEWER AT AN EXISTING SANITARY MANHOLE, EX B. PER MEMORANDUM TO INDUSTRY NO. 06-14, THE LIMITS OF ANALYSIS FOR THE SANITARY SEWER ADEQUATE OUTFALL IS AT A POINT WHERE THE DOWNSTREAM SEWER HAS A MINIMUM DIAMETER OF 24". THEREFORE, THE SANITARY SEWER ANALYSIS CONCLUDES AT STRUCTURE EX B. THE SANITARY SEWER FROM B TO EXISTING B WILL BE INSTALLED AS PART OF DSUP2016-0040 AND THE SIZES WITH INVERTS ARE BASED ON THE DESIGN PLANS ASSOCIATED WITH THAT PROJECT.

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DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

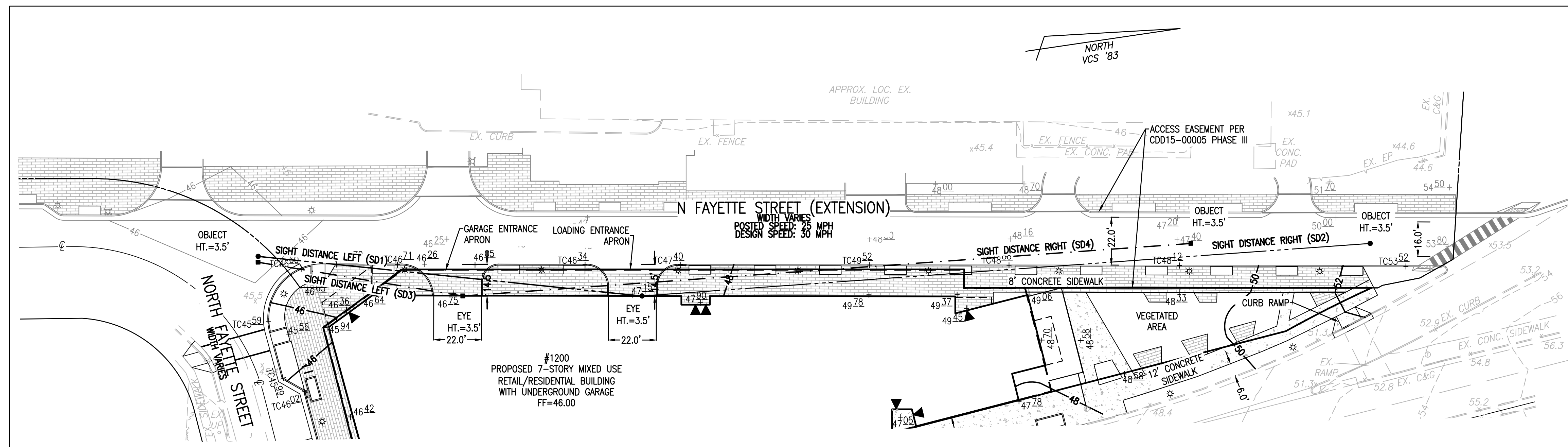
SITE PLAN NO. \_\_\_\_\_

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_

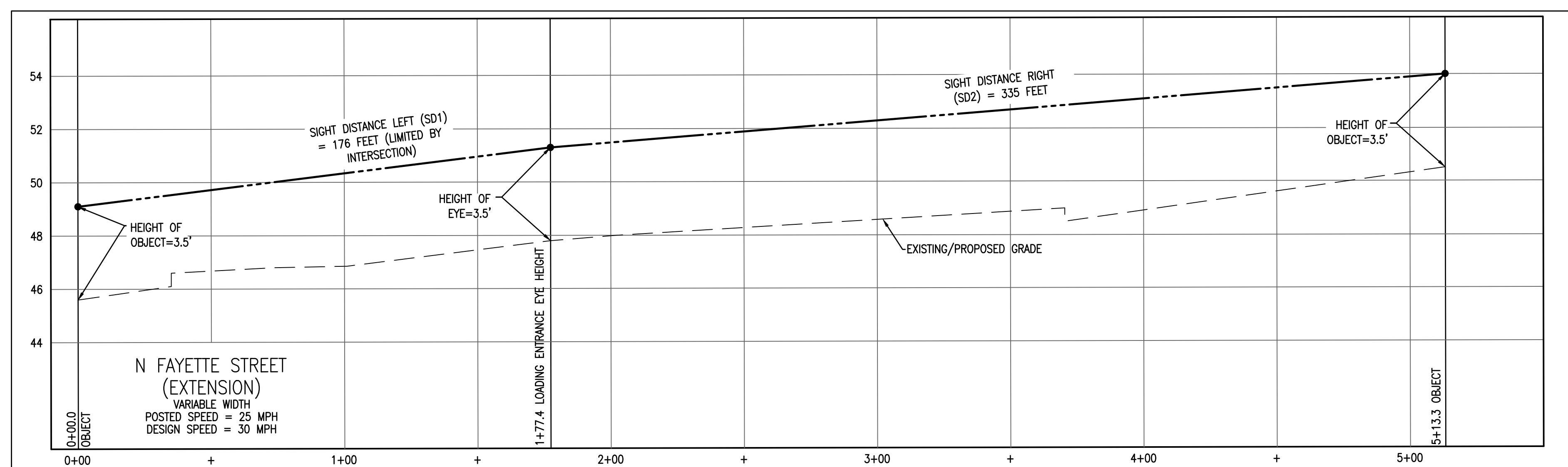
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INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE \_\_\_\_\_



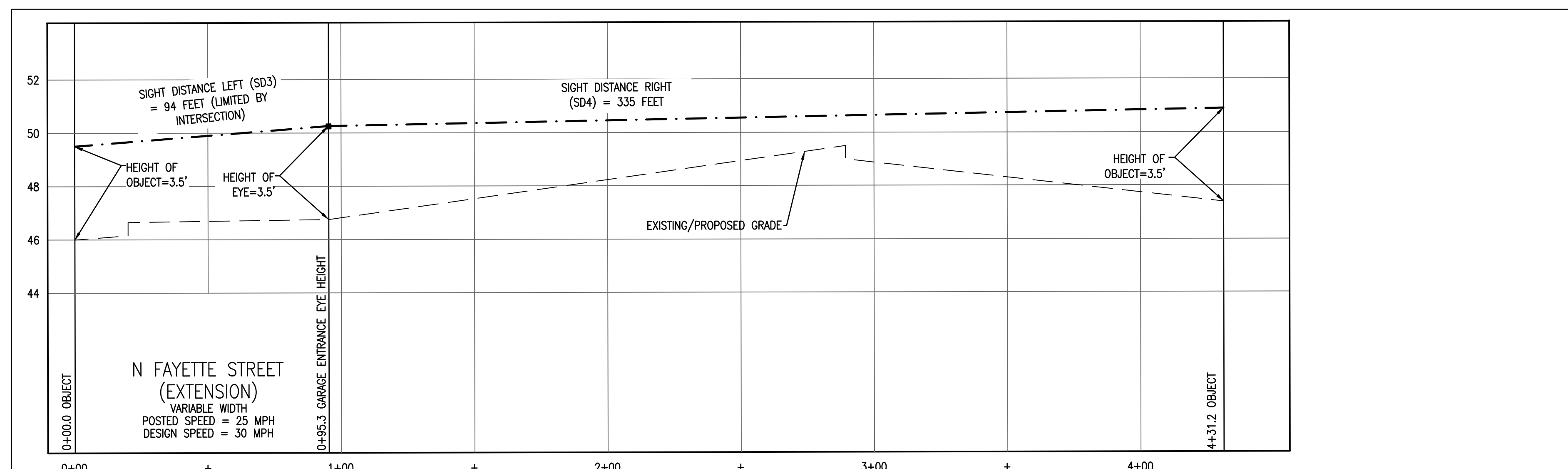
**NORTH FAYETTE STREET EXTENSION SIGHT DISTANCE PLAN**

SCALE: 1"=30'



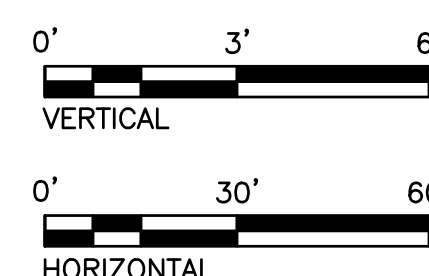
**LOADING DOCK ENTRANCE SIGHT DISTANCE PROFILE**

SCALE - HORIZONTAL: 1"=30', VERTICAL 1"=3'



**GARAGE ENTRANCE SIGHT DISTANCE PROFILE**

SCALE - HORIZONTAL: 1"=30', VERTICAL 1"=3'



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**NOTE:**  
GRADING OF NORTH FAYETTE STREET (EXTENSION) PROVIDED BY BRADDOCK GATEWAY PHASE III PLAN (DSUP2016-0040) DATED MARCH 7, 2018.

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SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

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DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

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DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_

DATE RECORDED \_\_\_\_\_

INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE \_\_\_\_\_

PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT  
**1200 NORTH HENRY STREET**  
CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION

DESIGN: ACS  
DRAWN: BAD  
SCALE: 1"=30'  
DATE: MAY 2018

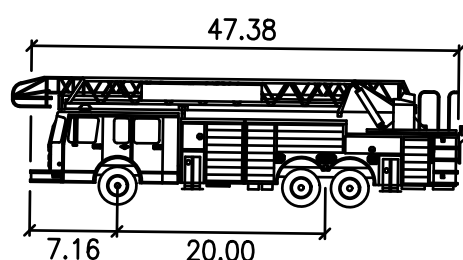
**SIGHT DISTANCE PLAN AND PROFILE**

SHEET **12** OF **13**  
FILE: **17-181**

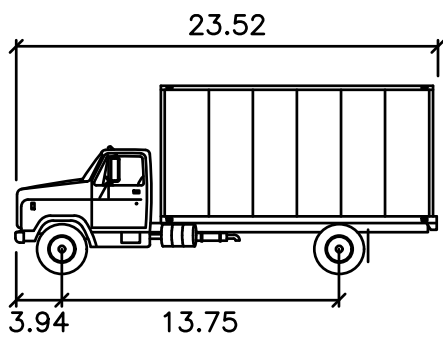


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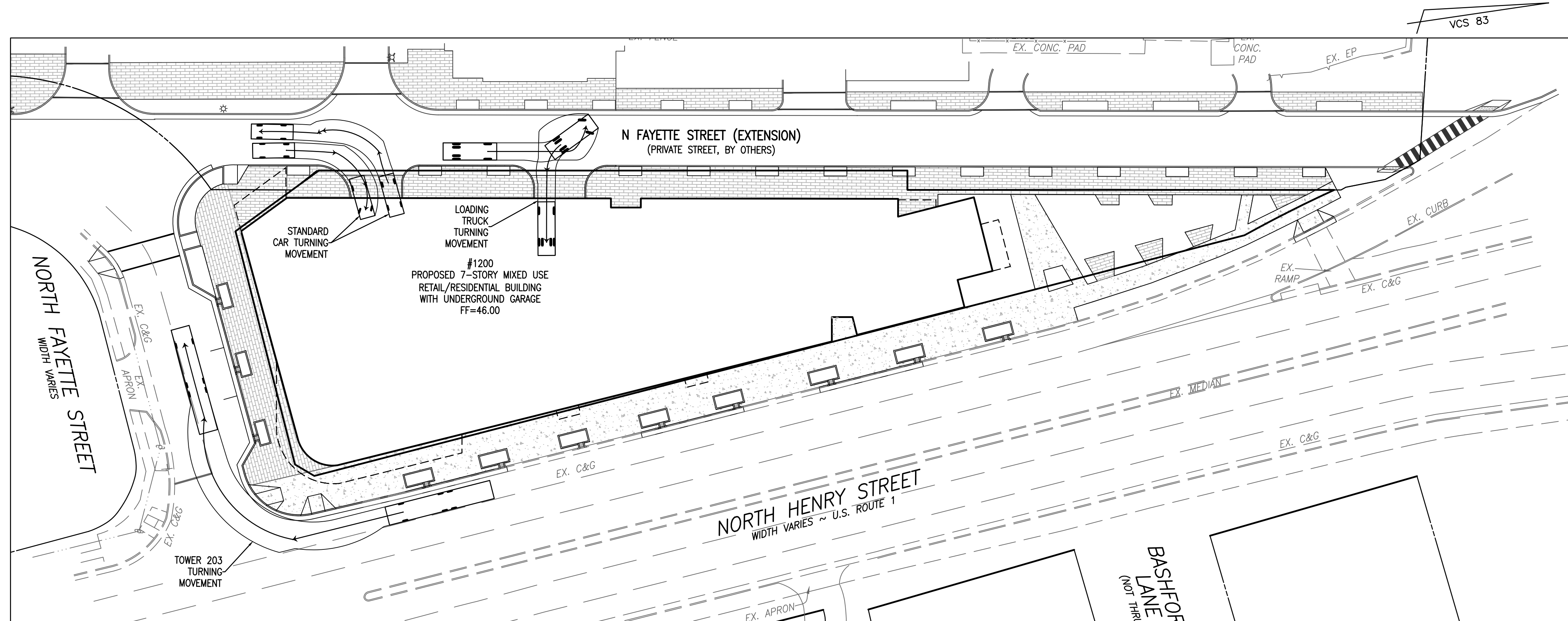
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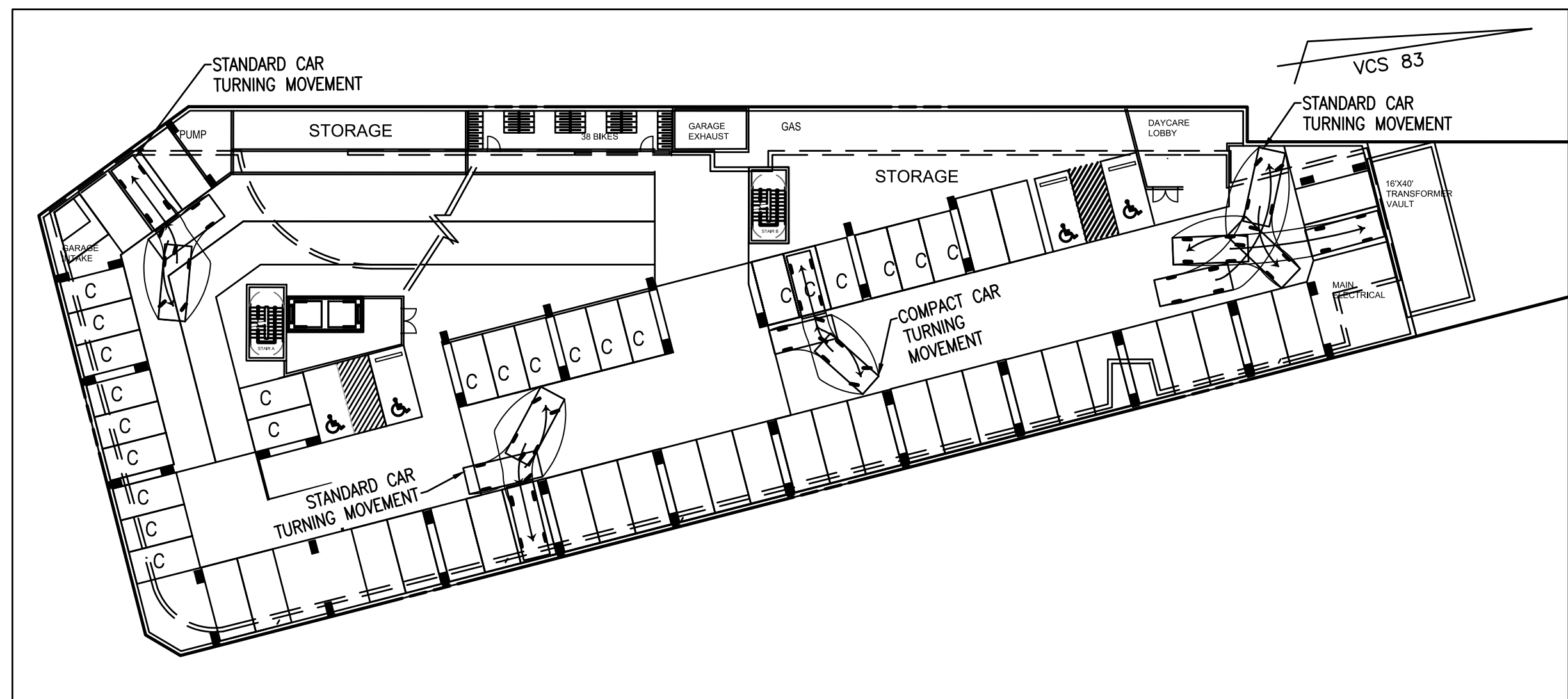
TOWER 203 feet  
 Width : 8.17  
 Track : 8.17  
 Lock to Lock Time : 6.0  
 Steering Angle : 24.6



