

Y MAP

RD

WOO

CAMERON ST

PICKETT

HILLINGS ST

0' 400'

TAX PARCEL NUMBER:

TOTAL SITE AREA = 0.76 AC 32,987 SF  
 TOTAL AREA OF TAX PARCELS = 0.76 AC 32,987 SF  
 TOTAL EXISTING IMPERVIOUS AREA = 0.00 AC 0.00 SF  
 TOTAL PROPOSED IMPERVIOUS AREA = 0.58 AC 25,443 SF  
 TOTAL DISTURBED AREA = 0.76 AC 33,231 SF

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. FURTHER THERE ARE NO WETLANDS PERMITS REQUIRED FOR THIS DEVELOPMENT PROJECT. ADDITIONALLY, THERE ARE NO KNOWN UNDERGROUND STORAGE TANKS, AREAS OF SOIL OR GROUNDWATER CONTAMINATION, NOR AREAS WITH THE POTENTIAL FOR GENERATING COMBUSTIBLE GASES ON THE 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. IF THERE IS ANY DOUBT TO PUBLIC SAFETY OR A RELEASE TO THE ENVIRONMENT, THE ALEXANDRIA FIRE DEPARTMENT MUST BE CONTACTED IMMEDIATELY BY CALLING 911. THE TANK OR CONTAINERS REMOVAL, ITS CONTENTS, ANY SOIL CONTAMINATION AND RELEASES TO THE ENVIRONMENT WILL BE HANDLED IN ACCORDANCE WITH FEDERAL, STATE AND CITY REGULATIONS.
3. ALL WELLS TO BE DEMOLISHED IN THIS PROJECT, INCLUDING MONITORING WELLS, MUST BE CLOSED IN ACCORDANCE WITH VIRGINIA STATE WATER CONTROL BOARD (VSWCB) REQUIREMENTS. CONTACT ENVIRONMENTAL HEALTH SPECIALIST AND COORDINATE WITH THE ALEXANDRIA HEALTH DEPARTMENT AT 703-838-4400 EXT 267/255.
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:
  - MONDAY THROUGH FRIDAY FROM 7am to 6pm AND
  - SATURDAYS FROM 9am to 6pmNO CONSTRUCTION ACTIVITIES ARE PERMITTED ON SUNDAYS  
PILE DRIVING IS FURTHER RESTRICTED TO THE FOLLOWING HOURS:
  - MONDAY THROUGH FRIDAY FROM 9am to 6pm AND
  - SATURDAYS FROM 10am to 4pm

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 LESS THAN 1 ACRE, THEREFORE A VPDES PERMIT IS NOT REQUIRED.

THE APPLICANT/DEVELOPER SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVES, CISTERNS, ETC.) OR CONCENTRATIONS OF HISTORIC OR PREHISTORIC 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/DEVELOPER SHALL NOT ALLOW ANY NON-PROFESSIONAL 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.

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. THE PLANS SHALL SHOW PROPOSED CONDITIONS AND PROVIDE DATA BY THE DESIGN PROFESSIONAL WHICH DETAILS HOW THE PROPOSED USE WILL COMPLY WITH THE CURRENT EDITION OF THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE FOR THE NEW USE IN THE AREA OF STRUCTURAL STRENGTH, MEANS OF EGRESS, PASSIVE AND ACTIVE FIRE PROTECTION, HEATING AND VENTILATING SYSTEMS, HANDICAPPED ACCESSIBILITY AND PLUMBING FACILITIES.
2. NEW CONSTRUCTION MUST COMPLY WITH THE CURRENT EDITION OF THE UNIFORM STATEWIDE BUILDING CODE (USBC).
3. BEFORE A BUILDING PERMIT CAN BE ISSUED ON ANY PROPOSED FUTURE ALTERATIONS, A CERTIFICATION IS REQUIRED FROM THE OWNER OR OWNER'S AGENT THAT THE BUILDING HAS BEEN INSPECTED BY A LICENSED ASBESTOS INSPECTOR FOR THE PRESENCE OF ASBESTOS.
4. A CERTIFICATE OF OCCUPANCY SHALL BE OBTAINED PRIOR TO ANY OCCUPANCY OF THE BUILDING OR PORTION THEREOF.
5. REQUIRED EXITS, PARKING, AND ACCESSIBILITY WITHIN THE BUILDING FOR PERSONS WITH DISABILITIES MUST COMPLY WITH USBC CHAPTER 11. HANDICAPPED ACCESSIBLE BATHROOMS SHALL ALSO BE PROVIDED.
6. TOILET FACILITIES FOR PERSONS WITH DISABILITIES: LARGER, DETAILED, DIMENSIONED DRAWINGS ARE REQUIRED TO CLARIFY SPACE LAYOUT AND MOUNTING HEIGHTS OF AFFECTED ACCESSORIES. INFORMATION ON DOOR HARDWARE FOR THE TOILET STALL IS REQUIRED (USBC 1109.2.2).
7. IF APPLICABLE, ENCLOSED PARKING GARAGES MUST BE VENTILATED IN ACCORDANCE WITH USBC 406.4.2. THE REQUIRED MECHANICAL VENTILATION RATE FOR AIR IS 0.75 CFM PER SQUARE FOOT OF THE FLOOR AREA (USBC 2801.1). IN AREAS WHERE MOTOR VEHICLES OPERATE FOR A PERIOD OF TIME EXCEEDING 10 SECONDS, THE VENTILATION RETURN AIR MUST BE EXHAUSTED. AN EXHAUST SYSTEM MUST BE PROVIDED TO CONNECT DIRECTLY TO THE MOTOR VEHICLE EXHAUST (USBC 2801.1).
8. ELECTRICAL WIRING METHODS AND OTHER ELECTRICAL REQUIREMENTS MUST COMPLY WITH NFPA 70, 2008.
9. IF APPLICABLE, THE PUBLIC PARKING GARAGE FLOOR MUST COMPLY WITH USBC 406.2.6 AND DRAIN THROUGH OIL SEPARATORS OR TRAPS TO AVOID ACCUMULATION OF EXPLOSIVE VAPORS IN BUILDING DRAINS OR SEWERS AS PROVIDED FOR IN THE PLUMBING CODE (USBC 2901). THIS PARKING GARAGE IS CLASSIFIED AS AN S-2, GROUP 2, PUBLIC GARAGE.
10. THIS PROJECT IS NOT LOCATED IN A COMBINED SEWER AREA.
11. THIS SITE DOES NOT CONTAIN AREAS PREVIOUSLY MAPPED AS MARINE CLAYS.
12. THIS SITE IS NOT LOCATED WITHIN 1,000 FEET OF A FORMER LANDFILL OR OTHER DUMP SITE.

I, RONALD J. KELLER, LS HEREBY CERTIFY THAT THIS PROPERTY IS IN THE NAME OF AVANTI HG 550, LLC AS RECORDED AT INST. #200000698 AMONG THE LAND RECORDS OF THE CITY OF ALEXANDRIA, VA.

THE APPLICANT REQUESTS A DEVELOPMENT SITE PLAN TO PERMIT THE DEVELOPMENT OF THE EXISTING VACANT SITE INTO A PROPOSED WAREHOUSE/RETAIL BUILDING WITH ASSOCIATED SITE IMPROVEMENTS. PROPOSED SITE ACCESS IS OFF OF SOUTH PICKETT STREET.

- MODIFICATION OF THE CITY OF ALEXANDRIA TREE CANOPY COVERAGE REQUIREMENTS
- MODIFICATION OF THE REQUIRED FRONT SETBACK AS ESTABLISHED THROUGH CITY OF ALEXANDRIA ZONING ORDINANCE ARTICLE VII SEC 7-1006 (F)

OWNER:	DEVELOPER:
AVANTI HG 550, LLC	AVANTI HG 550, LLC
1605 KING STREET, UNIT 3	1605 KING STREET, UNIT 3
ALEXANDRIA, VA 22314	ALEXANDRIA, VA 22314
INSTRUMENT #: 200000698	INSTRUMENT #: 200000698
TEDDY.KIM@ME.COM	TEDDY.KIM@ME.COM

<p><b>ATTORNEY:</b>          WALSH, COLUCCI, LUBELEY &amp; WALSH, P.C.          2200 CLARENDON BLVD, SUITE 1300          ARLINGTON, VIRGINIA 22201          (703) 528-4700          CONTACT: M. CATHARINE PUSKAR          CPUSKAR@THELANDLAWYERS.COM</p>	<p><b>ARCHITECT:</b>          COLE &amp; DENNY ARCHITECTS          333 N. FAIRFAX STREET, SUITE 300          ALEXANDRIA, VA 22314          (703) 684-5994          CONTACT: MICHAEL DETOMO          MDETOMO@COLEANDDENNY.COM</p>
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PLAN PREPARED BY:  
R.C. FIELDS & ASSOCIATES, INC.  
700 S. WASHINGTON STREET, SUITE 220  
ALEXANDRIA, VA 22314  
(703) 549-6422  
CONTACT: TAYLOR DOYLE  
TDOYLE@RCFASSOC.COM

LANDSCAPE ARCHITECT:  
STUDIO39  
6416 GROVESALE DRIVE, SUITE 100-A  
ALEXANDRIA, VA 22310  
(703) 719-6500  
CONTACT: DAN DOVE  
DDOVE@STUDIO39.COM

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1. TAX MAP #: #067.02-02-02

2. ZONE OF SITE: I (INDUSTRIAL)

3. USE: EXISTING: VACANT LAND  
PROPOSED: WAREHOUSE/RETAIL

4. TOTAL LOT AREA: 32,987 SF (0.76 AC) MINIMUM LOT AREA: N/A

5. FRONTAGE: REQUIRED: N/A  
EXISTING: 312.25' PROPOSED: 312.25'

6. LOT WIDTH: REQUIRED: N/A PROPOSED: N/A

7. NUMBER OF UNITS: N/A

8. UNITS PER ACRE: N/A

9. FLOOR AREA:

	GROSS	NET
RETAIL AREA	10,070 SF	9,595 SF
INDUSTRIAL	5,223 SF	5,072 SF
BUILDING AREA	15,293 SF	14,667 SF
GARAGE AREA	10,278 SF	N/A

10. FLOOR AREA RATIO: PERMITTED: 0.85 (28,039 SF) EXISTING: N/A  
PROPOSED:  
AT GRADE: 0.44 (14,667 SF)  
ABOVE GRADE: N/A

11. OPEN SPACE: REQUIRED: N/A PROPOSED: N/A

12. AVERAGE FINISHED GRADE: 90.4

13. HEIGHT: ALLOWED: 50 FT PROPOSED: 26 FT

14. SETBACKS:

FRONT:	REQUIRED: <u>50 FT FROM S. PICKETT ST. CL**</u>	PROPOSED: <u>41 FT</u>
SIDE:	REQUIRED: <u>N/A</u>	PROPOSED: <u>20 FT (EAST); 30 FT (SOUTH)</u>
REAR:	REQUIRED: <u>N/A</u>	PROPOSED: <u>N/A</u>

\*\*PER CITY OF ALEXANDRIA ZONING ORDINANCE ARTICLE VII SEC 7-1006 (F)

15. PARKING TABULATION:  
REQUIRED:

<u>INDUSTRIAL WAREHOUSE</u>	
INDUSTRIAL BUILDINGS [OTHER THAN LONG TERM STORAGE] (SF) (NET FLOOR AREA) =	5,072 SF
1.2 SPACE/500 SQ. FT. = (1.2/500)*5,072 SF:	13 SPACES
<u>RETAIL</u>	
FLOOR AREA (SF) (NET FLOOR AREA)	= 9,595 SF
MINIMUM - 0.25 SPACES/1,000 SQ. FT. = (0.25/1000)*9,595 SF:	3 SPACES
MAXIMUM - 3 SPACES/1,000 SQ. FT. = (3/1000)*9,595 SF:	29 SPACES
MINIMUM TOTAL PARKING REQUIRED: 13 + 3 =	16 SPACES
MAXIMUM TOTAL PARKING REQUIRED: 13 + 29 =	42 SPACES
PROVIDED: 26 PARKING SPACES (WITHIN GARAGE)	
STANDARD PARKING SPACES (9'X18.5):	24
ACCESSIBLE PARKING SPACES:	1
VAN ACCESSIBLE PARKING SPACES:	1
TOTAL PARKING	26
16. LOADING SPACES: REQUIRED: 1	PROPOSED: 1
17. TRIP GENERATION:	
EXISTING AM PEAK 0 AVT	PROPOSED AM PEAK 10 AVT
EXISTING PM PEAK 0 AVT	PROPOSED PM PEAK 39 AVT
EXISTING VPD 0 VPD	PROPOSED VPD 389 VPD
(PER ITE STANDARDS)	(PER ITE STANDARDS)

USE:	1ST FLOOR: MERCANTILE (RETAIL), MERCANTILE STORAGE, STOCK (WAREHOUSE) GARAGE FLOOR: PARKING GARAGE
USE GROUP:	SEPARATED MIXED USE 1ST FLOOR: MERCANTILE (M) & STORAGE LOW-HAZARD (S-2) GARAGE FLOOR: STORAGE LOW-HAZARD (ENCLOSED PARKING GARAGE) (S-2)
TYPE OF CONSTRUCTION:	II-A
NUMBER OF STORIES:	1 STORY WITH PARKING GARAGE
FLOOR AREA (GROSS):	15,293 SF
FLOOR AREA (NET):	14,667 SF
BUILDING FOOT PRINT AREA:	15,750 SF
BUILDING HEIGHT:	26'
FIRE SUPPRESSION/DETECTION:	FULLY SPRINKLERED

	NEW	UPGRADED
CROSSWALKS (NUMBER)	1	N/A
STANDARD	N/A	N/A
HIGH VISIBILITY	1	N/A
CURB RAMPS	2	N/A
SIDEWALKS (LF)	295	N/A
BICYCLE PARKING (NUMBER SPACES)	4	N/A
PUBLIC/VISITOR	4	N/A
PRIVATE/GARAGE	N/A	N/A
BICYCLE PATHS (LF)	N/A	N/A
PEDESTRIAN SIGNALS	N/A	N/A

<h1>RCFIELDS</h1> <h2>£ ASSOCIATES, INC.</h2> <p>ENGINEERING • LAND SURVEYING • PLANNING          700 S. Washington Street, Suite 220      <a href="http://www.rcfassoc.com">www.rcfassoc.com</a>          Alexandria, Virginia 22314      (703) 549-6422</p>	
PROJ. MANAGER: EMAIL:	TAYLOR DOYLE TDOYLE@RCFASSOC.COM
SCALE: AS NOTED	DATE: AUG. 12, 2020 REV:
DRAWN: TD	

[illegible]

DEVELOPMENT PRELIMINARY PLAN

**AVANTI 550**

#550 SOUTH PICKETT STREET  
CITY OF ALEXANDRIA, VIRGINIA

SHEET NAME:

<b>APPROVED</b>	
SPECIAL USE PERMIT NO. _____	
DEPARTMENT OF PLANNING & ZONING	
_____ DIRECTOR	_____ DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	
SITE PLAN NO. <b>2020-0021</b>	
_____ DIRECTOR	_____ DATE
_____ CHAIRMAN, PLANNING COMMISSION	
DATE RECORDED _____	
_____ INSTRUMENT NO.	_____ DEED BOOK NO.
_____ DATE	

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

































































**TEXT LEGEND:**

° = DEGREES  
 ' = MINUTES (OR FEET)  
 " = SECONDS (OR INCHES)  
 % = PERCENT  
 # = NUMBER  
 @ = AT  
 lbs = POUNDS  
 A = ARC  
 AC = ACRE  
 AD = ADULT AMERICANS W/ DISABILITIES ACT  
 APPROX = APPROXIMATE  
 BC = BOTTOM OF CURB  
 BF = BASEMENT FLOOR  
 BFE = BASE FLOOD ELEVATION  
 BLDG = BUILDING  
 BM = BENCHMARK  
 BSMT = BASEMENT  
 BOL = BOLLARD  
 BOT = BOTTOM OF WALL  
 CABV = CABLE UTILITY  
 CL = CLASS  
 C/L = CENTERLINE  
 CLR = CLEARANCE  
 CLF = CHAIN LINK FENCE  
 CMP = CORRUGATED METAL PIPE  
 CI = CURB INLET  
 CO = CLEAN OUT  
 CONC = CONCRETE  
 CAG = CURB & GUTTER  
 CVR = COVER  
 DB = DEED BOOK  
 DHF = DRILL HOLE FOUND  
 DIP = DUCTILE IRON PIPE  
 DOM = DOMESTIC  
 DU = DWELLING UNIT  
 E = EAST  
 EBOX = ELECTRICAL BOX  
 ESMT = EASEMENT  
 EP = EDGE OF PAVEMENT  
 EVE = EMERGENCY VEHICLE EASEMENT  
 EX = EXISTING  
 FDC = FIRE DEPT. CONNECTION  
 FF = FINISH FLOOR  
 FH = FIRE HYDRANT  
 FI = FEET  
 GI = GATE INLET  
 G/L = GAS LINE  
 GM = GAS METER  
 G/S = GAS SERVICE  
 GV = GAS VALVE  
 HC = HEADER CURB  
 HDOP = HANDICAP  
 HDPE = HIGH DENSITY POLYETHYLENE  
 HP = HIGH POINT  
 HPS = HIGH PRESSURE SODIUM  
 IFF = IRON PIPE FOUND  
 IN = INVERT  
 INSTR = INSTRUMENT  
 INTX = INTERSECTION  
 IRF = IRON ROD FOUND  
 L = LUMENS  
 LAT = LATERAL  
 LED = LIGHT EMITTING DIODE  
 LL = LANDSCAPE LIGHT  
 LOC = LOCATION  
 LP = LIGHT POLE  
 MAX = MAXIMUM  
 ME = MATCH EXISTING  
 MH = MANHOLE  
 MIN = MINIMUM  
 MON = MONUMENT  
 MPH = MILES PER HOUR  
 MW = MONITORING WELL  
 N = NORTH  
 OHW = OVERHEAD WIRE  
 PED = PEDESTRIAN  
 PN = PANEL  
 PG = PAGE  
 PP = POWER POLE  
 PROP = PROPOSED  
 PVC = POLYVINYL CHLORIDE  
 R = RADIUS  
 REC = REINFORCED CONCRETE PIPE  
 RELOC = RELOCATED  
 RET = RETAINING  
 RESID = RESIDENTIAL  
 REQ = REQUIRED  
 ROW = RIGHT-OF-WAY  
 S = SOUTH  
 SAN = SANITARY  
 SEW = SEWER  
 SF = SQUARE FEET  
 SQ FT = SQUARE FEET  
 ST = STORM  
 STR = STRUCTURE  
 SW = SIDEWALK  
 TBR = TO BE REMOVED  
 TBS = TO BE SAVED  
 TM = TAX MAP  
 TMH = TELEPHONE MANHOLE  
 TOP = TOP OF CURB  
 TW = TOP OF WALL  
 TRAF SJ = TRAFFIC SIGNAL  
 TYP = TYPICAL  
 UGE = UNDERGROUND ELECTRIC  
 UP = UTILITY POLE  
 VCS = VIRGINIA COORDINATE SYSTEM  
 VPD = VEHICLES PER DAY  
 W = WEST  
 W/L = WATER LINE  
 WM = WATER METER  
 W/S = WATER SERVICE  
 WSE = WATER SURFACE ELEVATION  
 WV = WATER VALVE  
 WW = WINDOW WELL  
 XING = CROSSING

## SYMBOLS LEGEND

ITEM	EXISTING	PROPOSED
FIRE HYDRANT		
AIR CONDITIONING UNIT		
UTILITY POLE		
FIRE DEPARTMENT CONNECTION		
STORM STRUCTURE IDENTIFIER		
STORM MANHOLE		
STORM SEWER LAYOUT		
SANITARY STRUCTURE IDENTIFIER		
SANITARY MANHOLE		
SANITARY SEWER LAYOUT		
SIDEWALK		
SIGN		
SIGN (DOUBLE POST)		
GAS VALVE		
GAS LINE		
GAS METER		
IRRIGATION VALVE		
BOLLARD		
CLEANOUT		
WELL		
WATERLINE		
WATER VALVE		
WATER METER		
TRANSFORMER		
ELECTRIC MANHOLE		
ELECTRIC METER		
ELEC. BOX/STRUCTURE		
ELECTRIC LINE		
TELECOMMUNICATION LINE		
CABLE LINE		
CABLE/ELECTRIC/TELECOMMUNICATION LINE		
TELECOMMUNICATION MANHOLE		
TELECOMMUNICATION STRUCTURE		
OVERHEAD STREET LIGHT		
LIGHT POLE		
LANDSCAPE LIGHT		
FENCES		
GRADING SPOT		
GRADING CONTOUR		
BUILDING ENTRANCE		
PAVING		
GUARDRAIL		
CURB AND GUTTER		
PROPOSED SPILL CURB		
PROPOSED TRANSITION/NOSE DOWN CURB		
LIMITS OF DISTURBANCE		

**GENERAL NOTES:**

1. TAX MAP: #067.02-02-02
2. ZONE: I (INDUSTRIAL)
3. OWNER: AVANTI HG 550, LLC  
1605 KING STREET, UNIT 3  
ALEXANDRIA, VA 22314  
INSTR. #200000698
4. TOPOGRAPHIC SURVEY WAS RUN BY THIS FIRM. VERTICAL DATUM USED = NAVD '88 PER NGS MONUMENT #HV9314. ELEVATION = 124.90'
5. THE PROPERTY IS LOCATED IN OTHER AREAS ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AND OTHER FLOOD AREAS ZONE X (AREAS OF 0.2% ANNUAL CHANCE FLOOD: AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD) AS SHOWN ON THIS FLOOD INSURANCE RATE MAP. CITY OF ALEXANDRIA, VIRGINIA INDEPENDENT CITY, PANEL 17 OF 45, MAP NUMBER 5155190017E, WITH A MAP REVISED DATE OF JUNE 16, 2011.
6. TITLE REPORT FURNISHED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY, FILE NO. 812C276B49 DATED 11/18/19 AND IS RELIED UPON AS ACCURATE BY THE SURVEYOR.
7. PLAT SUBJECT TO RESTRICTIONS OF RECORD.
8. THERE ARE NO KNOWN CONTAMINATED AREAS, CONTAMINATED SOILS, OR ENVIRONMENTAL ISSUES ASSOCIATED WITH THIS SITE.
9. THE "GENERALIZED ALEXANDRIA SOILS MAP" GENERALLY IDENTIFIES THE SOILS FOR THE SITE AS SUSQUEHANNA LOAM.
10. THIS SITE DOES NOT CONTAIN PREVIOUSLY MAPPED MARINE CLAYS.

**UTILITY OWNERSHIP NOTE:**

- GAS: ALL GAS LINES SHOWN ON THIS PLAN ARE OWNED AND MAINTAINED BY WASHINGTON GAS COMPANY. CONTACT: KEN MCCONKEY 703-750-4756; ADDRESS: WASHINGTON GAS, 6801 INDUSTRIAL ROAD, SPRINGFIELD, VA 22151.
- ELECTRIC: ALL ELECTRIC UTILITIES SHOWN ON THIS PLAN ARE OWNED AND MAINTAINED BY DOMINION VIRGINIA POWER. ANY RELOCATION OF EXISTING POLES AND LINES WILL BE COORDINATED WITH DOMINION VIRGINIA POWER. CONTACT: 1-866-366-4357; ADDRESS: DOMINION POWER, P.O. BOX 26866, RICHMOND, VA 23261.
- WATER: EXISTING WATER MAINS AND HYDRANTS SHOWN ON THIS PLAN ARE OWNED AND MAINTAINED BY VIRGINIA AMERICAN WATER COMPANY (V.A.W.C.). PROPOSED WATER SERVICES FROM METERS TO THE PROPOSED BUILDINGS ARE OWNED AND MAINTAINED BY THE PROPERTY OWNER. PROPOSED WATER SERVICES FROM METERS TO THE PROPOSED BUILDINGS ARE OWNED AND MAINTAINED BY THE PROPERTY OWNER. CONTACT: NETWORK SUPERVISOR FOR THE SOUTHEAST REGION HAO (STEVEN) CHEN 703-706-3889; ADDRESS: VIRGINIA AMERICAN WATER COMPANY, 2223 DUKE STREET, ALEXANDRIA, VA 22314.
- SANITARY SEWER: ALL EXISTING SANITARY SEWER MAINS SHOWN ON THIS PLAN ARE OWNED AND MAINTAINED BY THE CITY OF ALEXANDRIA. THE PROPOSED SANITARY LATERAL WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER. CONTACT: PUBLIC WORKS SERVICES, 2900 BUSINESS CENTER DRIVE, ALEXANDRIA, VA. TELEPHONE: 703-746-4357.
- STORM SEWER: ALL EXISTING AND PROPOSED STORM SEWER LOCATED IN THE PUBLIC RIGHT-OF-WAY SHOWN ON THIS PLAN ARE OWNED AND MAINTAINED BY THE CITY OF ALEXANDRIA. ANY SERVICES 200-510 STORM SEWER WILL BE MAINTAINED BY THE PROPERTY OWNER. CONTACT: PUBLIC WORKS SERVICES, 2900 BUSINESS CENTER DRIVE, ALEXANDRIA, VA. TELEPHONE: 703-746-4357.
- TELEPHONE: ALL TELEPHONE LINES ARE OWNED BY VERIZON. CONTACT: SECTION MANAGER MIKE TYNSINGER 804-472-6625; ADDRESS: VERIZON VIRGINIA, INC., 3011 HUNGARY SPRING ROAD, 2ND FLOOR, RICHMOND, VA 23228.

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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. © 2020 R.C. FIELDS & ASSOCIATES, INC.

APPROVED	
SPECIAL USE PERMIT NO. _____	
DEPARTMENT OF PLANNING & ZONING	
_____ DIRECTOR	_____ DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	
SITE PLAN NO. <b>2020-0021</b>	
_____ DIRECTOR	_____ DATE
_____ CHAIRMAN, PLANNING COMMISSION	
_____ DATE	
DATE RECEIVED _____	
_____ INSTRUMENT NO.	_____ DEED BOOK NO.
_____ DATE	

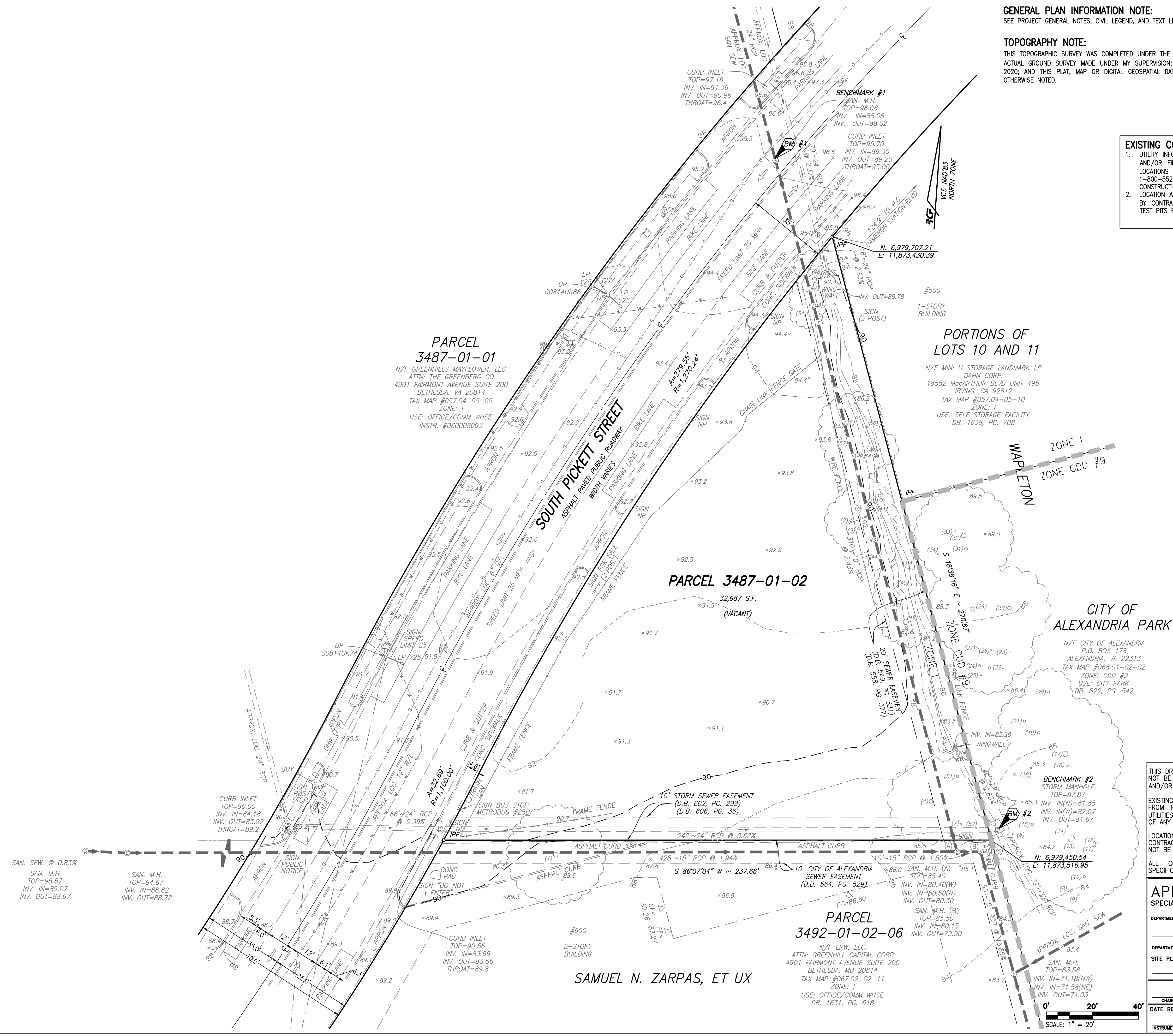
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CHECKED: ACS  
SCALE: NO SCALE  
DATE: AUG 12, 2020

## GENERAL PLAN INFORMATION AND NOTES

SHEET 3 OF 17

FILE: 19-200

DEVELOPMENT PRELIMINARY PLAN  
AVANTI 550  
#550 SOUTH PICKETT STREET  
CITY OF ALEXANDRIA, VIRGINIA



**GENERAL PLAN INFORMATION NOTE:**  
SEE PROJECT GENERAL NOTES, CIVIL LEGEND, AND TEXT LEGEND ON SHEET 3.

**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; THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED ON FEBRUARY 5, 2020; AND THIS PLAN, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

**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. 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.  
2. LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR/ENGINEER SHOULD DIG TEST PITS BY HAND AT ALL UTILITY CROSSINGS TO VERIFY EXACT LOCATION.

