APPLICATION ACCEPTED: June 24, 2015
PLANNING COMMISSION: September 17, 2015
BOARD OF SUPERVISORS: October 6, 2015
@ 3:30 P.M.

County of Fairfax, Virginia

September 3, 2015

STAFF REPORT

**PCA 85-C-088-10, DPA 85-C-088-08, &
PRCA 85-C-088-03**

HUNTER MILL DISTRICT

APPLICANT:	Block 4 LLC
ZONING:	PRC (Planned Residential Community District)
PARCELS:	17-1 ((16)) 1 and 4
ACREAGE:	4.52 acres
FAR/DENSITY:	3.2 FAR
PLAN MAP:	Residential Planned Community
PROPOSAL:	To amend proffers, development plan, and PRC Plan to modify the massing of the western residential tower of a high density residential mixed-use building in Section 91A, Block 4 in Reston Town Center.

STAFF RECOMMENDATIONS:

Staff recommends approval of PCA 85-C-088-10, subject to the draft proffered conditions contained in Appendix 1.

Staff recommends approval of DPA 85-C-088-08.

Staff recommends approval of PRCA 85-C-088-03, subject to the proposed development condition contained in Appendix 2.

Staff recommends approval of a modification of Sect. 11-203 of the Zoning Ordinance for the loading space requirements to that shown on the DPA/PRCA Plan.

Mary Ann Tsai, AICP

Department of Planning and Zoning
Zoning Evaluation Division
12055 Government Center Parkway, Suite 801
Fairfax, Virginia 22035-5509
Phone 703-324-1290 FAX 703-324-3924
www.fairfaxcounty.gov/dpz/

Staff recommends approval of a modification of Sect. 13-303 of the Zoning Ordinance for the transitional screening and barrier requirements to that shown on the DPA/PRCA Plan.

It should be noted that it is not the intent of staff to recommend that the Board of Supervisors, in adopting any conditions proffered by the owner, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendation of staff; it does not reflect the position of the Board of Supervisors.

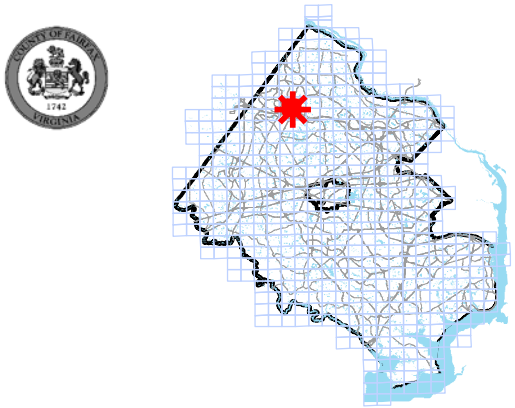
The approval of these applications does not interfere with, abrogate or annul any easement, covenants, or other agreements between parties, as they may apply to the property subject to this application.

For information, contact the Zoning Evaluation Division, Department of Planning and Zoning, 12055 Government Center Parkway, Suite 801, Fairfax, Virginia 22035-5505, (703) 324-1290.

Americans with Disabilities Act (ADA): Reasonable accommodation is available upon 48 hours advance notice. For additional information on ADA call (703) 324-1334 or TTY 711 (Virginia Relay Center).

Planned Residential Community

PCA 85-C-088-10, DPA 85-C-088-08, and PRCA 85-C-088-03

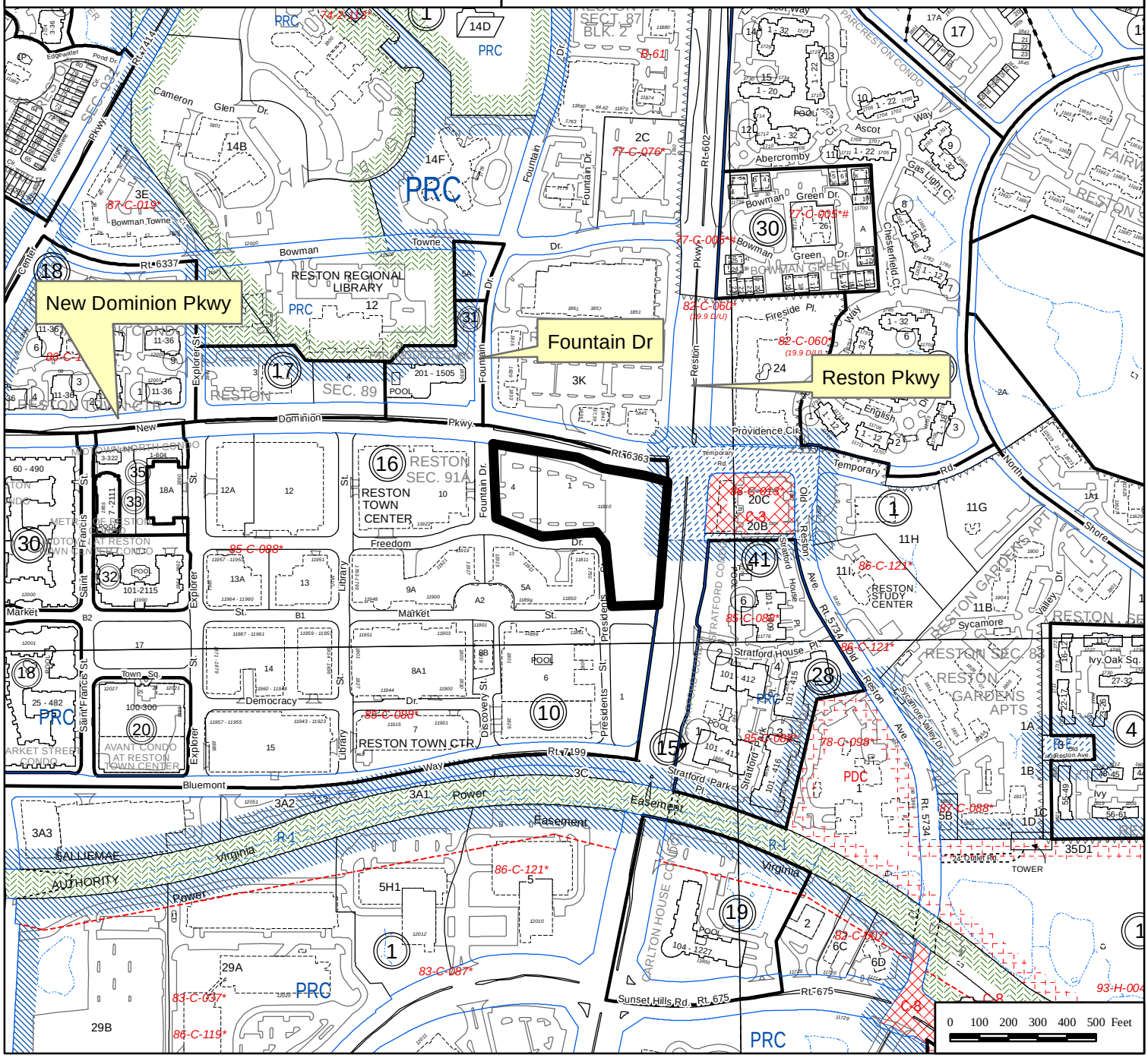


Applicant: BLOCK 4 LLC

Accepted: 6/24/2015
Proposed: MIXED USE
Area: 4.52 AC OF LAND; DISTRICT - HUNTER MILL

Zoning Dist Sect:
Located: SOUTH OF NEW DOMINION PARKWAY, WEST OF RESTON PARKWAY, NORTH OF MARKET STREET AND FREEDOM DRIVE, EAST OF FOUNTAIN DRIVE

Zoning: PRC
Overlay Dist:
Map Ref Num: 017-1- /16/ /0001 /16/ /0004

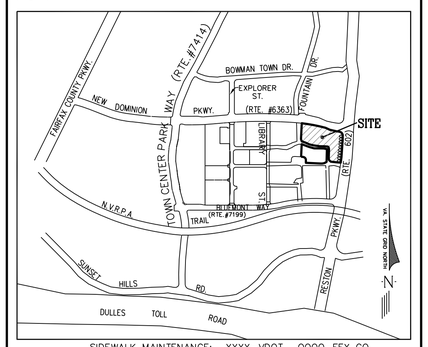


DEVELOPMENT PLAN AMENDMENT/ PROFFERED CONDITION AMENDMENT/PRC PLAN
DPA 85-C-088-08 / PCA 85-C-088-10 / PRCA 85-C-088-03
FOR
RESTON TOWN CENTER URBAN CORE
BLOCK 4
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

GENERAL NOTES

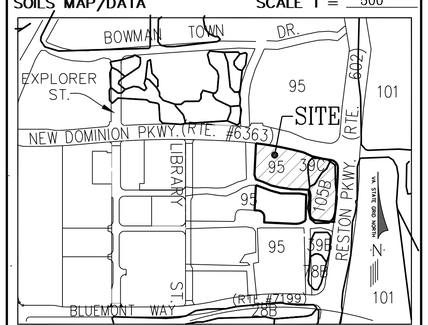
1. THE PROPERTIES ARE IDENTIFIED AS FAIRFAX COUNTY TAX ASSESSMENT MAP: 17-1-((16))-0001, 0004. BLOCK 5 DATA IS SHOWN FOR REFERENCE PURPOSES ONLY.
2. BOUNDARY AND TOPOGRAPHIC SURVEY DATA HAS BEEN PROVIDED BY RESTON LAND CORPORATION; HORIZONTAL GRID: VIRGINIA STATE GRID NORTH 1927; VERTICAL DATUM: U.S.G.S. (NGVD) AND SUPPLEMENTED WITH A FIELD RUN SURVEY BY URBAN, LTD.
3. THE SITE IS CURRENTLY PARTIALLY DEVELOPED, WITH BLOCK 4 FUNCTIONING AS A PARK WITH VEGETATIVE COVER, OPEN GRASS AREAS AND PEDESTRIAN PATH, AS WELL AS A PARKING LOT WITH MINIMAL TREE COVERAGE AND GRASS AREAS. BLOCK 5 IS CURRENTLY DEVELOPED WITH OFFICE AND RETAIL USES.
4. THIS SITE WILL BE SERVED BY PUBLIC SEWER AND WATER.
5. THE EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE.
6. THE ARCHITECTURAL CONCEPTS AND TYPICAL BULK OF THE PROPOSED STRUCTURES SHALL GENERALLY BE CONSISTENT WITH SIMILAR DEVELOPMENTS IN THE AREA.
7. THE LANDSCAPE CONCEPTS, SCREENING MEASURES, AND PROPOSED TREE COVER WILL BE PROVIDED WITH THE FINAL SITE PLAN AND SHALL COMPLY WITH THE PROVISIONS OF CHAPTER 12 OF THE FAIRFAX COUNTY PFM. ANY LANDSCAPE SHEETS INCLUDED IN THE PRC APPLICATION ARE FOR SCHEMATIC PURPOSES ONLY AND ARE SUBJECT TO CHANGE WITH FINAL ENGINEERING, SO LONG AS THE REQUIREMENTS OF CHAPTER 12 OF THE PFM ARE MET.
8. THERE IS NO EXISTING MAPPED FLOODPLAIN ON THE SUBJECT SITE. NO FLOODPLAIN STUDY IS REQUIRED. NO DRAINAGE STUDY IS REQUIRED.
9. THERE IS CLASS IV PROBLEM SOIL ON THIS SITE, SOILS REPORT IS REQUIRED FOR SITE PLAN APPROVAL.
10. EASEMENTS AND/OR LETTERS OF PERMISSION FOR ANY OFFSITE CONSTRUCTION WILL BE PROVIDED WITH FINAL SITE PLAN AS REQUIRED.
11. NECESSARY ON-SITE EASEMENTS WILL BE PROVIDED WITH THE FINAL SITE PLAN, SUBJECT TO FINAL DESIGN.
12. ACCESS TO THE SITE IS PROVIDED VIA FOUNTAIN DRIVE AND MARKET STREET, WHICH ARE BOTH PRIVATE ROADS THAT INTERSECT WITH NEW DOMINION PKWY (ROUTE 639) AND RESTON PKWY (ROUTE 602) RESPECTIVELY. AT THIS TIME, WE ARE NOT AWARE OF FURTHER PUBLIC ROAD IMPROVEMENTS THAT ARE REQUIRED.
13. THE RECREATIONAL FACILITIES INCLUDE THE FOLLOWING: HIKING, FITNESS WALKING, AND BIKING TRAILS
14. PROPOSED UTILITY LAYOUTS ARE SCHEMATIC AND SUBJECT TO CHANGE WITH FINAL SITE DESIGN. INDIVIDUAL UTILITY PLANS AND PROFILES WILL BE SUBMITTED WITH THE SITE PLAN(S) FOR CONSTRUCTION PURPOSES.
15. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO KNOWN GRAVES, OR OBJECTS OR STRUCTURES MARKING A BURIAL SITE ON THE SUBJECT SITE.
16. A MAJOR PAVED TRAIL IS REQUIRED ALONG THE RESTON PARKWAY (RTE. 602) PROPERTY FRONTAGE PER THE COUNTYWIDE TRAILWAYS PLAN.
17. IT IS REASONABLE TO CONCLUDE AT THIS TIME THAT NO HAZARDOUS OR TOXIC SUBSTANCES, HAZARDOUS WASTES OR PETROLEUM PRODUCTS ARE TO BE GENERATED, UTILIZED, STORED, TREATED AND/OR DISPOSED OF ON THIS SITE. THERE ARE NO EXISTING STORAGE FACILITIES FOR SUCH PRODUCTS ON THIS SITE. IF ANY SUBSTANCES ARE FOUND, THE METHODS FOR DISPOSAL SHALL ADHERE TO COUNTY, STATE, OR FEDERAL LAW.
18. EXCEPT AS SHOWN HEREON, THERE ARE NO KNOWN SCENIC ASSETS OR NATURAL FEATURES ON THE SUBJECT SITE WHICH WOULD DESERVE PROTECTION OR PRESERVATION.
19. STORM WATER MANAGEMENT AND BEST MANAGEMENT PRACTICES FOR THIS PARCEL IS PROVIDED BY THE "TOWN CENTER PARKWAY" STORM WATER MANAGEMENT FACILITY (SITE PLAN NUMBER 5734-PI-01), WHICH IS CONSISTENT WITH THE APPROVED DEVELOPMENT OF THE RESTON TOWN CENTER. A WAIVER TO UTILIZE THE OFF-SITE SWM FACILITY HAS BEEN APPROVED FOR THIS PROPERTY (REFERENCE WAIVER #023069, APPROVED 4/6/01)
20. THE DISTURBANCE ASSOCIATED WITH THE PROPOSED IMPROVEMENTS DOES NOT ENCROACH ON ANY FAIRFAX COUNTY MAPPED RESOURCE PROTECTION AREA. THERE IS NO RPA ON THE SUBJECT SITE, PER THE FAIRFAX COUNTY MAPS.
21. THE EXTERNAL AND INTERNAL PEDESTRIAN CIRCULATION SYSTEM (INCLUDING TRAILS AND SIDEWALKS) SHALL BE PROVIDED AS GENERALLY SHOWN ON THIS PRC PLAN, SUBJECT TO FINAL DESIGN.
22. ALL ARCHITECTURAL FEATURES (I.E. THE BUILDING SECTIONS AND FLOOR PLANS) PROVIDED IN THIS PRC PLAN ARE SUBJECT TO MODIFICATION OR REVISION AS PART OF FINAL ENGINEERING, SITE PLAN APPROVAL, AND BUILDING PERMIT.
23. IN ACCORDANCE WITH PARAGRAPH 2 OF SECTION 16-204 OF THE ZONING ORDINANCE, MINOR MODIFICATIONS TO THE SIZE, DIMENSIONS, FOOTPRINTS, AND LOCATION OF BUILDINGS, PARKING SPACES, GARAGES, RETAINING WALLS AND SIDEWALKS MAY OCCUR WITH FINAL ENGINEERING AND DESIGN.
24. SILTATION CONTROL DEVICES AND PRACTICES, AS WELL AS CLEARING AND GRADING LIMITS WILL BE CLEARLY DEPICTED ON THE SITE PLAN(S) TO BE SUBMITTED FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE LIMITS OF CLEARING AND GRADING DEPICTED ON THIS PRC PLAN IS APPROXIMATE AND IS SUBJECT TO CHANGE WITH FINAL ENGINEERING.
25. ALL PUBLIC STREETS SHALL CONFORM TO FAIRFAX COUNTY AND/OR VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) STANDARDS AND SPECIFICATIONS UNLESS MODIFIED. PRIVATE STREETS SHALL CONFORM TO STANDARDS SET BY THE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL SECTION 7 UNLESS MODIFIED.
26. SIGNAGE WILL BE PROVIDED IN ACCORDANCE WITH ARTICLE 12 OF THE ZONING ORDINANCE AND IN COMPLIANCE WITH THE RESTON ASSOCIATION DESIGN GUIDELINES. FINAL LOCATIONS OF SIGNAGE WILL BE DEVELOPED AT A LATER DATE.
27. LOCATIONS OF MECHANICAL EQUIPMENT (INCLUDING TRANSFORMERS AND GENERATORS) ON SITE TO BE PROVIDED WITH THE FINAL SITE PLAN.
28. AVAILABLE FIRE FLOW WILL BE DETERMINED BY FAIRFAX WATER PRIOR TO FINAL SITE PLAN.
29. IT IS ANTICIPATED THAT SOLID WASTE WILL BE COLLECTED ONSITE BY A PRIVATE CONTRACTOR TWICE A WEEK. THE TYPE AND SIZE OF CONTAINERS WILL BE PROVIDED WITH FINAL SITE PLAN.
30. ALL EASEMENTS SHOWN ON THIS PRC PLAN ARE APPROXIMATE TO THE BEST OF OUR KNOWLEDGE, THE LOCATION OF ALL EXISTING UTILITY EASEMENTS HAVING A WIDTH OF 25' OR MORE, AND ALL MAJOR UNDERGROUND UTILITY EASEMENTS ARE SHOWN HEREON.
31. THE DEVELOPMENT SEQUENCE WITHIN EACH PARCEL IS UNKNOWN AND SUBJECT TO MARKET DEMAND, AMONG OTHER FACTORS. THE OWNER RESERVES THE RIGHT TO DEVELOP EACH PROPERTY IN ONE OR MORE SEPARATE PHASES.
32. THIS PROPOSED DEVELOPMENT IS IN CONFORMANCE WITH THE COMPREHENSIVE PLAN AND ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED CONDITIONS WITH THE EXCEPTION OF THE FOLLOWING:
    - A. THE APPLICANT HEREBY REQUESTS A MODIFICATION OF SECTION 11-203 OF THE ZONING ORDINANCE FOR THE LOADING SPACE REQUIREMENTS IN FAVOR OF THE QUANTITIES PROPOSED HEREON.
    - B. THE APPLICANT HEREBY REQUESTS A MODIFICATION OF SECTION 13-303 AND 13-304 OF THE ZONING ORDINANCE FOR THE TRANSITIONAL SCREENING AND BARRIER REQUIREMENTS FOR THIS APPLICATION IN FAVOR OF WHAT IS PROPOSED HEREON.

VICINITY MAP — SCALE 1"= 1000'



SIDEWALK MAINTENANCE: XXXX-VDOT, 0000-FFX CO
TRAIL MAINTENANCE: 0000-FFX CO
ALL OTHER WALKS/TRAILS TO BE OWNER MAINTAINED

SOILS MAP/DATA — SCALE 1"= 500'



SOIL ID NUMBERS	SERIES NAME	FOUNDATION SUPPORT	SUBSURFACE DRAINAGE	ERODABILITY	PROBLEM CLASS
39C	GLENELG SILT LOAM	GOOD	GOOD	HIGH	I
95	URBAN LAND	N/A	N/A	N/A	IVB
105B	WHEATON - GLENELG COMPLEX*	GOOD	GOOD	HIGH	IVB

SOILS WITH IDENTIFICATION NUMBERS 52, 56, 57, 59, 82 AND 83 MAY OVERLIE PARENT BEDROCK FORMATIONS WHICH HAVE BEEN FOUND TO CONTAIN NATURALLY OCCURRING ASBESTOS MINERALS. SPECIAL MINIMUM CONSTRUCTION MEASURES AND PRECAUTIONS ARE REQUIRED IN COMPLIANCE WITH HEALTH DEPARTMENT DIRECTIVES WITHIN THESE SOILS OR WITHIN FILL ORIGINATING FROM THESE SOILS.

SHEET INDEX

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6.	PRC PLAN
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7.	PRC LAYOUT PLAN
7A.	FIRE TRUCK ACCESS EXHIBIT
8.	MASTER PLAN
9.	OVERALL LANDSCAPE PLAN
10.	RIGHT-OF-WAY/TRAFFIC CIRCULATION PLAN
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11.	EXISTING VEGETATION MAP & TREE REMOVAL PLAN
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	APPENDIX A APPLICABLE RTC URBAN CORE DPA/PCA (FOR REFERENCE PURPOSES)

OWNER / DEVELOPER/ APPLICANT

T.M. 017-1-((16))-0001 &
T.M. 017-1-((16))-0004
BLOCK 4 LLC
C/O BOSTON PROPERTIES INC.
800 BOYLSTON ST. SUITE 1900
BOSTON, MA 02199

LEGEND

SITE PROPERTY LINE
PROPOSED STORM DRAIN
EXISTING STORM DRAIN
PROPOSED SANITARY SEWER
EXISTING SANITARY SEWER
EX. WATER VALVE
EX. FIRE HYDRANT
PROPOSED CONTOUR
PROP. SPOT ELEVATION
EXISTING CONTOUR
EXISTING SPOT ELEVATION
APPROX. LIMITS OF CLEARING AND GRADING & PRC PLAN
PROPOSED CURB
PROP. EDGE OF PAVEMENT
EXISTING EDGE OF PAVEMENT
EXISTING CURB
HC VAN SPACE
HC SPACE
LOADING SPACE DESIGNATOR
PARKING SPACE COUNTER
EXISTING TREE
EX. POWER POLE
EX. POWER POLE W/ GUY
EX. SIGN
EXISTING FENCE
EXISTING ELECTRIC LINE
EXISTING TRANSFORMER
PROPOSED TRANSFORMER
EXISTING OVERHEAD WIRES
EXISTING AIR CONDITIONING UNIT
EXISTING TRAFFIC SIGNAL POLE
EXISTING GAS VALVE

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE
		REVISION APPROVED BY DIVISION OF DESIGN REVIEW			

PLAN DATE
05-29-15
06-25-15
08-07-15

Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8080
Fax. 703.642.8251
www.urban-ltd.com
urban
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
PETER F. CRUMPOTON
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

COVER SHEET
RESTON TOWN CENTER URBAN CORE
SECTION 91A, BLOCK 4
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED
C.I. =N/A
DATE: MAY, 2015

FILE No.
PREL-2166-2

SUMMARY

DPA 85-C-088-07/ PCA 85-C-088-10/ PRC 85-C-088-04 FOR BLOCK 4 AND 5 WAS APPROVED ON 9/9/14. THE PURPOSE OF THE CURRENT DPA IS TO UPDATE THE MASSING OF THE PROPOSED BUILDING ON BLOCK 4. TABULATIONS AND INFORMATION FOR BLOCK 5 ARE PROVIDED FOR REFERENCE PURPOSES.

PRE-APPLICATION FAR ALLOCATIONS

THE PRE-APPLICATION FAR TRACKING SUMMARY IS AS SHOWN BELOW. THE PROPOSED CHANGES WITH THIS APPLICATION OCCUR WITHIN PHASE I AND NO CHANGES ARE PROPOSED TO PHASES II AND III.

RESTON TOWN CENTER CORE: FLOOR AREA TRACKING
July 31, 2013

The proffers permit a maximum of 3,465,000 square feet of commercial development within the Town Center Core Area, which is based on the max FAR of 0.95, exclusive of residential use. This floor area is to be distributed among office, hotel and retail uses as follows:

Office	Hotel	Retail	Total
2,150,000	1,000,000	315,000	3,465,000

The proffers permit the retail floor area to be increased provided either the office or hotel or both floor areas are reduced so as not to exceed the 3,465,000 total square feet.

The Phase I existing and proposed floor area is as follows:

	OFFICE	HOTEL	RETAIL	TOTAL
Phase I				
Existing (Blocks 5,6,7,8 & 9)	531,653	420,076	312,243	1,263,972
Block 4	250,000			250,000
Total Phase I	781,653	420,076	312,243	1,513,972

The Phases II and III existing and proposed floor area is as follows:

	OFFICE	HOTEL	RETAIL	TOTAL
Phases II and III				
(One Freedom Square) Block 13 Existing (Plan #7067-SP-08)	380,257		15,058	395,315
(Two Freedom Square) Block 13A (Plan #7067-SP-12-1)	376,681		19,503	396,184
Block 14 (Plan #7067-SP-12-1)	553,095		54,812	609,908
Block 15 (Plan #7067-SP-12-1)	234,451		29,782	264,233
Block 16 (Plan #7067-SP-12-1)			29,145	29,145
Block 18 (Plan #7067-SP-12-1)			15,943	15,943
Block 19 (Plan #7067-SP-13)			2,300	2,300
Block 20 (Plan #7067-SP-13)				
Section 89A (Plan #7067-SP-15)	240,000			240,000
Total Phases II and III	**1,784,484**		**166,544**	**1,951,028**
Total Phases I, II & III	**2,566,137**	**420,076**	**478,787**	**3,465,000**
Total available FAR				**0**

STRATEGY

BLOCK 5 IS CURRENTLY CONSTRUCTED WITH 292,287 GSF OF COMMERCIAL USE (251,098 SF OFFICE AND 41,189 SF RETAIL) PER SITE PLAN 7067-SP-001, COMPLETED 1998.
TO ACCOMMODATE THE ADDITIONAL USE FROM BLOCK 4, A THREE STORY WING OF THE EXISTING BUILDING WILL BE REMOVED.
THIS WING CONSISTS OF 39,088 GSF (22,774 GSF OFFICE AND 16,314 GSF RETAIL). COMBINED WITH THE 250,000 GSF OF COMMERCIAL USE FROM BLOCK 4, THE 289,088 GSF WILL BE ALLOCATED ON BLOCKS 4 AND 5 AS SHOWN ON THE FAR TRACKING SUMMARY PROPOSED WITH THIS APPLICATION BELOW:

APPLICATION FAR ALLOCATIONS

RESTON TOWN CENTER CORE: FLOOR AREA TRACKING
July 31, 2013

The proffers permit a maximum of 3,465,000 square feet of commercial development within the Town Center Core Area, which is based on the max FAR of 0.95, exclusive of residential use. This floor area is to be distributed among office, hotel and retail uses as follows:

Office	Hotel	Retail	Total
2,150,000	1,000,000	315,000	3,465,000

The proffers permit the retail floor area to be increased provided either the office or hotel or both floor areas are reduced so as not to exceed the 3,465,000 total square feet.

The Phase I existing and proposed floor area is as follows:

	OFFICE	HOTEL	RETAIL	TOTAL
Phase I				
Existing (Blocks 6,7,8 & 9)	280,555	420,076	271,054	1,263,972
Block 4			4,500	4,500
Block 5	505,112		32,675	537,787
Total Phase I	785,667	420,076	308,229	1,513,972

The Phases II and III existing and proposed floor area is as follows:

	OFFICE	HOTEL	RETAIL	TOTAL
Phases II and III				
(One Freedom Square) Block 13 Existing (Plan #7067-SP-08)	380,257		15,058	395,315
(Two Freedom Square) Block 13A (Plan #7067-SP-12-1)	376,681		19,503	396,184
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Block 19 (Plan #7067-SP-13)			2,300	2,300
Block 20 (Plan #7067-SP-13)				
Section 89A (Plan #7067-SP-15)	240,000			240,000
Total Phases II and III	**1,784,484**		**166,544**	**1,951,028**
Total Phases I, II & III	**2,566,137**	**420,076**	**478,787**	**3,465,000**
Total available FAR				**0**

NOTE:
THE APPLICANT RESERVES THE RIGHT TO ADJUST THE ALLOCATION OF GSF BETWEEN BLOCK 4 AND 5 (INCLUDING ADJUSTMENTS TO THE EX. GSF TO REMAIN ON BLOCK 5), AS WELL AS THE GSF OF EACH USE WITH FINAL DESIGN, AS LONG AS THE TOTAL PROPOSED GSF FOR BLOCKS 4 AND 5 DOES NOT EXCEED 542,287 SF.

SITE TABULATIONS

BLOCK 4

1. PARCEL AREA — PARCEL 1 = 151,886 S.F. (3.4868 AC)
   PARCEL 4 = 44,994 S.F. (1.0329 AC)
   TOTAL = 196,880 S.F. (4.5197 AC)
2. ZONE: PRC
3. PROPOSED USE: HIGH DENSITY RESIDENTIAL, RETAIL
4. PROPOSED UNITS: 549 MULTIFAMILY RESIDENTIAL
5. CORRESPONDING POPULATION: 549 MULTIFAMILY UNITS * 2.1 PERSONS/UNIT = 1,153 PERSONS
6. RESIDENTIAL DENSITY:
   OVERALL PRC DISTRICT MAX = 13 PERSONS / ACRE OF GROSS RESIDENTIAL & ASSOC. COMMERCIAL AREAS
   PROPOSED: SEE OVERALL COMPUTATION ON SHEET 3

   PRC HIGH DENSITY DISTRICT OVERALL MAX = 60 PERSONS / ACRE GROSS RESIDENTIAL AREA
   PROPOSED: SEE COMPUTATION THIS SHEET

   PRC HIGH DENSITY SINGLE AREA MAX = 50 DU / ACRE
   PROPOSED: SEE COMPUTATION THIS SHEET
7. APPROXIMATE GROSS FLOOR AREA FOR USES OTHER THAN DWELLINGS:
   4,500 SF RETAIL (DOES NOT INCLUDE GARAGE SF)

   NOTE:
   APPLICANT PROPOSES UP TO 20,600 SF OF RETAIL CELLAR SPACE, WHICH IS EXCLUDED FROM GFA FOR DENSITY PURPOSES. SEE AVERAGE GRADE COMPUTATION ON SHEET #10 AND BUILDING SECTION ON SHEET #21

   APPROXIMATE FAR FOR USES OTHER THAN DWELLINGS:

   FAR IS BASED ON ENTIRE RESTON TOWN CENTER CORE SEE TOWN CENTER CORE FAR TABULATION THIS SHEET. (APPLICATION FAR ALLOCATIONS)
8. PROPOSED HEIGHT: SEE BUILDING DATA CHART ON THIS SHEET
9. OPEN SPACE: REQUIRED OPEN SPACE: NO REQUIREMENT
   APPROX. PROPOSED OPEN SPACE: ±1.85 AC(±40%)

   SEE SHEET 15 FOR OPEN SPACE EXHIBIT
10. TREE COVER CALCULATION: SEE COMPUTATIONS ON LANDSCAPE PLAN
    NOTE: THE REQUIRED TREE CANOPY WILL BE PROVIDED AT TIME OF FINAL SITE PLAN. PRELIMINARY LANDSCAPE PLAN IS PROVIDED IN THIS PRC PLAN.

BLOCK 5

1. PARCEL AREA — PARCEL 5A = 79,856 S.F. (1.8332 AC)
2. ZONE: PRC
3. PROPOSED USE: OFFICE, RETAIL
4. PROPOSED UNITS: N/A
5. CORRESPONDING POPULATION: N/A
6. RESIDENTIAL DENSITY: N/A
7. APPROXIMATE GROSS FLOOR AREA FOR USES OTHER THAN DWELLINGS:
   253,199 SF EX. RETAIL & OFFICE TO REMAIN
   + 284,588 SF PROP. RETAIL & OFFICE (DOES NOT INCLUDE GAR. SF)
   = 537,787 SF

   APPROXIMATE FAR FOR USES OTHER THAN DWELLINGS:
   FAR IS BASED ON ENTIRE RESTON TOWN CENTER CORE SEE TOWN CENTER CORE FAR TABULATION THIS SHEET (APPLICATION FAR ALLOCATIONS)
8. PROPOSED HEIGHT: SEE BUILDING DATA CHART ON THIS SHEET
9. OPEN SPACE: REQUIRED OPEN SPACE: NO REQUIREMENT
   APPROX. PROPOSED OPEN SPACE: ±0.24 AC(±30%)

   NOTE: FOR OPEN SPACE PURPOSES, THE SITE AREA = 0.79 AC, WHICH IS THE PORTION OF BLOCK 5 THAT IS BEING REDEVELOPED WITH THIS APPLICATION.

   SEE SHEET 15 FOR OPEN SPACE EXHIBIT
10. TREE COVER CALCULATION: SEE COMPUTATIONS ON LANDSCAPE PLAN
    NOTE: THE REQUIRED TREE CANOPY WILL BE PROVIDED AT TIME OF FINAL SITE PLAN. PRELIMINARY LANDSCAPE PLAN IS PROVIDED IN THIS PRC PLAN.

BLOCK 5 TABULATIONS PROVIDED FOR REFERENCE PURPOSES ONLY PER PCA 85-C-088-09/ DPA 85-C-088-07/ PRC 85-C-088-03.

PARKING TABULATION

PHASE I OF RESTON TOWN CENTER (INCLUDING BLOCKS 4 & 5) IS SUBJECT TO AN EXISTING AMENDED AND RESTATED PARKING AGREEMENT (RECORDED AT DB. 21796 PG. 0589).

THE AGREEMENT ACCOMMODATES ALL EXISTING USES, PLUS THE 250,000 GSF OF OFFICE PREVIOUSLY PROGRAMMED FOR BLOCK 4, WITH A PARKING REQUIREMENT OF 3,286 SPACES.

PARKING REQUIRED:

BLOCKS 6,7,8 & 9 – EXISTING USES INCLUDED WITHIN THE AMENDED AND RESTATED PARKING AGREEMENT

BLOCK 4 REQUIRED:

MULTI-FAMILY RESIDENTIAL:
549 MULTIFAMILY UNITS X 1.25 SP*/UNIT = 687 SPACES
*PENDING SUBMITTED PARKING REDUCTION

RETAIL:
4,500 GSF RETAIL
+ 20,600 GSF RETAIL WITHIN CELLAR
= 25,100 GSF RETAIL FOR PARKING PURPOSES
– 8,514 GSF RETAIL WITHIN EX. AGREEMENT (SEE BLOCK 5 RETAIL NOTE, BELOW)
= 16,586 GSF RETAIL SPACE IN EXCESS OF EX. AGREEMENT

ALLOCATED AS FOLLOWS:
1,586 GSF RETAIL SPACE (6 SP/ 1000 GSF) = 10 SPACES
+ 15,000 GSF EATING ESTABLISHMENT(S) INCLUDING:

	364	TABLE SEATS (1 SP/4 SEATS)	=	91 SPACES
+	120	BAR SEATS (1 SP/2 SEATS)	=	60 SPACES
+	50	EMPLOYEES (1 SP/2 EMPLOYEES)	=	25 SPACES
			=	176 SPACES

BLOCK 5 REQUIRED:

OFFICE:	505,112	GSF TOTAL OFFICE WITH THIS APPLICATION	
–	251,098	GSF EX. OFFICE WITHIN EX. AGREEMENT	
–	250,000	GSF OFFICE RELOCATED FROM BLOCK 4	
=	4,014	GSF OFFICE IN EXCESS OF EX. AGREEMENT	
	4,014	GSF OFFICE (2.6 SP/1000 GSF) = 11 SPACES	
RETAIL:	32,675	GSF RETAIL PROPOSED WITH THIS APPLICATION	
		(24,875 GSF EX. TO REMAIN +	
		16,314 GSF EX. TO BE REMOVED AND REPLACED WITH 7,800 GSF)	
	ALL 32,675 GSF OF BLOCK 5 RETAIL IS WITHIN THE EX. AGREEMENT		

BLOCK 5 TABULATIONS PROVIDED FOR REFERENCE PURPOSES ONLY, PER PCA 85-C-088-09/ DPA 85-C-088-07/ PRC 85-C-088-03.

BLOCK 5 RETAIL NOTE: PRIOR TO THIS APPLICATION, BLOCK 5 CONTAINS 41,189 GSF OF RETAIL, ALL OF WHICH IS PARKED WITHIN THE EXISTING PARKING AGREEMENT. WITH THIS APPLICATION, 32,675 GSF OF RETAIL WILL BE PROVIDED ON BLOCK 5. THE DIFFERENCE IN RETAIL AREA PARKING CAPACITY WITHIN THE EXISTING PARKING AGREEMENT OF 8,514 GSF (41,189 – 32,675) REMAINS IN PHASE I OF RESTON TOWN CENTER, INCLUDED IN BLOCK 4.

TOTAL REQUIRED:	3,286	WITH EX. AGREEMENT
+	11	FOR BLOCK 5 IN EXCESS OF EX. AGREEMENT
+	186	FOR BLOCK 4 IN EXCESS OF EX. AGREEMENT
+	687	FOR BLOCK 4 MULTI-FAMILY RESIDENTIAL
=	4,170	SPACES REQUIRED

PARKING PROVIDED:	2,914	EXISTING SPACES
–	251	EXISTING BLOCK 4 SURFACE SPACES TO BE REMOVED
+	1,286	STRUCTURED SPACES ON BLOCK 4
+	221	STRUCTURED SPACES ON BLOCK 5
TOTAL PROVIDED:	4,170	TOTAL SPACES

(FOR ALL OF PHASE I, BLOCKS 4, 5, 6, 7, 8 & 9)

NOTES:
1) HANDICAP SPACES WILL BE PROVIDED IN ACCORDANCE WITH APPLICABLE ADA REQUIREMENTS.

2) PARKING TABULATION IS BASED ON THE POTENTIAL USE ALLOCATION SHOWN IN THE BUILDING DATA CHART AND IS SUBJECT TO CHANGE WITH FINAL SITE PLAN (SEE NOTE UNDER BUILDING DATA CHART). PARKING SPACES WILL BE PROVIDED GENERALLY AS SHOWN HEREON. APPLICANT RESERVES THE RIGHT TO ADJUST THE QUANTITY AND/OR LOCATION OF THE PARKING SPACES AT TIME OF FINAL SITE PLAN, AS LONG AS THE MINIMUM NUMBER OF SPACES IS PROVIDED IN ACCORDANCE WITH ARTICLE 11 OF THE FAIRFAX COUNTY ZONING ORDINANCE OR ANY EXISTING PARKING REDUCTION IN PLACE OR ANY FUTURE PARKING REDUCTION THE APPLICANT MAY SEEK.

LOADING TABULATION

NOTE: PER FAIRFAX COUNTY ZONING ORD. 11-202.15 THE MAX NUMBER OF LOADING SPACES IS 5 PER USE OR BUILDING. FOR OFFICE USES THIS EQUATES TO ANY BUILDING OVER 90,000 GSF. FOR RETAIL USES THIS EQUATES TO ANY BUILDING OVER 70,000 GSF. FOR MULTIPLE FAMILY RESIDENTIAL USES THIS EQUATES TO ANY BUILDING OVER 425,000 GSF.

INCLUDES CURRENT APPLICATION

BLOCK 4:
LOADING REQUIRED = 5 SPACES (MAX PER Z.O. 11-202.15)

LOADING PROVIDED = 4 SPACES (LOADING MODIFICATION REQUESTED, SEE NOTE ON SHEET #1.)

BLOCK 5:
LOADING REQUIRED = 5 SPACES (MAX PER Z.O. 11-202.15)

LOADING PROVIDED = 2 SPACES
(LOADING TO BE SHARED TOTAL FOR PROP. BUILDING & EX. BUILDING TO REMAIN)
(LOADING MODIFICATION REQUESTED, SEE NOTE ON SHEET #1.)

Reston PRC Density
July 7, 2015

RESTON HIGH DENSITY RESIDENTIAL CATEGORY DENSITY
Includes Approved PRC Applications
High density residential category density not to exceed 60 persons/acre

SECTION	ACRES	UNITS	UNIT TYPE	PERSONS	PERSONS/ACRE
S. 1-B.12A, 12B, 12C, 12D	17.4565	146	SFA	394	
S. 1-B.13	5.9599	238	MFH	500	
S. 1-B.6-B-1a, 6-B2, 6-C, 7-A, Lake Anne of Reston Condo Common Element	7.639	130	MFH	273	
S. 11, S.5 B.1P.2A	16.6907	815	MFH	1712	
		120	SFA	324	
S. 7A	12.3691	261	MFG	548	
S. 7A, B.2-A	1.301	0	Open	0	
S. 11	13.1123	133	MFG	279	
S. 15A-B.2A	11.4107	501	MFH	1052	
		69	SFA	186	
S. 15-B.1	7.4106	175	MFH	368	
		59	SFA	159	
S. 15A-B.3 & 4	3.8756	11	SFA	30	
S. 17-B.2	7.6561	105	MFG	221	
S. 17, B.3	2.28	18	SFA	49	
S. 17-B.10, 7 & 13	25.2458	442	MFG	928	
S. 19-B.5, 6 & 7	17.3139	240	MFG	504	
S. 24A-B, 2 & 3		50	SFA	150	
S. 28-B.1	17.71	178	SFA	481	
S. 28-B.2	12.4248	240	MFG	504	
S. 28-B.3	11.0459	204	MFG	428	
S. 28-B.4	2.4167	0	Open	0	
S. 30-B.1	4.3277	210	MFH	441	
S. 30-B.2A		60	SFA	162	
S. 30-B.2B	11.1481	154	SFA	416	
S. 34.B.1	19.455	360	MFG	756	
S. 34.B.2, 4	17.8416	300	MFG/Open	630	
S. 34.B.2A	8.6	60	SFA	162	
S. 34.B.3	1.5639	0	Open	0	
S. 38B-B.10	9.9146	200	MFG	420	
S. 39, B.9	6.57	44	SFA	119	
S. 40, B. 1	15	193	MFH	405	
S. 40, B. 1C & 1D	9.9633	498	MFH	1046	
S. 41, B.1	11.1271	145	SFA	392	
S. 41, B.1A	5.6	73	SFA	197	
S. 43	31.91	400	MFG	840	
S. 46-B.1 & 2A	23.7188	300	MFG	630	
		38	SFA	103	
S. 50-B.7 & 8A-8A2	23.104	152	SFA	410	
		248	MFG	521	
S.52-B.1A & 1B	22.0424	140	SFA	378	
S. 52-B.2 & 3	14.5075	156	MFG	328	
S. 54-B-1A, 2A & 2B	23.7858	450	MFG	945	
S. 57, B.2	8.97	168	MFG	353	
S. 63, B.1	14.33	250	MFG	525	
S. 74-B.3	6.37	46	SFA	124	
S. 76-B.1, 4 & 5	5.4159	38	SFA	103	
S. 76, B.2A, [2C]	6.28	78	SFA	234	
S. 76, B.2B, [2E]	10.26	153	SFA	413	
S. 76, B.3	3.37	20	SFA	54	
S. 78, B.3	6.17	40	SFA	108	
S. 78-B.4	2.44	0	Church	0	
S. 80, B.1C	3.8037	38	SFA	103	
S. 80, B.1D	3.08	27	SFA	73	
S. 80, B.1E	2.37	17	SFA	46	
S. 81, B.1	9.77	182	MFG	382	
S. 81, B.2	13.22	514	MFH	1079	
S. 82-B.1A, 4 & 5	17.6676	124	SFA	335	
S. 82, B.2A	12.35	216	MFG	454	
S. 83-B.3, 4 & 5	7.65	0	COMM	0	
S. 85	9.12	344	MFH	722	
S. 86, B.1	6.92	35	SFA	95	
S. 86, B.2	12.36	65	SFA	176	
S. 87	17.61303	880	MFH	1848	
S. 89, B.1	0.78	30	SFA	81	
S. 89, B.2	9.61929	185	MFG	389	
S.89, B.3	2.03	125	MFH	263	
S.89, B.4	1.18	0	MFH	0	
S.89, B.5	2.01	100	MFH	210	
S. 91A	75.13	2249	MFH	4723	
S. 91	9.7013	542	MFH	1138	
S.95 B1	5.93	296	MFH	622	
S.95 B2	22.24	457	MFH	960	
S. 931, B.4A	10.3	174	MFG	365	
S. 931, B.4B	13.55	80	SFA	216	
S. 933	49	455	SFA	1229	
TOTAL	834.5039	16244		35809	**42.910**
					(less than 60 persons/ac)
Persons/Unit Factors Used:					
	Multifamily elevator unit			2.1	
	Multifamily garden apartment			2.1	
	Single family attached unit			2.7	
	Single family detached unit			3.0	
Source of Information:					
	Records maintained by Westerra Reston				
	Approved Town Center Concept Plan for S. 933				
	Approved Development Plan for S. 43				
	Approved Development Plan for S. 85				
	Approved Development Plan for S. 57, B.4A & 4B				
	Approved Development Plan for S. 40,B.1				
	Approved Site Plan for S. 91A, B. 19-20				
	Approved Development Plan for S. 81, B. 1 & 2				
	Approved Concept Plan for S. 89, B. 5				
	Proposed Development Plan for S. 91A, B. 1, 4 & 15				
	Proposed Concept Plan for S. 95 B.2				
	Approved PRC Plan for S. 81 B.2 (Parc Reston)				
	Approved PRC Plan for S.95.B2 (Excelsior Parc)				
	Approved PRC A-502-02 for S. 15A-B.2A & S. 15-B.1 (Fairways) - (4/10/12)				
	Approved PRC Plan for S.91A Block 16				
	Approved PRC 86-C-121-04 S.91, B.1, S.87, B2,3 (Spectrum) - 1/8/13				
	Approved PRC A 502-03 (Lake Anne)				

BUILDING DATA / POTENTIAL USE ALLOCATION CHART

BUILDING	USE GROUP CLASSIFICATION	TYPE OF CONSTR.	GROSS FLOOR AREA (ft.²) COMMERCIAL RETAIL	OFFICE	SUB-TOTAL	RESIDENTIAL	TOTAL	FOOT PRINT AREA (ft.²)	BUILDING HEIGHT (# OF STORIES)(ft.)	SPRINKLER DESCRIPTION	UNITS
BLOCK 4	R-2, A-2, M S-2	1-B	4,500 SF****	N/A	4,500 SF****	625,000 SF	629,500 SF	70,000 SF	234' (21 LEVELS) + PENTHOUSE*	NFPA-13	549 (MAX)
BLOCK 5 PROPOSED	B, A-2, M S-2	1-B	7,800 SF	276,788 SF	284,588 SF	N/A	284,588 SF	25,000 SF	235' (17 LEVELS) + PENTHOUSE*	NFPA-13	N/A
BLOCK 5 EX. TO REMAIN	N/A	N/A	24,875 SF	228,324 SF	253,199 SF	N/A	253,199 SF				
		BLOCK 5 SUBTOTAL	32,675 SF	505,112 SF	537,787 SF	N/A	537,787 SF				
		TOTAL	37,175 SF	505,112 SF	542,287 SF	625,000 SF	1,167,287 SF				

BLOCK 5 TABULATIONS PROVIDED FOR REFERENCE PURPOSES ONLY, PER PCA 85-C-088-09/ DPA 85-C-088-07/ PRC 85-C-088-03.

**** NOTE: APPLICANT PROPOSES UP TO 20,600 SF OF RETAIL CELLAR SPACE THAT IS NOT INCLUDED IN GFA, BUT IS INCLUDED FOR PARKING REQUIREMENTS. SEE AVERAGE GRADE COMPUTATION ON SHEET #10 AND BUILDING SECTION ON SHEET #21.
* NOTE: PENTHOUSE TO BE IN ACCORDANCE WITH Z.O. SECTION 2-506

BUILDING DATA CHART NOTE: BUILDING DATA SHOWN IS FOR PRELIMINARY PLANNING PURPOSES ONLY. APPLICANT RESERVES THE RIGHT TO ADJUST THE DATA AND USE ALLOCATIONS PROVIDED HEREON (INCLUDING # OF TABLE SEATS, BAR SEATS, AND EMPLOYEES SHOWN IN THE PARKING TABULATION) AT THE TIME OF FINAL SITE PLAN, WITHOUT THE NEED TO AMEND THIS APPLICATION, AS LONG AS THE TOTAL NUMBER OF RESIDENTIAL UNITS AND TOTAL COMMERCIAL GSF ON BLOCKS 4 AND 5 IS NOT EXCEEDED. THE APPLICANT RESERVES THE RIGHT TO INCREASE / DECREASE THE GSF OF RESIDENTIAL USE AS LONG AS THE NUMBER OF UNITS DOES NOT EXCEED THE MAXIMUM ALLOWED.

INCLUDES CURRENT APPLICATION

PRC High Density Single Area Max Tabulation -
Reston TC Core Residential Unit Tracking
(84.25 AC*50 DU/ACRE = 4,212 UNITS MAX)
7/31/2013

Section / Block	Residential Units	DU/AC
S. 85	344	
S. 91A, B.1 & 4	549	
S. 91A, B.16 & 18	1000	
S. 91A, B. 19 & 20	700	
Total	**2593**	**30.78**

NOTE: BLOCK 5 DATA IS SHOWN FOR REFERENCE PURPOSES ONLY

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE

REVISION APPROVED BY DIVISION OF DESIGN REVIEW

PLAN DATE
05-29-15
06-15-15
08-07-15

Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8300
Fax. 703.642.8251
www.urban-ltd.com
urban
Planners Engineers Landscape Architects Land Surveyors

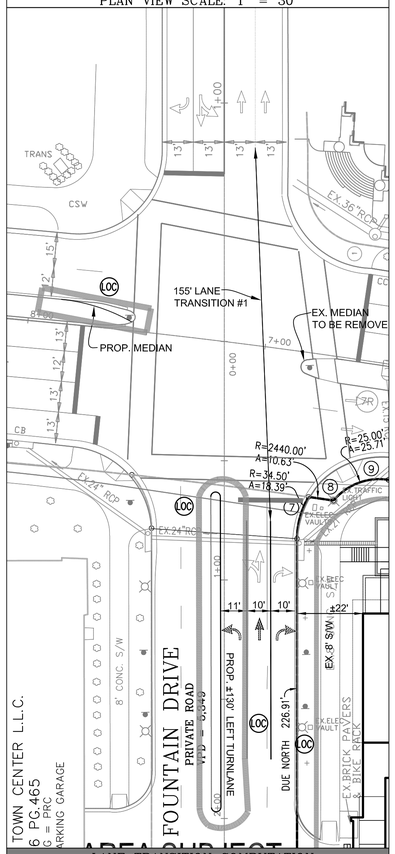
COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
PROFESSIONAL ENGINEER
08/07/15

SITE TABULATIONS & GENERAL NOTES
RESTON TOWN CENTER URBAN CORE
SECTION 91A, BLOCK 4
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA
DATE: MAY, 2015
SCALE: AS NOTED
C.L. N/A

SHEET 2 OF 21

FILE No.
PREL-2166-2

FOUNTAIN DR.(PRIVATE) AND
NEW DOMINION PKWY (RTE.663) IMPROVEMENTS
PLAN VIEW SCALE: 1" = 30'

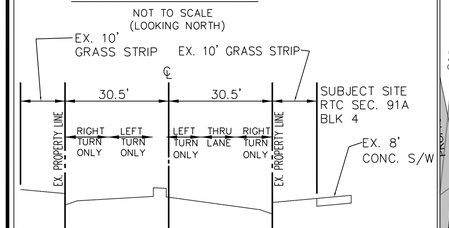


LANE TRANSITION COMPUTATION
POSTED SPEED=25 MPH
L=(S W/60)

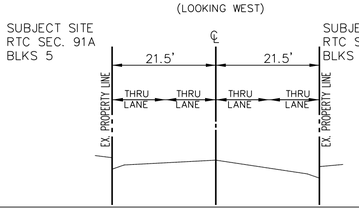
TRANSITION	S (MPH)	W	L REQ'D	L PROP.
1	25	9.17'	95.5'	155'

NOTE: LANE TRANSITION TO OCCUR WITHIN IN INTERSECTION, AS COORDINATED WITH VDOT.

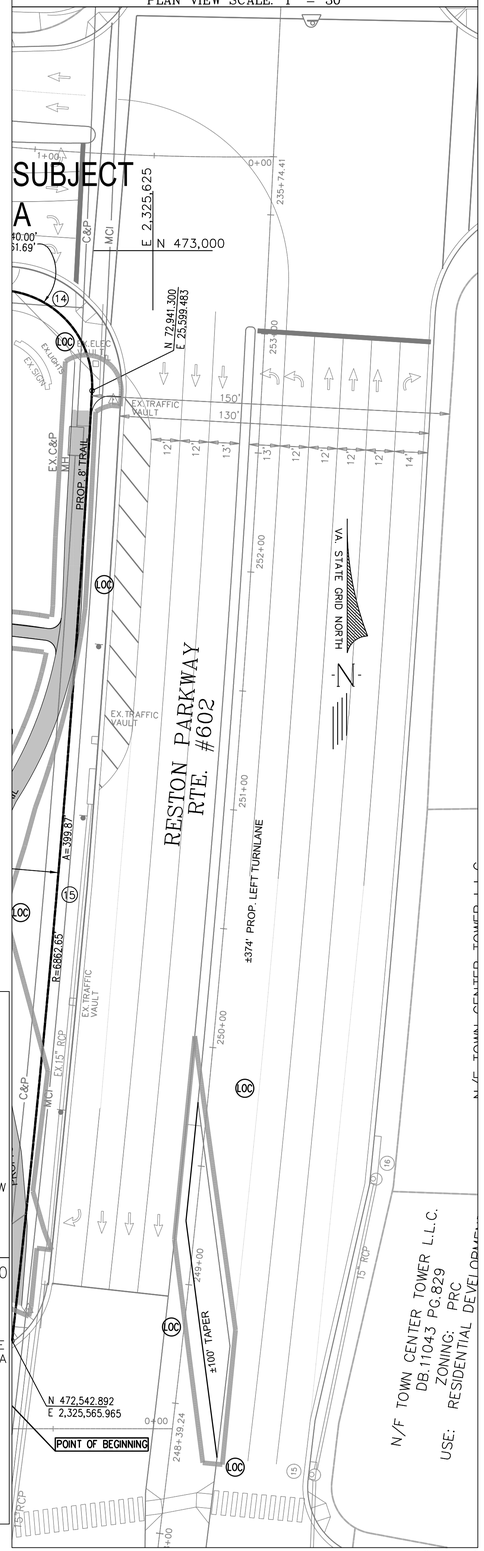
PROPOSED SECTION @ STATION 01+50.00
FOUNTAIN DRIVE
NOT TO SCALE
(LOOKING NORTH)



EXISTING CONDITIONS SECTION @ STATION 0+75.00
FREEDOM DRIVE
NOT TO SCALE
(LOOKING WEST)



RESTON PARKWAY (RTE. 602) LEFT TURN LANE IMPROVEMENTS
PLAN VIEW SCALE: 1" = 30'



PLAN VIEW SCALE: 1" = 30'

FAIRFAX COUNTY BASELINE DENSITY TABULATION

Reston Planned Residential Community (PRC) District
Residential Development Potential
May 2008

Existing Density Calculation			
Unit Type	**Unit Count**	**Population Factor** (as amended 3/26/2007)	**Number of Persons**
Single family detached	**4,247**	**3.0 persons**	**12,741**
Single family attached	**8,205**	**2.7 persons**	**22,154**
Multiple family	**14,323***	**2.1 persons**	**30,079**
			Current Population= 64,974
			Current persons per acre = 10.44

* Includes 332 units approved per Site Plan 7067-SP-019-2, Metropolitan at Reston Town Center Phase II

Remaining Available Development Potential
Based on maximum population calculation of 80,912 persons

(6,224 acres @ 13 persons/acre = 80,912 persons)

80,912 maximum population – 64,974 current population = 15,938 persons of available density

15,938 persons of available density translates to a development potential of :

5,312 single family detached units
or
5,903 single family attached units
or
7,590 multiple family units

Sources: Dwelling unit count from Department of Tax Administration data and Plan and Document Control, LDS, DPWES with addition of units receiving site plan approval
* since adoption of the PRC Amendment March 26, 2007.

MAXIMUM OVERALL PRC DISTRICT DENSITY COMPUTATION

Reston Planned Residential Community (PRC) District
Residential Development Potential
Including Approved Site Plans since May 2008 County Baseline density tabulation
July 31, 2013

Density Calculation			
Unit Type	Unit Count	Population Factor (as amended 3/26/2007)	Number of Persons
Single Family Detached	4,247	3.0 persons	12,741
Single Family Attached	8,205	2.7 persons	22,154
Multiple Family	14,460	2.1 persons	30,366
		Current Population	65,261
		Persons per acre	10.49

Remaining Available Development Potential
Based on Maximum Population Calculation of 80,912 persons

(6,224 acres @ 13 persons / acre = 80,912 persons)

80,912 maximum population – 65,261 current population = 15,651 persons of available density based on inclusion of approved PRC Applications

15,651 persons of available density translates to a development potential of:

5,217 single family detached units
Or
5,796 single family attached units
Or
7,452 multiple family units

Reston Planned Residential Community (PRC) District
Residential Development Potential
Including Approved Site Plans & Approved PRC Plans
since May 2008 County Baseline density tabulation
July 7, 2015

Density Calculation			
Unit Type	Unit Count	Population Factor (as amended 3/26/2007)	Number of Persons
Single Family Detached	4,247	3.0 persons	12,741
Single Family Attached	8,453	2.7 persons	22,824
Multiple Family	18,824	2.1 persons	39,531
		Population	75,096
		Persons per acre	12.07

Remaining Available Development Potential
Based on Maximum Population Calculation of 80,912 persons

(6,224 acres @ 13 persons / acre = 80,912 persons)

80,912 maximum population – 75,096 people = 5,816 persons of available density

5,816 persons of available density translates to a development potential of:

1,938 single family detached units
Or
2,154 single family attached units
Or
2,769 multiple family units

Site Plan Approved

Since May 2008 County Baseline Density tabulation
July 31, 2013

Project	#Units	Type	#Persons	Status
Athena Renaissance/ ParcReston (1)	110	MF	231	Site Plan Approved (6311-SP-003)
Reston TC Block 16 (2)	27	MF	57	Site Plan Approved (7067-SPV-019-A-1)
Total Number of Units	137		288	

(1) Original PCA approved for 696 units, of which 586 are in staff unit count. 418 of the 586 are existing.

(2) 359 units proposed, 332 units included in staff unit count

CURRENT APPLICANT

EXISTING POPULATION: 65,261 PERSONS
+ 1,153 EXISTING PERSONS WITH CURRENT APPLICATION
66,414 PERSONS

66,414 PERSONS / 6,224 ACRES = 10.67 PERSONS/ACRE

10.67 PERSONS PER ACRE < 13 PERSONS PER ACRE.
REQUIREMENT MET

Pending Applications (3)
PRC Plan Approved Only

July 7, 2015

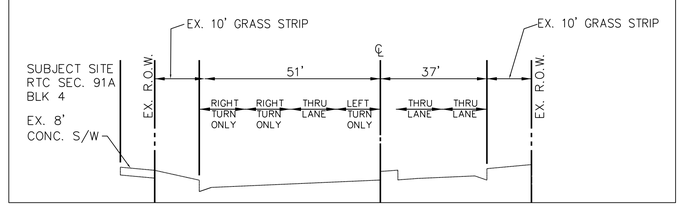
Project	#Units	Type	#Persons	Status
JBG/Reston Heights	498	MF	1046	PRC Plan Approved (PRCA -B -846)
Oracle Site/Excelsior	457	MF	960	PRC Plan Approved (PRC 86-C-121-03)
Colts Neck Road LLC	210	MF	441	PRC Plan Approved (0365-SP-002-3)
Spectrum/Lerner	1422	MF	2987	PRC Plan Approved (PRC 86-C-121-04)
Four Seasons	11	MF	24	PRC Plan Approved (PRC 87-C-088)
Fairway Apartments	328 128	MF (4) SFA	689 +346 1,035	PRC Plan Approved (PRC-A-502-02)
Section 89-3 (Winwood)	125	MF	263	PRC Plan Approved (PRC 86-C-121-2)
RTC Blocks 4 & 5	549	MF	1,153	PRC Plan Approved (PRC 85-C-088-03)
Lake Anne Village Center	764 120	MF (5) SFA	1,605 +324 1,929	PRC Plan Approved (PRC A-502-03)
Total	4,364 248	MF SFA	9,168 + 670 9,838	

(3) "Pending" pertains to the fact that these units will not count against the density cap until site plan approval

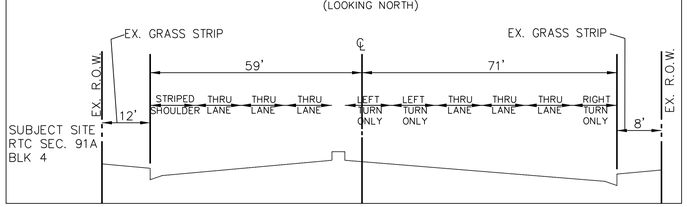
(4) 676 MF units proposed - 348 existing MF units to be removed = 328 MF unit increase

(5) 945 MF units proposed - 181 existing MF units to be removed = 764 MF unit increase

EXISTING CONDITIONS SECTION @ STATION 01+50.00
NEW DOMINION PARKWAY
NOT TO SCALE



EXISTING CONDITIONS SECTION @ STATION 251+50.00
RESTON PARKWAY
NOT TO SCALE
(LOOKING NORTH)



No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE

REVISION APPROVED BY DIVISION OF DESIGN REVIEW

PLAN DATE
05-29-15
06-15-15
08-07-15

Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8080
Fax. 703.642.9251
www.urban-ltd.com
urban
Planners. Engineers. Landscape Architects. Land Surveyors

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045681
08/07/15
PROFESSIONAL ENGINEER

SITE TABULATIONS & GENERAL NOTES
RESTON TOWN CENTER URBAN CORE
SECTION 91A, BLOCK 4
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED
C.I. N/A
DATE: MAY, 2015

SHEET
3
OF
21

FILE No.
PREL-2166-2

County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

August 29, 2013

Ms. Robin L Antonucci, P.E.
Wells & Associates, LLC
1420 Spring Hill Road, Suite 600
McLean, VA 22102

Subject: Amended and Restated Parking Agreement for Reston Town Center, Hunter Mill District

Dear Ms. Antonucci:

Thank you for your letter of August 20, 2013, requesting whether certain changes to the Amended and Restated Parking Agreement for Reston Town Center, referred to as Shared Parking Agreement (SPA), qualify for administrative approval by the Director of DPWES. Administrative approval is being requested to address the on-going development changes that have occurred since recordation of the SPA in the Fairfax County land records at deed book 21796 and page 0589, on August 11, 2011.

Based on your letter, dated August 20, 2013, the following information and justification has been provided related to your request:

- Section 5 of the SPA allows for administrative modifications.
- The current parking demand is less than the amount required by the SPA. Further, the applicant and his agents indicate that they intent to relocate the proposed 250,000 gross square feet (GSF) office building from Block 4 of Reston Section 89, to a location on Block 5, where it will be more efficiently integrated with existing commercial uses.
- Changes beyond the composition of the retail uses and land planning in Phase I have occurred since the recordation of the SPA. Boston Properties, and its related/controlled entities, now own all properties that are a party to the SPA (with the exception of the Hotel parcel owned by Host Marriott), and, importantly, all adjacent land within the Urban Core of Reston Town Center. In addition, over 4,350 parking spaces in Reston Town Center Phase II are under the control of your client located in parking structures immediately adjacent to the area covered by the SPA
- When construction on Block 4 begins, it will remove 251 surface parking spaces from the overall parking capacity. The current SPA calls for the shortage of overall parking

requirements for Phase I to be handled by maintaining a small surface parking lot on Block 4 immediately adjacent to the active construction that would be ongoing for months. You and your client believe that such a situation would be inherently unsafe and largely unneeded based on the extraordinary number of parking spaces under the control of the owner immediately adjacent and equally proximate to the uses to be served.

To research this issue, I consulted with Elizabeth Teare from the County Attorney's Office, who was involved in the drafting of the SPA, and Jan Leavitt with the Site Code Research and Development Branch of Land Development Services. With the data provided, sufficient detail exists to administratively approve, in accordance with Section 5 of the SPA, the following items:

- The Relocation of the 250,000 GSF of office density from Reston, Section 89, Block 4, to Reston, Section 89, Block 5.
- The current mix of uses, with the decrease in cinema capacity, reduces the total number of parking spaces needed for Phase I uses to 2,795 spaces from 2,895 spaces (the demand, based on ULI criteria is actually only 2,719 spaces but Section 5 of the SPA limits the overall reduction to from the Ordinance to 28%, or 2,795 spaces)
- Upon completion of the new office building on Block 5, there will be a total of 3,297 parking spaces available to serve the uses in Phase I. The 3,297 spaces to be provided exceeds the requirements of the ULI model and produces a surplus of 68 spaces upon Phase I construction completion.

With respect to the period of time when construction is ongoing on Block 4, taking away the 251 surface parking spaces, there is no avenue within the SPA to administratively approve such a change. Subject to conditions, a change in location of the temporary parking away from the construction activity to adjacent parking structures would make sense from a safety and logistic point of view.

Since the changes your client is proposing for Blocks 4 & 5 requires the filing of a Development Plan Amendment (DPA) or Proffered Condition Amendment (PCA) to the existing zoning for Reston Town Center, consider developing a condition of approval to the DPA/PCA to allow the parking requirement changes during the construction period. A condition for DPA/PCA approval similar to the following would be acceptable by Site Code Research and Development Branch:

- During construction of the development proposed for Block 4 of the Property under this DPA/PCA, the Applicant shall be permitted to utilize parking spaces located in adjacent garages outside of Phase I of the Reston Town Center Urban Core in order to satisfy the parking requirements of the Shared Parking Agreement applicable to such property, provided that the Applicant has provided documentation satisfactory to the Director of DPWES demonstrating the right to use such offsite parking facilities during the construction period. The Applicant shall install signage directing patrons to the locations of any offsite parking facilities and provide evidence of such signage to the Director prior to the commencement of construction on Block 4.

The Department of Planning and Zoning with the Office of the County Attorney and others will ascertain which vehicle works most efficiently to allow your client to proceed. Perhaps a Shared Parking Agreement Amendment will need to run concurrently with the DPA/PCA. From a technical point of view, with language similar to the draft condition above, this office supports your plan to accommodate the temporary shortfall of parking in the manner proposed by your client.

If you have any questions, please contact Jan Leavitt at 703-324-1733 or me at 703-324-1751 or by email at Jan.Leavitt@fairfaxcounty.gov or Thomas.Williamson@fairfaxcounty.gov.

