APPLICATION ACCEPTED: April 11, 2013
PLANNING COMMISSION: November 21, 2013
BOARD OF SUPERVISORS: December 3, 2013 @ 3:30 p.m.

County of Fairfax, Virginia

November 7, 2013

CRD

STAFF REPORT

APPLICATIONS RZ/FDP 2013-LE-008

LEE DISTRICT

APPLICANT:	Penn-Daw Associates Limited Partnership
PRESENT ZONING:	Residential, 4 du/ac (R-4) Highway Commercial District (C-8) Richmond Highway Commercial Revitalization District (CRD) Highway Corridor Overlay District (HC)
REQUESTED ZONING:	Planned Development Housing District, 40 du/ac Highway Commercial District (C-8) Richmond Highway Commercial Revitalization District (CRD) Highway Corridor Overlay District (HC)
PARCEL(S):	83-3 ((1)) 7
ACREAGE:	10.45
FAR/DENSITY:	1.34 FAR (including ADU, WDU, and Bonus Units)
PLAN MAP:	Retail and Other Commercial Uses
PROPOSAL:	To rezone property from the R-4, C-8, CRD, and HC Districts to the PDH-40, CRD, and HC Districts for the development of 400 multi-family, 41 single family attached, and up to 45,500 square feet of non-residential uses.

STAFF RECOMMENDATIONS:

Staff recommends of approval of RZ 2013-LE-008 and the Conceptual Development Plan, subject to the execution of proffers consistent with those contained in Appendix 1 of the staff report.

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 FDP 2013-LE-008, subject to the proposed Final Development Plan conditions contained in Appendix 2 of the staff report and the Board of Supervisors approval of RZ 2013-LE-008 and the associated Conceptual Development Plan.

Staff recommends approval of the following waivers and modifications:

- Modification of Sect. 13-303 and 13-304 of the Zoning Ordinance for the transitional screening planting materials and barrier requirement along the northeastern property line; waiver of the transitional screening requirement along the southeastern property line; modification of the transitional screening requirement along the northwest property line; waiver of the transitional screening requirement between the multi-family and single family attached uses; and waiver of the transitional screening requirement between the multi-family and retail uses, pursuant to Sect. 13-305 of the Zoning Ordinance to that shown on the CDP/FDP.

- Waiver of Sect. 13-202 of the Zoning Ordinance for dispersing of the interior parking landscaping for the surface parking lot area and landscaping on the top level of the parking structure.

- Modification of the Countywide Trails Plan along North Kings Highway to permit six foot wide sidewalks to that shown on the CDP/FDP.

- Waiver of Sect. 2-505 of the Zoning Ordinance on use limitations on corner lots for a corner of a building.

- Waiver of Sect. 17-201 of the Zoning Ordinance and Sect. 7-0104.1 of the Public Facilities Manual for a service drive.

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 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.

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).

Rezoning Application

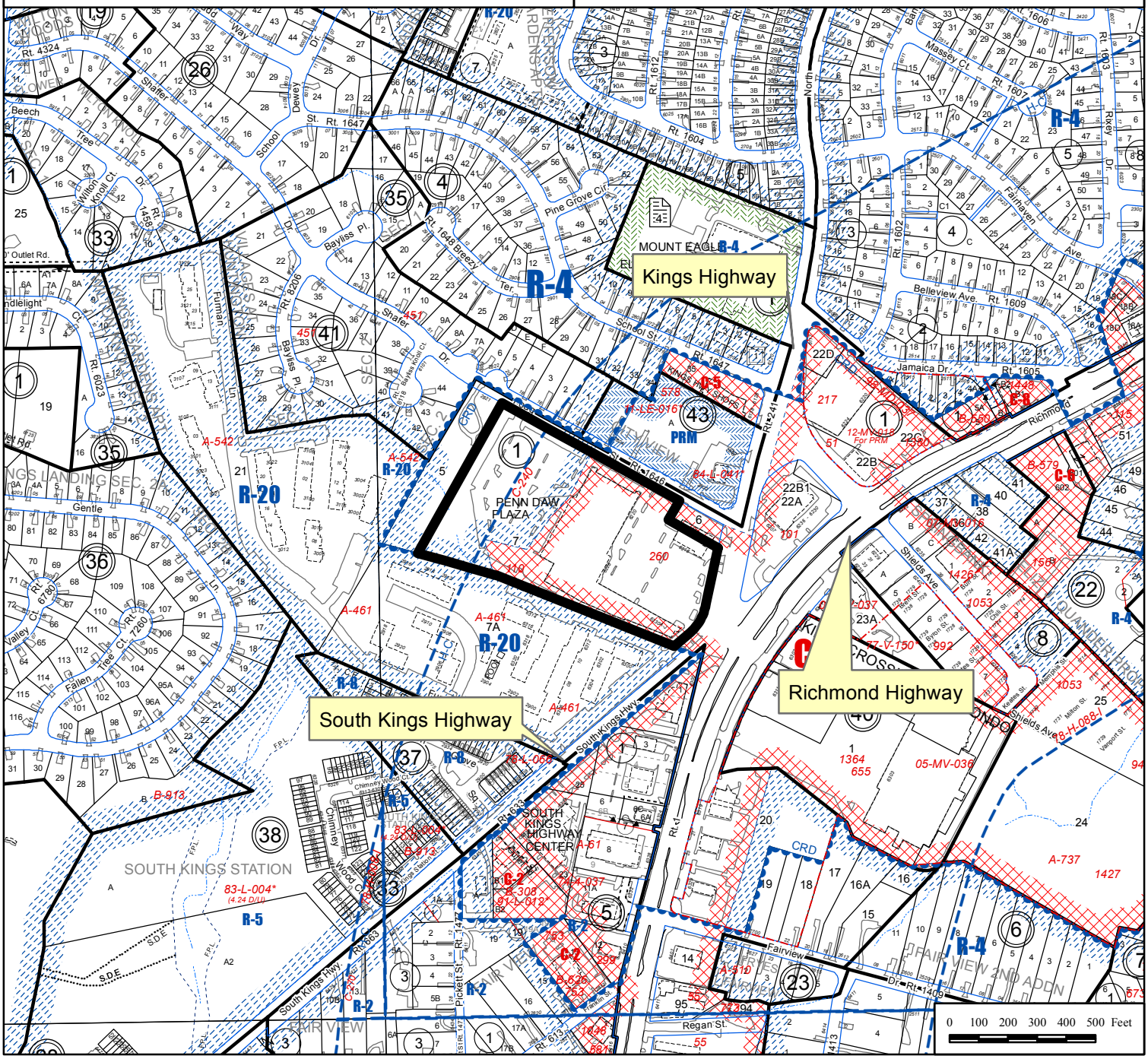
RZ 2013-LE-008

Applicant:	PENN-DAW ASSOCIATES LIMITED PARTNERSHIP
Accepted:	04/11/2013
Proposed:	MIXED USE
Area:	10.45 AC OF LAND; DISTRICT - LEE
Zoning Dist Sect:	
Located:	SOUTHWEST QUADRANT OF THE INTERSECTION OF KINGS HIGHWAY AND POAG STREET
Zoning:	FROM C- 8 TO PDH-40, FROM R- 4 TO PDH-40
Overlay Dist:	CRD HC
Map Ref Num:	083-3- /01/ /0007

Final Development Plan

FDP 2013-LE-008

Applicant:	PENN-DAW ASSOCIATES LIMITED PARTNERSHIP
Accepted:	04/11/2013
Proposed:	MIXED USE
Area:	10.45 AC OF LAND; DISTRICT - LEE
Zoning Dist Sect:	
Located:	SOUTHWEST QUADRANT OF THE INTERSECTION OF KINGS HIGHWAY AND POAG STREET
Zoning:	PDH-40
Overlay Dist:	CRD HC
Map Ref Num:	083-3- /01/ /0007



REZONING
CONCEPTUAL DEVELOPMENT PLAN/
FINAL DEVELOPMENT PLAN
PENN DAW PLAZA

(RZ 2013-LE-008)
(CDP/FDP 2013-LE-008)

LEE DISTRICT
FAIRFAX COUNTY, VIRGINIA

APPLICANT/OWNER
PENN DAW ASSOCIATES LIMITED PARTNERSHIP
C/O COMBINED PROPERTIES INCORPORATED,
MANAGEMENT AGENT
1025 THOMAS JEFFERSON STREET, NW
SUITE 700 EAST
WASHINGTON, DC 20007
TEL: 202.293.4500
CONTACT: RANDY KENNA