TREE TABLE	
(1) 24" TREE	(47) 6" TREE
(2) 12" TREE	(48) 11" TREE
(3) 12" TWIN TREE	(49) 32" TREE CLUSTER
(4) 20" TWIN TREE	(51) 6" TREE
(5) 6" TREE	(52) 5" TREE
(6) 10" TREE	(53) 4" TREE
(7) 9" TREE	(54) 3" TREE
(8) 8" TREE	(55) 8" TREE
(9) 8" TREE	(56) 10" TREE
(10) 12" TREE	(57) 5" TREE
(11) 10" TREE	
(12) 10" TREE	
(13) 33" TWIN TREE	
(14) 7" TREE	
(15) 13" TREE	
(16) 13" TREE	
(17) 28" TWIN TREE	
(18) 12" TWIN TREE	
(19) 13" TREE	
(20) 11" TREE	
(21) 12" TREE	
(22) 12" TREE	
(23) 11" TREE	
(24) 12" TREE	
(25) 7" TREE	
(26) 8" TREE	
(27) 12" TREE	
(28) 22" TWIN TREE	
(29) 19" TREE	
(30) 16" TREE	
(31) 16" TREE	
(32) 24" TREE	
(33) 12" TREE	
(34) 6" TREE	
(35) 12" TREE	
(36) 8" TREE	
(38) 22" TREE	
(39) 10" TREE	
(40) 8" TREE	
(41) 10" TREE	
(43) 9" TREE	
(44) 6" TREE	
(45) 10" TREE	
(46) 10" TREE	

**TREE SPECIES NOTE:**  
SEE SHEET TP-01 FOR DETAILED TREE INVENTORY INCLUDING TREE SPECIES.

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**APPROVED**  
SPECIAL USE PERMIT NO. \_\_\_\_\_

DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_  
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES  
SITE PLAN NO. **2020-0021**

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

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

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

DEVELOPMENT PRELIMINARY PLAN  
**AVANTI 550**  
#550 SOUTH PICKETT STREET  
CITY OF ALEXANDRIA, VIRGINIA

DATE \_\_\_\_\_ REVISION \_\_\_\_\_

DESIGN: ABH  
CHECKED: ACS  
SCALE: 1"=20'  
DATE: AUG 12, 2020

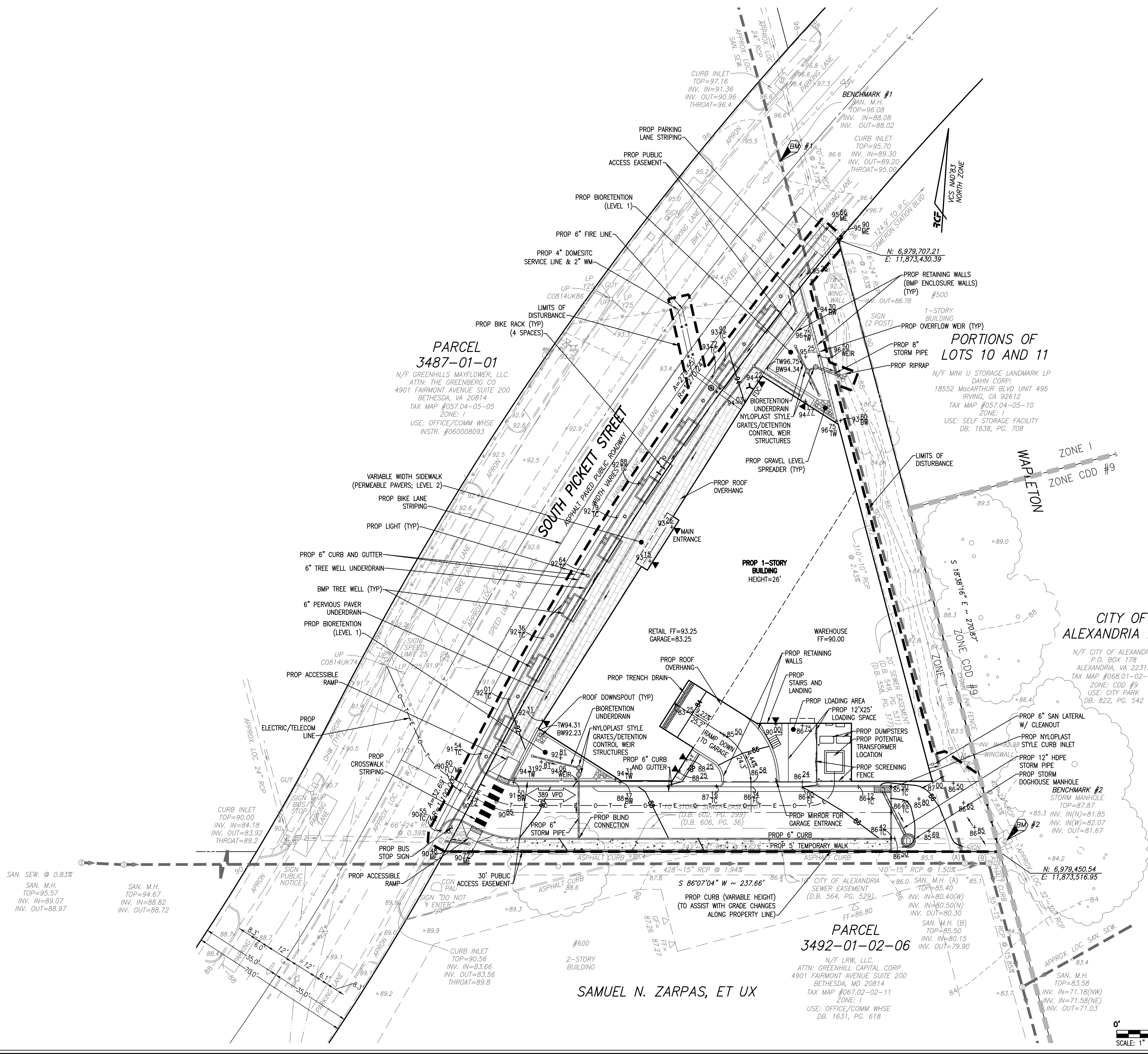
EXISTING  
CONDITIONS

SHEET **4** OF **17**  
FILE: **19-200**

**R.C. FIELDS & ASSOCIATES, INC.**  
ENGINEERING • LAND SURVEYING • PLANNING  
700 S. Washington Street, Suite 220  
Alexandria, Virginia 22314  
(703) 549-6422  
www.rcfields.com

**ANDREA SPRUCH**  
Lic. No. 047863  
SEPTEMBER 15, 2020  
PROFESSIONAL ENGINEER





**GENERAL PLAN INFORMATION NOTE:**

SEE PROJECT GENERAL NOTES, CIVIL LEGEND, AND TEXT LEGEND ON SHEET 3.

**ARCHAEOLOGY NOTES:**

THE APPLICANT/DEVELOPER SHALL CALL ALEXANDRIA ARCHAEOLOGY IMMEDIATELY (703-746-4399) IF ANY BURIED STRUCTURAL REMAINS (WALL FOUNDATIONS, WELLS, PRIVIES, CISTENS, 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/DEVELOPER SHALL NOT ALLOW ANY NON-PROFESSIONAL METAL DETECTION 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 CITY OF ALEXANDRIA ZONING ORDINANCE.

**SANITARY SEWER OUTFALL NARRATIVE:**

THE EXISTING USE (VACANT LOT) DOES NOT PRODUCE A SANITARY FLOW AS NO STRUCTURE IS LOCATED ON SITE.

THE PROPOSED WAREHOUSE WITH ACCESSORY RETAIL PRODUCES 12,389 GALLONS PER DAY

WAREHOUSE: (200 GPD/1,000 SF OF WAREHOUSE X 4 PFF) = (200 X 5,223/1000) X 4 = 4,179 GPD  
RETAIL: (200 GPD/1,000 SF OF RETAIL X 4 PFF) = (200 X 10,070/1000) X 4 = 8,056 GPD  
TOTAL = 12,235 GPD

SINCE THE TOTAL FLOW FROM THE THE PROPOSED USE EXCEEDS 10,000 GPD, A DETAILED SANITARY SEWER OUTFALL ANALYSIS IS PROVIDED ON SHEET 12.

**ALEXRENEW NOTES:**

- CONTRACTOR SHALL ENSURE ALL DISCHARGES ARE IN ACCORDANCE WITH CITY OF ALEXANDRIA CODE TITLE 5, CHAPTER 6, ARTICLE B.
- DENATURING AND OTHER CONSTRUCTION RELATED DISCHARGE LIMITS TO THE SEWER SYSTEM ARE REGULATED BY ALEXRENEW PRETREATMENT. CONTRACTOR IS REQUIRED TO CONTACT ALEXRENEW'S PRETREATMENT COORDINATOR AT 703.549.3381, X2020.

**GREEN BUILDING NARRATIVE:**

A DRAFT LEED SCORECARD WILL BE PROVIDED WITH THIS SUBMISSION UNDER SEPARATE COVER. THE PROJECT IS PLANNED TO ATTAIN LEED SILVER CERTIFICATION. THE BUILDING WILL COMPLY WITH THE CITY'S 2019 GREEN BUILDING POLICY AND WILL INCORPORATE SUSTAINABLE STRATEGIES CONSISTENT WITH THE DRAFT LEED SCORECARD AND THE CITY'S ENVIRONMENTAL GOALS. THE SUSTAINABILITY ELEMENTS WILL BE REFINED DURING THE DEVELOPMENT OF THE BUILDING PERMIT AND CONSTRUCTION DRAWINGS.

**ENERGY**

THE DRAFT SUSTAINABLE ENERGY AND BUILDING ENVELOPE ELEMENTS INCLUDE: A VEGETATIVE ROOF ON A HIGHLY REFLECTIVE ROOF SURFACE, CONTINUOUS THICK ROOF AND WALL INSULATION, OCCUPANCY SENSORS, HIGH EFFICIENCY LED LIGHT FIXTURES, AND ENERGY EFFICIENT AND ENERGY RECOVERING HVAC EQUIPMENT. THE ELECTRICAL ENGINEERING DESIGN FOR THE BUILDING IS NOT COMPLETE AT THIS TIME, THEREFORE, ELECTRICAL LOADS WILL BE PROVIDED WITH FUTURE SUBMISSIONS. THE PROJECT WILL LIKELY MEET THE LEED REGIONAL PRIORITY CREDIT FOR OPTIMIZED ENERGY PERFORMANCE, HOPEFULLY EARNING 10+ POINTS. HOWEVER, THE ELECTRICAL ENGINEERING DESIGN FOR THE BUILDING IS NOT COMPLETE AT THIS TIME. THE PROJECT'S DEVELOPMENT DOES NOT INCLUDE RENEWABLE ENERGY PRODUCTION. THE PROJECT IS NOT REQUIRED TO BE NET ZERO ENERGY CERTIFIED. HVAC DESIGN AND ENERGY MODELING WILL BE PROVIDED TO ATTAIN LEED SILVER CERTIFICATION; HOWEVER, A THIRD-PARTY COMMISSIONING CONSULTANT WILL NOT BE CONTRACTED. METERING WITHIN THE PROPOSED BUILDING MAY RESULT IN ENERGY MANAGEMENT, ANALYSIS, AND INTERPRETATION OF DATA THAT SAVES APPROXIMATELY 5% OF ENERGY. HOWEVER, THESE ARE ONLY ESTIMATES AS THE ELECTRICAL ENGINEERING DESIGN FOR THE BUILDING HAS NOT BEEN COMPLETED YET.

**WATER**

THE DRAFT SUSTAINABLE WATER USAGE ELEMENTS INCLUDE: LOW FLOW WATER FIXTURES AND WATERLESS LANDSCAPING. STORMWATER WILL BE MANAGED UTILIZING THE VEGETATED ROOF AND ON-SITE BMPs. THERE WILL BE NO PLANT IRRIGATION SYSTEM, THEREFORE, THE EXTERIOR WATER USAGE WILL BE ZERO. THE INTERIOR WATER REDUCTION IS ESTIMATED TO BE 30% WHICH IS COMMON IN PROJECTS WITH WATER USE DRIVEN BY RESTROOMS. HOWEVER, THESE ARE ONLY ESTIMATES AS THE PLUMBING ENGINEERING DESIGN FOR THE BUILDING HAS NOT BEEN COMPLETED YET.

**INDOOR ENVIRONMENTAL QUALITY**

THE DRAFT SUSTAINABLE INDOOR ENVIRONMENTAL QUALITY ELEMENTS INCLUDE: INDOOR AIR QUALITY PLAN DURING CONSTRUCTION, DAYLIGHT VIEWS THROUGHOUT THE RETAIL SPACE, LOW VOC MATERIALS, ADHESIVES, AND PAINTS, AND HVAC FILTRATION AND FRESH OUTSIDE AIR. THE RETAIL SPACE WILL BE DESIGNED TO BE THERMALLY COMFORTABLE, HOWEVER, INDIVIDUALIZED THERMAL CONTROL WILL NOT BE PROVIDED. ENERGY REDUCTION STRATEGIES WILL BE AT THE FOREFRONT OF THE BUILDING'S MECHANICAL AND ELECTRICAL ENGINEERING DESIGN AND WILL BE PROVIDED WITH FUTURE SUBMISSIONS.

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**APPROVED**  
SPECIAL USE PERMIT NO. \_\_\_\_\_

DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_  
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES  
SITE PLAN NO. **2020-0021**

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

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

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

DATE	REVISION

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DATE: AUG 12, 2020

**PRELIMINARY PLAN**



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CHECKED: ACS  
SCALE: 1"=20'  
DATE: AUG 12, 2020

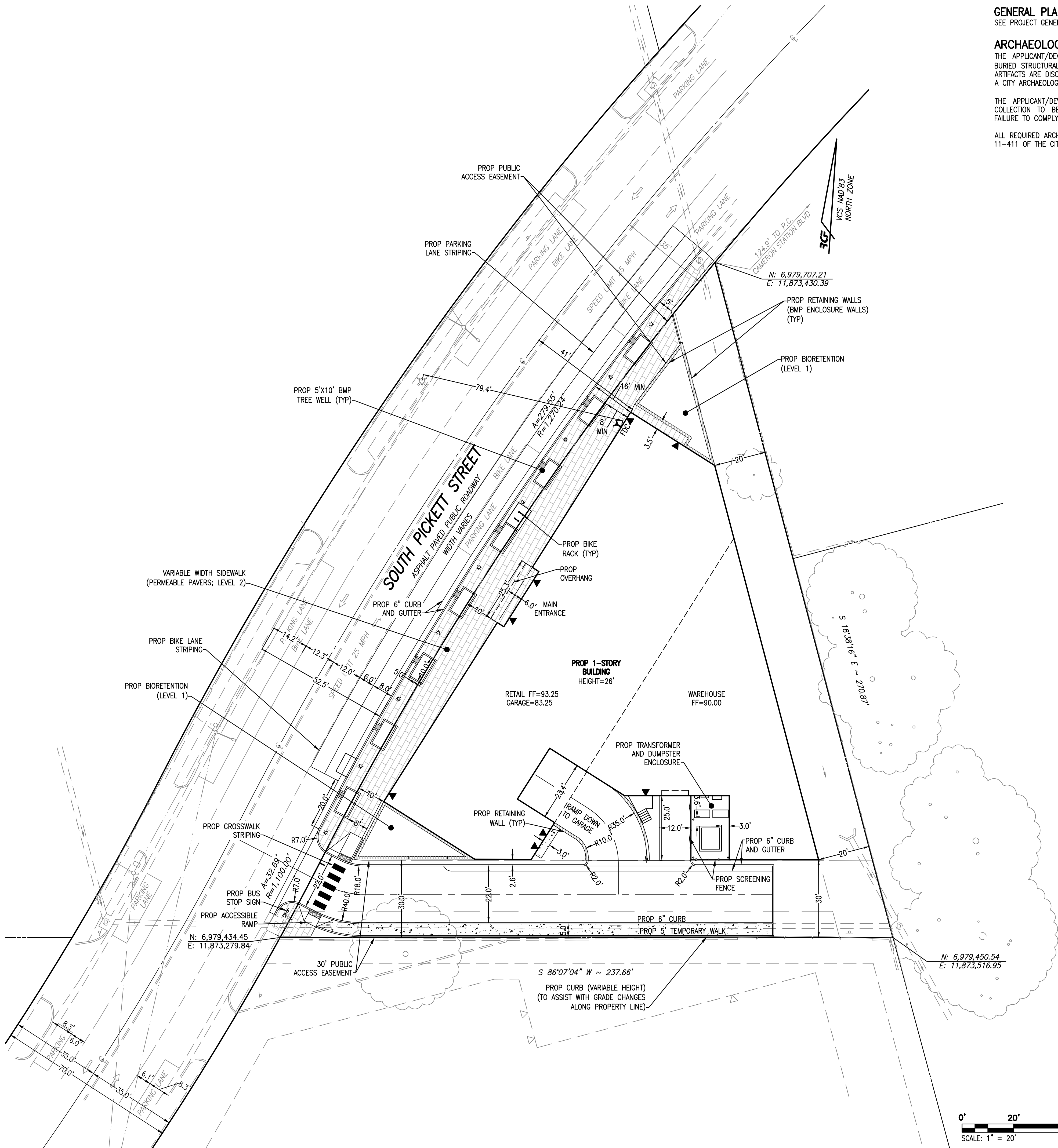
### SITE DIMENSIONS PLAN

SHEET 6 OF 17  
FILE: 19-200

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

LEVEL 2 PERMEABLE PAVEMENT

CONCRETE SIDEWALK



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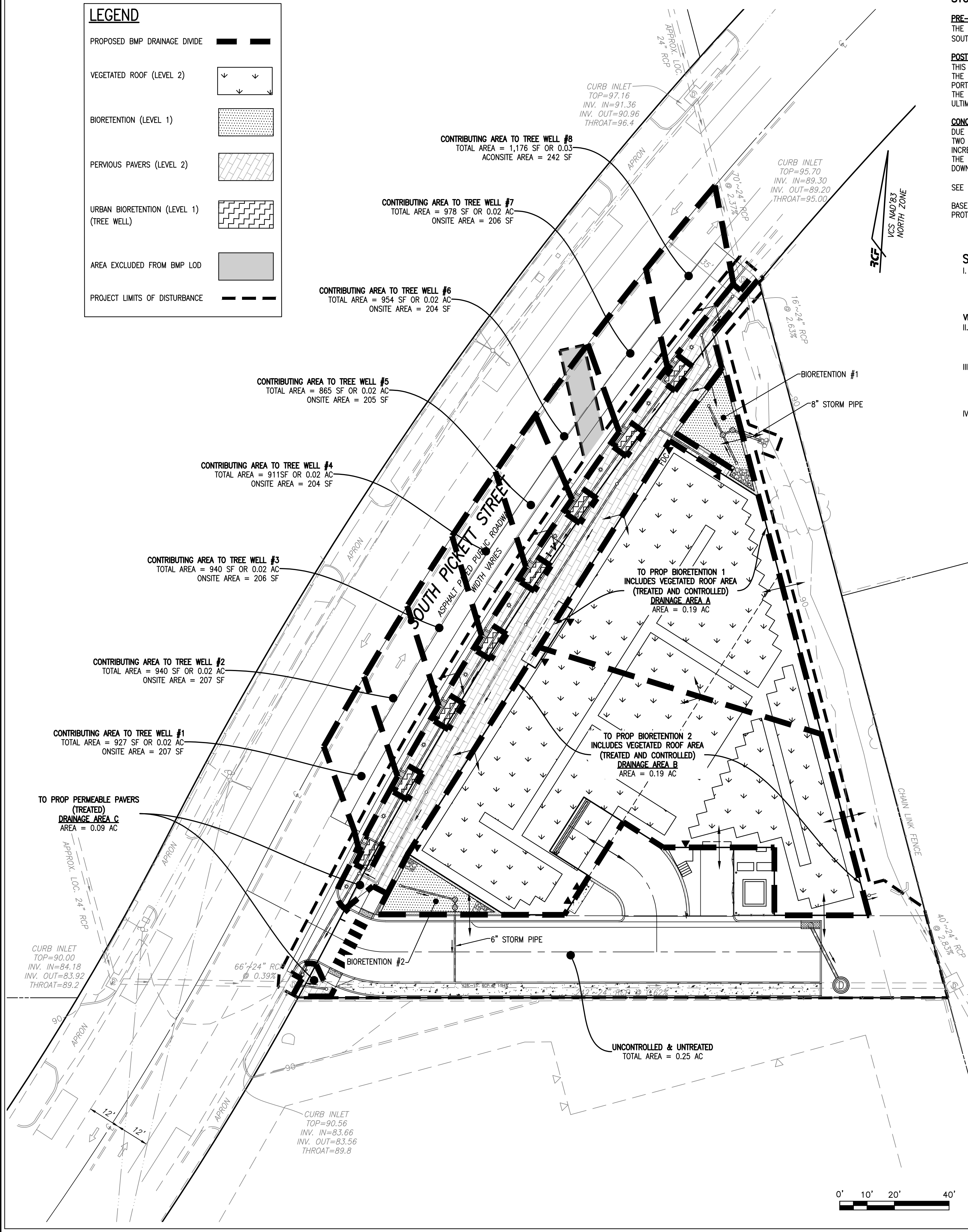
DEPARTMENT OF PLANNING &amp; ZONING

<div style="display: flex; justify-content: space-between;"> <div style="width: 45%; text-align: center;"> <b>DIRECTOR</b> </div> <div style="width: 45%; text-align: center;"> <b>DATE</b> </div> </div>	
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_____ CHAIRMAN, PLANNING COMMISSION	_____ DATE
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INSTRUMENT NO. \_\_\_\_\_ DEED BOOK NO. \_\_\_\_\_





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

PRE-DEVELOPMENT CONDITIONS:

THE 0.76 ACRE PROJECT AREA (TAX PARCEL) IS A VACANT LOT LOCATED IN THE BACKLICK RUN WATERSHED. IN EXISTING CONDITIONS, STORMWATER RUNOFF SHEET FLOWS SOUTH/SOUTHEAST UNTIL IT IS COLLECTED WITHIN AN EXISTING CHANNEL. IT CONTINUES IN A SOUTHERLY DIRECTION BEFORE ULTIMATELY ENTERING BACKLICK RUN.

POST-DEVELOPMENT CONDITIONS

THIS PROJECT PROPOSES THE CONSTRUCTION OF A WAREHOUSE/RETAIL BUILDING AND ASSOCIATED SITE IMPROVEMENTS. A MAJORITY OF THE SITE RUNOFF IS COLLECTED AND TREATED BY THE PROPOSED BIORETENTION FACILITIES, BMP TREE WELLS, OR PERMEABLE PAVERS BEFORE BEING SENT TO EXISTING CITY OF ALEXANDRIA MAINTAINED STORM SEWER. A SMALLER PORTION OF THE SITE IS COLLECTED AND SENT TO EXISTING CITY OF ALEXANDRIA MAINTAINED STORM SEWER SOUTHEAST OF THE PROPERTY. THE REMAINDER OF THE SITE RUNOFF LEAVES THE SITE AS SHEET FLOW, ONCE WITHIN THE EXISTING CITY OF ALEXANDRIA MAINTAINED STORM SEWER, BOTH PORTIONS OF RUNOFF CONTINUE FLOWING GENERALLY SOUTH BEFORE ULTIMATELY ENTERING BACKLICK RUN.

CONCLUSION

DUE TO AN OVERALL INCREASE OF SITE IMPERVIOUS AREA, THERE IS AN INCREASE IN POST-DEVELOPMENT PEAK RATE RUNOFF (SEE COMPUTATIONS PROVIDED ON THIS SHEET). HOWEVER, TWO BIORETENTIONS ARE PROPOSED WITH THIS PLAN TO PROVIDE RUNOFF REDUCTION AND DETENTION FOR THE 1, 2 AND 10-YEAR, 24-HOUR STORMS. 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 EXITS THE SITE IN THE FORM OF SHEET FLOW WILL HAVE NO ADVERSE IMPACTS ON DOWN-GRADIENT PROPERTIES OR RESOURCES.

SEE SHEET 11 FOR A DRAINAGE SHED BOUNDARY ANALYSIS PER SECTION 13-109F-2(c)(iii)

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 = 32,987 SQ.FT. OR 0.76 ACRES (TAX PARCEL)

EXISTING IMPERVIOUS AREA = 0 SQ.FT. OR 0.00 ACRES  
PROPOSED IMPERVIOUS AREA = 25,443 SQ.FT. OR 0.58 ACRES

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

II. WEIGHTED CURVE NUMBER (CN) CALCULATIONS:

CN PRE-DEVELOPMENT =  $(0 \times 98 + 0.76 \times 80) \div 0.76 = 80$   
CN POST-DEVELOPMENT =  $(0.58 \times 98 + 0.16 \times 80 + 0.02 \times 77) \div 0.76 = 94$

III. PRE-DEVELOPMENT PEAK DISCHARGES: ( $T_c = 5$  MINS.)

PEAK  $Q_p$  PRE-DEVELOPMENT = 1.31 cfs  
PEAK  $Q_p$  PRE-DEVELOPMENT = 1.79 cfs  
PEAK  $Q_p$  PRE-DEVELOPMENT = 3.79 cfs

IV. POST-DEVELOPMENT PEAK DISCHARGES ( $T_c = 5$  MINS.)

PEAK  $Q_p$  POST-DEVELOPMENT = 2.44 cfs  
PEAK  $Q_p$  POST-DEVELOPMENT = 2.97 cfs  
PEAK  $Q_p$  POST-DEVELOPMENT = 5.09 cfs

$Q_p$  INCREASE = 1.13 CFS  
 $Q_p$  INCREASE = 1.18 CFS  
 $Q_p$  INCREASE = 1.30 CFS

DUE TO THE INCREASE IN THE PEAK DISCHARGE FOR THE 1, 2 AND 10-YEAR STORM, DETENTION IS REQUIRED AND SHALL BE PROVIDED THROUGH THE USE OF THE PROPOSED BIORETENTIONS.

PROJECT DESCRIPTION:

REDEVELOPMENT

DRAINAGE AREA	IMPERVIOUS	PERVIOUS	TOTAL
SITE AREA (TOTAL SWM LOD)	0.58	0.18	0.76
ON-SITE TREATED (ON-SITE SWM LOD)	0.43	0.02	0.45
OFF-SITE TREATED (OFF-SITE SWM LOD)	0.05	0.01	0.06
TOTAL TREATED	0.48	0.03	0.51
ON-SITE IMPERVIOUS AREAS DISCONNECTED BY A VEGETATIVE BUFFER	N/A		
TOTAL TREATED OR DISCONNECTED			0.51

WATER QUALITY VOLUME DEFAULT:

PROPOSED IMPERVIOUS: 0.58 AC (ON-SITE SWM LOD)  
TREATMENT OF FIRST HALF INCH OF RUNOFF:  $1,815 \times 0.58 = 1,053$  CU. FT. WQV REQUIRED

BMP TYPE	AREA TREATED BY BMP (ACRES)	IMPERVIOUS AREA TREATED BY BMP (ACRES)	BMP EFFICIENCY (%)
VEGETATED ROOF LEVEL 2	0.25	0.25	0% (RUNOFF REDUCTION 60%)
BIORETENTION LEVEL 1	0.13	0.11	25%
PERMEABLE PAVERS LEVEL 2	0.07	0.07	25%

TOTAL WQV TREATED: NO  
WATER QUALITY VOLUME REQUIRED = 1,053 CU. FT.  
WATER QUALITY VOLUME TREATED =  $1,815 \times 0.43 = 780$  CU. FT.  
PERCENT OF WATER QUALITY VOLUME TREATED = 74%  
DETENTION ON SITE: YES  
PROJECT IS WITHIN WHICH WATERSHED? BACKLICK RUN  
PROJECT DISCHARGES TO WHICH BODY OF WATER? POTOMAC RIVER

BMP FACILITY	AREA TREATED (ACRES)	IMPERVIOUS AREA TREATED (ACRES)	PERVIOUS AREA TREATED (ACRES)	TP REMOVAL EFFICIENCY	PHOSPHORUS REMOVED (LBS)	GEOGRAPHIC COORDINATES
VEGETATED ROOF	0.25	0.25	0.00	0%	0.16	LATITUDE LONGITUDE
BIORETENTION #1	0.19	0.18	0.01	25%	0.06	38.808159 -77.129608
BIORETENTION #2	0.19	0.18	0.01	25%	0.06	38.805950 -77.129939
PERMEABLE PAVERS	0.09	0.09	0.00	25%	0.16	38.806337 -77.129761
TREE WELLS	0.04	0.03	0.01	25%	0.04	38.805992 -77.130022
						38.806065 -77.129978
						38.809711 -77.480826
						38.806210 -77.129880
						38.806282 -77.129827
						38.806353 -77.129773
						38.806422 -77.129717
						38.806490 -77.129659

STORMWATER QUALITY NARRATIVE (CITY CODE SECTION 13-109E COMPLIANCE):

THE PROPOSED REDEVELOPMENT (0.75 ACRES OF DISTURBANCE (SWM ANALYSIS AREA)) GENERATES A NET INCREASE IN IMPERVIOUS AREA FROM PRE-DEVELOPMENT CONDITIONS. PER CITY CODE SECTION 13-109E-(5)(c), DEVELOPMENT OF PRIOR DEVELOPED LANDS RESULTING IN A NET INCREASE IN IMPERVIOUS AREA AND DISTURBING LESS THAN 1 ACRE, MUST RESULT IN A 10% 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. LEVEL 2 VEGETATED ROOF, LEVEL 1 BIORETENTION FACILITIES, LEVEL 2 PERVIOUS PAVERS, AND LEVEL 1 URBAN BIORETENTION/TREE WELLS ARE PROPOSED AS BMPs TO PROVIDE WATER QUALITY TREATMENT. THESE BMPs COMBINE TO REMOVE 0.77 LBS/YR OF PHOSPHORUS LOAD FROM THE SITE [73% REDUCTION;  $(0.77/1.05) \times 100 = 73.3\%$ ] WHICH IS LESS THAN THE MINIMUM REQUIREMENT PER THE VRRM SPREADSHEET ON THE NEXT SHEET. THEREFORE, OFFSITE CREDITS, AS ALLOWED PER CITY CODE SECTION 13-109E-(8), ARE PROPOSED TO ACCOUNT FOR THE REMAINING PHOSPHORUS LOAD REDUCTION REQUIRED. A LETTER OF AVAILABILITY IS PROVIDED ON SHEET 8. THUS, THROUGH THE COMBINATION OF PROPOSED BMP PRACTICES AND THE PURCHASE OF OFFSITE NUTRIENT CREDITS, THE WATER QUALITY MANAGEMENT PERFORMANCE REQUIREMENTS FOR THE PROPOSED DEVELOPMENT PER CITY CODE SECTION 13-109E-(5)(g) HAVE BEEN MET.

MEMO TO INDUSTRY 01-18 REQUIRES 65% OF THE TOTAL PHOSPHORUS REMOVAL REQUIRED BY THE VIRGINIA STORMWATER MANAGEMENT PROGRAM MUST BE ACHIEVED USING NON PROPRIETARY SURFACE BMPs APPROVED BY THE VIRGINIA STORMWATER BMP CLEARINGHOUSE.  $73\% [(0.77/1.05) \times 100 = 73.3\%]$  OF THE REQUIRED PHOSPHORUS REMOVAL HAS BEEN ACHIEVED THROUGH THE PROJECT'S PROPOSED NON PROPRIETARY BMPs.

IN ADDITION, 0.43 ACRES OF THE 0.58 ACRES OF ON-SITE IMPERVIOUS AREA (WITHIN THE ONSITE STORMWATER LIMITS OF DISTURBANCE) IS PROPOSED TO BE TREATED WITH THIS DEVELOPMENT, WHICH MEETS THE MAJORITY OF THE WATER QUALITY DEFAULT VOLUME TREATMENT STANDARDS IN SECTION 13-110 OF THE ZONING ORDINANCE. 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-(5) AND SECTION 13-110.

DATE	REVISION

DESIGN: ABH  
CHECKED: ACS  
SCALE: 1" = 20'  
DATE: AUG 12, 2020

STORMWATER  
MANAGEMENT  
PLAN

SHEET 7 OF 17  
FILE: 19-200

APPROVED  
SPECIAL USE PERMIT NO. \_\_\_\_\_

DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_  
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES  
SITE PLAN NO. 2020-0021

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

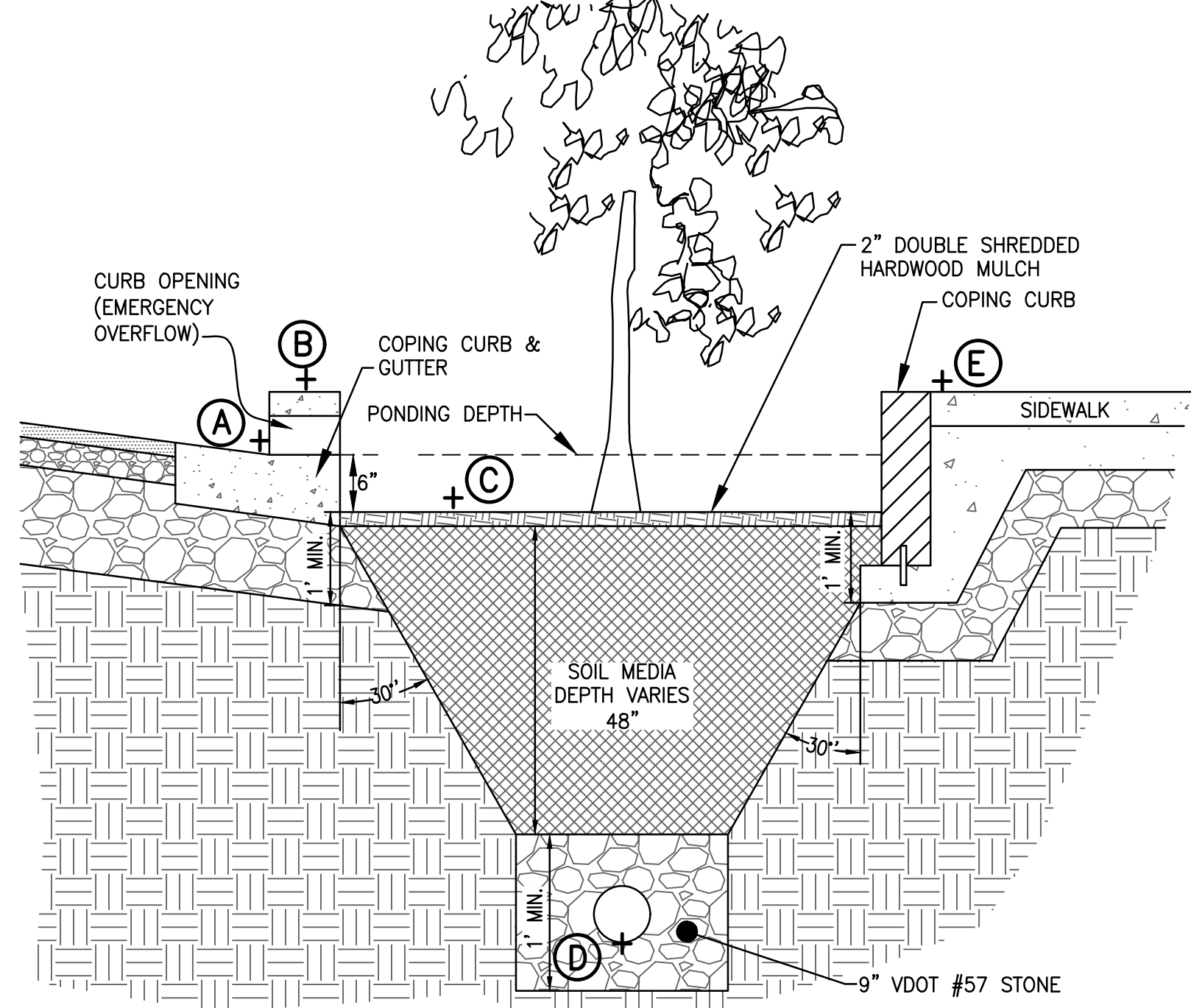
CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_  
DATE RECORDED \_\_\_\_\_

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



### URBAN BIORETENTION (TREE WELL) DETAIL

NOT TO SCALE



TREE WELL	SQ. FT. OF SURFACE AREA	ELEVATIONS					SOILS MEDIA DEPTH	LATITUDE	LONGITUDE
		A	B	C	D	E			
1	50.0	91.3	91.8	90.8	85.9	91.9	48"	38.805992	-77.130022
2	50.0	91.7	92.2	91.2	86.3	92.3	48"	38.806065	-77.129978
3	50.0	92.0	92.5	91.5	86.6	92.6	48"	38.809711	-77.480826
4	50.0	92.2	92.7	91.7	86.8	92.8	48"	38.806210	-77.129880
5	50.0	92.4	92.9	91.9	87.0	93.0	48"	38.806282	-77.129827
6	50.0	92.8	93.3	92.3	87.4	93.4	48"	38.806353	-77.129773
7	50.0	93.4	93.9	92.9	88.0	94.0	48"	38.806422	-77.129717
8	50.0	94.0	94.5	93.5	88.6	94.5	48"	38.806490	-77.129659

#### TREE WELL #1:

THE REQUIRED SURFACE AREA PER 2011 DEQ BMP CLEARINGHOUSE APPENDIX 9-A:  
 $SA = T_v/2 = (1.0(R_v)(A))/12/2$   
WHERE:  
 $T_v$  = TREATMENT VOLUME (CF)  
 $R_v$  = RUNOFF COEFFICIENT (0.95)  
 $A$  = TOTAL AREA TO BMP (SF)

TOTAL IMPERVIOUS AREA TO BMP = 927 SF

REQUIRED SURFACE AREA:  
 $SA = (1.0(R_v)(A))/12/2 = (1.0(0.95)(927)/12)/2 = 36.7$  SF

REQUIRED: 36.7 SF  
PROVIDED: 50.0 SF (REQUIREMENT MET)

#### TREE WELL #2:

THE REQUIRED SURFACE AREA PER 2011 DEQ BMP CLEARINGHOUSE APPENDIX 9-A:  
 $SA = T_v/2 = (1.0(R_v)(A))/12/2$   
WHERE:  
 $T_v$  = TREATMENT VOLUME (CF)  
 $R_v$  = RUNOFF COEFFICIENT (0.95)  
 $A$  = TOTAL AREA TO BMP (SF)

TOTAL IMPERVIOUS AREA TO BMP = 940 SF  
REQUIRED SURFACE AREA:  
 $SA = (1.0(R_v)(A))/12/2 = (1.0(0.95)(940)/12)/2 = 37.2$  SF

REQUIRED: 37.2 SF  
PROVIDED: 50.0 SF (REQUIREMENT MET)

#### TREE WELL #3:

THE REQUIRED SURFACE AREA PER 2011 DEQ BMP CLEARINGHOUSE APPENDIX 9-A:  
 $SA = T_v/2 = (1.0(R_v)(A))/12/2$   
WHERE:  
 $T_v$  = TREATMENT VOLUME (CF)  
 $R_v$  = RUNOFF COEFFICIENT (0.95)  
 $A$  = TOTAL AREA TO BMP (SF)

TOTAL IMPERVIOUS AREA TO BMP = 940 SQ.FT.