Sincerely,

Thomas A. Williamson, Chief
Site Code Research and Development Branch

cc: Catherine M. Hudgins, Supervisor Hunter Mill District
Elizabeth Teare, Deputy County Attorney
Michelle Brickner, Director, Land Development Services, Department of Public Works and Environmental Services
Diane Johnson-Quinn, Deputy Zoning Administrator, Zoning Permit Review Branch, Department of Planning and Zoning
Regina Coyle, Assistant Director, Zoning Evaluation Division, Department of Planning and Zoning

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE

REVISION APPROVED BY DIVISION OF DESIGN REVIEW

PLAN DATE
05-29-15
06-15-15
08-07-15

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7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8080
Fax. 703.642.9251
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
PETER P. CRAWFORD
Lic. No. 045081
08/27/15
PROFESSIONAL ENGINEER

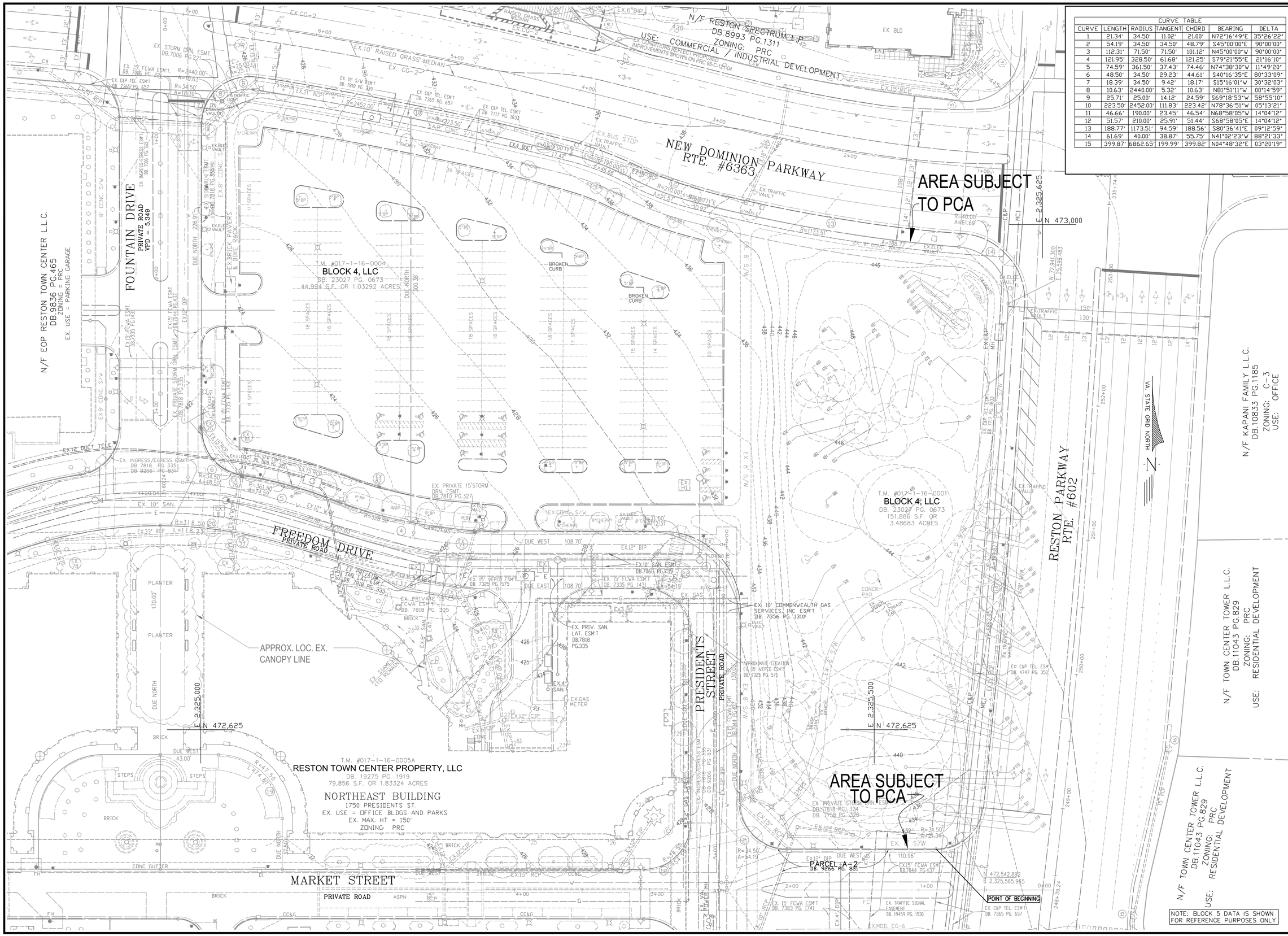
MISCELLANEOUS CORRESPONDENCE

RESTON TOWN CENTER URBAN CORE
SECTION 91A, BLOCK 4
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED
C.I. N/A
DATE: MAY, 2015

SHEET
3A
OF
21

FILE No.
PREL-2166-2



CURVE TABLE						
CURVE	LENGTH	RADIUS	TANGENT	CHORD	BEARING	DELTA
1	21.34'	34.50'	11.02'	21.00'	N72°16'49"E	35°26'22"
2	54.19'	34.50'	34.50'	48.79'	S45°00'00"E	90°00'00"
3	112.31'	71.50'	71.50'	101.12'	N45°00'00"W	90°00'00"
4	121.95'	328.50'	61.68'	121.25'	S79°21'55"E	21°16'10"
5	74.59'	361.50'	37.43'	74.46'	N74°38'30"W	11°49'20"
6	48.50'	34.50'	29.23'	44.61'	S40°16'35"E	80°33'09"
7	18.39'	34.50'	9.42'	18.17'	S15°16'01"W	30°32'03"
8	10.63'	2440.00'	5.32'	10.63'	N81°51'11"W	00°14'59"
9	25.71'	25.00'	14.12'	24.59'	S69°18'53"W	58°55'10"
10	223.50'	2452.00'	111.83'	223.42'	N78°36'51"W	05°13'21"
11	46.66'	190.00'	23.45'	46.54'	N68°58'05"W	14°04'12"
12	51.57'	210.00'	25.91'	51.44'	S68°58'05"E	14°04'12"
13	188.77'	1173.51'	94.59'	188.56'	S80°36'41"E	09°12'59"
14	61.69'	40.00'	38.87'	55.75'	N41°02'23"W	88°21'33"
15	399.87'	6862.65'	199.99'	399.82'	N04°48'32"E	03°20'19"

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Urban, Ltd.
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Tel. 703.642.8080
Fax. 703.642.8251
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PETER F. CRAWFORD
Lic. No. 045681
08/07/15
PROFESSIONAL ENGINEER

EXISTING CONDITIONS

RESTON TOWN CENTER URBAN CORE SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

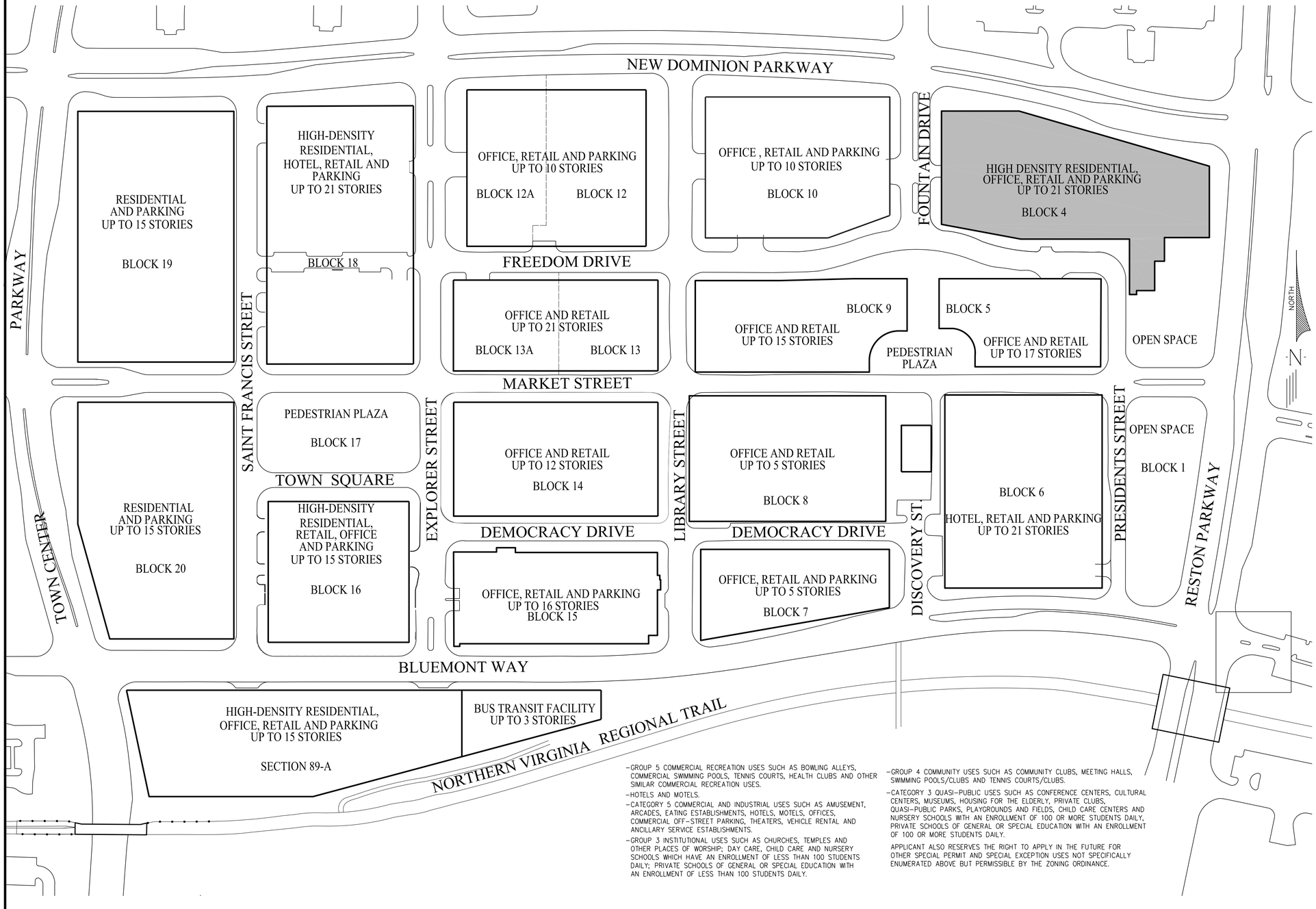
SCALE: 1" = 30' | C.I. =2' | DATE: MAY. 2015

SHEET 4 OF 21

FILE No. PREL-2166-2

THIS DEVELOPMENT PLAN AMENDMENT IS AMENDING 4.52 ACRES OF THE TOWN CENTER URBAN CORE AREA, AS GENERALLY HIGHLIGHTED HEREON. THE 84 ACRE TOWN CENTER URBAN CORE AREA GENERALLY IS BOUNDED BY TOWN CENTER PARKWAY, THE WASHINGTON AND OLD DOMINION ("W&OD") TRAIL, NEW DOMINION PARKWAY AND INCLUDES SECTION 85 EAST OF RESTON PARKWAY, WHICH IS NOT SHOWN ON THIS PLAN. ALL OTHER PLANS ARE ILLUSTRATIVE IN NATURE AND ARE NOT PRC PLANS, PRELIMINARY SITE PLANS OR DEVELOPMENT PLANS. FURTHER, THESE PLANS ARE GENERAL IN CONCEPT AND ARE SUBJECT TO CHANGE BY THE APPLICANT AS DETAILED DESIGN AND FINAL ENGINEERING OCCURS. THE FOLLOWING NOTES SHALL BE BINDING ON THE 84 ACRE TOWN CENTER URBAN CORE AREA, INCLUDING THE 4.52 ACRES SUBJECT TO THIS DEVELOPMENT PLAN AMENDMENT:

1. THE MAXIMUM GROSS FLOOR AREA OF COMMERCIAL SPACE WITHIN THE ENTIRE 84 ACRE TOWN CENTER URBAN CORE AREA SHALL NOT EXCEED 3,465,000 SQUARE FEET, CONSISTING OF 2.65 MILLION SQUARE FEET OFFICE, 1.0 MILLION SQUARE FEET HOTEL, AND 315,000 SQUARE FEET RETAIL INCLUDING EXHIBITION GALLERY SPACE.
2. MAXIMUM OVERALL FAR SHALL NOT EXCEED .95, EXCLUSIVE OF RESIDENTIAL USE.
3. MAXIMUM HEIGHT SHALL NOT EXCEED 21 STORIES OR 275 FEET. THE RANGE OF PROPOSED MAXIMUM BUILDING HEIGHTS IN STORIES AS SHOWN ON THE DEVELOPMENT PLAN: UP TO 5 STORIES, 10 STORIES, 15 STORIES AND 21 STORIES.
4. RESIDENTIAL DEVELOPMENT WITHIN THE TOWN CENTER URBAN CORE AREA IS DESIGNATED AS HIGH DENSITY RESIDENTIAL DEVELOPMENT. A MINIMUM OF 600 AND A MAXIMUM OF 4,212 SINGLE FAMILY ATTACHED AND/OR MULTIFAMILY RESIDENTIAL SHALL BE PROVIDED WITHIN THE ENTIRE 84.25 ACRE TOWN CENTER URBAN CORE AREA. THE MAXIMUM NUMBER OF RESIDENTIAL UNITS THAT MAY BE CONSTRUCTED ON BLOCK 16, BLOCK 18 AND SECTION 89A, COMBINED, SHALL NOT EXCEED 1,000 RESIDENTIAL DWELLING UNITS.
5. PARKING SHALL BE PROVIDED IN ACCORDANCE WITH FAIRFAX COUNTY ZONING ORDINANCE REQUIREMENTS. THERE IS AN EXISTING SHARED PARKING AGREEMENT (DB. 21796, PG. 0589) FOR THE SITE & THE APPLICANT MAY SEEK SUBSEQUENT REDUCTIONS IN PARKING CONSISTENT WITH THE ZONING ORDINANCE AND SUBJECT TO THE BOARD OF SUPERVISOR'S APPROVAL.
6. A COMPREHENSIVE PEDESTRIAN CIRCULATION SYSTEM SHALL BE PROVIDED WITHIN THE TOWN CENTER URBAN CORE. THIS SYSTEM SHALL CONSIST OF SIDEWALKS AND PATHWAYS AS APPROPRIATE AND SHALL BE FINALIZED AS TO LOCATION AND MATERIALS AT THE TIME OF SITE PLAN REVIEW.
7. ALL SITE PLANS SHALL BE SUBMITTED TO THE RESTON COMMUNITY ASSOCIATION'S PLANNING AND ZONING COMMITTEE FOR REVIEW. THIS PROCESS CURRENTLY EXISTS AND SHALL BE CONTINUED FOR THE TOWN CENTER URBAN CORE AREA.
8. ALL SITE PLANS AS WELL AS ARCHITECTURAL DRAWINGS OF ALL BUILDINGS AND STRUCTURES (INCLUDING PARKING STRUCTURES), LANDSCAPING, LIGHTING, MATERIALS, COLORS AND SIGNAGE SHALL BE SUBMITTED TO THE TOWN CENTER ASSOCIATION DESIGN REVIEW BOARD FOR REVIEW AND APPROVAL.
9. THE PROPOSED RIGHT-OF-WAY WIDTH OF MAJOR PUBLIC STREETS SHALL BE AS FOLLOWS: NEW DOMINION PKWY – 90'
10. STREET LEVEL RETAIL USES MAY BE INCLUDED IN ABOVE-GRADE PARKING STRUCTURES WHERE FEASIBLE.
11. UNDERGROUND PARKING MAY BE PROVIDED BY RIGHT ON ANY BUILDING PAD AS NECESSARY.
12. THE AIR RIGHTS ABOVE PRIVATE STREETS MAY BE DEVELOPED AS SHOWN ON THE CONCEPT PLAN.
13. TOWN CENTER USES WILL INCLUDE ALL OF THOSE PERMITTED BY RIGHT UNDER THE PRC TOWN CENTER ZONING CATEGORY, PLUS ALL OF THE SPECIAL PERMIT AND SPECIAL EXCEPTION USES SPECIFICALLY DESIGNATED ON THE CONCEPTUAL DEVELOPMENT PLAN AS TO GENERAL LOCATION AND THE FOLLOWING SPECIAL PERMIT AND SPECIAL EXCEPTION USES AS TO LOCATIONS WITHIN THE SUBJECT PROPERTY.



–GROUP 5 COMMERCIAL RECREATION USES SUCH AS BOWLING ALLEYS, COMMERCIAL SWIMMING POOLS, TENNIS COURTS, HEALTH CLUBS AND OTHER SIMILAR COMMERCIAL RECREATION USES.

–HOTELS AND MOTELS.

–CATEGORY 5 COMMERCIAL AND INDUSTRIAL USES SUCH AS AMUSEMENT, ARCADES, EATING ESTABLISHMENTS, HOTELS, MOTELS, OFFICES, COMMERCIAL OFF-STREET PARKING, THEATERS, VEHICLE RENTAL AND ANCILLARY SERVICE ESTABLISHMENTS.

–GROUP 3 INSTITUTIONAL USES SUCH AS CHURCHES, TEMPLES AND OTHER PLACES OF WORSHIP; DAY CARE, CHILD CARE AND NURSERY SCHOOLS WHICH HAVE AN ENROLLMENT OF LESS THAN 100 STUDENTS DAILY; PRIVATE SCHOOLS OF GENERAL OR SPECIAL EDUCATION WITH AN ENROLLMENT OF LESS THAN 100 STUDENTS DAILY.

–GROUP 4 COMMUNITY USES SUCH AS COMMUNITY CLUBS, MEETING HALLS, SWIMMING POOLS/CLUBS AND TENNIS COURTS/CLUBS.

–CATEGORY 3 QUASI-PUBLIC USES SUCH AS CONFERENCE CENTERS, CULTURAL CENTERS, MUSEUMS, HOUSING FOR THE ELDERLY, PRIVATE CLUBS, QUASI-PUBLIC PARKS, PLAYGROUNDS AND FIELDS, CHILD CARE CENTERS AND NURSERY SCHOOLS WITH AN ENROLLMENT OF 100 OR MORE STUDENTS DAILY, PRIVATE SCHOOLS OF GENERAL OR SPECIAL EDUCATION WITH AN ENROLLMENT OF 100 OR MORE STUDENTS DAILY.

APPLICANT ALSO RESERVES THE RIGHT TO APPLY IN THE FUTURE FOR OTHER SPECIAL PERMIT AND SPECIAL EXCEPTION USES NOT SPECIFICALLY ENUMERATED ABOVE BUT PERMISSIBLE BY THE ZONING ORDINANCE.

SEE SHEETS 6 & 7 FOR ADDITIONAL DPA INFORMATION

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE

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PLAN DATE
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urban
Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8080
Fax. 703.642.8251
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
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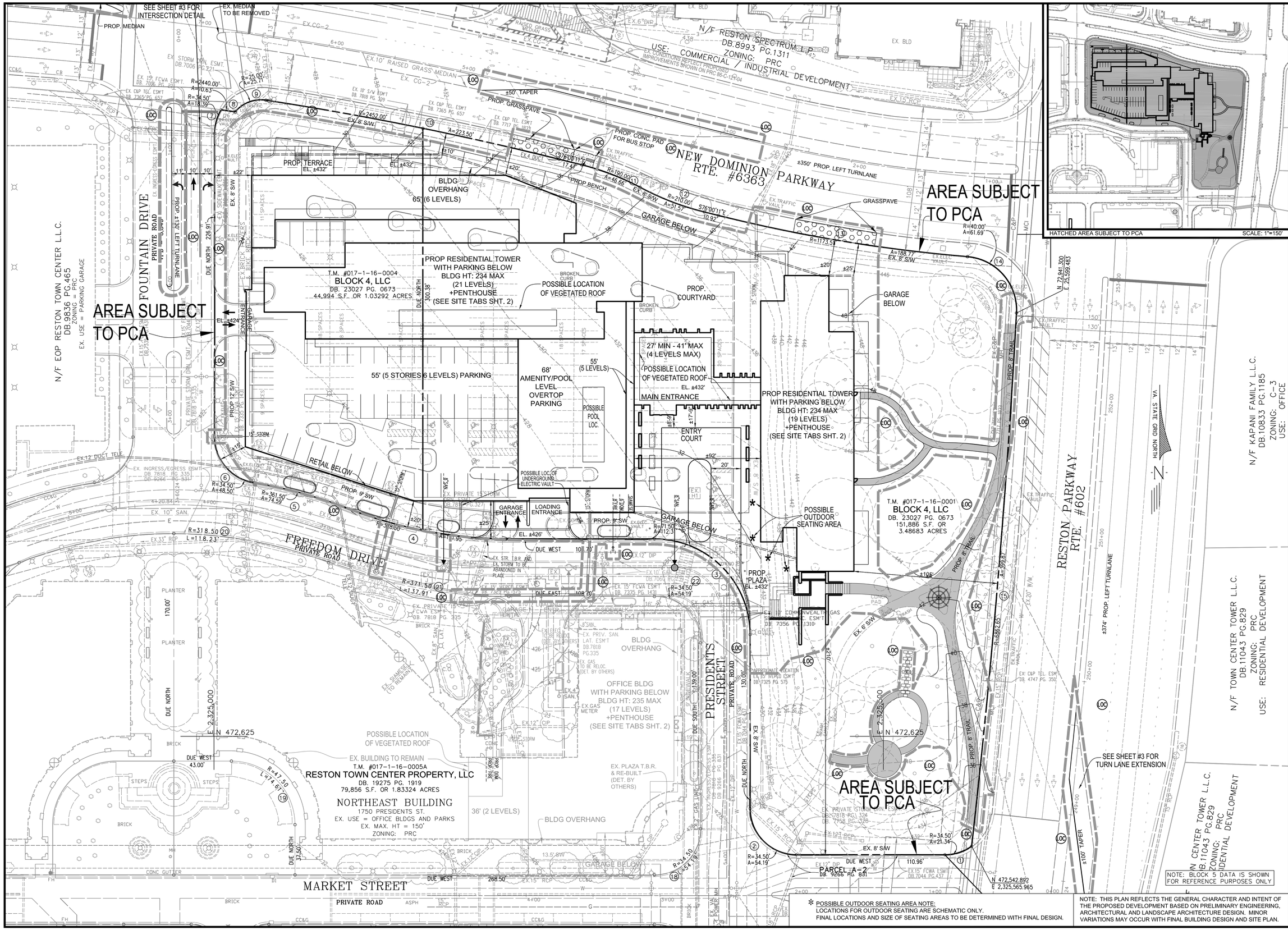
Lic. No. 045681
08/07/15
PROFESSIONAL ENGINEER

DEVELOPMENT PLAN AMENDMENT
RESTON TOWN CENTER URBAN CORE
SECTION 91A, BLOCK 4
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1" = 100'
C.L. =N/A
DATE: MAY, 2015

SHEET 5 OF 21

FILE No.
PREL-2166-2



* POSSIBLE OUTDOOR SEATING AREA NOTE:
LOCATIONS FOR OUTDOOR SEATING ARE SCHEMATIC ONLY.
FINAL LOCATIONS AND SIZE OF SEATING AREAS TO BE DETERMINED WITH FINAL DESIGN.

NOTE: THIS PLAN REFLECTS THE GENERAL CHARACTER AND INTENT OF THE PROPOSED DEVELOPMENT BASED ON PRELIMINARY ENGINEERING, ARCHITECTURAL AND LANDSCAPE ARCHITECTURE DESIGN. MINOR VARIATIONS MAY OCCUR WITH FINAL BUILDING DESIGN AND SITE PLAN.

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Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8100
Fax. 703.642.9251
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08-07-15

DPA/PCA / PRC PLAN

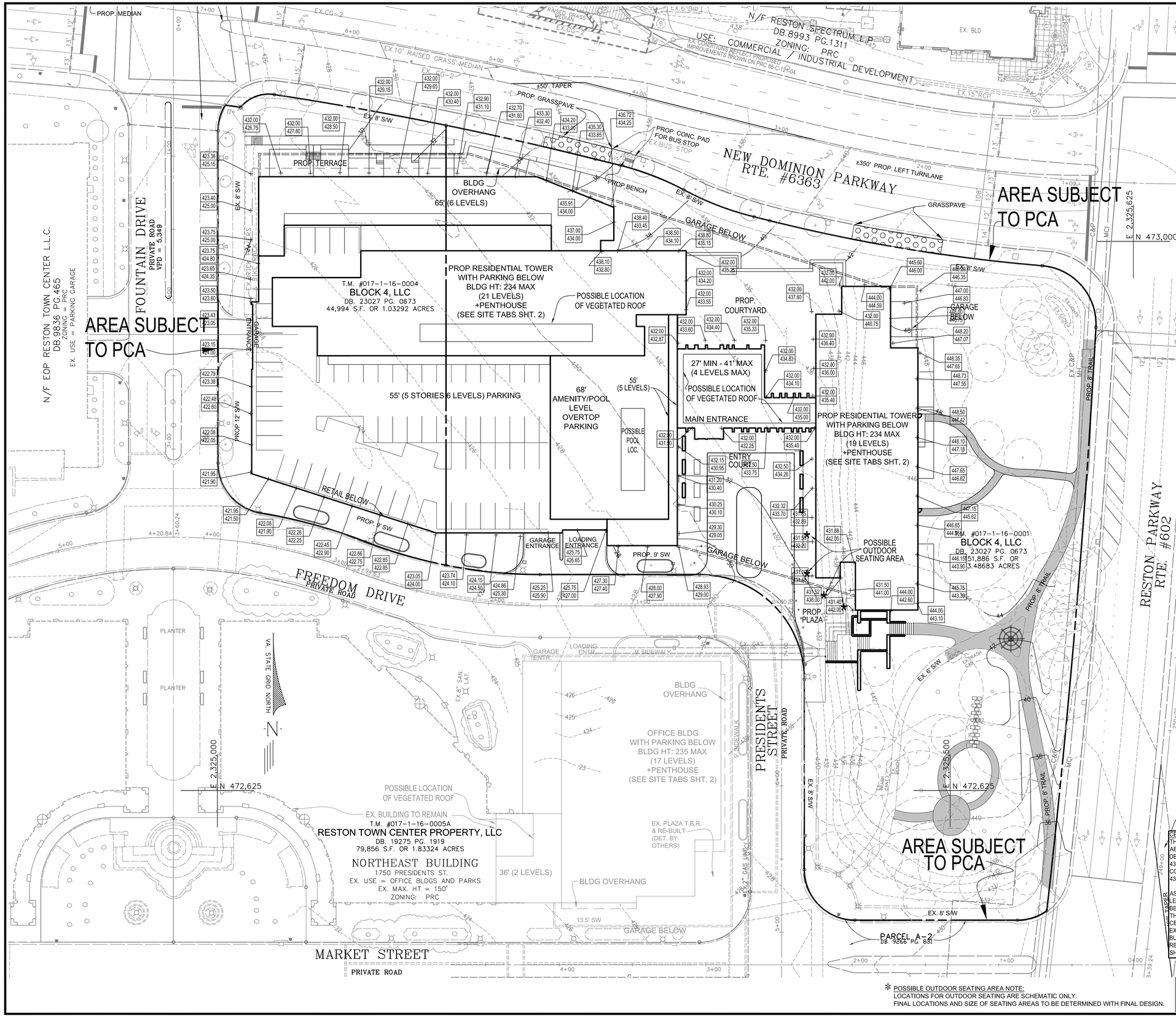
RESTON TOWN CENTER URBAN CORE
SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"= 30' | C.I. N/A | DATE: MAY, 2015

SHEET 6 OF 21

FILE No. PREL-2166-2



LEGEND

AVERAGE GRADE COUNTER	PROP. GRADE	XXX.XX
	EX. GRADE	XXX.XX

BLOCK 4 AVERAGE GRADE CALCULATION

P-Grade	Ex. Grade	Loc.
421.95	421.90	SW corner
422.08	422.05	
422.48	422.60	
422.79	423.38	
423.15	424.00	
423.43	423.05	
423.50	423.60	
423.65	424.35	
423.75	424.80	
423.75	425.00	
423.40	425.00	
423.36	425.15	NW corner
432.00	426.75	
432.00	427.80	
432.00	428.50	
432.00	429.15	
432.00	429.65	
432.00	430.40	
432.90	431.10	
432.70	431.80	
433.30	432.40	
434.20	433.00	
435.30	433.85	
435.91	434.00	
436.72	434.25	
437.00	434.00	
438.10	432.80	
438.40	433.45	
438.50	434.10	
432.00	434.20	
432.00	435.55	
432.00	434.40	
432.00	435.33	
432.00	437.60	
432.00	434.83	
432.00	434.10	
432.00	436.40	
432.00	436.00	
432.00	435.40	
432.00	435.00	
432.00	435.40	
432.00	436.00	
432.00	436.40	
432.00	437.60	
432.00	440.75	
432.00	442	
444.00	444.59	
445.50	446.00	NE Corner
446.00	446.35	
447.00	446.83	
448.00	446.75	
448.20	447.07	
448.35	447.65	
448.73	447.55	
448.50	447.42	
448.10	447.18	
447.65	446.62	
447.15	445.62	
446.65	444.96	
446.15	443.90	
445.75	443.30	
444.00	443.10	SE corner
444.00	442.60	
431.40	442.00	
431.50	441.00	
431.88	442.00	
431.52	438.00	
431.10	431.65	
431.50	432.20	
431.85	432.89	
432.32	433.70	
432.50	434.26	
432.00	435.40	
432.00	433.75	
432.00	432.25	
432.00	431.50	
432.15	430.95	
431.20	430.40	
430.25	430.10	
429.30	429.05	
428.93	429.00	
428.00	427.90	
427.30	427.40	
425.75	427.00	
425.75	426.65	
425.25	425.90	
424.86	425.30	
424.15	424.50	
423.74	424.10	
423.05	424.00	
422.85	422.85	
422.66	422.75	
422.45	422.90	
422.26	422.25	
422.08	421.90	
421.95	421.50	
432.65	**433.15**	**AVG**

CELLAR SPACE NARRATIVE:
THE AVERAGE GRADE CALCULATED ABOVE IS BASED ON PRELIMINARY DESIGN AND ACCORDINGLY, THE 432.65' AVERAGE GRADE IS CONSERVATIVELY ROUNDED DOWN TO 432.00' FOR ZONING PURPOSES.

AS SHOWN ON SHEET #21, THE B1 LEVEL RETAIL SPACE IS 50% OR MORE BELOW THE AVERAGE GRADE AND THEREFORE MEETS THE DEFINITION OF CELLAR SPACE. THE CELLAR SPACE IS EXCLUDED FROM FAR CALCULATIONS, BUT INCLUDED WITHIN PARKING REQUIREMENT CALCULATIONS ON SHEET #2.

NOTE: BLOCK 5 DATA IS SHOWN FOR REFERENCE PURPOSES ONLY.

* POSSIBLE OUTDOOR SEATING AREA NOTE:
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08/07/15

PROPOSED AVERAGE GRADE EXHIBIT

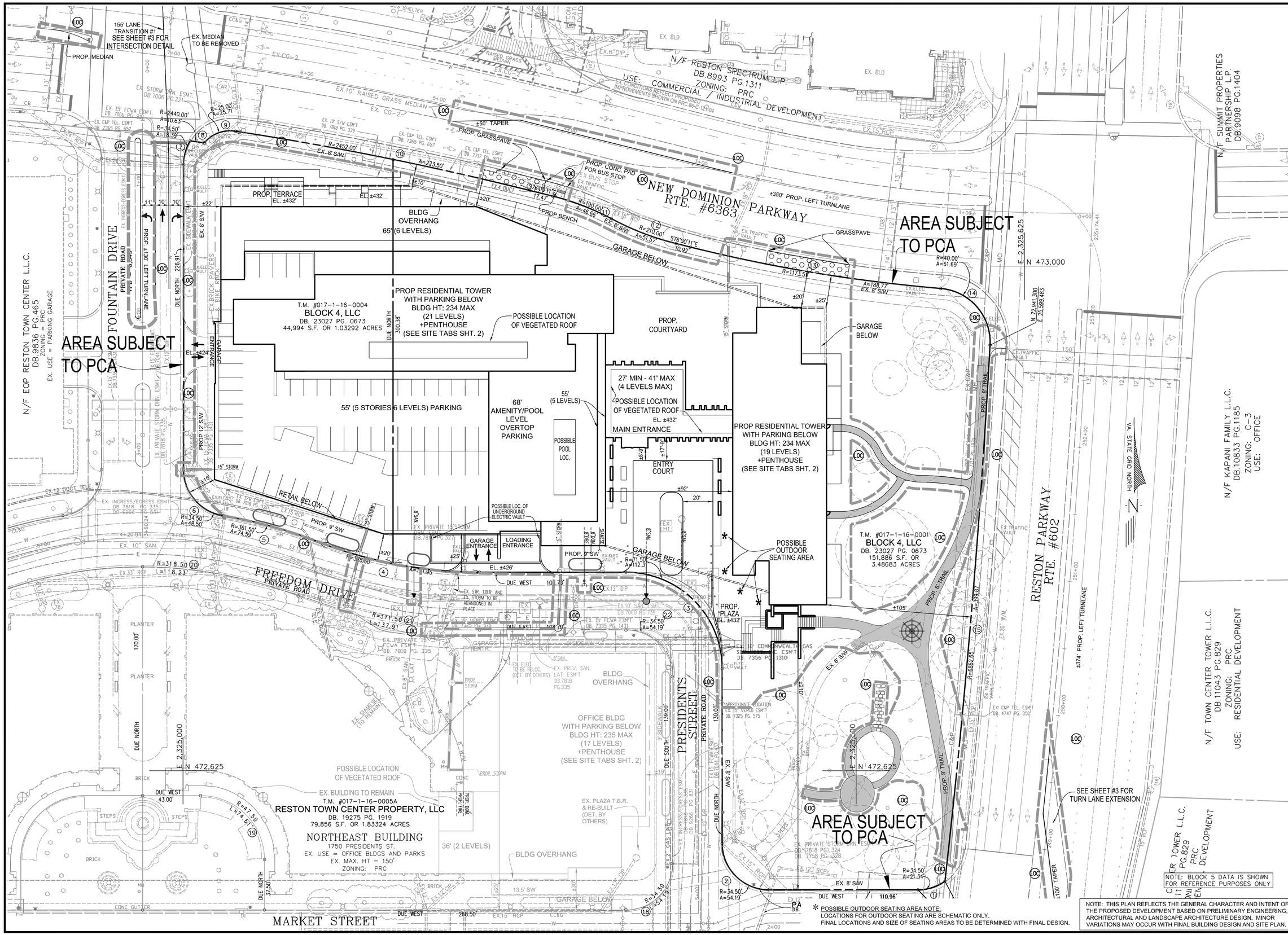
RESTON TOWN CENTER URBAN CORE SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"= 30' | C.I. 2' | DATE: MAY, 2015

SHEET 6A OF 21

FILE No. PREL-2166-2



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PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

DPA/PCA/PRC LAYOUT PLAN

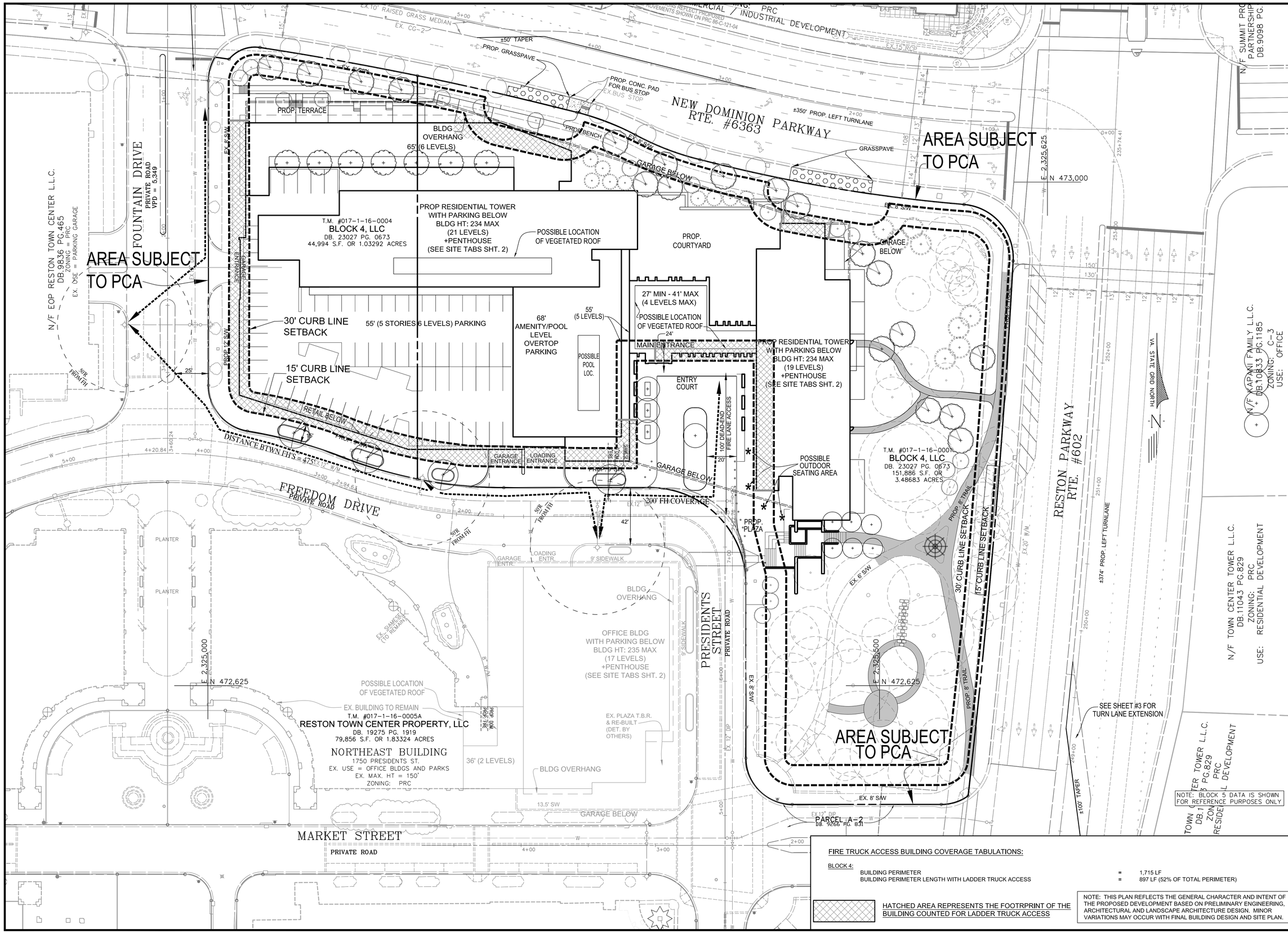
RESTON TOWN CENTER URBAN CORE SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"= 30' | C.I. N/A | DATE: MAY, 2015

SHEET 7 OF 21

FILE No. PREL-2166-2



FIRE TRUCK ACCESS BUILDING COVERAGE TABULATIONS:

BLOCK 4:

BUILDING PERIMETER	=	1,715 LF
BUILDING PERIMETER LENGTH WITH LADDER TRUCK ACCESS	=	897 LF (52% OF TOTAL PERIMETER)

HATCHED AREA REPRESENTS THE FOOTRPRINT OF THE BUILDING COUNTED FOR LADDER TRUCK ACCESS

NOTE: THIS PLAN REFLECTS THE GENERAL CHARACTER AND INTENT OF THE PROPOSED DEVELOPMENT BASED ON PRELIMINARY ENGINEERING, ARCHITECTURAL AND LANDSCAPE ARCHITECTURE DESIGN. MINOR VARIATIONS MAY OCCUR WITH FINAL BUILDING DESIGN AND SITE PLAN.

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urban
Planners Engineers Landscape Architects Land Surveyors

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PETER F. CRAWFORD
Lic. No. 040981
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FIRE TRUCK ACCESS- SUPPLEMENTAL EXHIBIT

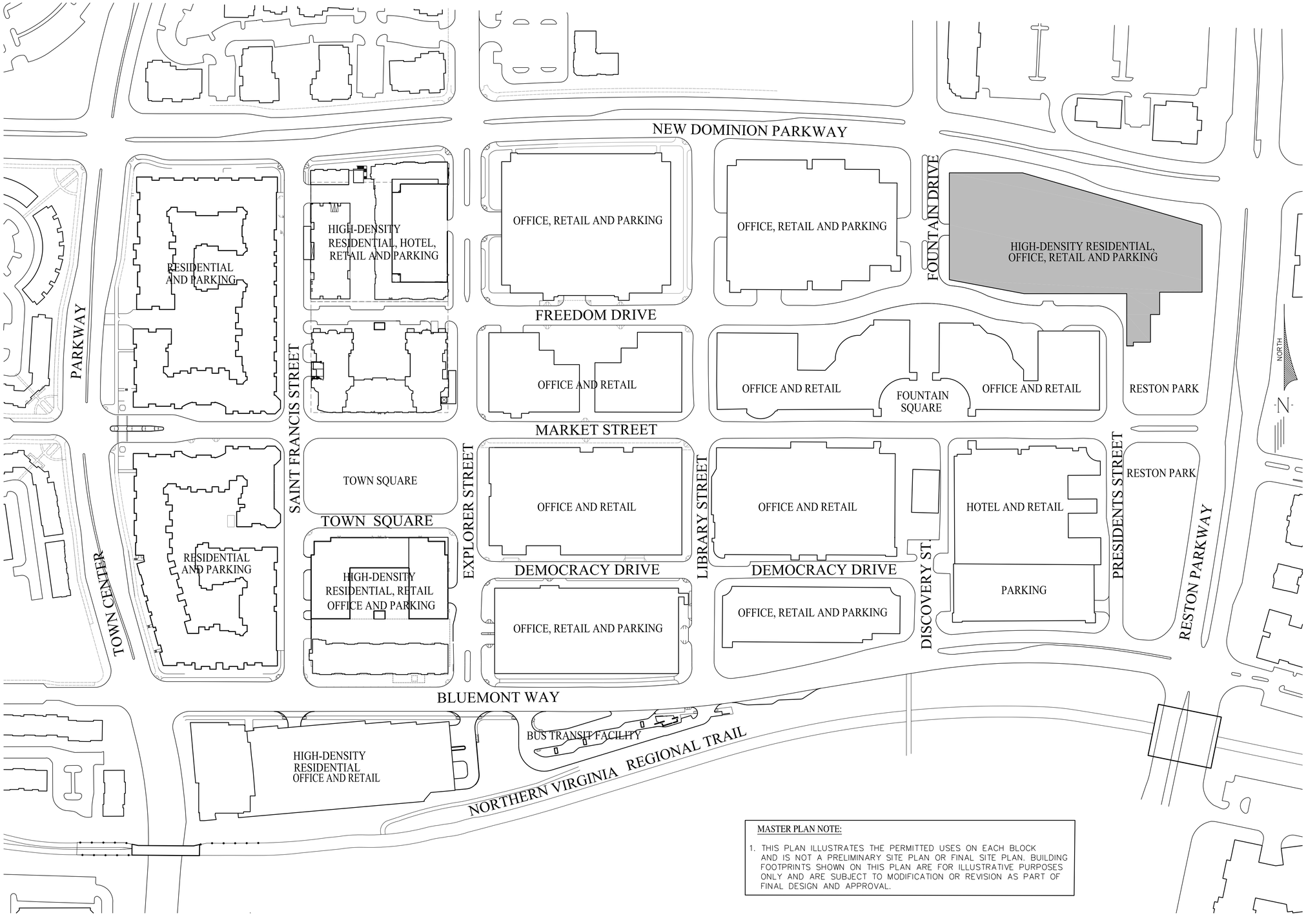
RESTON TOWN CENTER URBAN CORE
SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"= 30'
C.I. N/A
DATE: MAY, 2015

SHEET 7A OF 21

FILE No. PREL-2166-2



MASTER PLAN NOTE:

1. THIS PLAN ILLUSTRATES THE PERMITTED USES ON EACH BLOCK AND IS NOT A PRELIMINARY SITE PLAN OR FINAL SITE PLAN. BUILDING FOOTPRINTS SHOWN ON THIS PLAN ARE FOR ILLUSTRATIVE PURPOSES ONLY AND ARE SUBJECT TO MODIFICATION OR REVISION AS PART OF FINAL DESIGN AND APPROVAL.

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE
		REVISION APPROVED BY DIVISION OF DESIGN REVIEW			

PLAN DATE
05-29-15
06-15-15
08-07-15

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Planners Engineers Landscape Architects Land Surveyors
Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8080
Fax. 703.642.8251
www.urban-ltd.com

COMMONWEALTH OF VIRGINIA
PETER P. CRAWFORD
Lic. No. 040081
08/07/15
PROFESSIONAL ENGINEER

MASTER PLAN

RESTON TOWN CENTER URBAN CORE
SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

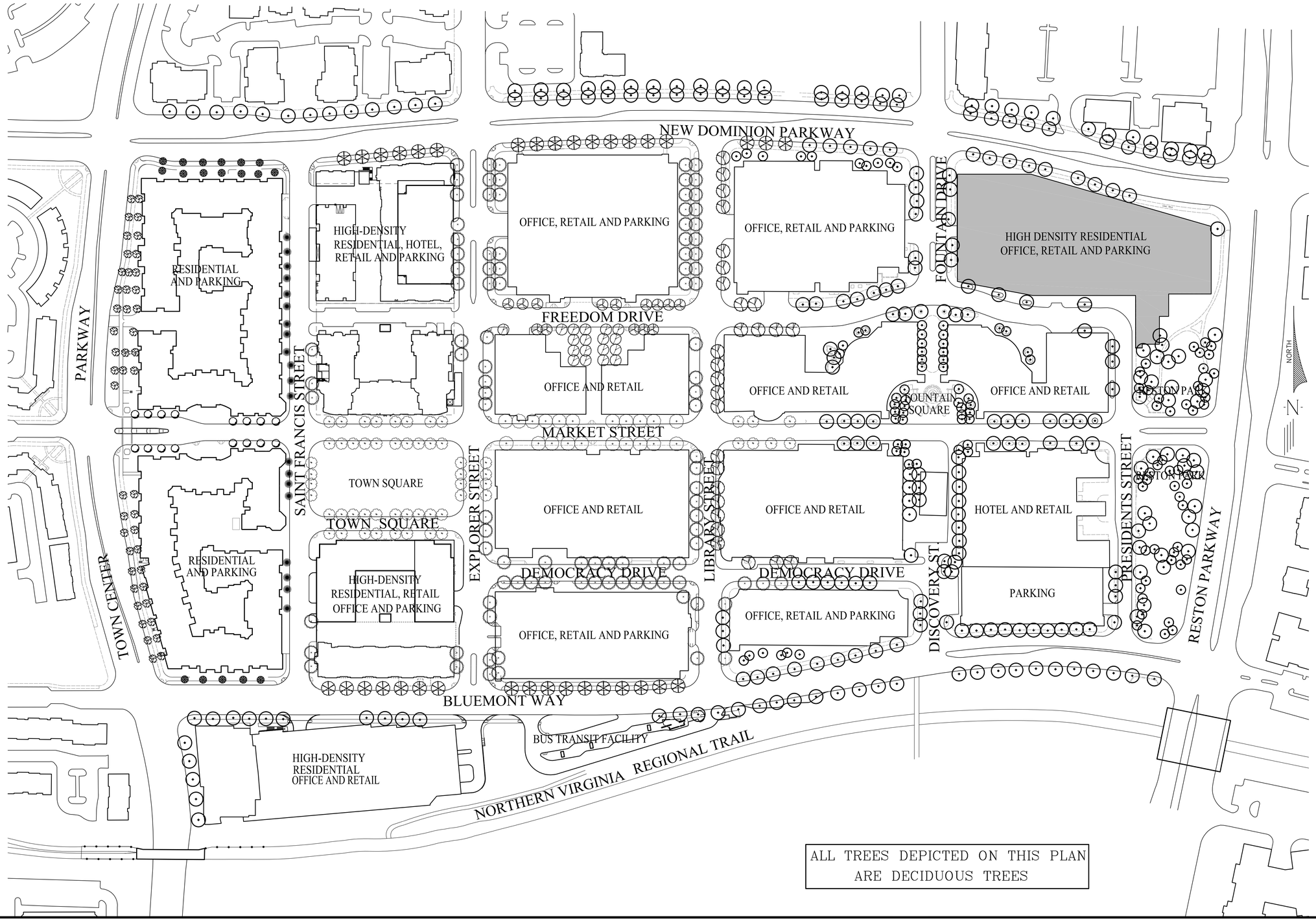
SCALE: 1" = 100'
C.L. =N/A
DATE: MAY, 2015

SHEET 8 OF 21

FILE No.
PREL-2166-2

LANDSCAPE PLAN NOTE:

1. THIS LANDSCAPE PLAN SHOWS THE GENERAL LOCATION AND DESIGN OF LANDSCAPING AND PEDESTRIAN CONNECTIONS TO BE PROVIDED IN THE TOWN CENTER URBAN CORE UNDER THE DESIGN GUIDELINES ADOPTED BY THE RESTON TOWN CENTER DESIGN REVIEW BOARD (DRB) THAT GOVERN DEVELOPMENT WITHIN THE URBAN CORE. THIS PLAN IS NOT A PRELIMINARY OR FINAL SITE PLAN AND IS SUBJECT TO MODIFICATION OR REVISION AS PART OF FINAL DESIGN AND APPROVAL, OR AS REQUIRED BY THE DRB.
2. THE TOWN CENTER URBAN CORE WILL HAVE A HIGHLY INTEGRATED PEDESTRIAN CIRCULATION PATTERN AND A SERIES OF URBAN PARKS WITH A HIERARCHY OF LANDSCAPING ALONG THE STREETS. THIS PLAN SHOWS THE LOCATION OF THE PARKS, THE CONTINUITY OF THE STREETSCAPES THROUGHOUT THE CORE AND THE INCREASED INTENSITY OF LANDSCAPING PROPOSED FOR THE HIGHLY PEDESTRIAN "MARKET STREET."



ALL TREES DEPICTED ON THIS PLAN ARE DECIDUOUS TREES

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE
		REVISION APPROVED BY DIVISION OF DESIGN REVIEW			

PLAN DATE
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06-15-15
08-07-15

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7712 Little River Turnpike
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Tel. 703.642.8080
Fax. 703.642.8251
www.urban-ltd.com

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

OVERALL LANDSCAPE PLAN

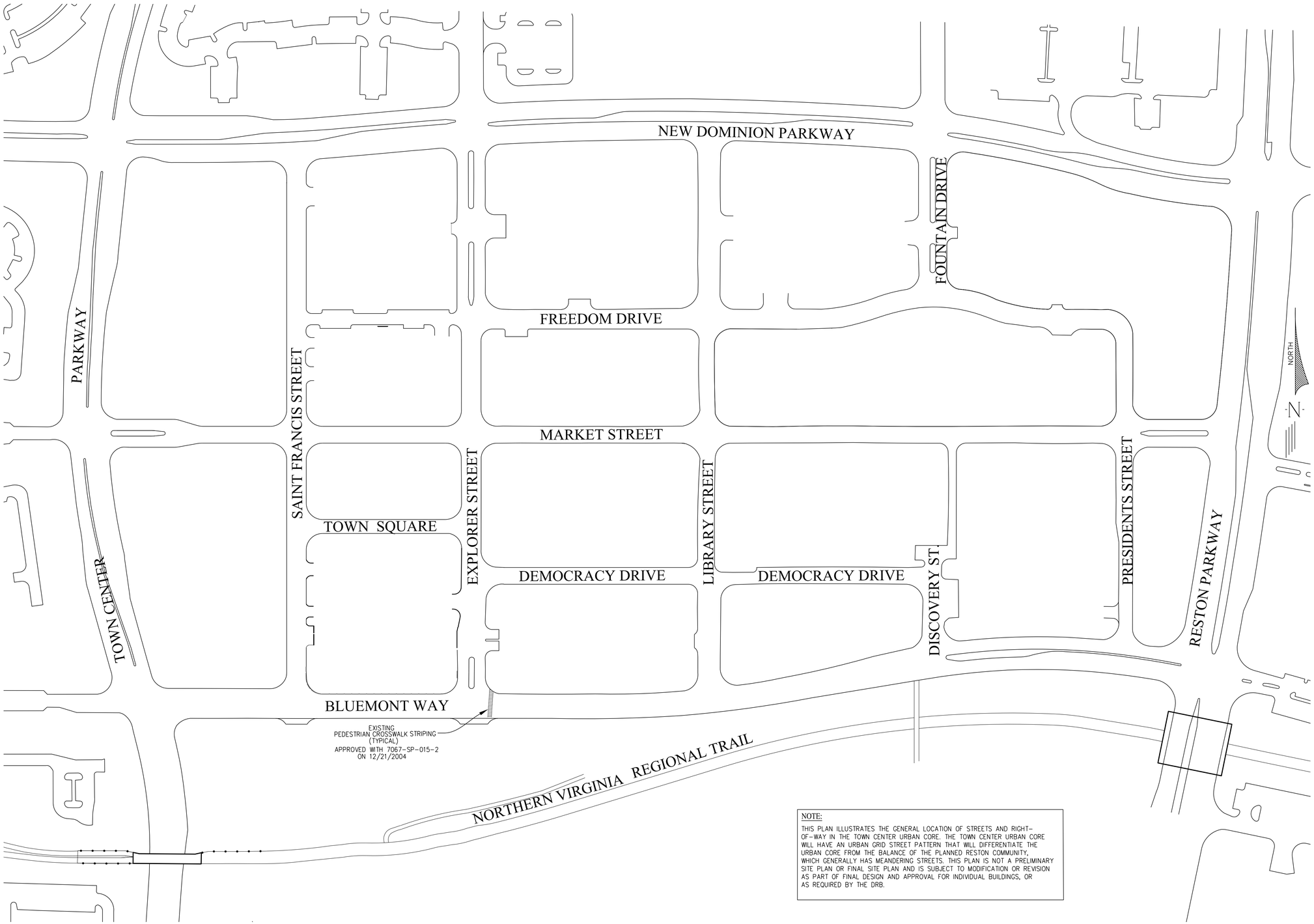
RESTON TOWN CENTER URBAN CORE SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1" = 100'
C.I. =N/A
DATE: MAY, 2015

SHEET 9 OF 21

FILE No. PREL-2166-2



NOTE:

THIS PLAN ILLUSTRATES THE GENERAL LOCATION OF STREETS AND RIGHT-OF-WAY IN THE TOWN CENTER URBAN CORE. THE TOWN CENTER URBAN CORE WILL HAVE AN URBAN GRID STREET PATTERN THAT WILL DIFFERENTIATE THE URBAN CORE FROM THE BALANCE OF THE PLANNED RESTON COMMUNITY, WHICH GENERALLY HAS MEANDERING STREETS. THIS PLAN IS NOT A PRELIMINARY SITE PLAN OR FINAL SITE PLAN AND IS SUBJECT TO MODIFICATION OR REVISION AS PART OF FINAL DESIGN AND APPROVAL FOR INDIVIDUAL BUILDINGS, OR AS REQUIRED BY THE DRB.

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE

REVISION APPROVED BY DIVISION OF DESIGN REVIEW

PLAN DATE
05-29-15
06-15-15
08-07-15

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Planners Engineers Landscape Architects Land Surveyors
Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8080
Fax. 703.642.8251
www.urban-ltd.com

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

RIGHT-OF-WAY/TRAFFICE CIRCULATION PLAN

RESTON TOWN CENTER URBAN CORE SECTION 91A, BLOCK 4

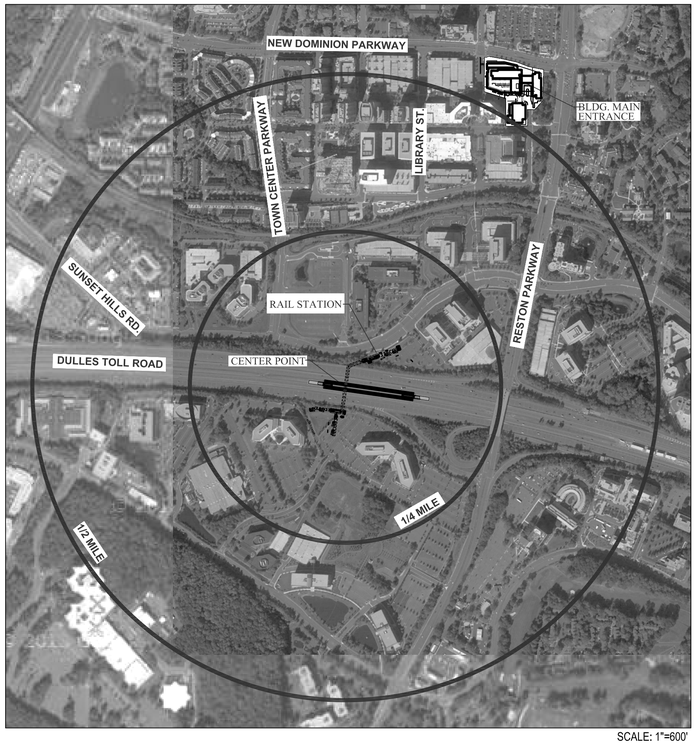
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1" = 100'
C.I. =N/A
DATE: MAY, 2015

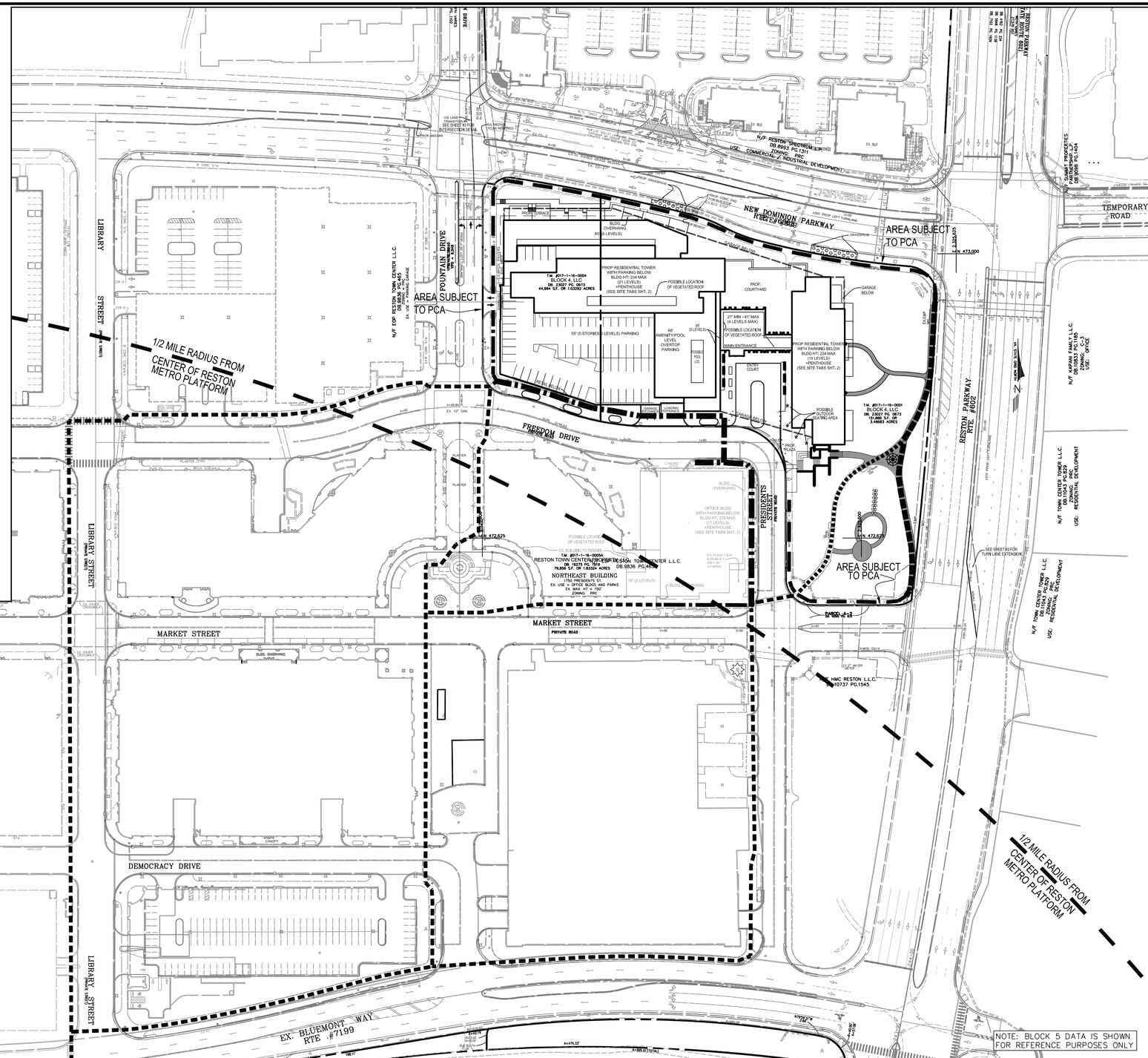
SHEET
10
OF
21

FILE No.
PREL-2166-2

HALF-MILE & QUARTER MILE RADIUS EXHIBIT



SCALE: 1"=600'



PEDESTRIAN CIRCULATION KEY

- EXISTING 6' SIDEWALK (TO REMAIN)
- EXISTING 8' SIDEWALK (TO REMAIN)
- EXISTING SIDEWALK/ CROSSWALK (TO REMAIN)
- PROPOSED 8' TRAIL
- PROPOSED SIDEWALK/ CROSSWALK (WIDTH VARIES)

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE
		REVISION APPROVED BY DIVISION OF DESIGN REVIEW			

PLAN DATE
05-29-15
06-05-15
08-07-15

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Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8200
Fax. 703.642.8251
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

PEDESTRIAN CIRCULATION/PARKING GARAGE ENTRANCE-EXIT PLAN

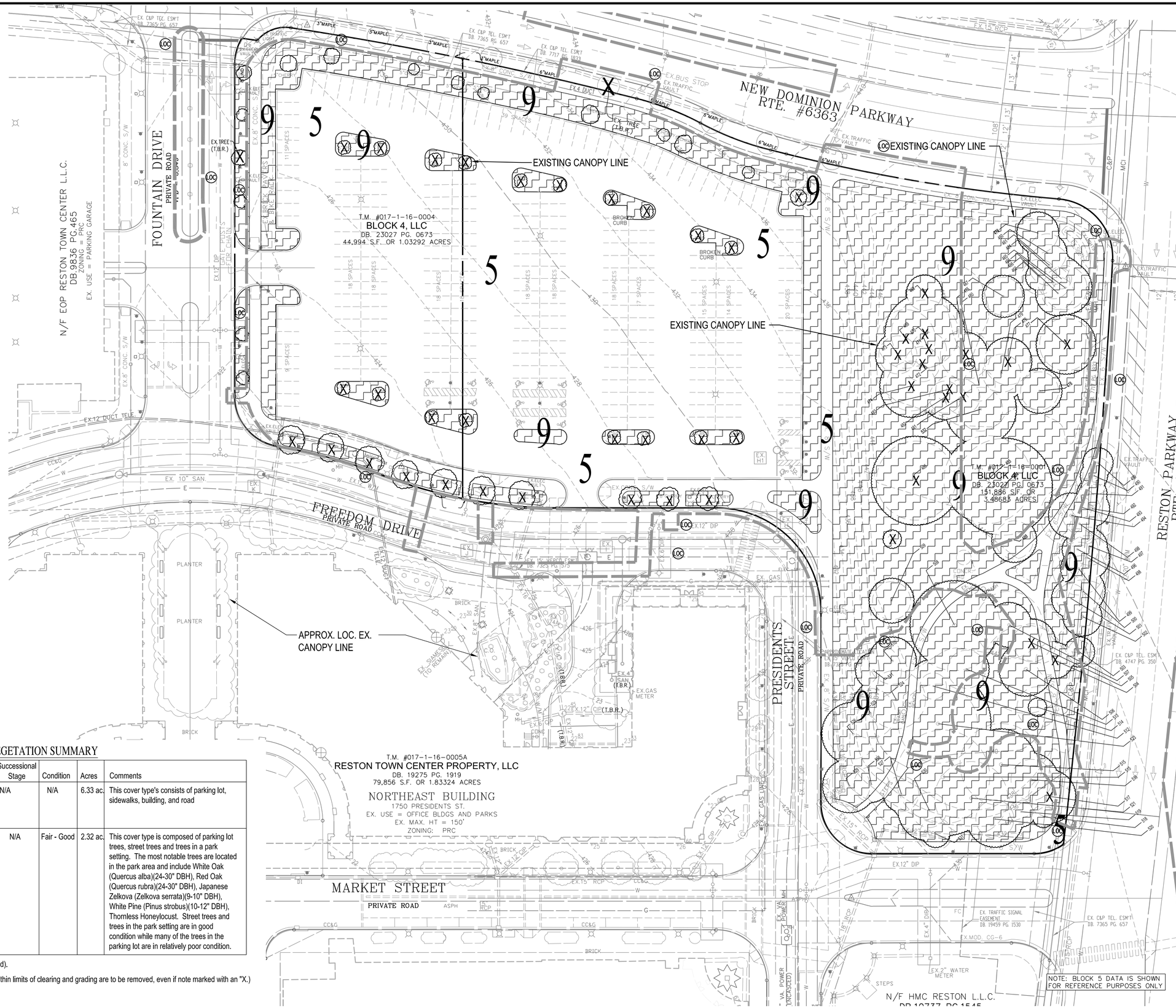
RESTON TOWN CENTER URBAN CORE
SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1" = 70'
C.I. =N/A
DATE: MAY, 2015

SHEET 10A OF 21

FILE No. PREL-2166-2



EXISTING VEGETATION SUMMARY

	Cover Type	Primary Species	Successional Stage	Condition	Acres	Comments
5	Developed Land	N/A	N/A	N/A	6.33 ac.	This cover type's consists of parking lot, sidewalks, building, and road
9	Landscape Tree Canopy	White Oak (Quercus alba), Red Oak Quercus rubra), Japanese Zelkova (Zelkova serrata), Crabapple (Malus ssp.), Flowering Dogwood (Cornus florida), Redbud (Cercis canadensis)	N/A	Fair - Good	2.32 ac.	This cover type is composed of parking lot trees, street trees and trees in a park setting. The most notable trees are located in the park area and include White Oak (Quercus alba)(24-30" DBH), Red Oak (Quercus rubra)(24-30" DBH), Japanese Zelkova (Zelkova serrata)(9-10" DBH), White Pine (Pinus strobus)(10-12" DBH), Thornless Honeylocust. Street trees and trees in the park setting are in good condition while many of the trees in the parking lot are in relatively poor condition.