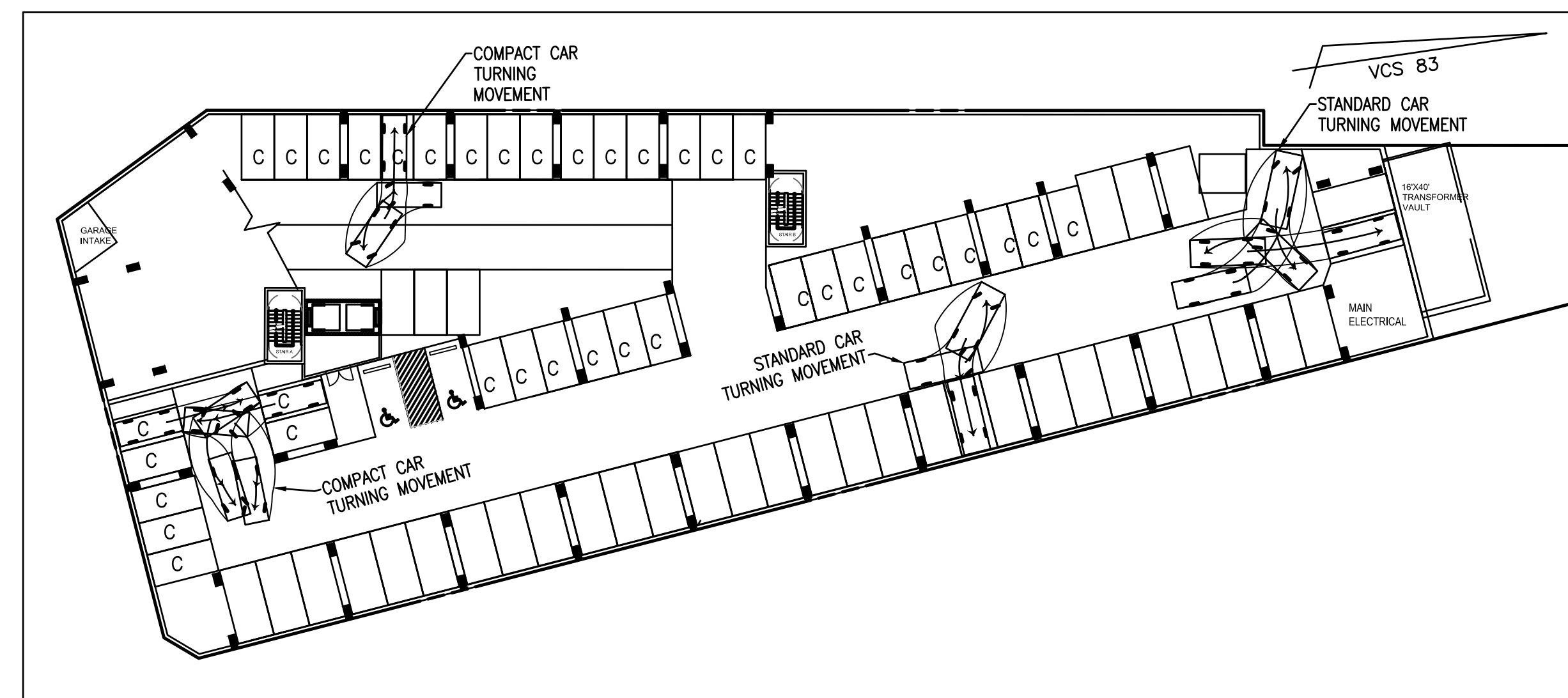
LOADING TRUCK feet  
 Width : 7.55  
 Track : 7.55  
 Lock to Lock Time : 6.0  
 Steering Angle : 43.2



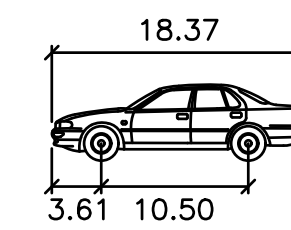
LOADING TRUCK AND EMERGENCY VEHICLE  
 SCALE: 1" = 30'



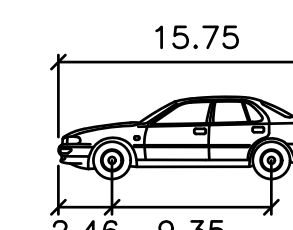
STANDARD/COMPACT CAR TURNING MOVEMENTS (P1)  
 SCALE: 1" = 30'



STANDARD/COMPACT CAR TURNING MOVEMENTS (P2)  
 SCALE: 1" = 30'



STANDARD CAR feet  
 WIDTH: 6.56  
 TRACK: 6.56  
 LOCK TO LOCK TIME: 6.0  
 STEERING ANGLE: 36.2

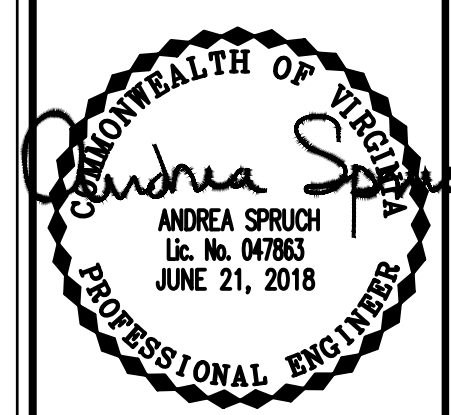


COMPACT CAR feet  
 WIDTH: 5.91  
 TRACK: 5.91  
 LOCK TO LOCK TIME: 6.0  
 STEERING ANGLE: 31.7

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<b>APPROVED</b> SPECIAL USE PERMIT NO. 2017-0020	
DEPARTMENT OF PLANNING & ZONING	
DIRECTOR _____	DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	
SITE PLAN NO. _____	
DIRECTOR _____	DATE _____
CHAIRMAN, PLANNING COMMISSION _____	
DATE RECORDED _____	
INSTRUMENT NO. _____	DEED BOOK NO. _____ DATE _____

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PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT  
 1200 NORTH HENRY STREET  
 CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION

DESIGN: ACS  
 DRAWN: BAD  
 SCALE: AS NOTED  
 DATE: MAY 2018

**GARAGE TURNING MOVEMENTS**

A:\2017\17181\DWG\DEVA13 TURNING AND GARAGE MOVEMENTS.dwg  
 Wed, Jun 20, 2018 - 11:51:49am



PRINT DATE: 1/17/2018 11:42:51 AM

ISSUE DATE

CONCEPT PLAN I	09/22/17
CONCEPT PLAN II	02/16/18
PRELIMINARY COMPLETENESS	05/09/18
VERIFICATION SUBMISSION	06/21/18

REVISION DATE

PROJECT TITLE

PRELIMINARY  
DEVELOPMENT  
SPECIAL USE  
PERMIT

1200 NORTH HENRY  
STREET  
ALEXANDRIA, VA

PROJECT NO. 317462

DRAWING TITLE

BUILDING  
PLANS

**APPROVED**  
SPECIAL USE PERMIT NO. 2017-0020

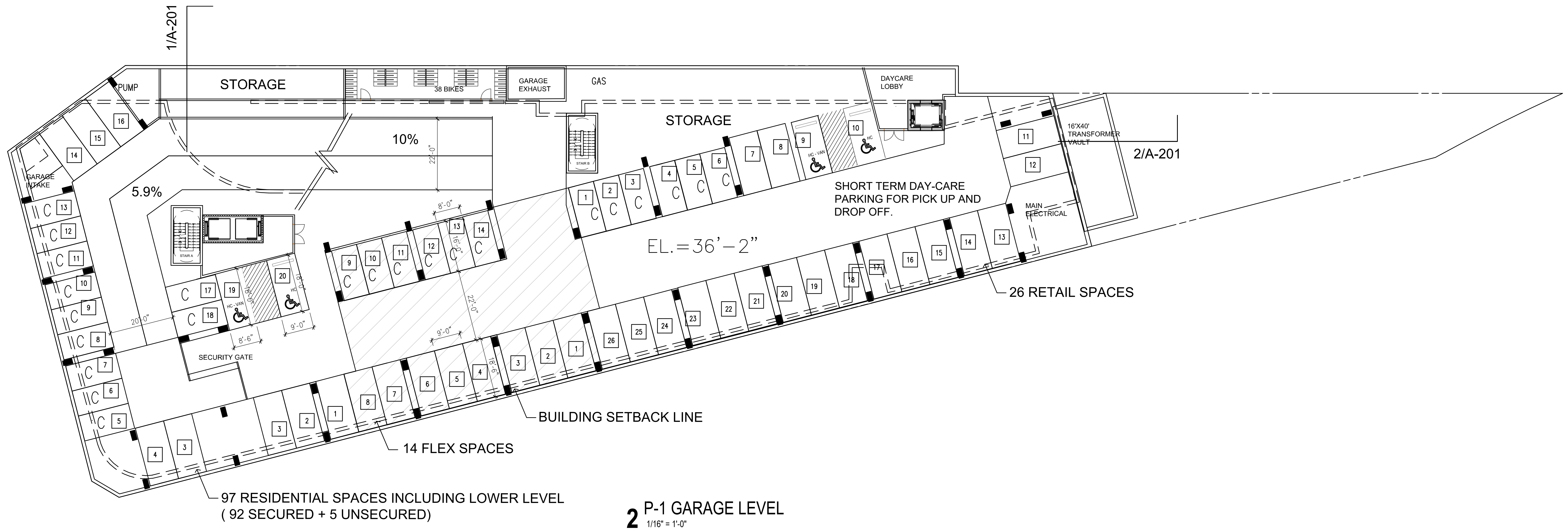
DEPARTMENT OF PLANNING & ZONING	
DIRECTOR	DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	
SITE PLAN NO.	
DIRECTOR	DATE
CHAIRMAN, PLANNING COMMISSION	
DATE RECORDED	DATE
INSTRUMENT NO.	DEED BOOK NO. DATE