REQUIRED SURFACE AREA:  
 $SA = (1.0(R_v)(A))/12/2 = (1.0(0.95)(940)/12)/2 = 37.2$  SF

REQUIRED: 37.2 SF  
PROVIDED: 50.0 SF (REQUIREMENT MET)

#### TREE WELL #4:

THE REQUIRED SURFACE AREA PER 2011 DEQ BMP CLEARINGHOUSE APPENDIX 9-A:  
 $SA = T_v/2 = (1.0(R_v)(A))/12/2$   
WHERE:  
 $T_v$  = TREATMENT VOLUME (CF)  
 $R_v$  = RUNOFF COEFFICIENT (0.95)  
 $A$  = TOTAL AREA TO BMP (SF)

TOTAL IMPERVIOUS AREA TO BMP = 911 SQ.FT.

REQUIRED SURFACE AREA:  
 $SA = (1.0(R_v)(A))/12/2 = (1.0(0.95)(911)/12)/2 = 36.1$  SF

REQUIRED: 36.1 SF  
PROVIDED: 50.0 SF (REQUIREMENT MET)

#### TREE WELL #5:

THE REQUIRED SURFACE AREA PER 2011 DEQ BMP CLEARINGHOUSE APPENDIX 9-A:  
 $SA = T_v/2 = (1.0(R_v)(A))/12/2$   
WHERE:  
 $T_v$  = TREATMENT VOLUME (CF)  
 $R_v$  = RUNOFF COEFFICIENT (0.95)  
 $A$  = TOTAL AREA TO BMP (SF)

TOTAL IMPERVIOUS AREA TO BMP = 865 SF  
REQUIRED SURFACE AREA:  
 $SA = (1.0(R_v)(A))/12/2 = (1.0(0.95)(865)/12)/2 = 34.2$  SF

REQUIRED: 34.2 SF  
PROVIDED: 50.0 SF (REQUIREMENT MET)

#### TREE WELL #6:

THE REQUIRED SURFACE AREA PER 2011 DEQ BMP CLEARINGHOUSE APPENDIX 9-A:  
 $SA = T_v/2 = (1.0(R_v)(A))/12/2$   
WHERE:  
 $T_v$  = TREATMENT VOLUME (CF)  
 $R_v$  = RUNOFF COEFFICIENT (0.95)  
 $A$  = TOTAL AREA TO BMP (SF)

TOTAL IMPERVIOUS AREA TO BMP = 954 SF

REQUIRED SURFACE AREA:  
 $SA = (1.0(R_v)(A))/12/2 = (1.0(0.95)(954)/12)/2 = 37.8$  SF

REQUIRED: 37.8 SF  
PROVIDED: 50.0 SF (REQUIREMENT MET)

#### TREE WELL #7:

THE REQUIRED SURFACE AREA PER 2011 DEQ BMP CLEARINGHOUSE APPENDIX 9-A:  
 $SA = T_v/2 = (1.0(R_v)(A))/12/2$   
WHERE:  
 $T_v$  = TREATMENT VOLUME (CF)  
 $R_v$  = RUNOFF COEFFICIENT (0.95)  
 $A$  = TOTAL AREA TO BMP (SF)

TOTAL IMPERVIOUS AREA TO BMP = 978 SF

REQUIRED SURFACE AREA:  
 $SA = (1.0(R_v)(A))/12/2 = (1.0(0.95)(978)/12)/2 = 38.7$  SF

REQUIRED: 38.7 SF  
PROVIDED: 50.0 SF (REQUIREMENT MET)

#### TREE WELL #8:

THE REQUIRED SURFACE AREA PER 2011 DEQ BMP CLEARINGHOUSE APPENDIX 9-A:  
 $SA = T_v/2 = (1.0(R_v)(A))/12/2$   
WHERE:  
 $T_v$  = TREATMENT VOLUME (CF)  
 $R_v$  = RUNOFF COEFFICIENT (0.95)  
 $A$  = TOTAL AREA TO BMP (SF)

TOTAL IMPERVIOUS AREA TO BMP = 1,176 SF

REQUIRED SURFACE AREA:  
 $SA = (1.0(R_v)(A))/12/2 = (1.0(0.95)(1,176)/12)/2 = 46.6$  SF

REQUIRED: 46.6 SF  
PROVIDED: 50.0 SF (REQUIREMENT MET)

### NUTRIENT CREDIT AVAILABILITY LETTER:



Date: August 11, 2020

To: Nathan Ribyat  
Project Designer  
RC Fields & Associates

From: Caitlan Parker  
Credit Sales Coordinator  
Resource Environmental Solutions

Subject: Potomac Watershed – Nutrient Credit Availability

Project Reference: 550 South Pickett Street, 0.28 Credits Requested; HUC 02070010

This letter is to confirm the availability of 0.28 authorized nutrient credits ("Nutrient Credits") from one or more of Resource Environmental Solutions' ("RES") Potomac nutrient bank facilities for use by permit applicants within the Potomac watershed, including HUC 02070010, to compensate for nutrient loadings in excess of state or local regulations, as per Virginia Code § 62.1-44.15:35 and § 62.1-44.19:14 and Virginia Administrative Code 9 VAC 25-820-10 et seq. These Nutrient Credits are generated and managed under the terms of the Banking Instruments known as the Coles Point Nutrient Reduction Implementation Plan ("NRIP").

Please feel free to contact me if you have any questions.

Sincerely,

Caitlan B. Parker  
Resource Environmental Solutions  
cparker@res.us

10055 Red Run Blvd.  
Suite 130  
Owings Mills, MD  
21117

412 N. 4th St.  
Suite 300  
Baton Rouge, LA  
70802

701 E. Bay St.  
Suite 306  
Charleston, SC  
29403

5020 Montrose Blvd.  
Suite 650  
Houston, TX  
77006

1200 Camella Blvd.  
Suite 220  
Lafayette, LA  
70508

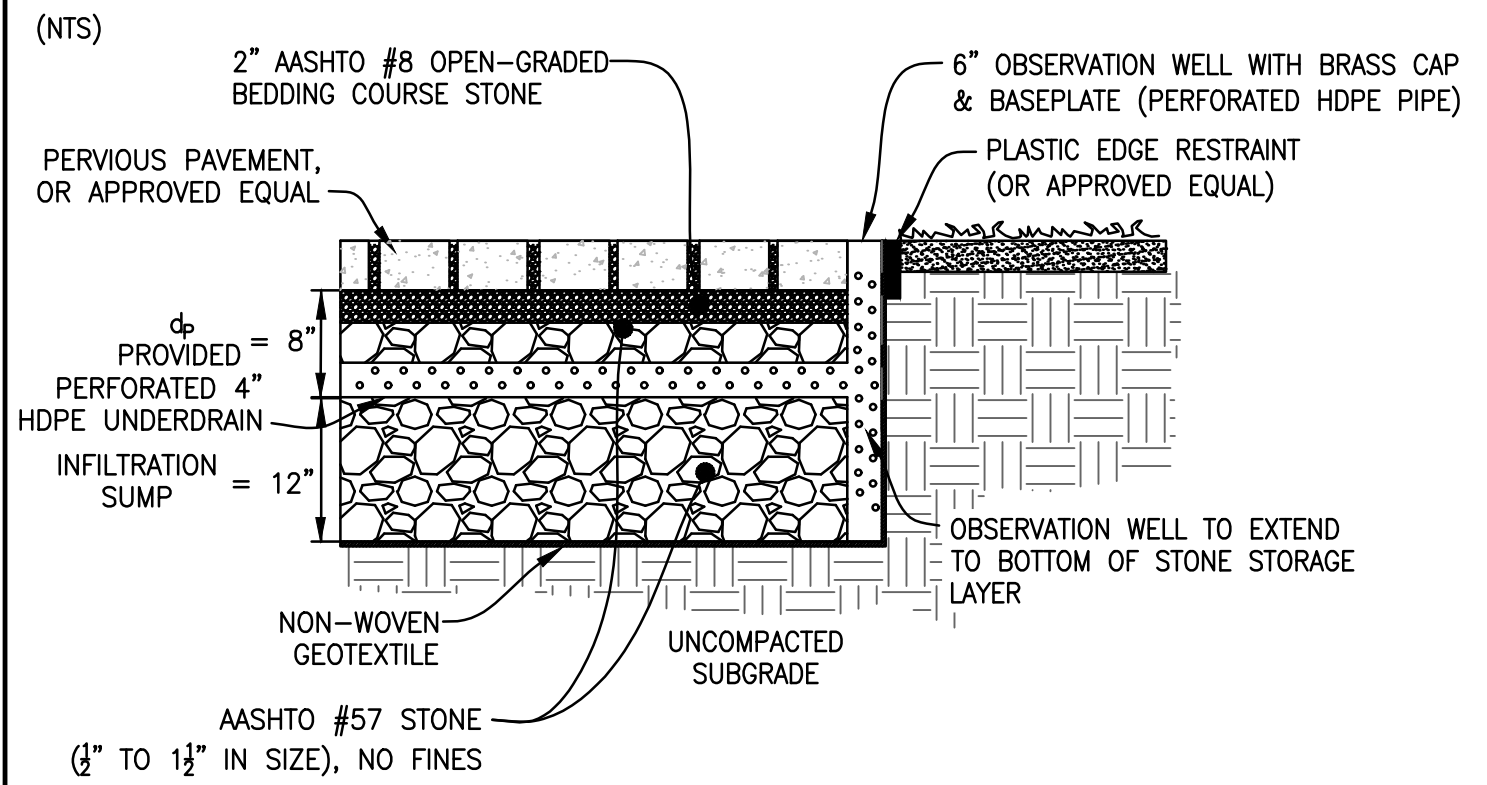
1371 1/2 East Main St.  
Suite 210  
Oak Hill, WV  
25901

33 Terminal Way  
Suite 431  
Pittsburgh, PA  
15219

302 Jefferson St.  
Suite 110  
Raleigh, NC  
27605

1408 B Rosemeath Rd.  
Richmond, VA  
23230

### TYPICAL PERVIOUS PAVEMENT DETAIL



### PERMEABLE PAVER WATER QUALITY VOLUME CALCULATIONS:

#### WATER QUALITY VOLUME REQUIRED:

$$T_v = 1.1(R_v)(A)/12$$

WHERE:

$T_v$  = TREATMENT VOLUME (FT<sup>3</sup>)

$R_v$  = COMPOSITE RUNOFF COEFFICIENT

$A_c$  = AREA OF FACILITY (SF)

#### DEPTH OF RESERVOIR LAYER:

$$d_p = \frac{P(A_c + R_v + A_c)}{V_r A_p}$$

$$d_{p-max} = \frac{(i/2)(t_d)}{V_r}$$

WHERE:

$A_p$  = AREA OF PERMEABLE PAVEMENT

$d_p$  = DEPTH OF RESERVOIR LAYER (FT)

$P$  = RAINFALL DEPTH (0.09 FT)

$i$  = INFILTRATION RATE (ASSUME 0.5 FT/DAY)

$t_d$  = TIME TO DRAIN THE RESERVOIR LAYER (2 DAYS)

$V_r$  = VOID RATIO OF THE RESERVOIR LAYER (0.4)

Permeable Paver Section	
$R_v$	0.95
$A_c$ (SF)	4189.0
$A_p$ (SF)	4189.0
$T_v$ (FT <sup>3</sup> )	729.6
$d_p$ (FT)	0.174
$R$	1.00
$P$ (FT)	0.09
$i$ (FT/DAY)	0.5
$t_d$ (DAY)	2.0
$V_r$	0.4
$d_p$ (FT)	0.44
$d_{p-max}$ (FT)	1.25
$d_p$ Provided (FT)	0.67

### VEGETATED ROOF WATER QUALITY VOLUME CALCULATIONS:

THE WATER QUALITY VOLUME PROVIDED IS CALCULATED AS FOLLOWS:

$$V = (SA * D * P) / 12$$

WHERE:

$V$  = VOLUME

$SA$  = VEGETATED ROOF AREA

$D$  = MEDIA DEPTH (4")

$P$  = MEDIA POROSITY (0.3)

TOTAL IMPERVIOUS AREA TO BMP = 10,980 SQ.FT.

REQUIRED WATER QUALITY VOLUME (FIRST INCH OF RUNOFF):  
 $T_v = 1.1(R_v)(A)/12 = 1.1(.95)(10,980)/12 = 956.2$  CU.FT.

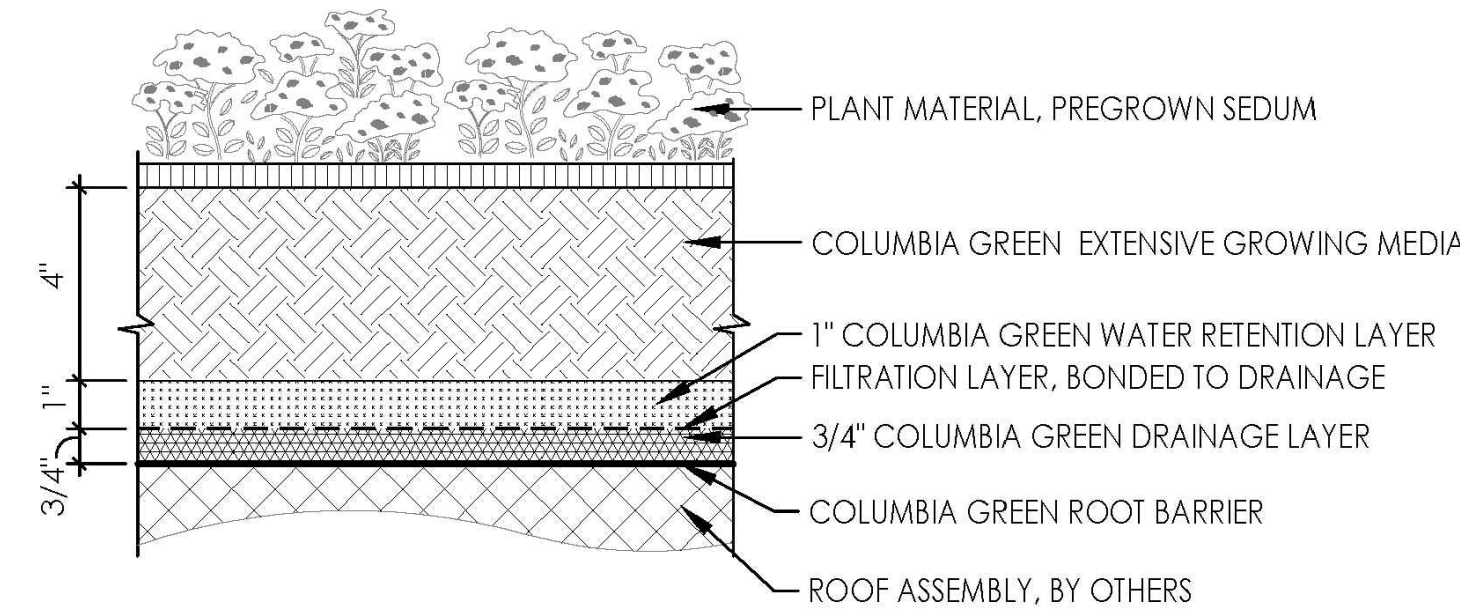
WATER QUALITY VOLUME PROVIDED:

$$V = (SA * D * P) / 12$$

$$V = (10,980 * 4 * 0.3) / 12 = 1,098$$
 CU.FT.

REQUIRED: 956.2 CU.FT.

PROVIDED: 1,098 CU.FT. (REQUIREMENT MET)



NOTE:

- SYSTEM MEETS LEVEL 2 REQUIREMENTS PER VIRGINIA DEQ. DESIGN SPEC. No. 5 (2013)
- SYSTEM COMPONENTS SHOWN AT NOMINAL SIZE. COMPRESSION WILL OCCUR AT RETENTION LAYER BASED ON GROWING MEDIA DEPTH. MAX. COMPRESSION  $\frac{1}{8}$ " ±.

COLUMBIA  
GREEN  
TECHNOLOGIES®

LGR1.01b

4" DEPTH EXTENSIVE LAYERED GREEN ROOF

LAYERED SYSTEM

DETAIL SCALE: 3"=1'-0"

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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. © 2020 R.C. FIELDS & ASSOCIATES, INC.

APPROVED

SPECIAL USE PERMIT NO. \_\_\_\_\_

DEPARTMENT OF PLANNING & ZONING

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

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. 2020-0021

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

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

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

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

DEVELOPMENT PRELIMINARY PLAN

AVANTI 550

#550 SOUTH PICKETT STREET

CITY OF ALEXANDRIA, VIRGINIA

DATE

REVISION

DESIGN: ABH  
CHECKED: ACS  
SCALE: AS NOTED  
DATE: AUG 12, 2020

STORMWATER  
MANAGEMENT  
PLAN

SHEET 8 OF 17

FILE: 19-200

RC FIELDS & ASSOCIATES, inc.  
ENGINEERING • LAND SURVEYING • PLANNING  
700 S. Washington Street, Suite 220  
Alexandria, Virginia 22314  
(703) 549-6422  
www.rcfields.com

ANDREA SPRUGH  
Lic. No. 047863  
SEPTEMBER 15, 2020  
PROFESSIONAL ENGINEER







Project Name:

S PICKETT ST

Date:

5/30/2020

Linear Development Project?

No

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area (acres) → 0.75

Maximum reduction required:	10%
The site's net increase in impervious cover (acres) is:	0.59
Post-Development TP Load Reduction for Site (lb/yr):	1.05

Pre-ReDevelopment 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				0.68	0.68
Impervious Cover (acres)				0.07	0.07
					0.75

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				0.02	0.02
Managed Turf (acres) -- disturbed, graded for yards or other turf to be				0.07	0.07
Impervious Cover (acres)				0.66	0.66
Area Check	OK.	OK.	OK.	OK.	0.75

Constants	
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

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

LAND COVER SUMMARY -- PRE-REDEVELOPMENT		
Land Cover Summary-Pre		
Pre-ReDevelopment	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)	0.68	0.09
Weighted Rv(turf)	0.25	0.25
% Managed Turf	91%	56%
Impervious Cover (acres)	0.07	0.07
Rv(impervious)	0.95	0.95
% Impervious	9%	44%
Total Site Area (acres)	0.75	0.16
Site Rv	0.32	0.56

Treatment Volume and Nutrient Load		
Pre-ReDevelopment Treatment Volume (acre-ft)	0.0197	0.0074
Pre-ReDevelopment Treatment Volume (cubic feet)	858	323
Pre-ReDevelopment TP Load (lb/yr)	0.54	0.20
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	0.72	1.27
Baseline TP Load (lb/yr) (0.41 lbs/acre/yr applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		0.07

<sup>1</sup> Adjusted Land Cover Summary:  
Pre ReDevelopment 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-ReDevelopment 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).

Post-Development Requirement for Site Area	
TP Load Reduction Required (lb/yr)	1.05

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	3.86	Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	10.53
-----------------------------------	------	--	-------

LAND COVER SUMMARY -- POST DEVELOPMENT			
Land Cover Summary-Post (Final)		Land Cover Summary-Post	
Post ReDev. & New Impervious		Post-ReDevelopment	
Forest/Open Space Cover (acres)	0.02	Forest/Open Space Cover (acres)	0.02
Weighted Rv(forest)	0.05	Weighted Rv(forest)	0.05
% Forest	3%	% Forest	13%
Managed Turf Cover (acres)	0.07	Managed Turf Cover (acres)	0.07
Weighted Rv (turf)	0.25	Weighted Rv (turf)	0.25
% Managed Turf	9%	% Managed Turf	44%
Impervious Cover (acres)	0.66	ReDev. Impervious Cover (acres)	0.07
Rv(impervious)	0.95	Rv(impervious)	0.95
% Impervious	88%	% Impervious	44%
Final Site Area (acres)	0.75	Total ReDev. Site Area (acres)	0.16
Final Post Dev Site Rv	0.86	ReDev Site Rv	0.53
Treatment Volume and Nutrient Load		Treatment Volume and Nutrient Load	
Final Post-Development Treatment Volume (acre-ft)	0.0538	Post-ReDevelopment Treatment Volume (acre-ft)	0.0071
Final Post-Development Treatment Volume (cubic feet)	2,343	Post-ReDevelopment Treatment Volume (cubic feet)	309
Final Post-Development TP Load (lb/yr)	1.47	Post-ReDevelopment Load (TP) (lb/yr)*	0.19
Final Post-Development TP Load per acre (lb/acre/yr)	1.96	Post-ReDevelopment TP Load per acre (lb/acre/yr)	1.21
Max. Reduction Required (Below Pre-ReDevelopment Load)		10%	

TP Load Reduction Required for Redeveloped Area (lb/yr)	0.01
---	------

TP Load Reduction Required for New Impervious Area (lb/yr)	1.04
--	------

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)				0.01	0.01	0.05
Managed Turf (acres)					0.00	0.00
Impervious Cover (acres)				0.18	0.18	0.95
Total					0.19	

CLEAR BMP AREAS

Total Phosphorus Available for Removal in D.A. A (lb/yr)	0.39
Post Development Treatment Volume in D.A. A (ft <sup>3</sup> )	617

1. Vegetated Roof (RR)													
1.a. Vegetated Roof #1 (Spec #5)	45				0	0	0	0		0.00	0.00	0.00	
1.b. Vegetated Roof #2 (Spec #5)	60		0.13		263	175	438	0		0.27	0.16	0.11	6.a. Bioretention #1
6. Bioretention (RR)													
6.a. Bioretention #1 or Micro-Bioretention #1 or Urban Bioretention (Spec #9)	40		0.05	175	139	209	348	25	0.11	0.11	0.12	0.10	

Drainage Area B

Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)				0.01	0.01	0.05
Managed Turf (acres)					0.00	0.00
Impervious Cover (acres)				0.18	0.18	0.95
Total					0.19	

CLEAR BMP AREAS

Total Phosphorus Available for Removal in D.A. B (lb/yr)	0.39
Post Development Treatment Volume in D.A. B (ft <sup>3</sup> )	617

1. Vegetated Roof (RR)													
1.a. Vegetated Roof #1 (Spec #5)	45				0	0	0	0		0.00	0.00	0.00	
1.b. Vegetated Roof #2 (Spec #5)	60		0.13		263	175	438	0		0.27	0.16	0.11	6.a. Bioretention #1
6. Bioretention (RR)													
6.a. Bioretention #1 or Micro-Bioretention #1 or Urban Bioretention (Spec #9)	40		0.05	175	139	209	348	25	0.11	0.11	0.12	0.10	

Drainage Area C

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)				0.01	0.01	0.25
Impervious Cover (acres)				0.12	0.12	0.95
Total					0.13	

CLEAR BMP AREAS

Total Phosphorus Available for Removal in D.A. C (lb/yr)	0.27
Post Development Treatment Volume in D.A. C (ft <sup>3</sup> )	423

3. Permeable Pavement (RR)													
3.a. Permeable Pavement #1 (Spec #7)	45			0	0	0	0	25	0.00	0.00	0.00	0.00	
3.b. Permeable Pavement #2 (Spec #7)	75		0.09		233	78	310	25	0.19	0.16	0.04		
6. Bioretention (RR)													
6.a. Bioretention #1 or Micro-Bioretention #1 or Urban Bioretention (Spec #9)	40	0.01	0.03	0	45	68	113	25	0.00	0.07	0.04	0.03	

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)	0.01	0.01	0.00	0.00	0.00	OK.
IMPERVIOUS COVER (ac)	0.18	0.18	0.12	0.00	0.00	OK.
IMPERVIOUS COVER TREATED (ac)	0.18	0.18	0.12	0.00	0.00	OK.
MANAGED TURF AREA (ac)	0.00	0.00	0.01	0.00	0.00	OK.
MANAGED TURF AREA TREATED (ac)	0.00	0.00	0.01	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Site Treatment Volume (ft <sup>3</sup> )	2,343
--	-------

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> )	402	402	278	0	0	1,081
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	0.39	0.39	0.27	0.00	0.00	1.04
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.28	0.28	0.20	0.00	0.00	0.77
TP LOAD REMAINING (lb/yr)	0.10	0.10	0.07	0.00	0.00	0.27
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	2.18	2.18	1.46	0.00	0.00	5.81

Total Phosphorus	
FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	1.47
TP LOAD REDUCTION REQUIRED (lb/yr)	1.05
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.77
TP LOAD REMAINING (lb/yr):	0.71
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.28

Total Nitrogen (For Information Purposes)	
POST-DEVELOPMENT LOAD (lb/yr)	10.53
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	5.81
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	4.72

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DEPARTMENT OF PLANNING & ZONING

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

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. 2020-0021

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

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www.rcfieldsoc.com  
(703) 549-6422

COMMONWEALTH OF VIRGINIA

ANDREA SPRUCH

Lic. No. 047863

SEPTEMBER 15, 2020

PROFESSIONAL ENGINEER

DEVELOPMENT PRELIMINARY PLAN

AVANTI 550

#550 SOUTH PICKETT STREET

CITY OF ALEXANDRIA, VIRGINIA

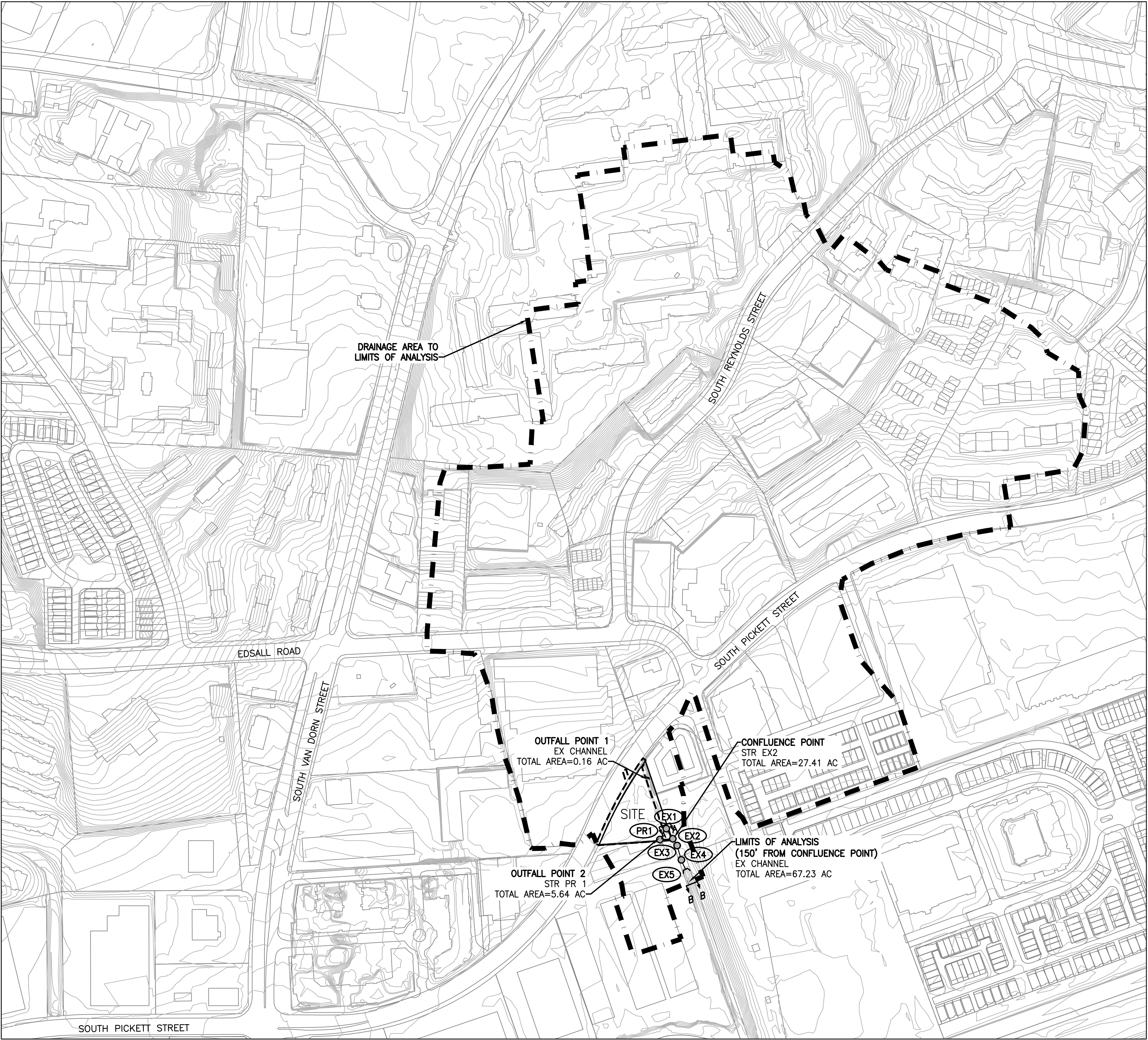
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CHECKED: ACS  
SCALE: AS NOTED  
DATE: AUG 12, 2020

STORMWATER  
QUALITY  
COMPUTATIONS

SHEET 10 OF 17  
FILE: 19-200





767  
VCS NAD'83  
NORTH ZONE

STORMWATER OUTFALL NARRATIVE (CITY CODE SECTION 13-109F):

**PRE-DEVELOPMENT CONDITIONS:**  
THE 0.76 ACRE SITE LIMITS ARE LOCATED IN THE BACKLICK RUN WATERSHED. IN EXISTING CONDITIONS, THE SITE IS CURRENTLY VACANT, CONSISTING PRIMARILY OF GRASS COVER WITH A DRAINAGE CHANNEL RUNNING ALONG THE EASTERN PROPERTY LINE. THIS PROJECT HAS TWO EXISTING CONDITION OUTFALL POINTS.

**OUTFALL #1:** A PORTION OF THE PROJECT SITE RUNOFF FLOWS AS NON-CONCENTRATED FLOW (OUTFALL #1) BEFORE ENTERING THE EXISTING DRAINAGE CHANNEL RUNNING ALONG THE EASTERN PROPERTY LINE OF THE SUBJECT SITE. FROM THERE, THE STORMWATER RUNOFF FLOWS IN A GENERALLY SOUTHERLY DIRECTION BEFORE IT ENTERS A CITY OF ALEXANDRIA MAINTAINED STORM SEWER SYSTEM (EX1) WHERE IT FLOWS IN A GENERALLY SOUTHERLY DIRECTION BEFORE DISCHARGING INTO AN EXISTING DRAINAGE CHANNEL SOUTH OF THE SUBJECT PROPERTY. FROM THERE, THE STORMWATER RUNOFF FLOWS IN A GENERALLY SOUTHEASTERLY DIRECTION BEFORE IT ULTIMATELY ENTERS BACKLICK RUN.