*dbh = diameter at breast height (trunk measured 4.5 ft. above the ground).

(X) = indicates trees to be removed. (NOTE: All trees and vegetation within limits of clearing and grading are to be removed, even if note marked with an "X.)

Notes: Field data collected during site visit on July 26, 2013.

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE
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08-07-15

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Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8080
Fax. 703.642.0251
www.urbanltd.com

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

EXISTING VEGETATION MAP & TREE REMOVAL PLAN

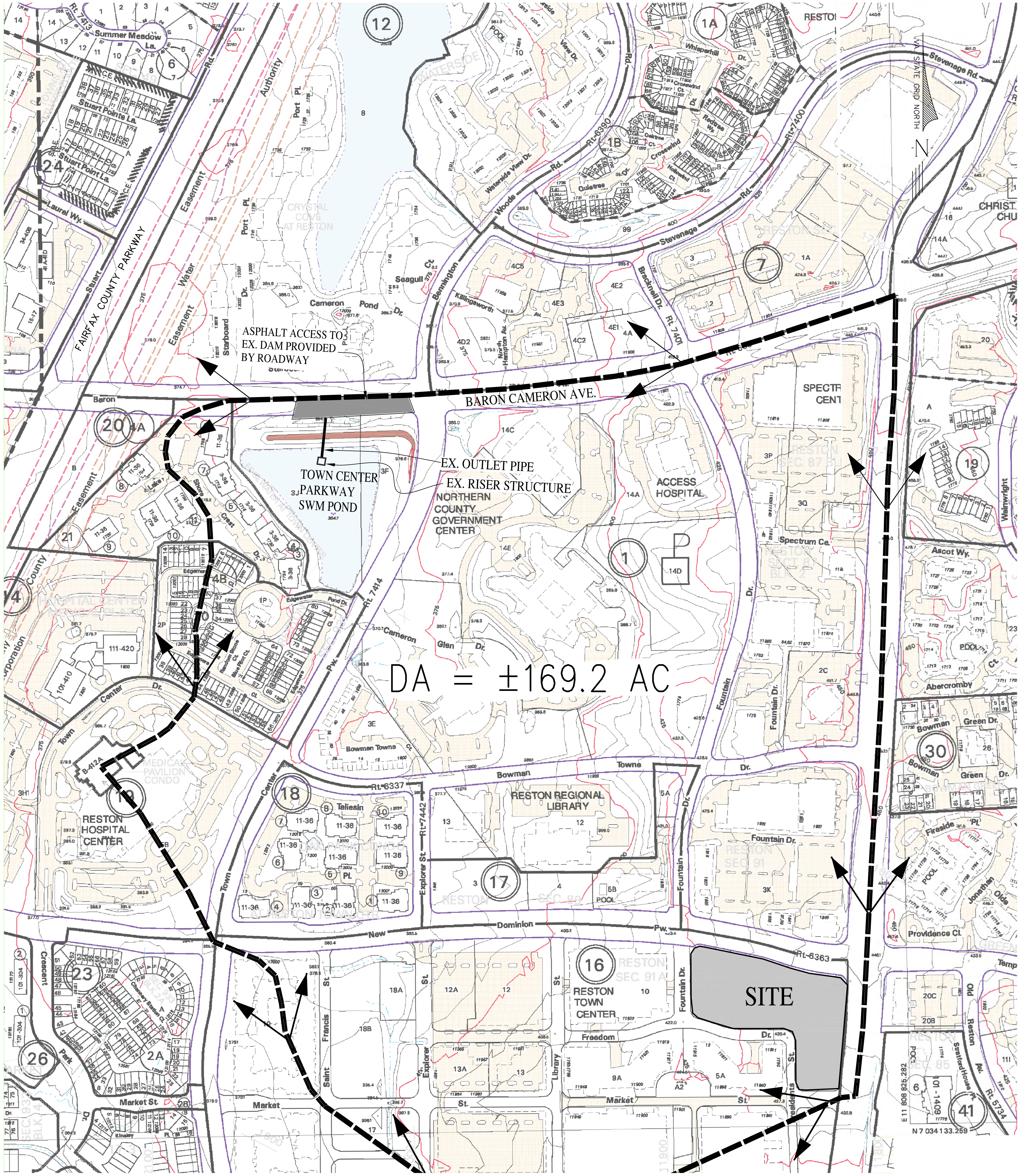
RESTON TOWN CENTER URBAN CORE SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1" = 30'
C.I. =N/A
DATE: MAY, 2015

SHEET 11 OF 21

FILE No. PREL-2166-2



SWM/BMP Narrative

New Stormwater Management requirements (Chapter 124 of the County Code) will become effective on July 1, 2014. The requirements are divided into Article 4 and Article 5, which can generally be described as new requirements (Article 4) and current requirements (Article 5). The SWM/BMP narrative contemplates how the application would comply with Article 4 or Article 5, depending on which criteria applies.

There is an off-site Wet Pond ("Town Center Parkway Pond") that was constructed under Fairfax County Plan #5734-PI-01 which currently serves the site. It is anticipated that this off-site SWM pond will meet the Water Quality Requirements for either Article 4 or Article 5 for the site. It is also anticipated that the off-site SWM pond will meet part of or all of the Water Quantity Requirements for either Article 4 or Article 5. Additional details and description are provided below for this analysis.

A waiver to utilize this pond to meet SWM requirements for the site will be required with the final site plan. The applicant reserves the right to provide alternative SWM/BMP measures, in accordance with the PFM, that are not shown on the plan.

Option A (Article 5)

It is anticipated that the existing Town Center Parkway Pond would meet the Water Quality, Stream Channel Erosion, and Flooding requirements. Computations showing that the pond serves as a BMP facility are provided on Sheet 12. There is no design change in runoff rate or flow due to the existing Towncenter Parkway Pond that was designed for the ultimate build-out of this development site. The natural level of channel erosion will not increase due to the land-disturbing activities again due to the existing Pond that was designed for this site's ultimate build out.

The original design sheets for the Town Center Parkway Pond are provided on the following sheets (Sheets 12C-12F). The pond is designated as structure #1 on sheet 12B. The subject site is located within sub-watershed "A", within the area labeled "mixed use activity core (office, residential, commercial). Therefore, the proposed development is consistent with the original design criteria.

With regards to the BMP computations provided below, the drainage area to the Town Center Parkway Pond is conservatively computed at 169 acres. The C factor of 0.80 is based on 80% of the drainage area being impervious and 20% pervious. The BMP calculations provided below verify that this pond functions as a BMP facility.

The characteristics of the pond are provided on the SWM checklist on this sheet. Since the existing facility provides SWM and BMP for the development, there are no additional SWM or BMP requirements for this plan.

Though there are no proposed stormwater management facilities and thus, the requirements of zoning ordinance section 16-302.4I do not apply, the stormwater data for the existing pond is provided to the extent available. The SWM footprint, existing maintenance access and drainage divides are show on this sheet. The existing dam data is reflected on the checklist below. There is no proposed landscaping with in the vicinity of the pond, therefore the proposed landscaping, tree preservation area and associate limits of clearing criteria for the SWM facilities do not apply.

Option B (Article 4)

See Sheet 12A for continuation of Narrative and for Option B design.

BMP ANALYSIS FOR "TOWN CENTER PARKWAY" STORMWATER MANAGEMENT FACILITY

1. If V_B/V_R is greater than or equal to 4.0, the facility serves as a BMP pond (per "Northern Virginia BMP Handbook").
   V_B = Volume of storage at permanent water surface elevation
   V_R = Mean rainfall exit runoff volume = D.A.x C x .4/12(ac.ft.)
   D.A. = Drainage area
   C = Runoff Coefficient
2. V_B > ±19.5 ac-ft. at W.S.E. 364
3. V_R = 169 AC * 0.8 * 0.4/12 = 4.51 ac-ft
4. V_B/V_R = 19.5 / 4.51 = 4.32 > 4.0, Therefore, this facility serves as a BMP pond.

The following information is required to be shown or provided in all zoning applications, or a waiver request of the submission requirement with justification shall be attached. Note: Waivers will be acted upon separately. Failure to adequately address the required submission information may result in a delay in processing this application.

This information is required under the following Zoning Ordinance paragraphs:

Special Permits (8-011 2J & 2L)	Special Exceptions (9-011 2J & 2L)
Cluster Subdivision (9-615 1G & 1N)	Commercial Revitalization Districts (9-622 2A (12)&(14))
Development Plans PRC District (16-302 2 & 4L)	PRC Plan (16-303 1E & 10)
FDP P Districts (except PRC) 916-502 1F & 1Q)	Amendments (18-202 10F & 10I)

N/A 1. Plat is at a minimum scale of 1"−50' (unless it is depicted on one sheet with a minimum scale of 1"−100).

X 2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on THIS SHEET

X 3. Provide:

Facility Name/ Type & No. (e.g. dry pond A. inflt. Trench, underground vault, etc.)	On-Site area served (acres)	Off-Site are served (acres)	Drainage area (acres)	Footprint area (sf.)	Storage Volume (cf.)	If pond, dam height (ft.)
TOWNCENTER PKWY	4.52 (B.4)	±160.12	±169	±200,000	±914,760*	±16'
Totals						

X 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 6-7.

N/A 5. Maintenance accesses (road) to stormwater management facility(ies) are shown on THIS SHEET

N/A 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet.

X 7. A "stormwater management narrative" which contains a description of how detention and best management practices requirements will be met is provided on THIS SHEET.

X 8. A description of the existing conditions of each numbered site outfall extended downstream from the site to a point which is at least 100 times the site area or which has a drainage area of at least one square mile (640 acres) is provided on THIS SHEET.

X 9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 8

X 10. Existing topography with maximum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheets. 5

X 11. A submission waiver is requester for UNDERGROUND SWM IN A RESIDENTIAL DEVELOPMENT.

☐ 12. Stormwater management is not required because ______.

14

*STORAGE VOLUME LISTED IS ABOVE PERMANENT POOL.

ALL FIGURES LISTED ARE APPROXIMATE

NOTE: BLOCK 5 DATA IS SHOWN FOR REFERENCE PURPOSES ONLY

No.	DATE	DESCRIPTION	REV.BY	APPROVED	DATE

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Urban, Ltd.
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Tel. 703.642.8080
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COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

SWM AND BMP ANALYSIS

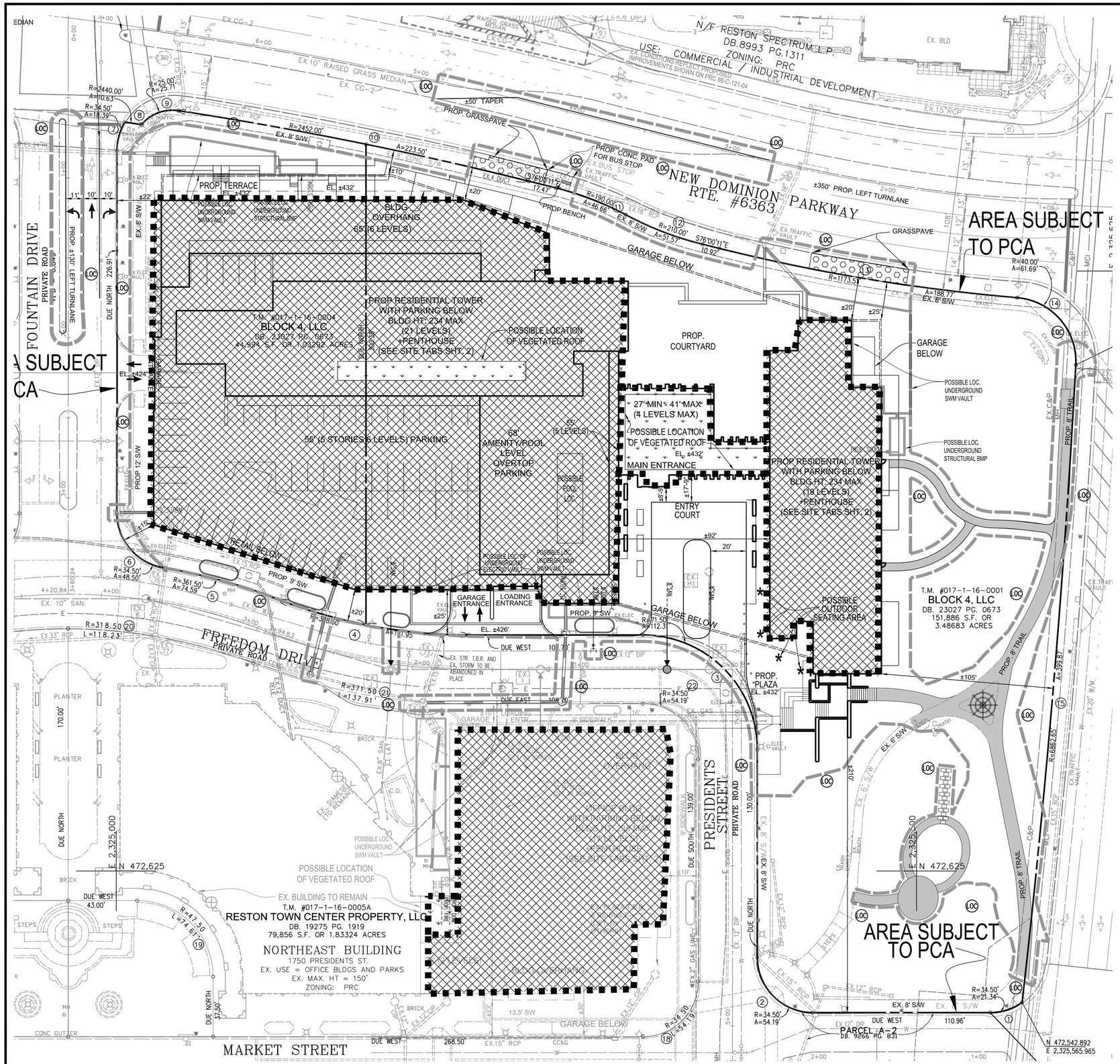
RESTON TOWN CENTER URBAN CORE SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=200' C.I. =N/A DATE: MAY, 2015

SHEET 12 OF 21

FILE No. PREL-2166-2



SWM/BMP Narrative (continued from Sheet 12)

NOTE: SWM AND BMP IS BASED ON THE BLOCK 4 AND 5 SITES TO BE CONSISTENT WITH APPROVED PCA 85-C-088-09, DPA 85-C-088-07, PRC 85-C-088-03.

Option B (Article 4)

In the event that on-site underground detention is required, a waiver request to allow underground detention in a residential development has been submitted (7067-PFM-04) for approval.

Water Quality

Based on preliminary calculations, we anticipate that the existing Town Center Parkway pond would meet the new requirements for water quality design criteria (development on prior developed lands). Approximately 4.75 Acres are to be disturbed with this application and there is a slight increase in impervious area. Therefore, the total phosphorus load shall be reduced by at least 20% below the predevelopment total phosphorus load for the equivalent area of the site that is existing impervious area, and the additional impervious area will be treated so that the total phosphorus load does not exceed 0.41 pounds per acre per year. Preliminary computations have been provided on Sheet to show that the existing pond would satisfy this requirement.

Note: For preliminary planning purposes only, an on-site alternative to meet Water Quality requirements (taking no credit for the off-site Town Center Parkway pond) is contemplated. The on-site alternative shown on this plan includes Manufacturered BMP filtering structures (i.e.Stormfilter), Vegetated Roofs, and Rainwater Harvesting - note that the applicant reserves the right to utilize alternate methods (i.e. any BMP listed in the BMP Clearinghouse or otherwise approved for use in Fairfax County) to satisfy the requirement with final design. Preliminary computations have been provided for this on-site alternative as well. This on-site scenario is not a commitment to provide on-site BMP facilities; this is presented for preliminary planning purposes only to show that the Water Quality requirement could be met on-site.

Water Quantity

Channel Protection:

At the time of final site plan, the outfall will be analyzed for adequacy in conformance with applicable PFM requirements. For preliminary planning purposes, the Option B plan sheet shows how onsite detention could be provided to meet the Channel Protection requirements and the sizing of these SWM facilities is based on the Natural Stormwater Conveyance System runoff computation [Q Developed ≤ (Q Forest * RV Forest) / RV Developed] as a worst case scenario.

However, it should be noted, that the existing off-site Town Center Parkway Pond may be used to meet part or all of the Channel Protection Requirements, if applicable. Also, for preliminary planning purposes, for purposes of computing the "site area" for Channel Protection, the site area has been limited to the proposed building area (see below). This accounts for the fact that a regional SWM facility is in place and will contribute to meeting the channel protection requirements. Preliminary sizing computations are provided on Sheet 12B.

Flood Protection:

Based on preliminary evaluation, the downstream area to the limit of analysis does not currently experience localized flooding. This will be reconfirmed at the time of site plan. For preliminary planning purposes, the on-site SWM vaults contemplated for channel protection would generally meet this requirement if it is determined at this time of site plan that there is localized flooding.

Detention

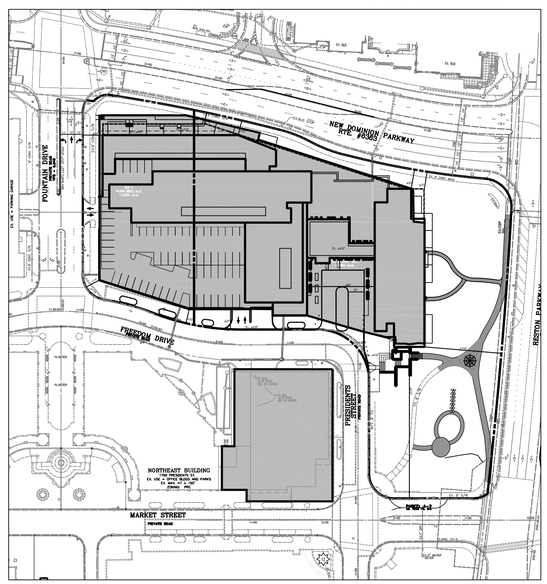
The existing Town Center Parkway SWM facility would meet this requirement because it is designed such that the post development peak flow for the 2-year 24-hour storm and 10-year 24-hour storm are released at a rate that is equal to or less than the predevelopment peak for rate from the 2-year 24-hour storm and 10-year 24-hour storm, respectively. Furthermore, for preliminary planning purposes, the onsite SWM vaults contemplated for channel protection would meet this requirement as well.

LEGEND

NOTE: THE ENTIRE SITE IS TREATED BY EXISTING SWM LOCATED OFF-SITE, WHICH MAY BE USED TO MEET PART OR ALL OF THE WATER QUALITY AND QUANTITY REQUIREMENTS. THIS IS NOT A COMMITMENT TO PROVIDE ON-SITE BMPS

- DA TREATED BY POSSIBLE UNDERGROUND MANUFACTURED FILTERING STRUCTURE
- DA TREATED BY POSSIBLE RAINWATER HARVESTING
- DA TREATED BY POSSIBLE VEGETATED ROOF

SITE AREA FOR CHANNEL PROTECTION



NOTE: BLOCK 5 DATA IS SHOWN FOR REFERENCE PURPOSES ONLY

NOTE: THIS PLAN REFLECTS THE GENERAL CHARACTER AND INTENT OF THE PROPOSED DEVELOPMENT BASED ON PRELIMINARY ENGINEERING, ARCHITECTURAL AND LANDSCAPE ARCHITECTURE DESIGN. MINOR VARIATIONS MAY OCCUR WITH FINAL BUILDING DESIGN AND SITE PLAN.

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE

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PLAN DATE
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08-07-15

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Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045681
08/07/15
PROFESSIONAL ENGINEER

SWM AND BMP ANALYSIS- OPTION B

RESTON TOWN CENTER URBAN CORE SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=30' | C.I. =N/A | DATE: MAY. 2015

SHEET 12A OF 21

FILE No. PREL-2166-2

SWM/BMP OPTION B PRELIMINARY COMPUTATIONS

NOTE: COMPUTATIONS ARE PROVIDED FOR PRELIMINARY ENGINEERING PLANNING PURPOSES ONLY AND MAY VARY WITH FINAL SITE PLAN.

NOTE: SWM AND BMP IS BASED ON THE BLOCK 4 AND 5 SITES TO BE CONSISTENT WITH APPROVED PCA 85-C-088-09, DPA 85-C-088-07, PRC 85-C-088-03.

NOTE: BLOCK 5 DATA IS SHOWN FOR REFERENCE PURPOSES ONLY

Post-ReDevelopment Project & Land Cover Information

Total Disturbed Acreage	4.50

Constants

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

PRELIM. COMPS TO SHOW EX. TOWN CENTER PARKWAY POND WOULD MEET ARTICLE 4 WATER QUALITY REQUIREMENTS

Virginia Runoff Reduction Method Worksheet

Virginia Runoff Reduction Method ReDevelopment Worksheet v2.7 Revised April 2013

Site Data Summary

Total Rainfall = 43 inches

Site Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	0.00	0.00	0.00	0.35	0.35	*7.78*
Impervious (acres)	0.00	0.35	0.00	3.80	4.15	*92.22*
					4.50	*100.00*

Site Rv	0.90
Post Development Treatment Volume (ft^3)	14629
Post Development TP Load (lb/yr)	9.19
Post Development TN Load (lb/yr)	65.75
Total TP Load Reduction Required (lb/yr)	3.03

Total Runoff Volume Reduction (ft^3)	0
Total TP Load Reduction Achieved (lb/yr)	5
Total TN Load Reduction Achieved (lb/yr)	13.14
Adjusted Post Development TP Load (lb/yr)	4.60
Remaining Phosphorous Load Reduction (Lb/yr) Required	0.00

Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	0.35	0.00	0.00	0.00	0.00	*0.35*
Impervious (acres)	4.15	0.00	0.00	0.00	0.00	*4.15*
						4.50

Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	4.59	0.00	0.00	0.00	0.00	*4.59*
TN Load Red. (lb/yr)	13.14	0.00	0.00	0.00	0.00	*13.14*

Drainage Area A Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	0.00	0.00	0.00	0.35	0.35	*7.78*
Impervious (acres)	0.00	0.35	0.00	3.80	4.15	*92.22*
					4.50	

BMP Selections

Practice	Credit Area (acres)		Downstream Practice
13.a. Wet Pond #1 (Spec #14)	**Impervious:**	**4.15**	
	Turf (Pervious):	**0.35**	

Total Impervious Cover Treated (acres)	4.15
Total Turf Area Treated (acres)	0.35
Total TP Load Reduction Achieved in D.A. A (lb/yr)	4.59
Total TN Load Reduction Achieved in D.A. A (lb/yr)	13.14

PRELIM. COMPS TO SHOW AN ON-SITE OPTION FOR TO MEET ARTICLE 4 WATER QUALITY REQUIREMENTS

NOTE THAT THIS IS NOT A COMMITMENT TO PROVIDE ON-SITE BMPS

Virginia Runoff Reduction Method Worksheet

Virginia Runoff Reduction Method ReDevelopment Worksheet v2.7 Revised April 2013

Site Data Summary

Total Rainfall = 43 inches

Site Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	0.00	0.00	0.00	0.35	0.35	*7.78*
Impervious (acres)	0.00	0.35	0.00	3.80	4.15	*92.22*
					4.50	*100.00*

Site Rv	0.90
Post Development Treatment Volume (ft^3)	14629
Post Development TP Load (lb/yr)	9.19
Post Development TN Load (lb/yr)	65.75
Total TP Load Reduction Required (lb/yr)	3.03

Total Runoff Volume Reduction (ft^3)	1707
Total TP Load Reduction Achieved (lb/yr)	3
Total TN Load Reduction Achieved (lb/yr)	7.66
Adjusted Post Development TP Load (lb/yr)	6.12
Remaining Phosphorous Load Reduction (Lb/yr) Required	0.00

Drainage Area Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	0.35	0.00	0.00	0.00	0.00	*0.35*
Impervious (acres)	4.15	0.00	0.00	0.00	0.00	*4.15*
						4.50

Drainage Area Compliance Summary

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	Total
TP Load Red. (lb/yr)	3.07	0.00	0.00	0.00	0.00	*3.07*
TN Load Red. (lb/yr)	7.66	0.00	0.00	0.00	0.00	*7.66*

Drainage Area A Summary

Land Cover Summary

	A Soils	B Soils	C Soils	D Soils	Total	% of Total
Forest (acres)	0.00	0.00	0.00	0.00	0.00	*0.00*
Turf (acres)	0.00	0.00	0.00	0.35	0.35	*7.78*
Impervious (acres)	0.00	0.35	0.00	3.80	4.15	*92.22*
					4.50	

BMP Selections

Practice	Credit Area (acres)		Downstream Practice
1.a. Vegetated Roof #1 (Spec #5)	**acres of green roof**	**0.1**	
2.h. To Rainwater Harvesting (Spec #6)	**impervious acres captured**	**0.5**	
14. Manufactured Filtering Structure	**Impervious:**	**1.85**	
	Turf (Pervious):	**0**	

Total Impervious Cover Treated (acres)	2.45
Total Turf Area Treated (acres)	0.00
Total TP Load Reduction Achieved in D.A. A (lb/yr)	3.07
Total TN Load Reduction Achieved in D.A. A (lb/yr)	7.66

PRELIM. COMPS FOR CHANNEL PROTECTION

Modified Rational Method Worksheet

Virginia Stormwater Management Handbook Section 5-4.4 (Modified)

Project: Reston TC B4 and B5
Date:

County:	Fairfax
Total Disturbed Area:	2.77
1-year P (in)	2.7
1-year intensity	4.63
Good Forested Runoff Coefficient (C):	0.2
Good Forested CN:	75
Developed Runoff Coefficient (C):	0.85
Developed CN:	97
Approx. Drainage Area to SWM Facility (DA, acres):	2.44
Approx. Drainage Area Uncontrolled (DA, acres):	0.33
Post-Developed Runoff Coefficient (Controlled) (C):	0.9
Post-Developed Runoff Coefficient (Uncontrolled)(C):	0.45
Time of Concentration: (tc, min.):	5

Forest Discharge			
	Q(in)	RV (cf)	Q (cfs)
1-year (q1):	0.77	7746.38	2.57

Q Developed ≤ (Q Forest * RV Forest) / RV Developed

RV Developed			
	w/o reduction (cf)	possible reduction (cf)	net (cf)
1-year (q1):	23743.30	4190.00	19553.30

Allowable Discharge (Developed)			
	Q(in)	RV (cf)	Q (cfs)
1-year (q1):	2.36	19553.30	1.02

Post-Development Uncontrolled Discharges		
	intensity (in/hr)	Q (cfs)
1-year (q1):	**4.63**	0.69

Allowable Discharge fom Vault		
	intensity (in/hr)	Q (cfs)
1-year (q1):	**4.63**	0.33

Rainfall Constants		
	a	b
2-year:	117.06	17.34

Calculations				
	critical duration	critical intensity	peak inflow	storage vol.
	Td, min	I, in/hr	Q, cfs	V, cf
1-year event	141.32	0.74	1.62	12392.50

Estimated Size of Detention Facility				
Assume Standard	length	Width	Depth	Volume
Box Culvert	72.5	12	4	3480
	130	12	4	6240
	177	12	4	8496
			Total Volume	18216

Note: Depth of storage conservatively set at 4'

Note: Rainfall constatnts for the 2 year storm are used for preliminary planning purposes because the 1 year storm constants are not provided in the Virginia SWM Handbook. This results in a conservative storage volume computation.

Credit	Unit	Description of Credit	Credit	Credit Area (acres)	Volume from Upstream RR Practice (cf)	Runoff Reduction (cf)	Remaining Runoff Volume (cf)	Phosphorus Efficiency (%)	Phosphorus Load from Upstream RR Practices (lbs)	Untreated Phosphorus Load to Practice (lbs.)	Phosphorus Removed By Practice (lbs.)	Remaining Phosphorus Load (lbs.)
1.a. Vegetated Roof #1 (Spec #5)	acres of green roof	45% runoff volume reduction	0.45	0.10	0	155	190	0	0.00	0.22	0.10	0.12
2.h. To Rainwater Harvesting (Spec #6)	impervious acres captured	based on tank size and design spreadsheet (See Spec #6)	0.90	0.50	0	1552	172	0	0.00	1.08	0.97	0.11
	impervious acres draining to device			1.85	0.00	0	6380	50	0.00	4.00	2.00	2.00
14. Manufactured Filtering Structure	turf acres draining to device			0.00	0.00	0	0	0	0.00	0.00	0.00	0.00

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE

REVISION APPROVED BY DIVISION OF DESIGN REVIEW

PLAN DATE
05-29-15
06-15-15
08-07-15

urban
Planners Engineers Landscape Architects Land Surveyors
Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8080
Fax. 703.642.8251
www.urban-ltd.com

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045681
08/07/15
PROFESSIONAL ENGINEER

SWM AND BMP ANALYSIS- OPTION B

RESTON TOWN CENTER URBAN CORE
SECTION 91A, BLOCK 4
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=30'
C.I. =N/A
DATE: MAY, 2015

SHEET
12B
OF
21

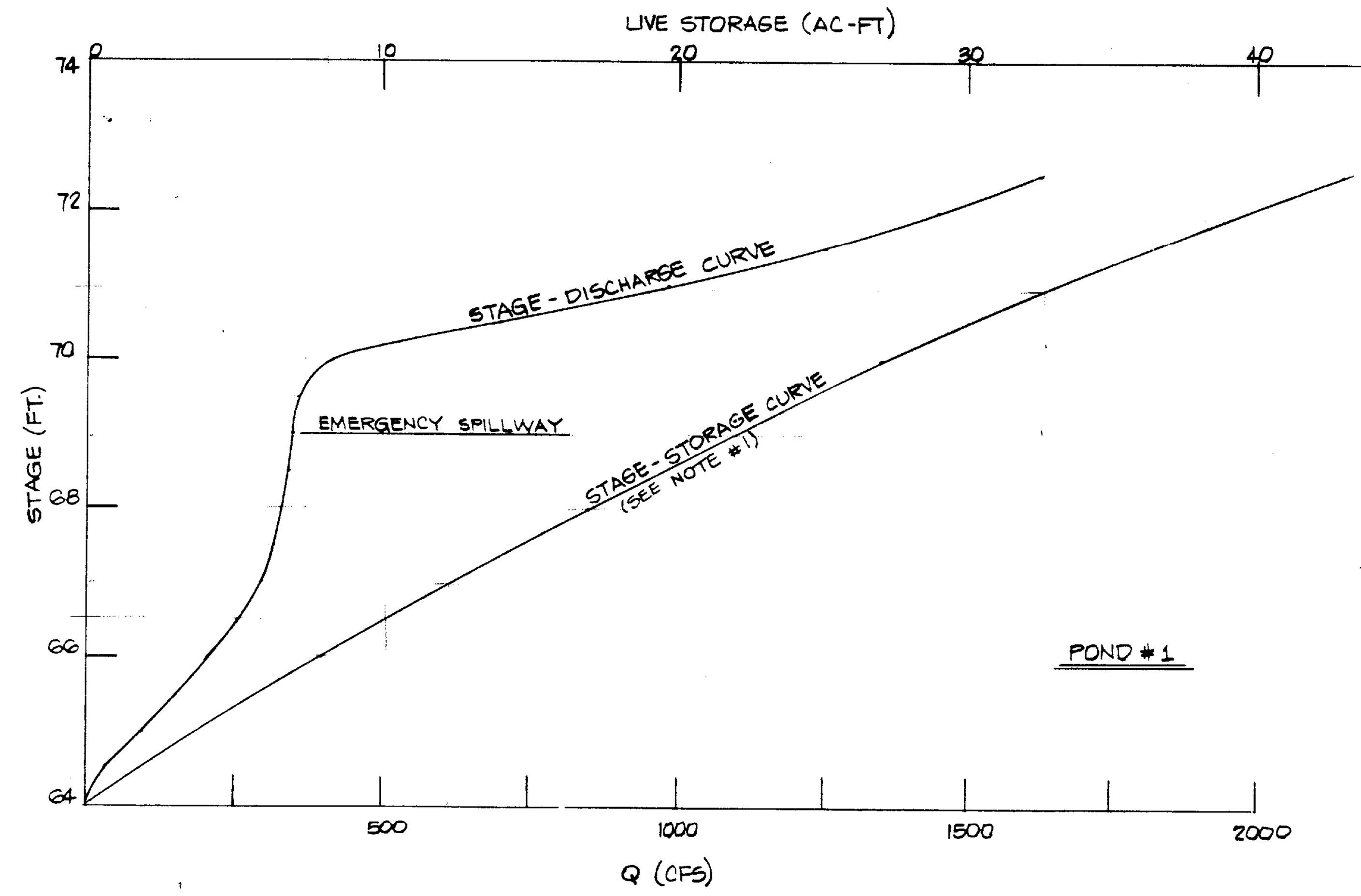
FILE No.
PREL-2166-2

ROUTE 100 YEAR THRU POND #1

```
1        ROUTE 100 YR THRU POND #1 & #2
0        TR-20 HYDROLOGY
1                   PROGRAM DATE - FEB. 14, 1974              S/360
1                                                                        PASS=100
EXECUTIVE CONTROL CARD          OPERATION  INCREM,     MAIN TIME INCREMENT=   .17
EXECUTIVE CONTROL CARD          OPERATION  COMPUT,     FROM XSECTN/STRUCT   0/  1     TO XSECTN/STRUCT   0/  2
         STARTING TIME=  0.00   RAIN DEPTH=  7.30    RAIN DURATION=  1.00     RAIN TABLE NO.= 3     SOIL CONDITION= 2
         ALTERNATE NO.= 1       STORM NO.= 1

SUBROUTINE RUNOFF    STRUCTURE   1
           AREA=    .26     INPUT RUNOFF CURVE=  87.0     TIME OF CONCENTRATION=   .35
0          PEAK TIMES                   PEAK DISCHARGES              PEAK ELEVATIONS
             12.02                         778.927                      (RUNOFF)
0   TIME                         HYDROGRAPH, TZERO=   0.00        DELTA T=  .17          DRAINAGE AREA=    .26
    0.00    DISCHG      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
    1.67    DISCHG      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
    3.34    DISCHG      0.00      0.00       .06       .28       .61       .97      1.35      1.72      2.12      2.57
    5.01    DISCHG      2.97      3.38      3.82      4.21      4.66      5.16      5.59      6.07      6.62      7.06
    6.68    DISCHG      7.62      8.27      8.77      9.41     10.16     10.71     11.43     12.30     12.91     13.76
    8.35    DISCHG     14.79     15.50     16.54     17.83     18.67     20.03     21.78     22.83     24.62     26.91
   10.02    DISCHG     28.28     31.56     35.96     38.38     43.51     50.48     54.23     65.72     81.49     96.70
   11.69    DISCHG    308.07    631.19    778.92    626.22    331.37    221.15    160.12    113.21     95.09     82.00
   13.36    DISCHG     69.68     64.79     59.13     52.77     50.41     47.83     45.09     43.95     41.77     39.14
   15.03    DISCHG     38.08     36.24     34.08     33.26     32.02     30.64     30.06     28.98     27.72     27.22
   16.70    DISCHG     26.45     25.59     25.24     24.44     23.51     23.14     22.64     22.10     21.88     21.34
   18.37    DISCHG     20.72     20.47     20.00     19.48     19.26     18.80     18.29     18.09     17.87     17.65
   20.04    DISCHG     17.55     17.20     16.80     16.63     16.26     15.84     15.69     15.56     15.45     15.39
   21.71    DISCHG     15.04     14.65     14.50     14.37     14.26     14.21     13.93     13.64     13.53     13.41
   23.38    DISCHG     13.30     13.25     13.07     12.87     12.52      7.81      2.66       .84       .26       .07
   25.05    DISCHG       .01

SUBROUTINE RESVOR    STRUCTURE   1
           SURFACE ELEVATION=   364.00
0          PEAK TIMES                   PEAK DISCHARGES              PEAK ELEVATIONS
             12.38                         349.014                      368.95
0   TIME                         HYDROGRAPH, TZERO=   0.00        DELTA T=  .17          DRAINAGE AREA=    .26
    0.00    DISCHG      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
    1.67    DISCHG      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00      0.00
    3.34    DISCHG      0.00      0.00       .01       .04       .13       .27       .46       .69       .96      1.26
    5.01    DISCHG      1.58      1.93      2.29      2.66      3.04      3.45      3.86      4.29      4.73      5.18
    6.68    DISCHG      5.65      6.14      6.65      7.18      7.74      8.32      8.91      9.55     10.21     10.88
    8.35    DISCHG     11.61     12.37     13.16     14.03     14.94     15.89     16.97     18.12     19.33     20.71
   10.02    DISCHG     22.20     23.86     25.99     28.40     31.11     34.53     40.22     46.81     55.75     66.87
   11.69    DISCHG    112.88    228.30    320.88    342.79    348.91    345.64    338.02    325.64    306.10    262.72
   13.36    DISCHG    211.42    164.95    129.95    104.21     86.20     73.84     64.71     57.97     52.93     48.77
   15.03    DISCHG     45.38     42.64     40.15     37.99     36.20     34.73     33.78     32.87     31.89     30.94
   16.70    DISCHG     30.06     29.19     28.37     27.61     26.83     26.07     25.39     24.74     24.15     23.60
   18.37    DISCHG     23.05     22.52     22.03     21.53     21.07     20.63     20.18     19.75     19.37     19.02
   20.04    DISCHG     18.72     18.43     18.12     17.82     17.52     17.20     16.89     16.62     16.38     16.17
   21.71    DISCHG     15.97     15.73     15.48     15.25     15.05     14.87     14.70     14.50     14.31     14.12
   23.38    DISCHG     13.96     13.81     13.67     13.52     13.34     12.66     11.06      9.05      7.22      5.70
   25.05    DISCHG      4.48      3.52      2.76      2.16      1.70      1.33      1.04       .82       .64       .50
   26.72    DISCHG       .40       .31       .24       .19       .15       .12       .09       .07       .06       .04
   28.39    DISCHG       .03       .03       .02       .02       .01       .01       .01       .01       .01      0.00
```

ROUTE 2.5x100 YR

```
1        ROUTE  2.5*100 YR THRU POND #1
0        TR-20 HYDROLOGY
1                   PROGRAM DATE - FEB. 14, 1974              S/360
1                                                                        PASS=100

  DISCHARGE HYDROGRAPH,  HYDROGRAPH LOCATION 2

  STARTING TIME=  9.00      TIME INCREMENT=    .17      DRAINAGE AREA=     .26     BASE FLOW=    0.00

8 READHD        48.0000     50.0000     55.0000     57.0000     63.0000
8 READHD        68.0000     70.0000     80.0000     90.0000     96.0000
8 READHD       109.0000    126.0000    135.0000    165.0000    204.0000
8 READHD       241.0000    770.0000   1578.0000   1947.0000   1565.0000
8 READHD       829.0000    552.0000    400.0000    282.0000    237.0000
8 READHD       205.0000    175.0000    150.0000    132.0000    126.0000
8 READHD       120.0000    113.0000    110.0000    102.0000     98.0000
8 READHD        95.0000     90.0000     85.0000     83.0000     80.0000
9 ENDTBL
EXECUTIVE CONTROL CARD          OPERATION  INCREM,     MAIN TIME INCREMENT=   .17
EXECUTIVE CONTROL CARD          OPERATION  COMPUT,     FROM XSECTN/STRUCT   0/  1     TO XSECTN/STRUCT   0/  1
         STARTING TIME=  9.00   RAIN DEPTH= 18.30    RAIN DURATION=  1.00     RAIN TABLE NO.= 3     SOIL CONDITION= 2
         ALTERNATE NO.= 1       STORM NO.= 2

SUBROUTINE RESVOR    STRUCTURE   1
           SURFACE ELEVATION=   364.00
0          PEAK TIMES                   PEAK DISCHARGES              PEAK ELEVATIONS
             12.19                         1541.419                     372.26
0   TIME                         HYDROGRAPH, TZERO=   9.00        DELTA T=  .17          DRAINAGE AREA=    .26
    9.00    DISCHG      0.00     10.56     19.60     27.44     34.46     44.52     52.68     60.12     68.42     76.62
   10.67    DISCHG     85.25     96.13    108.08    122.66    144.17    170.21    267.68    352.29   1193.58   1537.03
   12.34    DISCHG   1332.36    910.54    558.41    370.77    365.04    357.86    347.75    339.14    326.72    311.32
   14.01    DISCHG    280.41    238.19    201.69    170.70    147.34    129.66    116.74    106.57     98.72     92.74
   15.68    DISCHG     75.15     50.09     33.96     26.64     20.90     16.39     12.86     10.09      7.92      6.21
   17.35    DISCHG      4.87      3.82      3.00      2.35      1.85      1.45      1.14       .89       .70       .55
   19.02    DISCHG       .43       .34       .26       .21       .16       .13       .10       .08       .06       .05
   20.69    DISCHG       .04       .03       .02       .02       .01       .01       .01       .01       .01      0.00

  ENDCMP

ENDJOB CARD ENCOUNTERED.  END OF JOB.
```



NOTES:

1. STAGE - STORAGE CURVE ABOVE INCLUDES THE EFFECT OF THE FUTURE PRIVATE ROAD AS SHOWN ON THE GRADING PLAN.
2. STAGE - DISCHARGE RELATIONSHIP FOR PRINCIPAL SPILLWAY COMPUTED AS FOLLOWS:
   a. WHERE RISER CONTROLS - USE WEIR FORMULA $Q = CLH^{3/2}$
      C=3.1 , L=EFFECTIVE PERIMETER , H=HEAD
      (EFFECTIVE PERIMETER = TOTAL PERIMETER MINUS ZONE OF INTERFERENCE AT EACH CORNER)
   b. WHERE CONDUIT CONTROLS - USE CULVERT CHARTS FOR INLET CONTROL OR OUTLET CONTROL AS APPLICABLE.
      (THE EFFECT OF THE TAILWATER FROM BARON CAMERON AVENUE IS CONSIDERED.)
3. STAGE - DISCHARGE RELATIONSHIP FOR EMERGENCY SPILLWAY IS COMPUTED USING THE CRITERIA OF THE SCS FOR VEGETATED SPILLWAYS. (THIS IS MORE CONSERVATIVE THAN USING THE WEIR FORMULA.)

STAGE	RISER Q	CONDUIT Q	EM. SPILLWAY Q	TOTAL Q
64.0	0			0
64.5	35			35
65.0	93			93
65.5	154			154
66.0	210			210
66.5	257			257
67.0	295			295
67.5		318		318
68.0		330		330
68.5		340		340
69.0		350		350
69.5		360	10	370
70.0		360*	60	420
70.5		320*	380	700
71.0		280*	700	980
71.5		290*	960	1250
72.0		300*	1150	1450

* CONDUIT CONTROLLED BY TAILWATER

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

SHEET 12C OF 21
PREL-2166

THIS SHEET REFERENCED FROM
FAIRFAX COUNTY PLAN #5734-PI-01-01
PROJECT COMPLETED 11/17/1987
FOR INFORMATION PURPOSES ONLY.

NO.	DATE	DESCRIPTION	REVIEWED BY	APPROVED	DATE

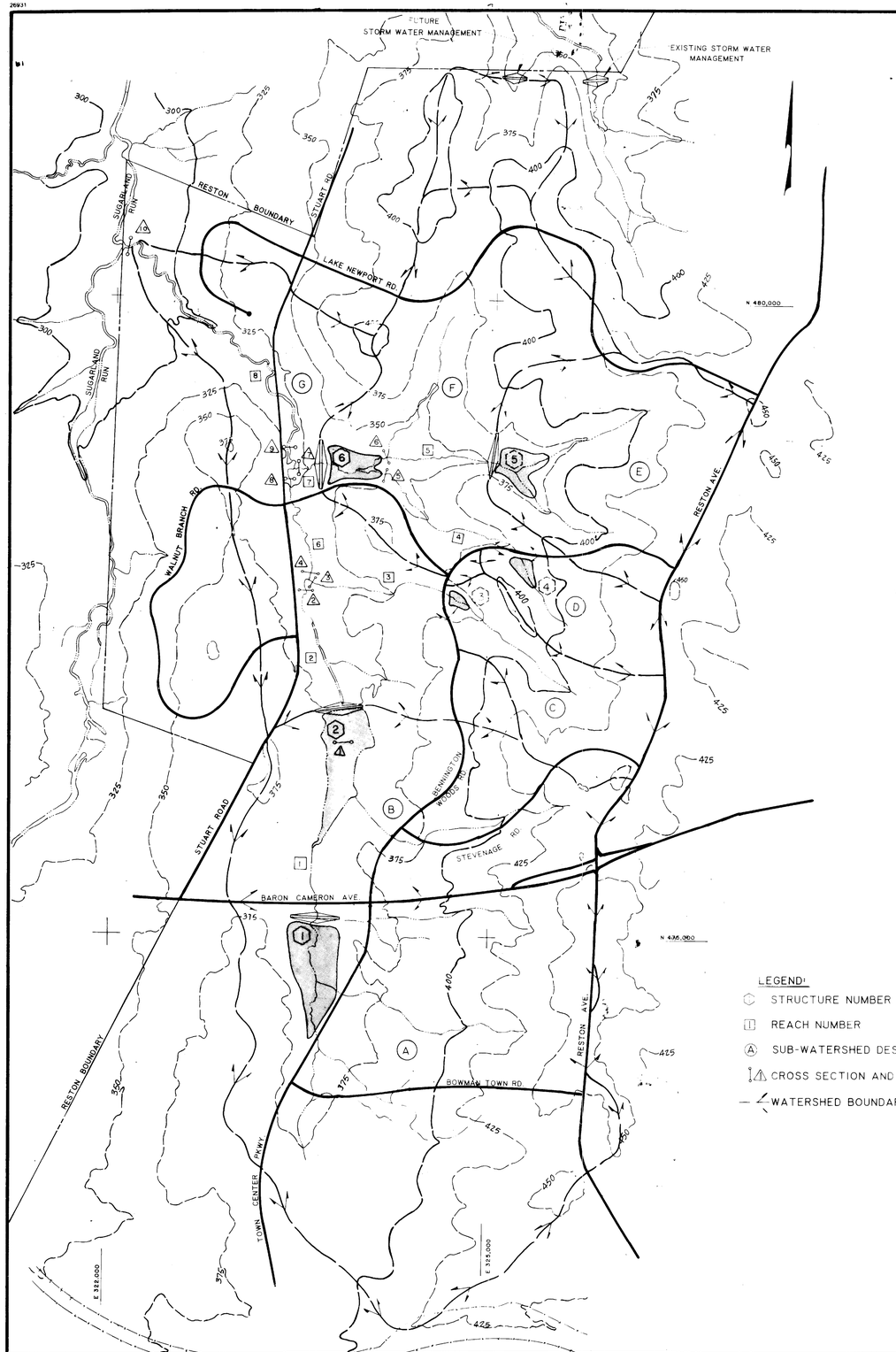
REVISION APPROVED BY DIVISION OF DESIGN REVIEW

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS · LANDSCAPE ARCHITECTS · LAND SURVEYORS
8001 FORBES PLACE SPRINGFIELD , VIRGINIA 22151 Ph. 321-9684

ZONE:
SETBACKS:
FRONT:
SIDES:
REAR:

SPILLWAY & MISCELLANEOUS COMPS
TOWN CENTER PARKWAY STORMWATER MGM'T. FACILITY
RESTON - SUGARLAND RUN REGIONAL STORMWATER MANAGEMENT SYSTEM
CENTREVILLE DISTRICT — FAIRFAX COUNTY, VIRGINIA
SCALE: N/A. — C.I. N/A — DATE: MAY, 1984

SHEET ~~9~~ OF ~~12~~
FILE Nº. ~~MISC 5-16-1~~



LEGEND:

- STRUCTURE NUMBER
- REACH NUMBER
- SUB-WATERSHED DESIGNATION
- CROSS SECTION AND NUMBER
- WATERSHED BOUNDARY

NOTE:
AREAS WHICH ARE DENOTED BY CROSS HATCHING ARE AREAS WHICH DO NOT FLOW INTO THE TRIBUTARY, BUT FOR WHICH STORMWATER MANAGEMENT IS TO BE PROVIDED BY THIS PROJECT.

WATERSHED BOUNDARY

SUB WATERSHED A

Area = 169.2 acres = .2644 sq. mi.

Before Development: 103.0 ac. forest (good cover) 61%
3.6 ac. road 2%
62.6 ac. meadow 37%

Soil Types:
47% soil group B
24% soil group C
29% soil group D

Curve number before development:
Meadow: CN = 67
Forest: CN = 66
Road: CN = 98
..CN=66

Time of Concentration:
5000' overland flow (use Kinematic Wave Nomograph)
n=.3, s=8%
Time (overland) = 22 min.
3100' flow in well defined swale, h=40'
Time=21 min. (From Kirpich chart)
TC=43 minutes = .72 hour

After Development:
Assume 20% of the watershed remains in an undisturbed state, Assume remaining 80% is developed as office and commercial. @ 75% impervious.
20% CN=77
80% CN=89 ..CN=87

Time of Concentration:
Assume 6 minute inlet time
1,500' of pipe flow @ 12 fps = 2 min.
2,000' swale flow, h=28', T = 14 min.
TC = 5+2+14=21 minutes = .35 hour.

SUB WATERSHED B

Area = 84.0 acres = .1313 sq. mi.
Before Development: 33.6 ac. forest (40%)
21.9 ac. meadow (27%)
2.5 ac. road (3%)

Soil Types:
50% Soil Type B
40% Soil Type C
10% Soil Type D

Curve number before development:
Meadow: CN=65
Forest: CN=63
Road: CN=98
..CN=66

Time of Concentration:
600' overland flow @ .55 = 1 f.p.s. = 10 min.
1,750' stream flow @ 4% = 4 f.p.s. = 7 min.
800' stream flow @ 1% = 2 f.p.s. = 7 min.
TC=25 minutes = .42 hour

After Development:

10.7 ac. Open Space	(13%)	CN=63
6.5 ac. Road	(8%)	CN=98
22.5 ac. Office	(27%)	CN=90
10.9 ac. Garden Condo.	(13%)	CN=88
10.5 ac. Multiplex	(12%)	CN=88
22.9 ac. Town Center Commercial	(27%)	CN=93

..CN=87

Time of Concentration:
Assume the stream flow will remain unchanged = 14 min.
Assume the overland flow will change to 5 min. inlet time + 1 min. pipe flow time.
..TC= 20 minutes = .33 hour

SUB WATERSHED C

Area = 30.1 acres = .0470 sq. mi.

Before Development: 24.1 ac. Forest (80%)
6.0 ac. Meadow (20%)

Soil Types
15% Soil Type C
85% Soil Type B

Curve number before Development:
Forest: CN=57
Meadow: CN=60
..CN=5

Time of Concentration
Ditch flow along Reston Avenue:
L=700' S=.5% V=2 f.p.s. T = 6 min.

Overland flow to well defined swale:
L=320' S=5.6% V=1.2 f.p.s. T = 5 min.

Natural channel flow to Bennington Woods Road:
L=1,740' S=.9% V=2.0 f.p.s. T=14 min.
..TC = 26 min. = .42 hour

After Development:

14.6 ac. Open Space	(48%)	CN=62
6.0 ac. S.F. (1/4 ac. lots)	(20%)	CN=76
4.0 ac. Townhouse	(13%)	CN=86
3.1 ac. Town Center Commercial	(10%)	CN=92
1.2 ac. Road	(4%)	CN=98
..CN=81		

Time of Concentration:
Since the flow path will remain as is, assume that the TC remains unchanged at 26 minutes = .42 hour.

SUB WATERSHED D

Area = 19.0 acres = .0297 sq. mi.

Before Development: Assume 100% meadow
Soil Types
10% Soil Type C
90% Soil Type B
..CN=59

Time of Concentration:
700' overland flow, s=5%, V=1.1 f.p.s., T=11 min.
1,100' channel flow, S=3.6%, V=2.0 f.p.s., T=9 min.
TC=20 minutes = .33 hour

After Development:
1.4 ac. Road (Future Reston Avenue) (7%) CN=98
2.4 ac. Open Space (13%) CN=71
15.2 ac. Townhouses (80%) CN=84
CN=84

Time of Concentration:
200' Ditch Flow, S=2.6%, V=2.1 f.p.s. T=2 min.
1,200' Pipe Flow, V=12 f.p.s. T=2 min.
400' Channel Flow, S=.8%, V = 2.0 f.p.s. T=4 min.
TC=8 minutes = .13 hour

SUB WATERSHED E

Area = 67.1 acres = .1048 sq. mi.

Before Development: 33.1 ac. forest (good cover) = 50%
33.1 ac. meadow = 50%

Soil Types: 88% Soil Type B
12% Soil Type C

Curve number before development:
Forest CN=57
Meadow: CN=60
..CN=58

Time of Concentration:
800' overland flow @ .5%, V=1.4 f.p.s., T=10 min.
1,200' stream flow @ 4%, V=2.0 f.p.s., T=9 min.
..TC=19 minutes = .32 hour

After Development:

3.0 ac. Open Space	(4%)	CN=71
2.8 ac. Road	(5%)	CN=98
8.8 ac. Rec. Field	(13%)	CN=61
48.4 ac. Townhouse	(72%)	CN=86
3.1 ac. S.F. Detached	(4%)	CN=76
..CN=82		

Time of Concentration:
5 minute inlet time
700' pipe flow @ 12 f.p.s. = 1 min.
800' streamflow @ 2.0 f.p.s. = 6 min.
TC = 12 minutes = .20 hour

SUBWATERSHED F

Area = 83.6 acres = .1311 sq. mi.

Before development: 48.4 ac. forest (good cover)
35.2 ac. meadow

Soil Types: 17% Soil Type C
83% Soil Type B

Curve number before development:
Meadow: CN=62 (42%)
Forest: CN=60 (58%)
CN=61

Time of Concentration:
1,250' overland flow, S=5%, V=1.1 f.p.s., T=19 min.
1,000' stream flow, S=2.7%, V=2 f.p.s., T=8 min.
TC=27 minutes = .45 hour

After Development:

20.5 ac. S.F. Detached	(24%)	CN=75
23.1 ac. S.F. Attached	(28%)	CN=85
10.8 ac. Elem. School Site	(13%)	CN=69
1.4 ac. Community Facility	(2%)	CN=92
2.4 ac. Pool Site	(3%)	CN=72
25.3 ac. Open Space	(30%)	CN=64
..CN=74		

Time of Concentration:
5 minute inlet time (to Lake Newport Road)
1,500' stream flow, S=2.3%, V=2 f/s, T=12 Min.
TC= 17 minutes =.28 hour

SUBWATERSHED G

Area = 115.2 acres = .1800 sq. mi.

Before Development: 80% Forest
20% Meadow

Soil Types:
60% Soil Group B
30% Soil Group C
10% Soil Group D

Curve Number Before Development:
Forest: CN=62
Meadow: CN=64
..CN=62

Time of Concentration:
Overland Flow (Use Kinematic Wave Nomograph)
L=800', N=.3, S=7%, T=40 min.
Swale & stream flow (Use Kirpich Chart)
L=4,900', h=94', T=23 min.
TC=63 minutes = 1.06 hour

After Development:

27.6 ac. S.F. Det. (1/4 ac. lots)	=24%	CN=79
3.8 ac. S.F. Det. (1/2 lots)	=3%	CN=75
18.2 ac. TH	=16%	CN=87
1.1 ac. Church	= 1%	CN=85
4.2 ac. patio	= 4%	CN=87
2.5 ac. Garden Condo.	= 2%	CN=87
2.3 ac. Road	= 2%	CN=98
4.9 ac. Rec. Area	= 4%	CN=67
50.4 ac. Open (Forest)	=44%	CN=62
..CN=73		

Time of Concentration:
10 minute inlet time
700' pipe flow, V=12 f.p.s. T=1 min.
stream flow = 23 minutes (as before development)
TC = 34 minutes = 0.57 hours

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

SHEET 12D OF 21
PREL-2166

THIS SHEET REFERENCED FROM
FAIRFAX COUNTY PLAN #5734-PI-01-01
PROJECT COMPLETED 11/17/1987
FOR INFORMATION PURPOSES ONLY.

NO.	DATE	DESCRIPTION	REVIEWED BY	APPROVED	DATE

REVISION APPROVED BY DIVISION OF DESIGN REVIEW

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS · LANDSCAPE ARCHITECTS · LAND SURVEYORS
8001 FORBES PLACE SPRINGFIELD, VIRGINIA 22151 Ph 321-9684

ZONE	
SETBACKS	
FRONT	
SIDES	
REAR	

WATERSHED AND LAND USE MAPS

RESTON - SUGARLAND RUN REGIONAL STORMWATER MANAGEMENT SYSTEM

CENTREVILLE DISTRICT FAIRFAX COUNTY, VIRGINIA

SCALE 1" = 500' CI 25' DATE: MAY, 1984

SHEET 10 OF 12

FILE Nº MISC-5.1.6-1

2 YR & 10 YR WATERSHED UNDEVELOPED

```
1        RESTON  UNNAMED TRIBUTARY TO THE SUGARLAND RUN (UNDE
0        TR-20 HYDROLOGY
1                  PROGRAM DATE - FEB. 14, 1974            S/360
1                                                                  PASS=100
EXECUTIVE CONTROL CARD     OPERATION  INCREM,   MAIN TIME INCREMENT=  .17
EXECUTIVE CONTROL CARD     OPERATION  COMPUT,   FROM XSECTN/STRUCT  0/  1   TO XSECTN/STRUCT  10/  0
     STARTING TIME=  0.00  RAIN DEPTH=  3.50    RAIN DURATION=  1.00   RAIN TABLE NO.= 3   SOIL CONDITION= 2
     ALTERNATE NO.= 1      STORM NO.= 1

SUBROUTINE RUNOFF   STRUCTURE  1
       AREA=   .26   INPUT RUNOFF CURVE=  66.0   TIME OF CONCENTRATION=  .72
0  (A) PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.37                66.173                   (RUNOFF)

SUBROUTINE RESVOR   STRUCTURE  1
       SURFACE ELEVATION=  364.00
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.37                66.173                   (NULL)

SUBROUTINE REACH    CROSS SECTION  1
       LENGTH=  1600.00   INPUT COEFFICIENT=  .5400   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  1.996   AVERAGE ROUTING COEFF=  .5400   NUMBER OF ROUTINGS=  .72
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.59                59.154                   (NULL)

SUBROUTINE RUNOFF   CROSS SECTION  1
       AREA=   .13   INPUT RUNOFF CURVE=  66.0   TIME OF CONCENTRATION=  .42
0  (B) PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.17                44.520                   (RUNOFF)

SUBROUTINE ADDHYD   CROSS SECTION  1
       INPUT HYDROGRAPHS= 6,5     OUTPUT HYDROGRAPH= 7
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.45                81.215                   (NULL)

SUBROUTINE RESVOR   STRUCTURE  2
       SURFACE ELEVATION=  336.00
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.45                81.215                   (NULL)

SUBROUTINE RUNOFF   STRUCTURE  3
       AREA=   .05   INPUT RUNOFF CURVE=  58.0   TIME OF CONCENTRATION=  .42
0  (C) PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.22                7.023                    (RUNOFF)

SUBROUTINE RESVOR   STRUCTURE  3
       SURFACE ELEVATION=  363.00
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.22                7.023                    (NULL)

SUBROUTINE REACH    CROSS SECTION  3
       LENGTH=  1200.00   INPUT COEFFICIENT=  .6200   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  2.774   AVERAGE ROUTING COEFF=  .6200   NUMBER OF ROUTINGS=  .45
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.35                6.038                    (NULL)

SUBROUTINE REACH    CROSS SECTION  2
       LENGTH=  1100.00   INPUT COEFFICIENT=  .5100   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  1.769   AVERAGE ROUTING COEFF=  .5100   NUMBER OF ROUTINGS=  .53
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.63                77.726                   (NULL)

SUBROUTINE ADDHYD   CROSS SECTION  4
       INPUT HYDROGRAPHS= 7,5     OUTPUT HYDROGRAPH= 6
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.60                82.405                   (NULL)

SUBROUTINE REACH    CROSS SECTION  8
       LENGTH=  900.00   INPUT COEFFICIENT=  .5000   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  1.700   AVERAGE ROUTING COEFF=  .5000   NUMBER OF ROUTINGS=  .44
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.75                79.479                   (NULL)

SUBROUTINE SAVMOV   CROSS SECTION  8
       INPUT HYDROGRAPH= 5     OUTPUT HYDROGRAPH= 2

SUBROUTINE RUNOFF   STRUCTURE  4
       AREA=   [illegible]3   INPUT RUNOFF CURVE=  59.0   TIME OF CONCENTRATION=  .33
0  (D) PEAK TI[illegible]      PEAK DISCHARGES          PEAK ELEVATIONS
         12.1[illegible]          5.467                    (RUNOFF)

SUBROUTINE RESVOR   STRUCTURE  4
       SURFACE ELEVATION=  373.00
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.16                5.467                    (NULL)

SUBROUTINE REACH    CROSS SECTION  5
       LENGTH=  1500.00   INPUT COEFFICIENT=  .6500   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  3.157   AVERAGE ROUTING COEFF=  .6500   NUMBER OF ROUTINGS=  .51
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.27                4.755                    (NULL)

SUBROUTINE RUNOFF   STRUCTURE  5
       AREA=   .10   INPUT RUNOFF CURVE=  58.0   TIME OF CONCENTRATION=  .32
0  (E) PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.16                17.200                   (RUNOFF)

SUBROUTINE RESVOR   STRUCTURE  5
       SURFACE ELEVATION=  352.20
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.16                17.200                   (NULL)

SUBROUTINE REACH    CROSS SECTION  6
       LENGTH=  1100.00   INPUT COEFFICIENT=  .5800   INPUT ROUTINGS=  0.00
       AVERAGE WATER VELOCITY=  2.348   AVERAGE ROUTING COEFF=  .5800   NUMBER OF ROUTINGS=  .45
       PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.27                14.695                   (NULL)
SUBROUTINE ADDHYD   STRUCTURE  6
       INPUT HYDROGRAPHS= 7,6     OUTPUT HYDROGRAPH= 5
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.27                19.450                   (NULL)

SUBROUTINE RUNOFF   STRUCTURE  6
       AREA=   .13   INPUT RUNOFF CURVE=  61.0   TIME OF CONCENTRATION=  .45
0  (F) PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.21                27.392                   (RUNOFF)

SUBROUTINE ADDHYD   STRUCTURE  6
       INPUT HYDROGRAPHS= 5,6     OUTPUT HYDROGRAPH= 7
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.23                46.555                   (NULL)

SUBROUTINE RESVOR   STRUCTURE  6
       SURFACE ELEVATION=  323.00
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.23                46.555                   (NULL)

SUBROUTINE REACH    CROSS SECTION  7
       LENGTH=  500.00   INPUT COEFFICIENT=  .5100   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  1.769   AVERAGE ROUTING COEFF=  .5100   NUMBER OF ROUTINGS=  .24
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.31                41.646                   (NULL)

SUBROUTINE SAVMOV   CROSS SECTION  8
       INPUT HYDROGRAPH= 2     OUTPUT HYDROGRAPH= 6

SUBROUTINE ADDHYD   CROSS SECTION  9
       INPUT HYDROGRAPHS= 5,6     OUTPUT HYDROGRAPH= 7
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.60                106.614                  (NULL)

SUBROUTINE REACH    CROSS SECTION  10
       LENGTH=  2200.00   INPUT COEFFICIENT=  .5900   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  2.446   AVERAGE ROUTING COEFF=  .5900   NUMBER OF ROUTINGS=  .88
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.88                101.879                  (NULL)

SUBROUTINE RUNOFF   CROSS SECTION  10
       AREA=   .18   INPUT RUNOFF CURVE=  62.0   TIME OF CONCENTRATION=  1.05
0  (G) PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.67                24.201                   (RUNOFF)

SUBROUTINE ADDHYD   CROSS SECTION  10
       INPUT HYDROGRAPHS= 5,6     OUTPUT HYDROGRAPH= 7
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.83               [124.660] ---- PEAK 2 YR. Q   (NULL)

ENDCMP
```

```
EXECUTIVE CONTROL CARD     OPERATION  COMPUT,   FROM XSECTN/STRUCT  0/  1   TO XSECTN/STRUCT  10/  0   PASS=101
     STARTING TIME=  0.00  RAIN DEPTH=  5.20    RAIN DURATION=  1.00   RAIN TABLE NO.= 3   SOIL CONDITION= 2
     ALTERNATE NO.= 1      STORM NO.= 2

SUBROUTINE RUNOFF   STRUCTURE  1
       AREA=   .26   INPUT RUNOFF CURVE=  66.0   TIME OF CONCENTRATION=  .72
0  (A) PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.32                175.687                  (RUNOFF)

SUBROUTINE RESVOR   STRUCTURE  1
       SURFACE ELEVATION=  364.00
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.32                175.687                  (NULL)

SUBROUTINE REACH    CROSS SECTION  1
       LENGTH=  1600.00   INPUT COEFFICIENT=  .5400   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  1.996   AVERAGE ROUTING COEFF=  .5400   NUMBER OF ROUTINGS=  .72
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.54                158.010                  (NULL)

SUBROUTINE RUNOFF   CROSS SECTION  1
       AREA=   .13   INPUT RUNOFF CURVE=  66.0   TIME OF CONCENTRATION=  .42
0  (B) PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.13                114.917                  (RUNOFF)

SUBROUTINE ADDHYD   CROSS SECTION  1
       INPUT HYDROGRAPHS= 6,5     OUTPUT HYDROGRAPH= 7
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.34                218.175                  (NULL)

SUBROUTINE RESVOR   STRUCTURE  2
       SURFACE ELEVATION=  336.00
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.34                218.175                  (NULL)

SUBROUTINE RUNOFF   STRUCTURE  3
       AREA=   .05   INPUT RUNOFF CURVE=  58.0   TIME OF CONCENTRATION=  .42
0  (C) PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.16                26.057                   (RUNOFF)

SUBROUTINE RESVOR   STRUCTURE  3
       SURFACE ELEVATION=  363.00
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.16                26.057                   (NULL)

SUBROUTINE REACH    CROSS SECTION  3
       LENGTH=  1200.00   INPUT COEFFICIENT=  .6200   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  2.774   AVERAGE ROUTING COEFF=  .6200   NUMBER OF ROUTINGS=  .45
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.26                23.374                   (NULL)

SUBROUTINE REACH    CROSS SECTION  2
       LENGTH=  1100.00   INPUT COEFFICIENT=  .5100   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  1.769   AVERAGE ROUTING COEFF=  .5100   NUMBER OF ROUTINGS=  .53
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.54                208.031                  (NULL)

SUBROUTINE ADDHYD   CROSS SECTION  4
       INPUT HYDROGRAPHS= 7,5     OUTPUT HYDROGRAPH= 6
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.50                224.402                  (NULL)

SUBROUTINE REACH    CROSS SECTION  8
       LENGTH=  900.00   INPUT COEFFICIENT=  .5000   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  1.700   AVERAGE ROUTING COEFF=  .5000   NUMBER OF ROUTINGS=  .44
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.66                215.730                  (NULL)

SUBROUTINE SAVMOV   CROSS SECTION  8
       INPUT HYDROGRAPH= 5     OUTPUT HYDROGRAPH= 2

SUBROUTINE RUNOFF   STRUCTURE  4
       AREA=   .03   INPUT RUNOFF CURVE=  [illegible].0   TIME OF CONCENTRATION=  .33
0  (D) PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.09                19.[illegible]                   (RUNOFF)

SUBROUTINE RESVOR   STRUCTURE  4
       SURFACE ELEVATION=  373.00
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.09                19.334                   (NULL)

SUBROUTINE REACH    CROSS SECTION  5
       LENGTH=  1500.00   INPUT COEFFICIENT=  .6500   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  3.157   AVERAGE ROUTING COEFF=  .6500   NUMBER OF ROUTINGS=  .51
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.21                17.103                   (NULL)

SUBROUTINE RUNOFF   STRUCTURE  5
       AREA=   .10   INPUT RUNOFF CURVE=  58.0   TIME OF CONCENTRATION=  .32
0  (E) PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.08                64.682                   (RUNOFF)

SUBROUTINE RESVOR   STRUCTURE  5
       SURFACE ELEVATION=  352.20
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.08                64.682                   (NULL)

SUBROUTINE REACH    CROSS SECTION  6
       LENGTH=  1100.00   INPUT COEFFICIENT=  .5800   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  2.348   AVERAGE ROUTING COEFF=  .5800   NUMBER OF ROUTINGS=  .45
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.20                56.221                   (NULL)

SUBROUTINE ADDHYD   STRUCTURE  6
       INPUT HYDROGRAPHS= 7,6     OUTPUT HYDROGRAPH= 5
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.21                73.319                   (NULL)

SUBROUTINE RUNOFF   STRUCTURE  6
       AREA=   .13   INPUT RUNOFF CURVE=  61.0   TIME OF CONCENTRATION=  .45
0  (F) PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.17                86.318                   (RUNOFF)

SUBROUTINE ADDHYD   STRUCTURE  6
       INPUT HYDROGRAPHS= 5,6     OUTPUT HYDROGRAPH= 7
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.19                159.189                  (NULL)

SUBROUTINE RESVOR   STRUCTURE  6
       SURFACE ELEVATION=  323.00
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.19                159.189                  (NULL)

SUBROUTINE REACH    CROSS SECTION  7
       LENGTH=  500.00   INPUT COEFFICIENT=  .5100   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  1.769   AVERAGE ROUTING COEFF=  .5100   NUMBER OF ROUTINGS=  .24
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.24                148.544                  (NULL)

SUBROUTINE SAVMOV   CRUSS SECTION  8
       INPUT HYDROGRAPH= 2     OUTPUT HYDROGRAPH= 6

SUBROUTINE ADDHYD   CROSS SECTION  9
       INPUT HYDROGRAPHS= 5,6     OUTPUT HYDROGRAPH= 7
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.42                316.646                  (NULL)

SUBROUTINE REACH    CROSS SECTION  10
       LENGTH=  2200.00   INPUT COEFFICIENT=  .5900   INPUT ROUTINGS=  0.00
0      AVERAGE WATER VELOCITY=  2.446   AVERAGE ROUTING COEFF=  .5900   NUMBER OF ROUTINGS=  .88
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.72                295.828                  (NULL)

SUBROUTINE RUNOFF   CROSS SECTION  10
       AREA=   .18   INPUT RUNOFF CURVE=  62.0   TIME OF CONCENTRATION=  1.05
0  (G) PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.57                75.084                   (RUNOFF)

SUBROUTINE ADDHYD   CROSS SECTION  10
       INPUT HYDROGRAPHS= 5,6     OUTPUT HYDROGRAPH= 7
0      PEAK TIMES          PEAK DISCHARGES          PEAK ELEVATIONS
         12.69               [367.984] ---- PEAK 10 YR. Q   (NULL)

ENDCMP
```

RESTON - SUGARLAND RUN STORMWATER MANAGEMENT COMPS

DESCRIPTION:

STORMWATER MANAGEMENT IS TO BE PROVIDED FOR THE AREAS AS SHOWN ON THE WATERSHED MAP. THE 2 YR. AND THE 10 YR. Q IN THE TRIBUTARY IN THE FULLY DEVELOPED CONDITION WILL BE LESS THAN THE RESPECTIVE FLOWS DURING THE UNDEVELOPED CONDITION BY AN AMOUNT WHICH IS SUFFICIENT TO COMPENSATE FOR THE AREAS WHICH DO NOT FLOW INTO THE TRIBUTARY.

