4131 CHAIN BRIDGE ROAD
DAVIES PROPERTY
REZONING
GENERAL DEVELOPMENT PLAN

CITY OF FAIRFAX, VIRGINIA

MAY 22nd - 2025 - REVISED

PROPERTY OWNER / APPLICANT

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C/O DAVIES & DAVIES
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CONTACT: CLAYTON TOCK

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TRAFFIC ENGINEER

GOROVE SLADE ASSOCIATES
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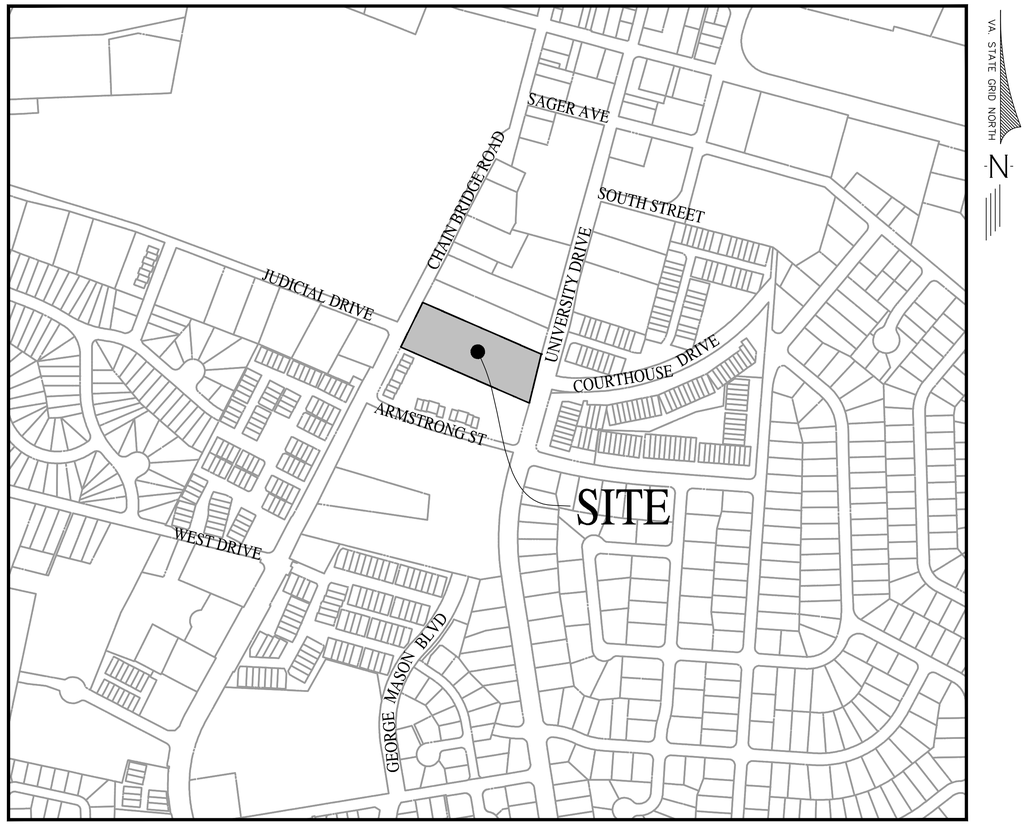
PH. 571-248-0992
CONTACT: SASHA REDMON



VICINITY MAP
SCALE: 1"=300'

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No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
05-04-2016
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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
LIC. No. 036706
05/22/2025
PROFESSIONAL ENGINEER

COVER SHEET
4131 CHAIN BRIDGE ROAD
REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: AS NOTED
C.I.= N/A
DATE: DEC., 2024

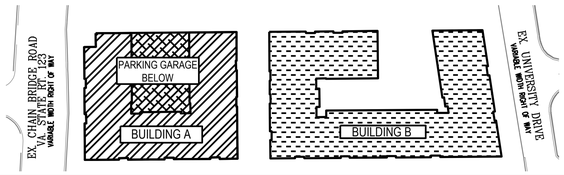
SHEET
01
OF
39

FILE No.
RZ-12787

Urban, Ltd. – J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-01-Cover.dwg [COVER] May 22, 2025 – 4:17pm aarensberg

BUILDING DATA

BUILDING DATA			
RESIDENTIAL-1 *Chain Bridge Rd.*		RESIDENTIAL-2 *University Dr.*	
Gross Area	117,569 SF	Gross Area	164,571 SF
GARAGE			
Gross Area			166,511 SF



ZONING STANDARDS

SEC. 3.6.2: PROPOSED REQUIREMENTS PER CU DISTRICT

MIN. LOT AREA (AC)		30,000 SF
BLDG. HEIGHT (FT)	REQUIRED PROVIDED	60' OR 5 STORIES 61'-1" OR 5 STORIES
PARKING. HEIGHT (FT)	PROVIDED	24'-0"
REQUIRED YARDS	FRONT/SIDE STREET	15' MAX / 0' MIN
	SIDE (ADJ. TO RES.)	25'
	SIDE (NOT ADJ. TO RES.)	0'
	REAR (ADJ. TO RES.)	25'
	REAR (NOT ADJ. TO RES.)	0'
BUILDING COVERAGE:	MAXIMUM PROVIDED	80% ± 53.65%
LOT COVERAGE:	MAXIMUM PROVIDED	100% ± 90.00%
DENSITY:	MAXIMUM	20 (GENERAL) / 24 (AFFORDABLE DWELLING UNIT)
	PROVIDED	103.76 UNITS/GROSS ACRE (276 UNITS TOTAL)
FLOOR AREA RATIO:	REQUIRED PROVIDED	N/A 0.536
FLOODPLAIN AREA:		0.00 SF

SEC. 3.7: REQUIREMENTS PER OLD TOWN TRANSITION OVERLAY DISTRICT

MIN. LOT AREA (AC)		NONE
MIN. LOT WIDTH (FT)		NONE
BLDG. HEIGHT (FT)	REQUIRED PROVIDED	48' 61'-1"
MIN. YARD REQUIREMENTS:	FRONT SIDE REAR	10' NONE NONE
LOT COVERAGE:	MAXIMUM PROVIDED	90% ± 90.00%
BUILDING COVERAGE:	MAXIMUM PROVIDED	80% ± 53.65%

SITE DATA

ZONING:	EXISTING.....	RESIDENTIAL MEDIUM (RM)
	PROPOSED.....	COMMERCIAL URBAN (CU)
USE:	EXISTING.....	RESIDENTIAL
	PROPOSED.....	MULTIFAMILY DWELLING
LOT AREA (SQUARE-FEET):		117,082 (2.69 ACRES)
ROW DEDICATION:		1,269 (0.03 ACRES)
NEW LOT AREA (SQUARE-FEET):		115,813 (2.66 ACRES)

SEC. 4.5: LANDSCAPING & SCREENING

MIN. TREE COVER :	EXISTING PROPOSED	* RESIDENTIAL MEDIUM (RM) COMMERCIAL URBAN (CU)
TOTAL CANOPY REQUIRED (INCLUDING PLANTING)		10%
TRANSITIONAL YARDS REQUIRED:	CO	7.5' TY 1
	UNIVERSITY DRIVE PD-C	STREET TREES PER Z.O. 3.7.3.E 15' TY 3
	CHAIN BRIDGE ROAD	STREET TREES PER Z.O. 3.7.3.E
PERIMETER	PARKING LOT LANDSCAPING	N/A

*SEE ZONING MODIFICATION REQUEST TO BE APPROVED BY CITY COUNCIL

SEC. 4.2: OFF-STREET PARKING AND LOADING (ENTIRE SITE)

4131 CHAIN BRIDGE ROAD PARKING TABULATIONS

PARKING

276 UNITS

UNIT TYPE	MIX%	# UNITS	PS RATIO	PS	CU REDUCTION (10%)	TOD REDUCTION (50% EXCEPT FOR 1.5 MINIMUM PER DU)	PS AFTER REDUCTION
RESIDENTIAL PARKING REQUIRED							
STUDIO	10	28	1.25	35	32	N/A	32
1 BR	58	160	1.5	240	216	N/A	216
2 BR	32	88	2	176	158	79	79
		276					327
COMMERCIAL PARKING REQUIRED							
RETAIL 1 PS/ 200 SF		6,608		33	30	15	15
OFFICE 1 PS/ 300 SF		4,188		14	13	6	7
							22

TOTAL PARKING REQUIRED
349
RESIDENTIAL PARKING PROVIDED
389
COMMERCIAL PARKING PROVIDED
25
ON-STREET PARKING PROVIDED
9
TOTAL PARKING PROVIDED
423*
TOTAL BICYCLE PARKING REQUIRED
20
TOTAL BICYCLE PARKING PROVIDED
46
TOTAL LOADING REQUIRED
2
TOTAL LOADING PROVIDED
2

* 20 EV PARKING SPACES ARE INCLUDED IN THE TOTAL PARKING PROVIDED. SEE ARCHITECTURAL SHEETS FOR LOCATIONS

GENERAL NOTES

1. THE PROPERTY DELINEATED HEREON IS LOCATED IN THE CITY OF FAIRFAX TAX MAP #57-4-02-040, WITHIN THE OLD TOWN FAIRFAX TRANSITION OVERLAY DISTRICT.
2. THE PROPERTY IS CURRENTLY ZONED RM (RESIDENTIAL MEDIUM). IT IS ALSO SUBJECT TO THE OLD TOWN TRANSITION DISTRICT REGULATION.
3. BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY URBAN, LTD.
4. THE SITE IS PRESENTLY SERVED BY FAIRFAX WATER.
5. THE PROPOSED IMPROVEMENTS RESULT IN AN INCREASE OF IMPERVIOUS AREA IN THE SUBJECT PROPERTY – PER THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM) REDEVELOPMENT REQUIREMENTS A COMBINATION OF PROPOSED BMP REQUIREMENTS SHALL PROVIDE A MINIMUM OF 20% REDUCTION IN TOTAL PHOSPHOROUS RUNOFF.
6. UNDERGROUND PRIVATE UTILITY LOCATIONS ARE APPROXIMATE AND THOSE SHOWN HAVE NOT BEEN SURVEYED. EASEMENTS CONTAINED WITHIN OWNERS TITLE REPORT HAVE BEEN PLOTTED ON THE SURVEY BASE.
7. UTILITY PLANS SHOWN IN THIS GDP ARE CONCEPTUAL IN NATURE. FINAL UTILITY PLANS AND PROFILES WILL BE SUBMITTED WITH THE FINAL SITE PLAN.
8. THERE ARE NO KNOWN HAZARDOUS OR TOXIC SUBSTANCES ON THIS SITE. IF ANY SUBSTANCES ARE FOUND, THE METHODS FOR DISPOSAL SHALL ADHERE TO CITY, COUNTY, STATE, AND FEDERAL LAW.
9. THERE ARE NO KNOWN BURIAL SITES OR ARCHEOLOGICAL FEATURES ON THIS SITE.
10. EXISTING STRUCTURES TO REMAIN ARE SHOWN SHADED ON THE REZONING & CONCEPTUAL DEVELOPMENT PLAN.
11. THERE IS NO CITY, COUNTY, OR FEMA FLOODPLAIN ON THE PROPERTY.
12. THE SUBJECT PROPERTY LIES IN ZONE "X" PER FIRM MAP COMMUNITY PANEL NUMBER 515524005D.
13. DIMENSIONS AND SIZES AS SCALED ARE APPROXIMATE AND MAY VARY DEPENDING ON THE FINAL USE AND ARCHITECTURAL/ENGINEERING DESIGN. THE FINAL DESIGN SHALL BE IN SUBSTANTIAL CONFORMANCE WITH THE GENERAL DEVELOPMENT PLAN.
14. THIS APPLICATION PROPOSES REZONING FROM RM RESIDENTIAL MEDIUM TO CU COMMERCIAL URBAN IN THE OLD TOWN FAIRFAX TRANSITION OVERLAY DISTRICT. THE SITE IS ALSO LOCATED IN THE ACTIVITY CENTER PLACE TYPE AND OLD TOWN SMALL AREA PLAN.

THIS APPLICATION REQUIRES THE FOLLOWING ZONING MODIFICATIONS FROM THE CITY COUNCIL:

110-225,258,259 SEE LANDSCAPE SHEET FOR MODIFICATION REQUESTS FOR LANDSCAPE AND SCREENING.

FIRE MARSHALL NARRATIVE

THE PROPOSED BUILDING SHALL BE 5 STORIES. CONSTRUCTION TYPE FOR THE RESIDENTIAL PORTION FROM 2ND TO 5TH FLOOR SHALL BE 3A AND THE RESIDENTIAL 1ST FLOOR SHALL BE 1A. CONSTRUCTION TYPE FOR THE GARAGE SHALL BE 1A. THE EXTERIOR FINISH OF THE BUILDING SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS. THE SPRINKLER SYSTEM FOR THE PROPOSED BUILDING SHALL BE NFPA-13.

LIST OF SPECIAL EXCEPTIONS – ZONING ORDINANCE

1. A MODIFICATION OF SECTION 3.5.1.D TO PERMIT LESS THAN 75% GROUND FLOOR NONRESIDENTIAL USE IN A MIXED USE BUILDING.
2. A MODIFICATION OF SECTION 3.6.2 TO PERMIT MORE THAN 24 DWELLING UNITS PER ACRE.
3. A MODIFICATION OF SECTION 3.7.3.C.2 TO PERMIT HEIGHT GREATER THAN FORTY-EIGHT (48) FEET.
4. A MODIFICATION OF SECTION 3.7.3.E TO ELIMINATE THE REQUIREMENT FOR A LANDSCAPE STRIP AND STREET TREES ALONG THE ACCESS DRIVE.
5. A WAIVER OF SECTION 4.3.3.B TO ELIMINATE THE REQUIREMENT TO PROVIDE VEHICULAR ACCESS TO ABUTTING NON-RESIDENTIAL PROPERTIES.
6. A MODIFICATION OF SECTION 4.4.4 TO ELIMINATE THE REQUIREMENT FOR A SIDEWALK ON THE NORTHERN SIDE OF THE PROPOSED ACCESS DRIVE WHILE PROVIDING IT ON THE SOUTHERN SIDE.
7. A MODIFICATION TO TRANSITIONAL YARD REQUIRED (Z.O. SECTION 4.5.5) FOR BUFFER A-B AND C-D IS HEREBY REQUESTED TO BE REVISED AS INDICATED IN THE "TRANSITIONAL YARD CALCULATIONS" TABLE ON SHEET 33.

LIST OF SPECIAL EXCEPTIONS – PUBLIC FACILITY MANUAL

1. A MODIFICATION TO PFM DETAIL 401.01 TO DECREASE THE WIDTH OF THE ACCESS DRIVE TO 26' (FACE OF CURB-TO-FACE OF CURB), WHICH IS THE MINIMUM REQUIREMENT FOR FIRE ACCESS.
2. A MODIFICATION TO PFM DETAIL 404.06 TO DECREASE THE MINIMUM CORNER CLEARANCE FROM THE DRIVEWAY ON THE PARCEL TO THE NORTH FROM 50' TO 23' DUE TO SITE CONSTRAINTS AND BUILDING LOCATION.
3. A MODIFICATION TO PFM DETAIL 404.06 TO DECREASE THE MINIMUM SEPARATION BETWEEN THE ACCESS DRIVE AND THE NORTHERN PROPERTY LINE FROM 12 FEET TO 1 FOOT DUE TO SITE CONSTRAINTS AND BUILDING LOCATION.

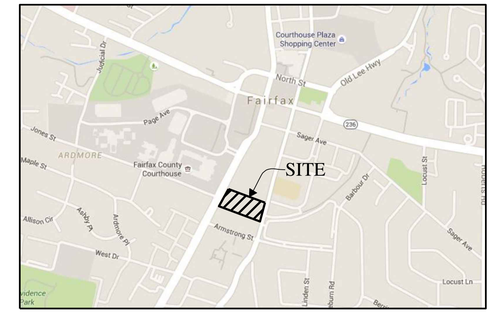
UNIT MIX CALCULATIONS

TOTAL UNIT MIX		
UNIT TYPE	MIX %	# UNITS
STUDIO	10	28
1 BR	58	160
2 BR	32	88
TOTAL	100	276

TOTAL ADU MIX*		
UNIT TYPE	MIX %	# UNITS
STUDIO	6	2
1 BR	6	10
2 BR	6	5
TOTAL	6	17

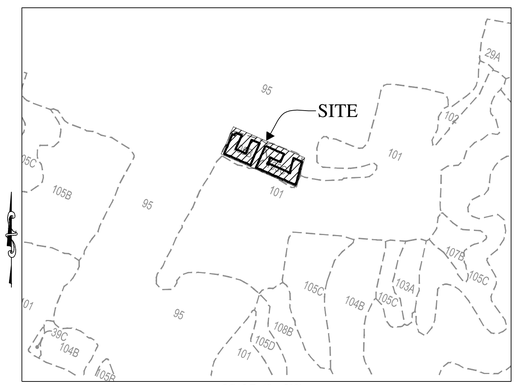
*6% OF TOTAL UNITS ARE REQUIRED TO BE ADU'S. THE 6% IS TAKEN FROM EACH UNIT TYPE TO REACH THE 17 UNITS REQUIRED

VICINITY MAP



SCALE: 1" = 1000'

SOILS MAP



SCALE: 1" = 500'

SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL
105B	WHEATON GLENELG COMPLEX 2-7 % SLOPES	GOOD	GOOD	HIGH
105C	WHEATON GLENELG COMPLEX 7-15 % SLOPES	GOOD	GOOD	HIGH
101	URBAN LAND – GLENELD COMPLEX 2-7%	GOOD	FAIR	HIGH
95	URBAN LAND	N/A	N/A	N/A

LEGEND:

- EXISTING STORM DRAIN STRUCTURE
- PROPOSED STORM DRAIN STRUCTURE
- EXISTING CONTOUR (1')
- PROPOSED CONTOUR (1')
- EXISTING CONTOUR (5')
- PROPOSED CONTOUR (5')
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING TREE LINE
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- EXISTING PROPERTY LINE PIPES
- PROPOSED PROPERTY LINE PIPES
- PROPOSED CURB & GUTTER
- EXISTING CURB & GUTTER
- EXISTING TRAFFIC POLE
- EXISTING SPOT ELEVATION
- PROP. SPOT ELEVATION
- EXISTING FENCE
- EXISTING LIGHTING
- EXISTING TREE
- PROPOSED TREE
- PROJECTED TRAFFIC COUNT (BASED ON 6TH ED. OF ITE TRIP GENERATION BOOK)
- EXISTING OVERHEAD WIRE
- PROP. FENCE

No.	DATE	DESCRIPTION

REVISIONS

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CLAYTON T. COCK
LICENSE No. 036790
05/22/2025
PROFESSIONAL ENGINEER

GENERAL NOTES & DETAILS

4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

CITY OF FAIRFAX, VIRGINIA

SCALE: AS NOTED C.I.= N/A DATE: DEC., 2024

SHEET 02 OF 39

FILE No. RZ-12787

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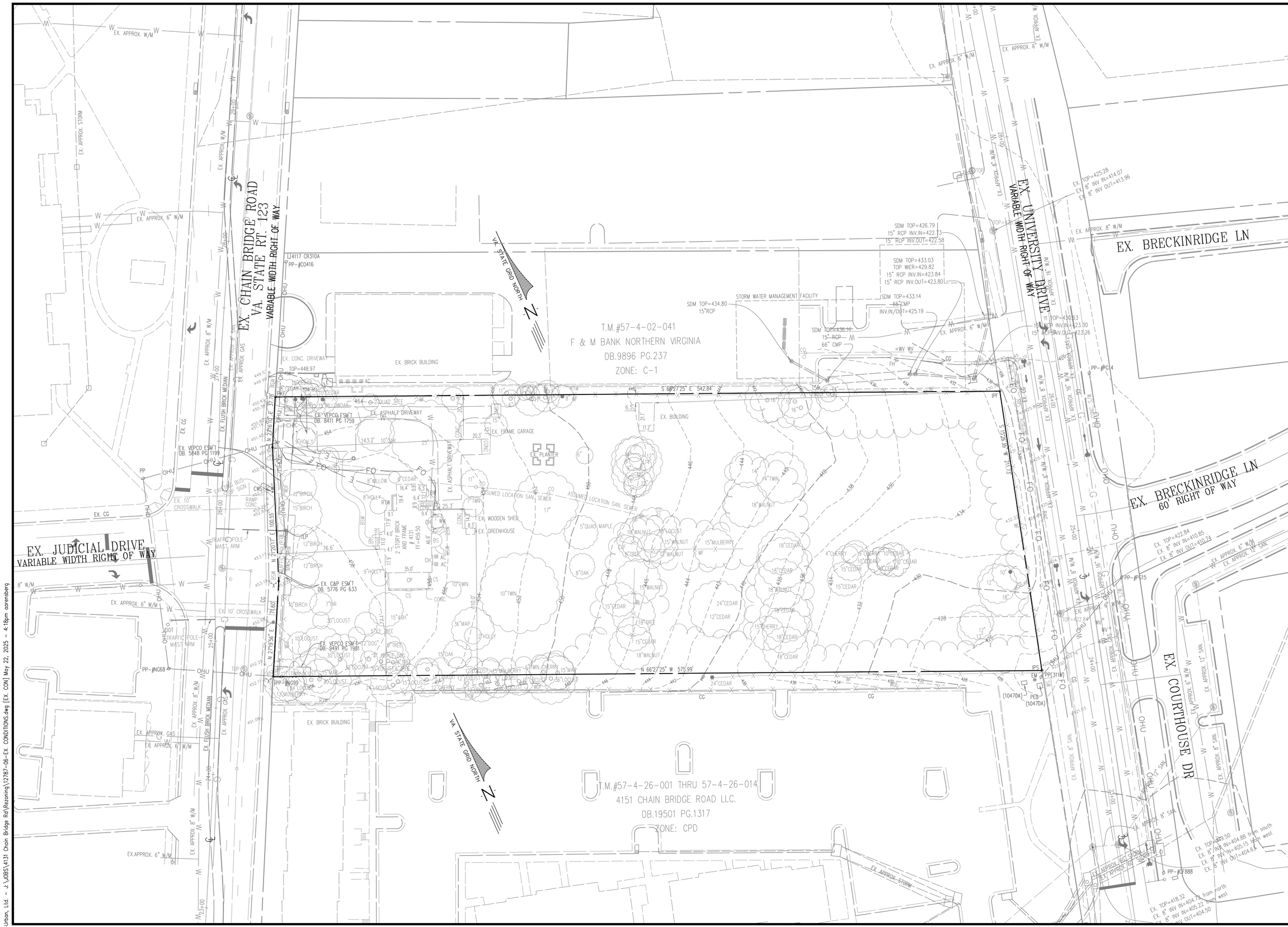

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EXISTING CONDITIONS PLAN
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=30' C.I.= 2' DATE: DEC., 2024

SHEET 03 OF 39

FILE No. RZ-12787

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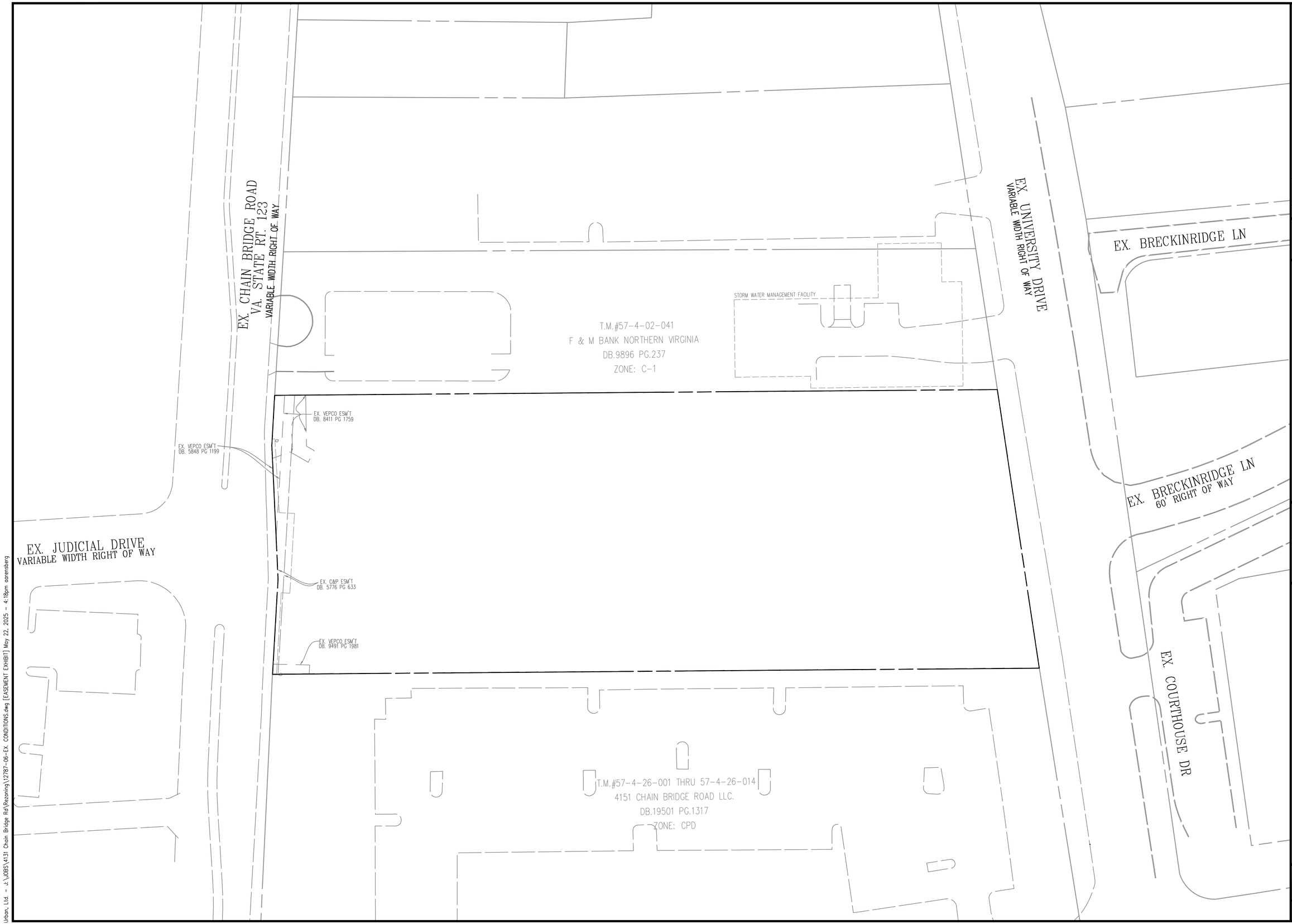

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-	-	-
-	-	-
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EASEMENT EXHIBIT

4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

CITY OF FAIRFAX, VIRGINIA

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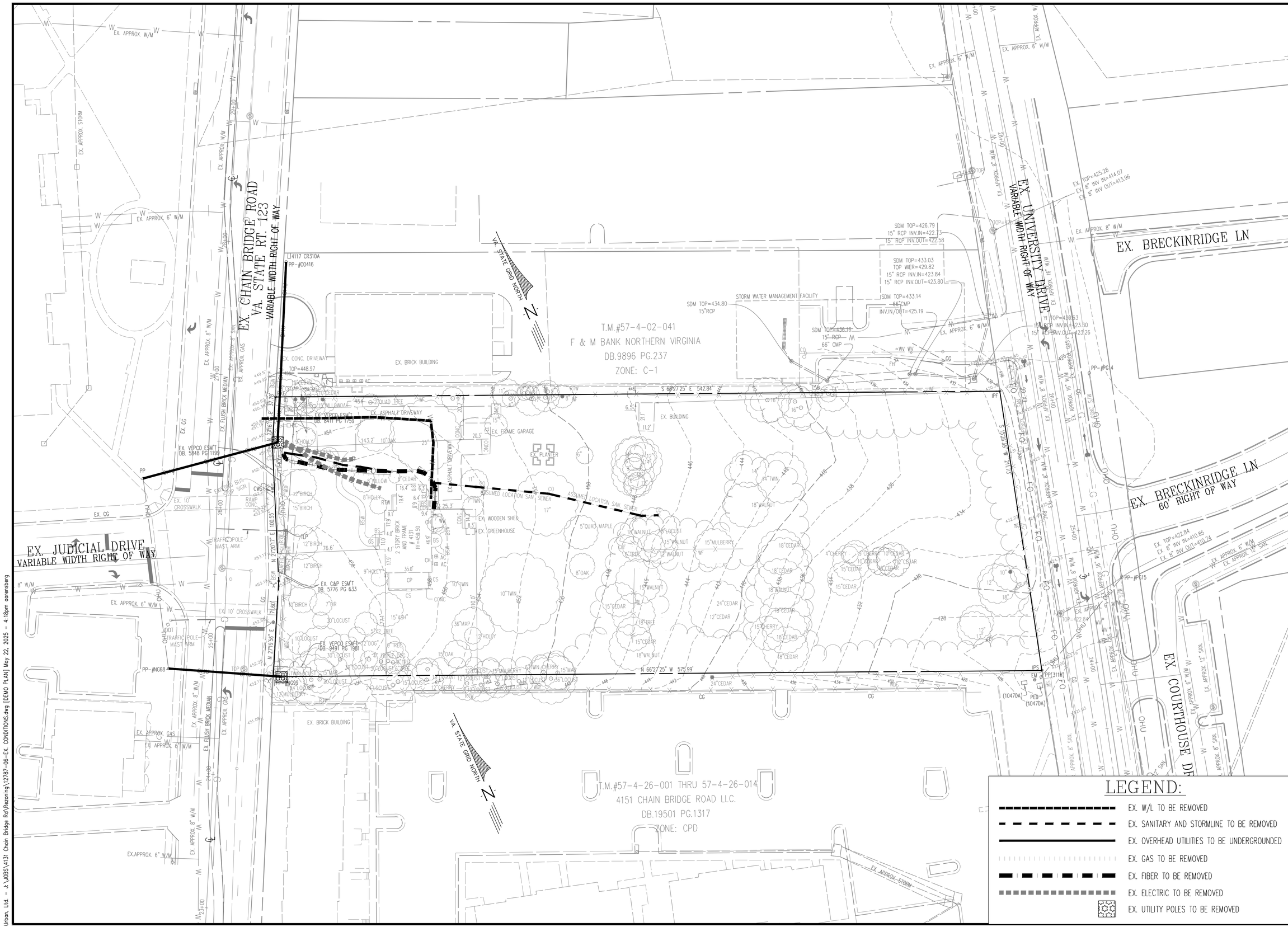

LEGEND:

- EX. W/L TO BE REMOVED
- EX. SANITARY AND STORMLINE TO BE REMOVED
- EX. OVERHEAD UTILITIES TO BE UNDERGROUNDED
- EX. GAS TO BE REMOVED
- EX. FIBER TO BE REMOVED
- EX. ELECTRIC TO BE REMOVED
- EX. UTILITY POLES TO BE REMOVED

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DEMOLITION PLAN
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=30' C.I.=2' DATE: DEC., 2024

SHEET 05 OF 39

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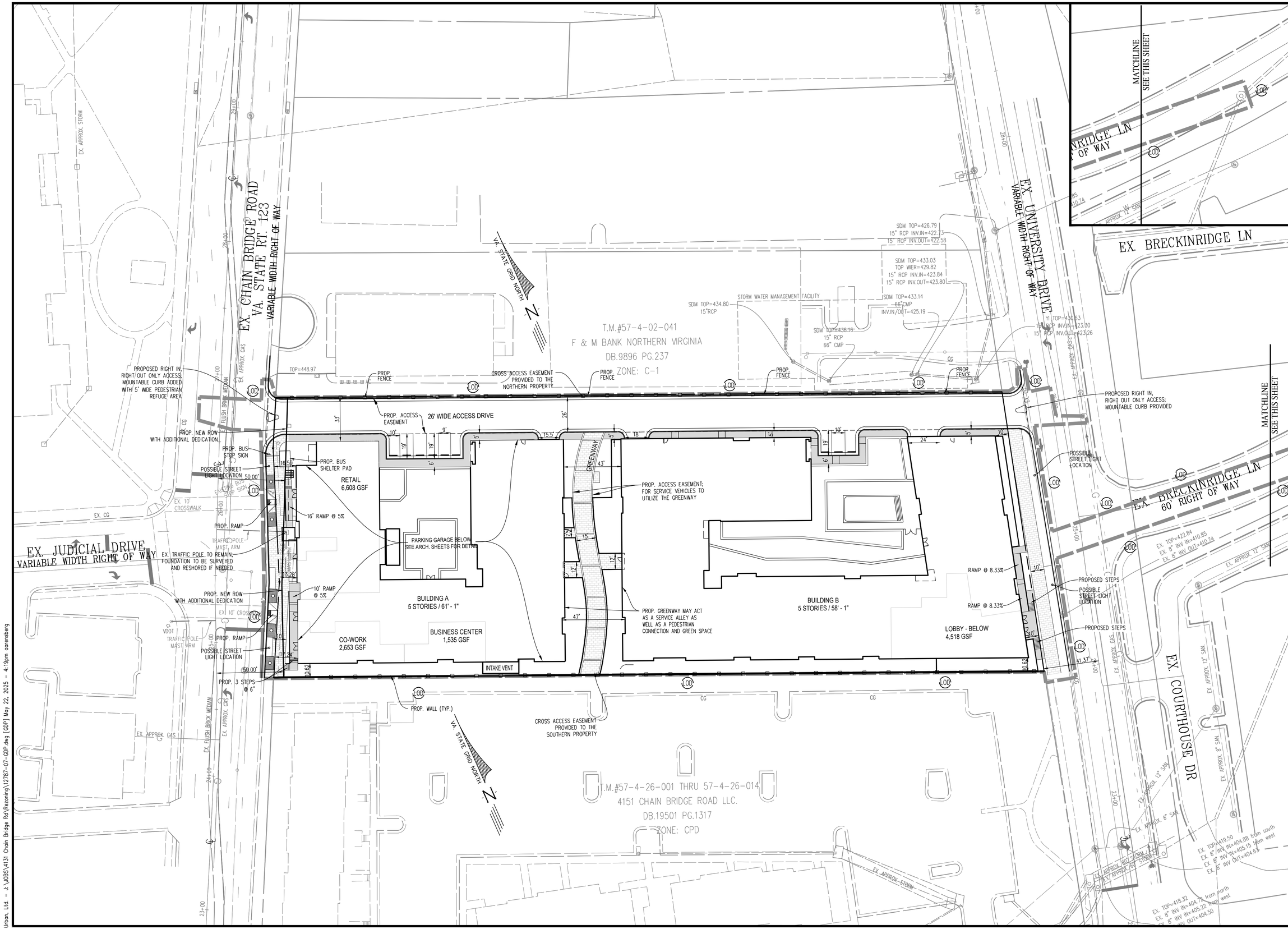

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LARRY D. TOOK
LIC. No. 036790
05/22/2025
PROFESSIONAL ENGINEER

GENERAL DEVELOPMENT PLAN
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=30' | C.I.=2' | DATE: DEC., 2024

SHEET 06 OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-07-GDP.dwg [GDP] May 22, 2025 - 4:19pm oprensberg

EX. CHAIN BRIDGE ROAD
VA. STATE RT. 123
VARIABLE WIDTH RIGHT OF WAY

EX. UNIVERSITY DRIVE
VARIABLE WIDTH RIGHT OF WAY

EX. BRECKINRIDGE LN
60' RIGHT OF WAY

EX. JUDICIAL DRIVE
VARIABLE WIDTH RIGHT OF WAY

EX. COURTHOUSE DR

T.M.#57-4-02-041
F & M BANK NORTHERN VIRGINIA
DB.9896 PG.237
ZONE: C-1

T.M.#57-4-26-001 THRU 57-4-26-014
4151 CHAIN BRIDGE ROAD LLC.
DB.19501 PG.1317
ZONE: CPD

VA. STATE GRID NORTH

PROPOSED RIGHT IN, RIGHT/OUT ONLY ACCESS, MOUNTABLE CURB ADDED WITH 5' WIDE PEDESTRIAN REFUGE AREA

PROP. NEW ROW WITH ADDITIONAL DEDICATION

PROP. BUS STOP SIGN

PROP. BUS SHELTER PAD

PROP. RAMP

POTENTIAL LOCATION OF RELOCATED TRAFFIC SIGNAL POLE; FINAL LOCATION TO BE DETERMINED AT TIME OF FINAL SITE PLAN

POSSIBLE STREET LIGHT LOCATION

PROP. 3 STEPS @ 6"

PROP. ACCESS EASEMENT

26' WIDE ACCESS DRIVE

CROSS ACCESS EASEMENT PROVIDED TO THE NORTHERN PROPERTY

CROSS ACCESS EASEMENT PROVIDED TO THE SOUTHERN PROPERTY

PROP. ACCESS EASEMENT; FOR SERVICE VEHICLES TO UTILIZE THE GREENWAY

GREENWAY

RETAIL
6,608 GSF

16' RAMP @ 5%

10' RAMP @ 5%

PARKING GARAGE BELOW SEE ARCH. SHEETS FOR DETAIL

BUILDING A
5 STORIES / 61' - 1"

CO-WORK
2,653 GSF

BUSINESS CENTER
1,535 GSF

INTAKE VENT

BUILDING B
5 STORIES / 58' - 1"

LOBBY - BELOW
4,518 GSF

PROP. WALL (TYP.)

