## PRELIMINARY DEVELOPMENT SPECIAL USE PERMIT

#### NARRATIVE DESCRIPTION OF DEVELOPMENT

THIS SITE IS BORDERED TO THE NORTH BY SWANN AVENUE; TO THE SOUTH BY BLOCK A2 (FANNON STREET IS TO THE SOUTH OF BLOCK A2); TO THE EAST BY RICHMOND HIGHWAY; AND TO THE WEST BY OAKVILLE STREET AS RELOCATED, THE SITE IS CURRENTLY ZONED COORDINATED DEVELOPMENT DISTRICT (CDD #24).

THE EXISTING SITE CONSITS OF INDUSTRIAL/COMMERCIAL WAREHOUSE BUILDINGS.

THIS PROJECT PROPOSES (2) LEVELS OF BELOW GRADE PARKING (A PORTION OF WHICH EXTENDS BELOW BLOCK A2); A CONCRETE PODIUM CONTAINING AT-GRADE AND MEZZANINE PARKING LEVELS, AT-GRADE RETAIL ALONG SWANN AVE AND RICHMAND HIGHWAY AND PODIUM ROOFTOP AMENITY SPACE; AND, 5 LEVELS OF WOOD FRAME MULTI-FAMILY RESIDENTIAL ABOVE THE CONCRETE PODIUM.

THIS PROJECT ALSO INCLUDES THE DESIGN OF THE STREETSCAPE FROM THE BACK OF CURB TO THE BUILDING FACE. THE BMP TREE WELLS ALONG SWANN AVENUE AND OAKVILLE STREET ARE DESIGNED AND CONSTRUCTED AS PART OF THE INFRASTRUCTURE PLAN. ALSO INCLUDED ARE THE UTILITY CONNECTIONS THAT WILL SERVE THIS BUILDING.

VEHICULAR ACCESS TO THE BLOCK AI PARKING AND LOADING WILL BE FROM OAKVILLE STREET. NOTE THAT BLOCK A UTILIZES A SHARED PARKING GARAGE BETWEEN BLOCKS AI AND A2. THE ENTIRE BELOW GRADE PARKING GARAGE ON BLOCK A IS PROPOSED WITH THIS APPLICATION.

#### REQUESTED SPECIAL USE PERMITS/ZONING MODIFICATIONS/WAIVERS

- I. DEVELOPMENT SPECIAL USE PERMIT WITH PRELIMINARY SITE PLAN.
- 2. MODIFICATION OF THE LANDSCAPE GUIDELINES.
- 3. MODIFICATION TO THE TREE CANOPY REQUIREMENT.
- 4. MODIFICATION TO THE HEIGHT-TO-SETBACK RATIO REQUIREMENT OF SECTION 6-403(A). 5. ENCROACHMENT REQUEST.

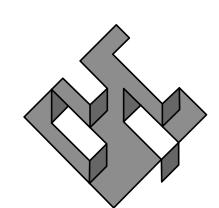
SITE AREA: 85,405 SF OR 1.96 AC. SITE IMPERVIOUS AREA: 84,942 SF OR 1.95 AC. TOTAL DISTURBED AREA: 104,980 SF OR 2.41 AC.

#### **COMPLETE STREETS**

	New	Upgraded		
Crosswalks (numbe	er)			
Standard	0	0		
High Visibility	0	0		
Curb Ramps	0	0		
Sidewalks (LF)	827	0		
Bicycle Parking (nu	mber of spaces)			
Bicycle Parking (nu	mber of spaces)	N/A		
		N/A N/A		
Public/Visitor	TBD	-		

Note: Crosswalks, Curb Ramps, and pedestrian signals are to be built under separate n.lan

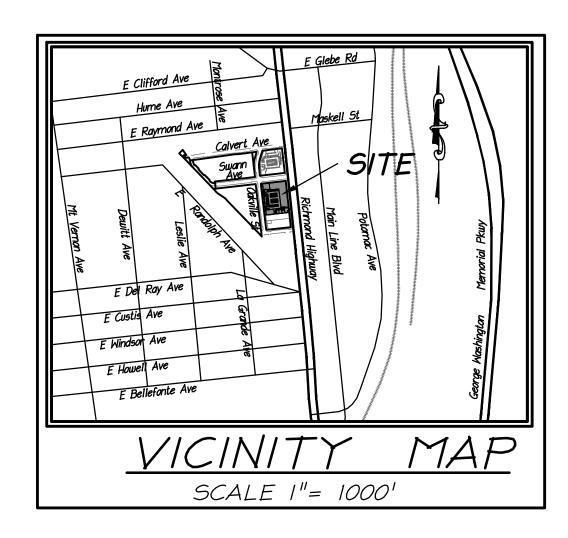
# BLOCK "A1" OAKVIII F ALEXANDRIA, VIRGINIA



### PREPARED BY:

## christopher consultants

engineering · surveying · land planning christopher consultants, ltd. 9900 main street (fourth floor) fairfax, va 22031-3907 703 273 6820 fax 703 273 7636



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APPLICANT

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ARCHITECT SK+1 ARCHITECTURE 4600 EAST-WEST HIGHWAY SUITE 700 BETHESDA, MD 20814

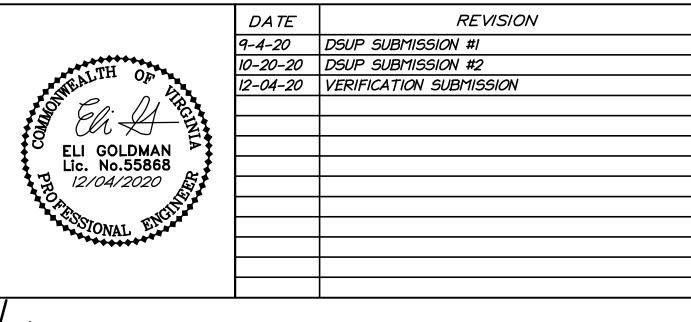
(301) 654-9300

TRAFFIC ENGINEER KIMLEY HORN \$ ASSOCIATES, INC.

11400 COMMERCE PARK DRIVE RESTON, VA 20191 (703) 674-1300

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C201	EXISTING CONDITIONS PLAN
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C301	PRELIMINARY SITE PLAN
C302	PRELIMINARY GRADING PLAN
C303	DIMENSION PLAN
C304	OPEN SPACE PLAN
C305	OVERALL OPEN SPACE PLAN
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			<u> 20–10028                                   </u>
DEPARTMENT OF PLAI	NNING &	ZONING	
DIRECTOR		DATE	
DEPARTMENT OF TRANS	SPORTATIO	ON & ENVIRO	NMENTAL SERVICES
site plan no. <u>—</u>			_
DIRECTOR		DATE	
DIRECTOR		DATE	
DIRECTOR  CHAIRMAN, PLANNING COM	MISSION	DATE	DATE
		DATE	DATE

C100

025.03-02-20 (2412 RICHMOND HIGHWAY), 025.03-02-19 (2514 SITE ADDRESSES \$ RICHMOND HIGHWAY), 025.03-02-18 (2500 OAKVILLE ST) TAX MAP NUMBERS:

EXISTING ZONE: COORDINATED DEVELOPMENT DISTRICT (CDD #24) PROPOSED ZONE: COORDINATED DEVELOPMENT DISTRICT (CDD #24)

SMALL AREA PLAN DISTRICT: POTOMAC WEST

025.03-02-20 - 38,379 S.F. OR 0.881 AC. EXISTING SITE AREA: 025.03-02-19 - 24,084 S.F. OR 0.553 AC.

025.03-02-18 - 84,967 S.F. OR 1.95 AC. EXISTING OAKVILLE STREET RIGHT-OF-WAY

NOTE: BLOCK A CONSISTS OF PORTIONS OF THESE THREE PARCELS

AND THE RIGHT-OF-WAY OF THE EXISTING OAKVILLE STREET.

PROPOSED SITE AREA: 125,389 S.F. OR 2.88 AC. BLOCK A

BLOCK AI = 85,405 S.F OR 1.96 AC. BLOCK A2 = 39,983 S.F. OR 0.92 AC

025.03-02-20 - VACANT LAND-INDUSTRIAL EXISTING USE:

> 025.03-02-19 - AUTO DEALERSHIP 025.03-02-18 - OFFICE/COMM WHSE

EXISTING OAKVILLE STREET RIGHT-OF-WAY

MULTI-FAMILY RESIDENTIAL AND RETAIL PROPOSED USE: AT GRADE - 0 SF OPEN SPACE PROVIDED:

ABOVE GRADE - 19,000 SF

46.2 (SEE SHEET C302) AVERAGE FINISHED GRADE:

SETBACK REQUIRED:

SETBACK PROVIDED: 16' (WEST), O' (NORTH), O' (EAST)

FRONTAGE REQUIRED:

FRONTAGE PROVIDED: 331' (WEST), 243' (NORTH), 331' (EAST)

MAXIMUM BUILDING HEIGHT ALLOWED: 100' MAXIMUM BUILDING HEIGHT PROVIDED: 85'

GFA ALLOWED: RETAIL - 40,000 SF

RESIDENTIAL - 310,000 SF (PER CDD #24)

SERVICE/LOADING/BOH - 25,000 SF ABOVE GRADE GARAGE - 75,000 SF

TOTAL - 419,000 SF

GFA PROPOSED: RETAIL - 30,000 SF

RESIDENTIAL - 310,000 SF

SERVICE/LOADING/BOH - 9,000 SF ABOVE GRADE GARAGE - 70,000 SF

TOTAL - 419,000 SF

<u>NOTE</u>:

BELOW GRADE GARAGE IS 235,000 SF AND

IS NOT INCLUDED IN THE GFA

CALCULATION.

UNITS PROVIDED: 324 UNITS

PARKING REQUIRED: RESIDENTIAL: MINIMUM - 351 SPACES MAXIMUM - 414 SPACES

RETAIL: MINIMUM - 90 SPACES

MAXIMUM - 90 SPACES

443 SPACES (90 RETAIL, 353 RESIDENTIAL) PARKING PROVIDED:

APPROXIMATE TOTAL 104,980 SF OR 2.41 AC. AREA DISTURBED:

EXISTING AVG. DAILY TRIPS: ENTIRE OAKVILLE DEVELOPMENT = 2,100 VPD

PROPOSED AVG. DAILY TRIPS: ENTIRE OAKVILLE DEVELOPMENT: 5,713 VPD

BLOCK AI: 1,077 VPD

(SEE TRAFFIC STUDY FOR MORE INFO)

LOADING PROPOSED: 2 SPACES (THERE ARE TWO LOADING

> SPACES PROPOSED. ONE WILL BE THE USE OF BLOCK AI AND THE OTHER WILL BE FOR

THE USE OF BLOCK A2.)

-NOTE: SERVICE/LOADING/BOH IS COMBINED FOR ALL USES OF BLOCKS AI AND A2

NOTE: GROSS FLOOR AREA (GFA) IS DEFINED AS THE SUM OF ALL GROSS HORIZONTAL AREAS UNDER A ROOF OR ROOFS. THESE AREAS ARE MEASURED FROM THE EXTERIOR FACES OF WALLS OR FROM THE CENTERLINE OF PARTY WALLS. ELEVATORS AND STAIR BULKHEADS, MULTI-STORY ATRIUMS AND SIMILAR VOLUMETRIC CONSTRUCTION , NOT INVOLVING FLOOR AREA SPACE ARE EXCLUDED. BELOW GRADE PARKING IS EXCLUDED FOR BLOCKS A, B, C AND D IN OAKVILLE. [DEFINITION FROM PAGE 22 OF OAKVILLE TRIANGLE \$ ROUTE I CORRIDOR VISION PLAN AND URBAN DESIGN STANDARDS \$ GUIDELINES]

NOTE: SEE PARKING REQUIREMENT CHART ON THIS SHEET FOR DETAILED BREAKDOWN. THE GARAGE FOR THE ENTIRE BLOCK WILL BE BUILT WITH THIS APPLICATION WHICH WILL INCLUDE PARKING FOR THE MEDICAL CARE FACILITY BUILT

ON BLOCK A2.

TB04 - Oakville Block A	
0.15.3030	

PARKING REQUIREMENTS B	SLOCK A (A1 & A2)									
BLOCK A	GFA	STUDIOS	1 BR	2 BR	TOTAL UNITS	TOTAL # BEDROOMS	TOTAL MAX. PARKING REQ'D*	TOTAL MIN. PARKING REQ'D AFTER CREDIT**	PROVIDED	RATIO PROVIDED
MARKET RATE UNITS	NA	27	156	100	283	383	383	326	328	.85 space /bedroom
ADU	NA	39	0	2	41	NA	31	25	25	.60 space /unit
RETAIL	30,000						90	90	90	3 SPACES PER 1,000 SF
MEDICAL CARE FACILTY	96,256						481	481	290	3 spaces /1,000***
TOTAL					324		985	922	733	

RES. MARKET REQ'D =1 SPACE PER BEDROOM	1* RATIO CREDIT 1- ( 1 X (.10 +.05) = 0.85**						
RES. ADU REQ'D =.75 SPACE PER UNIT *	RATIO CREDIT 0.75 - (.10 + .05) = 0.60**						
RETAIL REQ'D = 3 SPACES PER 1,000 SF							
MEDICAL CARE FACILITY REQ'D = 5 SPACES PER 1,000 SF							
(A) 10% credit for being within BRT walkshed + (B) 5% credit for being within ¼ mile of 4 or more bus routes .** Credit used for residential only.							
Request modification for parking reduction***							

PARKING PROVIDED	STANDARD	COMPACT	HC	TOTAL	GSF	SF/Space	COMPACT RATIO
G2/MEZZ.	62	12	0	74	33,248	449	16%
G1/1ST	41	11	4	56	28,989	518	20%
P1	204	68	16	288	117,329	407	24%
P2	241	74	0	315	117,329	372	23%
TOTAL	553	160	20	733	296,895	405	22%

NOTES:

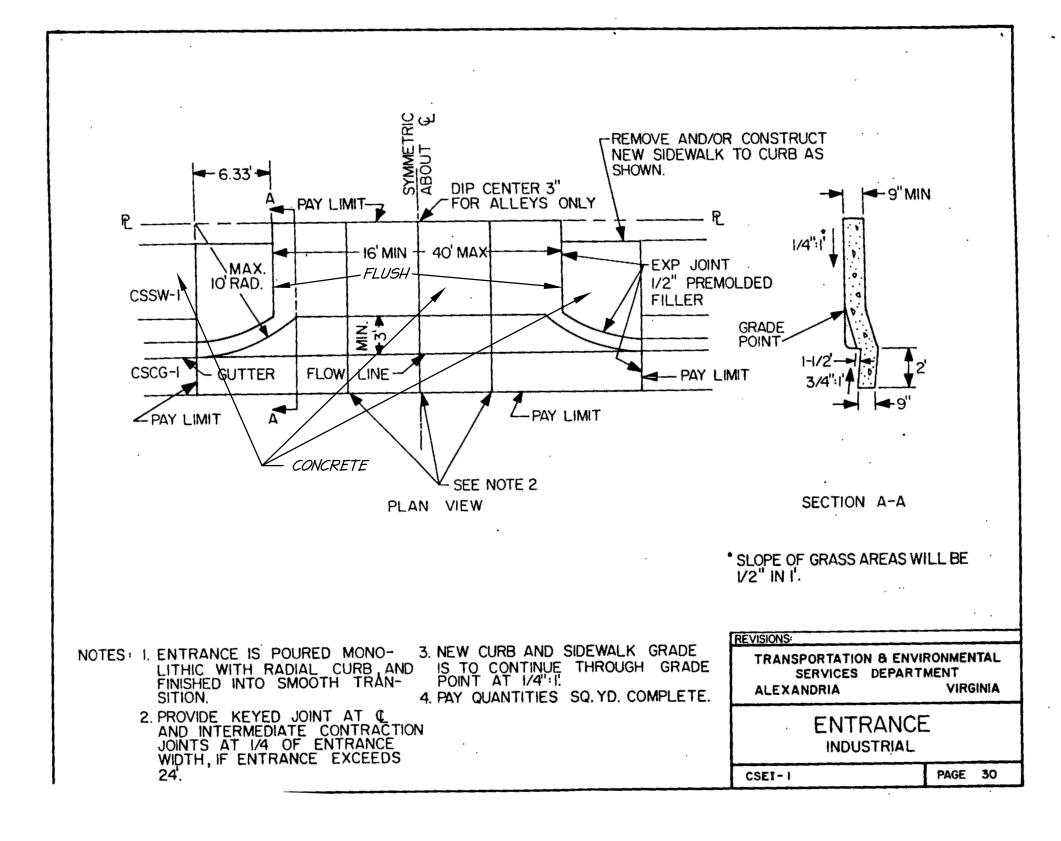
I.) TO THE BEST OF OUR KNOWLEDGE THERE ARE AREAS ONSITE CONTAINING CONTAMINATED SOILS OR CONTAMINATED GROUNDWATER.

2.) TO THE BEST OF OUR KNOWLEDGE THERE ARE NO KNOWN UNDERGROUND STORAGE TANKS CURRENTLY LOCATED AT THE PROPERTY OR AREAS LOCATED WITHIN 1,000 FEET OF A SANITARY LANDFILL.

3.) IN ACCORDANCE WITH THE CITY OF ALEXANDRIA'S MARINE CLAY AREAS MAP DATED NOVEMBER 1976, THERE ARE NO AREAS OF MARINE CLAY LOCATED IN THE VICINITY OF THIS SITE.

4.) THIS PROJECT IS NOT LOCATED WITHIN A COMBINED SEWER AREA.

5.) THIS SITE IS LOCATED IN THE POTOMAC RIVER WATERSHED.



PPROVED PECIAL USE PERMIT NO. 2020-10028	
PARTMENT OF PLANNING & ZONING	PROJECT
	SCALE:
DIRECTOR DATE	
ARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES  E PLAN NO	DATE:
DIRECTOR DATE	DESIGN: E DRAWN: J
	CHECKED
IRMAN, PLANNING COMMISSION DATE	SHEET NO
TE RECORDED	

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

NO:14007.011.00 07-20-20

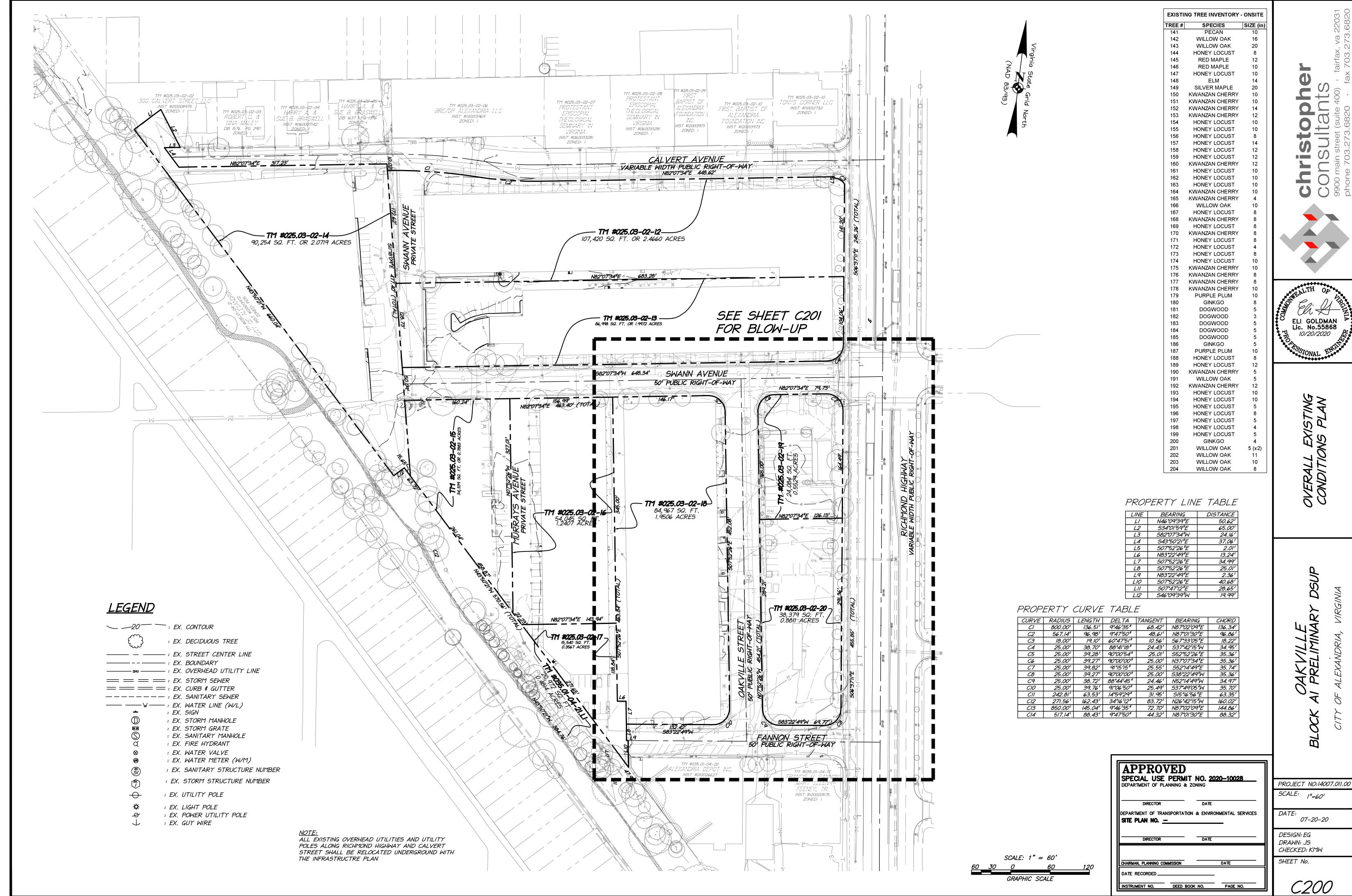
ELI GOLDMAN Lic. No.55868

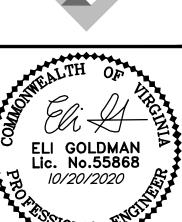
10/20/2020

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D: KMW

C101





ALL EXISTING OVERHEAD UTILITIES AND UTILITY POLES ALONG RICHMOND HIGHWAY AND CALVERT STREET SHALL BE RELOCATED UNDERGROUND WITH

#### SANITARY SEWER STRUCTURE DATA

TOTAL DISTURBED AREA = 102,115 SF OR 2.34 AC.

IN=24.94 IO" PVC FR 7510

IN=33.15 4" PVC FR 5650

IN=39.31 24" RCP FR 2828

IN=39.73 I5" RCP FR 6240 OUT=39.23 24" RCP TO N

STM CB 5650 TOP=37.51 FILTERRA TREEWELL

NOT ACCESSIBLE

STM GI 6220 TOP=42.23

OUT=32.75 15" RCP TO 5510

SAN MH 1811 TOP=44.81 IN=38.12 10" RCP FR 2220 IN=30.10 10" CONC. FR 531 IN=30.78 10" LINED FR 1760 OUT=38.10 10" RCP TO 1760 OUT=30.07 10" LINED TO 7505 SAN MH 2220 TOP=51.05 IN=35.02 IO" RCP FR 5322 IN=41.65 8" PVC FR 2580 IN=35.52 IO" CLAY FR 680 OUT=34.92 IO" CONC. TO 336 OUT=41.55 8" PVC TO 1811 SAN MH 2580 TOP=45.18 IN=42.53 8" PVC FR N IN=38.91 4" CLAY FR 1440 OUT=42.51 8" PVC TO 2220 OUT=38.88 10" CLAY TO 531 SAN MH 5322 TOP=46.27 IN=38.07 IO" PVC FR N IN=38.47 IO" RCP FR 5990 OUT=39.72 8" PVC TO 7502 OUT=37.97 10" RCP TO 531

SAN MH 6785 TOP=43.87 IN=33.97 FR E IN=33.97 FR W IN=33.97 FR S OUT=33.77 TO N SAN MH 7502 TOP=43.65 IN=38.90 LAT FR E IN=38.53 8" PVC FR 700 OUT=38.50 8" RCP TO 1760 SAN MH 7505 TOP=37.00 IN=27.55 IO" PVC FR W IN=27.30 IO" LINED FR 336 OUT=27.25 10" LINED TO 750 SAN MH 7506 TOP=37.86 IN=32.16 FR W IN=25.56 IO" LINED FR 7505 OUT=25.46 IO" LINED TO 750 SAN MH 7509 TOP=38.79

IN=24.94 IO" PVC FR 7506 OUT=24.74 IO" CONC TO 7518 IN=28.22 FR W IN=28.32 FR S OUT=28.12 TO 7506 SAN MH 7511 TOP=38.76 IN=21.66 12" PVC FR 7514 OUT=21.56 12" PVC TO 7512 SAN MH 7512 TOP=39.76 IN=20.65 12" PVC FR 7511 OUT=20.57 12" PVC TO 7515 SAN MH 7514 TOP=37.40 IN=22.90 IO" CONC FR 7518 OUT=22.80 12" PVC TO 7511 SAN MH 7515 TOP=40.26 IN=20.40 12" PVC FR 7512 OUT=20.30 12" PVC TO 7516 SAN MH 7518

STM GI 6240 TOP=43.91

OUT=39.91 12" PVC TO 6220

· · · ·

ELI GOLDMAN

Lic. No.55868

10/20/2020

#### STORM STRUCTURE DATA

STM CB 334 TOP=39.36 IN=34.36 I5" RCP FR 393 OUT=32.67 27" RCP TO 4540 STM MH 359 TOP=40.01 FULL OF DEBRIS NOT ACCESSIBLE STM CB 393 TOP=39.56 IN=36.51 I5" RCP FR 359 OUT=35.76 15" RCP TO 334 TOP=46.09 COVERED NOT ACCESSIBLE STM CB 470 TOP=45.73 OUT=41.78 15" RCP TO 550 STM CB 550 TOP=45.95 IN=39.51 I5" RCP FR 470 IN=38.50 24 RCP FR 425 OUT=38.46 27" RCP TO 7503 STM DI 2210 TOP=47.19 BOTTOM= 40.14 FULL OF DEBRIS STM GI 2581 TOP=43.47 BOTTOM= 41.07 FULL OF DEBRIS STM CB 2828 TOP=43,47 IN=39.81 I5" RCP FR 2829 IN=39.89 I5" RCP FR 2890 OUT=39.82 24" RCP TO 6220 STM MH 2829 TOP=43.69 IN=39.79 I5" RCP FR 4150 OUT=39.72 15" RCP TO 2828 STM GI 2890 TOP=43.22 STM CB 2920 TOP=44.00 IN=41.50 12" PVC FR 3070 OUT=41.45 12" PVC TO 2890 STM GI 2590 TOP=44.07 OUT=41.97 10" PVC TO 2581 STM GI 3070 TOP=43.60 OUT=42.35 12" PVC TO 2920

STM CB 4900 TOP=46.53 HEADWALL 4300 INV IN = 42.23 12" PVC TO 4150 IN=42.08 15" RCP FR 4891 STM CB 4540 TOP=39.14 IN=32.14 15" RCP FR 334 STM CB 4910 TOP=46.67 OUT=32.04 15" RCP TO 5530 STM MH 4568 TOP=41.33 FILTERRA TREEWELL NOT ACCESSIBLE STM CB 4920 TOP=46.39 STM CB 4580 TOP=43.04 IN=40.39 I5" RCP FR 4910 IN=38.43 I5" RCP FR 4870 OUT=40.33 I8" RCP TO 7503 IN=35.84 36" RCP FR 4600 IN=34.94 I5" RCP FR 6424 OUT=34.89 42" RCP TO 4650 STM CB 5090 TOP=46.23 STM GI 4600 TOP=44.99 OUT=41.75 18" RCP TO 5320 UNDER CONSTRUCTION INACCESSIBLE TOP=46.18 STM CB 4650 TOP=43.30 IN=40.83 I8" RCP FR 5350 IN=40.83 18" RCP FR 5330 IN=34.90 42" RCP FR 4580 IN=40.83 I8" RCP FR 5090 OUT=34.80 42" RCP TO 4670 OUT=40.78 18" RCP TO 425 STM CB 4670 TOP=40.90 STM CB 5330 TOP=46.35 IN=34.30 36" RCP FR 4650 OUT=41.75 18" RCP TO 5320 IN=35.90 18" RCP FR 5543 OUT=34.20 36" RCP TO 7504 STM MH 4680 TOP=46.04 *INACCESSIBLE* OUT=43.34 15" RCP TO 4870 STM CB 5502 STM MH 4810 TOP=36.84 FILTERRA TREEWELL FILTERRA TREEWELL NOT ACCESSIBLE NOT ACCESSIBLE STM MH 4820 TOP=46.65 IN=30.65 30" RCP FR 5530 IN=42.75 4" PVC FR 4810 OUT=42.60 15" RCP TO 4840 IN=32.45 I8" RCP FR 5640 OUT=30.55 30" RCP TO 5502 STM MH 4840 TOP=46.27 STM CB 5530 TOP=39.28 IN=42.17 I5" RCP FR 4820 IN=42.37 4" PVC FR 4850 OUT=42.15 I5" RCP TO 4900 IN=32.01 24" RCP FR 4540 OUT=31.90 30" RCP TO 5510 STM CB 5543 TOP=40.73 STM CB 4850 IN=36.73 4" PVC FR 4568 OUT=36.08 18" RCP TO 4670 TOP=46.30 FILTERRA TREEWELL NOT ACCESSIBLE STM CB 5640 TOP=37.15

STM GI 6424 TOP=43.10 IN=38.89 I5" RCP FR 6430 IN=38.96 I5" RCP FR 4218 OUT=38.56 24" RCP TO 4580 STM MH 6430 TOP=44.43 IN=39.18 15" RCP FR 6580 OUT=39.16 15" RCP TO 6424 STM MH 6540 TOP=44.69 COVERED NOT ACCESSIBLE STM MH 6580 TOP=43.97 COVERED NOT ACCESSIBLE STM CB 6763 TOP=46.69 OUT=43.54 TO N STM CB 6842 TOP=46.68 OUT=43.73 TO S STM DI 6974 TOP=44.76 OUT=41.76 18" CMP TO 7353 STM DI 7353 TOP=44.97 IN=40.94 18" CMP FR 6974 IN=42 27 15" CMP FR W OUT=40.89 18" CMP TO 7400 STM DI 7400 TOP=45.94 IN=39.54 18" CMP FR 7353 OUT=39.44 18" CMP TO 7501 HEADWALL 7483 FULL OF DEBRIS PIPE NOT VISIBLE STM DI 7501 TOP=45.77 IN=38.32 I8" CMP FR 7400 OUT=38.27 18" CMP TO S STM MH 7503 TOP=45.83 IN=39.78 I8" RCP FR 4920 IN=37.93 27" RCP FR 550 OUT=37.88 36" RCP TO 4600 STM MH 7504 TOP=40.79 IN=32.79 36" RCP FR 4670 OUT=29.69 36" RCP TO E STM CB 7507 TOP=35.96

IN=29.06 30" RCP FR 5502

OUT=28.96 30" RCP TO 5

PROPERTY CURVE TABLE

	CURVE	RADIUS	LENGTH	DELTA	TANGENT	BEARING	CHORD
	CI	800.00'	136.51'	9°46'35"	68.42'	N87°02'09"E	136.34'
	C2	567.14'	96.98'	9°47′50″	48.61'	N87°01'30"E	96.86'
	С3	18.00'	19.10'	60°47'51"	10.56'	S67°33'05"E	18.22'
	C4	25.00'	<i>38.70'</i>	88°41'18"	24.43'	<i>537°42′15"W</i>	34.95'
	C5	25.00′	39.28′	90°00'54"	25.01'	<i>952°52'26"E</i>	35.36′
	C6	25.00'	39.27'	90°00'00"	25.00'	N37°07'34"E	35.36′
	C7	25.00'	39.82'	91°15′15″	25.55'	S52°14'49"E	<i>35.74</i> ′
	C8	25.00'	<i>39.27'</i>	90°00'00"	25.00'	538°22'49"W	<i>35.36'</i>
	C9	25.00′	<i>38.72</i> ′	88°44'45"	24.46'	N52°14'49"W	34.97'
	CIO	25.00'	39.76'	91°06′50"	25.49'	<i>537°49'05"W</i>	<i>35.70′</i>
	CII	242.81'	63.53′	14°59'29"	31.95'	S15°16'56"E	<i>63.35</i> ′
	CI2	271.56'	162.43'	34°16'12"	<i>83.72</i> ′	N26°42'15"W	160.02'
	Cl3	850.00'	145.04'	9°46'35"	72.70'	N87°02'09"E	144.86'
ĺ	CI4	<i>517.14</i> ′	<i>88.43</i> ′	9°47'50"	44.32'	N87°01'30"E	88.32'

STM CB 4870 TOP=46.33

STM CB 4891 TOP=46.71

IN=42.68 15" RCP FR 4680

OUT=42.63 15" RCP TO 4920

OUT=42.61 15" RCP TO 4900

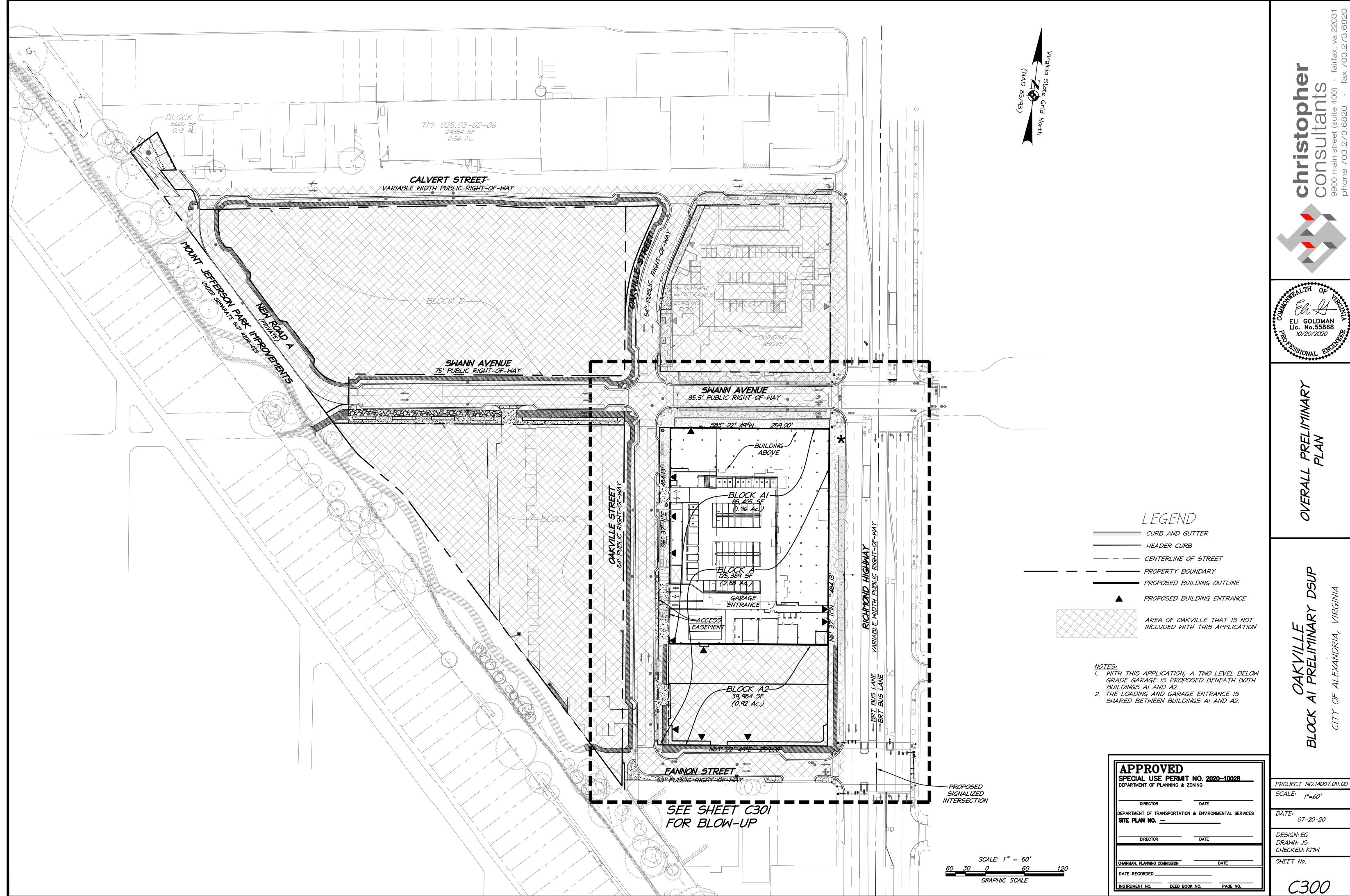
I. SEE SHEET C200 FOR EXISTING TREE DATA. 2. SEE SHEET C200 FOR LEGEND..

APPROVED SPECIAL USE PERMIT NO. 2020-10028 DEPARTMENT OF PLANNING & ZONING							
DIRECTOR	DATE						
DEPARTMENT OF TRANSPORTATION SITE PLAN NO	N & ENVIRONMENTAL SERVICES						
DIRECTOR	DATE						
CLIAIDHANI DI ANNINO COMMICCIONI	DATE						
DATE RECORDED	DAIL						

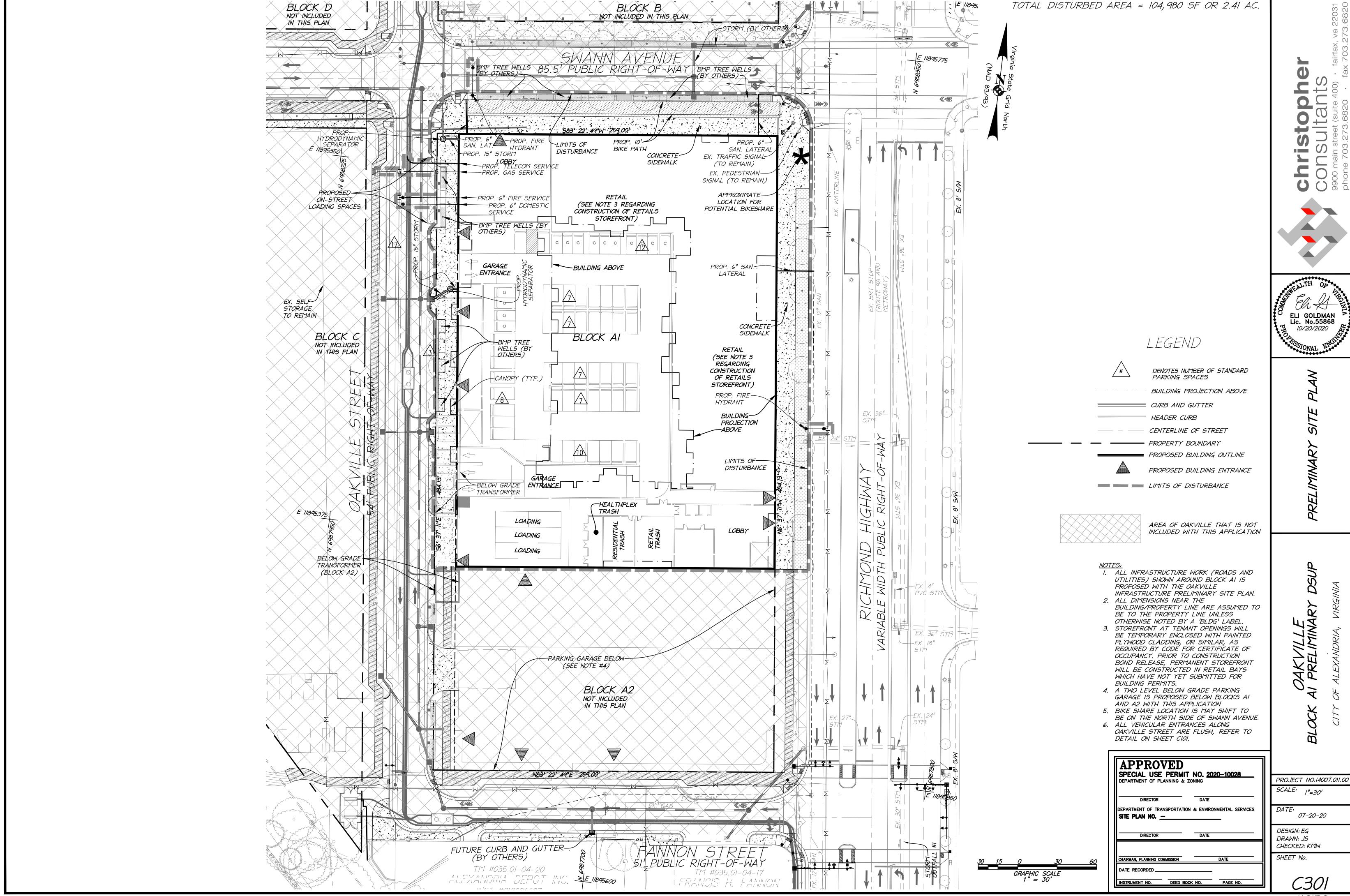
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

PROJECT NO:14007.011.00 SCALE: |"=30" 07-20-20 DESIGN: EG DRAWN: JS CHECKED: KMW

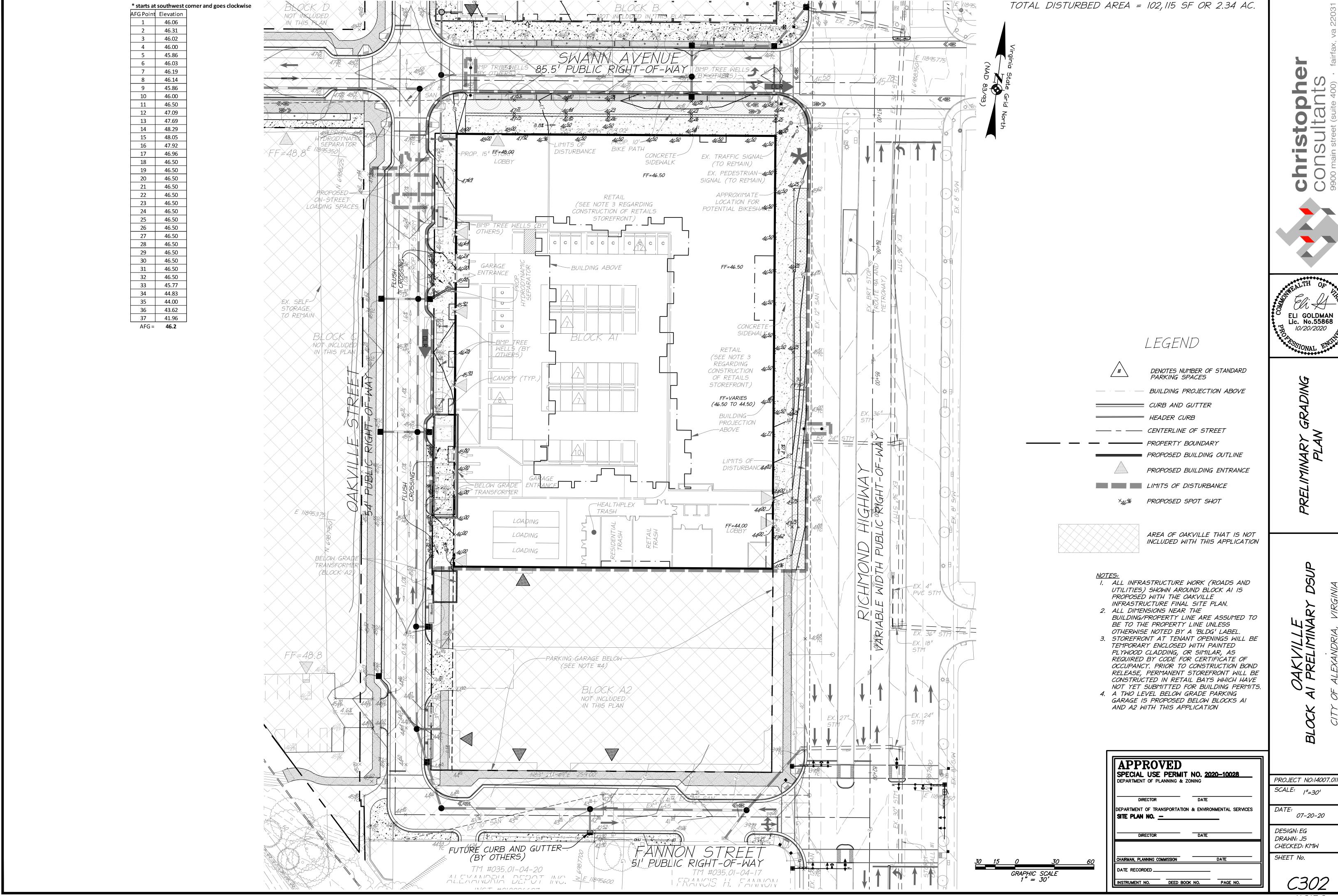
SHEET No.

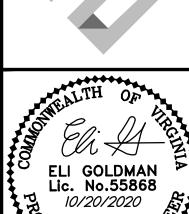




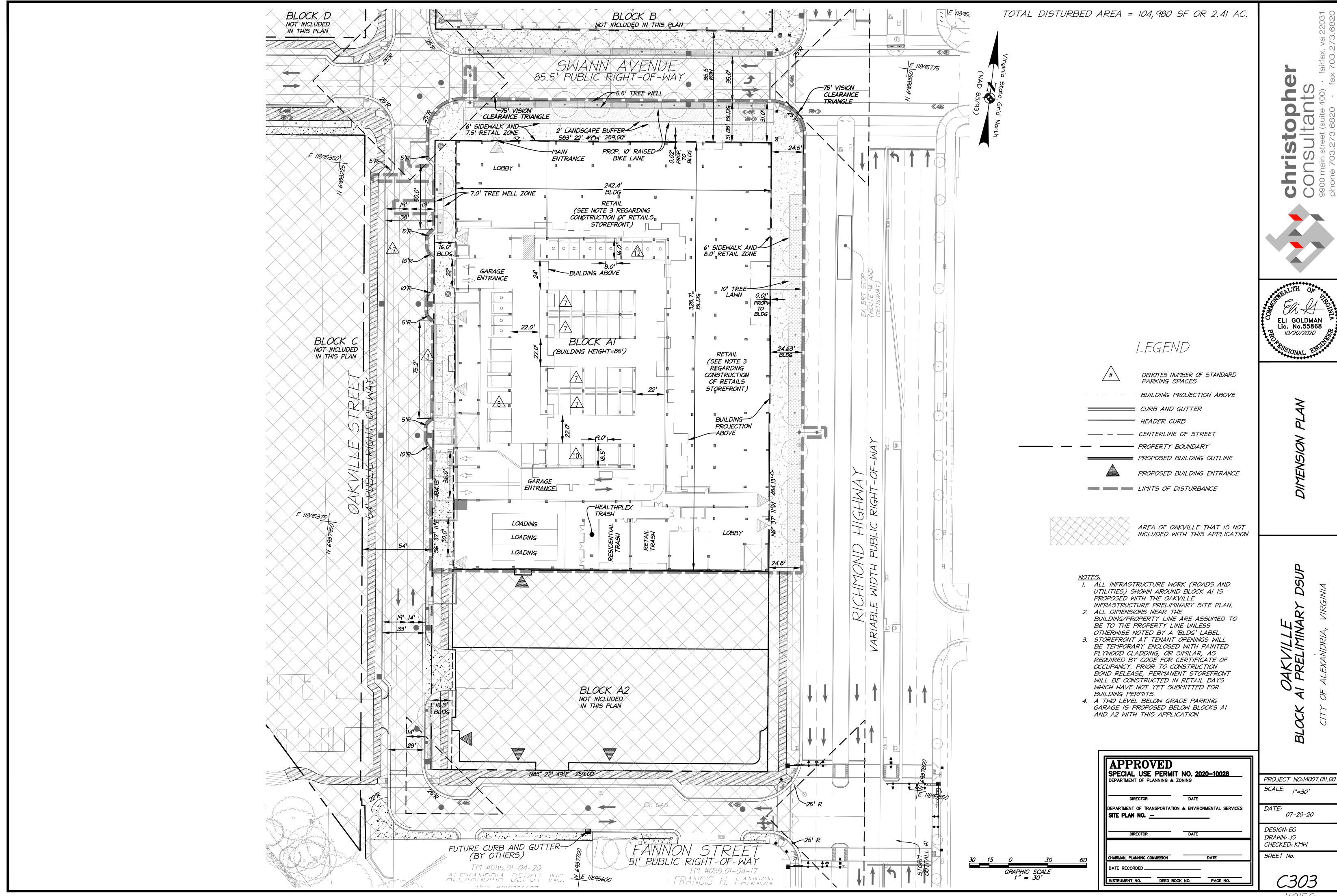




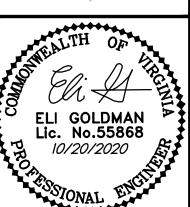


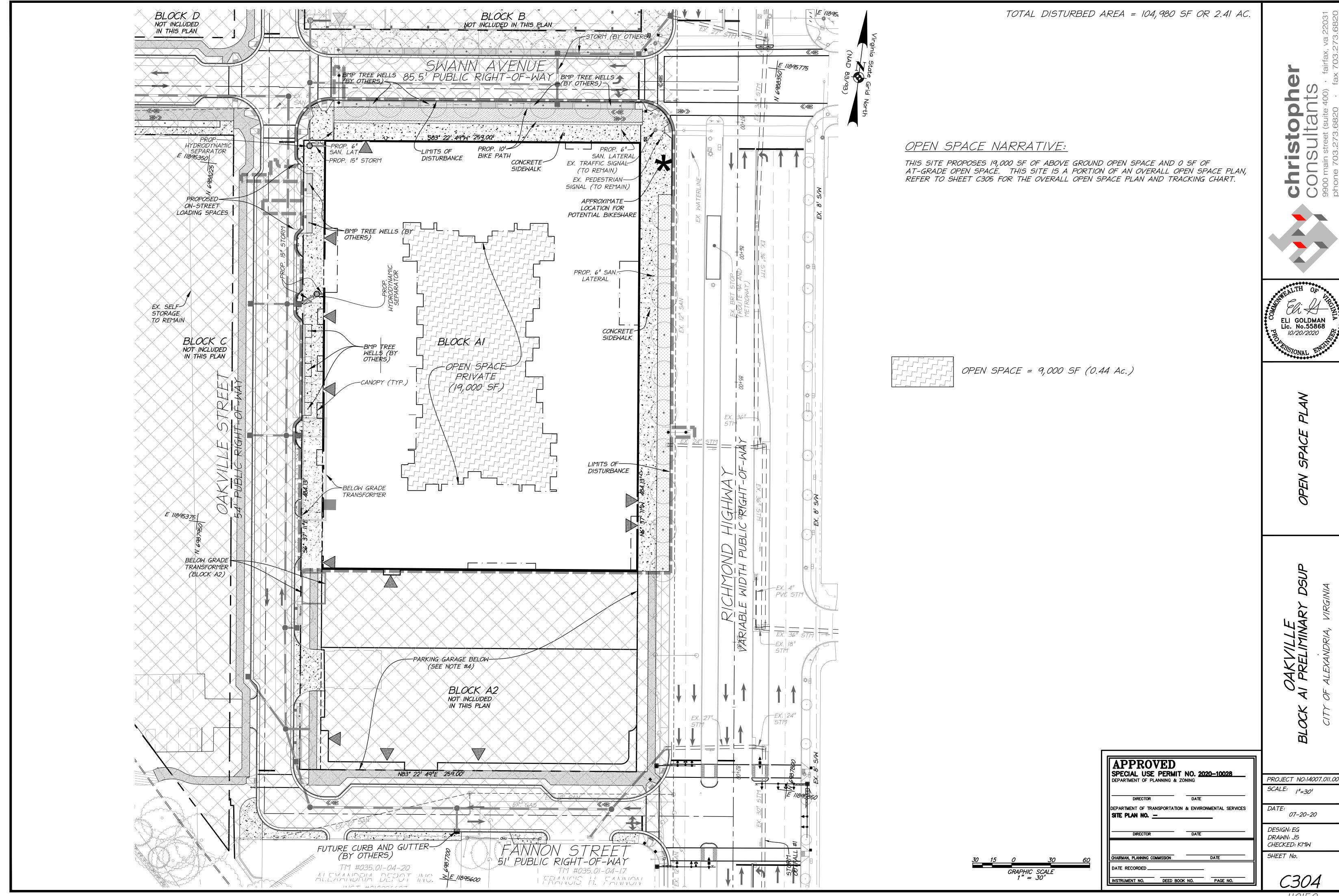


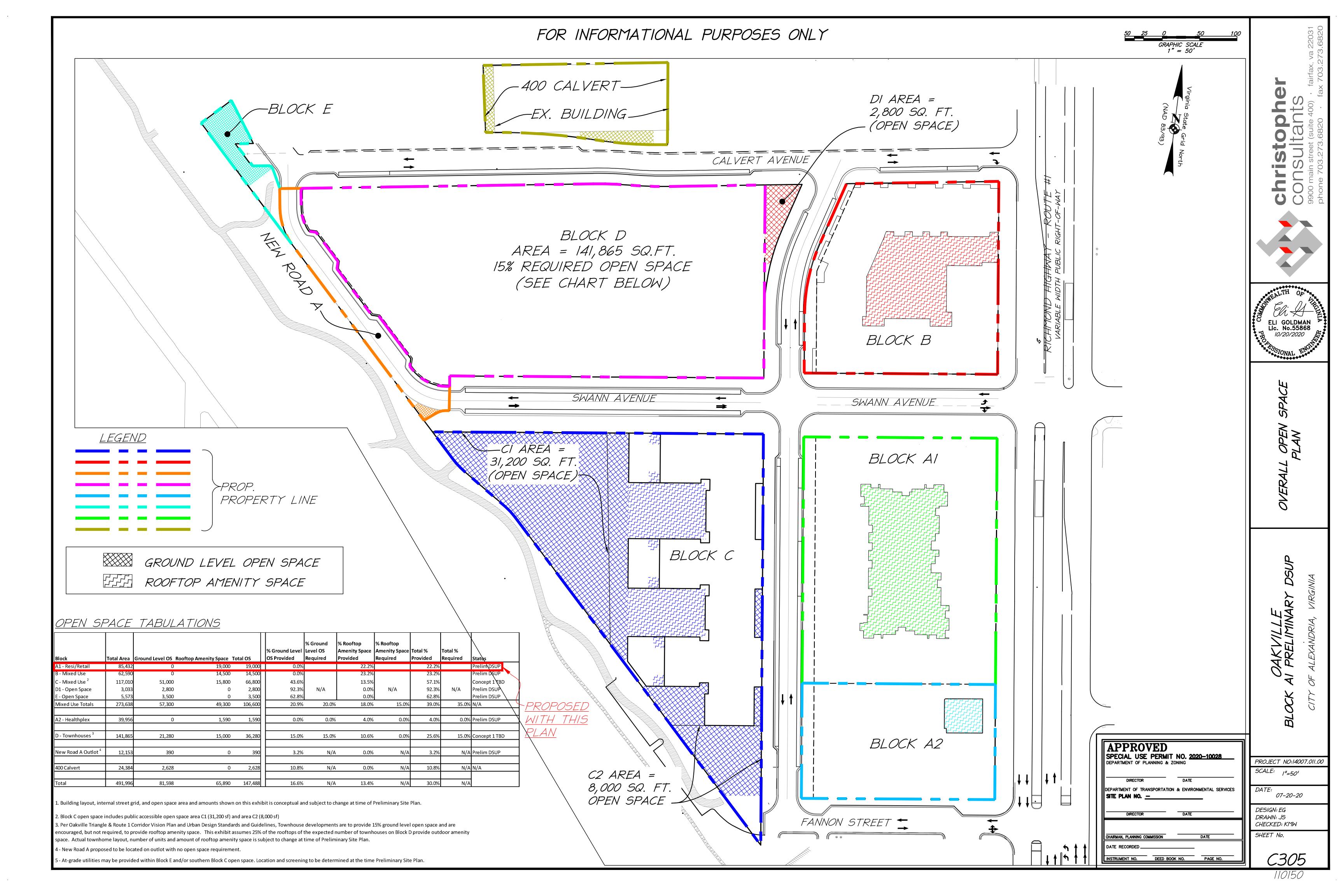
PROJECT NO:14007.011.00

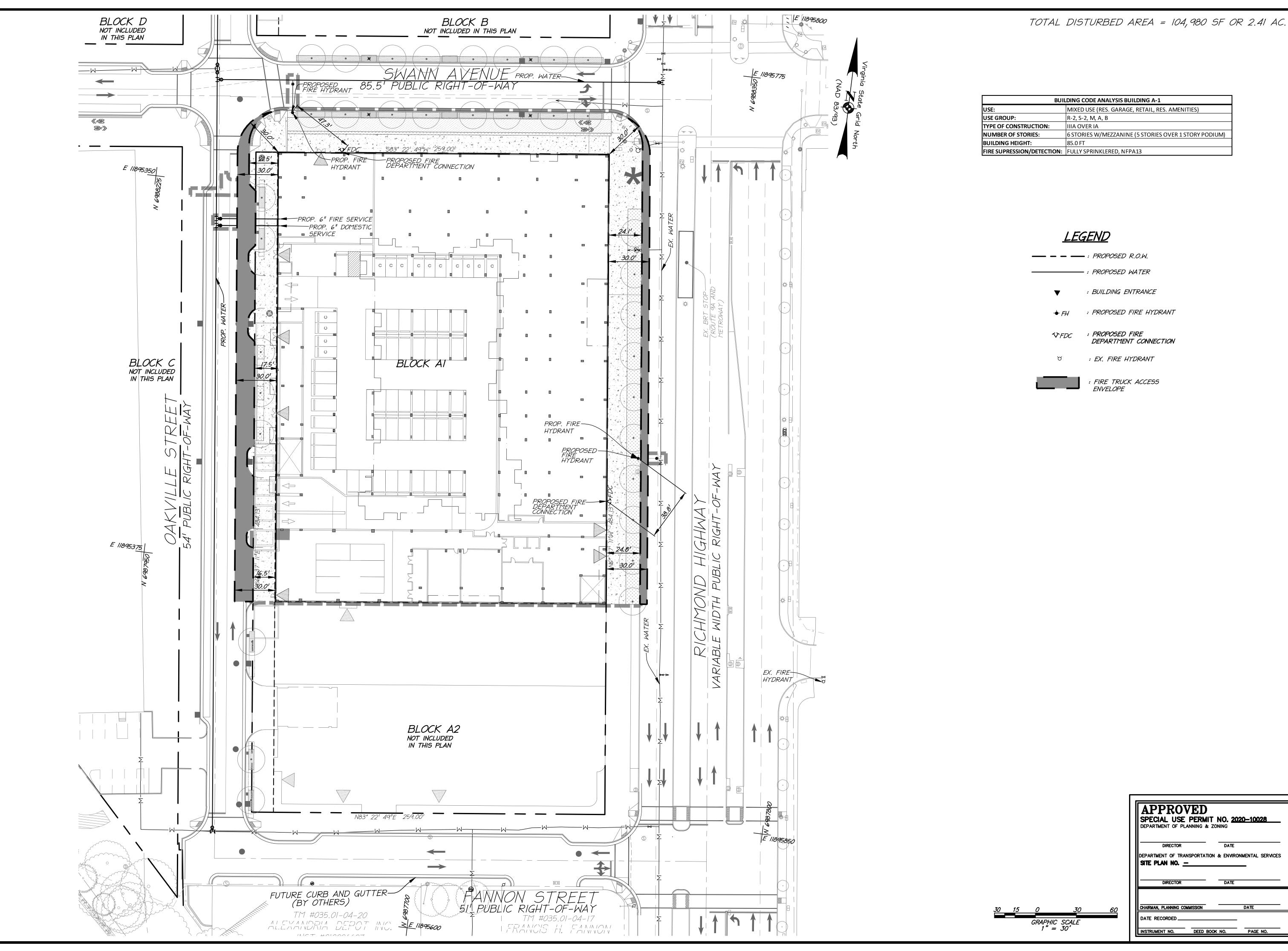












**BUILDING CODE ANALYSIS BUILDING A-1** MIXED USE (RES. GARAGE, RETAIL, RES. AMENITIES) R-2, S-2, M, A, B IIIA OVER IA 6 STORIES W/MEZZANINE (5 STORIES OVER 1 STORY PODIUM)

- - : PROPOSED R.O.W.