THE AREAS FOR WHICH STORMWATER MANAGEMENT IS TO BE PROVIDED BUT WHICH DO NOT FLOW INTO THE TRIBUTARY ARE AS FOLLOWS:

67.9 ac.	S.F. DETACHED	C= .45
0.8 ac.	RECREATION	C= .35
21.7 ac.	TOWNHOUSE	C= .75
2.7 ac.	OFFICE	C= .85
7.0 ac.	SCHOOL	C= .60
4.2 ac.	CHURCH	C= .60

TOTAL AREA = 104.3 ACRES
COMPOSITE C = .54

THE TIME OF CONCENTRATION IN THE SUGARLAND RUN TO THE CONFLUENCE WITH THE TRIBUTARY = 2.1 HOUR. THIS TIME WILL BE USED TO COMPUTE THE RAINFALL INTENSITY USED TO COMPUTE THE REQUIRED REDUCTION IN RATE OF FLOW FOR PROVIDING STORMWATER MANAGEMENT FOR THE ABOVE AREAS.

$I_2 = 0.95$ in/hr. $I_{10} = 1.4$ in/hr

ASSUME THAT THE PREDEVELOPED C FACTOR = .35 (SINCE THE MAJORITY OF THE GRADES > 5%)
∴ DIFFERENCE IN C FACTORS = .54 - .35 = .19

USE THE RATIONAL FORMULA TO DETERMINE THE REQUIRED FLOW REDUCTION - Q=CIA
C = .19
A = 104.3
$I_2 = 0.95$ $I_{10} = 1.4$

∴ REDUCE 10 YR. Q BY .19 × 1.4 × 104.3 = 28 CFS
REDUCE 2 YR. Q BY .19 × .95 × 104.3 = 19 CFS

PEAK 10 YR. Q IN THE TRIBUTARY BEFORE DEVELOPMENT = 368 CFS. AFTER WATERSHED IS FULLY DEVELOPED AND ALL DETENTION PONDS ARE BUILT, THE PEAK 10 YR. Q SHALL BE ≤ 368 - 28 = 340 CFS.

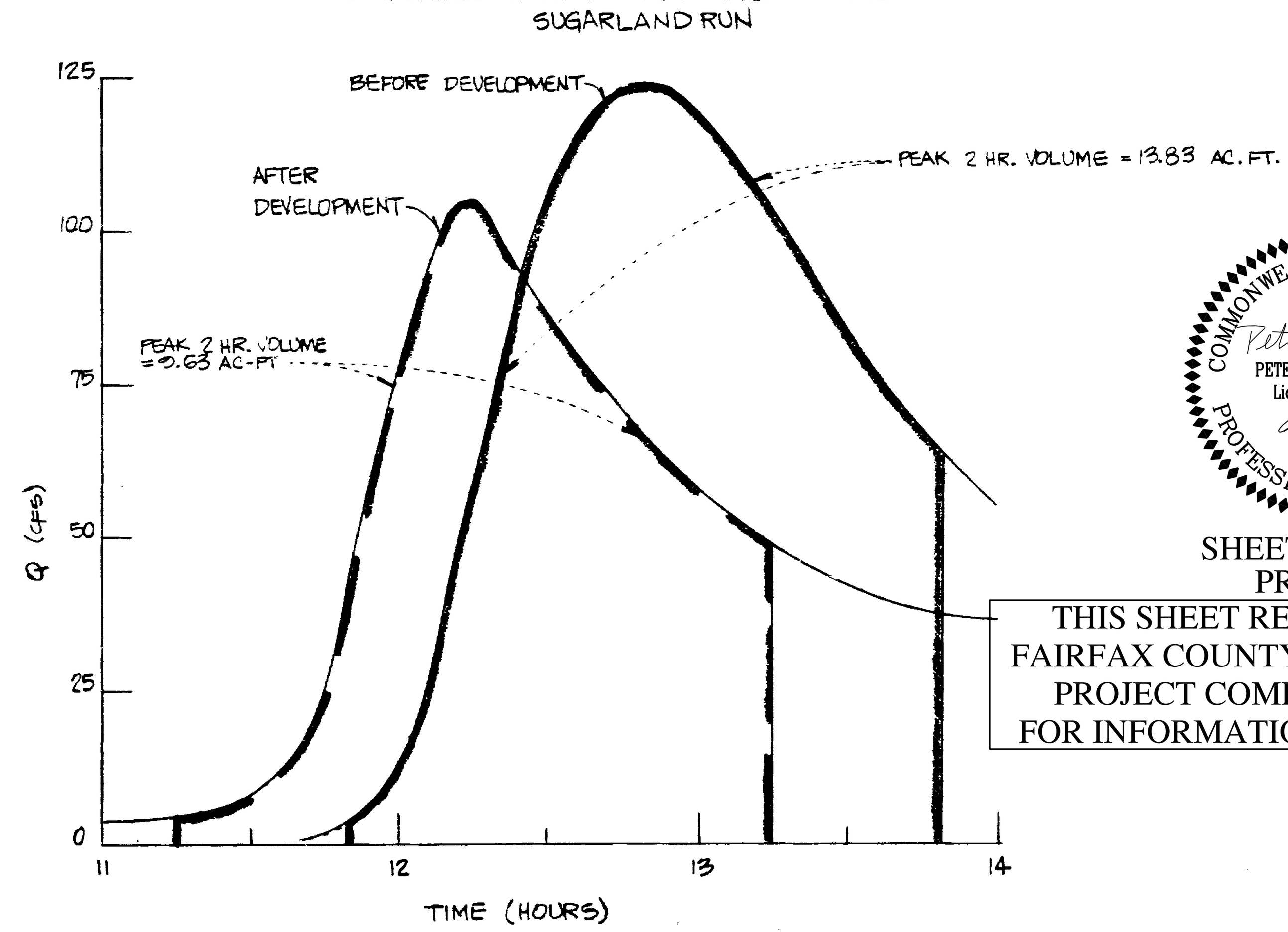
PEAK 2 YR. Q IN THE TRIBUTARY BEFORE DEVELOPMENT = 125 CFS AFTER FULL DEVELOPMENT, THE PEAK 10 YR. Q SHALL BE ≤ 125 - 19 = 106 CFS

COMPUTE RUNOFF VOLUME REDUCTION:

REDUCE THE PEAK 2 YR. - 2 HR. VOLUME IN THE TRIBUTARY BY AN AMOUNT SUFFICIENT TO PROVIDE STORMWATER MANAGEMENT FOR THE ABOVE AREAS:
2 YR. - 2 HR. RAINFALL = 2.0"
C = .19
A = 104.3 ACRES
∴ REDUCE VOLUME BY .19 * 104.3 * 2/12 = 3.30 AC. FT.

PEAK 2 YR. - 2 HR. VOLUME BEFORE DEVELOPMENT = 13.83 AC-FT
PEAK 2 YR. - 2 HR. VOLUME AFTER DEVELOPMENT = 9.63 AC-FT
SINCE 13.83 - 9.63 = 4.20 AC-FT. WHICH IS GREATER THAN 3.30 AC-FT, THE CRITERIA FOR NO INCREASE IN 2 YR. - 2 HR. RUNOFF VOLUME IS SATISFIED.

2 YR HYDROGRAPHS IN THE TRIBUTARY AT THE CONFLUENCE WITH THE MAIN STEM OF THE SUGARLAND RUN



SUMMARY:

PEAK 2 YR. Q AFTER DEVELOPMENT = 105 CFS
MAX. ALLOWABLE = 106 CFS

PEAK 10 YR. Q AFTER DEVELOPMENT = 236 CFS
MAX. ALLOWABLE = 340 CFS

∴ THE CRITERIA FOR NO INCREASE IN PEAK 2 YR. OR 10 YR. Q IS SATISFIED.

NOTE: AS A CHECK, THE ENTIRE SUGARLAND RUN WATERSHED (DOWN TO THE CONFLUENCE WITH THE TRIBUTARY) WAS RUN ON THE TR-20 MODEL. THE WATERSHED WAS RUN WITH NO DEVELOPMENT WITHIN RESTON, AND WITH FULL DEVELOPMENT WITHIN RESTON. THE RESULTS ARE AS FOLLOWS:

	UNDEVELOPED	FULLY DEVELOPED
2 YR.	657 CFS	652 CFS
10 YR.	1687 CFS	1682 CFS

RESTON - SUGARLAND RUN REGIONAL STORMWATER MANAGEMENT SYSTEM

NARRATIVE DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO PROVIDE STORMWATER MANAGEMENT FOR AREAS OF RESTON WHICH ARE WITHIN THE SUGARLAND RUN WATERSHED. (SEE THE MAPS ON SHT. # 8 FOR DELINEATION OF THE AREAS WHICH APPLY TO THIS PROJECT.)

THE PROJECT CONSISTS OF SIX DETENTION PONDS. THREE OF THE PONDS HAVE ALREADY BEEN SUBMITTED TO AND REVIEWED BY FAIRFAX COUNTY. THESE PONDS ARE:
- STRUCTURES #3 & #4 - SEE CONSTRUCTION DRAWINGS FOR BENNINGTON WOODS ROAD - PHASE I ; PREPARED BY URBAN ENGINEERING & ASSOC. FX. CO. PLAN # 4877-PI-02-1
- STRUCTURE # 5 - SEE CONSTRUCTION DRAWINGS FOR RESTON SECTION 45 STORMWATER MANAGEMENT ; PREPARED BY COLDWELL & ASSOC. INC. FX. CO. PLAN # 4877-PI-03-2

THREE OF THE PONDS ARE ARE BEING SUBMITTED FOR COUNTY REVIEW CONCURRENT WITH THESE DRAWINGS. THEY ARE:
- STRUCTURE #1 - TOWN CENTER PARKWAY STORMWATER MANAGEMENT FACILITY FX. CO. PLAN # 5734-PI-01-1
- STRUCTURE #2 - RESTON SECTION 43 STORMWATER MANAGEMENT FACILITY FX. CO. PLAN # 5733-PI-01-1
- STRUCTURE #6 - AUTUMNWOOD PARK STORMWATER MANAGEMENT FACILITY FX. CO. PLAN # 5733-PI-02-1

THE AREAS FOR WHICH STORMWATER MANAGEMENT IS TO BE PROVIDED CAN BE DIVIDED INTO TWO CATEGORIES: THOSE AREAS WHICH FLOW INTO THE UN-NAMED TRIBUTARY OF THE SUGARLAND RUN, AND THOSE AREAS WHICH DO NOT FLOW INTO THE TRIBUTARY. THE STORMWATER MANAGEMENT STUDY WAS PERFORMED AS FOLLOWS:

1) TWO YEAR AND TEN YEAR STORMS WERE SIMULATED IN THE TRIBUTARY WATERSHED WITH NO DEVELOPMENT. (USING THE S.C.S.' TR-20 MODEL)
2) TWO YEAR AND TEN YEAR STORMS WERE SIMULATED IN THE TRIBUTARY WATERSHED - FULLY DEVELOPED WITH 6 DETENTION PONDS.
3) THE AREAS WHICH DO NOT FLOW INTO THE TRIBUTARY WERE STUDIED IN ORDER TO DETERMINE THE AMOUNT BY WHICH THE DEVELOPMENT OF THESE AREAS WILL INCREASE THE 2 YR. AND 10 YR. FLOWS IN THE SUGARLAND RUN. IT IS ASSUMED THAT THE FLOWS IN THE TRIBUTARY (FROM STEP 2) SHOULD BE LESS THAN THE PREDEVELOPED FLOWS BY AN AMOUNT AT LEAST EQUAL TO THE FLOW INCREASES COMPUTED IN STEP # 3.
4) AS A CHECK, THE ENTIRE SUGARLAND RUN WATERSHED WAS RUN ON THE TR-20 MODEL BEFORE AND AFTER THE DEVELOPMENT OF RESTON IN ORDER TO ASSURE THAT THE DEVELOPMENT OF RESTON WILL NOT INCREASE FLOWS IN THE SUGARLAND RUN.

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

SHEET 12E OF 21
PREL-2166

THIS SHEET REFERENCED FROM
FAIRFAX COUNTY PLAN #5734-PI-01-01
PROJECT COMPLETED 11/17/1987
FOR INFORMATION PURPOSES ONLY.

NO.	DATE	DESCRIPTION	REVIEWED BY	APPROVED	DATE

REVISION APPROVED BY DIVISION OF DESIGN REVIEW

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS · LANDSCAPE ARCHITECTS · LAND SURVEYORS
8001 FORBES PLACE SPRINGFIELD, VIRGINIA 22151 Ph 321-9684

ZONE:
SETBACKS:
FRONT:
SIDES:
REAR:

TR-20 OUTPUT & STORMWATER MGM'T. COMPS

RESTON - SUGARLAND RUN REGIONAL STORMWATER MANAGEMENT SYSTEM

CENTREVILLE DISTRICT   FAIRFAX COUNTY, VIRGINIA

SCALE: N/A   C.I. N/A   DATE: MAY, 1984

SHEET ~~11~~ OF ~~12~~

FILE No. ~~MISC-516-1~~

BRUNING 44-132 45419

2 YR & 10 YR WATERSHED FULLY DEVELOPED (WITH STORMWATER MANAGEMENT)

1 RESTON SWM POND #2 WET
0 TR-20 HYDROLOGY
1 PROGRAM DATE - FEB. 14, 1974 S/360
1 PASS=100
EXECUTIVE CONTROL CARD OPERATION INCREM, MAIN TIME INCREMENT= .17
EXECUTIVE CONTROL CARD OPERATION COMPUT, FROM XSECTN/STRUCT 0/ 1 TO XSECTN/STRUCT 10/ 0
STARTING TIME= 0.00 RAIN DEPTH= 3.50 RAIN DURATION= 1.00 RAIN TABLE NO.= 3 SOIL CONDITION= 2
ALTERNATE NO.= 1 STORM NO.= 1

SUBROUTINE RUNOFF STRUCTURE 1
(A) AREA= .26 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= .35
0 PEAK TIMES 12.04 PEAK DISCHARGES 303.255 PEAK ELEVATIONS (RUNOFF)
0 HYDROGRAPH, TZERO= 0.00 DELTA T= .17 DRAINAGE AREA= .26

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.67	DISCHG	0.00,	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.34	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.01	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.02
6.68	DISCHG	.11	.26	.42	.60	.80	.99	1.20	1.44	1.66	1.92
8.35	DISCHG	2.22	2.48	2.80	3.18	3.49	3.92	4.44	4.84	5.41	6.12
10.02	DISCHG	6.65	7.67	9.01	9.91	11.59	13.86	15.32	19.18	24.53	30.13
11.69	DISCHG	104.51	230.27	302.77	252.12	135.75	92.18	67.54	48.13	40.64	35.15
13.36	DISCHG	29.94	27.90	25.50	22.79	21.81	20.71	19.55	19.08	18.15	17.02
15.03	DISCHG	16.58	15.79	14.86	14.52	13.98	13.39	13.15	12.68	12.14	11.93
16.70	DISCHG	11.59	11.22	11.08	10.73	10.33	10.17	9.95	9.72	9.63	9.39
18.37	DISCHG	9.12	9.02	8.81	8.59	8.49	8.30	8.07	7.99	7.89	7.80
20.04	DISCHG	7.76	7.60	7.43	7.35	7.19	7.01	6.95	6.89	6.84	6.82
21.71	DISCHG	6.67	6.49	6.43	6.37	6.32	6.30	6.18	6.05	6.01	5.95
23.38	DISCHG	5.91	5.89	5.81	5.72	5.57	3.47	1.18	.37	.12	.03
25.05	DISCHG	.01									

SUBROUTINE RESVOR STRUCTURE 1
SURFACE ELEVATION= 364.00
0 PEAK TIMES 12.29 PEAK DISCHARGES 189.115 PEAK ELEVATIONS 365.81
0 HYDROGRAPH, TZERO= 0.00 DELTA T= .17 DRAINAGE AREA= .26

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.67	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.34	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.01	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.68	DISCHG	.02	.05	.17	.20	.31	.43	.57	.74	.91	1.10
8.35	DISCHG	1.31	1.53	1.77	2.03	2.31	2.61	2.95	3.31	3.70	4.15
10.02	DISCHG	4.63	5.18	5.86	6.63	7.52	8.64	9.93	11.50	13.73	16.66
11.69	DISCHG	27.58	70.15	137.46	183.93	187.17	163.46	135.09	108.22	86.31	70.16
13.36	DISCHG	57.62	48.05	40.93	35.33	32.41	30.00	27.88	26.03	24.43	22.96
15.03	DISCHG	21.63	20.46	19.35	18.35	17.46	16.65	15.92	15.27	14.66	14.09
16.70	DISCHG	13.59	13.12	12.69	12.31	11.92	11.56	11.24	10.94	10.66	10.42
18.37	DISCHG	10.17	9.93	9.71	9.49	9.29	9.10	8.90	8.71	8.54	8.39
20.04	DISCHG	8.26	8.14	8.00	7.87	7.74	7.60	7.47	7.35	7.25	7.16
21.71	DISCHG	7.07	6.96	6.85	6.76	6.67	6.59	6.52	6.43	6.34	6.27
23.38	DISCHG	6.19	6.13	6.07	6.00	5.93	5.62	4.91	4.02	3.21	2.53
25.05	DISCHG	1.99	1.56	1.23	.96	.75	.59	.46	.36	.29	.22
26.72	DISCHG	.18	.14	.11	.08	.07	.05	.04	.03	.03	.02
28.39	DISCHG	.02	.01	.01	.01	.01	0.00				

SUBROUTINE REACH CROSS SECTION 1
LENGTH= 1600.00 INPUT COEFFICIENT= .5400 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 1.996 AVERAGE ROUTING COEFF= .5400 NUMBER OF ROUTINGS= .72
0 PEAK TIMES 12.[illegible] PEAK DISCHARGES 172.879 PEAK ELEVATIONS (NULL)

SUBROUTINE RUNOFF CROSS SECTION 1
(B) AREA= .13 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= .33
0 PEAK TIMES 12.03 PEAK DISCHARGES 153.449 PEAK ELEVATIONS (RUNOFF)

SUBROUTINE ADDHYD CROSS SECTION 1
INPUT HYDROGRAPHS= 6,5 OUTPUT HYDROGRAPH= 7
0 PEAK TIMES 12.20 PEAK DISCHARGES 240.676 PEAK ELEVATIONS (NULL)
0 HYDROGRAPH, TZERO= 0.00 DELTA T= .17 DRAINAGE AREA= .40

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.67	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.34	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.01	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.01
6.68	DISCHG	.06	.15	.26	.41	.59	.78	1.01	1.26	1.53	1.83
8.35	DISCHG	2.16	2.49	2.87	3.30	3.71	4.20	4.76	5.27	5.93	6.67
10.02	DISCHG	7.35	8.36	9.58	10.65	12.29	14.28	16.04	19.35	23.59	28.62
11.69	DISCHG	73.65	150.87	220.67	240.63	224.31	216.83	194.22	163.44	136.33	112.03
13.36	DISCHG	91.88	77.08	65.08	55.55	48.99	44.39	40.86	38.26	35.75	33.47
15.03	DISCHG	31.73	29.93	28.25	26.95	25.64	24.42	23.47	22.47	21.52	20.79
16.70	DISCHG	20.04	19.33	18.78	18.16	17.56	17.10	16.62	16.17	15.82	15.42
18.37	DISCHG	15.03	14.73	14.38	14.04	13.78	13.47	13.16	12.93	12.69	12.47
20.04	DISCHG	12.30	12.08	11.86	11.70	11.48	11.26	11.09	10.93	10.79	10.67
21.71	DISCHG	10.49	10.31	10.18	10.05	9.93	9.83	9.68	9.54	9.44	9.33
23.38	DISCHG	9.23	9.14	9.03	8.93	8.77	7.52	6.11	5.17	4.30	3.49
25.05	DISCHG	2.80	2.22	1.75	1.38	1.08	.85	.67	.52	.41	.32
26.72	DISCHG	.25	.20	.16	.12	.10	.08	.06	.05	.04	.03
28.39	DISCHG	.02	.02	.01	.01	.01	0.00				

SUBROUTINE RESVOR STRUCTURE 2
SURFACE ELEVATION= 350.00
0 PEAK TIMES 19.44 PEAK DISCHARGES 12.185 PEAK ELEVATIONS 354.59
0 HYDROGRAPH, TZERO= 0.00 DELTA T= .17 DRAINAGE AREA= .40

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.67	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.00	0.00
3.34	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.01	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.68	DISCHG	0.00	0.00	0.00	0.00	.01	.01	.02	.03	.03	.05
8.35	DISCHG	.06	.07	.09	.11	.13	.16	.19	.22	.26	.30
10.02	DISCHG	.34	.39	.45	.51	.59	.67	.77	.88	1.02	1.19
11.69	DISCHG	1.52	2.26	3.50	5.26	7.02	8.00	8.73	9.35	9.82	10.20
13.36	DISCHG	10.50	10.74	10.93	11.10	11.23	11.34	11.42	11.49	11.56	11.62
15.03	DISCHG	11.67	11.72	11.76	11.81	11.84	11.88	11.91	11.94	11.96	11.99
16.70	DISCHG	12.01	12.03	12.05	12.06	12.08	12.09	12.10	12.11	12.12	12.13
18.37	DISCHG	12.14	12.15	12.15	12.16	12.16	12.17	12.17	12.17	12.18	12.18
20.04	DISCHG	12.18	12.18	12.18	12.18	12.17	12.17	12.17	12.17	12.16	12.16
21.71	DISCHG	12.16	12.15	12.15	12.14	12.13	12.13	12.12	12.12	12.11	12.10
23.38	DISCHG	12.10	12.09	12.08	12.07	12.06	12.05	12.04	12.02	12.00	11.98
25.05	DISCHG	11.96	11.94	11.91	11.88	11.86	11.83	11.80	11.77	11.74	11.71
26.72	DISCHG	11.68	11.65	11.62	11.59	11.56	11.53	11.50	11.47	11.45	11.42
28.39	DISCHG	11.39	11.36	11.33	11.30	11.26	11.22	11.19	11.15	11.11	11.08
30.06	DISCHG	11.04	11.01	10.97	10.93	10.90	10.86	10.83	10.79	10.76	10.72
31.73	DISCHG	10.69	10.65	10.62	10.58	10.55	10.51	10.48	10.45	10.41	10.38
33.40	DISCHG	10.34	10.31	10.28	10.24	10.21	10.18	10.14	10.11	10.08	10.04
35.07	DISCHG	10.01	9.98	9.95	9.91	9.88	9.85	9.82	9.78	9.75	9.72
36.74	DISCHG	9.69	9.66	9.63	9.59	9.56	9.53	9.50	9.47	9.43	9.40
38.41	DISCHG	9.36	9.33	9.29	9.26	9.23	9.19	9.16	9.13	9.09	9.06
40.08	DISCHG	9.03	8.99	8.96	8.93	8.89	8.86	8.83	8.80	8.76	8.73
41.75	DISCHG	8.70	8.67	8.64	8.60	8.57	8.54	8.51	8.48	8.45	8.42
43.42	DISCHG	8.39	8.36	8.33	8.30	8.26	8.23	8.20	8.17	8.14	8.11
45.09	DISCHG	8.08	8.06	8.03	8.00	7.97	7.94	7.91	7.88	7.85	7.82
46.76	DISCHG	7.79	7.76	7.74	7.71	7.68	7.65	7.62	7.60	7.57	7.54
48.43	DISCHG	7.51	7.49	7.46	7.43	7.40	7.35	7.29	7.24	7.18	7.12

SUBROUTINE RUNOFF STRUCTURE 3
(C) AREA= .05 INPUT RUNOFF CURVE= 73.0 TIME OF CONCENTRATION= .42
0 PEAK TIMES 12.13 PEAK DISCHARGES 25.756 PEAK ELEVATIONS (RUNOFF)

SUBROUTINE RESVOR STRUCTURE 3
SURFACE ELEVATION= 363.00
0 PEAK TIMES 12.28 PEAK DISCHARGES 21.261 PEAK ELEVATIONS 366.57

SUBROUTINE REACH CROSS SECTION 3
LENGTH= 1200.00 INPUT COEFFICIENT= .6200 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 2.774 AVERAGE ROUTING COEFF= .6200 NUMBER OF ROUTINGS= .45
0 PEAK TIMES 12.38 PEAK DISCHARGES 20.608 PEAK ELEVATIONS (NULL)

SUBROUTINE REACH CROSS SECTION 2
LENGTH= 1100.00 INPUT COEFFICIENT= .5100 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 1.769 AVERAGE ROUTING COEFF= .5100 NUMBER OF ROUTINGS= .53
0 PEAK TIMES 19.71 PEAK DISCHARGES 12.183 PEAK ELEVATIONS (NULL)

SUBROUTINE ADDHYD CROSS SECTION 4
INPUT HYDROGRAPHS= 7,5 OUTPUT HYDROGRAPH= 6
0 PEAK TIMES 12.46 PEAK DISCHARGES 26.817 PEAK ELEVATIONS (NULL)

SUBROUTINE REACH CROSS SECTION 8
LENGTH= 900.00 INPUT COEFFICIENT= .5000 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 1.700 AVERAGE ROUTING COEFF= .5000 NUMBER OF ROUTINGS= .44
0 PEAK TIMES 12.57 PEAK DISCHARGES 25.303 PEAK ELEVATIONS (NULL)

SUBROUTINE SAVMOV CROSS SECTION 8
INPUT HYDROGRAPH= 5 OUTPUT HYDROGRAPH= 2

SUBROUTINE RUNOFF STRUCTURE 4
(D) AREA= .03 INPUT RUNOFF CURVE= 84.0 TIME OF CONCENTRATION= .13
0 PEAK TIMES 11.96 PEAK DISCHARGES 37.591 PEAK ELEVATIONS (RUNOFF)

SUBROUTINE RESVOR STRUCTURE 4
SURFACE ELEVATION= 373.00

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.13	21.740	377.40
13.98	2.266	373.65
14.46	2.009	373.57
14.96	1.744	373.56
15.46	1.528	373.44
15.96	1.390	373.40
16.47	1.260	373.36
16.95	1.175	373.34
17.47	1.076	373.31
17.95	1.023	373.29

SUBROUTINE REACH CROSS SECTION 5
LENGTH= 1500.00 INPUT COEFFICIENT= .6500 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 3.157 AVERAGE ROUTING COEFF= .6500 NUMBER OF ROUTINGS= .51
0 PEAK TIMES 12.24 PEAK DISCHARGES 20.573 PEAK ELEVATIONS (NULL)

SUBROUTINE RUNOFF STRUCTURE 5
(E) AREA= .10 INPUT RUNOFF CURVE= 82.0 TIME OF CONCENTRATION= .20
0 PEAK TIMES 11.98 PEAK DISCHARGES 116.637 PEAK ELEVATIONS (RUNOFF)

SUBROUTINE RESVOR STRUCTURE 5
SURFACE ELEVATION= 352.20

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.20	60.885	360.18
13.98	7.748	353.59
14.96	5.923	353.27
15.95	4.718	353.05
16.45	4.278	352.97
17.46	3.657	352.86
18.46	3.257	352.79
19.47	2.884	352.72
20.46	2.669	352.68
20.98	2.514	352.65

SUBROUTINE REACH CROSS SECTION 6
LENGTH= 1100.00 INPUT COEFFICIENT= .5800 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 2.348 AVERAGE ROUTING COEFF= .5800 NUMBER OF ROUTINGS= .45
0 PEAK TIMES 12.34 PEAK DISCHARGES 59.095 PEAK ELEVATIONS (NULL)

SUBROUTINE ADDHYD STRUCTURE 6
INPUT HYDROGRAPHS= 7,6 OUTPUT HYDROGRAPH= 5
0 PEAK TIMES 12.30 PEAK DISCHARGES 79.076 PEAK ELEVATIONS 335.59

SUBROUTINE RUNOFF STRUCTURE 6
(F) AREA= .13 INPUT RUNOFF CURVE= 74.0 TIME OF CONCENTRATION= .28
0 PEAK TIMES 12.03 PEAK DISCHARGES 89.749 PEAK ELEVATIONS (RUNOFF)

SUBROUTINE ADDHYD STRUCTURE 6
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7
0 PEAK TIMES 12.07 PEAK DISCHARGES 158.986 PEAK ELEVATIONS 336.27
0 HYDROGRAPH, TZERO= 0.00 DELTA T= .17 DRAINAGE AREA= .27

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.67	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.34	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.01	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.68	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.01	.03	.05
8.35	DISCHG	.08	.14	.23	.35	.47	.81	[illegible]	[illegible]	[illegible]	[illegible]
10.02	DISCHG	1.60	1.92	2.38	2.76	3.45	4.54	5.54	7.55	10.47	13.85
11.69	DISCHG	49.06	109.46	156.54	143.68	112.74	99.45	85.62	69.09	52.26	36.30
13.36	DISCHG	26.57	22.98	20.47	18.40	17.59	16.74	15.86	15.54	14.76	13.89
15.03	DISCHG	13.55	12.90	12.20	11.92	11.49	11.03	10.85	10.46	10.03	9.87
16.70	DISCHG	9.60	9.31	9.20	8.90	8.59	8.46	8.29	8.11	8.04	7.84
18.37	DISCHG	7.63	7.54	7.37	7.19	7.12	6.95	6.77	6.70	6.63	6.56
20.04	DISCHG	6.53	6.40	6.26	6.20	6.06	5.91	5.86	5.82	5.79	5.77
21.71	DISCHG	5.63	5.49	5.44	5.40	5.36	5.34	5.24	5.13	5.10	5.05
23.38	DISCHG	5.02	5.00	4.93	4.87	4.71	2.80	.90	.20	.01	0.00

SUBROUTINE RESVOR STRUCTURE 6
SURFACE ELEVATION= 323.00
0 PEAK TIMES 15.54 PEAK DISCHARGES 12.050 PEAK ELEVATIONS 334.05
0 HYDROGRAPH, TZERO= 0.00 DELTA T= .17 DRAINAGE AREA= .27

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.67	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.34	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.01	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6.68	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.01	.03
8.35	DISCHG	.05	.08	.14	.23	.33	.45	.60	.75	.92	1.12
10.02	DISCHG	1.33	1.58	1.92	2.30	2.77	3.13	3.42	3.90	4.68	5.82
11.69	DISCHG	6.67	8.29	9.85	10.50	10.97	11.23	11.45	11.62	11.75	11.84
13.36	DISCHG	11.89	11.92	11.95	11.97	11.98	12.00	12.01	12.02	12.03	12.04
15.03	DISCHG	12.05	12.05	12.05	12.05	12.05	12.05	12.04	12.04	12.03	12.03
16.70	DISCHG	12.02	12.01	12.00	11.99	11.99	11.98	11.97	11.96	11.95	11.94
18.37	DISCHG	11.93	11.91	11.90	11.89	11.88	11.86	11.85	11.84	11.82	11.81
20.04	DISCHG	11.80	11.78	11.77	11.75	11.74	11.72	11.71	11.69	11.68	11.66
21.71	DISCHG	11.64	11.63	11.61	11.60	11.58	11.56	11.55	11.53	11.51	11.50
23.38	DISCHG	11.48	11.46	11.44	11.43	11.41	11.39	11.36	11.33	11.30	11.27
25.05	DISCHG	11.25	11.22	11.19	11.16	11.13	11.10	11.07	11.04	11.01	10.97
26.72	DISCHG	10.93	10.88	10.84	10.80	10.76	10.71	10.67	10.63	10.59	10.55
28.39	DISCHG	10.50	10.46	10.42	10.38	10.34	10.30	10.26	10.22	10.18	10.14
30.06	DISCHG	10.10	10.06	10.02	9.93	9.81	9.69	9.57	9.45	9.33	9.21
31.73	DISCHG	9.10	8.99	8.87	8.76	8.65	8.55	8.44	8.33	8.23	8.13
33.40	DISCHG	8.03	7.84	7.62	7.42	7.22	7.02	6.83	6.64	6.46	6.29
35.07	DISCHG	6.11	5.70	4.83	4.09	3.47	2.76	1.14	.47	.20	.08
36.74	DISCHG	.03	.01	.01	0.00						

SUBROUTINE REACH CROSS SECTION 7
LENGTH= 500.00 INPUT COEFFICIENT= .5100 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 1.769 AVERAGE ROUTING COEFF= .5100 NUMBER OF ROUTINGS= .24
0 PEAK TIMES 15.53 PEAK DISCHARGES 12.051 PEAK ELEVATIONS (NULL)

SUBROUTINE SAVMOV CROSS SECTION 8
INPUT HYDROGRAPH= 2 OUTPUT HYDROGRAPH= 6

SUBROUTINE ADDHYD CROSS SECTION 9
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7
0 PEAK TIMES 12.58 PEAK DISCHARGES 36.516 PEAK ELEVATIONS (NULL)

SUBROUTINE REACH CROSS SECTION 10
LENGTH= 2200.00 INPUT COEFFICIENT= .5900 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 2.446 AVERAGE ROUTING COEFF= .5900 NUMBER OF ROUTINGS= .88
0 PEAK TIMES 12.84 PEAK DISCHARGES 34.809 PEAK ELEVATIONS (NULL)

SUBROUTINE RUNOFF CROSS SECTION 10
(G) AREA= .18 INPUT RUNOFF CURVE= 73.0 TIME OF CONCENTRATION= .57
0 PEAK TIMES 12.22 PEAK DISCHARGES 86.357 PEAK ELEVATIONS (RUNOFF)

SUBROUTINE ADDHYD CROSS SECTION 10
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7
0 PEAK TIMES 12.26 PEAK DISCHARGES 105.030 PEAK ELEVATIONS (NULL)
PEAK 2 YR. Q

ENDCMP
1
EXECUTIVE CONTROL CARD OPERATION COMPUT, FROM XSECTN/STRUCT 0/ 1 TO XSECTN/STRUCT 10/ 0 PASS=101
STARTING TIME= 0.00 RAIN DEPTH= 5.20 RAIN DURATION= 1.00 RAIN TABLE NO.= 3 SOIL CONDITION= 2
ALTERNATE NO.= 1 STORM NO.= 2

SUBROUTINE RUNOFF STRUCTURE 1
(A) AREA= .26 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= .35
0 PEAK TIMES 12.03 PEAK DISCHARGES 515.663 PEAK ELEVATIONS (RUNOFF)
0 HYDROGRAPH, TZERO= 0.00 DELTA T= .17 DRAINAGE AREA= .26

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.67	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.34	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.04
5.01	DISCHG	.19	.40	.64	.88	1.14	1.42	1.69	1.97	2.28	2.56
6.68	DISCHG	2.89	3.26	3.57	3.95	4.39	4.74	5.17	5.69	6.08	6.60
8.35	DISCHG	7.22	7.68	8.32	9.09	9.65	10.48	11.54	12.23	13.34	14.74
10.02	DISCHG	15.65	17.66	20.33	21.92	25.12	29.44	31.96	39.17	49.11	59.01
11.69	DISCHG	193.93	408.12	515.58	419.91	223.62	150.19	109.22	77.45	65.17	56.26
13.36	DISCHG	47.85	44.52	40.66	36.30	34.70	32.93	31.06	30.29	28.79	26.99
15.03	DISCHG	26.27	25.01	23.52	22.97	22.11	21.17	20.77	20.03	19.16	18.82
16.70	DISCHG	18.29	17.70	17.46	16.91	16.27	16.01	15.67	15.30	15.15	14.78
18.37	DISCHG	14.35	14.18	13.85	13.50	13.35	13.03	12.67	12.54	12.39	12.34
20.04	DISCHG	12.17	11.93	11.65	11.53	11.28	10.99	10.89	10.80	10.72	10.68
21.71	DISCHG	10.44	10.17	10.07	9.98	9.90	9.86	9.68	9.47	9.40	9.31
23.38	DISCHG	9.24	9.21	9.08	8.94	8.70	5.43	1.85	.58	.18	.05
25.05	DISCHG	.01									

SUBROUTINE RESVOR STRUCTURE 1
SURFACE ELEVATION= 364.00
0 PEAK TIMES 12.29 PEAK DISCHARGES 303.099 PEAK ELEVATIONS 367.13
0 HYDROGRAPH, TZERO= 0.00 DELTA T= .17 DRAINAGE AREA= .26

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.67	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.34	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.01	DISCHG	.03	.09	.18	.31	.46	.64	.83	1.05	1.28	1.53
6.68	DISCHG	1.78	2.06	2.35	2.66	2.98	3.32	3.68	4.05	4.45	4.86
8.35	DISCHG	5.30	5.76	6.24	6.77	7.33	7.92	8.59	9.30	10.05	10.91
10.02	DISCHG	11.83	12.87	14.19	15.69	17.37	19.51	21.92	24.86	29.02	34.41
11.69	DISCHG	64.80	145.74	243.34	298.26	301.06	277.57	239.40	196.81	156.16	123.13
13.36	DISCHG	98.41	80.77	68.04	58.18	50.62	45.01	40.67	37.34	34.83	33.34
15.03	DISCHG	31.89	30.54	29.19	27.91	26.75	25.65	24.64	23.73	22.84	22.01
16.70	DISCHG	21.26	20.56	19.92	19.33	18.74	18.18	17.67	17.20	16.78	16.39
18.37	DISCHG	15.99	15.62	15.28	14.93	14.61	14.30	13.99	13.69	13.43	13.19
20.04	DISCHG	12.97	12.78	12.56	12.35	12.15	11.93	11.72	11.53	11.36	11.22
21.71	DISCHG	11.08	10.91	10.74	10.59	10.45	10.32	10.21	10.07	9.93	9.81
23.38	DISCHG	9.69	9.59	9.50	9.39	9.27	8.79	7.68	6.29	5.02	3.76
25.05	DISCHG	3.11	2.44	1.92	1.50	1.18	.93	.73	.57	.45	.35
26.72	DISCHG	.27	.22	.17	.13	.10	.08	.06	[illegible]	.04	.03
28.39	DISCHG	.02	.02	.01	.01	.01	.01	.01	[illegible]		

SUBROUTINE REACH CROSS SECTION 1
LENGTH= 1600.00 INPUT COEFFICIENT= .5400 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 1.996 AVERAGE ROUTING COEFF= .5400 NUMBER OF ROUTINGS= .72
0 PEAK TIMES 12.55 PEAK DISCHARGES 284.066 PEAK ELEVATIONS (NULL)

SUBROUTINE RUNOFF CROSS SECTION 1
(B) AREA= .13 INPUT RUNOFF CURVE= 87.0 TIME OF CONCENTRATION= .33
0 PEAK TIMES 12.02 PEAK DISCHARGES 260.696 PEAK ELEVATIONS (RUNOFF)

SUBROUTINE ADDHYD CROSS SECTION 1
INPUT HYDROGRAPHS= 6,5 OUTPUT HYDROGRAPH= 7
0 PEAK TIMES 12.16 PEAK DISCHARGES 414.692 PEAK ELEVATIONS (NULL)
0 HYDROGRAPH, TZERO= 0.00 DELTA T= .17 DRAINAGE AREA= .40

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.67	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.34	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.02
5.01	DISCHG	.11	.24	.41	.62	.86	1.14	1.44	1.77	2.14	2.50
6.68	DISCHG	2.90	3.34	3.77	4.25	4.77	5.26	5.81	6.42	6.98	7.63
8.35	DISCHG	8.35	9.00	9.79	10.65	11.44	12.42	13.53	14.50	15.77	17.23
10.02	DISCHG	18.49	20.45	22.84	24.82	27.95	31.74	34.95	41.17	49.06	58.13
11.69	DISCHG	141.69	280.28	394.35	413.65	371.71	355.35	325.22	281.52	239.43	197.26
13.36	DISCHG	159.72	131.54	109.37	92.23	80.10	70.53	63.08	57.76	[illegible]	49.44
15.03	DISCHG	47.14	44.84	42.68	41.04	39.30	37.63	36.34	34.91	33.53	32.48
16.70	DISCHG	31.36	30.30	29.47	28.52	27.59	26.88	26.14	25.44	24.89	24.25
18.37	DISCHG	23.63	23.16	22.61	22.08	21.67	21.17	20.68	20.31	19.94	19.60
20.04	DISCHG	19.32	18.96	18.62	18.36	18.01	17.66	17.40	17.15	16.92	16.73
21.71	DISCHG	16.45	16.16	15.96	15.75	15.55	15.39	15.17	14.94	14.77	14.60
23.38	DISCHG	14.44	14.31	14.13	13.96	13.72	11.76	9.55	8.08	6.72	5.46
25.05	DISCHG	4.37	3.47	2.74	2.15	1.69	1.33	1.04	.82	.64	.50
26.72	DISCHG	.39	.31	.24	.19	.15	.12	.09	.07	.06	.04
28.39	DISCHG	.03	.03	.02	.02	.01	.01	.01	0.00		

SUBROUTINE RESVOR STRUCTURE 2
SURFACE ELEVATION= 350.00
0 PEAK TIMES 13.53 PEAK DISCHARGES 133.783 PEAK ELEVATIONS 355.67
0 HYDROGRAPH, TZERO= 0.00 DELTA T= .17 DRAINAGE AREA= .40

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.67	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.34	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.01	DISCHG	0.00	0.00	0.00	.01	.01	.02	.03	.04	.05	.07
6.68	DISCHG	.08	.10	.13	.15	.18	.21	.25	.29	.33	.38
8.35	DISCHG	.43	.48	.54	.61	.68	.75	.83	.92	1.02	1.12
10.02	DISCHG	1.23	1.35	1.49	1.64	1.81	1.99	2.20	[illegible]	2.73	3.07
11.69	DISCHG	3.76	5.37	7.66	9.11	10.40	11.50	20.07	[illegible]	91.69	116.57
13.36	DISCHG	130.38	133.78	130.81	124.12	115.65	106.66	98.41	92.38	96.52	80.92
15.03	DISCHG	75.74	71.01	66.69	62.74	59.16	55.87	52.87	50.13	[illegible]	45.94
16.70	DISCHG	44.05	42.26	40.59	39.02	37.54	36.15	34.85	33.62	32.48	31.41
18.37	DISCHG	30.40	29.46	28.57	27.73	26.94	26.19	25.48	24.81	24.17	23.58
20.04	DISCHG	23.02	22.50	22.00	21.52	21.07	20.63	20.21	19.82	19.44	19.09
21.71	DISCHG	18.75	18.42	18.10	17.80	17.51	17.23	16.97	16.71	16.46	16.22
23.38	DISCHG	15.99	15.77	15.56	15.36	15.15	14.83	14.26	13.53	12.70	12.19
25.05	DISCHG	12.17	12.15	12.13	12.10	12.08	12.05	12.02	11.99	11.96	11.93
26.72	DISCHG	11.91	11.88	11.85	11.82	11.79	11.76	11.73	11.70	11.66	11.63
28.39	DISCHG	11.60	11.58	11.55	11.52	11.49	11.46	11.43	11.40	11.37	11.34
30.06	DISCHG	11.31	11.27	11.24	11.20	11.16	11.13	11.09	11.06	11.02	10.98
31.73	DISCHG	10.95	10.91	10.88	10.84	10.81	10.77	10.73	10.70	10.66	10.63
33.40	DISCHG	10.60	10.56	10.53	10.49	10.46	10.42	10.39	10.36	10.32	10.29
35.07	DISCHG	10.25	10.22	10.19	10.15	10.12	10.09	10.06	10.02	9.99	9.96
36.74	DISCHG	9.92	9.89	9.86	9.83	9.80	9.76	9.73	9.70	9.67	9.64
38.41	DISCHG	9.61	9.57	9.54	9.51	9.48	9.44	9.41	9.37	9.34	9.31
40.08	DISCHG	9.27	9.24	9.20	9.17	9.14	9.10	9.07	9.04	9.00	8.97
41.75	DISCHG	8.94	8.91	8.87	8.84	8.81	8.78	8.74	8.71	8.68	8.65
43.42	DISCHG	8.62	8.58	8.55	8.52	8.49	8.46	8.43	8.40	8.37	8.34
45.09	DISCHG	8.31	8.28	8.25	8.21	8.18	8.15	8.12	8.10	8.07	8.04
46.76	DISCHG	8.01	7.98	7.95	7.92	7.89	7.86	7.83	7.80	7.77	7.75
48.43	DISCHG	7.72	7.69	7.66	7.63	7.61	7.58	7.55	7.52	7.49	7.47

SUBROUTINE RUNOFF STRUCTURE 3
(C) AREA= .05 INPUT RUNOFF CURVE= 73.0 TIME OF CONCENTRATION= .42
0 PEAK TIMES 12.10 PEAK DISCHARGES 55.689 PEAK ELEVATIONS (RUNOFF)

SUBROUTINE RESVOR STRUCTURE 3
SURFACE ELEVATION= 363.00
0 PEAK TIMES 12.40 PEAK DISCHARGES 32.700 PEAK ELEVATIONS 369.63

SUBROUTINE REACH CROSS SECTION 3
LENGTH= 1200.00 INPUT COEFFICIENT= .6200 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 2.774 AVERAGE ROUTING COEFF= .6200 NUMBER OF ROUTINGS= .45
0 PEAK TIMES 12.53 PEAK DISCHARGES 32.155 PEAK ELEVATIONS (NULL)

SUBROUTINE REACH CROSS SECTION 2
LENGTH= 1100.00 INPUT COEFFICIENT= .5100 INPUT ROUTINGS= 0.00
AVERAGE WATER VELOCITY= 1.769 AVERAGE ROUTING COEFF= .5100 NUMBER OF ROUTINGS= .53
PEAK TIMES 13.73 PEAK DISCHARGES 130.400 PEAK ELEVATIONS (NULL)

SUBROUTINE ADDHYD CROSS SECTION 4
INPUT HYDROGRAPHS= 7,5 OUTPUT HYDROGRAPH= 6
PEAK TIMES 13.70 PEAK DISCHARGES 136.972 PEAK ELEVATIONS (NULL)

SUBROUTINE REACH CROSS SECTION 8
LENGTH= 700.00 INPUT COEFFICIENT= .5000 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 1.700 AVERAGE ROUTING COEFF= .5000 NUMBER OF ROUTINGS= .44
0 PEAK TIMES 13.84 PEAK DISCHARGES 134.920 PEAK ELEVATIONS (NULL)

SUBROUTINE SAVMOV CROSS SECTION 8
INPUT HYDROGRAPH= 5 OUTPUT HYDROGRAPH= 2

SUBROUTINE RUNOFF STRUCTURE 4
(D) AREA= .03 INPUT RUNOFF CURVE= 84.0 TIME OF CONCENTRATION= .13
0 PEAK TIMES 11.95 PEAK DISCHARGES 65.041 PEAK ELEVATIONS (RUNOFF)

SUBROUTINE RESVOR STRUCTURE 4
SURFACE ELEVATION= 373.00

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.17	29.456	378.94
14.96	2.833	373.81
15.46	2.478	373.71
15.96	[illegible]	373.64
16.46	[illegible]	373.58
16.95	[illegible]	373.54
17.47	1.735	373.50
17.95	1.648	373.47
18.46	1.541	373.44
18.96	1.452	373.41

SUBROUTINE REACH CROSS SECTION 5
LENGTH= 1500.00 INPUT COEFFICIENT= .6500 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 3.157 AVERAGE ROUTING COEFF= .6500 NUMBER OF ROUTINGS= .51
0 PEAK TIMES 12.33 PEAK DISCHARGES 28.998 PEAK ELEVATIONS (NULL)

SUBROUTINE RUNOFF STRUCTURE 5
(E) AREA= .10 INPUT RUNOFF CURVE= 82.0 TIME OF CONCENTRATION= .20
0 PEAK TIMES 11.97 PEAK DISCHARGES 209.934 PEAK ELEVATIONS (RUNOFF)

SUBROUTINE RESVOR STRUCTURE 5
SURFACE ELEVATION= 352.20

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.21	108.094	362.97
15.47	8.591	353.75
16.46	7.039	353.47
17.46	5.996	353.28
18.46	5.327	353.16
19.47	4.707	353.05
20.46	4.349	352.98
20.97	4.092	352.94
21.99	3.788	352.88
22.98	3.541	352.84

SUBROUTINE REACH CROSS SECTION 6
LENGTH= 1100.00 INPUT COEFFICIENT= .5800 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 2.348 AVERAGE ROUTING COEFF= .5800 NUMBER OF ROUTINGS= .45

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.34	94.136	(NULL)
24.88	.007	(NULL)

SUBROUTINE ADDHYD STRUCTURE 6
INPUT HYDROGRAPHS= 7,6 OUTPUT HYDROGRAPH= 5

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.34	123.133	335.98
24.88	.007	323.00

SUBROUTINE RUNOFF STRUCTURE 6
(F) AREA= .13 INPUT RUNOFF CURVE= 74.0 TIME OF CONCENTRATION= .28
0 PEAK TIMES 12.01 PEAK DISCHARGES 187.641 PEAK ELEVATIONS (RUNOFF)

SUBROUTINE ADDHYD STRUCTURE 6
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7
0 PEAK TIMES 12.05 PEAK DISCHARGES 278.766 PEAK ELEVATIONS 337.58
0 HYDROGRAPH, TZERO= 0.00 DELTA T= .17 DRAINAGE AREA= .27

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.67	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.34	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.01	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	.02	.04	.07	.12
6.68	DISCHG	.21	.33	.46	.60	.76	.91	1.08	1.27	1.44	1.64
8.35	DISCHG	1.87	2.08	2.32	2.70	3.09	3.59	4.21	4.74	5.44	6.30
10.02	DISCHG	7.01	8.25	9.87	11.07	13.20	15.94	17.94	22.17	28.02	34.91
11.69	DISCHG	107.33	211.92	277.29	245.73	189.08	159.66	135.18	116.74	106.77	96.82
13.36	DISCHG	85.03	73.20	60.25	44.81	34.13	29.95	27.87	26.93	25.56	24.09
15.03	DISCHG	23.28	22.09	20.86	20.38	19.61	18.81	18.50	17.81	17.07	16.79
16.70	DISCHG	16.31	15.82	15.62	15.10	14.56	14.34	14.03	13.73	13.61	13.25
18.37	DISCHG	12.89	12.74	12.45	12.14	12.02	11.72	11.41	11.30	11.17	11.05
20.04	DISCHG	10.99	10.76	10.52	10.42	10.18	9.93	9.84	9.77	9.71	9.68
21.71	DISCHG	9.44	9.21	9.12	9.04	8.98	8.95	8.77	8.59	8.53	8.46
23.38	DISCHG	8.40	8.37	8.25	8.13	7.88	4.65	1.48	.33	.02	.01
25.05	DISCHG	0.00									

SUBROUTINE RESVOR STRUCTURE 6
SURFACE ELEVATION= 323.00
0 PEAK TIMES 13.20 PEAK DISCHARGES 97.047 PEAK ELEVATIONS 335.75
0 HYDROGRAPH, TZERO= 0.00 DELTA T= .17 DRAINAGE AREA= .27

TIME											
0.00	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.67	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.34	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.01	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	.01	.02	.04	.07
6.68	DISCHG	.13	.21	.32	.44	.58	.73	.89	1.05	1.23	1.41
8.35	DISCHG	1.61	1.82	2.04	2.32	2.65	3.01	3.15	3.35	3.62	3.96
10.02	DISCHG	4.37	4.87	5.51	6.05	6.21	6.44	6.73	7.09	7.58	8.11
11.69	DISCHG	8.89	10.24	11.11	11.78	12.38	34.79	66.26	85.86	94.62	97.04
13.36	DISCHG	94.98	89.61	81.88	71.96	62.37	53.90	46.91	41.46	37.21	33.75
15.03	DISCHG	30.94	28.71	27.09	25.65	24.38	23.23	22.21	21.30	20.44	19.65
16.70	DISCHG	18.96	18.31	17.73	17.20	16.67	16.18	15.73	15.32	14.95	14.61
18.37	DISCHG	14.27	13.94	13.64	13.34	13.06	12.79	12.60	12.59	12.59	12.59
20.04	DISCHG	12.58	12.58	12.57	12.56	12.56	12.55	12.54	12.53	12.52	12.51
21.71	DISCHG	12.50	12.49	12.48	12.47	12.46	12.45	12.44	12.43	12.41	12.40
23.38	DISCHG	12.39	12.38	12.36	12.35	12.34	12.32	12.29	12.25	12.21	12.17
25.05	DISCHG	12.14	12.10	12.06	12.02	11.98	11.95	11.92	11.89	11.86	11.83
26.72	DISCHG	11.80	11.76	11.73	11.70	11.67	11.64	11.61	11.58	11.55	11.52
28.39	DISCHG	11.49	11.46	11.43	11.40	11.36	11.33	11.30	11.27	11.24	11.22
30.06	DISCHG	11.19	11.16	11.13	11.10	11.07	11.04	11.01	10.97	10.93	10.88
31.73	DISCHG	10.84	10.80	10.76	10.71	10.67	10.63	10.59	10.55	10.50	10.46
33.40	DISCHG	10.42	10.38	10.34	10.30	10.26	10.22	10.18	10.14	10.10	10.06
35.07	DISCHG	10.02	9.93	9.81	9.69	9.57	9.45	9.33	9.21	9.10	8.98
36.74	DISCHG	8.87	8.76	8.65	8.54	8.44	8.33	8.23	8.13	8.03	7.84
38.41	DISCHG	7.62	7.42	7.21	7.02	6.83	6.64	6.46	6.28	6.11	5.70
40.08	DISCHG	4.83	4.09	3.46	2.75	1.14	.47	.20	.08	.03	.01
41.75	DISCHG	.01	0.00								

SUBROUTINE REACH CROSS SECTION 7
LENGTH= 500.00 INPUT COEFFICIENT= .5100 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 1.769 AVERAGE ROUTING COEFF= .5100 NUMBER OF ROUTINGS= .24
0 PEAK TIMES 13.27 PEAK DISCHARGES 96.358 PEAK ELEVATIONS (NULL)

SUBROUTINE SAVMOV CROSS SECTION 8
INPUT HYDROGRAPH= 2 OUTPUT HYDROGRAPH= 6

SUBROUTINE ADDHYD CROSS SECTION 9
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7
0 PEAK TIMES 13.61 PEAK DISCHARGES 218.596 PEAK ELEVATIONS (NULL)

SUBROUTINE REACH CROSS SECTION 10
LENGTH= 2200.00 INPUT COEFFICIENT= .5900 INPUT ROUTINGS= 0.00
0 AVERAGE WATER VELOCITY= 2.446 AVERAGE ROUTING COEFF= .5900 NUMBER OF ROUTINGS= .88
0 PEAK TIMES 13.88 PEAK DISCHARGES 214.055 PEAK ELEVATIONS (NULL)

SUBROUTINE RUNOFF CROSS SECTION 10
(G) AREA= .18 INPUT RUNOFF CURVE= 73.0 TIME OF CONCENTRATION= .57
0 PEAK TIMES 12.20 PEAK DISCHARGES 187.913 PEAK ELEVATIONS (RUNOFF)

SUBROUTINE ADDHYD CROSS SECTION 10
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.22	216.498	(NULL)
13.83	236.308	(NULL)

PEAK 10 YR. Q

ENDCMP

ENDJOB CARD ENCOUNTERED. END OF JOB.

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

SHEET 12F OF 21
PREL-2166

THIS SHEET REFERENCED FROM
FAIRFAX COUNTY PLAN #5734-PI-01-01
PROJECT COMPLETED 11/17/1987
FOR INFORMATION PURPOSES ONLY.

NO.	DATE	DESCRIPTION	REVIEWED BY	APPROVED	DATE

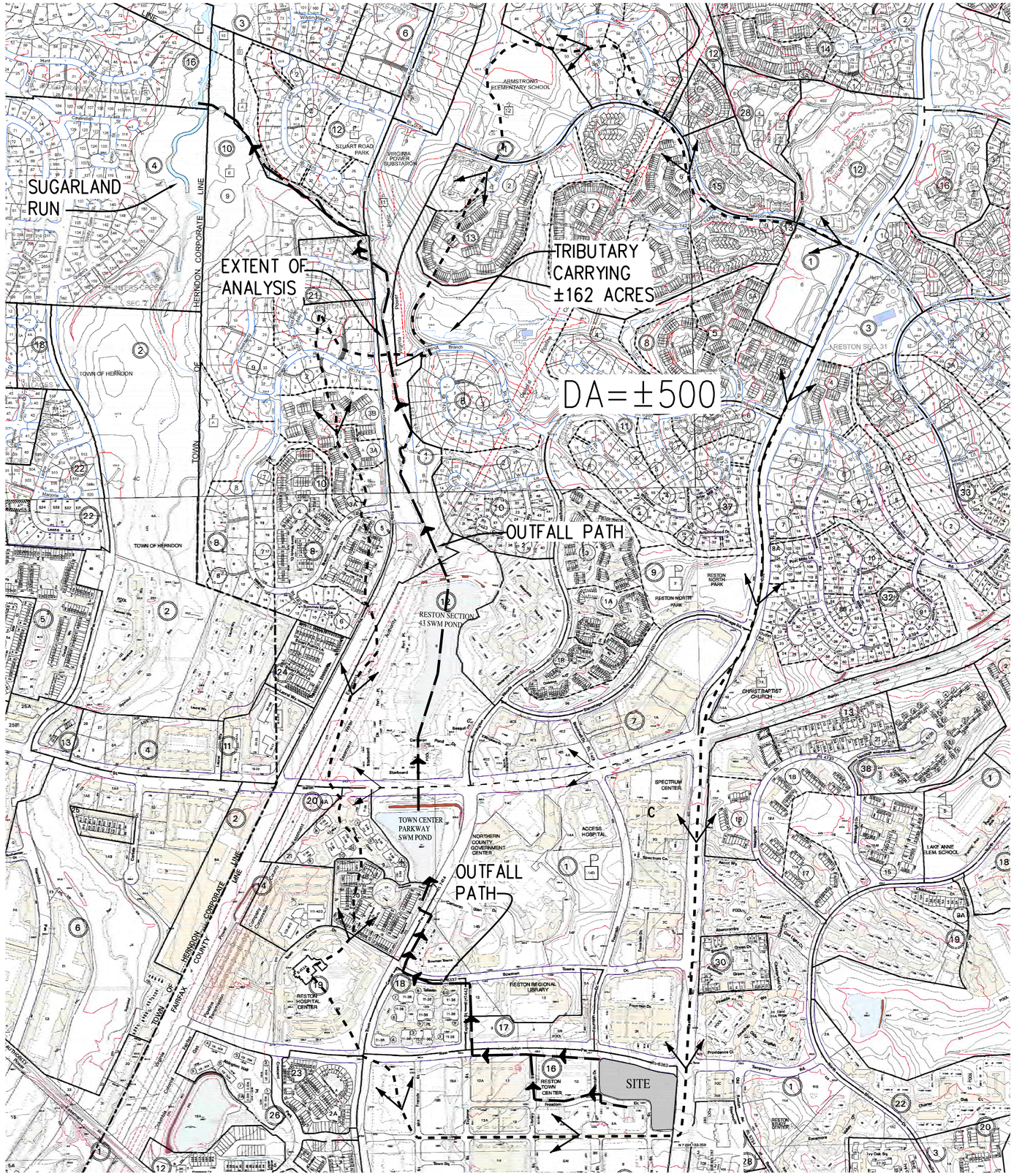
REVISION APPROVED BY DIVISION OF DESIGN REVIEW

URBAN ENGINEERING & ASSOC., INC.
CIVIL ENGINEERS · LANDSCAPE ARCHITECTS · LAND SURVEYORS
8001 FORBES PLACE SPRINGFIELD, VIRGINIA 22151 Ph. 321-9684

ZONE:
SETBACKS:
FRONT:
SIDES:
REAR:

TR-20 OUTPUT
RESTON - SUGARLAND RUN REGIONAL STORMWATER MANAGEMENT SYSTEM
CENTREVILLE DISTRICT FAIRFAX COUNTY, VIRGINIA
SCALE: N/A C.I. N/A DATE: MAY, 1984

SHEET ~~12~~ OF ~~12~~
FILE N°. ~~MISC-516-1~~



OUTFALL NARRATIVE

THE BLOCK 4 SITE IS CURRENTLY DEVELOPED AS AN EXISTING PARKING LOT. THE CONTRIBUTING SITE AREA TO THE RECEIVING OUTFALL IS 4.52 ACRES (BLOCK 4).

ON-SITE STORMWATER RUNOFF IS COLLECTED BY CATCHBASINS AND CONVEYED INTO AN EXISTING CLOSED CONDUIT SYSTEM THAT HAS BEEN ADEQUATELY DESIGNED TO ROUTE THE RUNOFF DOWNSTREAM. THIS SYSTEM RUNS WEST TO THE EXISTING OFF-SITE "TOWN CENTER PARKWAY POND". THE TOWNCENTER PARKWAY POND, SHOWN ON THE MAP ON THIS SHEET, DISCHARGES TO THE NORTH, UNDER BARON CAMERON AVE. THE RUNOFF IS THEN DISCHARGED INTO THE SECTION 43 SWM POND. THE SECTION 43 SWM POND DISCHARGES INTO AN OPEN CHANNEL THAT FLOWS NORTH ALONG THE EAST SIDE OF FAIRFAX COUNTY PARKWAY. THIS OPEN CHANNEL HAS RIP RAP INSTALLED ON EACH SIDE OF THE CHANNEL AND IS IS GOOD CONDITION. THE FLOW THEN CROSSES UNDER WALNUT BRANCH DRIVE VIA A TRIPLE BOX CULVERT, AND THEN RETURNS TO OPEN CHANNEL. THIS OPEN CHANNEL TO THE NORTH OF WALNUT BRANCH DRIVE IS ALSO IN GOOD CONDITION, WITH RIP-RAP INSTALLED ON EITHER SIDE. JUST TO THE NORTH OF WALNUT BRANCH DRIVE, A LARGE CULVERT CARRYING RUNOFF FROM A DRAINAGE AREA OF APPROXIMATELY 162 ACRES DISCHARGES INTO THE OPEN CHANNEL FROM THE EAST. AT THIS POINT, THE DRAINAGE AREA TO THE EXISTING CHANNEL IS ±500 ACRES, WHICH IS MORE THAN 100 TIMES THE CONTRIBUTING SITE AREA. THE PATH FROM THE SITE DOWN TO THE EXTENT OF REVIEW IS DRAWN ON THE MAP ON THIS SHEET.