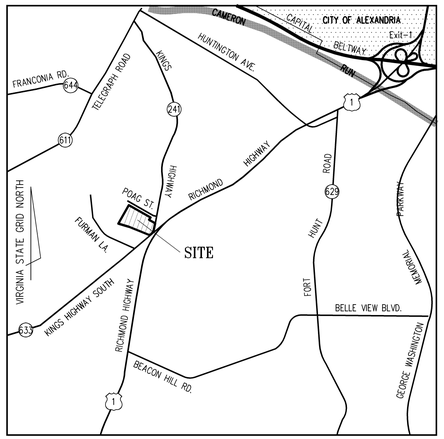
LEGAL COUNSEL
COOLEY LLP
11951 FREEDOM DRIVE
RESTON, VA 20190
TEL: 703.456.8652
CONTACT: MARK LOONEY

CIVIL ENGINEER
URBAN, LTD.
4200 D TECHNOLOGY COURT
CHANTILLY, VA 20151
TEL: 703.642.2306
CONTACT: ROBERT BROWN, PE

LANDSCAPE ARCHITECT
LAND DESIGN
200 SOUTH PEYTON STREET
ALEXANDRIA, VA 22314
TEL: 703.549.7784
CONTACT: GABRIELA CANAMAR

ARCHITECT/PLANNER
HORD, COPLAN, MACHT
750 E. PRATT STREET
SUITE 1100
BALTIMORE, MD 21202
TEL: 410.837.7311
CONTACT: JOSEPH SCHNEIDER

TRAFFIC ENGINEER
GOROVE/SLADE ASSOCIATES, INC.
3914 CENTREVILLE ROAD
SUITE 330
CHANTILLY, VA 20151
TEL: 703.787.9595
CONTACT: CHAD BAIRD



VICINITY MAP
SCALE: 1" = 2000'

PROPERTY OWNERSHIP		
PARCEL I.D.	OWNER	DEED BOOK / PAGE
83 - 3 - ((1)) - PARCEL 7	PENN-DAW ASSOCIATES LIMITED PARTNERSHIP	BOOK 5681, PAGE 0673

MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

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 3 & 4L)	PRC Plan (16-303 1E & 1O)
FDP P Districts (except PRC) (16-502 1F & 1Q)	Amendments (18-202 10F & 10I)

☒ 1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').

☒ 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 Sheet 7-9 .

☒ 3. Provide:

Facility Name/ Type & No. (e.g. dry pond A, infl. trench, underground vault, etc.)	On-site area served (acres)	Off-site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf)	If pond, dam height (ft)
SWM VAULT #1	1.67	-	1.67	2,880	20,597	N/A
SWM VAULT #2	6.82	-	6.82	6,560	46,914	N/A
Totals						

☒ 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 7-9 .
Pond inlet and oulet pipe systems are shown on Sheet 7-9 .

☒ 5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet 7-9 .
Type of maintenance access road surface noted on the plat is ASPHALT (asphalt, geoblock, gravel, etc.).

☒ 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet L-2.1A .

☒ 7. A 'stormwater management narrative' which contains a description of how detention and best management practices requirements will be met is provided on Sheet 8 .

☒ 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 Sheet 10 .

☒ 9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 10 .

☒ 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 2&3 .

☐ 11. A submission waiver is requested for N/A .

☐ 12. Stormwater management is not required because N/A .

SHEET INDEX

1	COVER SHEET	L-1	OVERALL LANDSCAPE PLAN
2-2A	GENERAL NOTES AND TABULATIONS	L-1.1	OVERALL OPEN SPACE PLAN
3	EXISTING CONDITIONS PLAN	L-2	ENLARGEMENT DETAIL PLANS - ENTRY PLAZA
4	CDP - FDP		
4A	CDP-ALTERNATIVE TOWNHOUSE LAYOUT	L-2.0	CHARACTER IMAGES - FOCAL FEATURE
5	PEDESTRIAN AND TRANSPORTATION CIRCULATION PLAN	L-2.1	ENLARGEMENT DETAIL PLANS - AMENITY COURTYARDS
6	PEDESTRIAN AND TRANSPORTATION CIRCULATION PLAN	L-2.1A	ENLARGEMENT DETAIL PLANS - DOG PARK AND TOT LOT
7	SWM ANALYSIS		
8	SWM ANALYSIS	L-2.2	SECTIONS
9	BMP ANALYSIS	L-2.3	SECTIONS
10	OUTFALL ANALYSIS	L-3	LANDSCAPE CALCULATIONS
11	OUTFALL ANALYSIS	L-4	PLANTING NOTES & SCHEDULE
12	OVERLAND RELIEF PLAN	L-4.1	PLANTING DETAILS
13	OVERLAND RELIEF PLAN	A-1	GROUND LEVEL PLAN
14	FIRE ACCESS AND HYDRANT COVERAGE PLAN	A-2	UPPER LEVEL PLANS
		A-3	BUILDING PERSPECTIVES
15	SIGHT DISTANCE PROFILES	A-3.1	BUILDING PERSPECTIVES
16	SIGHT DISTANCE PROFILES	A-4	BUILDING SECTIONS
17	EXISTING VEGETATION MAP		

No.	DATE	REVISIONS
		DESCRIPTION

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-17-13
10-31-13
-

Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
Tel: 703.642.2306
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
ROBERT W. BROWN
LIC. NO. 038041
10/31/13
PROFESSIONAL ENGINEER

COVER SHEET

PENN DAW PLAZA
LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINA

DATE: JUNE, 2013
C.I.: N/A
SCALE: AS NOTED

SHEET 1 OF 17

RZ-12679

GENERAL NOTES

1. THE SUBJECT PROPERTY OF THE CONCEPTUAL / FINAL DEVELOPMENT PLAN (CDP/FDP) IS IDENTIFIED ON THE FAIRFAX COUNTY ZONING MAP AS PARCEL 083-3-((01))-7 CONSISTING OF 10.4477 ACRES.

2. THE SUBJECT SITE LIES WITHIN THE RICHMOND HIGHWAY COMMERCIAL REVITALIZATION DISTRICT (CRD) AND THE HIGHWAY CORRIDOR OVERLAY DISTRICT (HC).

3. THE CDP/FDP HAS BEEN FILED TO PERMIT THE REZONING OF THE PROPERTY TO THE PDH-40 ZONING DISTRICT TO PERMIT THE CONSTRUCTION OF SINGLE FAMILY ATTACHED RESIDENCES, MULTIFAMILY RESIDENCES, AND COMMERCIAL RETAIL USES WITHIN THE CRD AND HC.

4. THE BOUNDARY INFORMATION SHOWN HEREON IS COMPILED FROM A FIELD RUN BOUNDARY SURVEY BY URBAN, LTD. DATED AUGUST, 2010.

5. THE TOPOGRAPHY SHOWN HEREON IS AT A ONE-FOOT CONTOUR INTERVAL, PREPARED BY URBAN LTD, BASED ON FIELD RUN TOPOGRAPHY.

6. THE PROPOSED DEVELOPMENT IS IN CONFORMANCE WITH THE COMPREHENSIVE PLAN AND ALL PROVISIONS OF APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS WITH THE EXCEPTION OF THE REQUESTED WAIVERS AND MODIFICATIONS LISTED BELOW.

7. THE PROPERTY IS SERVED BY PUBLIC SEWER AND WATER.

8. STORMWATER MANAGEMENT (SWM) AND BEST MANAGEMENT PRACTICES (BMP) SHALL BE PROVIDED ON SITE AND GENERALLY AS SHOWN ON THE CDP/FDP.

9. THERE ARE NO FLOODPLAINS, RESOURCE PROTECTION AREAS OR ENVIRONMENTAL QUALITY CORRIDORS ON THE PROPERTY.

10. THERE ARE NO GRAVE SITES KNOWN TO EXIST ON THIS SITE.

11. THERE ARE NO SCENIC OR NATURAL FEATURES DESERVING OF PROTECTION OR PRESERVATION ON THE PROPERTY.

12. THE PROPOSED DEVELOPMENT OF THE PROPERTY WILL COMMENCE AS SOON AS REQUISITE PLANS AND PERMITS ARE APPROVED AND SUBJECT TO MARKET CONDITIONS. THE DEVELOPMENT MAY BE PHASED AND/OR FURTHER SUBDIVIDED.

13. THERE ARE NO KNOWN HAZARDOUS OR TOXIC SUBSTANCES ON THE PROPERTY. IF ANY SUCH SUBSTANCES ARE DISCOVERED, THE METHODS FOR DISPOSAL SHALL ADHERE TO COUNTY, STATE AND/OR FEDERAL LAW.