**OUTFALL #2:** THE REMAINDER OF THE PROJECT SITE DRAINS VIA NON-CONCENTRATED FLOW (OUTFALL #2) IN A SOUTHWESTERLY DIRECTION TOWARDS THE SOUTH PICKETT STREET RIGHT-OF-WAY BEFORE ENTERING A CITY OF ALEXANDRIA MAINTAINED STORM PIPE SYSTEM ON THE SOUTH SIDE OF THE SUBJECT PROPERTY. THE SUBJECT STORMWATER RUNOFF IS THEN PIPED IN AN EASTERLY DIRECTION WHERE IT CONVERGES WITH THE REST OF THE SITE'S RUNOFF AT STRUCTURE EX2. FROM THIS POINT, THE RUNOFF IS PIPED IN A GENERALLY SOUTHEASTERLY DIRECTION BEFORE DISCHARGING INTO AN EXISTING DRAINAGE CHANNEL SOUTH OF THE SUBJECT PROPERTY. FROM THERE, THE STORMWATER RUNOFF FLOWS IN A GENERALLY SOUTHEASTERLY DIRECTION BEFORE ULTIMATELY ENTERING BACKLICK RUN.

**POST-DEVELOPMENT CONDITIONS:**  
THE REDEVELOPMENT OF THE PROJECT SITE PROPOSES A NEW RETAIL/WAREHOUSE BUILDING WITH A GREEN ROOF DESIGN, A NEW PUBLIC ACCESS DRIVE, PERVIOUS PAVEMENT SIDEWALK, TWO BIORETENTION BMP FACILITIES, AND ASSOCIATED IMPROVEMENTS. OVERALL IMPERVIOUS AREA WILL INCREASE WITH THE PROPOSED CONSTRUCTION. HOWEVER, THE INCREASE IN STORMWATER RUNOFF ASSOCIATED WITH THE IMPERVIOUS AREA HAS BEEN ADEQUATELY ACCOUNTED FOR THROUGH RUNOFF REDUCTION AND DETENTION PROVIDED BY THE PROPOSED BMP FACILITIES. THE PROJECT SITE HAS TWO OUTFALL POINTS IN PROPOSED CONDITIONS.

**OUTFALL #1:** IN POST-DEVELOPMENT CONDITIONS, A PORTION OF ONSITE STORMWATER RUNOFF IS COLLECTED WITHIN THE NORTHERMOST PROPOSED ONSITE BIORETENTION BMP FACILITY WHICH THEN DISCHARGES INTO THE EXISTING DRAINAGE CHANNEL RUNNING ALONG THE EASTERN PROPERTY LINE OF THE SITE. THE SUBJECT STORMWATER RUNOFF THEN FLOWS IN A GENERALLY SOUTHERLY DIRECTION BEFORE IT ENTERS AN EXISTING CITY OF ALEXANDRIA MAINTAINED STORM SEWER SYSTEM (EX1). FROM THERE, THE RUNOFF FLOWS IN A GENERALLY SOUTHERLY DIRECTION UNTIL IT ENTERS EXISTING STRUCTURE EX2. AT THIS POINT, THE FLOW COMBINES WITH AN AREA THAT IS AT LEAST 90% THE SIZE OF THE FIRST DRAINAGE AREA, CREATING THE ANALYSIS POINT OF CONFLUENCE. THE ANALYSIS CONTINUES 150' PAST THE POINT OF CONFLUENCE TO THE LIMITS OF ANALYSIS WITHIN THE EXISTING DRAINAGE CHANNEL TO THE SOUTH OF THE SITE.

**OUTFALL #2:** THE REMAINING RUNOFF IS COLLECTED ONSITE VIA THE REMAINDER OF THE BMP FACILITIES AND A PROPOSED PRIVATE STORM SEWER WHERE IT ENTERS THE EXISTING CITY OF ALEXANDRIA MAINTAINED STORM SEWER SYSTEM AT STRUCTURE PR1. FROM THERE, THE SUBJECT STORMWATER RUNOFF DRAINS IN A GENERALLY EASTERLY WHERE IT CONVERGES WITH THE REST OF THE SITE'S RUNOFF AT STRUCTURE EX2. AT THIS POINT, THE FLOW COMBINES WITH AN AREA THAT IS AT LEAST 90% THE SIZE OF THE FIRST DRAINAGE AREA, CREATING THE ANALYSIS POINT OF CONFLUENCE. THE ANALYSIS CONTINUES 150' PAST THE POINT OF CONFLUENCE TO THE LIMITS OF ANALYSIS WITHIN THE EXISTING DRAINAGE CHANNEL TO THE SOUTH OF THE SITE.

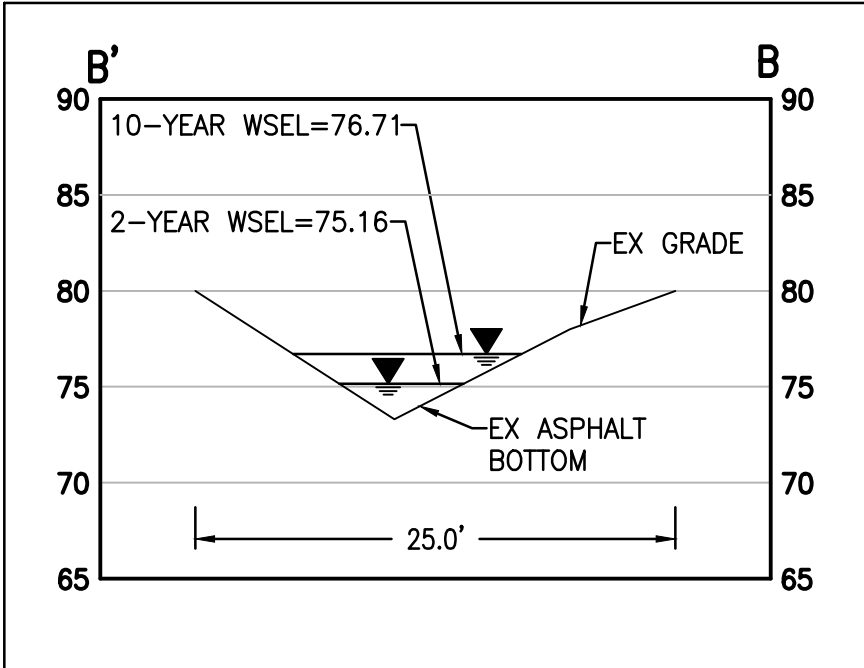
COMPUTATIONS SHOWN ON THIS SHEET DEMONSTRATE THAT THE EXISTING MANMADE STORMWATER CONVEYANCE SYSTEM EXPERIENCES LOCALIZED FLOODING IN EXISTING CONDITIONS. HOWEVER, THE PEAK FLOW RATE FOR THE 2 AND 10-YEAR, 24-HOUR STORMS ARE BEING REDUCED WITH THE PROPOSED DEVELOPMENT THROUGH RUNOFF REDUCTION AND DETENTION PROVIDED BY THE PROPOSED BMP FACILITIES. THE WATER QUANTITY REQUIREMENTS FOR THIS SITE IS THEREFORE IN COMPLIANCE WITH SECTIONS 13-109F(1)(g)(i) AND 13-109F(2)(b)(i) FOR OUTFALL #1 AND OUTFALL #2. DUE TO SITE DRAINAGE OUTFALLS TO AN EXISTING UNDERSIZED 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 2 & 10-YEAR, 24-HOUR STORMS, THE PROJECT POST-DEVELOPMENT RUNOFF WILL NOT EXACERBATE ANY EXISTING DOWNSTREAM CAPACITY CONDITIONS.

OUTFALL ANALYSIS DRAINAGE AREA MAP  
SCALE: 1"=200'

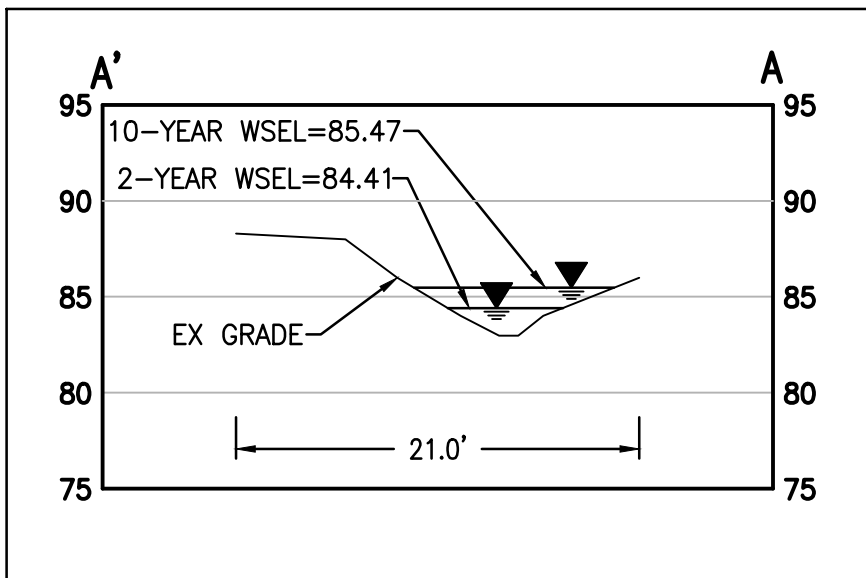
**LEGEND:**

- STORM STRUCTURE
- DRAINAGE AREA TO LIMITS OF ANALYSIS
- LIMITS OF DISTURBANCE

10-YR, 24-HR STORM SEWER COMPUTATIONS																			
STRUCTURE		INC. DRAINAGE AREA (AC)	ACCUM. DRAINAGE AREA (AC)	CURVE NUMBER	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)		
FROM	TO																		
EX1	EX2	21.56	21.56	95	5.20	15	95.62	95.62	24	2.83%	0.015	34.39	10.52	40	82.98	81.85	1.13		
PR1	EX2	5.64	5.64	93	5.20	15	24.27	24.27	24	0.62%	0.015	16.10	4.92	42	82.33	82.07	0.26		
EX2	EX3	0.21	27.41	84	5.20	15	0.74	120.63	30	13.65%	0.015	137.08	26.83	26	81.67	78.12	3.55		
EX3	EX4	0.00	27.41	95	5.20	15	0.00	120.63	72	0.41%	0.015	244.72	8.32	49	75.92	75.72	0.20		
EX4	EX5	39.82	67.23	95	5.20	15	176.60	297.23	72	0.31%	0.015	214.13	7.28	32	75.72	75.62	0.10		



SWALE CROSS-SECTION B-B'  
(2-YEAR AND 10-YEAR, 24 HOUR STORM)  
SCALE: 1"=10'



SWALE CROSS-SECTION A-A'  
(2-YEAR AND 10-YEAR, 24 HOUR STORM)  
SCALE: 1"=10'

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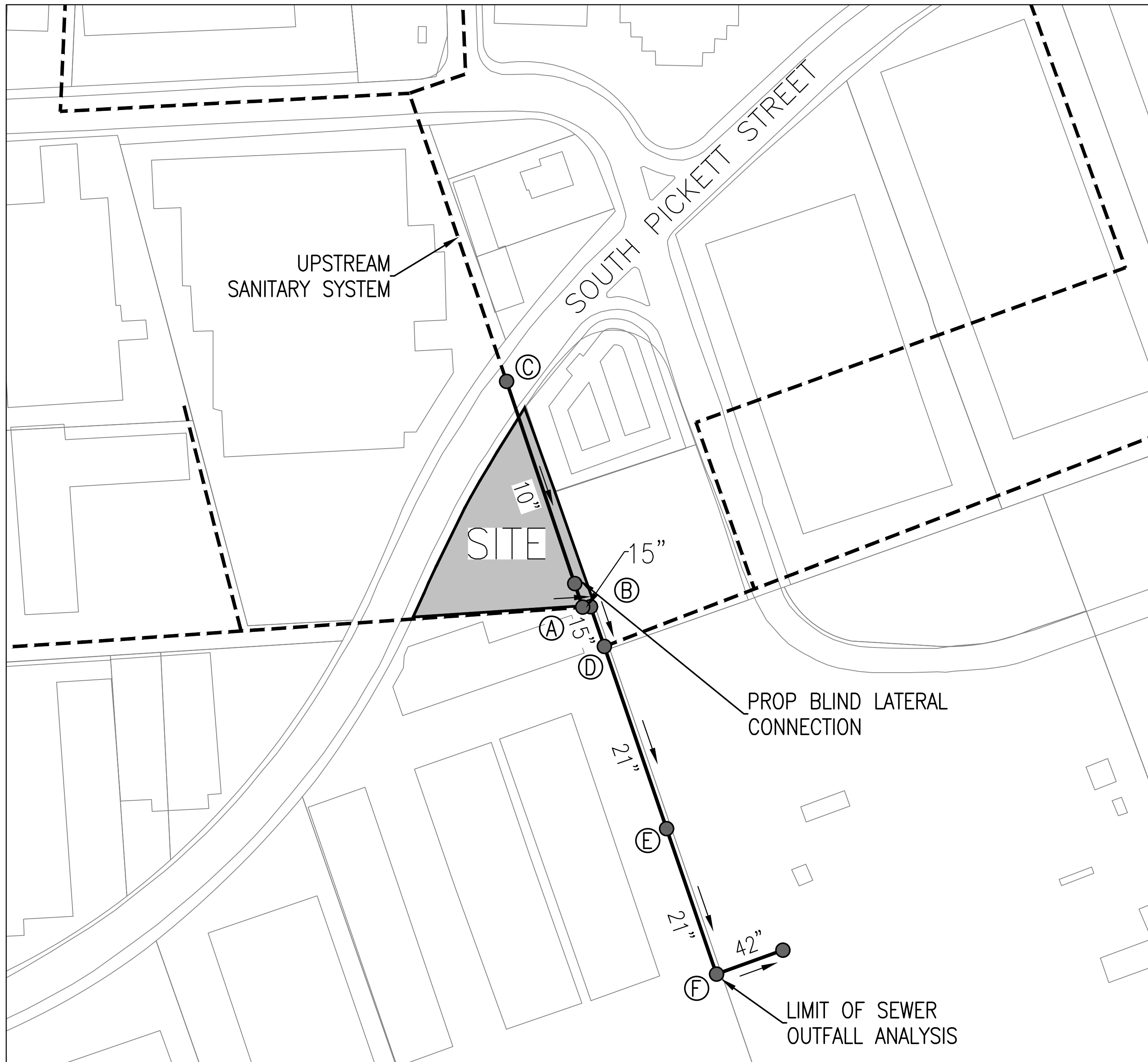
DEVELOPMENT PRELIMINARY PLAN  
**AVANTI 550**  
#550 SOUTH PICKETT STREET  
CITY OF ALEXANDRIA, VIRGINIA

DATE	REVISION

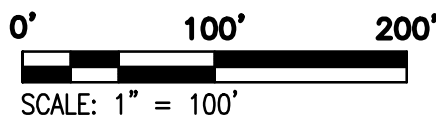
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OUTFALL ANALYSIS





SANITARY SEWER OUTFALL MAP  
SCALE: 1" = 100'



**SANITARY SEWER OUTFALL CALCULATIONS:**

THE EXISTING USE (VACANT LOT) DOES NOT PRODUCE A SANITARY FLOW AS NO STRUCTURE IS LOCATED ON SITE. 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 IS RETAIL (10,070 SF) AND WAREHOUSE (5,223 SF). THE AVERAGE DAILY FLOW IS DESCRIBED BELOW:

RETAIL: (200 GPD/1,000 SF X 4 PFF) = (200 GPD/1,000 SF X 10,070 SF) X 4 = 8,056 GPD OR 0.0125 CFS  
WAREHOUSE: (200 GPD/1,000 SF X 4 PFF) = (200 GPD/1,000 SF X 5,223 SF) X 4 = 4,179 GPD OR 0.0065 CFS  
TOTAL: 12,235 GPD OR 0.0189 CFS

**SANITARY SEWER OUTFALL NOTE:**

THIS PROJECT IS ANTICIPATED TO GENERATE AN INCREASE IN EXCESS OF 10,000 GPD IN SANITARY WASTE OUTFLOW. A PEAK FLOW OF APPROXIMATELY 12,235 GPD IS EXPECTED FOR THIS DEVELOPMENT. THEREFORE, THE PROJECT IS SUBJECT TO A SANITARY SEWER OUTFALL ANALYSIS. THIS SANITARY SEWER OUTFALL ANALYSIS SHOWS ADEQUACY OF THE SANITARY SEWER OUTFALL IN ACCORDANCE WITH MEMO TO INDUSTRY 06-14. THE GENERAL AREA IS NOT KNOWN TO HAVE SANITARY SEWER CAPACITY PROBLEMS.

THIS PROJECT WILL CONNECT TO AN EXISTING 10" SANITARY SEWER (MAINTAINED BY CITY OF ALEXANDRIA) WITH A PROPOSED SANITARY LATERAL CONNECTION IN BETWEEN EXISTING STRUCTURES C & A. SANITARY FLOW IS THEN CONVEYED SOUTH THROUGH EXISTING SANITARY SEWER (MAINTAINED BY CITY OF ALEXANDRIA) UNTIL IT ENTERS AN EXISTING 42" SANITARY SEWER AT EXISTING STRUCTURE F. SEE SANITARY SEWER OUTFALL MAP THIS SHEET FOR MORE INFORMATION. PER MEMO TO INDUSTRY 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 EXISTING STRUCTURE F.

**SANITARY SEWER INFORMATION NOTE:**

THE SANITARY SEWER INFORMATION PRESENTED BELOW WAS OBTAINED THROUGH COORDINATION WITH CITY STAFF. THIS INFORMATION INCLUDES EXISTING SANITARY PIPE INFORMATION AND EXISTING SANITARY FLOW DATA.

**SANITARY SEWER OUTFALL CALCULATIONS:**

STRUCTURE		FACILITY ID		INCREMENTAL "Q" (CFS)	ACCUMULATED "Q" (CFS)	PIPE DIAMETER (IN)	SLOPE (%)	MATERIAL	"n"	MAXIMUM "Q" (CFS)	MAXIMUM VELOCITY (FPS)	LENGTH OF RUN (FT)	UPPER INVERT	LOWER INVERT	FALL (FT)	NORMAL VELOCITY (FPS)	NORMAL DEPTH	FLOW AREA (SF)	WETTED PERIMETER (FT)	HYDRAULIC RADIUS
FROM	TO	FROM	TO																	
C	A	003059SSMH	002330SSMH	1.427	1.427	10	2.41%	RCP	0.015	3.08	5.42	310.0	88.00	80.52	7.48	5.39	0.41	0.27	1.30	0.21
A	B	002330SSMH	002331SSMH	1.952	3.379	15	2.04%	RCP	0.015	8.35	6.54	10.3	80.46	80.25	0.21	6.25	0.57	0.54	1.85	0.29
B	D	002331SSMH	002332SSMH	0.011	3.390	15	15.96%	RCP	0.015	23.34	18.28	54.8	80.04	71.29	8.75	13.15	0.33	0.26	1.34	0.19
D	E	002332SSMH	002333SSMH	1.248	4.638	21	0.58%	RCP	0.015	10.90	4.35	250.5	71.18	69.73	1.45	4.23	0.81	1.10	2.63	0.42
E	F	002333SSMH	002316SSMH	0.040	4.678	21	0.64%	RCP	0.015	11.51	4.60	200.1	69.66	68.37	1.29	4.39	0.80	1.06	2.59	0.41

**SANITARY SEWER HYDRAULIC GRADE LINE CALCULATIONS:**

INLET ID	OUTLET WSE	D <sub>o</sub> (in)	Q <sub>o</sub>	L <sub>o</sub>	S <sub>f<sub>o</sub></sub> %	H <sub>f</sub>	JUNCTION LOSS											FINAL H	INLET WSE	RIM 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>	H <sub>i</sub>	ANGLE	H <sub>Δ</sub>	H <sub>t</sub>	1.3 H <sub>t</sub>	0.5 H <sub>t</sub>				
E	69.77	21	4.678	200.10	0.6532	1.31	4.39	0.075	4.638	4.23	19.62	0.097	0	0.000	0.172	-	0.09	1.39	71.16	79.64	8.48
D	71.16	21	4.638	250.55	0.5792	1.45	4.23	0.069	3.390	13.15	44.58	0.940	0	0.000	1.009	-	0.50	1.96	73.12	83.58	10.46
B	73.12	15	3.390	54.81	15.4247	8.45	13.15	0.671	3.379	6.25	21.12	0.212	74	0.388	1.272	-	0.64	9.09	82.21	85.50	3.29
A	82.21	15	3.379	10.29	2.0608	0.21	6.25	0.152	1.427	5.39	7.69	0.158	75	0.289	0.598	-	0.30	0.51	82.72	85.40	2.68
C	82.72	10	1.427	309.95	2.3148	7.17	5.39	0.113	-	-	-	-	-	-	0.113	-	0.06	7.23	89.95	96.08	6.13

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COMMONWEALTH OF VIRGINIA  
*Andrea Spruch*  
ANDREA SPRUCH  
Lic. No. 047863  
SEPTEMBER 15, 2020  
PROFESSIONAL ENGINEER

DEVELOPMENT PRELIMINARY PLAN  
**AVANTI 550**  
#550 SOUTH PICKETT STREET  
CITY OF ALEXANDRIA, VIRGINIA

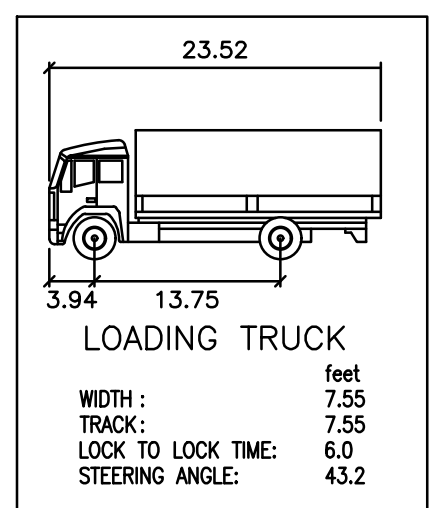
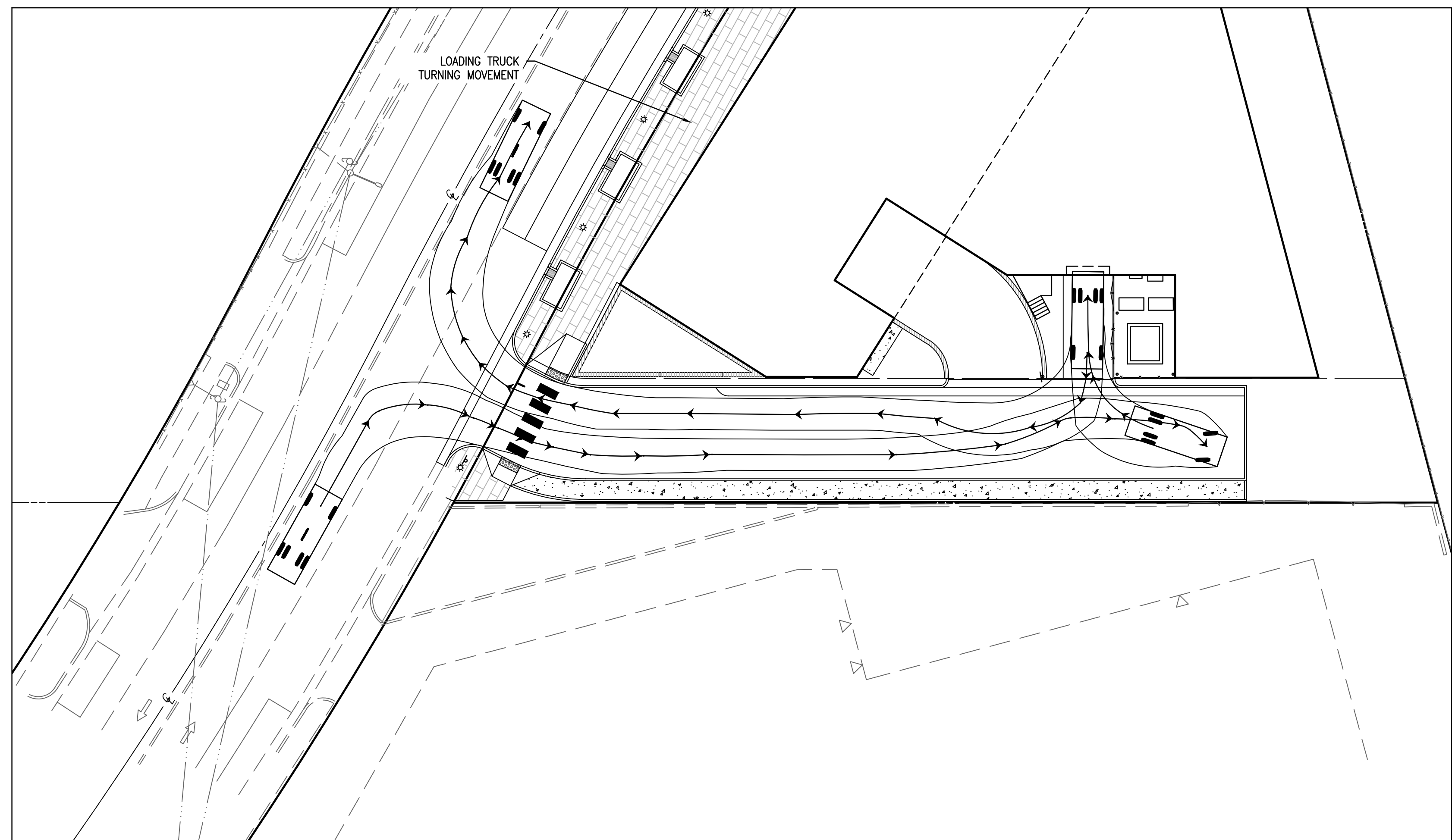
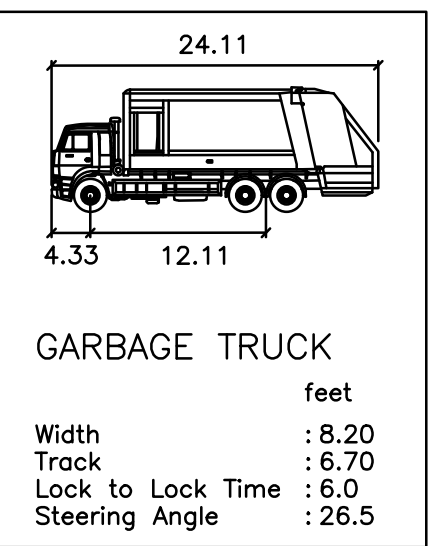
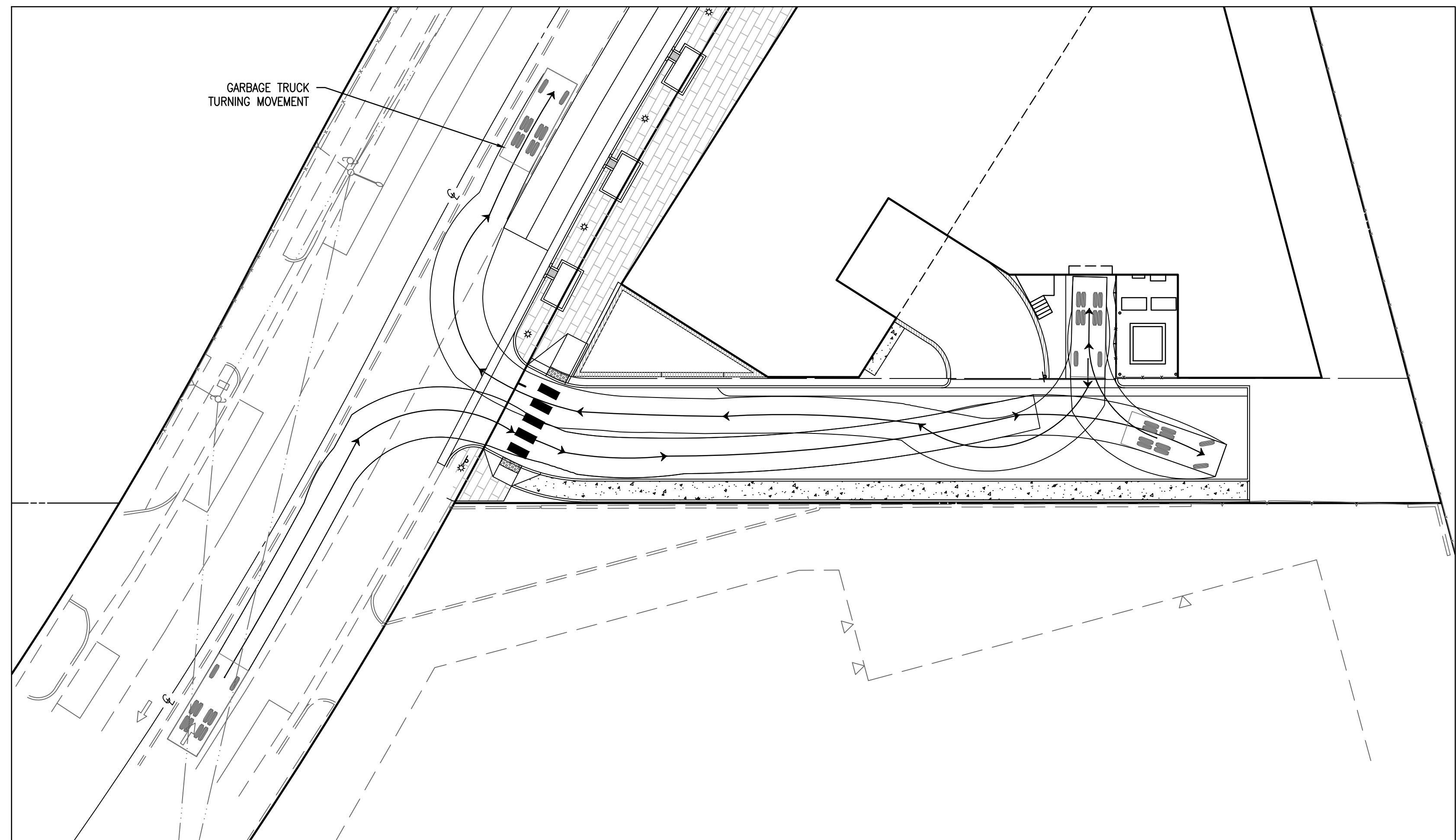
DATE REVISION

DESIGN: ABH  
CHECKED: ACS  
SCALE: 1"=100'  
DATE: AUG 12, 2020

SANITARY  
OUTFALL  
ANALYSIS

SHEET **12** OF **17**  
FILE: **19-200**





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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.

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APPROVED  
SPECIAL USE PERMIT NO.