IT IS THE OPINION OF URBAN ENGINEERING THAT UPON PRELIMINARY EVALUATION, THERE IS AN ADEQUATE OUTFALL PROVIDED AND THE STABILITY OF THE SITE OUTFALL IS IN ADEQUATE CONDITION. AS PART OF THE FINAL SITE PLAN, THE OUTFALL REQUIREMENTS OF THE PFM WILL BE MET BY ANALYZING THE OUTFALL TO THE EXTENT OF REVIEW AS DEFINED IN THE PFM AND PERFORMING THE REQUIRED COMPUTATIONS FOR THE CLOSED CONDUIT AND OPEN CHANNEL SECTIONS ALONG THE OUTFALL PATH.

NOTE: BLOCK 5 DATA IS SHOWN FOR REFERENCE PURPOSES ONLY

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE

REVISION APPROVED BY DIVISION OF DESIGN REVIEW

PLAN DATE
06-29-15
07-15-15
08-07-15

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7712 Little River Turnpike
Annandale, Virginia 22003
703.642.8080
Fax. 703.642.8251
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PETER F. CRAMFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

OUTFALL ANALYSIS

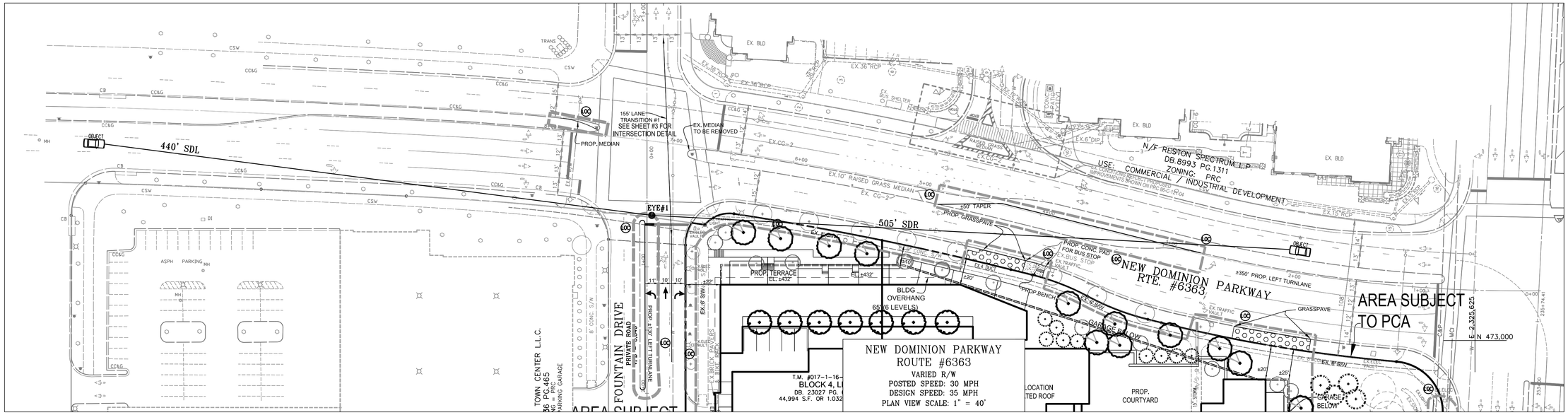
RESTON TOWN CENTER URBAN CORE SECTION 91A, BLOCK 4

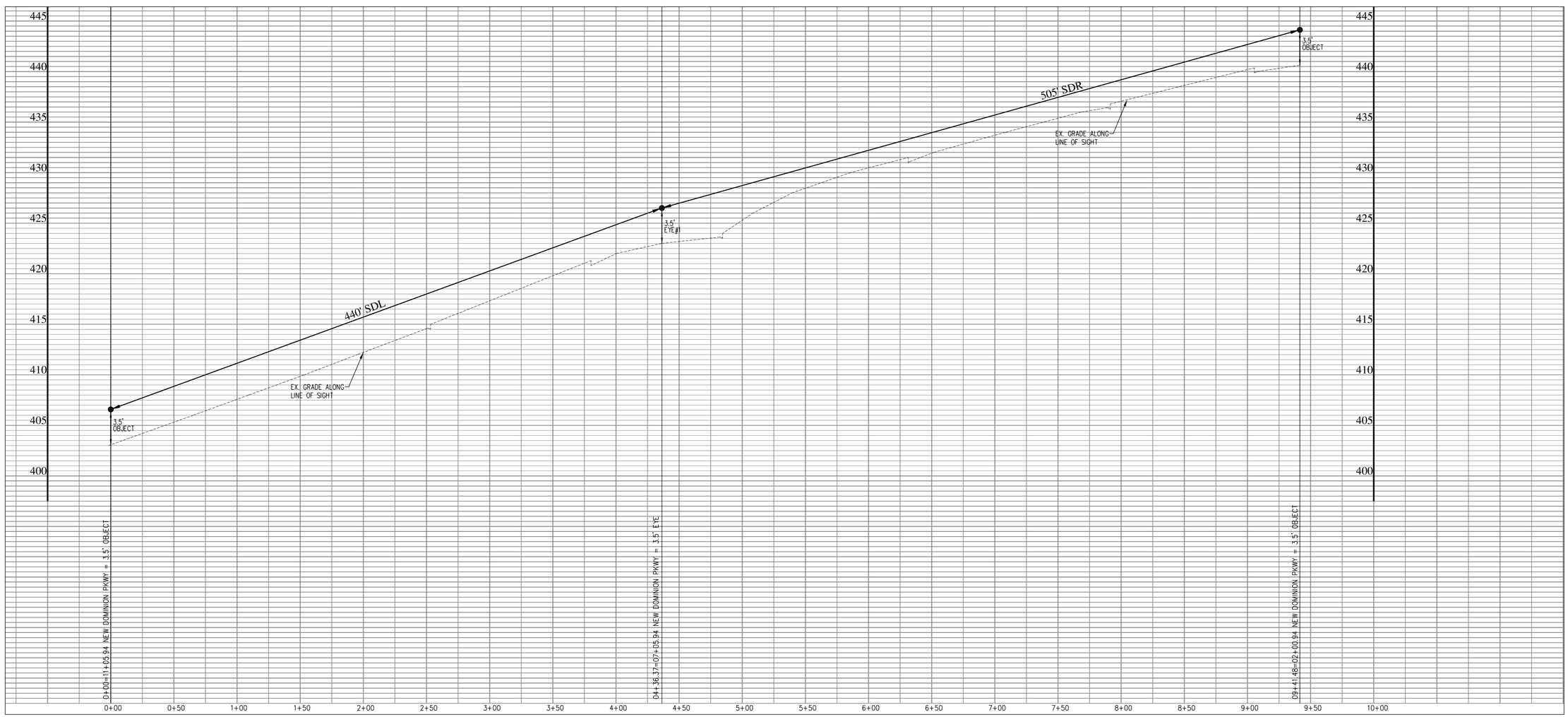
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=400' | C.I. N/A | DATE: MAY 2015

SHEET 13 OF 21

FILE No. PREL-2166-2





THIS SHEET IS FOR SIGHT DISTANCE PURPOSES ONLY

No.	DATE	DESCRIPTION	REV.BY	APPROVED	DATE

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7712 Little River Turnpike
Annandale, Virginia 22003
Phone 703.642.8200
Fax. 703.642.8251
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COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER
PETER F. CRAWFORD
Lic. No. 045681
08/07/15

SIGHT DISTANCE PROFILE

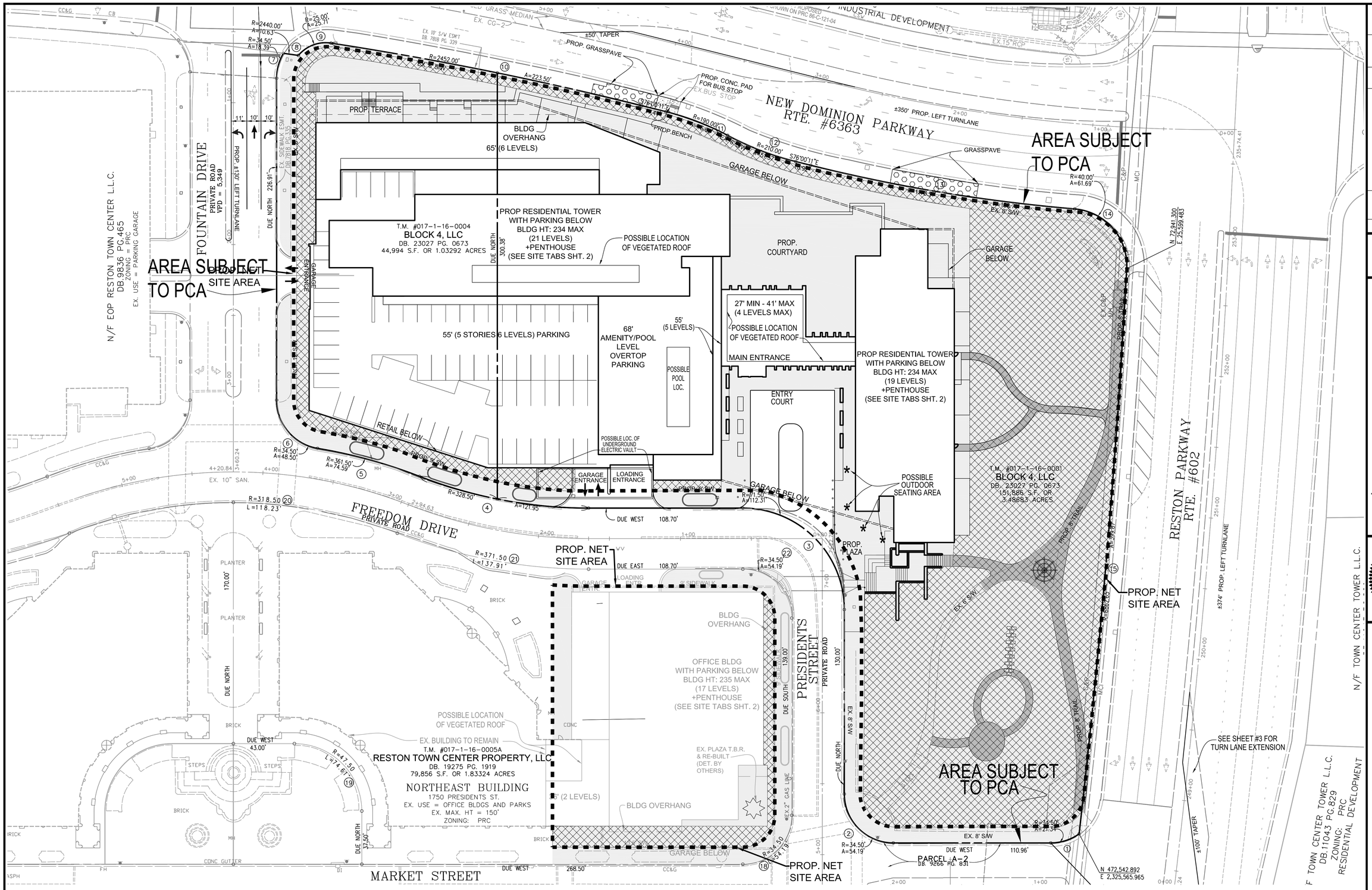
RESTON TOWN CENTER URBAN CORE SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: H:1"=5'; V: 1"=40'
C.I. N/A
DATE: MAY, 2015

SHEET 14 OF 21

FILE No. PREL-2166-2



NET OPEN SPACE TABULATION

NET SITE AREA	=	211,611 SF (4.85 AC)
REQUIRED NET OPEN SPACE (20%)	=	(.20)*(211,611) = 42,322 SF
PROVIDED NET OPEN SPACE	=	±20% (1 AC)

NOTE: NET OPEN SPACE MAY BE REDUCED WITH FINAL DESIGN AS LONG AS 20% MIN IS PROVIDED LOCATION OF OPEN SPACE MAY VARY WITH FINAL DESIGN.

NOTE: NET OPEN SPACE IS BASED ON THE BLOCK 4 AND 5 SITES TO BE CONSISTENT WITH THE PREVIOUSLY APPROVED DPA 85-C-088-07, PCA 85-C-088-09, AND PRC 85-C-088-03.

LEGEND

- OPEN SPACE
- OPEN SPACE / NET OPEN SPACE
- NET SITE AREA

NOTE: BLOCK 5 DATA IS SHOWN FOR REFERENCE PURPOSES ONLY

NOTE: THIS PLAN REFLECTS THE GENERAL CHARACTER AND INTENT OF THE PROPOSED DEVELOPMENT BASED ON PRELIMINARY ENGINEERING, ARCHITECTURAL AND LANDSCAPE ARCHITECTURE DESIGN. MINOR VARIATIONS MAY OCCUR WITH FINAL BUILDING DESIGN AND SITE PLAN.

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE
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Annandale, Virginia 22003
Tel. 703.642.8080
Fax. 703.642.9251
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PETER F. CUMPSTON
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

OPENSPACE EXHIBIT

RESTON TOWN CENTER URBAN CORE SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED | C.I. N/A | DATE: MAY, 2015

SHEET 15 OF 21

FILE No. PREL-2166-2

LANDSCAPING & PROGRAMMING SHOWN ARE CONCEPTUAL AND PRESENTED TO ILLUSTRATE THE CHARACTER AND QUALITY OF DESIGN. LOCATIONS, SPECIES, AND QUANTITIES MAY BE ADJUSTED WITH FINAL DESIGN AND ENGINEERING.

0 15 30 60 90

NOTE: BLOCK 5 DATA IS SHOWN FOR REFERENCE PURPOSES ONLY

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Tel. 703.642.0700
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Lic. No. 045608
08/07/15
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ILLUSTRATIVE SITE PLAN

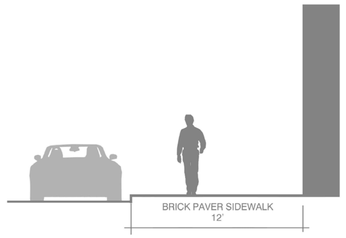
RESTON TOWN CENTER URBAN CORE
SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

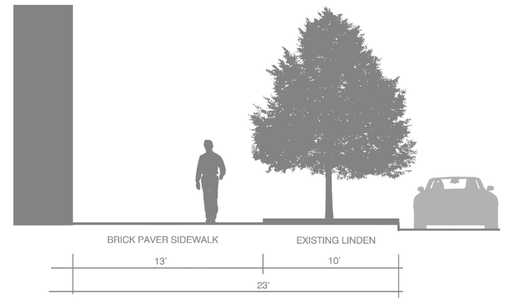
SCALE: AS SHOWN
C.L.
DATE: MAY, 2015

SHEET 16 OF 21

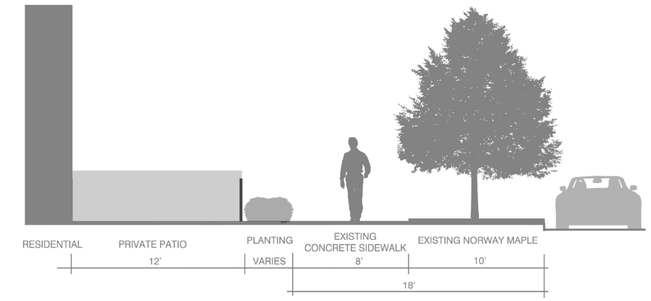
FILE No.
PREL-2166-2



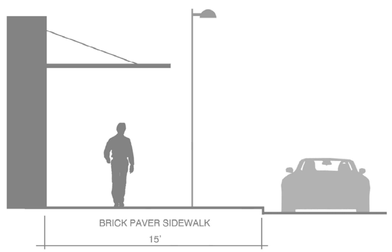
7 SECTION 7
1"=5'-0"



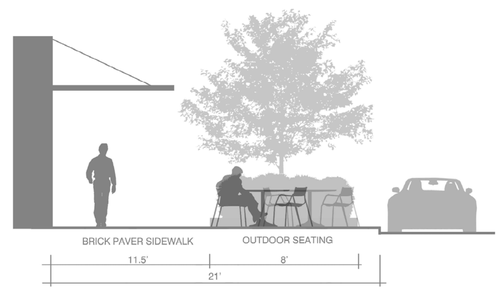
4 SECTION 4
1"=5'-0"



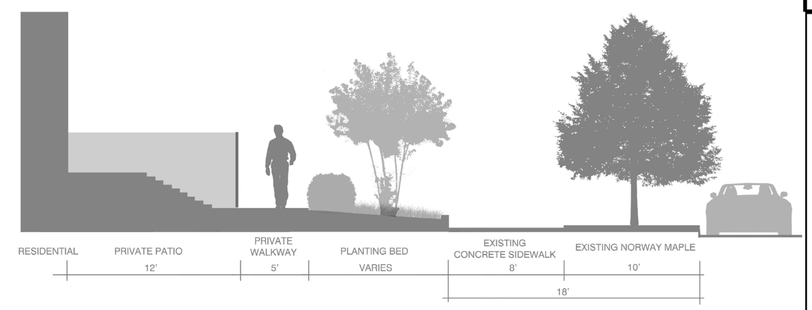
1 SECTION 1
1"=5'-0"



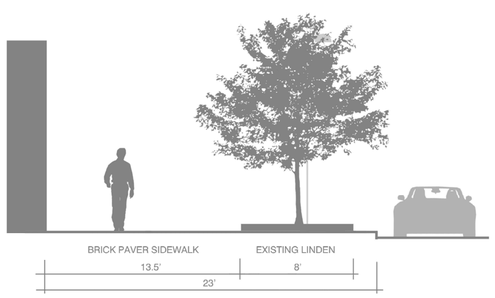
8 SECTION 8
1"=5'-0"



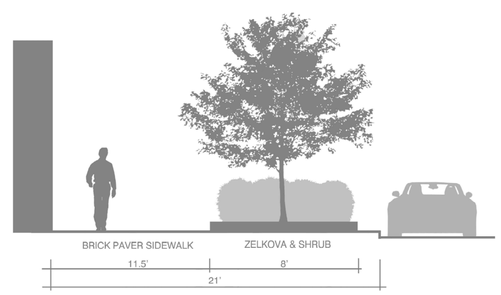
5 SECTION 5
1"=5'-0"



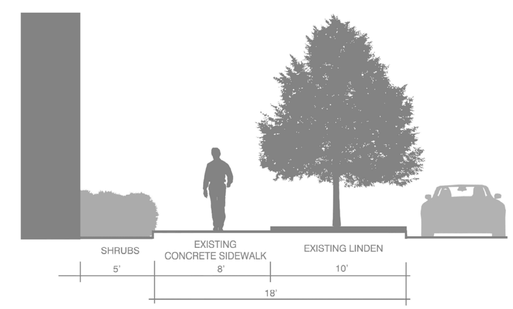
2 SECTION 2
1"=5'-0"



9 SECTION 9
1"=5'-0"



6 SECTION 6
1"=5'-0"



3 SECTION 3
1"=5'-0"

NOTE: BLOCK 5 DATA IS SHOWN FOR REFERENCE PURPOSES ONLY

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08-07-15

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7712 Little River Turnpike
Annandale, Virginia 22003
tel. 703-642-8080
Fax 703-642-8331
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SITE SECTIONS

RESTON TOWN CENTER URBAN CORE
SECTION 91A, BLOCK 4

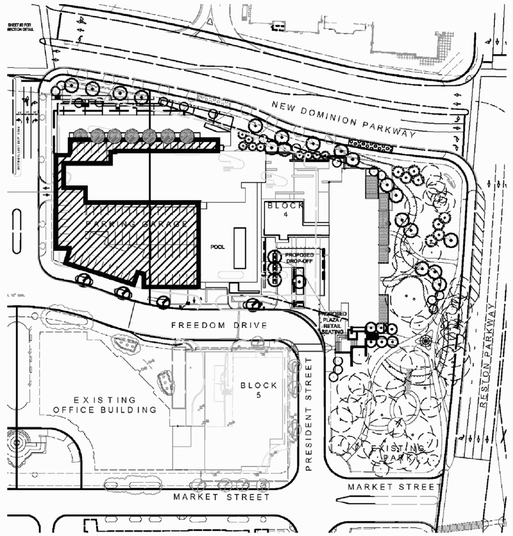
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS SHOWN
C.I.
DATE: MAY, 2015

SHEET 17 OF 21

FILE No.
PREL-2166-2

INTERIOR PARKING LOT DIAGRAM



LEGEND

HATCHED AREA INDICATES AREAS TO BE COUNTED FOR INTERIOR PARKING LOT LANDSCAPING REQUIREMENT (SEE 4 ON SHEET 17 FOR CALCULATIONS)

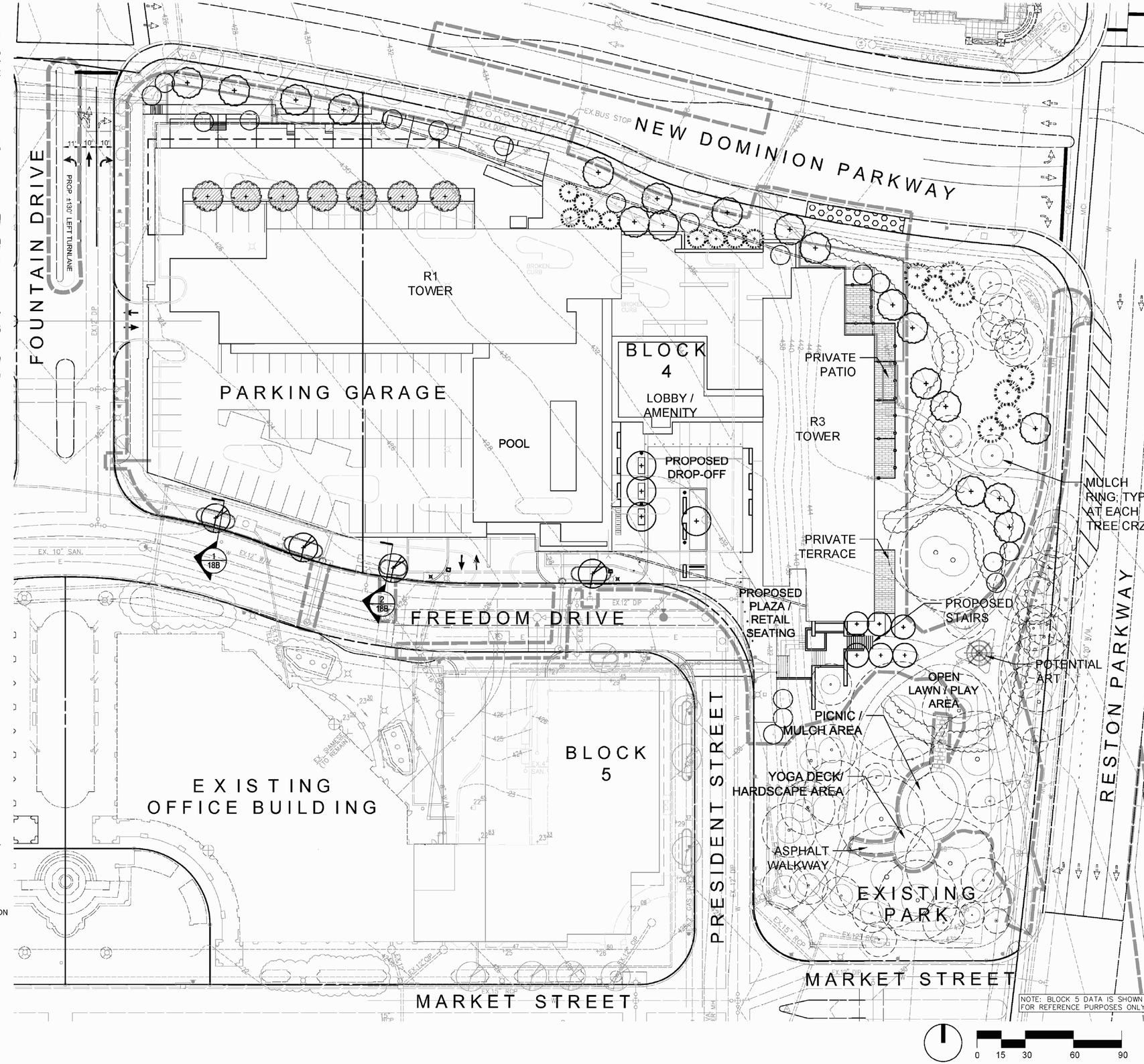
LEGEND

- STREET TREES PER URBAN DESIGN GUIDELINES
- CATEGORY IV DECIDUOUS CANOPY TREE
- CATEGORY III DECIDUOUS SMALL CANOPY TREE
- CATEGORY II DECIDUOUS ORNAMENTAL TREE
- CATEGORY II EVERGREEN TREE
- TREES TO BE COUNTED FOR INTERIOR PARKING LOT CALCULATION
- PROPOSED SHRUBS
- EXISTING TREE TO REMAIN

NOTES:

1. EXISTING TREES ALONG NEW DOMINION PARKWAY WITHIN SITE DISTANCE EASEMENT MAY BE IMPACTED / REMOVED WITH FINAL DESIGN PER VDOT REQUIREMENTS.
2. REFER TO PAGE 18A FOR PLANTING SCHEDULE
3. REFER TO PAGE 18A FOR INTERIOR PARKING LOT LANDSCAPING CALCULATIONS AND 10 YR. TREE CANOPY COVER CALCULATIONS.
4. TREES OUTSIDE OF PROPERTY NOT COUNTED TOWARDS 10 YEAR TREE COVER CREDIT.
5. THE APPLICANT MAY REMOVE EXISTING TREES AND VEGETATION AS NECESSARY IN ORDER TO COMPLY WITH ADA STANDARDS AND REQUIREMENTS.

LANDSCAPING & PROGRAMMING SHOWN ARE CONCEPTUAL AND PRESENTED TO ILLUSTRATE THE CHARACTER AND QUALITY OF DESIGN. LOCATIONS, SPECIES, AND QUANTITIES MAY BE ADJUSTED WITH FINAL DESIGN AND ENGINEERING.



No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE

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PLAN DATE
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Annandale, Virginia 22003
tel. 703.642.8080
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COMMONWEALTH OF VIRGINIA
PETER F. CLAUSSEN
Lic. No. 040201
PROFESSIONAL ENGINEER
08/07/15

LANDSCAPE PLAN

RESTON TOWN CENTER URBAN CORE SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS SHOWN C.L. DATE: MAY, 2015

SHEET 18 OF 21

FILE No. PREL-2166-2

URBAN FOREST MANAGEMENT
POLICY ON LANDSCAPE IMPLEMENTATION
November 17, 2010

This compilation of selected portions of the Public Facilities Manual is intended to summarize and clarify regulations pertaining to the implementation of landscape plans on development sites subject to review and inspection by the County. Included are regulations governing the most common areas of noncompliance experienced by staff in the course of conducting landscape inspections, and a brief summary of the policy regarding seasonal landscape deferrals.

Tree Species and Size

1. Trees and shrubs that are planted shall be of the species and size specified on the approved plans. There shall be no deviations from the approved sizes specified except as approved by Fairfax County Urban Forest Management (UFMD). (PFM 12-0705.1A)

2. All trees and shrubs shall meet the standards for sizes and quality specified in the American Association of Nurserymen's American Standard for Nursery Stock, (ANSI Z60.1-1996). See attachment #1. (PFM 12-0705.1B)

Species Substitutions

3. Species substitutions within the tree categories listed in Table 12.17 are generally accepted unless otherwise specified by proffered conditions, development conditions, special exceptions, or special permits. Any tree substitution shall also be in conformance with the following. (PFM 12-0705.1C)
   a. ***Plant Diversity*** - The use of substitutions shall not result in any species making up more than 10 percent, and shall not result in any one genus making up more than 33 percent, of the total number of trees required to be planted on the site. (PFM 12-0515.1L)
   b. ***Authorization*** - A letter signed by the permittee shall be provided to UFMD acknowledging any proposed substitutions to trees and shrubs shown on the approved plans. (PFM 12-0705.1C(2))
   c. ***Substitutions Outside of Tree Category*** - Substitution of a tree shown on the approved plan from one tree category, as listed in PFM Table 12.17, with a tree from a different category shall require a revision to the approved plan. (PFM 12-0705.1C(3))
   d. ***Species Suitability*** - Substituted species must be suited to the post-development conditions of the planting location for which it is intended. (PFM 12-0601.1E)
   e. ***Additional Tree Cover Credit*** - In cases where additional tree cover credit has been given, no tree substitutions shall be made except as approved by the Urban Forest Management. Examples of additional credit include the following: Air Quality, PFM 12-0510.4B(1)
   Energy Conservation, PFM 12-0510.4B(2) Water Quality, PFM 12-0510.4B(3)
   Wildlife Benefits, PFM 12-0510.4B(4) Native Trees, PFM 12-0510.4B(5)

Planting Locations

4. Planting locations of all trees on the site shall be in substantial conformance with the approved plan. UFMD acknowledges that not all trees may be optimally located, as shown on the plan, and encourage input from Permittees and their landscape professionals regarding proposed improvements that might be implemented. Any substantive deviations from the approved plan that are made in the field must be approved by UFMD and shall be in conformance with the following:
   a. ***Planting Area*** - At least the minimum size planting area shall be provided for each tree according to its projected 10-year tree cover area as found in Table 12.7. (PFM 12-0601.1B)
   b. ***Environmental Conditions*** - Light, moisture, and other conditions affecting the health and viability of the tree at the field location shall be suitable for the species. (PFM 12-0601.1E)
   c. ***Compacted Soil*** – If planting in areas that have been previously compacted, the soil shall be properly prepared (tilled and amended as needed based on soil samples) to a depth of 12 inches, prior to installation of landscape material. Soil within individual planting holes shall not be amended. (PFM 12-0705.3B)
   d. ***Restrictive Barriers*** - Trees shall be planted no closer than four feet from any restrictive barrier. (PFM 12-0510.4E(5)
   d. ***Spacing*** - Trees shall be spaced so that the outer limit of their projected 10-year tree cover area, as indicated in Table 12.19, does not significantly overlap; or as determined appropriate by UFMD for site conditions and to promote long-term survival. (PFM 12-0510.4E(6))
   e. ***Easements*** - Trees for tree cover credit shall not be planted within any existing or proposed public utility easement or within five feet of storm drainage easements that contain pipes. In addition, trees shall not be planted in an area that will interfere with existing or proposed utilities or with maintenance of the utility, as determined by the Director of DPWES. (PFM 12-0515.6B)

Staking and Guying

5. Staking and guying should only be implemented where site conditions warrant their use. Planted trees should be assessed individually and staking and guying installed only as required. Conditions where staking and guying may be necessary to ensure stability include: windy locations, steep slopes, or where vandalism may be a concern. All staking and guying material must be removed within one year of plant installation (PFM 12-0705.3C)

Seasonal Landscape Deferrals

6. A Seasonal Landscape Deferral may be granted when seasonal or weather-related conditions, such as excessively wet soil, extended periods of drought, or frozen ground, substantially reduce the survivability of the plant material, as determined by the Urban Forest Management. A request for a landscape deferral will not be granted for landscaping required prior to the issuance of a RUP or Non-RUP when seasonal or weather-related conditions on the site plan do not preclude planting. Lack of species availability may justify the approval of a Seasonal Landscape Deferral when specific plant species are required by proffers or conditions.

7. The party responsible for the placement of the performance bond and conservation deposit for the project shall act as the Applicant for this seasonal deferral. Seasonal Landscape Deferral request forms can be obtained from the Environmental and Facilities Inspections Division or the Urban Forest Management.

8. At the time of final inspection for release of performance bond and conservation deposit, all of the plant material is inspected. Plant material previously inspected, as part of the process to release any deferral deposit that may have existed, is not exempt from this final inspection. All plant material must be healthy and in good condition.

Requirements Prior to Approval of RUP/Non-RUP

9. The landscaping and screening requirements of Article 13 or of any approved proffered condition, special permit, special exception or variance must be completed prior to approval of any Residential or Non-Residential Use Permit; provided, however, that completion of the requirements may be delayed when justification satisfactory to the Director is provided; such justification shall include an agreement and bond with surety satisfactory to the Director for completion in accordance with a firm schedule for timely completion. (ZO 18-704.3) See Seasonal Landscape Deferrals above.

5 COUNTY PLANTING NOTES
NTS

Key		Botanical Name	Common Name	Size	Spacing	Type	10 Year Canopy SF	Total SF
	48	***CATEGORY IV DECIDUOUS TREES***					250	12000
PA		Platanus acerifolia 'Blood Good'	Blood Good London Plane Tree	3" cal.	As Shown	B & B	250	
QB		Quercus bicolor	Swamp White Oak	3" cal.	As Shown	B & B	250	
QP		Quercus phellos 'High Tower'	High Tower Willow Oak	3" cal.	As Shown	B & B	250	
TA		Tilia americana	American Linden	3" cal.	As Shown	B & B	250	
UP		Ulmus parvifolia 'Bosque TM'	Bosque Elm	3" cal.	As Shown	B & B	250	
ZS		Zelkova serrata	Zelkova	3" cal.	As Shown	B & B	250	
	18	***CATEGORY II ORNAMENTAL TREES***					125	2250
CK		Cornus kousa	Kousa Dogwood	3" cal.	As Shown	B & B	125	
LI		Lagerstroemia indica 'Natchez'	Crape Mrytle	3" cal.	As Shown	B & B	125	
MS		Magnolia x soulangiana	Saucer Magnolia	3" cal.	As Shown	B & B	125	
MT		Magnolia stellata	Star Magnolia	3" cal.	As Shown	B & B	125	
	17	***CATEGORY II EVERGREEN TREES***					125	2125
IO		Ilex opaca	American Holly	12' ht.	As Shown	B & B	125	
PI*		Picea abies	Norway Spruce	12' ht.	As Shown	B & B	125	
PO		Picea orientalis	Oriental Spruce	12' ht.	As Shown	B & B	125	
TN		Tsuga canadensis	Canadian Hemlock	12' ht.	As Shown	B & B	125	
PM		Pseudotsuga menziessii	Douglass Fir	12' ht.	As Shown	B & B	125	
							TOTAL	**16,375**

4 PROPOSED PLANT SCHEDULE
NTS

NOTE:
FINAL TREE PLANTINGS NOT TO BE LIMITED TO THE ABOVE SCHEDULE, BUT SELECTED FROM ALL ALLOWABLE PLANT MATERIAL LISTED ON COUNTY PFM.

INTERIOR PARKING LOT LANDSCAPING

TOTAL PARKING AREA TO BE COUNTED: 24,957 SF
BUILDING GARAGE FOOT PRINT AREA: 107,007 SF
INTERIOR LANDSCAPING REQUIRED (5%): 1,248 SF
TOTAL SHADE TREE COVER PROVIDED: 1,500 SF (6.0%)

7 TREES AT 250 SQ. FT. EACH

TOTAL AREA OF COVERAGE REQUIRED: 1,248 SF
TOTAL AREA OF COVERAGE PROVIDED: 1,750 SF

3 INTERIOR PARKING CALCULATION
NTS

Table 12.3 Tree Preservation Target Calculations and Statement

A	Pre-development area of existing tree canopy (from Existing Vegetation Map) =	36,918 sf
B	Percentage of gross site area covered by existing tree canopy =	13.3%
C	Percentage of 10-year tree canopy required for site (see Table 12.4) =	10%
D	Percentage of the 10-year tree canopy requirement that should be met through tree preservation =	13.3%
E	Proposed percentage of canopy requirement that will be met through tree preservation =	55.6%
F	Has the Tree Preservation Target minimum been met?	Provide Yes or No YES
G	If No for line F, then a request to deviate from the Tree Preservation Target shall be provided on the plan that states one or more of the justifications listed in § 12-0507.3 along with a narrative that provides a site-specific explanation of why the Tree Preservation Target cannot be met. Provide sheet number where deviation request is located.	
H	If step G requires a narrative, it shall be prepared in accordance with § 12-0507.4	
I	Place this information prior to the 10-year Tree Canopy Calculations as per instructions in Table 12.12.	

1 TREE PRESERVATION TARGET
NTS

Table 12.12 10-year Tree Canopy Calculation Worksheet

Step		Totals	Reference
A. Tree Preservation Target and Statement			
A 1	Place the Tree Preservation Target calculations and statement here preceding the 10-year tree canopy calculations	SEE ABOVE	see § 12-0507.2 for list of required elements and worksheet
B. Tree Canopy Requirement		BLOCK 4: 196,880 SF BLOCK 5: 79,856 SF	
B1	Identify gross site area =	276,736 SF	§ 12-0510.1A
B2	Subtract area dedicated to parks, road frontage, and		§ 12-0510.1B
B3	Subtract area of exemptions =	None	§ 12-0510.1C(1) through § 12-0510.1C(6)
B4	Adjusted gross site area (B1 – B2) =		
B5	Identify site's zoning and/or use		
B6	Percentage of 10-year tree canopy required =	10%	§ 12-509.1 and Table 12.4
B7	Area of 10-year tree canopy required (B4 x B5) =	27,674 SF	
B8	Modification of 10-year Tree Canopy Requirements requested?	No	Yes or No
B9	If B8 is yes, then list plan sheet where modification request is located		Sheet number
C. Tree Preservation			
C1	Tree Preservation Target Area =	3,681 SF	
C2	Total canopy area meeting standards of § 12-0200 =	12,326 SF	
C3	C2 x 1.25 =	15,408 SF	§ 12-0509.3B
C4	Total canopy area provided by unique or valuable forest or woodland communities =		
C5	C4 x 1.5 =	0 sf	§ 12-0509.3B(1)
C6	Total of canopy area provided by "Heritage," "Memorial," "Specimen," or "Street" trees =		
C7	C6 x 1.5 to 3.0 =	0 sf	§ 12-0509.3B(2)
C8	Canopy area of trees within Resource Protection Areas and 100-year floodplains =		
C9	C8 x 1.0 =	0 sf	§ 12-0509.3C(1)
C10	Total of C3, C5, C7 and C9 =	15,408 SF	If area of C10 is less than B7 remainder of requirement must be met through tree planting - go to D
D. Tree Planting			
D1	Area of canopy to be met through tree planting (B7-C10) =	16,375 SF	
D2	Area of canopy Planted for air quality benefits =	None	
D3	x 1.5 =		§ 12-0509.4B(1)
D4	Area of canopy planted for energy conservation =	None	
D5	x 1.5 =		§ 12-0509.4B(2)
D6	Area of canopy planted for water quality benefits =	None	
D7	x 1.25 =		§ 12-0509.4B(3
D8	Area of canopy planted for wildlife benefits =	None	
D9	x 1.5 =		§ 12-0509.4B(4)
D10	Area of canopy provide by native trees =	None	
D11	x 1.5 =		§ 12-0509.4B(5)
D12	Area of canopy provided by improved cultivars and varieties =	None	
D13	X1.25		§ 12-0509.4B(6)
D14	Area of canopy provided through tree seedlings =	None	§ 12-0509.4D(1)
	x1.0		
D15	Area of canopy provided through native shrubs or woody seed mix =	None	§ 12-0509.4D(1)(a)
	x1.0		§ 12-0509.4D(1)(a)
D16	Percentage of D14 represented by D15=	None	Must not exceed 33% of D14
D17	Total of canopy area provided through tree planting =	None	
D18	Is an offsite planting relief requested?	No	Yes or No
D19	Tree Bank or Tree Fund?		§ 12-0511
D20	Canopy area requested to be provided through offsite banking or tree fund	None	
D21	Amount to be deposited into the Tree Preservation and Planting Fund	None	
E. Total of 10-year Tree Canopy Provided			
E1	Total of canopy area provided through tree preservation (C10) =	16,375 SF	
E2	Total of canopy area provided through tree planting (D17) =	15,875 SF	
E3	Total of canopy area provided through offsite mechanism (D19) =	0 sf	
E4	Total of 10-year Tree Canopy Provided =	32,250 SF	Total of E1 through E3. Area should meet or exceed area in B6

2 10- YR CANOPY CALCULATION
NTS

NOTE: BLOCK 5 DATA IS SHOWN FOR REFERENCE PURPOSES ONLY

No.	DATE	DESCRIPTION	REV BY	APPROVED	DATE
		REVISION APPROVED BY DIVISION OF DESIGN REVIEW			

PLAN DATE
05-29-15
06-15-15
08-07-15

Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8080
Fax. 703.642.9253
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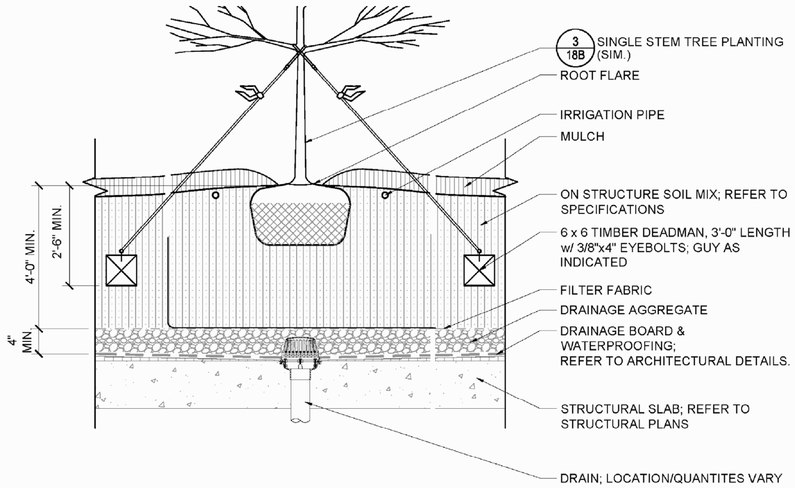
COMMONWEALTH OF VIRGINIA
Peter F. Crawford
PETER F. CRAWFORD
Lic. No. 045681
08/07/15
PROFESSIONAL ENGINEER

LANDSCAPE COMPUTATIONS & PLANTING NOTES
RESTON TOWN CENTER URBAN CORE
SECTION 91A, BLOCK 4
HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: AS SHOWN C.I. DATE: MAY, 2015

SHEET
18A
OF
21

FILE No.
PREL-2166-2



2 TREE PLANTING ON STRUCTURE

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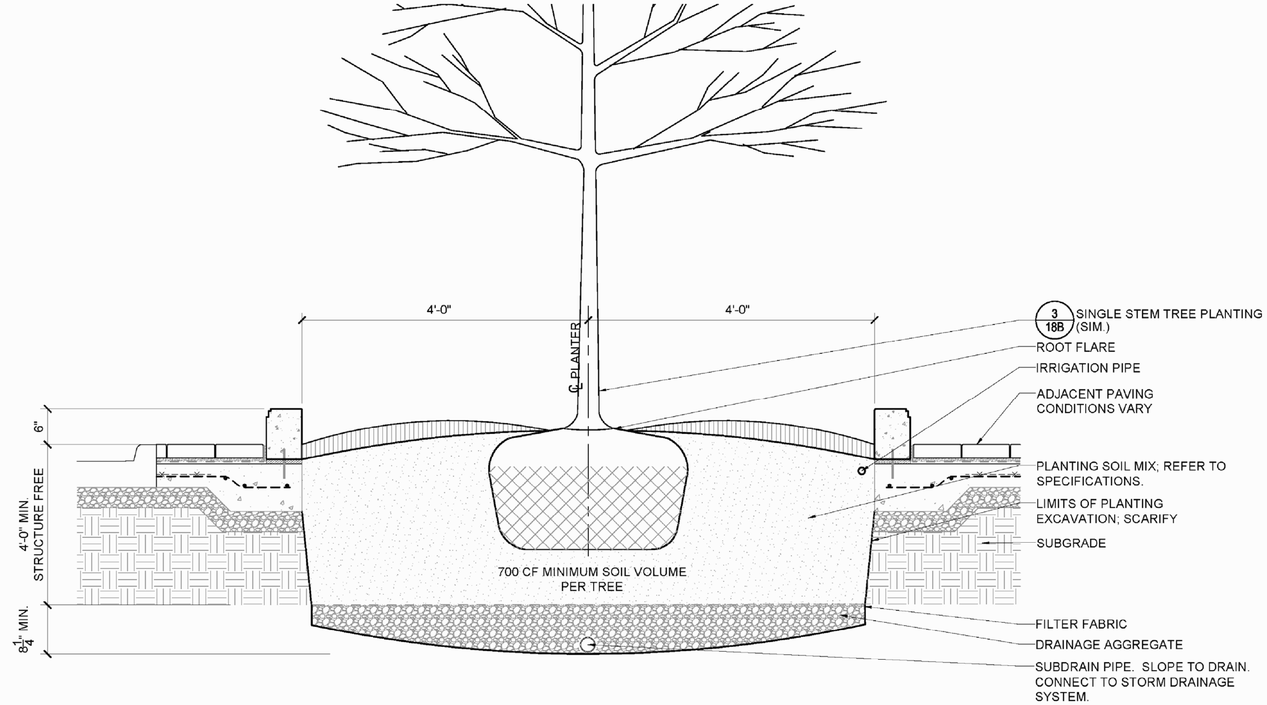

1 TYPICAL TREE PIT

1'=1'-0"

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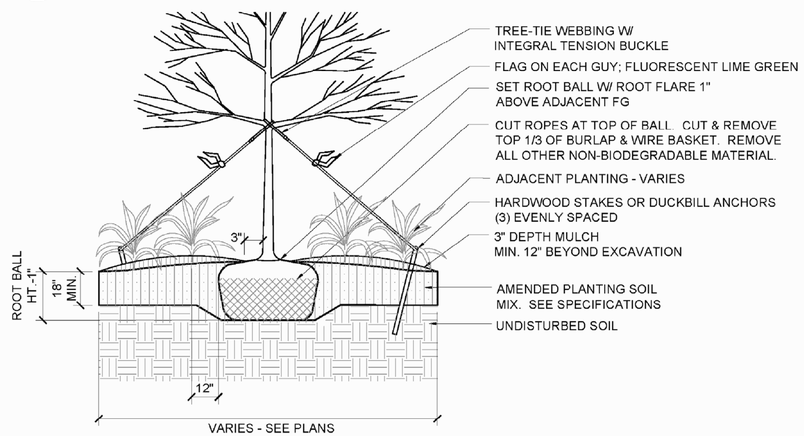
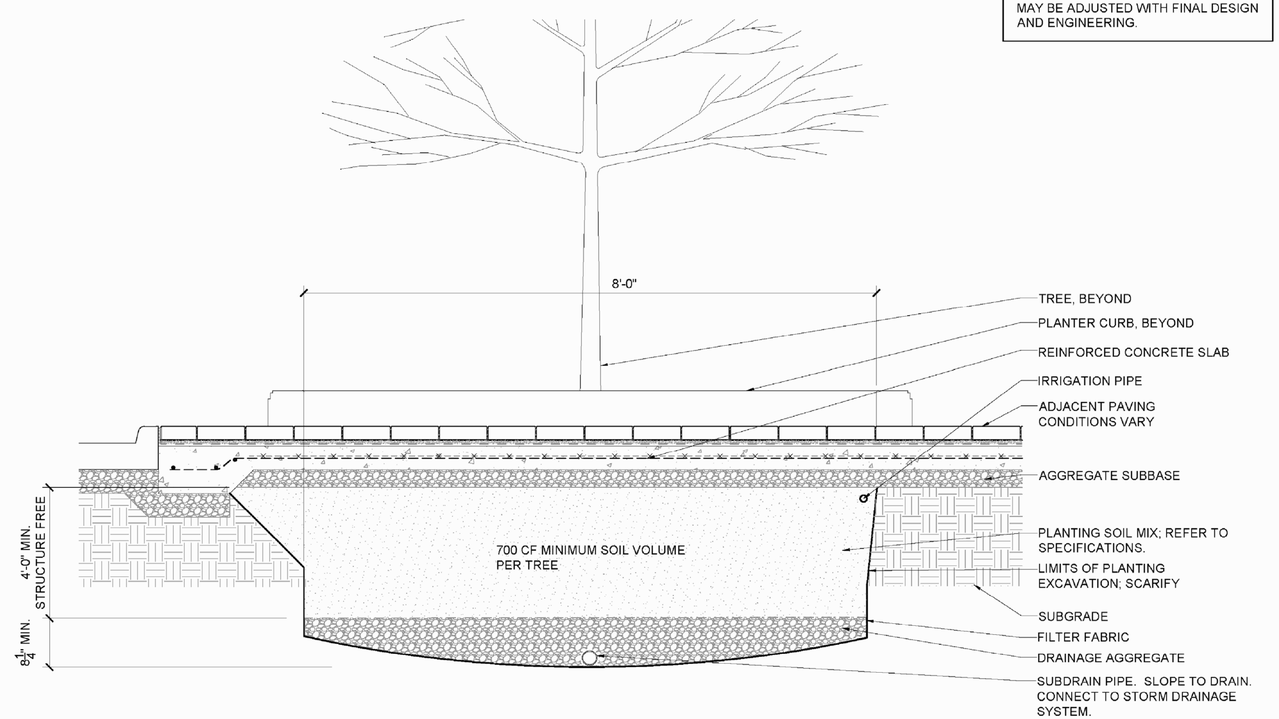


3 SINGLE-STEM TREE PLANTING

1"=1'-0"



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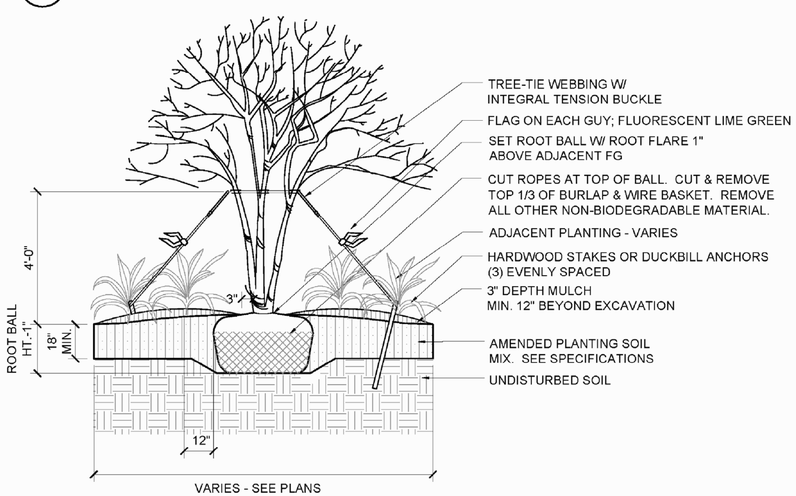
2 CONTINUOUS SOIL PANEL

1'=1'-0"



4 MULTI-STEM TREE PLANTING

1"=1'-0"

No.	DATE	DESCRIPTION	REV.BY	APPROVED	DATE
		REVISION APPROVED BY DIVISION OF DESIGN REVIEW			

PLAN DATE
05-29-15
06-15-15
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Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8860
Fax. 703.642.8825
www.urban-ltd.com

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PETER F. CRAWFORD
Lic. No. 045051
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LANDSCAPE DETAILS

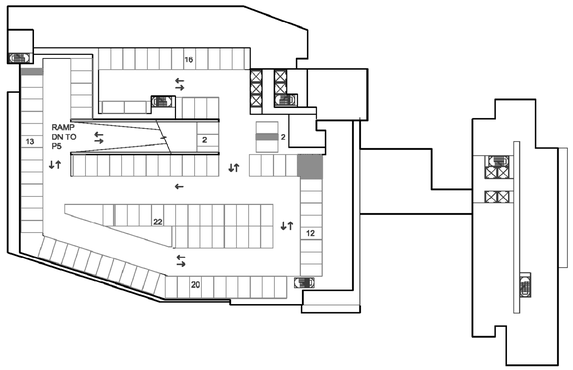
RESTON TOWN CENTER URBAN CORE SECTION 91A, BLOCK 4

HUNTER MILL DISTRICT
FAIRFAX COUNTY, VIRGINIA

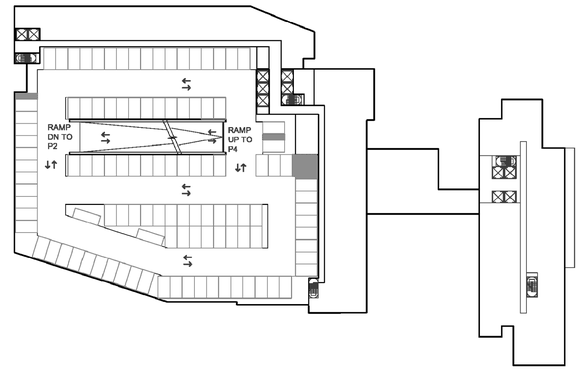
SCALE: AS SHOWN C.I. DATE: MAY, 2015

SHEET 18B OF 21

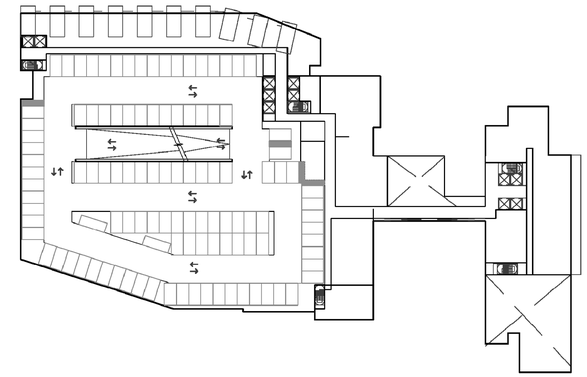
FILE No. PREL-2166-2



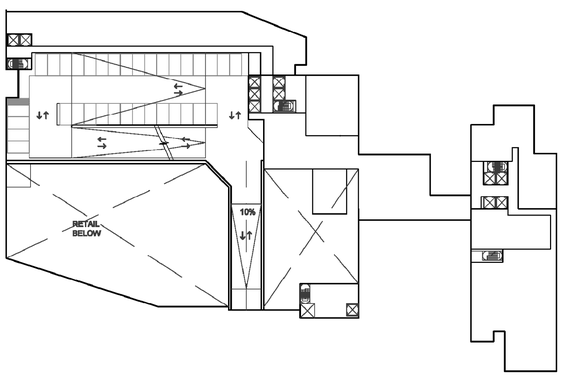
BLOCK 4 - LEVEL 06 FLOOR PLAN



BLOCK 4 - LEVEL 03, 04, 05 FLOOR PLAN



BLOCK 4 - LEVEL 02 FLOORPLAN



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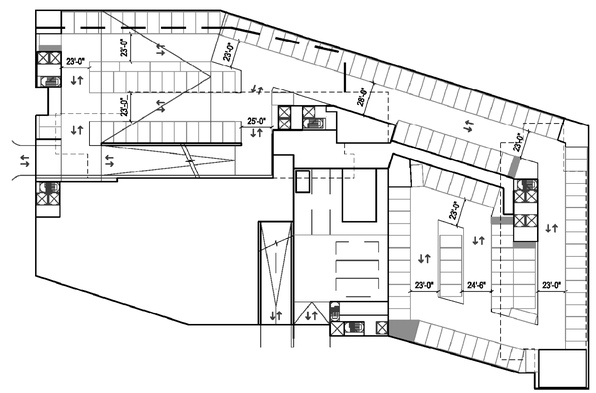
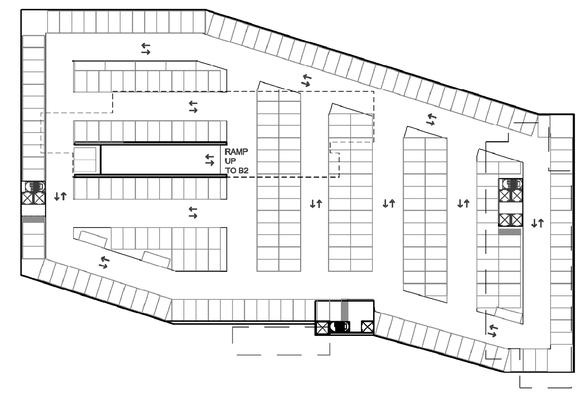
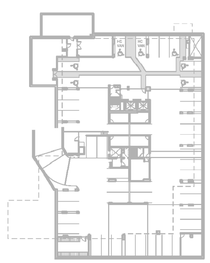


BLOCK 4 - LEVEL B1 FLOOR PLAN

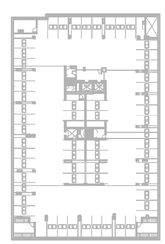


BLOCK 4 - LEVEL B2 (B3 SIM) FLOORPLAN

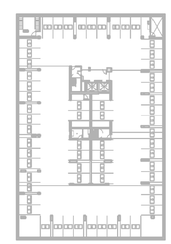
BLOCK 5 - LEVEL 01 FLOOR PLAN



BLOCK 5 - LEVEL B1 FLOOR PLAN



BLOCK 5 - LEVEL TYP FLOOR PLAN



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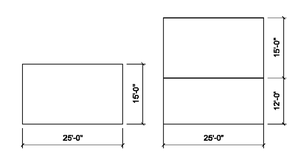
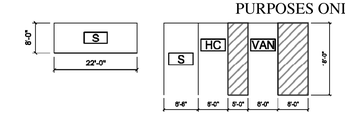


TYPICAL LOADING SPACE DIMENSIONS

NOTE: TYPICAL DRIVE AISLE WIDTH IS 23 FEET.



TYPICAL PARKING SPACE DIMENSIONS

NOTE: BLOCK 5 DATA IS SHOWN FOR REFERENCE PURPOSES ONLY

THE LEVELS SHOWN HEREIN ARE SCHEMATIC IN NATURE AND FOR ILLUSTRATIVE PURPOSES ONLY. THE APPLICANT RESERVES THE RIGHT TO ADJUST THE QUANTITY OF PARKING LEVELS AND OCCUPIED STORIES WITH FINAL DESIGN PROVIDED THAT THE MAXIMUM HEIGHTS ARE HONORED

0 30' 60' 120'

N

FOR INFORMATION PURPOSES ONLY.

GENERAL INFO

COMMONWEALTH OF PENNSYLVANIA
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

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shalom baranes associates | architects

1010 WISCONSIN AVENUE NW SUITE 900 WASHINGTON DC 20007
TEL 202 342.2200 FAX 202 342.2200

CONSULTANTS

CIVIL
Urban, LTD
7712 Little River Turnpike
Annandale, VA 22003
T: 703.642.8080

LANDSCAPE
LSG Landscape Architecture
1919 Gallows Road, Suite 110
Tysons Corner, VA 22182
T: 703.821.2045

MEP
WSP Flack + Kurtz
1600 Wilson Boulevard, Suite 1200
Arlington, VA 22209
T: 202.362.2800

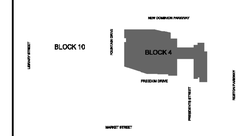
TRAFFIC/PARKING
Gorove/Slade Associates, Inc.
3914 Centreville Road, Suite 330
Chantilly, VA 20151
T: 703.787.9595

Reston Town Center Block 4

RESTON, VA

OWNER

Boston Properties
Washington, DC 20037



SBA PROJECT NO: 13-101

N

BLOCK 4

PARKING LEVEL FLOOR PLANS

SCALE: AS NOTED

ISSUED:

REVISIONS:

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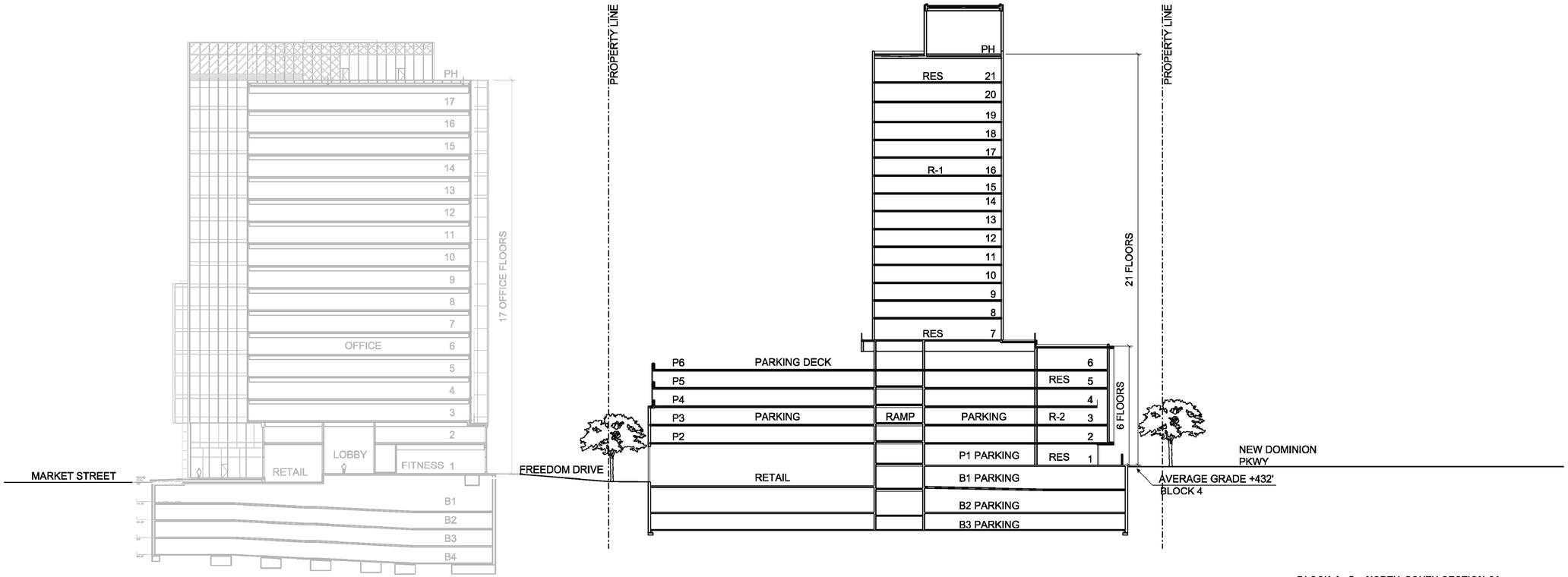
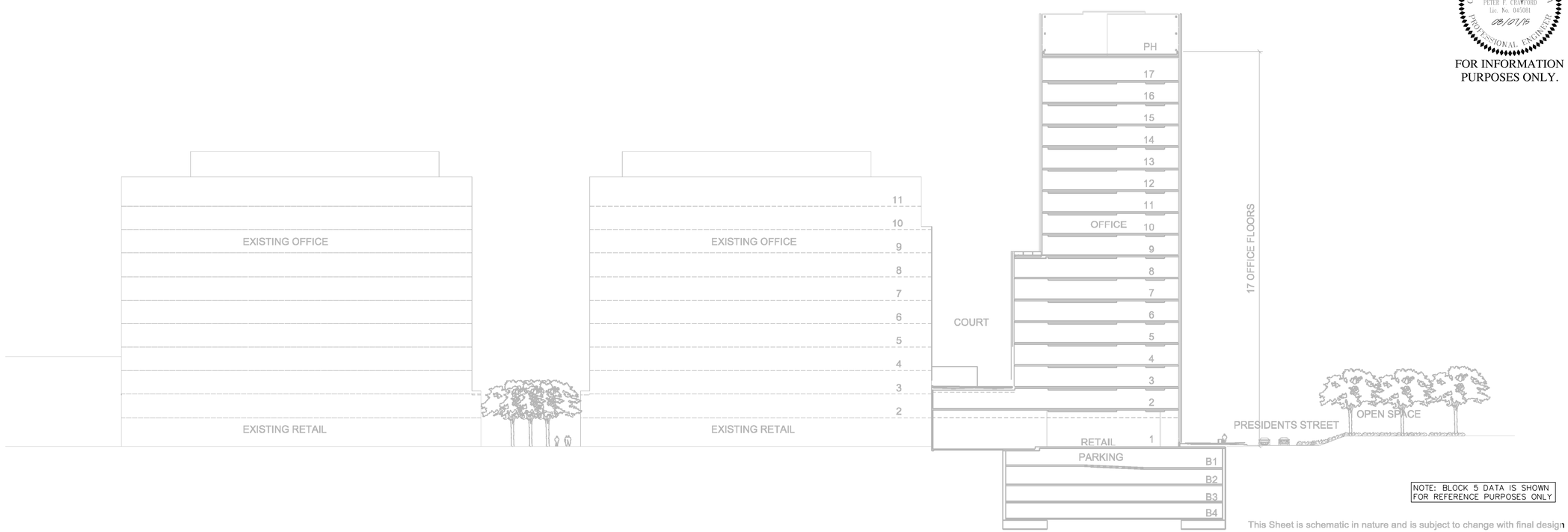
SHEET 19 OF 21 PREL-2166

PROGRESS DATE: mm dd yy



BLOCK 4 -5 - NORTH-SOUTH SECTION 01



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This Sheet is schematic in nature and is subject to change with final design

BLOCK 5 - EAST-WEST SECTION 01

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PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

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1010 WISCONSIN AVENUE NW SUITE 900 WASHINGTON DC 20007
TEL 202 342.2200 FAX 202 342.2200

CONSULTANTS

CIVIL
Urban, LTD
7712 Little River Turnpike
Annandale, VA 22003
T: 703.642.8080

LANDSCAPE
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T: 703.787.9595

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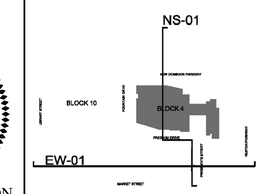
Washington, DC 20037



SBA PROJECT NO: 13-101

SITE SECTION

SCALE: N.T.S.