DRAWN BY JB.JG  
QC CHECKED BY JS  
CA REVIEWED BY

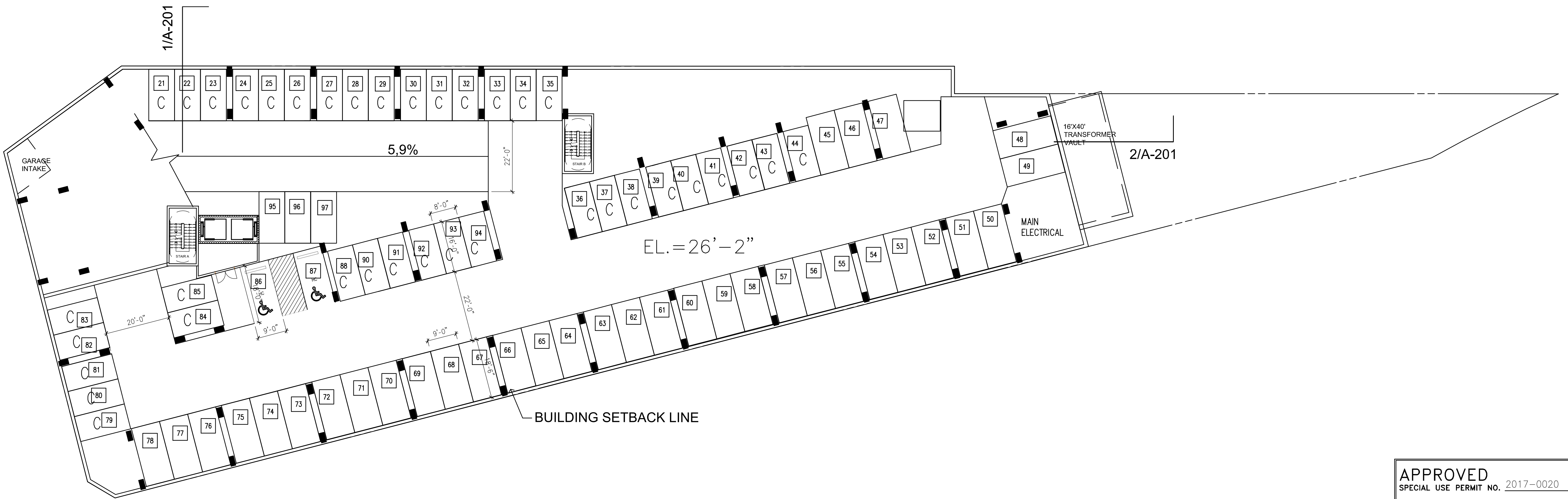
DRAWING NUMBER

**A-101**

SHEET OF  
REVIT FILE



**2 P-1 GARAGE LEVEL**  
1/16" = 1'-0"



**1 P-2 GARAGE LEVEL**  
1/16" = 1'-0"



PRINT DATE: 1/17/2018 11:42:51 AM

ISSUE DATE

CONCEPT PLAN I	09/22/17
CONCEPT PLAN II	02/16/18
PRELIMINARY COMPLETENESS	05/09/18
VERIFICATION SUBMISSION	06/21/18

REVISION DATE

PROJECT TITLE

PRELIMINARY  
DEVELOPMENT  
SPECIAL USE  
PERMIT

1200 NORTH HENRY  
STREET  
ALEXANDRIA, VA

PROJECT NO. 317462

DRAWING TITLE

BUILDING  
PLANS

DRAWN BY JB.JG

QC CHECKED BY JS

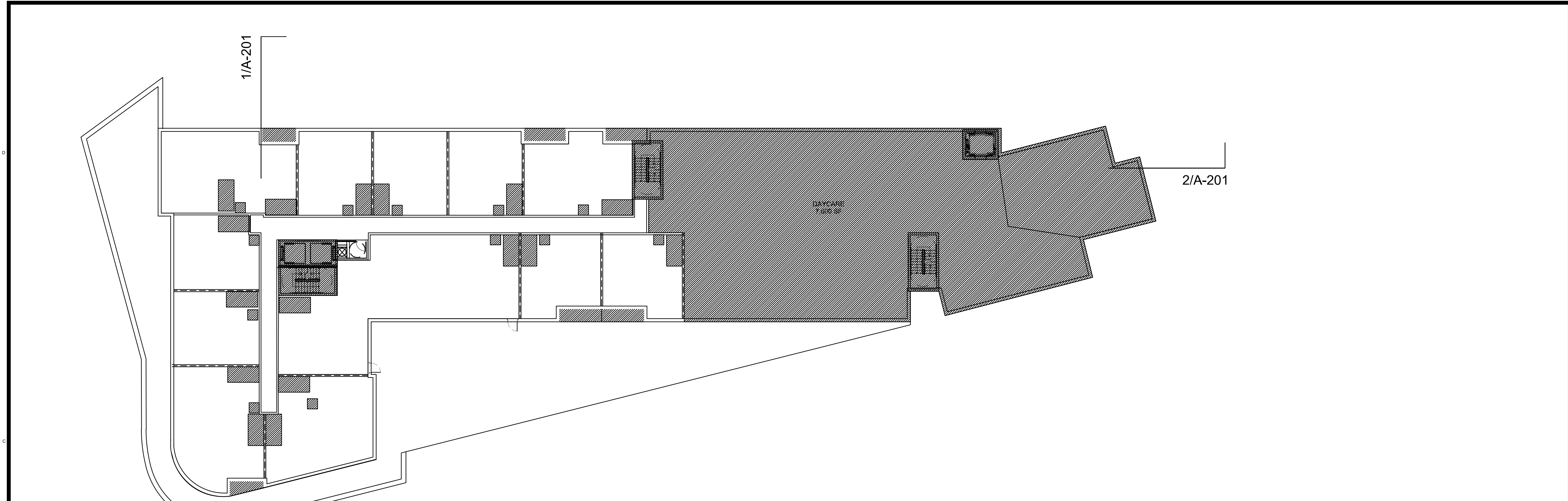
CA REVIEWED BY

DRAWING NUMBER

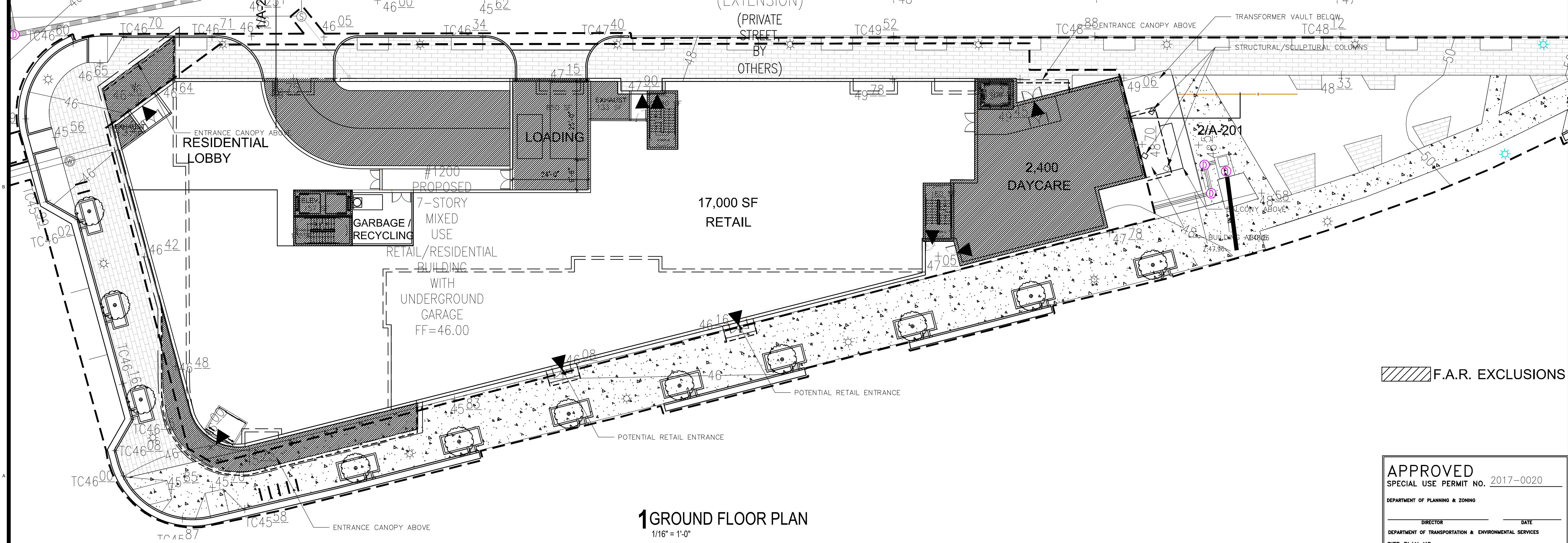
**A-102**

SHEET OF

REVIT FILE



**2 SECOND FLOOR PLAN**  
1/16" = 1'-0"



**1 GROUND FLOOR PLAN**  
1/16" = 1'-0"

F.A.R. EXCLUSIONS

**APPROVED**  
SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. \_\_\_\_\_

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_

DATE RECORDED \_\_\_\_\_

INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE \_\_\_\_\_



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PRELIMINARY COMPLETENESS	05/09/18
VERIFICATION SUBMISSION	06/21/18

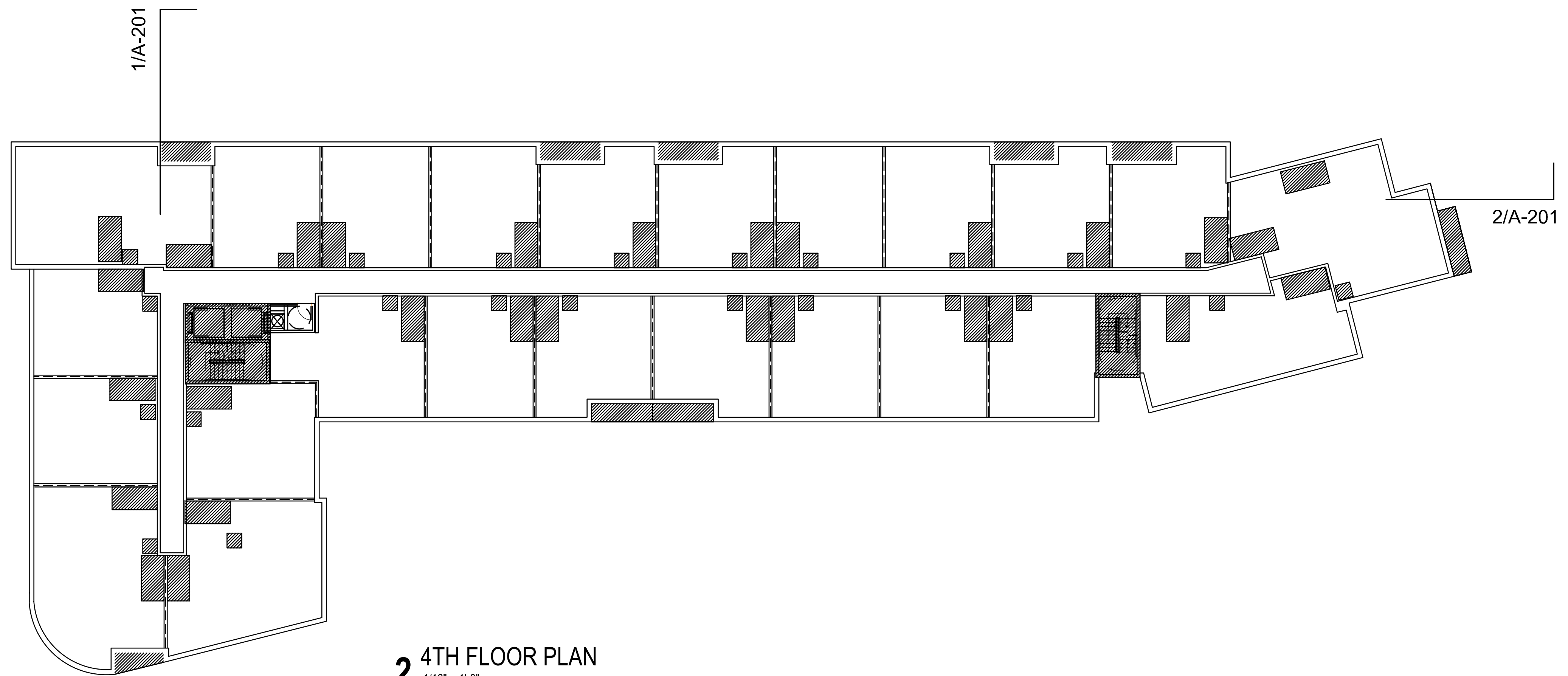
REVISION DATE

PROJECT TITLE	
PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT	
1200 NORTH HENRY STREET ALEXANDRIA, VA	
PROJECT NO.	317462