DEPARTMENT OF PLANNING &amp; ZONING

\_\_\_\_\_  
DIRECTOR

\_\_\_\_\_  
DATE

DEPARTMENT OF TRANSPORTATION &amp; ENVIRONMENTAL SERVICES

SITE PLAN NO. 2020-0021

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

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


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

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

# DEVELOPMENT PRELIMINARY PLAN

# AVANTI 550

#550 SOUTH PICKETT STREET  
CITY OF ALEXANDRIA, VIRGINIA



**RCFIELDS**  
**& ASSOCIATES, INC.**

ENGINEERING • LAND SURVEYING • PLANNING

700 S. Washington Street, Suite 220  
Alexandria, Virginia 22314

[www.rcfiassoc.com](http://www.rcfiassoc.com)  
(703) 549-6422

DATE	REVISION
------	----------

DESIGN: ABH  
CHECKED: ACS  
SCALE: 1"=20'  
DATE: AUG 12, 2020

TURNING  
MOVEMENTS  
(1 OF 2)

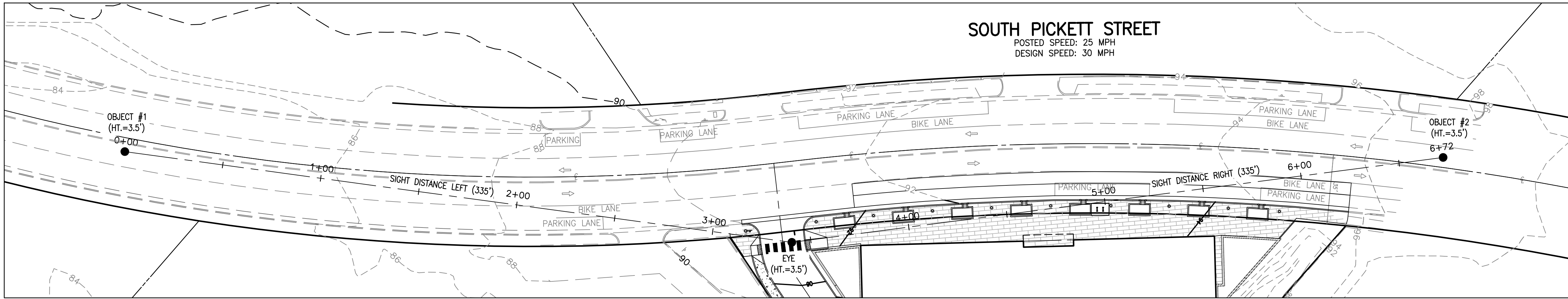
SHEET 13 OF 17

FILE: 19-200

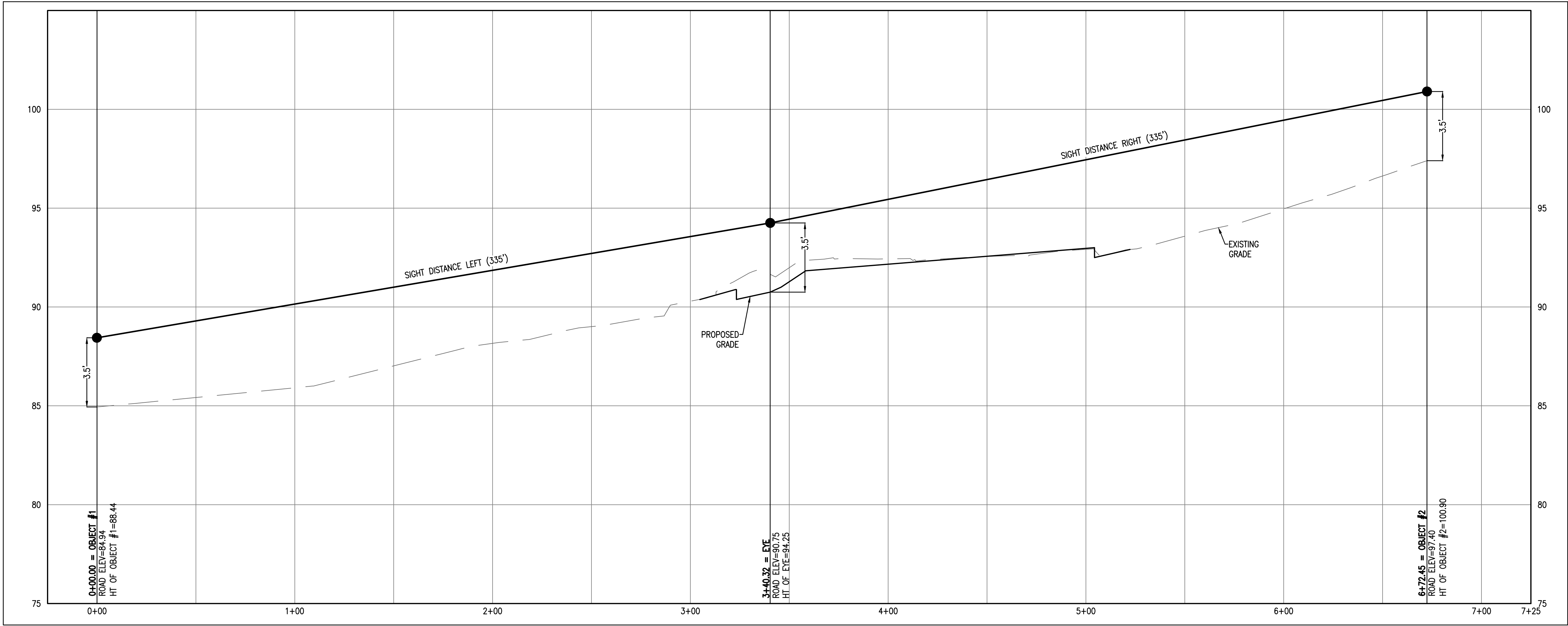




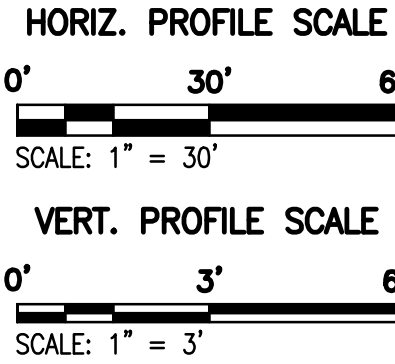




**SIGHT DISTANCE PLAN VIEW**  
SCALE: 1" = 30'



**SIGHT DISTANCE PROFILE**  
SCALE - HORIZ: 1" = 30', VERT. 1" = 3'



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DEPARTMENT OF PLANNING & ZONING	
DIRECTOR _____	DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	
SITE PLAN NO. <b>2020-0021</b>	
DIRECTOR _____	DATE _____
CHAIRMAN, PLANNING COMMISSION _____	
DATE RECORDED _____	
INSTRUMENT NO. _____	DEED BOOK NO. _____
DATE _____	

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700 S. Washington Street, Suite 220  
Alexandria, Virginia 22314  
(703) 549-6422  
www.rcfieldsoc.com

COMMONWEALTH OF VIRGINIA  
*Andrea Spruch*  
ANDREA SPRUCH  
Lic. No. 047863  
SEPTEMBER 15, 2020  
PROFESSIONAL ENGINEER

DEVELOPMENT PRELIMINARY PLAN  
**AVANTI 550**  
#550 SOUTH PICKETT STREET  
CITY OF ALEXANDRIA, VIRGINIA

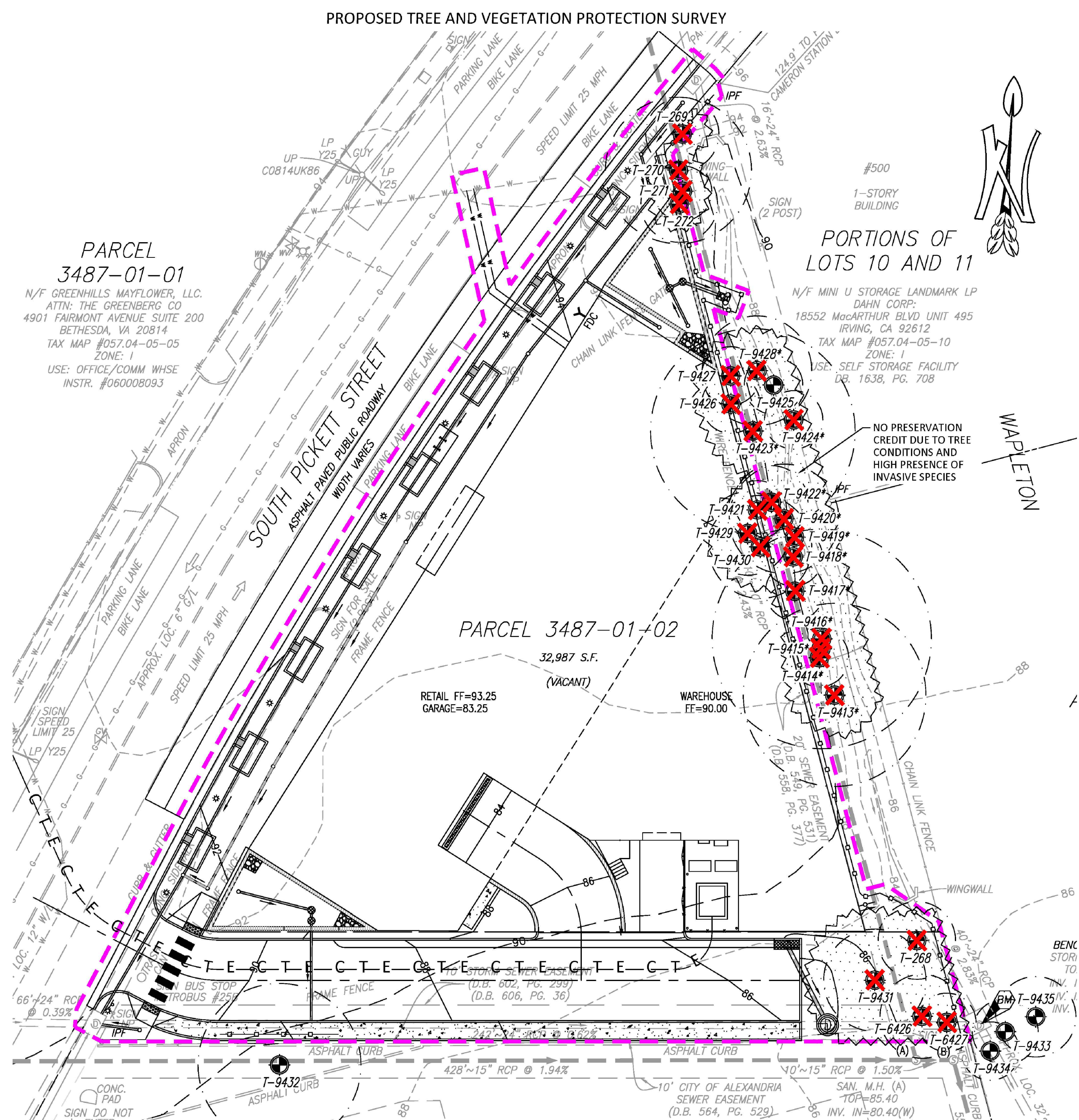
DATE	REVISION

DESIGN: ABH  
CHECKED: ACS  
SCALE: AS NOTED  
DATE: AUG 12, 2020

SIGHT  
DISTANCE  
PLAN AND  
PROFILE

SHEET **15** OF **17**  
FILE: **19-200**

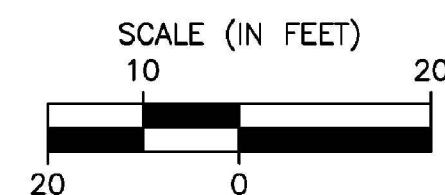




Tree Number	Common Name	Scientific Name	Size (dia. @ 54-in. above grade)	Critical Root Zone (feet)	Condition Rating %	Likelihood of Survival of Construction	Remove?	Offsite or Shared	Notes & Recommendations
268	Tree of Heaven	<i>Ailanthus altissima</i>	10.6	10.6	50%	None, within LOD	TBR		Double trunk, covered in vines, gravel at base, broken limbs.
269	Golden Rain Tree	<i>Koeleruteria paniculata</i>	10.0	10.0	50%	None, within LOD	TBR		Weeping wound, broken limbs/dead limbs, growing in fence.
270	Golden Rain Tree	<i>Koeleruteria paniculata</i>	20.0	20.0	56%	None, within LOD	TBR		Multi-trunk, many broken limbs/dead limbs, uprooting.
271	Golden Rain Tree	<i>Koeleruteria paniculata</i>	7.8	7.8	8.0	75%	None, within LOD	TBR	Double trunk, covered in vines.
272	Golden Rain Tree	<i>Koeleruteria paniculata</i>	10.5	10.5	73%	None, within LOD	TBR		Triple trunk, covered in vines.
6426	Tree of Heaven	<i>Ailanthus altissima</i>	11.5	11.5	0%	None, within LOD	TBR		Double trunk.
6427	Tree of Heaven	<i>Ailanthus altissima</i>	7.4	8.0	0%	None, within LOD	TBR		Large cavity at base.
9413	Tree of Heaven	<i>Ailanthus altissima</i>	25.0	25.0	50%	Moderate	TBR*		Multi-trunk, mostly dead, covered in vines.
9414	Tree of Heaven	<i>Ailanthus altissima</i>	6.0	8.0	50%	Moderate	TBR*		Mostly dead, covered in vines, damaged trunk.
9415	Black Cherry	<i>Prunus serotina</i>	7.0	8.0	50%	Moderate	TBR*		Crooked trunk, covered in vines, deadwood, dead limbs.
9416	Tree of Heaven	<i>Ailanthus altissima</i>	30.0	30.0	69%	Moderate	TBR*		Multi-trunk, very shallow rooting, cavities, broken limbs, vines on trunk.
9417	Black Cherry	<i>Prunus serotina</i>	6.5	8.0	50%	Moderate	TBR*		Double trunk, covered in vines on trunk.
9418	Tree of Heaven	<i>Ailanthus altissima</i>	6.0	8.0	69%	Moderate	TBR*		Covered in vines, broken limbs/dead limbs, shallow rooting.
9419	Tree of Heaven	<i>Ailanthus altissima</i>	20.0	20.0	50%	Moderate	TBR*		Uprooting, covered in vines, dead limbs/broken limbs.
9420	Tree of Heaven	<i>Ailanthus altissima</i>	15.0	15.0	50%	Moderate	TBR*		Uprooting, covered in vines, dead limbs/broken limbs, double trunk.
9421	Black Cherry	<i>Prunus serotina</i>	7.0	8.0	78%	None, within LOD	TBR		Some dead limbs, vines on trunk, dead limbs/broken limbs.
9422	Tree of Heaven	<i>Ailanthus altissima</i>	10.0	10.0	50%	Moderate	TBR*		Uprooting, covered in vines, dead limbs/broken limbs, double trunk.
9423	Tree of Heaven	<i>Ailanthus altissima</i>	28.0	28.0	63%	Moderate	TBR*		Multi-trunk, covered in vines, broken limbs/dead limbs, uprooting.
9424	Tree of Heaven	<i>Ailanthus altissima</i>	8.0	8.0	59%	Moderate	TBR*		Uprooting, many broken limbs, vines on trunk.
9425	Black Cherry	<i>Prunus serotina</i>	6.0	8.0	50%	Moderate	SAVE	Offsite	Uprooting: Prune broken limbs, to ANSI A300 standards, treat/ remove vines on trunk.
9426	Black Cherry	<i>Prunus serotina</i>	7.0	8.0	59%	None, within LOD	TBR		Uprooting, many broken limbs, vines on trunk.
9427	Black Cherry	<i>Prunus serotina</i>	8.0	8.0	59%	None, within LOD	TBR		Uprooting, many broken limbs, vines on trunk.
9428	Tree of Heaven	<i>Ailanthus altissima</i>	15.0	15.0	56%	Moderate	TBR*		Multi-trunk, uprooting, girdled roots, vines in canopy, broken limbs.
9429	Hackberry	<i>Celtis occidentalis</i>	11.4	11.4	72%	None, within LOD	TBR		Shallow rooting, vines up/trunk/canopy, dead limbs.
9430	Black Cherry	<i>Prunus serotina</i>	14.1	14.1	69%	None, within LOD	TBR		Double trunk, growing through fence, many dead limbs, vines on trunk/canopy.
9431	Black Cherry	<i>Prunus serotina</i>	14.0	14.0	50%	None, within LOD	TBR		Double trunk, surrounded by tatarian honeysuckle, decay at base, dead limbs/broken limbs.
9432	Bradford Pear	<i>Pyrus calleryana</i>	22.3	22.3	72%	High	SAVE	Offsite	Improperly pruned, several dead limbs/broken limbs, double trunk.
9433	Tree of Heaven	<i>Ailanthus altissima</i>	9.0	9.0	50%	High	SAVE	Offsite	Offsite, covered in English ivy, poor form, dead limbs/broken limbs.
9434	Eastern Red Cedar	<i>Juniperus virginiana</i>	6.5	8.0	88%	High	SAVE	Offsite	Offsite, covered in English ivy, several broken limbs/dead limbs.
9435	Northern Red Oak	<i>Quercus rubra</i>	11.0	11.0	66%	High	SAVE	Offsite	Offsite, fungus on limbs, covered in English ivy, several broken limbs.

NOTES:

1. SHARED/OFFSITE TREES SHALL NOT BE REMOVED WITHOUT WRITTEN PERMISSION FROM AFFECTED ADJACENT PROPERTY OWNERS.
- \*2. TREES NOTED FOR REMOVAL WITHIN THE SAVE AREAS SHALL BE DONE SO BY HAND WITHOUT THE USE OF HEAVY MACHINERY.
3. OFFSITE TREES WERE ASSESSED FROM THE SUBJECT PROPERTY SO NOT TO TRESPASS ONTO ADJACENT PROPERTY. DBH MEASUREMENTS AND TREE LOCATIONS ARE APPROXIMATE.
4. TREES LOCATED WITHIN OR ON THE LIMITS OF DISTURBANCE, OR RATED AS BEING "POOR" IN CONDITION, ARE RECOMMENDED FOR REMOVAL BY TNT ARBORISTS DUE TO THE LIKELIHOOD OF TREE FAILURE. HOWEVER, AT THE DISCRETION OF THE APPLICANT, SOME OF THESE MAY BE PRESERVED DURING CONSTRUCTION WITH THE APPROVAL OF THE CITY.



### LEGEND



EXISTING CULTIVATED LANDSCAPE (4,515-SF)



TREE PRESERVATION AREA (CULTIVATED LANDSCAPE) (0-SF)



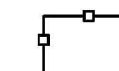
CRITICAL ROOT ZONE (CRZ)



TREE LOCATION



TREE TO BE REMOVED (TBR)



TREE PROTECTION FENCING



**Avinash M. Sareen**  
**Certified Arborist**  
**Certification # MA-4727A**

FOR INFORMATION ONLY



## DESIGN BY OTHERS

APPROVED	
SPECIAL USE PERMIT NO. _____	
DEPARTMENT OF PLANNING & ZONING	
_____ DIRECTOR	_____ DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	
SITE PLAN NO. <u>2020-0021</u>	
_____ DIRECTOR	_____ DATE
_____ CHAIRMAN, PLANNING COMMISSION	
_____ DATE	
DATE RECORDED _____	
INSTRUMENT NO. _____	DEED BOOK NO. _____
DATE _____	



**ENVIRONMENTAL**  
 4455 Brookfield Corporate Drive, Suite 100  
 Chantilly, VA 20151  
 PH: 703.466-5123 [WWW.TNTENVIRONMENTALINC.COM](http://WWW.TNTENVIRONMENTALINC.COM)

AVANTI  
550

CITY OF ALEXANDRIA VA

TREE AND VEGETATION  
SURVEY & PROTECTION PLAN

REVISIONS

DATE	COMMENTS
8/7/20	REV BY MMS
8/12/20	REV BY TNW
9/14/20	REV BY TNW

SHEET 16 OF 17

SCALE: 1" = 20'

PROJECT DATE:  
6/3/20

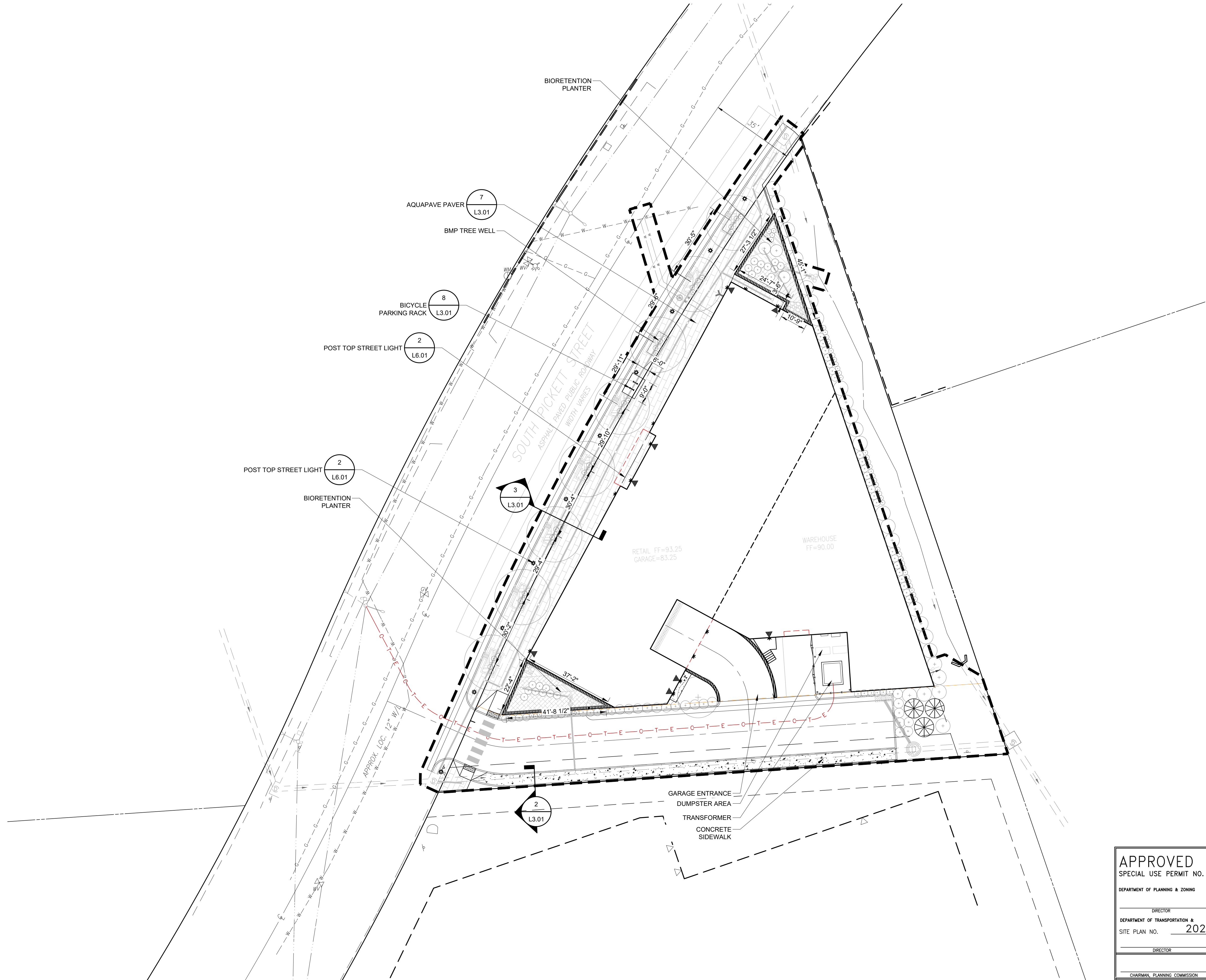
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FILE NUMBER: 1856	







P:\2020\20006-550 South Pickett 550 CAD Files\Preliminary Plan\L1.01 Hardscape Plan.dwg



APPROVED	
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DIRECTOR _____	DATE _____
CHAIRMAN, PLANNING COMMISSION _____	
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DATE _____	

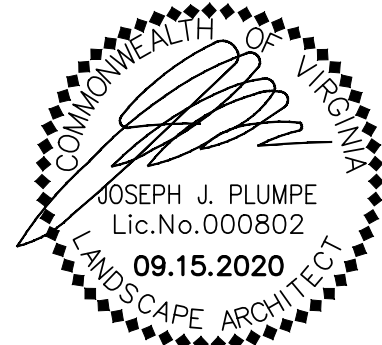
AVANTI 550  
550 SOUTH PICKETT STREET  
ALEXANDRIA, VA 22304  
CITY OF ALEXANDRIA

CLIENT  
AVANTI HG 550, LLC

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LANDSCAPE ARCHITECTURE, P.C.

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ALEXANDRIA, VIRGINIA 22310  
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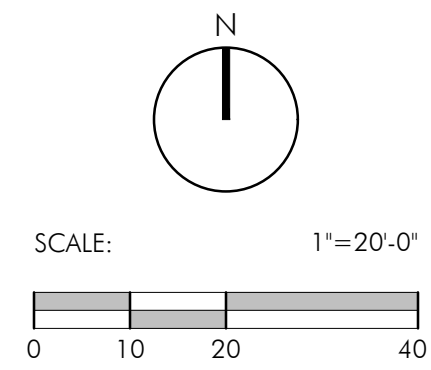


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PROJECT NUMBER: 20006  
CONTACT: D.DOVE  
DRAWN: AM  
APPROVED/CHECKED: DD

ORIENTATION AND SCALE



SHEET TITLE  
HARDSCAPE PLAN

SHEET NUMBER

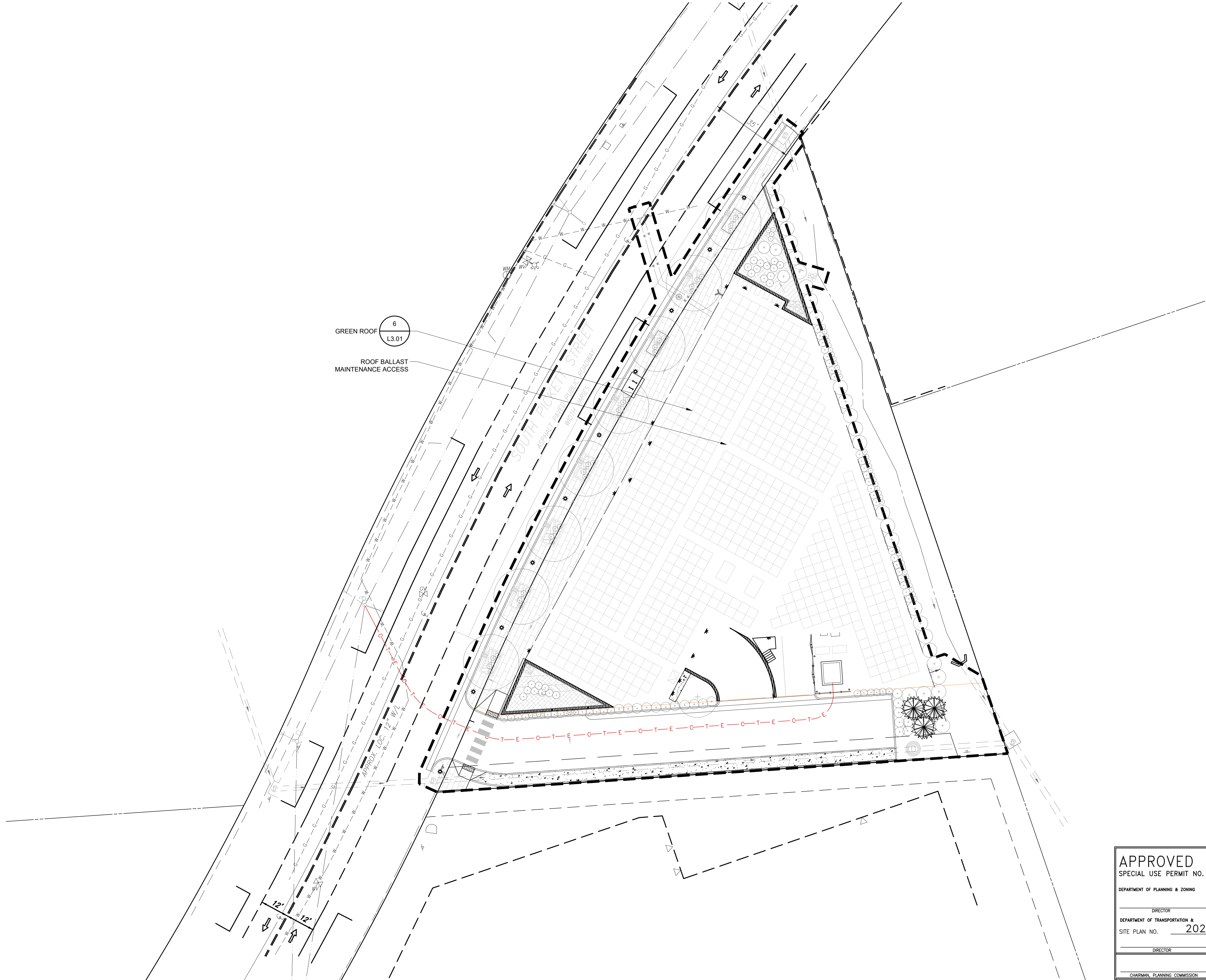
L1.01

CONCEPT II

NOT RELEASED FOR CONSTRUCTION



P:\2020\20006-550 South Pickett 51&.0 CAD Files\Prelim Plan\L1.02 ROOF HARDSCAPE PLAN.dwg



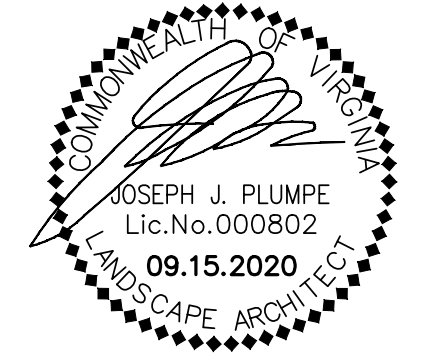
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SPECIAL USE PERMIT NO. _____	
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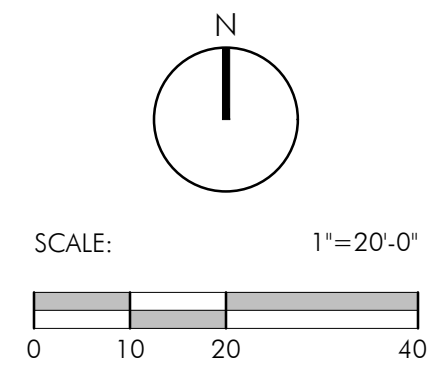


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PROJECT NUMBER: 20006  
CONTACT: D.DOVE  
DRAWN: AM  
APPROVED/CHECKED: DD

ORIENTATION AND SCALE



SHEET TITLE  
ROOF HARDSCAPE PLAN

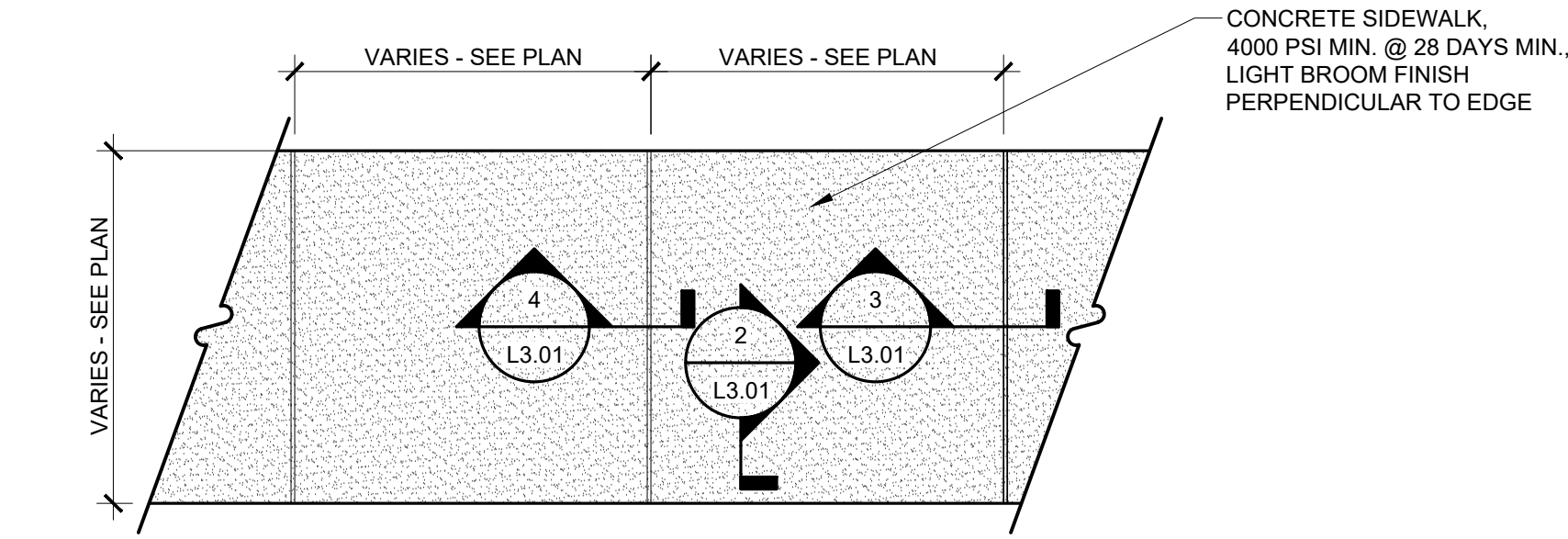
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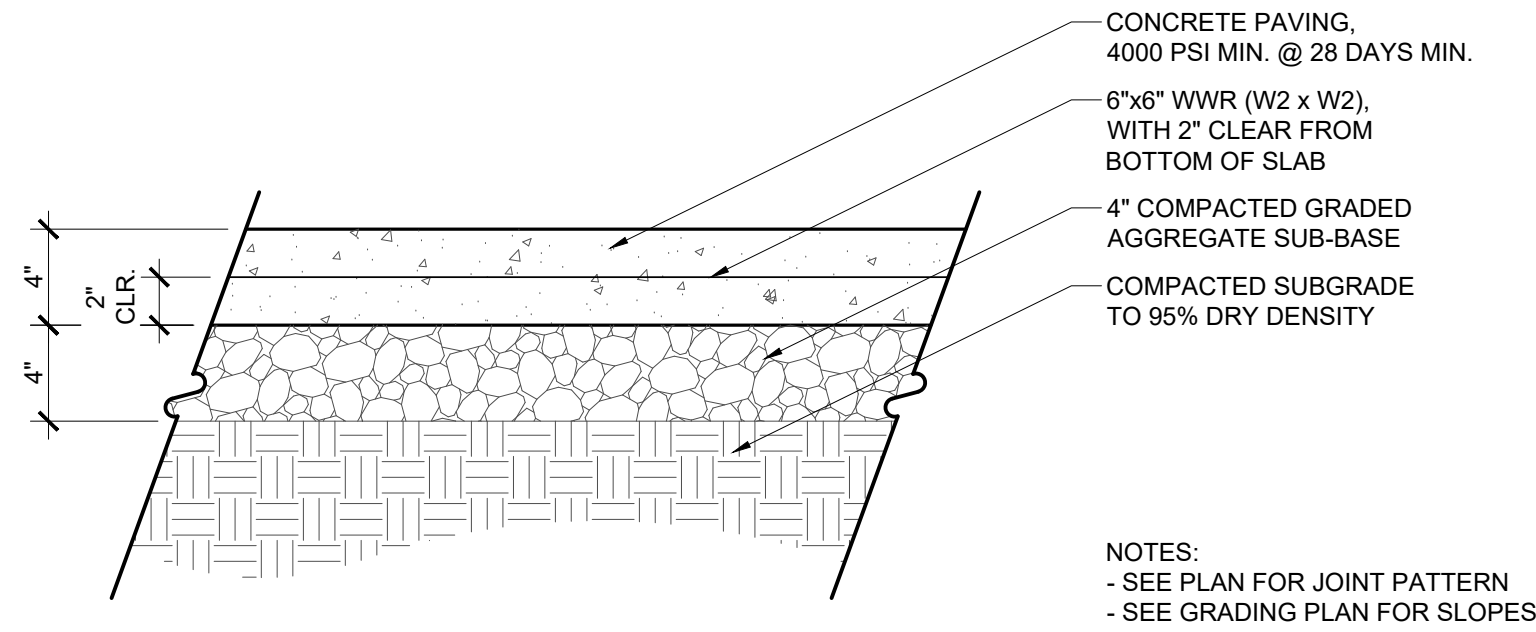
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NOT RELEASED FOR CONSTRUCTION