14. IN ACCORDANCE WITH THE PROVISIONS OF PARAGRAPH 4 OF SECTION 16-403 MINOR MODIFICATIONS TO THE SIZES, DIMENSIONS, FOOTPRINTS AND LOCATIONS OF BUILDINGS, SIDEWALKS, DRIVEWAYS, TRAILS AND UTILITIES MAY OCCUR WITH FINAL ENGINEERING AND DESIGN WITHOUT REQUIRING AN AMENDMENT TO THE CDP/FDP.

15. THERE ARE NO EXISTING UTILITY EASEMENTS EQUAL TO OR GREATER THAN 25 FEET IN WIDTH ON THE PROPERTY.

16. IN ACCORDANCE WITH FAIRFAX COUNTY PFM SECTION 9-0202.2J (1) & (6), EMERGENCY VEHICLES SHALL HAVE ACCESS TO WITHIN 100' OF ALL BUILDINGS (1) WITHOUT TRAVELING MORE THAN 100' ALONG A DEAD END STREET (6). SEE THIS SHEET FOR DETAIL.

17. THE APPLICANT INCLUDES THE FOLLOWING SPECIAL EXCEPTION/PERMIT USES AS PERMITTED USES ON THE PROPERTY IN ACCORDANCE WITH SECTION 6-105 OF THE ZONING ORDINANCE:
    - PRIVATE SCHOOLS OF SPECIAL EDUCATION
    - DRIVE-THROUGH PHARMACIES
    - QUICK SERVICE FOOD STORE
    - HEALTH CLUB
    - CHILD CARE CENTERS AND NURSERY SCHOOLS
    - COMMUNITY USES (GROUP 4)

18. THE APPLICANT IS SEEKING TO MODIFY/WAIVE SECTION 13-303 OF THE ZONING ORDINANCE FOR:
    - TRANSITIONAL SCREENING ALONG THE NORTH EAST PROPERTY LINE
    - TRANSITIONAL SCREENING ALONG THE SOUTH EAST PROPERTY LINE
    - TRANSITIONAL SCREENING ALONG THE NORTH WEST PROPERTY LINE
    - TRANSITIONAL SCREENING BETWEEN MULTIFAMILY TO SINGLE FAMILY ATTACHED
    - TRANSITIONAL SCREENING BETWEEN MULTIFAMILY TO RETAIL

19. THE APPLICANT IS SEEKING TO MODIFY SECTION 13-202 OF THE ZONING ORDINANCE FOR INTERIOR PARKING LOT LANDSCAPE.

20. THE APPLICANT REQUESTS APPROVAL OF THE WAIVER FOR THE REDUCTION OF THE COMPREHENSIVE TRAIL FROM 8' TO 6' ALONG KINGS HIGHWAY.

21. EXTENSIONS INTO THE MINIMUM REQUIRED YARDS (EG. DECKS, CORNICES, CANOPIES, AWNINGS, EAVES OR OTHER SIMILAR FEATURES) SHALL BE PERMITTED, SUBJECT TO THE REQUIREMENTS OF 2-412 (FAIRFAX COUNTY ZONING ORDINANCE).

22. THE APPLICANT REQUESTS THE APPROVAL OF THE WAIVER OF A SERVICE DRIVE IN ACCORDANCE WITH PFM SECTION 7-0104.1 - SERVICE DRIVE WAIVER FOR PROPERTIES ABUTTING PRIMARY HIGHWAYS (ROUTE NUMBERS BELOW 600).

23. THE APPLICANT REQUESTS THE APPROVAL OF THE WAIVER OF SECTION 2-505 OF THE ZONING ORDINANCE (USE LIMITATIONS ON CORNER LOTS). SEE SHEET 15.

24. THE APPLICANT WILL REQUIRE, AT TIME OF SITE PLAN, THE APPROVAL OF THE MODIFICATION OF SECTION 9-0202.2J(5) OF THE PFM TO REDUCE THE WIDTH OF THE FIRE LANE FROM 20' TO 16' FOR THE EGRESS FROM THE GROCERY STORE PARKING LOT, AS SHOWN ON SHEET 4. AT TIME OF SITE PLAN, MOUNTABLE CURB AND REINFORCED GRASS WILL BE UTILIZED TO IMPROVE THE TRUCKS MOVEMENT FROM THIS AREA.

25. SEE SHEET 2A FOR ADU/WDU/BONUS UNIT CALCULATIONS.

ZONING AND AREA TABULATION

SITE AREA:

TOTAL AREA:	=	10.4477(1) AC
PUBLIC ROAD R/W DEDICATION:	=	0.0807 AC (±3,515 SF)
TOTAL SITE AREA AFTER DED:	=	10.3670 AC (INCLUDES R/W RESERVATION)

(1) AREA USED FOR DENSITY CALCULATIONS. DENSITY CREDIT IS TAKEN FOR THE PUBLIC ROAD R/W DEDICATION.

EXISTING ZONING	- R-4/C-8/HC/CRD
PROPOSED ZONING	- PDH-40/HC/CRD
MINIMUM DISTRICT SIZE	= 2 ACRES
PROVIDED DISTRICT SIZE	= 10.4477 ACRES
PROPOSED UNITS	= 41 SINGLE FAMILY ATTACHED UNITS = 400 MULTIFAMILY UNITS
MAXIMUM DENSITY	= 40 DU/AC
PROPOSED DENSITY(2)	= 441/10.4477 = 42.2102 DU/AC (INCLUDING BONUS UNITS)

(2) SEE MODIFICATIONS ON SHEET 2A

OPEN SPACE REQUIRED	= 31% OF SITE AREA PER 6-110
OPEN SPACE PROVIDED	= ±32% OR ROUGHLY 3.36 AC(3)

(3) ALTERNATE LAYOUT ON SHEET 4A DOES NOT AFFECT THE OPEN SPACE

FRONT YARD	= N/A
FRONT YARD PROVIDED	= SEE TYPICAL LOT LAYOUT GRAPHIC
SIDE YARD	= N/A
SIDE YARD PROVIDED	= SEE TYPICAL LOT LAYOUT GRAPHIC
INTERIOR LOT WIDTH REQUIRED	= N/A
INTERIOR LOT WIDTH PROVIDED	= SEE TYPICAL LOT LAYOUT GRAPHIC
REAR YARD	= N/A
REAR YARD PROVIDED	= SEE TYPICAL LOT LAYOUT GRAPHIC
CORNER LOT WIDTH REQUIRED	= N/A
CORNER LOT WIDTH PROVIDED	= SEE TYPICAL LOT LAYOUT GRAPHIC
MIN. LOT AREA REQUIRED	= N/A
MIN. LOT AREA PROVIDED	= 1,100 S.F.
MAXIMUM BUILDING HEIGHT	= N/A
BUILDING HEIGHT PROVIDED	= 40' FOR SINGLE FAMILY ATTACHED = 65' FOR MULTIFAMILY/COMMERCIAL

SEE SHEET 2A FOR FAR CALCULATIONS

LAND AREA DEDICATED TO SECONDARY USES

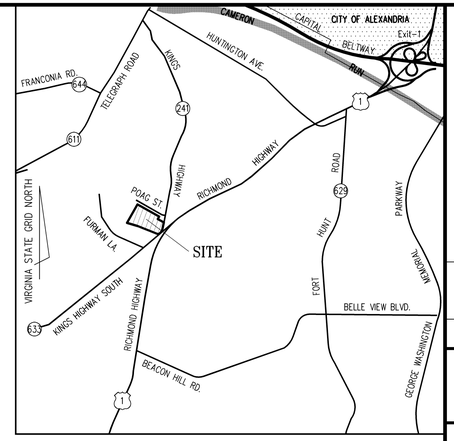
MAXIMUM ALLOWED	= 441 UNITS * 200 SF/UNIT = 88,200 SF
PROVIDED(4)	= 86,610 SF

(4) SEE SHEET #4 FOR AREA.