ISSUED:

REVISIONS:

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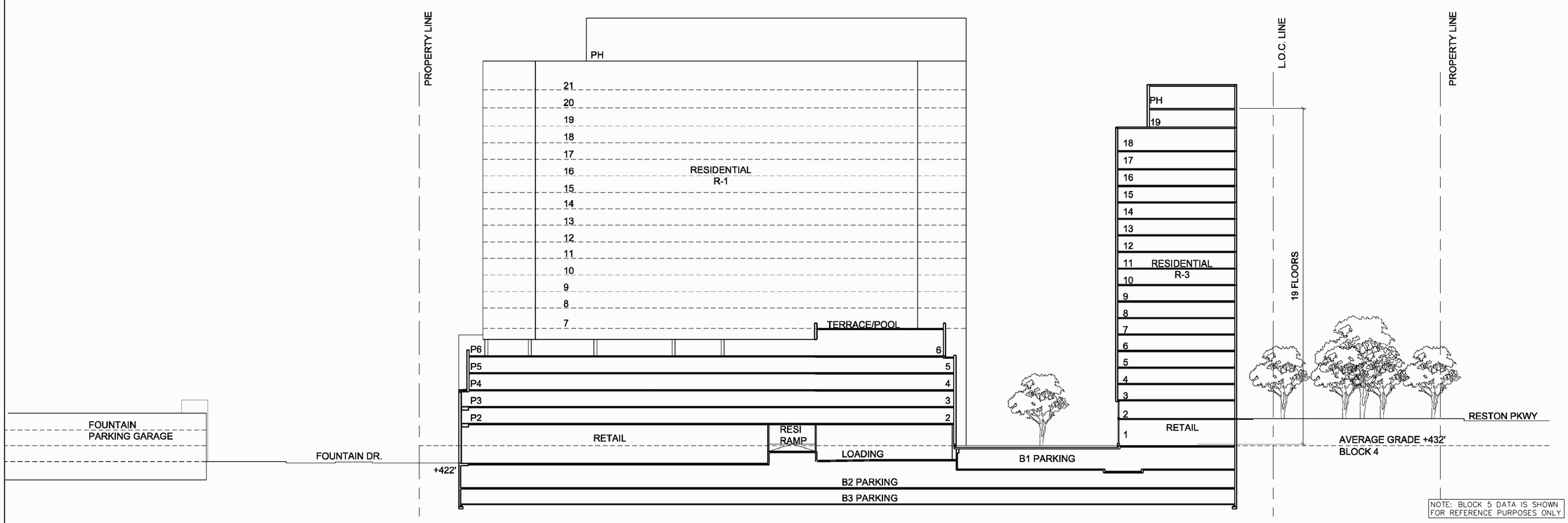
A - 3.00

SHEET 20 OF 21 PREL-2166

PROGRESS DATE: mm dd yy



NOTE: BLOCK 5 DATA IS SHOWN FOR REFERENCE PURPOSES ONLY

This Sheet is schematic in nature and is subject to change with final design

BLOCK 4 - EAST-WEST SECTION 02

COMMONWEALTH OF VIRGINIA
PETER E. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

FOR INFORMATION PURPOSES ONLY.

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1010 WISCONSIN AVENUE NW SUITE 900 WASHINGTON DC 20007
TEL 202 342.2200 FAX 202 342.2200

CONSULTANTS

CIVIL
Urban, LTD
7712 Little River Turnpike
Annandale, VA 22003
T: 703.642.8080

LANDSCAPE
LSG Landscape Architecture
1919 Gallows Road, Suite 110
Tysons Corner, VA 22182
T: 703.821.2045

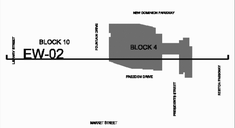
MEP
WSP Flack + Kurtz
1600 Wilson Boulevard, Suite 1200
Arlington, VA 22209
T: 202.362.2800

TRAFFIC/PARKING
Gorove/Slade Associates, Inc.
3914 Centreville Road, Suite 330
Chantilly, VA 20151
T: 703.787.9595

Reston Town Center Block 4

RESTON, VA

OWNER
Boston Properties
Washington, DC 20037



SBA PROJECT NO: 13-101

SITE SECTION

SCALE: N.T.S.

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SHEET 21 OF 21 PREL-2166

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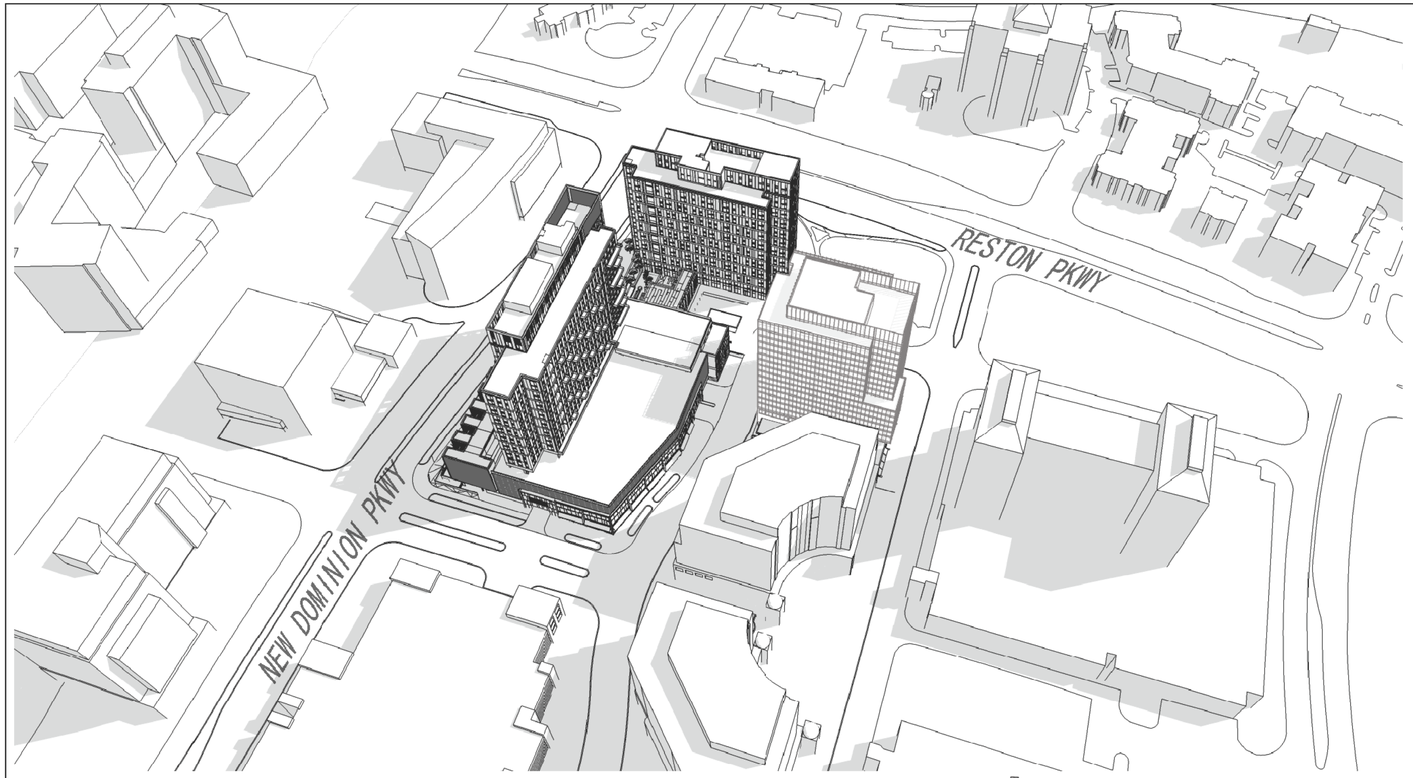

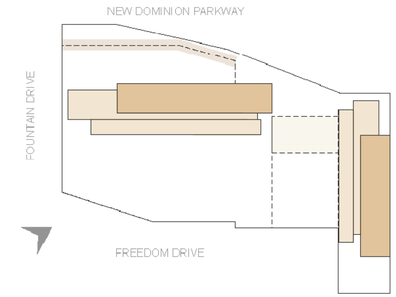

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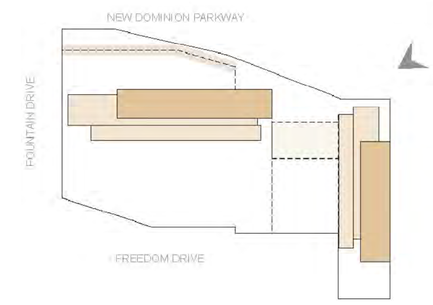

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* NOTE:

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1010 WISCONSIN AVENUE NW SUITE 900 WASHINGTON DC 20007
TEL 202 342.2200 FAX 202 342.2200

CONSULTANTS

CIVIL
Urban, LTD
7712 Little River Turnpike
Annandale, VA 22003
T: 703.642.8080

LANDSCAPE
LSG Landscape Architecture
1010 Gallows Road, Suite 110
Tysons Corner, VA 22182
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T: 703.787.9595

Reston Town Center Block 4

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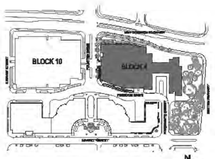

SBA PROJECT NO: 13-101

BLOCK 4

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REVISIONS:

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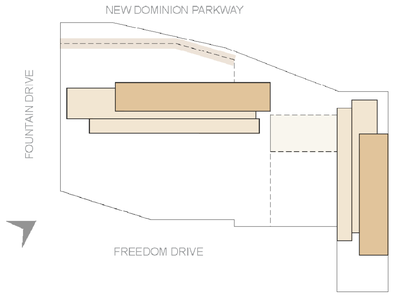

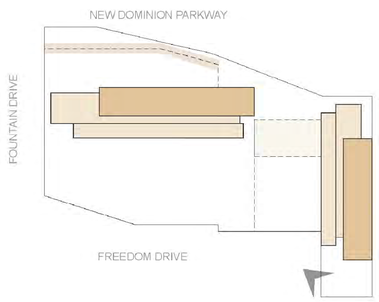

COMMONWEALTH OF VIRGINIA
Peter F. Crawford
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

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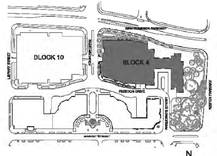

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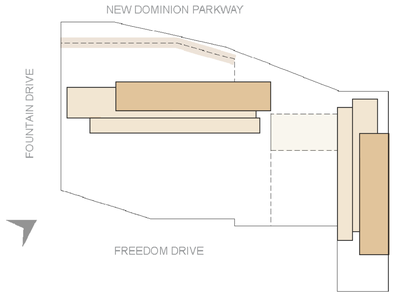

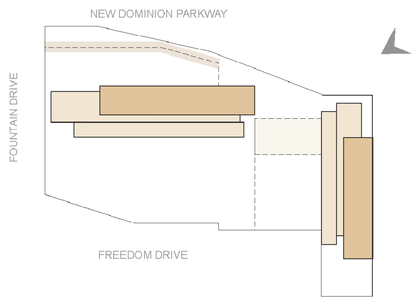

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Annandale, VA 22003
T: 703.642.8080

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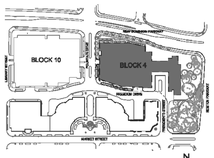

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SHEET 21C OF 21 PREL-2166

PROGRESS DATE: mm dd yy

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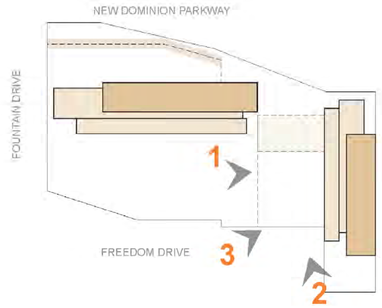

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PETER F. CRAWFORD
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08/07/15
PROFESSIONAL ENGINEER

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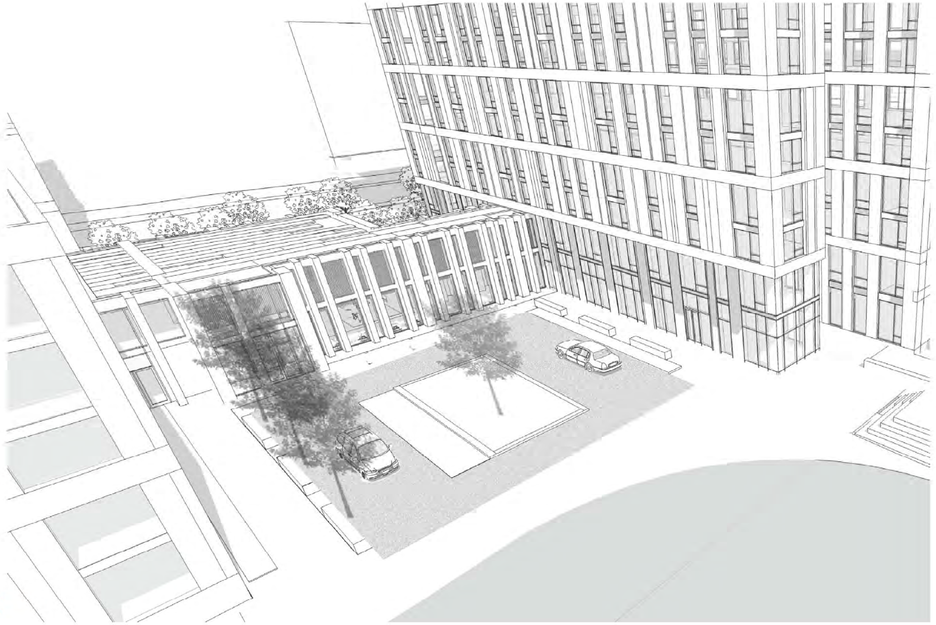

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Reston Town Center Block 4

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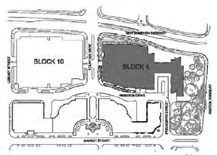

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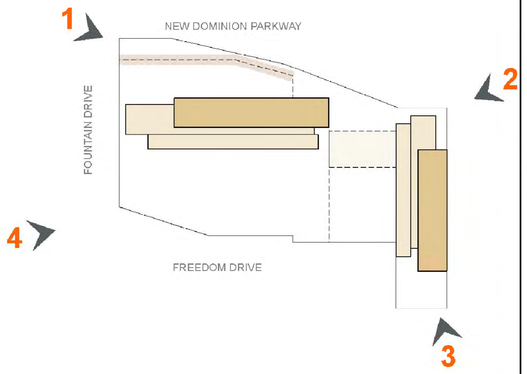

COMMONWEALTH OF VIRGINIA
Peter Crawford
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

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2

3

4

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Arlington, VA 22209
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TRAFFIC/PARKING
Gorove/Slade Associates, Inc.
3914 Centreville Road, Suite 330
Chantilly, VA 20151
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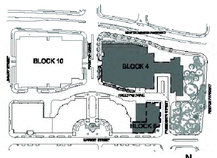
Reston Town Center Block 4,5

RESTON, VA

OWNER
Boston Properties
Washington, DC 20037



SBA PROJECT NO: 13-101

N

BLOCK 4 & 5

SCALE: N.T.S.

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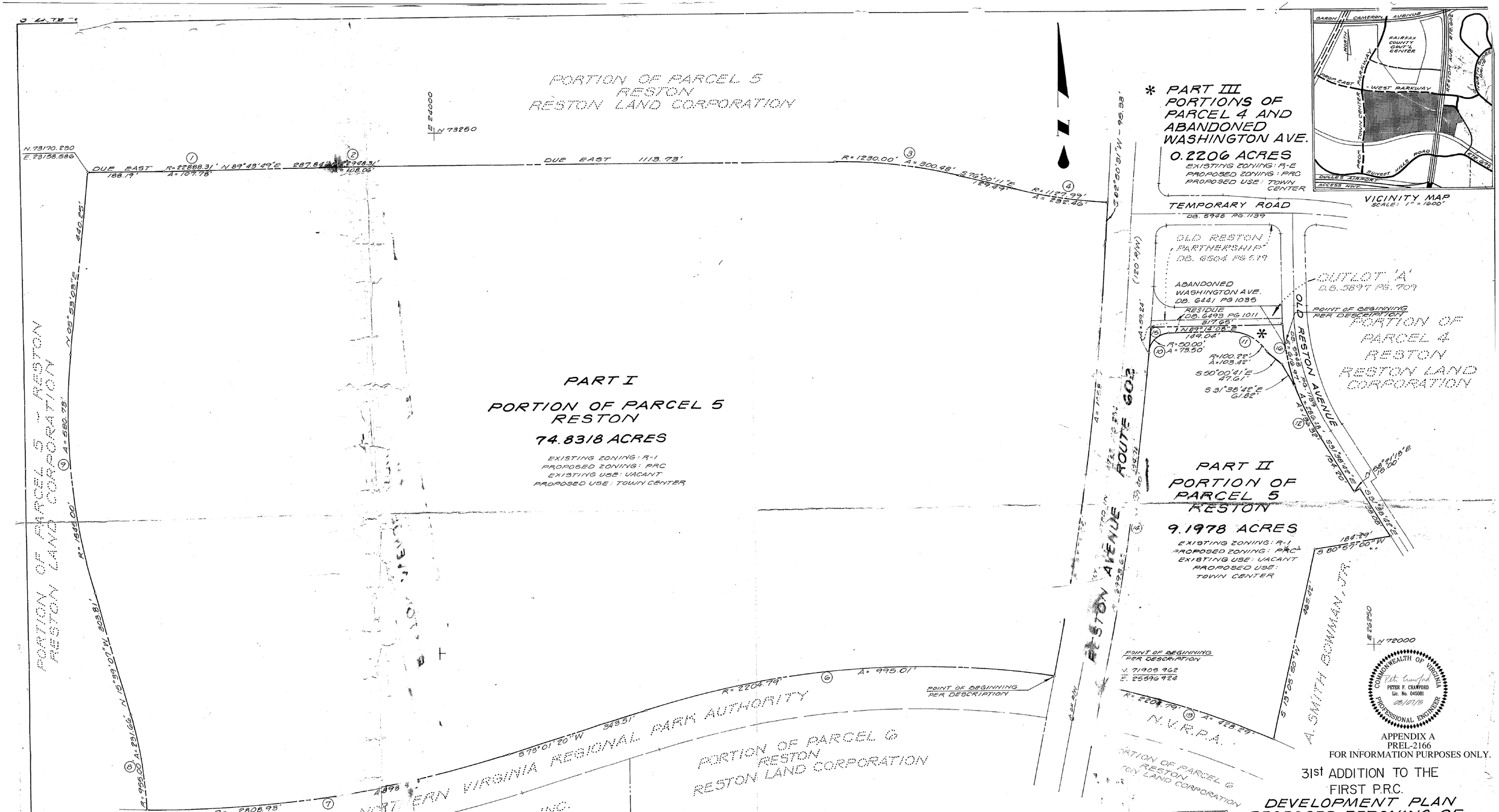
SHEET 21E OF 21 PREL-2166

PROGRESS DATE: mm dd yy



CERTIFIED CORRECT:

James W. Andrews

JAMES W. ANDREWS
CERTIFIED LAND SURVEYOR, #1100
RESTON, VIRGINIA

NOTES:

1. THE PROPERTY DELINEATED ON THIS PLAT IS LOCATED ON ASSESSMENT MAP NOS. 17-1-1-3 ZONED R-1 AND 17-2-1-11 ZONED R-E.

2. PART I ..... 74.8318 ACRES
   PART II ..... 9.1978 ACRES
   PART III ..... 0.2206 ACRES
   TOTAL AREA OF REZONING ..... 84.2502 ACRES

CURVE DATA

NO	RADIUS	DELTA	ARC	TAN.	CHD.	CHD. BRG.
1	22888.31	00°16'11"	107.78	53.89	107.78	N.89°51'54"E.
2	22948.31	00°16'11"	108.06	54.03	108.06	N.89°51'54"E.
3	1230.00	13°59'49"	300.48	150.99	299.73	S.83°00'06"E.
4	1127.99	11°48'28"	232.46	116.64	232.05	S.81°54'25"E.
5	6873.65	08°49'13"	1058.16	530.13	1057.12	S.07°15'08"W.
6	2204.79	25°61'26"	995.01	506.13	986.59	S.85°57'03"W.
7	2808.93	18°20'02"	898.82	453.25	894.99	S.82°11'21"W.
8	955.00	13°53'56"	231.66	116.40	231.10	N.08°42'09"W.
9	1545.00	21°32'10"	580.73	293.83	577.31	N.04°53'02"W.
10	50.00	84°13'31"	73.50	45.20	67.06	N.47°07'34"E.
11	100.22	59°07'20"	103.42	56.84	98.89	S.61°12'12"E.
12	616.97	12°39'36"	136.32	68.44	136.05	S.25°18'55"E.
13	2204.79	11°07'48"	428.29	214.82	427.62	N.72°26'10"W.
14	6993.65	06°37'52"	809.40	405.[illegible]	808.95	N.08°19'33"E.

NO.	RADIUS	DELTA	ARC	TAN.	CHD.	CHD. BRG.
15	6993.65	00°29'07"	59.24'	29.62'	59.24'	N04°46'04"E
16	616.97	13°56'42"	150.16'	75.45'	149.79'	S12°00'14"E

APPROVED DEVELOPMENT PLAN
(DP) (CDP) (FDP)
SUBJECT TO PROFFERED CONDITIONS
Date of (BOS) (PC) approval 3/6/87
Sheet 01 of 08

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
PROFESSIONAL ENGINEER
08/07/86

APPENDIX A
PREL-2166
FOR INFORMATION PURPOSES ONLY.

31st ADDITION TO THE FIRST P.R.C. DEVELOPMENT PLAN

PROPOSED REZONING OF PORTIONS OF PARCEL 4 AND PARCEL 5

BOUNDARY SURVEY

TOWN CENTER RESTON

CENTREVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: 1"=100' MAY, 1985

PREPARED BY
RESTON LAND CORPORATION
ENGINEERING DIVISION
RESTON, VIRGINIA
REVISED: JULY, 1986
REVISED: JAN., 1987

89-848-S

PORTION OF PARCEL 5
RESTON
RESTON LAND CORPORATION

PROPOSED EAST-WEST PARKWAY

PROPOSED TOWN CENTER PARKWAY

PART I
TOWN CENTER

PART II
TOWN CENTER

PART III
TOWN CENTER

TEMPORARY ROAD
DB 5948 PG 1139

OLD RESTON PARTNERSHIP

ABANDONED WASHINGTON AVE.

PARCEL 4
OUTLOT 'A'
D.B. 5897 PG 709

PORTION OF PARCEL 4
RESTON
RESTON LAND CORPORATION

RESTON AVENUE

ROUTE 606

PORTION OF PARCEL 5
RESTON
RESTON LAND CORPORATION

PROP. STM SEWER

PROP. SAN SEWER

APPROX. LOCATION OF EX 24" FAIRFAX CITY WATERMAIN

NORTHERN VIRGINIA REGIONAL PARK AUTHORITY

PORTION OF PARCEL 6
RESTON
RESTON LAND CORPORATION

MULLIGAN/SNIVELY ASSOCIATES, INC.

APPROVED DEVELOPMENT PLAN
(DP) (GDP) (SDP) (FDP)
SUB PROFFERED CONDITIONS
Date of (BOS) (PC) approval 3/5/87
Staff
Sheet 6b of 6b

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

APPENDIX A
PREL-2166
FOR INFORMATION PURPOSES ONLY.

31st ADDITION TO THE
FIRST P.R.C.
DEVELOPMENT PLAN
PROPOSED REZONING OF
PORTIONS OF PARCEL 4
AND PARCEL 5
TOPOGRAPHY AND
MAJOR UTILITIES
TOWN CENTER
RESTON
CENTREVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA
SCALE: 1"=100' MAY, 1985

PREPARED BY
RESTON LAND CORPORATION
ENGINEERING DIVISION
RESTON, VIRGINIA
REVISED: JULY, 1986
REVISED: JAN., 1987

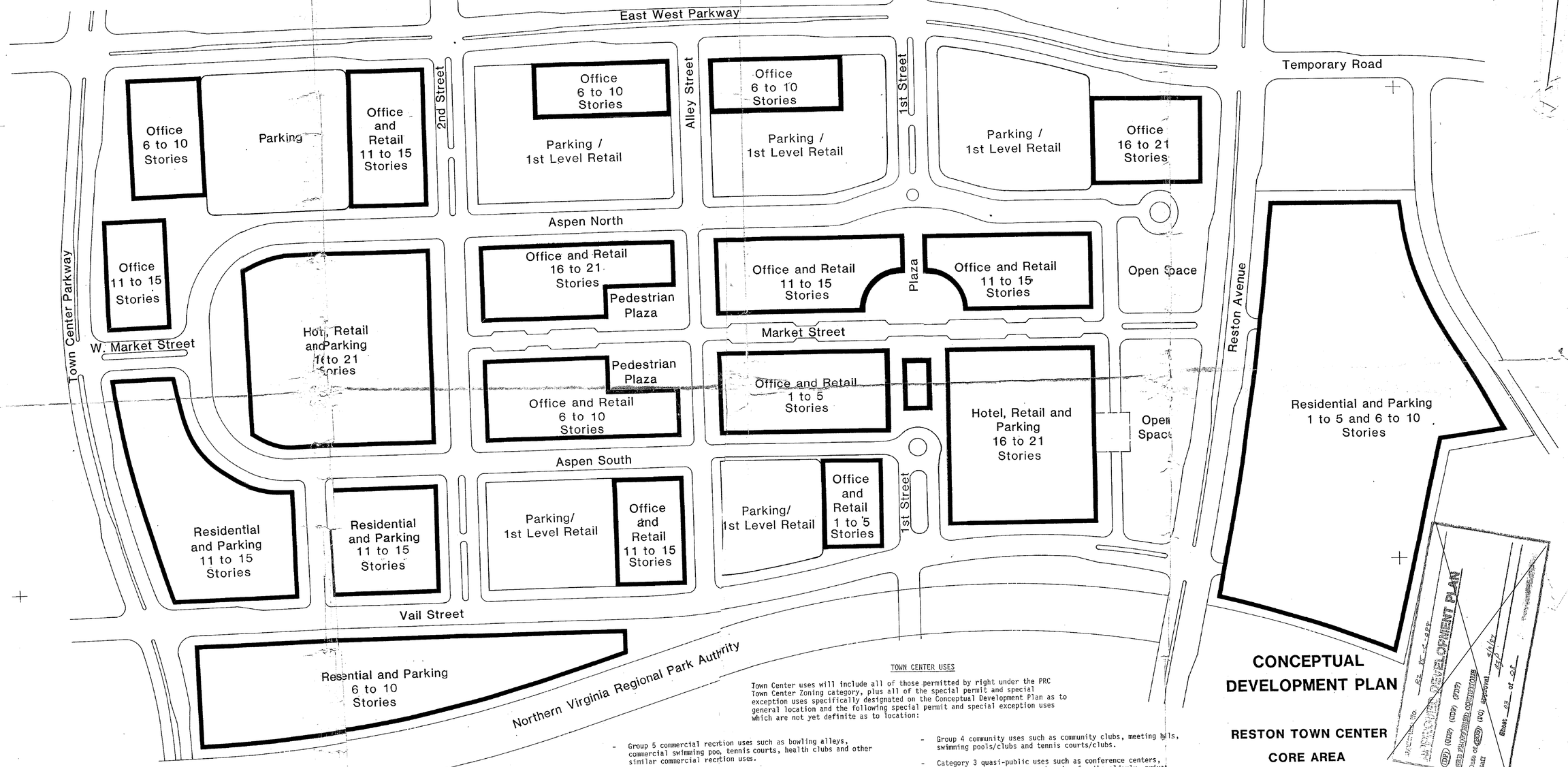
NOTES

The 84 acre Town Center Core application is a part of the 449 acre Town Center Study Area, of which 42 acres are presently zoned PRC Town Center, 23 acres are zoned PRC (residential) and 71 acres are zoned I-5. The remaining acreage is zoned R-1 and is presently in for rezoning to PRC Town Center, PRC (High Density Residential) and I-5. All traffic analyses have been based upon traffic generation for the entire Town Center Study Area, zoned and yet to be zoned, and all traffic improvements are designed to serve the entire Town Center.

The illustrative site plan is not intended as a preliminary site plan or a development plan. It is general in concept and subject to change as detailed design progresses. (The PRC Ordinance does not require a preliminary site plan or development plan at the rezoning stage.) However, the following notes shall be specific and binding to the 84 acre Town Center core area:

1. The maximum gross floor area of commercial space shall not exceed 3,465,000 square feet, consisting of 2.15 million square feet office, 1.0 million square feet hotel, and 315,000 square feet retail including exhibition gallery space.
2. Maximum overall FAR shall not exceed .95 exclusive of residential use.
3. Maximum height shall not exceed 21 stories or 275 feet.
4. A minimum of 600 multiple family residential units will be provided within the core area.
5. Parking shall be provided in accordance with Fairfax County Zoning Ordinance requirements. Applicant may seek reductions in parking consistent with the Zoning Ordinance and subject to Board of Supervisor's approval.
6. A comprehensive pedestrian circulation system shall be provided within the Town Center Core. This system shall consist of sidewalks and pathways as appropriate and shall be finalized as to location and materials at the time of site plan review.
7. Community facilities and amenities shall include a central pedestrian plaza, exhibition gallery/cultural center, pedestrian walkways, urban landscaping, open space along Reston Avenue and pedestrian linkage to the W&OD linear park.
8. Construction of Town Center core is proposed to start during 1987 and is expected to be completed within 10 to 12 years.
9. The range of proposed maximum building heights in stories is shown on the Conceptual Development Plan: 1 to 5 stories, 6 to 10 stories, 11 to 15 stories and 16 to 21 stories.
10. All site plans shall be submitted to RCA's Planning and Zoning Committee for review. This process currently exists and shall be continued for Town Center.
11. All site plans as well as architectural drawings of all buildings and structures (including parking structures) shall be submitted to a Town Center design review board. Landscaping, lighting, materials, colors and signage also shall be submitted to the design review board for review and approval.
12. The proposed right-of-way width of major public streets shall be as follows:

East West Parkway	- 90'
Town Center Parkway	- 90'
Vail Avenue	- 60'



TOWN CENTER USES

Town Center uses will include all of those permitted by right under the PRC Town Center Zoning category, plus all of the special permit and special exception uses specifically designated on the Conceptual Development Plan as to general location and the following special permit and special exception uses which are not yet definite as to location:

- Group 5 commercial recreation uses such as bowling alleys, commercial swimming pools, tennis courts, health clubs and other similar commercial recreation uses.
- Hotels and motels.
- Category 5 commercial and industrial uses such as amusement arcades, eating establishments, hotels, motels, offices, commercial off-street parking, theaters, vehicle rental and ancillary service establishments.
- Group 3 institutional uses such as churches, temples and other places of worship; daycare, child care and nursery schools which have an enrollment of less than 100 students daily; private schools of general or special education with an enrollment of less than 100 students daily.
- Group 4 community uses such as community clubs, meeting halls, swimming pools/clubs and tennis courts/clubs.
- Category 3 quasi-public uses such as conference centers, cultural centers, museums, housing for the elderly, private clubs, quasi-public parks, playgrounds and fields, child care centers and nursery schools with an enrollment of 100 or more students daily, private schools of general or special education with an enrollment of 100 or more students daily.

Applicant also reserves the right to apply in the future for other special permit and special exception uses not specifically enumerated above but permissible by the Zoning Ordinance.

FOOTNOTES

1. 1st level retail use may be included in the ground floor of parking structures where feasible.
2. The range of proposed maximum building heights is shown in stories.
3. Underground parking may be provided by right on any building pad as necessary.
4. The air rights above private streets may be developed as necessary.

CONCEPTUAL DEVELOPMENT PLAN

RESTON TOWN CENTER CORE AREA

SCALE: 1" = 100'
FEBRUARY 26, 1986
REVISED: JULY 9, 1986
JANUARY, 1987

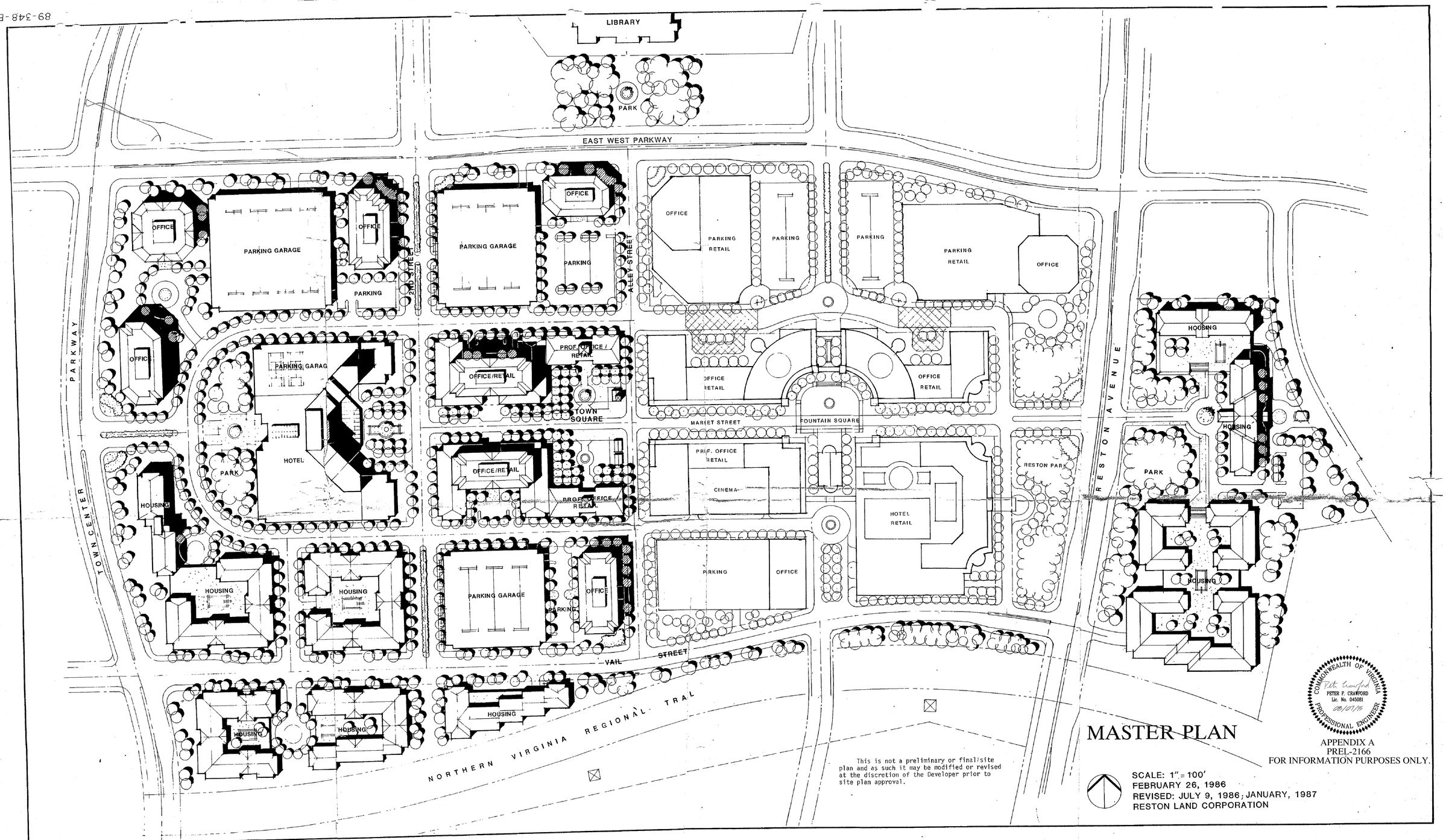
RESTON LAND CORPORATION

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
08/01/86
PROFESSIONAL ENGINEER

8-28-87

APPENDIX A
PREL-2166
FOR INFORMATION PURPOSES ONLY.

89-348-B-5



This is not a preliminary or final site plan and as such it may be modified or revised at the discretion of the Developer prior to site plan approval.

MASTER PLAN

SCALE: 1" = 100'
FEBRUARY 26, 1986
REVISED: JULY 9, 1986; JANUARY, 1987
RESTON LAND CORPORATION

COMMONWEALTH OF VIRGINIA
PETER P. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

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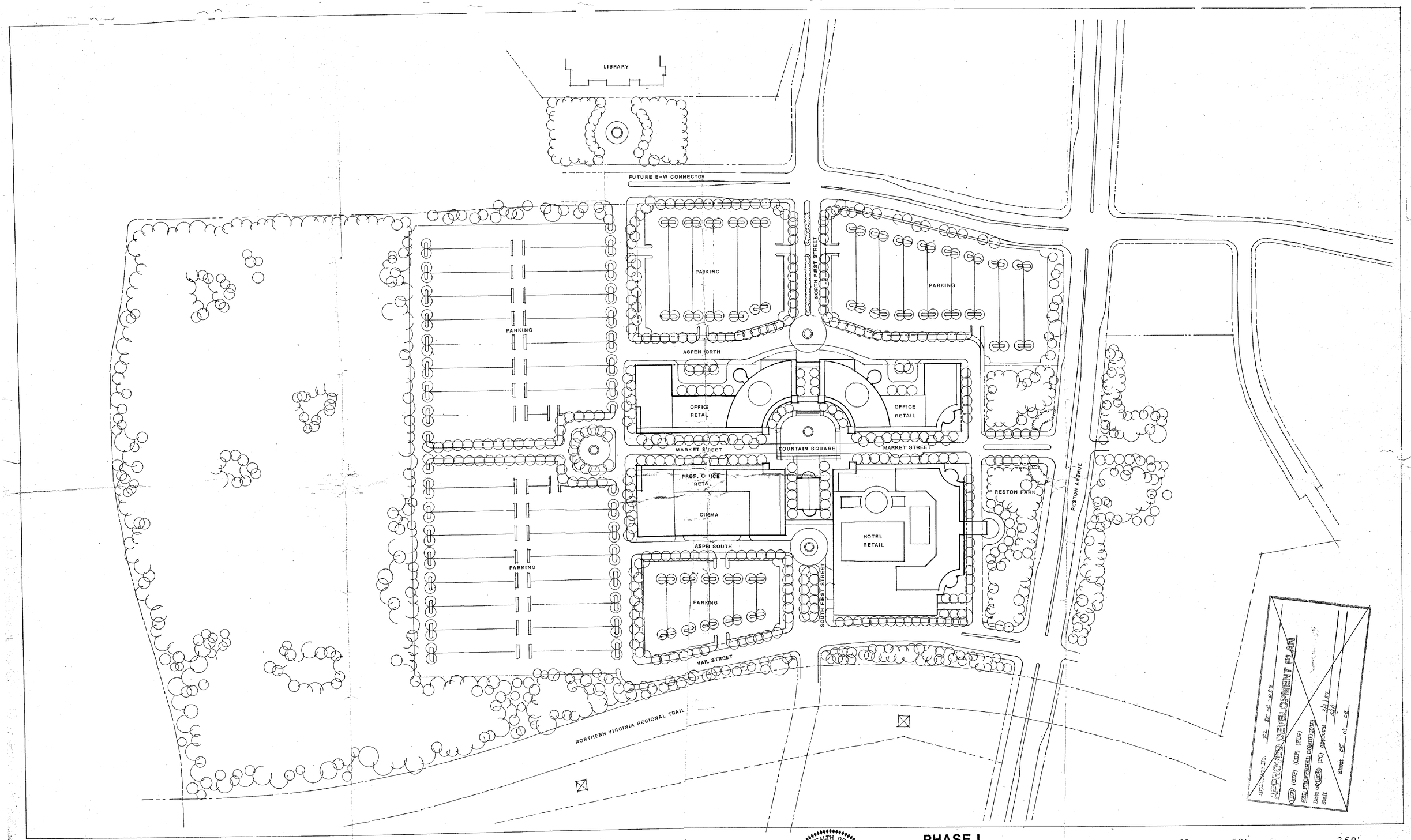
APPROVED DEVELOPMENT PLAN
(DP) (DDP) (CDP) (FDP)
REZ PROFFERED CONDITIONS
Date of (BOS) (PC) approval 7/9/87
Staff
Sheet 04 of 08



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PHASE I
DEVELOPMENT PLAN

This is not a preliminary or final site plan and as such it may be modified or revised at the discretion of the Developer prior to site plan approval.

This plan shows the interim parking that is required in order to serve Phase I development on a surface parking basis. Future phases of development will require the conversion of surface parking lots into building pads and parking structures.

N

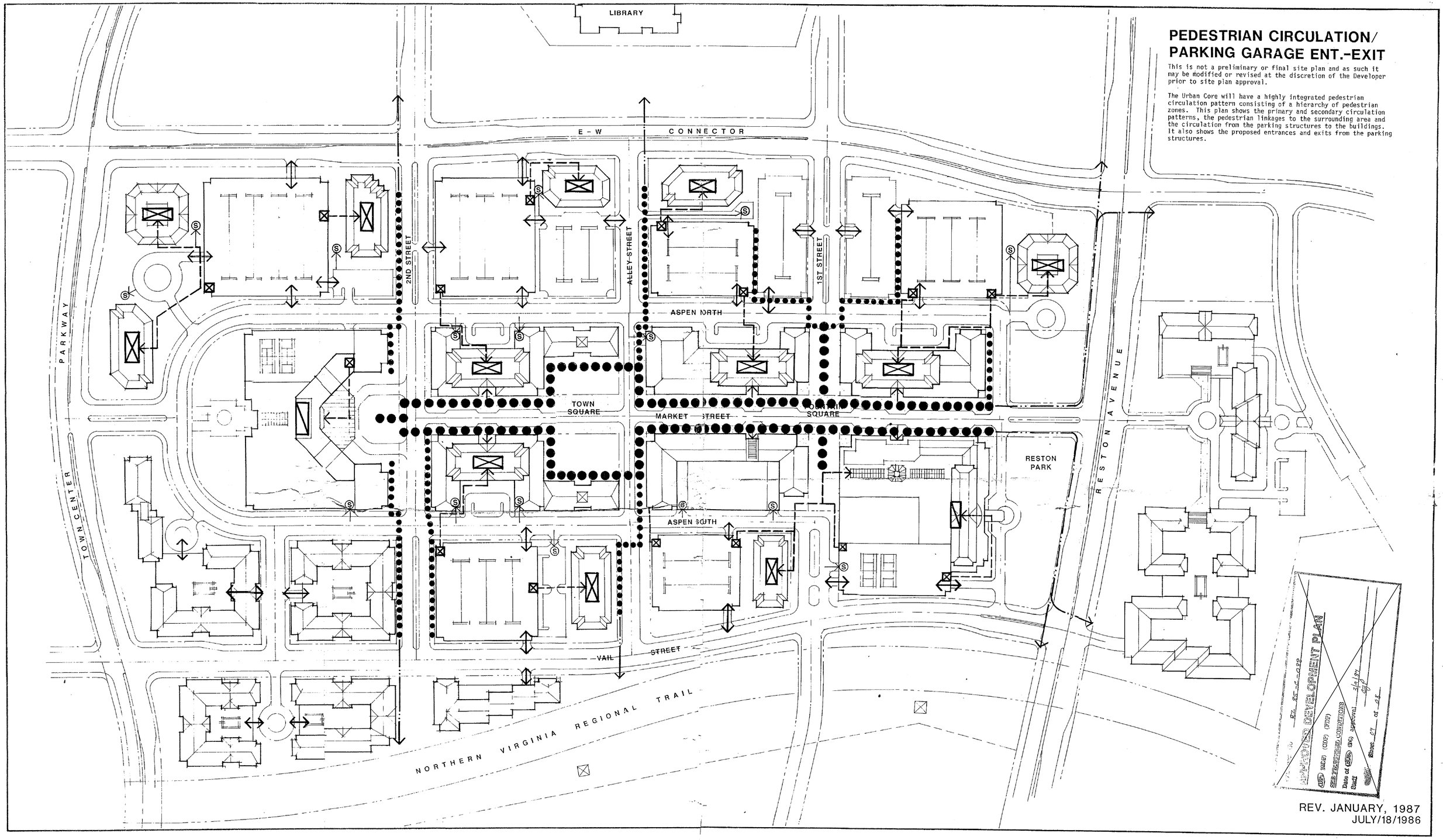
0 150' 50' 350'

REVISED: JANUARY, 1987

PEDESTRIAN CIRCULATION/ PARKING GARAGE ENT.-EXIT

This is not a preliminary or final site plan and as such it may be modified or revised at the discretion of the Developer prior to site plan approval.

The Urban Core will have a highly integrated pedestrian circulation pattern consisting of a hierarchy of pedestrian zones. This plan shows the primary and secondary circulation patterns, the pedestrian linkages to the surrounding area and the circulation from the parking structures to the buildings. It also shows the proposed entrances and exits from the parking structures.



RESTON TOWN CENTER
Reston·Virginia

- OFFICE CORE
- HOTEL CORE
- PARKING GARAGE CORE
- ENTRY-EXIT OF PARKING GARAGE & PARKING LOT
- SERVICE AREA
- SERVICE ACCESS
- PEDESTRIAN LINKAGE
- PRIMARY RETAIL PEDESTRIAN CIRCULATION
- SECONDARY RETAIL PEDESTRIAN CIRCULATION
- PEDESTRIAN CIRCULATION FROM PARKING CORE TO BUILDING

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

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N

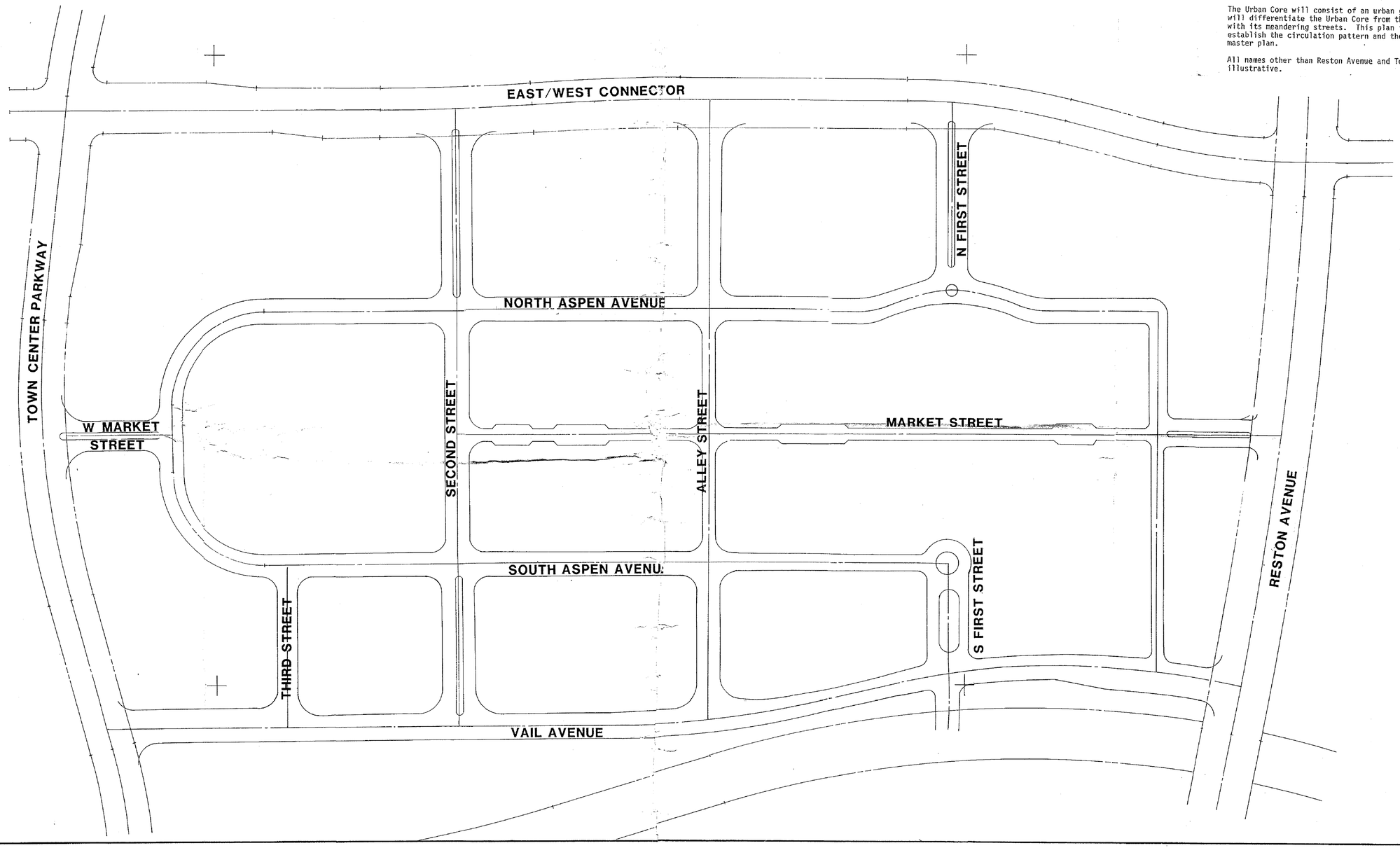
0 50 100 200 300 400 Feet

RIGHT-OF-WAY/TRAFFIC CIRCULATION PLAN

This is not a preliminary or final site plan and as such it may be modified or revised at the discretion of the Developer prior to site plan approval.

The Urban Core will consist of an urban grid street pattern that will differentiate the Urban Core from the rest of Reston with its meandering streets. This plan in general will establish the circulation pattern and the framework for the master plan.

All names other than Reston Avenue and Town Center Parkway are illustrative.



JANUARY, 1987

RESTON TOWN CENTER
Reston·Virginia

COMMONWEALTH OF VIRGINIA
PETER F. CRAWFORD
Lic. No. 045081
08/07/15
PROFESSIONAL ENGINEER

APPENDIX A
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FOR INFORMATION PURPOSES ONLY.

RZ 85-C-088

APPROVED DEVELOPMENT PLAN

DP (GDP) (CDP) (FDP)

SEE PROFFERED CONDITIONS

Date of (BOS) (PC) approval 5/6/87

Staff

Sheet 08 of 08

N

0 50 100 200 300 400 Feet

DESCRIPTION OF THE APPLICATIONS

The applicant, Block 4 LLC, is seeking approval to modify the building massing of the western residential tower located on property identified as Section 91A, Block 4 (Block 4) in Reston Town Center. The applications consist of:

- Proffered Condition Amendment PCA 85-C-088-10 to amend the proffered conditions to reflect the proposed modification to the building massing shown on the Development Plan and Planning Residential Community Plan;
- Development Plan Amendment DPA 85-C-088-08 to amend the approved development plan; and
- Planned Residential Community Plan PRCA 85-C-088-03 to amend the approved PRC Plan to modify the building massing.

As part of the final architectural design for the Block 4 residential building, the applicant identified modifications to the massing of the western residential tower consisting of an increase to the length of the residential tower and a decrease to the width of the middle section of the building for levels 7 through 21. Such modifications to the building massing were initially proposed as part of a minor modification request. However, in accordance with Par. 5A(5) of Sect. 18-204 of the Zoning Ordinance, minor modifications to proffered rezonings shall in no event "[p]ermit changes to bulk, mass, orientation or location which adversely impact the relationship of the development or part thereof to adjacent property." As such, the proposed modifications warranted review through the zoning amendments requested.

The proposed modifications do not add additional height, density, or residential units above what was approved in 2014; no changes are proposed to the ground floor uses and parking or to the eastern residential tower; and no changes are proposed to the setbacks.

Modifications

The applicant requests reaffirmation of the following previously approved modifications:

- Modification of Sect. 11-203 of the Zoning Ordinance for the loading space requirements to that shown on the DPA/PRCA Plan and
- Modification of Sect. 13-303 of the Zoning Ordinance for the transitional screening and barrier requirements to that shown on the DPA/PRCA Plan.

A reduction of the proposed DPA/PRCA Plan is provided at the front of this report. The applicant's draft proffers, staff's proposed PRCA conditions, the applicant's statement of justification, and the applicant's affidavit are provided as Appendices 1-4, respectively.

LOCATION AND CHARACTER

The subject property is located north of Market Street, east of Fountain Drive, south of New Dominion Parkway, and west of Reston Parkway, in Reston Town Center, as shown in Figure 2.

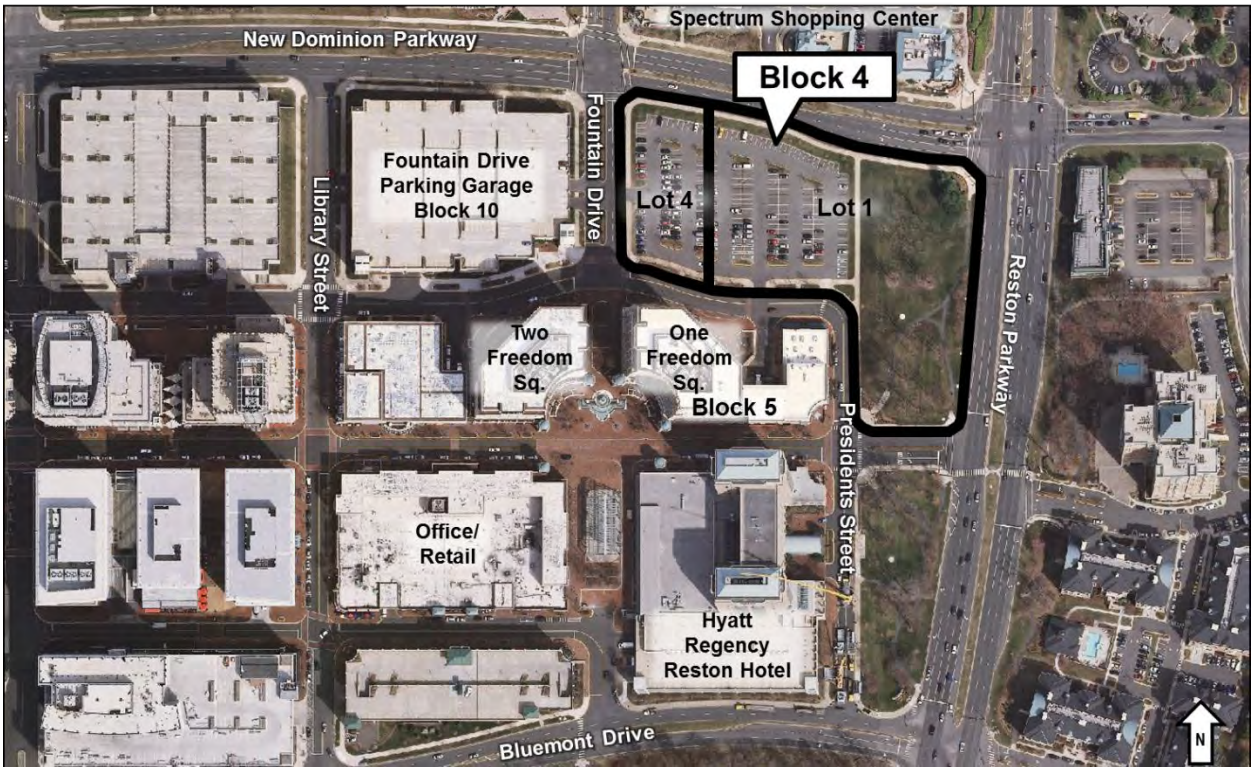

Figure 2: Subject property and surrounding uses, Source: Fairfax County Aerial Photography

Block 4 is comprised of two parcels (Lots 1 and 4) containing a total of 4.52 acres. The site currently is developed with a surface parking lot and an open space area along Reston Parkway. The surrounding uses include to the north, a shopping center; to the east, Reston Parkway, a residential building, and a low-rise office building; to the south, a mixed-use office building within Reston Town Center; and to the west, a parking structure. The surrounding uses are zoned PRC.

BACKGROUND

On March 9, 1987, the Board of Supervisors approved four concurrent rezoning applications (collectively referred to as the Reston Town Center rezonings), which encompass approximately 344 acres of land and include: Rezoning RZ 85-C-088, RZ 86-C-119, and RZ 86-C-121 to the PRC District and RZ 86-C-118 to the I-3

(Light Intensity Industrial) District. One comprehensive set of combined proffers was executed for the four applications. The following link provides the proffered conditions: http://ldsnet.fairfaxcounty.gov/ldsnet/ldsdwf/4398669.PDF

In the approved proffers, RZ 85-C-088 is identified as Property A and consists of the Town Center Core Area (Urban Core), which contains approximately 84.25 acres. In accordance with the proffers, the floor area ratio in the Urban Core is limited to 0.95 or 3,465,000 square feet of commercial space with approximately 315,000 square feet of retail, 2,150,000 square feet of office and 1,000,000 square feet of hotel uses. In addition, the proffers specify that a minimum of 600 dwelling units will be located in the Urban Core. Currently, the Urban Core is developed with 2,044 residential units. Based on a previous determination, the Urban Core could be developed with up to 4,212 units (84.25 acres x 50 du/acres permitted in the Zoning Ordinance for high density residential uses in the PRC District).

On October 2, 1989, the Board of Supervisors approved four concurrent applications: RZ 89-C-025 to rezone a total of 86.27 acres (previously rezoned as RZ 86-C-118) from the I-3 District to the PRC District to permit the inclusion of residential units; and PCA 85-C-088, PCA 86-C-119, and PCA 86-C-121 to amend the proffers to remove references to RZ 86-C-118 and to include RZ 89-C-025 in the proffered conditions, which contained 86.27 acres. There was no change to the zoning, permitted land uses, residential density, or commercial FAR. The proffered conditions are located at: http://ldsnet.fairfaxcounty.gov/ldsnet/ldsdwf/4398673.PDF.

On October 15, 1990, the Board of Supervisors approved Proffered Condition Amendment PCA 85-C-088-02, PCA 86-C-119-02, PCA 86-C-121-02, and PCA 89-C-025 to expedite construction of the Fairfax County Parkway interchange at Sunset Hills Road and permitted a revised layout of the western portion of the Urban Core. The proffered conditions are available at: http://ldsnet.fairfaxcounty.gov/ldsnet/ldsdwf/4398665.PDF.

On February 11, 2014, the Board of Supervisors adopted the Reston Master Plan Special Study, ST09-III-UP1(A), which amended the Comprehensive Plan guidance for the Reston-Herndon Suburban Center and the areas around the planned Wiehle-Reston East, Reston Town Center, and Herndon metro rail stations, along with three follow-on motions to address additional work on urban design, transportation analysis, and transportation funding. The subject property is located within the Reston Town Center Transit Station Area.

On July 29, 2014, the Board of Supervisors approved PCA 85-C-088-09, DPA 85-C-088-07, and PRC 85-C-088-03 to permit development of a mixed use development on Section 91A, Blocks 4 and 5.

On September 9, 2014, the Board of Supervisors clarified its actions on

July 29, 2014 to correctly identify the revision date for the DPA/PRC Plan. Block 4 was approved for a residential building consisting of two residential towers containing up to 625,000 square feet of residential uses (549 multi-family dwelling units) with up to 25,100 square feet of ground floor non-residential uses (20,600 square feet of retail uses is located in cellar space). Block 5 was approved for a 17-story office building containing 276,788 square feet of gross floor area and 7,800 square feet of ground floor retail uses and is not part of this application. The staff report dated May 28, 2014 on the applications is available at: http://ldsnet.fairfaxcounty.gov/ldsnet/ldsdwf/4452642.PDF

Prior to filing of these applications, the applicant submitted an interpretation request to permit minor modifications to the Blocks 4 and 5 approvals. The Zoning Ordinance permits minor modifications to an approved zoning application when it is determined by the Zoning Administrator that the minor modifications are in substantial conformance with the approved zoning and are in response to issues of topography, drainage, underground utilities, structural safety, layout, design, vehicular circulation; or requirements of the Virginia Department of Transportation or Fairfax County; or are accessory uses; or are accessory structures; or minor building additions.

The proposed modifications to the massing of the western residential tower initially were included as part of the applicant's interpretation request; however, staff determined that the proposed modifications require an amendment to the approved PCA, DPA, and PRC approvals since Par. 5A(5) of Sect. 18-204 of the Zoning Ordinance states that minor modifications to proffered rezonings shall in no event "[p]ermit changes to bulk, mass, orientation or location which adversely impact the relationship of the development or part thereof to adjacent property." As such, the proposed modifications to the massing of the western residential tower could not be accomplished through a minor modification request since the proposed changes were to the bulk and massing of the building and their effect on the viewsheds from all directions warranted review through the zoning amendments requested.

The applicant's other requested modifications to the Block 4 residential building were determined to be in substantial conformance with the proffers, DPA/PRC Plan, and development condition and include: modifications to the 6-level residential portion of the building along New Dominion Parkway; modifications to the area of the amenity/pool deck; reduction in the size and height to the main entrance/lobby area; and modification to the vehicle entry court. These modifications are incorporated in the DPA/PRCA Plan. With the reduction to the height and area of the main entrance/lobby area, the applicant is able to reallocate square footage to the western residential tower to achieve the proposed modification to the building massing. The applicant's requested modifications to the Block 5 office building were determined to be in substantial conformance with the proffers, DPA/PRC Plan, and development condition and include modifications to the building footprint and setback. A copy of the interpretation letter and the applicant's minor modification request are provided as Appendix 5.

COMPREHENSIVE PLAN PROVISIONS

The site specific guidance from the Fairfax County Comprehensive Plan, 2013 Edition, Area III, Upper Potomac Planning District, Reston Transit Station Areas, amended through December 2, 2014, is located on page 121, and is provided below.

> *Town Center Urban Core District*
>
> *The Town Center Urban Core subdistrict is comprised of approximately 87 acres and is bounded by New Dominion Parkway on the north, Old Reston Avenue on the east, the W&OD trail on the south and Town Center Parkway on the west as shown on Figure 37.*
>
> *Existing development includes the Reston Town Center, which has office, residential, retail and hotel uses. It also has a central plaza which serves as a significant community gathering place and an urban park which provides important green space and a location for active and passive recreation. On the east side of Reston Parkway is Stratford House, a multi-family residential community with a high-rise building and three low-rise buildings, is located on the east side of Reston Parkway and a three-story office building at the intersection of Temporary Road.*
>
> *The part of the district to the west of Reston Parkway is planned for and developed with a variety of uses, including office, retail, residential and community-serving uses, at an approved intensity of up to .95 FAR for commercial uses. Residential uses do not have a maximum density. The part of the district to the east of Reston Parkway is planned for residential and/or hotel uses. The Stratford House development is planned for its currently approved density. The parcel with the three-story office building located at the corner of Reston Parkway and Temporary Road is planned for redevelopment to a development intensity that will result in a new building at a similar scale to the high-rise building in the Stratford House development. This is planned to be realized by a residential use at up to a 3.0 FAR or a hotel use up to a 2.5 FAR.*
>
> *Opportunities to provide small-scale recreational waysides (e.g. seating areas, playgrounds) or larger recreational or cultural facilities (e.g. gathering places) near the W&OD and in collaboration with NVRPA should be explored.*

DESCRIPTION OF THE DEVELOPMENT PLAN AMENDMENT/PLANNED RESIDENTIAL COMMUNITY AMENDMENT PLAN (DPA/PRCA) (A copy is located at the front of the staff report)

The DPA/PRCA Plan entitled "Reston Town Center Urban Core, Section 91A, Block 4," was submitted by Urban, Ltd., and consists of 45 sheets, dated May 29, 2015, and revised through August 7, 2015, and is reviewed below.

There are no proposed changes to the previously approved site layout, access and parking, streetscape, landscaping, and stormwater management. Staff's previous review of these site elements remains applicable, as described in the staff report dated May 28, 2014 available at: http://ldsnet.fairfaxcounty.gov/ldsnet/ldsdwf/4452642.PDF. The following is staff's analysis of the revision to the DPA/PRCA.

Western Residential Tower

The western residential tower is articulated into staggered building sections oriented in an east-west direction parallel to New Dominion Parkway. Such articulation is intended to break up the mass of the building and to create visual interest. The arrangement and proportion of the building sections have been modified from what was previously approved, as shown in Figures 3A and 3B.

The middle section of the building is most visible on the western end of the tower and has been modified to make this section narrower by approximately eight feet for an approximate width of 34 feet and extends 21 feet closer to Fountain Drive. This modification is proposed to better align with the structured parking and retail space below to create a greater physical relationship with the base of building rather than a deep setback. The eastern end of the residential tower has been modified to extend six feet to the east. Such modifications only affect the residential levels (7 through 21) of the building

The modification to the building massing does not change the approved height, density, setbacks, streetscape, or number residential units approved for the building in 2014. In addition, there is no change to the ground floor uses and parking or to the eastern residential tower. Comparisons of the proposed and approved building footprints and building elevations are provided as Figures 3A through 5B.

Trail Connection

In addition to the stairs previously approved at the southern end of the building, a trail is proposed to provide access from the rear of the eastern residential tower to the adjacent park and trail along Reston Parkway, as shown in Figure 3A.