S 66°27'25" E 542.84'

N 66°27'25" W 575.99'

STORM WATER MANAGEMENT FACILITY

SDM TOP=426.79
15" RCP INV.IN=422.73
15" RCP INV.OUT=422.58

SDM TOP=433.03
TOP WIER=429.82
15" RCP INV.IN=423.84
15" RCP INV.OUT=423.80

SDM TOP=433.14
66"CMP
INV.IN/OUT=425.19

SDM TOP=434.80
15"RCP

SDM TOP=436.16
15" RCP
66" CMP

PROPOSED RIGHT IN, RIGHT OUT ONLY ACCESS; MOUNTABLE CURB PROVIDED

POSSIBLE STREET LIGHT LOCATION

MATCHLINE SEE THIS SHEET

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
06-11-2024
09-03-2024
12-02-2024
04-15-2025
05-22-2025
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COMMONWEALTH OF VIRGINIA
CLAYTON J. PARK
LIC. No. 036790
05/22/2025
REGISTERED PROFESSIONAL ENGINEER

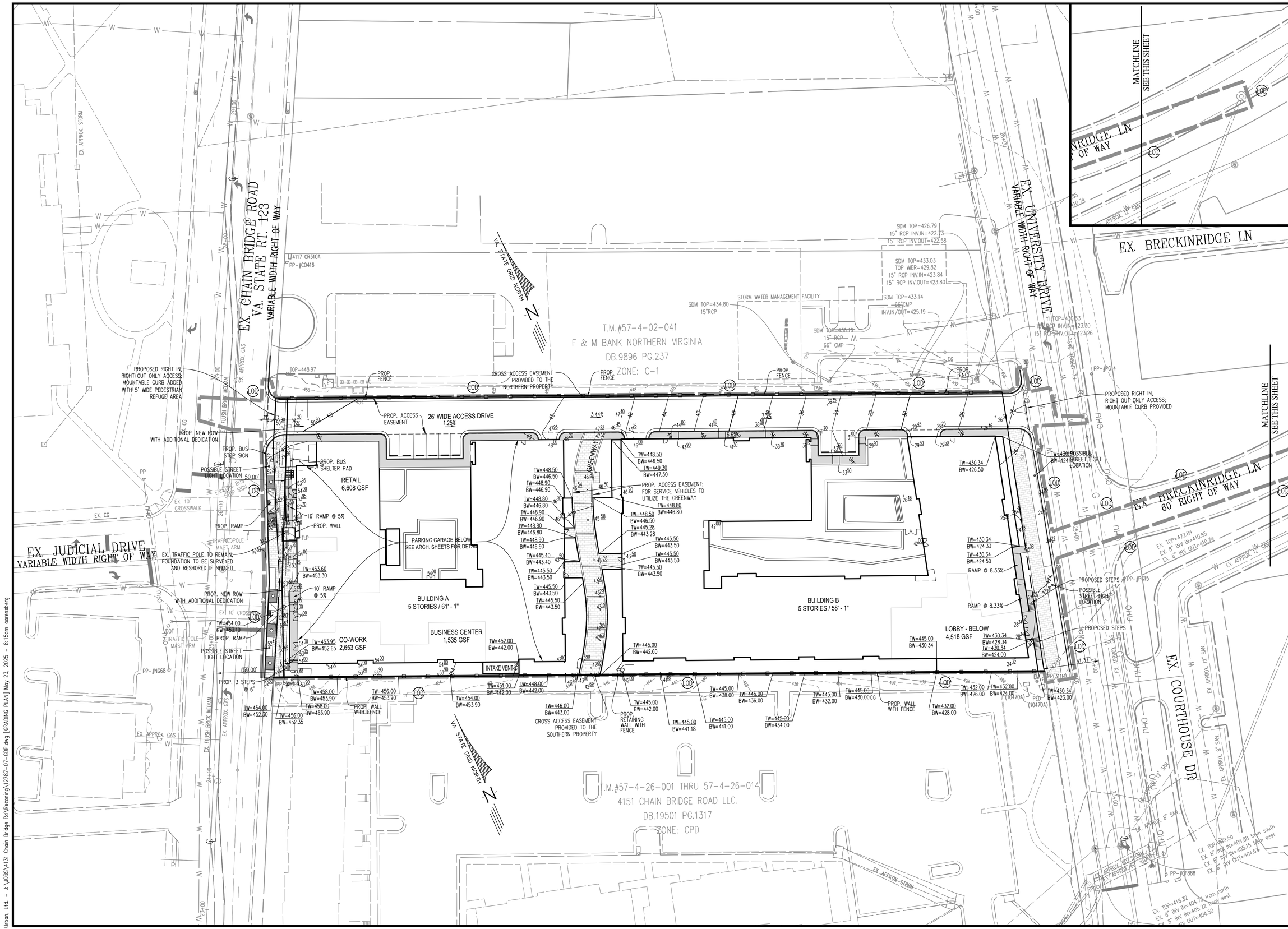
GDP - ALTERNATE TRAFFIC POLE LOCATION
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=30' C.I.= 2' DATE: DEC., 2024

SHEET 06A OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-07-GDP_alt traffic pole.dwg [GDP_alt traffic pole] May 22, 2025 - 4:19pm agrensberg



No.	DATE	DESCRIPTION

REVISIONS

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COMMONWEALTH OF VIRGINIA
Douglas J. Fisch
LICENSE NO. 036790
05/22/2025
PROFESSIONAL ENGINEER

GRADING PLAN
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=30'
C.I.= 2'
DATE: DEC., 2024

SHEET
07
OF
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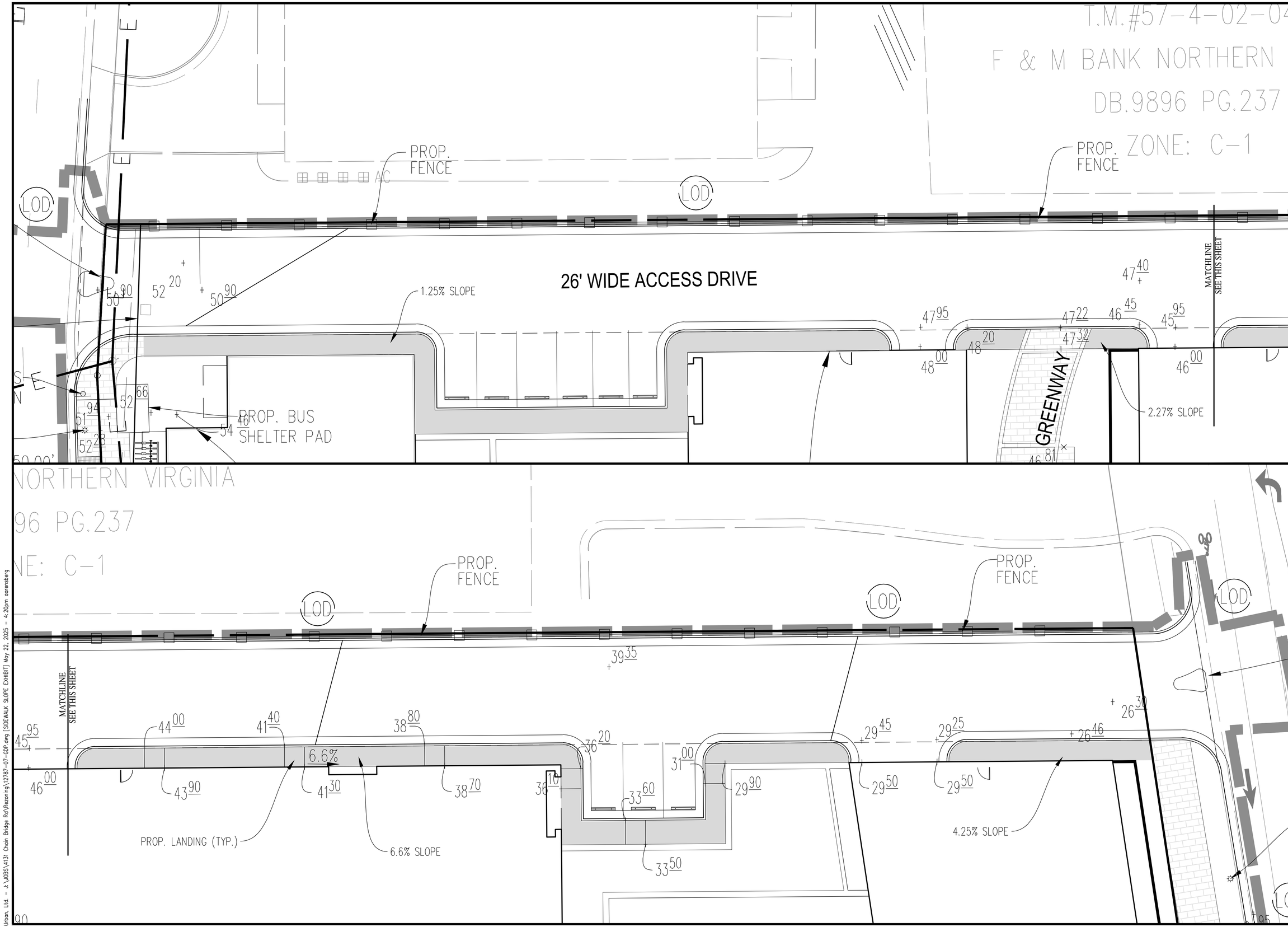
FILE No.
RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-07-GDP.dwg [GRADING PLAN] May 23, 2025 - 8:15am qarensberg



No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
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COMMONWEALTH OF VIRGINIA
Lauren E. Tack
LAUREN E. TACK
Lic. No. 086790
05/22/2025
PROFESSIONAL ENGINEER

SIDEWALK SLOPE EXHIBIT

4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

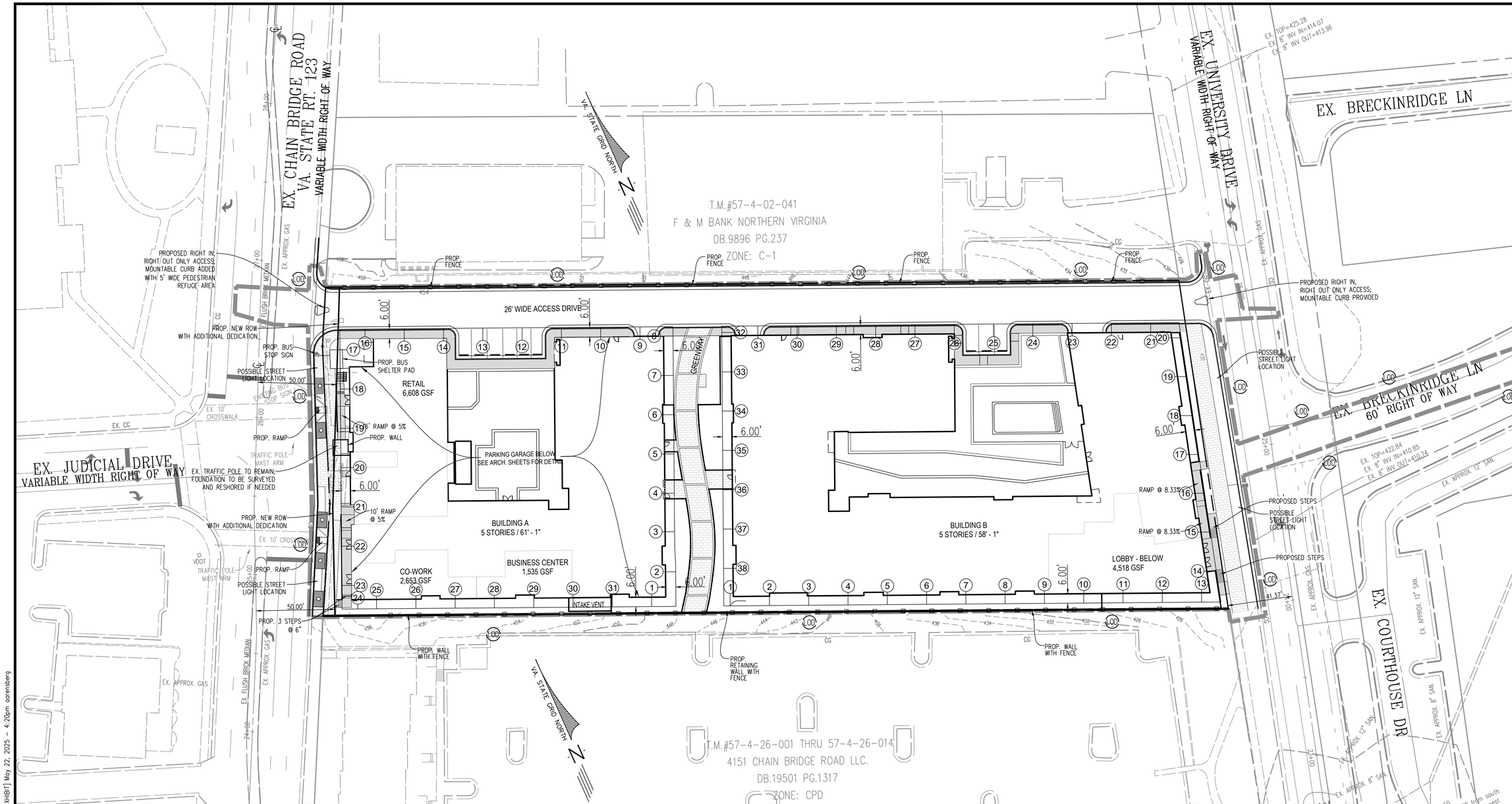
CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=30'
C.I.= 2'
DATE: DEC., 2024

SHEET 08 OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-07-GDP.dwg [SIDEWALK SLOPE EXHIBIT] May 22, 2025 - 4:20pm agrensberg



AVERAGE GRADE - BUILDING 1

Spot #	Proposed		
1	448.00	16	450.15
2	445.50	17	452.15
3	445.50	18	452.40
4	443.40	19	453.15
5	449.00	20	453.04
6	448.80	21	453.35
7	446.86	22	453.90
8	447.60	23	453.85
9	448.00	24	454.00
10	448.31	25	454.00
11	448.62	26	454.00
12	448.93	27	454.00
13	449.25	28	454.00
14	449.56	29	453.95
15	449.87	30	452.82
		31	451.00
		AVERAGE	450.55

AVERAGE GRADE - BUILDING 2

Spot #	Proposed		
1	445.00	20	430.34
2	445.00	21	427.60
3	445.00	22	428.84
4	445.00	23	429.67
5	445.00	24	431.79
6	445.00	25	433.38
7	445.00	26	435.56
8	445.00	27	437.80
9	445.00	28	440.10
10	445.00	29	442.16
11	432.00	30	444.00
12	432.00	31	445.31
13	430.34	32	446.43
14	430.34	33	449.30
15	424.37	34	448.80
16	425.80	35	445.28
17	430.34	36	445.50
18	430.34	37	445.00
19	430.34	38	445.00
		AVERAGE	438.62

REVISIONS

No.	DATE	DESCRIPTION
-	05-04-2016	
-	10-18-2016	
-	04-22-2024	
-	06-21-2024	
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-	12-02-2024	
-	04-15-2025	
-	05-22-2025	

PLAN DATE

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COMMONWEALTH OF VIRGINIA
LICENSED PROFESSIONAL ENGINEER
LIC. No. 036790
05/22/2025

AVERAGE GRADE EXHIBIT

4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

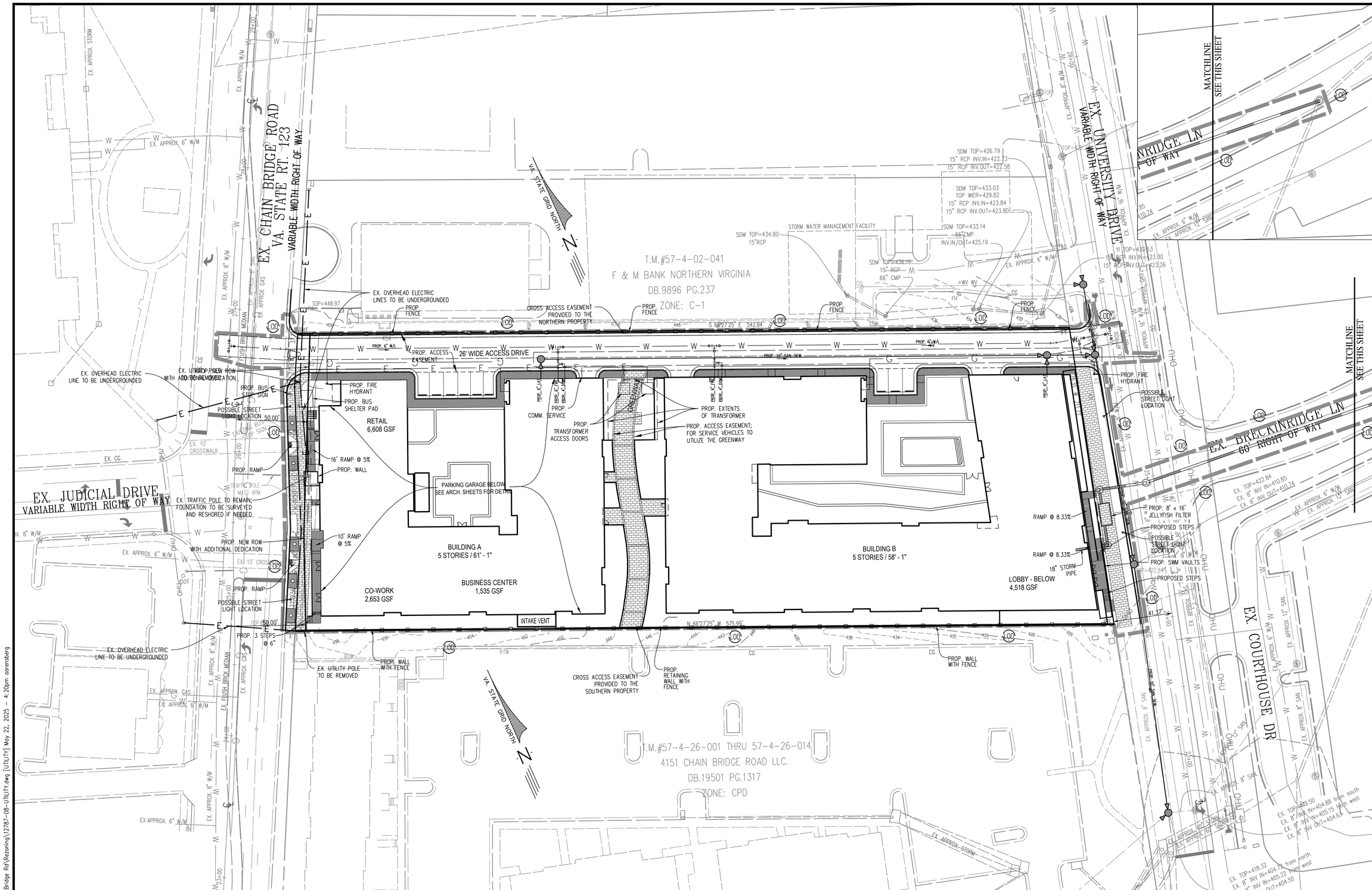
CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=30' C.I.=2' DATE: DEC., 2024

SHEET 09 OF 39

FILE No. RZ-12787

Urban, Ltd. – J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-07-GDP.dwg [AVERAGE GRADE EXHIBIT] May 22, 2025 – 4:20pm aarensberg



DRY UTILITY NOTES:

1. DRY UTILITY ALIGNMENT SHOWN IS CONCEPTUAL IN NATURE AND IS SUBJECT TO CHANGE WITH FINAL ENGINEERING. FINAL DESIGN WILL BE DETERMINED AT TIME OF FINAL SITE PLAN.
2. UNDERGROUNDING OF EXISTING OVERHEAD CABLES SHOWN ON PLAN IS CONCEPTUAL IN NATURE AND FINAL DESIGN SHALL BE DETERMINED AT TIME OF FINAL SITE PLAN.

FIRE NOTES:

3. HYDRANT LOCATION IS CONCEPTUAL. FINAL LOCATION TO BE DETERMINED AT TIME OF FINAL SITE PLAN.
4. TWO FDC'S SHALL BE PROVIDED, ONE ON THE EAST SIDE AND ONE ON THE WEST. FINAL LOCATION TO BE DETERMINED AT TIME OF FINAL SITE PLAN.

STORM SEWER NOTES:

1. PROPOSED STORM SEWER TO CONNECT TO EXISTING STORM SEWER MANHOLE LOCATED ON EX. BRECKINRIDGE LN.

SANITARY SEWER NOTES:

1. SANITARY LATERAL TO CONNECT INTO EXISTING SANITARY SEWER MAIN THAT RUNS ALONG UNIVERSITY DRIVE. FINAL LOCATION AND ALIGNMENT WILL BE PROVIDED AT THE TIME OF SITE PLAN.
2. SANITARY FLOWS AND DEMAND WILL BE PROVIDED AT THE TIME OF SITE PLAN. A CAPACITY ANALYSIS SHALL BE PERFORMED AT THE TIME OF FINAL SITE PLAN TO VERIFY THE ADEQUACY OF THE EXISTING DOWNSTREAM SANITARY SYSTEM.

WATER MAIN NOTES:

1. WATER MAIN TO CONNECT INTO EXISTING WATER LINE THAT RUNS ALONG UNIVERSITY DRIVE. FINAL LOCATION AND ALIGNMENT WILL BE PROVIDED AT THE TIME OF SITE PLAN.
2. A HYDRAULIC ANALYSIS WILL BE DONE AT THE TIME OF SITE PLAN WHICH WILL VERIFY THE ADEQUACY OF THE EXISTING WATER MAIN AND PROPOSED WATER METER SIZE.

No.	DATE	DESCRIPTION

REVISIONS

PLAN	DATE
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	10-18-2016
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	12-02-2024
	04-15-2025
	05-22-2025
	-
	-

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COMMONWEALTH OF VIRGINIA
Chandra Tyler
LIC. No. 036790
05/22/2025
PROFESSIONAL ENGINEER

CONCEPTUAL UTILITY PLAN

4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=30'

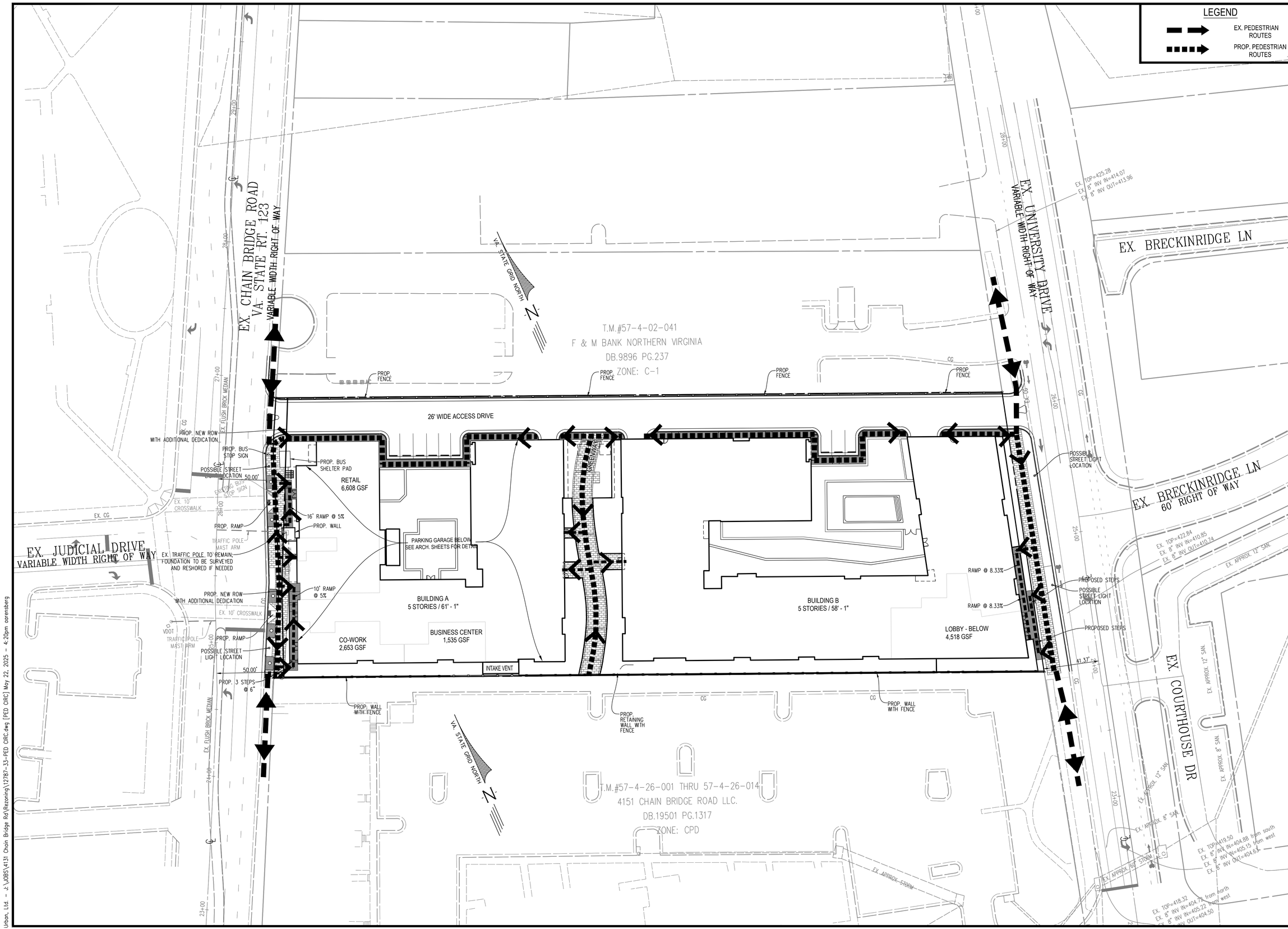
C.I.= N/A

DATE: DEC., 2024

SHEET 10 OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-08-UTILITY.dwg [UTILITY] May 22, 2025 - 4:20pm aarensberg



No.	DATE	DESCRIPTION
		REVISIONS

PLAN	DATE
	05-04-2016
	10-18-2016
	04-22-2024
	06-12-2024
	09-03-2024
	12-02-2024
	04-15-2025
	05-22-2025
	-
	-

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COMMONWEALTH OF VIRGINIA
Elizabeth Tuck
CLASS C. PROPERTY MANAGER
No. 0307001
05/22/2025
PROFESSIONAL ENGINEER

PEDESTRIAN CIRCULATION PLAN
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

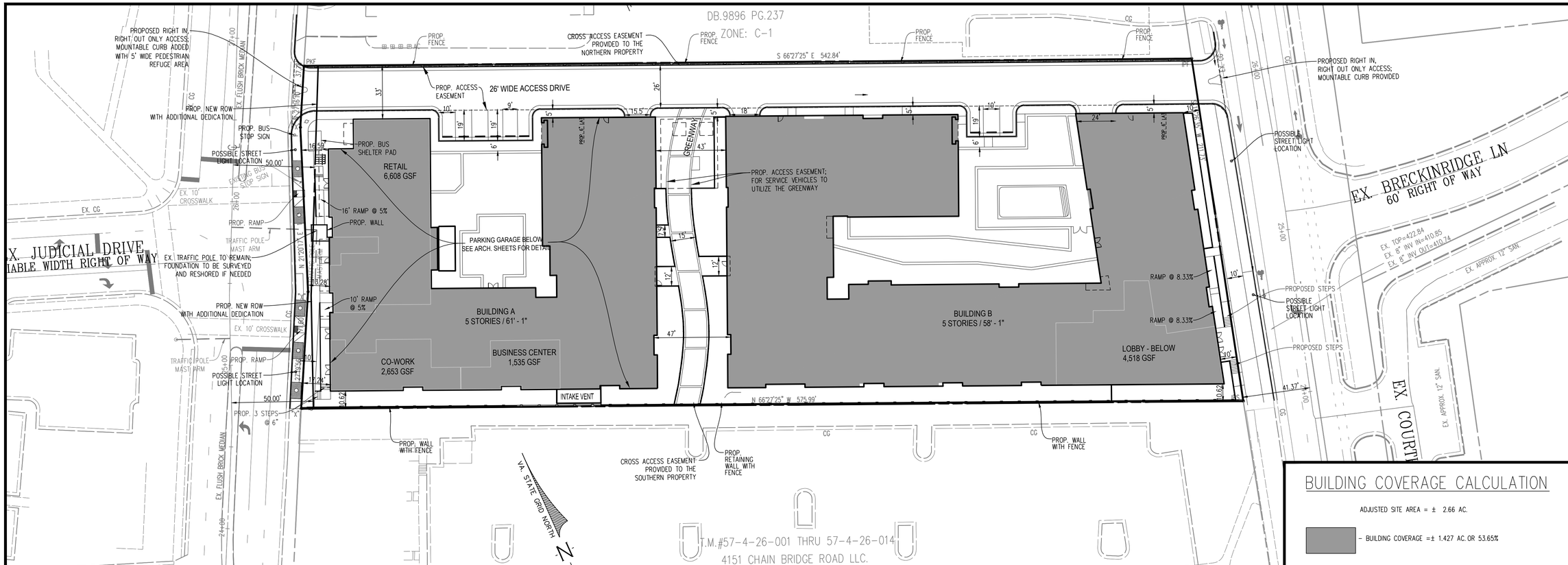
CITY OF FAIRFAX, VIRGINIA

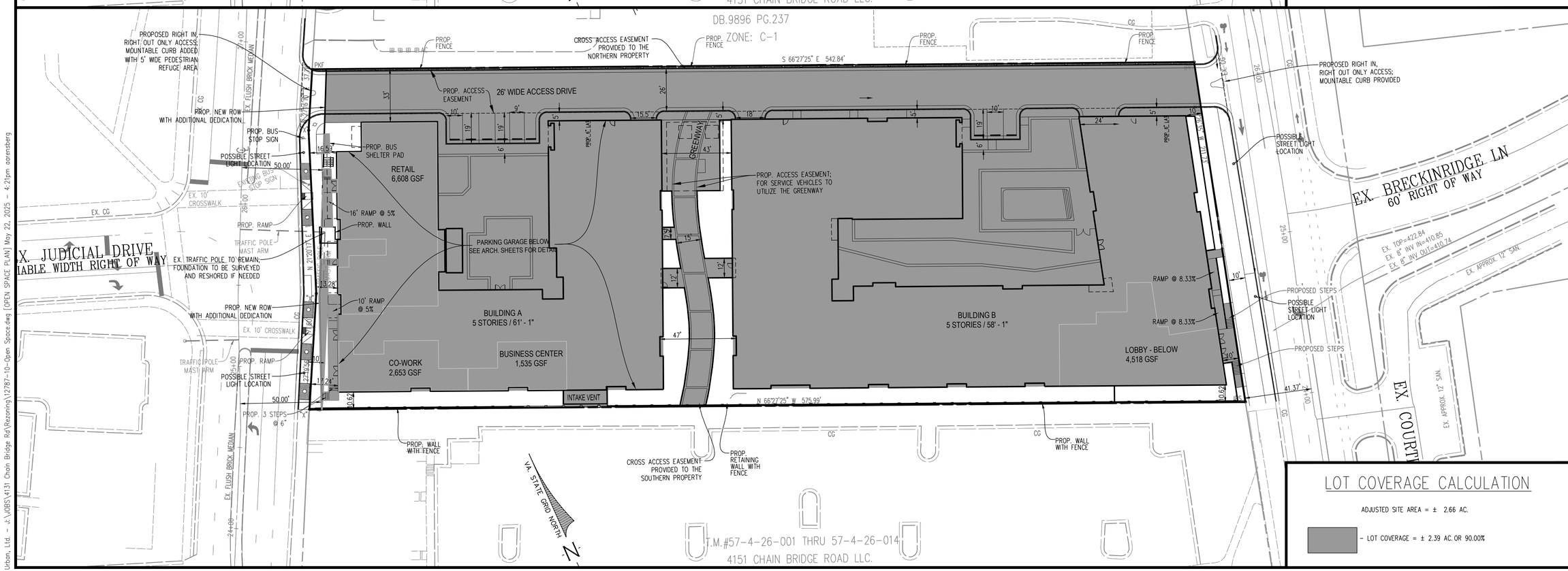
SCALE: 1"=30' | C.I.=N/A | DATE: DEC., 2024

SHEET 11 OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-33-PED CIRC.dwg [PED CIRC] May 22, 2025 - 4:20pm aarensberg





No.	DATE	DESCRIPTION
-	05-04-2016	
-	10-18-2016	
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-	06-17-2024	
-	09-03-2024	
-	12-02-2024	
-	04-15-2025	
-	05-22-2025	

REVISIONS

PLAN DATE

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COMMONWEALTH OF VIRGINIA
LARRY N. FOSTER
LIC. NO. 036790
05/22/2025
PROFESSIONAL ENGINEER

BUILDING AND LOT COVERAGE

4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=30'

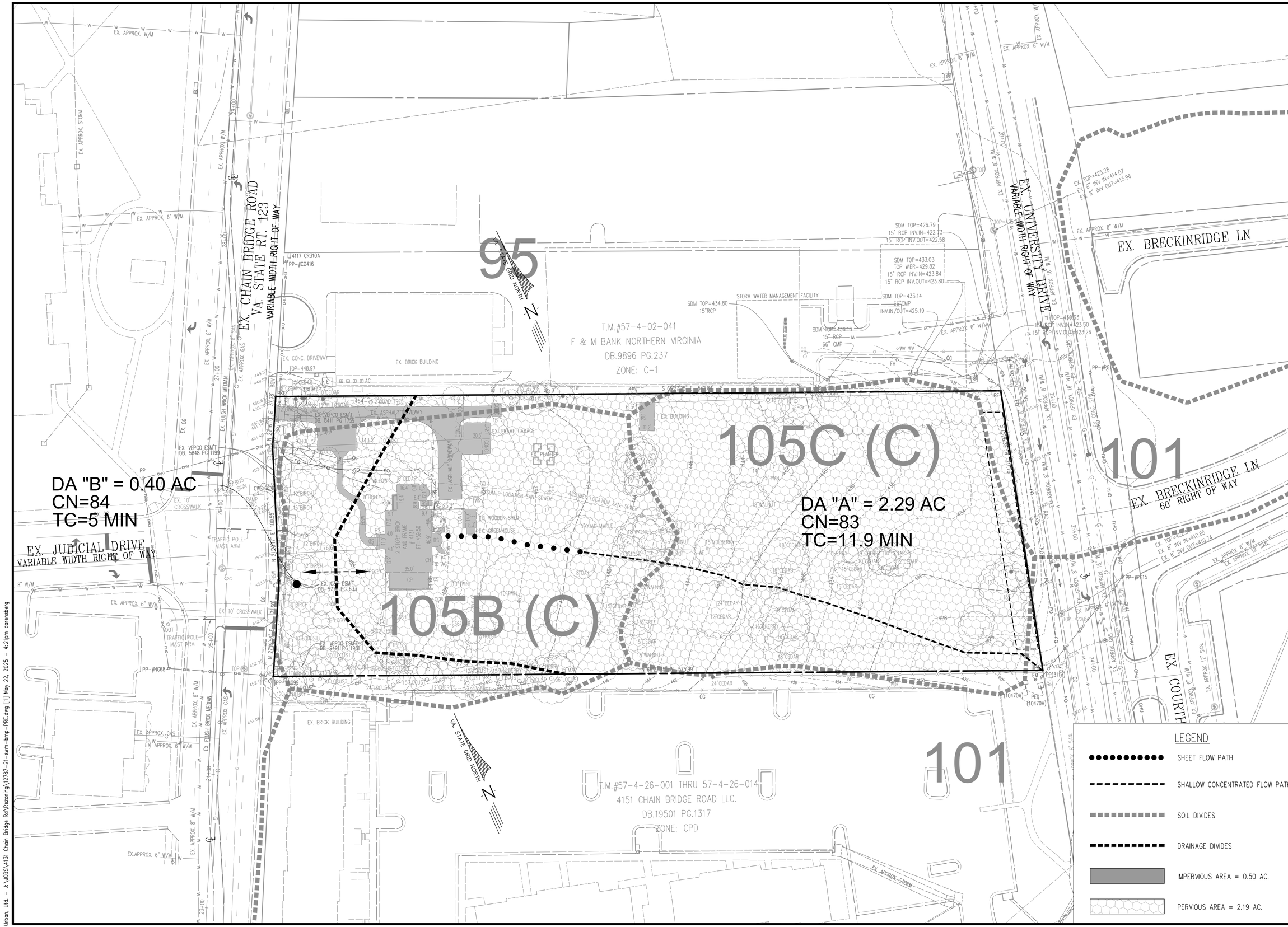
C.I.= N/A

DATE: DEC., 2024

SHEET 12 OF 39

FILE No. RZ-12787

Urban, Ltd. – J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-10-Open Space.dwg [OPEN SPACE PLAN] May 22, 2025 – 4:21pm oerensberg


EX. CHAIN BRIDGE ROAD
VA. STATE RT. 123
VARIABLE WIDTH RIGHT OF WAY
EX. UNIVERSITY DRIVE
VARIABLE WIDTH RIGHT OF WAY
EX. BRECKINRIDGE LN
EX. BRECKINRIDGE LN
60' RIGHT OF WAY
EX. JUDICIAL DRIVE
VARIABLE WIDTH RIGHT OF WAY
EX. COURTH
95
101
105C (C)
105B (C)
101
DA "B" = 0.40 AC
CN=84
TC=5 MIN
DA "A" = 2.29 AC
CN=83
TC=11.9 MIN
T.M.#57-4-02-041
F & M BANK NORTHERN VIRGINIA
DB.9896 PG.237
ZONE: C-1
T.M.#57-4-26-001 THRU 57-4-26-014
4151 CHAIN BRIDGE ROAD LLC.
DB.19501 PG.1317
ZONE: CPD
STORM WATER MANAGEMENT FACILITY
EX. BRICK BUILDING
EX. BUILDING
EX. FRAME GARAGE
EX. PLANTER
EX. WOODEN SHED
EX. GREENHOUSE
EX. CONC. DRIVEWAY
EX. ASPHALT DRIVEWAY
EX. VEPCO ESM'T
DB. 8411 PG 1759
EX. VEPCO ESM'T
DB. 5848 PG 1199
EX. VEPCO ESM'T
DB. 9491 PG 1981
VA. STATE GRID NORTH
N
EX. APPROX. 6" W/M
EX. APPROX. 8" W/M
EX. APPROX. GAS
EX. APPROX. STORM
EX. FLUSH BRICK MEDIAN
EX. 10' CROSSWALK
TRAFFIC POLE MAST ARM
SDM TOP=426.79
15" RCP INV.IN=422.73
15" RCP INV.OUT=422.58
SDM TOP=433.03
TOP WER=429.82
15" RCP INV.IN=423.84
15" RCP INV.OUT=423.80
SDM TOP=433.14
66"CMP
INV.IN/OUT=425.19
SDM TOP=434.80
15"RCP
SDM TOP=436.18
15" RCP
66" CMP
EX. TOP=425.28
EX. 6" INV IN=414.07
EX. 6" INV OUT=413.96
EX. TOP=412.74
EX. 8" INV IN=410.85
EX. 8" INV OUT=410.74
EX. APPROX. 12" SAN.
EX. APPROX. 9" SAN.
EX. APPROX. 16" W/M
EX. APPROX. 8" SAN.
EX. APPROX. 12" SAN.
EX. APPROX. 6" W/M
EX. APPROX. 8" W/M
EX. APPROX. GAS
EX. APPROX. 6" W/M
EX. APPROX. 8" W/M
EX. APPROX. 6" W/M
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EX. APPROX. 8" W/M
EX. APPROX. GAS
EX. APPROX. 6" W/M
EX. APPROX. 8" W/M
EX. APPROX. GAS
EX. APPROX. 8" W/M
EX. APPROX. 6" W/M

DRAINAGE AREA A

Curve Number Calculations

	Area (ac)	CN	Description
	1.824	79	50-75% Grass cover, Fair, HSG C
*	0.370	98	Paved HSG C
	0.043	84	50-75% Grass cover, Fair, HSG D
*	0.053	98	Paved HSG D
	2.290	83	Weighted Average
	1.867		81.53% Pervious Area
	0.423		18.47% Impervious Area

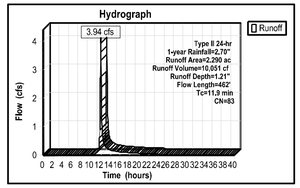
Time of Concentration Calculations

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0667	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.05"
2.9	362	0.0888	2.09		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
11.9	462	Total			

1 Year Flow Calculations

Runoff = 3.94 cfs @ 12.04 hrs , Volume= 10,051 cf , Depth= 1.21"

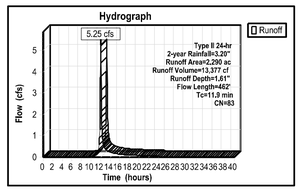
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.70"



2 Year Flow Calculations

Runoff = 5.25 cfs @ 12.04 hrs , Volume= 13,377 cf , Depth= 1.61"

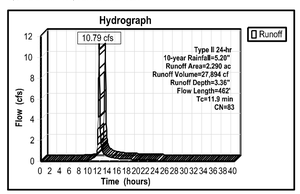
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-year Rainfall=3.20"



10 Year Flow Calculations

Runoff = 10.79 cfs @ 12.04 hrs , Volume= 27,894 cf , Depth= 3.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=5.20"



DRAINAGE AREA B

Curve Number Calculations

	Area (ac)	CN	Description
	0.256	79	50-75% Grass cover, Fair, HSG C
*	0.070	98	Paved HSG C
	0.041	84	50-75% Grass cover, Fair, HSG D
*	0.033	98	Paved HSG D
	0.400	84	Weighted Average
	0.297		74.25% Pervious Area
	0.103		25.75% Impervious Area

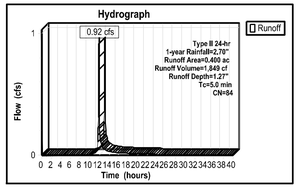
Time of Concentration Calculations

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

1 Year Flow Calculations

Runoff = 0.92 cfs @ 11.96 hrs , Volume= 1,849 cf , Depth= 1.27"

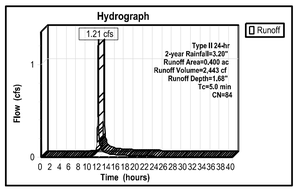
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.70"



2 Year Flow Calculations

Runoff = 1.21 cfs @ 11.96 hrs , Volume= 2,443 cf , Depth= 1.68"

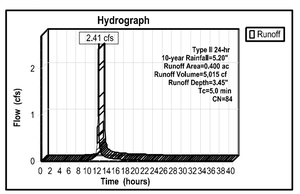
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-year Rainfall=3.20"



10 Year Flow Calculations

Runoff = 2.41 cfs @ 11.95 hrs , Volume= 5,015 cf , Depth= 3.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=5.20"



No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
05-15-2024
09-03-2024
12-02-2024
04-15-2025
05-22-2025
- -
- -

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Planners•Engineers•Landscape Architects•Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON T. PARK
LIC. No. 036790
PROFESSIONAL ENGINEER
05/22/2025

PRE-DEVELOPMENT COMPUTATIONS

4131 CHAIN BRIDGE ROAD
REZONING CDP-GDP

CITY OF FAIRFAX, VIRGINIA

SCALE: N/A C.I.= N/A DATE: DEC., 2024

SHEET 14 OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-21-swm-bmp-PRE.dwg [2] May 22, 2025 - 4:21pm cgrensberg

STORMWATER MANAGEMENT NARRATIVE:

THIS APPLICATION PROPOSES A MULTIFAMILY DWELLING WITH ASSOCIATED GARAGE PARKING THUS INCREASING THE IMPERVIOUS AREA IN THE SUBJECT SITE. THE TOPOGRAPHY OF THE SITE CONSISTS OF ONE DRAINAGE AREA, WHICH DRAINS TO THE EAST TOWARDS UNIVERSITY BOULEVARD.