LEGEND:

W	EXISTING WATER LINE
W	PROPOSED WATER LINE
	EX. FIRE HYDRANT
	PROP. FIRE HYDRANT
WM	EXISTING WATER METER
WM	PROPOSED WATER METER
WV	EXISTING WATER VALVE
WV	PROPOSED WATER VALVE
S	EXISTING STORM DRAIN
S	PROPOSED STORM DRAIN
S	EXISTING SANITARY SEWER
S	PROPOSED SANITARY SEWER
G	EXISTING GAS LINE
G	PROPOSED GAS LINE
GV	EXISTING GAS VALVE
GV	PROPOSED GAS VALVE
	EXISTING OVERHEAD WIRE
	EXISTING LIGHTING
	PROPOSED LIGHTING
x x x	EXISTING FENCE
x x x	PROPOSED FENCE
	EXISTING TREE LINE
08 / 10	EXISTING CONTOURS
08 / 10	PROPOSED CONTOURS
	PROPOSED PHASE LINE
LOD	PROPOSED LIMITS OF CLEARING & GRADING
	EXISTING WETLANDS
	PROP. RET. WALL
	EX. RET. WALL
	ROAD SIGN
	EX. POWER POLE
25.6	EXISTING SPOT ELEVATION
+25.60	PROP. SPOT ELEVATION
CG-6 CG-6R	SPILL AND TRANSITION CURB AND GUTTER
ROLL TOP / CURB (R)	SPILL AND TRANSITION ROLL TOP CURB
CURB	PROPOSED CURB

	EX. STREET LIGHTS
	PROP. STREET LIGHTS
	PROPOSED CG-12
	EXISTING TREE
	PROPOSED TREE
A	WATER FITTING IDENTIFIER
L	LOADING AREA
	BENCHMARK
	TEST PIT REQUIRED
???? VPD	PROJECTED TRAFFIC COUNT
O.R.	OVERLAND RELIEF
PROP.	PROPOSED
EX.	EXISTING
SF	SQUARE FEET
GSF	GROSS SQUARE FEET
NSF	NET SQUARE FEET
T.B.R.	TO BE REMOVED
FF	FINISHED FLOOR
V	VISITOR PARKING SPACE
S, C, HC	STANDARD, COMPACT, AND HANDICAP PARKING SPACE DESIGNATOR
T	TRANSFORMER (APPROXIMATE LOCATION SUBJECT TO FINAL ENGINEERING)
▼▼	MAIN BULDING ENTERANCE

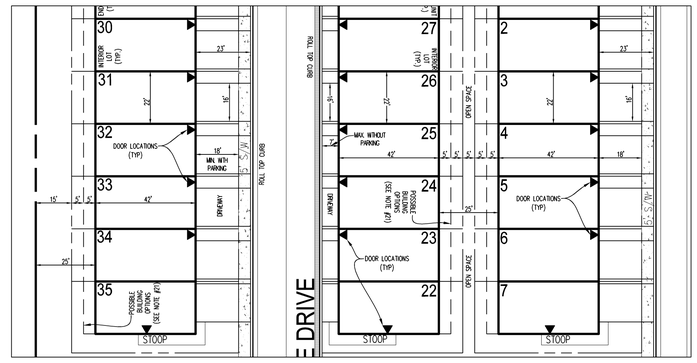


VICINITY MAP

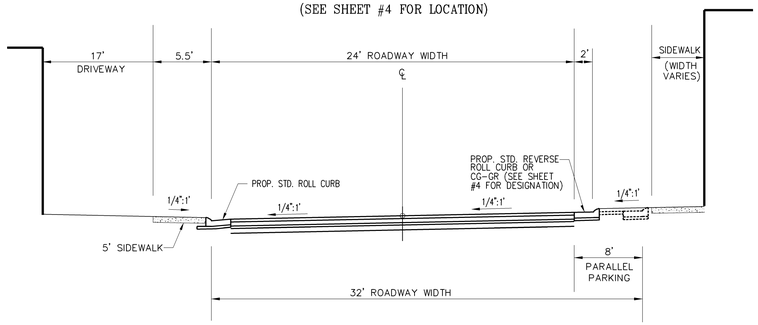
SCALE: 1" = 2000'

TYPICAL LOT LAYOUTS

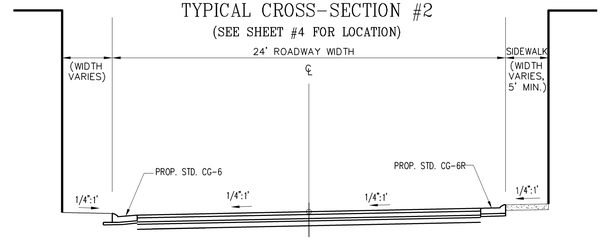
SCALE: 1"=30'



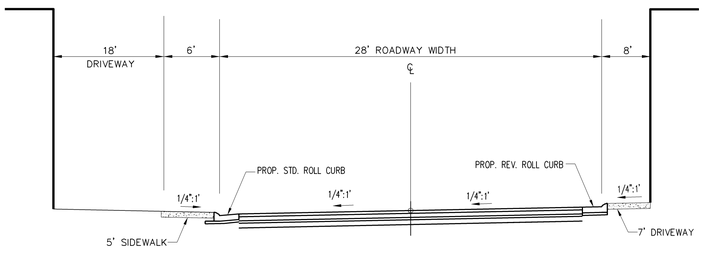
PROPOSED PRIVATE STREET
TYPICAL CROSS-SECTION #1
(SEE SHEET #4 FOR LOCATION)



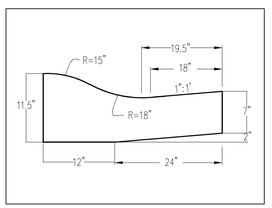
PROPOSED PRIVATE STREET
TYPICAL CROSS-SECTION #2
(SEE SHEET #4 FOR LOCATION)



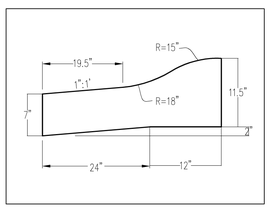
PROPOSED PRIVATE STREET
TYPICAL CROSS-SECTION #3
(SEE SHEET #4 FOR LOCATION)



ROLLTOP CURB
N.T.S.



ROLLTOP CURB (R)
N.T.S.



PARKING TABULATIONS (FOR LAYOUT SHOWN ON SHEET #4)

I. REQUIRED: SINGLE FAMILY ATTACHED
SINGLE FAMILY ATTACHED DWELLING = 2.7 SPACES/LOT * 41 LOTS = 110.7 SPACES
TOTAL PARKING REQUIRED = 111 SPACES

PROVIDED: SINGLE FAMILY ATTACHED
2 SPACES PER SFA UNIT (2 GARAGE) = 82 SPACES
2 SPACES PER SFA UNIT (2 DRIVEWAY * 27 LOTS) = 54 SPACES
SURFACE PARKING SPACES = 8 SPACES
TOTAL PARKING PROVIDED = 144 SPACES

II. REQUIRED: MULTIFAMILY/RETAIL
MULTIPLE FAMILY DWELLING = 1.6 SPACES/UNIT * 400 UNITS = 640 SPACES
SHOPPING CENTER - 100,000 SF OF GFA OR LESS = 4.3 SPACES/1,000 SF * 45,500 SF = 195.65 SPACES
195.65 SPACES * 20% REDUCTION PER SECTION A7-409 OF THE ZONING ORDINANCE = 156.52
TOTAL PARKING REQUIRED = 797 SPACES

PROVIDED: MULTIFAMILY/RETAIL
STRUCTURED SPACES = 153 RETAIL SPACES AND 610 RESIDENTIAL SPACES = 763 SPACES*
SURFACE PARKING SPACES = 41 SPACES*
TOTAL PARKING PROVIDED = 804 SPACES

III. REQUIRED: LOADING SPACES
MULTIPLE FAMILY DWELLING = 1 SPACE FOR FIRST 25,000 SF + 1 SPACES/100,000 SF AFTER = 1 + 2.63 = 4 SPACES
SHOPPING CENTER - 1 SPACE/FIRST 10,000 SF + 1 SPACE/15,000 AFTER = 1 + 2.36 SPACES = 4 SPACES
PER PFM 11-202 (15) SHALL NO MORE THAN 5 OFF-STREET LOADING BE REQUIRED.
TOTAL LOADING PROVIDED = 5

*NOTE: THE APPLICANT RESERVES THE RIGHT TO MODIFY (INCREASE/DECREASE) THE NUMBER OF PROVIDED PARKING SPACES SO LONG AS THE THE NUMBER OF PROVIDED SPACES IS STILL IN CONFORMANCE WITH THE PARKING REQUIREMENTS OF THE ZONING ORDINANCE.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-17-13
10-31-13
-

urban
Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
TEL 703.642.8336
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
ROBERT W. BROWN
LIC. NO. 023041
PROFESSIONAL ENGINEER
10/31/13