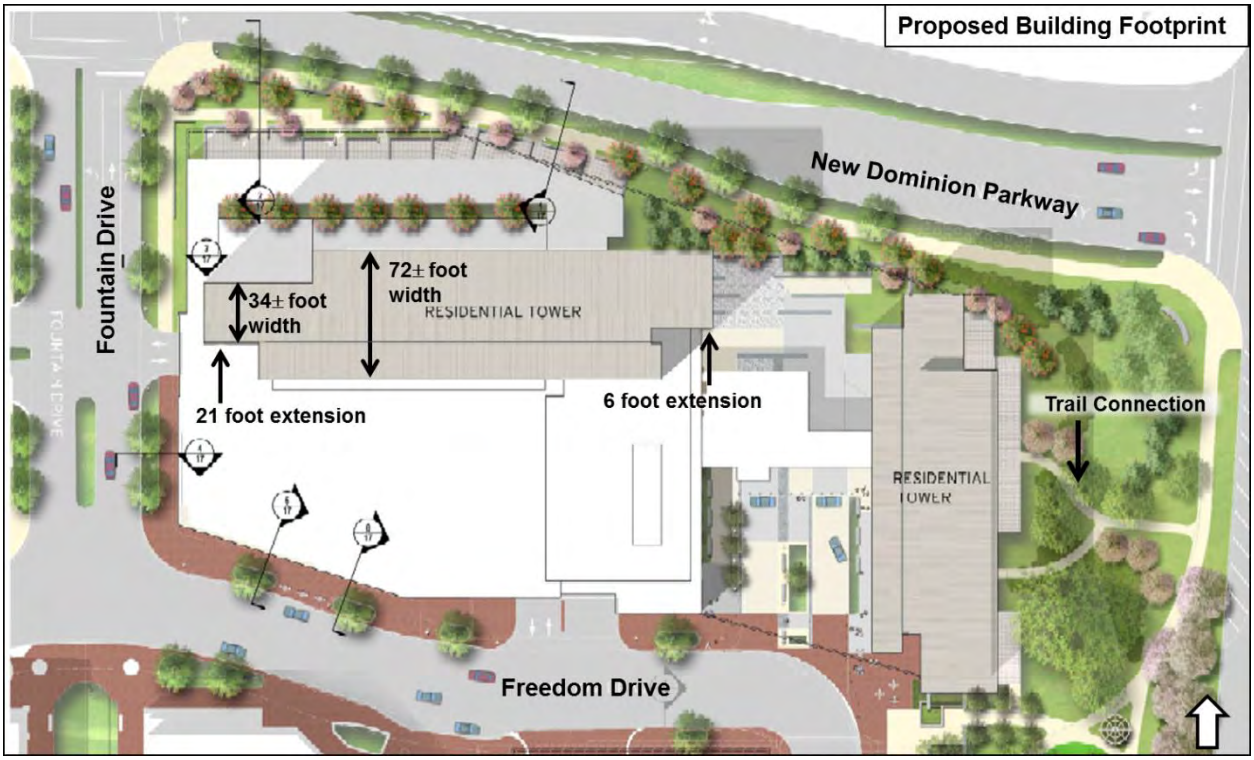

Figure 3A: Illustrative site plan of proposed building footprint, Source: Sheet 16 of DPA/PRCA

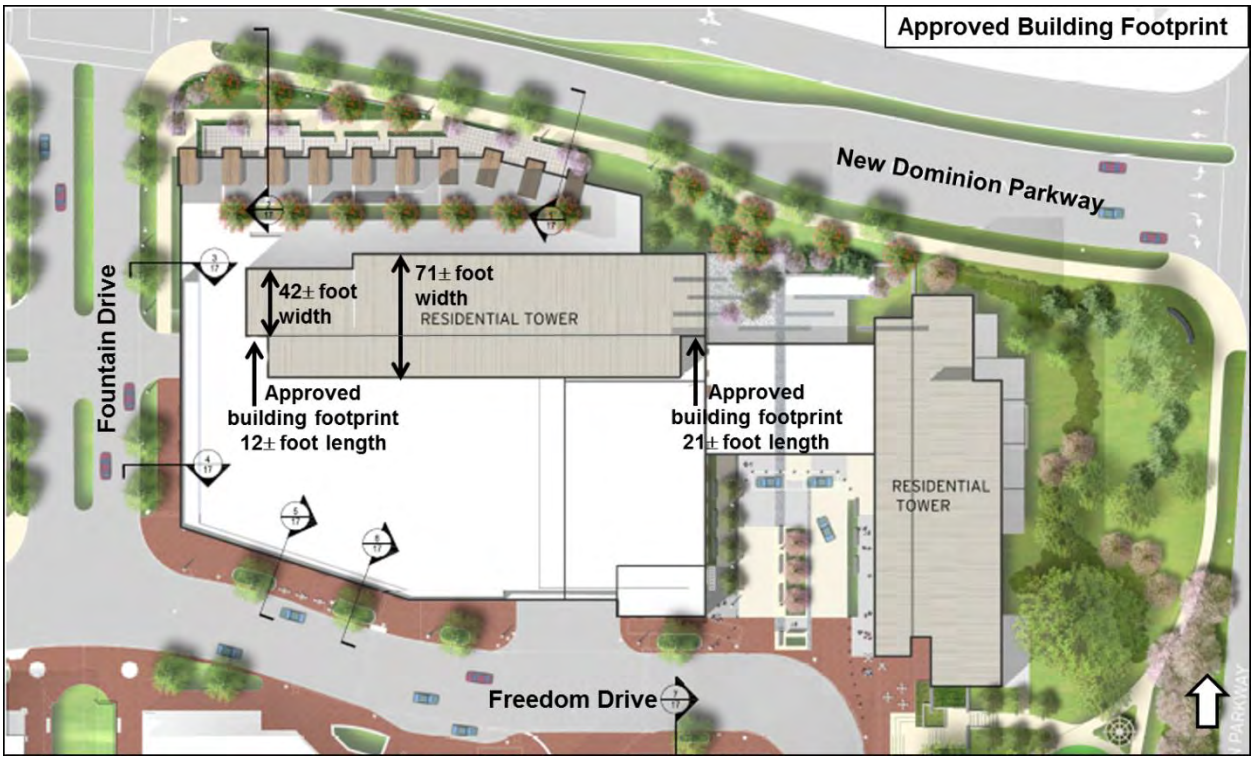

Figure 3B: Illustrative site plan of approved building footprint, Source: Sheet 16 of DPA 85-C-088-07 and PRC 85-C-088-03

Figure 4A: Elevation of building massing of the western residential tower from Freedom Drive, Source: Sheet 21E of DPA/PRCA

Figure 4B: Elevation of approved building massing, Source: DPA 85-C-088-07/PRC 85-C-088-03, Sheet 21B

Figure 5A: Elevation of the building massing of the western residential tower from the south, Source: Sheet 21E of DPA/PRCA

Figure 5B: Elevation of approved building massing, Source: DPA 85-C-088-07/PRC 85-C-088-03, Sheet 21C

Open Space

Approximately 1.85 acres (40%) of open space is provided, which is an increase of a half an acre from what is previously provided. There is no change to the area of the vegetated roof; however, in addition to a previously identified location on the main building entrance, an additional location for the vegetated roof is identified on the western residential tower.

ANALYSIS

Land Use

Given the limited scope of the applications to modify the building massing of the western residential tower, the proposal does not affect staff's previous analysis of the development's conformance with the Comprehensive Plan and Residential Development Criteria, which remain unchanged and are still applicable, as discussed in the staff report dated May 28, 2014. There is no proposed change to the applicant's previous proffer commitments to provide: public art; LEED certification; sidewalks and trails; bicycle storage; bus stop amenities; enhancements to the open space area along Reston Parkway; workforce housing units; school contribution; streetscape; transportation improvements; and landscaping.

A trail connection from the rear of the eastern residential tower is proposed to provide an accessible connection to the park and trail along Reston Parkway. This trail will have minimal impact to existing vegetation. A copy of staff's analysis of the trail connection is provided as Appendix 6.

Bulk and Mass

There is no change to the previously approved density, height, setbacks, number of residential units, parking, and ground floor retail space. The proposed modifications to the building massing of the western residential tower extends the length of the building an additional 21 feet to the west and an additional 6 feet to the east. The width of the middle section of the building decreases by eight feet. As previously discussed, modifications to the building massing could not be achieved through a minor modification request since the proposed changes are to the bulk and mass of the western residential tower and the Zoning Ordinance does not permit such modifications through a minor modification request since the impact on adjacent property should be reviewed through the zoning amendments requested.

The modification to the building massing is intended to enhance the design and functionality of the building with largely the same overall appearance and is buffered by the base of the building and is not visible from the ground level. It is not anticipated that the modifications will have a negative impact on surrounding property or viewsheds.

The revision to the arrangement and proportions to the building mass is proposed to create more distinction between each building section and to improve the functionality of the interior layout.

ZONING ORDINANCE PROVISIONS

The proposed modifications to the building massing of the western residential tower does not affect staff's previous analysis on conformance with the PRC District and General and Design Standards for Planned Development Districts, which are still applicable and discussed in the staff report dated May 28, 2014. The proposed modifications to the building massing are in conformance with the Zoning Ordinance provisions.

Modifications

The applicant requests reaffirmation of the following modifications that were previously approved by the Board of Supervisors:

- Modification of the loading space requirements in Sect. 11-203 of the Zoning Ordinance in favor of the loading spaces shown on the DPA/PRCA Plan and
- Modification of Sect. 13-303 of the Zoning Ordinance for the transitional screening and barrier requirements to that shown on the DPA/PRCA Plan.

Staff supports the reaffirmation of the previously approved modifications.

CONCLUSIONS AND RECOMMENDATIONS

Staff Conclusions and Recommendations

The proposed modifications to the building massing of the western residential tower are intended to enhance the design and functionality of the building and do not add additional density or residential units above what previously was approved in 2014. There is no change to the previous proffer commitments, which are being carried forward. No changes are proposed to the ground floor uses or to the eastern residential tower. In staff's opinion, these applications are in conformance with the Comprehensive Plan, PRC District provisions, and the general standards and design standards for planned districts.

Staff recommends approval of PCA 85-C-088-10, subject to the draft proffered conditions contained in Appendix 1.

Staff recommends approval of DPA 85-C-088-08.

Staff recommends approval of PRCA 85-C-088-03, subject to the proposed development condition contained in Appendix 2.

Staff recommends approval of a modification of Sect. 11-203 of the Zoning Ordinance for the loading space requirements to that shown on the DPA/PRCA Plan.

Staff recommends approval of a modification of Sect. 13-303 of the Zoning Ordinance for the transitional screening and barrier requirements to that shown on the DPA/PRCA Plan.

It should be noted that it is not the intent of staff to recommend that the Board of Supervisors, in adopting any conditions proffered by the owner, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

The approval of this rezoning does not interfere with, abrogate or annul any easement, covenants, or other agreements between parties, as they may apply to the property subject to this application.

It should be further noted that the content of this report reflects the analysis and recommendations of staff; it does not reflect the position of the Board of Supervisors.

APPENDICES

1. Draft Proffered Conditions
2. Proposed PRCA Condition
3. Statement of Justification
4. Affidavit
5. Minor Modification Letter and Request
6. Urban Forest Management Memo
7. Glossary

BLOCK 4 LLC
PROFFER STATEMENT
DPA 85-C-088-8
PCA 85-C-088-10

August 24, 2015

Pursuant to Section 15.2-2303 (A) of the Code of Virginia (1950, as amended) and Sect. 18-204 of the Zoning Ordinance of Fairfax County (1978, as amended) (the "Zoning Ordinance"), the property owner and applicant, for itself and its successors and assigns (collectively, the "Applicant"), in this Proffered Condition Amendment ("PCA") and Development Plan Amendment ("DPA") proffer that the development of the parcels under consideration and shown on the Fairfax County Tax Map as 17-1 ((16)) 1 and 4 (the "Property") shall be in accordance with the following conditions ("Proffers") if, and only if, DPA 85-C-088-8 and PCA 85-C-088-10 (collectively, the "Application") are granted. The Applicant reconfirms its commitment to the proffers associated with RZ 85-C-088, as amended, PCA 85-C-088-9, and DPA 85-C-088-7 (the "Existing Proffers"), except as modified herein. These Proffers, if accepted, amend and supplement only those Existing Proffers referenced below. In the event this Application is denied, these Proffers will immediately be null and void and of no further force and effect, and the Existing Proffers shall remain in effect.

AMENDMENT OF EXISTING PROFFERS

C. DEVELOPMENT PLAN FOR RZ 85-C-088

1. The Property is located within the Town Center Core Area and shall be developed in substantial conformance with the Development Plan Amendment ("Development Plan") dated May 29, 2015, and revised through August 7, 2015, prepared by Urban, Ltd., and consisting of 45 sheets, of which sheets 5, 8, 9, 10, and 10A are described below.

a. Development Plan Amendment for the Property. Sheet 5 of the Development Plan shows the generalized location of the various buildings in the Town Center Core Area; their proposed uses, proposed building heights; and provides an overview of the interrelationship of all the components.

b. Master Plan. Sheet 8 of the Development Plan shows the generalized location of the various buildings in the Town Center Core Area and their proposed uses and provides an overview of the interrelationship of all the components.

c. Overall Landscape Plan. Sheet 9 of the Development Plan shows the location of the urban parks, the continuity of the urban streetscapes throughout the Urban Core and the increased intensity of landscaping proposed for the highly pedestrian "Market Street."

d. Right-of-Way/Traffic Circulation Plan. Sheet 10 of the Development Plan shows the urban grid street pattern that will differentiate the Urban Core from the rest of Reston with its meandering streets.

e. Pedestrian Circulation/Parking Garage Entrance-Exit Plan. Sheet 10A of the Development Plan shows primary and secondary circulation patterns, the pedestrian linkages to the surrounding area and the circulation from the parking structures to the buildings. It also shows the proposed entrances and exits from the parking structures.

[Signature pages follow]

BLOCK 4 LLC,
a Maryland limited liability company

By: BP/DC Properties, Inc.,
a Maryland corporation,
its manager

By: _____
Name: _____
Title: _____

PROPOSED PRC DEVELOPMENT CONDITION

PRCA 85-C-088-03

September 3, 2015

If it is the intent of the Board of Supervisors to approve PRCA 85-C-088-03 for Tax Map 17-1 ((16)) 1 and 4, staff recommends that the Board of Supervisors condition the approval by requiring conformance with the following development condition:

1. Development of the property shall be in substantial conformance with the DPA/PRCA Plan entitled “Reston Town Center Urban Core, Section 91A, Block 4,” was submitted by Urban, Ltd., and consists of 45 sheets, dated May 29, 2015, and revised through August 7, 2015.

RESTON TOWN CENTER – SECTION 91A, BLOCK 4
DEVELOPMENT PLAN AMENDMENT/PROFFERED CONDITION AMENDMENT AND PLANNED RESIDENTIAL COMMUNITY PLAN AMENDMENT
STATEMENT OF JUSTIFICATION

June 1, 2015
Revised June 26, 2015

I. Introduction

Block 4 LLC, an affiliate of Boston Properties, Inc. (the "Applicant"), seeks approval of a Development Plan Amendment ("DPA"), a Proffered Condition Amendment ("PCA"), and a Planned Residential Community Plan Amendment ("PRCA") to modify the massing of one of the residential towers approved on the properties identified on the Fairfax County Tax Map as 17-1 ((16)) 1 and 4 ("Block 4" or the "Property").

II. Property Location and Existing Conditions

The Property is located west of Reston Parkway, south of New Dominion Parkway, east of Fountain Drive, and north of Market Street and Freedom Drive within the Reston Town Center Urban Core. Block 4 is comprised of two parcels containing approximately 4.5 acres. The eastern portion of the property along Reston Parkway is an open space area. The western portion of the property currently is used as a surface parking lot that has little landscaping and minimal open space.

III. Zoning Approvals for the Reston Town Center Urban Core

The Property is located within the 84.25-acre area known as the Urban Core of the Reston Town Center. On March 9, 1987, the Fairfax County Board of Supervisors granted approval of rezoning application RZ 85-C-088 for the creation of the Urban Core as part of four consolidated rezoning applications for approximately 449 acres of land described as the Reston Town Center. As part of RZ 85-C-088, the Property is subject to the consolidated set of proffers associated with the Reston Town Center rezonings (the "Original Proffers") and a development plan ("Original Development Plan") that divided the Urban Core into development blocks served by a grid of streets. The Original Development Plan designated Block 4 as permitting "Office, Retail, and Parking Up to 21 Stories." The Original Proffers contained a maximum level of non-residential development and a minimum number of residential dwelling units, both of which have already been achieved based on existing development within the Urban Core.

On July 29, 2014, the Board of Supervisors approved DPA 85-C-088-7, PCA 85-C-088-9, and PRC 85-C-088-3 to permit development of a mix of residential and non-residential uses on Block 4 and the adjacent Block 5 immediately to the south. The development plan ("2014 Development Plan") and proffers ("2014 Proffers") associated with these applications permit development of Block 4 with a high-rise, multi-family residential building consisting of two towers with a maximum of 549 dwelling units and up to 25,100 square feet of complementary retail/restaurant uses.

IV. Comprehensive Plan Recommendations

The Property is located within the Town Center Urban Core District of the Reston Town Center Transit Station Area portion of the Fairfax County Comprehensive Plan. The Plan notes that the Reston Town Center Urban Core area west of Reston Parkway is planned for and developed with a variety of uses, including office, retail, residential and community-serving uses, at an approved intensity of up to 0.95 FAR for commercial uses, with no maximum density for residential uses.

In addition, the Comprehensive Plan highlights that the Urban Core has a central plaza that serves as a significant community gathering place and an urban park which provides important green space and a location for active and passive recreation. The proposed massing modifications will build upon the Urban Core as a location for high-quality architectural design and an urban form not found elsewhere within Reston.

V. Proposed Modifications to Building Massing

As a part of the final architectural design, the Applicant has identified modifications to the massing of the west residential tower that would enhance the design and functionality of the building. Importantly, the proposed modifications do not add any additional density or residential units above what was approved with the 2014 Development Plan and 2014 Proffers, and will respect all of the setbacks established with the 2014 Development Plan. No changes are proposed to the lower levels of the residential building on Block 4 or any portion of the east residential tower with these applications.

To break up the massing and create visual interest, the west tower is comprised of three staggered rectangular volumes oriented east-west parallel to New Dominion Parkway. The Applicant proposes revising the arrangement and proportions of these three volumes to make each more distinctive and to create a greater relationship to the overall massing.

The middle volume is most expressed on the west end of the tower. The proposed modification will make this section thinner and will draw it closer to the Fountain Drive façade, allowing the tower as a whole to have a dramatic relationship with the base rather than just a deep setback. The thinner proportion of the middle piece then allows the other two volumes to appear wider within the overall width of the tower, giving them a greater visual presence. The full width of the tower (approximately 70') is not visible at any ground level point of view. The reduced middle volume (approximately 40' wide) makes this tower appear thinner and more elegantly proportioned. Overall, the volume of the west tower will lengthen 21 feet to the west and 6 feet to the east.

In addition to these aesthetic enhancements, the proposed massing also improves the functionality of the interior layout. The increased distinction between the exterior building volumes carries through to individual residential units, and allows for three units at the tower ends, each with dramatic corner views of Reston Town Center.

VI. Waivers and Modifications

The Applicant reaffirms the following previously-approved waivers and modifications:

A. A reduction in the number of loading spaces required by the Zoning Ordinance. The Applicant requests the reaffirmation of the previously-approved modification of the number of loading spaces required for Block 4 from five spaces to four spaces.

   For the following reasons noted in the previous application, the Applicant believes the loading space requirements in the Zoning Ordinance are outdated and not reflective of current requirements or standards:

   1. The Applicant will manage the building, together with much of Phase 1 of Reston Town Center. This consolidated management allows for coordinated visits to Town Center buildings for making deliveries or collecting refuse, reducing the need for multiple loading spaces.

   2. Since the loading space requirements were drafted, there have been dramatic changes in how people and companies communicate. Thorough digital advancements, the numbers of deliveries that are made, in particular to office buildings, have been reduced. The requested loading space reduction reflects this.

   3. The proposed number of loading spaces is consistent with other buildings in the Reston Town Center.

   Notwithstanding the above, the provision of more loading spaces than are actually required for a building's operation can have significant impacts to streetscapes, in terms of design, activation and the pedestrian experience.

B. A modification of the transitional screening and barrier requirements. The Applicant requests the reaffirmation of the previously-approved modification of the transitional screening and barrier requirements in favor of what is shown on the plans. Given the mixed use nature of the Town Center, the modification allows different uses to be better integrated and facilitates access throughout the unified development.

C. A waiver to permit underground detention facilities within a residential development. The Applicant requests the reaffirmation of the previously-approved underground detention waiver. This waiver was approved to account for the new technical regulations (Article 4 of the Stormwater Management Ordinance) that may be applied to the application property if on-site detention is required to meet channel protection/flood protection requirements. In this event, the Applicant will need to address such a requirement using underground detention in a residential development. Since the County's Public Facilities Manual does not permit underground detention in a residential development, the Applicant requests the reaffirmation of this waiver.

VII. Conclusion

The Applicant's proposed modifications to the massing of the west residential tower will enhance the overall design of the project without any negative impacts. The modifications have the enthusiastic support of the Reston Town Center Design Review Board. The PCA/DPA/PRCA application will contribute to the success of the future mixed-use development on Block 4, which, together with Block 5, represents a significant milestone in Reston's history and the fulfillment of the vision for Reston Town Center as the nation's premier pedestrian-friendly, mixed-use planned community. The Applicant, therefore, respectfully requests the support of Fairfax County Staff, the Planning Commission, and the Board of Supervisors.

Respectfully submitted,

Brian J. Winterhalter, Esq.
Cooley LLP
June 26, 2015

117235202 v2

REZONING AFFIDAVIT

DATE: August 6, 2015
(enter date affidavit is notarized)

130678

I, Brian J. Winterhalter, do hereby state that I am an
(enter name of applicant or authorized agent)

(check one) [ ] applicant
[✓] applicant's authorized agent listed in Par. 1(a) below

in Application No.(s): PCA 85-C-088-10, DPA 85-C-088-08, PRCA 85-C-088-03
(enter County-assigned application number(s), e.g. RZ 88-V-001)

and that, to the best of my knowledge and belief, the following information is true:

1(a). The following constitutes a listing of the names and addresses of all **APPLICANTS, TITLE OWNERS, CONTRACT PURCHASERS,** and **LESSEES** of the land described in the application,* and, if any of the foregoing is a **TRUSTEE,**** each **BENEFICIARY** of such trust, and all **ATTORNEYS** and **REAL ESTATE BROKERS,** and all **AGENTS** who have acted on behalf of any of the foregoing with respect to the application:

(**NOTE**: All relationships to the application listed above in **BOLD** print must be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel(s) for each owner(s) in the Relationship column.)

NAME (enter first name, middle initial, and last name)	**ADDRESS** (enter number, street, city, state, and zip code)	**RELATIONSHIP(S)** (enter applicable relationships listed in **BOLD** above)
Block 4 LLC Agents: Peter D. Johnston Peter V. Otteni Kenneth F. Simmons Richard H. Ellis Raymond A. Ritchey	2200 Pennsylvania Avenue, N.W. Suite 200W Washington, DC 20037	Applicant/Property Owner of Tax Map 17-1 ((16)) 1 and 4

(check if applicable) [✓] There are more relationships to be listed and Par. 1(a) is continued on a "Rezoning Attachment to Par. 1(a)" form.

* In the case of a condominium, the title owner, contract purchaser, or lessee of 10% or more of the units in the condominium.

** List as follows: Name of trustee, Trustee for (name of trust, if applicable), for the benefit of: (state name of each beneficiary).

130678

Rezoning Attachment to Par. 1(a)

DATE: August 6, 2015
(enter date affidavit is notarized)

for Application No. (s): PCA 85-C-088-10, DPA 85-C-088-08, PRCA 85-C-088-03
(enter County-assigned application number (s))

(**NOTE**: All relationships to the application are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel(s) for each owner(s) in the Relationship column.

NAME (enter first name, middle initial, and last name)	**ADDRESS** (enter number, street, city, state, and zip code)	**RELATIONSHIP(S)** (enter applicable relationships listed in **BOLD** above)
Urban Engineering & Associates, LLC t/a Urban, Ltd.) Agents: Eric S. Siegel, PE Peter F. Crawford, PE	7712 Little River Turnpike Annandale, VA 22003	Engineer/Agent
Cooley LLP Agents: Antonio J. Calabrese, Esq. Mark C. Looney, Esq. Colleen P. Gillis Snow, Esq. Jill S. Parks, Esq. Brian J. Winterhalter, Esq. Jeffrey A. Nein, Planner Ben I. Wales, Planner Molly M. Novotny, Planner Katherine P. Humphrey, Planner	One Freedom Square Reston Town Center 11951 Freedom Drive, #1500 Reston, VA 20190	Attorney/Agent
Shalom Baranes Associates Agent: Ari (nmi) Blumenthal Shalom S. Baranes Robert M. Sponseller Claudia (nmi) Russell	1010 Wisconsin Avenue, NW Suite 900 Washington, DC 20007	Architect/Agent

(check if applicable) [ ] There are more relationships to be listed and Par. 1(a) is continued further on a "Rezoning Attachment to Par. 1(a)" form.

REZONING AFFIDAVIT

130678

DATE: August 6, 2015
(enter date affidavit is notarized)

for Application No. (s): PCA 85-C-088-10, DPA 85-C-088-08, PRCA 85-C-088-03
(enter County-assigned application number(s))

1(b). The following constitutes a listing*** of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 10 or less shareholders, a listing of all of the shareholders, **and if the corporation is an owner of the subject land, all of the OFFICERS and DIRECTORS of such corporation:**

(**NOTE:** Include **SOLE PROPRIETORSHIPS, LIMITED LIABILITY COMPANIES,** and **REAL ESTATE INVESTMENT TRUSTS** herein.)

CORPORATION INFORMATION

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)
Block 4 LLC
2200 Pennsylvania Avenue, NW, Suite 200W
Washington, DC 20037

DESCRIPTION OF CORPORATION: (check one statement)

[✓] There are 10 or less shareholders, and all of the shareholders are listed below.
[ ] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[ ] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF SHAREHOLDERS: (enter first name, middle initial, and last name)
BP/DC Properties, Inc.

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name & title, e.g. **President, Vice President, Secretary, Treasurer**, etc.)
BP/DC Properties, Inc.- Manager

(check if applicable) [✓] There is more corporation information and Par. 1(b) is continued on a "Rezoning Attachment 1(b)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. ***In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed.*** Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

130678

Rezoning Attachment to Par. 1(b)

DATE: August 6, 2015
(enter date affidavit is notarized)

for Application No. (s): PCA 85-C-088-10, DPA 85-C-088-08, PRCA 85-C-088-03
(enter County-assigned application number (s))

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

BP/DC Properties, Inc.
200 State Street, 5th Floor
Boston, MA 02109

DESCRIPTION OF CORPORATION: (check one statement)

☑ There are 10 or less shareholders, and all of the shareholders are listed below.

☐ There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.

☐ There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDER: (enter first name, middle initial, and last name)

Boston Properties Limited Partnership
Boston Properties LLC
Boston Properties, Inc.

==========

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name, and title, e.g. **President, Vice-President, Secretary, Treasurer**, etc.)

Peter G. Back, VP Construction
Stacey A. Baker, VP Leasing
Robert A. Barrasso, VP Property Acctng
John K. Brandbergh, Sen VP Leasing
Helene R. Bryks, VP, Counsel
Frank D. Burt, Sen VP, General Counsel, Sec.
Gregory A. Butler, VP, Regional Controller
Michael A. Cantalupa, Sen VP Development
Bruce L. Christman, Sen VP, Reg GC & Ass. Sec.
Keli (nmi) Colby, VP, Counsel, Ass. Sec.
Steven R. Colvin, Sen VP, Prop Manager
Lynne P. Coville, VP Const
Frederick J. DeAngelis, Sen VP, Sen Counsel
Mark J. Denman, VP Const
Mark D. Denny, VP, Regional Controller
Rodney C. Diehl, Sen VP Leasing
Kelli A. DiLuglio, Ass Sec
Anne B. DuMont, VP Leasing
Carol B. Einiger, Director
Richard H. Ellis, VP Development
Jacob A. Frenkel, Director
Donna (nmi) Garesche, VP, HR
Jeffrey (nmi) Garner, VP Engineering
Amy C. Gindel, Sen VP Finance
Robert S. Hamilton, VP, Reg. Controller
James A. Hart, VP Development
Thomas L. Hill, Sen VP Prop Management
Mark E. Hockenjos, VP Prop Management
J. Michael Holland, VP Construction
Franklin S. Hyre, III, VP Leasing
Peter D. Johnston, Sen VP, Reg. Manager
Jonathan L. Kaylor, Sen VP Leasing
Janet (nmi) Kerr, VP Risk Management
Eric G. Kevorkian, Sen VP, Sen Couns, Ass. Sec.
Joel I. Klein, Director
Bryan J. Koop, Sen VP and Reg. Manager
Jonathan B. Kurtis, Sen VP Construction
Michael E. LaBelle, Sen VP, CFO & Treas
Andrew D. Levin, Sen VP, Leasing
Douglas T. Linde, Pres., Dir.
Matthew J. Lustig, Dir.
Jeanne (nmi) Madden, VP, Reg. Controller
James J. Magaldi, VP Capital
Matthew W. Mayer, Sen VP, Reg GC & Ass. Sec.
Laura D. McNulty, Sen VP Prop
David E. Miller, VP Construction
Richard T. Monopoli, VP Development
Steven P. Morken, VP Construction
Thomas J. O'Connor, VP Acquisitions
Jonathan (nmi) Olson, VP Construction
Peter V. Otteni, VP Development
Alan J. Patricof, Director
Edward D. Penn, VP, Reg. Couns, Ass Sec.
Robert E. Pester, Sen VP, Reg Man.
Jeffrey S. Phaneuf, VP Finance
David (nmi) Pigott, VP
John F. Powers, Sen VP, Reg. Man.
David C. Provost, Sen VP Leasing
Jonathan S. Randall, Sen VP Construction
Raymond A. Ritchey, Exec VP
Michael J. Rowe, VP Financial Reporting
Robert A. Schubert, Sen VP Construction
Michael J. Schumacher, VP Construction
Peter V. See, Sen VP, Property Mgmt.
Ivan G. Seidenberg, Director
Kevin T. Sheehan, VP Development
Christine (nmi) Shen, VP Reg Coun Ass. Sec
Barney H. Silver, VP, Construction
Lori W. Silverstein, VP, Construction
Kenneth F. Simmons, Sen VP Dev.
Carl W. Slagle, VP Construction
R. David Stewart, VP Development
Gregory M. Storrs, VP Leasing
John J. Stroman, VP Development
Owen D. Thomas, CEO, Director
Madeleine C. Timin, Sen VP, Reg. GC & Ass. Sec.
Martin (nmi) Turchin, Vice Chair
David A. Twardock, Director
Melanie J. Waldron, VP, Regional Prop. Man.
James J. Whalen, Sen VP and CIO
Maura L. Wheet, VP Tax
Kathleen (nmi) Yuergens, VP Counsel
Mortimer B. Zuckerman, Exec. Chairman

(check if applicable) ☑ There is more corporation information and Par. 1(b) is continued further on a "Rezoning Attachment to Par. 1(b)" form.

FORM RZA-1 Updated (7/1/06)

Rezoning Attachment to Par. 1(b)

130678

DATE: August 6, 2015
(enter date affidavit is notarized)

for Application No. (s): PCA 85-C-088-10, DPA 85-C-088-08, PRCA 85-C-088-03
(enter County-assigned application number (s))

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

Boston Properties, Inc.
800 Boylston Street, Suite 1900
Boston, MA 02199

DESCRIPTION OF CORPORATION: (check one statement)

- ☐ There are 10 or less shareholders, and all of the shareholders are listed below.
- ☐ There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- ☑ There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDER: (enter first name, middle initial, and last name)

Boston Properties, Inc. is a publicly traded company listed as BXP on the NYSE.

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name, and title, e.g. **President, Vice-President, Secretary, Treasurer**, etc.)

Peter G. Back, VP Construction
Stacey A. Baker, VP Leasing
Robert A. Barrasso, VP Property Acctng
John K. Brandbergh, Sen VP Leasing
Helene R. Bryks, VP, Counsel
Frank D. Burt, Sen VP, General Counsel, Sec.
Gregory A. Butler, VP, Regional Controller
Michael A. Cantalupa, Sen VP Development
Bruce L. Christman, Sen VP, Reg GC & Ass. Sec.
Keli (nmi) Colby, VP, Counsel, Ass. Sec.
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Lynne P. Coville, VP Const
Frederick J. DeAngelis, Sen VP, Sen Counsel
Mark J. Denman, VP Const
Mark D. Denny, VP, Regional Controller
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Joel I. Klein, Director
Bryan J. Koop, Sen VP and Reg. Manager
Jonathan B. Kurtis, Sen VP Construction
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James J. Magaldi, VP Capital
Matthew W. Mayer, Sen VP, Reg GC & Ass. Sec.
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John F. Powers, Sen VP, Reg. Man.
David C. Provost, Sen VP Leasing
Jonathan S. Randall, Sen VP Construction
Raymond A. Ritchey, Exec VP
Michael J. Rowe, VP Financial Reporting
Robert A. Schubert, Sen VP Construction
Michael J. Schumacher, VP Construction
Peter V. See, Sen VP, Property Mgmt.
Ivan G. Seidenberg, Director
Kevin T. Sheehan, VP Development
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Barney H. Silver, VP, Construction
Lori W. Silverstein, VP, Construction
Kenneth F. Simmons, Sen VP Dev.
Carl W. Slagle, VP Construction
R. David Stewart, VP Development
Gregory M. Storrs, VP Leasing
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Martin (nmi) Turchin, Vice Chair
David A. Twardock, Director
Melanie J. Waldron, VP, Regional Prop. Man.
James J. Whalen, Sen VP and CIO
Maura L. Wheet, VP Tax
Kathleen (nmi) Yuergens, VP Counsel
Mortimer B. Zuckerman, Exec. Chairman

(check if applicable) ☑ There is more corporation information and Par. 1(b) is continued further on a "Rezoning Attachment to Par. 1(b)" form.

Rezoning Attachment to Par. 1(b)

130678

DATE: August 6, 2015
(enter date affidavit is notarized)

for Application No. (s): PCA 85-C-088-10, DPA 85-C-088-08, PRCA 85-C-088-03
(enter County-assigned application number (s))

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

Boston Properties LLC
200 State Street, 5th Floor
Boston, MA 02109

DESCRIPTION OF CORPORATION: (check one statement)

[✓] There are 10 or less shareholders, and all of the shareholders are listed below.
[ ] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[ ] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDER: (enter first name, middle initial, and last name)

Boston Properties Limited Partnership
Boston Properties, Inc.

==========

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name, and title, e.g. **President, Vice-President, Secretary, Treasurer**, etc.)

==========

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

Urban Engineering & Associates, LLC (t/a Urban, Ltd.)
7712 Little River Turnpike
Annandale, VA 22003

DESCRIPTION OF CORPORATION: (check one statement)

[✓] There are 10 or less shareholders, and all of the shareholders are listed below.
[ ] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[ ] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

J. Edgar Sears, Jr.
Brian A. Sears

==========

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name, and title, e.g. **President, Vice-President, Secretary, Treasurer**, etc.)

(check if applicable) [✓] There is more corporation information and Par. 1(b) is continued further on a "Rezoning Attachment to Par. 1(b)" form.

Rezoning Attachment to Par. 1(b)

DATE: August 6, 2015
(enter date affidavit is notarized)

130678

for Application No. (s): PCA 85-C-088-10, DPA 85-C-088-08, PRCA 85-C-088-03
(enter County-assigned application number (s))

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)
Shalom Baranes Associates
1010 Wisconsin Avenue, NW
Washington, DC 20007

DESCRIPTION OF CORPORATION: (check one statement)

[✓] There are 10 or less shareholders, and all of the shareholders are listed below.
[ ] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[ ] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDER: (enter first name, middle initial, and last name)
Shalom S. Baranes

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name, and title, e.g. **President, Vice-President, Secretary, Treasurer**, etc.)

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

DESCRIPTION OF CORPORATION: (check one statement)

[ ] There are 10 or less shareholders, and all of the shareholders are listed below.
[ ] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[ ] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF THE SHAREHOLDERS: (enter first name, middle initial, and last name)

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name, and title, e.g. **President, Vice-President, Secretary, Treasurer**, etc.)

(check if applicable) [ ] There is more corporation information and Par. 1(b) is continued further on a "Rezoning Attachment to Par. 1(b)" form.

REZONING AFFIDAVIT

DATE: August 6, 2015
(enter date affidavit is notarized)

130678

for Application No. (s): PCA 85-C-088-10, DPA 85-C-088-08, PRCA 85-C-088-03
(enter County-assigned application number(s))

1(c). The following constitutes a listing*** of all of the **PARTNERS,** both **GENERAL** and **LIMITED**, in any partnership disclosed in this affidavit:

PARTNERSHIP INFORMATION

PARTNERSHIP NAME & ADDRESS: (enter complete name, number, street, city, state and zip code)

Boston Properties Limited Partnership
Prudential Center
800 Boylston Street
Suite 1900
Boston, MA 02199

(check if applicable) [ ] The above-listed partnership has no limited partners.

NAMES AND TITLE OF THE PARTNERS (enter first name, middle initial, last name, and title, e.g. **General Partner, Limited Partner, or General and Limited Partner)**

Boston Properties, Inc. - General Partner

There are over 200 limited partners in this real estate investment fund, none of whom own 10% or more of Block 4 LLC

(check if applicable) [✓] There is more partnership information and Par. 1(c) is continued on a "Rezoning Attachment to Par. 1(c)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. ***In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed.*** Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

130678

Rezoning Attachment to Par. 1(c)

DATE: August 6, 2015
(enter date affidavit is notarized)

for Application No. (s): PCA 85-C-088-10, DPA 85-C-088-08, PRCA 85-C-088-03
(enter County-assigned application number (s))

PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)

Cooley LLP
11951 Freedom Drive
Reston, VA 20190

(check if applicable) [✓] The above-listed partnership has no limited partners.

NAMES AND TITLES OF THE PARTNERS: (enter first name, middle initial, last name, and title, e.g., **General Partner, Limited Partner, or General and Limited Partner)**

Gian-Michele a Marca
Jane K. Adams
Maureen P. Alger
DeAnna D. Allen
Mazda K. Antia
Orion (nmi) Armon
Gordon C. Atkinson
Michael A. Attanasio
Jonathan P. Bach
Charles J. Bair
Celia Goldwag Barenholtz
Frederick D. Baron
Matthew S. Bartus
Michael D. Basile
Keith J. Berets
Ann (nmi) Bevitt
Laura Grossfield Birger
Thomas A. Blinka
Nicholas (nmi) Bolter
Barbara L. Borden
Jodie M. Bourdet
Wendy J. Brenner
David (nmi) Bresnick
Matthew J. Brigham
James P. Brogan
Nicole C. Brookshire
Matthew D. Brown
Alfred L. Browne III
Matthew T. Browne
Peter F. Burns
Blain B. Butner
John T. Byrnes
Robert T. Cahill
Antonio J. Calabrese
Christopher C. Campbell
William Lesse Castleberry
Lynda K. Chandler
Reuben H. Chen
Dennis (nmi) Childs
William T. Christiansen, II
Sean M. Clayton
John A. Clendenin
Jeffrey L. Cohen
Thomas A. Coll
Joseph W. Conroy
Christopher (nmi) Coulter
James (nmi) Crabtree
Carolyn L. Craig
John W. Crittenden
Janet L. Cullum
Nathan K. Cummings
John A. Dado
Scott D. Dailard
Benjamin G. Damstedt
Craig E. Dauchy
Mark (nmi) Deem
Renee R. Deming
Darren K. DeStefano
Eric W. Doherty
William P. Donovan, Jr.
Michelle C. Doolin
Joseph M. Drayton
Matthew P. Dubofsky
Christopher (nmi) Durbin
John C. Dwyer
Shannon (nmi) Eagan
Eric (nmi) Edwards
Ivor R. Elrifi
Gordon H. Empey
Sonya F. Erickson
Heidi A. Erlacher
Mark (nmi) Everiss
Michael R. Faber
Lester J. Fagen
Jesse D. Farmer
Brent D. Fassett
John R. Feore, Jr.
Chris (nmi) Finney
M. Wainwright Fishburn, Jr.
Thomas J. Friel, Jr.
Francis (nmi) Fryscak
Koji F. Fukumura
James F. Fulton, Jr.
William S. Galliani
W. Andrew H. Gantt III
Jon E. Gavenman
Colleen P. Gillis
Jonathan C. Glass
Michael B. Goldstein
Wendy C. Goldstein
Kathleen A. Goodhart
Lawrence C. Gottlieb
Shane L. Goudey
Jonathan G. Graves
Jacqueline I. Grise
Kenneth L. Guernsey

(check if applicable) [✓] There is more partnership information and Par. 1(c) is continued further on a "Rezoning Attachment to Par. 1(c)" form.

Rezoning Attachment to Par. 1(c)

130678

DATE: August 6, 2015
(enter date affidavit is notarized)

for Application No. (s): PCA 85-C-088-10, DPA 85-C-088-08, PRCA 85-C-088-03
(enter County-assigned application number (s))

PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)

Cooley LLP (Continued)
11951 Freedom Drive
Reston, VA 20190

(check if applicable) [✓] The above-listed partnership has no limited partners.

NAMES AND TITLES OF THE PARTNERS: (enter first name, middle initial, last name, and title, e.g., **General Partner, Limited Partner, or General and Limited Partner)**

Patrick P. Gunn
Divakar (nmi) Gupta
Sarah J. Guske
Jeffrey M. Gutkin
John B. Hale
Danish (nmi) Hamid
Laurence (nmi) Harris
Ray (nmi) Hartman
Bernard L. Hatcher
Matthew B. Hemington
Cathy Rae Hershcopf
Gordon (nmi) Ho
Nick (nmi) Hobson
Lila W. Hope
C. Thomas Hopkins
Richard (nmi) Hopley
Mark M. Hrenya
Brendan J. Hughes
Christopher R. Hutter
Jay R. Indyke
Craig D. Jacoby
Eric C. Jensen
Robert L. Jones
Jeff (nmi) Kaban
Barclay J. Kamb
Richard S. Kanowitz
Kimberly J. Kaplan-Gross
Jeffrey S. Karr
Sally A. Kay
Heidi M. Keefe
David R. Kendall
Jason L. Kent
Mehdi (nmi) Khodadad
Charles S. Kim
Kevin M. King
Benjamin (nmi) Kleine
Michael J. Klisch
Jason M. Koral
Barbara A. Kosacz
Kenneth J. Krisko
Carol Denise Laherty
Mark F. Lambert
Matthew E. Langer
Samantha M. LaPine
John G. Lavoie
Pang (nmi) Lee
Robin J. Lee
Louis (nmi) Lehot (Former)
Jamie K. Leigh
Natasha (nmi) Leskovsek
Shira Nadich Levin
Alan (nmi) Levine
Michael S. Levinson
Stephanie (nmi) Levy
Elizabeth L. Lewis
Michael R. Lincoln
James C. T. Linfield
Samuel M. Livermore
Douglas P. Lobel
J. Patrick Loofbourrow
Mark C. Looney
Robert B. Lovett
James (nmi) Lu
Edward J. Lukins
Andrew P. Lustig
Nicola K. Maguire
Thomas O. Mason
Jennifer (nmi) Massey
Joshua O. Mates
James (nmi) Maton
Michael J. McGrail
Becket (nmi) McGrath
John T. McKenna
Bonnie Weiss McLeod
Mark A. Medearis
Laura M. Medina
Beatriz (nmi) Mejia
Craig A. Menden
Erik B. Milch
Chadwick L. Mills
David E. Mills
J. Kevin Mills
Patrick J. Mitchell
Ali M.M. Mojdehi
Ann M. Mooney
Timothy J. Moore
Howard (nmi) Morse
Phillip (nmi) Morton
Frederick T. Muto
Danielle E. Naftulin
Ryan E. Naftulin
Jeremy M. Naylor
Stephen C. Neal
Edward J. O'Connell
Ian (nmi) O'Donnell
Rama (nmi) Padmanabhan
Kathleen (nmi) Pakenham
Timothy G. Patterson
Sarah (nmi) Pearce
Anne H. Peck
D. Bradley Peck
David G. Peinsipp
Nicole (nmi) Peppe
Kevin (nmi) Perry
Robert W. Phillips

(check if applicable) [✓] There is more partnership information and Par. 1(c) is continued further on a "Rezoning Attachment to Par. 1(c)" form.

Rezoning Attachment to Par. 1(c)

DATE: August 6, 2015
(enter date affidavit is notarized)

130678

for Application No. (s): PCA 85-C-088-10, DPA 85-C-088-08, PRCA 85-C-088-03
(enter County-assigned application number (s))

PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)

Cooley LLP (Continued)
11951 Freedom Drive
Reston, VA 20190

(check if applicable) [✓] The above-listed partnership has no limited partners.

NAMES AND TITLES OF THE PARTNERS: (enter first name, middle initial, last name, and title, e.g., **General Partner, Limited Partner, or General and Limited Partner)**

Susan Cooper Philpot
Frank V. Pietrantonio
Mark B. Pitchford
Michael L. Platt
Christian E. Plaza
Aaron M. Pomeroy
Marya A. Postner
Steve M. Przesmicki
Seth A. Rafkin
Frank F. Rahmani
Marc (nmi) Recht
Michael G. Rhodes
Michelle S. Rhyu
Lyle (nmi) Roberts
John W. Robertson
Ricardo (nmi) Rodriguez
Kenneth J. Rollins
Kevin K. Rooney
Adam J. Ruttenberg
Akash (nmi) Sachdeva
Thomas R. Salley III
Jessica Valenzuela Santamaria
Glen Y. Sato
Martin S. Schenker
Joseph A. Scherer (Former)
Marc G. Schildkraut
William J. Schwartz
Ellen A. Scordino
Audrey K. Scott
John H. Sellers
Ian R. Shapiro
Michael N. Sheetz
C. Christopher Shoff
Jordan A. Silber
Brent B. Siler
Ian D. Smith
Stephen R. Smith
Whitty (nmi) Somvichian
Wayne O. Stacy
Anthony M. Steigler
Steven M. Strauss
M. Anne Swanson
C. Scott Talbot
Mark P. Tanoury
Joseph (nmi) Teja, Jr.
Gregory C. Tenhoff
Michael E. Tenta
Timothy S. Teter
Michael (nmi) Tollini
Michael S. Tuscan
Jay (nmi) Vaughn
Miguel J. Vega
Erich E. Veitenheimer III
Aaron J. Velli
David A. Walsh
Mark B. Weeks
Mark R. Weinstein
Thomas S. Welk
Peter H. Werner
Scott (nmi) Weston
Francis R. Wheeler
Geoffrey T. Willard
Andrew S. "Drew" Williamson
Peter J. Willsey
Mark Windfeld-Hansen
David J. Wittenstein
Nancy H. Wojtas
Amy M. Wood
J. Peyton Worley
Nan (nmi) Wu
Babak (nmi) Yaghmaie
Jonathan (nmi) Yorke
David R. Young
Christina (nmi) Zhang
Kevin J. Zimmer

Additional:
Daniel I. Goldberg
William N. Haddad
Joshua A. Kaufman
Barbara R. Mirza
Garth A. Osterman
Yvan-Claude J. Pierre
John (nmi) Wilkinson

(check if applicable) [ ] There is more partnership information and Par. 1(c) is continued further on a "Rezoning Attachment to Par. 1(c)" form.

REZONING AFFIDAVIT

DATE: August 6, 2015
(enter date affidavit is notarized)

130678

for Application No. (s): PCA 85-C-088-10, DPA 85-C-088-08, PRCA 85-C-088-03
(enter County-assigned application number(s))

1(d). One of the following boxes **must** be checked:

[ ] In addition to the names listed in Paragraphs 1(a), 1(b), and 1(c) above, the following is a listing of any and all other individuals who own in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER,** or **LESSEE*** of the land:

[✓] Other than the names listed in Paragraphs 1(a), 1(b), and 1(c) above, no individual owns in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER,** or **LESSEE*** of the land.

2. That no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or through an interest in a partnership owning such land.

EXCEPT AS FOLLOWS: (**NOTE**: If answer is none, enter "**NONE**" on the line below.)

None.

(check if applicable) [ ] There are more interests to be listed and Par. 2 is continued on a "Rezoning Attachment to Par. 2" form.

REZONING AFFIDAVIT

DATE: August 6, 2015
(enter date affidavit is notarized)

130678

for Application No. (s): PCA 85-C-088-10, DPA 85-C-088-08, PRCA 85-C-088-03
(enter County-assigned application number(s))

3. That within the twelve-month period prior to the public hearing of this application, no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household, either directly or by way of partnership in which any of them is a partner, employee, agent, or attorney, or through a partner of any of them, or through a corporation in which any of them is an officer, director, employee, agent, or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has, or has had any business or financial relationship, other than any ordinary depositor or customer relationship with or by a retail establishment, public utility, or bank, including any gift or donation having a value of more than $100, singularly or in the aggregate, with any of those listed in Par. 1 above.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "**NONE**" on line below.)
None.

(NOTE: Business or financial relationships of the type described in this paragraph that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings. See Par. 4 below.)

(check if applicable) [ ] There are more disclosures to be listed and Par. 3 is continued on a "Rezoning Attachment to Par. 3" form.

4. That the information contained in this affidavit is complete, that all partnerships, corporations, and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land have been listed and broken down, and that prior to each and every public hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including business or financial relationships of the type described in Paragraph 3 above, that arise on or after the date of this application.

WITNESS the following signature: Brian J. Winterhalter

(check one) [ ] Applicant [✓] Applicant's Authorized Agent

Brian J. Winterhalter, Esquire
(type or print first name, middle initial, last name, and title of signee)

Subscribed and sworn to before me this 6th day of August 2015, in the ~~State~~/Comm. of Virginia, County/~~City~~ of Fairfax.

Betty C. Leyshon
Notary Public

Betty C. Leyshon
NOTARY PUBLIC
Commonwealth of Virginia
Reg. #322548
Commission Exp. 10/31/2018

My commission expires: 10/31/2018

FORM RZA-1 Updated (7/1/06)

County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

July 22, 2015

Brian Winterhalter
Cooley LLP
One Freedom Square
Reston Town Center
11951 Freedom Drive
Reston, VA 20190-5656

Re: PCA 85-C-088-09, DPA 85-C-088-07, PRC 85-C-088-03, Reston Town Center Blocks 4 and 5; Tax Map 17-1 ((16)) 1, 4 & 5A: Tower Connection, Building Footprint, Setback, Height, Architecture, Amenity/Pool Deck, Vehicle Entry.

Dear Mr. Winterhalter:

This is in response to your letter of November 5, 2014, superseded by your letter of May 20, 2015, requesting an interpretation of the proffers, Development Plan Amendment/Proffered Condition Amendment/PRC Plan (herein referred to as the Development Plan), and development conditions accepted and approved in conjunction with the approval of the above-referenced applications. As I understand it, you are asking whether modifications to the Reston Town Center Block 4 building footprint and setback, and whether modifications to the Reston Town Center Block 5 building footprint, height, architecture, amenity/pool deck, and vehicular entry would be in substantial conformance with the proffers, Development Plan, and development conditions. The questions specific to Blocks 4 and 5 will be addressed separately below. This determination is based upon your November 5, 2014 and May 20, 2015 letters and an exhibit consisting of 10 pages entitled "Reston Town Center Block 4" and "Reston Town Center Block 5," dated May 20, 2015, prepared by shalom baranes associates. Copies of your letters and relevant exhibits are attached.

The 6.35 acre subject site is located at the southwest quadrant of the New Dominion Parkway/Reston Parkway intersection and is more specifically identified as Blocks 4 and 5 of the Reston Town Center Urban Core. The property is zoned PRC (Planned Residential Community) and is currently improved with a multi-story non-residential building on Block 4 and a surface parking lot on Block 5. PCA 85-C-088-09/DPA 85-C-088-07/PRC 85-C-088-03 was approved by the Board of Supervisors on July 29, 2014, subject to proffers, to permit the redevelopment of the property into a mixed-use project to include 625,000 square feet of residential and 542,287 square feet of non-residential uses. Block 4 included 549 multi-family residential dwelling units and 4,500 square feet of supporting retail uses within two new high rise buildings. Block 5 included 505,112 square feet of office and 32,675 square feet of supporting retail uses within one new high rise building.

Department of Planning and Zoning
Zoning Evaluation Division
12055 Government Center Parkway, Suite 801
Fairfax, Virginia 22035-5509
Phone 703 324-1290
FAX 703 324-3924
www.fairfaxcounty.gov/dpz/

Block 5: Footprint and Setback

You have now asked whether modifications to the Block 5 building footprint and setback would be in substantial conformance with the proffers, Development Plan, and development conditions. Currently, Block 5 is comprised of the existing 11-story One Freedom Square office building, which includes a low-rise 3-story building extending to the block's eastern boundary. PCA 85-C-088-09/DPA 85-C-088-07/PRC 85-C-088-03 provided for the removal and reconstruction of the three story portion of the building into a 17-story office building connected to the existing tower by a 2-story addition. The layout of the building is depicted on Sheet 7 of the Development Plan. A cross section depicting the interrelationship of the existing and proposed buildings is noted on Sheet 20, and architectural elevations are noted on Sheet 21B.

The modifications now proposed would retain the general configuration and orientation of the building but would shift the various volumes comprising the structure for the purpose of adding visual interest. More specifically, the overall building would be recessed at grade along the frontages of Market and Presidents Street, increasing the building setback from 23 feet to 27 feet, and from 17 feet to 19 feet, respectively. A portion of the building façade along Market Street between floors 3 and 8 would be maintained in its original location creating an offset that would overhang the Market Street sidewalk. Expansions of the building footprint into areas designated on the Development Plan as open space are proposed at the northeast and southeast corners. The increases in setbacks are intended to offset the areas of building expansion, and would increase the overall open space for Block 5 from 9,212 square feet to 9,864 square feet. You indicate the above changes have been reviewed and approved by the Reston Town Center Design Review Board.

It is my determination that the modifications to the Block 5 building footprint and setback, as depicted in your attached exhibits, would be in substantial conformance with the proffers, Development Plan, and development conditions, subject to approval by the Department of Public Works and Environmental Services (DPWES).

Block 4: Footprint, Architecture, Height, Amenity/Pool Deck, Vehicle Entry

You have also asked whether modifications to the Block 4 building footprint, architecture, height, amenity/pool deck, and vehicle entry would be in substantial conformance with the proffers, Development Plan, and development conditions. Sheet 7 of the Development Plan depicts Block 4 as two residential towers interconnected by a four level "Main Entrance" structure. A 19-story residential tower is situated along a north south orientation adjacent to an existing area of open space located alongside Reston Parkway. A second 21-story residential tower is situated along an east west orientation adjacent and perpendicular to Fountain Drive.

The 21-story tower is situated atop a 5-story parking garage and includes an amenity/pool area on top of the garage. A 6-level residential building caps the northern side of the parking garage along the New Dominion Parkway frontage of the site. An illustrative site plan is included as Sheet 16 of the Development Plan and further articulates the site layout. Cross Sections of the two residential buildings are noted on Sheet 21, and architectural elevations from both a street level and aerial perspective are noted on Sheets 21A, 21B, 21C, and 21D.

The modifications proposed to Block 4 are more specifically related to the 6-level residential building along New Dominion Parkway, the amenity/pool deck, and the 4-story Main Entrance structure. Modifications to the 6-level residential building include a reduction of the at-grade building footprint along the northern and western facade, a reduction of the building footprint at the northeastern corner, and the addition of staggered building overhangs on the upper floors along the northern façade. Building setbacks relative to New Dominion Parkway will be maintained consistent with that noted on the Development Plan.

The Development Plan notes the amenity pool deck as a maximum height of 68 feet located atop the southeast corner of the parking garage. Modifications would reduce the area of the amenity/pool deck along the southern façade and increase the area along the eastern façade. The increase in area along the eastern façade would extend the amenity/pool deck into an area designated on the Development Plan as 5 levels (55 feet). These modifications would, effectively, increase the setback from the edge of parking garage on the southern façade but decrease the setback along the eastern façade.

Modifications to the Main Entrance structure between the two towers include a reduction in building height, a shift of the building to the south, and a reduction in building footprint. The Main Entrance structure houses the central lobby and serves the architectural function of unifying the two towers into a single structure. The Development Plan depicts a rectilinear structure and notes the building height as 4 stories (41 feet). Architectural elevations on Sheet 21 D depict a predominantly glass structure, which you have clarified is 30 feet in height.

You have proposed to reduce the height of the Main Entrance building to a minimum of 27 feet, or 2 stories, and reduce the footprint on the northern side of the building. Although the structure will be 2 stories, you characterize the design as one that incorporates tall ceilings, creating a perceived height similar to a 3-story volume. Sheet 10 of your graphics depict a 2-story glass and brick structure designed in such a way that the brick extends from the façade to create strong vertical treatments.

The Main Entrance building will shift to the south approximately 10 feet, which will result in a corresponding reduction in the depth of the vehicle entry area and public sidewalk on the south side of the Main Entrance. The vehicle entry and public sidewalk will reduce in depth from 93

feet to 85 feet and from 20 feet to 17.9 feet, respectively. Overall open space on the south side of the building will reduce from 8,829 square feet to 8,108 square feet. You have proposed enhancements to the vehicle entry surface materials in an effort to enrich the overall pedestrian experience and create the appearance of a pedestrian plaza rather than an auto-dominated drop-off. In addition, the reduction in area and the shift of the building footprint will allow for an increase in the size of the private outdoor amenity courtyard located on the north side of the Main Entrance. The increased size of the amenity courtyard will allow for the incorporation of terraces into the design to ease the transition in grade between the building and New Dominion Parkway, reducing the height of proposed retaining walls. This expanded courtyard will increase open space on the north side of the Main Entrance from 7,926 square feet to 10,895 square feet. When the north and south sides of the building are considered collectively, total open space associated with the Main Entrance structure space will increase from 16,755 square feet to 19,003 square feet.

The above modifications to the Main Entrance building will significantly reduce its size, mass, and height in order to facilitate an increase in open space. It is my understanding that you are currently processing a Proffered Condition Amendment (PCA), Development Plan Amendment (DPA), and Planned Residential Community Plan Amendment (PRCA) to reallocate the square footage realized from the reduction of the Main Entrance building to the 21 story western tower located on Block 4. It is also my understanding that the modifications discussed herein will be incorporated into this PCA/DPA/PRCA, which is specific to Block 4 only.

It is my determination that the modifications to the Block 4 building footprint, architecture, height, amenity/pool deck, and vehicle entry would be in substantial conformance with the proffers, Development Plan, and development conditions, subject to approval by the Department of Public Works and Environmental Services (DPWES).

These determinations have been made in my capacity as the duly authorized agent of the Zoning Administrator and address only those issues discussed herein. If you have any questions regarding this interpretation, please feel free to contact Stephen Gardner at (703) 324-1290.

Sincerely,

Barbara C. Berlin

Barbara C. Berlin, AICP, Director
Zoning Evaluation Division, DPZ

N:\Reston Town Center Blocks 4 & 5_PI 14 11 068\DETERMINATION LTR.Docx

Attachments: A/S

cc: Catherine M. Hudgins, Supervisor, Hunter Mill District
Frank de la Fe, Planning Commissioner, Hunter Mill District
Diane Johnson-Quinn, Deputy Zoning Administrator, Permit Review Branch, ZAD, DPZ
Ken Williams, Plan Control, Land Development Services, DPWES
Angela Rodeheaver, Section Chief for Site Analysis, DOT
Kevin Guinaw, Chief, Special Projects/Applications Management Branch, ZED, DPZ
File: PCA 85-C-088-09, DPA 85-C-088-07, PRC 85-C-088-03, PI 14 11 068, Imaging

Cooley LLP

Brian J. Winterhalter
+1 703 456 8168
bwinterhalter@cooley.com

BY HAND DELIVERY

RECEIVED
Department of Planning & Zoning
MAY 20 2015
Zoning Evaluation Division

May 20, 2015

Mr. Kevin Guinaw
Chief, Special Projects/Applications
Fairfax County Department of Planning & Zoning
12055 Government Center Parkway, Suite 801
Fairfax, VA 22035

RE: Reston Town Center Urban Core, Section 91A, Blocks 4 & 5
Zoning Determination for DPA 85-C-088-7/PCA 85-C-088-9/PRC 85-C-088-3
Tax Map 17-1 ((16)) Parcels 1, 4 & 5A

Dear Kevin:

I write on behalf of Block 4, LLC and Reston Town Center Property, LLC (collectively, the "Owner"), the owner of the above-referenced property (the "Property"), regarding the pending interpretation request for the Property. The purpose of this letter is to supersede the letter submitted by Ben Wales of our office on November 5, 2014, and to provide revised designs for the Block 4 residential building and the Block 5 office building. We request your office's confirmation that the proposed modifications are in substantial conformance with the applicable zoning approvals for the Property. A tax map showing the Property is attached as Exhibit A.

I. Background

The Property lies in the southwestern quadrant of the intersection of New Dominion Parkway and Reston Parkway. On July 29, 2014, the Board of Supervisors approved Development Plan Amendment DPA 85-C-088-7, Proffered Condition Amendment PCA 85-C-088-9 and Planned Residential Community Plan PRC 85-C-088-3, permitting the development of the Property with a residential building and an office building as part of a mixed-use development. The Property is subject to the proffers approved under PCA 85-C-088-9 ("Proffers"), the development conditions approved with PRC 85-C-088-3, and a DPA/PRC Plan (the "Development Plan").

The residential building, which is approved for up to 549 units, above-grade and below-grade structured parking, ground floor retail space, and a four-story lobby structure connecting the residential towers. The office building is approved for 284,588 square feet of gross floor area, which includes 276,788 square feet of office and 7,800 square feet of ground floor retail space.

II. Proposed Modifications to the Office Building

A. Minor Adjustments to the Eastern and Southern Facades

The Owner proposes several minor modifications to the massing and building footprint for the office building as part of the final architectural design for the project. As shown on Sheets 2 and

3 of the package of revised architectural drawings attached as Exhibit B, the proposed design includes an extension and overhang on the Market Street side of the office building. The intent of creating this overhang is to break up the massing of the building by moving volumes forward and back. The Owner can accomplish this intent by maintaining the setback shown on the Development Plan, which is 23'6" +/-, with a setback of 23' (within the +/- tolerance) for the projecting portion of the building, while pulling the remainder of the building back to a setback of 30 feet. The effect of the proposed modification is to create a projecting volume and break up the Market Street massing of the office building to enhance the final architectural design without diminishing the setback or pedestrian experience on Market Street.

In addition, the Owner also proposes to increase the setback on the eastern side of the office building from the 17 foot minimum shown on the Development Plan to 19 feet as shown on Sheet 2 of Exhibit B. This increased setback helps to achieve the massing modifications at two corners of the office building described below while maintaining, and slightly increasing, the amount of open space/sidewalk area around the perimeter of Block 5.

B. Massing Improvements at the Northeast and Southeast Corners

As shown on the Development Plan, there is a recessed area at the northeast and southeast corners of the office building. At the southeast corner, the Owner proposes to modestly expand the footprint to adjust the massing at all levels of the office building. This minor expansion is well within the overall setback dimension of 17 feet shown on the Development Plan.

As part of the final architectural design, the Owner has determined that the northeast corner of the office building should not maintain the recessed area shown on the Development Plan. The northeast corner is a difficult location on the site because it will be in shade, is at the corner of the transition from Freedom Drive to Presidents Street where vehicles are turning right at this corner, and would be challenging for retail. In short, this area is not a good location for an open gathering area, and the recessed corner will not add much to the pedestrian experience.

Therefore, the Owner proposes to adjust the massing of the first and second levels as shown on Exhibit B to fill in the recessed area. Doing so will allow the Owner to avoid creating a "dead" space, while staying within the 16 foot setback on the north side and the 17 foot setback on the east side. As noted above, the Owner will maintain a 19 foot setback on the east side, which is larger than shown on the Development Plan. Importantly, the modification preserves a 16 foot zone for pedestrian circulation through the corner. In addition, the modification does not change the massing of the building above the second floor. It is important to maintain the recessed corner for the higher levels to break up the massing of the building and create visual interest.

III. Proposed Modifications to the Residential Building

A. Architectural Design Refinements and Massing Adjustments for the Lobby

The Development Plan shows the central lobby area of the residential building as a space of up to four levels and 41 feet, although the renderings in the Development Plan actually depict a

space that is 30 feet in height. As shown on Exhibit B, the Owner proposes to reduce the number of levels for this central space to two, with a minimum height of 27 feet, as permitted under the Proffers. The Owner also proposes to revise the architectural design to better emphasize the verticality of this space and enhance its connection with the adjacent portions of the building through design elements and building materials. Although the proposed structure will have two levels, these levels will have tall ceilings and an overall height approaching a three story volume to create a stronger relationship with the remainder of the building.

The proposed modifications for the lobby area also include moving the entire structure forward (south) and significantly reducing the footprint of the space on the back (north) side of the building. This adjustment to the footprint does not conflict with any dimensioned setbacks on the Development Plan and allows the Owner to create more open space and gathering areas in the courtyard north of the lobby. It also helps respond to the topography on the north side of the building by providing a more gradual treatment of the grade with small stepped terrace areas and smaller retaining walls.

An additional benefit of the proposed modification is the reduction of vehicular space in the entry courtyard. Although there will be a minor reduction in the pedestrian zone, the modification maintains a 17'9" pedestrian space along the front of the building and a 9' pedestrian space in front of the entry vestibule. It is also important to note that the materials for the entry courtyard will feel very pedestrian-oriented and create the appearance of a pedestrian plaza more than an auto-dominated drop-off area. Overall, the proposed modification will improve the layout, better respond to the site's topography, and enhance the pedestrian entry to the residential building.

B. Massing Adjustments for the Pool Deck and Terrace

The Owner proposes a modification to the configuration of the pool deck and terrace area shown on the Development Plan. The area consists of a pool deck at 68 feet/6 levels and an adjacent, lower terrace at 55 feet/5 levels. The intent of having two levels is to reduce the visual bulk of the sixth level by having it set back from the edge of the building. The Owner's proposed modification maintains the differentiation of these two volumes with two separate levels at 68 feet and 55 feet, but reduces the amount the sixth level is set back from the edge of the building as shown on Sheet 5 and 7 of Exhibit B.

The proposed modification maintains a setback for the sixth level, differentiates between the two volumes for massing purposes, and has substantially the same visual appearance and overall massing for this portion of the building. Although there is not a substantial difference in the exterior, this modification will allow the Owner to make significant improvements within the building to achieve a much better design and layout of the interior space in this portion of the residential building.

C. Massing Modifications for the New Dominion Parkway Units

Lastly, the Owner proposes to make minor adjustments to the footprint of the residential units along the New Dominion Parkway portion of the residential building to create a better layout and

architectural design character for these units. The overall design concept remains the same, but the modifications add a small amount of massing outside the original footprint shown on the Development Plan (but still within the dimensions shown on the Development Plan), with a corresponding reduction in the massing of the eastern portion of this section of the building. The removal of massing in some areas and the minor extensions of massing in other areas in a specific pattern across the north side of the building will enhance the architectural interest and attractiveness of the units. The overall square footage and massing is the same because the façade of the building would be pulled back and pushed forward in equal amounts.