- : PROPOSED WATER

: BUILDING ENTRANCE

: PROPOSED FIRE HYDRANT

√FDC : PROPOSED FIRE DEPARTMENT CONNECTION

: EX. FIRE HYDRANT

: FIRE TRUCK ACCESS ENVELOPE

ELI GOLDMAN Lic. No.55868

PROJECT NO:14007.011.00 SCALE: |"=30"

APPROVED
SPECIAL USE PERMIT NO. 2020-10028
DEPARTMENT OF PLANNING & ZONING

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

SITE PLAN NO. <u>—</u>

07-20-20

DESIGN: EG DRAWN: JS CHECKED: KMW

SHEET No.

20. POTOMAC YARD APARTMENTS LLC 615 SWANN AVE USE: MED RISE ELEV (4-65) ZONE: CDD #10

MAIN LINE LLC 2551 MAIN LINE BV USE: CONDO (GARDEN) ZONE: CDD #10

14. LBG PARCEL E LLC

2901 MAIN LINE BV

LBG PARCEL B LLC 2900 POTOMAC AV

2802 MAIN LINE BV

ZONE: CDD #10

ZONE: CDD #10

ZONE: CDD #10

701 SEATON AV

ZONE: CDD #10

731 SEATON AV

USE: VACANT LAND COMMERCIAL

USE: VACANT LAND COMMERCIAL

USE: VACANT LAND COMMERCIAL

AVALON POTOMAC YARD LLC

USE: MED RISE ELEV (4-65)

AVALON POTOMAC YARD LLC

USE: MED RISE ELEV (4-65)

POTOMAC YARD HOMEOWNERS ASSOCIATION INC

22. POTOMAC FLATS CONDOMINIUM 409 E RAYMOND AV USE: CONDO MASTER CARDS *ZONE:* R 2-5

SKINKER THOMAS C AND MARJORIE B TR 415 E RAYMOND AV USE: OFFICE/COMMERCIAL WAREHOUS ZONE: I

TONYS CORNER LLC 2700 RICHMOND HY USE: SHOPPING CENTERS ZONE: I

25. 405 F LLC 405 FANNON ST USE: OFFICE/COMMERCIAL WAREHOUSE ZONE: I

MOUNT VERNON PETROLEUM REALTY LLC 2320 RICHMOND HY USE: CONVENIENCE STORE ZONE: 1

## OWNERSHIP INFORMATION

<u>LEGEND</u>

ZONING LINE

SITE

OWNER INFORMATION NUMBER

BUS STOP (BRT)

PROPERTY LINE

STREET CENTER LINE

- POTOMAC WEST MANAGEMENT LLC 300 CALVERT AVE E USE: GENERAL COMMERCIAL ZONE: I
- 2. MALEY ROBERT C III OR GINA 304 CALVERT AVE USE: GENERAL COMMERCIAL ZONE: I
- BRASWELL HARRY A OR SUE B 308 CALVERT AVE USE: OFFICE/COMMERCIAL WAREHOUSE ZONE: I
- BRASWELL HARRY A OR SUE B *312 CALVERT AVE* USE: OFFICE/COMMERCIAL WAREHOUSE ZONE: I
- 410-420 CALVERT ACQUISITION LLC *410 CALVERT AVE* USE: OFFICE COMMERCIAL WAREHOUSE ZONE: I
- 410-420 CALVERT ACQUISITION LLC *420 CALVERT AVE* USE: OFFICE COMMERCIAL WAREHOUSE ZONE: I
- 7. FIRST BAPTIST OF ALEXANDRIA FOUNDATION INC *434 CALVERT AVE* USE: VACANT LANE-INDUSTRIAL ZONE: I
- FIRST BAPTIST OF ALEXANDRIA FOUNDATION INC 446 CALVERT AVE USE: OFFICE/COMMERCIAL WAREHOUSE ZONE: I
- TONYS CORNER LLC 2700 RICHMOND HY USE: SHOPPING CENTERS ZONE: I
- 10. SILVERSTONE ALEXANDRIA LP 2602 MAIN LINE BV USE: NURSING HOME ZONE: CDD #10
- STATION AT POTOMAC YARD CONDOMINIUM 2801 RICHMOND HY USE: CONDO MASTER CARDS ZONE: CDD #10
- LBG PARCEL H LLC 601 SEATON AV USE: VACANT LAND COMMERCIAL ZONE: CDD #10
- 13. TRE HSC NOTCH LLC AND TRE HSC NOTCH COINVESTMENT LLC 2900 MAIN LINE BV USE: RETAIL CONDO ZONE: CDD#10

I.) TRANSIT STOPS FOR THE BRT ARE LOCATED IN THE MIDDLE OF ROUTE I.

APPROVED SPECIAL USE PERMIT NO. 2020-10028

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DIRECTOR DATE

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

DEPARTMENT OF PLANNING & ZONING SITE PLAN NO. \_\_\_

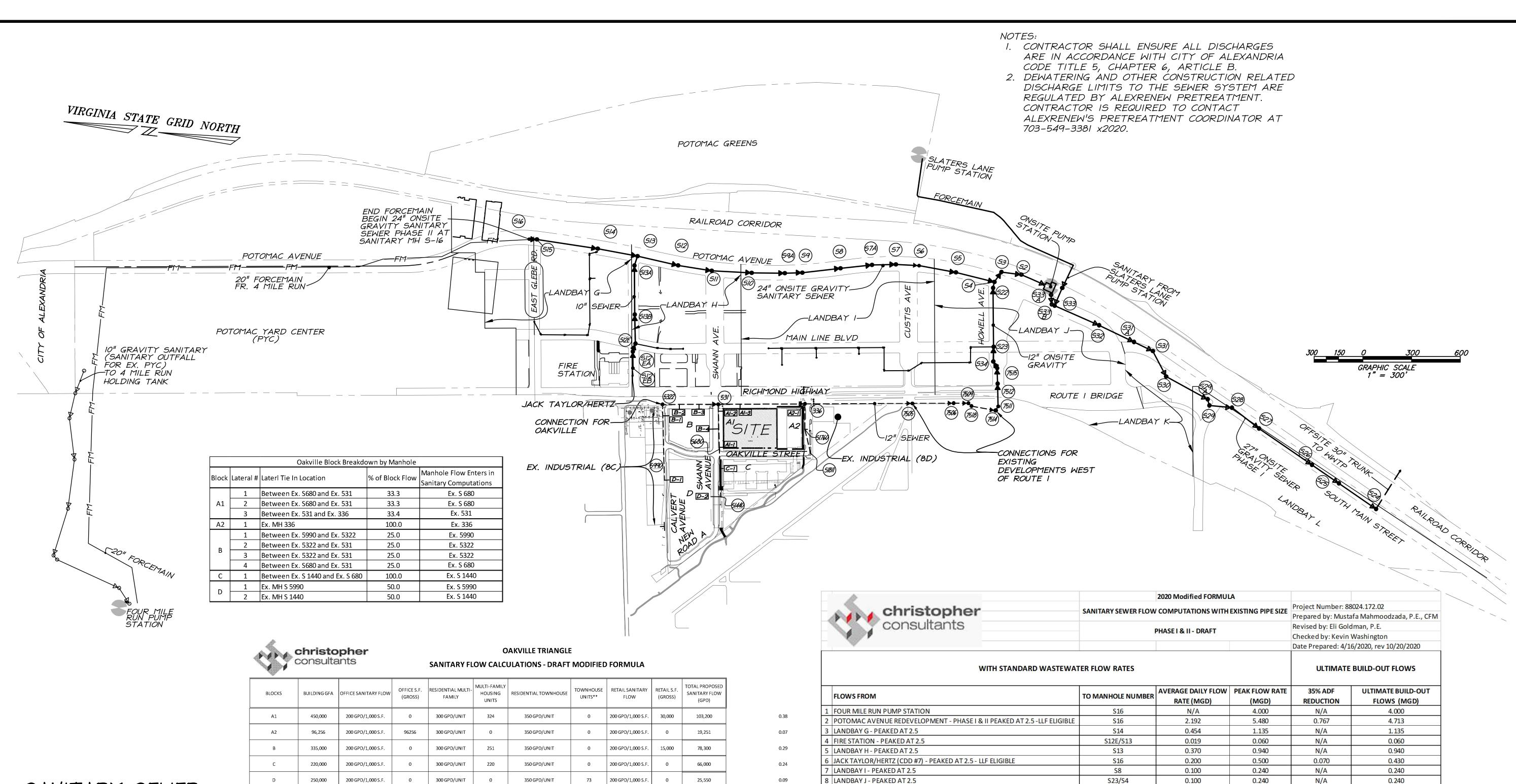
ZONE: CSL HUME AVE ZONE: E RAYMOND AVE MASKELL ST 23) **ZONE:** R2-5 -BLOCK AI ZONE: CDD #10 SWANN AVE **ZONE:** R2-5 BLUEMONT AVE MCKENZIE AVE ZONE: 1 ANNIE ROSE AVE THE IDA AVE E CUSTIS AVE E CUSTIS AVE DIAMOND AVE



PROJECT NO:14007.011.00 SCALE: |"=150"

07-20-20 DESIGN: EG

DRAWN: JS CHECKED: KMW SHEET No.



226,301

45,000

HASE I PEAK FLOW RATE (MGD)

HASE II PEAK FLOW RATE (MGD)

OTAL PEAK FLOW RATE (MGD)

HASE I PEAK FLOW RATE (MGD)

HASE II PEAK FLOW RATE (MGD)

TOTAL PEAK FLOW RATE (MGD)

PHASE I AD

66,000 PHASE II ADF

292,301 TOTAL ADF

ULTIMATE BUILD-OUT FLOWS (W/ 2.5 PEAKING FACTOR)

ULTIMATE BUILD-OUT FLOWS (W/ 4.0 PEAKING FACTOR)

0.14

0.63

## SANITARY SEWER STRUCTURE DATA

SAN MH 7505 TOP=37.00 IN=27.28" PVC FR W IN=27.20 I2" DIP FR 336 OUT=27.10 I4" DIP TO 7506 SAN MH 7506 TOP=37.86 IN=32.16 FR<sub>.</sub> W IN=25.31 12" DIP FR 7505 OUT=25.26 8" DIP TO 7509 SAN MH 7509 TOP=38.79 IN=24.94 FR 7510 IN=24.99 8" DIP FR 7506 OUT=24.69 12" RCP TO 7518 SAN MH 7510 TOP=39.12 IN=28.22 FR W IN=28.32 FR S OUT=28.12 TO 7506 SAN MH 7511 TOP=38.76 IN=21.66 12" PVC FR 7514 OUT=21.56 12" PVC TO 7512

SAN MH 7512 TOP=39.76 IN=20.65 12" PVC FR 7515

SAN MH 7514 TOP=37.40

OUT=20.57 12" PVC TO 7511

IN=22.90 I2" RCP FR 7518 OUT=22.80 I2" PVC TO 75II

SAN MH 7515 TOP=40.26 IN=20.40 I OUT=20.30 SAN MH 7 TOP=38.48 IN=24.28 I OUT=24.00 SAN MH 9309 (534) TOP=41.02 ... IN=20.07 12" PVC FR 7515 OUT=19.91 12" PVC TO 9310 SAN MH 9310 (S23) TOP=43.17 IN=19.25 12" PVC FR 9309 IN=19.24 10" PVC FR S24 OUT=19.20 12" PVC TO 10385 SAN MH 10383 (S2) TOP=46.29 IN=13.29 12" PVC FR 10384 OUT=13.19 12" PVC TO 5 SAN MH 10384 (S3) TOP=45.33 ... IN=13.83 12" PVC FR S4 OUT=13.73 12" PVC TO 10383 SAN MH 10385 (S22) TOP=44.59 IN=17.32 12" PVC FR 9310 OUT=17.30 12" PVC TO 54

6						
12" PVC FR 7512 0 12" PVC TO 7516	PEAK FLOW CALCULATIONS BASED ON CITY'S MEM INDUSTRY 06-14					
<i>7518</i>		T				
8 12" RCP FR 7509	PEAKING FACTOR	2.5				
0 12" RCP TO 7514	PHASE I PEAK FLOW RATE (MGD)	0.57				
00.00 (00.4)						

1,131,256

220,000

1,351,256

PHASE II PEAK FLOW RATE (MGD)

0

96,256

0.17

0.73

4.0

0.26

220

795

0

73

35%

TOTAL PEAK FLOW RATE (MGD) PEAKING FACTOR PHASE I PEAK FLOW RATE (MGD) PHASE II PEAK FLOW RATE (MGD) TOTAL PEAK FLOW RATE (MGD)

CALCULATIONS SHOWN ARE PRELIMINARY AND WILL BE FURTHER REFINED AS THE DESIGN PROGRESSES. SOME INVERTS SHOWN ARE BASED ON DESIGN PLANS AND WILL NEED TO BE FIELD VERIFIED PRIOR TO FINALIZING COMPUTATIONS.

LOW FLOW FIXTURES CALCULATIONS

PHASE I PEAK FLOW REDUCTION (MGD)

PHASE II PEAK FLOW REDUCTION (MGD)

TOTAL PEAK FLOW REDUCTION (MGD)

REFER TO SHEET C203 AND THIS SHEET FOR SANITARY SEWER AS-BUILT DATA. ADDITIONAL AS-BUILT INFORMATION WAS TAKEN FROM THE POTOMAC YARD-OFFSITE SANITARY TRUNK SEWER (30") AND THE POTOMAC YARD ONSITE SANITARY SEWER COLLECTION SYSTEM PHASE I (27").

SANITARY OUTFALL NARRATIVE:

9 ROUTE 1 N OAKVILLE - PEAKED AT 2.5 - LLF ELIGIBLE

11 RIVER ROAD PUMPING STATION - PEAKED AT 3

16 BRADDOCK FIELDS - PEAKED AT 3 - LFF ELIGIBLE

19 REMAINING SEPERATION - PEAKED AT 3

17 EXISTING DEVELOPMENT - PEAKED AT 3 - LFF ELIGIBLI

18 SEPERATION COMPLETED BY DECEMBER 2019 - PEAKED AT 3

12 SLATER LANE - PEAKED AT 3

13 LANDBAY C - PEAKED AT 2.5

14 LANDBAY L - PEAKED AT 2.5

10 OAKVILLE TRIANGLE (CDD #24) - PEAKED AT 2.5 - LLF ELIGIBLE

15 BRADDOCK METRO NEIGHBORHOOD PLAN - PEAKED AT 3 - LFF ELIGIBLE

PER MEMO TO INDUSTRY 06-14, THIS OUTFALL ANALYSIS SHALL ANALYZE THE SEWER SYSTEM UNTIL THE SEWER TIES TO A 24" OR LARGER PIPE. THE OAKVILLE SITE WILL TIE INTO THE EXISTING 12" SEWER MAIN RUNNING NORTH TO SOUTH ALONG ROUTE I. FROM THE INTERSECTION OF ROUTE I AND EAST HOWELL AVENUE, THE SEWER GOES EAST UNTIL IT CONNECTS TO THE 24" SEWER IN POTOMAC AVENUE. REFER TO THE 'OAKVILLE BLOCK BREAKDOWN BY MANHOLE' CHART ON THIS SHEET FOR DISTRIBUTION OF BLOCK FLOWS TO THE ON-SITE COLLECTOR SEWER.

S16

5322/S4

7505/S4

S33

**S33** 

**S27** 

SHAFT 20

SHAFT 20

SHAFT 17

SHAFT 17

SHAFT 13

0.210

0.292

0.170

0.250

0.003

0.120

0.840

0.014

0.178

0.183

0.368

0.525

0.730

0.520

0.750

0.310

2.520

0.042

0.534

0.549

1.104

20.19

0.074

0.100

N/A

N/A

N/A

0.294

0.005

N/A

N/A

N/A

0.452

0.630

0.520

0.750

0.010

0.310

2.226

0.037

0.534

0.549

1.104

18.88

V RATE (MGD)	0.24		CONNECTS	TION OF ROUTI TO THE 24" :	SEWER IN PO	TOMAC AVEI	NUE. REFER	TO THE 'OA	AKVILLE E	BLOCK		APPRUV. SPECIAL USE F	PERMIT NO.		_
RATE (MGD)	1.07			NN BY MANHOL		I THIS SHEE	T FOR DIST	TRIBUTION OI	F BLOCK	FLOWS TO		DEPARTMENT OF PLAN	NING & ZONING		ĺ
	·		THE ON-S	ITE COLLECTO	R SEWER.										ĺ
			BASED ON	I THIS ANALYS	SIS IT IS DE	TERMINED T	HAT TWO S	SANITARY SE	WFR PIPE	F RUNS WII	, I <b>I</b>	DIRECTOR	DA	NTE .	_
				BE UPGRADED								DEPARTMENT OF TRANS	PORTATION & EN	WRONMENTAL SERVICE	<u>:</u> S
				PIPE RUN 751								SITE PLAN NO			ĺ
THE DESIGN	N PROGRESSE	ES.	WILL BE I	DESIGNED AND	CONSTRUCTE	D WITH THE	IS PLAN FOI	R THE OAKV	ILLE DEV	ELOPMENT.	.				ĺ
FIELD VERI	IFIED PRIOR	TO		RMATIONAL PU		,						DIRECTOR		ATE .	_
			· · ·	AVENUE TO T						DMAC YARD	? <b>╽╟</b>				
TA. ADDITIO	ONAL AS-BUI	LT	OFF-SITE	TRUNK SEWER	R. REFER TO	SHEET C603	AND C604	FOR THIS A	NALYSIS.						
NK SEWER	(30") AND TH	ЧE	BASED ON	I THIS ANALYS	SIS COMPLETE	ED. IT IS OL	JR ENGINEER	RING OPINION	V THAT T	HIS SEWER	·	CHAIRMAN, PLANNING COMM	SSION	DATE	_
).	`			DEQUATE OUT		, , , , , , , , , , , , , , , , , ,			. , ,	022.		DATE RECORDED			
						77/07/7		$D \cap C$				DATE RECORDED		<del></del>	
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ELI GOLDMAN Lic. No.55868

10/20/2020

07-20-20 DESIGN: EG

SCALE: |"=300"

PROJECT NO:14007.011.00

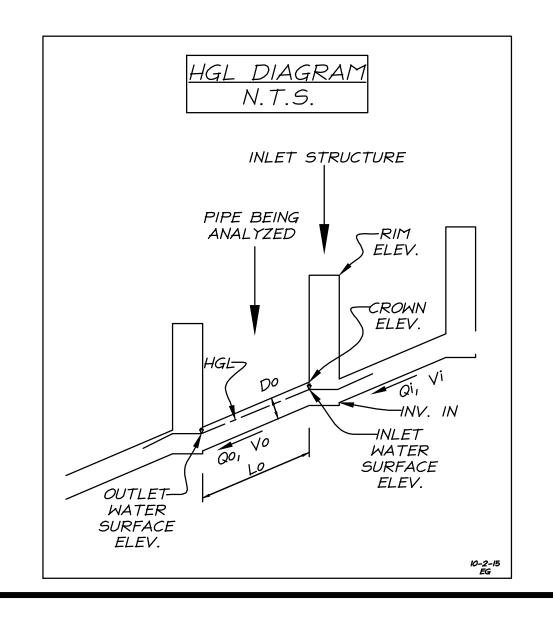
DRAWN: JS CHECKED: KMW SHEET No.

#### SANITARY SEWER PIPE COMPUTATIONS (ULTIMATE CONDITION)

					(	On-site G	Gravity Se	wers							
FROM	то	UPPER INV	LOWER INV	L (FT)	SLOPE (%)	DIA (IN)	MATERIAL	N	CAPACITY (cfs)	CAPACITY (MGD)	DESIGN FLOW (cfs)	DESIGN FLOW (MGD)	V (ft/s)	Assumptions / Comments	Flow Increase (MGD)
5990	5322	40.99	37.92	465	0.66	8	PVC	0.010	1.29	0.83	0.26	0.168	4.18	Ex. North of Calvert (0.05), 1/2 Block D (0.045) and 1/4 Block B (0.0725)	0.168
S1440	S680	41.90	38.98	292	1.00	10	CLAY	0.013	2.38	1.54	0.44	0.285		Block C (0.24) and 1/2 Block D (0.045)	0.285
S680	S531	38.88	35.52	277.4	1.21	10	CLAY	0.013	2.38	1.54	0.95	0.611	3.79	2/3 Block A1 (0.253) and 1/4 Block B (0.0725)	0.326
S1811	S1760	38.1	37.13	153.2	0.63	10	RCP	0.015	1.49	0.96	0.19	0.12	2.34	Existing South of Fannon (0.03)	0.12
S1760	S336	37.03	30.78	156.7	3.99	10	LINED	0.010	5.63	3.64	0.19	0.12	6.14		
			Oakvill	e Off-Sit	e Sewer - S	31 to S4	(Route 1	> E. H	lowell> Pot	omac Ave)					
FROM	то	UPPER INV	LOWERINV	L (FT)	SLOPE (%)	DIA (IN)	MATERIAL	N	CAPACITY (cfs)	CAPACITY (MGD)	DESIGN FLOW (cfs)	DESIGN FLOW (MGD)	V (ft/s)	Assumptions / Comments	Flow Increase (MGD)
5322	531	38.07	35.02	343.2	0.89	10	DIP	0.011	2.42	1.56	0.48	0.313	3.82	1/2 Block B (0.145) + Flow from 5990	0.145
531	336	34.79	30.03	533.70	0.89	10	DIP	0.011	2.42	1.56	1.63	1.051	4.48	1/3 Block A1 (0.127) + Flow from S680	0.127
336	7505	29.98	27.20	658.20	0.42	12	DIP	0.011	2.73	1.76	1.92	1.241	3.52	Block A2 (0.07) + Flow from S1760	0.07
7505	7506	27.10	25.31	254.00	0.70	14	DIP	0.011	5.23	3.38	2.72	1.761	4.73	Development west of RT 1	0.52
7506	7509	25.26	24.99	95.20	0.28	8	DIP	0.011	0.82	0.53	2.72	1.761	2.22		
7509	7518	24.69	24.28	26.00	1.58	12	CONC.	0.015	3.88	2.51	2.72	1.761	5.15		
7518	7514	24.00	22.90	151.00	0.73	12	CONC.	0.015	2.84	1.84	2.72	1.761	3.75		
7514	7511	22.80	21.66	29.50	3.86	12	PVC	0.010	9.10	5.88	2.72	1.761	10.46		
7511	7512	21.56	20.65	138.20	0.66	12	PVC	0.010	3.76	2.43	2.72	1.761	5.39		
7512	7515	20.57	20.40	97.60	0.17	12	PVC	0.010	2.05	1.32	2.72	1.761	2.46		
7515	S34	20.30	20.07	47.00	0.49	12	PVC	0.010	3.24	2.09	2.72	1.761	4.13		
S34	S23	19.91	19.25	92.00	0.72	12	PVC	0.010	3.92	2.53	2.72	1.761	4.99		
S23	S22	19.20	17.32	360.90	0.52	12	PVC	0.010	3.34	2.16	2.91	1.881	4.26	85 Townhouse units from LB I and J	0.12
S22	<b>S4</b>	17.30	17.11	38.00	0.50	12	PVC	0.010	3.27	2.11	2.91	1.881	4.17		
				Note: All	calcualted cap	acities are	at full flow	capacity,	when the pipe is	approximately 93	3% full.				

## SANITARY SEWER HGL COMPUTATIONS (ULTIMATE CONDITION)

	Outlet										JUNCTION	LOSS								Inlet			
	Water																		Final	Water	Crown	Surcharge	Rim
Inlet	Surf Elev	Do	Qo	Lo	Sfo	Hf	Vo	Но	Qi	Vi	QiVi	Vi^2	Hi	Angle	На	Ht	1.3Ht	0.5Ht	Н	Surf Elev	Elev	Depth	Elev
Str.	(ft)	(in)	(cfs)	(ft)	(%)	(ft)	(fps)	(ft)	(cfs)	(fps)		2g	(ft)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
							C	akville Off-	Site Sewer (	Route 1->	Howell -> Po	tomac)											
S22	17.91	12	2.91	38.00	0.39	0.15	4.2	0.07	2.91	4.3	12.40	0.28	0.10	14	0.03	0.19	0.00	0.10	0.25	18.16	18.30	0.14	44.5
S23	18.16	12	2.91	360.90	0.39	1.42	4.3	0.07	2.72	5.0	13.60	0.39	0.14	0	0.00	0.21	0.00	0.10	1.53	19.68	20.20	0.52	43.1
S34	20.05	12	2.72	92.00	0.35	0.32	5.0	0.10	2.72	4.1	11.25	0.26	0.09	30	0.07	0.26	0.00	0.13	0.45	20.50	20.91	0.41	41.0
7515	20.87	12	2.72	47.00	0.35	0.16	4.1	0.07	2.72	2.5	6.70	0.09	0.03	30	0.03	0.13	0.00	0.06	0.23	21.10	21.33	0.23	40.2
7512	21.20	12	2.72	97.60	0.35	0.34	2.5	0.02	2.72	5.4	14.69	0.45	0.16	0	0.00	0.18	0.00	0.09	0.43	21.63	21.67	0.04	39.7
7511	21.63	12	2.72	138.20	0.35	0.48	5.4	0.11	2.72	10.5	28.50	1.70	0.59	33	0.53	1.23	0.00	0.62	1.10	22.72	22.56	-0.16	38.7
7514	22.72	12	2.72	29.50	0.35	0.10	10.5	0.42	2.72	3.8	10.22	0.22	0.08	66	0.13	0.63	0.00	0.31	0.42	23.14	23.80	0.66	37.4
7518	23.70	12	2.72	151.36	0.35	0.52	3.8	0.05	2.72	5.2	14.03	0.41	0.14	33	0.13	0.33	0.00	0.16	0.69	24.39	24.98	0.59	38.4
7509	24.81	8	2.72	26.00	3.01	0.78	5.2	0.10	2.72	2.2	6.05	0.08	0.03	0	0.00	0.13	0.00	0.06	0.85	25.66	25.69	0.03	38.7
7506	25.92	14	2.72	95.20	0.15	0.14	2.2	0.02	2.72	4.7	12.89	0.35	0.12	0	0.00	0.14	0.00	0.07	0.22	26.14	26.26	0.12	37.8
7505	26.14	12	2.72	254.00	0.35	0.88	4.7	0.09	1.92	3.5	6.76	0.19	0.07	0	0.00	0.15	0.00	0.08	0.96	27.09	28.10	1.01	37.0
336	27.87	10	1.92	658.20	0.45	2.99	3.5	0.05	1.63	4.5	7.29	0.31	0.11	0	0.00	0.16	0.00	0.08	3.07	30.94	30.98	0.04	38.4
531	30.94	10	1.63	533.70	0.33	1.74	4.5	0.08	0.48	3.8	1.85	0.23	0.08	0	0.00	0.16	0.00	0.08	1.82	32.75	35.79	3.04	45.5
5322	35.69	10	0.48	343.20	0.03	0.10	3.8	0.06							0.00	0.06	0.00	0.03	0.13	35.81	39.07	3.26	46.2
									Oakville	On-Site Sev	ver												
5990	38.45	8	0.26	465.00	0.03	0.13	4.8	0.09	0.00	0.0	0.00	0.00	0.00	0	0.00	0.09	0.00	0.04	0.17	38.62	41.72	3.10	45.5
S680	36.05	8	0.96	277.40	0.37	1.04	4.8	0.09						0	0.00	0.09	0.00	0.04	1.08	37.13	39.55	2.42	46.
S1760	31.45	10	0.19	156.70	0.00	0.01	6.2	0.15	0.45	3.3	1.48	0.17	0.06	20	0.03	0.24	0.00	0.12	0.13	31.58	37.86	6.28	42.
S1811	37.66	8	0.19	153.20	0.01	0.02	3.3	0.04						0	0.00	0.04	0.00	0.02	0.04	37.71	38.77	1.06	44.



THIS SHEET IS FOR INFORMATION PURPOSES ONLY!

APPROVED
SPECIAL USE PERMIT NO. 2020-10028
DEPARTMENT OF PLANNING & ZONING DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES SITE PLAN NO. \_\_\_ SHEET No.

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

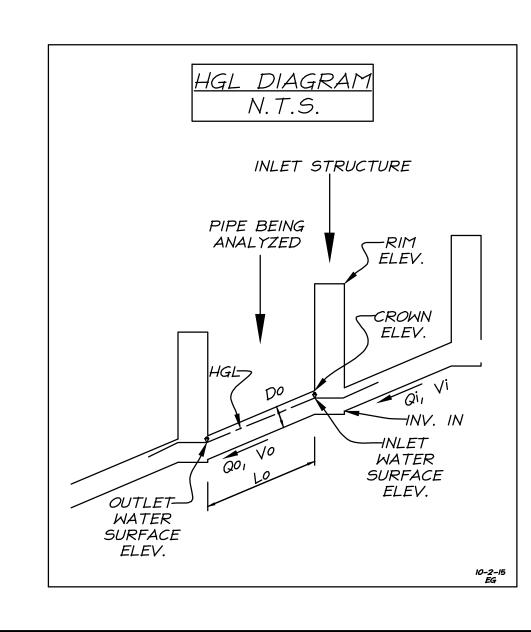
PROJECT NO:14007.011.00 07-20-20 DESIGN: EG DRAWN: JS CHECKED: KMW

#### SANITARY SEWER PIPE COMPUTATIONS (ULTIMATE CONDITION WITH UPGRADES)

													1		
					(	On-site (	Gravity Se	wers							
FROM	то	UPPER INV	LOWERINV	L (FT)	SLOPE (%)	DIA (IN)	MATERIAL	N	CAPACITY (cfs)	CAPACITY (MGD)	DESIGN FLOW (cfs)	DESIGN FLOW (MGD)	V (ft/s)	Assumptions / Comments	Flow Increase (MGD)
5990	5322	40.99	37.92	465	0.66	8	PVC	0.010	1.29	0.83	0.26	0.168	4.18	Ex. North of Calvert (0.05), 1/2 Block D (0.045) and 1/4 Block B (0.0725)	0.168
S1440	S680	41.90	38.98	292	1.00	10	CLAY	0.013	2.38	1.54	0.44	0.285		Block C (0.24) and 1/2 Block D (0.045)	0.285
S680	S531	38.88	35.52	277.4	1.21	10	CLAY	0.013	2.38	1.54	0.95	0.611	3.79	2/3 Block A1 (0.253) and 1/4 Block B (0.0725)	0.326
S1811	S1760	38.1	37.13	153.2	0.63	10	RCP	0.015	1.49	0.96	0.19	0.12	2.34	Existing South of Fannon (0.03)	0.12
S1760	S336	37.03	30.78	156.7	3.99	10	LINED	0.010	5.63	3.64	0.19	0.12	6.14		
			Oakvill	e Off-Sit	e Sewer - S	31 to S4	(Route 1	> E. I	lowell> Pot	omac Ave)					
FROM	то	UPPER INV	LOWER INV	L (FT)	SLOPE (%)	DIA (IN)	MATERIAL	N	CAPACITY (cfs)	CAPACITY (MGD)	DESIGN FLOW (cfs)	DESIGN FLOW (MGD)	V (ft/s)	Assumptions / Comments	Flow Increase (MGD)
5322	531	38.07	35.02	343.2	0.89	10	DIP	0.011	2.42	1.56	0.48	0.313	3.82	1/2 Block B (0.145) + Flow from 5990	0.145
531	336	34.79	30.03	533.70	0.89	10	DIP	0.011	2.42	1.56	1.63	1.051	4.48	1/3 Block A1 (0.127) + Flow from S680	0.127
336	7505	29.98	27.20	658.20	0.42	12	DIP	0.011	2.73	1.76	1.92	1.241	3.52	Block A2 (0.07) + Flow from S1760	0.07
7505	7506	27.10	25.31	254.00	0.70	14	DIP	0.011	5.23	3.38	2.72	1.761	4.73	Development west of RT 1	0.52
7506	7509	25.26	24.79	95.20	0.49	12	PVC	0.010	3.49	2.26	2.72	1.761	4.6		
7509	7518	24.69	24.28	26.00	1.58	12	CONC.	0.015	3.88	2.51	2.72	1.761	5.15		
7518	7514	24.00	22.90	151.00	0.73	12	RCP	0.015	2.84	1.84	2.72	1.761	3.75		
7514	7511	22.80	21.66	29.50	3.86	12	PVC	0.010	9.10	5.88	2.72	1.761	10.46		
7511	7512	21.56	20.65	138.20	0.66	16	PVC	0.010	3.76	2.43	2.72	1.761	5.39		
7512	7515	20.57	20.40	97.60	0.17	16	PVC	0.010	4.40	2.84	2.72	1.761	3.14		
7515	S34	20.30	20.07	47.00	0.49	12	PVC	0.010	3.24	2.09	2.72	1.761	4.13		
S34	S23	19.91	19.25	92.00	0.72	12	PVC	0.010	3.92	2.53	2.72	1.761	4.99		
S23	S22	19.20	17.32	360.90	0.52	12	PVC	0.010	3.34	2.16	2.91	1.881	4.26	85 Townhouse units from LB I and J	0.12
S22	<b>S4</b>	17.30	17.11	38.00	0.50	12	PVC	0.010	3.27	2.11	2.91	1.881	4.17		
				Note: All	calcualted cap	acities are	at full flow	capacity	, when the pipe i	s approximately 93	3% full.				

## SANITARY SEWER HGL COMPUTATIONS (ULTIMATE CONDITION WITH UPGRADES)

	Outlet										JUNCTION	LOSS								Inlet			
	Water																		Final	Water	Crown	Surcharge	Rim
Inlet	Surf Elev	Do	Qo	Lo	Sfo	Hf	Vo	Ho	Qi	Vi	QiVi	Vi^2	Hi	Angle	Ha	Ht	1.3Ht	0.5Ht	Н	Surf Elev	Elev	Depth	Elev
Str.	(ft)	(in)	(cfs)	(ft)	(%)	(ft)	(fps)	(ft)	(cfs)	(fps)		2g	(ft)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
							C	akville Off-	Site Sewer (	(Route 1-> I	Howell -> Po	tomac)											
S22	17.91	12	2.91	38.00	0.39	0.15	4.2	0.07	2.91	4.3	12.40	0.28	0.10	14	0.03	0.19	0.00	0.10	0.25	18.16	18.30	0.14	44.59
S23	18.16	12	2.91	360.90	0.39	1.42	4.3	0.07	2.72	5.0	13.60	0.39	0.14	0	0.00	0.21	0.00	0.10	1.53	19.68	20.20	0.52	43.17
S34	20.05	12	2.72	92.00	0.35	0.32	5.0	0.10	2.72	4.1	11.25	0.26	0.09	30	0.07	0.26	0.00	0.13	0.45	20.50	20.91	0.41	41.02
7515	20.87	12	2.72	47.00	0.35	0.16	4.1	0.07	2.72	3.1	8.56	0.15	0.05	30	0.04	0.16	0.00	0.08	0.24	21.11	21.33	0.22	40.26
7512	21.20	12	2.72	97.60	0.35	0.34	3.1	0.04	2.72	5.4	14.69	0.45	0.16	0	0.00	0.20	0.00	0.10	0.44	21.64	21.67	0.03	39.76
7511	21.64	12	2.72	138.20	0.35	0.48	5.4	0.11	2.72	10.5	28.50	1.70	0.59	33	0.53	1.23	0.00	0.62	1.10	22.73	22.56	-0.17	38.76
7514	22.73	12	2.72	29.50	0.35	0.10	10.5	0.42	2.72	3.8	10.22	0.22	0.08	66	0.13	0.63	0.00	0.31	0.42	23.15	23.80	0.65	37.40
7518	23.70	12	2.72	151.36	0.35	0.52	3.8	0.05	2.72	5.2	14.03	0.41	0.14	33	0.13	0.33	0.00	0.16	0.69	24.39	24.98	0.59	38.48
7509	24.81	8	2.72	26.00	3.01	0.78	5.2	0.10	2.72	4.6	12.53	0.33	0.12	0	0.00	0.22	0.00	0.11	0.89	25.70	25.69	-0.01	38.79
7506	25.72	14	2.72	95.20	0.15	0.14	4.6	0.08	2.72	4.7	12.89	0.35	0.12	0	0.00	0.20	0.00	0.10	0.25	25.97	26.26	0.29	37.86
7505	26.11	12	2.72	254.00	0.35	0.88	4.7	0.09	1.92	3.5	6.76	0.19	0.07	0	0.00	0.15	0.00	0.08	0.96	27.07	28.10	1.03	37.00
336	27.87	10	1.92	658.20	0.45	2.99	3.5	0.05	1.63	4.5	7.29	0.31	0.11	0	0.00	0.16	0.00	0.08	3.07	30.94	30.98	0.04	38.48
531	30.94	10	1.63	533.70	0.33	1.74	4.5	0.08	0.48	3.8	1.85	0.23	0.08	0	0.00	0.16	0.00	0.08	1.82	32.75	35.79	3.04	45.57
5322	35.69	10	0.48	343.20	0.03	0.10	3.8	0.06							0.00	0.06	0.00	0.03	0.13	35.81	39.07	3.26	46.27
									Oakville	On-Site Sev	ver												
5990	38.45	8	0.26	465.00	0.03	0.13	4.8	0.09	0.00	0.0	0.00	0.00	0.00	0	0.00	0.09	0.00	0.04	0.17	38.62	41.72	3.10	45.55
S680	36.05	8	0.96	277.40	0.37	1.04	4.8	0.09						0	0.00	0.09	0.00	0.04	1.08	37.13	39.55	2.42	46.71
S1760	31.45	10	0.19	156.70	0.00	0.01	6.2	0.15	0.45	3.3	1.48	0.17	0.06	20	0.03	0.24	0.00	0.12	0.13	31.58	37.86	6.28	42.63
S1811	37.66	8	0.19	153.20	0.01	0.02	3.3	0.04						0	0.00	0.04	0.00	0.02	0.04	37.71	38.77	1.06	44.81

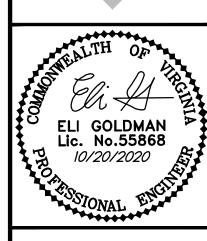


<u>SANITARY SEWER UPGRADE NARRATIVE:</u> BASED ON THIS SANITARY SEWER ANALYSIS THE FOLLOWING UPGRADES WILL BE NEEDED FOR THE SANITARY SEWER SYSTEM TO ADEQUATELY HANDLE THE FLOWS AT FULL BUILD OUT.

- UPSIZE 8" DIP SEWER TO 12" PVC FROM MANHOLE 7506 TO MANHOLE 7509
- (95 LF) - ÙPSIZÉ 12" RCP SEWER TO 16" PVC FROM MANHOLE 7512 TO MANHOLE 7515 (98 LF)

APPROVED SPECIAL USE PERMIT NO. 2020-10028	
DEPARTMENT OF PLANNING & ZONING	PROJECT NO:140
DIRECTOR DATE	SCALE: N/A
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES  SITE PLAN NO	DATE: 07-20-20
DIRECTOR DATE	DESIGN: EG DRAWN: JS CHECKED: KMW
CHAIRMAN, PLANNING COMMISSION DATE	SHEET No.

THIS SHEET IS FOR INFORMATION PURPOSES ONLY! | DATE RECORDED\_ INSTRUMENT NO.



PROJECT NO:14007.011.00 07-20-20 DESIGN: EG DRAWN: JS

#### 2020 MODIFIED ULTIMATE BUILD-OUT FLOWS WITH UPGRADES (PHASE I & PHASE II)



#### 2020 MODIFIED ULTIMATE BUILD-OUT FLOWS WITH PIPE UPGRADES

PHASE I & PHASE II - DRAFT

Project Number: 88024.172.02 Prepared by: Mustafa Mahmoodzada, P. E. CFM Checked by: Kevin M. Washington Date Prepared: 4/16//2020

						24	4" Gravity	Sewer - S16	6 to S33 (	Potomac Ave)					Use Total Sanitary Sewer Flow Computations (Trunk Line)	
	FROM	то	UPPER INV	LOWERINV	L (FT)	SLOPE (%)	DIA (IN)	MATERIAL	N	CAPACITY (cfs)	CAPACITY (MGD)	DESIGN FLOW (cfs)	DESIGN FLOW (MGD)	V <sub>FULL</sub> (ft/s)	Assumptions	Inc
design	\$16	S15	27.74	27.15	14.30	4.13	24	PVC	0.011	54.31	35.10	6.18	3.99	17.29	4 mile run, North Potomac Yard Phase I & II, JACK TAYLOR, AND ROUTE 1 N OAKVILLE Note: 5.6 MGD of flow from the new pumping station diverted to the downstream of the existing Potomac Yard Pumping Station via the 20-inch force main extension was removed from the design flow.	9.594
design	S15	S14	27.05	23.83	397.20	0.81	24	PVC	0.011	24.07	15.56	6.18	3.99	7.66		
design	S14	S13	23.58	22.75	251.80	0.33	24	PVC	0.011	15.35	9.92	7.94	5.13	4.89	Landbay G	1.135
design	S13	S12	22.65	21.81	254.20	0.33	24	PVC	0.011	15.37	9.93	9.48	6.13	4.89	Fire Station, Landbay H	1.000
design	S12	S11	21.71	21.02	210.10	0.33	24	PVC	0.011	15.32	9.90	9.48	6.13	4.88		
design	S11	S10	20.92	20.10	246.40	0.33	24	PVC	0.011	15.42	9.97	9.48	6.13	4.91		
design	S10	S9A	20.00	19.33	203.40	0.33	24	PVC	0.011	15.35	9.92	9.48	6.13	4.88		
design	S9A	S9	19.23	18.88	107.80	0.32	24	PVC	0.011	15.24	9.85	9.48	6.13	4.85		
design	<b>S9</b>	<b>S8</b>	18.78	17.99	237.00	0.33	24	PVC	0.011	15.44	9.98	9.48	6.13	4.91		
design	S8	S7A	17.89	17.25	195.00	0.33	24	PVC	0.011	15.32	9.90	9.85	6.37	4.88	Landbay I	0.240
design	S7A	<b>S7</b>	17.15	16.67	146.90	0.33	24	PVC	0.011	15.28	9.88	9.85	6.37	4.86		
design	S7	<b>S</b> 6	16.57	16.09	144.00	0.33	24	PVC	0.011	15.44	9.98	9.85	6.37	4.91		
design	S6	S5	15.99	15.23	230.30	0.33	24	PVC	0.011	15.36	9.93	9.85	6.37	4.89		
design	S5	<b>S4</b>	15.13	14.32	244.40	0.33	24	PVC	0.011	15.39	9.95	9.85	6.37	4.90		
design/ as-built	S4	<b>S3</b>	14.22	13.83	74.40	0.52	24	PVC	0.011	19.36	12.51	12.01	7.76	6.16	Landbay J, Oakville Triangle, and River RD	1.390
as-built	S3	S2	13.73	13.29	124.20	0.35	24	PVC	0.011	15.91	10.29	12.01	7.76	5.07		
as-built/design slope	S2	S33A (PUMP)	13.19	12.70	151.90	0.32	24	PVC	0.011	15.19	9.81	12.01	7.76	4.83	On-site pump station, Calculated normal depth = 1.80', Max Flow = 17.89 cfs	
	S33A	S33B					24	PVC	0.011	=	-	12.01	7.76		Force Main	
	S33B	S33					24	PVC	0.011	-	-	12.01	7.76		Force Main	
						27	7" Gravity	Sewer - S33	3 to S24 (	Potomac Ave)						
	FROM	то	UPPER INV	LOWER INV	L (FT)	SLOPE (%)	DIA (IN)	MATERIAL	N	CAPACITY (cfs)	CAPACITY (MGD)	DESIGN FLOW (cfs)	DESIGN FLOW (MGD)	V (ft/s)	Assumptions	Inc
as-built	S33	S32	27.23	26.37	300.50	0.29	36	PVC	0.011	42.17	27.26	13.18	8.52	5.97	Slater's lane pump station and Landbay C	0.760
as-built	S32	S31A	26.28	25.56	237.50	0.30	36	PVC	0.011	43.40	28.05	13.18	8.52	6.14		
as-built	S31A	S31	25.45	25.02	133.00	0.32	36	PVC	0.011	44.82	28.97	13.18	8.52	6.34		
as-built	S31	S30	24.89	24.41	173.00	0.28	36	PVC	0.011	41.52	26.84	13.18	8.52	5.87		
as-built	S30	S29A	24.30	23.34	295.00	0.33	36	PVC	0.011	44.97	29.06	13.18	8.52	6.36		
as-built	S29A	S29	23.29	22.60	39.50	1.75	36	PVC	0.011	104.19	67.34	13.18	8.52	14.74		
as-built	S29	S28	22.57	22.08	140.00	0.35	36	PVC	0.011	46.64	30.14	13.18	8.52	6.60		
as-built	S28	S27	21.93	21.14	209.50	0.38	36	PVC	0.011	48.41	31.29	13.18	8.52	6.85		
as-built	S27	S26	21.09	20.10	402.00	0.25	36	PVC	0.011	39.12	25.28	13.66	8.83	5.53	Landbay L	0.310
as-built	S26	S25	19.90	19.33	197.50	0.29	36	PVC	0.011	42.35	27.37	13.66	8.83	5.99		
as-built	S25	S24	19.21	18.28	276.00	0.34	36	PVC	0.011	45.76	29.58	13.66	8.83	6.47		

NOTE: THE OFFSITE IMPROVEMENTS OF POTOMAC YARD PHASE I WILL BE COORDINATED AND IMPLEMENTED BY THE CITY AND ALEXRENEW.

#### POTOMAC YARD PHASE TWO SANITARY SEWER IMPROVEMENTS NARRATIVE:

IN ACCORDANCE WITH CONDITION 48 FOR PHASE II DEVELOPMENT, A 20-INCH FORCE MAIN EXTENSION SHALL BE DESIGNED AND CONSTRUCTED BY THE APPLICANT FROM THE DOWNSTREAM END OF THE PHASE I 16-INCH FORCE MAIN TO THE EXISTING 27-INCH GRAVITY SEWER DOWNSTREAM OF THE EXISTING PYPS. IN ADDITION, THE APPLICANT SHALL REPURPOSE THE EXISTING FOUR MILE RUN (FMR) PUMP STATION 20-INCH FORCE MAIN TO SERVE NORTH POTOMAC YARD PHASE I AND 2 DEVELOPMENT AND REPURPOSE THE PHASE I 16-INCH FORCE MAIN TO SERVE THE FMR PUMP STATION. THE APPLICANT WILL ALSO UPGRADE THE 27" SEWER TO A 36" AND WILL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION. ANY OFFSETS DUE TO THE APPLICANT WILL BE IN ACCORDANCE WITH THIS CONDITION.

NOTE: THIS NARRATIVE IS INCLUDED FOR INFORMATIONAL PURPOSES ONLY. ALL PROPOSED WORK MENTIONED IN THIS NARRATIVE WILL BE COMPLETED BY OTHERS.

APPROVED SPECIAL USE PERMITS DEPARTMENT OF PLANNING	AIT NO. <u>2020–10028</u>
DIRECTOR	DATE
DEPARTMENT OF TRANSPORTA SITE PLAN NO. —	ATION & ENVIRONMENTAL SERVICES
DIRECTOR	DATE
CHAIRMAN, PLANNING COMMISSION	DATE

DESIGN: EG CHECKED: KMW

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

THIS SHEET IS FOR INFORMATION PURPOSES ONLY!

PROJECT NO:14007.011.00

07-20-20

#### 2020 MODIFIED ULTIMATE BUILD-OUT FLOWS WITH UPGRADES (HYDRAULIC GRADE LINE (HGL) COMPUTATIONS)



Ultimate Build-Out Flow - Phase II Hydraulic Grade Line (HGL) Computations VDOT Form LD-347

Project Number: 88024.172.02 Prepared by: Mustafa Mahmoodzada, P.E., CFM Checked by: Kevin Washington Date Prepared: 10/19/2020

	Outlet										JUNCTION	LOSS								Inlet		Outlet Dine	Inlat Dina	Delta b/w	Dolto h / Inlat
	Water																1.3	0.5	Final	Water	Rim	Outlet Pipe Crown	Inlet Pipe Crown	Outlet WSE	Delta b/w Inlet WSE & Inlet
Inlet	Surf Elev	Do	Qo	Lo	Sfo	Hf	Vo	Но	Qi	Vi	QiVi	Vi^2	Hi	Angle	Ha	Ht	Ht	Ht	Н	Surf Elev	Elev	Elevation	Elevation	& Outlet	Pipe Crown
Str.	(ft)	(in)	(cfs)	(ft)	(%)	(ft)	(fps)	(ft)	(cfs)	(fps)		2g	(ft)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	Pipe Crown (see note 6)	(see note 7)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
												27"	Onsite Sewe	er											
S25	20.23	36	13.66	276.00	0.02	0.07	6.6	0.17	13.66	6.2	84.29	0.59	0.21	0	0.00	0.38	0.00	0.19	0.26	20.48	39.96	22.00	22.12	1.78	1.64
S26	21.73	36	13.66	197.50	0.02	0.05	6.2	0.15	13.66	5.8	78.82	0.52	0.18	0	0.00	0.33	0.00	0.16	0.21	21.94	39.68	22.69	22.89	0.96	0.95
S27	22.50	36	13.66	402.00	0.02	0.10	5.8	0.13	13.18	6.9	90.56	0.73	0.26	0	0.00	0.39	0.00	0.19	0.29	22.79	39.51	23.88	23.93	1.38	1.14
S28	23.54	36	13.18	209.50	0.02	0.05	6.9	0.18	13.18	6.7	87.66	0.69	0.24	35	0.27	0.69	0.00	0.35	0.39	23.93	38.76	24.72	24.87	1.18	0.94
S29	24.48	36	13.18	140.00	0.02	0.03	6.7	0.17	13.18	12.3	161.60	2.33	0.82	70	1.42	2.41	0.00	1.21	1.24	25.72	39.35	25.36	25.39	0.88	-0.33
S29A	25.72	36	13.18	39.50	0.02	0.01	12.3	0.58	13.18	6.5	85.55	0.65	0.23	45	0.30	1.12	0.00	0.56	0.57	26.29	38.02	26.08	26.13	0.36	-0.15
S30	26.29	36	13.18	295.00	0.02	0.07	6.5	0.16	13.18	6.1	79.75	0.57	0.20	35	0.22	0.58	0.00	0.29	0.36	26.65	36.74	27.09	27.20	0.81	0.56
S31	26.81	36	13.18	173.00	0.02	0.04	6.1	0.14	13.18	6.4	84.36	0.64	0.22	40	0.27	0.64	0.00	0.32	0.36	27.17	37.70	27.68	27.81	0.87	0.64
S31A	27.42	36	13.18	133.00	0.02	0.03	6.4	0.16	13.18	6.2	81.72	0.60	0.21	0	0.00	0.37	0.00	0.18	0.21	27.63	37.05	28.24	28.35	0.82	0.72
S32	27.96	36	13.18	237.50	0.02	0.05	6.2	0.15	13.18	6.1	80.41	0.58	0.20	0	0.00	0.35	0.00	0.18	0.23	28.19	37.62	29.07	29.16	1.11	0.97
S33	28.77	36	13.18	300.50	0.02	0.07	6.1	0.14	0.00	0.0	0.00	0.00	0.00	90	0.00	0.14	0.00	0.07	0.14	28.91	33.90	30.02	30.31	1.25	1.40
												24" Onsite	Sewer (Sce	nario 2)											
S2	14.30	24	12.01	151.90	0.17	0.25	6.0	0.14	12.01	6.3	75.63	0.62	0.22	15	0.12	0.47	0.00	0.24	0.49	14.79	46.29	15.98	15.61	1.68	0.82
\$3	14.89	24	12.01	151.90	0.17	0.25	6.3	0.15	12.01	7.5	90.52	0.88	0.31	60	0.49	0.96	0.00	0.48	0.73	15.62	45.33	16.05	16.15	1.16	0.53
\$4	15.62	24	12.01	124.20	0.17	0.21	7.5	0.22	12.01	6.1	73.35	0.58	0.20	70	0.35	0.78	0.00	0.39	0.60	16.22	44.75	16.54	16.64	0.92	0.42
<b>S</b> 5	16.22	24	12.01	74.40	0.17	0.12	6.1	0.14	9.85	6.1	60.21	0.58	0.20	0	0.00	0.35	0.00	0.17	0.30	16.52	41.95	17.45	17.55	1.23	1.03
<b>S6</b>	16.83	24	9.85	244.40	0.11	0.27	6.1	0.14	9.85	6.1	60.21	0.58	0.20	5	0.03	0.38	0.00	0.19	0.47	17.30	43.11	18.31	18.41	1.48	1.11
<b>S7</b>	17.69	24	9.85	230.30	0.11	0.26	6.1	0.14	9.85	6.1	60.21	0.58	0.20	5	0.03	0.38	0.00	0.19	0.45	18.14	42.95	18.89	18.99	1.20	0.85
S7A	18.27	24	9.85	144.00	0.11	0.16	6.1	0.14	9.85	6.1	60.21	0.58	0.20	5	0.03	0.38	0.00	0.19	0.35	18.62	41.49	19.47	19.57	1.20	0.95
S8	18.85	24	9.85	146.90	0.11	0.16	6.1	0.14	9.85	6.1	60.21	0.58	0.20	0	0.00	0.35	0.00	0.17	0.34	19.19	39.54	20.21	20.31	1.36	1.12
S9	19.59	24	9.85	195.00	0.11	0.22	6.1	0.14	9.48	6.0	57.19	0.56	0.20	5	0.03	0.38	0.00	0.19	0.41	20.00	35.35	21.10	21.20	1.51	1.20
S9A	20.48	24	9.48	237.00	0.10	0.25	6.0	0.14	9.48	6.1	57.94	0.58	0.20	0	0.00	0.34	0.00	0.17	0.42	20.90	36.56	21.55	21.65	1.07	0.75
S10	20.93	24	9.48	107.80	0.10	0.11	6.1	0.14	9.48	6.1	57.94	0.58	0.20	5	0.03	0.38	0.00	0.19	0.30	21.23	35.97	22.32	22.42	1.39	1.19
S11	21.70	24	9.48	203.40	0.10	0.21	6.1	0.14	9.48	6.1	57.94	0.58	0.20	5	0.03	0.38	0.00	0.19	0.40	22.10	37.48	23.24	23.34	1.54	1.24
S12	22.62	24	9.48	246.40	0.10	0.26	6.1	0.14	9.48	6.1	57.94	0.58	0.20	5	0.03	0.38	0.00	0.19	0.45	23.07	36.49	24.03	24.13	1.41	1.06
S13	23.41	24	9.48	210.10	0.10	0.22	6.1	0.14	9.48	6.1	57.66	0.57	0.20	0	0.00	0.35	0.00	0.17	0.39	23.80	34.78	24.97	25.07	1.56	1.27
S14	24.35	24	9.48	254.20	0.10	0.26	6.1	0.14	7.94	8.7	69.12	1.18	0.41	0	0.00	0.56	0.00	0.28	0.54	24.89	33.90	25.90	25.89	1.55	1.00
S15	25.43	24	7.94	251.80	0.07	0.18	8.7	0.29	6.18	14.7	90.85	3.36	1.17	0	0.00	1.47	0.00	0.73	0.92	26.35	35.99	29.11	29.21	3.68	2.86
S16	28.75	24	6.18	397.20	0.04	0.18	14.7	0.84	0.00	0.0	0.00	0.00	0.00	0	0.00	0.84	0.00	0.42	0.59	29.34	35.99	29.80		1.05	

ln (ft)		>20% Y or N	К
(10)		TOTAL	
40.00	10.01		0.00
19.33	19.21	N	0.00
20.10	19.90	N	0.00
21.14	21.09	N	0.00
22.08	21.93	N	0.39
22.60	22.57	N	0.61
23.34	23.29	N	0.47
24.41	24.30	N	0.39
25.02	24.89	N	0.43
25.56	25.45	N	0.00
26.37	26.28	N	0.00
	27.23	N	0.70
	5		
13.29	13.19	N	0.19
13.83	13.73	N	0.56
14.32	14.22	N	0.61
15.23	15.13	N	0.00
16.09	15.99	N	0.06
16.67	16.57	N	0.06
17.25	17.15	N	0.06
17.99	17.89	N	0.00
18.88	18.78	N	0.06
19.33	19.23	N	0.00
20.10	20.00	N	0.06
21.02	20.92	N	0.06
21.81	21.71	N	0.06
22.75	22.65	N	0.00
23.83	23.58	N	0.00
27.15	27.05	N	0.00
	27.74	N	0.00

inflow

Invert

- 1. All elevation for the 30" and 27" sewer are from the USGS datum
- 2. All elevation for all other sewers are from the NAD 83 datum (0.83' below the USGS datum)
- 3. All capacities shown on the chart are full flow capacities, approximately 93% of the maximum capacity.
- 4. All information is from as-built plans, design information or GIS data and noted appropriately. 5. Velocity values assumed to be at maximum when the pipe is at full capacity.
- 6. Column (24) = Column (22) Column (2). A negative value donates that the water surface elevation is higher than the crown of the pipe.
- 7. Column (25) = Column (23) Column (20). A negative value donates that the water surface elevation is higher than the crown of the pipe.

27.74 N 0.00

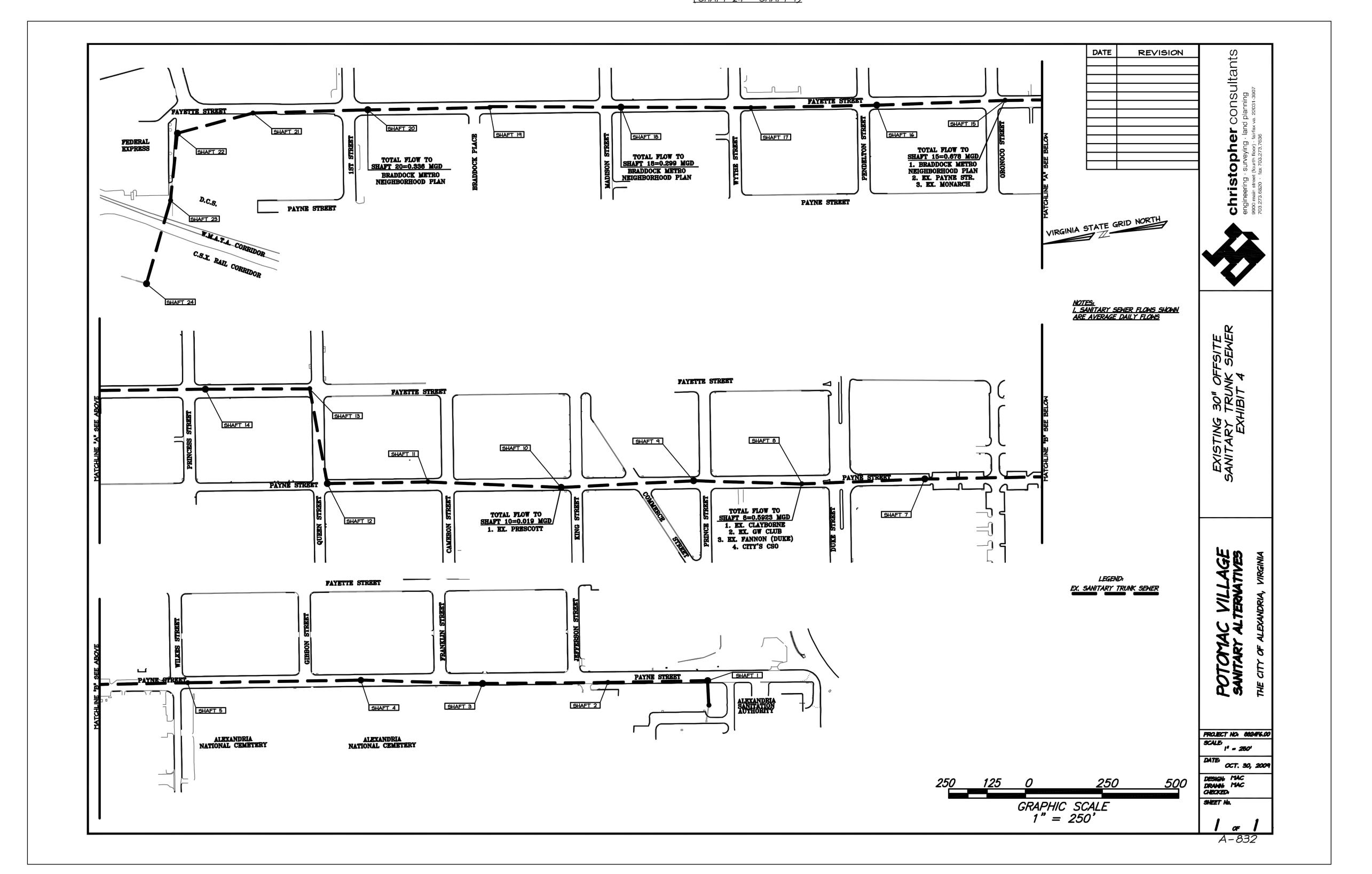
NO:14007.011.00

PROVED IAL USE PERMIT NO. 2020-10028	
MENT OF PLANNING & ZONING	PROJECT NO:14007
	SCALE: N/A
DIRECTOR DATE	
IENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES  LAN NO	DATE: 07-20-20
DIRECTOR DATE	DESIGN: EG DRAWN: JS
	CHECKED: KMW
, PLANNING COMMISSION DATE	SHEET No.
FCORDED	

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

THIS SHEET IS FOR INFORMATION PURPOSES ONLY!