GENERAL NOTES AND TABULATIONS

PENN DAW PLAZA

LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

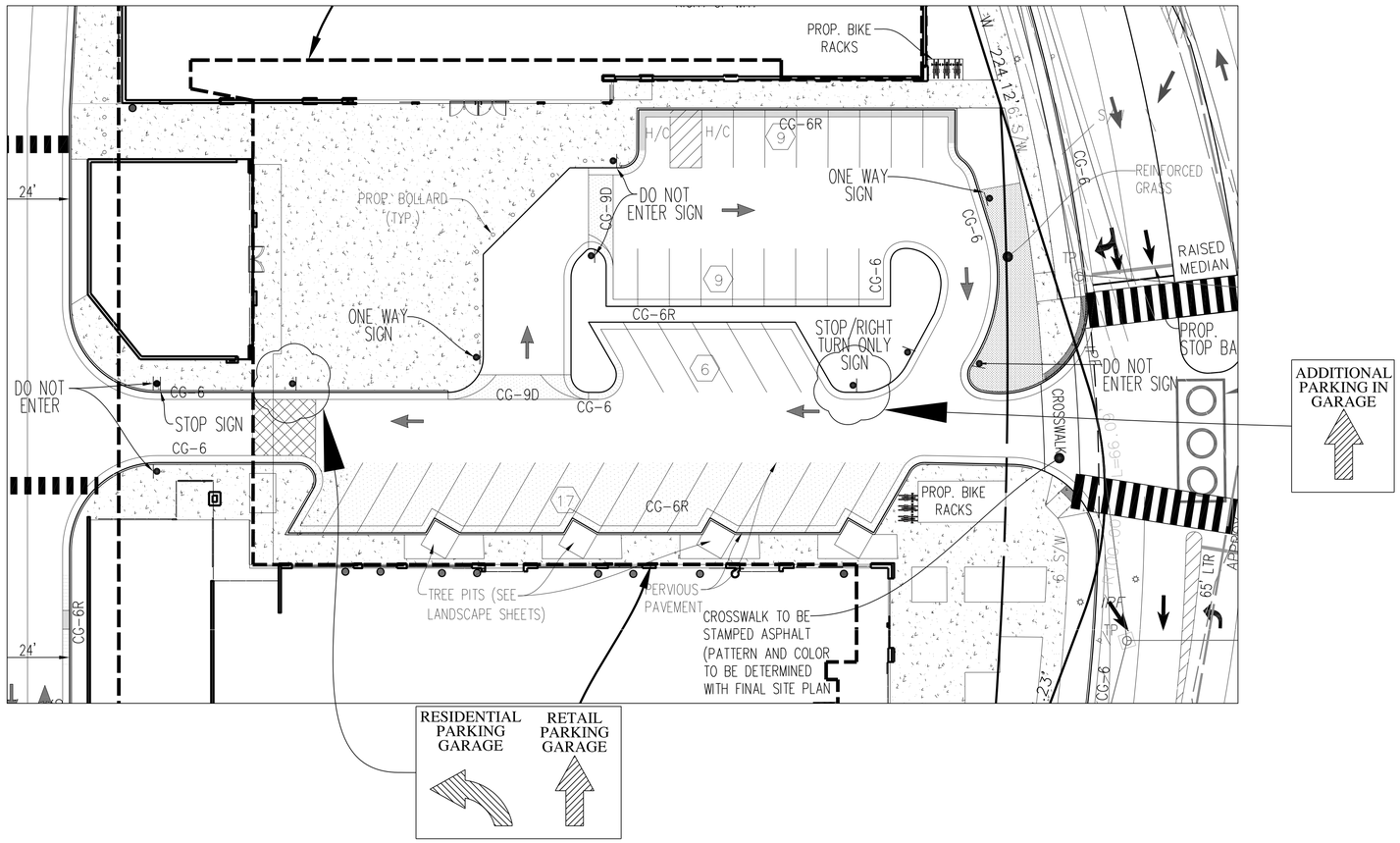
DATE: JUNE, 2013
CL: N/A
SCALE: AS NOTED

SHEET 2 OF 17

RZ-12679

TRAFFIC CONTROL SIGN LOCATIONS FOR PLAZA

SCALE:1"=20'



NOTE: ALL SIGNS SHOWN ABOVE SHALL CONFORM WITH ARTICLE 12 OF THE ZONING ORDINANCE. UNLESS A SEPARATE COMPREHENSIVE SIGN PACKAGE (CSP) IS APPROVED

SEE SHEET 4 FOR ADDITIONAL SIGNS FOR GARAGES

FAR Calculations:

Comp Plan Recommendation:	1.15	FAR	
Site Area:	10.4477	Acres	
Max Floor Area:	523,367.08	SF	
Retail Square Footage:	45,500.00	SF	
Max Residential Square Footage:	477,867.08	SF	
ADU+WDU Max Bonus (20%):	95,573.42	SF	
Max. Residential Square Footage:	573,440.50	SF	(Includes Bonus Units)
FAR Allowed Including Bonus Density:	1.36	Max. Res. + Retail / Site Area	
Retail Gross Square Footage:	45,500	SF	
Multifamily Gross Square Footage:	455,500	SF	
Townhouse Gross Square Footage:	109,511	SF	(Does not inlcude Garages)
Total Gross Square Footage:	610,511	SF	
FAR:	**1.34**		

ADU/WDU/Bonus Units:

Residential Square Footage:	477,867.08	SF	
Acutal Unit Size:	1,091.40	SF	
Max Units without Bonues:	438	Units	
Max Units without Bonues Density:	41.91	Units/Acre	
Max. Residential Square Footage:	573,440.50	SF	(Includes Bonus Units)
Acutal Unit Size:	1,091.40	SF	
Max Units with Bonues:	525	Units	
Max Units with Bonus Density:	50.29	Units/Acre	
Proposed Units:	400	Multifamily Units	
	41	Townhouse Units	
Total:	441	Units	
Proposed Density:	42.21	Units/Acre	
ADU's:	0.845	Proposed Density - 50% Max Units w/o Bonus Density / Max Units with Bonus Density - 50% Max Units with Bonus Density	
Multifamily ADU's:	4.23%	(ADU's x 5%)	
Townhouse ADU's:	10.57%	(ADU's x 12.5%)	
Multifamily ADU's:	17	Units	
Townhouse ADU's:	4	Units	
Total ADU's:	21	Units	
Bonus Multifamily Percent Units:	14.4%	=(MF ADU's Percentage x 17%)/5%	
Bonus Townhouse Percent Units:	16.9%	=(TH ADU's Percentage x 20%)/12.5%	
Bonus Multifamily Units:	50	Units	
Bonus Townhouse Units:	6	Units	
Total Bonus Units:	56	Units	
Base Units:	364	Units	
ADU's Percentage:	4.76%		
WDU's Percentage:	10.24%		
WDU's:	37		

No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-09-13
10-17-13
10-31-13
-

urban
Planners Engineers Landscape Architects Land Surveyors
Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
Tel. 703.642.2306
www.urban-ltd.com

COMMONWEALTH OF VIRGINIA
ROBERT W. BROWN
Lic. No. 037041
10/31/13
PROFESSIONAL ENGINEER

GENERAL NOTES AND TABULATIONS

PENN DAW PLAZA
LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINA

SCALE: AS NOTED
C.I.: N/A
DATE: JUNE, 2013

SHEET 2A OF 17

RZ-12679

SOILS LEGEND:

SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
72B	KINGSTOWNE - SASSAFRAS - NEABSCO COMPLEX	FAIR P	MARGINAL P,S	LOW	IVB
91E	SASSAFRAS - MARUMSCO COMPLEX	POOR U,P,C,B	POOR P,C,S	HIGH	III
92B	SASSAFRAS - NEABSCO COMPLEX	FAIR P	MARGINAL P,S	MEDIUM	II
95	URBAN LAND	N/A	N/A	N/A	IVB
100	URBAN LAND - KINGSTOWNE COMPLEX	FAIR C,B	FAIR S	MEDIUM	IVB

IS THE SITE LOCATED WITHIN NATURALLY OCCURRING ASBESTOS SOILS?
YES ☐ NO ☒

AREAS THAT MAY CONTAIN NATURALLY OCCURRING ASBESTOS SOILS ARE LOCATED ON THE ORANGE SOILS TAX MAP GRIDS ON THE COUNTY WEBSITE. SPECIAL PRECAUTIONS REGARDING THESE SOILS OR FILL ORIGINATING FROM THESE SOILS ARE REQUIRED BY THE OCCUPATIONAL SAFETY AND HEALTH REGULATIONS ENFORCED BY THE VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY AND SPECIAL GUIDANCE HAS BEEN ISSUED BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

▪▪▪▪▪▪▪ SOILS BOUNDARIES

SEE SHEET #2 FOR LEGEND

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-09-13
10-17-13
10-31-13
-

urban
Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
Tel. 703.642.2306
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
Robert Brown
ROBERT W. BROWN
Lic. No. 037041
10/31/13
PROFESSIONAL ENGINEER

EXISTING CONDITIONS PLAN

PENN DAW PLAZA

LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: JUNE, 2013

C.I.: 1'