SEE SHEET 14 FOR PRE-DEVELOPMENT COMPUTATIONS.

A STORMWATER MANAGEMENT VAULT WILL SERVE AS THE STORMWATER MANAGEMENT FACILITY FOR THIS SITE, WHICH WILL CONTROL THE 1, 2 & 10 YEAR 24HR STORM AND RELEASE STORMWATER RUNOFF INTO A PROPOSED CLOSED CONDUIT STORM SEWER SYSTEM LOCATED PARALLEL TO UNIVERSITY DRIVE. THIS CLOSED CONDUIT SYSTEM WILL ALSO COLLECT STORMWATER RUNOFF FROM THE PROPOSED IMPROVEMENT LOCATED INSIDE THE RIGHT OF WAY ALONG UNIVERSITY BOULEVARD. AT THIS POINT, STORMWATER RUNOFF FROM THE RIGHT OF WAY AND THE SITE (DRAINAGE AREA "A") WILL CONVERGE AND BE RELEASED AT AN OUTFALL POINT LOCATED INSIDE A MAPPED FLOOD PLAIN PER THE CITY OF FAIRFAX GIS MAP (SEE SHEET #20 FOR LOCATION).

PER THE CHANNEL PROTECTION SECTION 9VAC25-870-66.B.1 OF THE VIRGINIA STORMWATER REGULATION, "WHEN STORMWATER FROM A DEVELOPMENT IS DISCHARGED TO A MANMADE STORMWATER CONVEYANCE SYSTEM, THE MANMADE CONVEYANCE SYSTEM SHALL CONVEY THE POST DEVELOPMENT PEAK FLOW RATE FROM THE TWO YEAR 24-HOUR STORM EVENT WITHOUT CAUSING EROSION OF THE SYSTEM." THEREFORE, THE PROPOSED STORM LOCATED ALONG UNIVERSITY BOULVEARD WILL BE FINAL ENGINEERED DURING THE SITE PLAN PHASE TO ADEQUATELY CONVEY THE TWO YEAR 24-HOUR STORM AND PREVENT EROSION AT THE OUTFALL POINT.

SEE THIS SHEET FOR POST DEVELOPMENT DIVIDES AND SHEET 16 FOR POST-DEVELOPMENT COMPUTATIONS.

LEGEND

- SOIL DIVIDES
- DRAINAGE DIVIDES
- IMPERVIOUS AREA = 2.35 AC.
- PERVIOUS AREA = 0.34 AC.
- PROPOSED STORMWATER VAULTS

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
05-04-2016
10-18-2016
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06-11-2024
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COMMONWEALTH OF VIRGINIA
Craig C. Fox
LICENSE NO. 036790
05/22/2025
PROFESSIONAL ENGINEER

SWM POST-DEVELOPMENT PLAN

4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=30' C.I.=2' DATE: DEC., 2024

SHEET 15 OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-21-swm bmp POST.dwg [post dev swm plan] May 22, 2025 - 4:21pm aarensberg

Summary for 1-Year Post-Development Area

[49] Hint: Tc<2dt may require smaller dt

Runoff = 9.91 cfs@ 11.95 hrs Volume= 22,041 cf Depth=2.26"
Routed to Pond 28P : Vault A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=2.70"

Area (ac)	CN	Description
0.240	79	50-75% Grass cover, Fair, HSG C
0.040	84	50-75% Grass cover, Fair, HSG D
2.280	98	Paved parking, HSG C
0.130	98	Paved parking, HSG D
2.690	96	Weighted Average
0.280		10.41% Pervious Area
2.410		89.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for 2-Year Post-Development Area

[49] Hint: Tc<2dt may require smaller dt

Runoff = 11.92 cfs@ 11.95 hrs Volume= 26,844 cf Depth=2.75"
Routed to Pond 28P : Vault A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-year Rainfall=3.20"

Area (ac)	CN	Description
0.240	79	50-75% Grass cover, Fair, HSG C
0.040	84	50-75% Grass cover, Fair, HSG D
2.280	98	Paved parking, HSG C
0.130	98	Paved parking, HSG D
2.690	96	Weighted Average
0.280		10.41% Pervious Area
2.410		89.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for 10-Year Post-Development Area

[49] Hint: Tc<2dt may require smaller dt

Runoff = 19.86 cfs@ 11.95 hrs Volume= 46,200 cf Depth=4.73"
Routed to Pond 28P : Vault A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=5.20"

Area (ac)	CN	Description
0.240	79	50-75% Grass cover, Fair, HSG C
0.040	84	50-75% Grass cover, Fair, HSG D
2.280	98	Paved parking, HSG C
0.130	98	Paved parking, HSG D
2.690	96	Weighted Average
0.280		10.41% Pervious Area
2.410		89.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 28P: Vault A

Inflow Area = 117,176 sf 89.59% Impervious Inflow Depth =2.26" for 1-year event
Inflow = 9.91 cfs@ 11.95 hrs Volume= 22,041 cf
Outflow = 2.50 cfs@ 12.11 hrs Volume= 22,041 cf Atten= 75% Lag= 9.5 min
Primary = 2.50 cfs@ 12.11 hrs Volume= 22,041 cf
Routed to Link 5L : Outfall A

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Peak Elev= 6.01' @ 12.11 hrs Surf.Area= 1,684 sf Storage= 10,119 cf

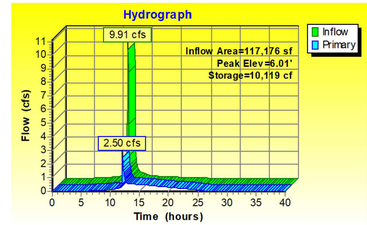
Plug-Flow detention time= 184.3 min calculated for 22,041 cf (100% of inflow)
Center-of-Mass det. time= 184.1 min (958.8 - 774.7)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	16,840 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	1,684	0	0
10.00	1,684	16,840	16,840

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Primary	5.56'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.42 cfs @ 12.11 hrs HW=6.00' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.57 cfs @ 11.67 fps)
└**2=Orifice/Grate** (Orifice Controls 1.84 cfs @ 2.12 fps)



Summary for Pond 28P: Vault A

Inflow Area = 117,176 sf 89.59% Impervious Inflow Depth =2.75" for 2-year event
Inflow = 11.92 cfs@ 11.95 hrs Volume= 26,844 cf
Outflow = 5.17 cfs@ 12.06 hrs Volume= 26,844 cf Atten= 57% Lag= 6.7 min
Primary = 5.17 cfs@ 12.06 hrs Volume= 26,844 cf
Routed to Link 5L : Outfall A

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Peak Elev= 6.71' @ 12.06 hrs Surf.Area= 1,684 sf Storage= 11,300 cf

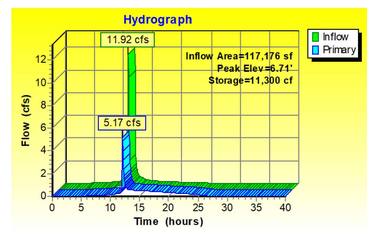
Plug-Flow detention time= 167.8 min calculated for 26,844 cf (100% of inflow)
Center-of-Mass det. time= 167.6 min (937.2 - 769.6)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	16,840 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	1,684	0	0
10.00	1,684	16,840	16,840

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Primary	5.56'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=5.05 cfs @ 12.06 hrs HW=6.67' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.60 cfs @ 12.32 fps)
└**2=Orifice/Grate** (Orifice Controls 4.45 cfs @ 4.45 fps)



Summary for Pond 28P: Vault A

Inflow Area = 117,176 sf 89.59% Impervious Inflow Depth =4.73" for 10-year event
Inflow = 19.86 cfs@ 11.95 hrs Volume= 46,200 cf
Outflow = 10.24 cfs@ 12.05 hrs Volume= 46,199 cf Atten= 48% Lag= 5.8 min
Primary = 10.24 cfs@ 12.05 hrs Volume= 46,199 cf
Routed to Link 5L : Outfall A

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs
Peak Elev= 9.71' @ 12.05 hrs Surf.Area= 1,684 sf Storage= 16,356 cf

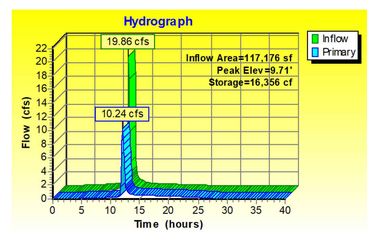
Plug-Flow detention time= 135.4 min calculated for 46,199 cf (100% of inflow)
Center-of-Mass det. time= 135.2 min (892.0 - 756.8)

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	16,840 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
0.00	1,684	0	0
10.00	1,684	16,840	16,840

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	**3.0" Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Primary	5.56'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

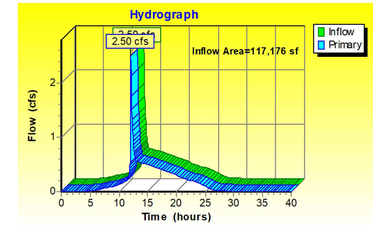
Primary OutFlow Max=10.22 cfs @ 12.05 hrs HW=9.69' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.73 cfs @ 14.89 fps)
└**2=Orifice/Grate** (Orifice Controls 9.48 cfs @ 9.48 fps)



1-Year Study Point Summary

Inflow Area = 117,176 sf 89.59% Impervious Inflow Depth =2.26" for 1-year event
Inflow = 2.50 cfs@ 12.11 hrs Volume= 22,041 cf
Primary = 2.50 cfs@ 12.11 hrs Volume= 22,041 cf Atten= 0% Lag= 0.0 min

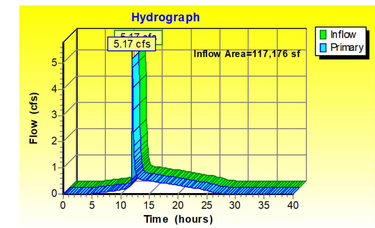
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs



2-Year Study Point Summary

Inflow Area = 117,176 sf 89.59% Impervious Inflow Depth =2.75" for 2-year event
Inflow = 5.17 cfs@ 12.06 hrs Volume= 26,844 cf
Primary = 5.17 cfs@ 12.06 hrs Volume= 26,844 cf Atten= 0% Lag= 0.0 min

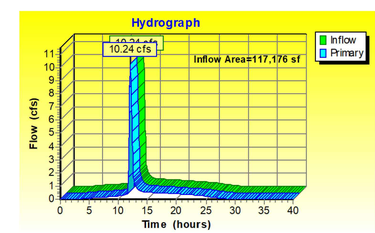
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs



10-Year Study Point Summary

Inflow Area = 117,176 sf 89.59% Impervious Inflow Depth =4.73" for 10-year event
Inflow = 10.24 cfs@ 12.05 hrs Volume= 46,199 cf
Primary = 10.24 cfs@ 12.05 hrs Volume= 46,199 cf Atten= 0% Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs



No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
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4131 CHAIN BRIDGE ROAD
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CITY OF FAIRFAX, VIRGINIA

SCALE: N/A
C.I.= N/A
DATE: DEC., 2024

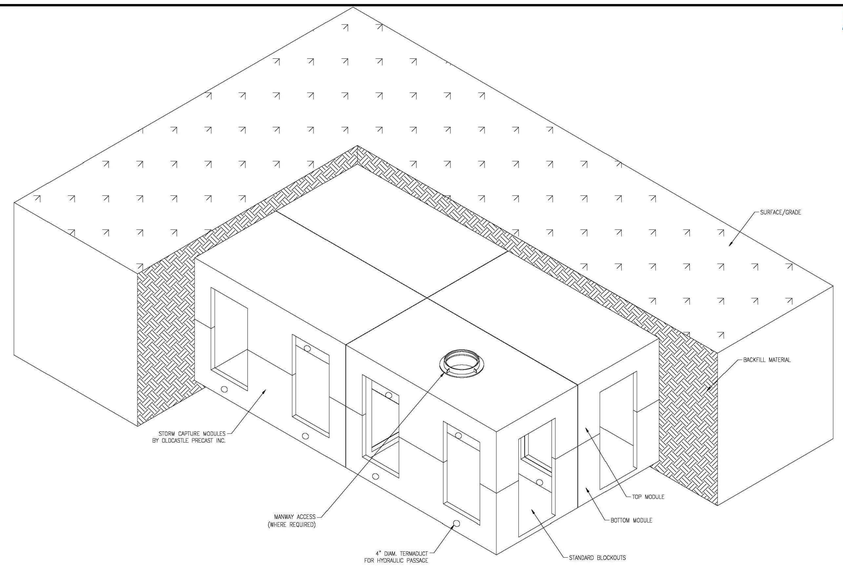
SHEET 16 OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-21-swm bmp POST.dwg [post dev swm comps] May 22, 2025 - 4:21pm ozensberg

POSSIBLE SWM VAULT STANDARD DETAILS (OR APPROVED EQUAL)

STORMCAPTURE™



NOTE: THIS VIEW IS FOR ILLUSTRATION PURPOSES ONLY TO SHOW FEATURES OF THE SYSTEM. ACTUAL LAYOUT VARIES BY PROJECT. SEE SITE PLAN LAYOUT. ALL PERIMETER WALLS ARE BOLD.

TYPICAL ISO VIEW
N.T.S.

Oldcastle® Stormwater Solutions
1501 SOUTHGATE PLAZA, SUITE 200, LITITZ, PA 17543
PHONE: 1.800.579.3207 FAX: 305.594.1567

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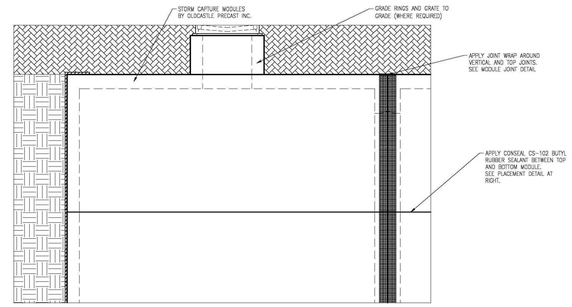
STORMCAPTURE

CUSTOMER:

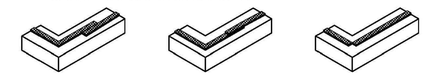
DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER
DRAWING NUMBER:				REVISION	SHEET
				REV DATE:	

STORMCAPTURE™



GRATE INLET DETAIL
SCALE: 3/8" = 1'-0"

KEYWAYS MUST BE FREE OF DIRT, ROCKS, AND WATER. ROCKS AND DIRT PREVENT THE VAULT SECTIONS FROM SEATING AND SEALING PROPERLY. REMOVE ALL PROTECTIVE PAPER FROM RUBBER SEALANT MATERIAL. SPLICE RUBBER SEALANT MATERIAL WITH A "SOIC BY SOIL" JOINT, AWAY FROM CORNERS. CORNER SPLICING WILL NOT SEAL PROPERLY.



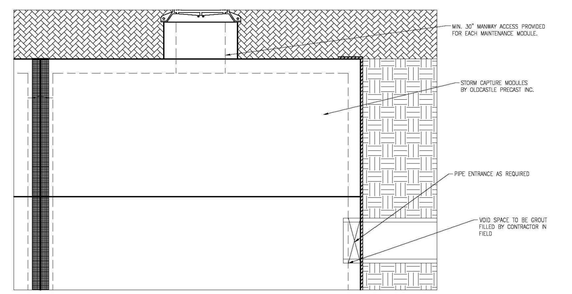
CORRECT – INSTALL RUBBER SEALANT MATERIAL AT THE OUTER EDGE OF THE KEYWAY. RUBBER SEALANT SHOULD BE CONTINUOUS AROUND CORNERS.

INCORRECT – DO NOT OVERLAP THE RUBBER SEALANT MATERIAL AT SPLICE.

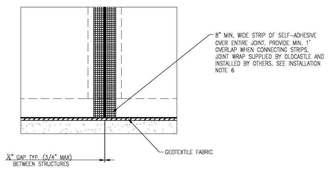
INCORRECT – DO NOT SPLICE RUBBER SEALANT MATERIAL AT A CORNER. RUBBER SEALANT SHOULD BE CONTINUOUS AROUND CORNERS.

CONSEAL CS-102 BUTYL RUBBER SEALANT PLACEMENT DETAIL
NTS

NOTE: WEIR PLATES, IF REQUIRED, MAY BE INSTALLED WITH RED-HEAD ANCHORS (BY OTHERS). ELEVATIONS TO BE DETERMINED BY PROJECT DESIGN ENGINEER



MANWAY ACCESS DETAIL
SCALE: 3/8" = 1'-0"



MODULE JOINT DETAIL
SCALE: 1/2" = 1'-0"

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1501 SOUTHGATE PLAZA, SUITE 200, LITITZ, PA 17543
PHONE: 1.800.579.3207 FAX: 305.594.1567

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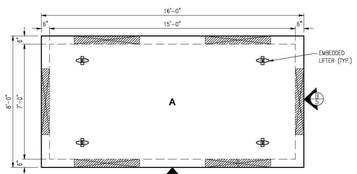
STORMCAPTURE
EXTERIOR DETAILS

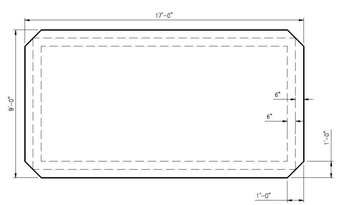
CUSTOMER:

DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER
DRAWING NUMBER:				REVISION	SHEET
				REV DATE:	

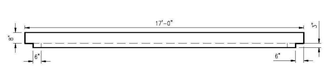
STORMCAPTURE™



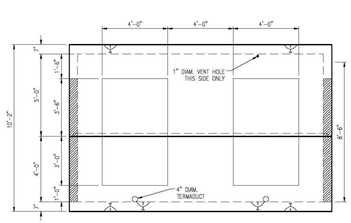
STORM CAPTURE PLAN VIEW
SCALE: 1/4" = 1'-0"



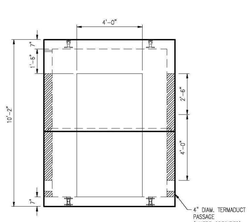
LINK SLAB PLAN VIEW
SCALE: 1/4" = 1'-0"



LINK SLAB ELEVATION VIEW
SCALE: 1/4" = 1'-0"



VIEW A
SCALE: 1/4" = 1'-0"



VIEW B
SCALE: 1/4" = 1'-0"

Oldcastle® Stormwater Solutions
1501 SOUTHGATE PLAZA, SUITE 200, LITITZ, PA 17543
PHONE: 1.800.579.3207 FAX: 305.594.1567

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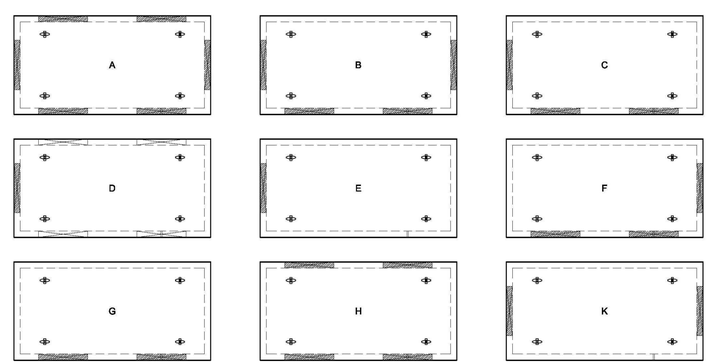
STORMCAPTURE
INTERIOR DETAILS

CUSTOMER:

DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER
DRAWING NUMBER:				REVISION	SHEET
				REV DATE:	

STORMCAPTURE™



STORM CAPTURE CONFIGURATIONS
SCALE: 3/16" = 1'-0"

Oldcastle® Stormwater Solutions
1501 SOUTHGATE PLAZA, SUITE 200, LITITZ, PA 17543
PHONE: 1.800.579.3207 FAX: 305.594.1567

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STORMCAPTURE
CONFIGURATIONS

CUSTOMER:

DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER
DRAWING NUMBER:				REVISION	SHEET
				REV DATE:	

NOTE:
ALL STORMWATER MANAGEMENT FACILITIES SHALL BE SELECTED & FINAL ENGINEEERED AT TIME OF FINAL SITE PLAN. APPLICANT RESERVES THE RIGHT TO SELECT ALTERNATE FACILITY TYPES EQUIVALENT TO THE DETAILS PROVIDED ON THIS SHEET.

NOTE:
FINAL DETAILS OF VAULT GEOMETRY, SIZE AND CONTROL STRUCTURES SHALL BE DETERMINED AT THE TIME OF SITE PLAN.

No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
08-12-2024
09-03-2024
12-02-2024
04-15-2025
05-22-2025
-
-

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CHANTILLY, VA. 20151
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www.urban-ltd.com
Planners • Engineers • Landscape Architects • Land Surveyors

COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
LIC. No. 036790
05/22/2025
PROFESSIONAL ENGINEER

SWM POST-DEVELOPMENT DETAILS
4131 CHAIN BRIDGE ROAD
REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: AS NOTED
C.I.= N/A
DATE: DEC., 2024

SHEET
17
OF
39

FILE No.
RZ-12787

Urban, Ltd. – J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-21-swm bmp POST.dwg [post dev swm details] May 22, 2025 – 4:21pm aarensberg

Project Name:	4131 Chain Bridge Road
Date:	Mar-25
Linear Development Project?	No

CLEAR ALL (Ctrl+Shift+R)

data input cells
constant values
calculation cells
final results

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 2.69

Maximum reduction required:	*20%*
The site's net increase in impervious cover (acres) is:	*1.88*
Post-Development TP Load Reduction for Site (lb/yr):	*3.56*

Check:
BMP Design Specifications List: 2011 Stds & Specs
Linear project? No
Land cover areas entered correctly? ✓
Total disturbed area entered? ✓

Pre-ReDevelopment Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be	0.00	0.00	2.08	0.08	2.16
Impervious Cover (acres)	0.00	0.00	0.44	0.09	0.53
					2.69

Post-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be	0.00	0.00	0.24	0.04	0.28
Impervious Cover (acres)	0.00	0.00	2.28	0.13	2.41
Area Check	OK.	OK.	OK.	OK.	2.69

Constants

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

Runoff Coefficients (Rv)

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

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Land Cover Summary-Pre

Pre-ReDevelopment	Listed	Adjusted[1]
Forest/Open Space Cover (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
% Forest	0%	0%
Managed Turf Cover (acres)	2.16	0.28
Weighted Rv(turf)	0.22	0.22
% Managed Turf	80%	35%
Impervious Cover (acres)	0.53	0.53
Rv(impervious)	0.95	0.95
% Impervious	20%	65%
Total Site Area (acres)	**2.69**	**0.81**
Site Rv	**0.36**	**0.70**

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	0.0818	0.0472
Pre-ReDevelopment Treatment Volume (cubic feet)	3,561	2,056
Pre-ReDevelopment TP Load (lb/yr)	**2.24**	**1.29**
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	0.83	1.59
Baseline TP Load (lb/yr) (**0.41 lbs/acre/yr** applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		*0.33*

[1] *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 DEVELOPMENT

Land Cover Summary-Post (Final)

Post ReDev. & New Impervious	
Forest/Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00
% Forest	0%
Managed Turf Cover (acres)	0.28
Weighted Rv (turf)	0.22
% Managed Turf	10%
Impervious Cover (acres)	2.41
Rv(impervious)	0.95
% Impervious	90%
Final Site Area (acres)	**2.69**
Final Post Dev Site Rv	**0.87**

Land Cover Summary-Post

Post-ReDevelopment	
Forest/Open Space Cover (acres)	0.00
Weighted Rv(forest)	0.00
% Forest	0%
Managed Turf Cover (acres)	0.28
Weighted Rv (turf)	0.22
% Managed Turf	35%
ReDev. Impervious Cover (acres)	0.53
Rv(impervious)	0.95
% Impervious	65%
Total ReDev. Site Area (acres)	**0.81**
ReDev Site Rv	**0.70**

Land Cover Summary-Post

Post-Development New Impervious	
New Impervious Cover (acres)	1.88
Rv(impervious)	0.95

Treatment Volume and Nutrient Load

Final Post-Development Treatment Volume (acre-ft)	0.1960
Final Post-Development Treatment Volume (cubic feet)	8,539
Final Post-Development TP Load (lb/yr)	**5.36**
Final Post-Development TP Load per acre (lb/acre/yr)	1.99

Post-ReDevelopment Treatment Volume (acre-ft)	0.0472
Post-ReDevelopment Treatment Volume (cubic feet)	2,056
Post-ReDevelopment Load (TP) (lb/yr)*	**1.29**
Post-ReDevelopment TP Load per acre (lb/acre/yr)	1.59
Max. Reduction Required (Below Pre-ReDevelopment Load)	**20%**
TP Load Reduction Required for Redeveloped Area (lb/yr)	**0.26**

Post-Development Treatment Volume (acre-ft)	0.1488
Post-Development Treatment Volume (cubic feet)	6,483
Post-Development TP Load (lb/yr)	**4.07**
TP Load Reduction Required for New Impervious Area (lb/yr)	**3.30**

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	**3.56**

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	16.01
Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	38.38

Drainage Area A

CLEAR BMP AREAS

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	0.00	0.00	0.00	0.00
Managed Turf (acres)	0.00	0.00	0.24	0.04	0.28	0.22
Impervious Cover (acres)	0.00	0.00	2.28	0.13	2.41	0.95
				Total	2.69	

Total Phosphorus Available for Removal in D.A. A (lb/yr)	5.36
Post Development Treatment Volume in D.A. A (ft^3)	8,539

Stormwater Best Management Practices (RR = Runoff Reduction)

--Select from dropdown lists-

Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft^3)	Runoff Reduction (ft^3)	Remaining Runoff Volume (ft^3)	Total BMP Treatment Volume (ft^3)	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
14. Manufactured Treatment Devices (no RR)													
14.a. Manufactured Treatment Device-Hydrodynamic	0	0.28	2.41	0	0	8,539	8,539	50	0.00	5.36	2.68	2.68	14.b. MTD - Filtering

TOTAL IMPERVIOUS COVER TREATED (ac)	2.41	AREA CHECK: OK.
TOTAL MANAGED TURF AREA TREATED (ac)	0.28	AREA CHECK: OK.

TOTAL PHOSPHORUS REMOVAL REQUIRED ON SITE (lb/yr)	3.56
TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. A (lb/yr)	5.36
TOTAL PHOSPHORUS REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	3.75
TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	0.00
TOTAL PHOSPHORUS LOAD REDUCTION ACHIEVED IN D.A. A (lb/yr)	3.75
TOTAL PHOSPHORUS REMAINING AFTER APPLYING BMP LOAD REDUCTIONS IN D.A. A (lb/yr)	1.61

SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS

NITROGEN REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	0.00
NITROGEN REMOVED WITHOUT RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	0.00
TOTAL NITROGEN REMOVED IN D.A. A (lb/yr)	0.00

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)	2.41	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER TREATED (ac)	2.41	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA (ac)	0.28	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA TREATED (ac)	0.28	0.00	0.00	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Site Treatment Volume (ft^3) 8,539

Runoff Reduction Volume and TP By Drainage Area

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft^3)	0	0	0	0	0	0
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	5.36	0.00	0.00	0.00	0.00	5.36
TP LOAD REDUCTION ACHIEVED (lb/yr)	3.75	0.00	0.00	0.00	0.00	3.75
TP LOAD REMAINING (lb/yr)	1.61	0.00	0.00	0.00	0.00	1.61
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00

Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	5.36
TP LOAD REDUCTION REQUIRED (lb/yr)	3.56
TP LOAD REDUCTION ACHIEVED (lb/yr)	3.75
TP LOAD REMAINING (lb/yr):	1.61
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.00 **

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

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	38.38
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.00
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	38.38

NOTE:
ALL STORMWATER MANAGEMENT FACILITIES SHALL BE SELECTED & FINAL ENGINEEERED AT TIME OF FINAL SITE PLAN. APPLICANT RESERVES THE RIGHT TO SELECT ALTERNATE FACILITY TYPES EQUIVALENT TO THE DETAILS PROVIDED ON THIS SHEET.

NOTE:
FINAL DETAILS OF VAULT GEOMETRY, SIZE AND CONTROL STRUCTURES SHALL BE DETERMINED AT THE TIME OF SITE PLAN.

BMP NARRATIVE:
THIS PLAN PROPOSES A MULTIFAMILY DWELLING WITH AN ASSOCIATED GARAGE PARKING. THE RESULT OF THE IMPROVEMENTS IS AN INCREASE OF APPROXIMATELY 1.85 AC OF IMPERVIOUS AREA WITHIN THE SUBJECT PROPERTY. PER THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM) REDEVELOPMENT REQUIREMENTS, A COMBINATION OF PROPOSED BMP FACILITIES SHALL PROVIDE A MINIMUM OF 20% REDUCTION IN TOTAL PHOSPHOROUS RUNOFF.

BMP REQUIREMENTS FOR THIS SITE MAY INCLUDE BUT ARE NOT LIMITED TO: BELOW GRADE STORM FILTERS AND JELLYFISH FILTERS. PLEASE SEE THIS SHEET FOR THE PRELIMINARY COMPUTATIONS WHICH SHOW THAT, BY TREATING ± 2.05 ACRES OF IMPERVIOUS AREA WITH VARIOUS TREATMENT METHODS, THE REQUIRED PHOSPHORUS REMOVAL CAN BE ACHIEVED.

THE PROPOSED BMP FACILITIES SHALL BE PRIVATELY MAINTAINED BY THE PROPERTY OWNER. VIRGINIA'S STORMWATER MANAGEMENT REGULATIONS REQUIRE INSPECTIONS TWICE A YEAR, AND AFTER ANY STORM EVENT THAT EXCEEDS THE CAPACITY OF THE FACILITY TO ENSURE THAT THE FACILITIES REMAIN OPERATIONAL. A DETAILED INSPECTION SHALL BE PERFORMED ANNUALLY BY A QUALIFIED PROFESSIONAL IN ORDER TO ENSURE THAT THE FACILITIES ARE OPERATIONAL AS DESIGNED, AND TO PROVIDE AN OPPORTUNITY TO SCHEDULE ANY MAINTENANCE THAT THE FACILITIES MAY REQUIRE.

No.	DATE	REVISIONS DESCRIPTION

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
06-11-2024
09-03-2024
12-02-2024
04-15-2025
05-22-2025
-
-

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Planners•Engineers•Landscape Architects•Land Surveyors

COMMONWEALTH OF VIRGINIA
Lucas A. Fox
LICENSE No. 036790
05/22/2025
REGISTERED PROFESSIONAL ENGINEER

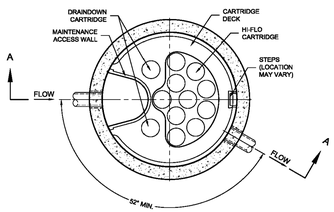
BMP POST-DEVELOPMENT COMPS
4131 CHAIN BRIDGE ROAD
REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA
C.I.= N/A
DATE: DEC., 2024
SCALE: N/A

SHEET 18 OF 39

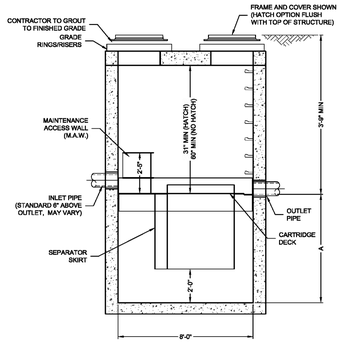
FILE No. RZ-12787

Urban, Ltd. -- J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-21-swm bmp POST.dwg [post bmp comps and details 1] May 22, 2025 -- 4:21pm aarensberg

POSSIBLE JELLYFISH FILTER STANDARD DETAIL (OR APPROVED EQUAL)



PLAN VIEW



SECTION A-A

Jellyfish® Filter

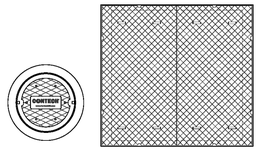
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING: U.S. PATENT NO. 9,867,39; 8,337,819 & US 8,325,630; CT-RH INTERNATIONAL PATENTS PENDING

JELLYFISH DESIGN NOTES

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN. 2590" MANHOLE JELLYFISH PEAK TREATMENT CAPACITY IS 1.96 CFS. IF THE SITE CONDITIONS EXCEED 1.96 CFS AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION

CARTRIDGE DEPTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-5"	5'-3"	4'-2"	3'-2"
FLOW RATE: HIGH-FLO / DRAINDOWN (cfs) (per cart)	0.18 / 0.09	0.13 / 0.065	0.09 / 0.045	0.05 / 0.025
MAX. CARTS HIGH-FLO / DRAINDOWN	10 / 2			



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

HATCH
(72" x 72" CAST INTO SLAB)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			*
WATER QUALITY FLOW RATE (cfs)			*
PEAK FLOW RATE (cfs)			*
RETURN PERIOD OF PEAK FLOW (yrs)			*
# OF CARTRIDGES REQUIRED (H* / DD)			* / *
CARTRIDGE SIZE			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE #1	*	*	*
INLET PIPE #2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
			*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

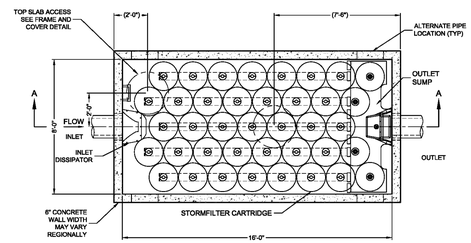
GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.ContechES.com
3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0' - 3', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

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 STRUCTURE (LIFTING CLUTCHES PROVIDED)
C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT)
D. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
E. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION AT (866) 740-3318.