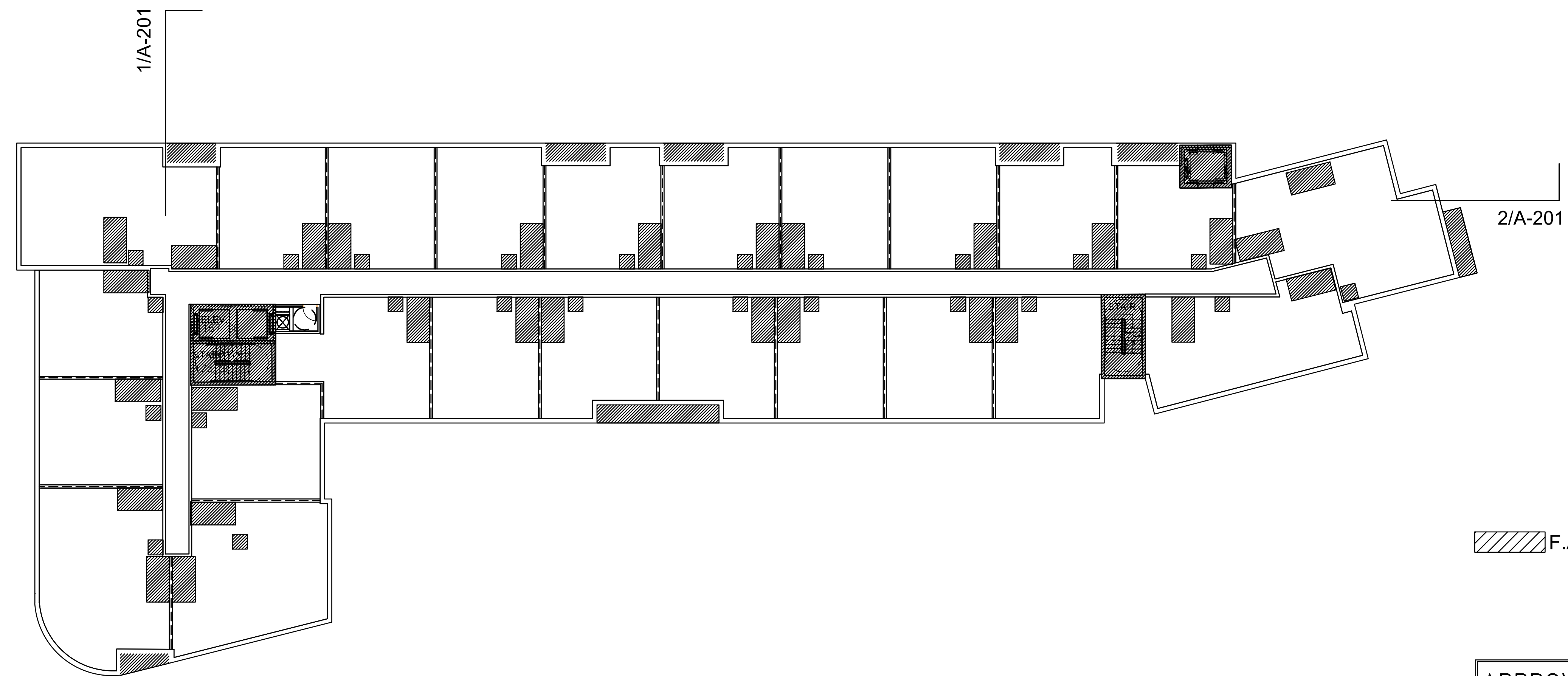
DRAWING TITLE  
**BUILDING PLANS**

DRAWN BY	JB, JG
QC CHECKED BY	JS
CA REVIEWED BY	

DRAWING NUMBER	
<b>A-103</b>	
SHEET	OF
REVIT FILE	



**2 4TH FLOOR PLAN**  
1/16" = 1'-0"



**1 3RD FLOOR PLAN**  
1/16" = 1'-0"

F.A.R. EXCLUSIONS

**APPROVED**  
SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. \_\_\_\_\_

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_

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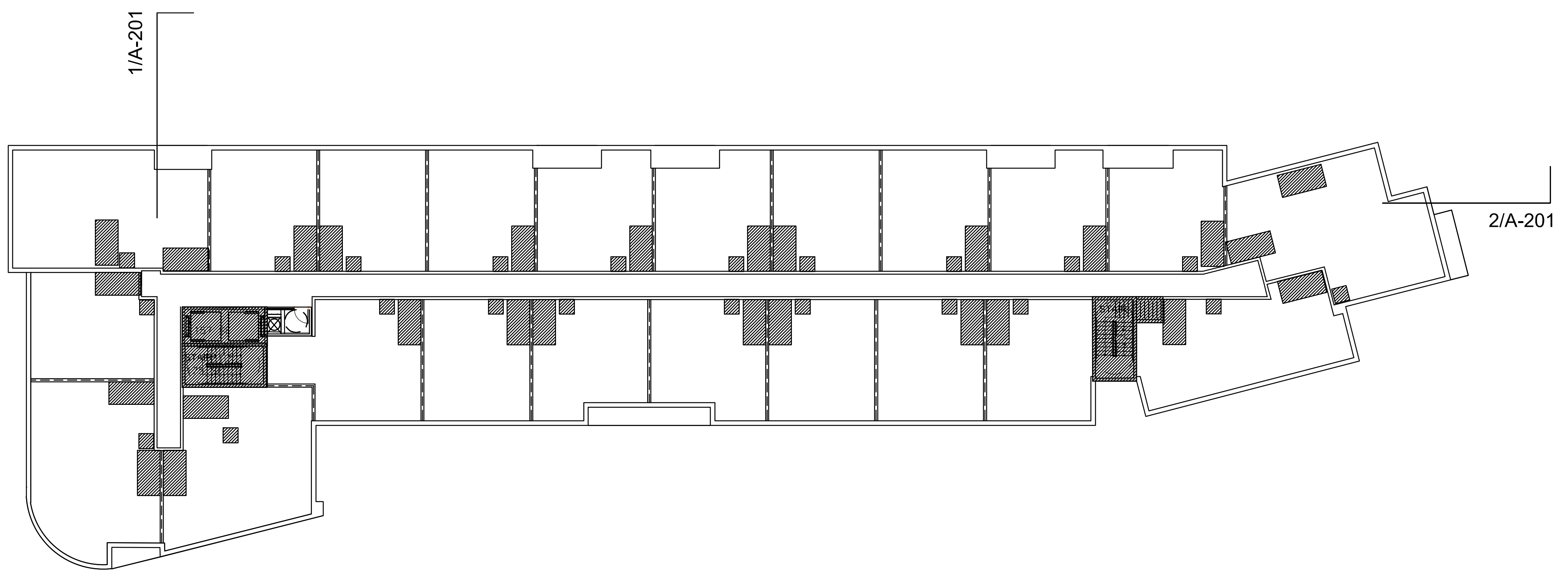
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PROJECT TITLE	
PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT	
1200 NORTH HENRY STREET ALEXANDRIA, VA	
PROJECT NO.	317462

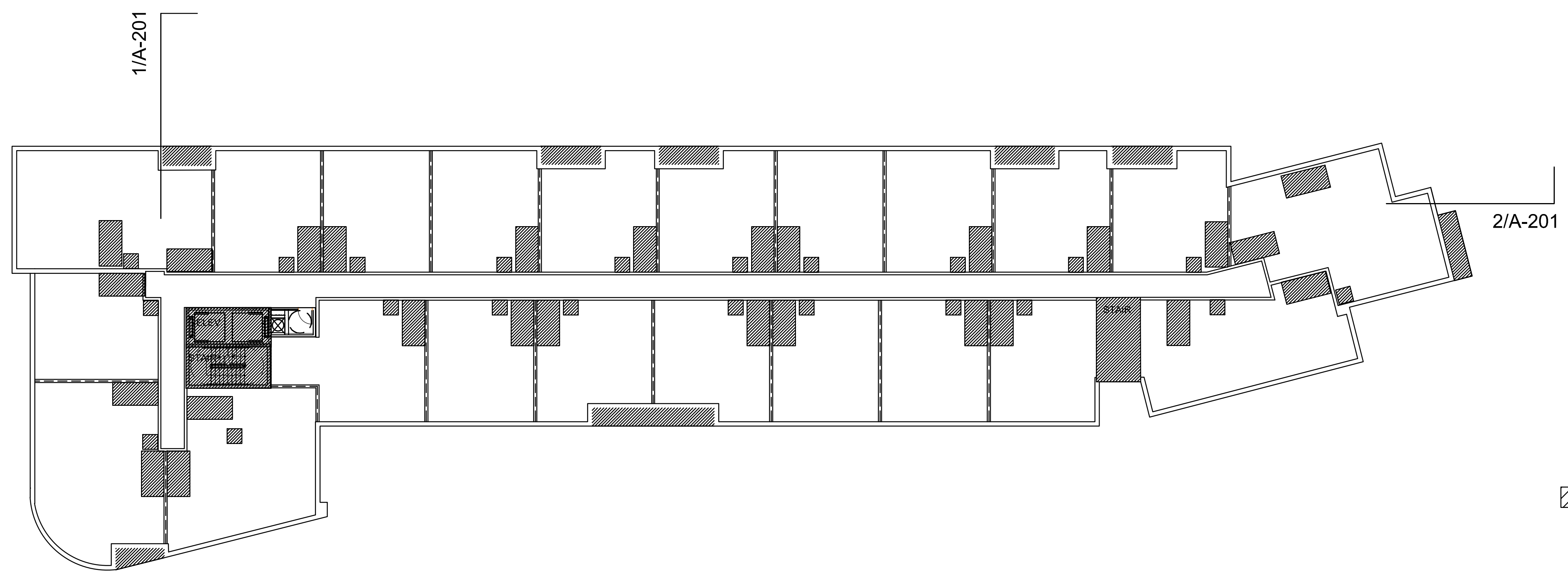
DRAWING TITLE  
**BUILDING PLANS**

DRAWN BY	JB, JG
QC CHECKED BY	JS
CA REVIEWED BY	

DRAWING NUMBER	<b>A-104</b>
SHEET	OF
REVIT FILE	C:\Revit\2017\1200 N HENRY\REVIT\170217_0606.rvt



**1 6TH FLOOR PLAN**  
1/16" = 1'-0"



**1 5TH FLOOR PLAN**  
1/16" = 1'-0"

F.A.R. EXCLUSIONS

**APPROVED**  
SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. \_\_\_\_\_

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_

DATE RECORDED \_\_\_\_\_

INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE \_\_\_\_\_



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VERIFICATION SUBMISSION	06/21/18

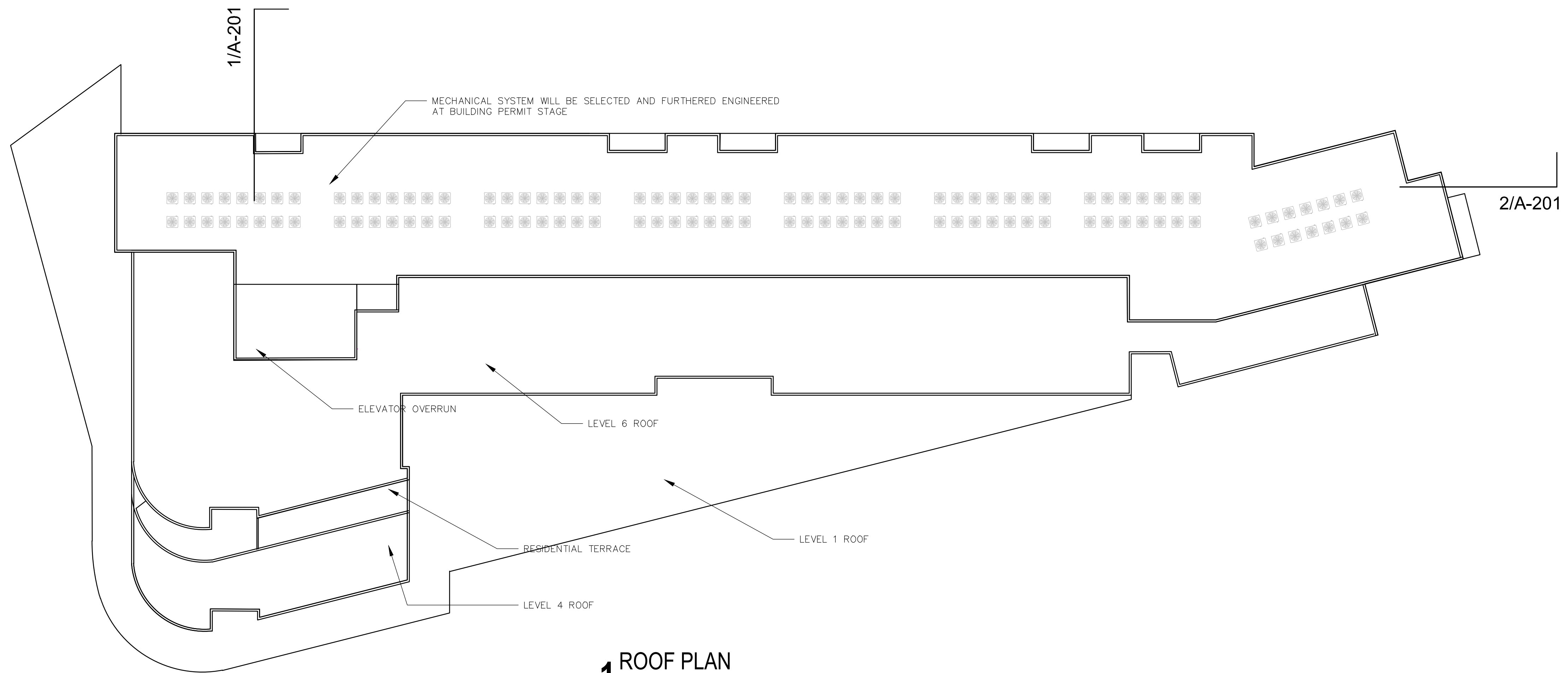
REVISION DATE

PROJECT TITLE	
PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT	
1200 NORTH HENRY STREET ALEXANDRIA, VA	
PROJECT NO.	317462

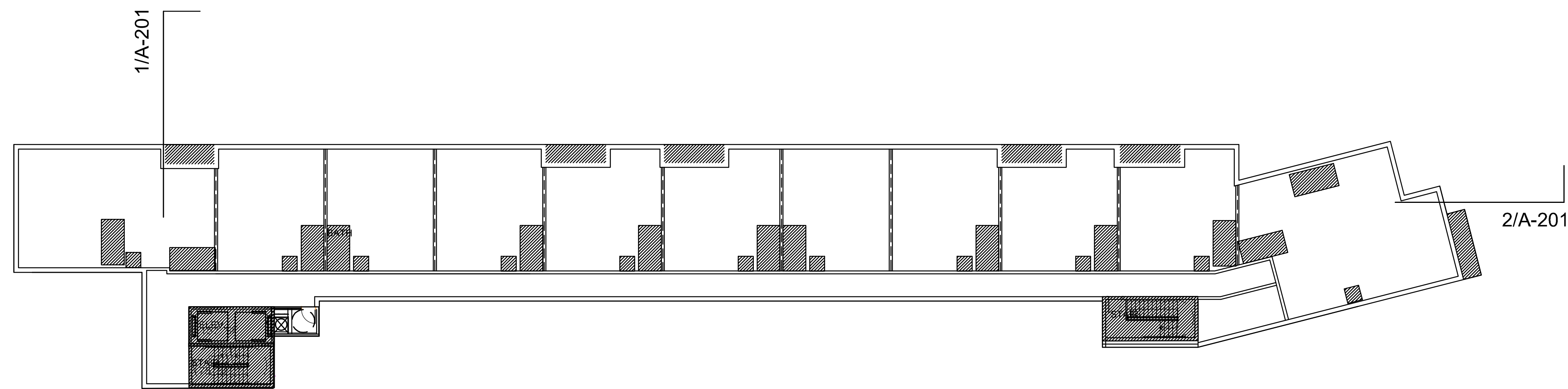
DRAWING TITLE  
**BUILDING PLANS**

DRAWN BY: JB, JG  
QC CHECKED BY: JS  
CA REVIEWED BY:

DRAWING NUMBER  
**A-105**  
SHEET OF  
REVIT FILE



**1** ROOF PLAN  
1/16" = 1'-0"



F.A.R. EXCLUSIONS

**1** 7TH FLOOR PLAN  
1/16" = 1'-0"

**APPROVED**  
SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

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

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. \_\_\_\_\_

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

CHAIRMAN, PLANNING COMMISSION: \_\_\_\_\_ DATE: \_\_\_\_\_

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

INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE: \_\_\_\_\_



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REVISION DATE

PROJECT TITLE

PRELIMINARY  
DEVELOPMENT  
SPECIAL USE  
PERMIT

1200 NORTH HENRY  
STREET  
ALEXANDRIA, VA

PROJECT NO. 317462

DRAWING TITLE

BUILDING  
SECTIONS

DRAWN BY JB.JG

QC CHECKED BY JS

CA REVIEWED BY

DRAWING NUMBER

**A-201**

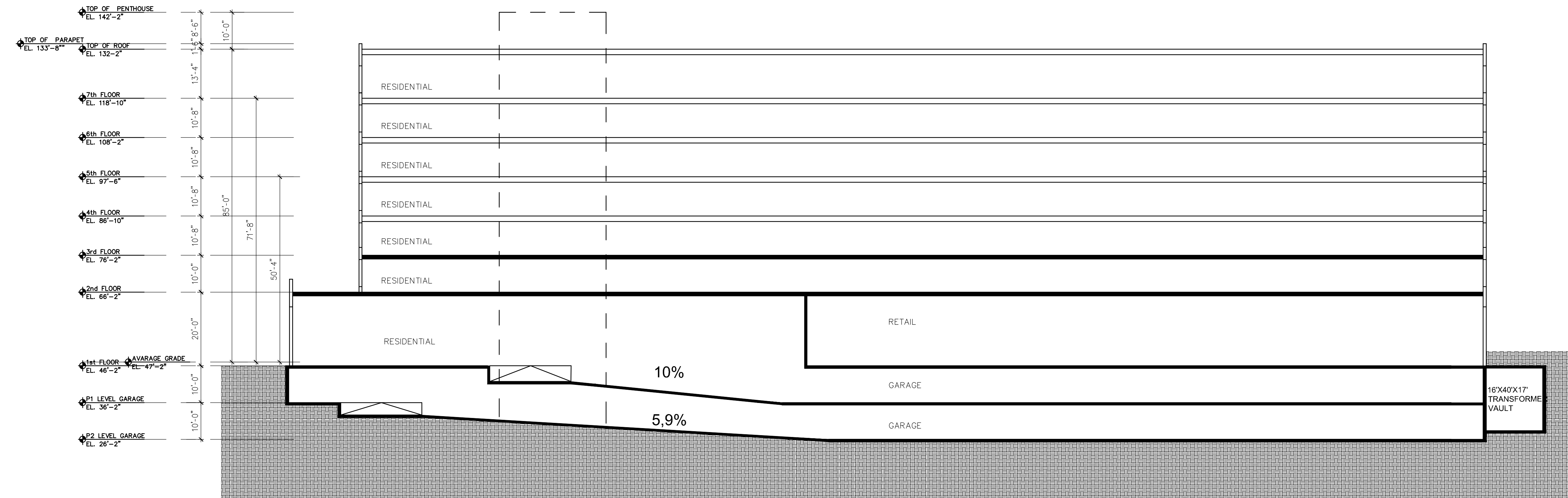
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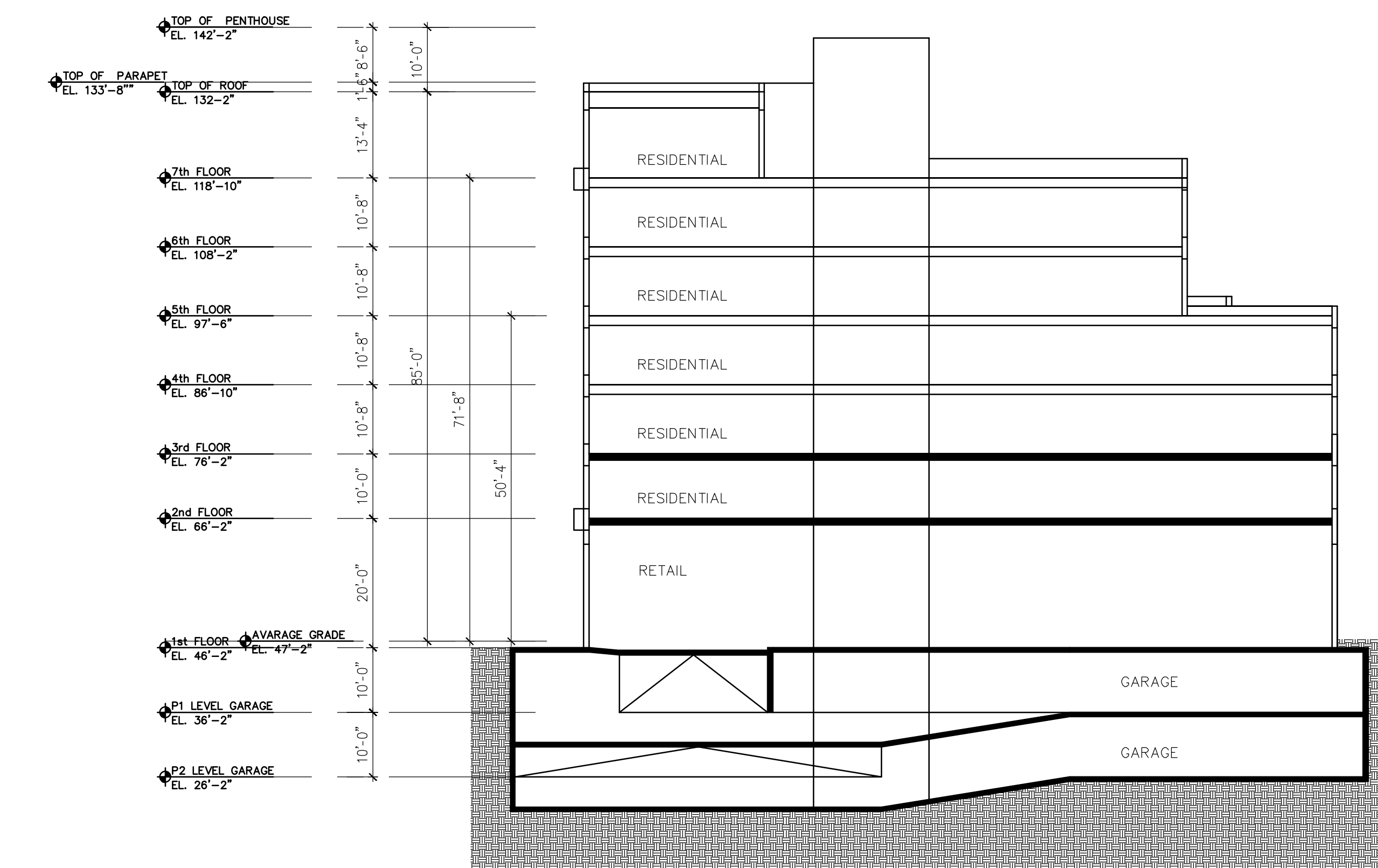
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SPECIAL USE PERMIT NO. 2017-0020	
DEPARTMENT OF PLANNING & ZONING	
DIRECTOR	DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	
SITE PLAN NO.	
DIRECTOR	DATE
CHAIRMAN, PLANNING COMMISSION	DATE
DATE RECORDED	
INSTRUMENT NO.	DEED BOOK NO. DATE



**2** LONGITUDINAL SECTION  
1/16" = 1'-0"



**1** CROSS SECTION  
1/16" = 1'-0"



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PROJECT TITLE

PRELIMINARY  
DEVELOPMENT  
SPECIAL USE  
PERMIT

1200 NORTH HENRY  
STREET  
ALEXANDRIA, VA

PROJECT NO. 317462

DRAWING TITLE

BUILDING  
ELEVATIONS

DRAWN BY JB.JG  
QC CHECKED BY JS  
CA REVIEWED BY

DRAWING NUMBER

**A-301**

SHEET OF



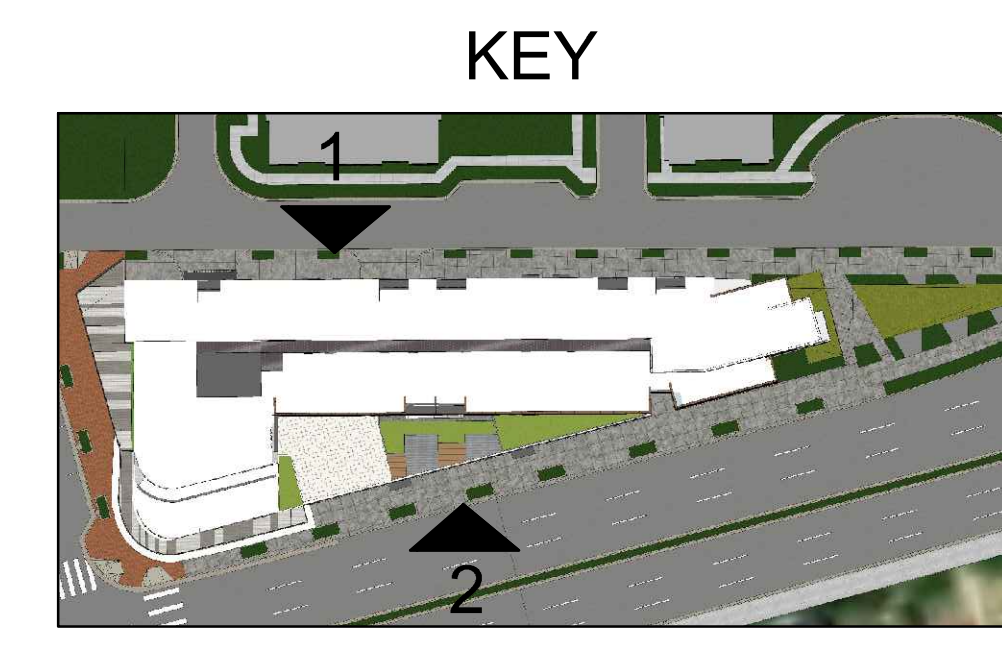
**2 EAST ELEVATION**  
1/16" = 1'-0"



**1 WEST ELEVATION**  
1/16" = 1'-0"

**MATERIALS KEY**

- 1 BRICK TYPE 1
- 2 BRICK TYPE 2
- 3 BRICK TYPE 3
- 4 PORCELAIN TILE TYPE 1
- 5 PORCELAIN TILE TYPE 2
- 6 FIBER CEMENT PANELS
- 7 PRECAST / CAST STONE
- 8 ALUMINUM / FIBERGLASS WINDOW - LOW "E" - CLEAR GLASS
- 9 ALUMINUM / FIBERGLASS WINDOW - SPANDREL GLASS
- 10 ARCHITECTURAL RAILING
- 11 SIGNAGE
- 12 METAL CANOPY
- 13 GARAGE DOOR - SECTIONAL DOOR W/ TRANSLUCENT PANELS
- 14 ARCHITECTURAL LOUVER
- 15 ALUMINUM STOREFRONT GLAZING SYSTEM
- 16 LIGHTWEIGHT INSULATED MASONRY CLADDING - NEWBRICK OR SIMILAR TYPE 1
- 17 LIGHTWEIGHT INSULATED MASONRY CLADDING - NEWBRICK OR SIMILAR TYPE 2
- 18 CONCRETE STRUCTURE - PAINTED
- 19 PERFORATED METAL MESH



**APPROVED**  
SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. \_\_\_\_\_

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_

DATE RECORDED \_\_\_\_\_

INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE \_\_\_\_\_



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PROJECT TITLE

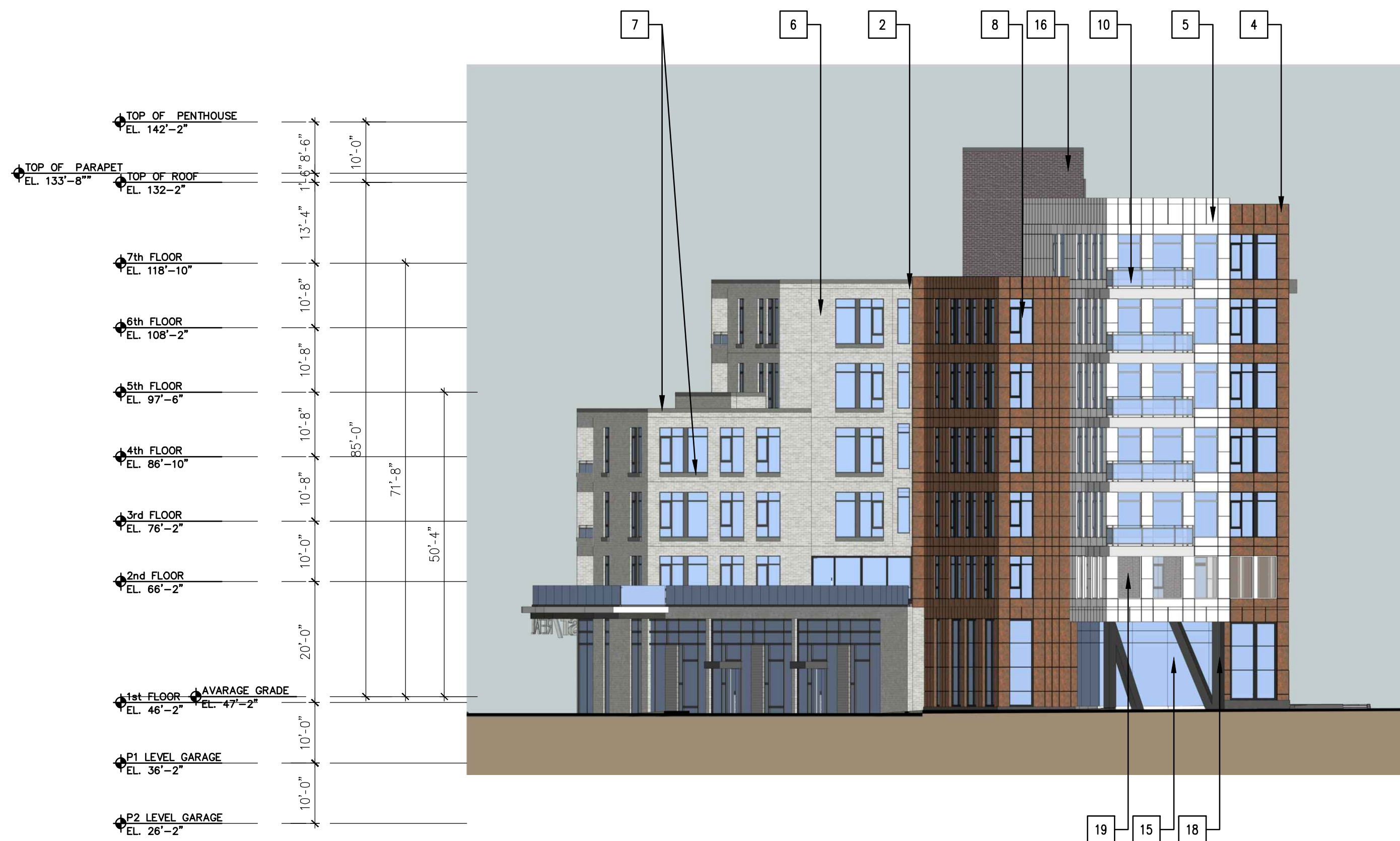
PRELIMINARY  
DEVELOPMENT  
SPECIAL USE  
PERMIT