#### TRUNK SEWER TO WASTEWATER TREATMENT PLANT (SHAFT 24 - SHAFT I)



IG 30-INCH RY TRUNK R EXHIBIT

EXISTING 30-IN SANITARY TRU SEWER EXHIB

LOCK AI PRELIMINARY DSUP

APPROVED SPECIAL USE PERMIT NO. 2020-10028 DEPARTMENT OF PLANNING & ZONING
DEPARTMENT OF PLANNING & ZONING

DIRECTOR DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

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

DIRECTOR DATE

CHAIRMAN PLANNING COMMISSION

CHAIRMAN, PLANNING COMMISSION DATE

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

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

PROJECT NO:14007.011.00

07-20-20

DESIGN: EG DRAWN: JS

SHEET No.

CHECKED: KMW

BMP/SWM TABULATIONS

LIMITS OF DISTURBANCE = 2.41 AC.

EXISTING IMPERVIOUS AREA = 2.17 AC. EXISTING PERVIOUS AREA = 0.24 AC.

PROPOSED IMPERVIOUS AREA = 2.29 AC.

PROPOSED PERVIOUS AREA = 0.12 AC.

TOTAL PHOSPHORUS REMOVED = 1.34 LBS/YEAR

BMP PRACTICES PROVIDED = STORMWATER PLANTER AND HYDRODYNAMIC SEPARATOR.

#### BMP NARRATIVE:

THE SITE IS DESIGNED TO UTILIZED STORMWATER PLANTERS, AND HYDRODYNAMIC SEPARATORS TO MEET THE BMP REQUIREMENTS OUTLINED

#### STATE REQUIREMENT:

THIS SITE IS PART OF A BMP MASTER PLAN FOR A PORTION OF THE OAKVILLE TRIANGLE WHICH WILL INCLUDE BLOCK AI, BLOCK A2, BLOCK B, BLOCK C, BLOCK E, AND OUTLOT D. REFER TO BMP MASTER PLAN (DSUP 2020-00024) FOR ALL MASTER PLAN REQUIREMENTS.

#### <u>MEMO TO INDUSTRY 01-18 REQUIREMENT:</u>

THIS REQUIREMENT WILL BE MET AS A WHOLE FOR THE BMP MASTER PLAN (SEE BMP VRRM DRAINAGE AREA BREAKDOWN ON SHEET C501). THIS PORTION OF THE MASTER PLAN WILL INCLUDE NON-PROPRIETARY PHOSPHORUS REMOVAL CREDIT FOR THE PORTION OF THE BMP TREE WELLS AND PERVIOUS PAVEMENT.

<u>CITY WQVD REQUIREMENT (13-109-E-1):</u> THIS REQUIREMENT IS FOR THE ENTIRE BMP MASTER PLAN AREA. REFER TO SHEET C200 OF THE BMP MASTER PLAN FOR WQVD CALCULATIONS.

BMP MASTER PLAN SITE RUNOFF COMPUTATIONS:

 $Q_{2} = (0.85)(6.2)(12.23) = 64.45 \text{ CFS}$   $Q_{2} = (0.80)(6.2)(12.23) = 60.66 \text{ CFS}$ 

 $Q_{p} = (0.85)(9.0)(12.23) = 93.56 \text{ CF5}$   $Q_{p} = (0.80)(9.0)(12.23) = 88.06 \text{ CF5}$ 

<u>NET DECREASE IN RUNOFF</u>

Q = 64.45 CFS - 60.66 CFS = 3.79 CFS

 $Q_{\rm m} = 93.56$  CFS - 88.06 CFS = 5.50 CFS

POST-DEVELOPMENT

C = (1.05)(0.35) + (9.99)(0.90)

12.23

A = 12.23 ACRES

Tc = 5 MINUTES

I,= 6.2 INCHES/HOUR

In= 9.0 INCHES/HOUR

C = 0.80

<u>PRE-DEVELOPMENT</u>

C = (1.05)(0.35) + (11.80)(0.90)

A = 12.23 ACRES

T = 5 MINUTES

I, = 6.2 INCHES/HOUR

In = 9.0 INCHES/HOUR

C = 0.85

BMP FACILITIES AND LAYOUT SHOWN ON THIS ARE PRELIMINARY AND ARE SUBJECT TO CHANGE.

#### THIS VRRM SPREADHSEET IS BASED ON THE LIMITS OF DISTURBANCE FOR JUST THIS PLAN AND IS SHOWN FOR INFORMATION PURPOSES ONLY!

#### DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet - Version 3.0 © 2011 BMP Standards and Specifications 2013 Draft BMP Standards and Specifications

Oakville Block A1 Prelim DSUP 10/20/2020 Linear Development Project? No

CLEAR ALL (Ctrl+Shift+R)

#### Site Information

Project Name:

Date:

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area (acres) $  o \! \! \! igl[$	2.41
Maximum reduction required:	20%
The site's net increase in impervious cover (acres) is:	0.12
Post-Development TP Load Reduction for Site (lb/yr):	1.16

BMP Design Specifications List: 2013 Draft Stds & Specs Linear project? No Land cover areas entered correctly?

Total disturbed area entered?

data input cells

constant values

calculation cells

final results

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) undisturbed,					0.00
protected forest/open space or reforested					0.00
Managed Turf (acres) disturbed, graded					0.24
for yards or other turf to be				0.24	0.24
Impervious Cover (acres)				2.17	2.17
•					2.41

Post-Development Land Cover (acres)

Pre-ReDevelopment Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) undisturbed,					0.00
protected forest/open space or reforested					0.00
Managed Turf (acres) disturbed, graded					0.12
for yards or other turf to be				0.12	0.12
Impervious Cover (acres)				2.29	2.29
Area Check	OK	OK	OK	OK	2.41

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

Constants

Runoff	Coefficient	ts (Rv)

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

#### Land Cover Summary-Pre Pre-ReDevelopment Listed Adjusted<sup>1</sup> 0.00 Forest/Open Space Cover (acres) Weighted Rv(forest) 0.00 0.00 % Forest 0% Managed Turf Cover (acres) 0.12 Weighted Rv(turf) 0.25 0.25 Impervious Cover (acres) 2.17

0.95

90%

2.41

0.88

0.95

95%

2.29

0.91

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Treatment Volume	and Nutrient Load
Treatment volume	and Matherit Load

Rv(impervious)

% Impervious

Total Site Area (acres)

Site Rv

Troughter voiding an	d Nati Cit L	oud
Pre-ReDevelopment Treatment Volume (acre-ft)	0.1768	0.1743
Pre-ReDevelopment Treatment Volume (cubic feet)	7,701	7,592
Pre-ReDevelopment TP Load (lb/yr)	4.84	4.77
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	2.01	2.08
Baseline TP Load (lb/yr) (0.41 lbs/acre/yr applied to pre-redevelopment pervious land proposed for new impervio	0.94	

<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 I shows load reduction requriement for new impervious cover (based on

new development load limit, 0.41 lbs/acre/year).

Land Cover Summary-Post (Final)		Land Cover Summ	Land Cover Summary-Post		Land Cover Summary-Post		
Post ReDev. & New	Impervious	Post-ReDevelop	Post-ReDevelopment		/ Impervious		
Forest/Open Space Cover (acres)	0.00	Forest/Open Space Cover (acres)	0.00				
Weighted Rv(forest)	0.00	Weighted Rv(forest)	0.00				
% Forest	0%	% Forest	0%				
Managed Turf Cover (acres)	0.12	Managed Turf Cover (acres)	0.12				
Weighted Rv (turf)	0.25	Weighted Rv (turf)	0.25				
% Managed Turf	5%	% Managed Turf	5%				
Impervious Cover (acres)	2.29	ReDev. Impervious Cover (acres)	2.17	New Impervious Cover (acres)	0.12		
Rv(impervious)	0.95	Rv(impervious)	0.95	Rv(impervious)	0.95		
% Impervious	95%	% Impervious	95%				
inal Site Area (acres)	2.41	Total ReDev. Site Area (acres)	2.29				
Final Post Dev Site Rv	0.92	ReDev Site Rv	0.91				

LAND COVER SUMMARY -- POST DEVELOPMENT

		Treatment Volume and Nutrient Load	d
Final Post- Development Treatment Volume (acre-ft)	0.1838	Post-ReDevelopment Treatment Volume (acre-ft)	
Final Post- Development Treatment Volume (cubic feet)	8,006	Post-ReDevelopment Treatment Volume (cubic feet)	
Final Post- Development TP Load (lb/yr)	5.03	Post-ReDevelopment Load (TP) 4.77 (lb/yr)*	
Final Post-Development		Post-ReDevelopment TP	

TP Load per acre

(lb/acre/yr)

Treatment Volume (acre-ft)	0.1743		Treatment Volume (acre-ft)
Post-ReDevelopment Treatment Volume (cubic feet)	7,592		Post-Development Treatment Volume (cubic feet)
Post-ReDevelopment Load (TP) (lb/yr)*	4.77	,	Post-Development TP Load (lb/yr)
Post-ReDevelopment TP Load per acre (lb/acre/yr)	2.08		

(Below Pre- ReDevelopment Load)	20%
TP Load Reduction	

Max. Reduction Required

(lb/yr)

TP Load Reduction	
Required for New	0.21
Impervious Area	0.21
(lb/yr)	

0.0095

414

0.26

## Redeveloped Area

1.16

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

## Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	34.61

Final Post-Development TN Load (Post-ReDevelopment & New 35.98 Impervious) (lb/yr)

#### WQVD CALCULATIONS

REFER TO SHEET C200 OF THE BMP MASTER PLAN (DSUP 2020-00024) FOR THE WQVD CALCULATIONS

#### PROJECT SITE RUNOFF COMPUTATIONS:

PRE AND POST RUNOFF IS THE SAME, SEE SHEET C705 FOR CALCULATION.

#### Project Description

Development (Redevelopment)

Drainage Area	Impervious	Pervious	Total
Site Area	2.29	0.12	2.4
On-Site Treated	2.10	0.02	2.12
Off-Site Treated	0	0	
Total Treated	2.10	0.02	2.12

#### Miscellaneous Information

Total WQV treated Detention on Site Project is within which watershed?

FOUR MILE RUN / POTOMAC RIVER Project Discharges to which body of water? FOUR MILE RUN / POTOMAC RIVER

#### BMP PHASING NARRATIVE

THIS DEVELOPMENT IS BEING CONSTRUCTED IN TWO PHASES: - PHASE I - THE FOLLOWING AREAS WILL BE DESIGNED AND CONSTRUCTED CONCURRENTLY AS PHASE I: INFRASTRUCTURE, BLOCK AI, BLOCK A2, BLOCK B, NEW ROAD A OUTLOT, BLOCK C OPEN SPACE, BLOCK E. - PHASE 2 - THE REMAINING PORTION OF THE SITE WILL BE DESIGNED AND CONSTRUCTED AS PHASE 2: BLOCK C RESIDENTIAL BUILDING AND THE OPEN SPACE SOUTH OF THE BUILDING.

NOTE: BLOCK D (TOWNHOUSES) WILL BE DESIGNED BY OTHERS AS A STANDALONE DSUP INDEPENDENT OF ANYTHING BEING COMPLETED IN PHASE I OR 2 LISTED

STATE WATER QUALITY COMPLIANCE (VRRM SPREADSHEET): THIS MASTER PLAN WILL SHOW COMPLIANCE FOR BOTH PHASE I AND PHASE 2. EACH INDIVIDUAL DSUP FOR EACH PLAN WILL PROVIDE A VRRM SPREADSHEET FOR INFORMATIONAL PURPOSES ONLY.

MEMO TO INDUSTRY OI-18 COMPLIANCE: THIS MASTER PLAN WILL SHOW COMPLIANCE FOR BOTH PHASE I AND PHASE 2. THE PHASE I MUST PROVIDE THE MINIMUM REQUIRED FOR THAT PHASE TO BE COMPLIANT, AS CURRENTLY DESIGNED, THE REQUIREMENT FOR THE ENTIRE DEVELOPMENT (PHASE AND PHASE 2) IS MET AT THE CONCLUSION OF PHASE I.

#### WATER QUALITY VOLUME DEFAULT (WQVD): THIS REQUIREMENT IS ANALYZED BASED ON THE THE MASTER PLAN. ALL IMPERIOUS AREA ON PRIVATE PROPERTY MUST BE TREATED. ANY UNTREATED IMPERVIOUS AREA CAN BE OFF-SET BY IMPERVIOUS AREA TREATED IN THE RIGHT-OF-WAY. A FEE IN LIEU OF CAN BE PAID FOR ANY REMAINING UNTREATED IMPERVIOUS AREA.

MEMO-TO-INDUSTRY 04-14: THE MAXIMUM AMOUNT OF GREEN SIDEWALK INFRASTRUCTURE HAS BEEN PROVIDED BY THE BMP TREE WELLS AND PERMEABLE PAVEMENT SHOWN ON THE MASTER PLAN.

### APPROVED SPECIAL USE PERMIT NO. 2020-10028 DEPARTMENT OF PLANNING & ZONING DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES DIRECTOR DATE DATE RECORDED\_ INSTRUMENT NO. DEED BOOK NO. PAGE NO.

ELI GOLDMAN Lic. No.55868 10/20/2020

PROJECT NO:14007.011.00 SCALE: |"=30" DATE: 07-20-20 DESIGN: EG DRAWN: JS

CHECKED: KMW SHEET No.

--Select from dropdown lists-

FOR INFORMATIONAL PURPOSES ONLY

#### Drainage Area A Land Cover (acres)

ninage Area A Land Cover (acres)										
	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv				
Forest/Open Space (acres)					0.00	0.00				
Managed Turf (acres)					0.00	0.00				
Impervious Cover (acres)				1.83	1.83	0.95				
				Total	1.83					

#### CLEAR BMP AREAS

Total Phosphorus Available for Removal in D.A. A (lb/yr) Post Development Treatment Volume in D.A. A (ft<sup>3</sup>) 6,311

#### Stormwater Best Management Practices (RR = Runoff Reduction)

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	the second secon	Volume from Upstream Practice (ft <sup>3</sup> )	Runoff Reduction (ft <sup>3</sup> )	Remaining Runoff Volume (ft <sup>3</sup> )	Total BMP Treatment Volume (ft <sup>3</sup> )	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (Ib)	Untreated Phosphorus Load to Practice (Ib)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
2. Rooftop Disconnection (RR)													
2.i. To Stormwater Planter, Urban Bioretention (Spec #9, Appendix A)	40		0.23	0	317	476	793	25	0.00	0.50	0.27	0.22	14.a. MTD - Hydrodynamic

#### Drainage Area B (TREE WELLS - OAKVILLE STREET)

#### Drainage Area A Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover R
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)				0.01	0.01	0.25
Impervious Cover (acres)				0.07	0.07	0.95
				Total	0.08	

### CLEAR BMP AREAS

otal Phosphorus Available for Removal in D.A. B (lb/yr) Post Development Treatment Volume in D.A. B (ft<sup>3</sup>) 250

#### **Stormwater Best Management Practices (RR = Runoff Reduction)**

Stormwater Best Managem	tormwater Best Management Practices (RR = Runoff Reduction)Select from dropdown lists-												
Practice	Runoff Reduction Credit (%)	The second secon	Cover Credit	Volume from Upstream Practice (ft <sup>3</sup> )	Reduction	Remaining Runoff Volume (ft <sup>3</sup> )	Total BMP Treatment Volume (ft <sup>3</sup> )	Removal Efficiency	Phosphorus Load from Upstream Practices (Ib)	Phosphorus Load to	Practice (lb)		Downstream Practice to be Employed
6. Bioretention (RR)													
6.a. Bioretention #1 or Micro-Bioretention #1 or Urban Bioretention (Spec #9)	40	0.01	0.07	0	100	150	250	25	0.00	0.16	0.09	0.07	

#### Drainage Area C (TREE WELLS - SWANN AVENUE)

#### 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)				0.20	0.20	0.95
				Total	0.21	

#### CLEAR BMP AREAS

Total Phosphorus Available for Removal in D.A. C (lb/yr)	0.44
Post Development Treatment Volume in D.A. C (ft <sup>3</sup> )	699

#### Stormwater Best Management Practices (RR = Runoff Reduction)

tormwater Best Management Practices (RR = Runoff Reduction)Select from dropdown lists													
Practice	Runoff Reduction Credit (%)	Turf Credit	Impervious Cover Credit Area (acres)	Upstream	Runoff Reduction (ft <sup>3</sup> )	Remaining Runoff Volume (ft <sup>3</sup> )	Total BMP Treatment Volume (ft <sup>3</sup> )	Removal Efficiency	Phosphorus Load from Upstream Practices (Ib)	Load to	Removed By	Phosphorus	Downstream Practice to be
6. Bioretention (RR)													
6.a. Bioretention #1 or Micro-Bioretention #1 or Urban Bioretention (Spec #9)	40	0.01	0.20	0	280	419	699	25	0.00	0.44	0.24	0.20	

#### Site Results (Water Quality Compliance)

Area Checks	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
FOREST/OPEN SPACE (ac)	0.00	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER (ac)	1.83	0.07	0.20	0.00	0.00	OK.
IMPERVIOUS COVER TREATED (ac)	1.83	0.07	0.20	0.00	0.00	OK.
MANAGED TURF AREA (ac)	0.00	0.01	0.01	0.00	0.00	OK.
MANAGED TURF AREA TREATED (ac)	0.00	0.01	0.01	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

#### Site Treatment Volume (ft<sup>3</sup>) 8,006

#### Runoff Reduction Volume and TP By Drainage Area

action volume and it by brainage 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> )	317	100	280	0	0	697
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	3.97	0.16	0.44	0.00	0.00	4.56
TP LOAD REDUCTION ACHIEVED (lb/yr)	1.01	0.09	0.24	0.00	0.00	1.34
TP LOAD REMAINING (lb/yr)	2.95	0.07	0.20	0.00	0.00	3.22
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	2.28	0.72	2.01	0.00	0.00	5.01

#### Total Phoenh

Total Phosphorus	
FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	
TP LOAD REDUCTION REQUIRED (lb/yr)	
TP LOAD REDUCTION ACHIEVED (lb/yr)	1.34
TP LOAD REMAINING (lb/yr):	3.69

#### REMAINING TP LOAD REDUCTION REQUIRED (lb/yr): 0.00 \*\* \*\* TARGET TP REDUCTION EXCEEDED BY 0.17 LB/YEAR \*\*

#### Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	35.98
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	5.01
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	30.98

#### Drainage Area Curve Numbers and Runoff Depths\*

Curve numbers (CN, CNadj) and runoff depths (RV Developed) are computed with and without reduction practices.

Drainage Area A		A Soils	B Soils	C Soils	D Soils		Total Area (acres):	1.83
Forest/Open Space undisturbed, protected	Area (acres)	0.00	0.00	0.00	0.00		Runoff Reduction	
forest/open space or reforested land	CN	30	55	70	77		Volume (ft <sup>3</sup> ):	317
Managed Turf disturbed, graded for yards or other	Area (acres)	0.00	0.00	0.00	0.00			
turf to be mowed/managed	CN	39	61	74	80			
lancarian Canan	Area (acres)	0.00	0.00	0.00	1.83	1		
Impervious Cover	CN	98	98	98	98			
					CN <sub>(D.A. A)</sub>			
					98			

	1-year storm	2-year storm	10-year storm	
RV <sub>Developed</sub> (watershed-inch) with no Runoff Reduction*	2.47	2.97	4.96	ADJUSTED CN FOR
RV <sub>Developed</sub> (watershed-inch) with Runoff Reduction*	2.42	2.92	4.92	STORMWATER PLANTERS
Adjusted CN*	97	97	97	
*See Notes above		L		

Drainage Area B		A Soils	B Soils	C Soils	D Soils	Total Area (acres): 0.08	
Forest/Open Space undisturbed, protected	Forest/Open Space undisturbed, protected Area (acres)		0.00	0.00	0.00	Runoff Reduction	
forest/open space or reforested land	forest/open space or reforested land CN		55	70	77	Volume (ft <sup>3</sup> ): 100	
Managed Turf disturbed, graded for yards or other	lanaged Turf disturbed, graded for yards or other		0.00	0.00	0.01		
turf to be mowed/managed CN		39	61	74	80		
Area (acre		0.00	0.00	0.00	0.07		
Impervious Cover	CN	98	98	98	98		
					CN <sub>(D.A. B)</sub>		
					96		
1-year storm 2-year storm 10-year storm							
RV <sub>Developed</sub> (watershed-inch) with no Rui	2.26	2.75	4.73		JUSTED CN FOR		
RV <sub>Developed</sub> (watershed-inch) with Rui	1.91	2.40	4.39		EE WELLS		
	92	92	93	(OAKVILLE STREET)			

Drainage Area C		A Soils	B Soils	C Soils	D Soils	Total Area (acres): 0.21
Forest/Open Space undisturbed, protected	Area (acres)	0.00	0.00	0.00	0.00	Runoff Reduction
forest/open space or reforested land	CN	30	55	70	77	Volume (ft³): 280
Managed Turf disturbed, graded for yards or other	Area (acres)	0.00	0.00	0.00	0.01	
turf to be mowed/managed	CN	39	61	74	80	
Impervious Cover	Area (acres)	0.00	0.00	0.00	0.20	
impervious cover	CN	98	98	98	98	
					CN <sub>(D.A. C)</sub>	
					97	
		1-year storm	2-year storm	10-year storm	_	
RV <sub>Developed</sub> (watershed-inch) with no Run	2.36	2.86	4.85	-AD	JUSTED CN FOR TREE	
RV <sub>Developed</sub> (watershed-inch) with Run		2.49	4.48	WF	LLS (SWANN AVENUE)	

93

93

Adjusted CN\*

APPROVED SPECIAL USE PERMIT NO. 2020-10028 DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES site plan no. <u>—</u>

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

CHECKED: KMW SHEET No.

## BMP MASTER PLAN TRACKING CHART

SITE (SEE SHEET C701 FOR SITE BMP MAP AND SHEET C702 FOR OVERALL POST BMP MAP)

		<b>BMP VRRM Drain</b>	age Area Breakde	own / Trac	king Chart	
Drainage Area 'A' (Block A1)				-		
BMP Device	Total Area Treated	Impervious Area Treated	Pervious Area Treated	TP Removed	TP Removed (nonproprietary)	Notes
2.i. To Stormwater Planter,					, , , , , , , , , , , , , , , , , , , ,	
Urban Bioretention (Spec #9, Appendix A)	0.23	0.23	0.00	0.27	0.27	
						0.23 Acres to (2.i. To Stormwater Planter) in series to (14.a.
14.a. Manufactured Treatment Device-Hydrodynamic	1.60	1.60	0.00	0.74	0	Manufactured Treatment Device-Hydrodynamic )
Total Treated	1.83	1.83	0.00	1.01	0.27	
Untreated	0.00	0.00	0.00			
Total	1.83	1.83	0.00			
Drainage Area 'B' (Block A2)						
BMP Device	Total Area Treated	Impervious Area Treated	Pervious Area Treated	TP Removed	TP Removed (nonproprietary)	Notes
1.b. Vegetated Roof #2 (Spec #5)	0.20	0.20	0.00	0.26	0.26	
						0.2 Acres to (1.b. Vegetated Roof #2 (Sp) in series to (14.a.
14.a. Manufactured Treatment Device-Hydrodynamic	0.62	0.62	0.00	0.30	0.00	Manufactured Treatment Device-Hydrodynamic)
Total Treated	0.82	0.82	0.00	0.56	0.26	
Untreated	0.00					
Total	0.82	0.82	0.00			
Drainage Area 'C' (Block B)						
BMP Device	Total Area Treated	Impervious Area Treated	Pervious Area Treated	TP Removed	TP Removed (nonproprietary)	Notes
2.i. To Stormwater Planter,						
Urban Bioretention (Spec #9, Appendix A)	0.15	0.15	0	0.18	0.18	
14.a. Manufactured Treatment Device-Hydrodynamic	1.19	1.19	0.00	0.54	0.00	
Total Treated	1.34	1.34	0.00	0.72	0.18	
Untreated	0.00					
Total	1.19	1.34	0.00			
Drainage Area 'D' (Block C)						
BMP Device	Total Area Treated	Impervious Area Treated	Pervious Area Treated	TP Removed	TP Removed (nonproprietary)	Notes
14.a. Manufactured Treatment Device-Hydrodynamic	1.09	1.09	0.00	0.47	0.00	
Total Treated	1.09	1.09	0.00	0.47	0.00	
Untreated	0.00					
Total	1.09	1.09	0.00			
Sub-total Treated (Blocks A, B and C)	5.08	5.08	0.00			
Sub-total Un-Treated (Blocks A, B and C)	0.00	0.00	0.00			
Drainage Area 'E' (ROW and Park Road Out	tlot)					
BMP Device	Total Area Treated	Impervious Area Treated	Pervious Area Treated	TP Removed	TP Removed (nonproprietary)	Notes
BMP Tree Filters - ROW	1.13	1.07	0.06	1.29	1.29	
3.a. Permeable Pavement #1 (Spec #7)	0.08	0.08	0.00	0.10	0.10	
Total Treated	1.21	1.15	0.06	1.39	1.39	
Untreated	0.00	0.00	0.00			
Total	1.21	1.15	0.06			
		Grand	Total Phosphorus Removed	4.16	2.11	
					1 De la contraction de la cont	

BMP TREE WELL ----

SEE SHEET C702

BMP MAP.

FOR OVERALL POST

_	Phosphorus Load Reduction Requirements									
	DA	Area (ac.)	Pre - Imp	Pre - Perv	Post - Imp <sup>(2)</sup>	Post - Perv	TP Reduction Required	TP Reduction Required with nonproprietary  BMPs (1)		
	<b>BMP Limits</b>	12.23	11.18	1.05	9.99	2.24	3.06	1.99		
	NI - I									

(1) Per City's memo-to-industry 01-18, 65% of the total phosphorus removal required by the VRRM must be achieved through (2) City's WQIF requirement that 100% of the site's impervious area be treated or pay a fee in lieu of (\$2/sf) for any untreated

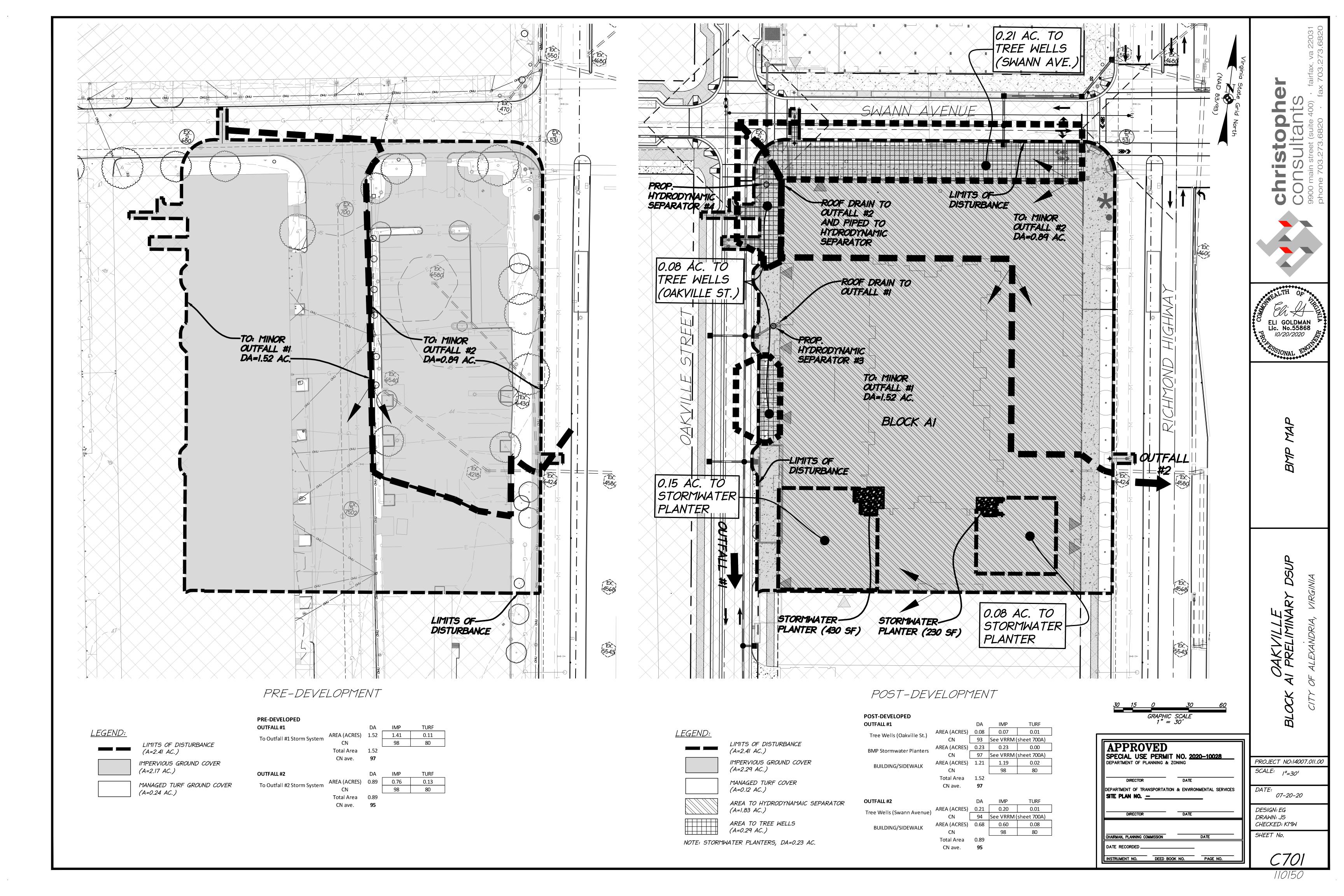
ELI GOLDMAN Lic. No.55868 10/20/2020

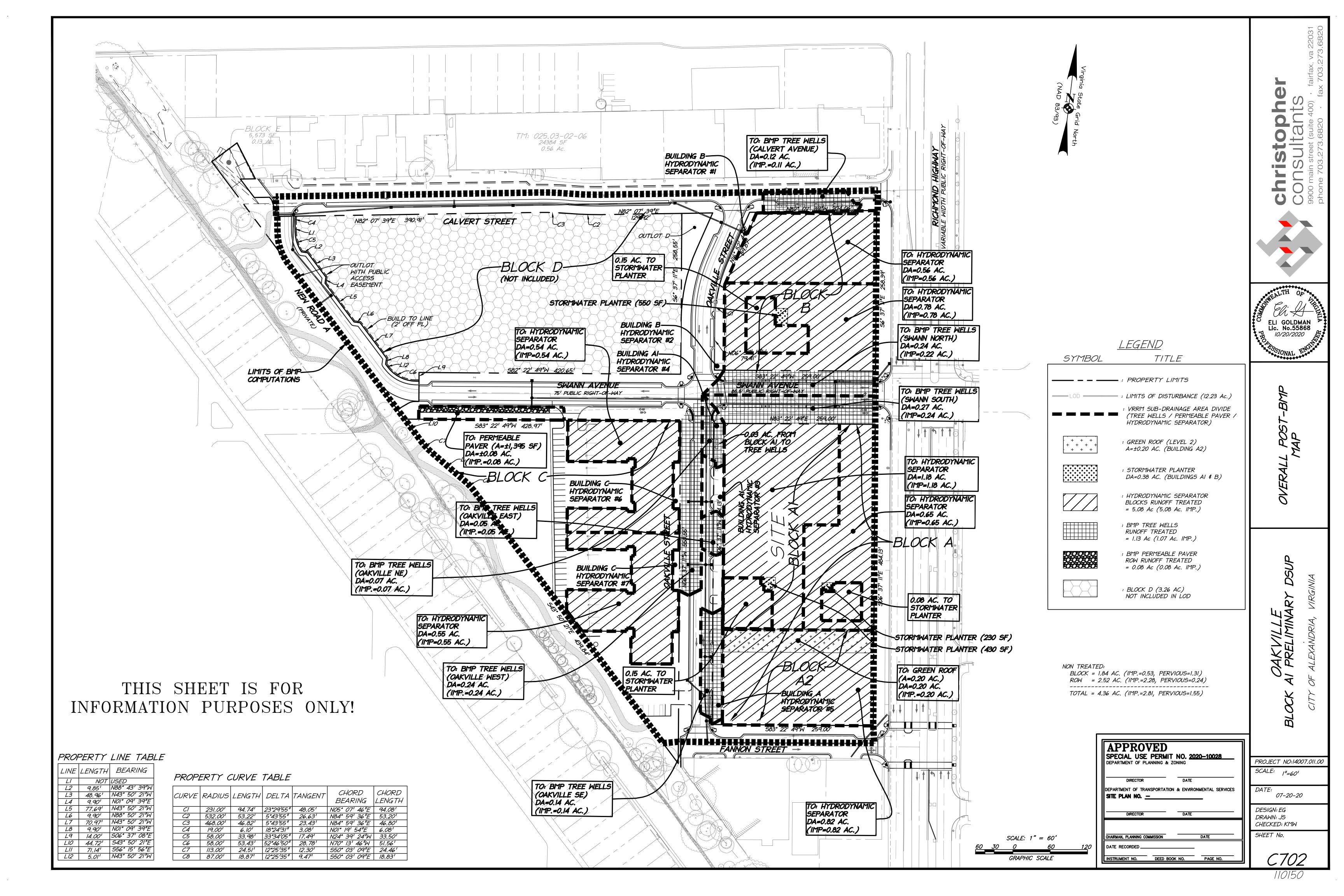
> PRELIMINARY BMP COMPUTATIONS

LOCK AI PRELIMINARY DSUP

	4
APPROVED SPECIAL USE PERMIT NO. 2020–10028	
DEPARTMENT OF PLANNING & ZONING	PROJECT NO:14007.011.00
	SCALE:  "=30"
DIRECTOR DATE	
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES  SITE PLAN NO	DATE: 07-20-20
DIRECTOR DATE	DESIGN: EG DRAWN: JS
	CHECKED: KMW
CHAIRMAN, PLANNING COMMISSION DATE	SHEET No.
DATE RECORDED	

INSTRUMENT NO. DEED BOOK NO. PAGE NO.





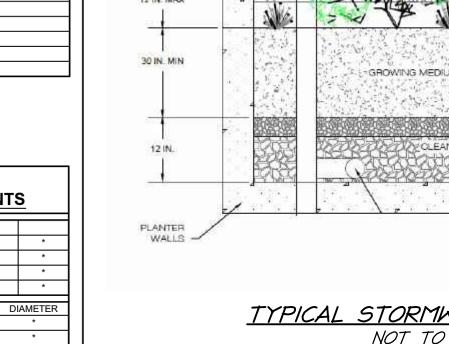
- BUILDING



HDS#	DRAINAGE AREA (100% IMPERVIOUS)	CDS MODEL#		
3	1.18 ac.	3025-6		
4	0.65 ac.	2025-5		



NOTE: ADD STORM DRAIN MARKER TO ALL PUBLIC CURB INLETS WITHIN 50 FEET OF THE PROPERTY LINE



FRAME AND COVER (DIAMETER VARIES) N.T.S.

DATA REQUIREMENTS STRUCTURE ID WATER QUALITY FLOW RATE (CFS OR L/s) PEAK FLOW RATE (CFS OR L/s) RETURN PERIOD OF PEAK FLOW (YRS) SCREEN APERTURE (2400 OR 4700) PIPE DATA: I.E. MATERIAL INLET PIPE 1 INLET PIPE 2 OUTLET PIPE \* \* NTI-FLOTATION BALLAST OTES/SPECIAL REQUIREMENTS: PER ENGINEER OF RECORD

SITE SPECIFIC

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.

2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY. 3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED

CDS2025-5-C DESIGN NOTES

THE STANDARD CDS2025-5-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME

CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

EDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS

EPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)

CONTECH\*

CONFIGURATION DESCRIPTION GRATED INLET ONLY (NO INLET PIPE)

GRATED INLET WITH INLET PIPE OR PIPES CURB INLET ONLY (NO INLET PIPE)

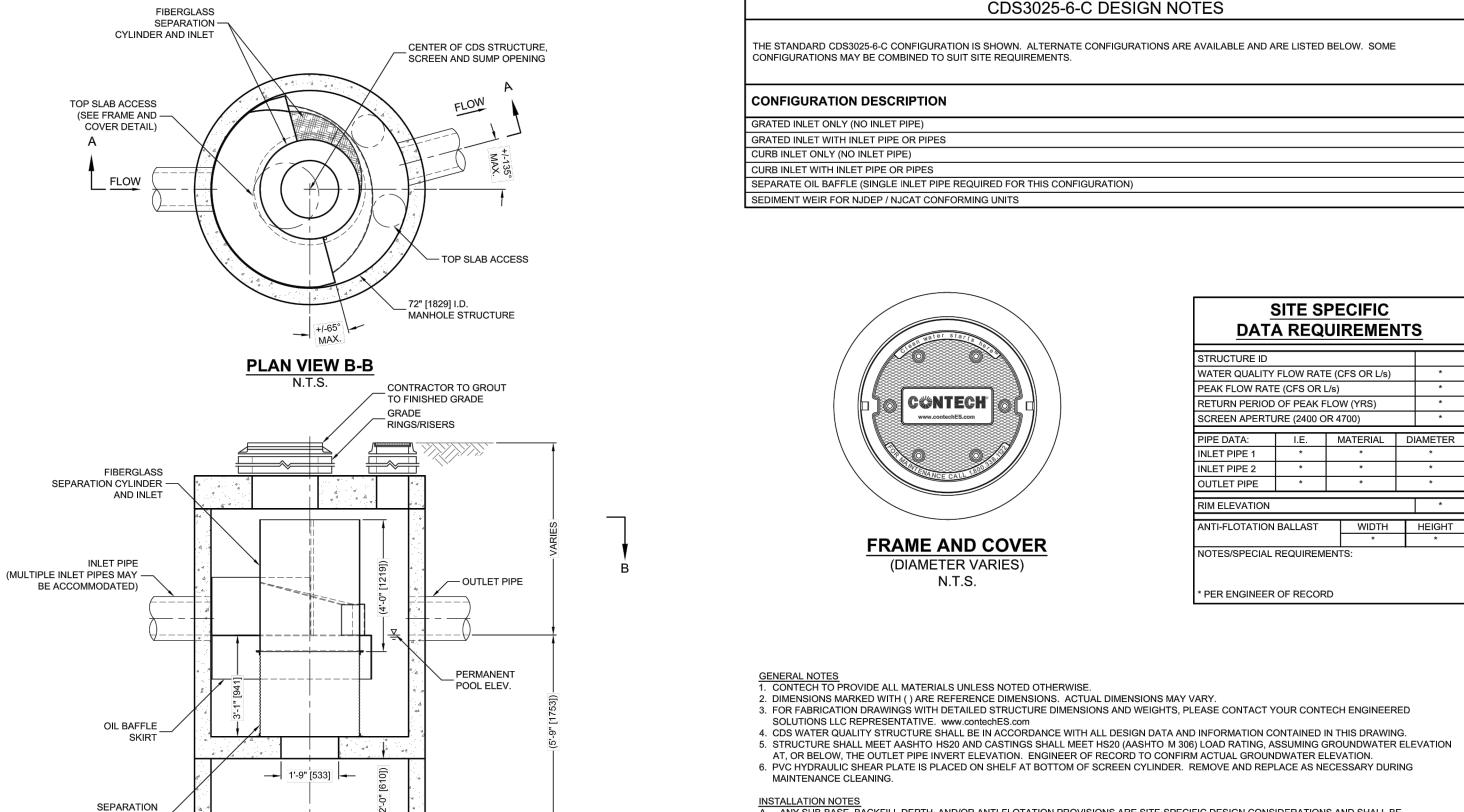
URB INLET WITH INLET PIPE OR PIPES

- SOLUTIONS LLC REPRESENTATIVE. www.contechES.com 4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
  5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. 6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING
- MAINTENANCE CLEANING. INSTALLATION NOTES

  A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE
- SPECIFIED BY ENGINEER OF RECORD. B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO ADD JOINT SÉALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
  CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS
  SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH **ENGINEERED SOLUTIONS LLC** www.contechES.com 9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069

CDS2025-5-C INLINE CDS STANDARD DETAIL



**FIBERGLASS** 

AND INLET

SEPARATION CYLINDER -

PVC HYDRAULIC

SHEAR PLATE

CONTRACTOR TO GROUT TO

FIBERGI ASS

AND INLET

OIL BAFFLE

SEPARATION

PVC HYDRAULIC

SOLIDS STORAGE \_ SUMP

SOLIDS STORAGE

SHEAR PLATE

SCREEN

SEPARATION CYLINDER —

INLET PIPE

(MULTIPLE INLET PIPES MAY

BE ACCOMMODATED)

FINISHED GRADE

RINGS/RISERS

**PLAN VIEW B-B** 

1'-9" [533]

**ELEVATION** A-A

**QD2** 

CENTER OF CDS STRUCTURE,

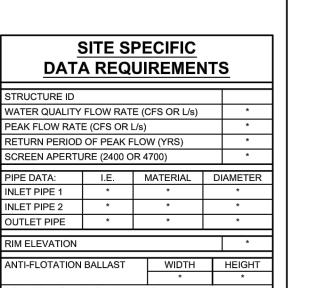
SCREEN AND SUMP OPENING

TOP SLAB ACCESS - (SEE FRAME AND COVER DETAIL)

MANHOLE STRUCTURE

PERMANENT POOL ELEV.

60" [1524] I.D.



- AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. 6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING
- INSTALLATION NOTES

  A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE
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- (LIFTING CLUTCHES PROVIDED). CONTRACTOR TO ADD JOINT SÉALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.

  CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.
- www.contechES.com 9025 Centre Pointe Dr., Suite 400, West Chester, OH 4506

CDS3025-6-C INLINE CDS STANDARD DETAIL

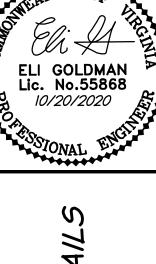
APPROVED SPECIAL USE PERMIT NO. 2020-10028 DEPARTMENT OF PLANNING & ZONING DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES | SITE PLAN NO. \_\_\_ DIRECTOR DATE

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

DATE RECORDED.

SHEET No.





07-20-20

DESIGN: EG DRAWN: JS CHECKED: KMW

RV<sub>Developed</sub> (watershed-inch) with no Runoff Reduction\*

RV<sub>Developed</sub> (watershed-inch) with Runoff Reduction\*

4.96

4.92

1-year storm 2-year storm 10-year storm RV<sub>Developed</sub> (watershed-inch) with no Runoff Reduction\* 2.97 4.96 RV<sub>Developed</sub> (watershed-inch) with Runoff Reduction\* 2.83 4.82 Adjusted CN\*

RV<sub>Developed</sub> (watershed-inch) with no Runoff Reduction\*

BLDG. B

97

97

1-year storm 2-year storm 10-year storm 2.97 RV<sub>Developed</sub> (watershed-inch) with Runoff Reduction\* 2.83 4.82 Adjusted CN\*

BLDG. C

	1-year storm	2-year storm	10-year stori
RV <sub>Developed</sub> (watershed-inch) with no Runoff Reduction*	2.47	2.97	4.96
RV <sub>Developed</sub> (watershed-inch) with Runoff Reduction*	2.47	2.97	4.96
Adjusted CN*	98	98	98

Adjusted CN\*

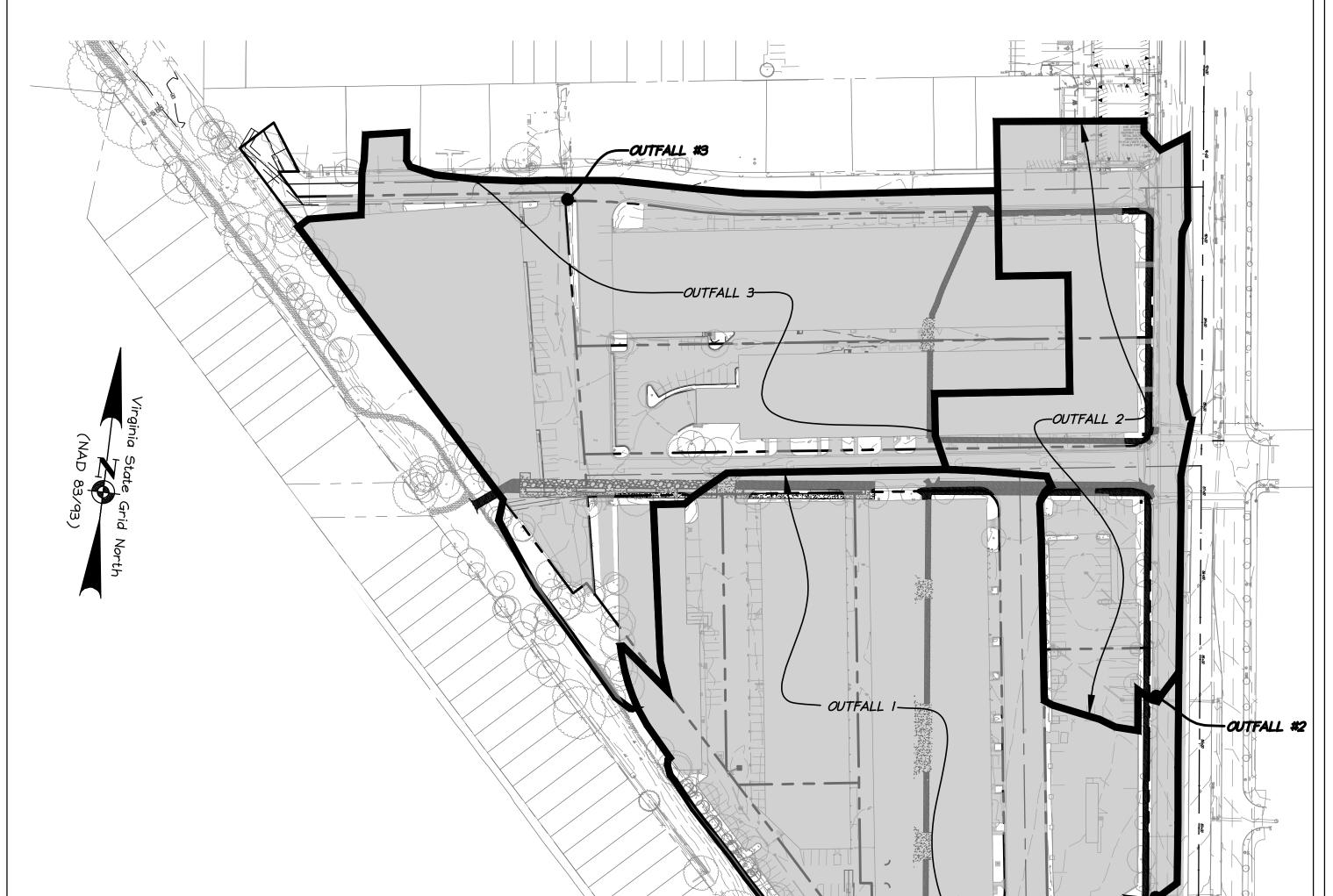
TREE WELLS

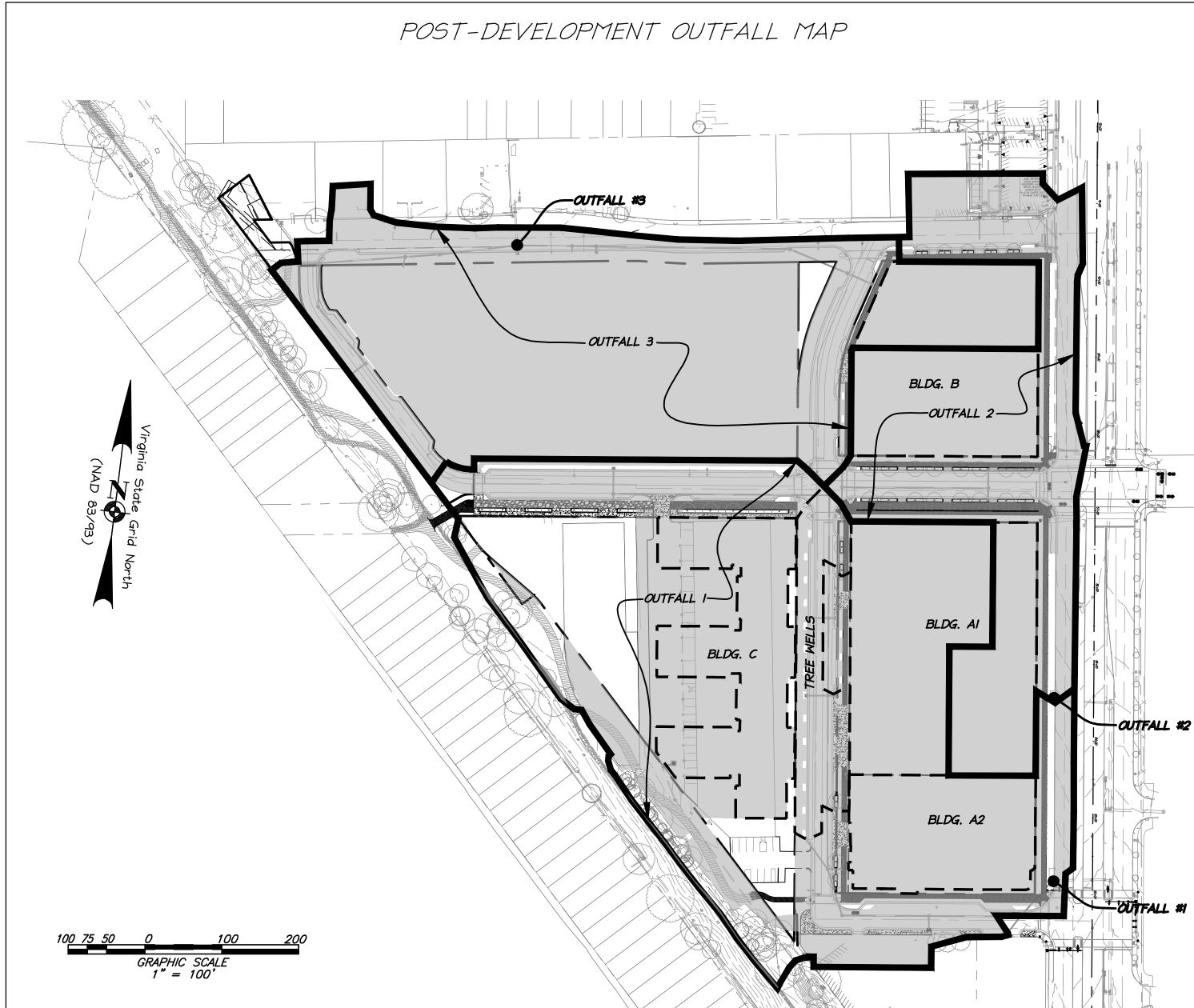
1-year storm	2-year storm	10-year storm
2.36	2.86	4.85
1.99	2.49	4.48
93	93	94
	2.36 1.99	2.36 2.86 1.99 2.49

PRE-DEVELOPMENT OUTFALL MAP

2.97

2.92





#### AREA AND CURVE NUMBER SUMMARY CHART

					PRE											-						POST											
OUTFALL	IMP. AREA	CN	AREA X CN	TURF AREA	CN	AREA X CN	TOTAL AREA X CN	TOTAL DRAINAGE AREA	AVERAGE CN	IMP. AREA	CN	AREA X CN	TURF AREA	CN	AREA X CN	BLDG. A1	CN*	AREA X CN	BLDG. A2	CN*	AREA X CN	BLDG. B	CN*	AREA X CN	BLDG. C	CN*	AREA X CN	TREE WELLS	CN*	AREA X CN	TOTAL AREA X CN	TOTAL DRAINAGE AREA	AVERAGE CN
1	6.23	98	610.54	0.53	80	42.4	652.94	6.76	97	2.75	98	269.50	1.66	80	132.80	1.18	97	114.46	0.82	97	79.54				1.09	98		0.55	94	51.70	648.00	8.05	80
2	2.69	98	263.62	0.33	80	26.4	290.02	3.02	96	1.57	98	153.86	0.18	80	14.40	0.65	97	63.05				0.78	98	76.44			0.00				307.75	3.18	97
2	6.18	98	605.64	0.54	80	43.2	648.84	6.72	97	4.69	98	459.62	0.10	80	8.00							0.56	98	54.88			0.00				522.50	5.35	98
TOTAL	15.10			1.40	•			16.50		9.01	•		1.94	•		1.83	•		0.82	•		1.34	•			•		0.55				16.58	

#### PEAK DISCHARGE AND RUNOFF VOLUME SUMMARY CHART

			F	PRE					POS	Т		
OUTFALL	1-Y	'ear	2-Y	ear	10-	Year	1-\	Year	2-Y	'ear	10-	Year
	Q (cfs)	Rv (cf)										
1	26.20	59,755	31.33	72,288	51.68	122,642	15.44	31,032	21.03	42,247	45.03	92,455
2	11.44	25,518	13.75	31,079	22.91	53,489	12.32	28,109	14.74	34,005	24.31	57,692
3	26.04	59,401	31.14	71,861	51.38	121,916	21.11	49,461	25.13	59,431	41.14	99,393

#### PROPOSED BMP:

BLDG. AI (A=1.83 AC.)			
STORMWATER PLANTER,	DA=0.23 AC.	(IN SERIES	TO HDS)
HDS, DA=1.60 AC.		·	·

BLDG. A2 (A=0.82 AC.) GREEN ROOF, DA=0.20 AC. (IN SERIES TO HDS) HDS, DA=0.62 AC.

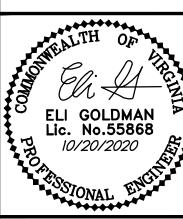
BLDG. B (A=1.34 AC.) HDS, DA=1.34 AC.

BLDG. C	(A=1.09 AC.)
	DA=1.09 AC.

TREE WELLS (DA=0.82 AC.) DA=0.55 AC. (IMP.=0.53)

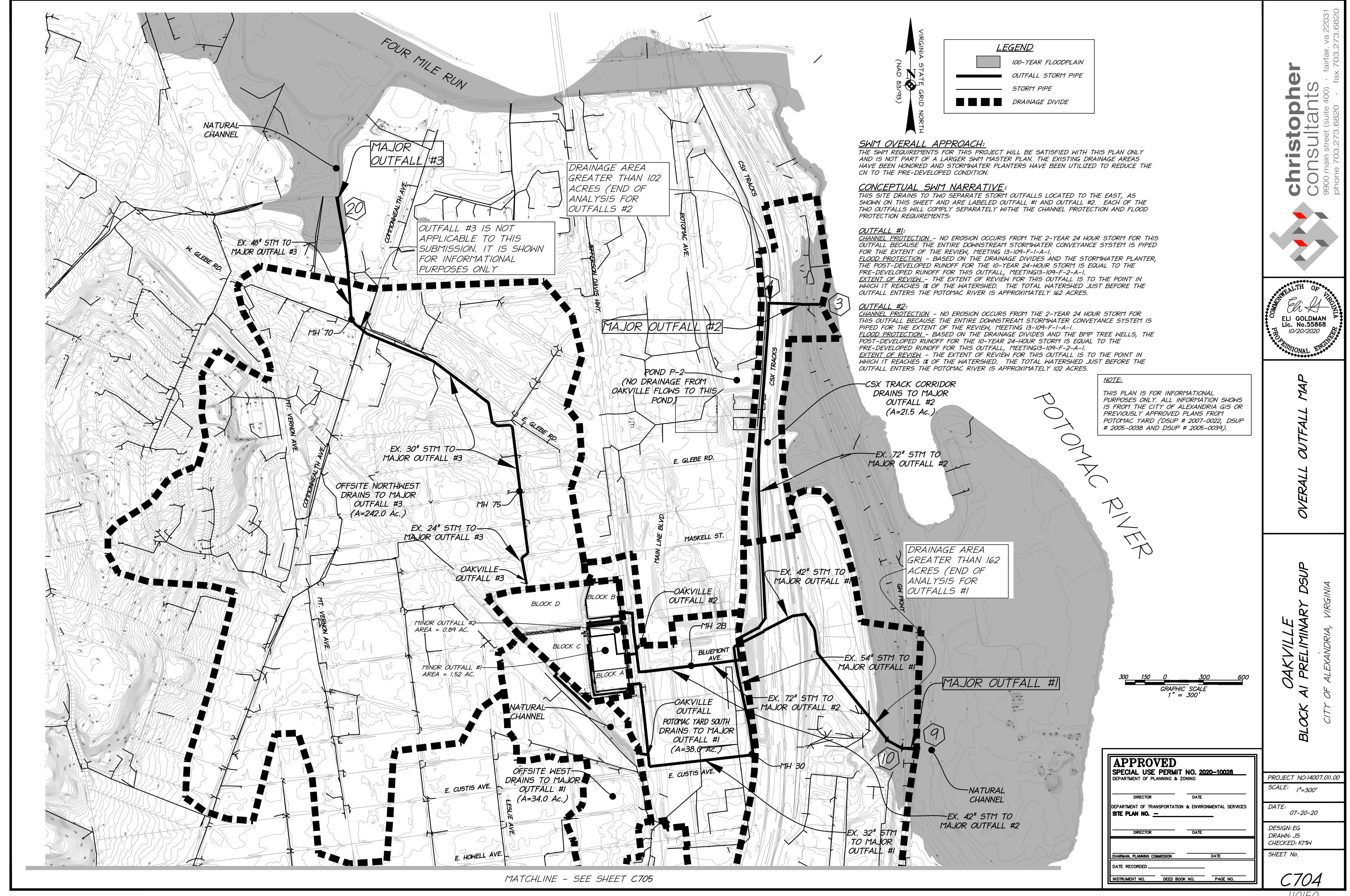
APPROV SPECIAL USE DEPARTMENT OF PLA	PERMIT	_	020-10028
DIRECTOR		DATE	
DEPARTMENT OF TRAI		N & ENVIR	RONMENTAL SERVICES
Site Plan No. <u>-</u>	_		<del>_</del>
SITE PLAN NO		DATE	_
	• 	DATE	<u></u>
		DATE	DATE
DIRECTOR	MMISSION	DATE	

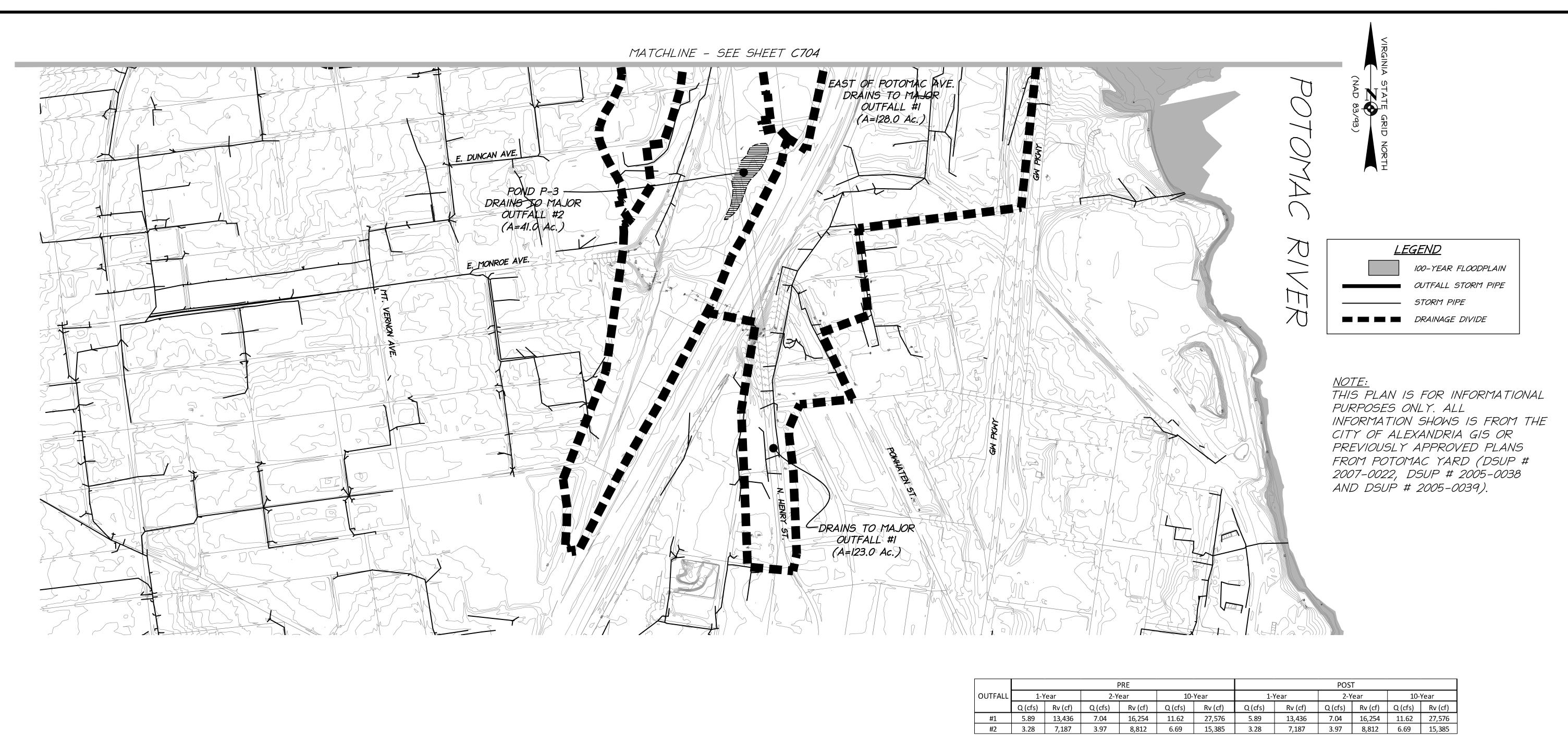




PROJECT NO:14007.011.00 SCALE: |"=100" 07-20-20 DESIGN: EG DRAWN: JS CHECKED: KMW

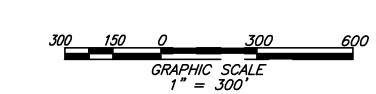
SHEET No.