CONTECH® ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

JELLYFISH JF8
STANDARD DETAIL
OFFILINE CONFIGURATION

POSSIBLE STORM FILTER STANDARD DETAIL (OR APPROVED EQUAL)



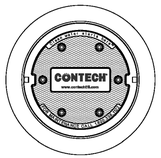
PLAN VIEW
VAULT STYLE: OUTLET SUMP (NSI)

STORMFILTER DESIGN NOTES

STORMFILTER TREATMENTCAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD VAULT STYLE IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (39). VAULT STYLE OPTIONS INCLUDE INLET BAY (32), INLET BAYXOUTLET BAY (27), OUTLET BAY (34), INLET BAYFULL HEIGHT BAFFLE (23), FULL HEIGHT BAFFLE WALL (30).
STORMFILTER 6X16 PEAK HYDRAULIC CAPACITY IS 1.8 CFS. IF THE SITE CONDITIONS EXCEED 1.8 CFS AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27"		18"		LOW DROP	
RECOMMENDED HYDRAULIC DROP (H)	3.08'		2.3'		1.8'	
SPECIFIC FLOW RATE (gpm/sf)	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²	2 gpm/ft²	1 gpm/ft²
CARTRIDGE FLOW RATE (gpm)	22.5	11.25	15	7.5	10	5



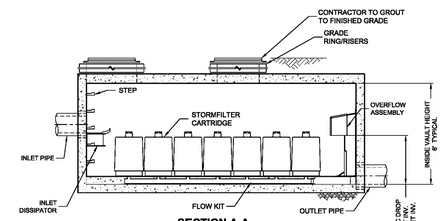
FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			*
WATER QUALITY FLOW RATE (cfs)			*
PEAK FLOW RATE (cfs)			*
RETURN PERIOD OF PEAK FLOW (yrs)			*
# OF CARTRIDGES REQUIRED			*
CARTRIDGE FLOW RATE			*
MEDIA TYPE (CSF, PERLITE, ZPG, GAC, PHS)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE #1	*	*	*
INLET PIPE #2	*	*	*
OUTLET PIPE	*	*	*
UPSTREAM RIM ELEVATION			*
DOWNSTREAM RIM ELEVATION			*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD



SECTION A-A

The Impervious Management for StormFilter® PATENTED MEDIA FILTRATION TECHNOLOGY. MORE INFORMATION AT WWW.STORMFILTER.COM

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
6. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 39 SECONDS.
7. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).

INSTALLATION NOTES
1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER VAULT (LIFTING CLUTCHES PROVIDED)
3. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL VAULT SECTIONS AND ASSEMBLE VAULT.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

CONTECH® ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

SF0816
STORMFILTER
STANDARD DETAIL

NOTE:
ALL STORMWATER MANAGEMENT FACILITIES SHALL BE SELECTED & FINAL ENGINEEERED AT TIME OF FINAL SITE PLAN. APPLICANT RESERVES THE RIGHT TO SELECT ALTERNATE FACILITY TYPES EQUIVALENT TO THE DETAILS PROVIDED ON THIS SHEET.

NOTE:
FINAL DETAILS OF VAULT GEOMETRY, SIZE AND CONTROL STRUCTURES SHALL BE DETERMINED AT THE TIME OF SITE PLAN.

NOTE:
FINAL SIZING OF BMP STRUCTURES SHALL BE DETERMINED AT THE TIME OF SITE PLAN.

No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
08-12-2024
09-03-2024
12-02-2024
04-15-2025
05-22-2025
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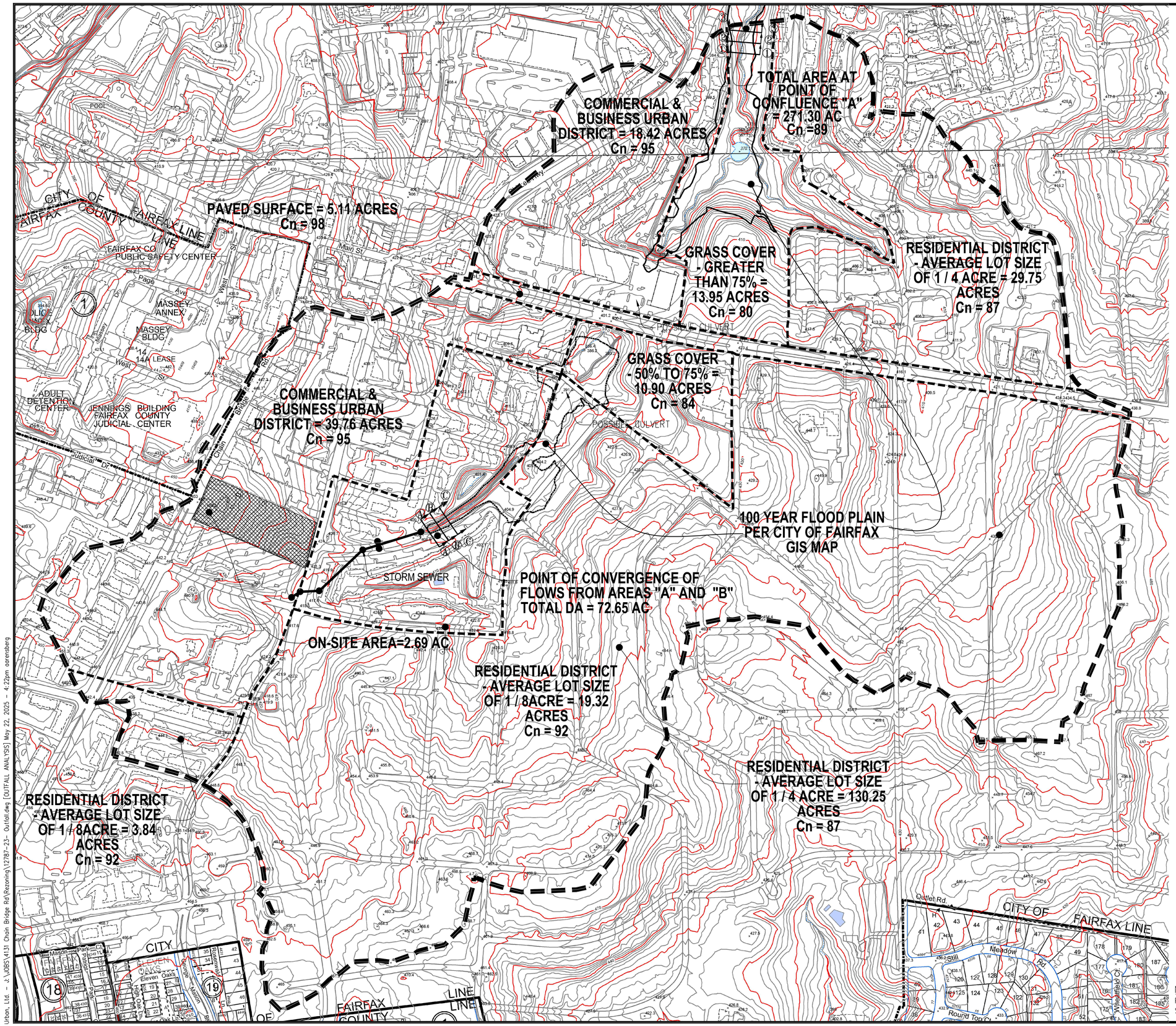
COMMONWEALTH OF VIRGINIA
CLAYTON C. TOPOR
LIC. No. 036790
05/22/2025
PROFESSIONAL ENGINEER

BMP POST-DEVELOPMENT DETAILS
4131 CHAIN BRIDGE ROAD
REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: AS NOTED C.I.=N/A DATE: DEC., 2024

FILE No. RZ-12787

U:\CONTECH\CAD\TRANSMITTALS\JELLYFISH FILTER\JF8 STANDARD DRAWINGS\JELLYFISH JF8 STANDARD DRAWING.dwg 12/20/14 4:08:21 PM
U:\STORMFILTER\CONTECH\STORMFILTER\6X16 STANDARD DRAWINGS\6X16_TOP SLAB OUTLET.DWG 12/20/14 10:17 AM
Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-21-swm bmp POST.dwg [post bmp comps and details 2] May 22, 2025 - 4:22pm agrensberg



ADEQUATE OUTFALL ANALYSIS NARRATIVE:

THE SUBJECT SITE IS LOCATED BETWEEN CHAIN BRIDGE ROAD AND UNIVERSITY BOULEVARD. THE TOPOGRAPHY OF THE SITE CONSISTS OF ONE DRAINAGE AREA, WHICH DRAINS TO THE EAST TOWARDS UNIVERSITY BOULEVARD. STORMWATER RUNOFF IS COLLECTED BY STORM SEWER INLETS AND CONVEYED VIA AN UNDERGROUND STORM SEWER SYSTEM TO THE POINT OF CONVERGENCE, WHICH IS LOCATED INSIDE A 100 YEAR FLOOD PLAIN PER THE CITY OF FAIRFAX GIS MAP(SEE THIS SHEET FOR LOCATION).

AS SHOWN ON THE SWM ANALYSIS SHEETS, THE SITE HAS BEEN ENGINEERED TO REDUCE THE POST-DEVELOPMENT PEAK FLOWS FOR THE 1 YR , 2YR AND 10 YR 24-HR STORM FOR BOTH DRAINAGE AREAS. IN ACCORDANCE WITH SECTION 9VAC25-870-66.B.4o OF THE STORMWATER REGULATIONS "STORM CONVEYANCE SYSTEM SHALL BE ANALYZED FOR COMPLIANCE WITH CHANNEL PROTECTION CRITERIA TO A POINT WHERE BASED ON LAND AREA, THE SITE'S CONTRIBUTING DRAINAGE AREA IS LESS THAN OR EQUAL TO 1.0% OF THE TOTAL WATERSHED AREA". POINT OF CONFLUENCE "A" HAS BEEN DETERMINED TO SHOW COMPLIANCE WITH THIS SECTION SINCE THIS POINT RECEIVES A TOTAL OF 271.01 AC OF STORMWATER RUNOFF. THREE CROSS SECTIONS HAVE BEEN PROVIDED AT EVERY 50 FEET ON THIS SHEET AND VERIFIED THAT EXISTING CHANNEL WILL ADEQUATELY CONVEYED THE 2-YEAR VELOCITY AT THE POINT OF CONFLUENCE.

FURTHERMORE COMPLIANCE WITH FLOOD PROTECTION IS BASED ON SECTION 9VAC25-870-66.C WHERE "THE DOWNSTREAM LIMITS OF ANALYSIS SHALL BE ANALYZED TO A POINT WHERE STORMWATER CONVEYANCE SYSTEM ENTERS A MAPPED FLOODPLAIN OR OTHER FLOOD PRONE AREA, ADOPTED BY ORDINANCE, OF ANY LOCALITY". POINT OF CONFLUENCE "A" IS LOCATED INSIDE A MAPPED FLOOD PLAIN PER THE CITY OF FAIRFAX GIS MAP. THE THREE CROSS SECTIONS PROVIDED AT THIS POINT VERIFY THAT THE 10 YEAR WATER SURFACE ELEVATION WILL OVERTOP THE EMBANKMENT.

AS A PROFESSIONAL ENGINEER, IT IS THE OPINION OF URBAN ENGINEERING & ASSOCIATES, INC THAT AN ADEQUATE OUTFALL EXISTS FOR THIS SITE:

Clayton Tock 05/22/2025
URBAN ENGINEERING & ASSOCIATES, INC. DATE
CLAYTON C TOCK, P.E., SR. ASSOCIATE

LEGEND

- 100 YEAR FLOOD PLAIN
- DIVIDE BETWEEN DISTRICTS
- DRAINAGE DIVIDE TO POINT OF CONFLUENCE
- SITE = 2.69AC

NOTES:
PROPOSED DEVELOPMENT SHALL BE DESIGNED TO ENSURE THAT NO SURROUNDING STRUCTURES WILL BE NEGATIVELY IMPACTED BY 100-YEAR FLOW.

No.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
05	04-2016	
10	18-2016	
04	22-2024	
04	11-2024	
09	03-2024	
12	02-2024	
04	15-2025	
05	22-2025	

REVISIONS

PLAN DATE

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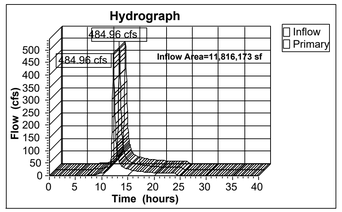
COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
LICENSE No. 036790
05/22/2025
PROFESSIONAL ENGINEER

OUTFALL ANALYSIS
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=200' C.I.=2' DATE: DEC., 2024

SHEET 20 OF 39

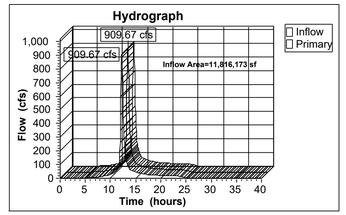
FILE No. RZ-12787



Summary for Link 25L: Point of confluence

Inflow Area = 11,816,173 sf 48.03%Impervious Inflow Depth =2.09" for 2-year event
Inflow = 484.96 cfs@ 12.24 hrs, Volume= 2,055,025 cf
Primary = 484.96 cfs@ 12.24 hrs, Volume= 2,055,025 cf, Atten= 0%, Lag= 0.0 min

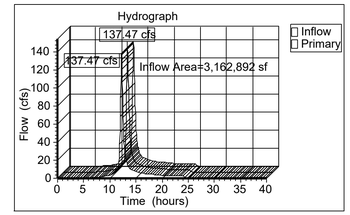
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs



Summary for Link 25L: Point of confluence

Inflow Area = 11,816,173 sf 48.03%Impervious Inflow Depth =3.97" for 10-year event
Inflow = 909.67 cfs@ 12.23 hrs, Volume= 3,908,967 cf
Primary = 909.67 cfs@ 12.23 hrs, Volume= 3,908,967 cf, Atten= 0%, Lag= 0.0 min

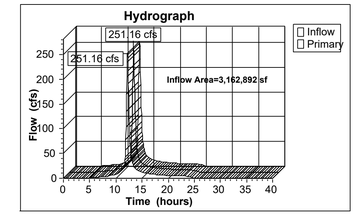
Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs



Summary for Link 31L: Point of confluence

Inflow Area = 3,162,892 sf 63.88%Impervious Inflow Depth =2.27" for 2-year event
Inflow = 137.47 cfs@ 12.24 hrs, Volume= 598,891 cf
Primary = 137.47 cfs@ 12.24 hrs, Volume= 598,891 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

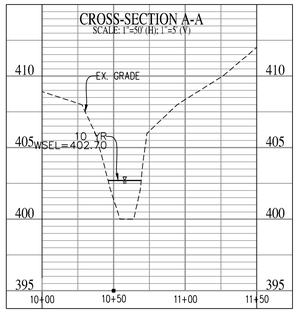


Summary for Link 31L: Point of confluence

Inflow Area = 3,162,892 sf 63.88%Impervious Inflow Depth =4.19" for 10-year event
Inflow = 251.16 cfs@ 12.23 hrs, Volume= 1,104,758 cf
Primary = 251.16 cfs@ 12.23 hrs, Volume= 1,104,758 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.05 hrs

OUTFALL ANALYSIS CROSS SECTIONS AT POINT OF CONVERGENCE

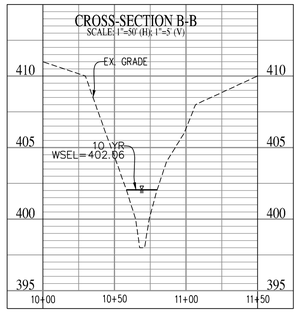


POST-DEVELOPMENT CONDITIONS - POINT OF CONFLUENCE:
CROSS SECTION A -A

DA	=	72.65 AC.
'Cn'	=	92
I2	=	5.45 IN/HR
I10	=	7.27 IN/HR
Q2	=	137.47 CFS
Q10	=	251.16 CFS
CHANNEL SLOPE	=	1.5 %
'n' FACTOR	=	0.05 (NATURAL STONY STREAM)

V2 = 4.57 FPS
D10 = 2.70 FT.

**PERMISSIBLE VELOCITY 5 FT/SEC (EROSION POTENTIAL LOW) PER TABLE 3.18A FROM THE VIRGINIA E&S HANDBOOK.*

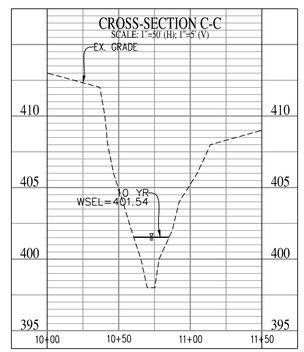


POST-DEVELOPMENT CONDITIONS - POINT OF CONFLUENCE:
CROSS SECTION B -B

DA	=	72.65 AC.
'Cn'	=	92
I2	=	5.45 IN/HR
I10	=	7.27 IN/HR
Q2	=	137.47 CFS
Q10	=	251.16 CFS
CHANNEL SLOPE	=	1.5 %
'n' FACTOR	=	0.05 (NATURAL STONY STREAM)

V2 = 4.90 FPS
D10 = 4.06 FT.

**PERMISSIBLE VELOCITY 5 FT/SEC (EROSION POTENTIAL LOW) PER TABLE 3.18A FROM THE VIRGINIA E&S HANDBOOK.*



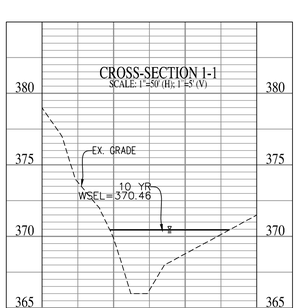
POST-DEVELOPMENT CONDITIONS - POINT OF CONFLUENCE:
CROSS SECTION B -B

DA	=	72.65 AC.
'Cn'	=	92
I2	=	5.45 IN/HR
I10	=	7.27 IN/HR
Q2	=	137.47 CFS
Q10	=	251.16 CFS
CHANNEL SLOPE	=	1.5 %
'n' FACTOR	=	0.05 (NATURAL STONY STREAM)

V2 = 4.74 FPS
D10 = 3.54 FT.

**PERMISSIBLE VELOCITY 5 FT/SEC (EROSION POTENTIAL LOW) PER TABLE 3.18A FROM THE VIRGINIA E&S HANDBOOK.*

OUTFALL ANALYSIS CROSS SECTIONS AT POINT OF CONFLUENCE "A"

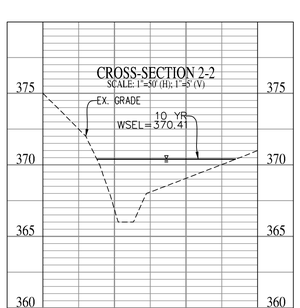


POST-DEVELOPMENT CONDITIONS - POINT OF CONFLUENCE:
CROSS SECTION 1 - 1

DA	=	271.30 AC.
'Cn'	=	89
I2	=	5.45 IN/HR
I10	=	7.27 IN/HR
Q2	=	484.96 CFS
Q10	=	909.67 CFS
CHANNEL SLOPE	=	1.20%
'n' FACTOR	=	0.05 (NATURAL STONY STREAM)

V2 = 4.60 FPS
D10 = 4.46 FT.

**PERMISSIBLE VELOCITY 5 FT/SEC (EROSION POTENTIAL LOW) PER TABLE 3.18A FROM THE VIRGINIA E&S HANDBOOK.*

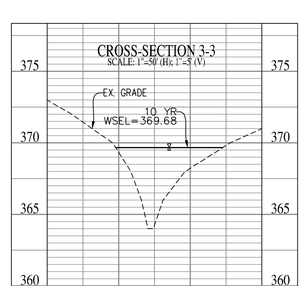


POST-DEVELOPMENT CONDITIONS - POINT OF CONFLUENCE:
CROSS SECTION 2 - 2

DA	=	271.30 AC.
'Cn'	=	89
I2	=	5.45 IN/HR
I10	=	7.27 IN/HR
Q2	=	484.96 CFS
Q10	=	909.67 CFS
CHANNEL SLOPE	=	1.20 %
'n' FACTOR	=	0.05 (NATURAL STONY STREAM)

V2 = 4.35 FPS
D10 = 4.41 FT.

**PERMISSIBLE VELOCITY 5 FT/SEC (EROSION POTENTIAL LOW) PER TABLE 3.18A FROM THE VIRGINIA E&S HANDBOOK.*



POST-DEVELOPMENT CONDITIONS - POINT OF CONFLUENCE:
CROSS SECTION 2 - 2

DA	=	271.30 AC.
'Cn'	=	89
I2	=	5.45 IN/HR
I10	=	7.27 IN/HR
Q2	=	484.96 CFS
Q10	=	909.67 CFS
CHANNEL SLOPE	=	1.20 %
'n' FACTOR	=	0.05 (NATURAL STONY STREAM)

V2 = 4.96 FPS
D10 = 5.68 FT.

**PERMISSIBLE VELOCITY 5 FT/SEC (EROSION POTENTIAL LOW) PER TABLE 3.18A FROM THE VIRGINIA E&S HANDBOOK.*

REVISIONS

No.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
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OUTFALL ANALYSIS
4131 CHAIN BRIDGE ROAD
REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=30' C.I.= 2' DATE: DEC., 2024

SHEET 21 OF 39

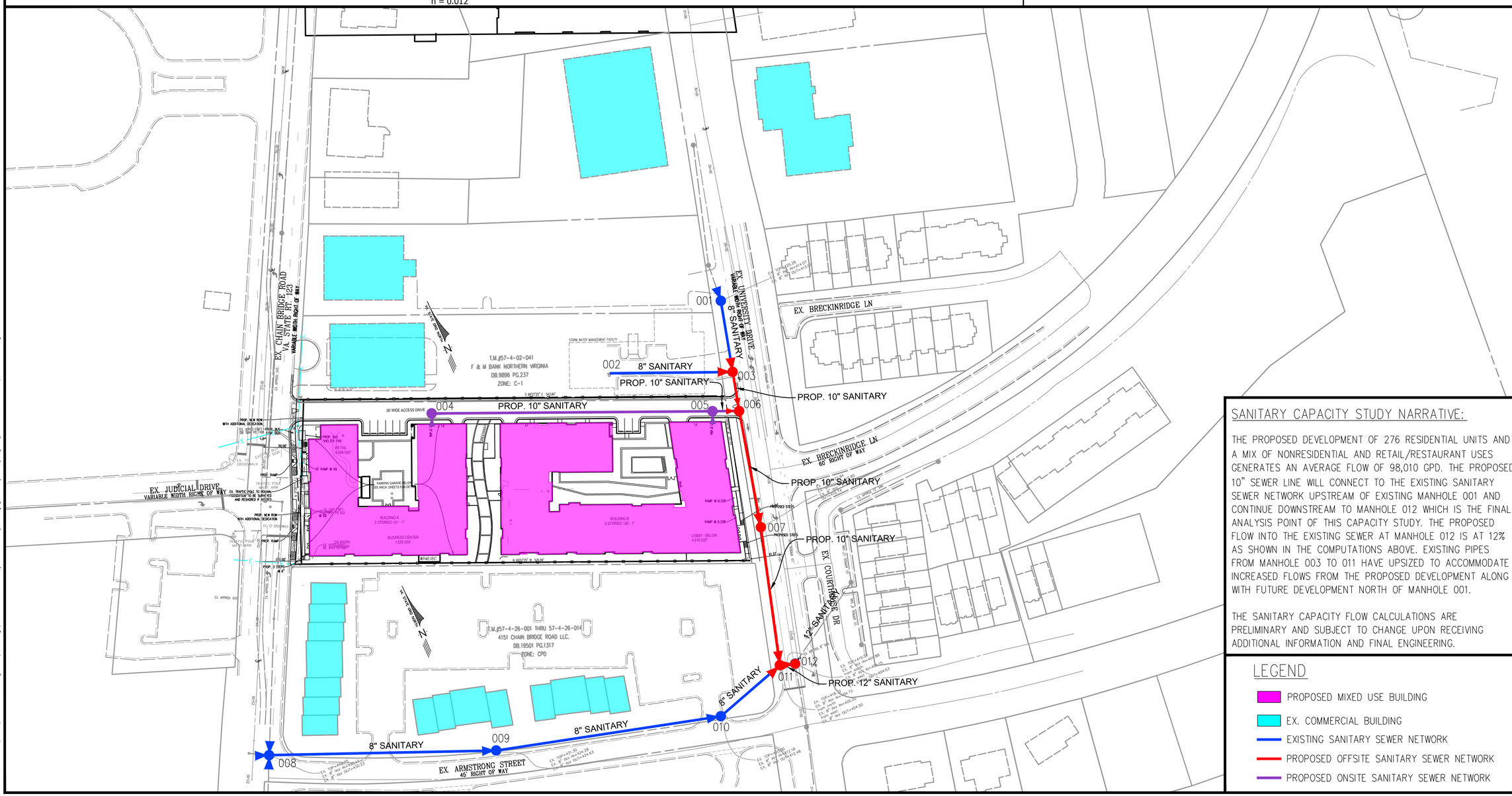
FILE No. RZ-12787

Urban, Ltd - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-23- Outfall.dwg [OUTFALL ANALYSIS (3)] May 22, 2025 - 4:22pm ccrensberg

4131 Chain Bridge Road Sanitary Analysis

Pipe Characteristics					Flow Characteristics										Total Flow				Capacity Information				
Upstream MH	Downstream MH	Diameter (inches)	Slope %	Length (ft)	Number of Residential Units	Average flow for units (280 gpd / unit)	Nonresidential space	Average flow for Nonresidential (0.046 gpd/SF)	SF of Office Space	Average Flow for office (0.20 gpd/SF)	SF of Retail Space	Average Flow for Retail (0.046 gpd/SF)	Additional Known Peak Flow (MGD)	KnownCumulative Peak Flow (MGD)	Total Incremental flow (gpd)	Total Cumulative Flow (gpd)	Peak Flow Factor	Peak Hour Flow (MGD)	Full Capacity of Pipe (MGD)	% full	Velocity in pipe (fps)	velocity OK?	NOTES
TRIBUTARY 1:																							
1	3	8	1.05	91.33		0		0	36677	7335.4		0		0	7335.4	7335.4	9.551921065	0.070067162	0.866936756	8%	2.31	yes	
2	3	8	11.8	155.33		0		0	9698	1939.6		0		0	1939.6	9275	9.141916978	0.08479128	2.900091497	3%	5.72	yes	
3	6	10	0.88	50.25		0		0		0		0		0	0	9275	9.141916978	0.08479128	1.439000034	6%	2.24	yes	
4	5	10	5.64	355.97	113	31640	10736	493.856		0	6608	303.968		0	32437.824	41712.824	6.901358084	0.287875135	3.642998732	8%	6.18	yes	
5	6	10	5.64	33.18	163	45640	7085	325.91		0		0		0	45965.91	87678.734	6.006254731	0.526620811	3.642998732	14%	7.37	yes	
6	7	10	1.01	149.98		0		0		0		0		0	0	87678.734	6.006254731	0.526620811	1.541630007	34%	3.97	yes	
7	11	10	3.41	176.56		0		0		0		0		0	0	87678.734	6.006254731	0.526620811	2.832674399	19%	6.16	yes	
8	9	8	2.07	287.95		0		0	8756	1751.2		0		0	1751.2	89429.934	5.984083866	0.535156225	1.217244832	44%	5.24	yes	
9	10	8	4.2	287.96		0		0	10842	2168.4		0		0	2168.4	91598.334	5.95733468	0.545681932	1.733873512	31%	6.83	yes	
10	11	8	7.04	98.85		0		0		0		0		0	0	91598.334	5.95733468	0.545681932	2.244807457	24%	8.23	yes	
11	12	12	3.39	19.17		0		0		0		0		0	0	91598.334	5.95733468	0.545681932	4.592712995	12%	6.10	yes	

n = 0.012



SANITARY CAPACITY STUDY NARRATIVE:

THE PROPOSED DEVELOPMENT OF 276 RESIDENTIAL UNITS AND A MIX OF NONRESIDENTIAL AND RETAIL/RESTAURANT USES GENERATES AN AVERAGE FLOW OF 98,010 GPD. THE PROPOSED 10" SEWER LINE WILL CONNECT TO THE EXISTING SANITARY SEWER NETWORK UPSTREAM OF EXISTING MANHOLE 001 AND CONTINUE DOWNSTREAM TO MANHOLE 012 WHICH IS THE FINAL ANALYSIS POINT OF THIS CAPACITY STUDY. THE PROPOSED FLOW INTO THE EXISTING SEWER AT MANHOLE 012 IS AT 12% AS SHOWN IN THE COMPUTATIONS ABOVE. EXISTING PIPES FROM MANHOLE 003 TO 011 HAVE UPSIZED TO ACCOMMODATE INCREASED FLOWS FROM THE PROPOSED DEVELOPMENT ALONG WITH FUTURE DEVELOPMENT NORTH OF MANHOLE 001.

THE SANITARY CAPACITY FLOW CALCULATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE UPON RECEIVING ADDITIONAL INFORMATION AND FINAL ENGINEERING.

LEGEND

- PROPOSED MIXED USE BUILDING
- EX. COMMERCIAL BUILDING
- EXISTING SANITARY SEWER NETWORK
- PROPOSED OFFSITE SANITARY SEWER NETWORK
- PROPOSED ONSITE SANITARY SEWER NETWORK

REVISIONS

No.	DATE	DESCRIPTION

PLAN DATE
05-04-2016
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COMMONWEALTH OF VIRGINIA
ELIZABETH C. TOOKE
LICENSED PROFESSIONAL ENGINEER
No. 036700
04/22/2025

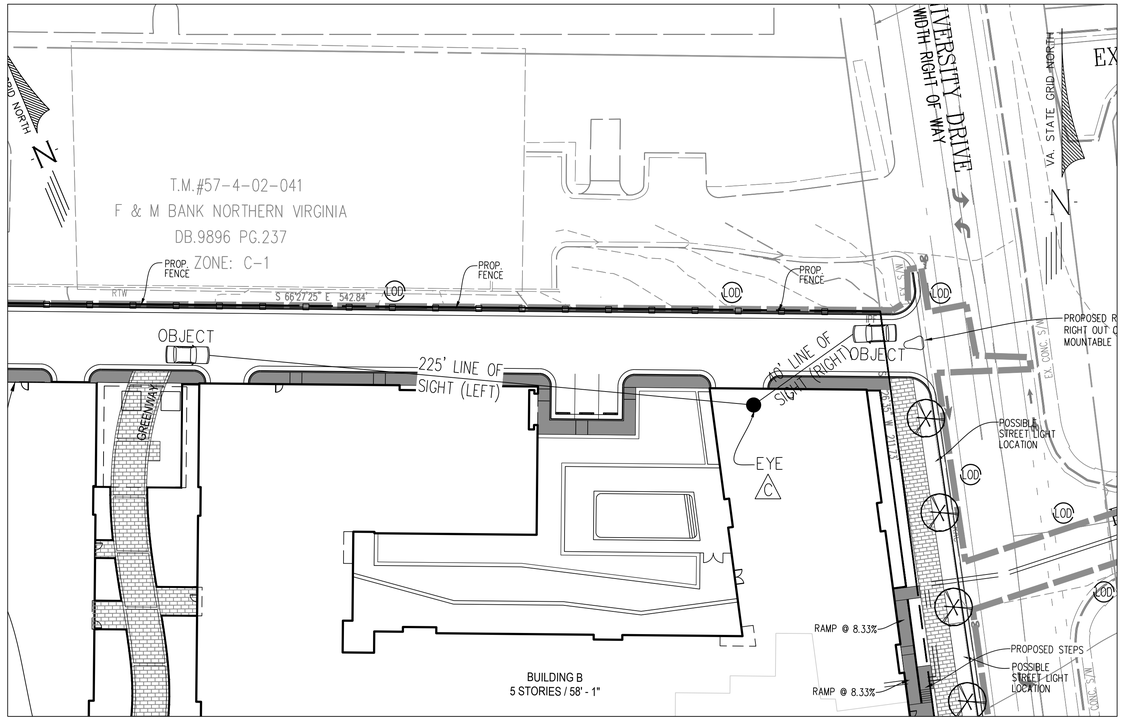
SANITARY ANALYSIS
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=60' C.I.=2' DATE: DEC., 2024

SHEET 22 OF 39

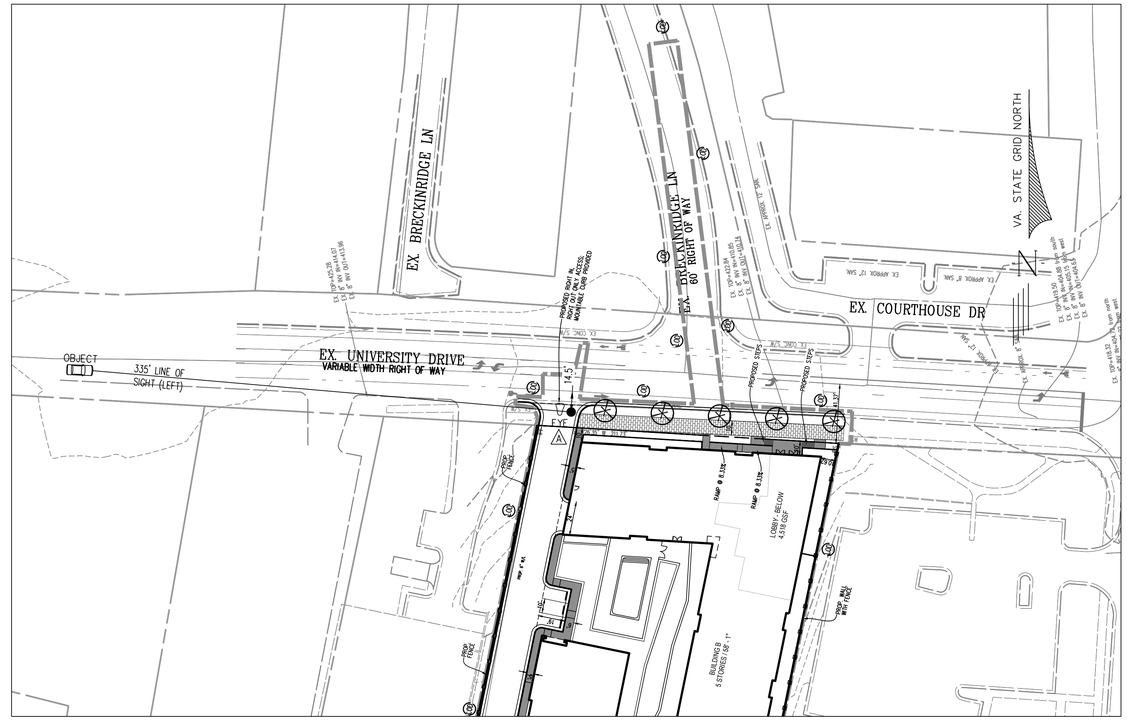
FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-24- Sanitary Sewer Analysis.dwg [Sanitary Analysis] May 22, 2025 - 4:22pm aprensberg



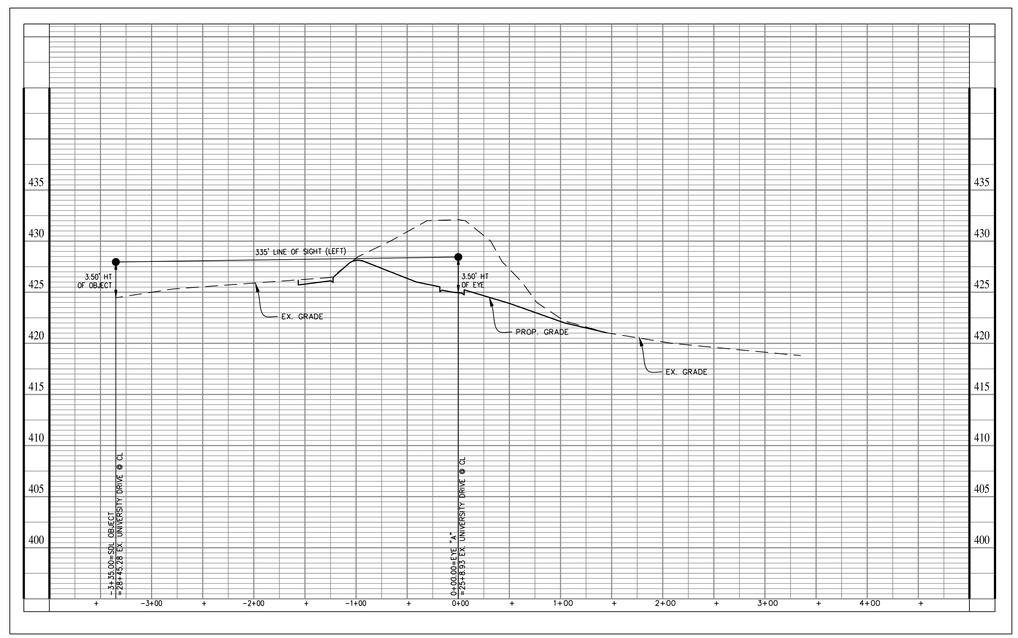
PLAN VIEW
SCALE: 1"=30'