IV. Modifications Permitted under the Proffers

Proffer 12 confirms the ability of the Owner to seek minor modifications to the zoning approvals for the Property under Section 16-203 of the Fairfax County Zoning Ordinance. Section 16-203 confirms that minor modifications to an approved rezoning and development plan, and a PRC plan, may be permitted when the Zoning Administrator determines that such modifications are in substantial conformance the approved rezoning, development plan, and PRC plan and are in response to issues of topography, layout, or design, among others. Proffer 12 provides supplemental guidance and confirms that minor modifications may be permitted provided:

> *(a) the maximum building heights for each building are not increased beyond the heights identified on Sheets 2, 5 and 7 of the Development Plan and Proffer 17; (b) the minimum setbacks for each building are not decreased beyond the setbacks identified on Sheet 7 of the Development Plan; (c) the minimum amount of open space identified on Sheet 2 of the Development Plan is not reduced; and (d) the development otherwise is in substantial conformance with these Proffers and the Development Plan.*

In addition, Proffer 39 regarding the architectural design and building materials for the Blocks 4 & 5 development provides as follows:

> *The character of the architectural design and building materials for the Proposed Development shall be in general conformance with the architectural renderings shown on Sheets 21A, 21B, 21C, and 21D of the Development Plan. The Applicant reserves the right to adjust the average grade elevation and the architectural design details of the residential building and the office building, including, but not limited to, the building materials, articulation, balconies, and fenestration, as part of final architectural design and engineering without requiring approval of a DPA, PCA, or PRCA, provided (a) the maximum building height for each building is not increased, (b) the minimum open space is not decreased, and (c) the quality of the architectural design, the quality of the building materials, and the overall massing of the residential building and the office building remain in general conformance with that shown on the Development Plan, as determined by the Zoning Administrator.*

The proposed modifications described above will not result in the maximum building height for the residential building or the office building being exceeded. The modifications will not reduce the setbacks beyond the approved setbacks shown on Sheet 7 of the Development Plan. The

open space areas will be enhanced and the modifications will result in more open space for the Property as shown on Exhibit B. Further, the modifications will enhance the quality of the architectural design and building materials for the residential and office buildings, and the overall massing of the residential building and the office building will remain in substantial conformance with the approved Development Plan. As such, the proposed modifications are in accordance with the Proffers, the Development Plan, and the applicable requirements for minor modifications under the Zoning Ordinance.

V. Conclusion

The Owner's proposed minor modifications to the residential building and the office building will provide for a better, more functional, and more attractive architectural design and will provide significant improvements for both the interior of the buildings and the site design, layout, and outdoor gathering areas for the Property. The modifications are in accordance with the Proffers and the Zoning Ordinance, and we respectfully request your confirmation that the proposed modifications are in substantial conformance with the applicable zoning approvals for the Property.

We appreciate your time and consideration of this request and our revised drawings, and the many discussions we have had to achieve design enhancements for the project that are in accordance with the existing zoning approvals. Please let me know if you have any questions or need any additional information.

Best regards,

Brian J. Winterhalter

Enclosures

cc: The Honorable Catherine M. Hudgins, Hunter Mill District Supervisor
Frank de la Fe, Hunter Mill District Planning Commissioner
William Mayland, Department of Planning & Zoning
Richard Ellis, Boston Properties
Ari Blumenthal, Shalom Baranes
Peter Crawford, Urban

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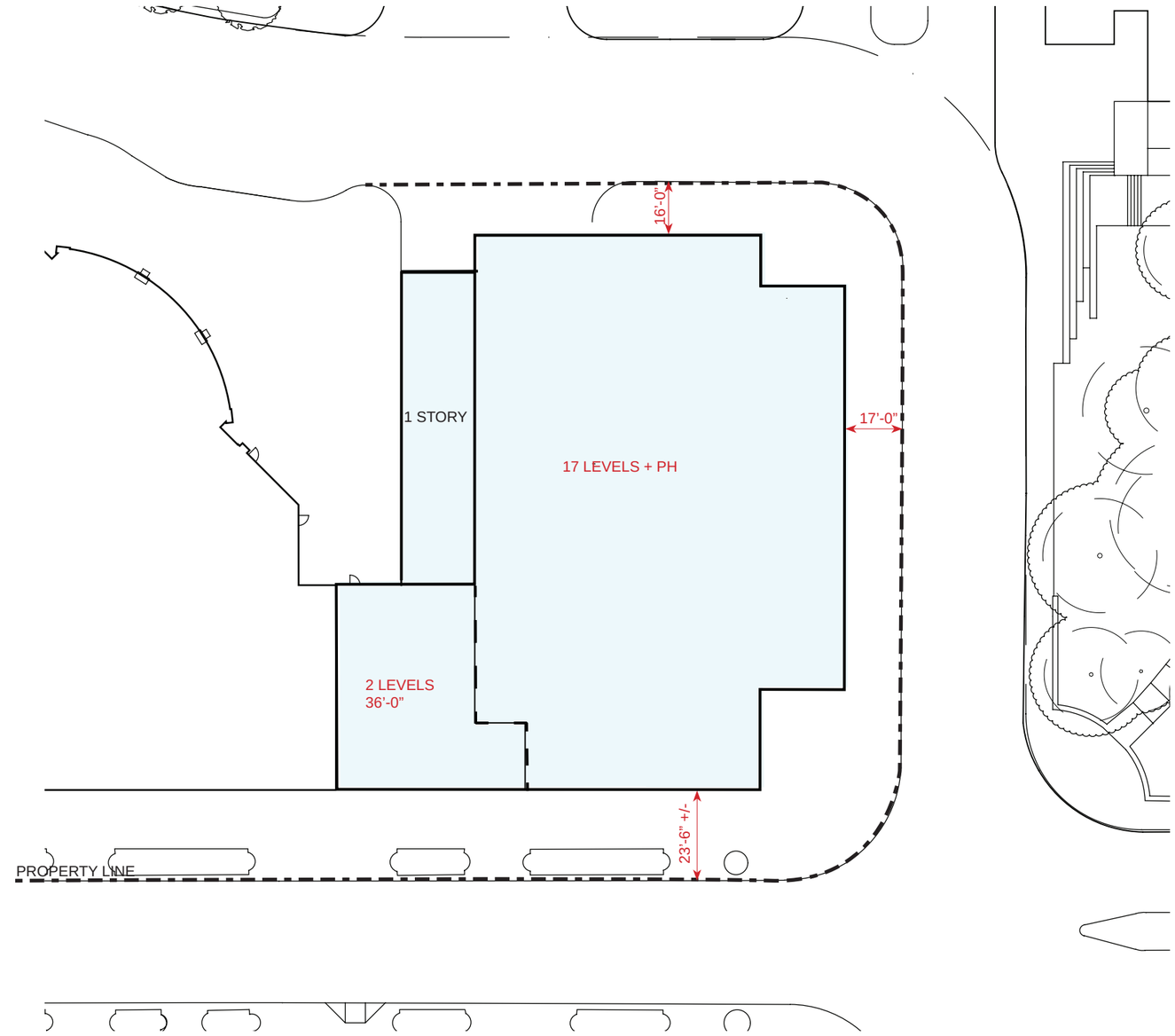


GROSS SQUARE FOOTAGE = 284,588 SF (D.P.A.)

LEGEND

PROFILE AT GROUND LEVEL

PROFILE AT TOWER

DIMENSIONS & NOTES

DPA

FOR REFERENCE

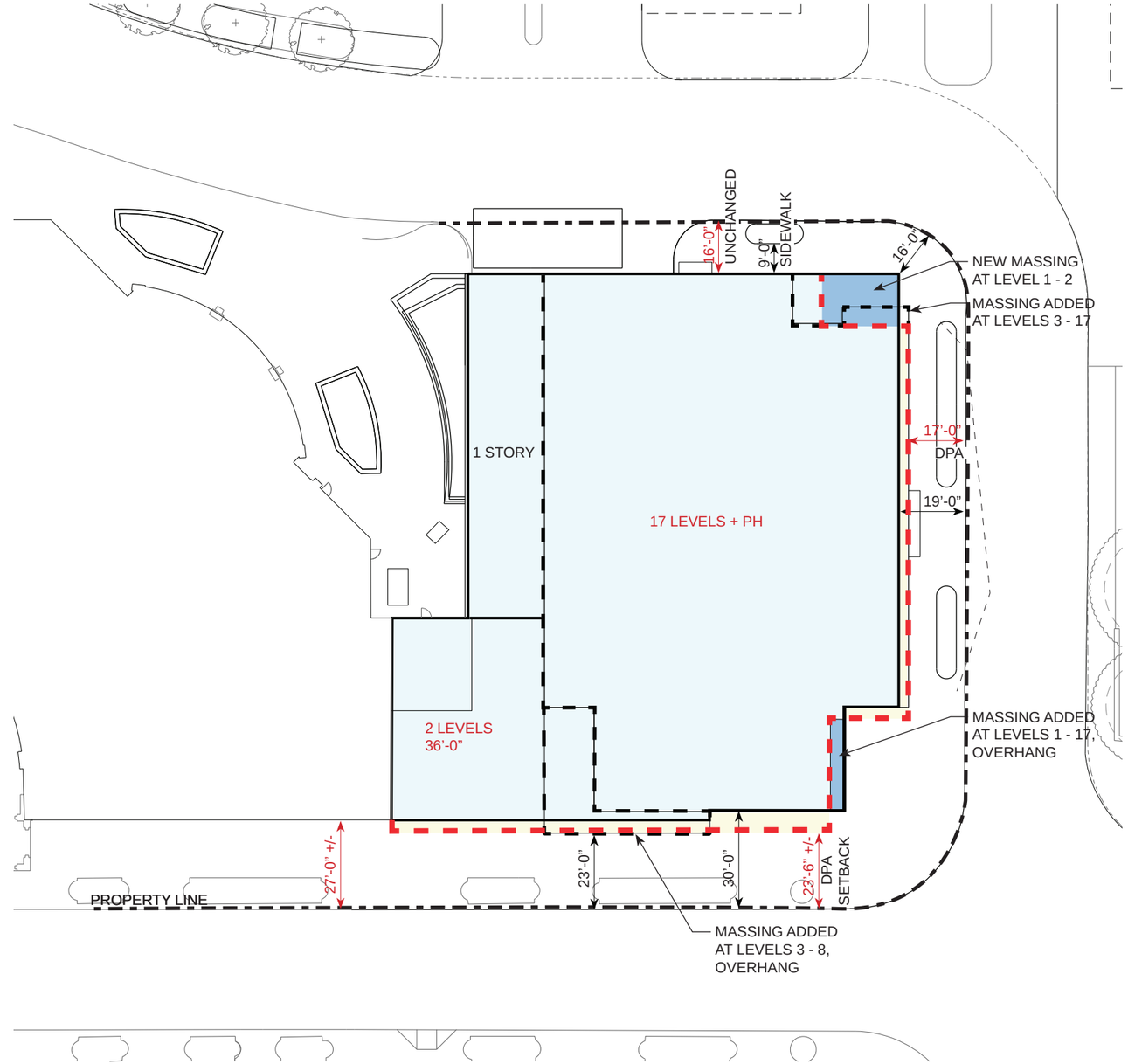
RESTON TOWN CENTER BLOCK 5 FAIRFAX COUNTY, VA

BLOCK 5 - DPA BUILDING FOOTPRINT | 1

Boston Properties

N | 2015 May 20 | ©2015 Shalom Baranes Associates, PC | SCALE: 1"=40'

shalom baranes associates | architects



LEGEND

- NEW PROFILE AT GROUND LEVEL
- NEW PROFILE AT TOWER
- ORIGINAL PROFILE AT GROUND LEVEL
- MASSING
- MASSING ADDED AT GROUND LEVEL

DIMENSIONS & NOTES

- DPA
- FOR REFERENCE
- MASSING REMOVED AT GROUND LEVEL

BASED ON DIFFERENCES BETWEEN THE DPA SET OF JULY 2014 AND CURRENT DESIGN

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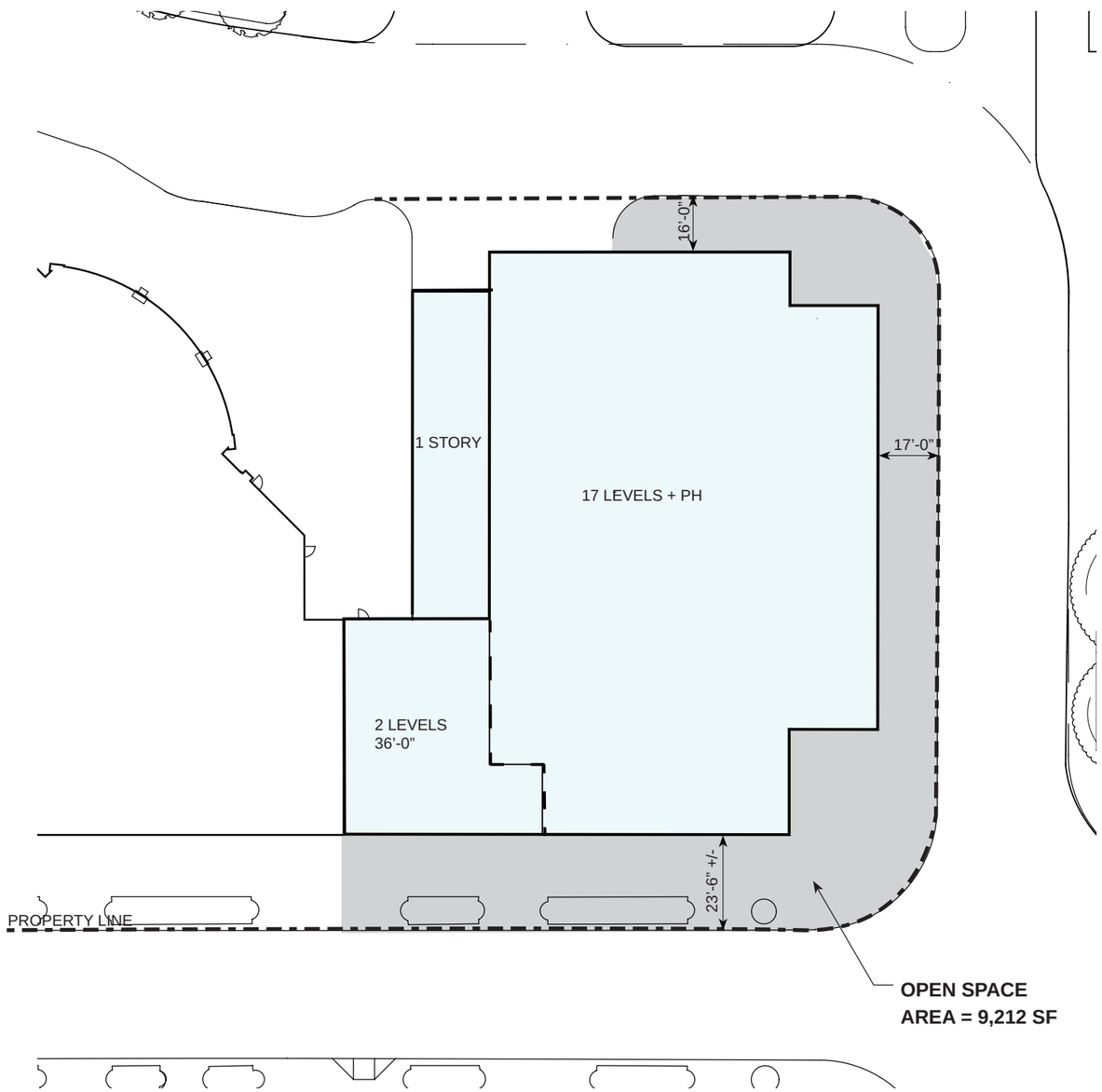
DPA



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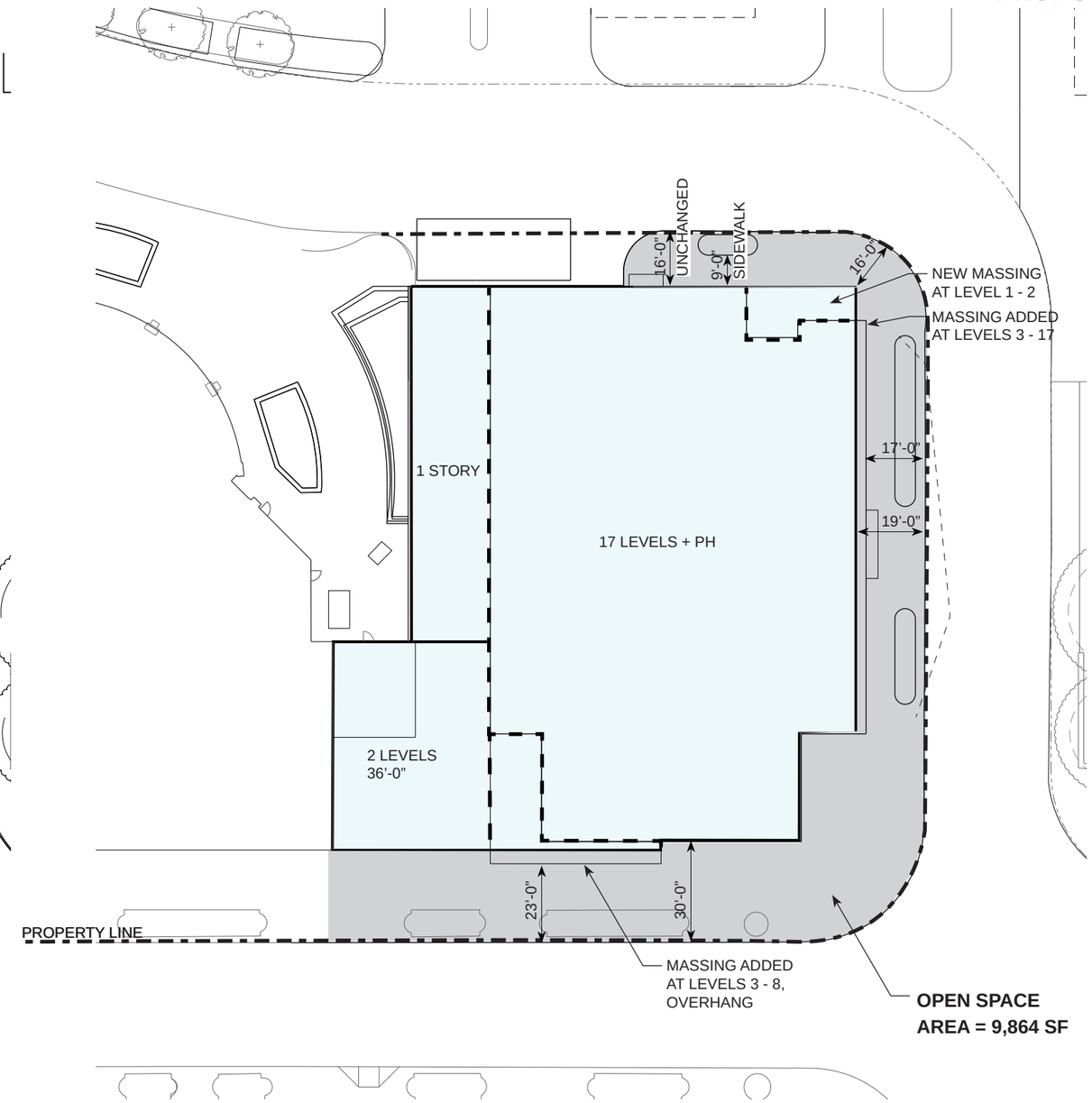

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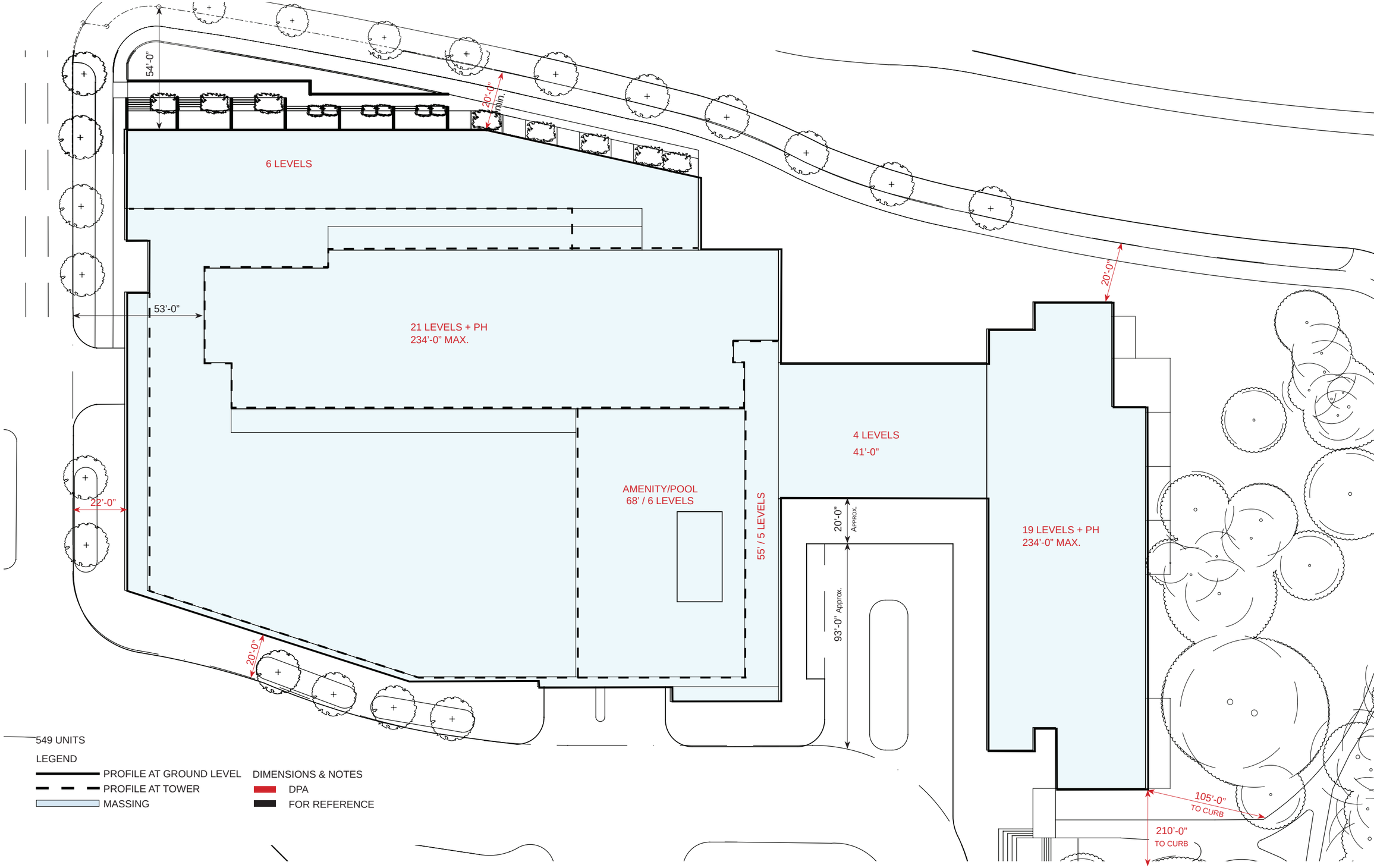

RESTON TOWN CENTER BLOCK 4 FAIRFAX COUNTY, VA

BLOCK 4 - DPA BUILDING FOOTPRINT

Boston Properties

2015 May 20

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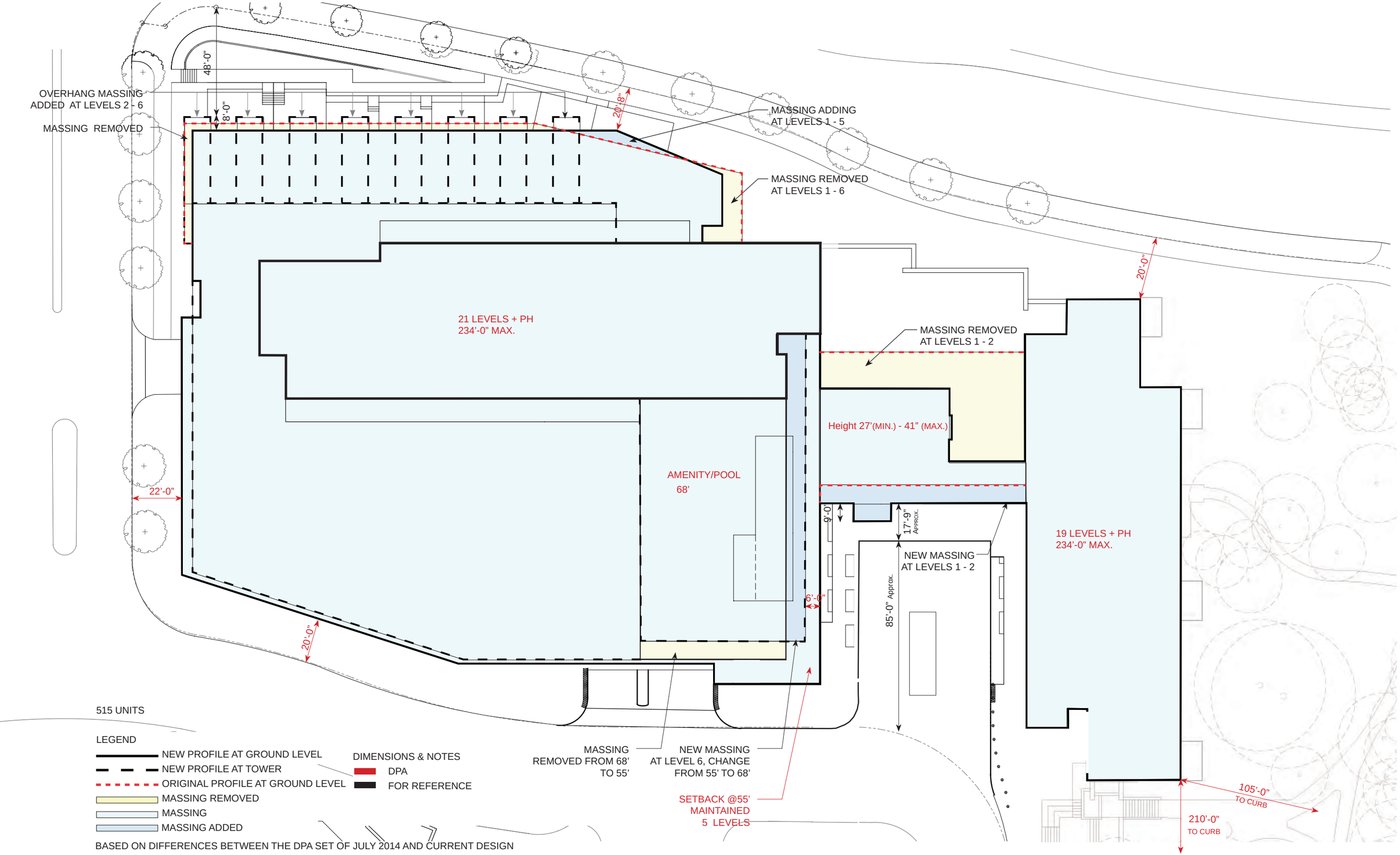
shalom baranes associates architects



BASED ON DIFFERENCES BETWEEN THE DPA SET OF JULY 2014 AND CURRENT DESIGN

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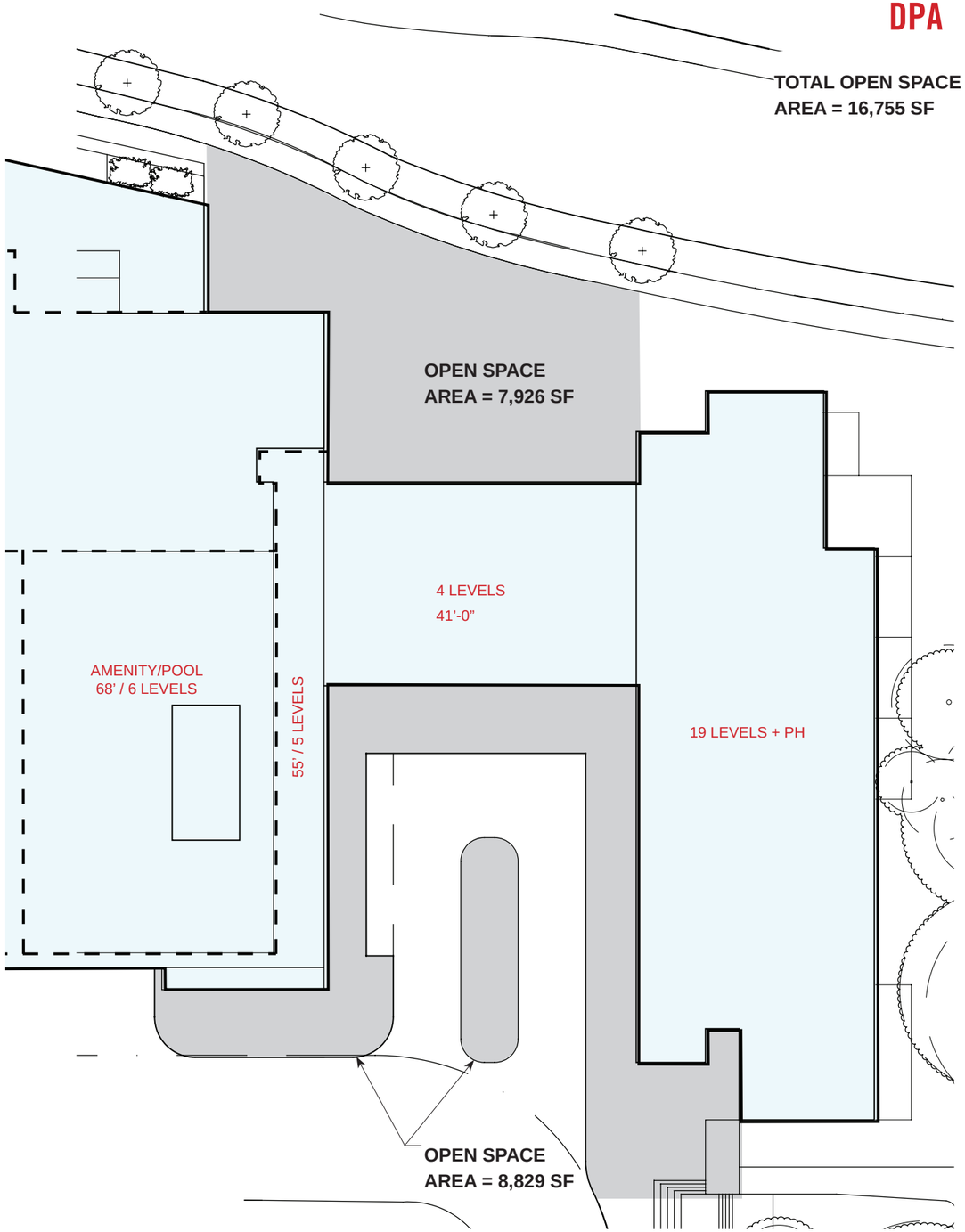
DPA



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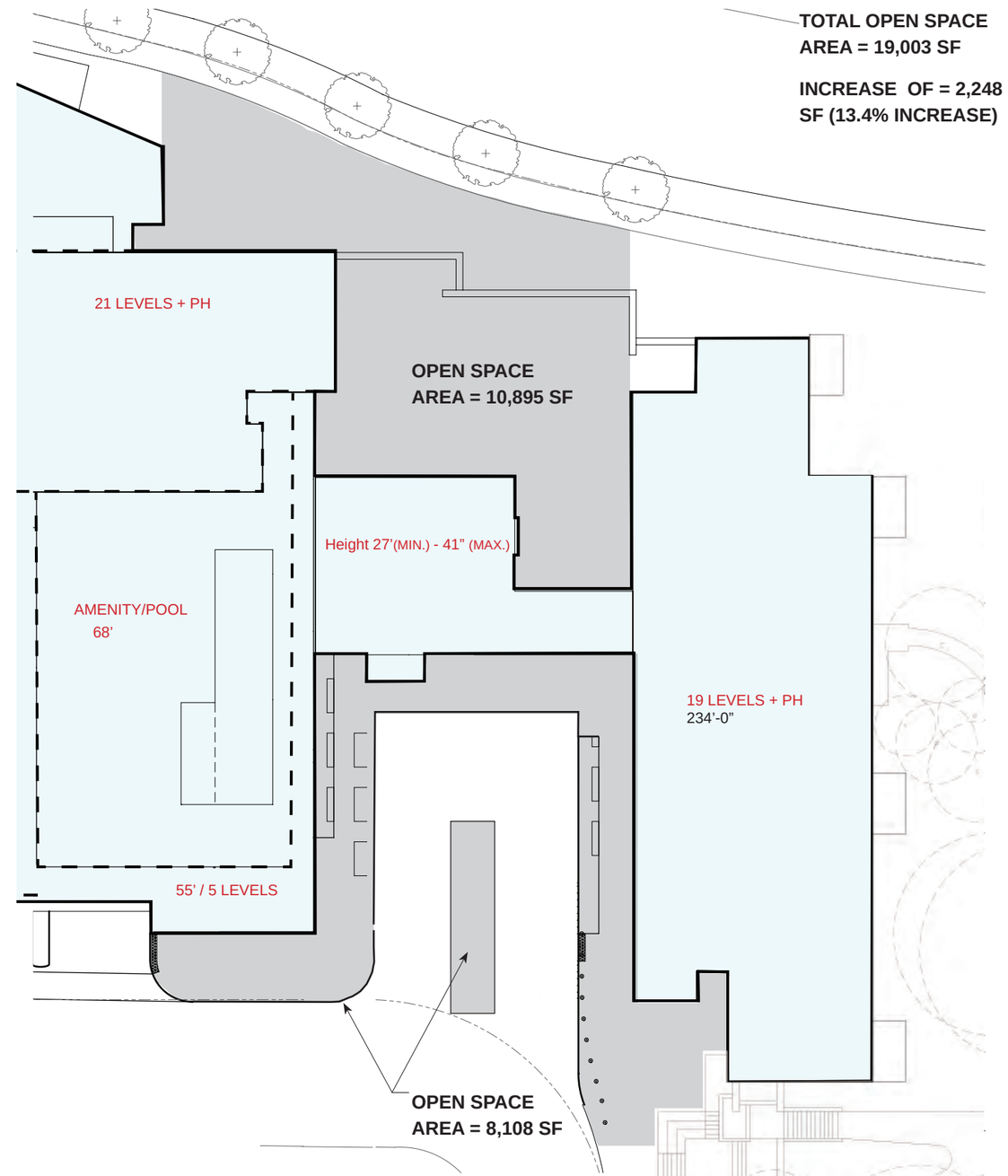

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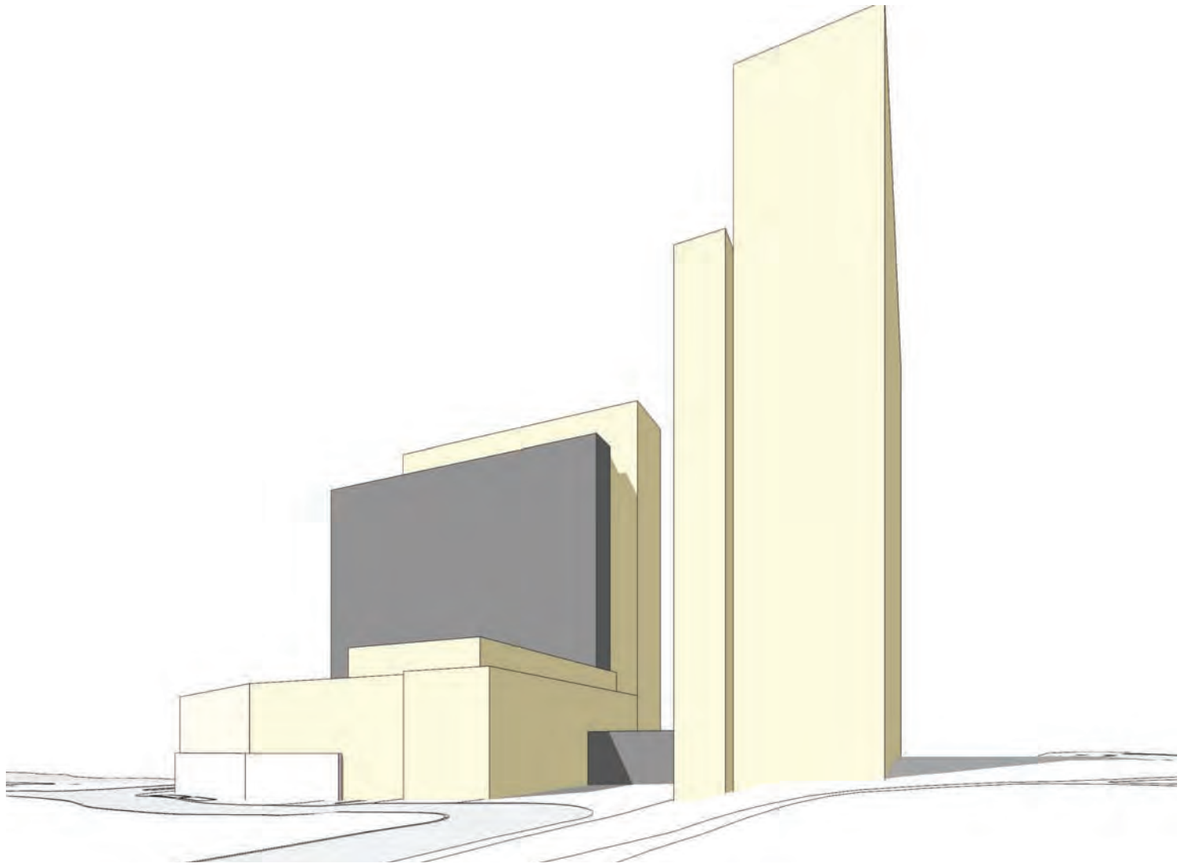

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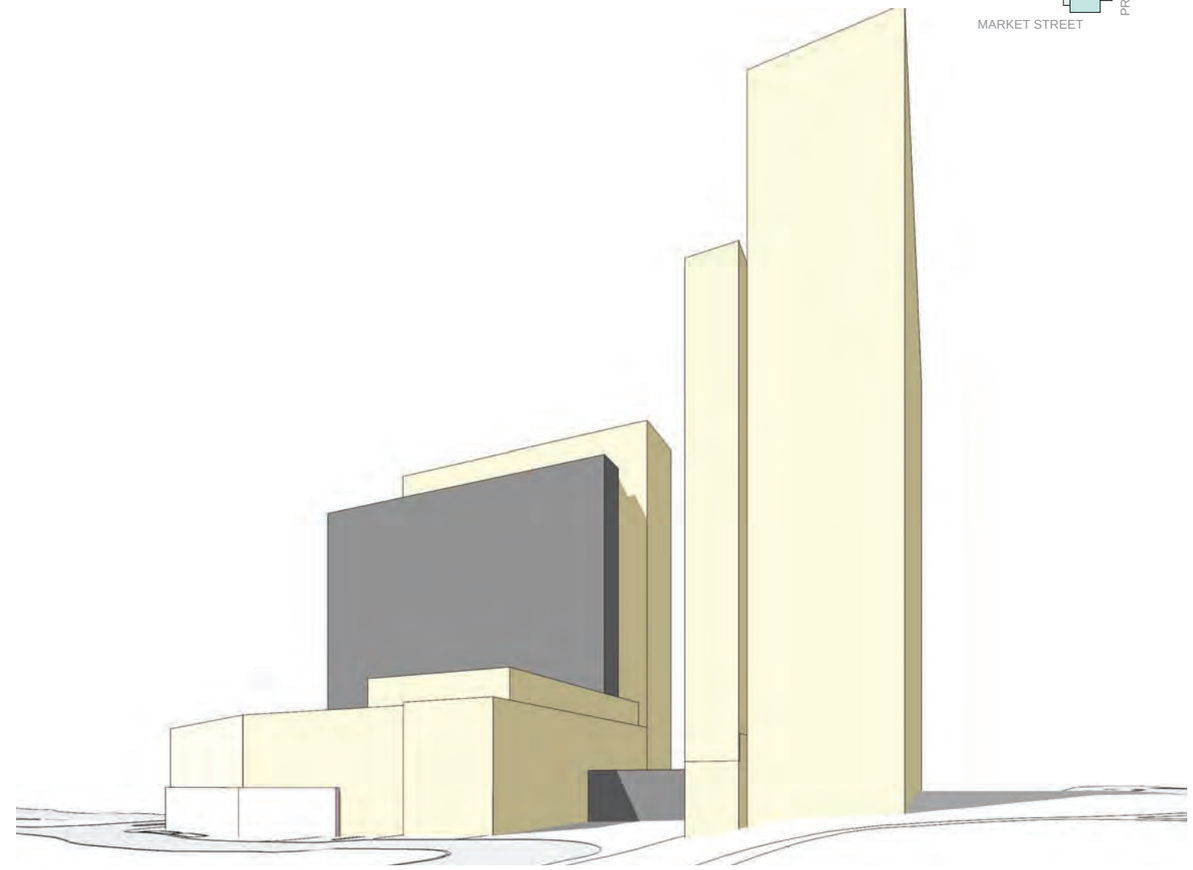

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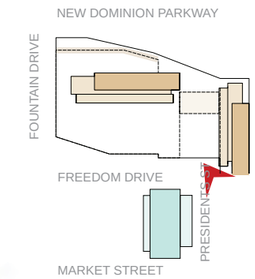

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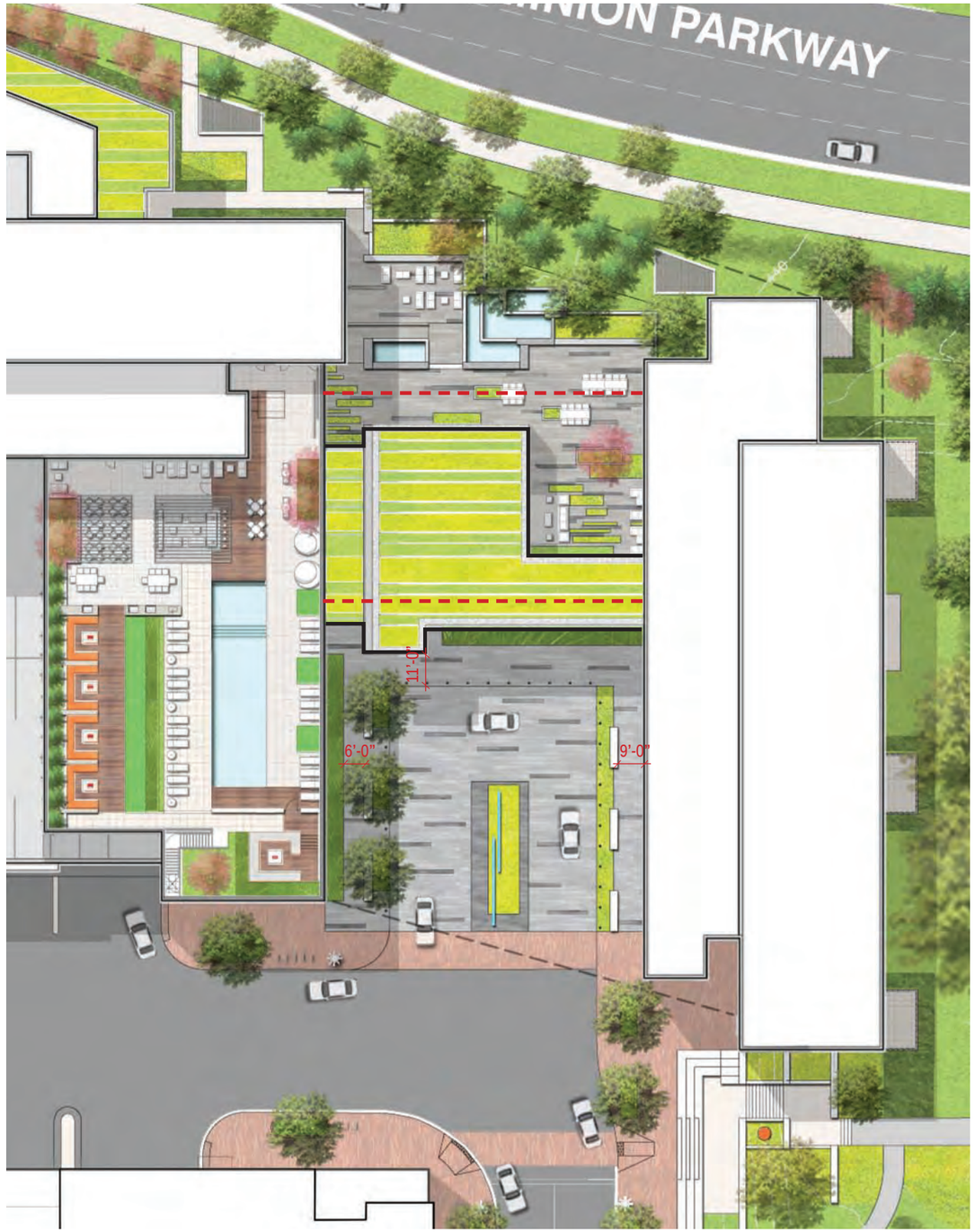
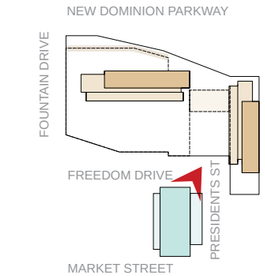
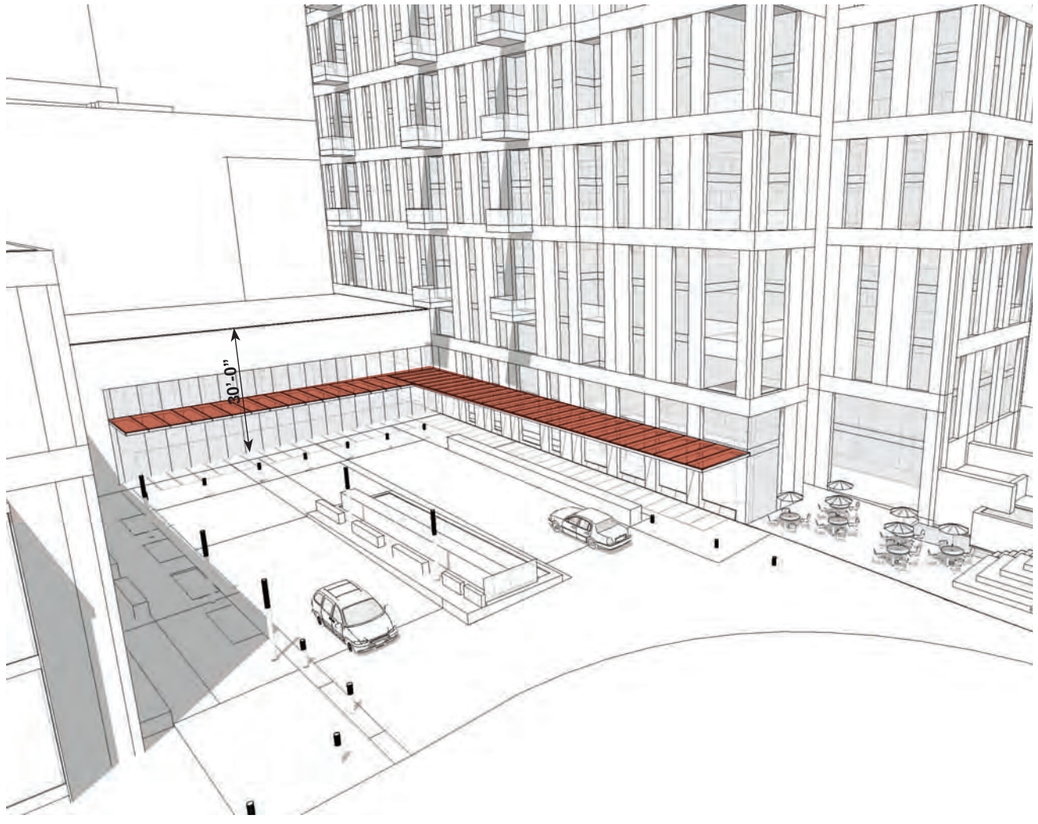


LEGEND

DPA LOBBY OUTLINE

CURRENT LOBBY OUTLINE





DPA

PROPOSED

* NOTE:

1. FOR ILLUSTRATIVE PURPOSES ONLY - FINAL DESIGN SUBJECT TO CHANGE
2. INCLUDES FUTURE APPROVED DEVELOPMENT

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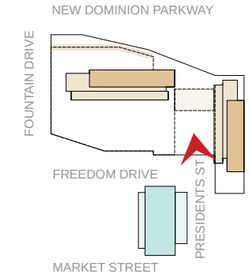

* NOTE:

1. FOR ILLUSTRATIVE PURPOSES ONLY - FINAL DESIGN SUBJECT TO CHANGE
2. INCLUDES FUTURE APPROVED DEVELOPMENT

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County of Fairfax, Virginia

MEMORANDUM

RECEIVED
Department of Planning & Zoning
AUG 10 2015
Zoning Evaluation Division

DATE: August 7, 2015

TO: Mary Ann Tsai, Staff Coordinator
Zoning Evaluation Division, DPZ

FROM: Hugh C. Whitehead, Urban Forester III
Forest Conservation Branch, DPWES/UFMD HCW

SUBJECT: Reston Town Center Urban Core, Block 4, PRCA 85-C-088-7

I have reviewed the above reference PRC Amendment, consisting of a Statement of Justification dated June 1, 2015; and DPA/PCA/PRCA, stamped as received by the Zoning Evaluation Division on June 22, 2015.

I discussed proposed changes to the trail location form the proposed building through the park/open space earlier with Connie Fan, Urban LTD, and subsequently with you. All tree and landscape related issues have been adequately addressed in this plan submission.

Forest Conservation Branch staff has no further comments regarding the plan at this time.

If there are any questions or further assistance is desired, please contact me at (703)324-1770.

HCW/
UFMDID #: 202061

cc: DPZ File

Department of Public Works and Environmental Services
Urban Forest Management Division
12055 Government Center Parkway, Suite 518
Fairfax, Virginia 22035-5503
Phone 703-324-1770, TTY: 711, Fax: 703-653-9550
www.fairfaxcounty.gov/dpwes

GLOSSARY

This Glossary is provided to assist the public in understanding
the staff evaluation and analysis of development proposals.
It should not be construed as representing legal definitions.
Refer to the Fairfax County Zoning Ordinance, Comprehensive Plan
or Public Facilities Manual for additional information.

ABANDONMENT: Refers to road or street abandonment, an action taken by the Board of Supervisors, usually through the public hearing process, to abolish the public's right-of-passage over a road or road right-of way. Upon abandonment, the right-of-way automatically reverts to the underlying fee owners. If the fee to the owner is unknown, Virginia law presumes that fee to the roadbed rests with the adjacent property owners if there is no evidence to the contrary.

ACCESSORY DWELLING UNIT (OR APARTMENT): A secondary dwelling unit established in conjunction with and clearly subordinate to a single family detached dwelling unit. An accessory dwelling unit may be allowed if a special permit is granted by the Board of Zoning Appeals (BZA). Refer to Sect. 8-918 of the Zoning Ordinance.

AFFORDABLE DWELLING UNIT (ADU) DEVELOPMENT: Residential development to assist in the provision of affordable housing for persons of low and moderate income in accordance with the affordable dwelling unit program and in accordance with Zoning Ordinance regulations. Residential development which provides affordable dwelling units may result in a density bonus (see below) permitting the construction of additional housing units. See Part 8 of Article 2 of the Zoning Ordinance.

AGRICULTURAL AND FORESTAL DISTRICTS: A land use classification created under Chapter 114 or 115 of the Fairfax County Code for the purpose of qualifying landowners who wish to retain their property for agricultural or forestal use for use/value taxation pursuant to Chapter 58 of the Fairfax County Code.

BARRIER: A wall, fence, earthen berm, or plant materials which may be used to provide a physical separation between land uses. Refer to Article 13 of the Zoning Ordinance for specific barrier requirements.

BEST MANAGEMENT PRACTICES (BMPs): Stormwater management techniques or land use practices that are determined to be the most effective, practicable means of preventing and/or reducing the amount of pollution generated by nonpoint sources in order to improve water quality.

BUFFER: Graduated mix of land uses, building heights or intensities designed to mitigate potential conflicts between different types or intensities of land uses; may also provide for a transition between uses. A landscaped buffer may be an area of open, undeveloped land and may include a combination of fences, walls, berms, open space and/or landscape plantings. A buffer is not necessarily coincident with transitional screening.

CHESAPEAKE BAY PRESERVATION ORDINANCE: Regulations which the State has mandated must be adopted to protect the Chesapeake Bay and its tributaries. These regulations must be incorporated into the comprehensive plans, zoning ordinances and subdivision ordinances of the affected localities. Refer to Chesapeake Bay Preservation Act, Va. Code Section 10.1-2100 et seq and VR 173-02-01, Chesapeake Bay Preservation Area Designation and Management Regulations.

CLUSTER DEVELOPMENT: Residential development in which the lots are clustered on a portion of a site so that significant environmental/historical/cultural resources may be preserved or recreational amenities provided. While smaller lot sizes are permitted in a cluster subdivision to preserve open space, the overall density cannot exceed that permitted by the applicable zoning district. See Sect. 2-421 and Sect. 9-615 of the Zoning Ordinance.

COUNTY 2232 REVIEW PROCESS: A public hearing process pursuant to Sect. 15.2-2232 (Formerly Sect. 15.1-456) of the Virginia Code which is used to determine if a proposed public facility not shown on the adopted Comprehensive Plan is in substantial accord with the plan. Specifically, this process is used to determine if the general or approximate location, character and extent of a proposed facility is in substantial accord with the Plan.

dBA: The momentary magnitude of sound weighted to approximate the sensitivity of the human ear to certain frequencies; the dBA value describes a sound at a given instant, a maximum sound level or a steady state value. See also Ldn.

DENSITY: Number of dwelling units (du) divided by the gross acreage (ac) of a site being developed in residential use; or, the number of dwelling units per acre (du/ac) except in the PRC District when density refers to the number of persons per acre.

DENSITY BONUS: An increase in the density otherwise allowed in a given zoning district which may be granted under specific provisions of the Zoning Ordinance when a developer provides excess open space, recreation facilities, or affordable dwelling units (ADUs), etc.

DEVELOPMENT CONDITIONS: Terms or conditions imposed on a development by the Board of Supervisors (BOS) or the Board of Zoning Appeals (BZA) in connection with approval of a special exception, special permit or variance application or rezoning application in a "P" district. Conditions may be imposed to mitigate adverse impacts associated with a development as well as secure compliance with the Zoning Ordinance and/or conformance with the Comprehensive Plan. For example, development conditions may regulate hours of operation, number of employees, height of buildings, and intensity of development.

DEVELOPMENT PLAN: A graphic representation which depicts the nature and character of the development proposed for a specific land area: information such as topography, location and size of proposed structures, location of streets trails, utilities, and storm drainage are generally included on a development plan. A development plan is s submission requirement for rezoning to the PRC District. A GENERALIZED DEVELOPMENT PLAN (GDP) is a submission requirement for a rezoning application for all conventional zoning districts other than a P District. A development plan submitted in connection with a special exception (SE) or special permit (SP) is generally referred to as an SE or SP plat. A CONCEPTUAL DEVELOPMENT PLAN (CDP) is a submission requirement when filing a rezoning application for a P District other than the PRC District; a CDP characterizes in a general way the planned development of the site. A FINAL DEVELOPMENT PLAN (FDP) is a submission requirement following the approval of a conceptual development plan and rezoning application for a P District other than the PRC District; an FDP further details the planned development of the site. See Article 16 of the Zoning Ordinance.

EASEMENT: A right to or interest in property owned by another for a specific and limited purpose. Examples: access easement, utility easement, construction easement, etc. Easements may be for public or private purposes.

ENVIRONMENTAL QUALITY CORRIDORS (EQCs): An open space system designed to link and preserve natural resource areas, provide passive recreation and protect wildlife habitat. The system includes stream valleys, steep slopes and wetlands. For a complete definition of EQCs, refer to the Environmental section of the Policy Plan for Fairfax County contained in Vol. 1 of the Comprehensive Plan.

ERODIBLE SOILS: Soils that wash away easily, especially under conditions where stormwater runoff is inadequately controlled. Silt and sediment are washed into nearby streams, thereby degrading water quality.

FLOODPLAIN: Those land areas in and adjacent to streams and watercourses subject to periodic flooding; usually associated with environmental quality corridors. The 100 year floodplain drains 70 acres or more of land and has a one percent chance of flood occurrence in any given year.

FLOOR AREA RATIO (FAR): An expression of the amount of development intensity (typically, non-residential uses) on a specific parcel of land. FAR is determined by dividing the total square footage of gross floor area of buildings on a site by the total square footage of the site itself.

FUNCTIONAL CLASSIFICATION: A system for classifying roads in terms of the character of service that individual facilities are providing or are intended to provide, ranging from travel mobility to land access. Roadway system functional classification elements include Freeways or Expressways which are limited access highways, Other Principal (or Major) Arterials, Minor Arterials, Collector Streets, and Local Streets. Principal arterials are designed to accommodate travel; access to adjacent properties is discouraged. Minor arterials are designed to serve both through traffic and local trips. Collector roads and streets link local streets and properties with the arterial network. Local streets provide access to adjacent properties.

GEOTECHNICAL REVIEW: An engineering study of the geology and soils of a site which is submitted to determine the suitability of a site for development and recommends construction techniques designed to overcome development on problem soils, e.g., marine clay soils.

HYDROCARBON RUNOFF: Petroleum products, such as motor oil, gasoline or transmission fluid deposited by motor vehicles which are carried into the local storm sewer system with the stormwater runoff, and ultimately, into receiving streams; a major source of non-point source pollution. An oil-grit separator is a common hydrocarbon runoff reduction method.

IMPERVIOUS SURFACE: Any land area covered by buildings or paved with a hard surface such that water cannot seep through the surface into the ground.

INFILL: Development on vacant or underutilized sites within an area which is already mostly developed in an established development pattern or neighborhood.

INTENSITY: The magnitude of development usually measured in such terms as density, floor area ratio, building height, percentage of impervious surface, traffic generation, etc. Intensity is also based on a comparison of the development proposal against environmental constraints or other conditions which determine the carrying capacity of a specific land area to accommodate development without adverse impacts.

Ldn: Day night average sound level. It is the twenty-four hour average sound level expressed in A-weighted decibels; the measurement assigns a "penalty" to night time noise to account for night time sensitivity. Ldn represents the total noise environment which varies over time and correlates with the effects of noise on the public health, safety and welfare.

LEVEL OF SERVICE (LOS): An estimate of the effectiveness of a roadway to carry traffic, usually under anticipated peak traffic conditions. Level of Service efficiency is generally characterized by the letters A through F, with LOS-A describing free flow traffic conditions and LOS-F describing jammed or grid-lock conditions.

MARINE CLAY SOILS: Soils that occur in widespread areas of the County generally east of Interstate 95. Because of the abundance of shrink-swell clays in these soils, they tend to be highly unstable. Many areas of slope failure are evident on natural slopes. Construction on these soils may initiate or accelerate slope movement or slope failure. The shrink-swell soils can cause movement in structures, even in areas of flat topography, from dry to wet seasons resulting in cracked foundations, etc. Also known as slippage soils.

OPEN SPACE: That portion of a site which generally is not covered by buildings, streets, or parking areas. Open space is intended to provide light and air; open space may be function as a buffer between land uses or for scenic, environmental, or recreational purposes.

OPEN SPACE EASEMENT: An easement usually granted to the Board of Supervisors which preserves a tract of land in open space for some public benefit in perpetuity or for a specified period of time. Open space easements may be accepted by the Board of Supervisors, upon request of the land owner, after evaluation under criteria established by the Board. See Open Space Land Act, Code of Virginia, Sections 10.1-1700, et seq.

P DISTRICT: A "P" district refers to land that is planned and/or developed as a Planned Development Housing (PDH) District, a Planned Development Commercial (PDC) District or a Planned Residential Community (PRC) District. The PDH, PDC and PRC Zoning Districts are established to encourage innovative and creative design for land development; to provide ample and efficient use of open space; to promote a balance in the mix of land uses, housing types, and intensity of development; and to allow maximum flexibility in order to achieve excellence in physical, social and economic planning and development of a site. Refer to Articles 6 and 16 of the Zoning Ordinance.

PROFFER: A written condition, which, when offered voluntarily by a property owner and accepted by the Board of Supervisors in a rezoning action, becomes a legally binding condition which is in addition to the zoning district regulations applicable to a specific property. Proffers are submitted and signed by an owner prior to the Board of Supervisors public hearing on a rezoning application and run with the land. Once accepted by the Board, proffers may be modified only by a proffered condition amendment (PCA) application or other zoning action of the Board and the hearing process required for a rezoning application applies. See Sect. 15.2-2303 (formerly 15.1-491) of the Code of Virginia.

PUBLIC FACILITIES MANUAL (PFM): A technical text approved by the Board of Supervisors containing guidelines and standards which govern the design and construction of site improvements incorporating applicable Federal, State and County Codes, specific standards of the Virginia Department of Transportation and the County's Department of Public Works and Environmental Services.

RESOURCE MANAGEMENT AREA (RMA): That component of the Chesapeake Bay Preservation Area comprised of lands that, if improperly used or developed, have a potential for causing significant water quality degradation or for diminishing the functional value of the Resource Protection Area. See Fairfax County Code, Ch. 118, Chesapeake Bay Preservation Ordinance.

RESOURCE PROTECTION AREA (RPA): That component of the Chesapeake Bay Preservation Area comprised of lands at or near the shoreline or water's edge that have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts which may result in significant degradation of the quality of state waters. In their natural condition, these lands provide for the removal, reduction or assimilation of sediments from runoff entering the Bay and its tributaries, and minimize the adverse effects of human activities on state waters and aquatic resources. New development is generally discouraged in an RPA. See Fairfax County Code, Ch. 118, Chesapeake Bay Preservation Ordinance.

SITE PLAN: A detailed engineering plan, to scale, depicting the development of a parcel of land and containing all information required by Article 17 of the Zoning Ordinance. Generally, submission of a site plan to DPWES for review and approval is required for all residential, commercial and industrial development except for development of single family detached dwellings. The site plan is required to assure that development complies with the Zoning Ordinance.

SPECIAL EXCEPTION (SE) / SPECIAL PERMIT (SP): Uses, which by their nature, can have an undue impact upon or can be incompatible with other land uses and therefore need a site specific review. After review, such uses may be allowed to locate within given designated zoning districts if appropriate and only under special controls, limitations, and regulations. A special exception is subject to public hearings by the Planning Commission and Board of Supervisors with approval by the Board of Supervisors; a special permit requires a public hearing and approval by the Board of Zoning Appeals. Unlike proffers which are voluntary, the Board of Supervisors or BZA may impose reasonable conditions to assure, for example, compatibility and safety. See Article 8, Special Permits and Article 9, Special Exceptions, of the Zoning Ordinance.

STORMWATER MANAGEMENT: Engineering practices that are incorporated into the design of a development in order to mitigate or abate adverse water quantity and water quality impacts resulting from development. Stormwater management systems are designed to slow down or retain runoff to re-create, as nearly as possible, the pre-development flow conditions.

SUBDIVISION PLAT: The engineering plan for a subdivision of land submitted to DPWES for review and approved pursuant to Chapter 101 of the County Code.

TRANSPORTATION DEMAND MANAGEMENT (TDM): Actions taken to reduce single occupant vehicle automobile trips or actions taken to manage or reduce overall transportation demand in a particular area.

TRANSPORTATION SYSTEM MANAGEMENT (TSM) PROGRAMS: This term is used to describe a full spectrum of actions that may be applied to improve the overall efficiency of the transportation network. TSM programs usually consist of low-cost alternatives to major capital expenditures, and may include parking management measures, ridesharing programs, flexible or staggared work hours, transit promotion or operational improvements to the existing roadway system. TSM includes Transportation Demand Management (TDM) measures as well as H.O.V. use and other strategies associated with the operation of the street and transit systems.

URBAN DESIGN: An aspect of urban or suburban planning that focuses on creating a desirable environment in which to live, work and play. A well-designed urban or suburban environment demonstrates the four generally accepted principles of design: clearly identifiable function for the area; easily understood order; distinctive identity; and visual appeal.

VACATION: Refers to vacation of street or road as an action taken by the Board of Supervisors in order to abolish the public's right-of-passage over a road or road right-of-way dedicated by a plat of subdivision. Upon vacation, title to the road right-of-way transfers by operation of law to the owner(s) of the adjacent properties within the subdivision from whence the road/road right-of-way originated.

VARIANCE: An application to the Board of Zoning Appeals which seeks relief from a specific zoning regulation such as lot width, building height, or minimum yard requirements, among others. A variance may only be granted by the Board of Zoning Appeals through the public hearing process and upon a finding by the BZA that the variance application meets the required Standards for a Variance set forth in Sect. 18-404 of the Zoning Ordinance.

WETLANDS: Land characterized by wetness for a portion of the growing season. Wetlands are generally delineated on the basis of physical characteristics such as soil properties indicative of wetness, the presence of vegetation with an affinity for water, and the presence or evidence of surface wetness or soil saturation. Wetland environments provide water quality improvement benefits and are ecologically valuable. Development activity in wetlands is subject to permitting processes administered by the U.S. Army Corps of Engineers

TIDAL WETLANDS: Vegetated and nonvegetated wetlands as defined in Chapter 116 Wetlands Ordinance of the Fairfax County Code: includes tidal shores and tidally influenced embayments, creeks, and tributaries to the Occoquan and Potomac Rivers. Development activity in tidal wetlands may require approval from the Fairfax County Wetlands Board.

Abbreviations Commonly Used in Staff Reports

A&F	Agricultural & Forestal District
ADU	Affordable Dwelling Unit
ARB	Architectural Review Board
BMP	Best Management Practices
BOS	Board of Supervisors
BZA	Board of Zoning Appeals
COG	Council of Governments
CBC	Community Business Center
CDP	Conceptual Development Plan
CRD	Commercial Revitalization District
DOT	Department of Transportation
DP	Development Plan
DPWES	Department of Public Works and Environmental Services
DPZ	Department of Planning and Zoning
DU/AC	Dwelling Units Per Acre
EQC	Environmental Quality Corridor
FAR	Floor Area Ratio
FDP	Final Development Plan
GDP	Generalized Development Plan
GFA	Gross Floor Area
HC	Highway Corridor Overlay District
HCD	Housing and Community Development
LOS	Level of Service
Non-RUP	Non-Residential Use Permit
OSDS	Office of Site Development Services, DPWES
PCA	Proffered Condition Amendment
PD	Planning Division
PDC	Planned Development Commercial
PDH	Planned Development Housing
PFM	Public Facilities Manual
PRC	Planned Residential Community
RC	Residential-Conservation
RE	Residential Estate
RMA	Resource Management Area
RPA	Resource Protection Area
RUP	Residential Use Permit
RZ	Rezoning
SE	Special Exception
SEA	Special Exception Amendment
SP	Special Permit
TDM	Transportation Demand Management
TMA	Transportation Management Association
TSA	Transit Station Area
TSM	Transportation System Management
UP & DD	Utilities Planning and Design Division, DPWES
VC	Variance
VDOT	Virginia Dept. of Transportation
VPD	Vehicles Per Day
VPH	Vehicles per Hour
WMATA	Washington Metropolitan Area Transit Authority
WS	Water Supply Protection Overlay District
ZAD	Zoning Administration Division, DPZ
ZED	Zoning Evaluation Division, DPZ
ZPRB	Zoning Permit Review Branch