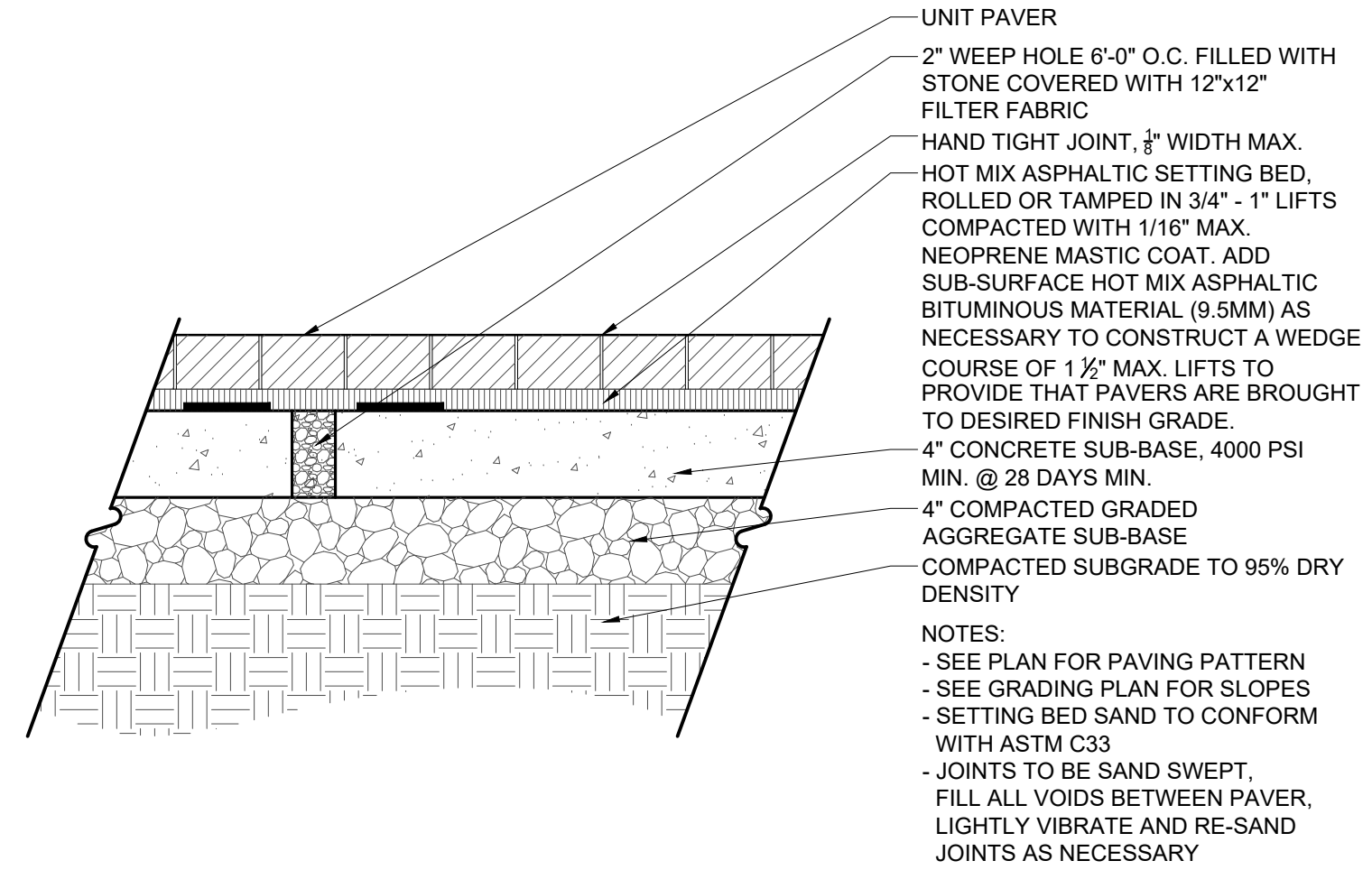




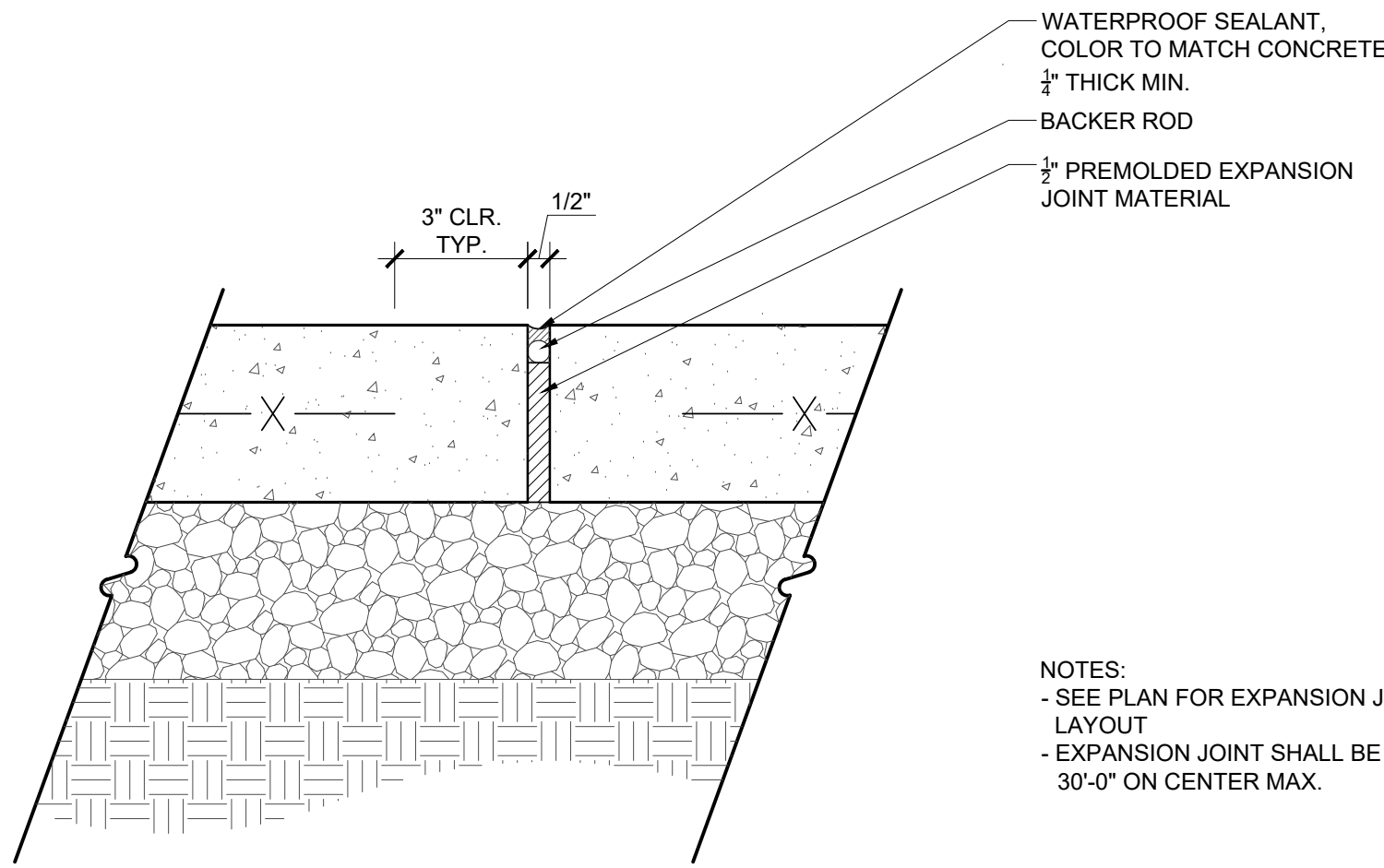
1 CONCRETE SIDEWALK  
L3.01 Scale: 1/2" = 1'-0" PLAN



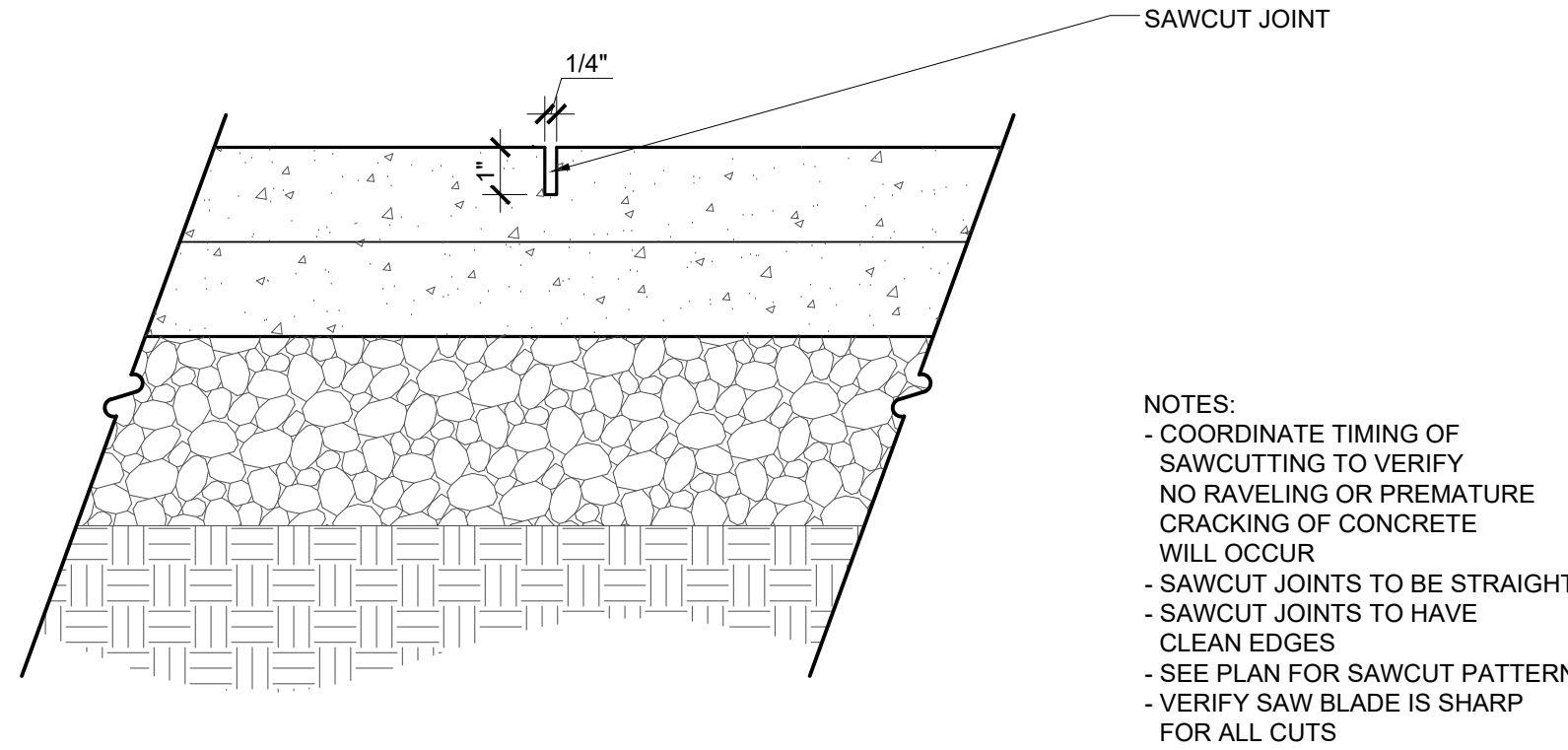
2 CONCRETE PAVING - PEDESTRIAN  
L3.01 Scale: 1 1/2" = 1'-0" SECTION



3 UNIT PAVING - PEDESTRIAN - SAND SET  
L3.01 Scale: 1 1/2" = 1'-0" SECTION



4 CONCRETE PAVING EXPANSION JOINT - TYPICAL  
L3.01 Scale: 3" = 1'-0" SECTION



5 SAWCUT CONTROL JOINT  
L3.01 Scale: 3" = 1'-0" SECTION



MODEL: SEDUM-MIX BLANKET  
\*OR APPROVED EQUAL

QUANTITY: PER PLAN

MANUFACTURER: SEMPERGREEN  
14716 GERMANNA HIGHWAY  
CULPEPPER, VA 22701  
P: 540.339.5055  
www.sempergreen.com

CONTACT: JOEP VAN VILSTERN

COLOR: INSTALL PER MANUFACTURERS  
SPECIFICATIONS  
CONTRACTOR TO VERIFY  
QUANTITIES

6 GREEN ROOF  
L3.01 Scale: NTS PROD. INFO.



MODEL: NITTERHOUSE AQUAPAVE PAVER

QUANTITY: PER PLAN

COLOR: PEWTER

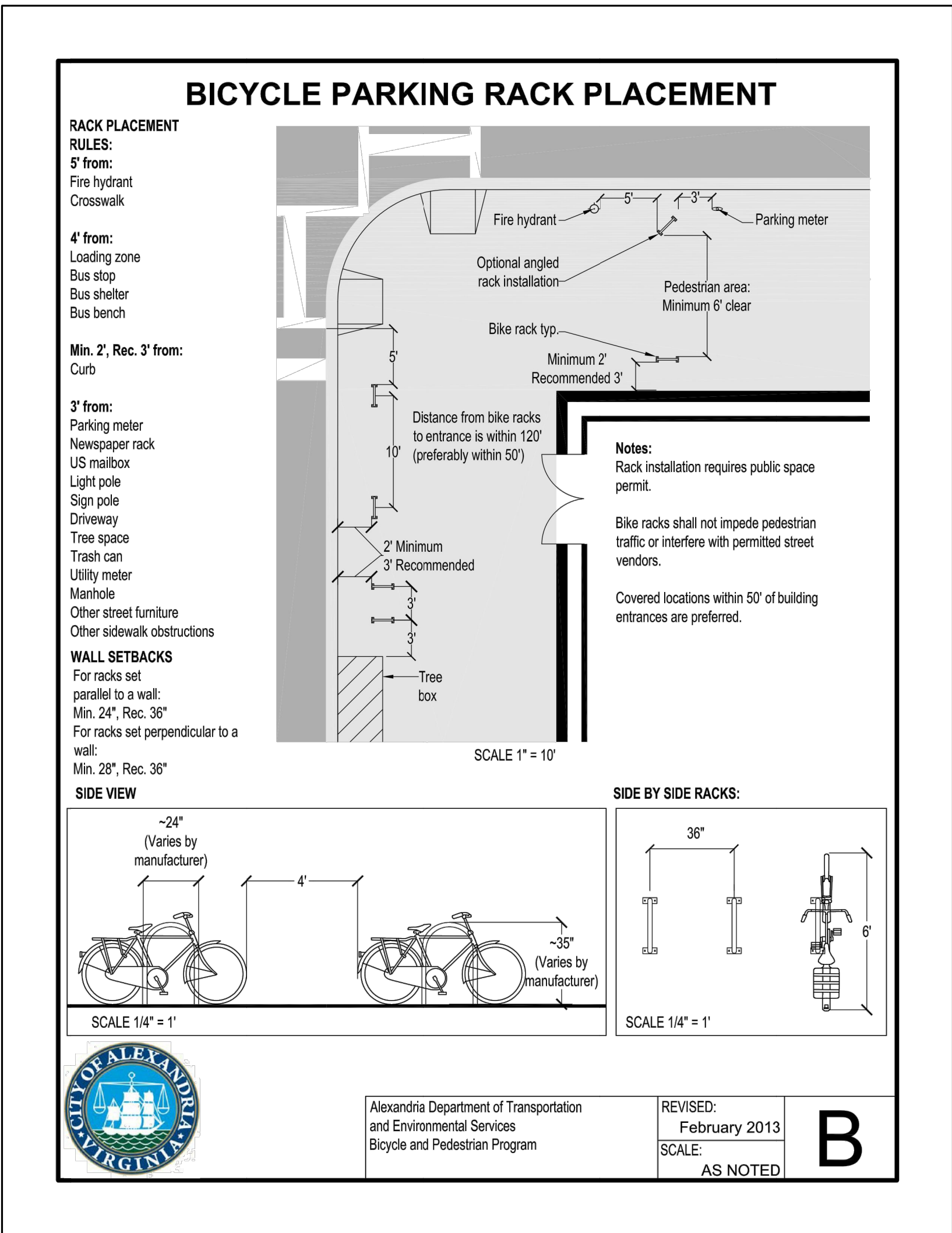
SIZE: 18" X 18"

MANUFACTURER: NITTERHOUSE  
859 CLEVELAND AVE  
CHAMBERSBURG, PA 17201  
P: 717.267.4500  
www.nitterhousemasonry.com

CONTACT: MARK WILLIAMS

COLOR: INSTALL PER MANUFACTURERS  
SPECIFICATIONS  
CONTRACTOR TO VERIFY  
QUANTITIES

7 AQUAPAVE PAVER  
L3.01 Scale: NTS PROD. INFO.



8 BICYCLE PARKING RACK  
L3.01 Scale: NTS

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DEPARTMENT OF PLANNING & ZONING	
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SITE PLAN NO. 2020-0021	
DIRECTOR _____	DATE _____
CHAIRMAN, PLANNING COMMISSION _____	
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INSTRUMENT NO. _____	DEED BOOK NO. _____
DATE _____	

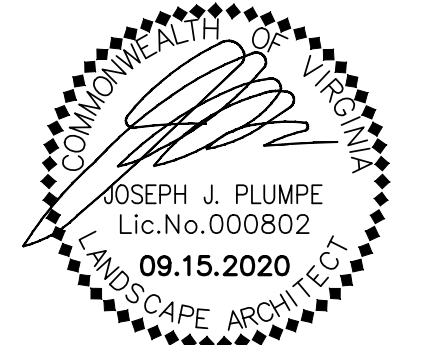
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CITY OF ALEXANDRIA

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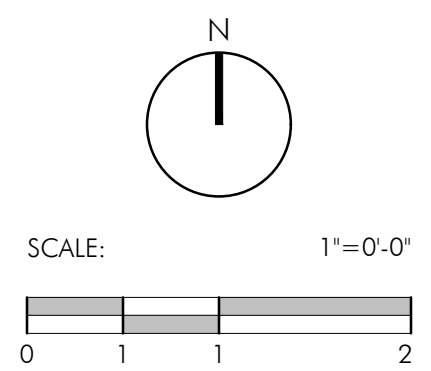


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PROJECT NUMBER: 20006  
CONTACT: D.DOVE  
DRAWN: AM  
APPROVED/CHECKED: DD

ORIENTATION AND SCALE



SHEET TITLE

HARDSCAPE DETAILS

SHEET NUMBER

L3.01

CONCEPT II

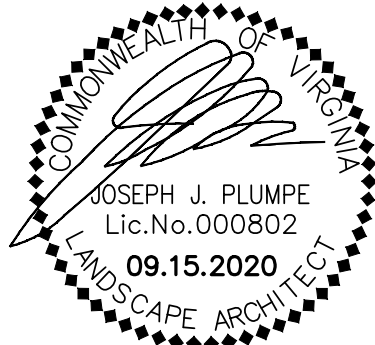


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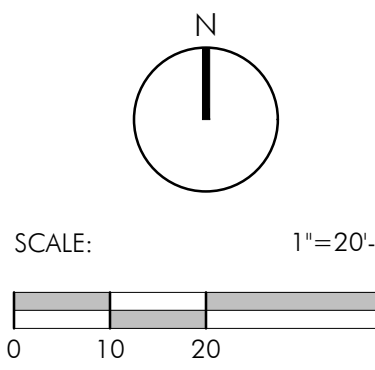


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PROJECT NUMBER: 20006  
CONTACT: D.DOVE  
DRAWN: AM  
APPROVED/CHECKED: DD

ORIENTATION AND SCALE

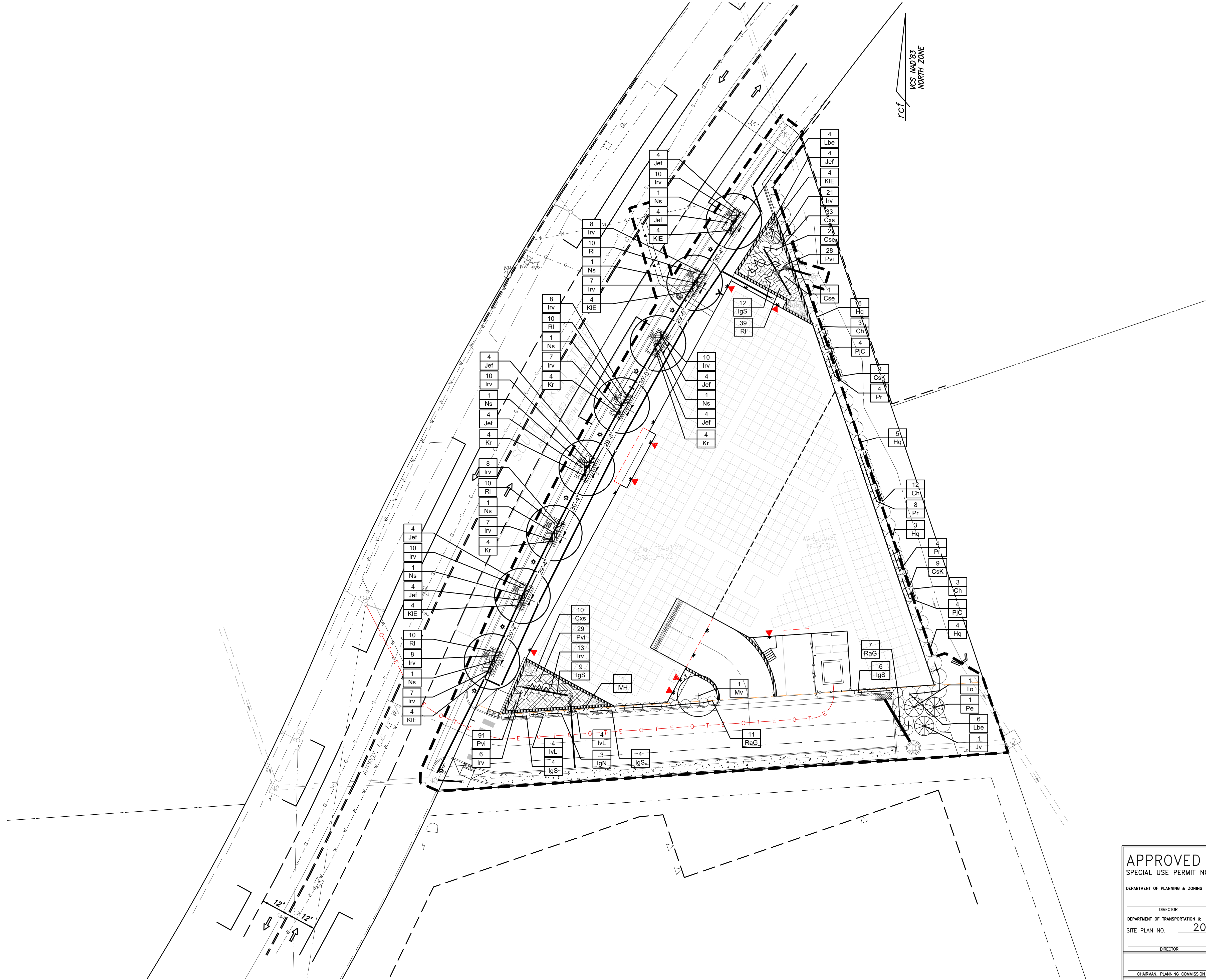


SHEET TITLE  
LANDSCAPE PLAN

SHEET NUMBER

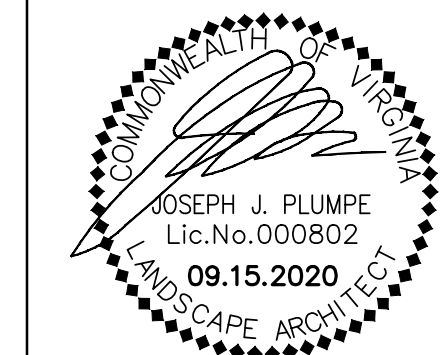
L4.01

CONCEPT II



APPROVED	
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DEPARTMENT OF PLANNING & ZONING	
DIRECTOR _____	DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	
SITE PLAN NO. 2020-0021	
DIRECTOR _____	DATE _____
CHAIRMAN, PLANNING COMMISSION _____	
DATE RECORDED _____	
INSTRUMENT NO. _____	DEED BOOK NO. _____
DATE _____	



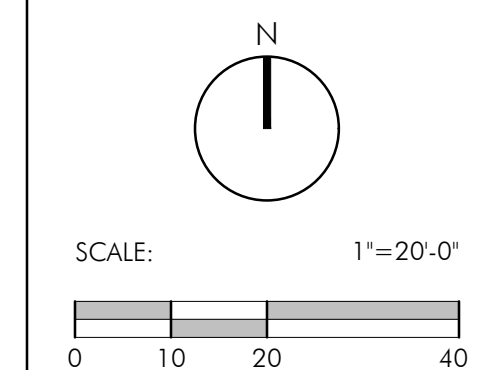


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PROJECT NUMBER:	20006
CONTACT:	D.DOVE
DRAWN:	AM
APPROVED/CHECKED:	DD

## ORIENTATION AND SCALE



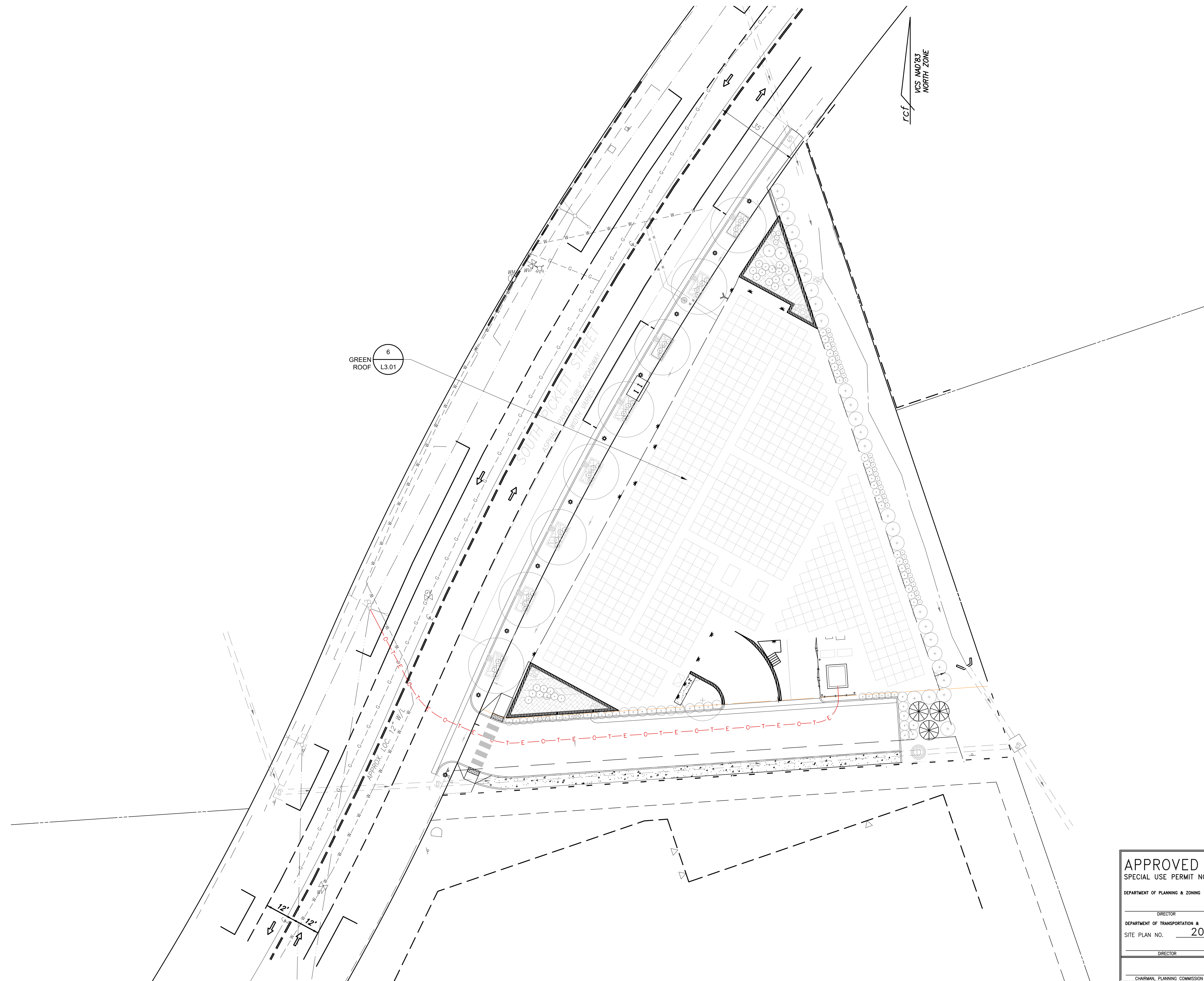
## SHEET TITLE

## ROOF LANDSCAPE PLAN

SHEET NUMBER

L4.02

## CONCEPT 1



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SITE PLAN NO. <u>2020-0021</u>	
_____ DIRECTOR	_____ DATE
CHAIRMAN, PLANNING COMMISSION	
_____ DATE	
DATE RECORDED _____	
INSTRUMENT NO. _____	DEED BOOK NO. _____
DATE _____	



P:\2020\2006-550 South Picket 550 C&D Files\Prelim Plan\L5.01 PLANT SCHEDULE.dwg

A) STANDARD LANDSCAPE PLAN NOTES FOR ALL PLANS REQUIRING APPROVAL:

- THE FOLLOWING NOTES SHALL BE PROVIDED ON LANDSCAPE PLAN SUBMISSIONS FOR ALL PROJECTS THAT REQUIRE APPROVAL BY THE CITY AS OUTLINED IN CHAPTER 3 OF THE CITY'S 2019 LANDSCAPE GUIDELINES:
- 1)THE PROPERTY OWNER AND/OR APPLICANT, SPECIFIER, CONTRACTOR AND INSTALLER OF PLANT MATERIAL ARE RESPONSIBLE FOR UNDERSTANDING AND ADHERING TO THE STANDARDS SET FORTH IN THE MOST RECENT VERSION OF THE CITY OF ALEXANDRIA LANDSCAPE GUIDELINES AND APPLICABLE CONDITIONS OF APPROVAL. ALL QUESTIONS REGARDING APPLICATION OF, OR ADHERENCE TO, THE STANDARDS AND/OR CONDITIONS OF APPROVAL SHALL BE DIRECTED TO THE CITY PRIOR TO COMMENCEMENT OF DEMOLITION, CONSTRUCTION, OR ANY LAND DISTURBING ACTIVITY.
- 2)THE CITY-APPROVED LANDSCAPE PLAN SUBMISSION, INCLUDING PLANT SCHEDULE, NOTES AND DETAILS SHALL BE THE DOCUMENT USED FOR INSTALLATION PURPOSES AND ALL PROCEDURES SET FORTH IN THE LANDSCAPE GUIDELINES MUST BE FOLLOWED.
- 3)THE CONTRACTOR SHALL NOT INTERFERE WITH ANY TREE PROTECTION MEASURES OR IMPACT ANY EXISTING VEGETATION IDENTIFIED TO BE PRESERVED PER THE APPROVED TREE AND VEGETATION PROTECTION PLAN.
- 4)ANY CHANGES, ALTERATIONS OR MODIFICATIONS TO THE SITE CONDITIONS THAT AFFECT VEGETATION PROTECTION ZONES WILL REQUIRE AN AMENDMENT TO THE APPROVED TREE AND VEGETATION PROTECTION PLAN AND/OR DETAILS.
- 5)INSTALLATION OF PLANT MATERIAL MAY ONLY OCCUR DURING THE PLANTING SEASONS IDENTIFIED IN THE LANDSCAPE GUIDELINES.
- 6)IN LIEU OF MORE STRENUOUS SPECIFICATIONS, ALL LANDSCAPE RELATED WORK SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE CURRENT AND MOST UP-TO-DATE EDITION (AT TIME OF CONSTRUCTION) OF LANDSCAPE SPECIFICATION GUIDELINES AS PRODUCED BY THE LANDSCAPE CONTRACTORS ASSOCIATION OF MARYLAND, DISTRICT OF COLUMBIA AND VIRGINIA, GAITHERSBURG, MARYLAND.
- 7)SUBSTITUTIONS TO THE APPROVED PLANT MATERIAL SHALL NOT OCCUR UNTIL WRITTEN APPROVAL IS PROVIDED BY THE CITY.
- 8)MAINTENANCE FOR THIS PROJECT SHALL BE PERFORMED BY THE OWNER, APPLICANT, SUCCESSOR(S) AND/OR ASSIG(N)S IN PERPETUITY AND IN COMPLIANCE WITH CITY OF ALEXANDRIA LANDSCAPE GUIDELINES AND AS CONDITIONED BY PROJECT APPROVAL, AS APPLICABLE.