1200 NORTH HENRY  
STREET  
ALEXANDRIA, VA

PROJECT NO. 317462

DRAWING TITLE

BUILDING  
ELEVATIONS



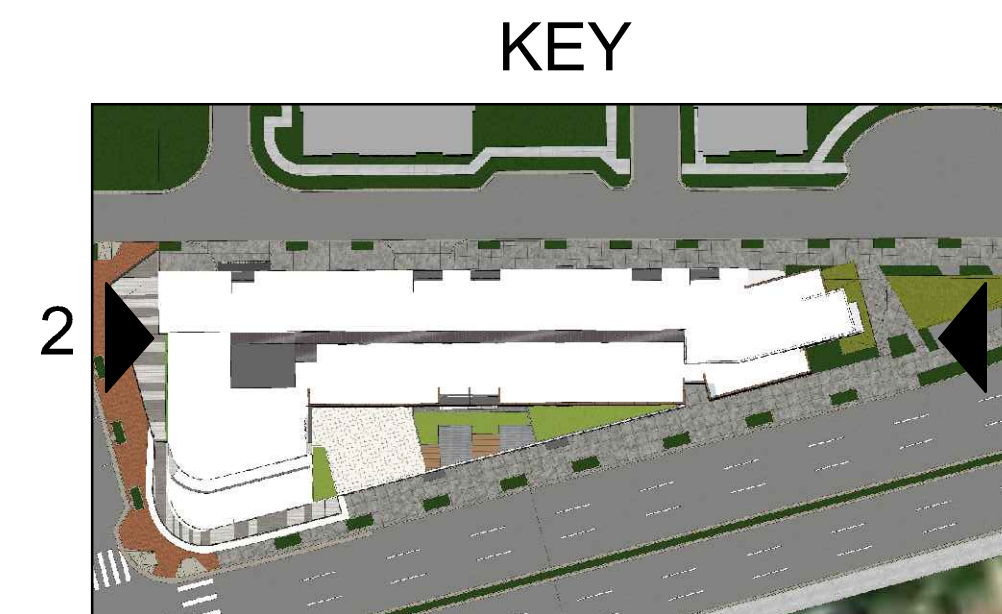
**1** NORTH ELEVATION  
1/16" = 1'-0"



**2** SOUTH ELEVATION  
1/16" = 1'-0"

**MATERIALS KEY**

- 1 BRICK TYPE 1
- 2 BRICK TYPE 2
- 3 BRICK TYPE 3
- 4 PORCELAIN TILE TYPE 1
- 5 PORCELAIN TILE TYPE 2
- 6 FIBER CEMENT PANELS
- 7 PRECAST / CAST STONE
- 8 ALUMINUM / FIBERGLASS WINDOW - LOW "E" - CLEAR GLASS
- 9 ALUMINUM / FIBERGLASS WINDOW - SPANDREL GLASS
- 10 ARCHITECTURAL RAILING
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- 16 LIGHTWEIGHT INSULATED MASONRY CLADDING - NEWBRICK OR SIMILAR TYPE 1
- 17 LIGHTWEIGHT INSULATED MASONRY CLADDING - NEWBRICK OR SIMILAR TYPE 2
- 18 CONCRETE STRUCTURE - PAINTED
- 19 PERFORATED METAL MESH



**APPROVED**  
SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING	
DIRECTOR	DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	
SITE PLAN NO.	
DIRECTOR	DATE
CHAIRMAN, PLANNING COMMISSION	
DATE RECORDED	DATE
INSTRUMENT NO.	DEED BOOK NO. DATE

DRAWN BY	JB.JG
QC CHECKED BY	JS
CA REVIEWED BY	

DRAWING NUMBER  
**A-302**  
SHEET OF



1 NORTH EAST - AERIAL VIEW



2 SOUTH EAST - AERIAL VIEW



3 SOUTH WEST - AERIAL VIEW



4 NORTH WEST - AERIAL VIEW



**APPROVED**  
 SPECIAL USE PERMIT NO. 2017-0020  
 DEPARTMENT OF PLANNING & ZONING  
 DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_  
 DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES  
 SITE PLAN NO. \_\_\_\_\_  
 DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_  
 CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_  
 DATE RECORDED \_\_\_\_\_  
 INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE \_\_\_\_\_

**dcs**  
 DESIGN  
 DAVIS  
 CARTER  
 SCOTT LLC  
 Architecture  
 Interior Architecture  
 Land Planning  
 Sustainability  
 8514 Westwood Center Dr.  
 Suite 800  
 Tysons, Virginia 22182  
 703.556.9275  
 www.dcsdesign.com



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REVISION DATE	

PROJECT TITLE  
**PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT**  
 1200 NORTH HENRY STREET  
 ALEXANDRIA, VA  
 PROJECT NO. 317462

DRAWING TITLE  
**BUILDING MASSING**

DRAWN BY JB.JG  
 QC CHECKED BY JS  
 CA REVIEWED BY

DRAWING NUMBER  
**A-401**  
 SHEET OF



1 NORTH EAST - AERIAL VIEW



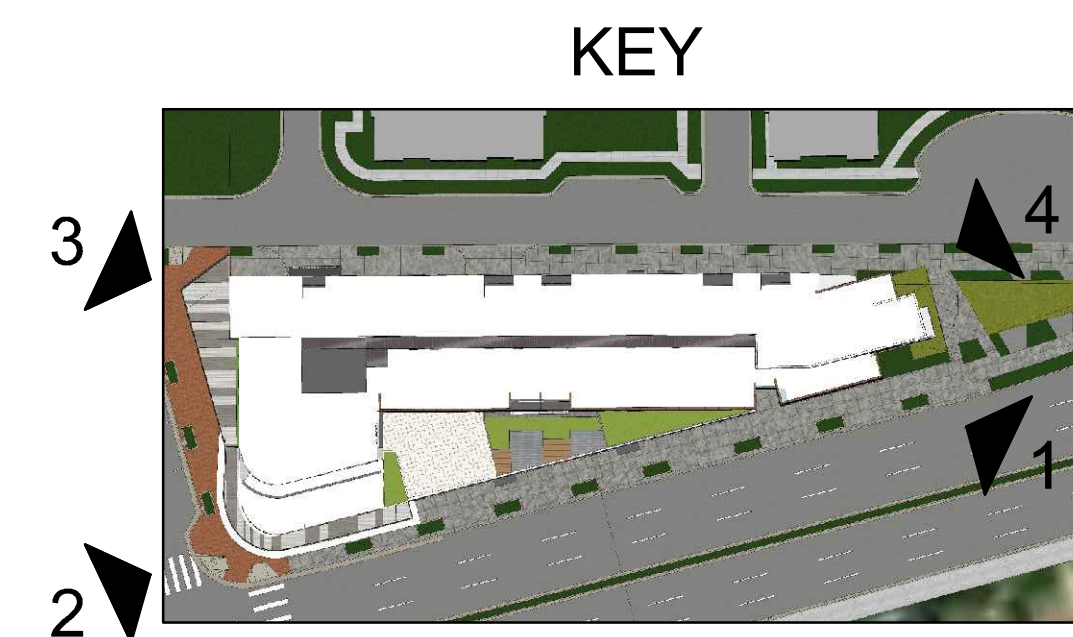
2 SOUTH EAST - AERIAL VIEW



3 SOUTH WEST - AERIAL VIEW



4 NORTH WEST - AERIAL VIEW



**APPROVED**  
SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. \_\_\_\_\_

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

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DATE RECORDED \_\_\_\_\_

INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE \_\_\_\_\_

**dcs**  
DESIGN

DAVIS  
CARTER  
SCOTT LLC

Architecture  
Interior Architecture  
Land Planning  
Sustainability

8514 Westwood Center Dr.  
Suite 800  
Tysons, Virginia 22182  
703.556.9275  
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PROJECT TITLE  
**PRELIMINARY  
DEVELOPMENT  
SPECIAL USE  
PERMIT**

1200 NORTH HENRY  
STREET  
ALEXANDRIA, VA

PROJECT NO. 317462

DRAWING TITLE  
**BUILDING  
MASSING**

DRAWN BY JB.JG  
QC CHECKED BY JS  
CA REVIEWED BY

DRAWING NUMBER  
**A-402**  
SHEET OF



1 NORTH EAST - AERIAL VIEW

**dcs**  
DESIGN

DAVIS  
CARTER  
SCOTT LLC  
Architecture  
Interior Architecture  
Landscape Architecture  
Sustainability  
8614 Westwood Center Dr.  
Suite 800  
Tysons, Virginia 22182  
703.556.9275  
www.dcsdesign.com



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PRELIMINARY  
DEVELOPMENT  
SPECIAL USE  
PERMIT  
1200 NORTH HENRY  
STREET  
ALEXANDRIA, VA  
PROJECT NO. 317462

DRAWING TITLE  
BUILDING  
MASSING



**APPROVED**  
SPECIAL USE PERMIT NO. 2017-0020  
DEPARTMENT OF PLANNING & ZONING  
DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_  
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES  
SITE PLAN NO. \_\_\_\_\_  
DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_  
CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_  
DATE RECORDED \_\_\_\_\_  
INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_ DATE \_\_\_\_\_

DRAWN BY JB.JG  
QC CHECKED BY JS  
CA REVIEWED BY

DRAWING NUMBER  
**A-403**  
SHEET OF

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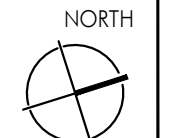


REVISIONS

PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT	05.04.2018
--	------------

OVERALL LANDSCAPE PLAN ILLUSTRATIVE

ORIGINAL ISSUE DATE: 05/02/18  
 DESIGNED BY: TR  
 DRAWN BY: NM, SL  
 CHECKED BY: TR



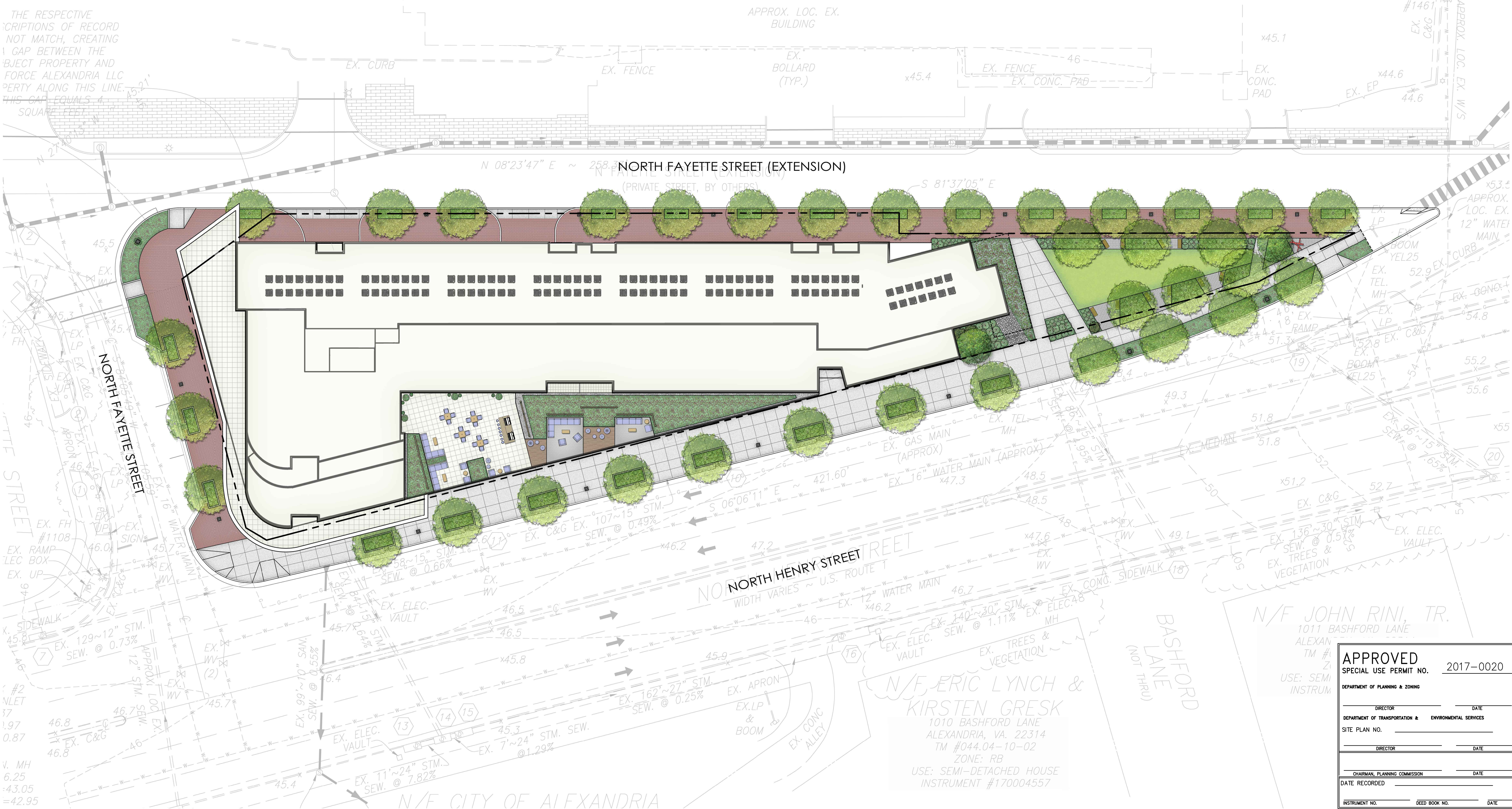
SCALE  
 1" = 20'-0"

L1.00

LANDSCAPE ARCHITECTURE

- L1.00 OVERALL LANDSCAPE PLAN ILLUSTRATIVE
- L1.01 OVERALL LANDSCAPE PLAN
- L1.02 SECOND FLOOR TERRACE LANDSCAPE PLAN
- L1.03 HARDSCAPE DETAILS
- L1.04 PLANTING DETAILS

THE RESPECTIVE DESCRIPTIONS OF RECORD NOT MATCH, CREATING A GAP BETWEEN THE SUBJECT PROPERTY AND FORCE ALEXANDRIA LLC PROPERTY ALONG THIS LINE. THIS GAP EQUALS 4 SQUARE FEET.