GARAGE ENTRANCE ON ACCESS DRIVE
EYE "C"
DESIGN SPEED = 25 MPH



PLAN VIEW
SCALE: 1"=50'

SIGHT DISTANCE PROFILE
MAIN ENTRANCE ON UNIVERSITY DRIVE
EYE "A"
POSTED SPEED = 25 MPH
DESIGN SPEED = 30 MPH



No.	DATE	DESCRIPTION
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

REVISIONS

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
06-11-2024
09-03-2024
12-02-2024
04-15-2025
05-22-2025

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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOOK
Lic. No. 036790
04/22/2025
PROFESSIONAL ENGINEER

SIGHT DISTANCE PROFILES

4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

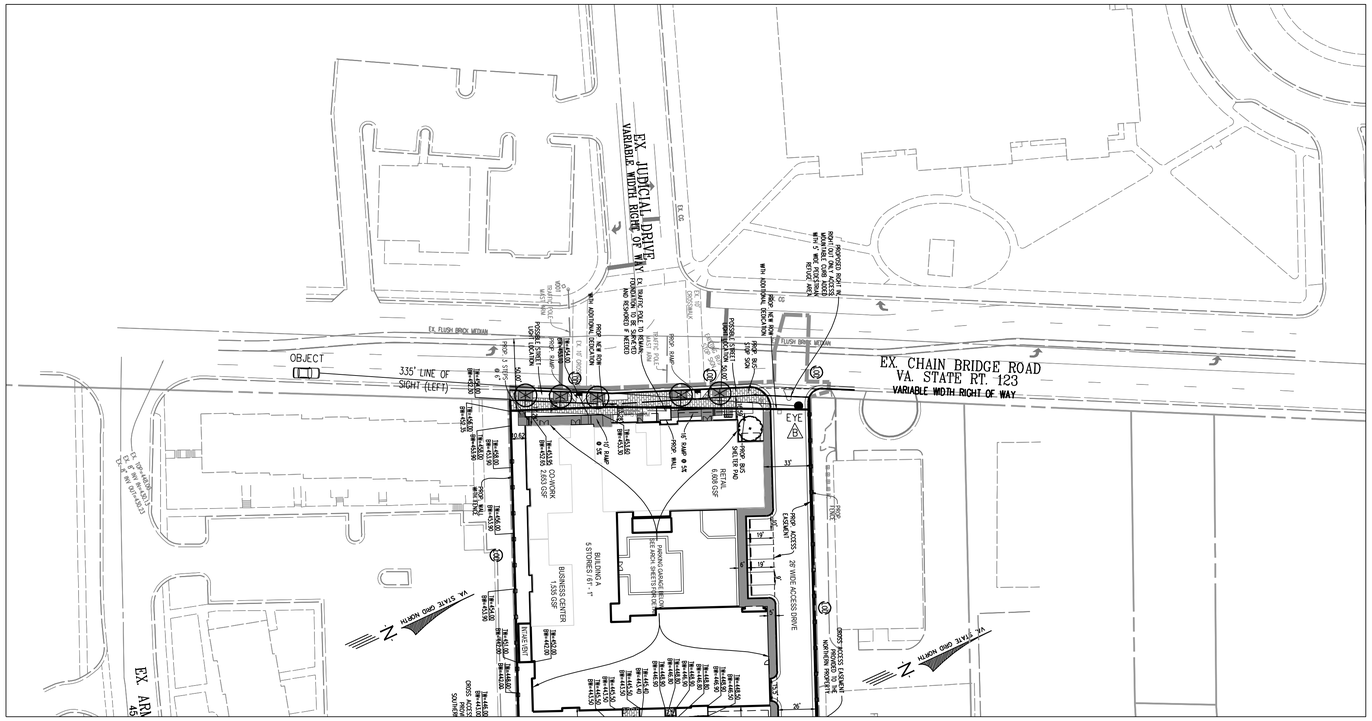
CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=50' (H); 1"=50' (V) C.I.= 2' DATE: DEC., 2024

SHEET 23 OF 39

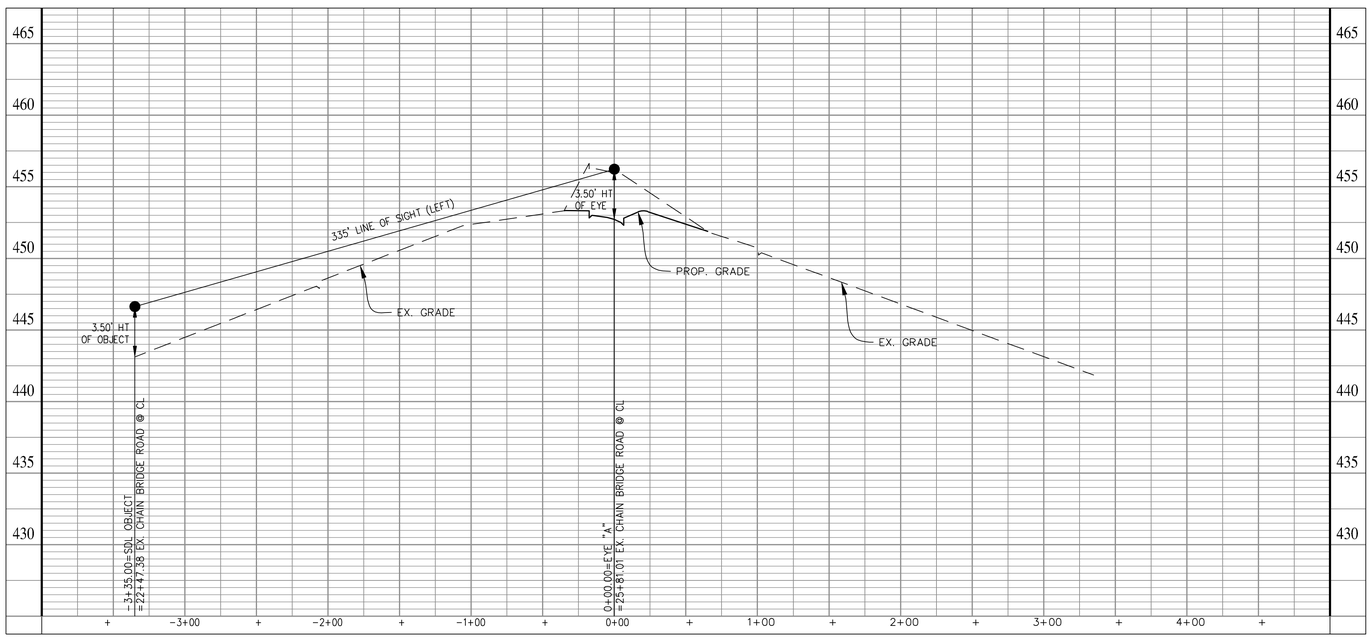
FILE No. RZ-12787

Urban, Ltd. – J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-31-SIGHT D.dwg [SIGHT D-B &C] May 22, 2025 – 4:51pm ccrensberg



PLAN VIEW
SCALE: 1"=50'

SIGHT DISTANCE PROFILE
MAIN ENTRANCE ON CHAIN BRIDGE ROAD
EYE "B"
POSTED SPEED = 25 MPH
DESIGN SPEED = 30 MPH



No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
06-11-2024
09-03-2024
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COMMONWEALTH OF VIRGINIA
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PROFESSIONAL ENGINEER
05/22/2025

SIGHT DISTANCE PROFILES

4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

CITY OF FAIRFAX, VIRGINIA

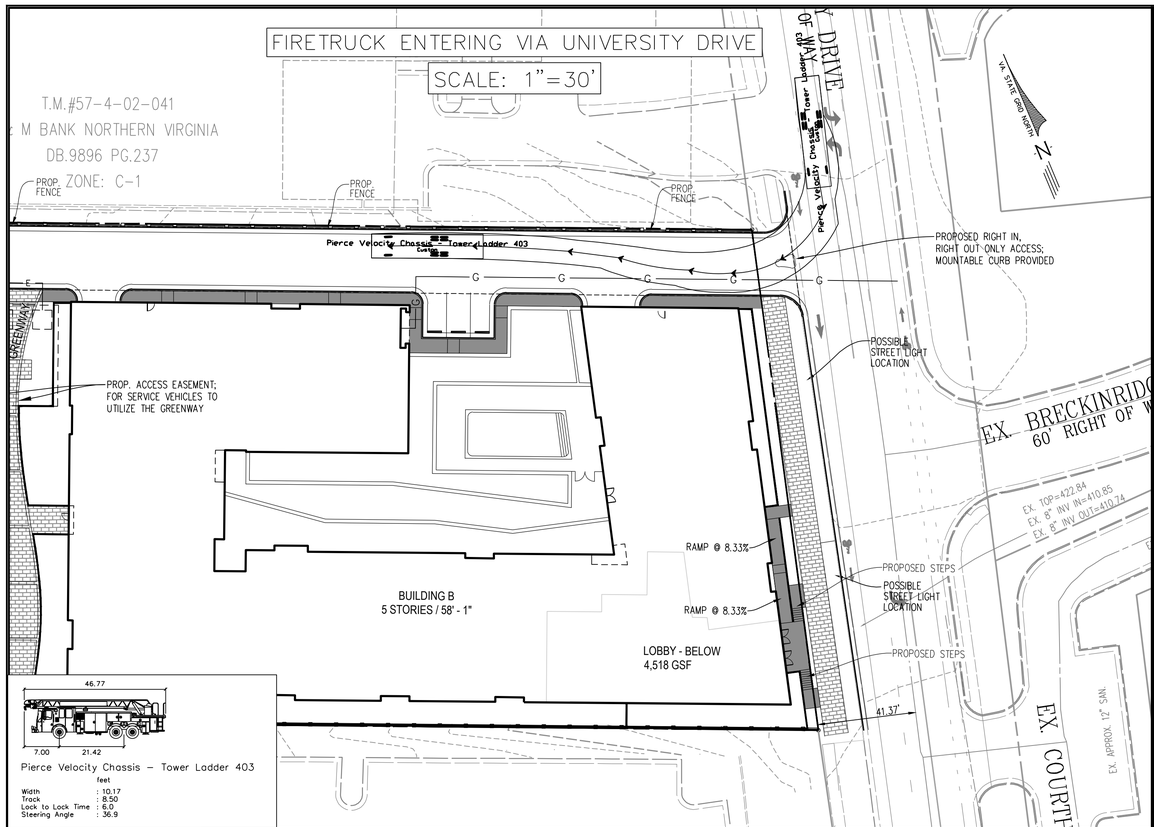
DATE: DEC., 2024

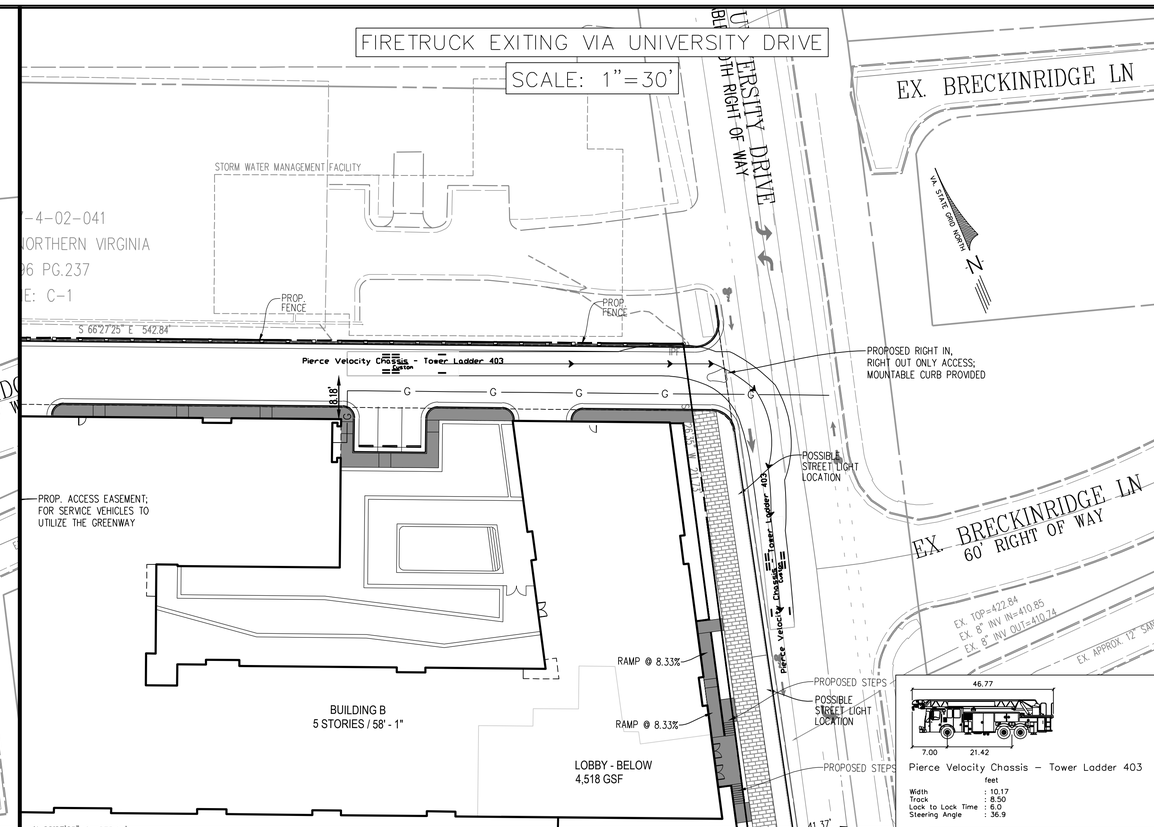
SCALE: 1"=50' (H); 1"=50' (V) C.I.= 2'

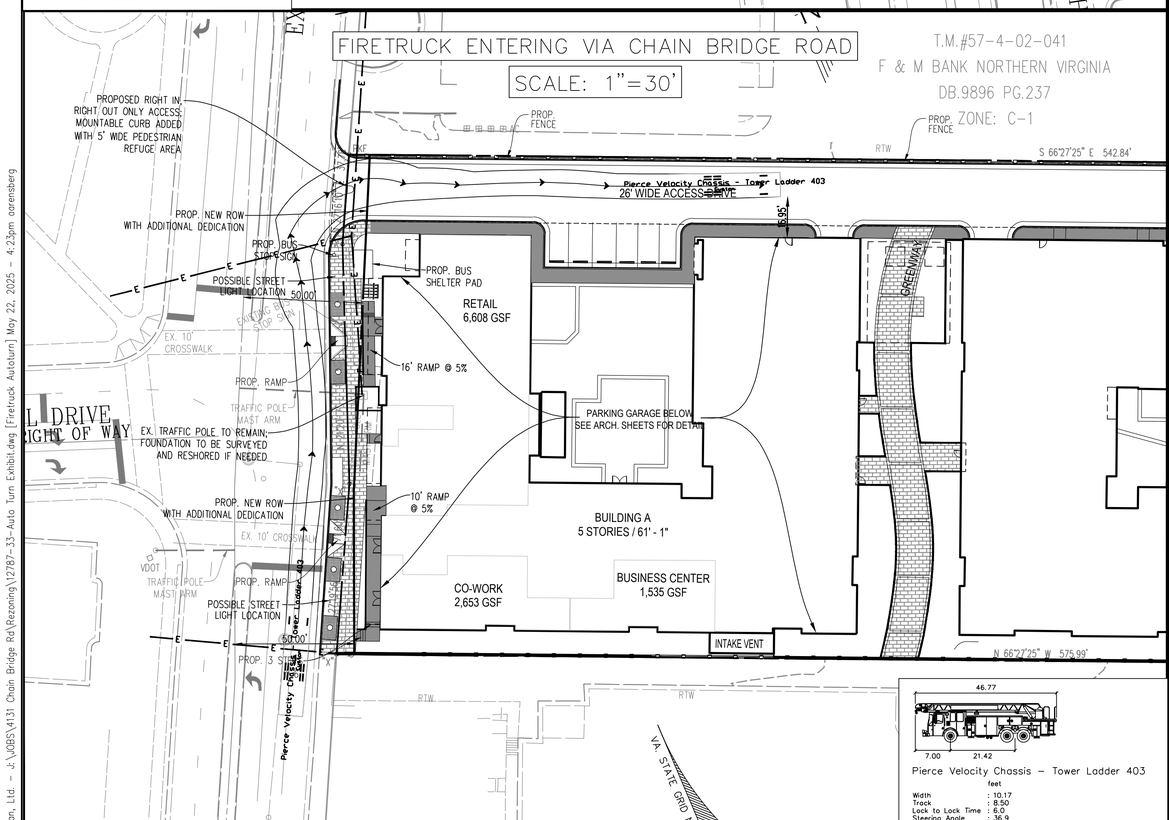
SHEET 24 OF 39

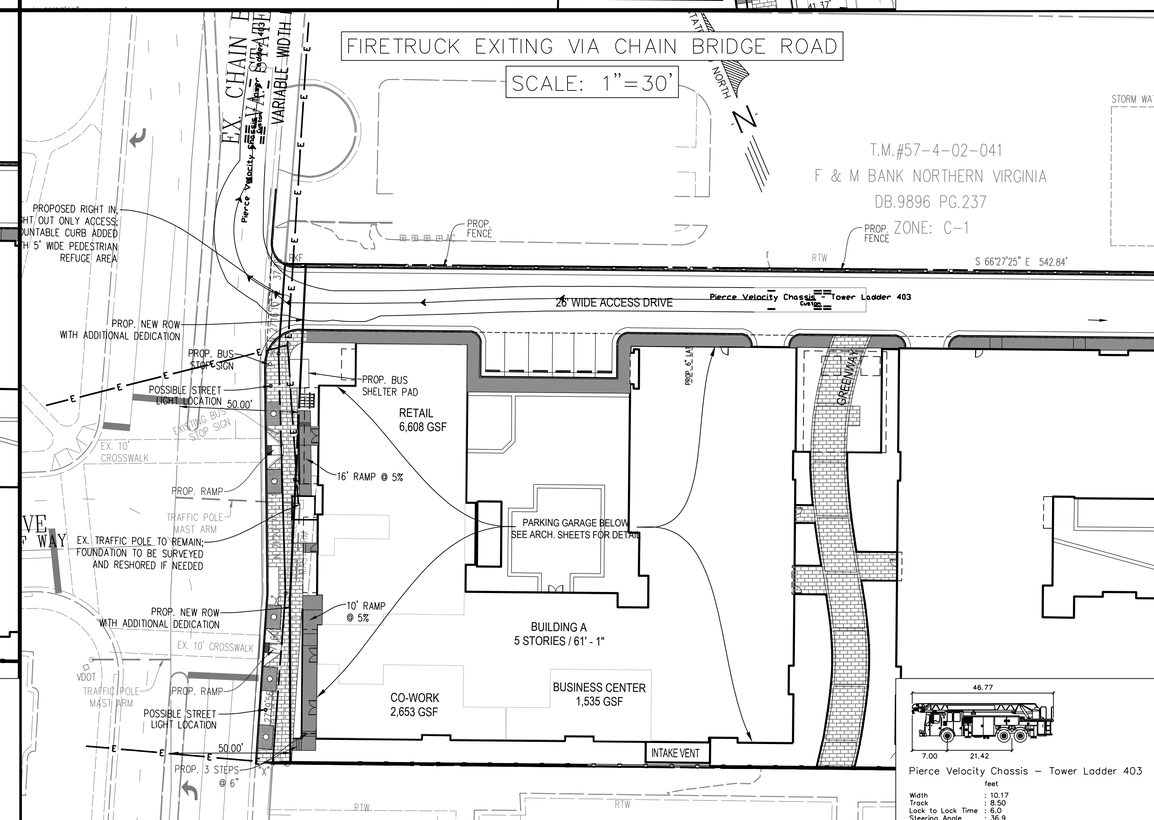
FILE No. RZ-12787

Urban, Ltd. – J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-31-SIGHT D.dwg [SIGHT D CHAIN BRIDGE RD] May 22, 2025 – 4:23pm oprensberg









No.	DATE	DESCRIPTION
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REVISIONS

PLAN DATE
05-04-2016
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Lakhi Tuck
LAKHI K. TUCK
Lic. No. 036790
05/22/2025
PROFESSIONAL ENGINEER

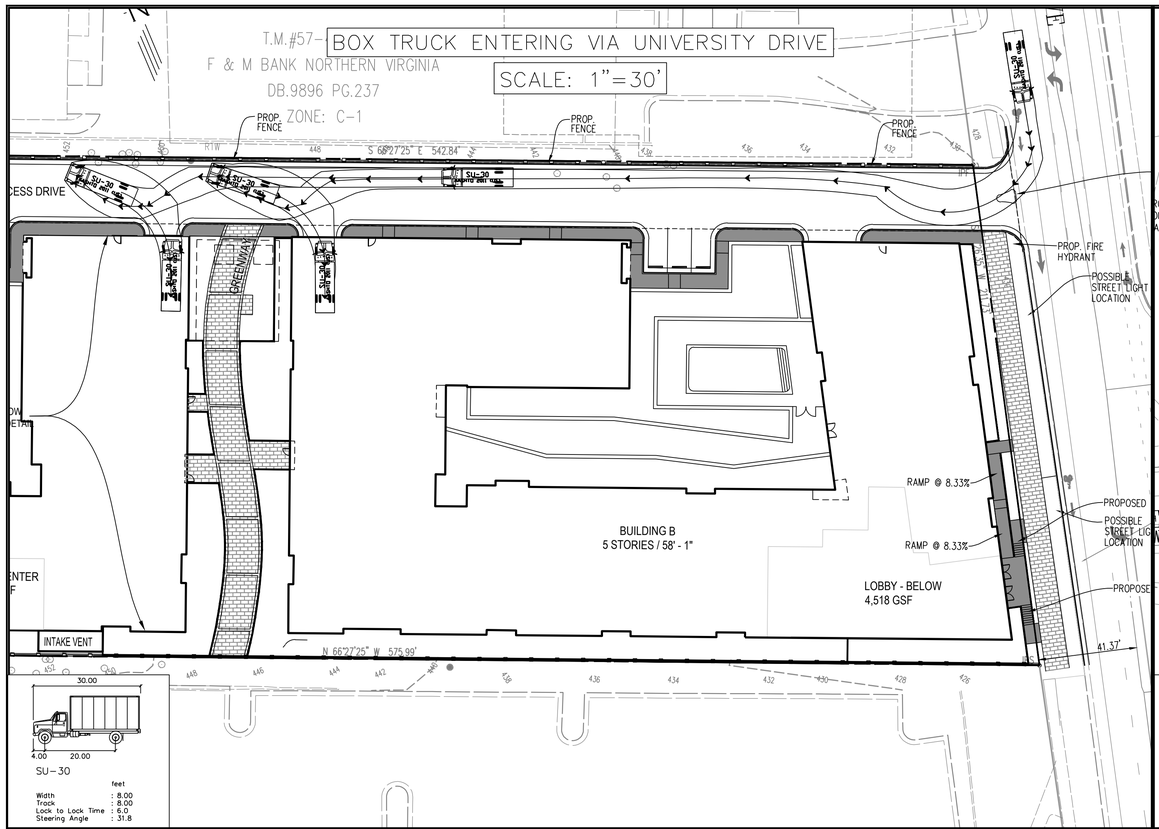
FIRETRUCK AUTOTURN ANALYSIS
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

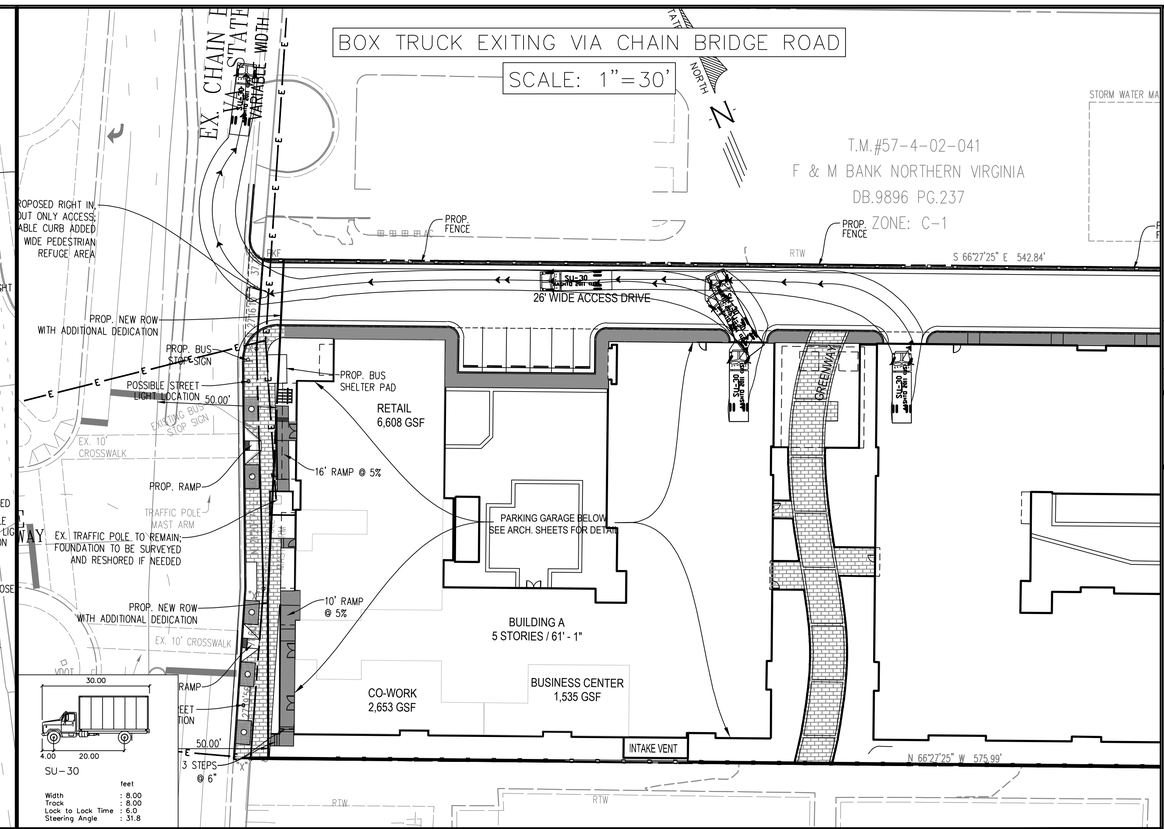
SCALE: AS NOTED
C.I.= N/A
DATE: DEC., 2024

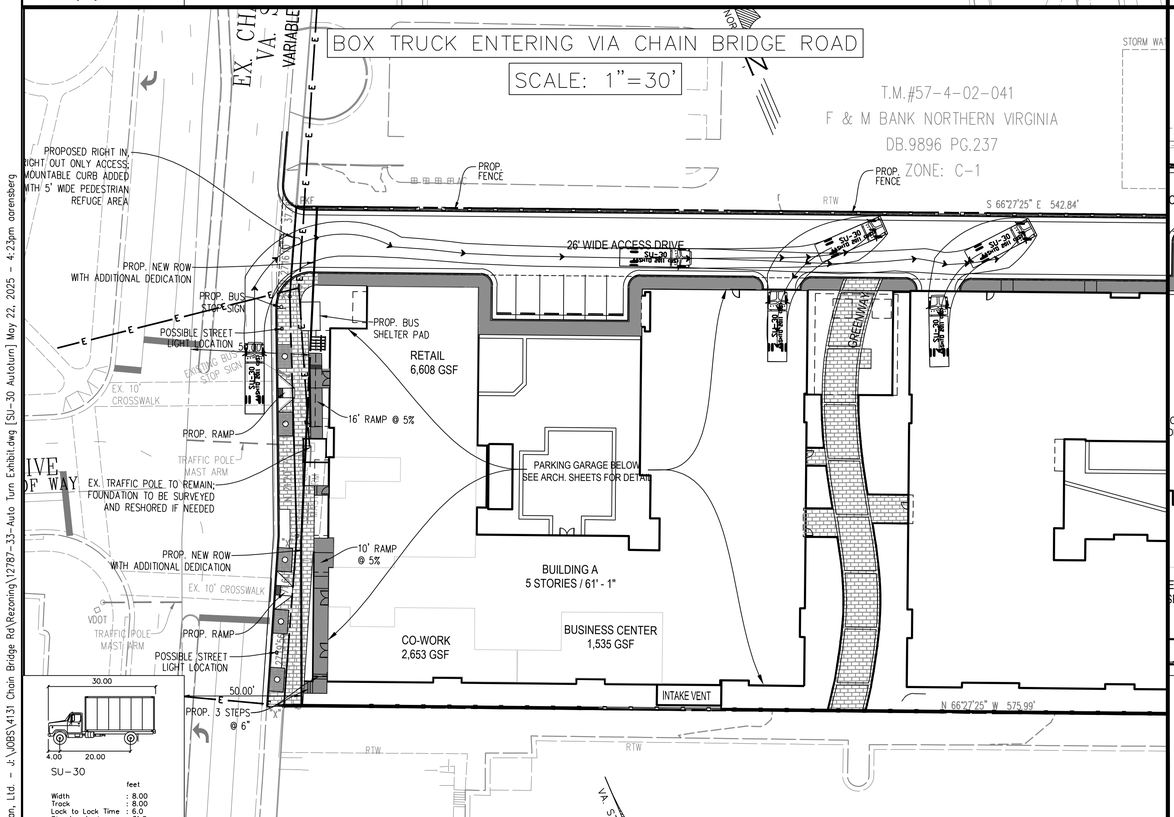
SHEET 25 OF 39

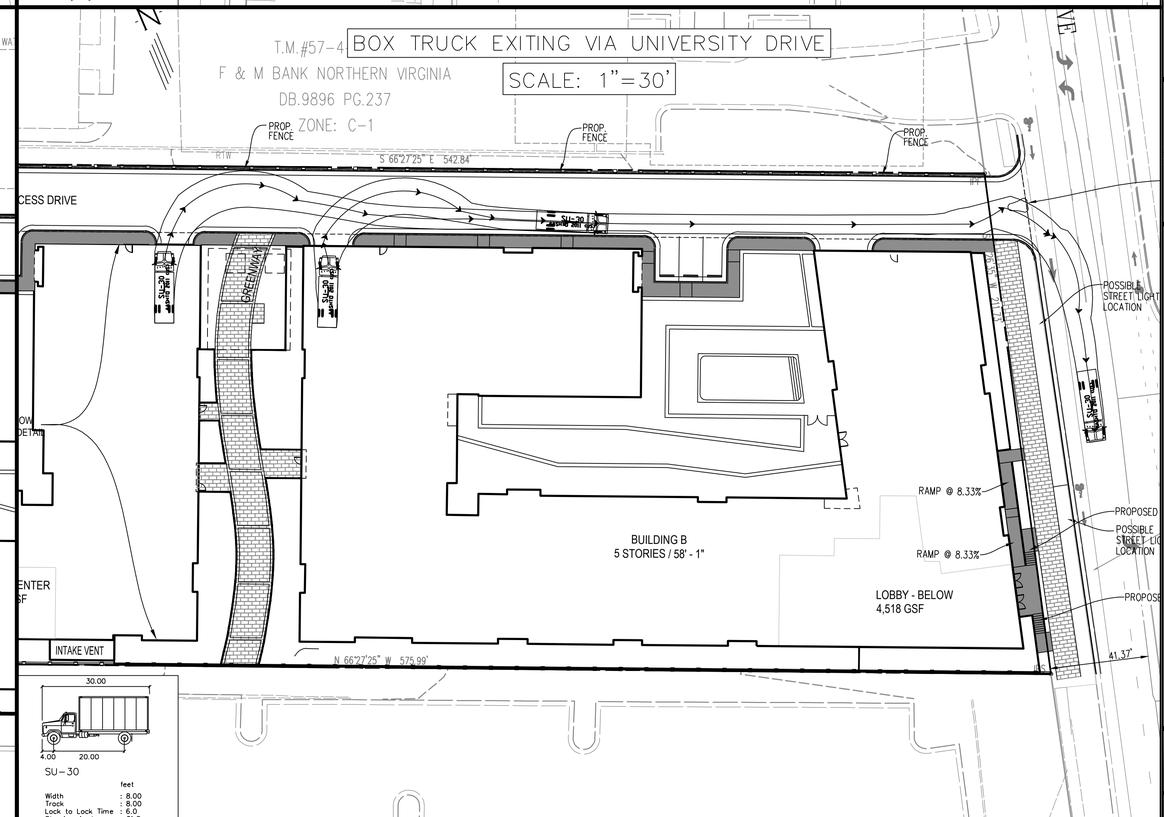
FILE No. RZ-12787

© Urban, Ltd. – J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-33-Auto Turn Exhibit.dwg [Firetruck Autoturn] May 22, 2025 - 4:23pm agrensberg









No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
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COMMONWEALTH OF VIRGINIA
Elizabeth C. Clark
LICENSED PROFESSIONAL ENGINEER
Lic. No. 036790
06/22/2025

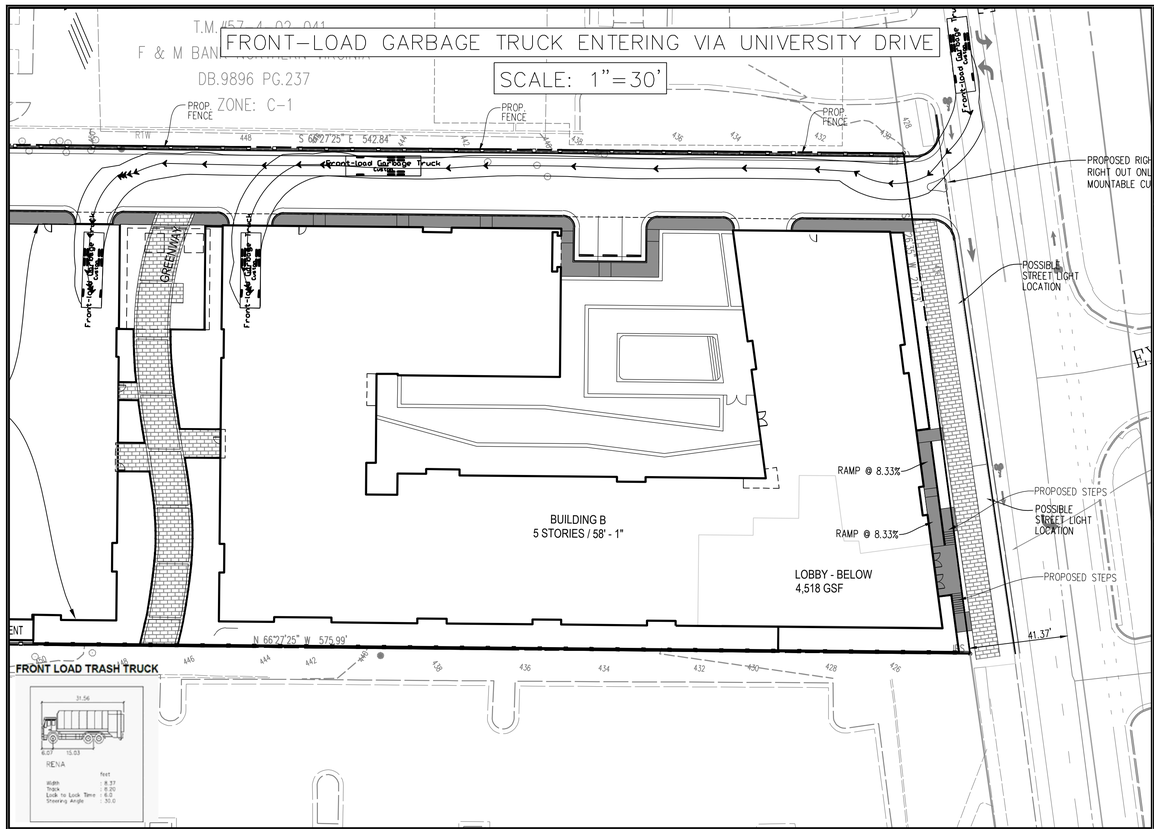
BOX TRUCK AUTOTURN ANALYSIS
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