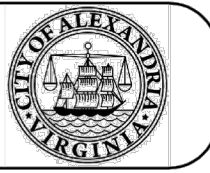
B) STANDARD LANDSCAPE PLAN NOTES FOR DEVELOPMENT SITE PLANS:

- IN ADDITION TO THE NOTES PROVIDED ABOVE, THE FOLLOWING NOTES SHALL BE PROVIDED ON LANDSCAPE PLAN SUBMISSIONS FOR ALL DSP/DSUP PROJECTS:
- 1)THE APPROVED METHOD(S) OF PROTECTION MUST BE IN PLACE FOR ALL VEGETATION TO BE PRESERVED ON-SITE AND ADJACENT TO THE PROJECT SITE PURSUANT TO THE APPROVED TREE AND VEGETATION PROTECTION PLAN AND DETAILS PRIOR TO COMMENCEMENT OF DEMOLITION, CONSTRUCTION, OR ANY LAND DISTURBANCE. THE APPLICANT SHALL NOTIFY THE PLANNING & ZONING (P&Z) PROJECT MANAGER ONCE THE TREE PROTECTION METHODS ARE IN PLACE. NO DEMOLITION, CONSTRUCTION, OR LAND DISTURBANCE MAY OCCUR UNTIL AN INSPECTION IS PERFORMED BY THE CITY AND WRITTEN CONFIRMATION IS PROVIDED BY THE CITY WHICH VERIFIES CORRECT INSTALLATION OF THE TREE PROTECTION MEASURES.
- 2)THE APPLICANT MUST CONTACT THE P&Z PROJECT MANAGER PRIOR TO COMMENCEMENT OF LANDSCAPE INSTALLATION/PLANTING OPERATION TO SCHEDULE A PRE-INSTALLATION MEETING. THE MEETING SHOULD BE HELD BETWEEN THE APPLICANT'S GENERAL CONTRACTOR, LANDSCAPE CONTRACTOR, LANDSCAPE ARCHITECT, THE P&Z PROJECT MANAGER AND THE CITY ARBORIST (AS APPLICABLE) TO REVIEW THE SCOPE OF INSTALLATION PROCEDURES AND PROCESSES DURING AND AFTER INSTALLATION.
- 3)THE FOLLOWING INFORMATION SHALL BE PROVIDED TO THE P&Z PROJECT MANAGER AT LEAST FIVE (5) BUSINESS DAYS PRIOR TO THE LANDSCAPE PRE-INSTALLATION MEETING: 1) A LETTER THAT CERTIFIES THAT THE PROJECT LANDSCAPE ARCHITECT PERFORMED PRE-SELECTION TACKING FOR ALL TREES PROPOSED WITHIN THE PUBLIC RIGHT OF WAY AND ON PUBLIC LAND PRIOR TO INSTALLATION. THIS LETTER MUST BE SIGNED AND SEALED BY THE PROJECT LANDSCAPE ARCHITECT, AND 2) A COPY OF THE SOIL BULK DENSITY TEST REPORT VERIFYING THAT MAXIMUM COMPRESSION RATES ARE MET.
- 9)AS-BUILT DRAWINGS FOR THIS LANDSCAPE AND/OR IRRIGATION/WATER MANAGEMENT SYSTEM WILL BE PROVIDED IN COMPLIANCE WITH CITY OF ALEXANDRIA LANDSCAPE GUIDELINES, THE CITY CODE OF ORDINANCES, AND ALL APPLICABLE PLAN PREPARATION CHECKLISTS. AS-BUILT DRAWINGS SHALL INCLUDE CLEAR IDENTIFICATION OF ALL VARIATION(S) AND CHANGES FROM APPROVED DRAWINGS INCLUDING LOCATION, QUANTITY AND SPECIFICATION OF ALL PROJECT ELEMENTS.

A STANDARD LANDSCAPE PLAN NOTES

# OF UPDATES: 00 LAST UPDATED:

CITY OF ALEXANDRIA, VIRGINIA  
STANDARD LANDSCAPE DETAILS  
CITY OF ALEXANDRIA, VIRGINIA



NOTE:  
THE INFORMATION SHOWN HEREIN THIS DOCUMENT IS FOR GENERAL GUIDANCE ONLY AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES. ITS USE SHALL NOT RELIEVE THE DESIGN PROFESSIONAL OR CONTRACTOR OF ANY LEGAL RESPONSIBILITY.

Source:  
CITY OF  
ALEXANDRIA  
Approved by:  
COA

STANDARD  
LANDSCAPE  
PLAN NOTES

Date drawn:  
01/01/19  
LD 016

PLANT SCHEDULE LANDSCAPE PLAN

EVERGREEN TREES		QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	SPREAD	INVASIVE	REMARKS
Jv	1	Juniperus virginiana		Eastern Red Cedar	6'-8'		3 1/2 - 5'		B&B, full to ground with good seasonal flush
Pe	1	Pinus echinata		Short Leaf Pine	6'-8'		3 1/2 - 5'		B&B, full to ground with good seasonal flush
To	1	Thuja occidentalis		American Arborvitae	6'-8'		3 1/2 - 5'		B&B, full to ground with good seasonal flush
SHADE TREES		QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	SPREAD	INVASIVE	REMARKS
Ns	8	Nyssa sylvatica		Sour Gum	14'-16'	3" - 3 1/2"			B&B, full uniform crown, symmetrical branching, full specimen
ORNAMENTAL TREES		QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	SPREAD	INVASIVE	REMARKS
Mv	1	Magnolia virginiana		Sweet Bay	8'-10'	1 1/2" min.			B&B, multi-trunk, 3 trunk minimum, full symmetrical branching
SHRUBS		QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	SIZE	SPACING	REMARKS
Ch	18	Cornus hessei 'Garden Glow'		Dogwood	18"-24"	18"-24"	#3	2' o.c.	
Cse	3	Cornus sericea		Red Twig Dogwood	24"-36"	24"-36"	#5 cont.	6' o.c.	healthy, vigorous, well-rooted & established
CsK	18	Cornus sericea 'Kelseyi'		Kelseyi Dogwood	18"-24"	18"-24"	#3 cont.	2' o.c.	full specimen, healthy, vigorous, well-rooted and established
Hq	18	Hydrangea quercifolia		Oakleaf Hydrangea	24"-36"	24"-36"	#5 cont.	6' o.c.	healthy, vigorous, well-rooted & established in container
IgN	3	Ilex glabra 'Nordic'		Nordic Inkberry	18"-24"	18"-24"	#3 cont.	3' o.c.	healthy, vigorous, well-rooted & established in container
IgS	35	Ilex glabra 'Shamrock'		Inkberry	24"-30"	18"-24"	#3 cont.	3' o.c.	healthy, vigorous, well-rooted & established in container
IVH	1	Itea virginica 'Henry's Garnet'		Henry's Garnet Sweetspire	18"-24"	18"-24"	#3 cont.	4' o.c.	healthy vigorous, well-rooted & established in container
IVL	8	Itea virginica 'Little Henry'		Virginia Sweetspire	18"-24"	18"-24"	#3 cont.	2' o.c.	healthy vigorous, well-rooted & established in container
Kr	16	Kalmia angustifolia 'Rubra'		Sheep Laurel	15"-18"	15"-18"	#2 cont.	3' o.c.	
KIE	20	Kalmia latifolia 'Elf'		Dwarf Mountain Laurel	15"-18"	15"-18"	#2 cont.	3' o.c.	healthy vigorous, well-rooted & established in container
Lbe	10	Lindera benzoin		Spicebush	24"-36"	24"-36"	#5 cont.	6' o.c.	healthy vigorous, well-rooted & established in container
PJC	8	Pieris japonica 'Compacta'		Compact Pieris	24"-30"	18"-24"	#3 cont.	4' o.c.	healthy vigorous, well-rooted & established in container
Pr	16	Pieris ryukensis 'Temple Bells'		Temple Bells Pieris	24"-30"	18"-24"	#3 cont.	4' o.c.	
RAg	18	Rhus aromatica 'Gro-Low'		Gro-Low Fragrant Sumac	12"-15"	15"-18"	#3 cont.	4' o.c.	4' o.c., full specimen, healthy, vigorous, well-rooted and established
PERENNIALS, ORNAMENTAL GRASSES AND FERNS		QTY	BOTANICAL NAME	COMMON NAME	CONT.	COLOR	SPACING	INVASIVE	REMARKS
RI	77	Rudbeckia laciniata		Cutleaf Coneflower	#1 cont.	yellow	18" o.c.		full specimen, healthy, vigorous, well-rooted and established
Sau	2	Senecio aureus		Golden Ragwort	#1 cont.	yellow	12" o.c.		full specimen, healthy, vigorous, well-rooted and established
WETLAND PLANTS		QTY	BOTANICAL NAME	COMMON NAME	CONT.	COLOR	SPACING	INVASIVE	REMARKS
Cxs	43	Carex stricta		Tussock Sedge	#1 cont.		18" o.c.		full specimen, healthy, vigorous, well-rooted and established
Irv	140	Iris versicolor		Blue Flag	#1 cont.	purple	18" o.c.		full specimen, healthy, vigorous, well-rooted and established
Jef	36	Juncus effusus		Soft Rush	#1 cont.		24" o.c.		full specimen, healthy, vigorous, well-rooted and established
Pvi	147	Peltandra virginica		Arrow Arum	#1 cont.		18" o.c.		full specimen, healthy, vigorous, well-rooted and established

CANOPY COVER ANALYSIS	SUBTOTAL (\$,F.)
TOTAL SITE AREA	32,987
TREE COVER REQUIRED (25%)	8,247
EXISTING CANOPY COVER	4,515 (13.70%)
REMOVED CANOPY COVER	- 4,515
PRESERVED CANOPY COVER	0
PROPOSED CANOPY COVER	3,840
TOTAL CANOPY COVER	3,840 (11.64%)

NATIVE PLANT STANDARDS		
PLANT TYPE	REGIONAL/LOCALLY NATIVE (%)	EASTERN US NATIVE (%)
STANDARD TREES	100%	100%
EVERGREEN SHRUBS	75%	75%
DECIDUOUS SHRUBS	76%	100%

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

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

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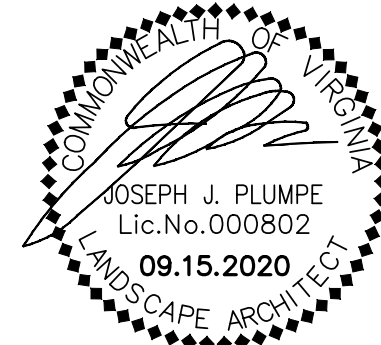
AVANTI 550  
550 SOUTH PICKETT STREET  
ALEXANDRIA, VA 22304  
CITY OF ALEXANDRIA

CLIENT  
AVANTI HG 550, LLC

Studio39  
LANDSCAPE ARCHITECTURE, P.C.

6416 GROVEDALE DR., SUITE 100-A  
ALEXANDRIA, VIRGINIA 22310  
703.719.6500 | STUDIO39.COM

SEAL/SIGNATURE



ISSUE DATE

PROJECT NUMBER: 20006  
CONTACT: D.DOVE  
DRAWN: AM  
APPROVED/CHECKED: DD

ORIENTATION AND SCALE

SHEET TITLE

PLANT SCHEDULE

SHEET NUMBER

L5.01

CONCEPT II

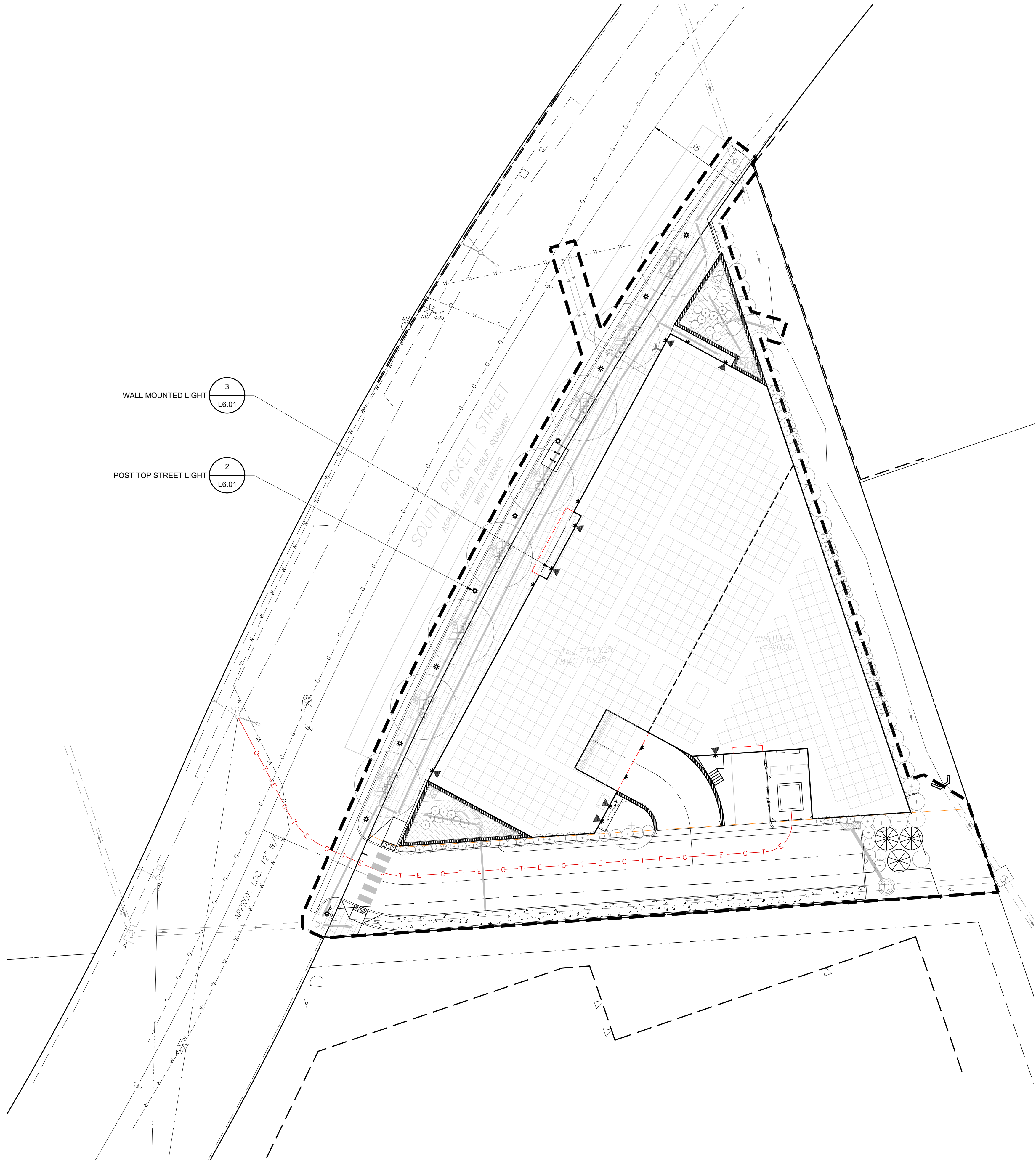
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P:\2020\20006-550 South Pickett SV&D CAD Files\Preliminary Plan\L6.01 LIGHTING PLAN.dwg



MODEL: RL 54 POST TOP  
COLOR: BLACK (BLK)  
QUANTITY: PER PLAN  
COMPANY: SIGNIFY  
200 FRANKLIN SQUARE DRIVE  
SOMERSET, NJ 08873  
(P) 855.486.2216  
CONTACT: LIGHTING ENVIRONMENTS  
DEVIN CREHAN  
333 W. OSTEND STREET  
SUITE 200  
BALTIMORE, MD 21230  
(P) 410.712.0239  
NOTES: 1)INSTALL PER MANUFACTURER'S  
RECOMMENDATIONS

2 POST TOP STREET LIGHT SECTION  
L6.01 Scale: 1" = 1'-0"



MODEL: 66 410  
COLOR: BLACK (BLK)  
QUANTITY: PER PLAN  
COMPANY: BEGA - US  
1000 BEGA WAY  
CARPINTERIA, CA 93013  
(P) 805.684.0533  
(F) 805.566.9474  
CONTACT: LIGHTING ENVIRONMENTS  
DEVIN CREHAN  
333 W. OSTEND STREET  
SUITE 200  
BALTIMORE, MD 21230  
(P) 410.712.0239  
NOTES: 1)INSTALL PER MANUFACTURER'S  
RECOMMENDATIONS

3 WALL MOUNTED LIGHT SECTION  
L6.01 Scale: 1" = 1'-0"

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_____ DIRECTOR	_____ DATE
CHAIRMAN, PLANNING COMMISSION	
_____ DATE RECORDED	_____ DATE
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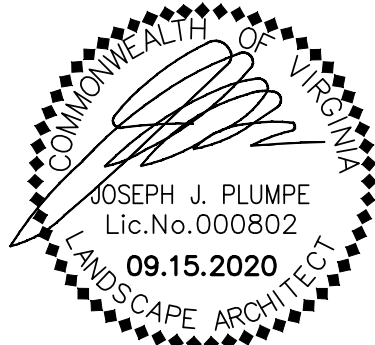
AVANTI 550  
550 SOUTH PICKETT STREET  
ALEXANDRIA, VA 22304  
CITY OF ALEXANDRIA

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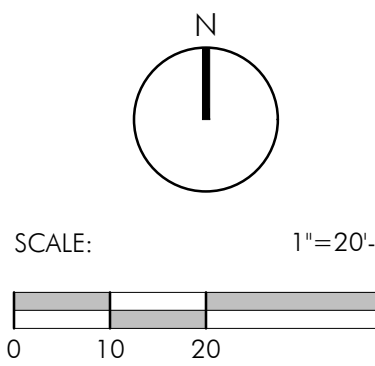


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PROJECT NUMBER: 20006  
CONTACT: D.DOVE  
DRAWN: AM  
APPROVED/CHECKED: DD

ORIENTATION AND SCALE



SHEET TITLE  
LIGHTING PLAN

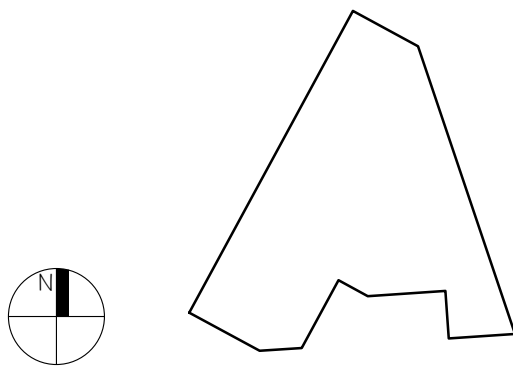
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L6.01

CONCEPT II

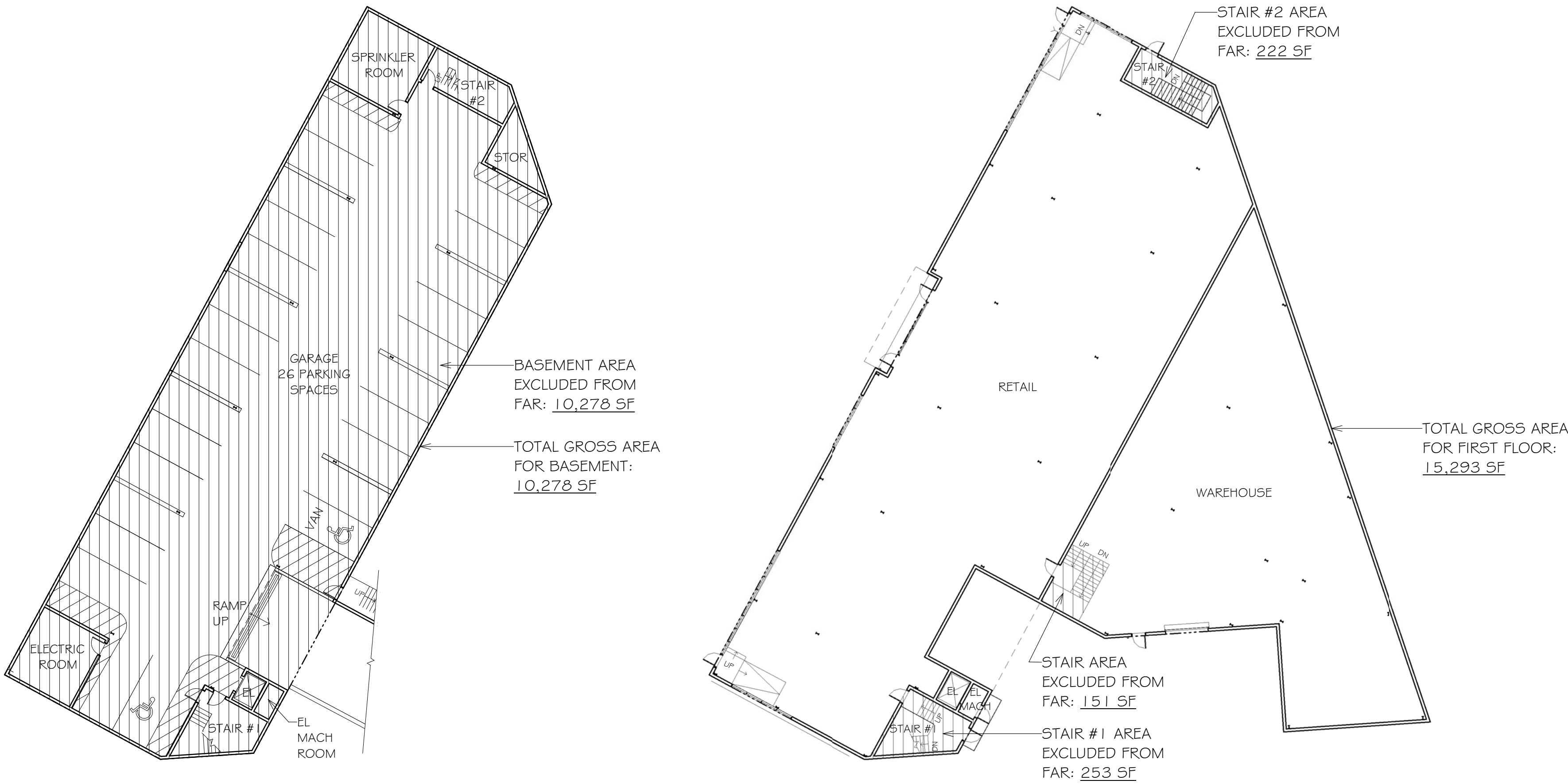
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Preliminary Verification	09/15/2020

No.	Revision	Date



1 BASEMENT FLOOR PLAN - FAR  
1" = 20'-0"

2 FIRST FLOOR PLAN - FAR  
1" = 20'-0"

### FAR Calculation

**Property Area**  
Total Lot Area 32,987 sf  
FAR Allowed by Zone 0.85  
Max Allowable Floor Area 28,039 sf

**Proposed Gross Floor Area**  
Proposed Gross Area  
Basement: 10,278 sf  
First Floor: 15,293 sf

**Allowable Exclusions**  
Basement: 10,278 sf  
First Floor: 626 sf

Total Gross: 25,571 sf

Total Exclusions: 10,904 sf

**Proposed Net Floor Area: 25,571sf - 10,904sf = 14,667sf**

SCALE: 1" = 20'  
0' 10' 20' 30'

APPROVED

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DEPARTMENT OF PLANNING & ZONING

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

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SITE PLAN NO. 2020-0021

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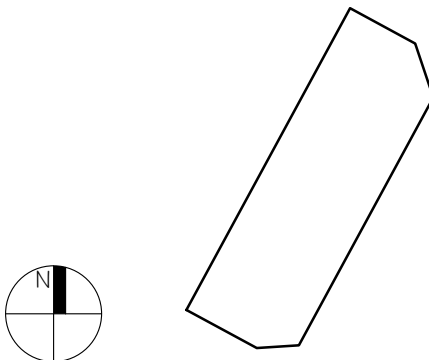
Avanti 550

550 South Pickett St  
Alexandria, VA 22304

Seal



Key Plan



Drawing

Basement Floor Plan

Submission Set

Preliminary Verification	09/15/2020

Revisions

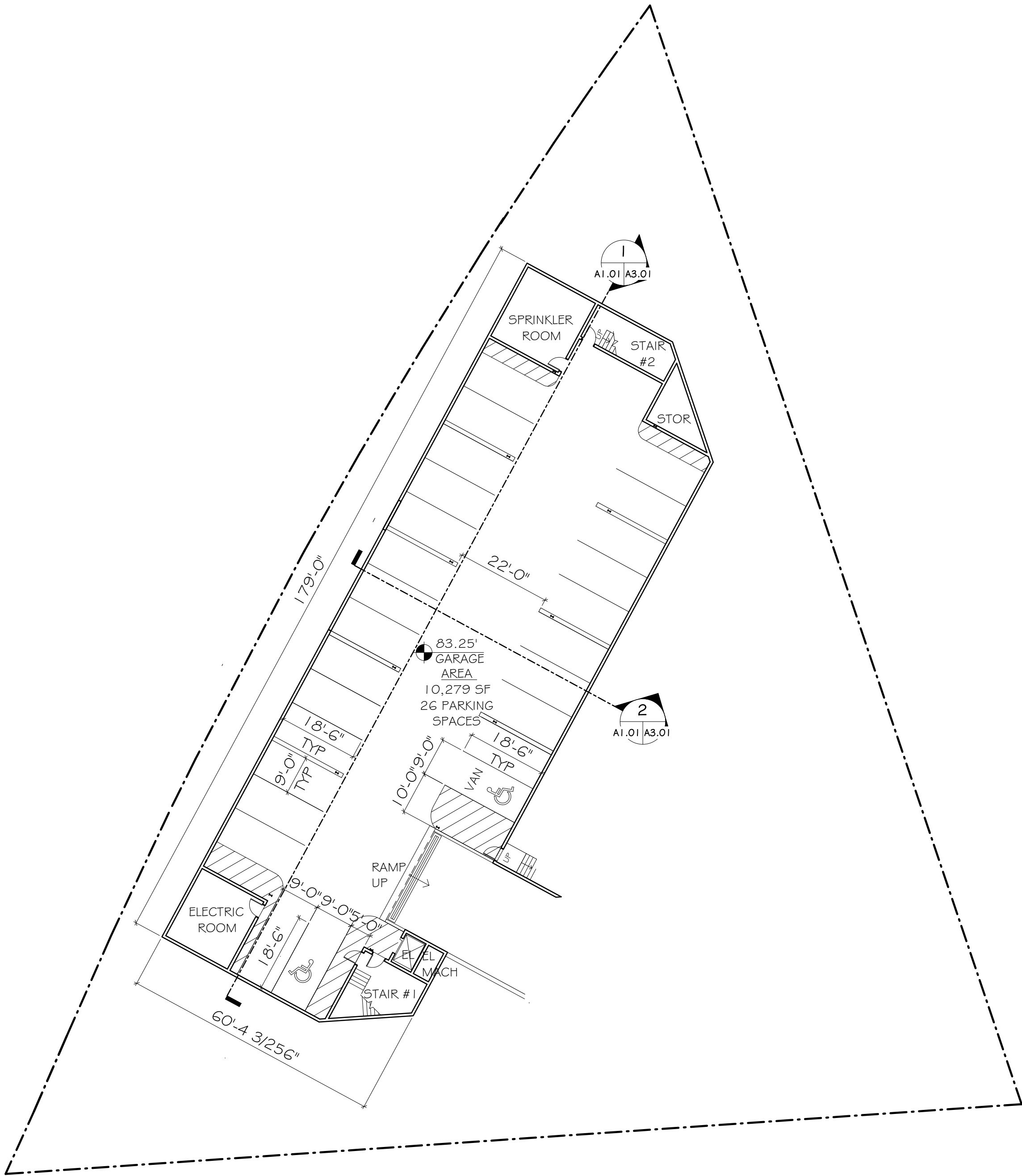
No.	Revision	Date

Date                      September 15, 2020

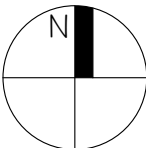
Project No.      No. 19014

Sheet No.

A1.01



I BASEMENT FLOOR PLAN  
A2.01 A1.01 1" = 20'-0"



SCALE: 1" = 20'  
0' 10' 20' 30'

APPROVED

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

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. 2020-0021

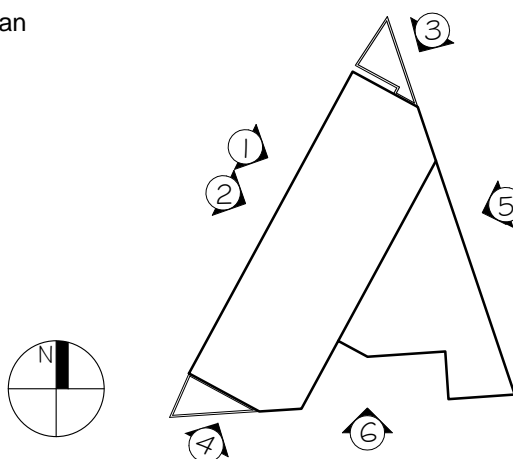
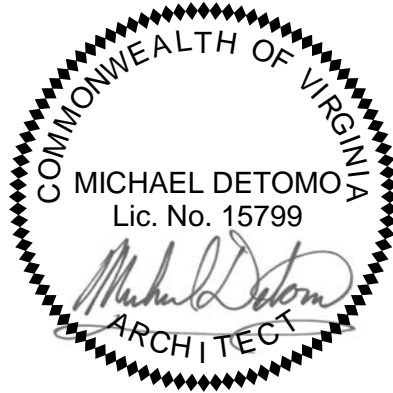
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CHAIRMAN, PLANNING COMMISSION \_\_\_\_\_ DATE \_\_\_\_\_

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

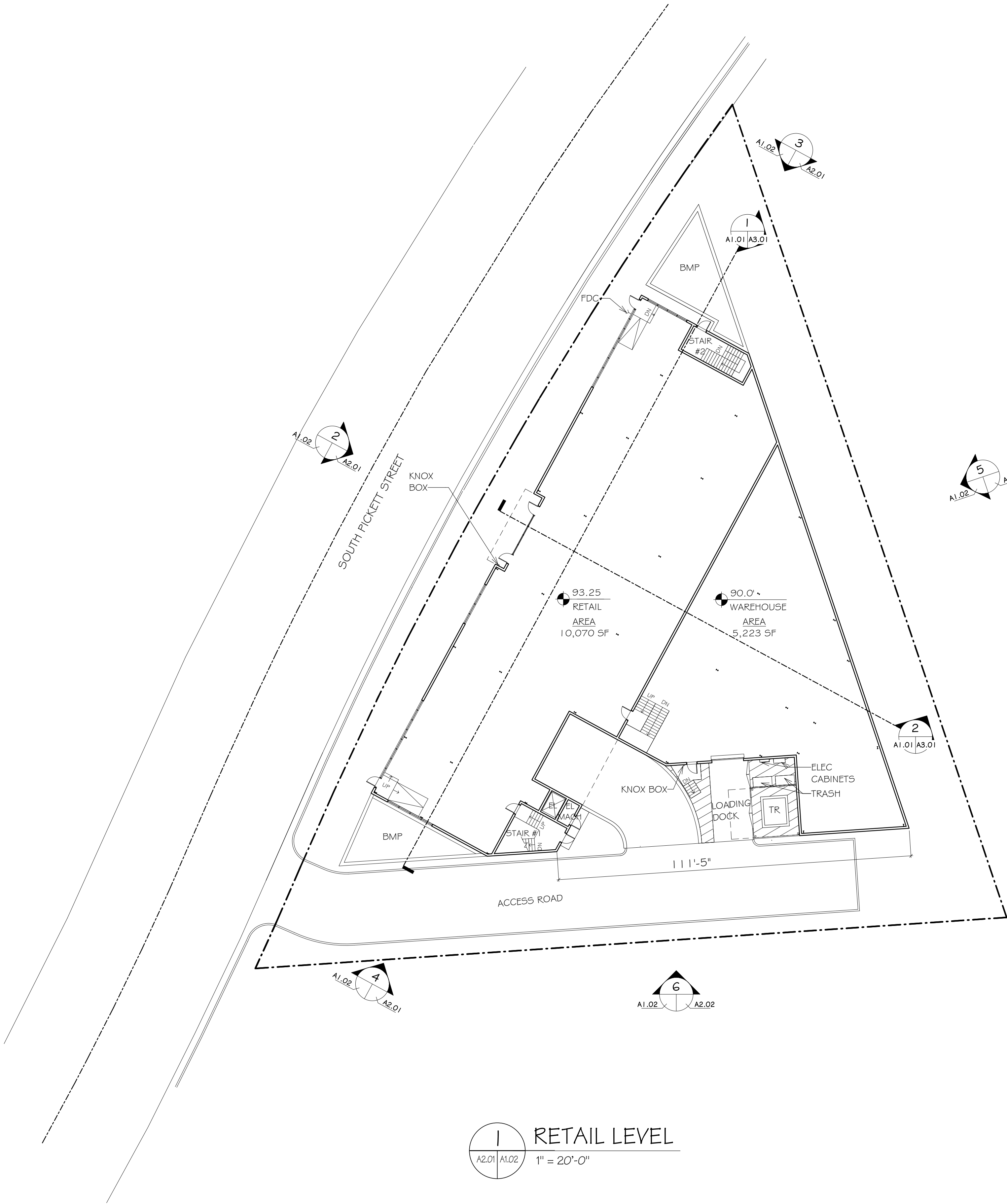
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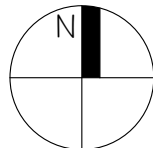


Preliminary Verification	09/15/2020

No.	Revision	Date



1 RETAIL LEVEL  
1" = 20'-0"



SCALE: 1" = 20'  
0' 10' 20' 30'

APPROVED	
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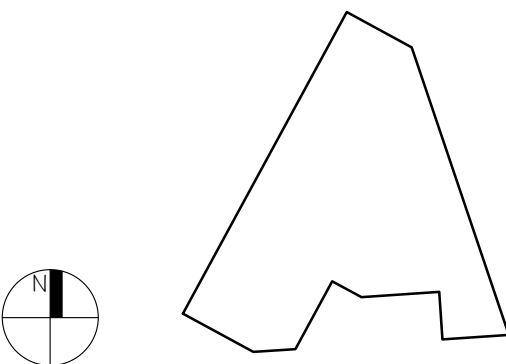
Avanti 550

550 South Pickett St  
Alexandria, VA 22304

Seal



Key Plan



Drawing

Roof Plan

Submission Set

Preliminary Verification	09/15/2020

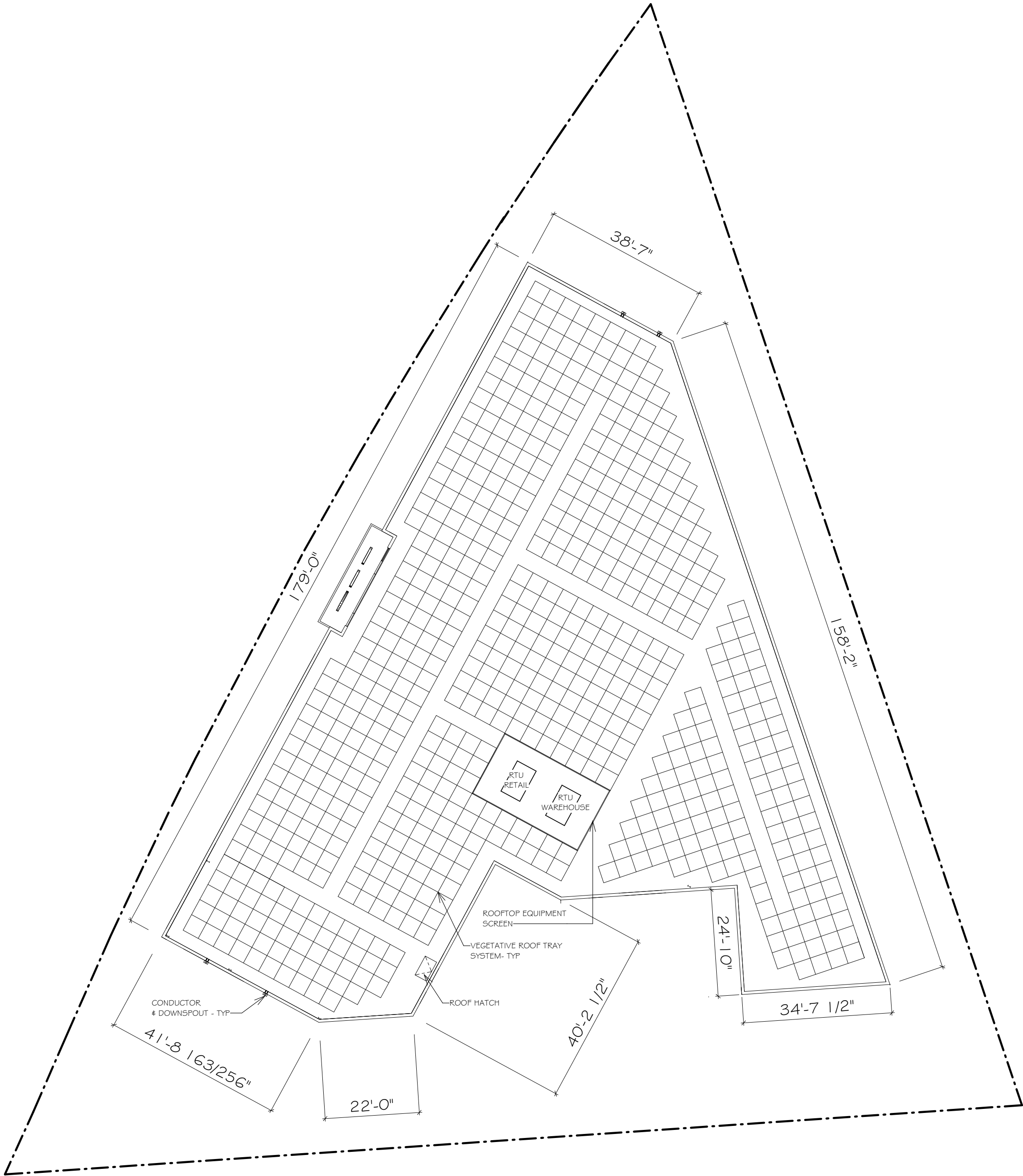
Revisions

No.	Revision	Date

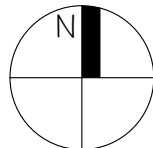
Date September 15, 2020

Project No. No. 19014

Sheet No.