<u>NOTE:</u> I. SEE SHEET C701 FOR DRAINAGE DIVIDES OF SITE, DRAINAGE AREAS AND CURVE NUMBER CALCULATION FOR THE OUTFALLS.

2. SEE SHEETS C706-C708 FOR PRE AND POST HYDROGRAPH.



	NO. <u>2020–10028</u>
DEPARTMENT OF PLANNING & ZO	NING
DIRECTOR	DATE
DEPARTMENT OF TRANSPORTATION	& ENVIRONMENTAL SERVICES
SITE PLAN NO	

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

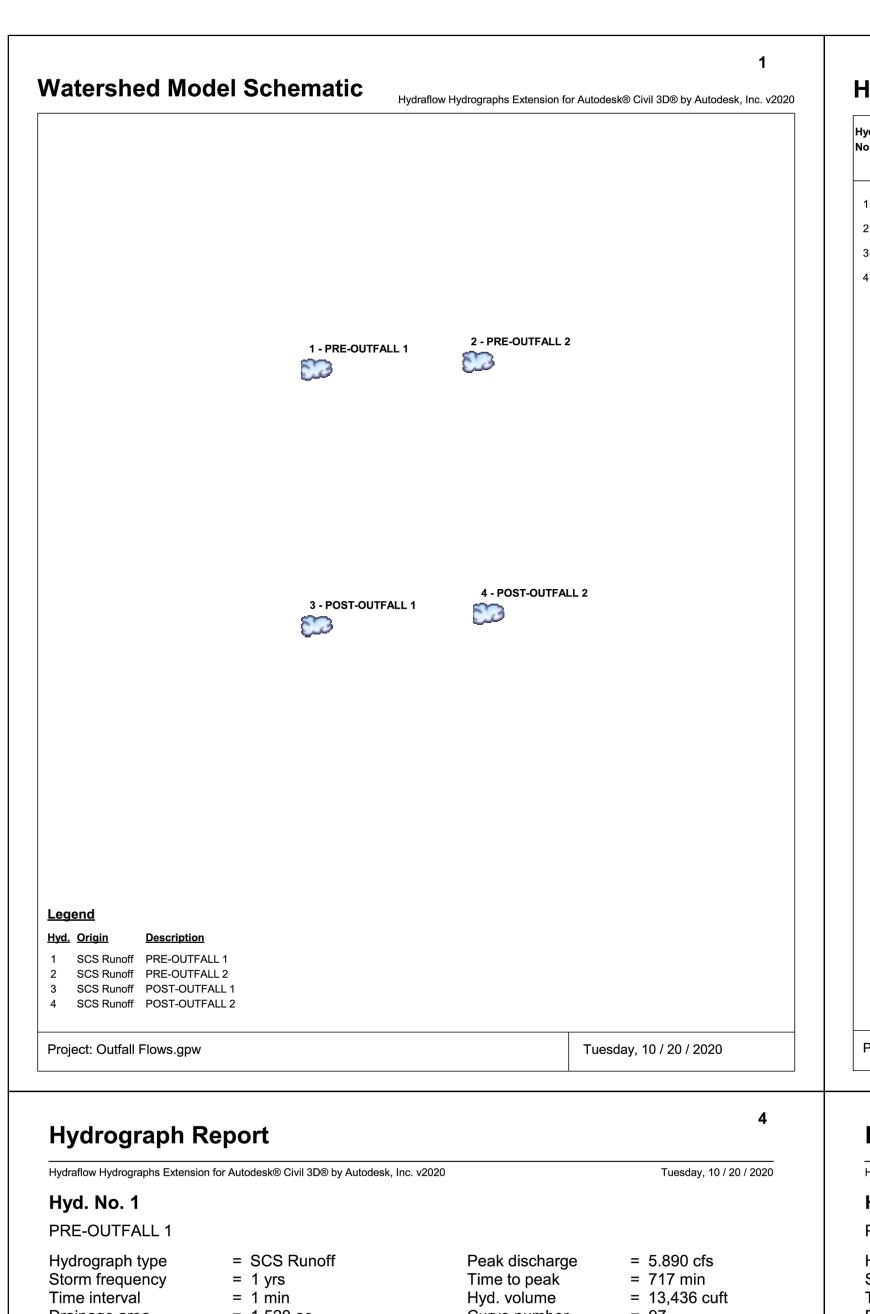
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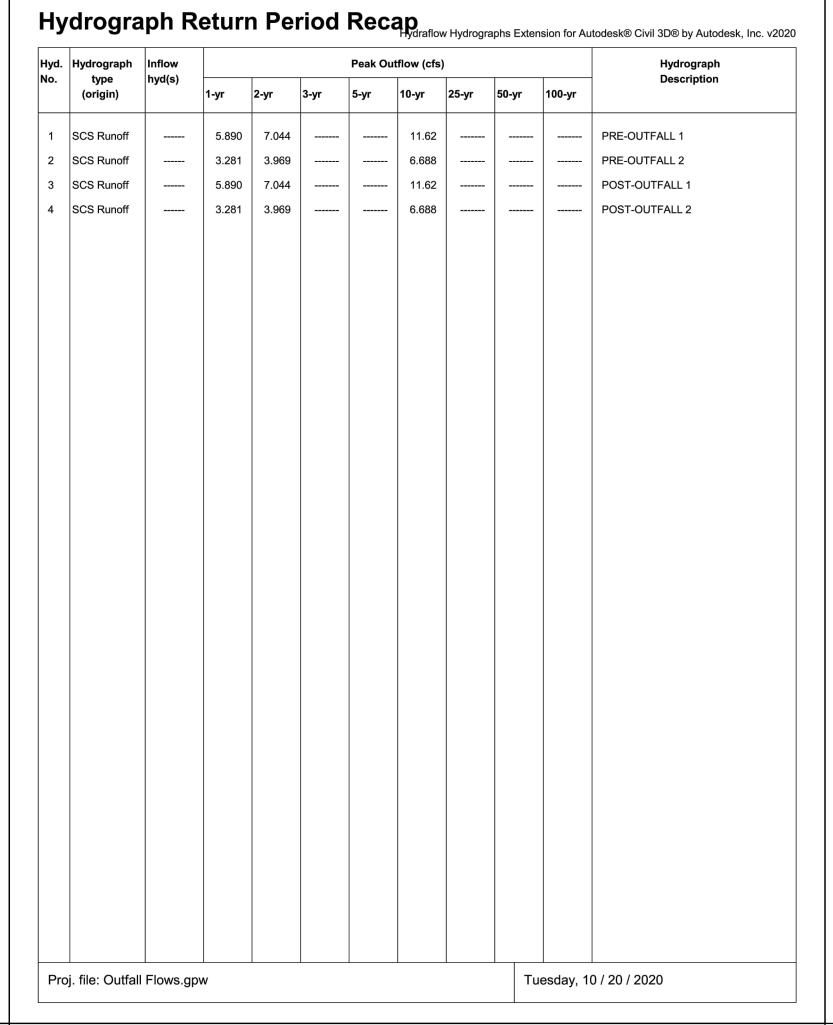
PROJECT NO:14007.011.00 SCALE: |"=300"

07-20-20

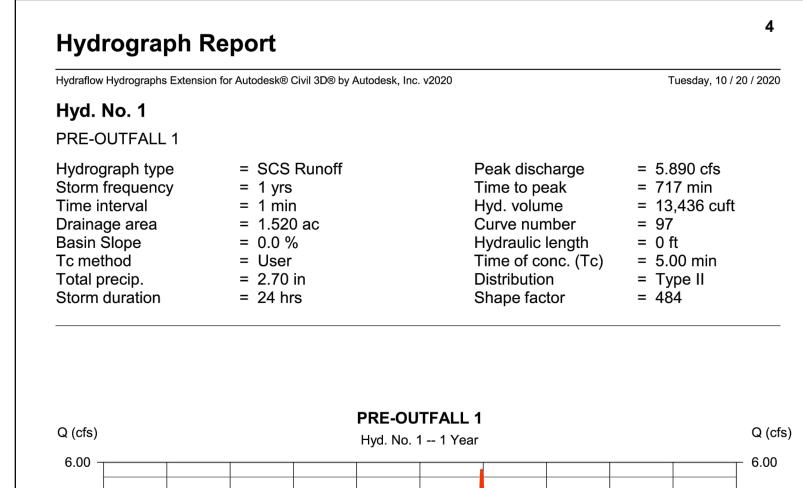
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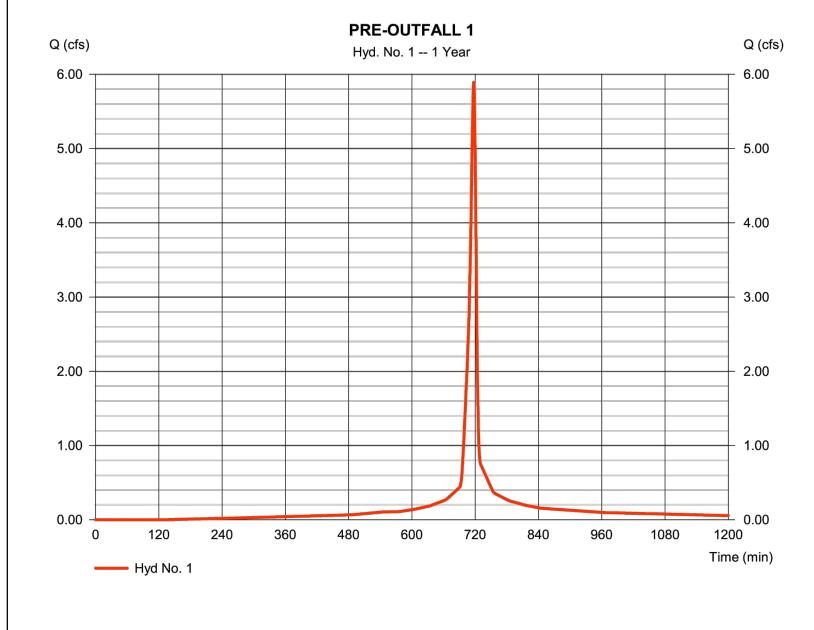
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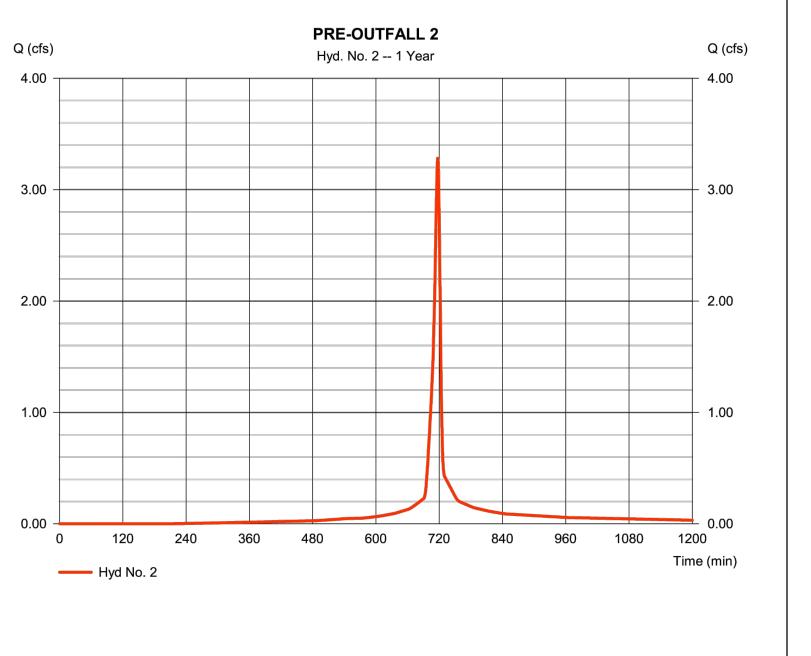


Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	5.890	1	717	13,436				PRE-OUTFALL 1
2	SCS Runoff	3.281	1	717	7,187				PRE-OUTFALL 2
3	SCS Runoff	5.890	1	717	13,436				POST-OUTFALL 1
4	SCS Runoff	3.281	1	717	7,187				POST-OUTFALL 2





Hydraflow Hydrographs Extensi	ion for Autodesk® Civil 3D® by Autodesk, In	nc. v2020	Tuesday, 10 / 20 / 2020
Hyd. No. 2			
PRE-OUTFALL 2			
Hydrograph type	= SCS Runoff	Peak discharge	= 3.281 cfs
Storm frequency	= 1 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 7,187 cuft
Drainage area	= 0.890 ac	Curve number	= 95
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 2.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

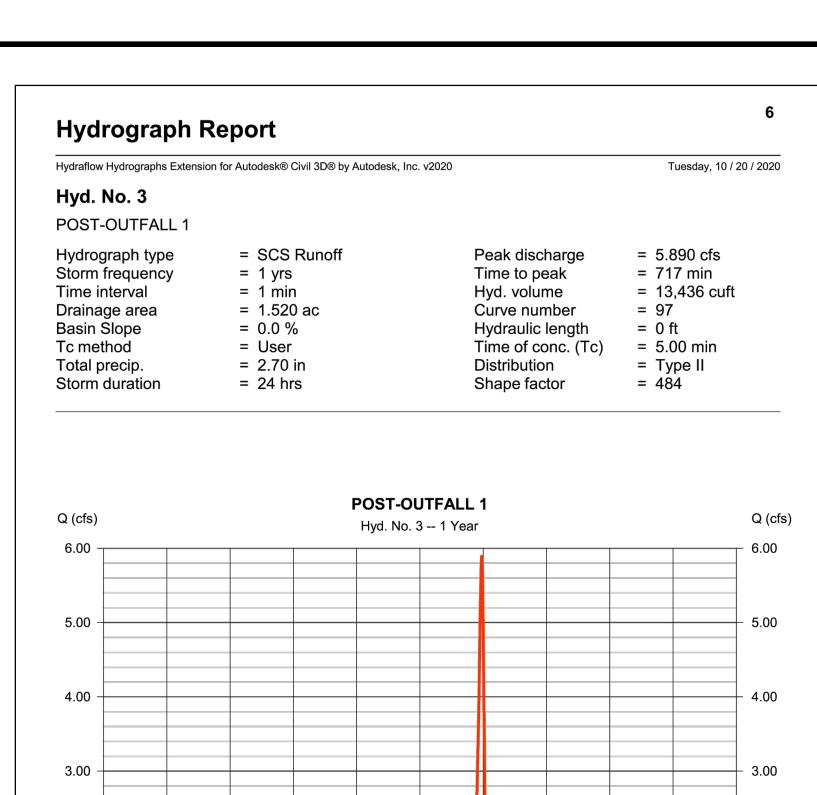


	100000	
	APPROVED SPECIAL USE PERMIDEPARTMENT OF PLANNING &	T NO. <u>2020–10028</u>
	SPECIAL USE PERMI	T NO. <u>2020–10028</u>
	SPECIAL USE PERMIDEPARTMENT OF PLANNING &	T NO. <u>2020–10028</u> ZONING
	DIRECTOR  DEPARTMENT OF TRANSPORTATION	T NO. <u>2020–10028</u> ZONING  DATE

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

PROJECT NO:14007.011.00 SCALE: NONE DATE: NSPORTATION & ENVIRONMENTAL SERVICES 07-20-20 DESIGN: EG DRAWN: JS CHECKED: KMW

SHEET No.



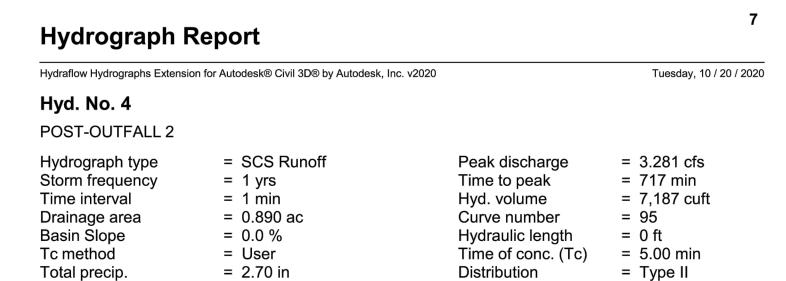
2.00 -

1.00 -

240 360

120

— Hyd No. 3



Shape factor

= 484

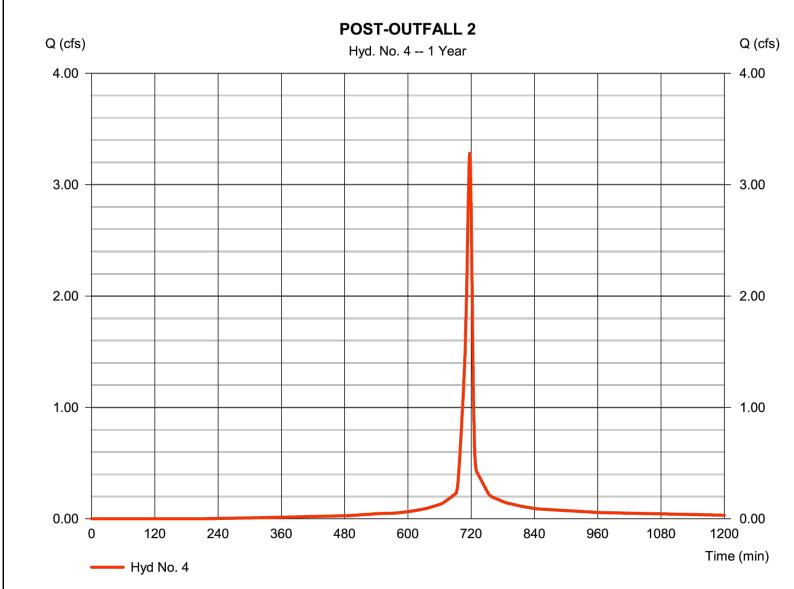
= 24 hrs

Storm duration

2.00

1.00

Time (min)

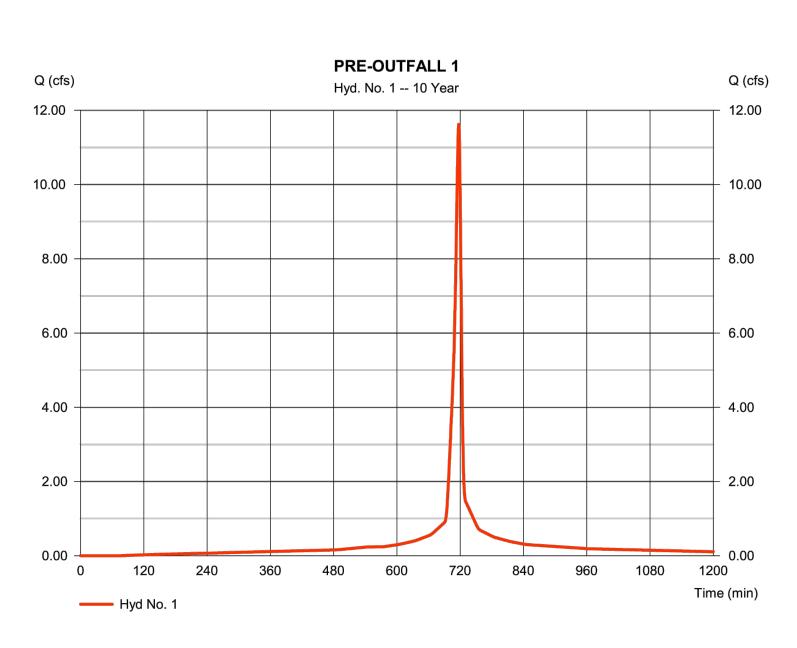


Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	11.62	1	717	27,576		*****		PRE-OUTFALL 1
2	SCS Runoff	6.688	1	717	15,385				PRE-OUTFALL 2
3	SCS Runoff	11.62	1	717	27,576				POST-OUTFALL 1
4	SCS Runoff	6.688	1	717	15,385				POST-OUTFALL 2

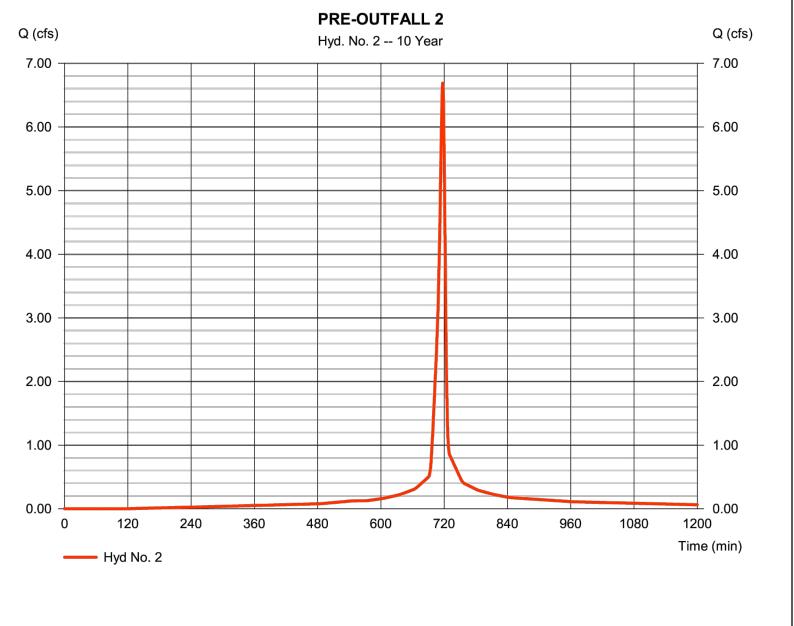
Hydraflow Hydrographs Extens	sion for Autodesk® Civil 3D® by Autodesk, Ir	nc. v2020	Tuesday, 10 / 20 / 202
Hyd. No. 1			
PRE-OUTFALL 1			
Hydrograph type Storm frequency Time interval Drainage area Basin Slope Tc method Total precip. Storm duration	= SCS Runoff = 10 yrs = 1 min = 1.520 ac = 0.0 % = User = 5.20 in = 24 hrs	Peak discharge Time to peak Hyd. volume Curve number Hydraulic length Time of conc. (Tc) Distribution Shape factor	= 717 min = 27,576 cuft = 97 = 0 ft

480 600

720



Hydraflow Hydrographs Extension	on for Autodesk® Civil 3D® by Autodesk, I	nc. v2020	Tuesday, 10 / 20 / 2020
Hyd. No. 2			
PRE-OUTFALL 2			
Hydrograph type	= SCS Runoff	Peak discharge	= 6.688 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 15,385 cuft
Drainage area	= 0.890 ac	Curve number	= 95
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



					No. 2 10	L <b>L 2</b> Year				Q (cfs)
										7.00
_										6.00
										5.00
_										
						$\dashv$				4.00
										4.00
										3.00
_										2.00
										1.00
										0.00
	120	240	360	480	600	720	840	960	1080	0.00
	Hyd No. 2									Time (min)

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INSTRUMENT NO. DEED BOOK NO. PAGE NO.

CHAIRMAN, PLANNING COMMISSION

DATE RECORDED \_\_\_\_

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SCALE: NONE 07-20-20 DESIGN: EG DRAWN: JS CHECKED: KMW SHEET No.

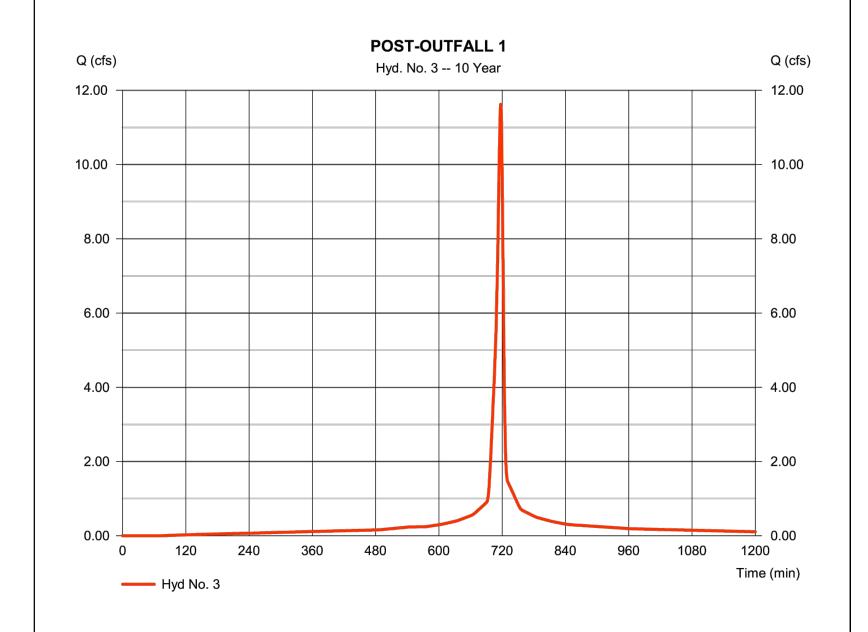
PROJECT NO:14007.011.00

Shape factor

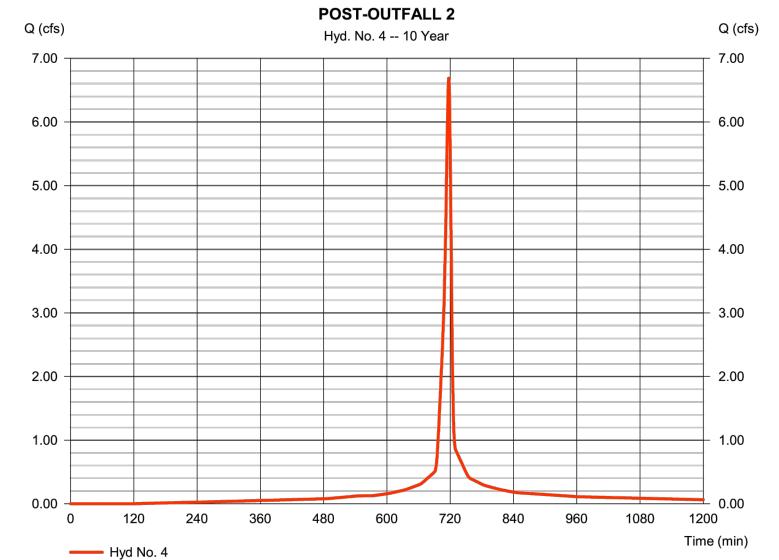
= 24 hrs

Storm duration

= 484



Hydraflow Hydrographs Extensi	on for Autodesk® Civil 3D® by Autodesk, I	nc. v2020	Tuesday, 10 / 20 / 202
Hyd. No. 4			
POST-OUTFALL 2			
Hydrograph type	= SCS Runoff	Peak discharge	= 6.688 cfs
Storm frequency	= 10 yrs	Time to peak	= 717 min
Time interval	= 1 min	Hyd. volume	= 15,385 cuft
Drainage area	= 0.890 ac	Curve number	= 95
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



## 13 **Hydraflow Rainfall Report** Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Tuesday, 10 / 20 / 2020 Intensity-Duration-Frequency Equation Coefficients (FHA)

Yrs)	В	D	E	(N/A)
1	0.0000	0.0000	0.0000	
2	69.8703	13.1000	0.8658	
3	0.0000	0.0000	0.0000	
5	79.2597	14.6000	0.8369	
10	88.2351	15.5000	0.8279	
25	102.6072	16.5000	0.8217	
50	114.8193	17.2000	0.8199	
100	127.1596	17.8000	0.8186	

File name: SampleFHA.idf

Return					Intens	ity Values	(in/hr)					
Period (Yrs)	5 min	10	15	20	25	30	35	40	45	50	55	60
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5.69	4.61	3.89	3.38	2.99	2.69	2.44	2.24	2.07	1.93	1.81	1.70
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	6.57	5.43	4.65	4.08	3.65	3.30	3.02	2.79	2.59	2.42	2.27	2.15
10	7.24	6.04	5.21	4.59	4.12	3.74	3.43	3.17	2.95	2.77	2.60	2.46
25	8.25	6.95	6.03	5.34	4.80	4.38	4.02	3.73	3.48	3.26	3.07	2.91
50	9.04	7.65	6.66	5.92	5.34	4.87	4.49	4.16	3.88	3.65	3.44	3.25
100	9.83	8.36	7.30	6.50	5.87	5.36	4.94	4.59	4.29	4.03	3.80	3.60

Tc = time in minutes. Values may exceed 60.

						Precip.	file name:	Sample.
		F	Rainfall F	Precipita	tion Tab	le (in)		
Storm Distribution	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	2.70	3.20	0.00	3.30	5.20	5.77	6.80	7.95
SCS 6-Hr	0.00	1.80	0.00	0.00	2.60	0.00	0.00	4.00
Huff-1st	0.00	1.55	0.00	2.75	4.00	5.38	6.50	8.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	1.75	0.00	2.80	3.90	5.25	6.00	7.10

lydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. ∨2020	Tuesday, 10 / 20 / 20
Watershed Model Schematic	
Hydrograph Return Period Recap	
1 - Year	
Summary Report	
Hydrograph Reports	
Hydrograph No. 1, SCS Runoff, PRE-OUTFALL 1	
Hydrograph No. 2, SCS Runoff, PRE-OUTFALL 2	
Hydrograph No. 3, SCS Runoff, POST-OUTFALL 1	
Hydrograph No. 4, SCS Runoff, POST-OUTFALL 2	
10 - Year	
Summary Report	
Hydrograph Reports	
Hydrograph No. 1, SCS Runoff, PRE-OUTFALL 1	
Hydrograph No. 2, SCS Runoff, PRE-OUTFALL 2	
Hydrograph No. 3, SCS Runoff, POST-OUTFALL 1	
Hydrograph No. 4, SCS Runoff, POST-OUTFALL 2	

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DEPARTMENT OF PLANNING & ZONING DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES SITE PLAN NO. \_\_\_

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

ELI GOLDMAN Lic. No.55868

PROJECT NO:14007.011.00 SCALE: NONE 07-20-20

DESIGN: EG DRAWN: JS

CHECKED: KMW SHEET No.

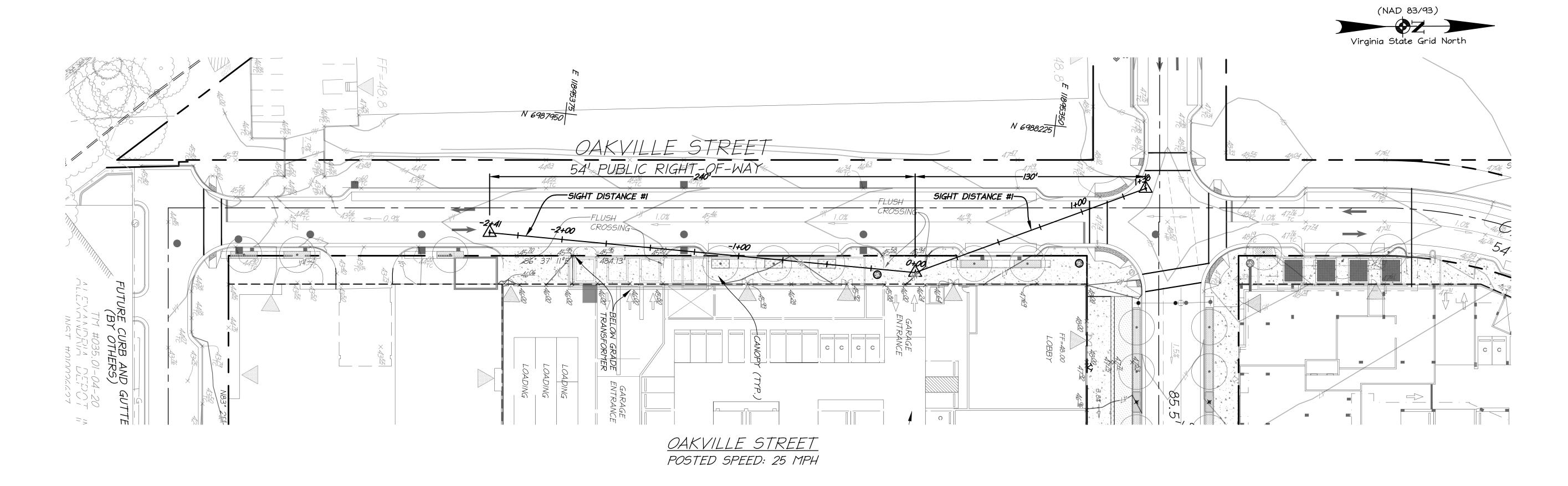


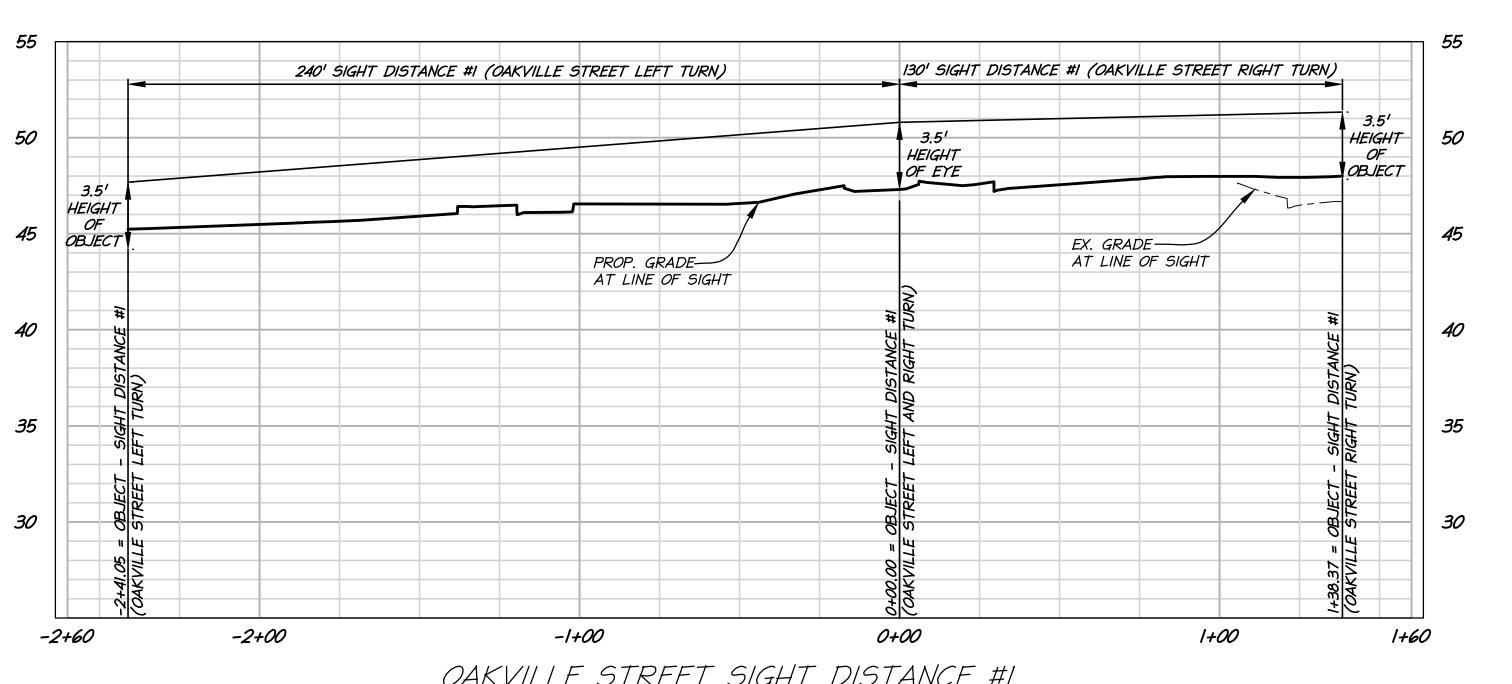
07-20-20

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SHEET No.

C800





OAKVILLE STREET SIGHT DISTANCE #1

POSTED SPEED: 25 MPH

HORIZONTAL GRAPHIC SCALE I" = 30' VERTICAL GRAPHIC SCALE |" = 5'

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DEPARTMENT OF PLANNING & ZONING

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DIRECTOR DATE

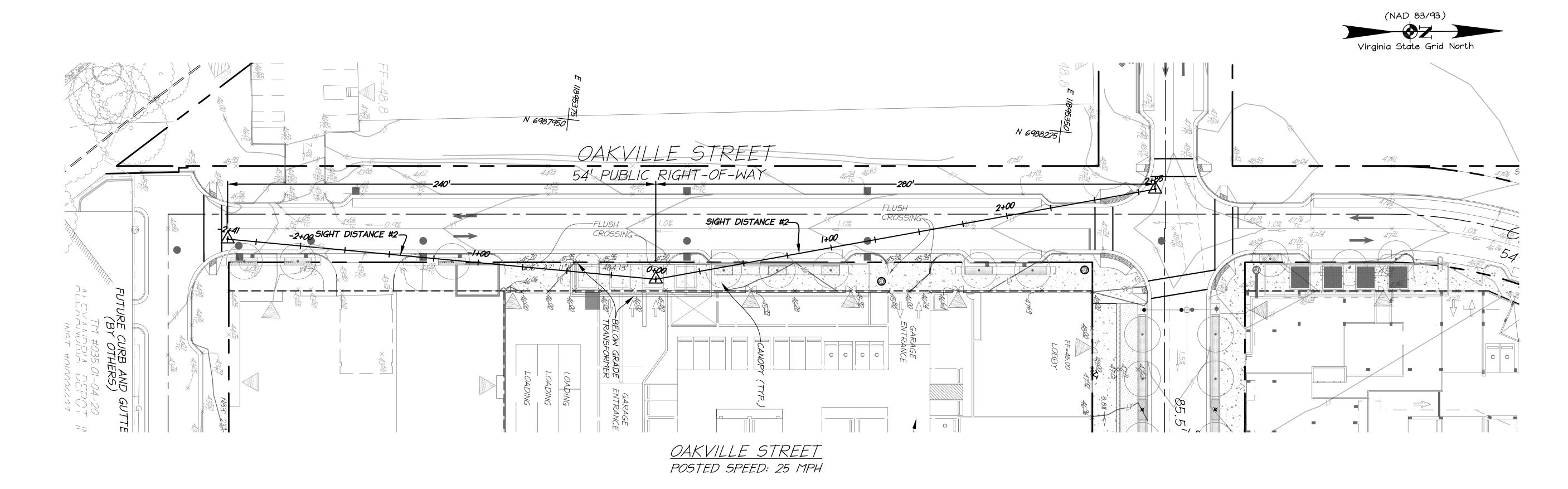
SITE PLAN NO. \_\_\_

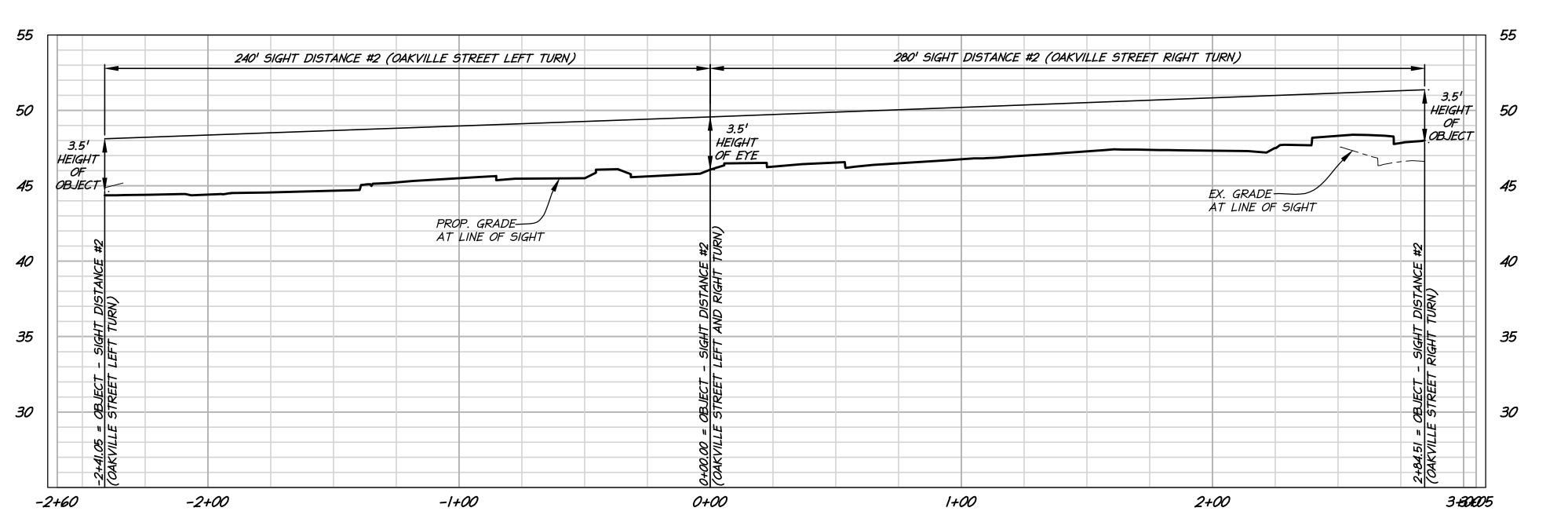
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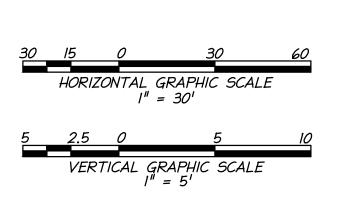
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C801





OAKVILLE STREET SIGHT DISTANCE #2 POSTED SPEED: 25 MPH



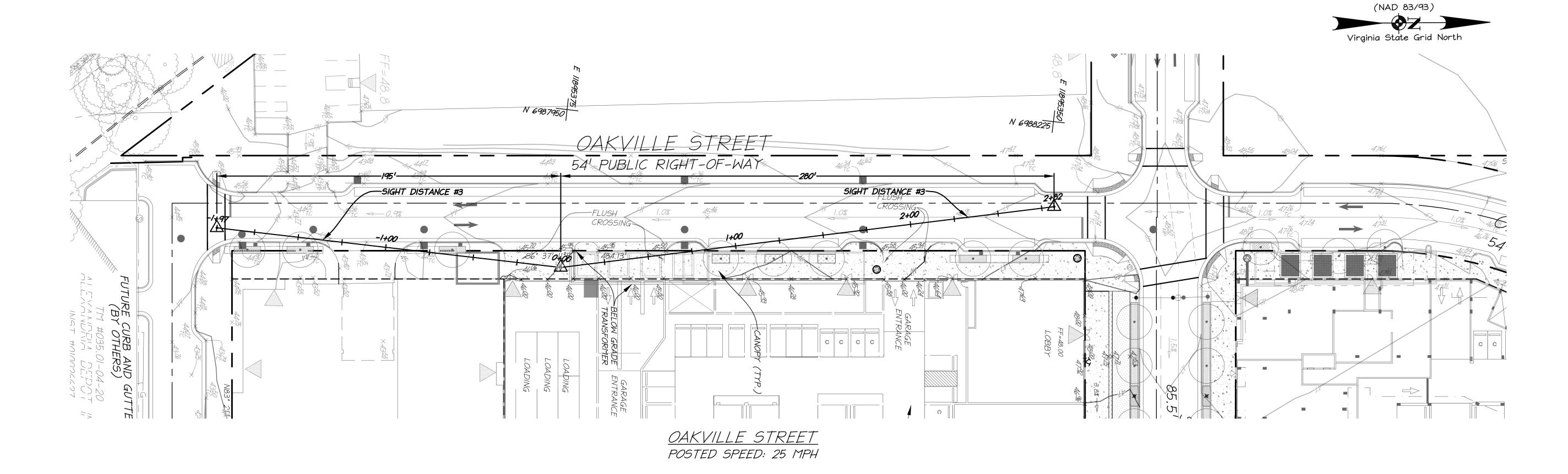
INSTRUMENT NO. DEED BOOK NO. PAGE NO.

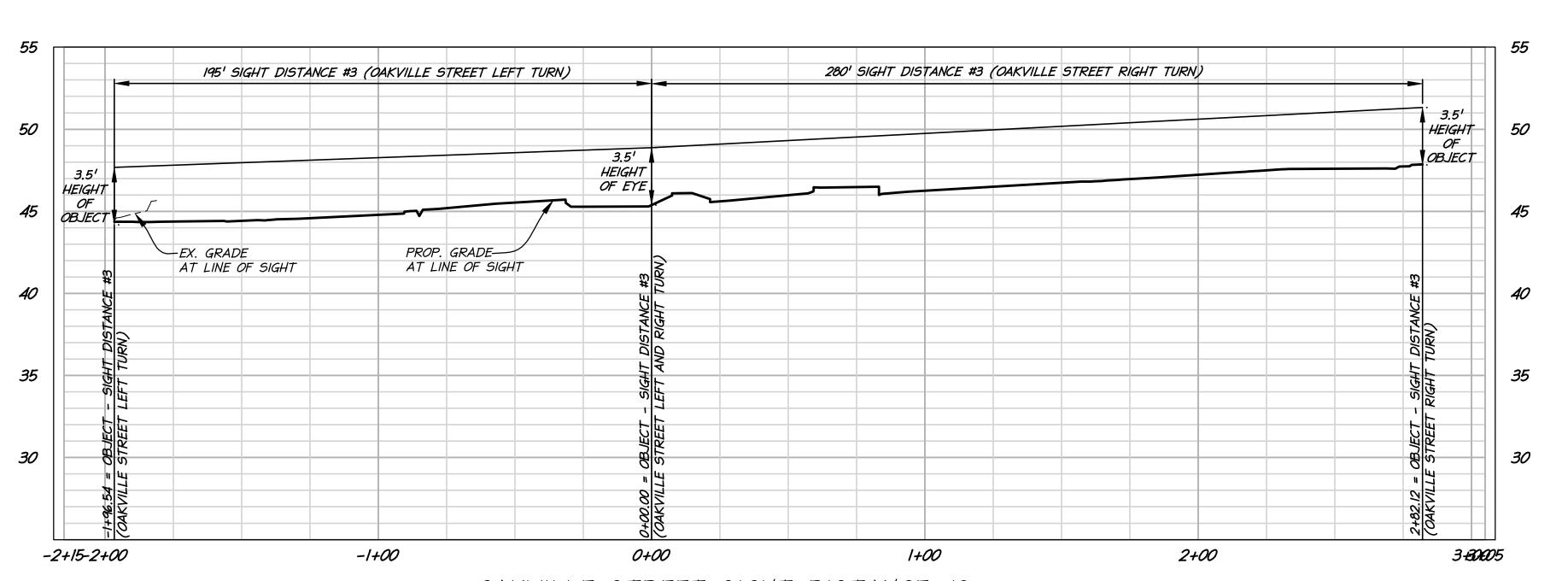
DATE: 07-20-20

DATE: 07-20-20 DESIGN: EG

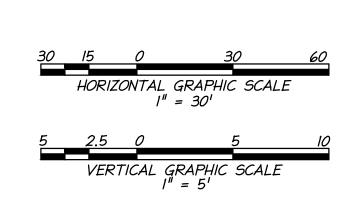
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SHEET No.

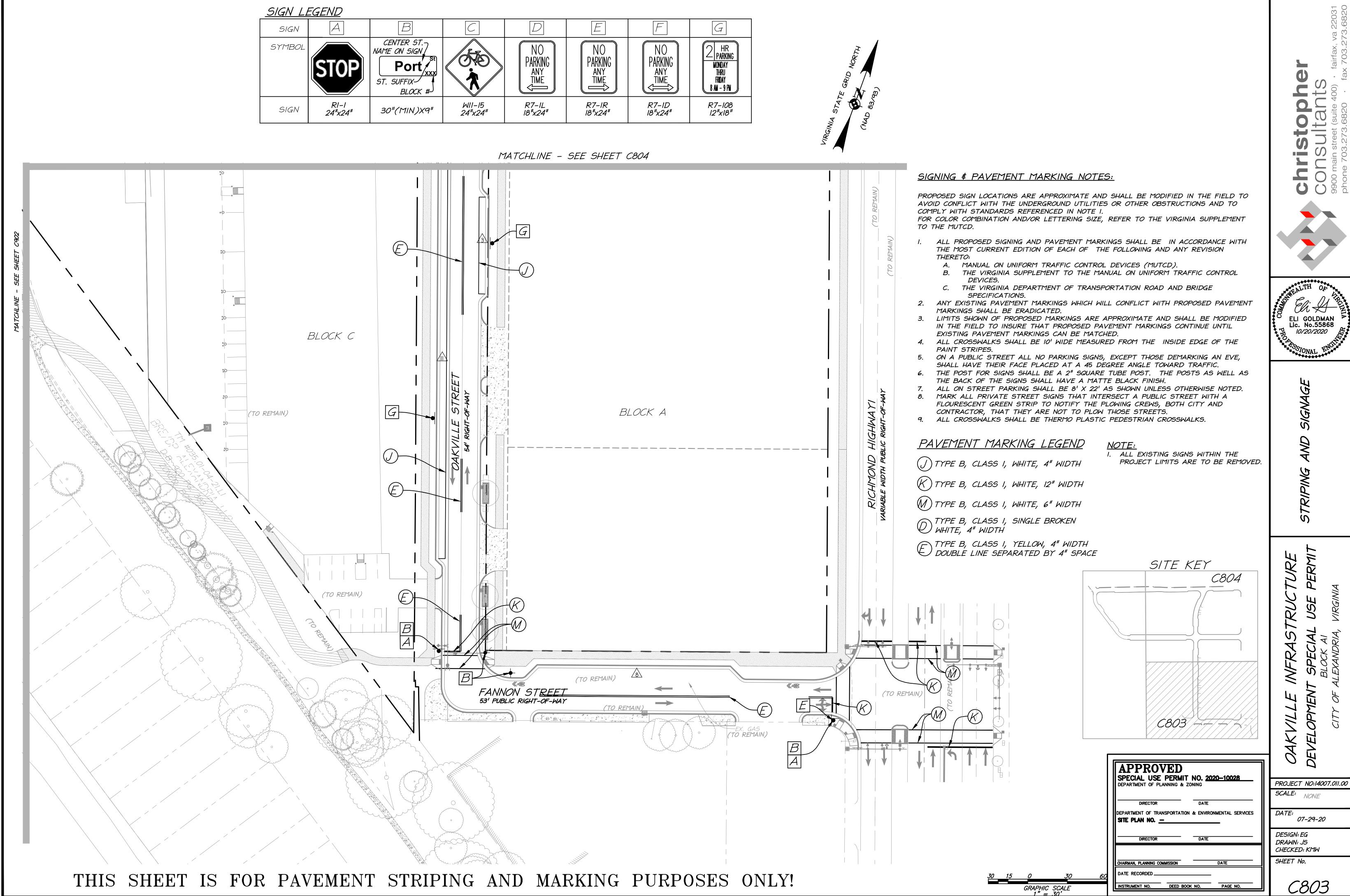


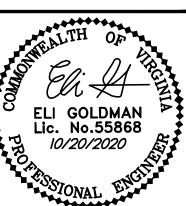


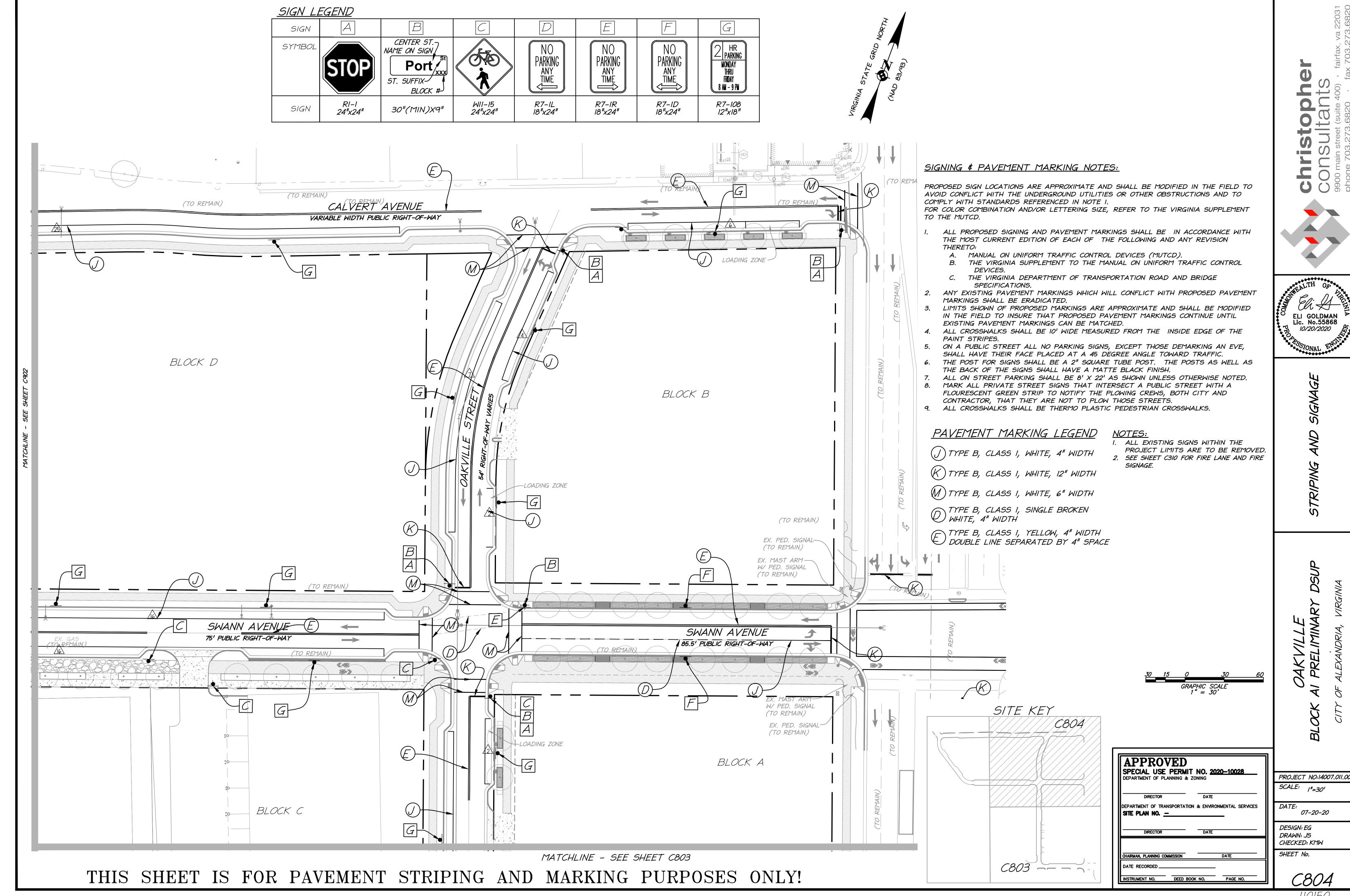
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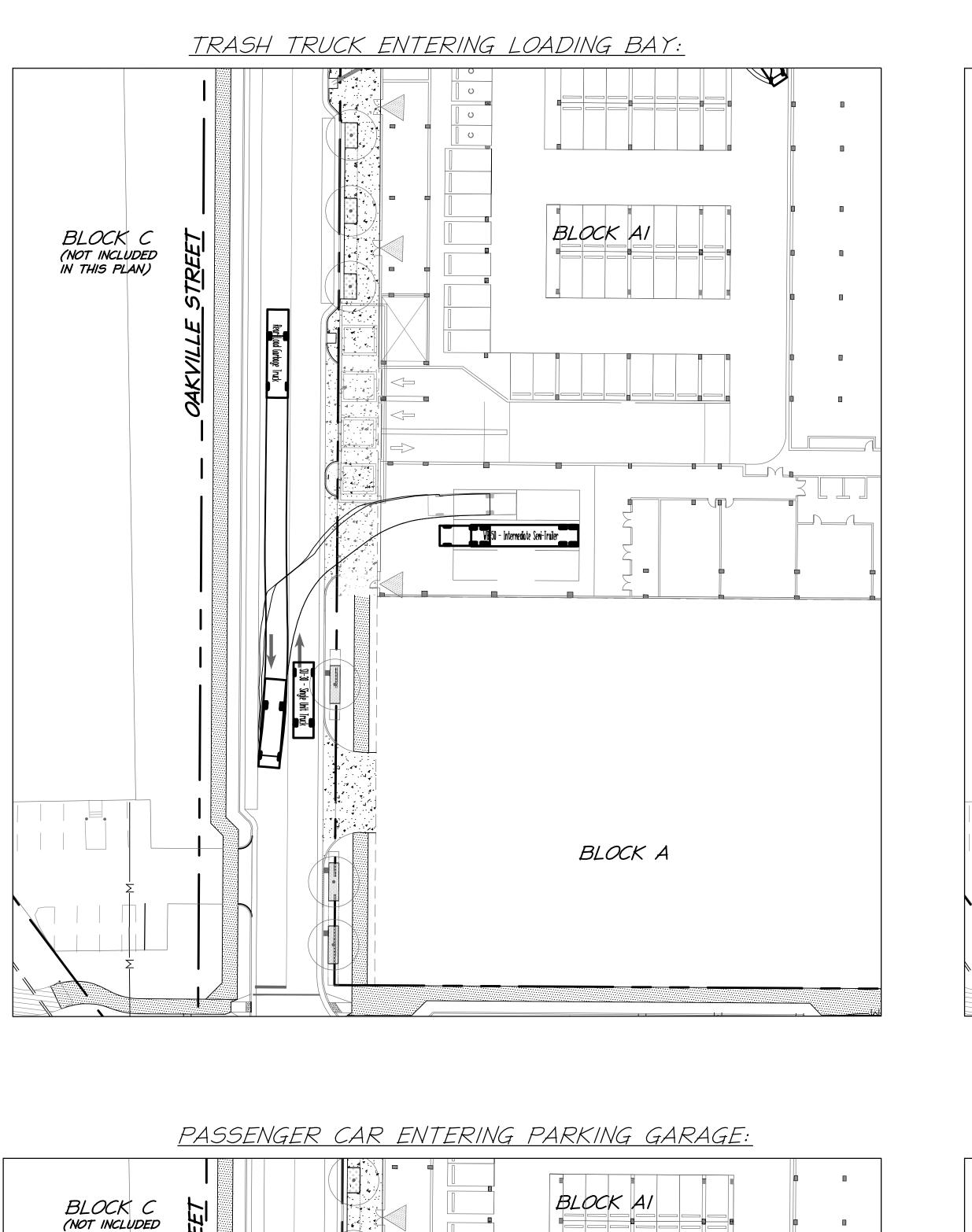