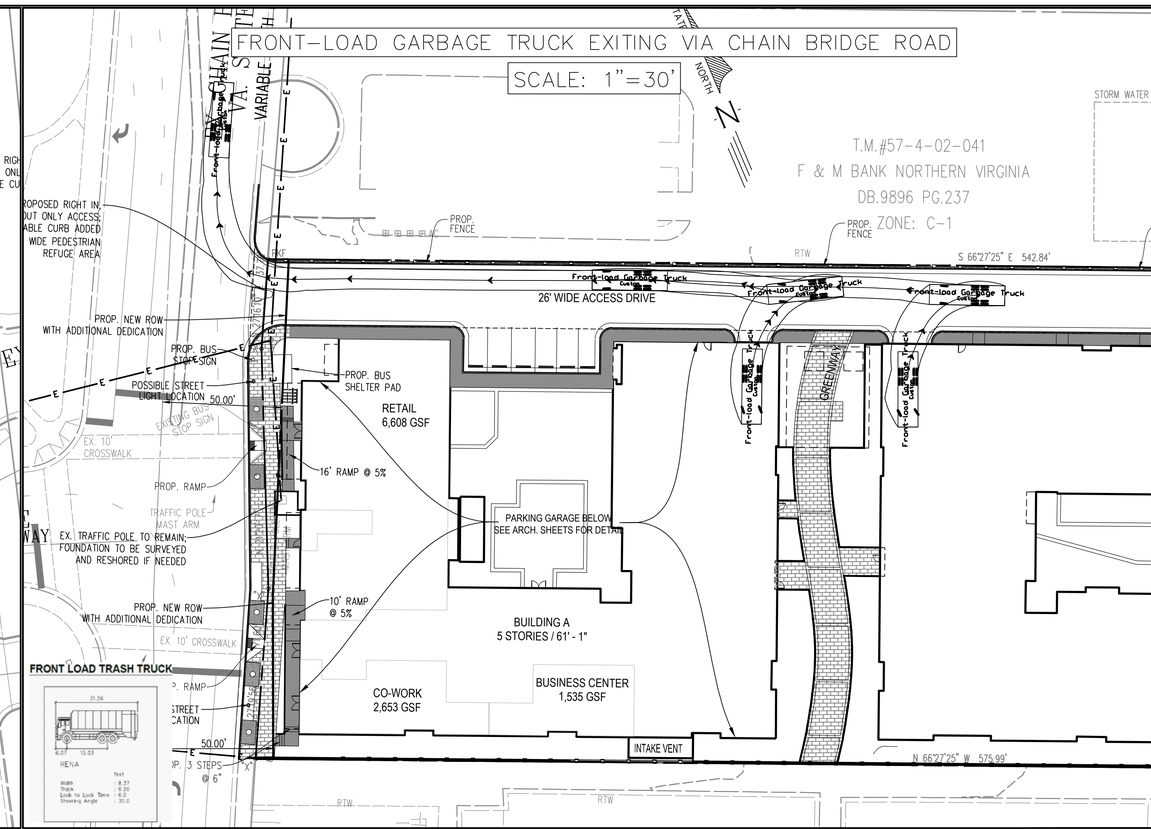
SCALE: AS NOTED
C.I.= N/A
DATE: DEC., 2024

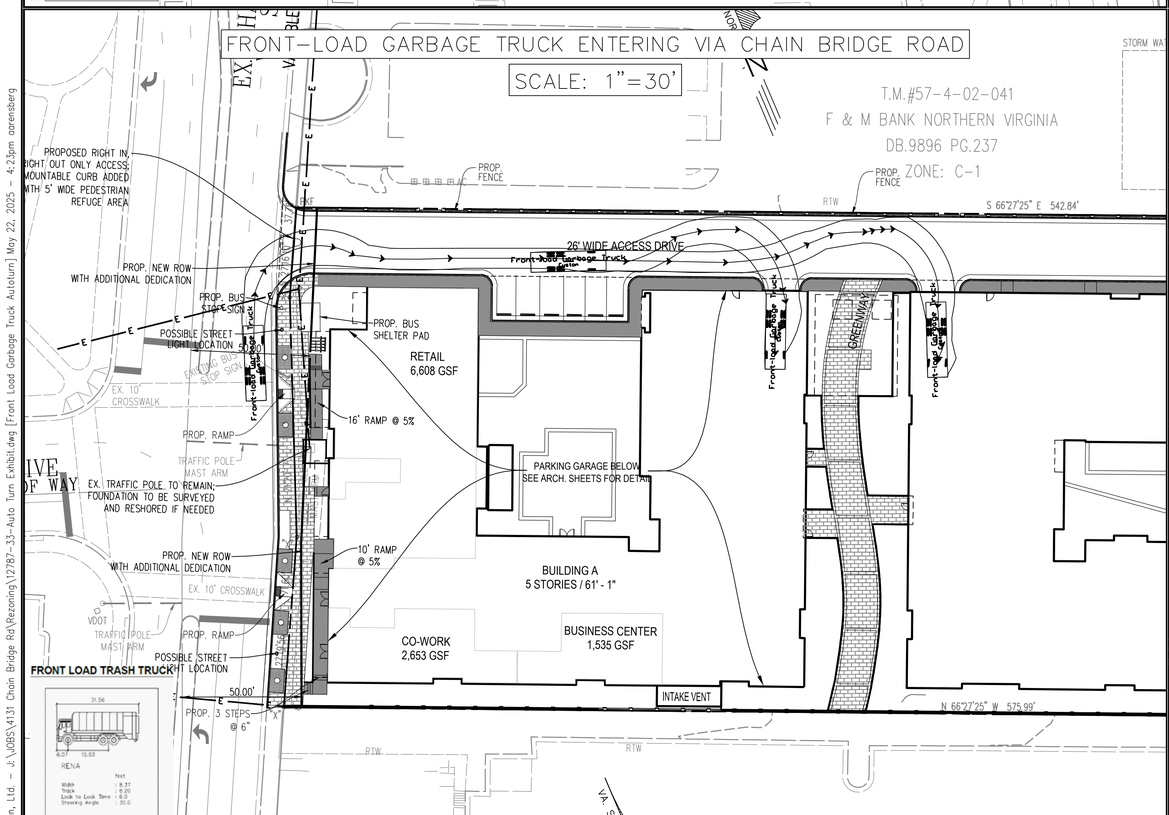
SHEET 26 OF 39

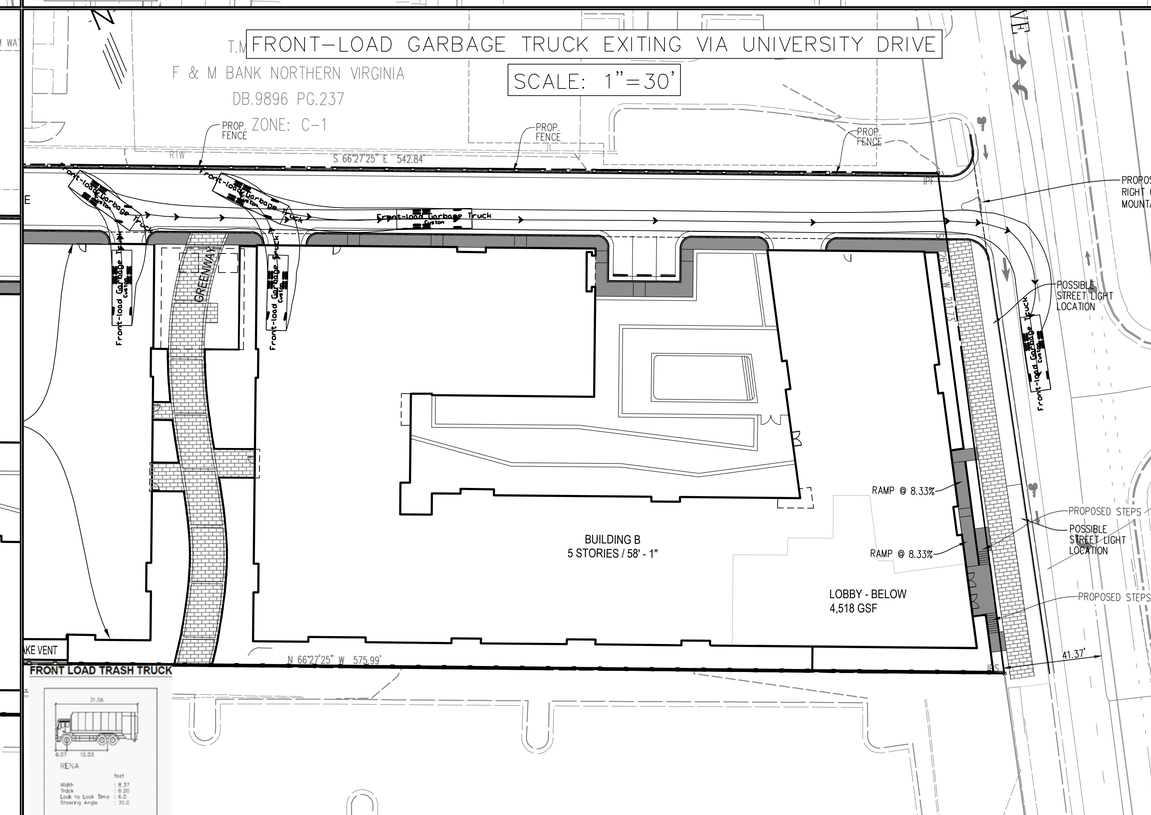
FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-33-Auto Turn Exhibit.dwg [SU-30 Autoturn] May 22, 2025 - 4:23pm aarensberg









No.	DATE	DESCRIPTION
-	05-04-2016	
-	10-18-2016	
-	04-22-2024	
-	06-11-2024	
-	09-03-2024	
-	12-02-2024	
-	04-15-2025	
-	05-22-2025	

REVISIONS

PLAN DATE

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COMMONWEALTH OF VIRGINIA
Clayton T. Tack
Lic. No. 036790
04/22/2025
PROFESSIONAL ENGINEER

FRONT LOAD GARBAGE TRUCK AUTOTURN ANALYSIS

4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

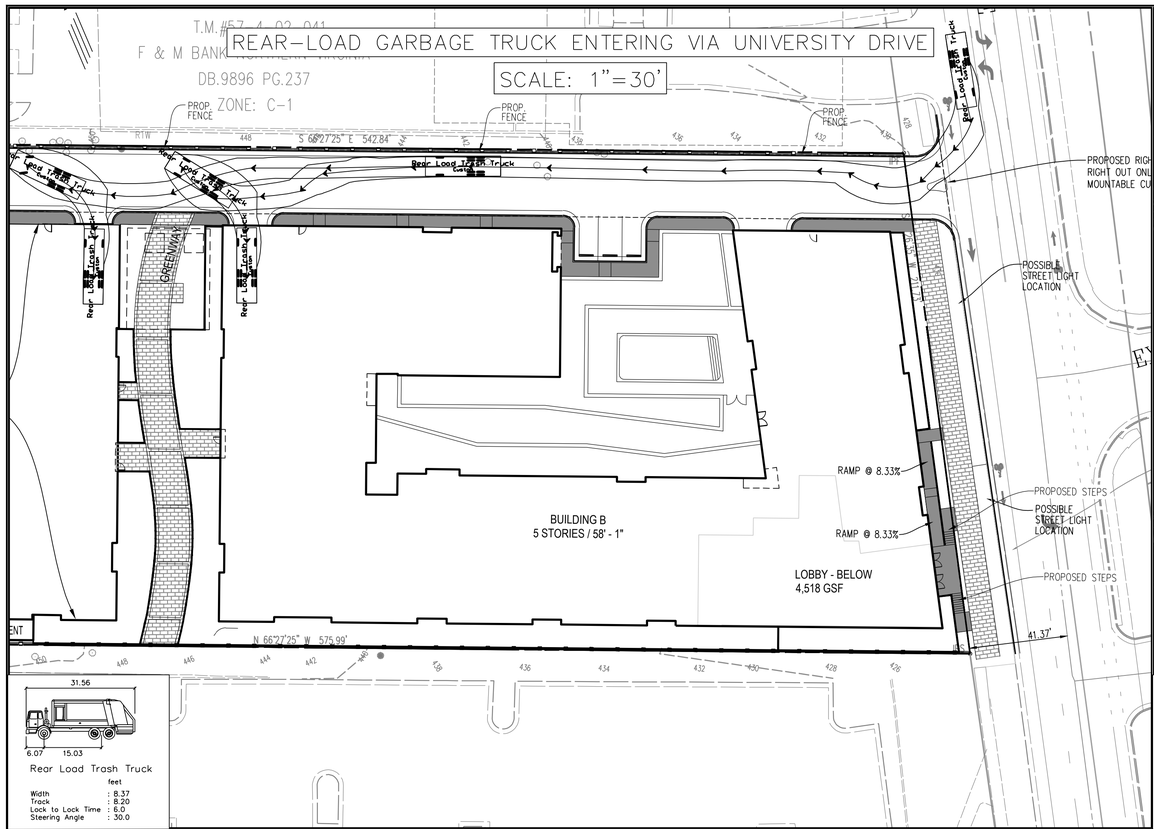
CITY OF FAIRFAX, VIRGINIA

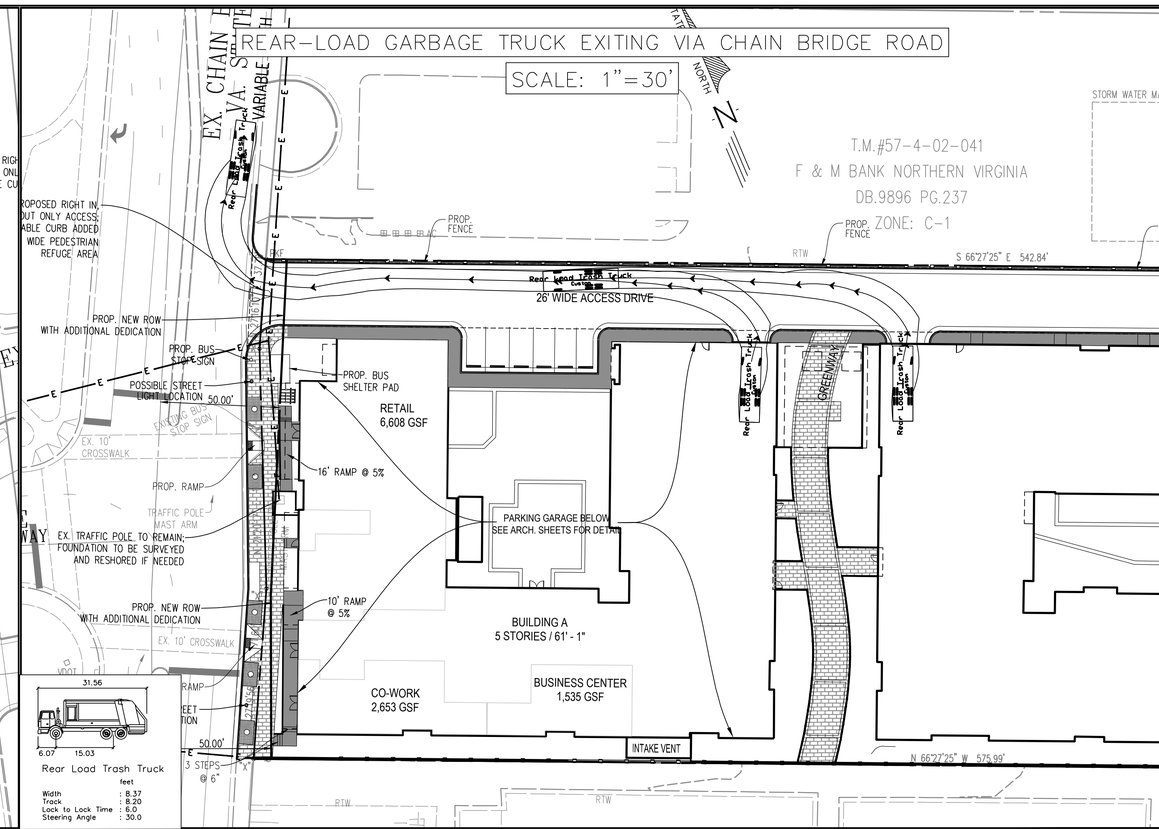
SCALE: AS NOTED | C.I.= N/A | DATE: DEC., 2024

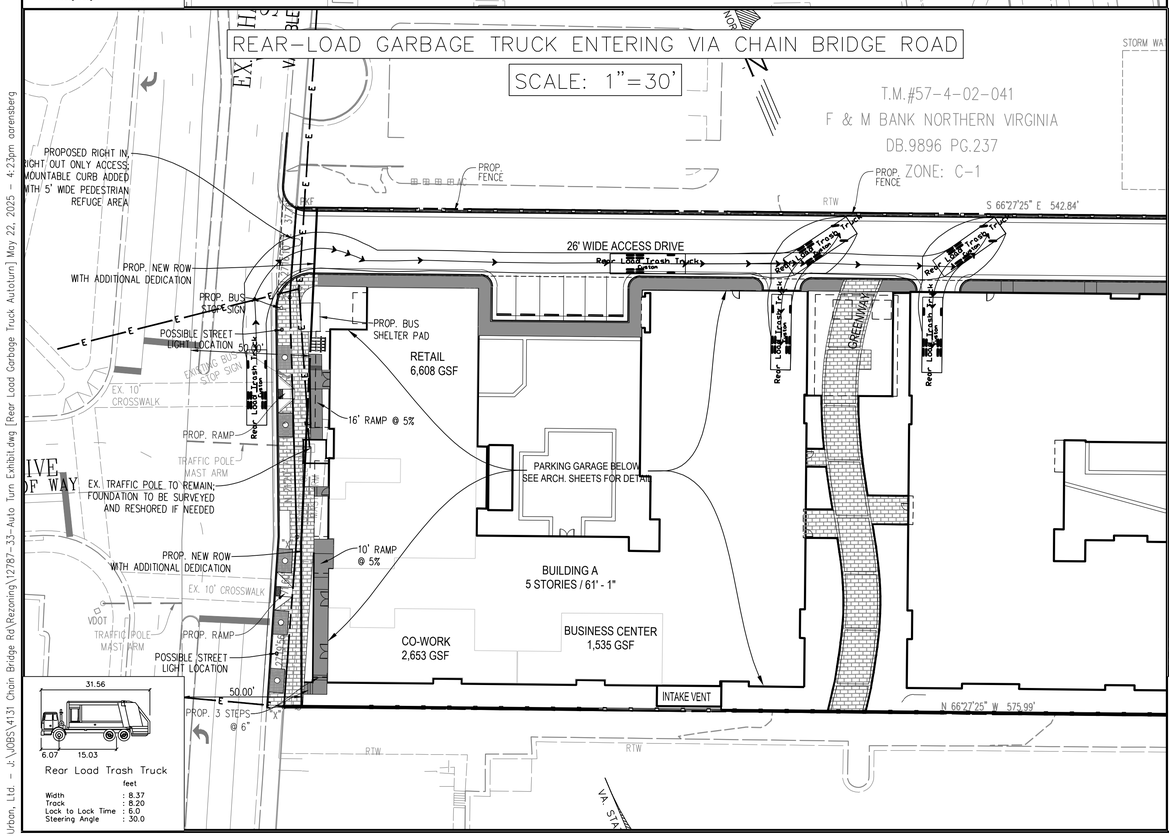
SHEET 27 OF 39

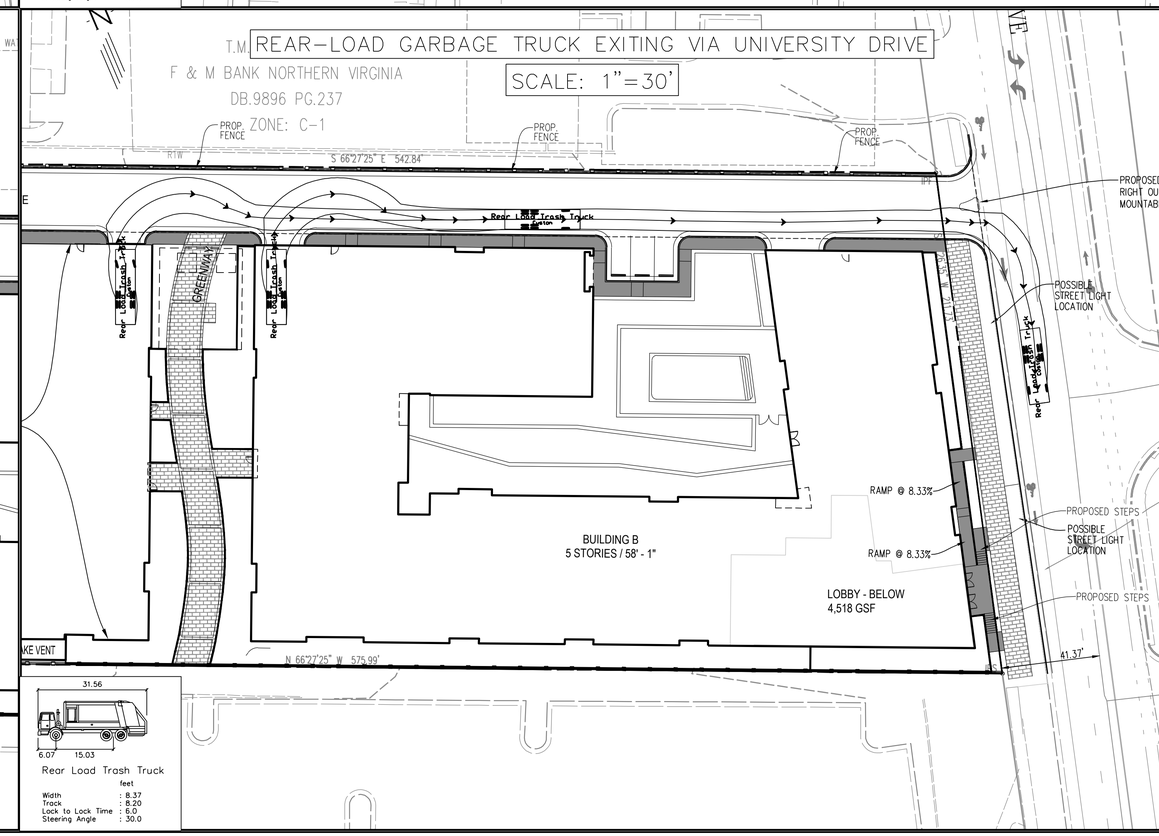
FILE No. RZ-12787

Urban, Ltd. – J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-33-Auto Turn Exhibit.dwg [Front Load Garbage Truck Autoturn] May 22, 2025 – 4:23pm aaresberg









No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
05-04-2016
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ENGINEER
Clayton C. Fox
Lic. No. 036790
06/22/2025
PROFESSIONAL

REAR LOAD GARBAGE TRUCK AUTOTURN ANALYSIS

4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

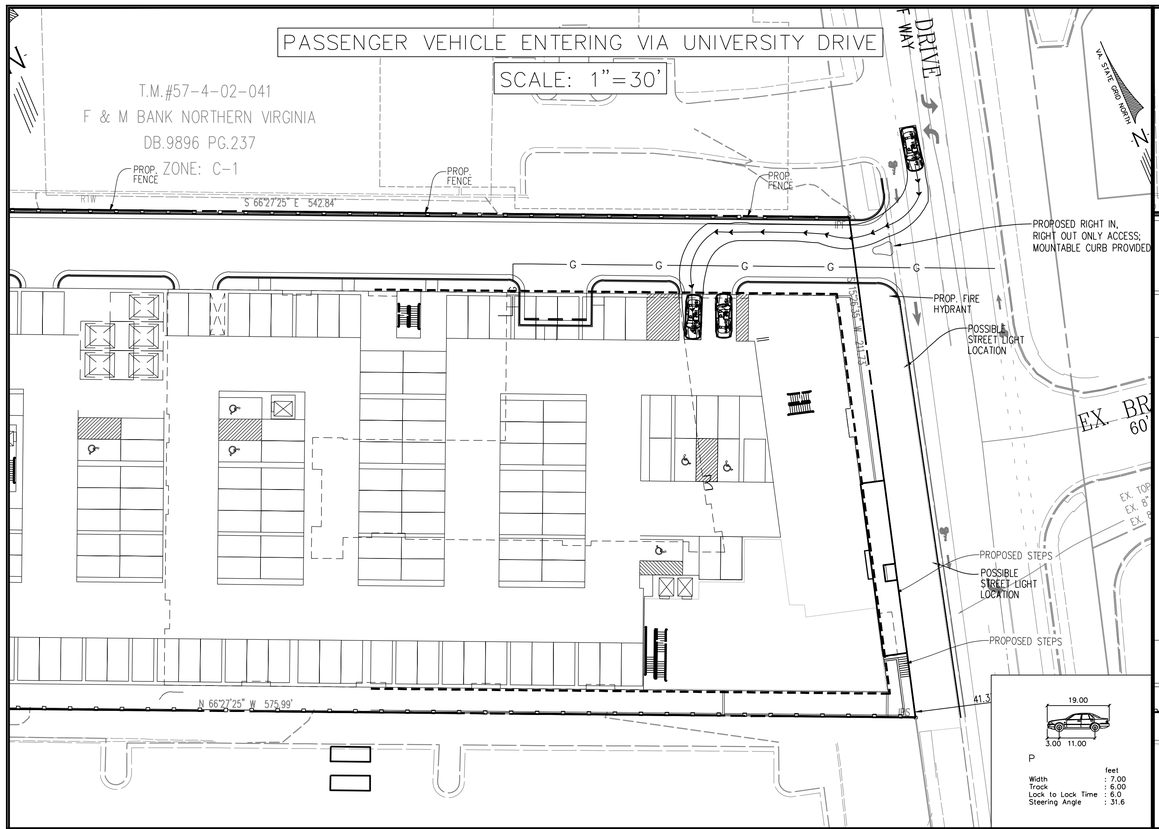
CITY OF FAIRFAX, VIRGINIA

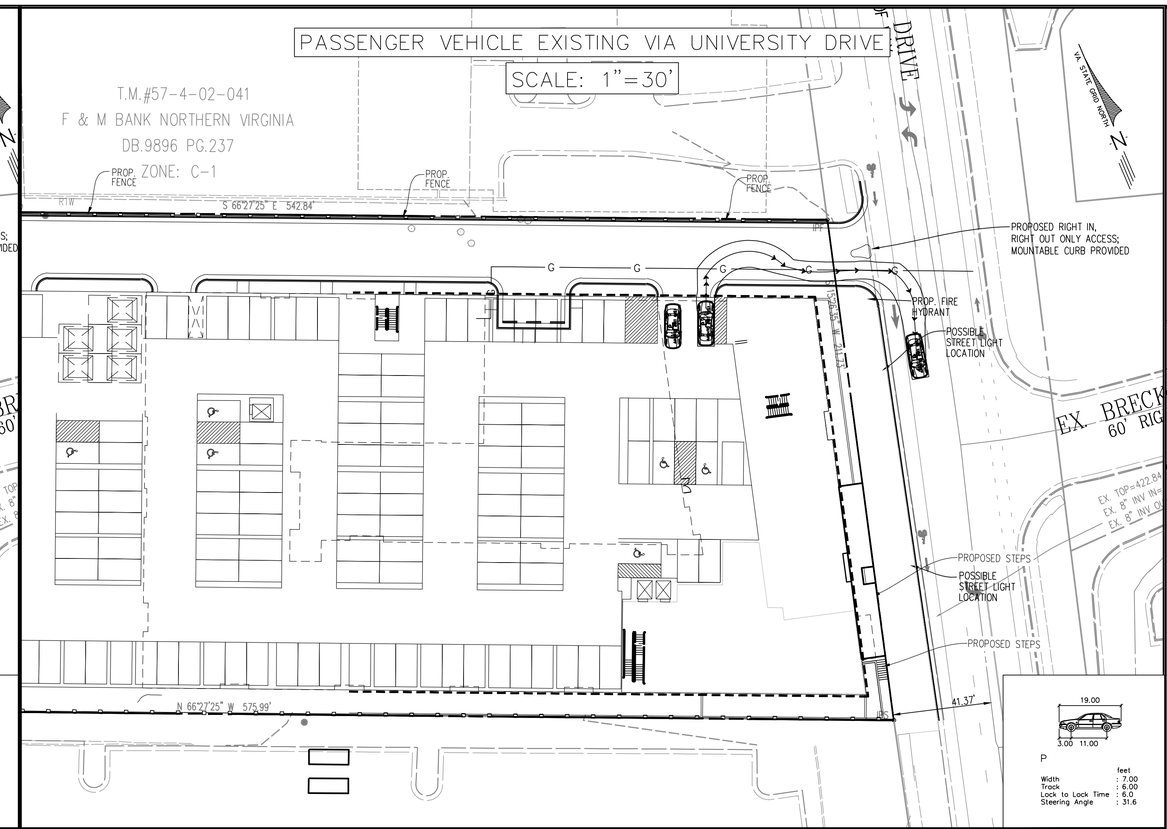
SCALE: AS NOTED | C.I.= N/A | DATE: DEC., 2024

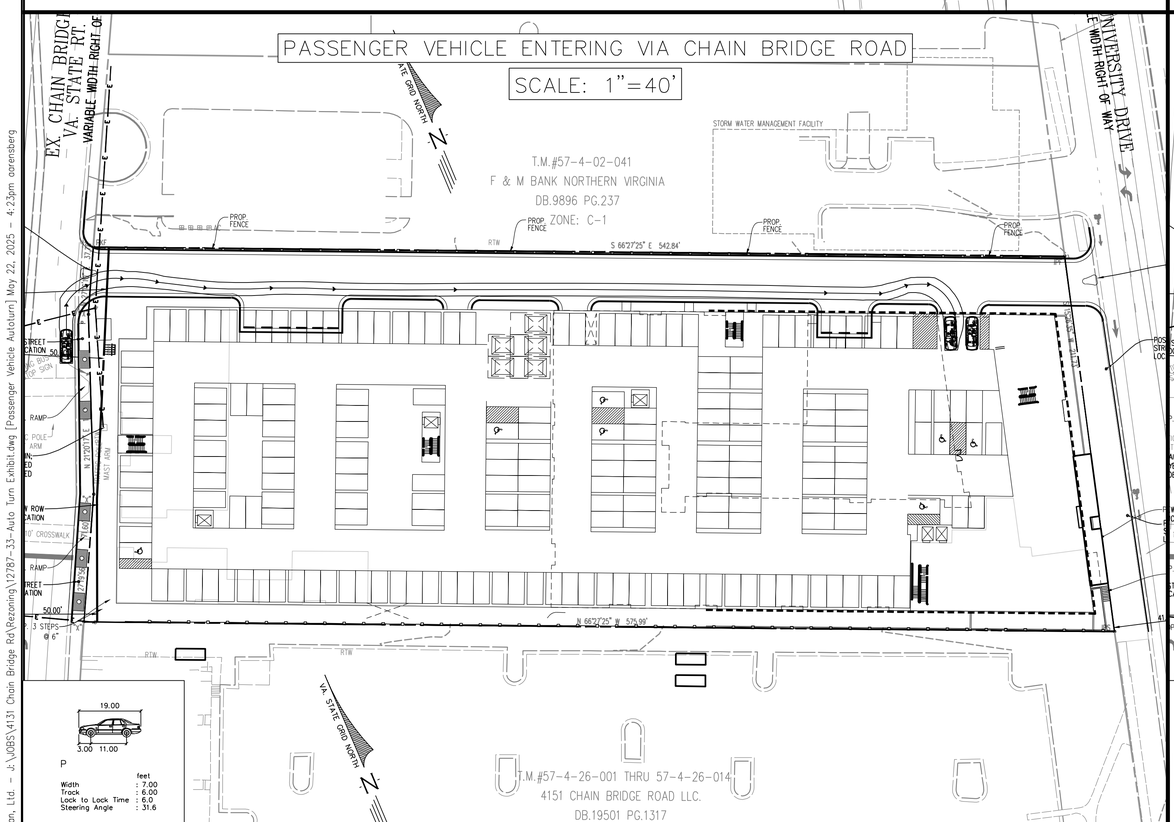
SHEET 28 OF 39

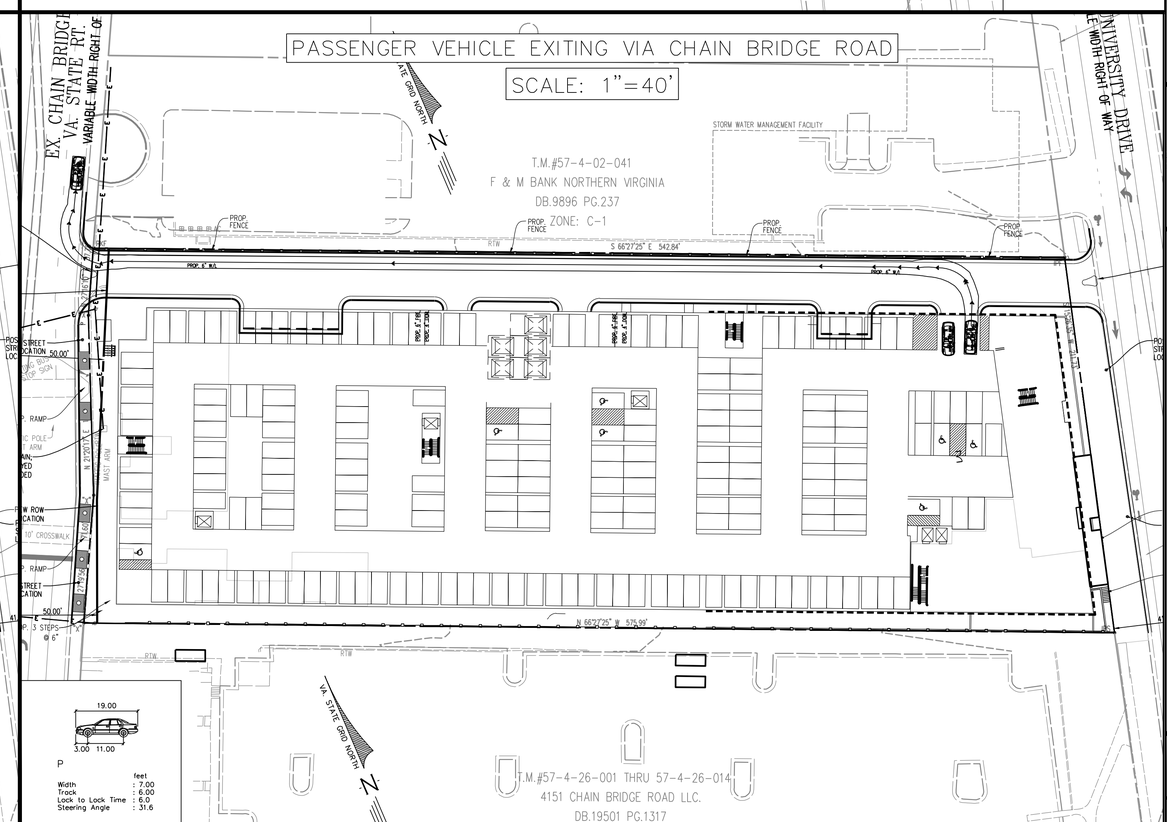
FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-33-Auto Turn Exhibit.dwg [Rear Load Garbage Truck Autoturn] May 22, 2025 - 4:23pm agrensberg









No.	DATE	DESCRIPTION
-	05-04-2016	
-	10-18-2016	
-	04-22-2024	
-	06-21-2024	
-	09-03-2024	
-	12-02-2024	
-	04-15-2025	
-	05-22-2025	

REVISIONS

PLAN DATE

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COMMONWEALTH OF VIRGINIA
Charles C. Clayton
LICENSED PROFESSIONAL ENGINEER
Lic. No. 036790
05/22/2025

PASSENGER VEHICLE AUTOTURN ANALYSIS

4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

CITY OF FAIRFAX, VIRGINIA

SCALE: AS NOTED

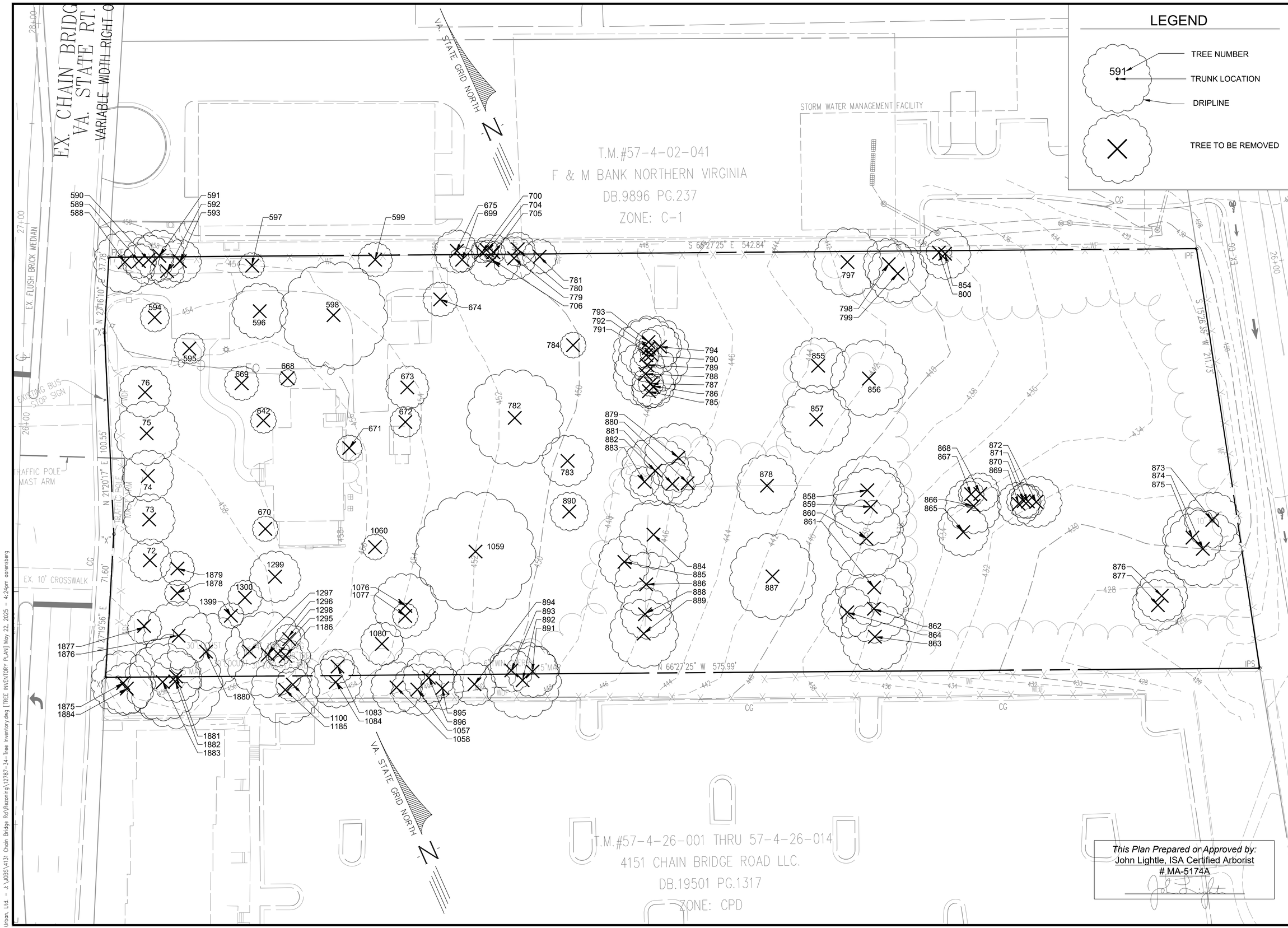
C.I.= N/A

DATE: DEC., 2024

SHEET 29 OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-33-Auto Turn Exhibit.dwg [Passenger Vehicle Autoturn] May 22, 2025 - 4:23am carensberg