N/F ERIC LYNCH & KIRSTEN GRESK  
 1010 BASHFORD LANE  
 ALEXANDRIA, VA. 22314  
 TM #044.04-10-02  
 ZONE: RB  
 USE: SEMI-DETACHED HOUSE  
 INSTRUMENT #170004557

N/F JOHN RINI, TR.  
 1011 BASHFORD LANE  
 ALEXAN  
 TM #1  
 Z1  
 USE: SEMI INSTRUM

**APPROVED**  
 SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING	DATE	
DIRECTOR	DATE	
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	DATE	
SITE PLAN NO.	DATE	
DIRECTOR	DATE	
CHAIRMAN, PLANNING COMMISSION	DATE	
DATE RECORDED	DATE	
INSTRUMENT NO.	DEED BOOK NO.	DATE

1200 NORTH HENRY STREET

CITY OF ALEXANDRIA, VA

**PARKER RODRIGUEZ, INC.**  
PLANNING URBAN DESIGN LANDSCAPE ARCHITECTURE

101 North Union St. #320  
Alexandria, VA 22314  
703.548.5010

OWNER

1200 N HENRY, LLC  
P.O. Box 1924  
Alexandria, VA 22313

DEVELOPER

AVANTI HOLDINGS GROUP, LLC  
1605 King Street  
Suite 3  
Alexandria, VA 22314  
202.834.4355

CIVIL

R.C. FIELDS & ASSOCIATES, INC.  
730 S. Washington Street  
Alexandria, VA 22314  
703.549.6422

ARCHITECT

DAVIS, CARTER, SCOTT, LTD  
8614 Westwood Center Drive  
Suite 800  
Tysons, VA 22182  
703.556.9275



REVISIONS

PRELIMINARY DEVELOPMENT  
SPECIAL USE PERMIT 05.04.2018

OVERALL LANDSCAPE PLAN

ORIGINAL ISSUE DATE

05/02/18

DESIGNED BY

TR

DRAWN BY

NM, SL

CHECKED BY

TR

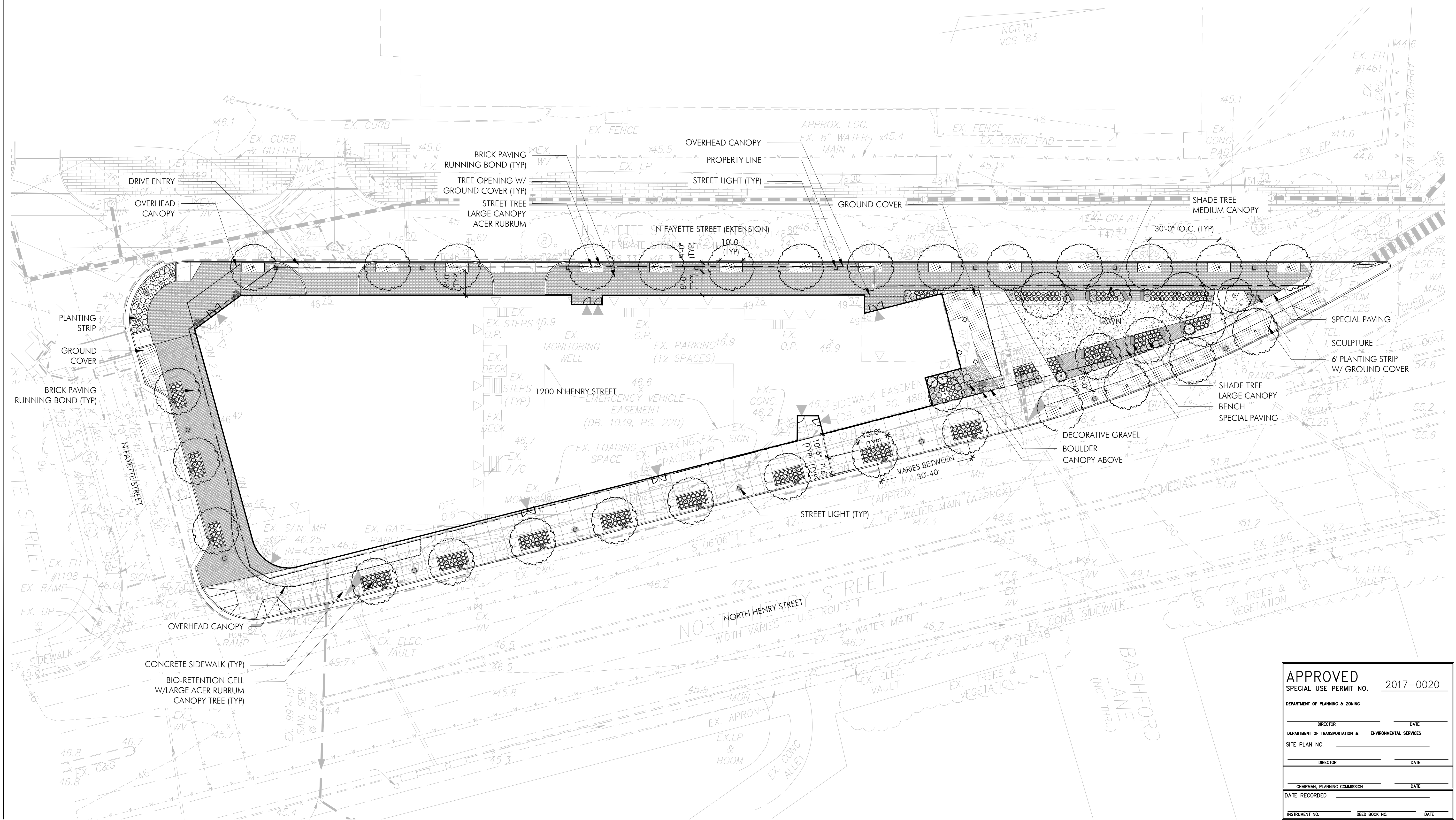
NORTH

SCALE

1" = 20'-0"

0' 10' 20' 40' FEET

L1.01



<b>APPROVED</b>		2017-0020
SPECIAL USE PERMIT NO.		
DEPARTMENT OF PLANNING & ZONING		
DIRECTOR	DATE	
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES		
DIRECTOR	DATE	
CHAIRMAN, PLANNING COMMISSION		
DIRECTOR	DATE	
INSTRUMENT NO. RECD BOOK NO. DATE		

1200 NORTH HENRY STREET

CITY OF ALEXANDRIA, VA

**PARKER RODRIGUEZ, INC.**  
PLANNING URBAN DESIGN LANDSCAPE ARCHITECTURE

101 North Union St. #320  
Alexandria, VA 22314  
703.548.5010

OWNER

1200 N HENRY, LLC  
P.O. Box 1924  
Alexandria, VA 22313

DEVELOPER

AVANTI HOLDINGS GROUP, LLC  
1605 King Street  
Suite 3  
Alexandria, VA 22314  
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ARCHITECT

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Tysons, VA 22182  
703.556.9275



REVISIONS

PRELIMINARY DEVELOPMENT  
SPECIAL USE PERMIT 05.04.2018

SECOND FLOOR TERRACE LANDSCAPE PLAN

ORIGINAL ISSUE DATE

05/02/18

DESIGNED BY

TR

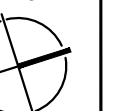
DRAWN BY

NM, SL

CHECKED BY

TR

NORTH

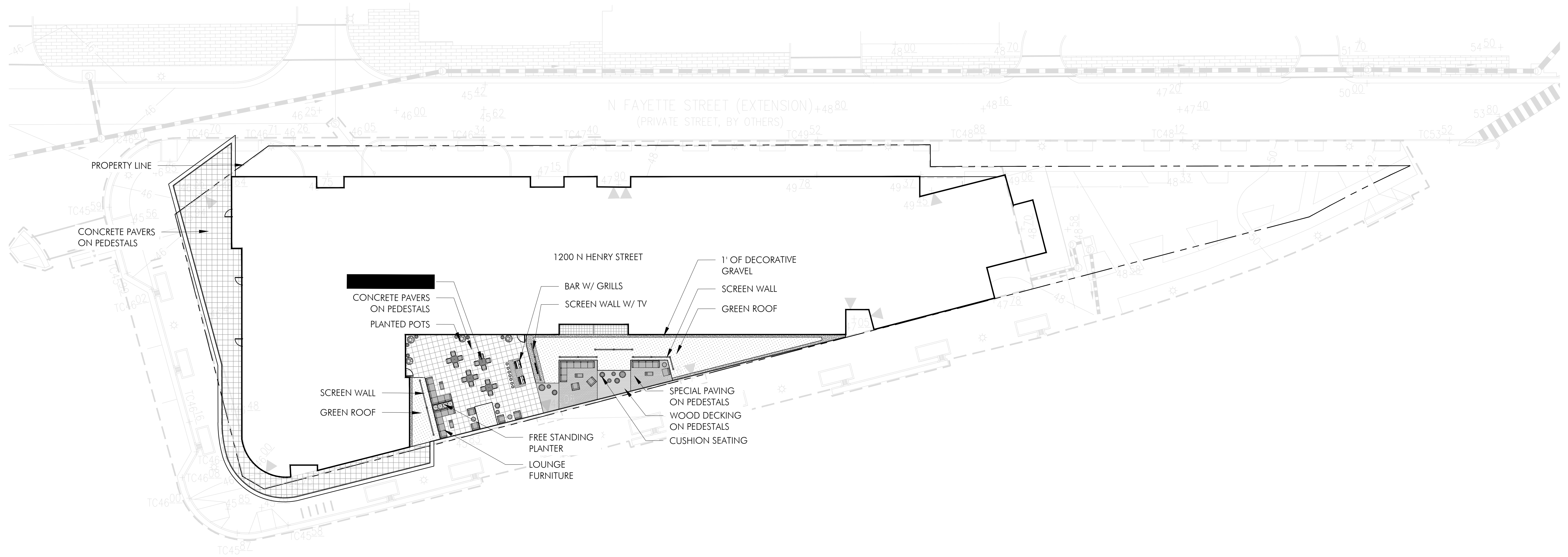


SCALE

1" = 20'-0"



L1.02



**APPROVED**  
SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

\_\_\_\_\_  
DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

\_\_\_\_\_  
SITE PLAN NO. DATE

\_\_\_\_\_  
DIRECTOR DATE

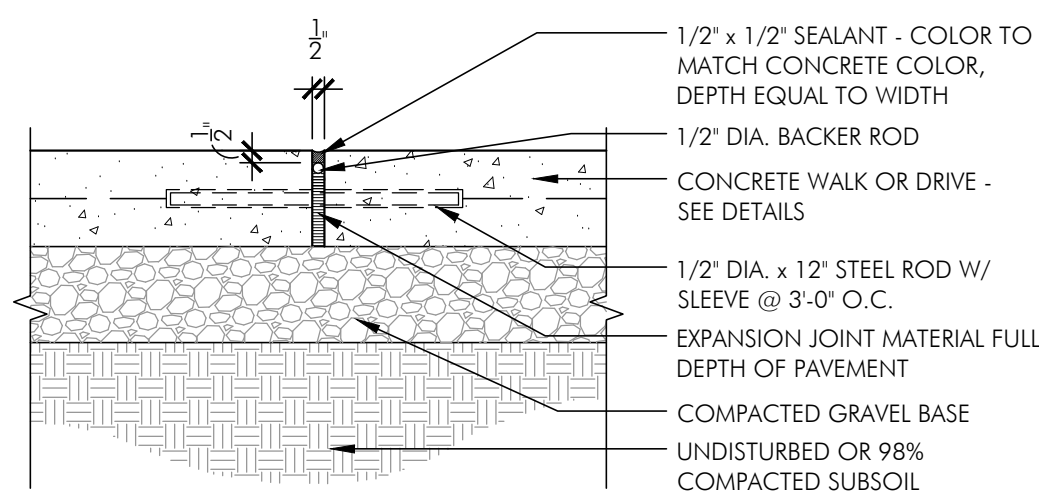
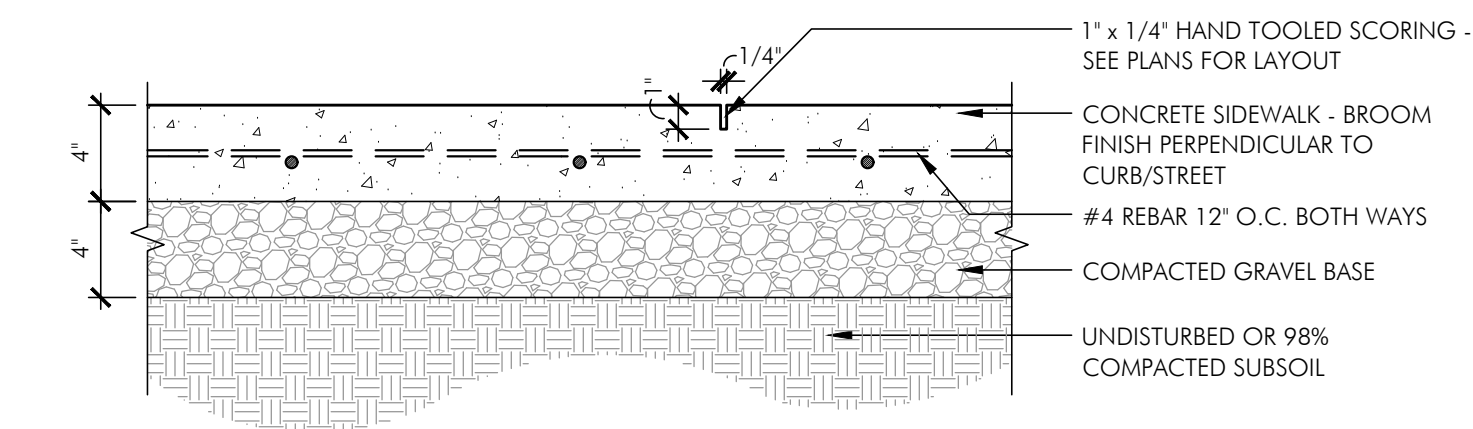
CHAIRMAN, PLANNING COMMISSION