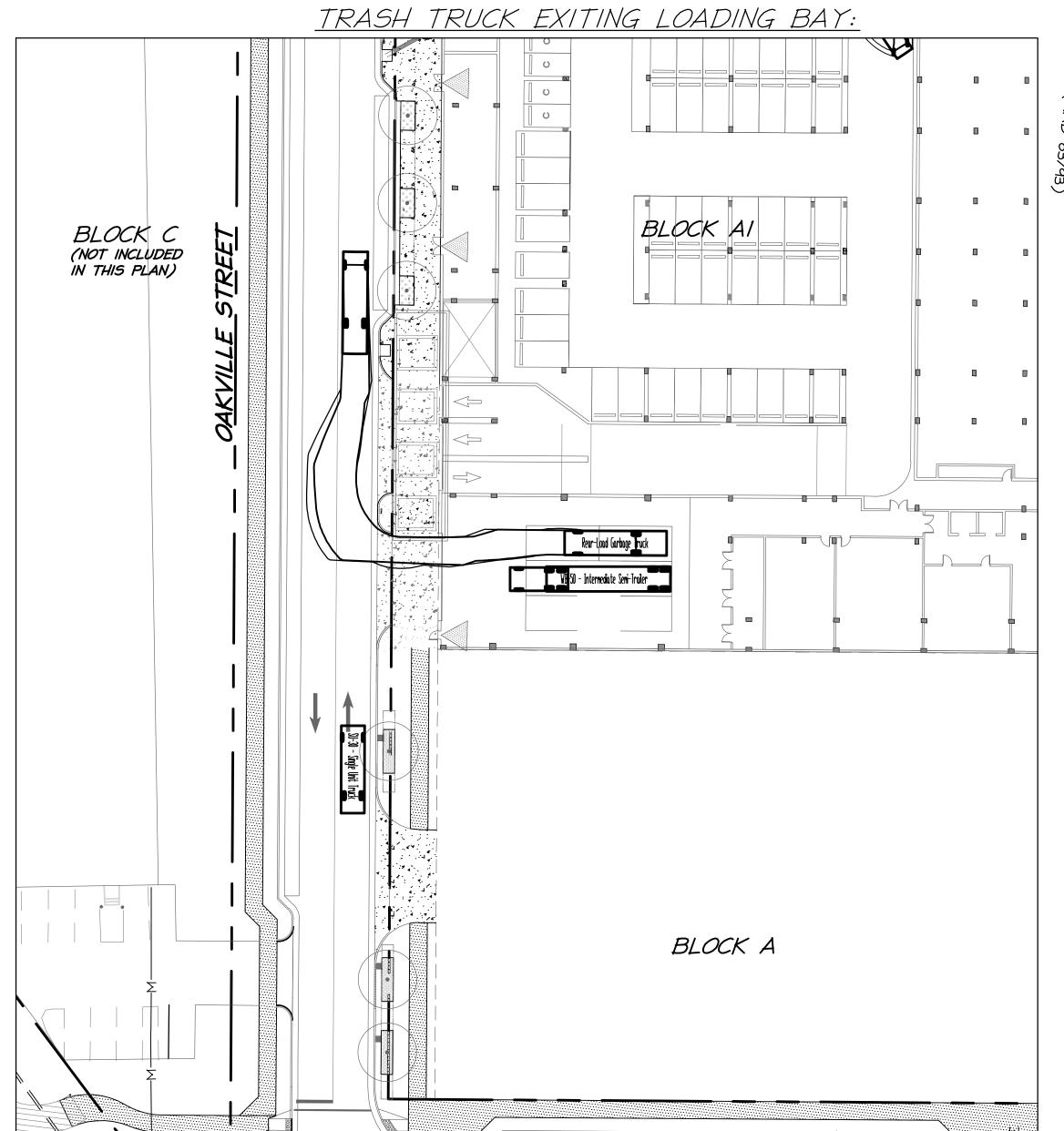
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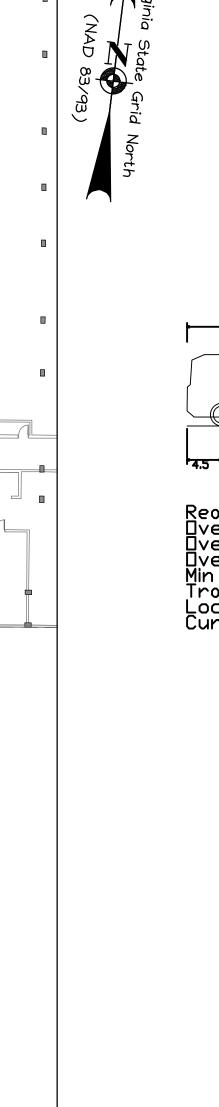


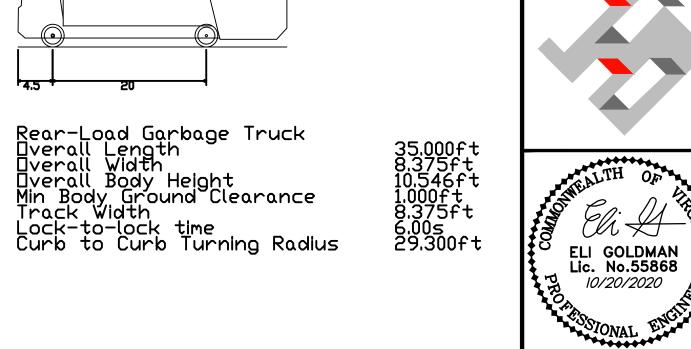












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DEPARTMENT OF TRANSPORTATION	
SITE PLAN NO	ON & ENVIRONMENTAL SERVIC
DIRECTOR	DATE

P - Passenger Car

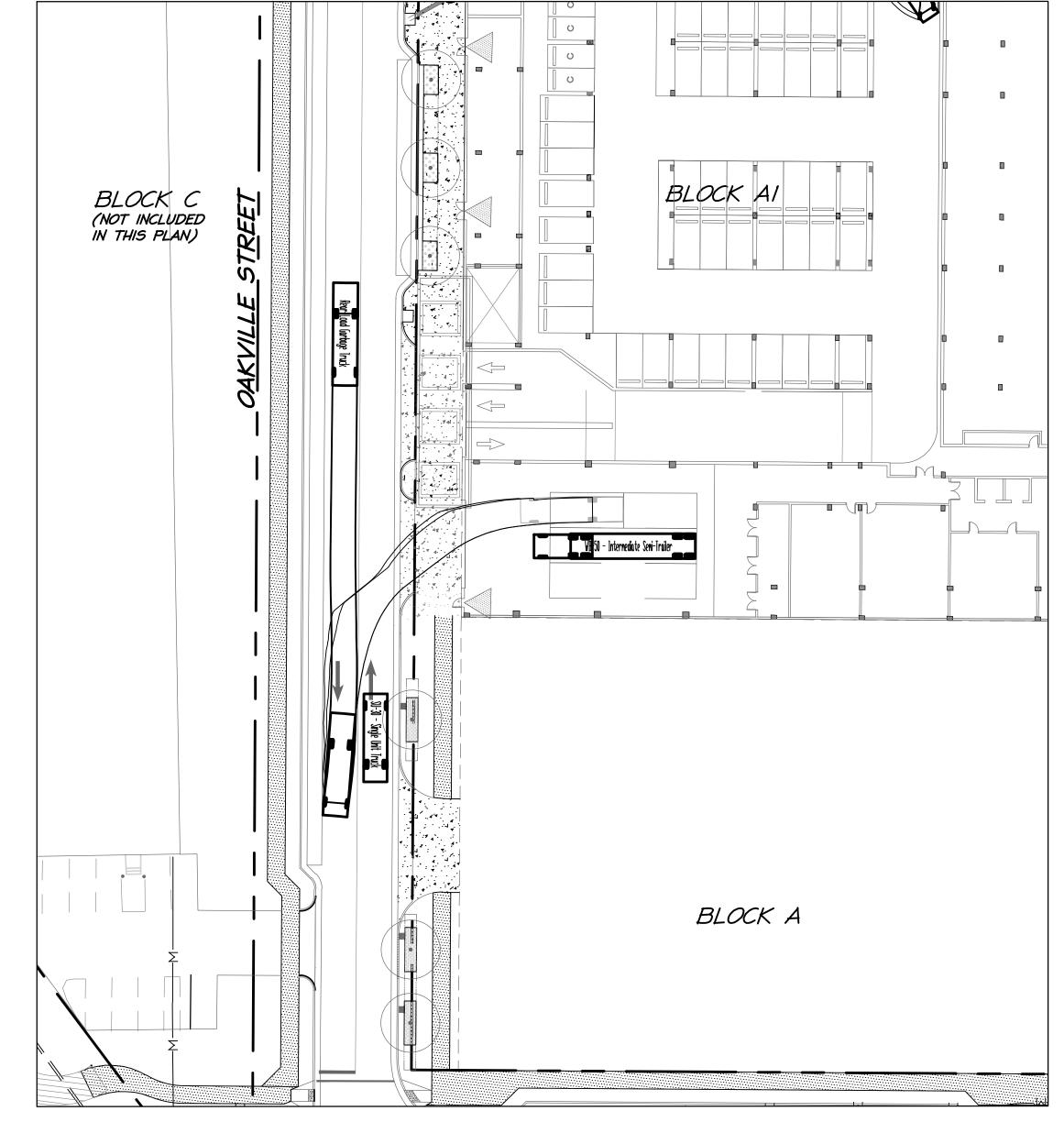
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| verall Body Height
| Min Body Ground Clearance
| Track Width
| Lock-to-lock time
| Max Steering Angle (Virtual)

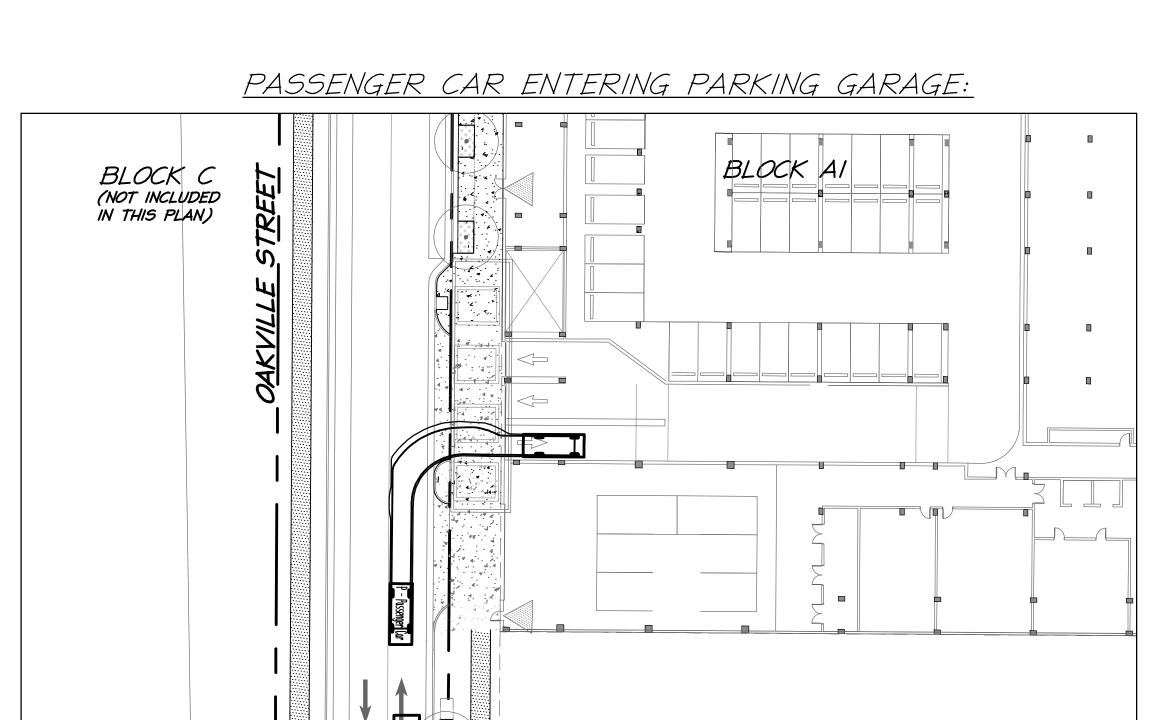
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SITE PLAN NO	ORTATION & ENVIRONMENTAL SERV
	<del></del>
DIRECTOR	DATE

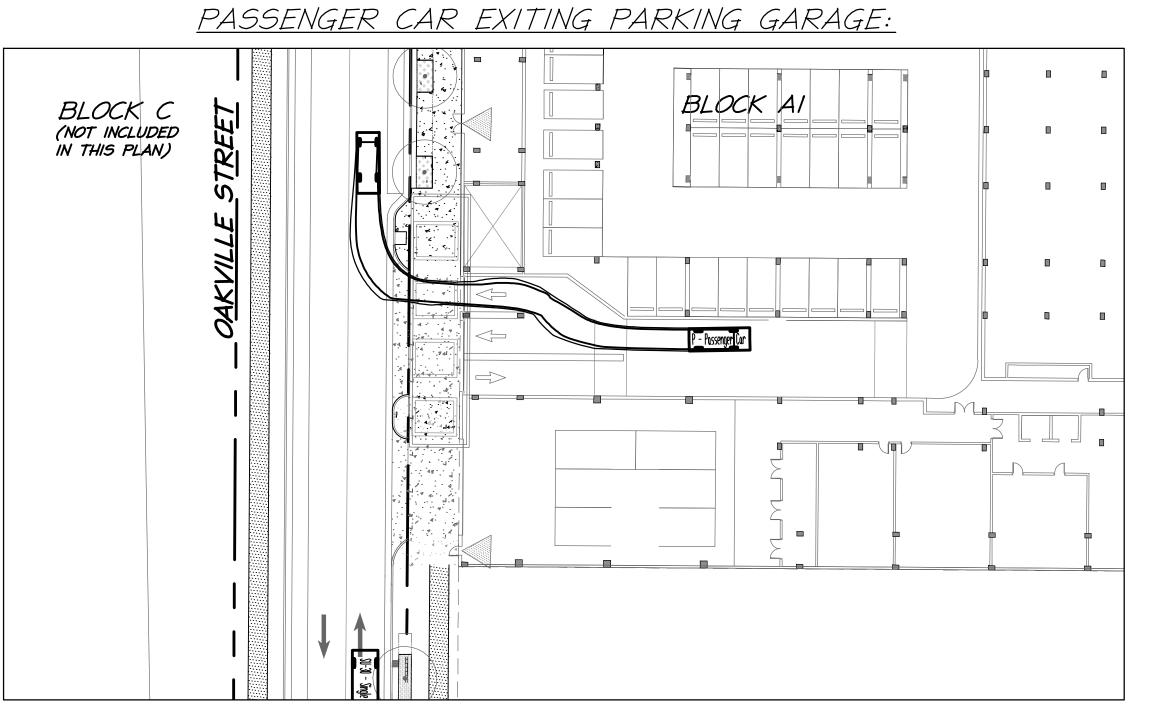
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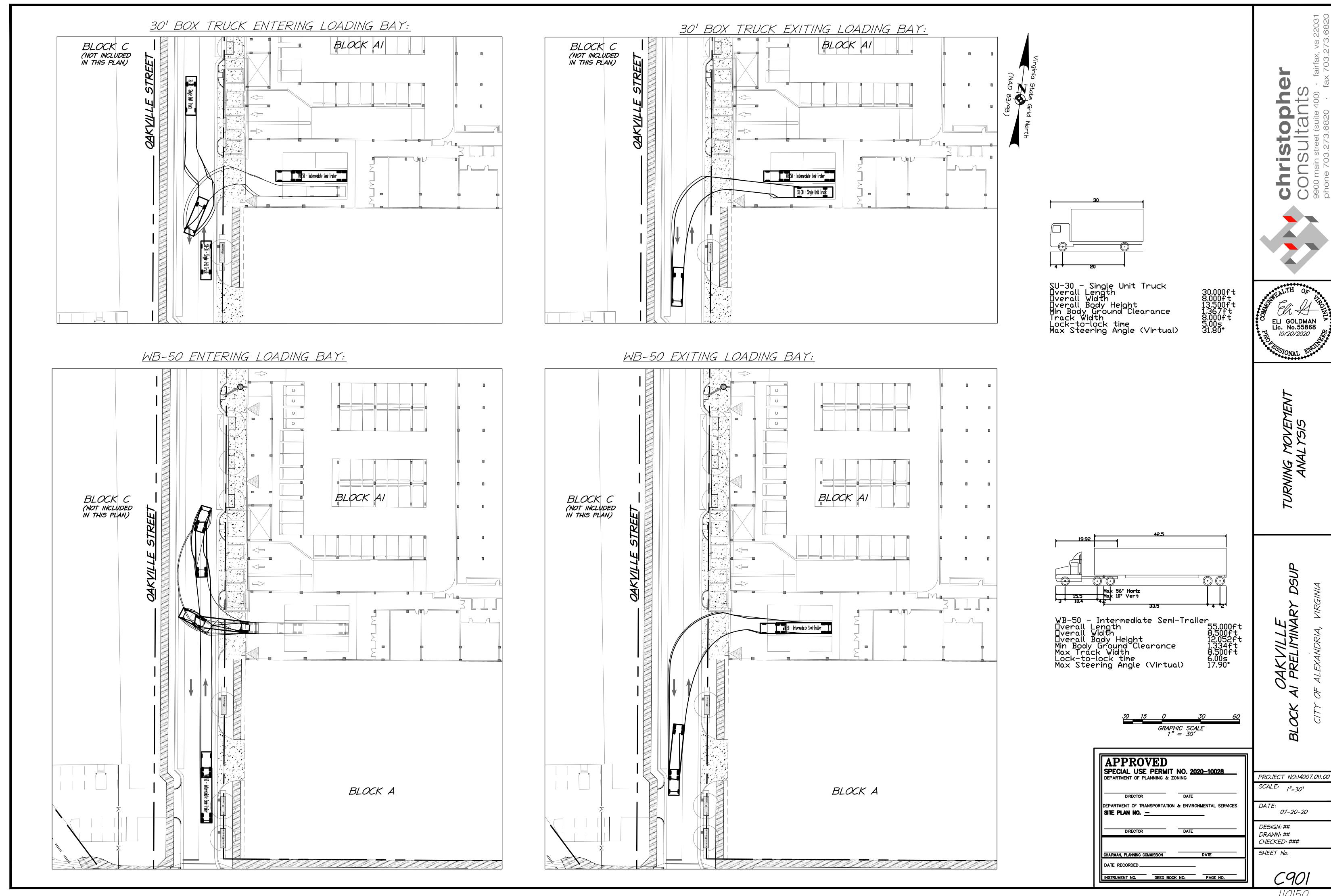
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PROJECT NO:14007.011.00

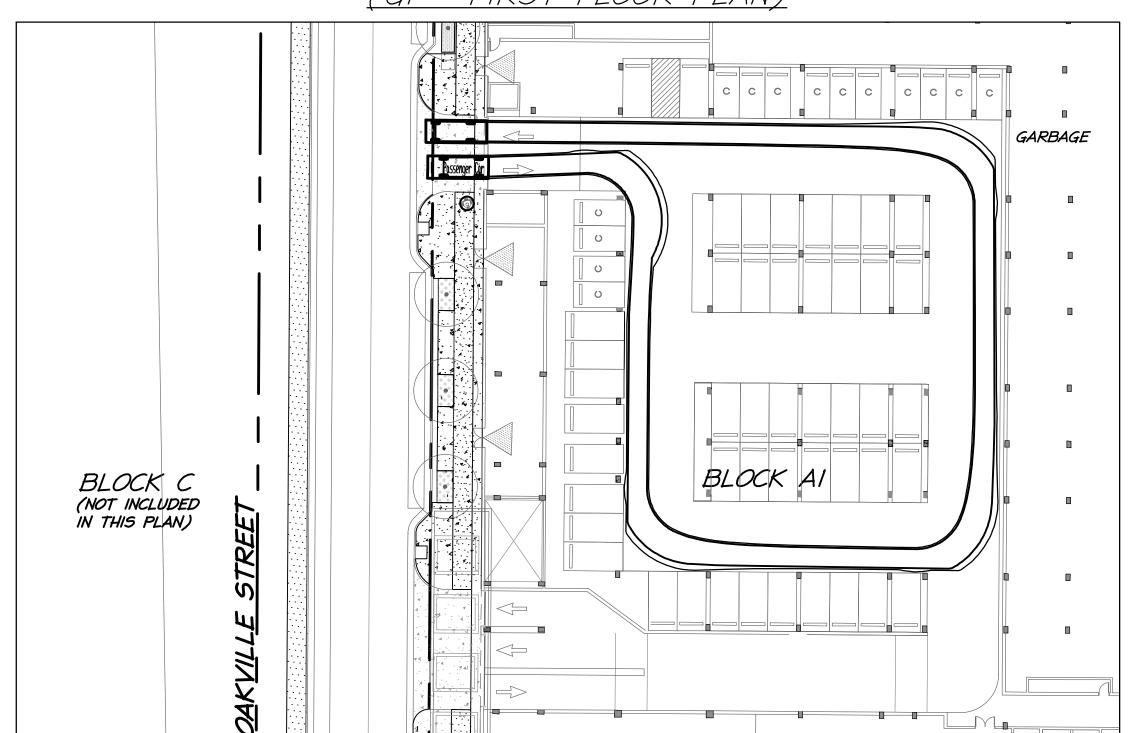




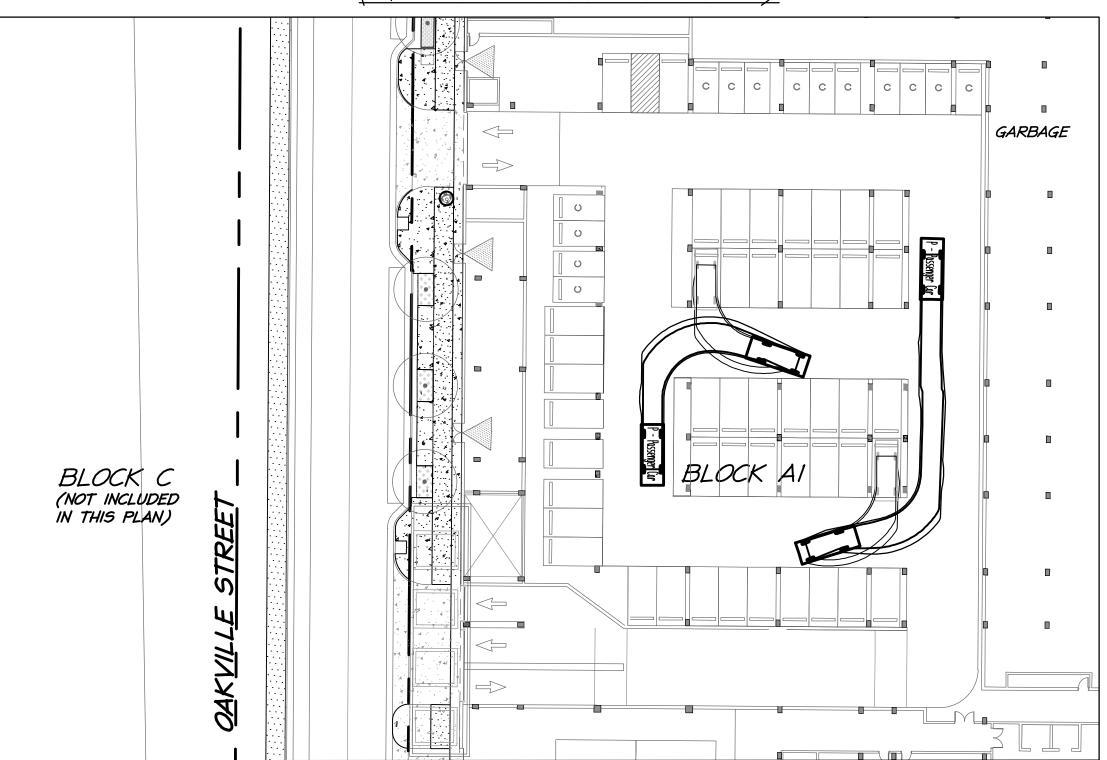


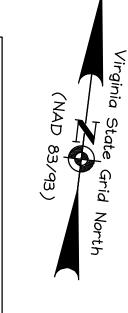


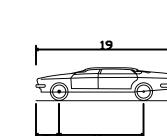
## PASSENGER CAR ENTERING AND EXITING PARKING AREA (GI - FIRST FLOOR PLAN)



## PASSENGER CAR MANEUVER INTO PARKING SPACES (GI - FIRST FLOOR PLAN)



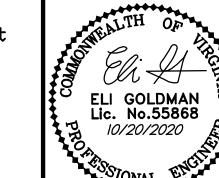




P - Passenger Car

| verall Length
| verall Width
| verall Body Height
| Min Body Ground Clearance
| Track Width
| Lock-to-lock time
| Max Steering Angle (Virtual)



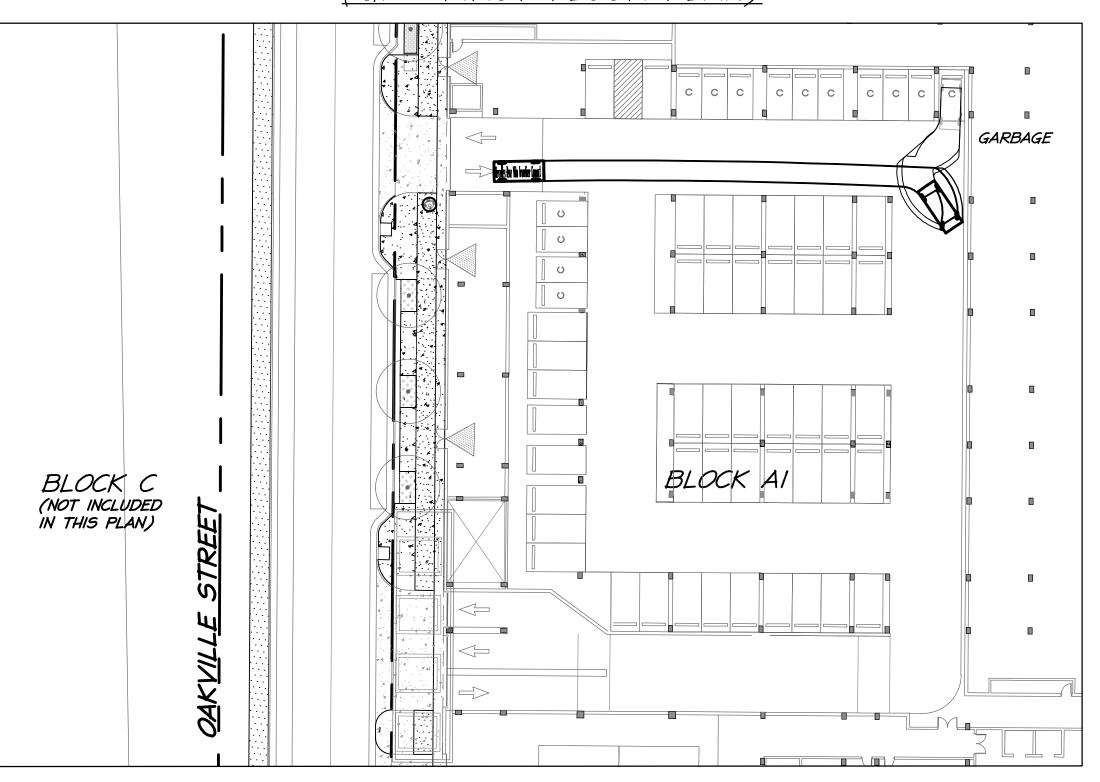


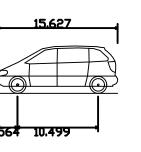
APPROVED SPECIAL USE PERMITS DEPARTMENT OF PLANNING	AIT NO. <u>2020–10028</u>
DIRECTOR	DATE
DEPARTMENT OF TRANSPORTA SITE PLAN NO. —	TION & ENVIRONMENTAL SERVICES
DIRECTOR	DATE

INSTRUMENT NO. DEED BOOK NO. PAGE NO.

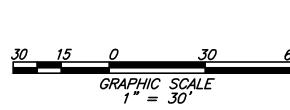
07-20-20 DESIGN: ## DRAWN: ## CHECKED: ### SHEET No.

## COMPACT CAR MANEUVER INTO PARKING SPACE (GI - FIRST FLOOR PLAN)

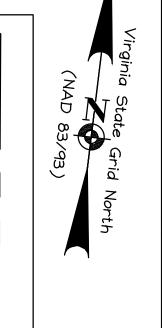


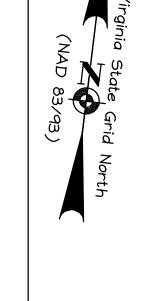


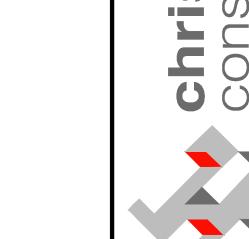
Mercedes-Benz Vito Traveliner Compact
Overall Length 15.627ft
Overall Width 6.237ft
Overall Body Height 6.153ft
Min Body Ground Clearance 0.927ft
Track Width 6.237ft
Lock-to-lock time 4.00s
Wall to Wall Turning Radius 19.357ft

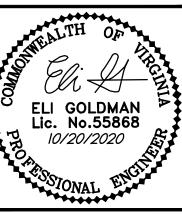


STAIR B









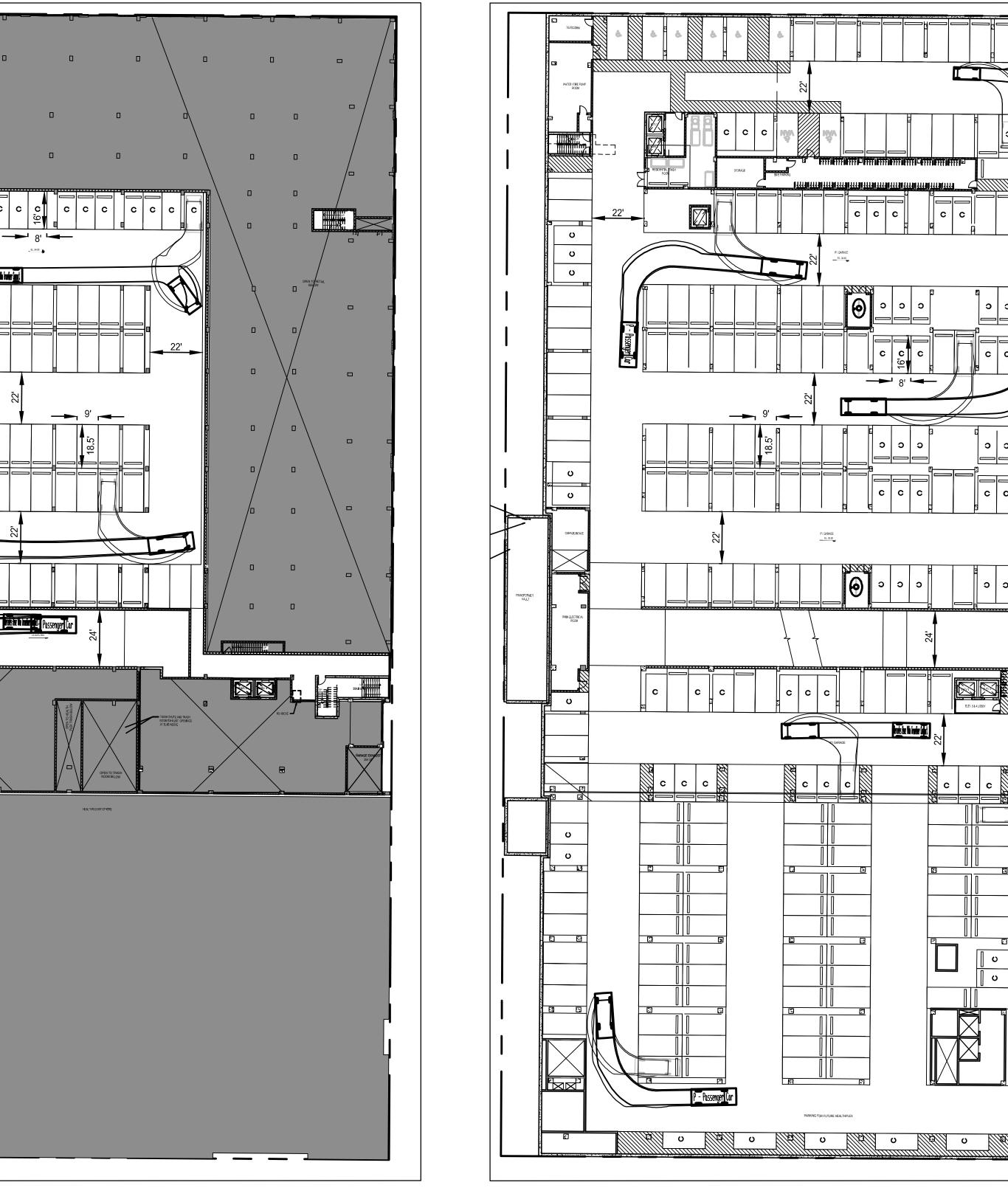
OAKVILLE AI PRELIMINARY

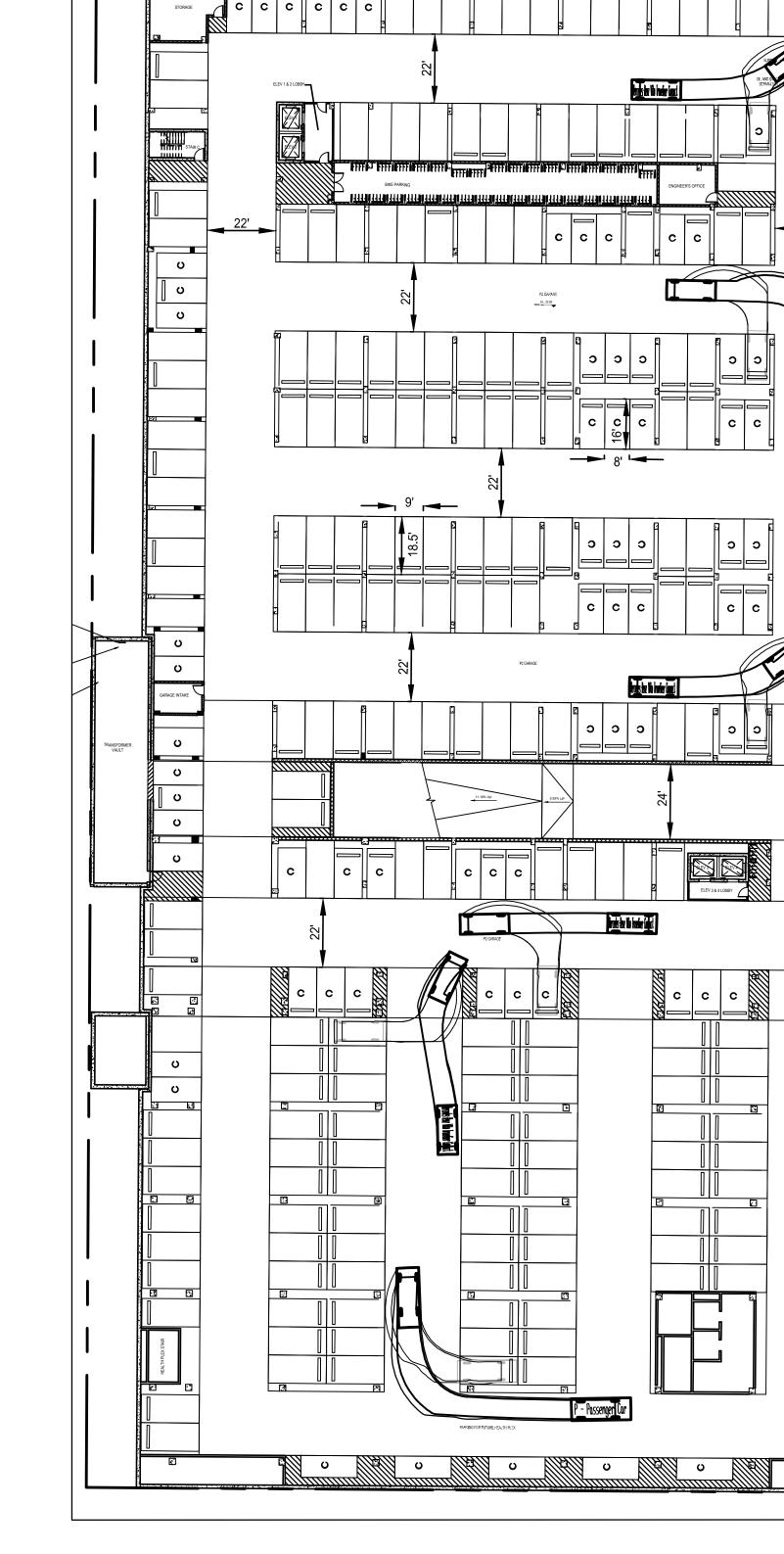
PROJECT NO:14007.011.00

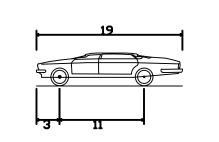
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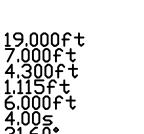
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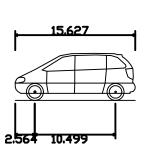






P - Passenger Car
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock-to-lock time
Max Steering Angle (Virtual)





Mercedes-Benz Vito Traveliner Compact
Overall Length 15.627ft
Overall Width 6.237ft
Overall Body Height 6.153ft
Min Body Ground Clearance 0.927ft
Overall Body Ground Clearance 10.927ft
Overall Body Ground Clearance 10.927ft
Overall Body Ground Clearance 10.927ft
Overall Body Height 10.927ft
Overall Body Ground Clearance 10.927ft
Overall Body G

| Site Plan No. <u>—</u>

## meridian consulting llc

12301 Old Columbia Pike, Suite 100A Silver Spring, MD 20904 P: 301.490.7400 | F: 301.490.7401

October 19, 2020

City of Alexandria
Department of Planning and Zoning
301 King Street, Room 2100 Alexandria, VA 22314
Alexandria, Virginia 22035

re: LEED Silver Certification for Oakville Triangle Block A

To Whom it May Concern,

The Alexandria Green Building Policy contains sustainable design requirements for privately developed projects. The Green Building Policy describes a number of sustainable design program options. Of these compliance options, the project is pursuing LEED for New Construction v4 certification at the Silver level.

The project's LEED scorecard totals 52 anticipated points, with 2 additional potential points. The project's LEED scorecard is attached to this letter for reference.

In addition, the project has been designed with the below sustainable design features:

- Low Impact Development. Bioretention and green roof areas reduce runoff from the site. A central
  courtyard includes bioretention and provides open space. Green roof areas and tree pits will also
  contribute to stormwater retention. Tree pits will treat runoff in the public right of way. The project's
  stormwater management design will result in reduced runoff for the 10-year 24-hour design storm
  compared to the site's impervious pre-development condition.
- Open Space. Landscaping will include a large central courtyard and plantings that focus on native plants and biodiversity.
- Site Cleanup. The redevelopment will involve cleanup of environmentally impacted property through the Virginia DEQ's Voluntary Remediation Program (VRP).
- Water Efficiency. The design will include low-flow plumbing fixtures (faucets, toilets, showerheads, urinals) to reduce water use compared to the LEED baseline by at least 35%. Site landscaping will be designed to reduce irrigation by at least 50% compared to the LEED baseline.
- Energy Use Reduction. The building will be designed to reduce energy use by at least 14% compared to the ASHRAE 90.1-2010 baseline. This is equivalent to 5 LEED Optimize Energy Performance points.
  - Massing and Orientation. The project has a flat roof which will facilitate the building's solarready design. Furthermore, the open courtyard design allows for airflow through the courtyard and building thereby enabling natural ventilation through operable windows.
  - Envelope Attributes. Exterior walls will have primarily R-21 batt insulation in the stud wall. Roof insulation will be R-30 above deck rigid insulation. The 1<sup>st</sup> Floor will have rigid insulation pinned to the underside of the slab. Residential windows will be efficient vinyl windows. Exterior walls will be designed with advanced framing techniques including insulated window headers, insulated corners and interior/exterior wall intersections. These measures increase the amount of insulation in the exterior wall.
  - Lighting. Lighting will be 100% LED lighting for both interior and exterior fixtures. Common areas will be designed to reduce lighting power compared to the LEED-referenced ASHRAE 90.1-2010 standard. In addition, lighting occupancy sensors will be used to control lighting in the parking garage and common areas of the building. Daylight sensors will be used in amenity areas to control lighting zones near glazing.
  - Plug and Process Loads. Plug loads will be reduced by specifying ENERGY STAR appliances in dwelling units and common areas. ENERGY STAR clothes washers, dishwashers and refrigerators will be installed.
- Indoor Environmental Quality. Low emitting materials (paints, adhesives, sealants, flooring) will be specified. In addition, a Construction IAQ Management Plan will be implemented during construction. Finally, the building will be designed to meet requirements of the LEED Thermal Comfort Credit.

Please do not hesitate to contact me (703-459-7579, <u>alal@meridian-consult.net</u>) if you have any questions regarding the project's LEED status and sustainable design, or if you require additional information.

Sincerely,

LEED AP

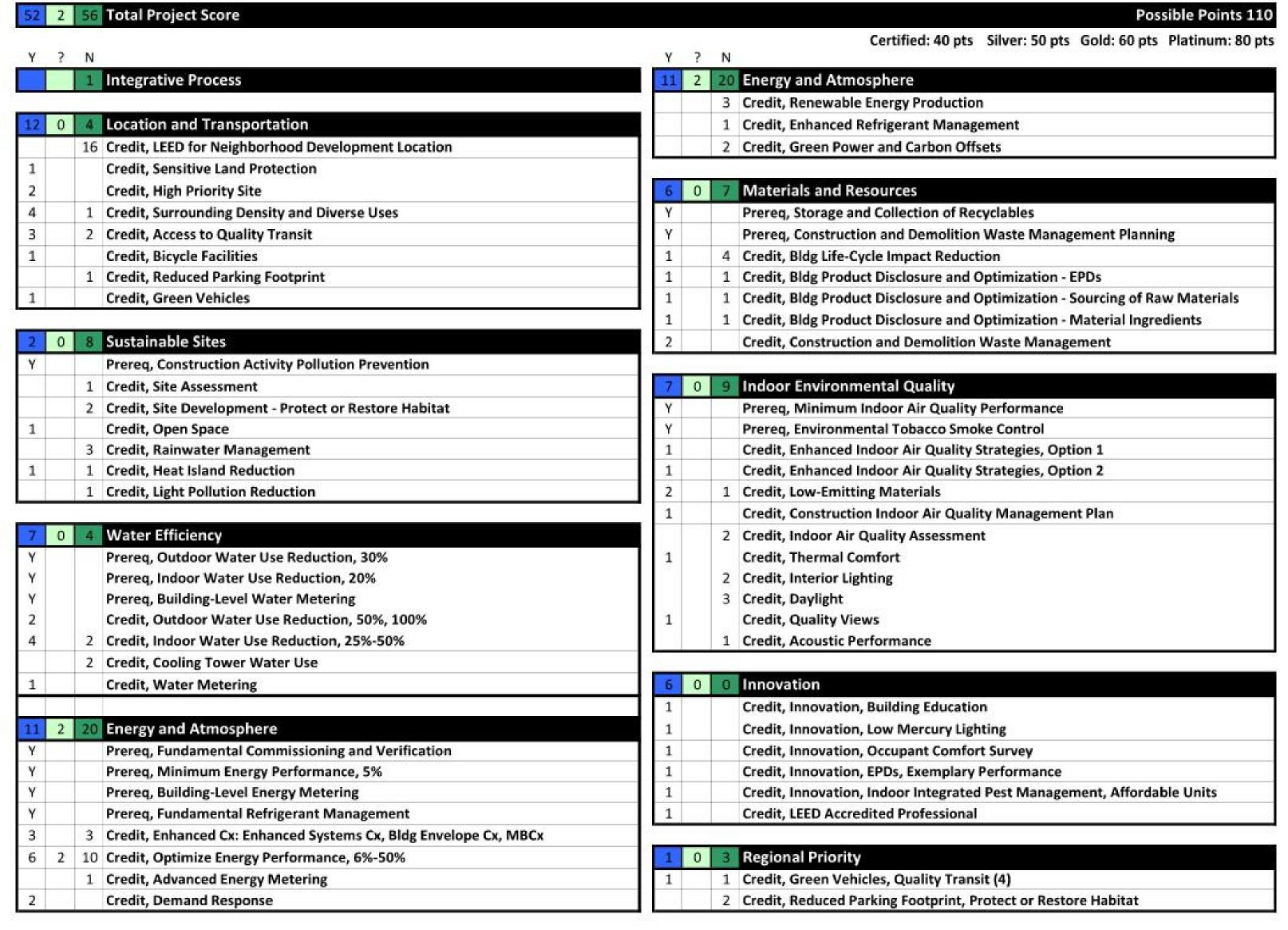
Abhishek Lal Meridian Consulting, LLC

سرما

## meridian consulting llc

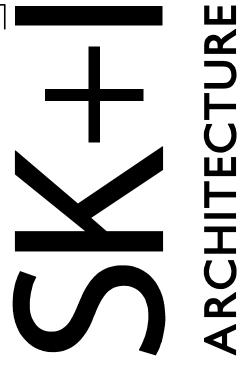
Oakville Triangle Block A LEED for New Construction v4

10/19/2020



Note: The above targeted credits may vary over the course of the project, but the project will achieve Silver certification.

Page 1



4600 EAST WEST HIGHWAY SUITE 700 Bethesda MD 20814 T 301.654.9300 / F 301.654.7211 info@skiarch.com

STRUCTURAL ENGINEER
Ehlert-Bryan
8609 Westwood Center Dr #800
Tysons, VA 22182

MEP ENGINEER
Schwartz Sievers Anoia
7979 Old Georgretown, Rd Suite 510
Bethesda, MD 20814

Christopher Consultants 9900 Main St Suite 400 Fairfax, VA 22031

**CIVIL ENGINEER** 

LANDSCAPE ARCHITECTS
LandDesign
200 South Peyton St
Alexandria, VA 22314

INTERIOR DESIGNERS
Hartman Design Group, Inc
111 Rockville Pike, Suite 425
Rockville, MD 20850

## DSUP SUBMISSION #2

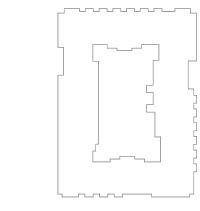
PROJECT NAME

STB04 BLOCK A

ALEXANDRIA, VA

	PROJE	CT NUMBER		STB
	OWNER	₹		
	Stoneb	ridge Associa	ates, INC.	
		isconsin Ave, a la, MD 20814	Suite 700	
		R'S PHONE R CONTACT	ا	301.913.961 DAVID CERNIGLI
	ISSUE			
	MARK	DATE	DESC	CRIPTION
1		2020.10.20	DSUP S	Submission #2
	-			
	$\rightarrow$			

SAMI M KOKDIL No. 011557



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DRAWING TITLE

LEED SCORECARD

APPROVED

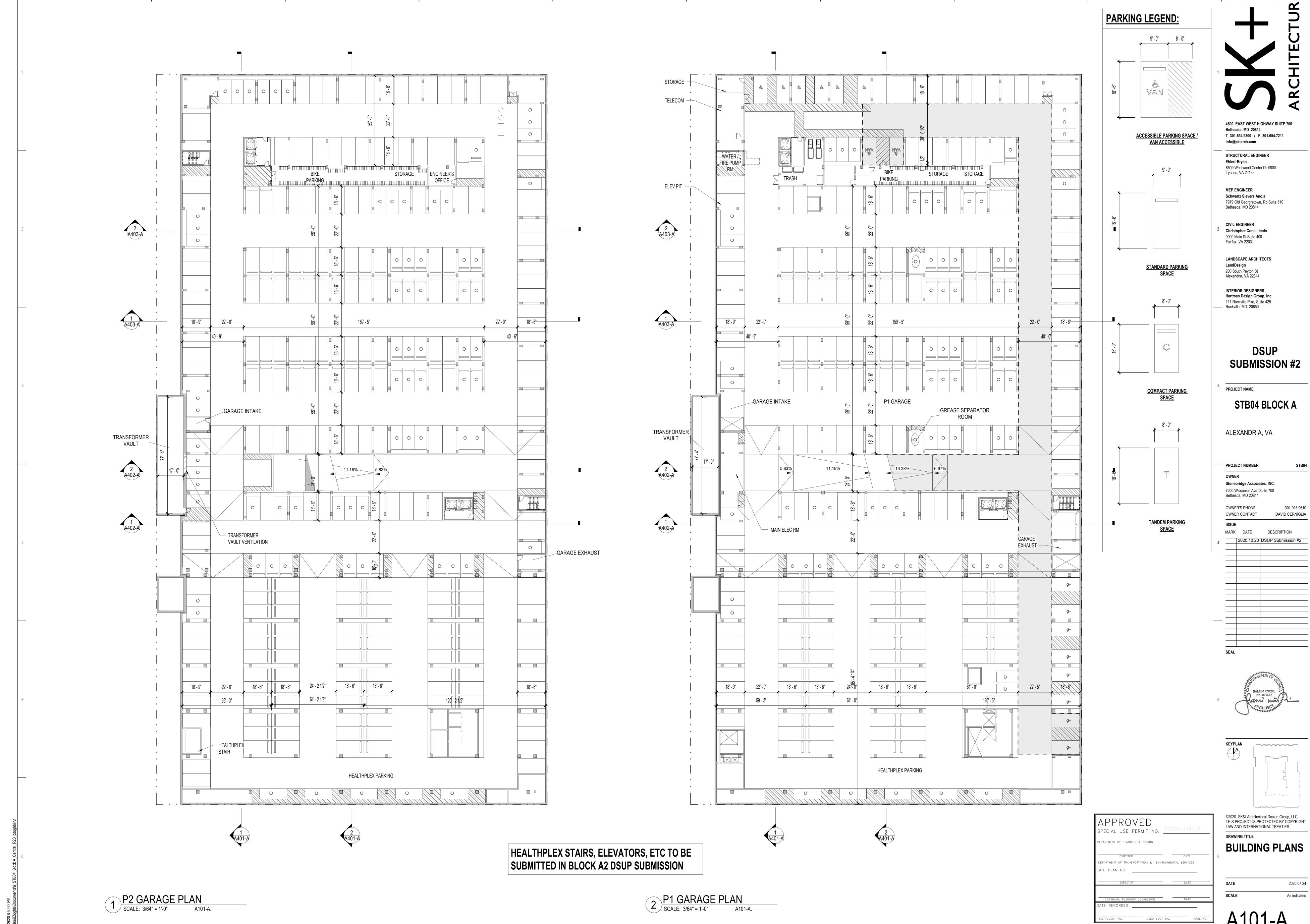
SPECIAL USE PERMIT NO.

EPARTMENT OF PLANNING & ZONING

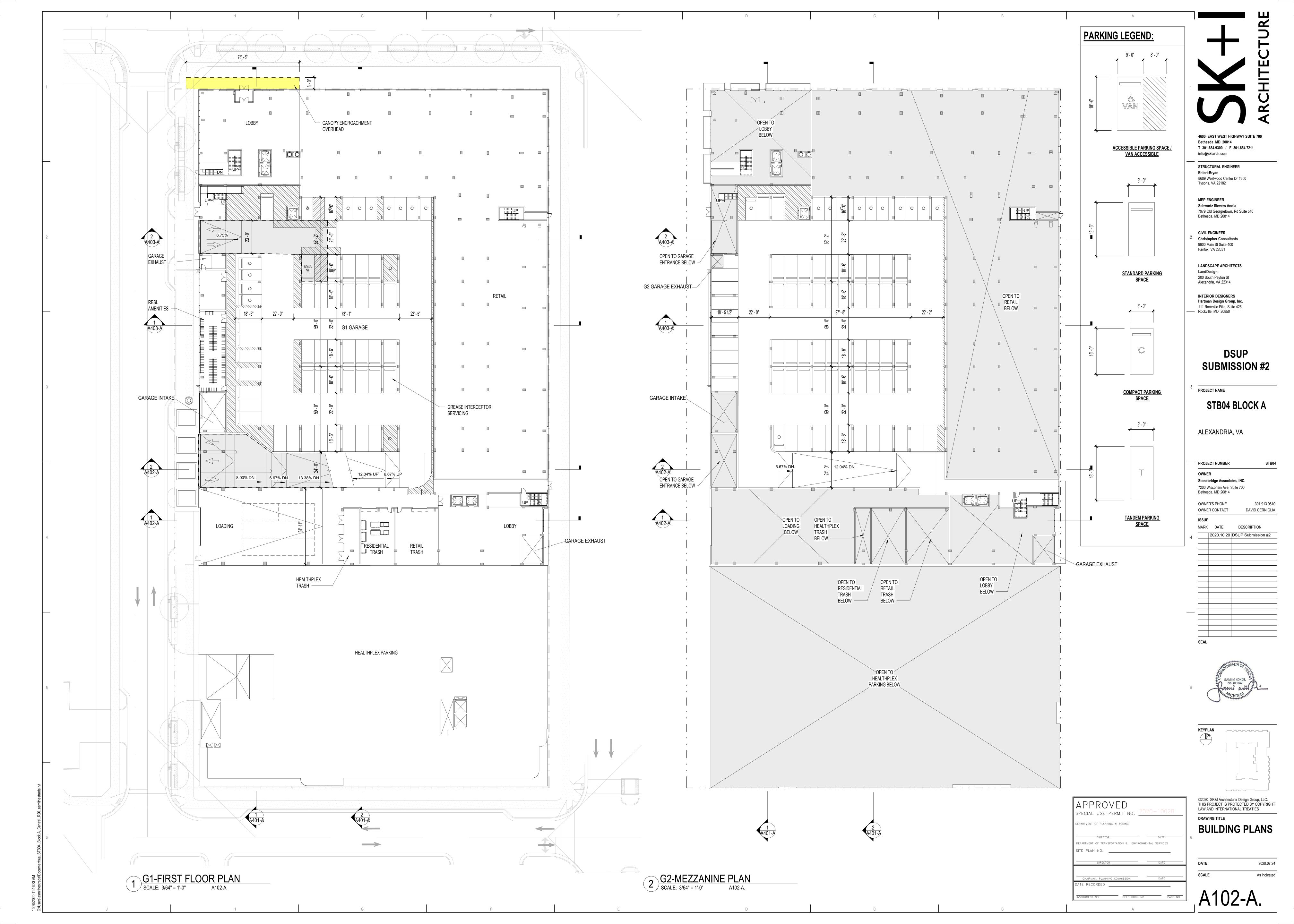
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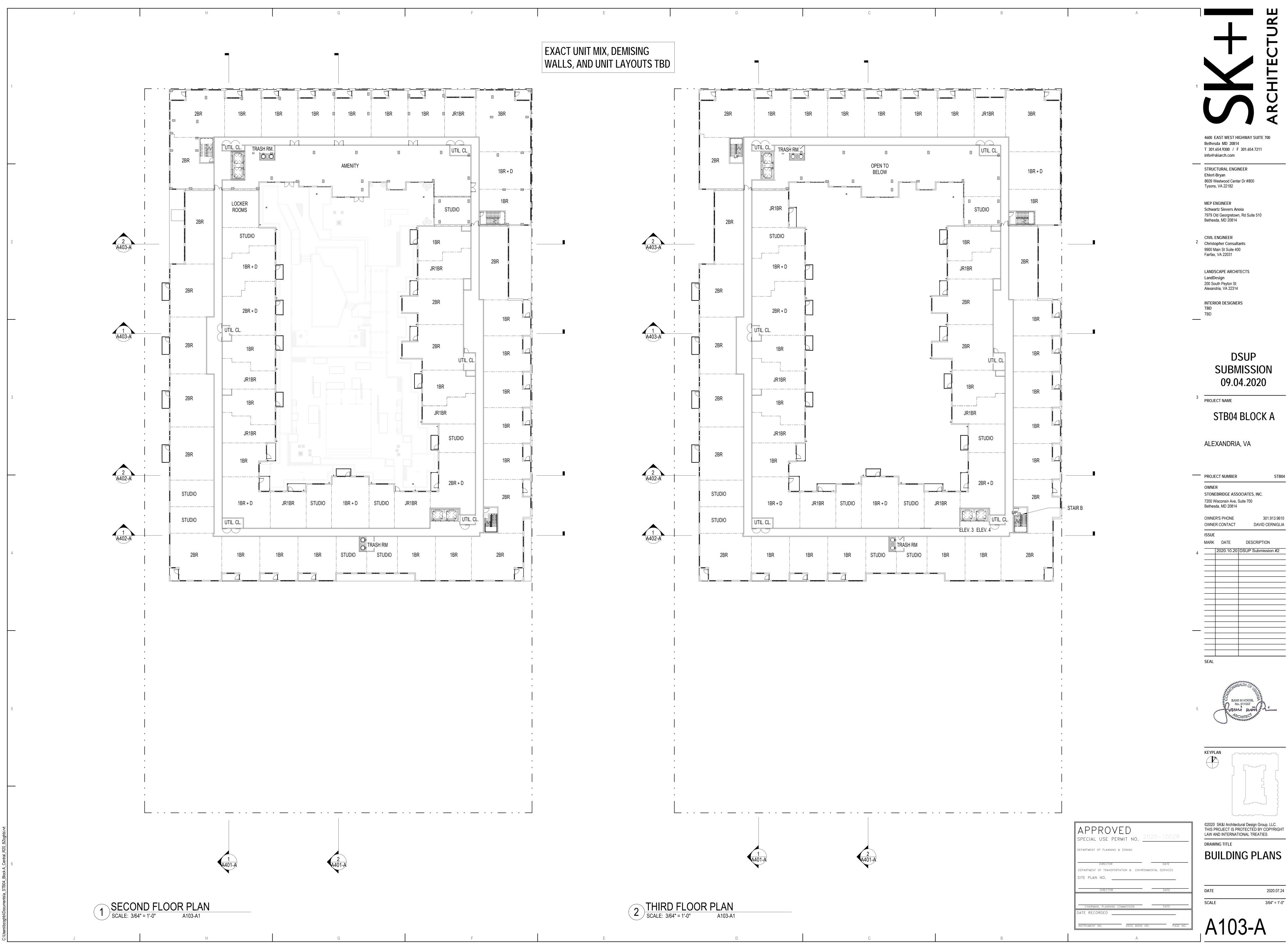
SCALE A

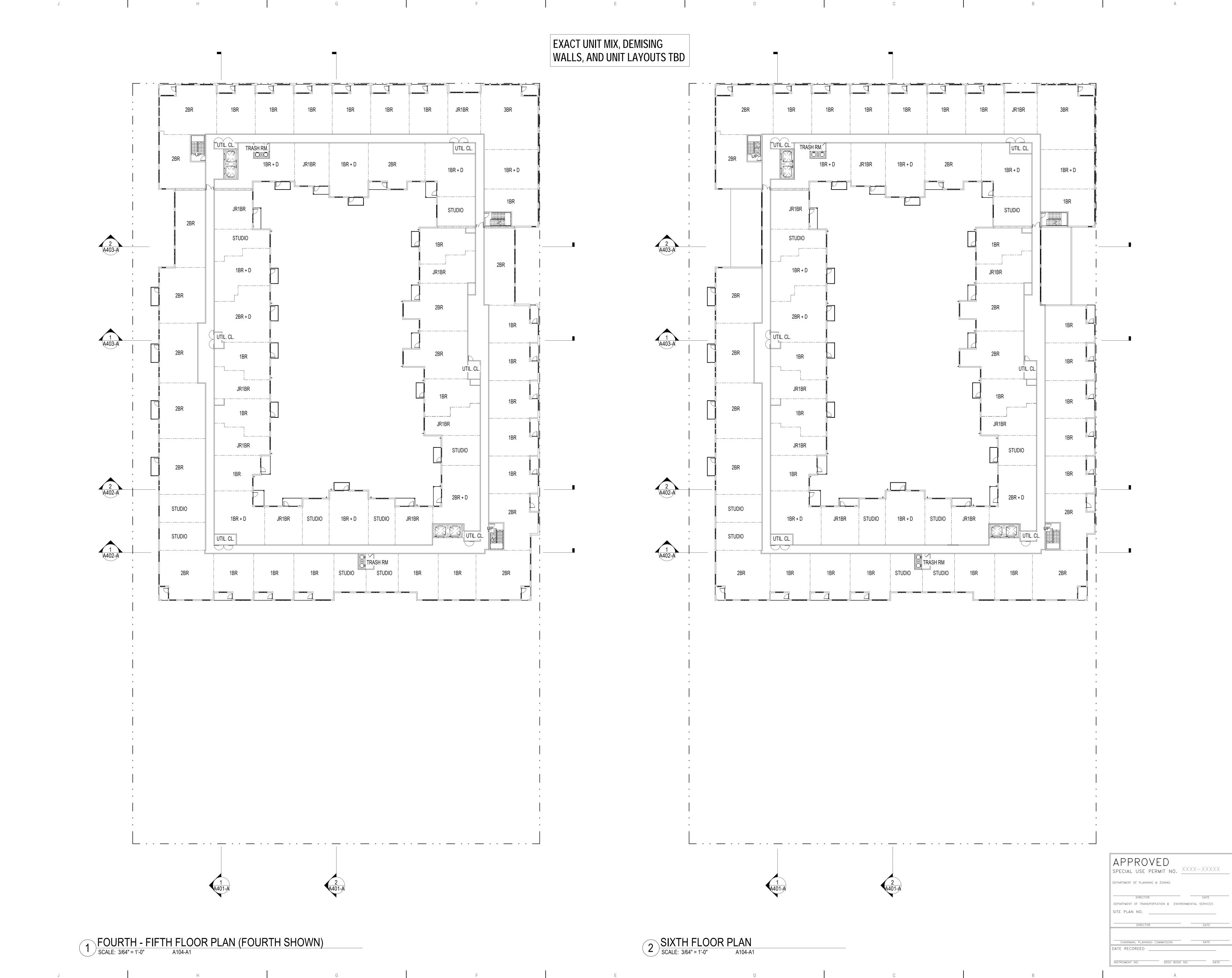
A020-A



A101-A.