SCALE: 1"=40'

SHEET 3 OF 17

RZ-12679

DIRECTIONAL SIGNAGE

1	2	3
RESIDENTIAL PARKING GARAGE / RETAIL PARKING GARAGE	EXIT VIA POAG STREET	RESIDENTIAL PARKING

NOTE: ALL SIGNS SHOWN ABOVE SHALL CONFORM WITH ARTICLE 12 OF THE ZONING ORDINANCE. UNLESS A SEPARATE COMPREHENSIVE SIGN PACKAGE (CSP) IS APPROVED
SEE SHEET 2A FOR SIGNS IN PLAZA

LEGEND

- 6' HIGH FENCE FOR BARRIER REQUIREMENT
- RESIDENTIAL ABOVE
- RETAIL BELOW/ 1ST FLOOR
- LAND AREA DEDICATED TO SECONDARY USES SEE SHEET #2 FOR CALCULATIONS
- PERVIOUS PAVEMENT

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-09-13
10-17-13
10-31-13
-

urban™
Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
Tel. 703.642.2306
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
Robert Brown
ROBERT W. BROWN
Lic. No. 037041
10/31/13
PROFESSIONAL ENGINEER

CDP - FDP
PENN DAW PLAZA
LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

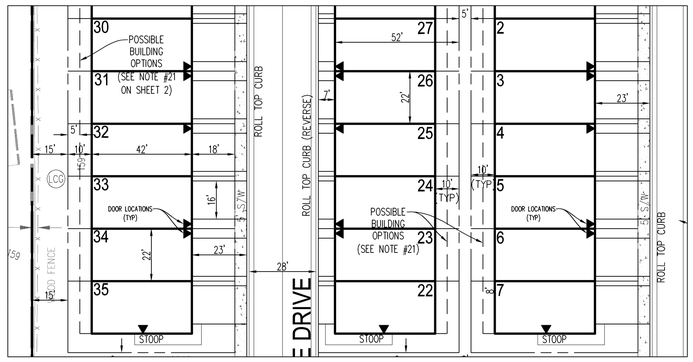
DATE: JUNE, 2013
C.I.: 1'
SCALE: 1"=40'

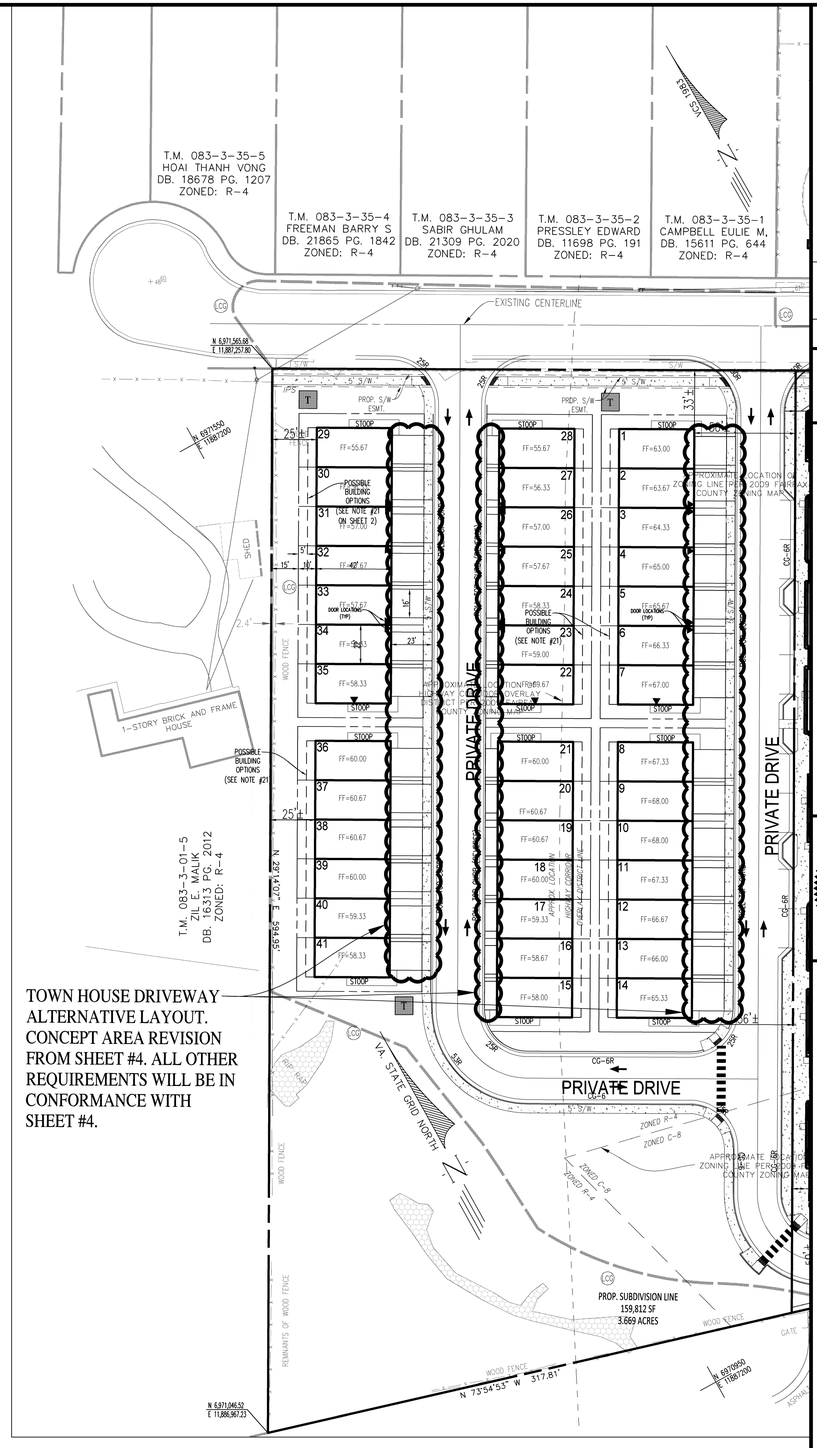
SHEET 4 OF 17

RZ-12679

TYPICAL LOT LAYOUTS

SCALE: 1"=30'





GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-17-13
10-31-13
-

Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
703-642-8336
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
Robert Brown
ROBERT W. BROWN
Lic. No. 026041
10/31/13
PROFESSIONAL ENGINEER

CDP-ALTERNATIVE TOWNHOUSE LAYOUT

PENN DAW PLAZA

LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINA

DATE: JUNE, 2013

SCALE: 1"=40'

C.I.: 1'

SHEET
4A
OF
17

RZ-12679

EX. BUILDING 3
HEIGHT = 33.81'
(3 STORIES)

EX. BUILDING 3
2804 POAG STREET
HEIGHT = 43.69'
(4 STORIES)

EX. BUILDING 1 & PROP. RACKS
2802 POAG STREET
HEIGHT = 45.08'
(4 STORIES)

EX. R.O.W. DED.
(362.38 S.F. OR 0.008 AC)

EX. CROSSWALK

EXISTING CENTERLINE

FUTURE SIGNAL
PROFFERED BY OTHERS

EX. 8' S/W

POAG STREET – ROUTE 1646

EX. 50' R/W

EXISTING CENTERLINE

EX. CROSSWALK

PROP. BUS SHELTER (AS PROFFERED WITH RZ/FDP 2011-LE-016)

N 6,971,565.85
E 11,887,757.88

OVERLAND RELIEF

CG-6

PROP. S/W ESMT.