This Plan Prepared or Approved by:
John Lightle, ISA Certified Arborist
MA-5174A

No.	DATE	DESCRIPTION

REVISIONS

PLAN	DATE
–	10-18-2016
–	04-22-2024
–	06-11-2024
–	09-03-2024
–	12-02-2024
–	04-15-2025
–	05-22-2025

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COMMONWEALTH OF VIRGINIA
John Lightle
Lic. No. 1957
05/22/2025
LANDSCAPE ARCHITECT

TREE INVENTORY
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

DATE: DEC., 2024
SCALE: N/A
C.I.= N/A

SHEET 30 OF 39

FILE No. RZ-12787

Urban, Ltd. – J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-34-Tree Inventory.dwg [TREE INVENTORY PLAN] May 22, 2025 – 4:24pm aarensberg

TREE NO.	BOTANICAL NAME	COMMON NAME	SIZE	CANOPY	CRZ	CONDITION RATING	POOR CONDITION?	CO-OWNED/ OFFSITE	STATUS	COMMENTS
			(in)	R (ft.)	R (ft.)	%			(Remove or Preserve)	
72	Zelkova serrata	Japanese Zelkova	10"	10'	10'	87.50			Remove	
73	Zelkova serrata	Japanese Zelkova	12"	12'	12'	87.50			Remove	
74	Zelkova serrata	Japanese Zelkova	12"	12'	12'	87.50			Remove	
75	Zelkova serrata	Japanese Zelkova	15"	15'	15'	87.50			Remove	
76	Zelkova serrata	Japanese Zelkova	12"	12'	12'	87.50			Remove	
588	*Quercus falcata*	Southern Red Oak	12"	15'	12'	18.75	Yes		Remove	Leader removed
589	*Juniperus virginiana*	Eastern Redcedar	8"	8'	8'	37.50	Yes		Remove	
590	*Juniperus virginiana*	Eastern Redcedar	23"	12'	23'	37.50	Yes	Co-Owned	Remove	Multi-stem
591	*Acer rubrum*	Red Maple	24"	12'	24'	50.00		Co-Owned	Remove	Ivy
592	*Quercus phellos*	Willow Oak	15"	8'	15'	65.63			Remove	
593	*Juniperus virginiana*	Eastern Redcedar	10"	10'	10'	37.50	Yes		Remove	Ivy
594	*Ilex opaca*	American Holly	9"	7'	9'	18.75	Yes		Remove	Ivy; dying
595	*Ilex opaca*	American Holly	9"	7'	9'	78.13			Remove	
596	*Quercus falcata*	Southern Red Oak	10"	13'	10'	59.38			Remove	Ivy
597	*Lagerstroemia indica*	Crape Myrtle	8"	6'	8'	81.25			Remove	
598	*Ulmus americana*	American Elm	25"	25'	25'	56.25			Remove	Ivy
599	*Juglans nigra*	Black Walnut	9"	8'	9'	15.63	Yes		Remove	Ivy; dying
642	*Ilex opaca*	American Holly	8"	6'	8'	53.13			Remove	
668	*Thuja occidentalis*	Arborvitae	6"	4'	6'	68.75			Remove	Multi-stem
669	*Prunus subhirtella*	Weeping Cherry	8"	8'	8'	68.75			Remove	
670	*Ilex opaca*	American Holly	9"	6'	9'	75.00			Remove	
671	*Ilex opaca*	American Holly	7"	6'	7'	65.63			Remove	
672	*Ulmus americana*	American Elm	7"	7'	7'	56.25			Remove	Co-dominant
673	*Juglans nigra*	Black Walnut	11"	10'	11'	68.75			Remove	
674	*Juglans nigra*	Black Walnut	15"	8'	15'	71.88			Remove	
675	*Unknown*	Unknown	11"	10'	11'	0.00	Yes	Co-Owned	Remove	Dead
699	*Unknown*	Unknown	6"	6'	6'	18.75	Yes		Remove	Dying
700	*Unknown*	Unknown	7"	5'	7'	0.00	Yes	Co-Owned	Remove	Dead
704	*Unknown*	Unknown	7"	5'	7'	0.00	Yes	Offsite	Remove	Dead
705	*Acer rubrum*	Red Maple	9"	5'	9'	0.00	Yes	Co-Owned	Remove	Dead
706	*Ulmus americana*	American Elm	17"	12'	17'	71.88			Remove	
779	*Robinia pseudoacacia*	Black Locust	11"	10'	11'	0.00	Yes		Remove	Dead
780	*Juglans nigra*	Black Walnut	9"	8'	9'	25.00	Yes	Co-Owned	Remove	Dying
781	*Juniperus virginiana*	Eastern Redcedar	8"	8'	8'	75.00		Co-Owned	Remove	
782	*Juglans nigra*	Black Walnut	17"	23'	17'	62.50			Remove	Co-dominant
783	*Acer platanoides*	Norway Maple	20"	12'	20'	68.75			Remove	Multi-stem
784	*Carya glabra*	Pignut Hickory	6"	6'	6'	59.38			Remove	
785	*Juniperus virginiana*	Easter Redcedar	9"	8'	9'	43.75			Remove	Ivy
786	*Juglans nigra*	Black Walnut	12"	10'	12'	53.13			Remove	
787	*Ulmus americana*	American Elm	6"	6'	6'	34.38	Yes		Remove	
788	*Morus rubra*	Mulberry	17"	15'	17'	37.50	Yes		Remove	Trunk decay
789	*Celtis Occidentalis*	Hackberry	9"	8'	9'	46.88			Remove	Ivy
790	Celtis Occidentalis	Hackberry	6"	6'	6'	62.50			Remove	
791	Juniperus virginiana	Eastern Redcedar	22"	18'	22'	43.75			Remove	Co-dominant; ivy
792	Juniperus virginiana	Eastern Redcedar	14"	14'	14'	46.88			Remove	Ivy
793	Morus rubra	Mulberry	7"	6'	7'	18.75	Yes		Remove	Diseased
794	Morus rubra	Mulberry	12"	10'	12'	12.50	Yes		Remove	Dying
797	Juglans nigra	Black Walnut	16"	16'	16'	62.50			Remove	
798	Morus rubra	Mulberry	10"	12'	10'	37.50	Yes		Remove	Co-dominant; trunk wound
799	Morus rubra	Mulberry	16"	14'	16'	40.63			Remove	Co-dominant; leaning
800	Unknown	Unknown	7"	6'	7'	0.00	Yes	Co-Owned	Remove	Dead
854	Prunus serotina	Black Cherry	13"	12'	13'	53.13		Co-Owned	Remove	
855	Ulmus americana	American Elm	14"	13'	14'	62.50			Remove	Co-dominant
856	Juniperus virginiana	Eastern Redcedar	28"	18'	28'	68.75			Remove	Co-dominant
857	Juglans nigra	Black Walnut	18"	16'	18'	53.13			Remove	Co-dominant
858	Juniperus virginiana	Eastern Redcedar	18"	16'	18'	46.88			Remove	Co-dominant; ivy
859	Juniperus virginiana	Eastern Redcedar	18"	18'	18'	43.75			Remove	Ivy
860	Juglans nigra	Black Walnut	18"	18'	18'	0.00	Yes		Remove	Dead
861	Juniperus virginiana	Eastern Redcedar	18"	18'	18'	40.63			Remove	Co-dominant
862	Juniperus virginiana	Eastern Redcedar	18"	16'	18'	43.75			Remove	Ivy
863	Juniperus virginiana	Eastern Redcedar	18"	16'	18'	34.38	Yes		Remove	Co-dominant; 1 broken
864	Prunus serotina	Black Cherry	15"	12'	15'	56.25			Remove	Multi-leader
865	Juniperus virginiana	Eastern Redcedar	15"	12'	15'	37.50	Yes		Remove	Ivy; broken branches
866	Juniperus virginiana	Eastern Redcedar	15"	13'	15'	37.50	Yes		Remove	Ivy; broken branches
867	Prunus serotina	Black Cherry	4"	6'	4'	46.88			Remove	Multi-leader
868	Prunus serotina	Black Cherry	9"	9'	9'	53.13			Remove	Multi-leader; ivy
869	Juniperus virginiana	Eastern Redcedar	10"	10'	10'	56.25			Remove	
870	Juniperus virginiana	Eastern Redcedar	10"	8'	10'	53.13			Remove	
871	Juniperus virginiana	Eastern Redcedar	10"	8'	10'	46.88			Remove	
872	Juniperus virginiana	Eastern Redcedar	12"	12'	12'	53.13			Remove	Co-dominant
873	Juniperus virginiana	Eastern Redcedar	10"	13'	10'	71.88			Remove	
874	Juniperus virginiana	Eastern Redcedar	12"	18'	12'	68.75			Remove	Co-dominant
875	Juniperus virginiana	Eastern Redcedar	18"	14'	18'	65.63			Remove	
876	Juniperus virginiana	Eastern Redcedar	12"	12'	12'	68.75			Remove	
877	Juniperus virginiana	Eastern Redcedar	13"	12'	13'	68.75			Remove	
878	Morus rubra	Mulberry	15"	14'	15'	46.88			Remove	
879	Gleditsia triavanthos var. inermis	Thornless Honeylocust	18"	16'	18'	53.13			Remove	Tristed Leader
880	Juglans nigra	Black Walnut	12"	12'	12'	46.88			Remove	Curved
881	Juglans nigra	Black Walnut	15"	10'	15'	56.25			Remove	Multi-leader
882	Juglans nigra	Black Walnut	18"	16'	18'	75.00			Remove	
883	Celtis Occidentalis	Hackberry	8"	7'	8'	65.63			Remove	
884	Juglans nigra	Black Walnut	15"	16'	15'	53.13			Remove	
885	Juniperus virginiana	Eastern Redcedar	15"	12'	15'	65.63			Remove	
886	Ulmus americana	American Elm	18"	15'	18'	78.13			Remove	
887	Juniperus virginiana	Eastern Redcedar	36"	20'	36'	53.13			Remove	
888	Juniperus virginiana	Eastern Redcedar	15"	12'	15'	46.88			Remove	Ivy
889	Juglans nigra	Black Walnut	18"	16'	18'	59.38			Remove	
890	Quercus palustris	Pin Oak	8"	9'	8'	81.25			Remove	
891	Acer platanoides	Norway Maple	15"	12'	15'	0.00	Yes	Co-Owned	Remove	Dead
892	Juglans nigra	Black Walnut	36"	18'	36'	6.25	Yes	Offsite	Remove	Heavy Ivy; Decay; Near Dead
893	Juglans nigra	Black Walnut	6"	10'	6'	34.38	Yes		Remove	Ivy; Decay; Co-dominant
894	Juglans nigra	Black Walnut	12"	10'	12'	31.25	Yes	Offsite	Remove	Heavy Ivy; Decay
895	Morus rubra	Red Mulberry	12"	10'	12'	28.13	Yes	Offsite	Remove	Heavy Ivy; Decay; Leaning; Trunk wound
896	Prunus serotina	Black Cherry	15"	12'	15'	12.50	Yes	Co-Owned	Remove	Heavy Ivy; Decay; Co-dominant
1057	Robinia pseudoacacia	Black Locust	12"	12'	12'	37.50	Yes	Offsite	Remove	Decay; Co-dominant; Heavy ivy; Reduced canopy
1058	Robinia pseudoacacia	Black Locust	12"	12'	12'	34.38	Yes	Offsite	Remove	Decay; Co-dominant; Heavy ivy; Reduced canopy
1059	Tilia americana	American Linden	42"	28'	42'	68.75			Remove	
1060	Ulmus americana	American Elm	10"	6'	10'	0.00	Yes		Remove	Dead
1076	Acer rubrum	Red Maple	36"	15'	36'	43.75			Remove	Leader broken off
1077	Ilex opaca	American Holly	12"	6'	12'	62.50			Remove	
1080	Quercus palustris	Pin Oak	15"	10'	15'	84.38			Remove	
1083	Robinia pseudoacacia	Black Locust	10"	6'	10'	40.63	Yes		Remove	Decay
1084	Prunus serotina	Black Cherry	12"	12'	12'	40.63	Yes	Offsite	Remove	Decay; Heavy ivy

TREE NO.	BOTANICAL NAME	COMMON NAME	SIZE	CANOPY	CRZ	CONDITION RATING	POOR CONDITION?	CO-OWNED/ OFFSITE	STATUS	COMMENTS
			(in)	R (ft.)	R (ft.)	%			(Remove or Preserve)	
1100	Robinia pseudoacacia	Black Locust	15"	6'	15'	31.25	Yes	Offsite	Remove	Decay; Heavy ivy; Multi-leader
1185	Robinia pseudoacacia	Black Locust	24"	16'	24'	37.50	Yes	Offsite	Remove	Decay; Heavy ivy
1186	Cornus florida	Flowering Dogwood	8"	8'	8'	65.63			Remove	
1295	Cornus florida	Flowering Dogwood	6"	6'	6'	68.75			Remove	
1296	Robinia pseudoacacia	Black Locust	30"	20'	30'	59.38			Remove	Ivy; large trunk wound
1296	Cornus florida	Flowering Dogwood	4"	6'	4'	75.00			Remove	Multi-stem
1298	Ligustrum ovalifolium	Privet	9"	6'	9'	46.88			Remove	Co-dominant; 1 dying
1299	Prunus serotina	Black Cherry	15"	12'	15'	59.38			Remove	Trunk decay
1300	Betula papyrifera	Paper Birch	10"	8'	10'	43.75			Remove	Co-dominant
1399	Cornus florida	Flowering Dogwood	12"	6'	12'	68.75			Remove	
1875	Robinia pseudoacacia	Black Locust	12"	15'	12'	28.13	Yes	Offsite	Remove	Heavy ivy; Decay; Co-dominant; Leaning on guy wires
1876	Robinia pseudoacacia	Black Locust	30"	16'	30'	46.88			Remove	Ivy
1877	Robinia pseudoacacia	Black Locust	10"	8'	10'	62.50			Remove	
1878	Robinia pseudoacacia	Black Locust	30"	6'	30'	12.50	Yes		Remove	Broken in half
1879	Tsuga canadensis	Canadian Hemlock	7"	8'	7'	71.88			Remove	
1880	Robinia pseudoacacia	Black Locust	30"	18'	30'	46.88			Remove	Ivy
1881	Acer platanoides	Norway Maple	15"	12'	15'	68.75		Co-Owned	Remove	Multi-stem
1882	Robinia pseudoacacia	Black Locust	30"	22'	30'	21.88	Yes	Co-Owned	Remove	Decay; Heavy ivy; Reduced canopy
1883	Robinia pseudoacacia	Black Locust	24"	18'	24'	9.38	Yes	Offsite	Remove	Decay; Near Dead; Open trunk wound
1884	Morus rubra	Red Mulberry	12"	12'	12'	53.13		Offsite	Remove	

NOTES:

1. TREE INVENTORY DATA COLLECTED ON DECEMBER 8, 2017 BY JOHN LIGHTLE, ISA-CA #MA-5174A, WITH OFFSITE TREES RE-EVALUATED AND UPDATED ON JANUARY 17, 2025 BY JOHN LIGHTLE, ISA-CA #MA-5174A.
2. ALL OFFSITE AND CO-OWNED TREES PROPOSED TO BE REMOVED AT TIME OF SITE PLAN SHALL HAVE APPROVAL LETTERS FOR REMOVAL, SIGNED BY THE OFFSITE OWNERS, AND RECEIVED BY THE CITY'S URBAN FORESTER PRIOR TO APPROVAL OF THE SITE PLAN.
3. ALL OFFSITE TREE REMOVAL SHALL REQUIRE REPLACEMENT IN ACCORDANCE WITH CODE SECTION 6.10 AND 4.5.9.

This Plan Prepared or Approved by:
John Lightle, ISA Certified Arborist
MA-5174A

REVISIONS

No.	DATE	DESCRIPTION
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
05	22-2025	
04	15-2025	
12	02-2024	
09	03-2024	
06	11-2024	
04	22-2024	
10	18-2016	

PLAN DATE

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COMMONWEALTH OF VIRGINIA
John Lightle
Lic. No. 1957
05/22/2025
LANDSCAPE ARCHITECT

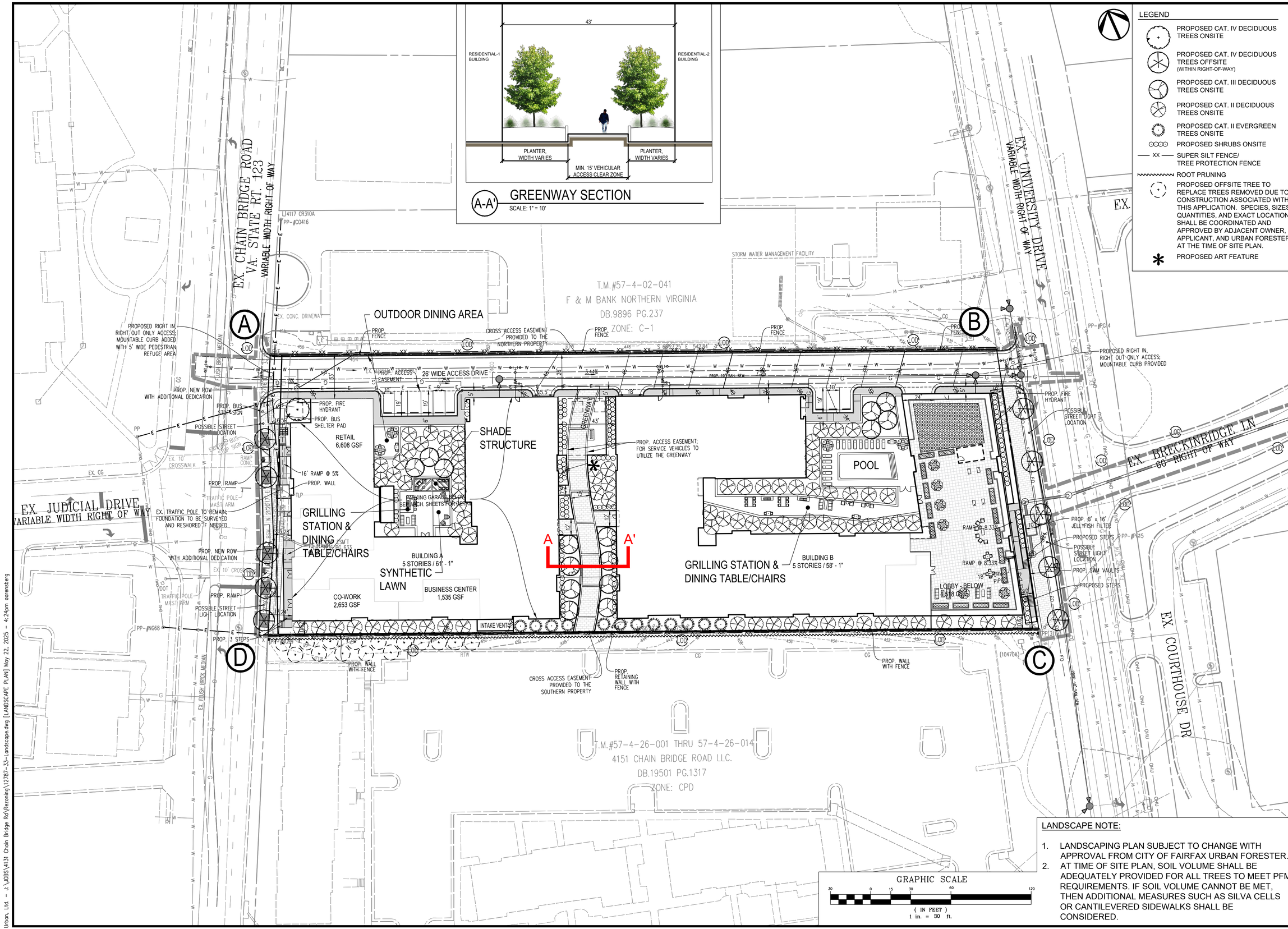
TREE INVENTORY
4131 CHAIN BRIDGE ROAD
REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: N/A
C.I.= N/A
DATE: DEC., 2024

SHEET
31
OF
39

FILE No.
RZ-12787

Urban, Ltd. – J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-34-Tree Inventory.dwg [TREE INVENTORY PLAN 2] May 22, 2025 – 4:24pm aarensberg



LEGEND

- PROPOSED CAT. IV DECIDUOUS TREES ONSITE
- PROPOSED CAT. IV DECIDUOUS TREES OFFSITE (WITHIN RIGHT-OF-WAY)
- PROPOSED CAT. III DECIDUOUS TREES ONSITE
- PROPOSED CAT. II DECIDUOUS TREES ONSITE
- PROPOSED CAT. II EVERGREEN TREES ONSITE
- PROPOSED SHRUBS ONSITE
- — XX — SUPER SILT FENCE/ TREE PROTECTION FENCE
- ROOT PRUNING
- PROPOSED OFFSITE TREE TO REPLACE TREES REMOVED DUE TO CONSTRUCTION ASSOCIATED WITH THIS APPLICATION. SPECIES, SIZES, QUANTITIES, AND EXACT LOCATIONS SHALL BE COORDINATED AND APPROVED BY ADJACENT OWNER, APPLICANT, AND URBAN FORESTER AT THE TIME OF SITE PLAN.
- * PROPOSED ART FEATURE

LANDSCAPE NOTE:

1. LANDSCAPING PLAN SUBJECT TO CHANGE WITH APPROVAL FROM CITY OF FAIRFAX URBAN FORESTER.
2. AT TIME OF SITE PLAN, SOIL VOLUME SHALL BE ADEQUATELY PROVIDED FOR ALL TREES TO MEET PFM REQUIREMENTS. IF SOIL VOLUME CANNOT BE MET, THEN ADDITIONAL MEASURES SUCH AS SILVA CELLS OR CANTILEVERED SIDEWALKS SHALL BE CONSIDERED.

No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
05-15-2024
09-03-2024
12-02-2024
04-15-2025
05-22-2025

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COMMONWEALTH OF VIRGINIA
John Ligthle
Lic. No. 1957
LANDSCAPE ARCHITECT

LANDSCAPE PLAN
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=30'
C.I.=2'
DATE: DEC., 2024

SHEET 32 OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-33-Landscape.dwg [LANDSCAPE PLAN] May 22, 2025 - 4:24pm aarensberg

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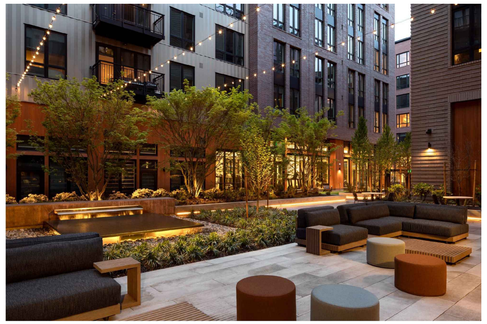
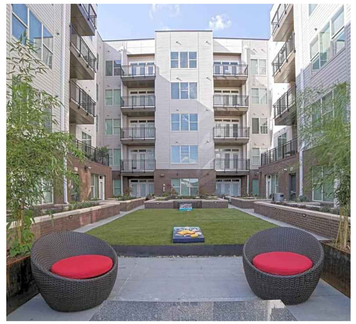


OUTDOOR LOUNGE AREA

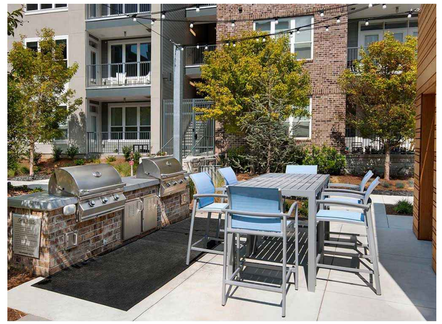
POOL

ART FEATURE

SHADE STRUCTURE



SYNTHETIC LAWN



GRILLING STATIONS & DINING TABLES / CHAIRS

10-YEAR TREE CANOPY REQUIREMENT CALCULATIONS		
Total Site Area (s.f.)		117,082
DEDUCTION: Proposed Right-Of-Way Dedication (s.f.)		-1,269
Net Site Area (s.f.)		115,813
Zone: [CU]	Use: [Multifamily]	
Tree Canopy Required (s.f.)	10%	11,581
10-YEAR TREE CANOPY PROVIDED		
Total Canopy Area Provided Through Tree Preservation (s.f.)		0
Total Proposed Canopy Area Provided (s.f.)		13,950
DEDUCTION: Canopy Area Provided in Right-Of-Way		-2,000
Total Tree Canopy Provided (s.f.)	10.32%	11,950

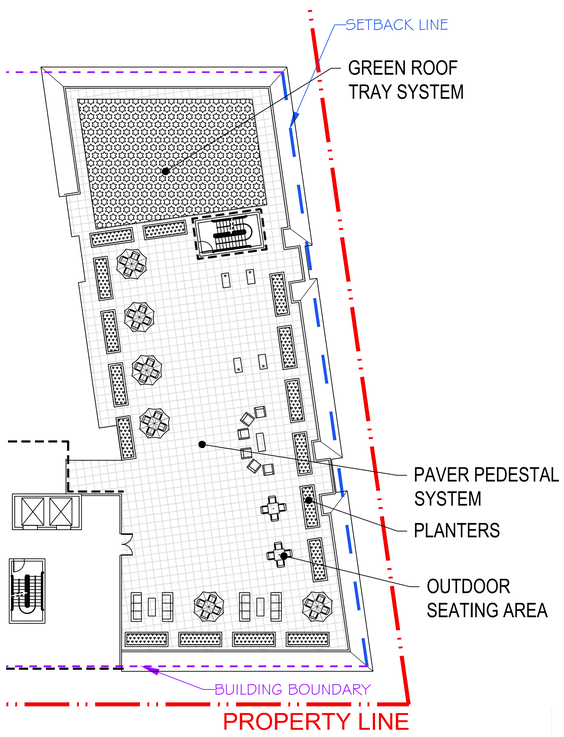
TRANSITIONAL YARD CALCULATIONS

Onsite Zoning District: CU (Multifamily)	REQUIRED							PROVIDED				
Adjacent Zoning District	Transitional Yard: Minimum Fence or Wall	Width (l.f.)	Total Length (l.f.)	Net Length (l.f.)	CANOPY	UNDERSTORY	SHRUBS	Minimum Fence or Wall	Width (l.f.)	TREES QTY	TREES TYPE	Shrubs
Buffer A-B: CO: COMMERCIAL OFFICE	TY1 6' Fence or Wall	7.5	543	543	0	22	0	6' Fence	0	0 0	Large Deciduous Trees Small Deciduous Trees	0
Buffer B-C: UNIVERSITY DRIVE	Street Trees per Z.O. 3.7.3.E	N/A	210	172	5	0	0	N/A	N/A	5	Large Deciduous Trees	N/A
Buffer C-D: PD-C: PLANNED DEVELOPMENT COMMERCIAL	TY3 6' Fence or Wall	15	576	576	23	23	23	6' Fence	11	0 25 12	Large Deciduous Trees Small Deciduous Trees Evergreen Trees	0
Buffer D-A: CHAIN BRIDGE ROAD	Street Trees per Z.O. 3.7.3.E	N/A	212	178	5	0	0	N/A	N/A	5	Large Deciduous Trees	N/A

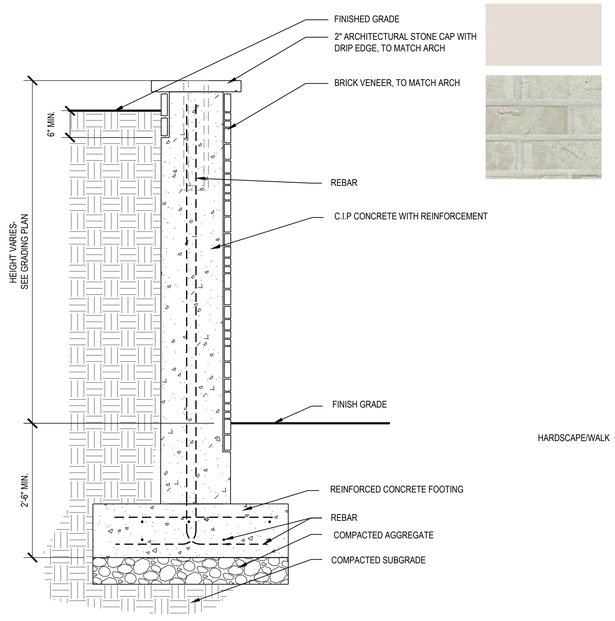
SAMPLE PLANT SCHEDULE

QTY	Symbol	Botanical Name	Common Name	Size	Type	Remarks	Total Canopy Coverage (SF)
		Cat. IV Deciduous Trees					
1		Celtis occidentalis	Common Hackberry	2" Cal.	B & B	Uniform branching pattern	200
		Tilia americana	American Linden	2" Cal.	B & B	Uniform branching pattern	
		Quercus shumardii	Shumard Oak	2" Cal.	B & B	Uniform branching pattern	
		Zelkova serrata	Japanese Zelkova	2" Cal.	B & B	Uniform branching pattern	
		Cat. IV Deciduous Trees (Offsite: in R.O.W.), See Note 1					
10		Platanus acerifolia	London Planetree	2" Cal.	B & B	Uniform branching pattern	2,000
		Ulmus americana 'Valley Forge'	Valley Forge Elm	2" Cal.	B & B	Uniform branching pattern	
		Quercus phellos	Willow Oak	2" Cal.	B & B	Uniform branching pattern	
		Cat. III Deciduous Trees					
15		Aesculus flava	Yellow Buckeye	2" Cal.	B & B	Uniform branching pattern	2,250
		Cladrastis kentukea	Yellowwood	2" Cal.	B & B	Uniform branching pattern	
		Prunus serotina	Black Cherry	2" Cal.	B & B	Uniform branching pattern	
		Cat. II Deciduous Trees					
83		Cercis canadensis	Eastern Redbud	2" Cal.	B & B	Uniform branching pattern	8,300
		Cornus florida	Flowering Dogwood	2" Cal.	B & B	Uniform branching pattern	
		Magnolia virginiana	Sweetbay Magnolia	2" Cal.	B & B	Uniform branching pattern	
		Cat. II Evergreen Trees					
12		Chamaecyparis thyoides	Atlantic Whitecedar	6' Ht.	B & B	Uniform branching pattern	1,200
		Ilex opaca	American Holly	6' Ht.	B & B	Uniform branching pattern	
		Juniperus virginiana	Eastern Redcedar	6' Ht.	B & B	Uniform branching pattern	
		Shrubs					
148		Clethra alnifolia	Summersweet	24" Ht.	As Shown	Cont.	0
		Ilex verticillata	Winterberry	24" Ht.	As Shown	Cont.	
		Itea virginica	Virginia Sweetspire	24" Ht.	As Shown	Cont.	
		Fothergilla gardenii	Dwarf Fothergilla	24" Ht.	As Shown	Cont.	
						TOTAL:	13,950

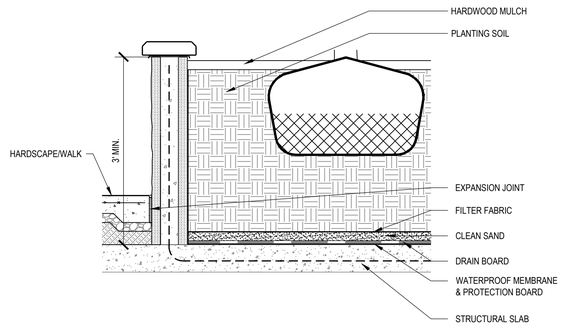
Note:
1. Tree Canopy Provided in R.O.W. is NOT counted towards 10-Year Tree Canopy Requirement.



1 ROOF TERRACE LAYOUT
SCALE: 1" = 20'



2 BRICK RETAINING WALL
Scale: 3/4"=1'-0"



3 PLANTER WALL
Scale: 3/4"=1'-0"

MODIFICATIONS/WAIVERS REQUESTED

- A MODIFICATION TO TRANSITIONAL YARD REQUIRED (Z.O. SECTION 4.5.5) FOR BUFFER A-B AND C-D IS HEREBY REQUESTED TO BE REVISED AS INDICATED IN THE "TRANSITIONAL YARD CALCULATIONS" TABLE ABOVE.

LANDSCAPE NOTES:

1. THIS PLAN IS SCHEMATIC AND REFLECTS THE GENERAL CHARACTER AND INTENT OF THE PROPOSED DEVELOPMENT BASED ON PRELIMINARY ENGINEERING, ARCHITECTURE, AND LANDSCAPE ARCHITECTURE DESIGN. MODIFICATIONS AND VARIATIONS MAY OCCUR WITH FINAL BUILDING DESIGN AND SITE PLAN.
2. TREE LOCATION, TREE QUANTITY, TREE SPECIES ARE SUBJECT TO CHANGE BASED ON CHANGES THAT MAY OCCUR WITH FINAL BUILDING DESIGN AND SITE PLAN. SPECIES DIVERSITY SHALL BE MET AND DEMONSTRATED AS SUCH AT TIME OF SITE PLAN.
3. LANDSCAPING PLAN SUBJECT TO CHANGE WITH APPROVAL FROM CITY OF FAIRFAX URBAN FORESTER.