SACHITECTURE

4600 EAST WEST HIGHWAY SUITE 700 Bethesda MD 20814 T 301.654.9300 / F 301.654.7211 info@skiarch.com

STRUCTURAL ENGINEER
Ehlert-Bryan
8609 Westwood Center Dr #800
Tysons, VA 22182

MEP ENGINEER
Schwartz Sievers Anoia
7979 Old Georgretown, Rd Suite 510
Bethesda MD 20814

Bethesda, MD 20814

CIVIL ENGINEER

Christopher Consultants

9900 Main St Suite 400 Fairfax, VA 22031

LANDSCAPE ARCHITECTS
LandDesign
200 South Peyton St

Alexandria, VA 22314

INTERIOR DESIGNERS TBD

> DSUP SUBMISSION 09.04.2020

PROJECT NAME

STB04 BLOCK A

ALEXANDRIA, VA

PROJECT NUMBER STB04

OWNER
STONEBRIDGE ASSOCIATES, INC.
7200 Wisconsin Ave, Suite 700
Bethesda, MD 20814

OWNER'S PHONE 301.913.9610
OWNER CONTACT DAVID CERNIGLIA

ISSUE
MARK DATE DESCRIPTION

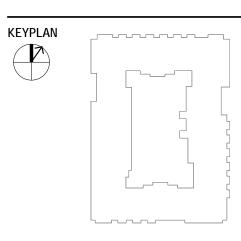
SEAL

SEAL

SAMI M KOKDIL

NO. 011557

ARCHITECTURE



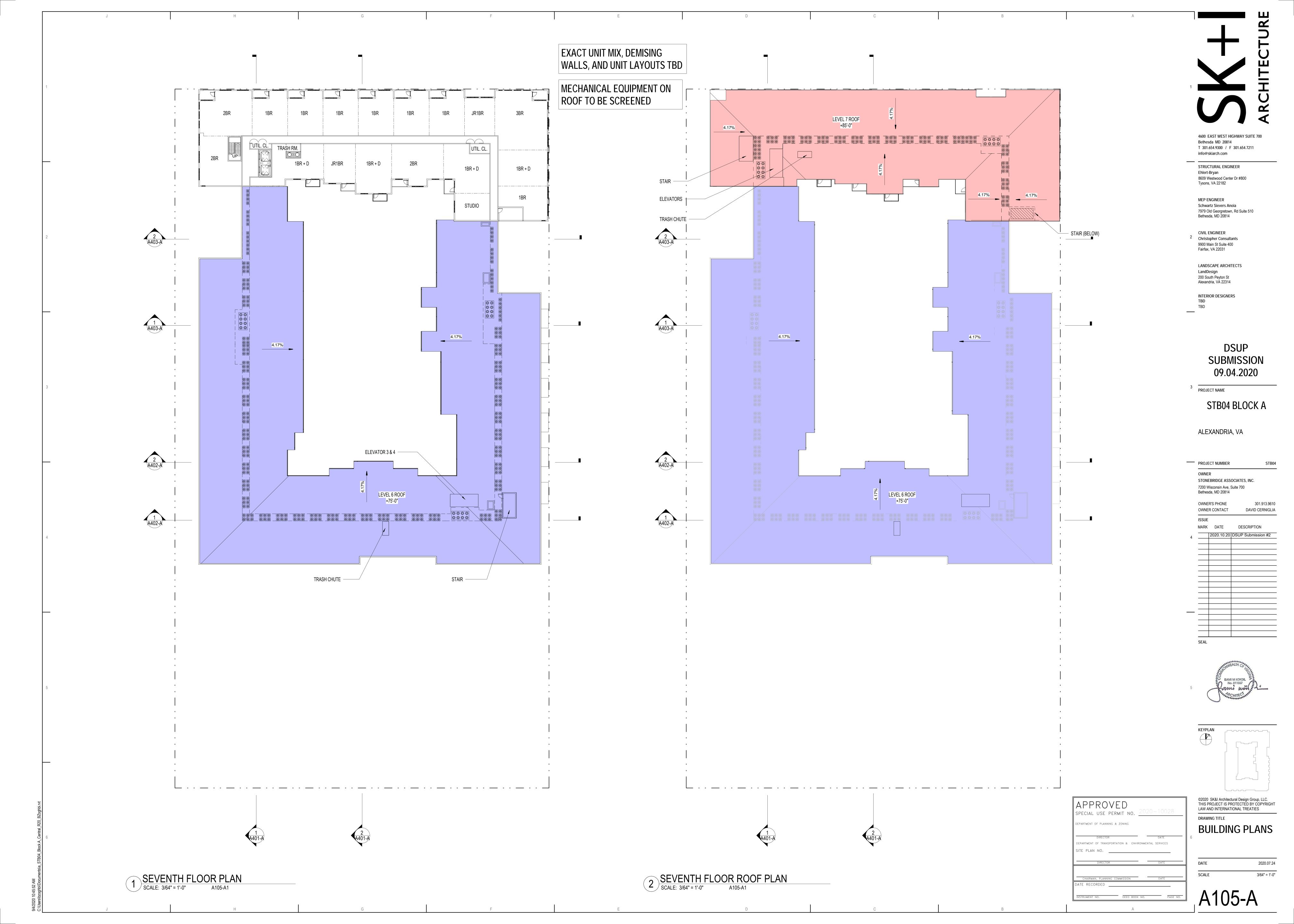
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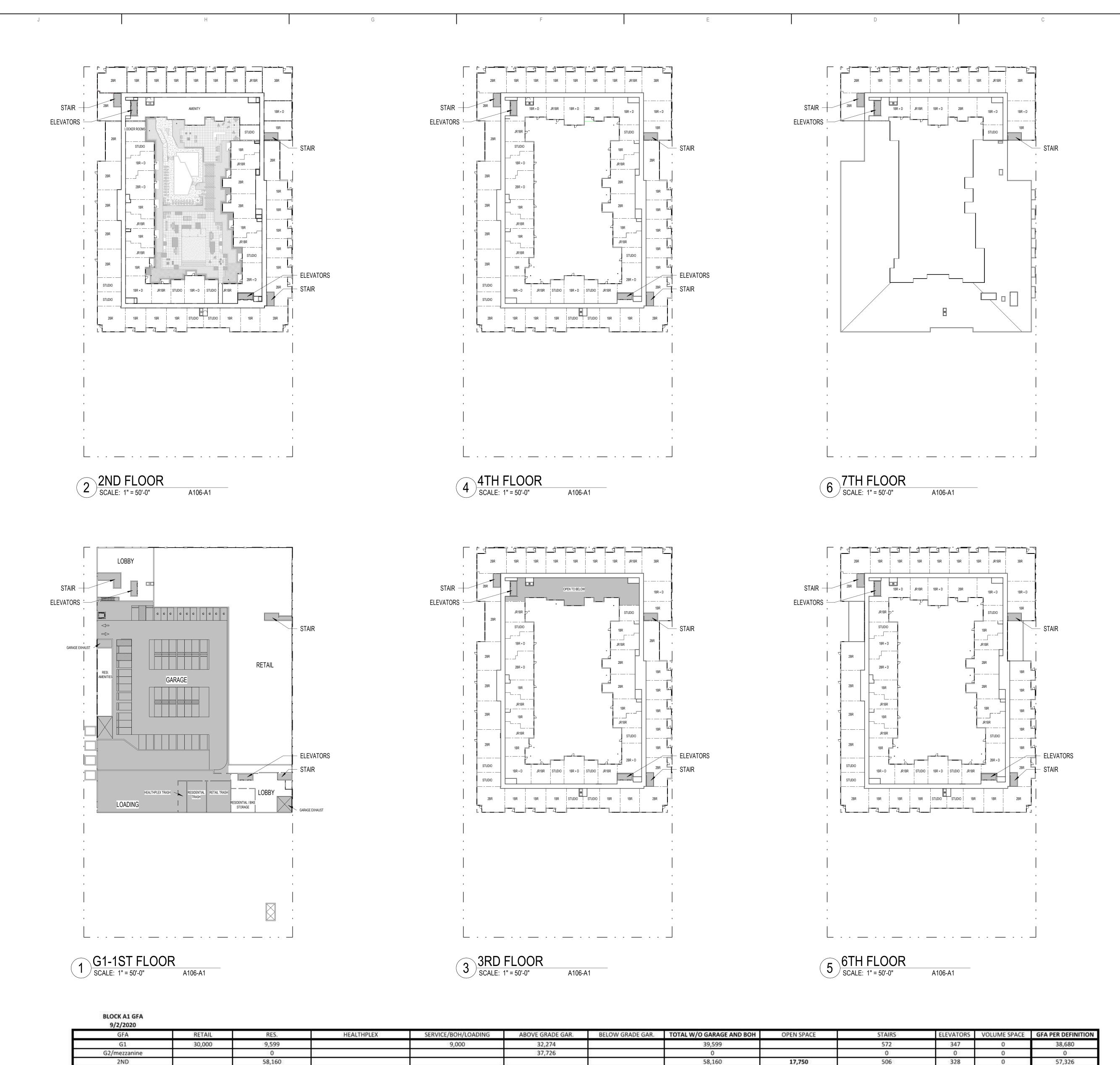
BUILDING PLANS

DATE 2020.07.24

SCALE 3/64" = 1'-0"

A104-A





58,963

59,231

59,231

55,798

17,132

348,114

506

506

506

506

3438

336

328

328

328

328

164

2151

2,525

0

2963

55,604

58,397

58,397

54,964

16,632

340,000

340,000

58,963

59,231

59,231

55,798

17,570

318,552

310,000

9,000

70,000

117,500

117,500

30,000

30,000

3RD

4TH

5TH

6TH

7TH

P2

GFA PER DEFINITON

TOTAL

SACHITECTUR

4600 EAST WEST HIGHWAY SUITE 700 Bethesda MD 20814 T 301.654.9300 / F 301.654.7211 info@skiarch.com

STRUCTURAL ENGINEER Ehlert-Bryan 8609 Westwood Center Dr #800 Tysons, VA 22182

MEP ENGINEER Schwartz Sievers Anoia 7979 Old Georgretown, Rd Suite 510 Bethesda, MD 20814

2 CIVIL ENGINEER
2 Christopher Consultants
9900 Main St Suite 400
Fairfax, VA 22031

LandDesign 200 South Peyton St Alexandria, VA 22314

LANDSCAPE ARCHITECTS

INTERIOR DESIGNERS TBD TBD

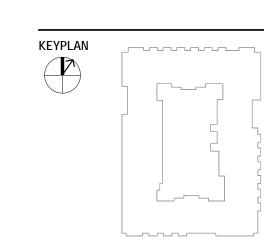
## DSUP SUBMISSION 09.04.2020

STB04 BLOCK A

ALEXANDRIA, VA

_	PROJECT NUMBER		STB
	7200 W	•	OCIATES, INC. Suite 700
		R'S PHONE R CONTACT	301.913.961 DAVID CERNIGLI
	ISSUE MARK	DATE	DESCRIPTION
4		2020.10.20	DSUP Submission #2





APPROVED	000 4000
special use permit no. $\frac{2}{2}$	020-10028
DEPARTMENT OF PLANNING & ZONING	
DIRECTOR	DATE
DEPARTMENT OF TRANSPORTATION & ENVIRON	IMENTAL SERVICES
SITE PLAN NO.	
DIRECTOR	DATE
CHAIRMAN, PLANNING COMMISSION	DATE

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DRAWING TITLE

GFA DIAGRAMS

DATE 2020.07.24

SCALE 1" = 50'-0"

A106-A

COURTYARD MEDICAL CARE FACILITY MEDICAL CARE FACILITY TOTAL PERIMETER = 1,143.5 FT (25% = 286 FT) TOTAL SET BACKS = 435.75 FT (38%)

SACHITECTURE

4600 EAST WEST HIGHWAY SUITE 700 Bethesda MD 20814 T 301.654.9300 / F 301.654.7211 info@skiarch.com

STRUCTURAL ENGINEER
Ehlert-Bryan
8609 Westwood Center Dr #800
Tysons, VA 22182

MEP ENGINEER
Schwartz Sievers Anoia
7979 Old Georgretown, Rd Suite 510
Bethesda, MD 20814

2 CIVIL ENGINEER
Christopher Consultants
9900 Main St Suite 400
Fairfax, VA 22031

LANDSCAPE ARCHITECTS
LandDesign
200 South Peyton St
Alexandria, VA 22314

INTERIOR DESIGNERS
Hartman Design Group, Inc.
111 Rockville Pike, Suite 425
Rockville, MD 20850

10-20-20 DSUP SUBMISSION #2

PROJECT NAME

STB04 BLOCK A

ALEXANDRIA, VA

OWNER
Stonebridge Associates, INC.
7200 Wisconsin Ave, Suite 700
Bethesda, MD 20814

OWNER'S PHONE 301.913.9610
OWNER CONTACT DAVID CERNIGLIA

ISSUE
MARK DATE DESCRIPTION

4

2020.10.20 DSUP Submission #2

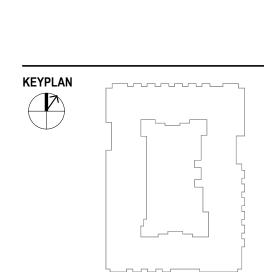
SEAL

SEAL

SAMI M KOKDIL

NO. 011557

ARCHITEC



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RAWING TITLE NAGRAMS

APPROVED
SPECIAL USE PERMIT NO.

DEPARTMENT OF PLANNING & ZONING

DIAGRAMS

DATE 2020.07.24

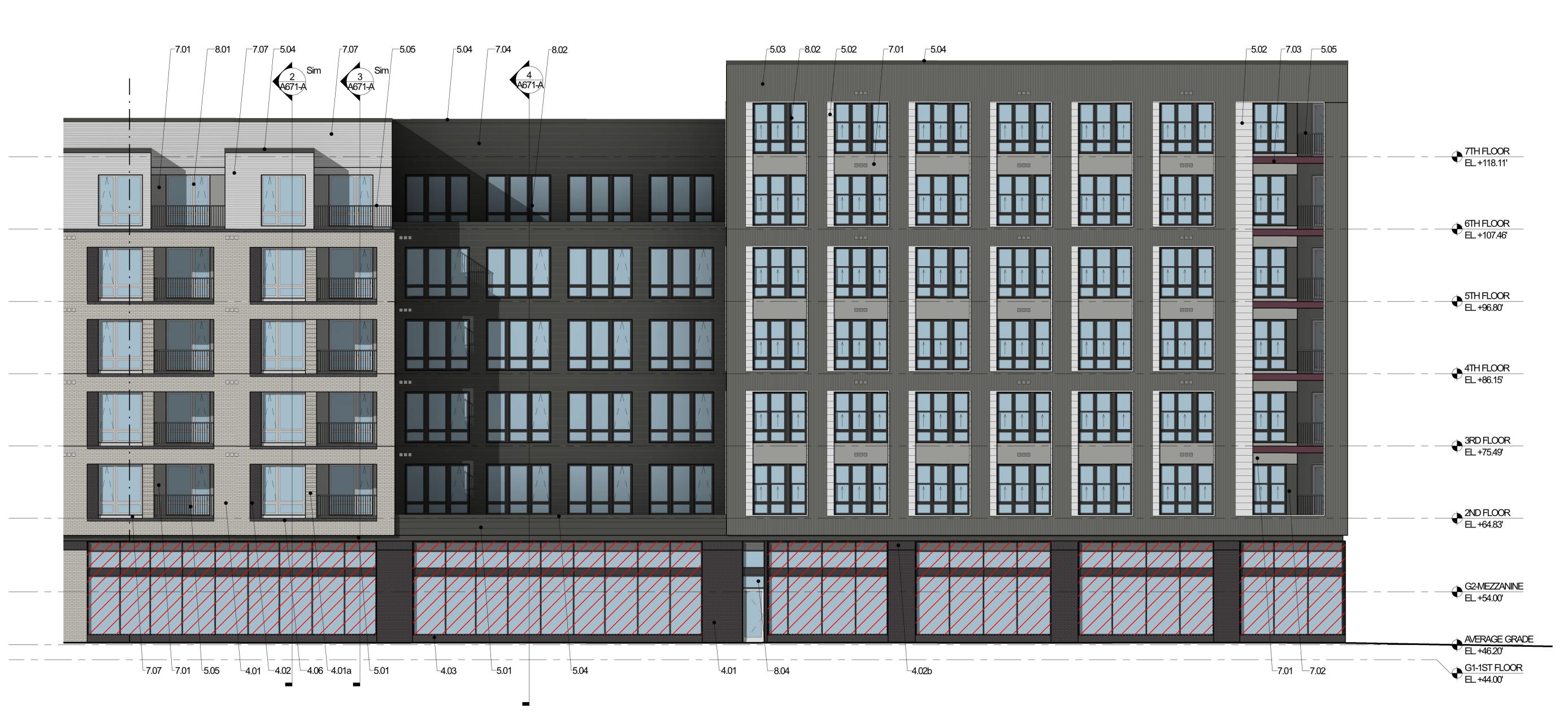
SCALE As indicated

A107-A

BUILDING HEIGHT VARIETY DIAGRAM
SCALE: 3/64" = 1'-0" A107-A.

BUILDING MASSING DIAGRAM

SCALE: 3/64" = 1'-0"



ROUTE 1 EAST ELEVATION VIEW PART 1
SCALE: 1/8" = 1'-0" A501-A.



Retail storefront shown in elevations at tenant openings are example of potential final condition. Openings will be temporarily enclosed with painted plywood cladding with graphics, or similar, as required by code for certificate of occupancy. See precedent images on this sheet for possible temporary storefront treatment. Prior to construction bond release, permanent storefront will be constructed in retail bays which have not yet submitted for building permits for tenant fit out.



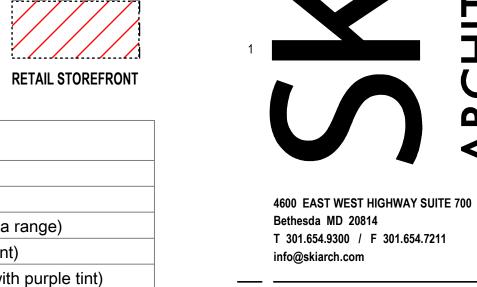
MATERIALS LEGEND Key Value Keynote Text Brick #01 (Light warm gray with a range) Brick #02 (Rusticated light warm gray with a range) Brick #03 (Dark gray ironspot with purple tint) Brick #04 (Rusiticated dark gray ironspot with purple tint) Brick #05 (Dark gray ironspot with purple tint - soldier course) 4.03 Granite Precast Coping (Dark gray) Precast Sill (Dark gray) Precast Sill (Light gray) Concealed Fastener Flat Metal Wall Panel #01 (Dark Grey) Concealed Fastener Flat Metal Wall Panel #02 (Light Grey) Concealed Fastener Corrugated Metal Wall Panel #01 (Dark Grey) Metal Coping Aluminum Picket Railing System Prefabricated Aluminum Hung Balcony System Post-Supported Balcony System Fiber Cement Panel #01 (Hardie Reveal - Medium Grey) \*Hardie Panel at courtyard Fiber Cement Panel #02 (Hardie Reveal - Dark Grey) \*Hardie Panel at courtyard Fiber Cement Panel #03 (Hardie Reveal - Accent Color) \*Hardie Panel at courtyard Nichiha Panel - Illumination Series (Dark Grey) Fiber Cement Lap Board 4" #01 (Hardie Artisan - Dark Grey) \*Hardie Plank at courtyard Fiber Cement Lap Board 4" #02 (Hardie Artisan - Medium Grey) \*Hardie Plank at courtyard Fiber Cement Lap Board 4" #03 (Hardie Artisan - Light Grey) \*Hardie Plank at courtyard Window System (White - Standard) Window System (Bronze - Heat-Applied Finish)

Storefront System

Aluminum Louver System

Garage Door

Canopy



**Christopher Consultants** ---- Rockville, MD 20850

## **DSUP SUBMISSION #2**

STB04 BLOCK A

STRUCTURAL ENGINEER

8609 Westwood Center Dr #800

Ehlert-Bryan

Tysons, VA 22182

MEP ENGINEER

Bethesda, MD 20814

**CIVIL ENGINEER** 

Fairfax, VA 22031

LandDesign

200 South Peyton St

Alexandria, VA 22314

INTERIOR DESIGNERS

Hartman Design Group, Inc.

111 Rockville Pike, Suite 425

9900 Main St Suite 400

LANDSCAPE ARCHITECTS

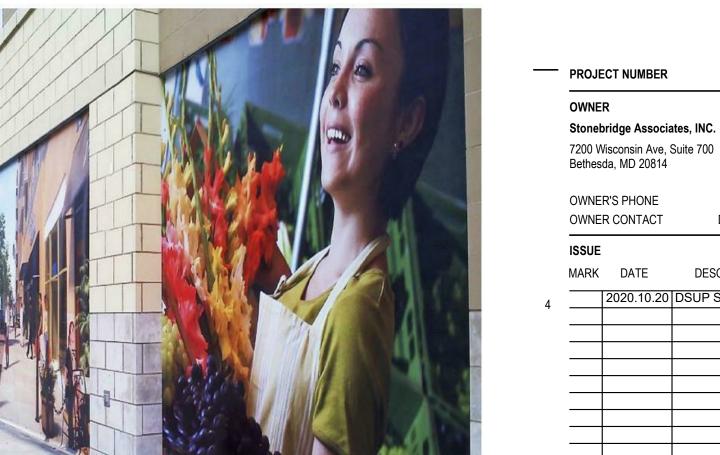
Schwartz Sievers Anoia

7979 Old Georgretown, Rd Suite 510

DAVID CERNIGLIA

ALEXANDRIA, VA

PROJECT NAME





TEMPORARY RETAIL ENCLOSURE PRECEDENT IMAGES

	S & ZONING	
DIRECTOR		DATE
DEPARTMENT OF TRANSPO	DRTATION & ENVIRONMENTA	AL SERVICES
SITE PLAN NO		
DIRECTOR		DATE
CHAIRMAN, PLANNING	COMMISSION	DATE
DATE RECORDED		
DATE RECORDED		



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## BUILDING **ELEVATIONS**

2020.07.24 SCALE As indicated



SWANN AVE. NORTH ELEVATION VIEW

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

MATERIALS LEGEND Key Value Keynote Text Brick #01 (Light warm gray with a range) Brick #02 (Rusticated light warm gray with a range) Brick #03 (Dark gray ironspot with purple tint) Brick #04 (Rusiticated dark gray ironspot with purple tint) Brick #05 (Dark gray ironspot with purple tint - soldier course) 4.03 Granite Precast Coping (Dark gray) Precast Sill (Dark gray) Precast Sill (Light gray) Concealed Fastener Flat Metal Wall Panel #01 (Dark Grey) Concealed Fastener Flat Metal Wall Panel #02 (Light Grey) Concealed Fastener Corrugated Metal Wall Panel #01 (Dark 5.03 Metal Coping Aluminum Picket Railing System Prefabricated Aluminum Hung Balcony System Post-Supported Balcony System Fiber Cement Panel #01 (Hardie Reveal - Medium Grey) \*Hardie Panel at courtyard Fiber Cement Panel #02 (Hardie Reveal - Dark Grey) \*Hardie Panel at courtyard Fiber Cement Panel #03 (Hardie Reveal - Accent Color) \*Hardie Panel at courtyard Nichiha Panel - Illumination Series (Dark Grey) Fiber Cement Lap Board 4" #01 (Hardie Artisan - Dark Grey) \*Hardie Plank at courtyard Fiber Cement Lap Board 4" #02 (Hardie Artisan - Medium Grey) \*Hardie Plank at courtyard Fiber Cement Lap Board 4" #03 (Hardie Artisan - Light Grey) \*Hardie Plank at courtyard Window System (White - Standard) Window System (Bronze - Heat-Applied Finish) Storefront System Garage Door Aluminum Louver System 8.07 Canopy

4600 EAST WEST HIGHWAY SUITE 700

T 301.654.9300 / F 301.654.7211 info@skiarch.com

STRUCTURAL ENGINEER Ehlert-Bryan 8609 Westwood Center Dr #800 Tysons, VA 22182

MEP ENGINEER Schwartz Sievers Anoia

**CIVIL ENGINEER** Christopher Consultants 9900 Main St Suite 400 Fairfax, VA 22031

7979 Old Georgretown, Rd Suite 510 Bethesda, MD 20814

LANDSCAPE ARCHITECTS LandDesign

200 South Peyton St Alexandria, VA 22314

INTERIOR DESIGNERS Hartman Design Group, Inc 111 Rockville Pike, Suite 425 --- Rockville, MD 20850

**SUBMISSION #2** 

STB04 BLOCK A

ALEXANDRIA, VA

PROJECT NAME

PROJECT NUMBER OWNER Stonebridge Associates, INC.

7200 Wisconsin Ave, Suite 700 Bethesda, MD 20814 OWNER'S PHONE 301.913.9610

OWNER CONTACT DAVID CERNIGLIA MARK DATE DESCRIPTION

SEAL



SEE SHEET A501-A FOR STOREFRONT NOTES

APPROVED SPECIAL USE PERMIT NO. DEPARTMENT OF PLANNING & ZONING DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES SITE PLAN NO.

NSTRUMENT NO. DEED BOOK NO. PAGE NO

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**BUILDING ELEVATIONS** 

2020.07.24 SCALE 1/8" = 1'-0"



I/aValue	MATERIALS LEGEND	
Key Value	-	
4.01	Brick #01 (Light warm gray with a range)	
4.01a	Brick #02 (Rusticated light warm gray with a range)	
4.02	Brick #03 (Dark gray ironspot with purple tint)	
4.02a	Brick #04 (Rusiticated dark gray ironspot with purple tint)	
4.02b	Brick #05 (Dark gray ironspot with purple tint - soldier course)	
4.03	Granite	
4.04	Precast Coping (Dark gray)	
4.06	Precast Sill (Dark gray)	
4.07	Precast Sill (Light gray)	
5.01	Concealed Fastener Flat Metal Wall Panel #01 (Dark Grey)	
5.02	Concealed Fastener Flat Metal Wall Panel #02 (Light Grey	
5.03	Concealed Fastener Corrugated Metal Wall Panel #01 (Da Grey)	
5.04	Metal Coping	
5.05	Aluminum Picket Railing System	
5.06	Prefabricated Aluminum Hung Balcony System	
6.01	Post-Supported Balcony System	
7.01	Fiber Cement Panel #01 (Hardie Reveal - Medium Grey) *Hardie Panel at courtyard	
7.02	Fiber Cement Panel #02 (Hardie Reveal - Dark Grey) *Har	
7.03	Fiber Cement Panel #03 (Hardie Reveal - Accent Color) *Hardie Panel at courtyard	
7.04	Nichiha Panel - Illumination Series (Dark Grey)	
7.05	Fiber Cement Lap Board 4" #01 (Hardie Artisan - Dark Gre *Hardie Plank at courtyard	
7.06	Fiber Cement Lap Board 4" #02 (Hardie Artisan - Medium Grey) *Hardie Plank at courtyard	
7.07	Fiber Cement Lap Board 4" #03 (Hardie Artisan - Light Gre *Hardie Plank at courtyard	
8.01	Window System (White - Standard)	
8.02	Window System (Bronze - Heat-Applied Finish)	
8.04	Storefront System	
8.05	Garage Door	
8.06	Aluminum Louver System	
8.07	Canopy	

4600 EAST WEST HIGHWAY SUITE 700

Bethesda MD 20814 T 301.654.9300 / F 301.654.7211 info@skiarch.com

STRUCTURAL ENGINEER Ehlert-Bryan 8609 Westwood Center Dr #800 Tysons, VA 22182

MEP ENGINEER Schwartz Sievers Anoia 7979 Old Georgretown, Rd Suite 510 Bethesda, MD 20814

**CIVIL ENGINEER** 2 Christopher Consultants 9900 Main St Suite 400 Fairfax, VA 22031

> LANDSCAPE ARCHITECTS LandDesign 200 South Peyton St

Alexandria, VA 22314

INTERIOR DESIGNERS Hartman Design Group, Inc. 111 Rockville Pike, Suite 425 ---- Rockville, MD 20850

> DSUP **SUBMISSION #2**

PROJECT NAME

STB04 BLOCK A

ALEXANDRIA, VA

PROJECT NUMBER OWNER CONTACT DAVID CERNIGLIA



SEAL

SEE SHEET A501-A FOR STOREFRONT NOTES

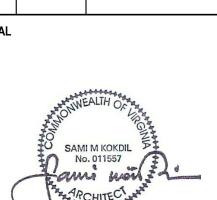
SITE PLAN NO.

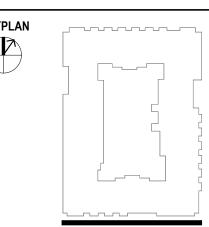
©2020 SK&I Architectural Design Group, LLC. THIS PROJECT IS PROTECTED BY COPYRIGHT APPROVED LAW AND INTERNATIONAL TREATIES SPECIAL USE PERMIT NO. DRAWING TITLE DEPARTMENT OF PLANNING & ZONING **BUILDING ELEVATIONS** DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

2020.07.24 SCALE 1/8" = 1'-0"









2020.07.24 1/8" = 1'-0"



## WEST ELEVATION VIEW @COURTYARD SCALE: 1/8" = 1'-0" A505-A.



Kov Valua	Kovnoto Toyt
Key Value 4.01	Keynote Text
	Brick #01 (Light warm gray with a range)
4.01a 4.02	Brick #02 (Rusticated light warm gray with a range)
4.02 4.02a	Brick #03 (Dark gray ironspot with purple tint)
4.02a 4.02b	Brick #04 (Rusiticated dark gray ironspot with purple tint)
4.020	Brick #05 (Dark gray ironspot with purple tint - soldier course)  Granite
4.03 4.04	
4.04 4.06	Precast Coping (Dark gray)
4.00 4.07	Precast Sill (Dark gray)
	Precast Sill (Light gray)
5.01	Concealed Fastener Flat Metal Wall Panel #01 (Dark Grey)
5.02	Concealed Fastener Flat Metal Wall Panel #02 (Light Grey)
5.03	Concealed Fastener Corrugated Metal Wall Panel #01 (Dark Grey)
5.04	Metal Coping
5.05	Aluminum Picket Railing System
5.06	Prefabricated Aluminum Hung Balcony System
6.01	Post-Supported Balcony System
7.01	Fiber Cement Panel #01 (Hardie Reveal - Medium Grey) *Hardie Panel at courtyard
7.02	Fiber Cement Panel #02 (Hardie Reveal - Dark Grey) *Hardie Panel at courtyard
7.03	Fiber Cement Panel #03 (Hardie Reveal - Accent Color) *Hardie Panel at courtyard
7.04	Nichiha Panel - Illumination Series (Dark Grey)
7.05	Fiber Cement Lap Board 4" #01 (Hardie Artisan - Dark Grey) *Hardie Plank at courtyard
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7.07	Fiber Cement Lap Board 4" #03 (Hardie Artisan - Light Grey) *Hardie Plank at courtyard
8.01	Window System (White - Standard)
8.02	Window System (Bronze - Heat-Applied Finish)
8.04	Storefront System
8.05	Garage Door
8.06	Aluminum Louver System
8.07	Canopy

SARCHITECTURE

4600 EAST WEST HIGHWAY SUITE 700 Bethesda MD 20814 T 301.654.9300 / F 301.654.7211 info@skiarch.com

STRUCTURAL ENGINEER
Ehlert-Bryan
8609 Westwood Center Dr #800
Tysons, VA 22182

Tysons, VA 22182

MEP ENGINEER

Schwartz Sievers Anoia

Bethesda, MD 20814

7979 Old Georgretown, Rd Suite 510

CIVIL ENGINEER
Christopher Consultants

9900 Main St Suite 400 Fairfax, VA 22031

LandDesign 200 South Peyton St Alexandria, VA 22314

LANDSCAPE ARCHITECTS

INTERIOR DESIGNERS
Hartman Design Group, Inc.
111 Rockville Pike, Suite 425
Rockville, MD 20850

## DSUP SUBMISSION #2

PROJECT NAME

## STB04 BLOCK A

ALEXANDRIA, VA

_	PROJECT NUMBER	STB04
	OWNER	
	Stonebridge Associates	s, INC.
	7200 Wisconsin Ave, Sui Bethesda, MD 20814	te 700
	OWNER'S PHONE	301.913.9610
	OWNER CONTACT	DAVID CERNIGLIA
	ISSUE	
	MARK DATE	DESCRIPTION
4	2020.10.20 D	SUP Submission #2



KEYPLAN	

SEE SHEET A501-A FOR STOREFRONT NOTES

APPROV	FD
SPECIAL USE PE	RMIT NO. <u>2020-10028</u>
DEPARTMENT OF PLANNING	& ZONING
DIRECTOR	DATE
	STATION & ENVIRONMENTAL SERVICES
SITE PLAN NO.	
SITE PLAN NO.	DATE
	DATE
DIRECTOR	

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DRAWING TITLE

BUILDING ELEVATIONS

DATE 2020.07.24

SCALE 1/8" = 1'-0"

A505-A.

# SOUTH ELEVATION VIEW @COURTYARD SCALE: 1/8" = 1'-0" A506-A.



<del>\_</del>7.07 <del>\_</del>8.02

<sup>\_</sup>4.02a

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1 EAST ELEVATION VIEW
SCALE: 1/8" = 1'-0" A506-A.

	MATERIALS LEGEND
Key Value	Keynote Text
4.01	Brick #01 (Light warm gray with a range)
4.01a	Brick #02 (Rusticated light warm gray with a range)
4.02	Brick #03 (Dark gray ironspot with purple tint)
4.02a	Brick #04 (Rusiticated dark gray ironspot with purple tint)
4.02b	Brick #05 (Dark gray ironspot with purple tint - soldier course)
4.03	Granite
4.04	Precast Coping (Dark gray)
4.06	Precast Sill (Dark gray)
4.07	Precast Sill (Light gray)
5.01	Concealed Fastener Flat Metal Wall Panel #01 (Dark Grey)
5.02	Concealed Fastener Flat Metal Wall Panel #02 (Light Grey)
5.03	Concealed Fastener Corrugated Metal Wall Panel #01 (Dark Grey)
5.04	Metal Coping
5.05	Aluminum Picket Railing System
5.06	Prefabricated Aluminum Hung Balcony System
6.01	Post-Supported Balcony System
7.01	Fiber Cement Panel #01 (Hardie Reveal - Medium Grey) *Hardie Panel at courtyard
7.02	Fiber Cement Panel #02 (Hardie Reveal - Dark Grey) *Hardie Panel at courtyard
7.03	Fiber Cement Panel #03 (Hardie Reveal - Accent Color) *Hardie Panel at courtyard
7.04	Nichiha Panel - Illumination Series (Dark Grey)
7.05	Fiber Cement Lap Board 4" #01 (Hardie Artisan - Dark Grey) *Hardie Plank at courtyard
7.06	Fiber Cement Lap Board 4" #02 (Hardie Artisan - Medium Grey) *Hardie Plank at courtyard
7.07	Fiber Cement Lap Board 4" #03 (Hardie Artisan - Light Grey) *Hardie Plank at courtyard
8.01	Window System (White - Standard)
8.02	Window System (Bronze - Heat-Applied Finish)
8.04	Storefront System
8.05	Garage Door
8.06	Aluminum Louver System
8 N7	Canony

**┌**7.06

7TH FLOOR EL.+118.11'

6TH FLOOR EL.+107.46'

5TH FLOOR EL.+96.80'

4TH FLOOR EL.+86.15'

3RD FLOOR EL.+75.49'

2ND FLOOR EL.+64.83'

8.07 Canopy

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**CIVIL ENGINEER** 2 Christopher Consultants

9900 Main St Suite 400 Fairfax, VA 22031

LANDSCAPE ARCHITECTS LandDesign 200 South Peyton St

Alexandria, VA 22314

INTERIOR DESIGNERS Hartman Design Group, Inc. 111 Rockville Pike, Suite 425 ---- Rockville, MD 20850

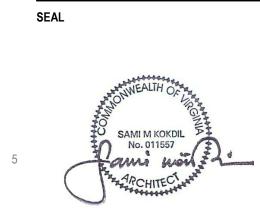
## **DSUP SUBMISSION #2**

PROJECT NAME

## STB04 BLOCK A

ALEXANDRIA, VA

PROJECT NUMBER Stonebridge Associates, INC. 7200 Wisconsin Ave, Suite 700 Bethesda, MD 20814 OWNER'S PHONE OWNER CONTACT DAVID CERNIGLIA



KEYPLAN	

SEE SHEET A501-A FOR STOREFRONT NOTES

APPROVED SPECIAL USE PERMIT NO. 202	(0-10028
DEPARTMENT OF PLANNING & ZONING	
DIRECTOR  DEPARTMENT OF TRANSPORTATION & ENVIRONMENT SITE PLAN NO.	DATE TAL SERVICES
DIRECTOR	DATE
CHAIRMAN, PLANNING COMMISSION	DATE
DATE RECORDED	
INSTRUMENT NO. DEED BOOK NO.	PAGE NO.

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BUILDING **ELEVATIONS** 

2020.07.24 SCALE 1/8" = 1'-0"



**ROUTE 1 TOTAL** FIBER CEMENT (HARDIE) **NICHIHA PANEL** % FIBER CEMENT (HARDIE) **% NICHIHA PANEL** 26,435 SF 4,028 SF 1,414 SF 15% 5%

7TH FLOOR EL.+118.11' 6TH FLOOR EL.+107.46' 5TH FLOOR EL.+96.80' 4TH FLOOR EL. +86.15' 3RD FLOOR EL.+75.49' 2ND FLOOR EL. +64.83' G2-MEZZANINE EL. +54.00'

SWANN TOTAL	FIBER CEMENT (HARDIE)	NICHIHA PANEL	% FIBER CEMENT (HARDIE)	% NICHIHA PANEL
20,683 SF	2,257 SF	614 SF	11%	3%

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LandDesign 200 South Peyton St Alexandria, VA 22314

LANDSCAPE ARCHITECTS

INTERIOR DESIGNERS Hartman Design Group, Inc. 111 Rockville Pike, Suite 425
Rockville, MD 20850

**SUBMISSION #2** 

PROJECT NAME

STB04 BLOCK A

ALEXANDRIA, VA

PROJECT NUMBER Stonebridge Associates, INC. 7200 Wisconsin Ave, Suite 700 Bethesda, MD 20814 OWNER'S PHONE 301.913.9610 DAVID CERNIGLIA OWNER CONTACT MARK DATE DESCRIPTION

FIBER CEMENT (HARDIE)

APPROVED

SPECIAL USE PERMIT NO.

DEPARTMENT OF PLANNING & ZONING

SITE PLAN NO.

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

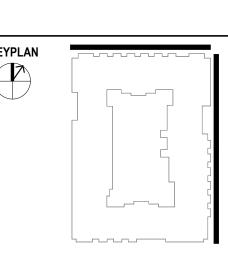
NICHIHA PANEL

METAL PANEL

BRICK

**GLAZING** 





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**BUILDING** 

**ELEVATIONS -MATERIALS** 2020.07.24

SCALE As indicated

2 MATERIAL TAKEOFFS - SWANN AVE.

SCALE: 3/32" = 1'-0" A507-A.

MATERIAL TAKEOFFS - ROUTE 1
SCALE: 3/32" = 1'-0" A507-A.



% FIBER CEMENT (HARDIE) **OAKVILLE TOTAL** FIBER CEMENT (HARDIE) **NICHIHA PANEL** % NICHIHA PANEL 1,435 SF 22% 26,042 SF 5,670 SF 6%

1 MATERIAL TAKEOFFS - OAKVILLE ST.
SCALE: 3/32" = 1'-0" A508-A.

FIBER CEMENT (HARDIE) NICHIHA PANEL METAL PANEL **GLAZING** 

APPROVED

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SITE PLAN NO.

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

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LandDesign

200 South Peyton St Alexandria, VA 22314 INTERIOR DESIGNERS

LANDSCAPE ARCHITECTS

Hartman Design Group, Inc. 111 Rockville Pike, Suite 425
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**SUBMISSION #2** 

PROJECT NAME

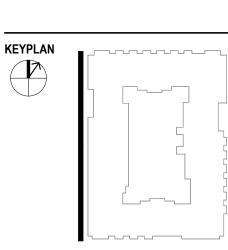
STB04 BLOCK A

ALEXANDRIA, VA

PROJECT NUMBER Stonebridge Associates, INC. 7200 Wisconsin Ave, Suite 700 Bethesda, MD 20814 301.913.9610 OWNER'S PHONE OWNER CONTACT DAVID CERNIGLIA MARK DATE DESCRIPTION



SEAL



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**BUILDING ELEVATIONS -**

**MATERIALS** 2020.07.24

SCALE As indicated

FIBER CEMENT (HARDIE) **BUILDING TOTAL NICHIHA PANEL** % FIBER CEMENT (HARDIE) **% NICHIHA PANEL** 11,955 SF 3,463 SF 73,160 SF 16% 5%



1 - PERSPECTIVE VIEW LOOKING SOUTHWEST



2 - PERSPECTIVE VIEW LOOKING EAST



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LANDSCAPE ARCHITECTS
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INTERIOR DESIGNERS
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Rockville, MD 20850

## DSUP SUBMISSION #2

STB04 BLOCK A

ALEXANDRIA, VA

OWNER
Stonebridge Associates, INC.
7200 Wisconsin Ave, Suite 700
Bethesda, MD 20814

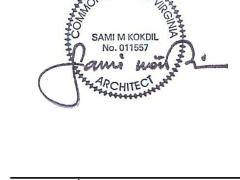
OWNER'S PHONE 301.913.9610
OWNER CONTACT DAVID CERNIGLIA

ISSUE

MARK DATE DESCRIPTION

2020.10.09 Design Development

SEAL



KEYPLAN	2)

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BUILDING MASSING

DATE

DATE

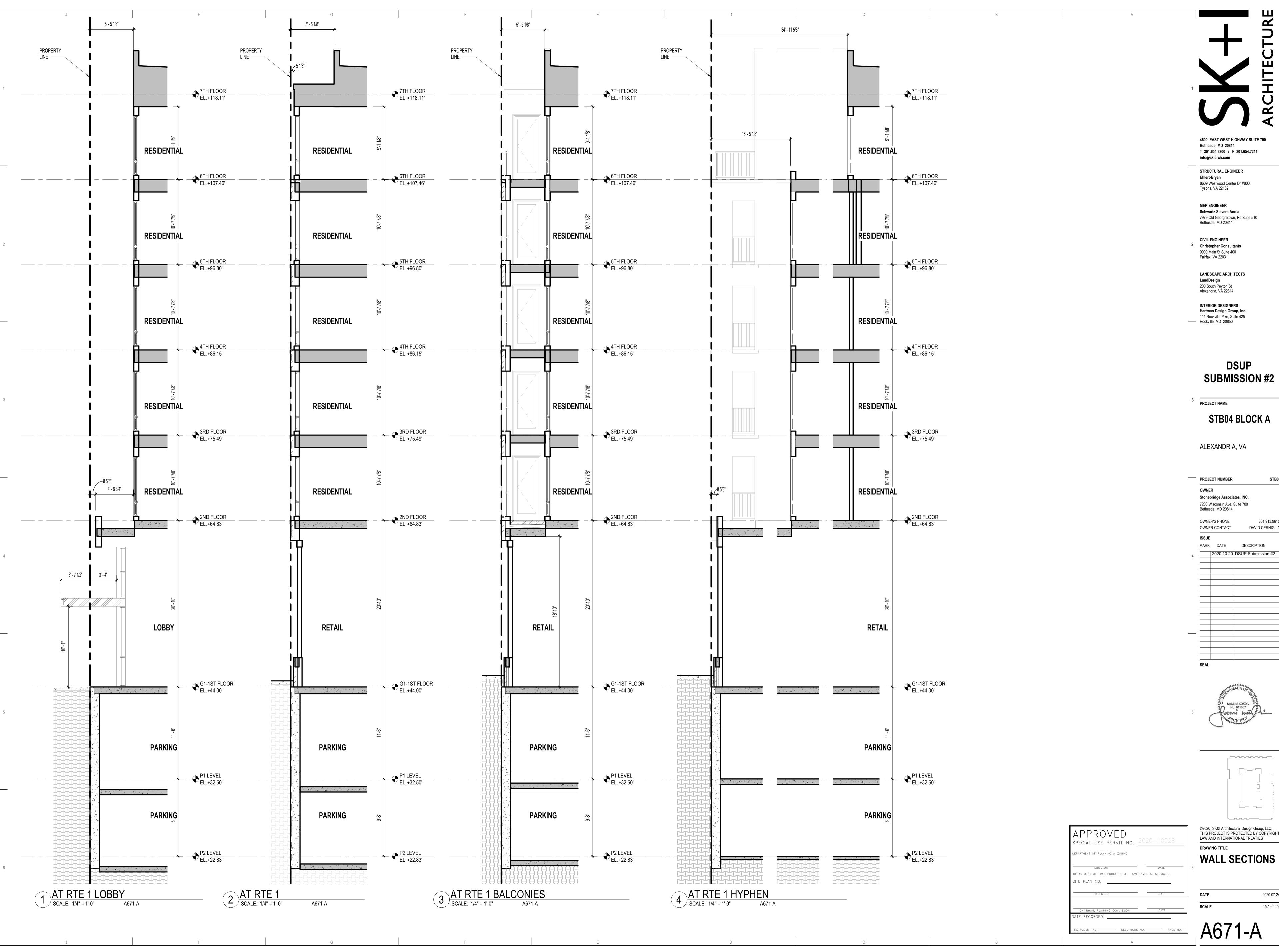
SCALE

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DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

A510-A



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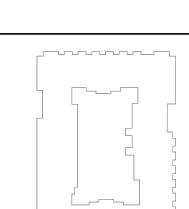
STRUCTURAL ENGINEER 8609 Westwood Center Dr #800

Schwartz Sievers Anoia 7979 Old Georgretown, Rd Suite 510

INTERIOR DESIGNERS Hartman Design Group, Inc. 111 Rockville Pike, Suite 425

**SUBMISSION #2** 

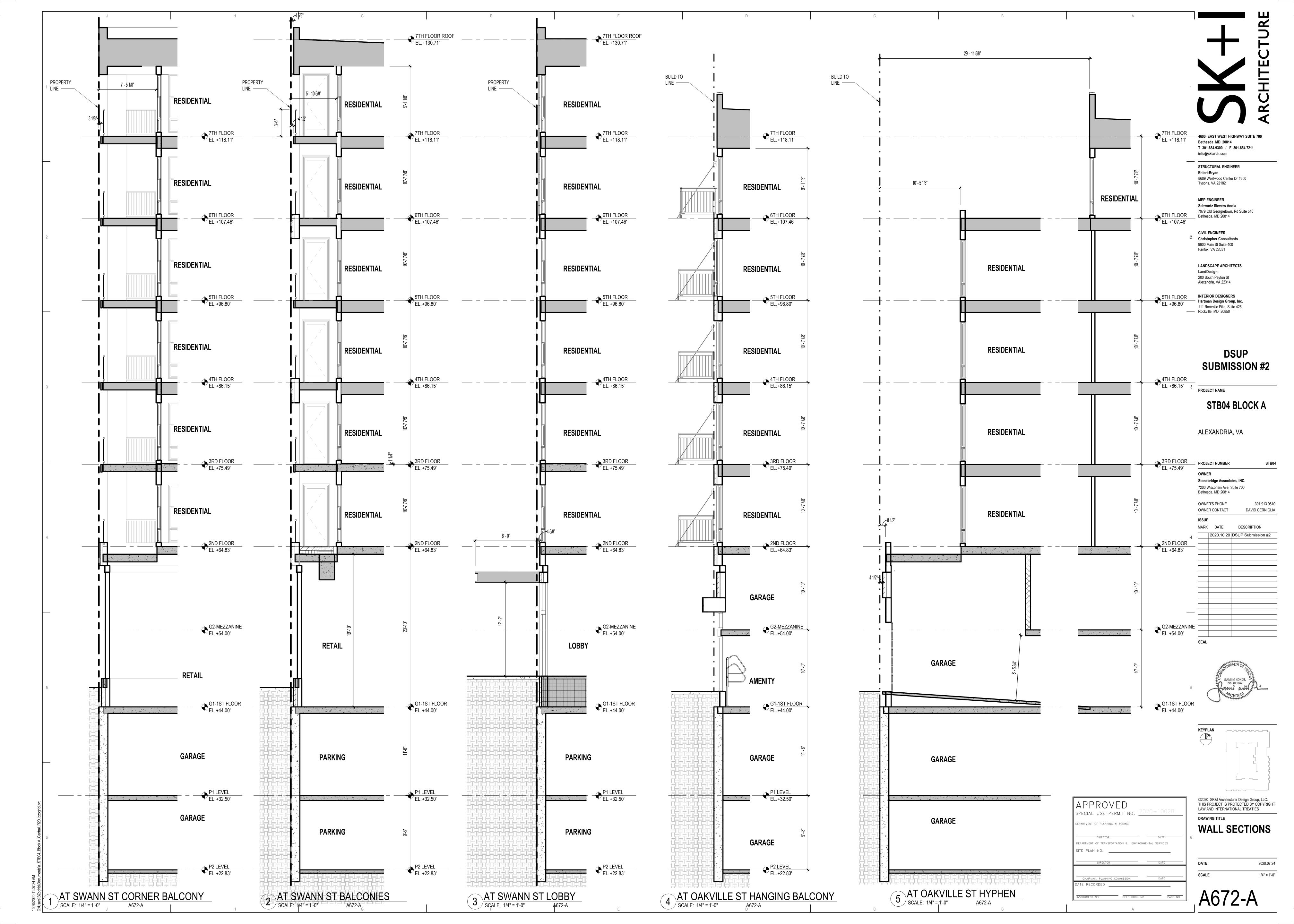
7200 Wisconsin Ave, Suite 700 301.913.9610 DAVID CERNIGLIA

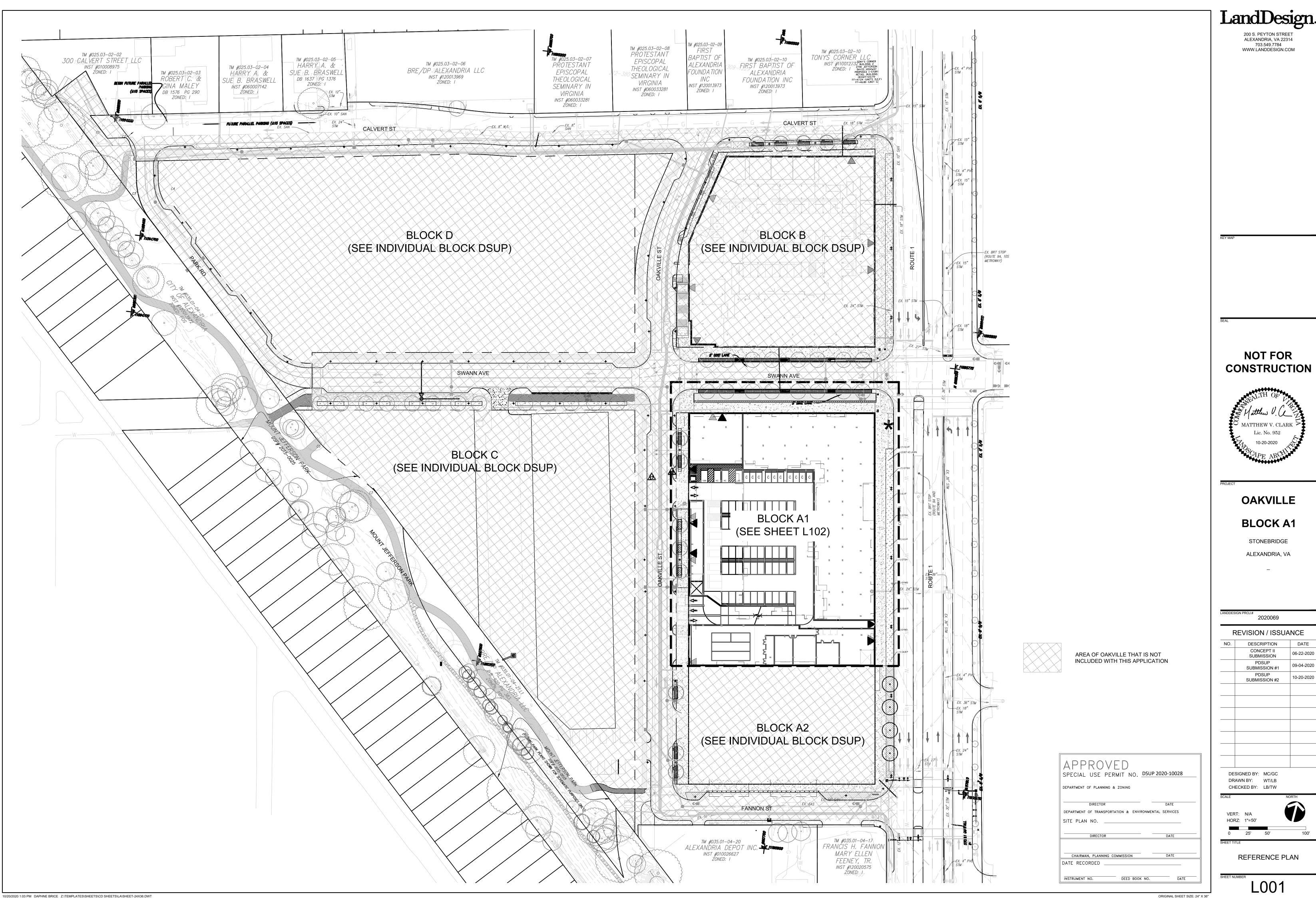


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2020.07.24

1/4" = 1'-0"





06-22-2020

#### **PLANTING NOTES:**

- 1. ALL QUANTITIES LISTED IN THE DRAWINGS ARE FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL QUANTITIES AND TO PROVIDE ALL MATERIALS NECESSARY FOR FULL COVERAGE IN ALL PLANTING AREAS AS SPECIFIED ON THE DRAWINGS. ANY DISCREPANCY SHOULD BE REPORTED TO THE OWNER.
- REPORTED TO THE OWNER.