S 60°42'51" E 294.95'

N 6,971,550
E 11,887,650

25'±

STOOP

29 FF=55.67
30 FF=56.33
31 FF=57.00
32 FF=57.67
33 FF=57.67
34 FF=58.33
35 FF=58.33

ROLL TOP CURB (REVERSE)

PRIVATE DRIVE

28 FF=55.67
27 FF=56.33
26 FF=57.00
25 FF=57.67
24 FF=58.33
POSSIBLE BUILDING OPTIONS (SEE NOTE #21)
23 FF=59.00
22 FF=59.67

1 FF=63.00
2 FF=63.67
3 FF=64.33
4 FF=65.00
5 FF=65.67
6 FF=66.33
7 FF=67.00

33'±

56'

POSSIBLE BUILDING OPTIONS (SEE NOTE #21)

36 FF=60.00
37 FF=60.67
38 FF=60.67
39 FF=60.00
40 FF=59.33
41 FF=58.33

21 FF=60.67
20 FF=60.67
19 FF=60.67
18 FF=60.00
17 FF=59.33
16 FF=58.67
15 FF=58.00

8 FF=67.33
9 FF=68.00
10 FF=68.00
11 FF=67.33
12 FF=66.67
13 FF=66.00
14 FF=65.33

56'±

PROP. TREE LIMITS

VA. STATE GRID NORTH

PRIVATE DRIVE

TREE SAVE AREA
32,275 SF

PROP. SUBDIVISION LINE
159,812 SF
3.669 ACRES

N 73°54'53" W 317.81'

N 6,970,950
E 11,887,200

N 6,971,046.52
E 11,886,967.23

LINE OF RESIDENTIAL ABOVE/OVERHEAD WALKWAY (MINIMUM CLEARANCE 15')

COURTYARD

MULTIFAMILY RESIDENTIAL
MAX HEIGHT = ± 48'
FFE=168.00'

COURTYARD

COURTYARD ACCESS

PARKING STRUCTURE
-5 DECKS
MAX HEIGHT = 55'
158.67'

388.25'

40'

LINE OF RESIDENTIAL ABOVE/OVERHEAD WALKWAY (MINIMUM CLEARANCE 15')

PARKING STRUCTURE/ RESIDENTIAL ABOVE

PRIVATE DRIVE

8'±

40'±

PRIVATE DRIVE / FIRE LANE

N 6,970,950
E 11,887,200

N 6,971,225.67
E 11,887,865.39

EXISTING PARKING

EX. R.O.W. DED.
(1,267.43 S.F. OR 0.03 AC)

EXISTING BUILDING

N 6,971,063.28
E 11,887,996.86

S 60°42'51" E 194.08'

GROCERY LOADING

HVAC

(2) LOADING SPACES (27'X25') 15' CLEARANCE HEIGHT

105.3'

LINE OF RESIDENTIAL ABOVE

GROCERY/RETAIL/FAST FOOD RESIDENTIAL ABOVE
24,692 SF
MAX HEIGHT = 65'
FF=167.50'

215.8'

129.4'

FINAL LOCATION AND SIZE OF TRANSFORMER TO BE DETERMINED WITH FINAL PLAN. TRANSFORMER WILL NOT ENCROACH VDOT RIGHT OF WAY

11.25'

PROP. BIKE RACKS

RETAIL/FAST FOOD RESIDENTIAL ABOVE
2,350 SF
FFE=167.54'

PROP. BOLLARD (TYP.)

PROP. CANOPY

ONE WAY SIGN

DO NOT ENTER SIGN

ONE WAY

ONE WAY SIGN

DO NOT ENTER SIGN

STOP/RIGHT TURN ONLY SIGN

ONE WAY

PROP. STOP BAR

SIGNAL MODIFICATION DUE TO INTERSECTION ALTERATION

PROP. BIKE RACKS

PROP. STOP BAR

LEASING
3629 SF

34.54'

TREE PITS (SEE LANDSCAPE SHEETS)

RETAIL/FAST FOOD/RESIDENTIAL ABOVE
14207 SF
MAX HEIGHT = 65'
FFE=167.00'

192.24'

LINE OF RESIDENTIAL ABOVE

CROSSWALK TO BE STAMPED ASPHALT (PATTERN AND COLOR TO BE DETERMINED WITH FINAL SITE PLAN)

68.87'

15'X25' LOADING SPACES

LOADING ZONE

FIRE TRUCK ACCESS

EMERGENCY ACCESS LOCATION (CG-13 OR CG-9 ENTRANCE)

5' TRANSITION

NORTH KINGS HIGHWAY – ROUTE 633
VARIABLE WIDTH R/W

SOUTH KINGS HIGHWAY – ROUTE 633
VAR. WIDTH
Ex. DB. 5758, PG. 1575
R/W WIDTH VARIES

±3,515 SF PROP. R/W DEDICATION

EXISTING CENTERLINE

REINFORCED GRASS

RAISED MEDIAN

N 6,971,728.43
E 11,887,841.33

LEGEND

- PROP. SIDEWALK
- EMERGENCY VEHICLE EGRESS ONLY
- MAIN INGRESS TO SITE
- MAIN INGRESS/EGRESS TO SITE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-17-13
10-24-13
10-31-13
-

Urban, Ltd.
4294-D Technology Court
Chantilly, Virginia 20151
(703) 642-8700
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
ROBERT W. BROWN
Lic. No. 019641
PROFESSIONAL ENGINEER
10/31/13

PEDESTRIAN AND TRANSPORTATION CIRCULATION PLAN

PENN DAW PLAZA

LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

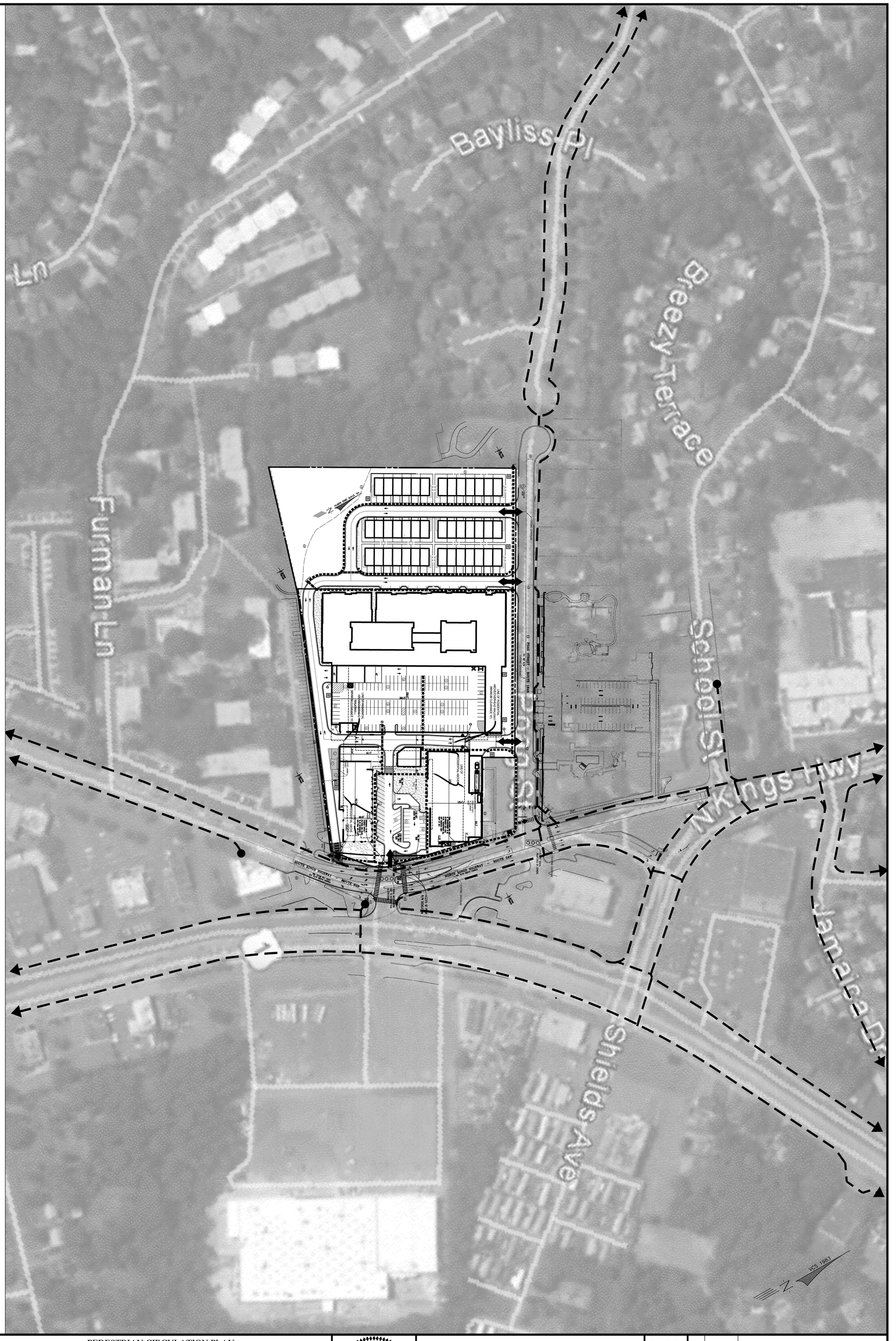
DATE: JUNE, 2013

SCALE: 1"=40'

C.I.: N/A

SHEET
5
OF
17

RZ-12679



PEDESTRIAN CIRCULATION PLAN

PENN DAW PLAZA

LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=100' C.I. : N/A DATE: JUNE, 2013

COMMONWEALTH OF VIRGINIA
ROBERT W. BROWN
Lic. No. 037041
10/31/13
PROFESSIONAL ENGINEER

urban
Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
Tel. 703.642.2306
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-09-13
10-17-13
10-31-13