\_\_\_\_\_  
DATE RECORDED

\_\_\_\_\_  
INSTRUMENT NO. DEED BOOK NO. DATE

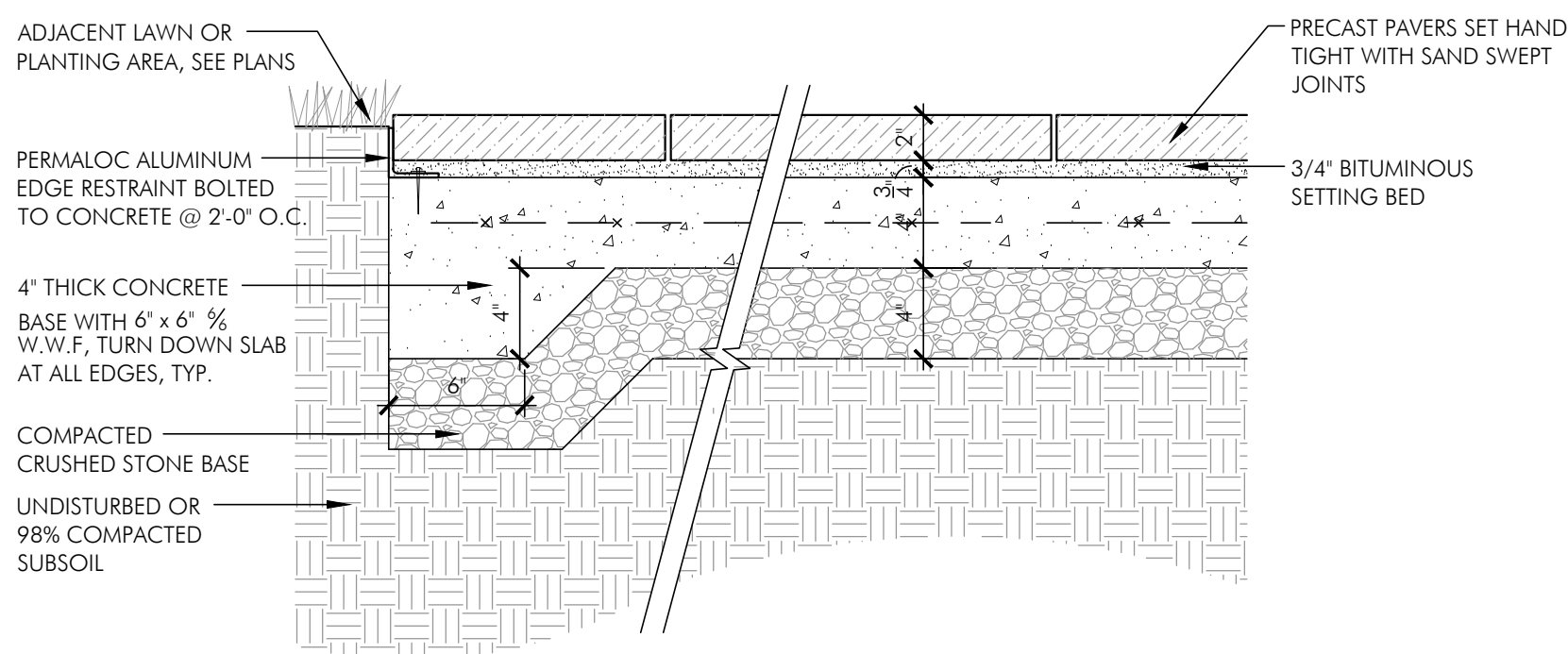
# 01 CONCRETE PAVING

SCALE: 1-1/2" = 1'-0"



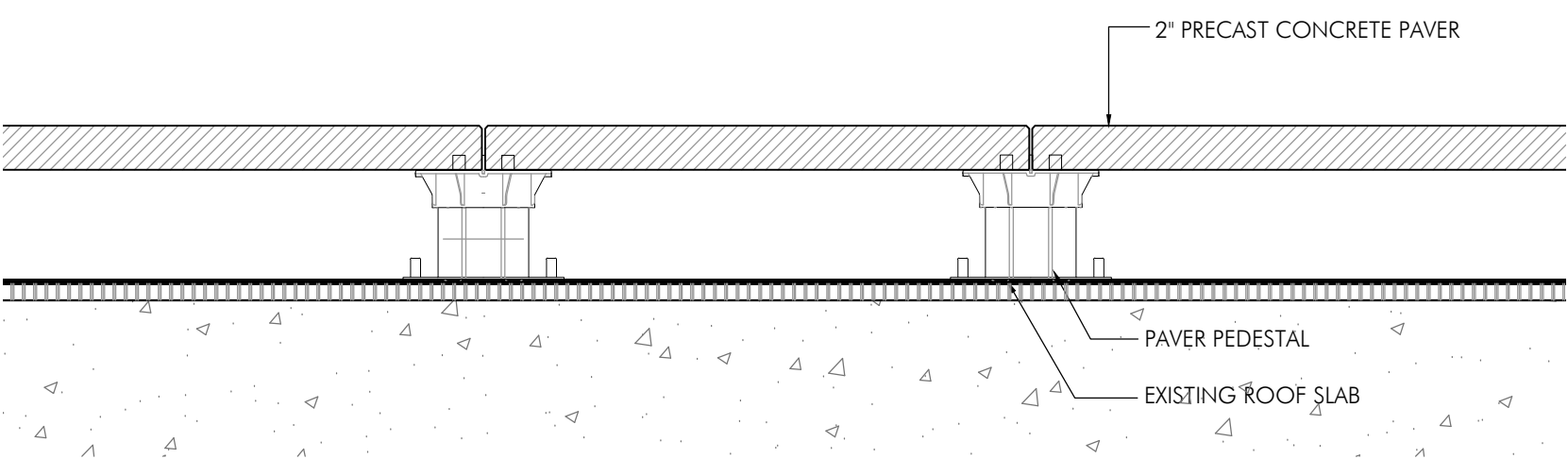
# 02 EXPANSION JOINT

SCALE: 1-1/2" = 1'-0"



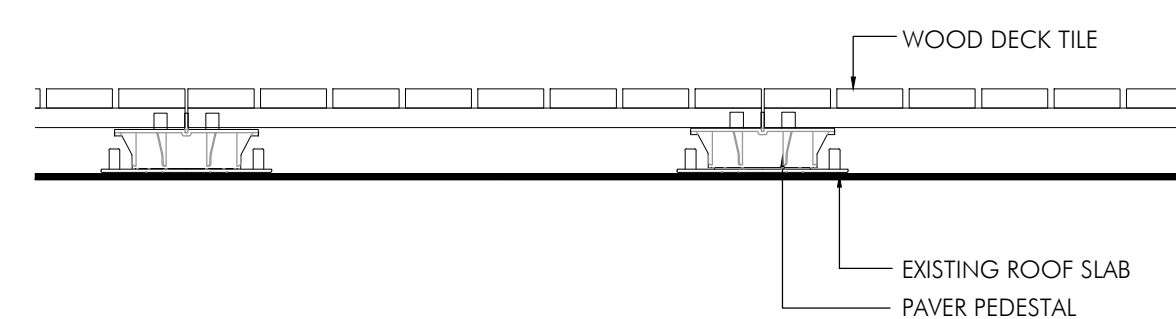
# 03 PAVERS ON GRADE

SCALE: 1-1/2" = 1'-0"



# 04 CONCRETE PAVERS ON PEDESTALS

SCALE: 1-1/2" = 1'-0"



# 05 WOOD DECKING ON PEDESTALS

SCALE: 1-1/2" = 1'-0"

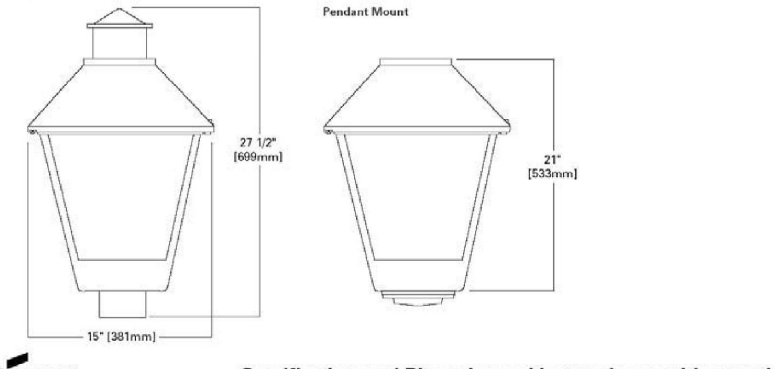
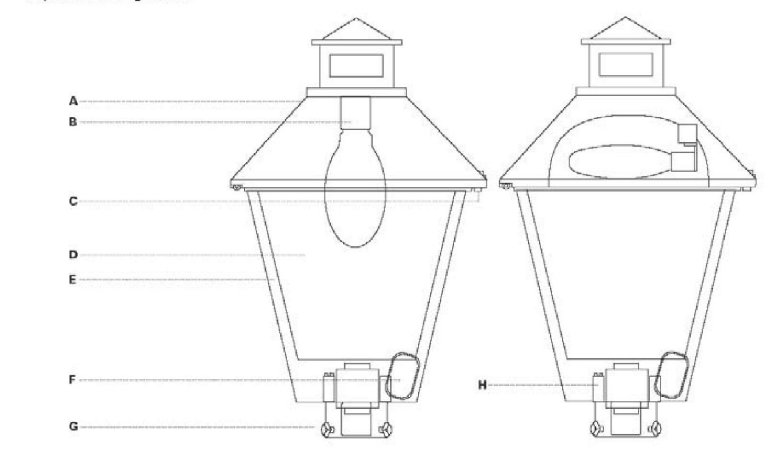
# STREETWORKS

Category #	Type
Project	Date
Comments	
Prepared by	

- A - Top** Hinged on-cast aluminum top with replace cover.
- B - Sasket** Vertical. Base up standard on Type 6. 18 max. V. Horizontal. Available with Type 6 and 18 horizontal reflector. Magal base precast. Includes 1/2" adjustable on horizontal only. 50-175W Metal Halide or medium base socket standard.
- C - Serraw** Captive retaining screw.
- D - Reflector** Injection molded acrylic reflector panels.
- E - Mounting** Ductile aluminum base housing. Standard color is black. Other finish colors available. Contact your Streetworks Representative.
- F - Starter** Plug-in starter.
- G - Mounting** Ductile aluminum base housing. Standard color is black. Other finish colors available. Contact your Streetworks Representative.
- H - Terminal Block** Terminal block standard.



**LXF LEXINGTON**  
High Pressure Sodium Metal Halide Mercury  
DECORATIVE LUMINAIRE



Specifications and Dimensions subject to change without notice.

# PHOTOMETRICS

Mounting Height	Footcandle Table			
	A	B	C	D
15'	0.28	0.24	0.21	0.18
20'	0.22	0.18	0.16	0.14
25'	0.18	0.15	0.13	0.11
30'	0.14	0.12	0.10	0.09
35'	0.11	0.09	0.08	0.07

Product Family	Lamp Type	Ballast Type	Voltage	Dimensions	Options
LXF 15-30-IES	150-300W SPS	10:00-HPS	120V	15" Dia. x 30" H	1) Glass Lens Assembly
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	2) Double Glass Assembly
LXF 15-30-IES	150-300W SPS	10:00-HPS	480V	15" Dia. x 30" H	3) Double Glass Assembly
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	4) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	5) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	6) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	7) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	8) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	9) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	10) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	11) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	12) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	13) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	14) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	15) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	16) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	17) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	18) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	19) Polycarbonate Lens
LXF 15-30-IES	150-300W SPS	10:00-HPS	277V	15" Dia. x 30" H	20) Polycarbonate Lens

EPA Effective Projected Area: 1.7  
SHIPPING DATA  
Approximate Net Wt: 25 lbs. (11 kg.)

# Round Tapered Composite Tuff-Poles

AA, AB, AC, AD, AG, AH, AO, and AS Series	BA, BB, BC, BD, BG, BH, BO, BS and BX Series	Anchor Base and Direct Burial	Page
Anchor Base	Direct Burial Base	Tenon Top Poles	18
		Capped or Tenon Top	20
		Mast Arm Poles	24
		Breakaway Mast Arm Poles	42
		Options and Accessories	64

- Mounting heights to 47'
- Natural or smooth finish
- Eight standard colors - pigments integrated into the resin
- High-performance UV- and weather-resistant pigmented polyurethane coating
- Tenon Top (Post Top) or Capped (except AS Series below 20' mounting height)
- High-performance UV- and weather-resistant pigmented polyurethane coating
- Tenon Top (Post Top) or Capped (except BS Series below 20' mounting height)
- EPA ratings are the same for Capped or Tenon Top poles
- Poles can be predrilled for bolt-on side mount fixture(s), arm, etc. (except AS Series below 20' mounting height)
- Composite shrouds (1- or 2-piece) optional. Optional bolt covers available for some styles
- Poles are individually ID tagged
- Wrapped individually for shipment
- Direct Burial style for fast, easy installation and improved ground line appearance
- Anti-vibration frame structurally integrated into pole base during manufacture
- Shakespeare fiberglass won't rust, rot, or corrode in the ground, and insects won't eat it.
- No concrete foundations or anchor bolts

Standard handhole: 2 1/4" x 5" oval. Optional 4" x 6" or 4" x 12" handholes, depending on pole dimensions. For other handhole options, contact factory. All handhole covers are polyurethane coated to match pole color.

Shakespeare calculates all EPA recommendations based on poles with handholes, and in accordance with the ASHTD standard, allowing for a 30% gust factor for all wind ratings, including 120mph.

For applications requiring extremely large loads and extra height, ask for information on Shakespeare Transmission and Distribution poles - up to 70' long and capable of large luminaires typical of sports stadiums and the like.

# 1200 NORTH HENRY STREET

CITY OF ALEXANDRIA, VA  
OWNER  
1200 N HENRY, LLC  
P.O. Box 1924  
Alexandria, VA 22313

DEVELOPER  
AVANTI HOLDINGS GROUP, LLC  
1605 King Street  
Suite 3  
Alexandria, VA 22314  
202.834.4355

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8614 Westwood Center Drive  
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Tysons, VA 22182  
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REVISIONS

PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT	05.04.2018

# HARDSCAPE DETAILS

ORIGINAL ISSUE DATE: 05/02/18

DESIGNED BY: TR

DRAWN BY: N.M., S.L.

CHECKED BY: TR

NORTH

SCALE AS SHOWN

0' 1' 2' 3' 4' 5' 6' 7' 8' 9' 10' FEET

APPROVED SPECIAL USE PERMIT NO. 2017-0020

DEPARTMENT OF PLANNING & ZONING

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO.

CHAIRMAN, PLANNING COMMISSION

DATE RECORDED

INSTRUMENT NO. DEED BOOK NO. DATE

L1.03