REVISIONS

No.	DATE	DESCRIPTION

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
05-15-2024
09-03-2024
12-02-2024
04-15-2025
05-22-2025

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LANDSCAPE COMPUTATIONS
4131 CHAIN BRIDGE ROAD
REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=30'
C.I.=2'
DATE: DEC., 2024

SHEET 33 OF 39

FILE No. RZ-12787

Urban, Ltd. – J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-33-Landscape.dwg [LANDSCAPE COMPS] May 22, 2025 – 4:25pm aarensberg

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EX. CHAIN BRIDGE ROAD
VA. STATE RT. 123
VARIABLE WIDTH RIGHT OF WAY

EX. UNIVERSITY DRIVE
VARIABLE WIDTH RIGHT OF WAY

EX. BRECKINRIDGE LN

EX. BRECKINRIDGE LN
60' RIGHT OF WAY

EX. JUDICIAL DRIVE
VARIABLE WIDTH RIGHT OF WAY

EX. COURTHOUSE DR

T.M.#57-4-02-041
F & M BANK NORTHERN VIRGINIA
DB.9896 PG.237
ZONE: C-1

T.M.#57-4-26-001 THRU 57-4-26-014
4151 CHAIN BRIDGE ROAD LLC.
DB.19501 PG.1317
ZONE: CPD

OUTDOOR DINING AREA

PROPOSED RIGHT IN, RIGHT OUT ONLY ACCESS; MOUNTABLE CURB ADDED

PROP. FENCE

CROSS ACCESS EASEMENT PROVIDED TO THE NORTHERN PROPERTY

PROP. ACCESS EASEMENT

26' WIDE ACCESS DRIVE

PROPOSED RIGHT IN, RIGHT OUT ONLY ACCESS; MOUNTABLE CURB PROVIDED

14.5'

PROP. BUS STOP SIGN

POSSIBLE STREET LIGHT LOCATION

PROP. BUS SHELTER PAD

RETAIL
6,608 GSF

SHADE STRUCTURE

GREENWAY

PROP. ACCESS EASEMENT; FOR SERVICE VEHICLES TO UTILIZE THE GREENWAY

POOL

EXISTING BUS STOP SIGN

EX. 10' CROSSWALK

16' RAMP @ 5%

PROP. WALL

EX. TRAFFIC POLE TO REMAIN; FOUNDATION TO BE SURVEYED AND RESHORED IF NEEDED

TRAFFIC POLE MAST ARM

PARKING GARAGE BELOW SEE ARCH. SHEETS FOR DETAIL

GRILLING STATION & DINING TABLE/CHAIRS

SYNTHETIC LAWN

10' RAMP @ 5%

BUILDING A
5 STORIES / 57' - 9"

BUILDING B
5 STORIES / 58' - 1"

GRILLING STATION & DINING TABLE/CHAIRS

RAMP @ 8.33%

LOBBY - BELOW
4,187 GSF

PROP. 8' x 16' JELLYFISH FILTER

POSSIBLE STREET LIGHT LOCATION

PROP. SWM VAULTS

CO-WORK
2,653 GSF

BUSINESS CENTER
1,535 GSF

INTAKE VENT

PROP. WALL WITH FENCE

CROSS ACCESS EASEMENT PROVIDED TO THE SOUTHERN PROPERTY

PROP. RETAINING WALL WITH FENCE

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 in. = 30 ft.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
06-11-2024
09-03-2024
12-02-2024
04-15-2025
05-22-2025
-

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COMMONWEALTH OF VIRGINIA
John Lighthe
Lic. No. 1957
LANDSCAPE ARCHITECT

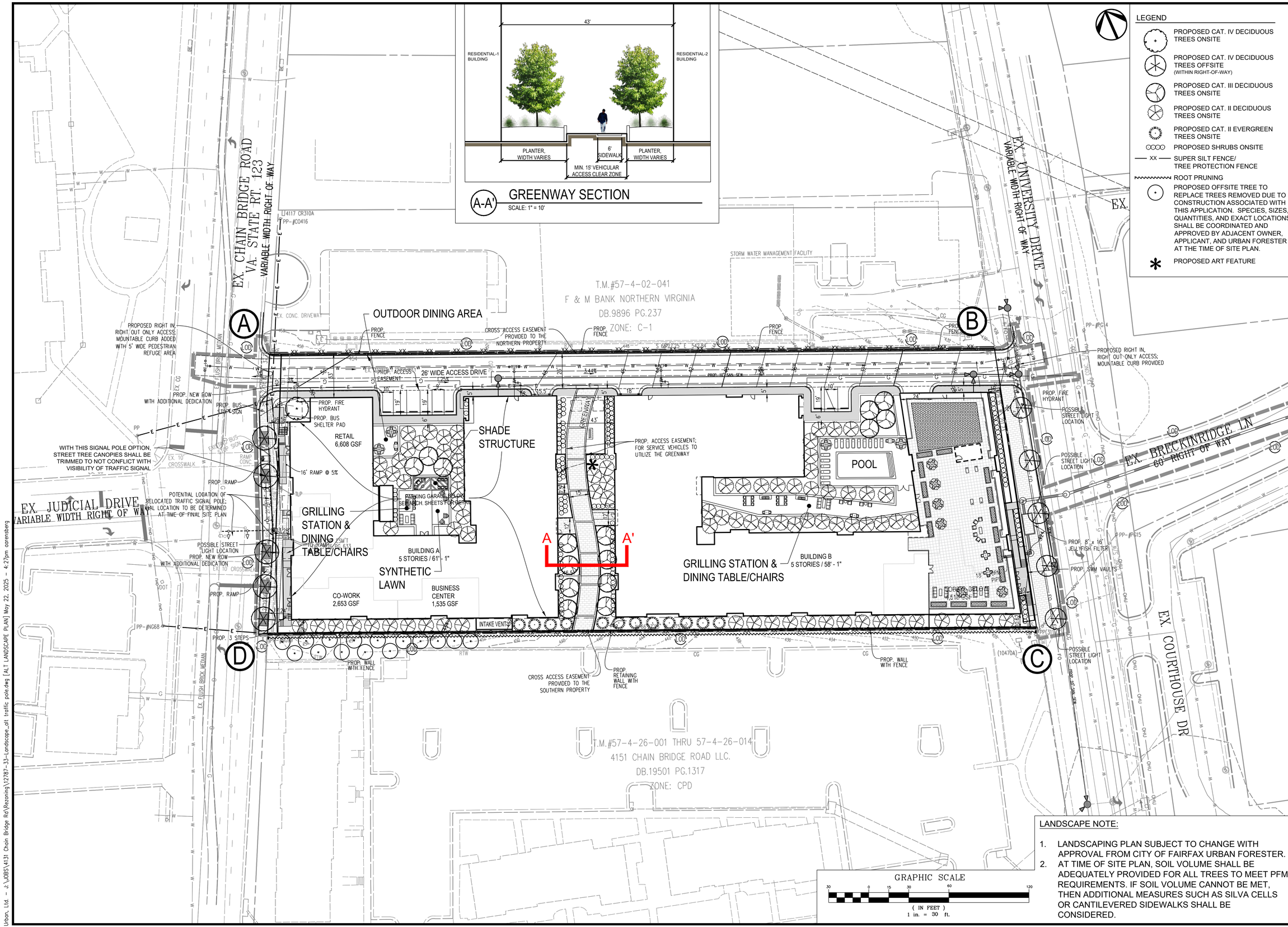
ILLUSTRATIVE PLAN
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: 1" = 30'
C.I.= 2'
DATE: DEC., 2024

SHEET 33A OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-33-Landscape.dwg [RENDERING] May 22, 2025 - 4:26pm aarensberg



LANDSCAPE NOTE:

1. LANDSCAPING PLAN SUBJECT TO CHANGE WITH APPROVAL FROM CITY OF FAIRFAX URBAN FORESTER.
2. AT TIME OF SITE PLAN, SOIL VOLUME SHALL BE ADEQUATELY PROVIDED FOR ALL TREES TO MEET PFM REQUIREMENTS. IF SOIL VOLUME CANNOT BE MET, THEN ADDITIONAL MEASURES SUCH AS SILVA CELLS OR CANTILEVERED SIDEWALKS SHALL BE CONSIDERED.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
06-05-2024
09-03-2024
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05-22-2025

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John Laphlin
Lic. No. 1957
LANDSCAPE ARCHITECT

LANDSCAPE PLAN - ALTERNATE TRAFFIC POLE

4131 CHAIN BRIDGE ROAD REZONING CDP-GDP

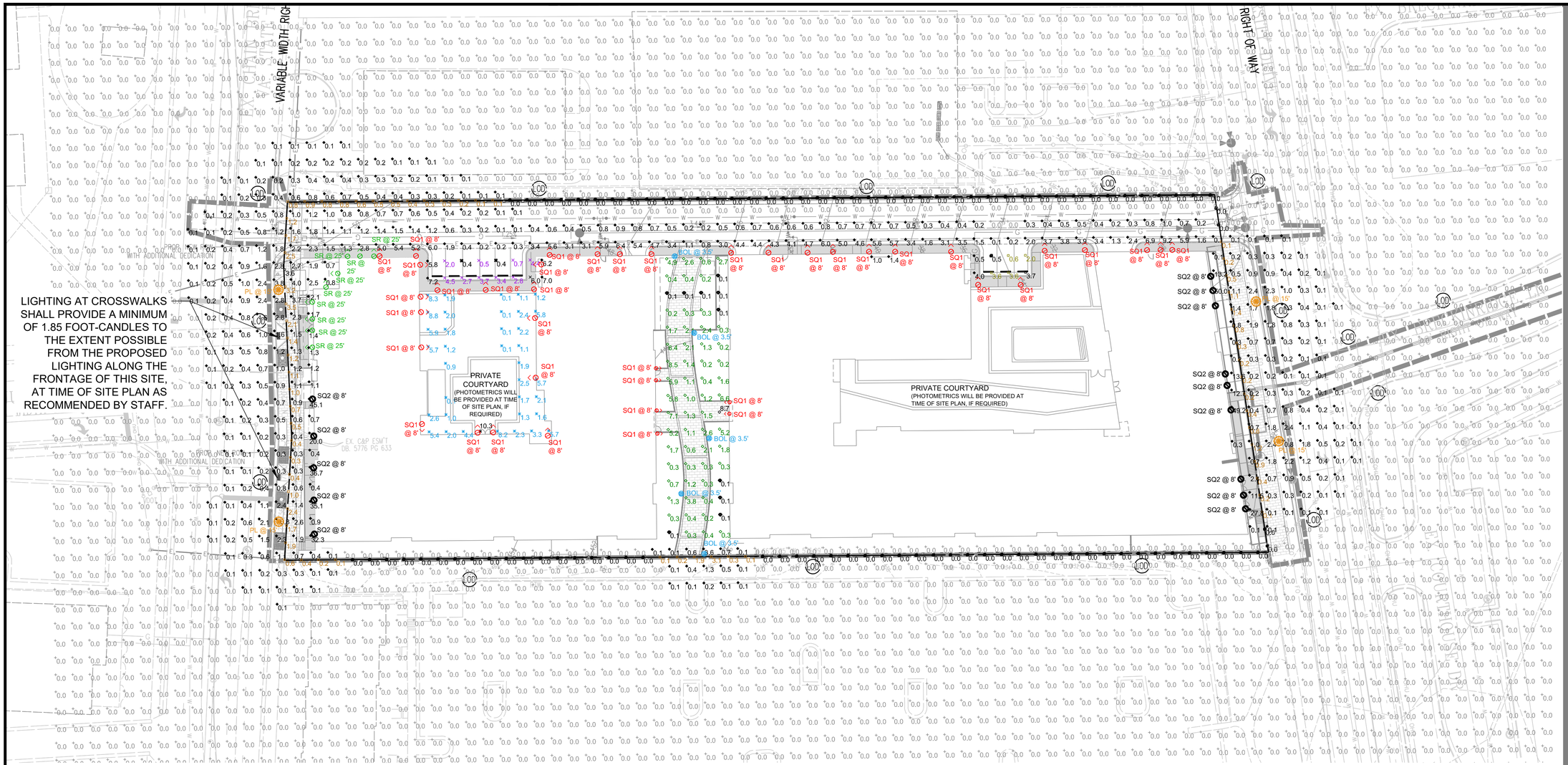
CITY OF FAIRFAX, VIRGINIA

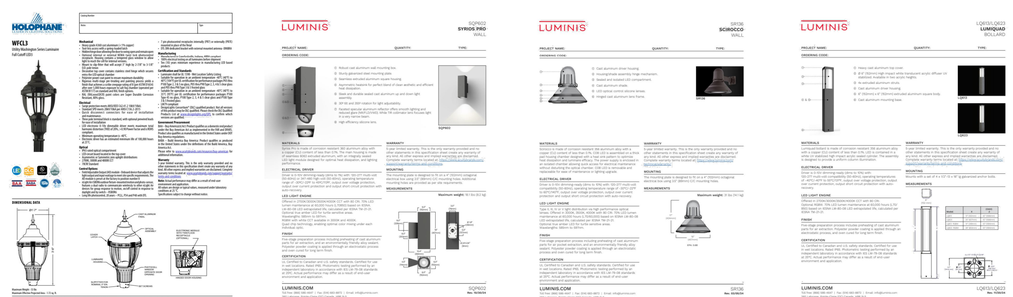
SCALE: 1"=30' C.I.= 2' DATE: DEC., 2024

SHEET 33B OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-33-Landscape_alt traffic pole.dwg [ALT LANDSCAPE PLAN] May 22, 2025 - 4:27pm aarensberg





GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 in. = 30 ft.

. General Notes - Exteriors
1. Readings shown are based on a total LLF of 0.89 as shown at grade. Data references the extrapolated performance projections in a 25c ambient based on 10,000 hrs of LED testing (per IESNA LM-80-08 and projected per IESNA TM-21-11).
2. Please refer to the fixture labels for product type and mounting height.
3. Product information can be obtained at https://www.acuitybrands.com/ or through your local agency.

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Base Grid	+	0.3 fc	50.0 fc	0.0 fc	N/A	N/A
Between Buildings	◇	1.7 fc	8.7 fc	0.1 fc	87.0:1	17.0:1
East Parking	□	2.3 fc	3.7 fc	0.5 fc	7.4:1	4.6:1
Property Line	□	0.4 fc	3.6 fc	0.0 fc	N/A	N/A
West Courtyard	✳	1.9 fc	10.3 fc	0.0 fc	N/A	N/A
West Parking	×	2.6 fc	6.0 fc	0.4 fc	15.0:1	6.5:1

Schedule

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Fixture Lumens	Intensity Multiplier	LLF	Input Watts	Distribution
	BOL	5	LUMINIS	LQ613-L4L26-30K	LumiQUAD 6in TYPE V 30K	2719	0.94	0.89	25.7	TYPE VS, BUG RATING: B1 - U5 - G2
	PL	4	Holophane	WFCL3 P20 30K xxxx FC5 FRGL	Washington LED Post-Top Full Cutoff Lantern 50W 3000 series CCT Type 5 distribution zero uplight 10% Frosted tempered glass lens No HSS	3641	1	0.89	48.18	TYPE VS, BUG RATING: B2 - U0 - G1
	SQ1	40	LUMINIS	SQP602-L1L25-LD3-30K	SQP602 LD3 30K	2520	0.94	0.89	19	DIRECT, SC-0=2.22, SC-90=2.36
	SQ2	14	LUMINIS	SQP602-L1L20-FLD	SQP602 FLD 30K	2239	0.94	0.89	21	DIRECT, SC-0=0.52, SC-90=0.52
	SR	9	LUMINIS	SR136-L1L25-LD2-30K	SCIROCCO SR136 30K	2619	0.94	0.89	18.5	DIRECT, SC-0=2.78, SC-90=3.98

DISCLAIMER
This application design is not a professional engineering drawing, and the design, including reported data and calculated results, is provided for informational purposes only, without any warranty as to accuracy, completeness, safety or otherwise. The design is the result of calculations made using Visual® lighting application software, photometric/radiometric data measured in a laboratory, and certain computational and modeling assumptions. Far-field photometric/radiometric data may have been used to perform one or more calculations. Photometric/radiometric data is typically collected under far-field measurement conditions; far-field data is not generally representative of near-field geometric conditions. When using far-field photometric/ radiometric data, the Visual software applies certain generalizing assumptions to approximate near-field performance. These approximations may result in significant inaccuracies in individual calculated luminous and/or radiant power quantities in areas where a source is in close proximity to a particular surface or point.
The modeling of radiant flux exchange used in the Visual software approximates the uniform surface exitance condition by adaptively subdividing surfaces with non-uniform exitances into subsurfaces with sufficiently uniform exitance gradients. Practical restrictions, due to computer hardware limitations, may prevent the subdivision procedure from subdividing surfaces with high exitance gradients into subsurfaces with sufficiently uniform exitance gradients, introducing potential discretization error into calculated values.
Calculations performed by the Visual software assume that all reflected flux is reflected in a perfectly diffuse (Lambertian) and spectrally uniform manner across the spectral range being analyzed. If actual reflectance characteristics differ from these assumptions, observed luminous and/or radiant power quantities may differ from predicted quantities.
As a result of the computational limitations and simplifying modeling assumptions described above, and/or variations in actual product performance from tested product samples, the accuracy of calculated output values identifying expected radiometric quantities and any resulting derived radiation dose calculations may be adversely affected.
In addition, the accuracy of the application design may be adversely affected if information about the physical space provided to Acuity Brands Lighting is incomplete, inaccurate, outdated or not in the required format (including but not limited to floor plans, space layout, reflected ceiling plans, physical structures, electrical design or specifications), if incorrect assumptions are made because of such deficiencies in the information provided, or if typical assumptions made about the depicted physical space are not appropriate for the space. Furthermore, actual field performance may differ from performance calculated using laboratory measurements as the result of miscalculations related to deficiencies in the information provided about the physical space, degradation factors in the end- user environment (including, but not limited to, voltage variation and dirt accumulation), or other possible variations in field conditions. Finally, lamp lumen depreciation and/or depreciation in lamp radiant intensity may result in performance over time that differs from performance calculated using a new lamp. Light loss factors may have been used in the application design to estimate such depreciation, but flaws in these estimates may also result in performance over time that differs from calculated performance.
It is the obligation of the end-user to consult with appropriately qualified Professional Engineer(s) to determine whether this application design meets the applicable requirements for performance, code compliance, safety, suitability and effectiveness for use in a particular application. In no event will Acuity Brands Lighting be responsible for any loss resulting from any use of this application design.

ACUITY DESIGN SERVICES

No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
06-05-2024
09-03-2024
12-02-2024
04-15-2025
05-22-2025
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COMMONWEALTH OF VIRGINIA
John Laghlin
Lic. No. 1957
LANDSCAPE ARCHITECT

DAVIES PROPERTY
4131 Chain Bridge Road

PHOTOMETRIC PLAN & DETAILS

4131 CHAIN BRIDGE ROAD
REZONING CDP-GDP

CITY OF FAIRFAX, VIRGINIA

DATE: DEC., 2024

SCALE: 1" = 30'

C.I.= 2'

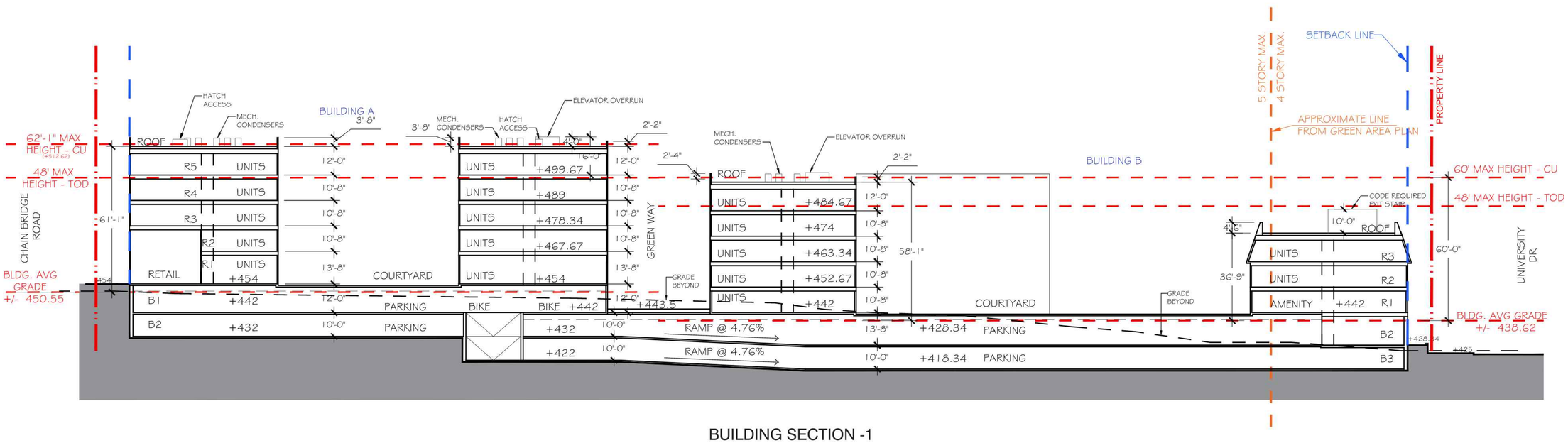
Revised by: SB
Date 03/24/2025
Scale As Shown
Drawing No. 291254-1 A1
Summary

1 of 1

SHEET 34 OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-35-Photometric.dwg [PLAN] May 22, 2025 - 4:28pm ccrensberg



BUILDING SECTION -1

*NOTE: REFER TO CIVIL FOR AVERAGE GRADE.

lessard DESIGN
8521 LEESBURG PIKE, SEVENTH FLOOR, VIENNA, VA 22182
P:571.830.1800 | F:571.830.1801 | WWW.LESSARDDESIGN.COM

BUILDING SECTION

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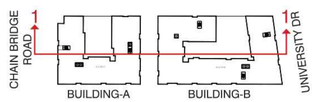

KEY PLAN

4131 CHAIN BRIDGE ROAD
CITY OF FAIRFAX ,VA
PARADIGM DEVELOPMENT

APR.15, 2025
PDM.015

A.23

0' 10' 20' 40'
SCALE: 1"= 20' (@ 22"x34")

No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
06-11-2024
09-03-2024
12-02-2024
04-15-2025
05-22-2025
-
-

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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 036790
PROFESSIONAL ENGINEER
09/22/2025

BUILDING SECTION
4131 CHAIN BRIDGE ROAD
REZONING CDP-GDP

CITY OF FAIRFAX, VIRGINIA

DATE: DEC., 2024
SCALE: 1"= C.I.= 2'

SHEET 35 OF 39

FILE No. RZ-12787

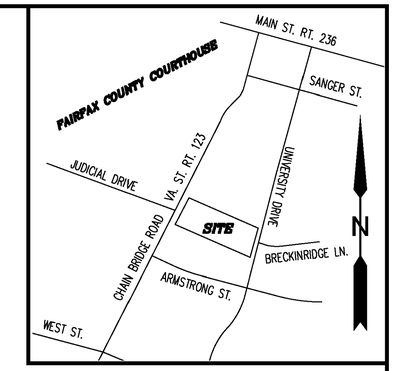
Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-25- BUILDING SECTIONS.dwg [building section] May 22, 2025 - 4:28pm gorensberg

NOTES

1. THE PROPERTY SHOWN HEREON IS LOCATED IN THE CITY OF FAIRFAX, VIRGINIA AND HAS MAP NUMBER 57-0-02-0401
2. NO SUBSURFACE INVESTIGATION HAS BEEN PERFORMED.
3.. NO OBSERVABLE EVIDENCE OF CEMETERIES WAS NOTED ON THE SUBJECT PROPERTY.
4. THE SUBJECT PROPERTY HAS DIRECT ACCESS TO CHAIN BRIDGE ROAD VA. RTE 123 A PUBLICLY DEDICATED RIGHT-OF-WAY.
5. NO ATTEMPT HAS BEEN MADE AS A PART OF THIS SURVEY TO OBTAIN OR SHOW DATA CONCERNING EXISTENCE, SIZE DEPTH, CONDITION, CAPACITY OR LOCATION OF ANY UTILITIES OR MUNICIPAL/PUBLIC SERVICE FACILITY. FOR INFORMATION REGARDING THESE UTILITIES OR FACILITIES CONTACT "MISS UTILITY" 1 (800) 257 -7777.
6. SUBJECT PROPERTY LIES IN ZONE "X" PER FIRM MAP COMMUNITY PANEL NUMBER 515524005D, DATED JUNE 06, 2006.
7. THE SUBJECT PROPERTY IS ZONED R-2
8. THE PROPERTY IS IN THE NAME OF THE HILL, A DAVIES FAMILY LLC.

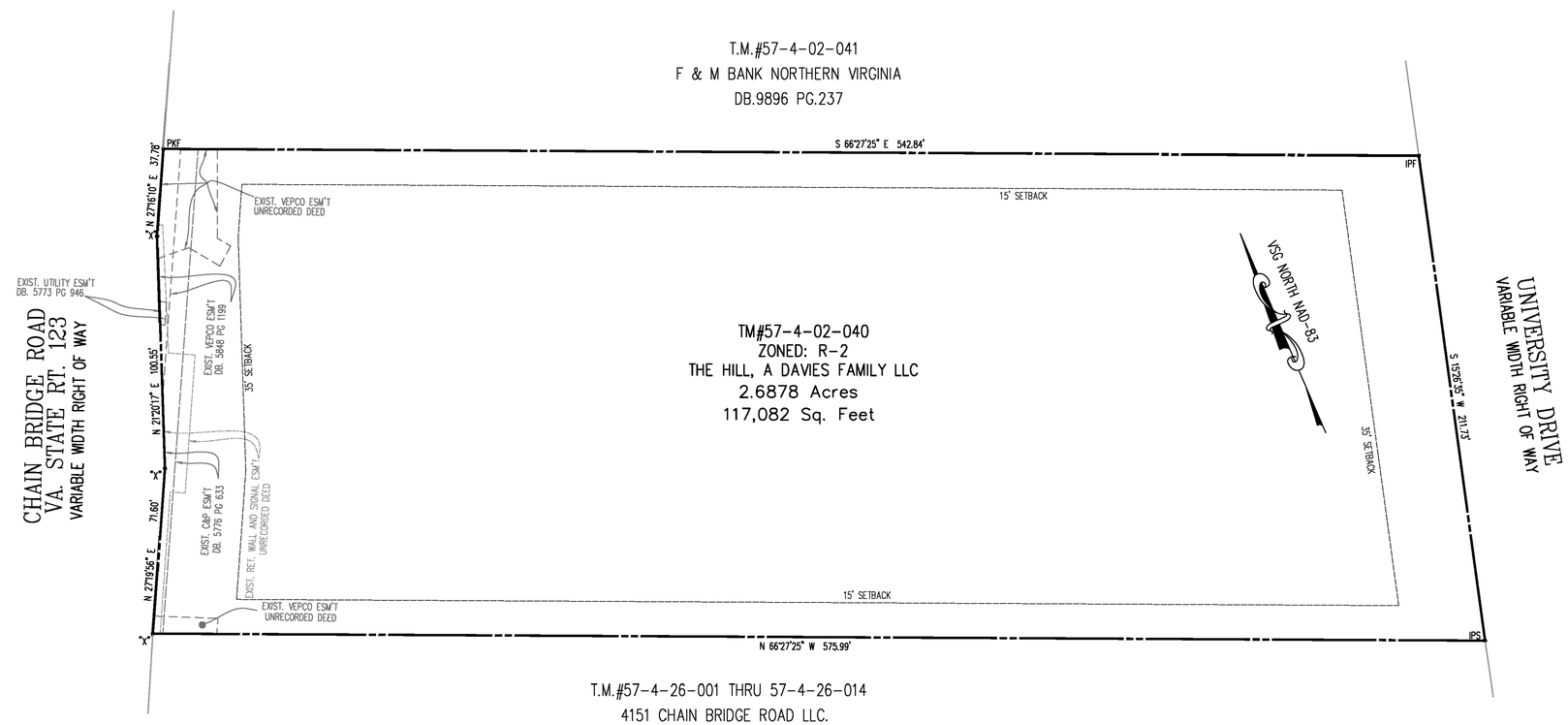
LEGEND

PKF	PK NAIL FOUND
IPF	IRON PIPE FOUND
IPS	IRON PIPE SET
"x"	X MARK SET



VICINITY MAP

SCALE 1"=500'



METES AND BOUNDS DESCRIPTION

BEGINNING AT A BEGINNING AT A POINT ON THE EASTERLY RIGHT OF WAY LINE OF CHAIN BRIDGE ROAD, VIRGINIA ROUTE 123; SAID POINT ALSO BEING THE SOUTH WEST CORNER OF THE LAND OF F&M BANK NORTHERN VIRGINIA AS RECORDED IN DEED 9896 AT PAGE 237 AMONG THE LAND RECORDS OF FAIRFAX COUNTY, VIRGINIA; THENCE DEPARTING THE EASTERLY RIGHT OF WAY LINE OF SAID CHAIN BRIDGE ROAD RUNNING WITH THE SOUTHERLY LINE OF SAID F&M BANK NORTHERN VIRGINIA

S 66°27'25" E A DISTANCE OF 542.84 FEET TO A POINT; SAID POINT BEING ON THE WESTERLY RIGHT OF WAY LINE OF UNIVERSITY DRIVE, THENCE RUNNING WITH THE WESTERLY RIGHT OF WAY LINE OF SAID UNIVERSITY DRIVE S 15°26'35" W A DISTANCE OF 211.73 FEET TO POINT; SAID POINT ALSO BEING THE NORTH EAST CORNER TO THE LAND OF 4151 CHAIN BRIDGE ROAD, LLC AS RECORDED IN DEED BOOK 19501 AT PAGE 1317 AMONG THE LAND RECORDS OF FAIRFAX COUNTY, VIRGINIA; THENCE RUNNING WITH THE NORTHERLY LINE OF SAID 4151 CHAIN BRIDGE ROAD, LLC N 66°27'25" W A DISTANCE OF 575.99 FEET TO A POINT; SAID POINT BEING ON THE AFOREMENTIONED EASTERLY RIGHT OF WAY LINE OF CHAIN BRIDGE ROAD; THENCE RUNNING WITH EASTERLY RIGHT OF WAY LINE OF SAID CHAIN BRIDGE ROAD THE FOLLOWING COURSES AND DISTANCES;

N 27°19'56" E A DISTANCE OF 71.60 FEET TO POINT;

N 21°20'17" E A DISTANCE OF 100.55 FEET TO A POINT;

N 27°16'10" E A DISTANCE OF 37.78 TO THE POINT OF BEGINNING, HAVING AN AREA OF 117,082 SQUARE FEET, OR 2.6878 ACRES MORE OR LESS.

BEING THE SAME PROPERTY DESCRIBED IN THAT CERTAIN DEED DATED AUGUST 9, 2015, MADE BY HOPE DAVIES HUNTINGTON, VERA DAVIES LICHTENSTEIN AND BANKHEAD THORTON DAVIES, GRANTORS, TO THE HILL, A DAVIES FAMILY LLC, GRANTEE, AS REFORDED IN THE LAND RECORDS OF FAIRFAX COUNTY, VIRGINIA ON SEPTEMBER 3, 2015, IN DEED BOOK 24278 PAGE 1095.

COMMONWEALTH OF VIRGINIA
KEVIN P. O'CONNOR
Lic. No 1987
LAND SURVEYOR

CERTIFIED PLAT
OF THE PROPERTY OF
THE HILL, A DAVIES FAMILY LLC
DB. 24278 PG. 1095
CITY OF FAIRFAX
FAIRFAX COUNTY, VIRGINIA
SCALE: 1" = 30' DATE: MARCH 25, 2016

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NOTE:

THESE ARE CONCEPTUAL LAYOUTS TO BE FURTHER REFINED AT THE SITE PLAN STAGE BASED ON UPDATED SURVEY INFORMATION.

TRAFFIC SIGNAL EQUIPMENT LEGEND

EX TO BE REMOVED	EX TO REMAIN	TEMP TEMP	PROPOSED FOR	INSTALLATION
				MAST ARM POLE & FOUNDATION
				TRAFFIC SIGNAL DISPLAY
				PF-2/PA-3 PEDESTAL POLE FOUNDATION
				JUNCTION BOX, SIZE AS SPECIFIED
EX C	EX C	TEM C	PRO C	2070 ITS/ATC CONTROLLER CABINET ON CF-5 FOUNDATION
				SE-5 ELECTRICAL SERVICE METER PEDESTAL

GOROVE SLADE
Transportation Planners and Engineers

Signal Modification Concept 1: Chain Bridge Rd (Rte. 123) at Judicial Drive (NIS)

Signal Relocation Options

NOT FOR CONSTRUCTION

City of Fairfax, VA
May 22, 2025

1"=30'

No.	DATE	DESCRIPTION
-	-	-

REVISIONS

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
06-11-2024
09-03-2024
12-02-2024
04-15-2025
05-22-2025

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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
Lic. No. 036790
09/22/2025
PROFESSIONAL ENGINEER

PRELIMINARY SIGNAL CONCEPT
4131 CHAIN BRIDGE ROAD
REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: N/A
C.I.= N/A
DATE: DEC., 2024

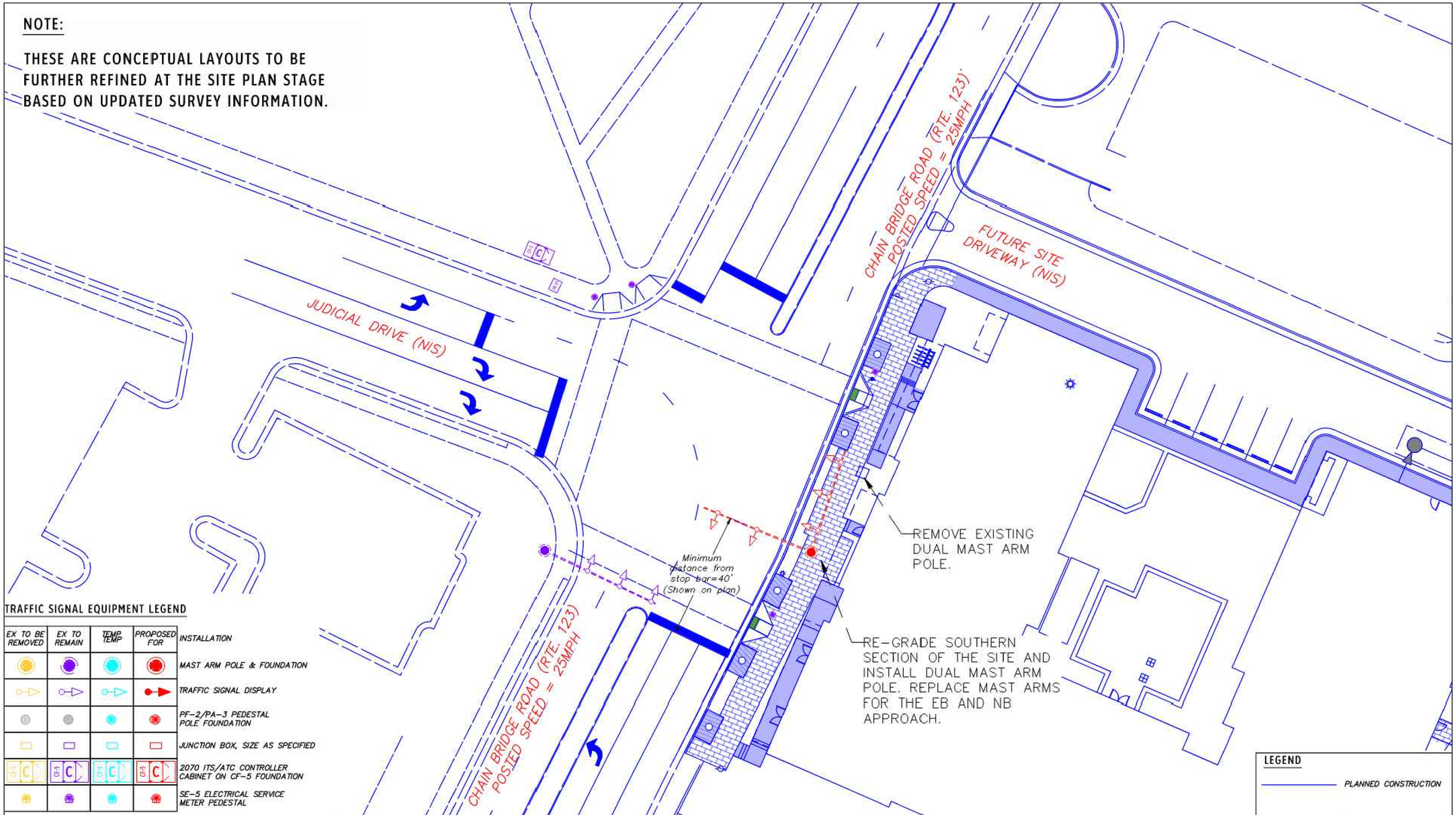
SHEET 37 OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-38-PRELIMINARY SIGNAL CONCEPT.dwg [PRELIMINARY SIGNAL CONCEPT] May 22, 2025 - 4:28pm aarensberg

NOTE:

THESE ARE CONCEPTUAL LAYOUTS TO BE FURTHER REFINED AT THE SITE PLAN STAGE BASED ON UPDATED SURVEY INFORMATION.



TRAFFIC SIGNAL EQUIPMENT LEGEND

EX TO BE REMOVED	EX TO REMAIN	TEMP TEMP	PROPOSED FOR	INSTALLATION
				MAST ARM POLE & FOUNDATION
				TRAFFIC SIGNAL DISPLAY
				PF-2/PA-3 PEDESTAL POLE FOUNDATION
				JUNCTION BOX, SIZE AS SPECIFIED
				2070 ITS/ATC CONTROLLER CABINET ON CF-5 FOUNDATION
				SE-5 ELECTRICAL SERVICE METER PEDESTAL

GOROVE SLADE
Transportation Planners and Engineers

Signal Modification Concept 2: Chain Bridge Rd (Rte. 123) at Judicial Drive (NIS)

Signal Relocation Options

NOT FOR CONSTRUCTION

City of Fairfax, VA
May 22, 2025

1"=30'

REVISIONS

No.	DATE	DESCRIPTION
-		

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
06-11-2024
09-03-2024
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04-15-2025
05-22-2025

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COMMONWEALTH OF VIRGINIA
CLAYTON C. TOCK
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PROFESSIONAL ENGINEER
05/22/2025

ALTERNATE SIGNAL LOCATION
4131 CHAIN BRIDGE ROAD
REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

DATE: DEC., 2024
SCALE: N/A
C.I.= N/A

SHEET 38 OF 39

FILE No.
RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-38-PRELIMINARY SIGNAL CONCEPT.dwg [ALT SIGNAL LOCATION] May 22, 2025 - 4:28pm aarensberg

LEGEND
- FIRE LANE CURB STRIPING
- POLE MOUNTED FIRE LANE SIGNAGE
- WALL MOUNTED FIRE LANE SIGNAGE

EX. CHAIN BRIDGE RO
VA. STATE RT. 123
VARIABLE WIDTH RIGHT OF WAY

UNIVERSITY DRIVE
VARIABLE WIDTH RIGHT OF WAY

VA. STATE GRID NORTH
N

T.M.#57-4-02-041
F & M BANK NORTHERN VIRGINIA
DB.9896 PG.237
ZONE: C-1

STORM WATER MANAGEMENT FACILITY

26' WIDE ACCESS DRIVE

26.00'

5.50'

PROPOSED FIRE LANE CURB AND SURFACE STRIPING; SEE THIS SHEET FOR AN ENLARGED DETAIL

GREENWAY

PROP. BUS SHELTER PAD

RETAIL
6,608 GSF

50.00'

16' RAMP @ 5%

PARKING GARAGE BELOW
SEE ARCH. SHEETS FOR DETAIL

10' RAMP @ 5%

BUILDING A
5 STORIES / 61' - 1"

CO-WORK
2,653 GSF

BUSINESS CENTER
1,535 GSF

INTAKE VENT

BUILDING B
5 STORIES / 58' - 1"

LOBBY - BELOW
4,518 GSF

RAMP @ 8.33%

41.37'

LOD

CG

EX. APPROX. GAS

FIRE LANE REQUIRED SIGNS - SEE IMAGE BELOW
- "NO PARKING" - 2 INCHES
- "OR" - 1 INCH
- "STANDING" - 2 INCHES
- "FIRE LANE" - 2 3/4 INCHES
- ARROWS 1-INCH SOLID RED

*SPACING BETWEEN WORDS TO BE UNIFORM
*SIGNS TO BE PLACE TO ENSURE 5' CLEARANCE

NO PARKING OR STANDING FIRE LANE

50.00' LETTERING SPACING

NO PARKING FIRE LANE — NO PARKING FIRE LANE

4-INCH WHITE LETTERING WITH 3/4-INCH STROKE STATING "NO PARKING FIRE LANE"; LETTERING TO BE SPACED EVERY 50 FEET

6-INCH RED TRAFFIC PAINT STRIPE; TO BE PAINTED ON FACE OF CURB AND BACK OF CURB

FIRE LANE MARKING DETAIL
SCALE = 1:3

No.	DATE	DESCRIPTION
-	-	-
-	-	-
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1	04-15-2025	
2	05-22-2025	

REVISIONS

PLAN DATE
05-04-2016
10-18-2016
04-22-2024
06-12-2024
09-03-2024
12-02-2024
04-15-2025
05-22-2025

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PROFESSIONAL ENGINEER
06/22/2025

FIRE LANE MARKINGS EXHIBIT
4131 CHAIN BRIDGE ROAD REZONING CDP-GDP
CITY OF FAIRFAX, VIRGINIA

SCALE: 1"=20'
C.I.= 2'
DATE: DEC., 2024

SHEET 39 OF 39

FILE No. RZ-12787

Urban, Ltd. - J:\JOBS\4131 Chain Bridge Rd\Rezoning\12787-39-FIRE LANE MARKINGS EXHIBIT.dwg [fire lane markings exhibit] May 22, 2025 - 4:28pm porrensberg