  2. ALL PLANTS SHOULD BE IN ACCORDANCE WITH ANSI Z60.1 -2014, AMERICAN STANDARD FOR NURSERY STOCK PUBLICATION, APPROVED APRIL 14, 2014.
- CALIPER SIZE OF CANOPY TREES ARE TO BE MEASURED PER LOCAL CITY LANDSCAPE ORDINANCE.
   ALL PLANT MATERIAL SHALL CONFORM TO THE SIZE SPECIFICATIONS (CALIPER, HEIGHT AND SPREAD) GIVEN IN THE PLANT SCHEDULE AND SHALL BE
- NURSERY GROWN UNLESS SPECIFIED OTHERWISE.
- 5. ANY PLANT SUBSTITUTION SHALL BE APPROVED BY LANDDESIGN PRIOR TO PURCHASE.
- 6. SIZES LISTED ARE MIN. AND REFER TO HEIGHT, UNLESS OTHERWISE SPECIFIED.
- 7. LANDSCAPE CONTRACTOR SHALL STAKE OUT LOCATIONS OF ALL TREES TO BE PLANTED FOR REVIEW BY LANDDESIGN PRIOR TO INSTALLING. LANDDESIGN RESERVES THE RIGHT TO ADJUST TREE LOCATIONS IN THE FIELD AS NECESSARY.
- 8. SHRUB/GROUNDCOVER BEDS SHALL BE STAKED FOR REVIEW BY LANDDESIGN/OWNER'S REPRESENTATIVE PRIOR TO EXCAVATION AND OR BED PREPARATION.
- 9. LANDSCAPE CONTRACTOR SHALL INSTALL STEEL EDGING BETWEEN PLANTING BEDS AND LAWNS, OR AS SHOWN IN DETAILS.
- 10. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES. PIPES, STRUCTURES, AND LINE RUNS IN THE FIELD PRIOR TO THE INSTALLATION OF ANY PLANT MATERIAL.
- 11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE LANDDESIGN OF ANY CONDITION FOUND ON THE SITE WHICH PROHIBITS INSTALLATION AS
- SHOWN ON THE DRAWINGS.
- 12. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH OTHER CONTRACTORS ON SITE AS REQUIRED TO ACCOMPLISH ALL PLANTING OPERATIONS.
- 13. ALL PROPOSED PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION AND MUST BE REPLACED WITH PLANT OF SAME VARIETY AND SIZE IF DAMAGED, DESTROYED, DEAD AND /OR REMOVED.
- 14. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FINE GRADING AND REMOVAL OF DEBRIS PRIOR TO PLANTING IN ALL AREAS.
- 15. FINAL FINISHED GRADING SHALL BE REVIEWED BY LANDDESIGN. CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONAL TOPSOIL REQUIRED TO CREATE A SMOOTH CONDITION SUITABLE FOR PLANTING.
- 16. TREES OVERHANGING INTO THE PUBLIC R.O.W. SHALL HAVE A MINIMUM CLEAR TRUNK HEIGHT OF FOURTEEN(14) FEET OVER STREETS, DRIVE AISLES, ALLEYS AND FIRE LANES. TREES OVERHANGING PRIVATE STREETS, WALKS, AND /OR PARKING LOTS SHALL HAVE A MINIMUM CLEAR TRUNK HEIGHT OF SEVEN (7) FEET.
- 17. LANDSCAPE CONTRACTOR IS REQUIRED TO PERFORM A TREE PIT PERCOLATION TEST FOR EACH TREE PIT PRIOR TO INSTALLATION. IF TREE PIT DOES NOT DRAIN WITHIN A 24-HOUR PERIOD, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A GRAVEL SUMP, FILTER FABRIC AND STAND PIPE. ALL TREE PIT SUMPS SHALL BE INCLUDED IN IN THE CONTRACTOR'S BASE BID AS A UNIT PRICE AND PROVIDE AS A DEDUCT ALTERNATE PER TREE PIT SUMPS NOT PROVIDED TO BE INSTALLED.
- 18. LANDSCAPE CONTRACTOR IS RESPONSIBLE TO REVIEW SITE ENVIRONMENTAL CONDITIONS PRIOR TO AND DURING INSTALLATION OF PLANT MATERIAL. ANY DISCREPANCIES OR CONCERNS BETWEEN THE ENVIRONMENTAL SITE CONDITIONS (I.E., SOIL TYPE, WATER, CLIMATE, WIND, SUN EXPOSURE ETC.) AND THE PLANT MATERIAL SPECIFIED WITHIN THE DRAWING SHALL BE BROUGHT TO THE ATTENTION OF LANDDESIGN AND/OR OWNER, AND SHALL BE DONE SO IN WRITING. CONTRACTOR SHALL PROVIDE SUGGESTED SOLUTIONS FOR ALTERNATIVE PLANT MATERIAL PROPOSED FOR SUBSTITUTION. LANDDESIGN TO REVIEW CONDITIONS AND INFORMATION SUBMITTED BY CONTRACTOR AND WILL ISSUE DIRECTIVE. SHOULD PLANT MATERIAL DIE BECAUSE OF ENVIRONMENTAL CONDITIONS DESCRIBED ABOVE, THE LANDSCAPE CONTRACTOR ASSUMES ALL WARRANTY AND GUARANTEE OF THE PLANT MATERIAL
- 19. ALL NEW PLANTING AREAS SHALL BE BACKFILLED WITH PLANTING SOIL THAT IS A MIXTURE OF 40-50% IMPORTED UNSCREENED TOPSOIL, 40-45% COARSE SAND, AND 10% COMPOST. FINAL TESTED ORGANIC MATTER SHALL BE BETWEEN 2.75 AND 4% (BY DRY WEIGHT). BACKFILL SHALL BE TO A DEPTH OF 18" FOR SHRUB AND GROUNDCOVER ZONES AND 36" FOR TREE PITS.
- 20. AFTER PLANTING SOIL MIXES ARE INSTALLED IN PLANTING BED AREAS AND JUST PRIOR TO THE INSTALLATION OF SHRUB OR GROUNDCOVER PLANTINGS, SPREAD 3-4 INCHES OF COMPOST OVER THE BEDS AND ROTO TILL INTO THE TOP 8 INCHES OF THE PLANTING SOIL. THIS WILL RAISE GRADES SLIGHTLY ABOVE THE FINISHED GRADES, IN ANTICIPATION GRADES WILL SETTLE WITHIN A FEW MONTHS AFTER INSTALLATION AS COMPOST BREAKS DOWN.
- 21. IN ALL EXISTING PLANTING AREAS DESIGNATED TO RECEIVE NEW PLANTINGS, SPREAD 3-4 INCHES OF COMPOST OVER THE BEDS AND ROTO TILL INTO THE TOP 8 INCHES OF THE PLANTING SOIL. THIS WILL RAISE THE GRADES SLIGHTLY ABOVE THE FINISHED GRADES, IN ANTICIPATION GRADES WILL SETTLE WITHIN A FEW MONTHS AFTER INSTALLATION AS COMPOST BREAKS DOWN. IN NO CASE WILL THIS BE PERFORMED WHERE IT MAY NEGATIVELY IMPACT THE HEALTH OF ADJACENT, EXISTING PLANT MATERIALS WHICH ARE DESIGNATED TO REMAIN.
- 22. LANDSCAPE CONTRACTOR TO WARRANTY ALL PLANT MATERIALS FOR A PERIOD OF ONE YEAR. THE CONTRACTOR AGREES TO REPLACE DEFECTIVE WORK AND DEFECTIVE PLANTS, AND THAT THE OWNER'S REPRESENTATIVE SHALL MAKE THE FINAL DETERMINATION IF PLANTS MEET THE REQUIRED SPECIFICATIONS OR THAT PLANTS ARE DEFECTIVE. PLANTS DETERMINED TO BE DEFECTIVE SHALL BE REMOVED IMMEDIATELY UPON NOTIFICATION BY THE OWNER'S REPRESENTATIVE AND REPLACED WITHOUT COST TO THE OWNER, AS SOON AS WEATHER CONDITIONS PERMIT AND WITHIN THE SPECIFIED PLANTING PERIOD. THE REPLACED MATERIALS SHALL ALSO RECEIVE A WARRANTY PERIOD OF ONE YEAR WHICH STARTS AT THE DATE OF INSTALLATION. BULBS, ANNUAL FLOWERS, AND SEASONAL COLOR PLANTS SHALL ONLY BE WARRANTED FOR THE PERIOD OF THE EXPECTED BLOOM OR PRIMARY DISPLAY.

#### **IRRIGATION NOTES:**

- 1. A FULLY AUTOMATED IRRIGATION SYSTEM PROVIDING 100% COVERAGE SHALL BE PROVIDED FOR ALL PLANTING AREAS, UNLESS NOTED OTHERWISE ON IRRIGATED AREAS PLANS. SYSTEM SHALL BE IN OPERATION PRIOR TO INSTALLATION OF ANY PLANT MATERIAL OTHER THAN CANOPY TREES.
- 2. ALL PLANTING BEDS/ SHRUB AND GROUNDCOVER AREAS TO BE IRRIGATED WITH EITHER 12" SPRAY POP-UPS AND/OR A LANDSCAPE DRIP-LINE SYSTEM, UNLESS NOTED OTHERWISE.
- 3. ALL PLANTER POTS AND RAISED PLANTERS TO BE IRRIGATED WITH MICRO SPRAY SPRINKLER HEADS.
- 4. IRRIGATION SYSTEM IS DESIGN/BUILD. CONTRACTOR TO PROVIDE DRAWINGS AND CUT SHEETS OF ALL COMPONENTS.
- 5. PROVIDE AS-BUILT DRAWINGS OF IRRIGATION AFTER INSTALLATION.

#### **MATERIALS + PAVING NOTES:**

- 1. ALL MATERIALS, CONSTRUCTION METHODS, WORKMANSHIP, EQUIPMENT SERVICES AND TESTING FOR ALL IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE PROJECT DOCUMENTS AND THE GOVERNING AUTHORITIES' REQUIREMENTS. IN THE EVENT OF A CONFLICT BETWEEN THE PROJECT DOCUMENTS AND THE GOVERNING AUTHORITIES' REQUIREMENTS, THE MORE STRINGENT SHALL APPLY.
- 2. SUBGRADE PREPARATION, PAVEMENT STRENGTH AND THICKNESS SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT.
- 2.1. PROOF-ROLL SUBGRADE: PRIOR TO PREPARATION OF THE SUBBASE, THE SUBGRADE SHALL BE PROOF-ROLLED WITH HEAVY PNEUMATIC EQUIPMENT. ANY SOFT OR PUMPING AREAS SHALL BE EXCAVATED TO FIRM SUBGRADE AND BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
- 2.2. PAVEMENT SUBGRADE SHALL BE GRADED TO PREVENT PONDING AND INFILTRATION OF EXCESSIVE MOISTURE ON OR ADJACENT TO THE PAVEMENT SUBGRADE.
- 3. THE USE OF "LEVEL UP" SAND UNDER PAVEMENT WILL NOT BE ACCEPTED, UNLESS NOTED OTHERWISE.
- 4. CONCRETE SHALL NOT BE PLACED WHEN THE TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT AND FALLING, BUT MAY BE PLACED WHEN THE TEMPERATURE IS ABOVE 35 DEGREES FAHRENHEIT AND RISING. THE TEMPERATURE READING SHALL BE TAKEN IN THE SHADE AWAY FROM ARTIFICIAL HEAT.
- 4.1. DO NOT PLACE CONCRETE WHILE IT IS RAINING OR WHEN RAIN IS IMMINENT.
- 5. CAST IN PLACE CONCRETE SHALL MEET THE FOLLOWING REQUIREMENTS:
- 5.1. MINIMUM 3,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS, UNLESS NOTED OTHERWISE
- 5.2. AGGREGATES: ASTM C33 MAX 3/4" IN SIZE, UNLESS NOTED OTHERWISE5.3. SLUMP: 3 TO 5 INCHES
- 5.4. AIR CONTENT: 4 TO 6 PERCENT BY VOLUME
- 6. CONCRETE THICKNESS:
- 6.1. PEDESTRIAN AREA: 4" THICK, UNLESS NOTED OTHERWISE.
- 6.2. ALL OTHER CONCRETE COMPONENTS INSTALL PER SIZE SPECIFIED IN DRAWINGS
- 7. CONCRETE REINFORCING:
- 7.1. 4" THICK PAVING: #3's AT 24" SPACING UNLESS NOTED OTHERWISE IN DRAWINGS
  7.2. 6" THICK PAVING: #4s AT 24" SPACING UNLESS NOTED OTHERWISE IN DRAWINGS
- 7.3. 8" THICK PAVING: #5's AT 24" SPACING UNLESS NOTED OTHERWISE IN DRAWINGS
- 7.4. ALL PAVEMENT REINFORCING BARS SHALL BE GRADE 60 KSI DEFORMED BILLET STEEL BARS, UNCOATED FINISH. SIZE AND SPACING SHALL BE IN ACCORDANCE WITH THE PAVING PLAN AND DETAILS.
- 7.5. ALL REINFORCING STEEL AND DOWEL BARS IN PAVEMENT SHALL BE SUPPORTED AND MAINTAINED AT THE CORRECT CLEARANCES BY THE USE OF BAR CHAIRS.
- 8. CONTROL JOINTS (TROWEL OR SAW CUT)
- 8.1. TO BE PLACED AS INDICATED ON PLANS AND DETAILS TO A MINIMUM DEPTH OF 1/8 OF CONCRETE THICKNESS.
- 8.2. SAW CUT JOINTS TO BE EXECUTED WITHIN 12 HOURS OF CONCRETE PLACEMENT.
- 8.3. SAWN JOINTS ARE TO BE TRUE IN ALIGNMENT AND SHALL CONTINUE THROUGH ADJACENT CURBS. RADIAL JOINTS SHALL BE NO SHORTER THAN 18"

  8.4. SAWN JOINTS TO BE CLEANED OF DEBRIS, DIRT, DUST, SCALE, CURING COMPOUND AND CONCRETE, BLOWN DRY AND IMMEDIATELY SEALED.
- 3.4. SAWN JOINTS TO BE CLEANED OF DEBRIS, DIRT, DUST, SCALE, CURING COMPOUND AND CONCRETE, BLOWN DRY AND IMMEDIATELY SEALED.

  SEALANT MATERIAL SHALL BE SONNEBORN SONOLASTIC SL2 MULTI-COMPONENT, SELF-LEVELING, ELASTOMERIC POLYURETHANE OR EQUIVALENT.

  SEALANT COLOR SHALL MATCH PAVEMENT.
- 9. EXPANSION JOINTS
- 9.1. PLACE AT A MAXIMUM SPACING OF 30' O.C. AND COORDINATE WITH OVERALL PAVING PATTERN AND COLOR.
- 9.2. PROVIDE DOWELS AS SPECIFIED IN DRAWING DETAILS.
- 9.3. CONTRACTOR SHALL PREPARE A JOINT LAYOUT AND PROVIDE IT TO THE ENGINEER FOR REVIEW. THE JOINT LAYOUT SHALL BE PROVIDED A MINIMUM OF ONE WEEK PRIOR TO PLACING CONCRETE. PATTERN SHALL BE CAREFULLY DESIGNED BY THE CONTRACTOR TO AVOID IRREGULAR SHAPES. EXPANSION JOINTS SHALL NOT BE LOCATED ALONG VALLEYS IN PAVEMENT.
- 10. ALL CONSTRUCTION JOINTS SHALL BE SAWN, CONCRETE FINISHES TO BE PER DRAWING DETAILS AND SPECIFICATIONS.
- 11. CONCRETE SHALL BE BROOM FINISHED AND CURED FOR A MINIMUM OF 72 HOURS UNLESS NOTED OTHERWISE.
- 12. BREAKOUTS FOR REMOVAL OF EXISTING PAVEMENT AND CURBS SHALL BE MADE BY FULL DEPTH SAW CUT WHEN ADJACENT TO PROPOSED PAVEMENT AND/OR CURBS.
- 13. PROPOSED PAVEMENT AND/OR CURBS INTENDED TO TIE INTO EXISTING SHALL MATCH SHALL MATCH THE ELEVATION OF EXISTING PAVEMENT AND/OR
- 14. PAVEMENT MARKINGS
- 14.1. PAVEMENT MARKINGS SHALL BE PROVIDED IN ACCORDANCE WITH THE ALEXANDRIA LANDSCAPE GUIDELINES "UNIFORM TRAFFIC MANUAL FOR
- PAVEMENT MARKINGS."

  14.2. FIRE LANES SHALL BE STRIPED AND/OR SIGNED IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' REGULATIONS.
- 14.2. FIRE LANES SHALL BE STRIPED AND/OR SIGNED IN ACCORDANCE WITH THE GOVERNING AUTHORITIES REGULATION 14.3. ALL ACCESSIBLE PAVEMENT MARKINGS SHALL COMPLY WITH ADAAG STANDARDS AND STATE AND LOCAL CODES.
- 14.4. PARKING SPACE STRIPES, ACCESSIBLE SPACES, PEDESTRIAN STRIPING, DIRECTIONAL ARROWS AND LETTERING SHALL BE SOLID WHITE, UNLESS A SPECIFIC COLOR IS REQUIRED BY LOCAL CODE. TWO (2) COATS OF VOC COMPLIANT, LOCAL DOT APPROVED, UNDILUTED, SOLVENT BASED OR LATEX TRAFFIC PAINT SHALL BE APPLIED. USE MANUFACTURER'S RECOMMENDED APPLICATION RATE, WITHOUT ADDITION OF A THINNER, WITH A MAXIMUM OF 100 SQUARE FEET PER GALLON OR AS REQUIRED. PROVIDING MINIMUM 15 MILS WET FILM THICKNESS AND 7 MILS DRY FILM THICKNESS PER COAT WITH A MINIMUM OF 30 DAYS BETWEEN APPLICATIONS. PAINT SHALL BE CRISP, STRAIGHT AND APPLIED UNIFORMLY ACROSS THE WIDTH OF THE LINE FOR A MINIMUM TOTAL DRY FILM THICKNESS OF 15 MILS.
- 15. CONTRACTOR SHALL REFER TO THE SITE CIVIL, MEP AND IRRIGATION PLANS FOR CONDUIT TO BE INSTALLED UNDER PAVEMENT PRIOR TO COMMENCING PAVEMENT SUBGRADE PREPARATION.
- 16. ALL TESTING SHALL BE PERFORMED BY A QUALIFIED TESTING LABORATORY, EMPLOYED AND PAID DIRECTLY BY THE OWNER. TESTING SHALL BE PERFORMED, AT A MINIMUM, IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT. IN THE EVENT THE RESULTS OF THE INITIAL TESTING DO NOT COMPLY WITH THE PLANS AND THE SPECIFICATIONS, SUBSEQUENT TEST NECESSARY TO DETERMINE THE ACCEPTABILITY OF CONSTRUCTION SHALL BE AT THE CONTRACTOR'S EXPENSE. PAVEMENT FOUND TO BE DEFICIENT IN STRENGTH OR THICKNESS SHALL BE REMOVED AND REPLACED SOLELY AT THE EXPENSE OF THE CONTRACTOR.

#### **ACCESSIBILITY NOTES:**

- 1. MAX CROSS SLOPE ON PAVED SURFACES SHALL BE 2% MAXIMUM, UNLESS NOTED OTHERWISE.
- 2. MAX RUNNING SLOPE ON PAVED SURFACES SHALL BE 5% MAXIMUM, UNLESS NOTED OTHERWISE.
- 3. ACCESSIBLE PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM, AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80". CONTRACTOR SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL
- 4. ALL CURB RAMPS SHALL BE BROOM FINISHED PERPENDICULAR TO SLOPE.
- 5. ALL CURB RAMPS SHALL HAVE A 1:12 MAX SLOPE IN THE DIRECTION OF TRAVEL, 2% MAX CROSS SLOPE.
- 6. IT IS THE INTENT OF THE CONTRACT DOCUMENTS TO COMPLY WITH ALL APPROPRIATE FAIR HOUSING ACCESSIBILITY GUIDELINES AND GENERAL NOTES FOR PUBLIC AND COMMON USE FACILITIES. REPORT ANY DISCREPANCIES TO LANDDESIGN.

### JURISDICTION NOTES:

SEE SHEET L202 FOR CITY OF ALEXANDRIA STANDARD LANDSCAPE PLAN NOTES.

#### **GENERAL NOTES:**

- 1. BASE INFORMATION, INCLUDING EXISTING CONDITIONS, TOPOGRAPHY, EXISTING UTILITIES, AND BOUNDARY INFORMATION IS FROM PLANS BY: CHRISTOPHER CONSULTANTS
- 2. ARCHITECTURAL INFORMATION IS FROM PLANS BY: SK+I
- 3. WRITTEN DIMENSIONS PREVAIL OVER SCALED DIMENSIONS. NOTIFY LANDDESIGN OF ANY DISCREPANCIES.
- 4. DIMENSIONS ARE TO FACE OF OBJECT, UNLESS NOTED OTHERWISE.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UNDERGROUND UTILITIES, PIPES, STRUCTURES, AND LINE RUNS IN THE FIELD PRIOR TO CONSTRUCTION. ANY DAMAGE TO NEW AND EXISTING UTILITIES ARE TO BE REPAIRED IMMEDIATELY AT NO ADDITIONAL EXPENSE TO THE OWNER. LANDDESIGN ASSUMES NO RESPONSIBILITY FOR ANY UTILITIES NOT SHOWN ON PLANS.
- 6. ALL PROPOSED FINISHED GRADES ARE BASED ON INFORMATION PROVIDED BY THE OWNER'S SURVEY AND OR CIVIL ENGINEER. ANY DISCREPANCIES IN ACTUAL FIELD MEASUREMENTS ARE TO BE REPORTED TO LANDDESIGN IMMEDIATELY.
- 7. PRIOR TO COMMENCEMENT OF HARDSCAPE CONSTRUCTION, ALL PIERS, FOOTINGS, AND WALLS ARE TO BE SURVEYED, LAID OUT, AND STAKED IN THE FIELD FOR REVIEW BY LANDDESIGN. CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY DEMOLITION, ADJUSTMENTS, OR RECONSTRUCTION OF
- HARDSCAPE CONSTRUCTION RESULTING FROM UNAUTHORIZED CONSTRUCTION.
  8. CONTRACTOR IS RESPONSIBLE TO PROVIDE AND INSTALL ALL ITEMS PER DRAWINGS AND SPECIFICATION. NOTIFY LANDDESIGN OF ANY MAJOR DISCREPANCIES BETWEEN CONTRACTOR'S VERIFIED QUANTITIES, BID BOOK, AND INTENT OF DRAWING.
- 9. CONTRACTOR IS RESPONSIBLE FOR ALL FINAL QUANTITIES PER DRAWINGS AND SPECIFICATIONS ANY QUANTITIES PROVIDE BY LANDDESIGN ARE PROVIDED FOR CONVENIENCE ONLY AND SHALL NOT BE CONSIDERED ABSOLUTE. LANDDESIGN SHOULD BE NOTIFIED OF ANY GRADING DISCREPANCIES.
- 10. THE CONTRACTOR SHALL EXAMINE AND BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS IN THEIR ENTIRETY. SURVEY THE PROJECT AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND SCOPE OF WORK. ALL COSTS SUBMITTED SHALL BE BASED ON THOROUGH KNOWLEDGE OF ALL WORK AND MATERIAL OR PRODUCT IS TO BE USED, SHALL BE VERIFIED WITH THE
- 11. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES REQUIRED FOR SAFE EXECUTION AND COMPLETION OF WORK, AND FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
- 12. IN THE EVENT A DISCREPANCY IS FOUND IN THE CONTRACT DOCUMENTS, THE OWNER & LANDDESIGN SHALL BE NOTIFIED IMMEDIATELY.

14. CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AT THIS SITE AND AND BE RESPONSIBLE FOR ACCURACY AND CORRECTNESS OF SAME.

- 13. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND NOTIFY LANDDESIGN OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 15. CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES AND NOTIFY OWNER & LANDDESIGN OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 16. THE CONTRACTOR SHALL EMPLOY, AS REQUIRED BY GOVERNING AUTHORITIES, AN APPROVED TESTING LABORATORY TO MAKE ALL TESTS FROM CONCRETE, SOIL COMPACTION AND WELDING TO INSURE COMPLIANCE WITH PLANS, STANDARDS AND CODES. COST SHALL BE INCLUDED AS INCIDENTAL TO THE CONTRACT.
- 17. ALL EXISTING WORK OR LANDSCAPING NOT SHOWN TO BE ALTERED OR REMOVED SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. THE CONTRACTOR(S) SHALL BEAR THE TOTAL EXPENSE FOR, AND SHALL REPAIR ANY DAMAGE TO EXISTING CONDITIONS, OR IMPROVEMENTS NOT INDICATED IN THE DRAWINGS OR SPECIFICATIONS TO RECEIVE ALTERATION, ADDITIONS OR REMOVAL.

#### **LAYOUT NOTES:**

- 1. ALL MATERIALS AND CONSTRUCTION WITHIN RIGHT OF WAYS SHALL BE IN ACCORDANCE WITH THE ALEXANDRIA STANDARD SPECIFICATIONS AND CONSTRUCTION STANDARDS, AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION PREPARED BY THE (LATEST REVISION)
- 2. EXISTING UTILITIES ARE SHOWN SCHEMATICALLY AND ARE FOR THE CONTRACTOR'S GUIDANCE ONLY. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING IMPROVEMENTS IN THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION. REPAIRS SHALL BE EQUAL TO OR BETTER THAN CONDITION PRIOR TO CONSTRUCTION.
- 4. ALL ONSITE PAVING DIMENSIONS ARE TO THE FACE OF CURB, WHERE APPLICABLE, UNLESS NOTED OTHERWISE.
- 5. ALL CURB RADII AND SIDEWALK RETURNS ARE 2' UNLESS NOTED OTHERWISE.
- 6. ALL PAVING AND EARTHWORK OPERATIONS SHALL CONFORM TO THE PROJECT GEOTECHNICAL REPORT.
- 7. BOUNDARY SURVEY: BOUNDARY SURVEY INFORMATION IS BASED ON THE BOUNDARY SURVEY PREPARED BY CIVL ENGINEERS. REFER TO THE BOUNDARY SURVEY AND PLAT TO VERIFY PROPERTY LINES AND EASEMENT LOCATIONS.
- 8. BUILDING DIMENSIONS: THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS TO VERIFY THE EXACT BUILDING DIMENSIONS.
- 9. LAY PAVERS IN PATTERN(S) SHOWN ON DRAWINGS. PLACE UNITS HAND TIGHT WITHOUT USING HAMMERS. MAKE HORIZONTAL ADJUSTMENTS TO PLACEMENT OF LAID PAVERS WITH RUBBER HAMMERS AS REQUIRED.
- 10. PROVIDE JOINTS BETWEEN PAVERS BETWEEN 1/16 IN. AND 3/16 IN. (2 AND 5 MM) WIDE. NO MORE THAN 5% OF THE JOINTS SHALL EXCEED 1/4" WIDE TO ACHIEVE STRAIGHT BOND LINES.
- 11. JOINT (BOND) LINES SHALL NOT DEVIATE MORE THAN ±1/2 IN. (±15 MM) OVER 50 FT. (15 M) FROM STRING LINES.
- 12. FILL GAPS AT THE EDGES OF THE PAVED AREA WITH CUT PAVERS OR EDGE UNITS.
- 13. CUT PAVERS TO BE PLACED ALONG THE EDGE WITH A MASONRY SAW.14. ADJUST BOND PATTERN AT PAVEMENT EDGES SUCH THAT CUTTING OF EDGE PAVERS IS MINIMIZED.
- 15. IN NO CASE SHALL A CUT PAVER BE LESS THAN 1/3 FULL PAVER SIZE.
- 16. PAVER DIMENSIONS ARE NOMINAL. PRIOR TO POURING SLABS, BANDING, OR OTHERWISE SETTING PAVER FIELDS, VERIFY ACTUAL PAVER SIZES AND LAYOUT OF THE PAVER FIELDS. MAKE MINOR ADJUSTMENTS TO EDGE CONSTRAINTS AS REQUIRED TO ACCOMMODATE ACTUAL PAVER SIZES. NOTIFY LANDDESIGN IMMEDIATELY OF DISCREPANCIES AND/OR ADJUSTMENTS.

#### **GRADING NOTES:**

- STAKE PER SPOT ELEVATIONS AND NOTED SLOPES. CONTOURS ARE PROVIDED FOR MASS GRADING/INTENT ONLY.
- 2. WRITTEN DIMENSIONS AND GRADES PREVAIL OVER SCALED DIMENSIONS. NOTIFY LANDDESIGN OF ANY DISCREPANCIES.
- ALL SPOT ELEVATIONS SHOWN ON GRADING PLAN ARE TO BOTTOM OF CURB/TOP OF PAVEMENT UNLESS OTHERWISE NOTED. ALL RIM ELEVATIONS ARE TO EDGE OF PAVEMENT.
- 4. REFER TO GEOTECHNICAL ENGINEER AND GEOTECH REPORT FOR INFORMATION ON SUBSURFACE MATERIALS, TOPSOIL, STRUCTURAL MATERIAL, DEEP FILLS, EXCAVATION, AND FOUNDATIONS.
- APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS.
- 6. IN ORDER TO ASSURE PROPER DRAINAGE, KEEP A MINIMUM OF .5% SLOPE ON THE CURB.7. ALL PLANTING ISLANDS SHALL BE GRADED TO MOUND TO PROVIDE POSITIVE DRAINAGE.
- 8. CONTRACTOR TO VERIFY 2% MAX. CROSS-SLOPE ON ALL SIDEWALKS.
- 9. CONTRACTOR TO VERIFY THAT ALL SIDEWALK SLOPES, HANDICAP RAMPS, AND HANDICAP PARKING SPACES MEET ADA REQUIREMENTS.
- 10. CONCRETE SIDEWALKS ADJACENT TO TREE SAVE LOCATIONS SHOULD BE POURED ON TOP OF EXISTING GRADE.

  11. REFER TO LANDSCAPE PLAN FOR ALL TREE PROTECTION FENCE LOCATIONS AND INSTALLATION PROCEDURES. BEFORE GRADING/CONSTRUCTION BEGINS,
- CALL FOR INSPECTION OF TREE PROTECTION BARRICADES. NO SOIL DISTURBANCE OR COMPACTION, CONSTRUCTION MATERIALS, TRAFFIC, BURIAL PITS, TRENCHING, OR OTHER LAND DISTURBING ACTIVITY ALLOWED IN THE TREE PROTECTION ZONE.

  12. DIMENSIONS ON BUILDINGS ARE FOR GRADING PURPOSES ONLY AND ARE NOT TO BE USED TO LAYOUT FOOTINGS.

13. GRADING CONTRACTORS SHALL NOTIFY AND COOPERATE WITH ALL UTILITY COMPANIES OR FIRMS HAVING FACILITIES ON OR ADJACENT TO THE SITE BEFORE DISTURBING, ALTERING, REMOVING, RELOCATING, ADJUSTING OR CONNECTING TO SAID FACILITIES. CONTRACTORS SHALL PAY ALL COSTS IN CONNECTION WITH THE ALTERATION OF OR RELOCATION OF THE FACILITIES. CONTRACTORS SHALL RAISE OR LOWER TOPS OF EXISTING MANHOLES AS

REQUIRED TO MATCH FINISHED GRADES.

14. GRADING CONTRACTOR SHALL COOPERATE AND WORK WITH ALL OTHER CONTRACTORS PERFORMING WORK ON THIS PROJECT TO INSURE PROPER AND TIMELY COMPLETION OF THIS PROJECT.

APPROVED
SPECIAL USE PERMIT NO. DSUP 2020-10028

DEPARTMENT OF PLANNING & ZONING

DIRECTOR
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO.
DIRECTOR
DATE

CHAIRMAN, PLANNING COMMISSION
DATE

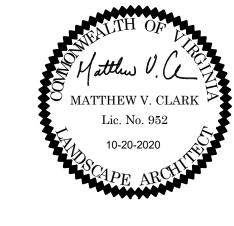
DATE

SHEEL
INSTRUMENT NO.
DEED BOOK NO.
DATE

LandDesign.

200 S. PEYTON STREET ALEXANDRIA, VA 22314 703.549.7784 WWW.LANDDESIGN.COM

CONSTRUCTION



OAKVILLE

STONEBRIDGE

ALEXANDRIA, VA

2020069

DESIGNED BY: MC/GC
DRAWN BY: WT/LB
CHECKED BY: LB/TW

VERT: N/A
HORZ: NTS

(NOT TO SCALE)

GENERAL NOTES

## PLANT SCHEDULE - BLOCK A1 STREETSCAPE

	STREET TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	HT.		REMARKS
		GTSH	3	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER' TM / SHADEMASTER LOCUST	В&В	2"-2.5" CAL	12` - 14`		CCA: N/A
		GYMD	2	GYMNOCLADUS DIOICA `EXPREESO` / EXPRESSO KENTUCKY COFFEE TREE	B & B	2"-2.5" CAL	12` - 14`		CCA : N/A
<u> </u>	(+)	QUEP	2	QUERCUS PHELLOS / WILLOW OAK	B & B	2"-2.5" CAL	12` - 14`		C.C.A. = N/A
٤.		ULVF	3	ULMUS AMERICANA 'VALLEY FORGE' / AMERICAN ELM	В&В	2"-2.5" CAL	12` - 14`		C.C.A. = N/A
_	SOD/SEED	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	COLOR	BLOOMS	SPACING	REMARKS
	\(\frac{\psi}{\psi}\) \(\psi\)	LAWN	2,827 SF	LAWN / LAWN					

#### NOTES

- 1. PLANT SPECIES SHOWN ARE PRELIMINARY, AND MAY VARY WITH FINAL SITE PLAN APPROVALS, OR OWNER AND CITY ALTERNATE APPROVED ALTERNATE.
- 2. TREE SPECIES LISTED AS "C.C.A.= N/A" ARE LOCATED WITHIN PUBLIC RIGHT-OF-WAY, AND DO NOT COUNT TOWARD CROWN COVERAGE ALLOWANCE (C.C.A.)
- 3. SEE SHEET L202A FOR TRACKING OF PLANTINGS WITHIN THE PUBLIC RIGHT-OF-WAY, PUBLIC ACCESS EASEMENTS, AND PUBLICLY ACCESSIBLE OPEN SPACE.

NOT FOR CONSTRUCTION

ALEXANDRIA, VA 22314 703.549.7784 WWW.LANDDESIGN.COM



OAKVILLE

**BLOCK A1** 

STONEBRIDGE

ALEXANDRIA, VA

| 2020069 | REVISION / ISSUANCE | No. | DESCRIPTION | DATE | CONCEPT II | SUBMISSION | Description |

DESIGNED BY:

CHECKED BY:

SCALE

VERT: N/A

HORZ: 1"=30'

VERT: N/A
HORZ: 1"=30'

0 15' 30'

SHEET TITLE

STREETSCAPE MATERIALS +
PLANTING PLAN

L101

AREA OF OAKVILLE THAT IS NOT INCLUDED WITH THIS APPLICATION

#### NOTES:

- ALL PLANS AND GRAPHICS AS SHOWN ARE CONCEPTUAL IN NATURE AND ARE SUBJECT TO CHANGE DURING THE DSUP PROCESS.
- 2. PAVING PATTERNS ARE PRELIMINARY AND ARE INTENDED TO SHOW CHANGES IN MATERIALS. PATTERNS DO NOT DEPICT FINAL PAVING PATTERN OR LAYOUT.
- 3. PRELIMINARY LIGHT LOCATIONS SHOWN. FINAL LIGHT LOCATIONS MAY SHIFT WITH FINAL PHOTOMETRICS AND INDIVIDUAL BLOCK ENGINEERING. SEE INFRASTRUCTURE PLAN (DSUP2020-10029)
- 4. BMP TREE WELLS ARE PROPOSED AS PART OF THE INFRASTRUCTURE PLAN FOR THE SITE, SEE DSUP2020-10029.

APPROVED

DEPARTMENT OF PLANNING & ZONING

SITE PLAN NO.

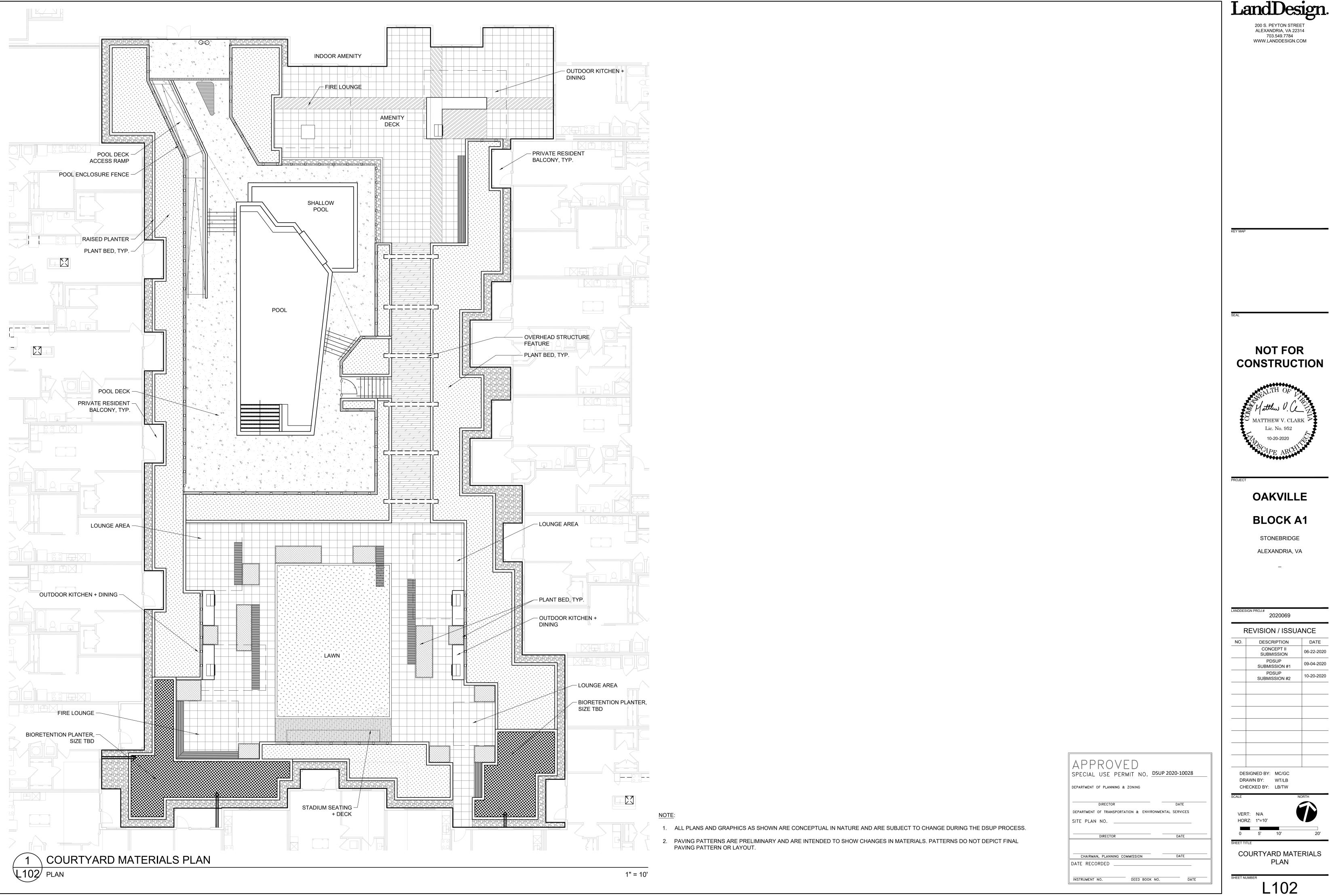
DATE RECORDED

INSTRUMENT NO.

SPECIAL USE PERMIT NO. DSUP 2020-10028

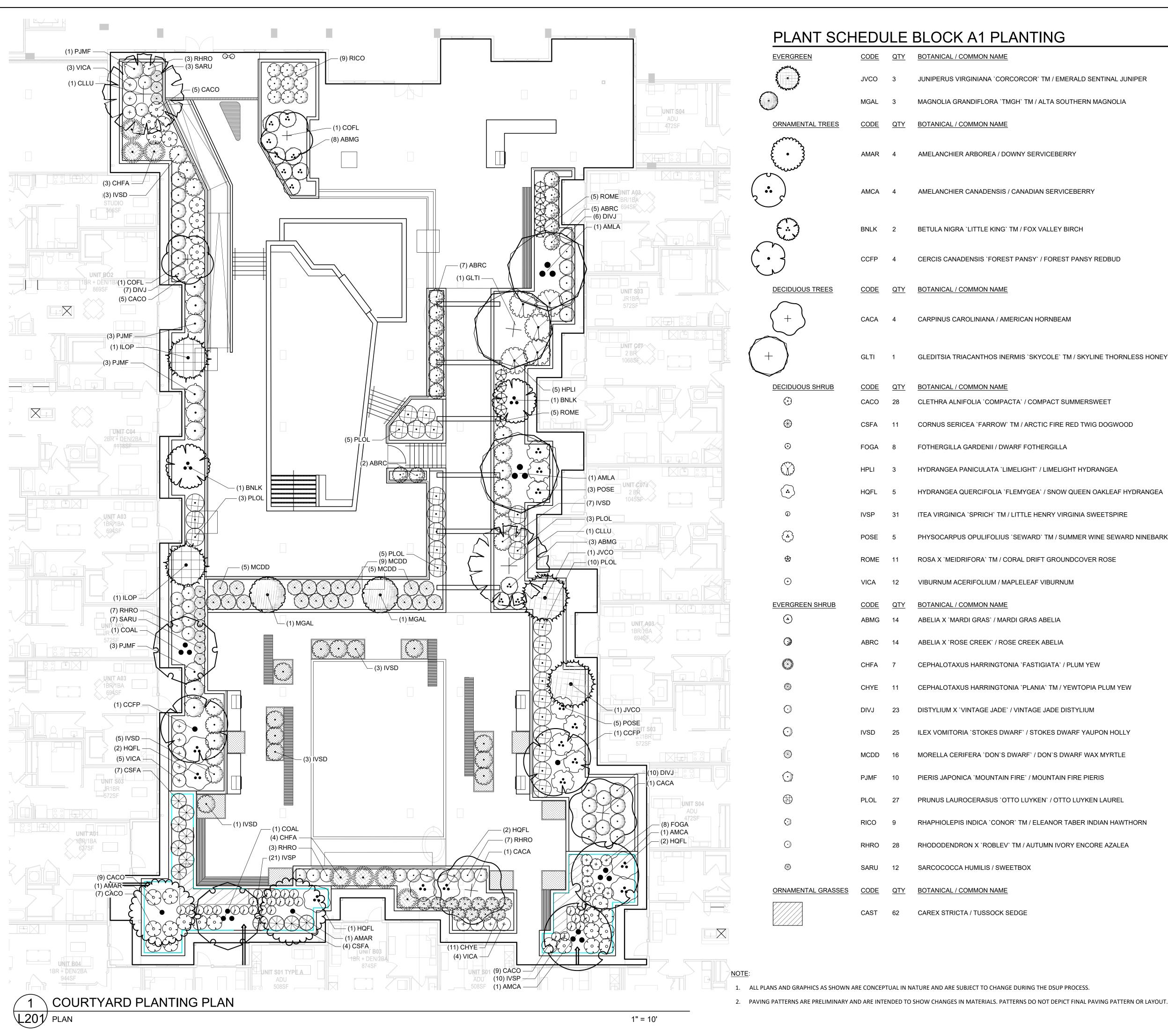
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DEED BOOK NO.



10/20/2020 1:04 PM DAPHNE BRICE Z:\TEMPLATES\SHEETS\CD SHEETS\LA\SHEET-24X36.DWT

ORIGINAL SHEET SIZE: 24" X 36"



## PLANT SCHEDLILE BLOCK A1 PLANTING

			BLOCK A1 PLANTING
EVERGREEN	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME
	JVCO	3	JUNIPERUS VIRGINIANA `CORCORCOR` TM / EMERALD SENTINAL JUNIPER
	MGAL	3	MAGNOLIA GRANDIFLORA `TMGH` TM / ALTA SOUTHERN MAGNOLIA
ORNAMENTAL TREES	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME
E. B.	AMAR	4	AMELANCHIER ARBOREA / DOWNY SERVICEBERRY
	AMCA	4	AMELANCHIER CANADENSIS / CANADIAN SERVICEBERRY
	BNLK	2	BETULA NIGRA `LITTLE KING` TM / FOX VALLEY BIRCH
	CCFP	4	CERCIS CANADENSIS `FOREST PANSY` / FOREST PANSY REDBUD
DECIDUOUS TREES	CODE	QTY	BOTANICAL / COMMON NAME
+	CACA	4	CARPINUS CAROLINIANA / AMERICAN HORNBEAM
$\left(\begin{array}{c} + \end{array}\right)$	GLTI	1	GLEDITSIA TRIACANTHOS INERMIS 'SKYCOLE' TM / SKYLINE THORNLESS HONEY LOCUST
DECIDUOUS SHRUB	CODE	QTY	BOTANICAL / COMMON NAME
© -	CACO	28	CLETHRA ALNIFOLIA `COMPACTA` / COMPACT SUMMERSWEET
	CSFA	11	CORNUS SERICEA `FARROW` TM / ARCTIC FIRE RED TWIG DOGWOOD
<b>⊕</b>	FOGA	8	FOTHERGILLA GARDENII / DWARF FOTHERGILLA
	HPLI	3	HYDRANGEA PANICULATA `LIMELIGHT` / LIMELIGHT HYDRANGEA
( <u>.</u> )	HQFL	5	HYDRANGEA QUERCIFOLIA `FLEMYGEA` / SNOW QUEEN OAKLEAF HYDRANGEA
•	IVSP	31	ITEA VIRGINICA `SPRICH` TM / LITTLE HENRY VIRGINIA SWEETSPIRE
( <u>*</u> )	POSE	5	PHYSOCARPUS OPULIFOLIUS 'SEWARD' TM / SUMMER WINE SEWARD NINEBARK
$\otimes$	ROME	11	ROSA X `MEIDRIFORA` TM / CORAL DRIFT GROUNDCOVER ROSE
•	VICA	12	VIBURNUM ACERIFOLIUM / MAPLELEAF VIBURNUM
EVERGREEN SHRUB	CODE	QTY	BOTANICAL / COMMON NAME
<u>.</u>	ABMG	14	ABELIA X `MARDI GRAS` / MARDI GRAS ABELIA
<b>(3)</b>	ABRC	14	ABELIA X `ROSE CREEK` / ROSE CREEK ABELIA
	CHFA	7	CEPHALOTAXUS HARRINGTONIA `FASTIGIATA` / PLUM YEW
	CHYE	11	CEPHALOTAXUS HARRINGTONIA 'PLANIA' TM / YEWTOPIA PLUM YEW
$\odot$	DIVJ	23	DISTYLIUM X 'VINTAGE JADE' / VINTAGE JADE DISTYLIUM
0	IVSD	25	ILEX VOMITORIA `STOKES DWARF` / STOKES DWARF YAUPON HOLLY
<b>©</b>	MCDD	16	MORELLA CERIFERA `DON`S DWARF` / DON`S DWARF WAX MYRTLE
	PJMF	10	PIERIS JAPONICA 'MOUNTAIN FIRE' / MOUNTAIN FIRE PIERIS
	PLOL	27	PRUNUS LAUROCERASUS 'OTTO LUYKEN' / OTTO LUYKEN LAUREL
$\odot$	RICO	9	RHAPHIOLEPIS INDICA 'CONOR' TM / ELEANOR TABER INDIAN HAWTHORN
$\odot$	RHRO	28	RHODODENDRON X `ROBLEV` TM / AUTUMN IVORY ENCORE AZALEA
<b>◎</b>	SARU	12	SARCOCOCCA HUMILIS / SWEETBOX
ORNAMENTAL GRASSES	CODE	QTY	BOTANICAL / COMMON NAME
	CAST	62	CAREX STRICTA / TUSSOCK SEDGE

200 S. PEYTON STREET ALEXANDRIA, VA 22314 703.549.7784 WWW.LANDDESIGN.COM

**NOT FOR** CONSTRUCTION



OAKVILLE

**BLOCK A1** 

STONEBRIDGE

ALEXANDRIA, VA

REVISION / ISSUANCE DESCRIPTION CONCEPT II 06-22-2020 SUBMISSION SUBMISSION #1 SUBMISSION #2

DESIGNED BY: MC/GC DRAWN BY: WT/LB CHECKED BY: LB/TW

APPROVED

DEPARTMENT OF PLANNING & ZONING

SITE PLAN NO.

DATE RECORDED

INSTRUMENT NO.

SPECIAL USE PERMIT NO. DSUP 2020-10028

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DATE

COURTYARD PLANTING PLAN

					TANIC/COMMON NAME		SIZE	NOTES	CROWN COVER ALL	STITLINGE (CCA)	·		VIDE
									CCA PER TREE (SF)	TOTAL CROWN	LOCAL/ REGIONAL	EASTERN	TC
	PLAN KEY	QUANTITY	GENUS	SPECIES	VAR./CULTIVAR/HYBRID	COMMON NAME	CALIPER/HEIGHT			COVER (SF)	(#)	U.S. (#)	
	ILOP	2	llex	opaca		American Holly	6'-8'ft. ht.	B&B	250	500	2	2	
	JVCO	2	Juniperus	virginiana	Corcorcor	Emerald Sentinal Juniper	6'-8'ft. ht.	B&B	250	500	2	2	
	MGAL	2	Magnolia	grandifolia	Little Gem	Dwarf Sourthern Magnolia	8'-10' ft. ht.	B&B	500	1,000	0	0	
	AMAR	2	Amelanchier	arborea		Downy Service Berry	1.5"-1.75" cal./6'-8' ft. ht.	B&B Multistem, 3 Stem min.	500	1,000	2	2	
	AMCA	2	Amelanchier	canadensis		Canadian Serviceberry	1.5"-1.75" cal./6'-8' ft. ht.	B&B Multistem, 3 Stem min.	500	1,000	2	2	
	AMLA	2	Amelanchier	laevis		Allegheny Serviceberry	1.5"-1.75" cal./6'-8' ft. ht.	B&B Multistem, 3 Stem min.	750	1,500	2	2	
RBAN TREES	BNLK	2	Betula	nigra	Little King	Fox Valley Birch	1.5"-1.75" cal.	B&B Multistem, 3 Stem min.	750	1,500	2	2	
	CCFP	2	Cercis	canadensis	Forest Pansy	Forest Pansy Redbud	1.5"-1.75" cal./6'-10' ft. ht.	B&B	500	1,000	2	2	
	CLLU	2	Cladrastis	lutea	1 oreset ansy	American Yellowwood	2"-2.5" cal./12'-14' ft. ht.	B&B	750	1,500	0	0	
	COAL	2		alternifolia		Pagoda Dogwood	1.5"-1.75" cal./6'-8' ft. ht.	B&B	500	1,000	0	2	
		2	Cornus	florida	Annalashian Carina		1.5"-1.75" cal./6'-8' ft. ht.	B&B		500	0	2	
	COFL	2	Cornus		Appalachian Spring	Dogwood	·		250		2	2	
	CACA	2	Carpinus	caroliniana		American Hornbeam	1.5"-1.75" cal./6'-10' ft. ht.	B&B	500	2,000	2	2	
	GLTI	1	Gleditsia	tricanthos inermis	Skycole	Skyline Thornless Honey Locust	2"-2.5" cal./12'-14' ft. ht.	B&B	750	750	1	1	
	TOTALS	25					-		URBAN TREE CCA:	13,750	19 76.0%	21 84.0%	
													_
	PLAN KEY	QUANTITY	GENUS	SPECIES	VAR./CULTIVAR/HYBRID	COMMON NAME	HEIGHT/SPREAD		CCA PER SHRUB (SF)	TOTAL CROWN COVER (SF)	REGIONAL (#)	EASTERN U.S. (#)	
	ABMG	-	Abelia	JF LCIL3	Mardi Gras	Mardi Gras Abelia	18"-24" W	#3 Container	10	110	0	0.3. (#)	Г
		11		Χ					10	F			$\vdash$
	ABRC	14	Abelia	X	Rose Creek	Rose Creek Abelia	18"-24" W	#3 Container	10	140	0	0	L
	CHFA	/	Cephalotaxus	harringtonia	Fasrigiata	Plum Yew	4'-5' ft. ht.	#5 Container	25	175	0	0	
	CHYE	11	Cephalotaxus	harringtonia	Plania	Yewtopia Plum Yew	18"-24"W	#3 Container	25	275	0	0	_
	DIVJ	23	Distylium	X	Vintage Jade	Vintage Jade Distylium	18"-24" W	#3 Container	10	230	0	0	L
	IVSD	27	llex	vomitoria	Stokes Dwarf	Stokes Dwarf Yaupon Holly	18"-24" W	#3 Container	25	675	27	27	_
REEN SHRUBS	MCDD	19	Morella	cerifera	Don's Dwarf	Don's Dwarf Wax Myrtle	18"-24" ft. ht.	#3 Container	25	475	19	19	
	PJMF	10	Pieris	japonica	Mountain Fire	Mountain Fire Pieris	30"-36" ft. ht.	#5 Container	25	250	0	0	_
	PLOL	26	Prunus	laurocerasus	otto luyken	Otto Luyken Laurel	18"-24" W	#3 Container	10	260	0	0	L
	RICO	9	Rhaphiolepis	indica	Conor	Eleanor taber indian Hawthorn	18"-24" ft. ht.	#3 Container	2	40	0	0	
	RHRO	20	Rhododendron	X	Roblev	Autumn ivory encore Azalea	18"-24" W	#3 Container	2	40	20	20	
	SARU	11	Sarcococca	humilis		Sweetbox	12"-18"W	#3 Container	10	110	0	0	
	TOTALS	188							EVERGREEN SHRUB	2,780	66	66	_ _
	1017125						T		CCA:	2,700	35.1%	35.1%	_
											LOCAL/		
									CCA PER SHRUB (SF)	TOTAL CROWN	REGIONAL	EASTERN	
	PLAN KEY	QUANTITY	GENUS	SPECIES	VAR./CULTIVAR/HYBRID	COMMON NAME	HEIGHT			COVER (SF)	(#)	U.S. (#)	
	CACO	28	Clethra	alnifolia	Compacta	Compact Summersweet	18"-24" H	#3 Container	10	280	28	28	
	CSFA	11	Cornus	sericea	Farrow	Artic Fire Red Twig Dogwood	24"-30" ft. ht.	#5 Container	25	275	11	11	
	FOGA	8	Fothergilla	gardeni		Dwarf Fothergilla	18"-24" H	#3 Container	2	16	0	8	
	HPLI	5	Hydrangea	paniculata	Limelight	Limelight Hydrangea	18"-24" H	#3 Container	25	125	0	0	
OUS SHRUBS	HQFL	7	Hydrangea	quercifolia	Flemygea	Snow Queen Oakleaf Hydrangea	18"-24" W	#3 Container	25	175	0	7	
	IVSP	31	Itea	Virginica	Sprich	Little Henry Virginia Sweetspire	18"-24"W	#3 Container	10	310	31	31	
	POSE	8	Physocarpus	opulifolius	Seward	Summer Wine Seward Ninebark	18"-24"H	#3 Container	10	80	8	8	
	ROME	10	Rosa	X	Meidrifora	Coral Drift Groundcover Rose	12"-18"W	#3 Container	25	250	10	10	
	VICA	10	Viburnum	acerifolium		Mapleleaf Viburnum	18"-24"H	#3 Container	10	100	10	10	
		445							DECIDUOUS SHRUB		98	113	_
	TOTALS	118							CCA:	1,611	83.1%	95.8%	
			•						TOTAL PROPOSED	18,141			_

URBAN TREE TABULATIONS								
PLAN KEY QUANTITY		PLAN LOCATION	PROJECTED 20 YR. CANOPY* (PER TREE)	IMPERVIOUS AREA UNDER CANOPY (PER TREE)	IMPERVIOUS AREA GREATER THAN 50% OF PROJECTED 20 YR CANOPY? (Y/N)			
ILOP	2	ON-STRUCTURE	250	165	Υ			
JVCO	2	ON-STRUCTURE	250	165	Υ			
MGAL	2	ON-STRUCTURE	500	415	Υ			
AMAR	2	ON-STRUCTURE	500	415	Υ			
AMCA 2		ON-STRUCTURE	500	415	Υ			
AMLA	2	ON-STRUCTURE	750	495	Υ			
BNLK	2	ON-STRUCTURE	750	665	Υ			
CCFP	2	ON-STRUCTURE	500	415	Υ			
CLLU	2	ON-STRUCTURE	750	495	Y			
COAL	2	ON-STRUCTURE	500	330	Y			
COFL	2	ON-STRUCTURE	250	165	Y			
CACA	2	ON-STRUCTURE	500	415	Υ			
GLTI	1	ON-STRUCTURE	750	665	Y			
		TOTA	L URBAN TREES					

25

CROWN COVER TABULATIONS							
TOTAL SITE AREA (SF) - BLOCK A1	00.400						
MINUS PUBLIC EASEMENTS	80,129						
25% CROWN COVER REQUIRED (SF)	20,032						
EXISTING CROWN COVER (SF)	13,471						
REMOVED CROWN COVER (SF)	13,471						
PRESERVED CROWN COVER (SF)							
Crown Cover from Preserved Trees	0						
Crown Cover from Preserved Shrubs	0						
PROPOSED CROWN COVER (SF)							
Crown Cover from Proposed Trees	13,750						
Crown Cover from Proposed Shrubs	4,391						
TOTAL CROWN COVER PROVIDED (%)	22.6%						
TOTAL CROWN COVER PROVIDED (SF)	18,141						

**NOTE:** THE SITE DOES NOT MEET CROWN COVERAGE REQUIREMENTS, AND REQUESTS A MODIFICATION. SEE COVER SHEET FOR DETAIL.

				NATIVE PLAI	NT TABULA	TIONS					
			MARCH 2, 2019 -	JANUARY 2, 2020	– JANUARY	/ 1, 2024	BEGINNING JANUARY 2, 2024				
PLANT TYPE	QUANTITY	NATIVE TYPE	REQUIRED	PRO	/IDED	REQUIRED	PRO	VIDED	REQUIRED	PROV	'IDED
	QUANTITY	NATIVETYPE	%	QTY.	%	%	QTY.	%	%	QTY.	%
Urban Trees	25	Regional/Local	10%			15%	19	76.0%	20%		
Orban frees	25	Total Natives	25%			25%	25	100.0%	50%		
Standard Trees	0	Regional/Local	15%			25%			40%		
Standard frees	U	Total Natives	40%			60%			80%		
Evergreen	188	Regional/Local	5%			8%	66	35.11%	10%		
Shrubs	100	Total Natives	20%			30%	66	35.11%	40%		
Deciduous	118	Regional/Local	10%			15%	98	83.05%	20%		
Shrubs		Total Natives	40%			60%	113	95.76%	80%		
Croundsouses	0	Regional/Local	5%			10%			10%		
Groundcovers		Total Natives	10%			20%			20%	\	
Perennials, Ferns, Ornamental	0	Regional/Local	10%			15%			25% (perennials) 30% (ferns & grasses)		
Grasses	U	Total Natives	25%			40%			60% (perennials) 80% (ferns & grasses)		
Vines		Total Natives	80%			100%			100%		
				T	OTALS						
TOTAL PLANTS SPECIFIED TOTAL		TOTAL SUM	OF REGIONAL/LOCAL I	NATIVE PLAN	TS	TOTAL SUM OF NATIVE PLANTS					
22	14		183					20	04		
331			55.3%					61.	6%		

			BIODIVERSITY :	TABULATIONS			
TREES (URBAN AN	D STANDARD)						
TOTAL NUMBER O	F TREES PROP	OSED:					
GENUS	QTY.	PERCENT OF TOTAL PROPOSED	MAXIMUM PERCENT ALLOWED	SPECIES	QTY.	PERCENT OF TOTAL PROPOSED	MAXIMUM PERCENT ALLOWED
llex	2	8.0%	33%	opaca	2	8.0%	10%
Juniperus	2	8.0%	33%	virginiana	2	8.0%	10%
Magnolia	2	8.0%	33%	grandifolia	2	8.0%	10%
Amelanchier	2	8.0%	33%	arborea	2	8.0%	10%
Amelanchier	2	8.0%	33%	canadensis	2	8.0%	10%
Amelanchier	2	8.0%	33%	laevis	2	8.0%	10%
Betula	2	8.0%	33%	nigra	2	8.0%	10%
Cercis	2	8.0%	33%	canadensis	2	8.0%	10%
Cladrastis	2	8.0%	33%	lutea	2	8.0%	10%
Cornus	2	8.0%	33%	alternifolia	2	8.0%	10%
Cornus	2	8.0%	33%	florida	2	8.0%	10%
Carpinus	2	8.0%	33%	caroliniana	2	8.0%	10%
Gleditsia	1	4.0%	33%	tricanthos inermis	1	4.0%	10%
TOTAL	25						
SHRUBS							
TOTAL NUMBER O	F SHRUBS PRO	OPOSED:					
CENTIC	OTV	PERCENT OF TOTAL	MAXIMUM PERCENT	CDECIEC	OTV	PERCENT OF TOTAL	MAXIMUM PERCENT
GENUS	QTY.	PROPOSED	ALLOWED	SPECIES	QTY.	PROPOSED	ALLOWED
Abelia	11	3.58%	33%	Х	11	3.6%	10%
Abelia	14	4.56%	33%	Х	14	4.6%	10%
Cephalotaxus	7	2.28%	33%	harringtonia	7	2.3%	10%
Cephalotaxus	11	3.58%	33%	harringtonia	11	3.6%	10%
Distylium	23	7.49%	33%	Х	23	7.5%	10%
llex	27	8.79%	33%	vomitoria	27	8.8%	10%
Morella	19	6.19%	33%	cerifera	19	6.2%	10%
Pieris	10	3.26%	33%	japonica	10	3.3%	10%
Prunus	26	8.47%	33%	laurocerasus	26	8.5%	10%
Rhaphiolepis	9	2.93%	33%	indica	9	2.9%	10%
Rhododendron	20	6.51%	33%	X	20	6.5%	10%
Sarcococca	10	3.26%	33%	humilis	10	3.3%	10%
Clethra	28	9.12%	33%	alnifolia	28	9%	10%
Cornus	11	3.58%	33%	sericea	11	3.6%	10%
Fothergilla	8	2.61%	33%	gardeni	8	2.6%	10%
Hydrangea	5	1.63%	33%	paniculata	5	1.6%	10%
Hydrangea	7	2.28%	33%	quercifolia	7	2.3%	10%
Itea	31	10.10%	33%	Virginica	31	10%	10%
illea							
Physocarpus	8	2.61%	33%	opulifolius	8	2.6%	10%

acerifolium

3.9%

33%

Viburnum

THIS SHEET IS FOR PLANTINGS WITHIN THE PROPERTY LINE ONLY.
SEE SHEET L202A FOR TRACKING OF PLANTINGS WITHIN THE PUBLIC RIGHT-OF-WAY, PUBLIC ACCESS EASEMENTS, AND PUBLICLY ACCESSIBLE OPEN SPACE.