1 ROOF PLAN  
A2.01 A1.03 1" = 20'-0"



SCALE: 1" = 20'  
0' 10' 20' 30'

APPROVED

SPECIAL USE PERMIT NO. \_\_\_\_\_

DEPARTMENT OF PLANNING & ZONING

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

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

SITE PLAN NO. 2020-0021

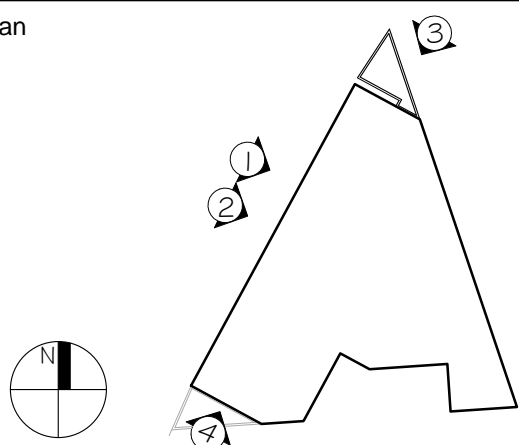
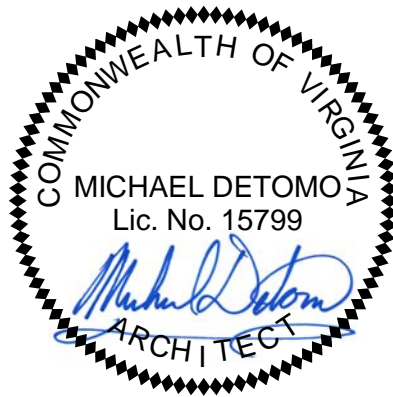
DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

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

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

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





Preliminary Verification	09/15/2020

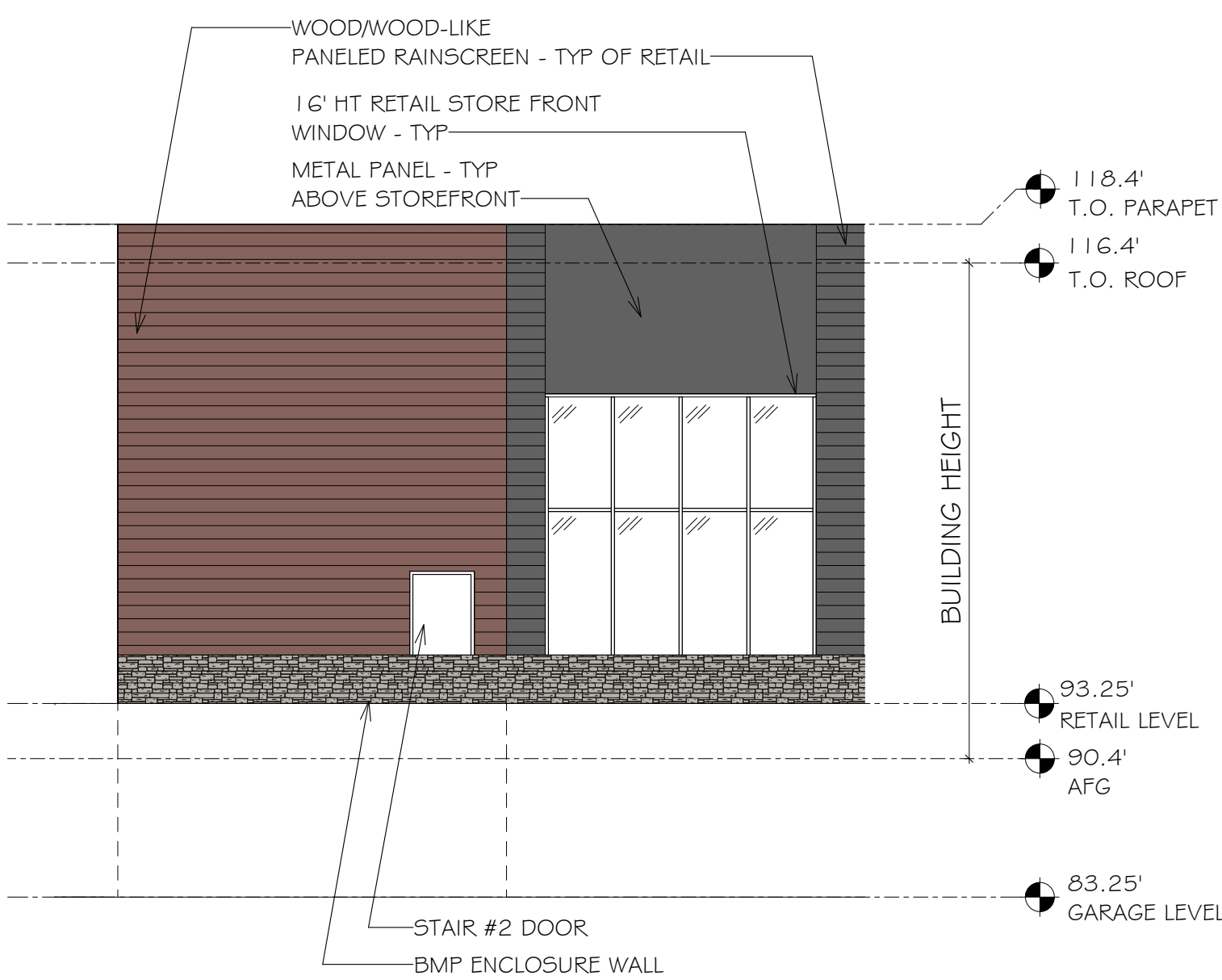
No.	Revision	Date



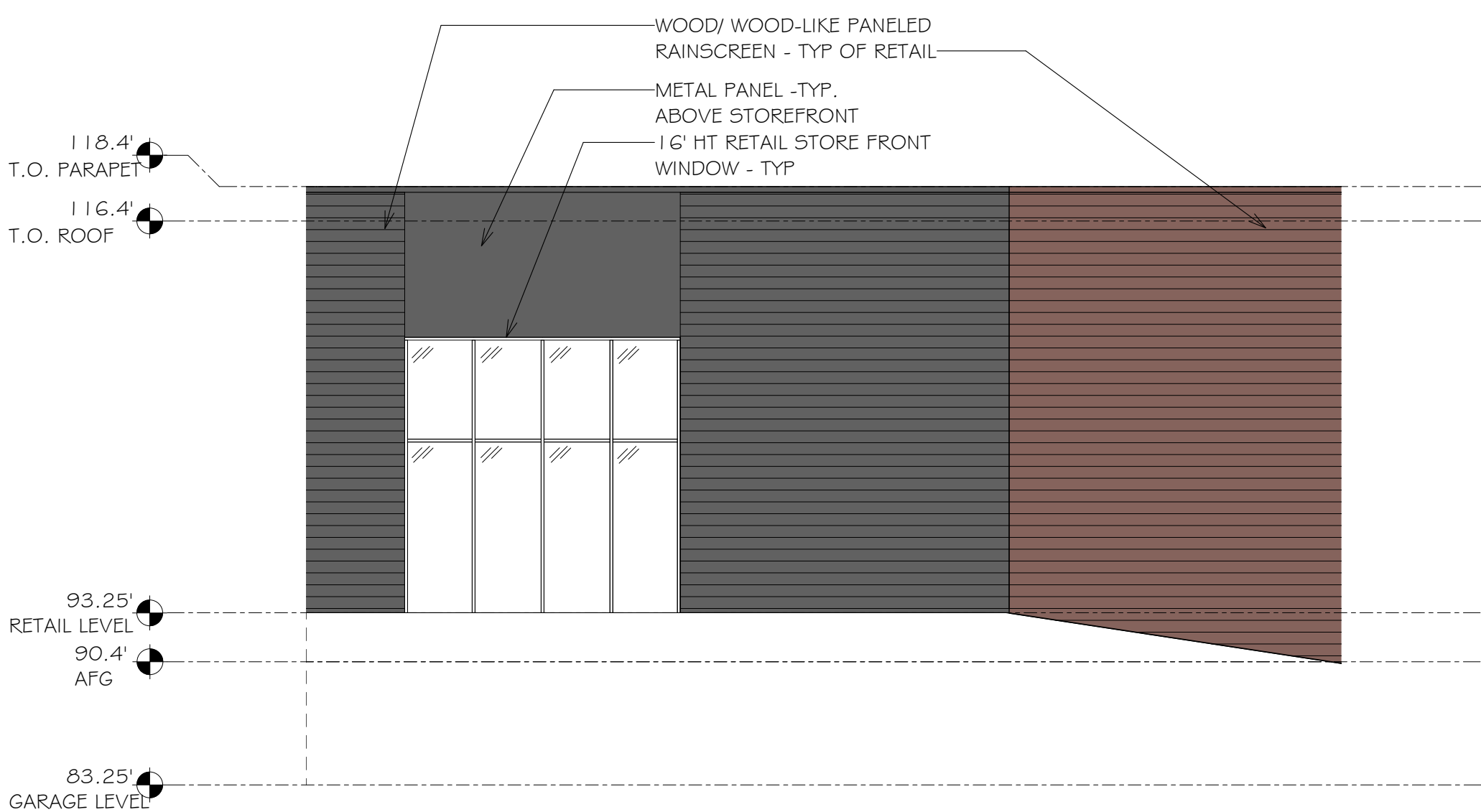
1 NORTH WEST RENDERING  
NTS



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



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

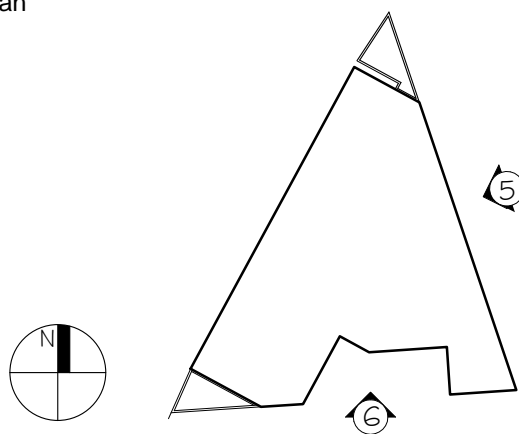
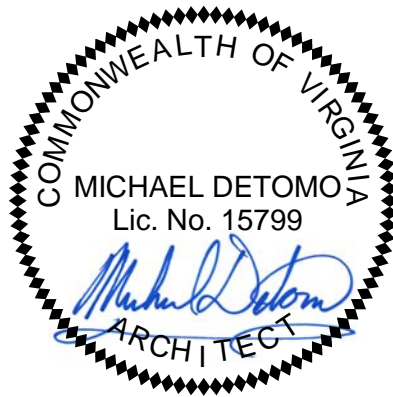


4 SOUTH EAST ELEVATION  
1/8" = 1'-0"

SCALE: 1/8" = 1'-0"  
0' 5' 10' 20'

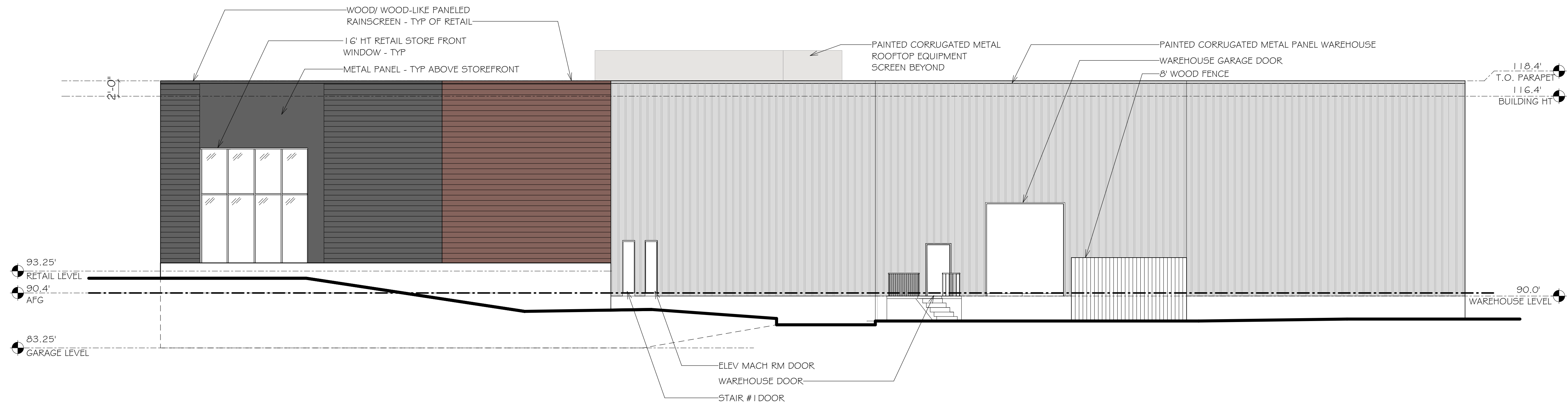
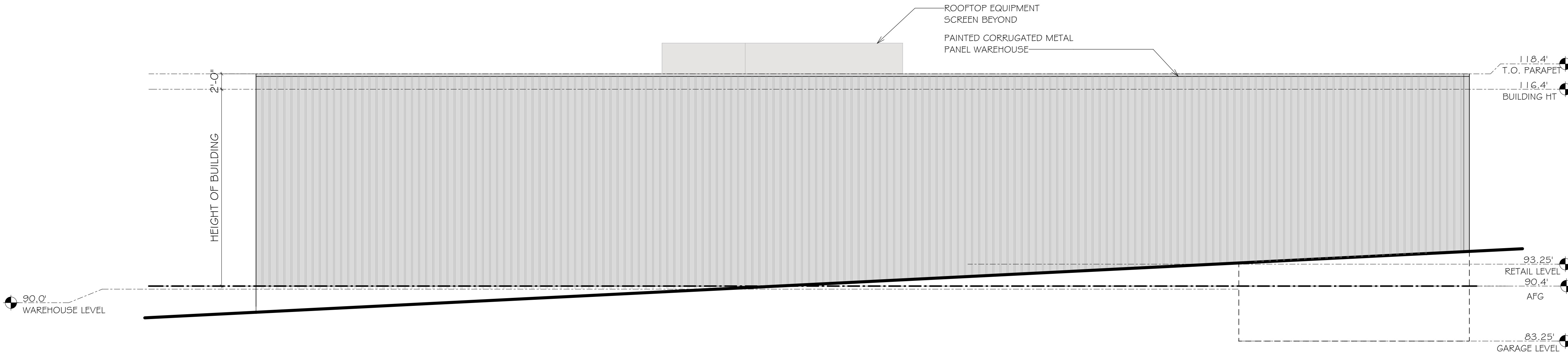
APPROVED	
SPECIAL USE PERMIT NO. _____	
DEPARTMENT OF PLANNING & ZONING	
DIRECTOR _____	DATE _____
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	
SITE PLAN NO. 2020-0021	
DIRECTOR _____	DATE _____
CHAIRMAN, PLANNING COMMISSION _____	
DATE RECORDED _____	
INSTRUMENT NO. _____	DEED BOOK NO. _____
DATE _____	





Preliminary Verification	09/15/2020

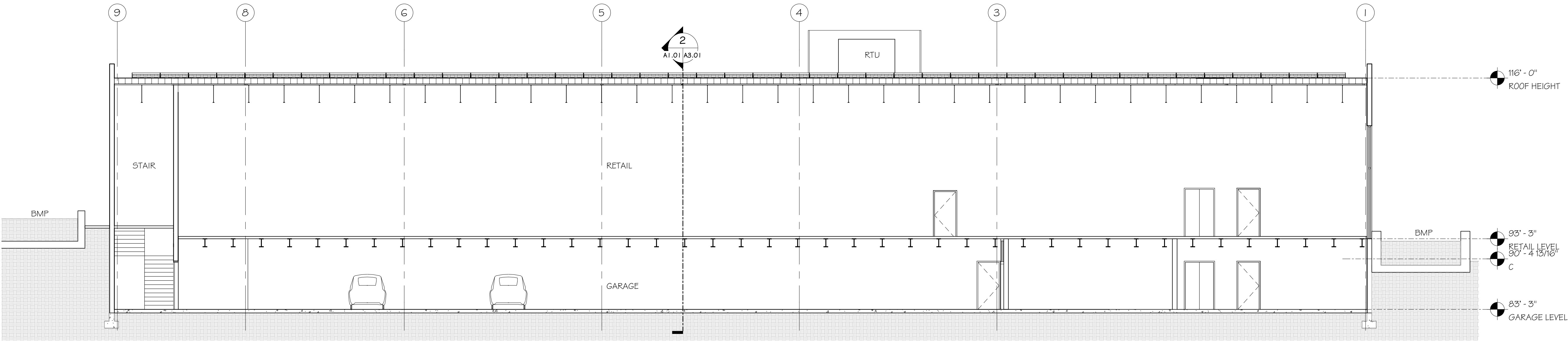
No.	Revision	Date



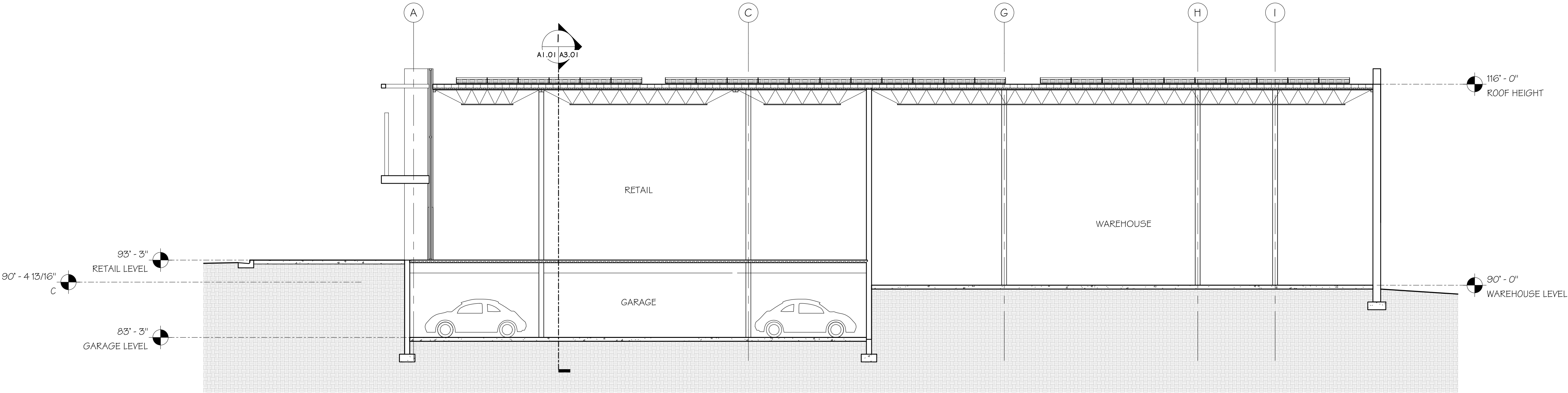
SCALE: 1/8" = 1'-0"

APPROVED	
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DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	
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DATE _____	





1 LONGITUDINAL SECTION  
1/8" = 1'-0"



2 TRANSVERSE SECTION  
1/8" = 1'-0"

SCALE: 1/8" = 1'-0"  
0' 5' 10' 20'

APPROVED	
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Cole&DennyArchitects

333 North Fairfax Street  
Alexandria, Virginia 22314

703.684.5994  
coleanddenny.com

Consultants

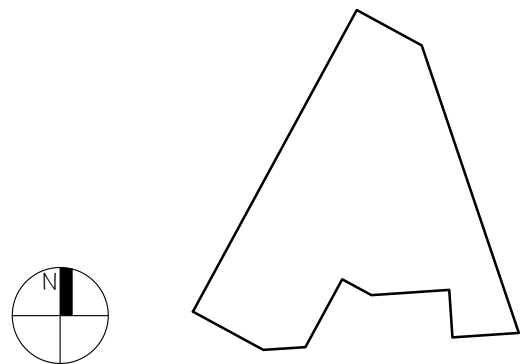
Avanti 550

550 South Pickett St  
Alexandria, VA 22304

Seal



Key Plan



Drawing

Building Sections

Submission Set

Preliminary Verification 09/15/2020

Revisions

No.	Revision	Date

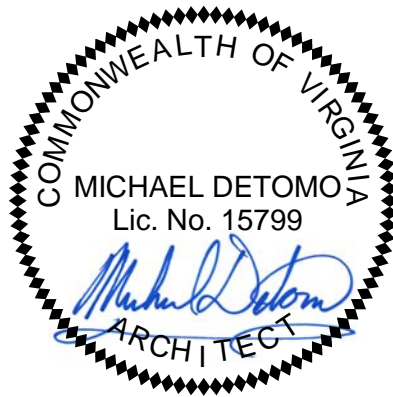
Date September 15, 2020

Project No. No. 19014

Sheet No.

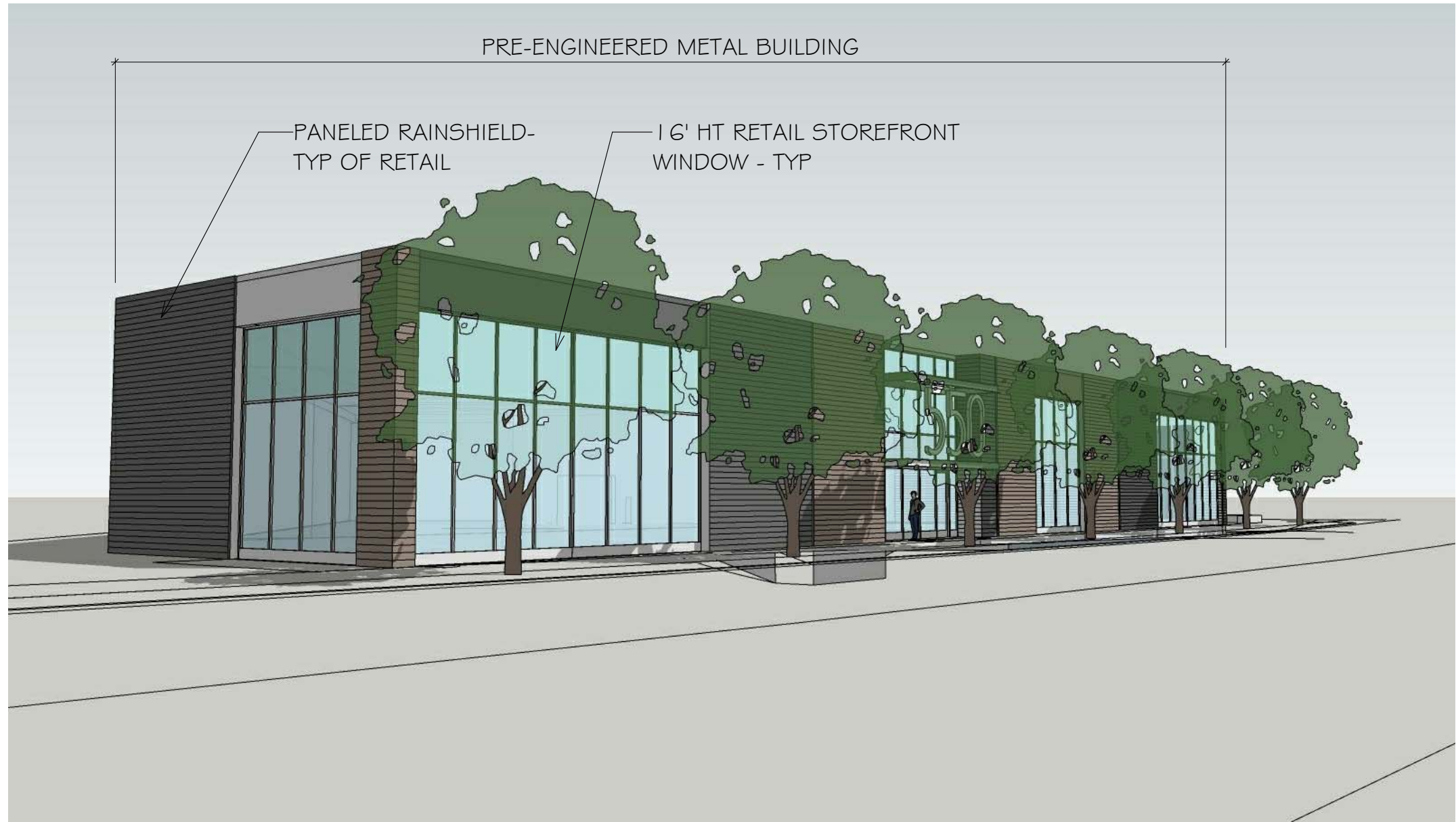
A3.01





Preliminary Verification	09/15/2020

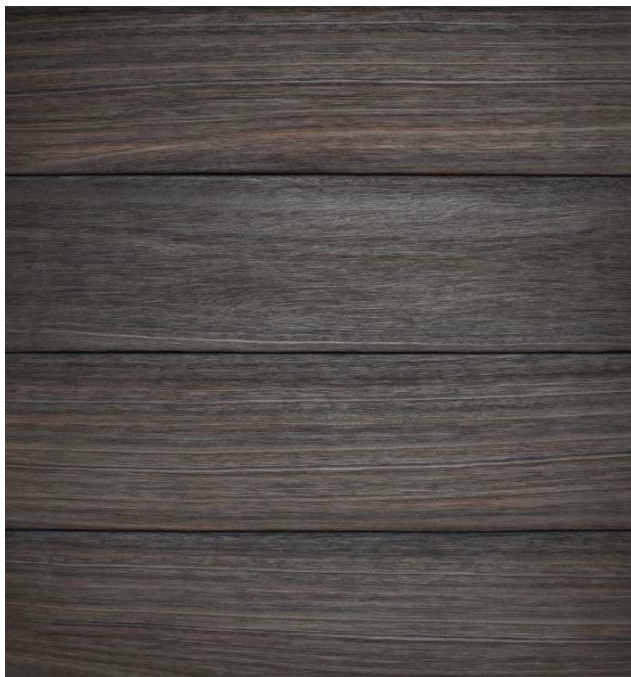
No.	Revision	Date



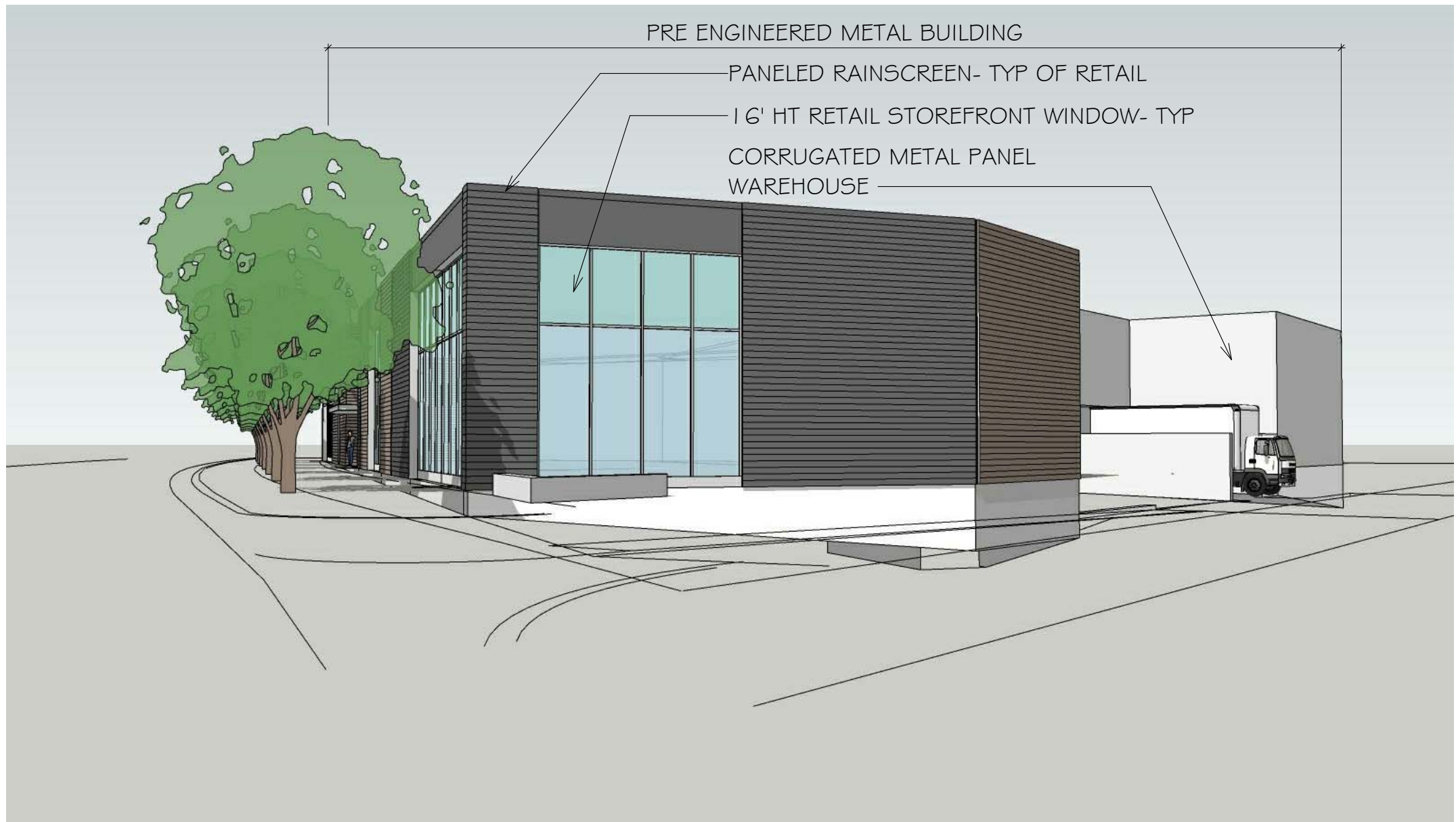
1 VIEW OF NORTH WEST CORNER  
A4.01 NTS



2 ENLARGED VIEW OF NORTH WEST RETAIL  
A4.01 NTS



4 MATERIAL SAMPLE OF PANELIZED RAINSCREEN  
A4.01 NTS



3 SOUTH FACADE  
A4.01 NTS



5 MATERIAL EXAMPLE OF PANELIZED RAINSCREEN  
A4.01 NTS

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