LandDesign.

200 S. PEYTON STREET ALEXANDRIA, VA 22314 703.549.7784 WWW.LANDDESIGN.COM

NOT FOR CONSTRUCTION



OAKVILLE

**BLOCK A1** 

STONEBRIDGE

ALEXANDRIA, VA

REVISION / ISSUANCE

NO. DESCRIPTION DATE

CONCEPT II
SUBMISSION 06-22-2020

PDSUP SUBMISSION #1 09-04-2020 PDSUP SUBMISSION #2 10-20-2020

DESIGNED BY: MC/GC
DRAWN BY: WT/LB
CHECKED BY: LB/TW

VERT: N/A HORZ: N/A

PLANTING SCHEDULE +

**TABULATIONS** 

## INIEDACTOLICTUDE DOLIDAGA 10000

INFRASTRU	<u>JCT</u>	URE - DSUP2020-10029
DECIDUOUS TREES	QTY	BOTANICAL / COMMON NAME
ACER	3	ACER RUBRUM / RED MAPLE
AMEG	3	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' / 'AUTUMN BRILLIANCE' SERVICEBERR
CALA	1	CARYA LACINIOSA / SHELLBARK HICKORY
CERC	2	CERCIS CANADENSIS / EASTERN REDBUD
CFCP	3	CORNUS FLORIDA `CHEROKEE PRINCESS` / CHEROKEE PRINCESS DOGWOOD
FAGR	1	FAGUS GRANDIFOLIA / AMERICAN BEECH
JUNI	2	JUGLANS NIGRA / BLACK WALNUT
EVERGREEN TREES	QTY	BOTANICAL / COMMON NAME
ILEO	2	ILEX OPACA / AMERICAN HOLLY
INRS	2	ILEX X `NELLIE R STEVENS` / NELLIE STEVENS HOLLY
MAGG	1	MAGNOLIA GRANDIFLORA / SOUTHERN MAGNOLIA
TOEG	11	THUJA OCCIDENTALIS `EMERALD GREEN` / EMERALD GREEN ARBORVITAE
STREET TREES	<u>QTY</u>	BOTANICAL / COMMON NAME
ACAF	5	ACER RUBRUM `AUTUMN FLAME` / AUTUMN FLAME RED MAPLE
GIBI	8	GINKGO BILOBA `AUTUMN GOLD` / AUTUMN GOLD GINKGO
LIST	8	LIQUIDAMBAR STYRACIFLUA `ROTUNDILOBA` / AMERICAN SWEETGUM
PLAB	4	PLATANUS X ACERIFOLIA `BLOODGOOD` / BLOODGOOD LONDON PLANE TREE
QUCO	6	QUERCUS COCCINEA / SCARLET OAK
QURU	6	QUERCUS RUBRA / RED OAK
QUSH	5	QUERCUS SHUMARDII / SHUMARDII OAK
EVERGREEN SHRUB	<u>QTY</u>	BOTANICAL / COMMON NAME
ABGR	32	ABELIA X GRANDIFLORA / GLOSSY ABELIA
CHYE	32	CEPHALOTAXUS HARRINGTONIA `PLANIA` TM / YEWTOPIA PLUM YEW
CHOB	3	CHAMAECYPARIS OBTUSA `GRACILIS` / SLENDER HINOKI CYPRESS
ILGG	136	ILEX GLABRA `NIGRA` / NIGRA INKBERRY HOLLY
IGSH	20	ILEX GLABRA `SHAMROCK` / SHAMROCK INKBERRY HOLLY
ORNAMENTAL GRASSES	<u>QTY</u>	BOTANICAL / COMMON NAME
DCNL	160	DESCHAMPSIA CESPITOSA `NORTHERN LIGHTS` / NORTHERN LIGHTS TUFTED HAIR GRASS
ERSP	64	ERAGROSTIS SPECTABILIS / PURPLE LOVE GRASS
MUCA	56	MUHLENBERGIA CAPILLARIS 'REGAL MIST' / PINK MUHLYGRASS
MUHL	72	MUHLENBERGIA LINDHEIMERI `LENI` / AUTUMN GLOW MUHLY GRASS
PANH	72	PANICUM VIRGATUM `RUBY RIBBONS` / SWITCH GRASS
PEAH	107	PENNISETUM ALOPECUROIDES `HAMELN` / HAMELN DWARF FOUNTAIN GRASS
DECIDUOUS SHRUB	QTY	BOTANICAL / COMMON NAME
CSKE	80	CORNUS SERICEA `KELSEYI` / KELSEY`S DWARF RED-OSIER DOGWOOD
ITVI	48	ITEA VIRGINICA `LITTLE HENRY` / VIRGINIA SWEETSPIRE
GROUND COVERS	QTY	BOTANICAL / COMMON NAME
CARB	12	CAREX BUCHANANII 'RED ROOSTER' / RED ROOSTER SEDGE
CARP	348	CAREX PENSYLVANICA / PENNSYLVANIA SEDGE
CARS	64	CAREX STRICTA / TUSSOCK SEDGE
	11	ILINOLIS EFFLISHS / SOFT DUSH

## BLOCK A1 - DSUP2020-10028

STREET TREES	QTY	BOTANICAL / COMMON NAME
GTSH	3	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER' TM / SHADEMASTER LOCUST
GYMD	2	GYMNOCLADUS DIOICA `EXPREESO` / EXPRESSO KENTUCKY COFFEE TREE
QUEP	2	QUERCUS PHELLOS / WILLOW OAK
ULVF	3	ULMUS AMERICANA 'VALLEY FORGE' / AMERICAN ELM

44 JUNCUS EFFUSUS / SOFT RUSH

## BLOCK B - DSUP2020-10030

STREET TREES ACAF GTSH LIST QUEP QUSH ULVF	QTY 2 1 2 4 3 3	BOTANICAL / COMMON NAME ACER RUBRUM `AUTUMN FLAME` / AUTUMN FLAME RED MAPLE GLEDITSIA TRIACANTHOS INERMIS `SHADEMASTER` TM / SHADEMASTER LOCUST LIQUIDAMBAR STYRACIFLUA `ROTUNDILOBA` / AMERICAN SWEETGUM QUERCUS PHELLOS / WILLOW OAK QUERCUS SHUMARDII / SHUMARDII OAK ULMUS AMERICANA `VALLEY FORGE` / AMERICAN ELM
DECIDUOUS SHRUB CSFA CSKE	QTY 7 8	BOTANICAL / COMMON NAME CORNUS SERICEA `FARROW` TM / ARCTIC FIRE RED TWIG DOGWOOD CORNUS SERICEA `KELSEYI` / KELSEY`S DWARF RED-OSIER DOGWOOD
EVERGREEN SHRUB DIVJ SARU	QTY 4 17	BOTANICAL / COMMON NAME DISTYLIUM X `VINTAGE JADE` / VINTAGE JADE DISTYLIUM SARCOCOCCA HUMILIS / SWEETBOX
ORNAMENTAL GRASSES ERSP PANH PEAH	QTY 14 8 13	BOTANICAL / COMMON NAME ERAGROSTIS SPECTABILIS / PURPLE LOVE GRASS PANICUM VIRGATUM `RUBY RIBBONS` / SWITCH GRASS PENNISETUM ALOPECUROIDES `HAMELN` / HAMELN DWARF FOUNTAIN GRASS
GROUND COVERS OPJN	<u>QTY</u> 52	BOTANICAL / COMMON NAME OPHIOPOGON JAPONICUS `NANA` / DWARF MONDO GRASS
SOD/SEED LAWN	<u>QTY</u> 2,463 SF	BOTANICAL / COMMON NAME LAWN / LAWN

## BLOCK A2

JUEF

STREET TREES GIBI GTSH ULVF2	QTY 2 2 2	BOTANICAL / COMMON NAME GINKGO BILOBA `AUTUMN GOLD` / AUTUMN GOLD GINKGO GLEDITSIA TRIACANTHOS INERMIS `SHADEMASTER` TM / SHADEMASTER LOCUST ULMUS AMERICANA `VALLEY FORGE` / AMERICAN ELM
DECIDUOUS SHRUB CACO CLAH FOTB HYAR HPLI RAGL	QTY 9 6 3 7 1 2	BOTANICAL / COMMON NAME CLETHRA ALNIFOLIA `COMPACTA` / COMPACT SUMMERSWEET CLETHRA ALNIFOLIA `HUMMINGBIRD` / SUMMERSWEET FOTHERGILLA GARDENII `BLUE MIST` / BLUE MIST FOTHERGILLA HYDRANGEA ARBORESCENS `ANNABELLE` / WILD HYDRANGEA HYDRANGEA PANICULATA `LIMELIGHT` / LIMELIGHT HYDRANGEA RHUS AROMATICA `GRO-LOW` / GRO-LOW FRAGRANT SUMAC
EVERGREEN SHRUB DIVJ ILGG ILSH	QTY 5 5 3	BOTANICAL / COMMON NAME DISTYLIUM X 'VINTAGE JADE' / VINTAGE JADE DISTYLIUM ILEX GLABRA 'NIGRA' / NIGRA INKBERRY HOLLY ILEX GLABRA 'SHAMROCK' / INKBERRY
ORNAMENTAL GRASSES CAKF MUHL PANH PEAH	QTY 4 22 17 34	BOTANICAL / COMMON NAME CALAMAGROSTIS X ACUTIFLORA `KARL FOERSTER` / FEATHER REED GRASS MUHLENBERGIA LINDHEIMERI `LENI` / AUTUMN GLOW MUHLY GRASS PANICUM VIRGATUM `RUBY RIBBONS` / SWITCH GRASS PENNISETUM ALOPECUROIDES `HAMELN` / HAMELN DWARF FOUNTAIN GRASS
GROUND COVERS CARB JUHH	QTY 25 26	BOTANICAL / COMMON NAME CAREX BUCHANANII `RED ROOSTER` / RED ROOSTER SEDGE JUNIPERUS HORIZONTALIS `HUGHES` / HUGHES JUNIPER
SOD/SEED LAWN	<u>QTY</u> 1,359 SF	BOTANICAL / COMMON NAME LAWN / LAWN

BIODIVERSITY TABULATIONS - OAKVILLE RIGHT OF WAY PLANTING								
TREES (URBAN AN	ID STANDARD)							
TOTAL NUMBER C	F TREES PROP	OSED						
GENUS	QTY.	PERCENT OF TOTAL PROPOSED	MAXIMUM PERCENT ALLOWED	SPECIES	QTY.	PERCENT OF TOTAL PROPOSED	MAXIMUM PERCENT ALLOWED	
Acer	3	3%	33%	rubrum	3	3%	10%	
Amelanchier	3	3%	33%	grandiflora	3	3%	10%	
Carya	1	1%	33%	laciniosa	1	1%	10%	
Cercis	2	2%	33%	canadensis	2	2%	10%	
Cornus	3	3%	33%	florida	3	3%	10%	
Fagus	1	1%	33%	grandifolia	1	1%	10%	
Juglans	2	2%	33%	nigra	2	2%	10%	
llex	2	2%	33%	opaca	2	2%	10%	
llex	2	2%	33%	X 'Nellie R Stevens'	2	2%	10%	
Magnolia	1	1%	33%	grandifolia	1	1%	10%	
Thuja	11	11%	33%	occidentalis	11	11%	10%	
Acer	7	7%	33%	rubrum 'Autumn Flame'	7	7%	10%	
Ginko	10	10%	33%	bilboa 'Autumn Gold"	10	10%	10%	
Liguidambar	10	10%	33%	styraciflua	10	10%	10%	
Platanus	4	4%	33%	acerifolia	4	4%	10%	
Quercus	6	6%	33%	coccinea	6	6%	10%	
Quercus	6	6%	33%	rubra	6	6%	10%	
Quercus	8	8%	33%	shumardii	8	8%	10%	
Gleditsia	6	6%	33%	tricanthos	6	6%	10%	
Gymnocladus	2	2%	33%	dioica	2	2%	10%	
Quercus	6	6%	33%	phellos	6	6%	10%	
Ulmus	8	8%	33%	americana	8	8%	10%	

TOTAL	104						
SHRUBS							
TOTAL NUMBER OF	SHRUBS PRO	OPOSED:					
GENUS	QTY.	PERCENT OF TOTAL	MAXIMUM PERCENT	SPECIES	QTY.	PERCENT OF TOTAL	MAXIMUM PERCENT
GENUS	QTY.	PROPOSED	ALLOWED	SPECIES	QTY.	PROPOSED	ALLOWED
Abelia	32	7%	33%	grandifolia	32	7%	10%
Cephalotaxus	32	7%	33%	harringtonia	32	7%	10%
Chamaecyparis	3	1%	33%	obtusa	3	1%	10%
llex	141	33%	33%	glabra 'Nigra'	141	33%	10%
llex	23	5%	33%	glabra 'Shamrock'	23	5%	10%
Cornus	88	21%	33%	sericea 'Kelseyi"	88	21%	10%
Cornus	7	2%	33%	sericea 'Farrow"	7	2%	10%
Itea	48	11%	33%	cespitosa	48	11%	10%
Dystylium	9	2%	33%	x 'vintage jade'	9	2%	10%
Sarcococca	17	4%	33%	humilis	17	4%	10%
Clethra	9	2%	33%	alnifolia ' compacta'	9	2%	10%
Clethra	6	1%	33%	alnifolia 'hummingbird'	6	1%	10%
Fothergilla	3	1%	33%	gardenii	3	1%	10%
Hydrangea	7	2%	33%	arborescens	7	2%	10%
Hydrangea	1	0%	33%	paniculata 'limelight'	1	0%	10%
Rhus	2	0%	33%	aromatica	2	0%	10%
TOTAL	428						

				NATIVE PLA							
			MARCH 2, 2019 -	- JANUARY 1,	2020	JANUARY 2, 2020	– JANUARY	1, 2024	BEGINNING JAN	NUARY 2, 2	2024
PLANT TYPE	QUANTITY	NATIVE TYPE	REQUIRED PROVIDED		REQUIRED PROVIDED		REQUIRED	PROVIDED			
	QUANTITY	NATIVETTE	%	QTY.	%	%	QTY.	%	%	QTY.	%
Urban Trees	71	Regional/Local	10%			15%	63	89%	20%		
Orban frees	/1	Total Natives	25%			25%	71	100%	50%		
Standard Trees	31	Regional/Local	15%			25%	30	97%	40%		
Standard frees	21	Total Natives	40%			60%	31	100%	80%		
Evergreen	257	Regional/Local	5%			8%	222	86%	10%		
Shrubs	257	Total Natives	20%			30%	222	86%	40%		
Deciduous	171	Regional/Local	10%			15%	171	100%	20%		
Shrubs		Total Natives	40%			60%	171	100%	80%		
Groundcovers	643	Regional/Local	5%			10%	574	89%	10%		
310unucovers	043	Total Natives	10%			20%	574	89%	20%		
Perennials, Ferns, Ornamental Grasses	571	Regional/Local	10%			15%	491	86%	25% (perennials) 30% (ferns & grasses)		
		Total Natives	25%			40%	571	100%	60% (perennials) 80% (ferns & grasses)		
Vines		Total Natives	80%			100%			100%		
				1	OTALS						
TOTAL PLANTS SPECIFIED		TOTAL SUM C	SUM OF REGIONAL/LOCAL NATIVE PLANTS			TOTAL SUM OF NATIVE PLANTS					
1744			1551			1640					

TOTAL PLANTS SPECIFIED	TOTAL SUM OF REGIONAL/LOCAL NATIVE PLANTS	TOTAL SUM OF NATIVE PLANTS			
1744	1551	1640			
1/44	88.9%	94.0%			
TEC:					

1) Percentages apply to the total quantity of each plant type specifed on Completeness/Preliminary Plans and Final #1 Grading Plans submitted during the listed time frames. 2) Total Natives is the sum of Eastern U.S. Native, Regionally Native, and Locally Native vegetation specifed on the plans for each plant type. 3) Non-native vegetation for the purposes of providing edible fruits, seeds, or nuts may be planted and shall not be calculated in the above-stated requirements for native species regardless of plant type.

#### SHEET FOR INFORMATION AND TRACKING ONLY!

SHEET SHOWS TRACKING INFORMATION FOR BIODIVERSITY AND NATIVE REQUIRMENTS FOR PLANTINGS WITHIN IN THE RIGHT-OF-WAY, PUBLIC ACCESS EASEMENTS, AND PUBLICLY ACCESSIBLE OPEN SPACE. OAKVILLE SITE TO CUMULATIVELY MEET BIODIVERSITY STANDARDS FOR PLANTINGS IN THIS AREA, BUT MAY NOT MEET IT AT EVERY STAGE OF DEVELOPMENT.

BLOCKS WILL INDIVIDUALLY MEET BIODIVERSITY STANDARDS FOR PLANTING AREAS WITHIN THEIR RESPECTIVE PROPERTY LINES, TABULATIONS TO BE PROVIDED SEPERATELY.

THIS TRACKING SHEET TO BE UPDATED AS DSUPS FOR NEW BLOCKS ARE SUBMITTED.

		URBAN	TREE TABULATIO	NS				
PLAN KEY	QUANTITY	PLAN LOCATION	PROJECTED 20 YR. CANOPY* (PER TREE)	IMPERVIOUS AREA UNDER CANOPY (PER TREE)	IMPERVIOUS AREA GREATER THAN 50 OF PROJECTED 20 Y CANOPY? (Y/N)			
ACAF	7	STREET TREE	1,250 SF	625 SF	Υ			
GIBI	10	STREET TREE	1,250 SF	625 SF	Υ			
LIST	10	STREET TREE	1,250 SF	625 SF	Υ			
PLAB	4	STREET TREE	1,250 SF	625 SF	Υ			
QUCO	6	STREET TREE	1,250 SF	625 SF	Υ			
QURU	6	STREET TREE	1,250 SF	625 SF	Υ			
QUSH	8	STREET TREE	1,250 SF	625 SF	Υ			
GTSH	6	STREET TREE	1,250 SF	625 SF	Υ			
GYMD	2	STREET TREE	1,250 SF	625 SF	Υ			
QUEP	4	STREET TREE	1,250 SF	625 SF	Υ			
ULVF	6	STREET TREE	1,250 SF	625 SF	Υ			
ULVF2	2	STREET TREE	1,250 SF	625 SF	Υ			
	TOTAL URBAN TREES							

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**OAKVILLE** 

2020069 REVISION / ISSUANCE DESCRIPTION CONCEPT II 06-22-2020 SUBMISSION SUBMISSION #1 10-20-2020 SUBMISSION #2 DESIGNED BY: DRAWN BY: CHECKED BY:

APPROVED

DEPARTMENT OF PLANNING & ZONING

SITE PLAN NO.

DATE RECORDED

INSTRUMENT NO.

SPECIAL USE PERMIT NO. DSUP 2020-10028

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

DEED BOOK NO.

DATE

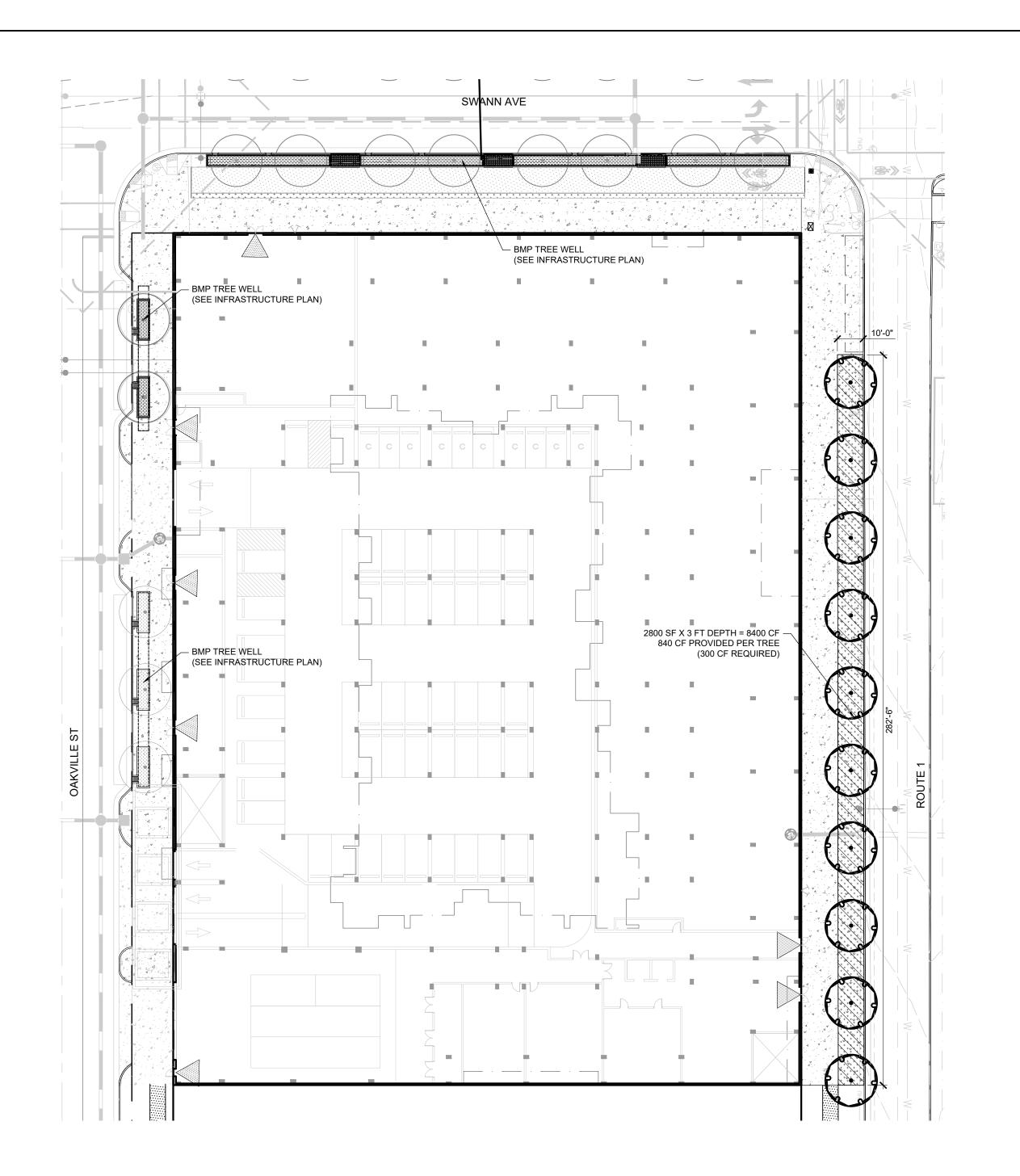
ORIGINAL SHEET SIZE: 24" X 36"

HORZ: N/A

SITEWIDE BIODIVERSITY TRACKING

L202A

10/20/2020 1:30 PM DAPHNE BRICE Z:\TEMPLATES\SHEETS\CD SHEETS\LA\SHEET-24X36.DWT



2 COURTYARD SOIL VOLUME PLAN L301 PLAN

1,215 SF X 3 FT DEPTH = 3,645 CF -520 CF PROVIDED PER TREE

(300 CF REQUIRED)

FFE= 64.83

SCALE 1" = 20'

1,575 SF X 3 FT DEPTH = 4,725 CF 525 CF PROVIDED PER TREE (300 CF REQUIRED)

420 SF X 3 FT DEPTH = 1,260 CF 620 CF PROVIDED PER TREE

480 CF PROVIDED PER TREE

345 SF X 3 FT DEPTH = 1,035 CF 1,035 CF PROVIDED PER TREE (300 CF REQUIRED)

(300 CF REQUIRED)

## STREETSCAPE SOIL VOLUME

STREETSCAPE SOIL VOLUME PLAN

L301 PLAN

EXTENTS OF UNCOMPACTED SOIL VOLUME IN TREE WELLS

COURTYARD (ABOVE GRADE) SOIL VOLUME

515 SF X 3 FT DEPTH = 1,545 CF

515 CF PROVIDED PER TREE (300 CF REQUIRED)



SCALE 1" = 30'

EXTENTS OF UNCOMPACTED SOIL IN RAISED PLANTERS



EXTENTS OF UNCOMPACTED SOIL IN RAISED PLANTERS NOT COUNTING TOWARDS CANOPY COVERAGE

NOTES:

1. THIS SHEET IS FOR SOIL VOLUME REFERENCE ONLY.

2. SOIL DEPTHS SHOWN ARE APPROXIMATE AND SUBJECT TO FINAL ENGINEERING.

290 SF X 3 FT DEPTH = 870 CF 870 CF PROVIDED PER TREE (300 CF REQUIRED)

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DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES

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DIRECTOR
DATE

CHAIRMAN, PLANNING COMMISSION
DATE

DATE

DATE

DATE

DATE

DATE

DATE

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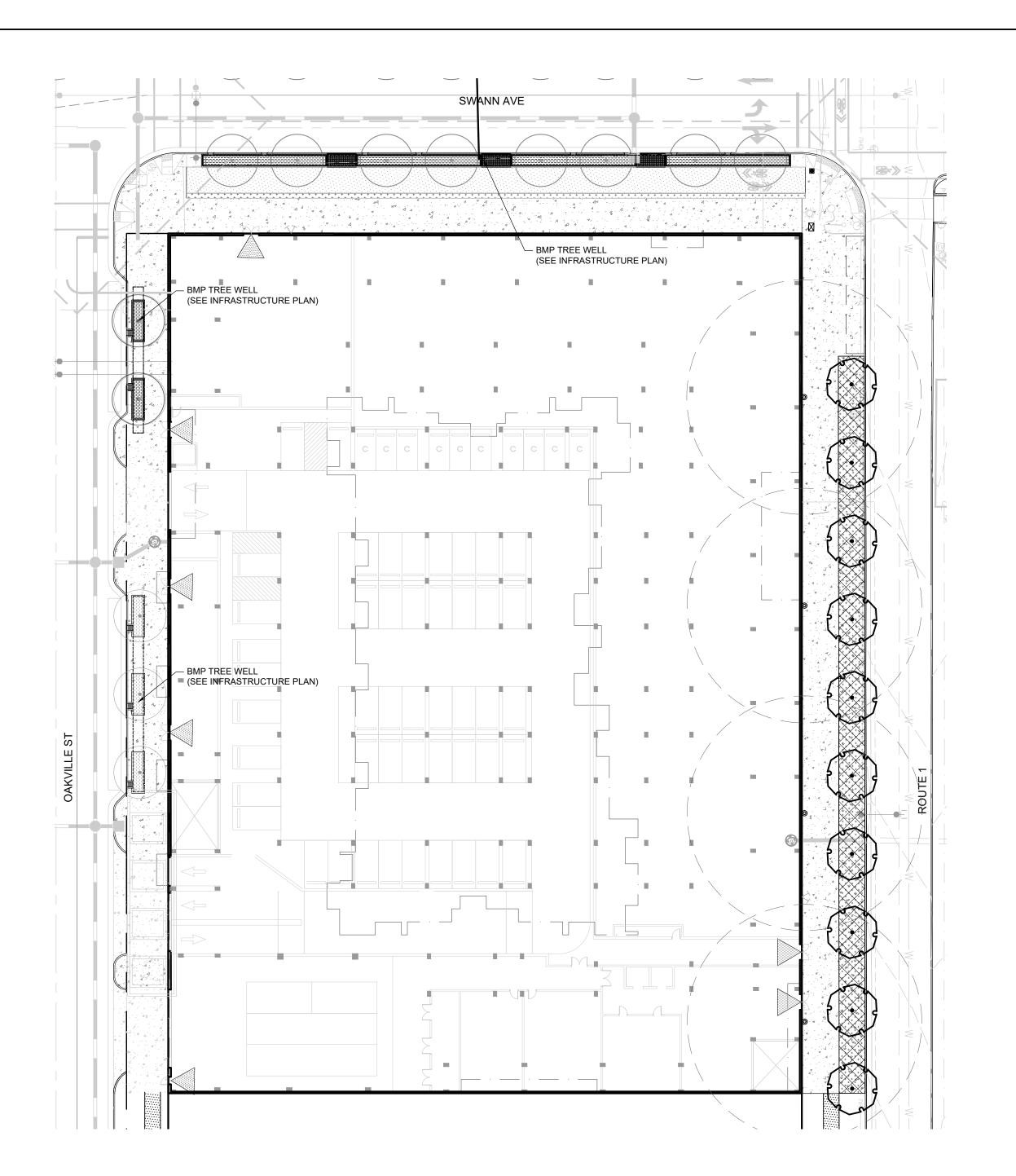
**BLOCK A1** 

STONEBRIDGE ALEXANDRIA, VA

DESIGNED BY: MC/GC
DRAWN BY: WT/LB
CHECKED BY: LB/TW

VERT: N/A HORZ: AS NOTED

SOIL VOLUME PLAN



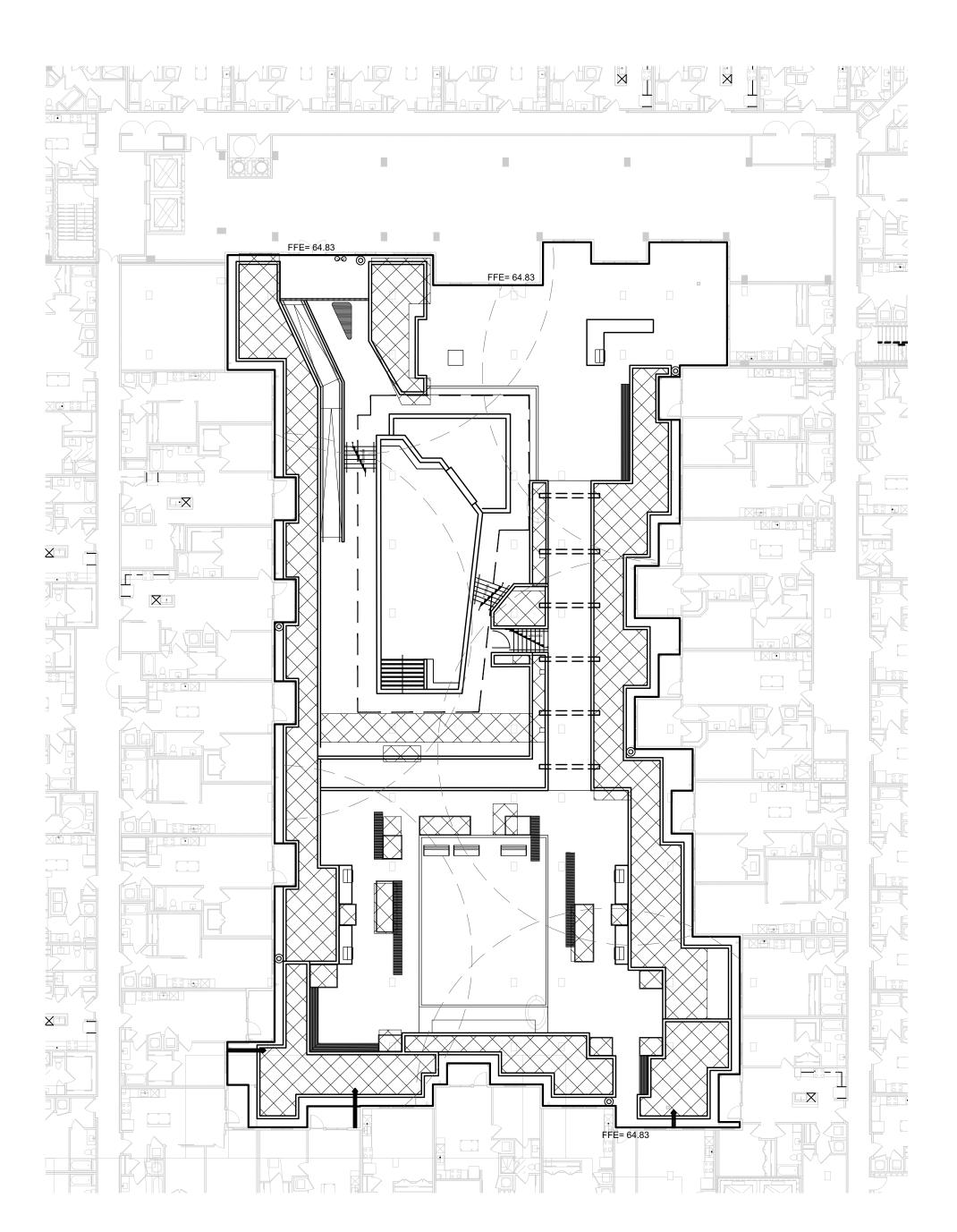
STREETSCAPE LIMITS OF IRRIGATION PLAN SCALE 1" = 30'

STREETSCAPE LIMITS OF IRRIGATION

LIMITS OF AREA WITH NO PERMANENT IRRIGATION (TO BE HAND-WATERED)

HOSE BIB

45' RADIUS



COURTYARD LIMITS OF IRRIGATION PLAN L302 PLAN

**COURTYARD LIMITS OF IRRIGATION** 

LIMITS OF AREA WITH NO PERMANENT IRRIGATION (TO BE HAND-WATERED)

HOSE BIB

45' RADIUS

1. PROPOSED LIMITS OF IRRIGATION ARE SUBJECT TO CHANGE WITH FINAL ENGINEERING AND LEED APPROVALS. HAND IRRIGATED AREAS MAY BE UPGRADED TO A PERMANENT IRRIGATION SYSTEM IN THE FUTURE WITHOUT AMENDMENT TO THIS SITE PLAN. FULL IRRIGATION SYSTEM PLANS TO BE PROVIDED BY OTHERS AT A LATER DATE.

- 2. SOIL SURVEY TO BE PERFORMED AT A LATER DATE CLOSER TO INSTALLATION OF PLANT MATERIAL. SOIL SAMPLE TEST REPORT WILL DOCUMENT THE EXISTING SOIL PH.
- 3. HOSE BIB LOCATIONS SHOWN ARE PRELIMINARY AND TO BE FINALIZED WITH FINAL BUILDING

ARCHITECTURE.

APPROVED SPECIAL USE PERMIT NO. DSU DEPARTMENT OF PLANNING & ZONING	P 2020-10028
DIRECTOR  DEPARTMENT OF TRANSPORTATION & ENVIRONME  SITE PLAN NO	DATE NTAL SERVICES
DIRECTOR	DATE
CHAIRMAN, PLANNING COMMISSION	DATE
DATE RECORDED	

SCALE 1" = 20'

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**OAKVILLE** 

**BLOCK A1** 

STONEBRIDGE

ALEXANDRIA, VA

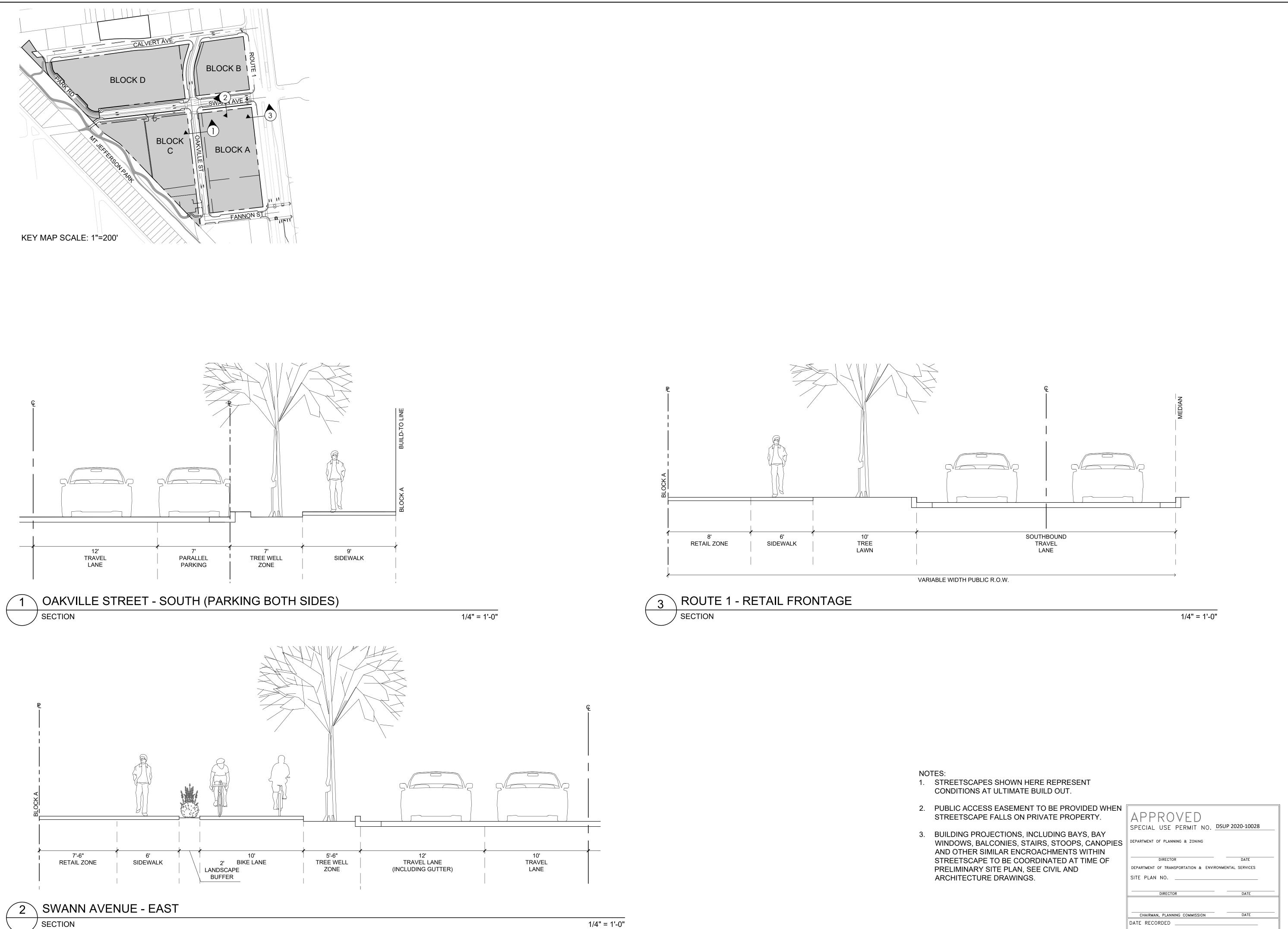
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REVISION / ISSUANCE DESCRIPTION CONCEPT II 06-22-2020 SUBMISSION 09-04-2020 SUBMISSION #1 10-20-2020 SUBMISSION #2

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HORZ: AS NOTED

LIMITS OF IRRIGATION PLAN



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**OAKVILLE** 

STONEBRIDGE

ALEXANDRIA, VA

DESIGNED BY:
DRAWN BY:

DRAWN BY: CHECKED BY:

VERT: N/A HORZ: AS NOTED

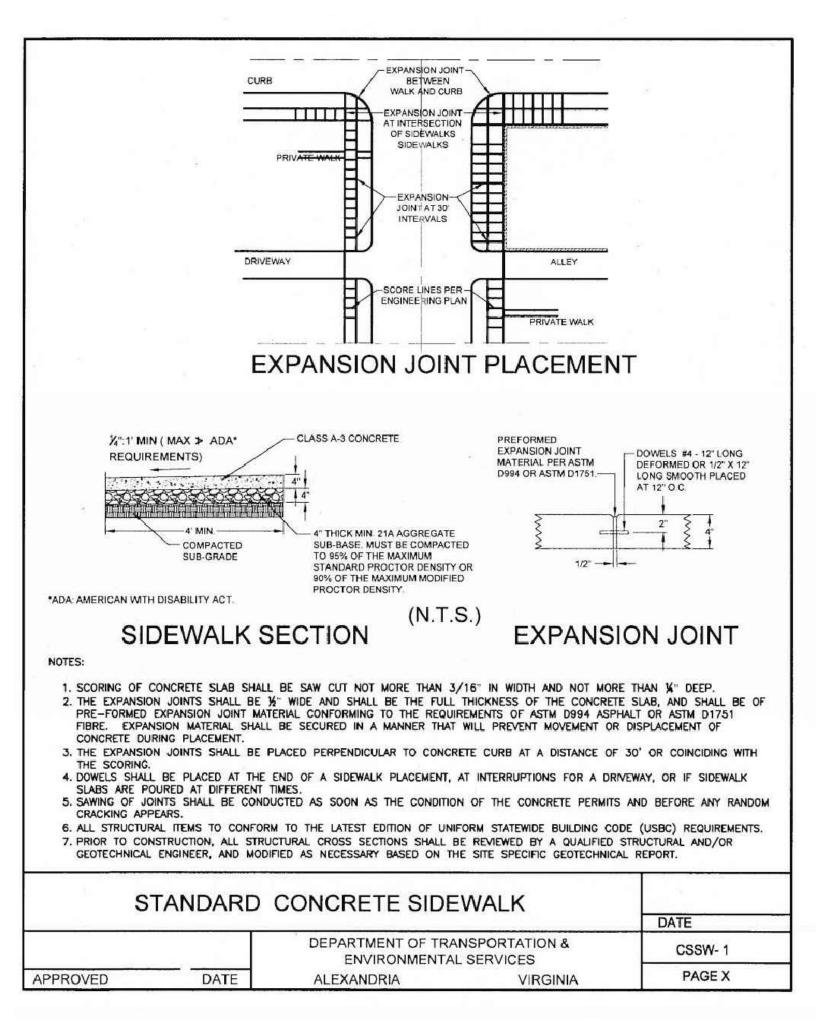
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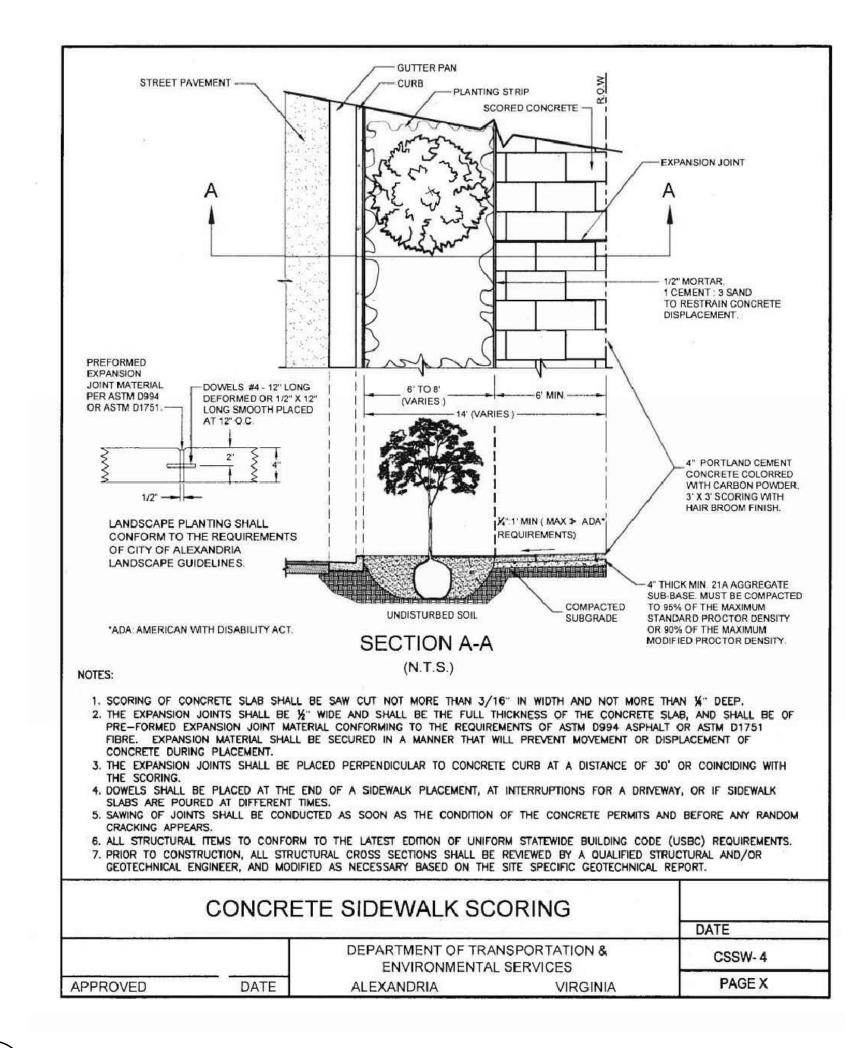
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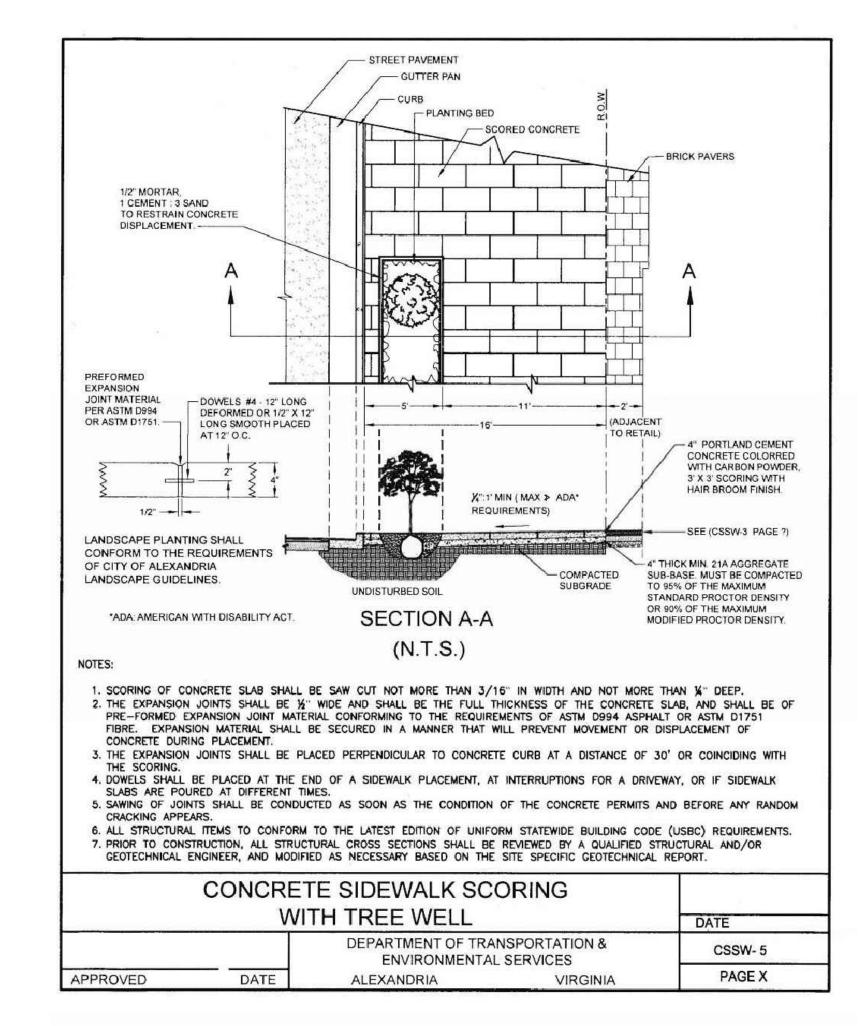
DEED BOOK NO.

ORIGINAL SHEET SIZE: 24" X 36"

DETAILS - SECTIONS







1 L501 SECTION

 $\left(\begin{array}{c}2\\1501\end{array}\right)$  SECTION

 $\frac{3}{\text{L501}}$ 



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DEPARTMENT OF PLANNING & ZONING

DIRECTOR
DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
SITE PLAN NO.
DIRECTOR
DATE

CHAIRMAN, PLANNING COMMISSION
DATE

DATE

DEED BOOK NO. DATE

INSTRUMENT NO.

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DETAILS - HARDSCAPE

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OAKVILLE

STONEBRIDGE

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REVISION / ISSUANCE

DATE

06-22-2020

09-04-2020

10-20-2020

DESCRIPTION

CONCEPT II

SUBMISSION

SUBMISSION #1

SUBMISSION #2

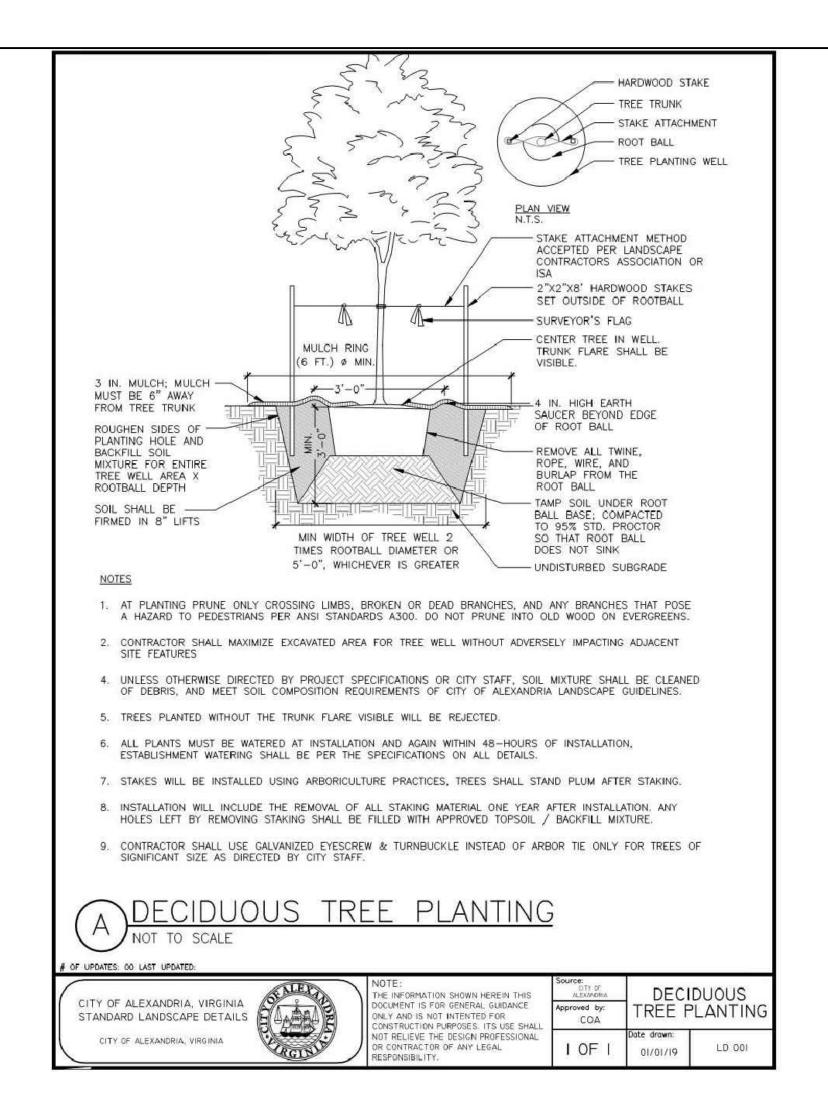
L511

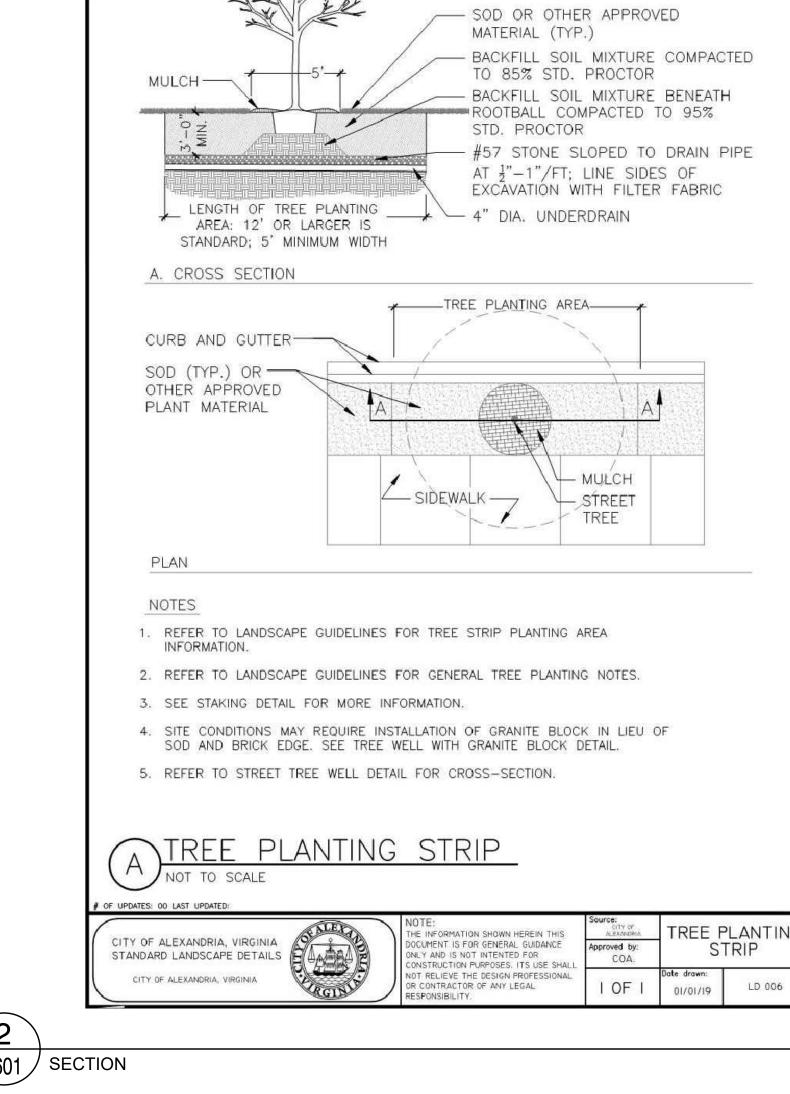
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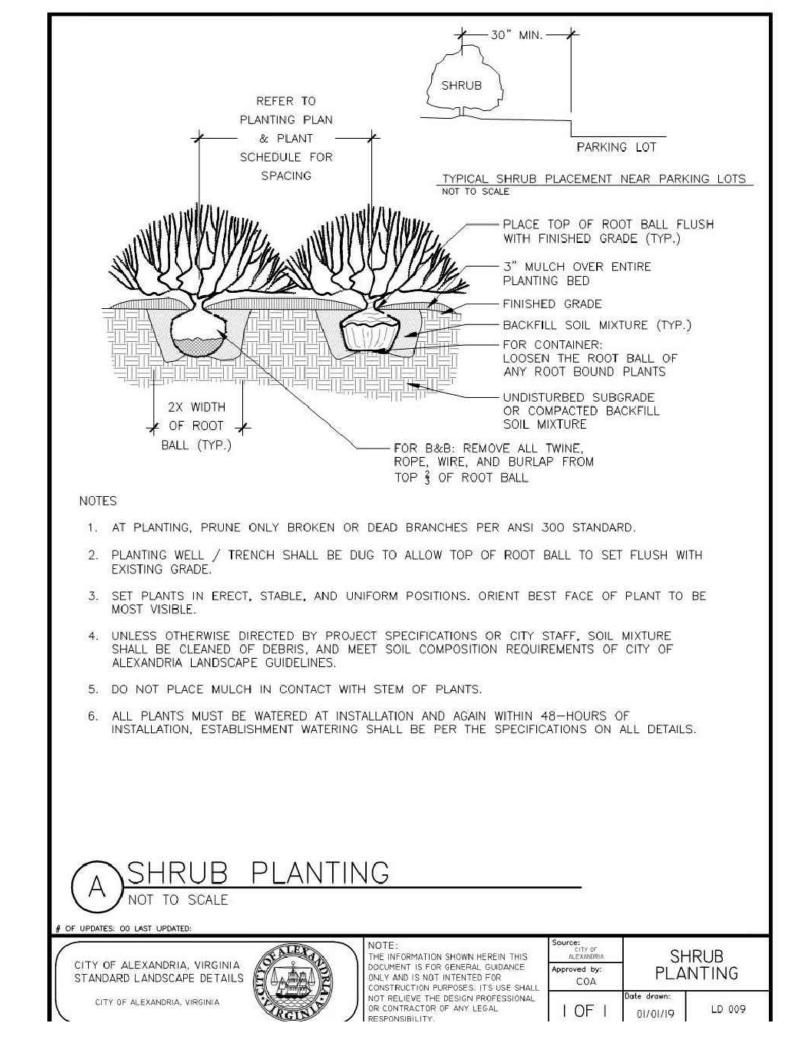
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VERT: N/A

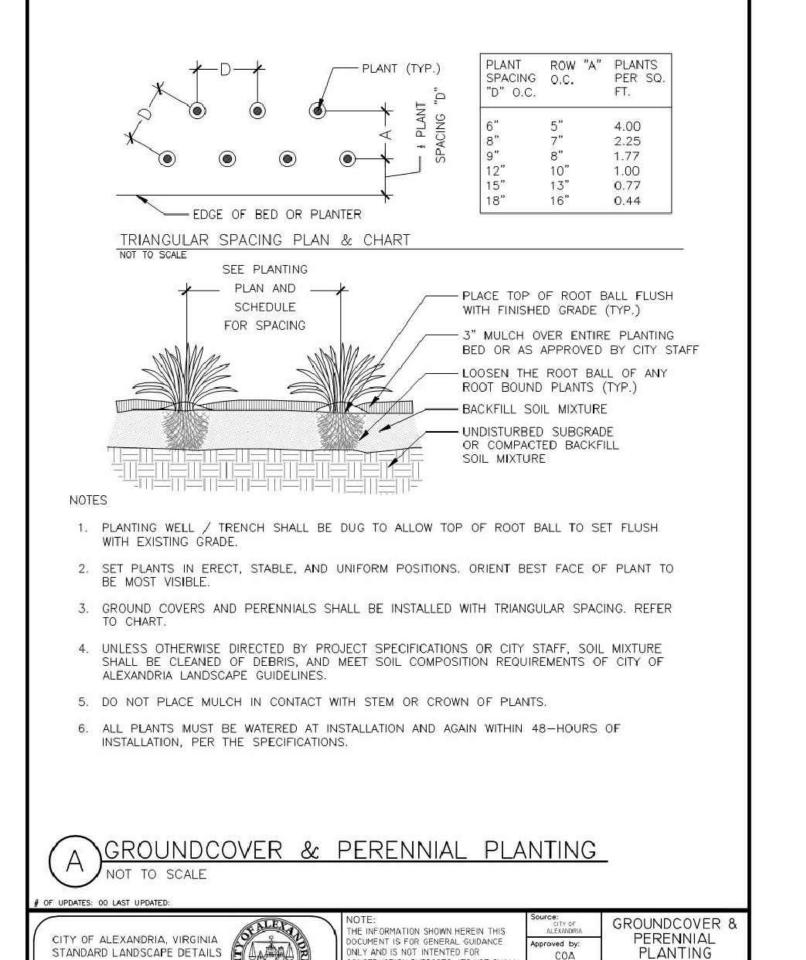
HORZ: N/A







MATTHEW V. CLARK Lic. No. 952 NTS 10-20-2020



INSTRUCTION PURPOSES, IT'S USE SHALL

R CONTRACTOR OF ANY LEGAL

L601 / SECTION





HORZ: N/A

**DETAILS - PLANTING** 

L601

LD 011

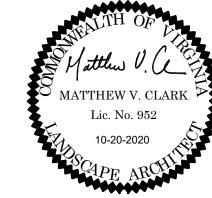
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CITY OF ALEXANDRIA, VIRGINIA

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OAKVILLE

STONEBRIDGE ALEXANDRIA, VA

2020069 REVISION / ISSUANCE DESCRIPTION NO. CONCEPT II SUBMISSION

DATE 06-22-2020 SUBMISSION #1 10-20-2020 SUBMISSION #2

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