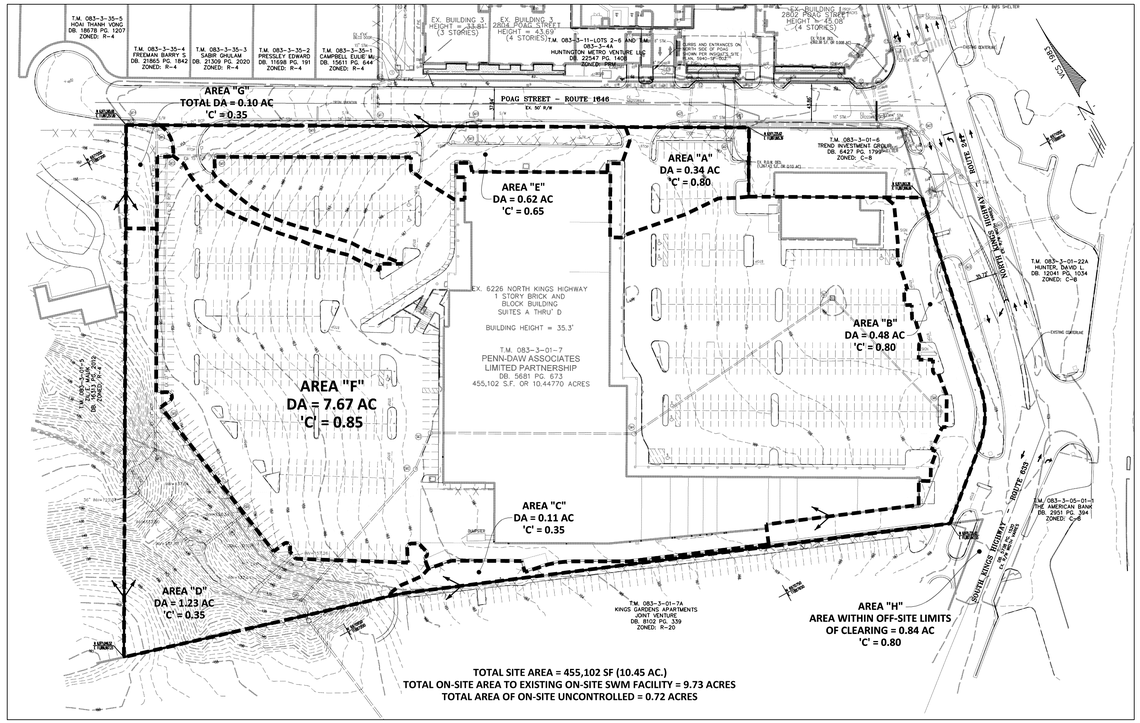
No.	DATE	DESCRIPTION
		REVISIONS

SHEET 6 OF 17

RZ-12679

PRE-DEVELOPED DRAINAGE DIVIDES

SCALE: 1"=80'



TOTAL SITE AREA = 455,102 SF (10.45 AC.)
TOTAL ON-SITE AREA TO EXISTING ON-SITE SWM FACILITY = 9.73 ACRES
TOTAL AREA OF ON-SITE UNCONTROLLED = 0.72 ACRES

LEGEND:

- PROPOSED AREA TO SWM VAULT #1
- PROPOSED ON-SITE AREA TO SWM VAULT #2
- PROPOSED ON-SITE UNCONTROLLED AREA

GRAPHIC SCALE

80 0 40 80 160 320

(IN FEET)
1 inch = 80 ft.

PRE-DEVELOPED DRAINAGE DIVIDE SUMMARY

SUB-AREA DESIGNATION "A": 0.34 ACRES @ 'C' = 0.80; Tc = 5 MIN
Q2 = 1.48 CFS (I2 = 5.45 IN/HR)
Q10 = 1.98 CFS (I10 = 7.27 IN/HR)

OUTFALLS INTO AN EXISTING CLOSED CONDUIT SYSTEM ALONG POAG STREET TOWARDS NORTH KINGS HIGHWAY

SUB-AREA DESIGNATION "B": 0.48 ACRES @ 'C' = 0.80; Tc = 5 MIN
Q2 = 2.09 CFS (I2 = 5.45 IN/HR)
Q10 = 2.79 CFS (I10 = 7.27 IN/HR)

SHEET FLOWS INTO AN EXISTING CLOSED CONDUIT SYSTEM ALONG NORTH KINGS HIGHWAY

SUB-AREA DESIGNATION "C": 0.11 ACRES @ 'C' = 0.35; Tc = 5 MIN
*USE 'C' FACTOR OF 0.15**
Q2 = 0.09 CFS (I2 = 5.45 IN/HR)
Q10 = 0.12 CFS (I10 = 7.27 IN/HR)

SHEET FLOWS INTO THE ADJACENT PROPERTY TO THE SOUTH, THEN SUBSEQUENTLY BACK INTO THE EXISTING ON-SITE SWM FACILITY LOCATED IN THE SOUTHWEST CORNER OF THE SITE

SUB-AREA DESIGNATION "D": 1.23 ACRES @ 'C' = 0.35; Tc = 5 MIN
Q2 = 2.35 CFS (I2 = 5.45 IN/HR)
Q10 = 3.13 CFS (I10 = 7.27 IN/HR)

ON-SITE SHEET FLOW THAT DRAINS TO THE EXISTING ON-SITE SWM FACILITY LOCATED IN THE SOUTHWEST CORNER OF THE SITE AND ULTIMATELY TOWARDS THE PRIMARY SITE OUTFALL POINT OF INTEREST

SUB-AREA DESIGNATION "E": 0.62 ACRES @ 'C' = 0.65; Tc = 5 MIN
*USE 'C' FACTOR OF 0.15**
Q2 = 0.51 CFS (I2 = 5.45 IN/HR)
Q10 = 0.68 CFS (I10 = 7.27 IN/HR)

OUTFALLS INTO AN EXISTING CLOSED CONDUIT SYSTEM ALONG POAG STREET AND SUBSEQUENTLY INTO THE EXISTING ON-SITE SWM FACILITY LOCATED IN THE SOUTHWEST CORNER OF THE SITE

SUB-AREA DESIGNATION "F": 7.67 ACRES @ 'C' = 0.85; Tc = 5 MIN
*USE 'C' FACTOR OF 0.15**
Q2 = 6.27 CFS (I2 = 5.45 IN/HR)
Q10 = 8.36 CFS (I10 = 7.27 IN/HR)

ON-SITE FLOW THAT OUTFALLS INTO THE EXISTING ON-SITE SWM FACILITY LOCATED IN THE SOUTHWEST CORNER OF THE SITE VIA EXISTING CLOSED CONDUIT SYSTEMS

SUB-AREA DESIGNATION "G": *0.10 ACRES @ 'C' = 0.35; Tc = 5 MIN*
Q2 = 0.19 CFS (I2 = 5.45 IN/HR)
Q10 = 0.25 CFS (I10 = 7.27 IN/HR)

OFF-SITE FLOW FROM EXISTING POAG STREET THAT OUTFALLS INTO THE EXISTING ON-SITE SWM FACILITY LOCATED IN THE SOUTHWEST CORNER OF THE SITE VIA EXISTING CLOSED CONDUIT SYSTEMS

SUB-AREA DESIGNATION "H": *0.84 ACRES @ 'C' = 0.80; Tc = 5 MIN*
Q2 = 3.66 CFS (I2 = 5.45 IN/HR)
Q10 = 4.89 CFS (I10 = 7.27 IN/HR)

OFF-SITE FLOW WITHIN PROPOSED LIMITS OF DISTURBANCE IN CONJUNCTION WITH PROPOSED CONSTRUCTION ON EXISTING SOUTH KINGS HIGHWAY

SWM CALCULATIONS

1. SITE DESCRIPTION:

WATERSHED: CAMERON RUN
TOTAL SITE AREA: 10.45 AC.
TOTAL ON-SITE AREA TO EXISTING ON-SITE SWM FACILITY = 9.73 AC.
TOTAL AREA OF ON-SITE UNCONTROLLED = 0.72 AC.

TOTAL AREA TO PROPOSED ON-SITE SWM VAULT #1 = 1.67 ACRES
TOTAL ON-SITE AREA TO PROPOSED ON-SITE SWM VAULT #2 = 8.49 ACRES
TOTAL ON-SITE AREA TO EXISTING ON-SITE SWM FACILITY = 9.85 ACRES
TOTAL AREA OF ON-SITE UNCONTROLLED = 0.60 ACRES
TOTAL AREA OF OFF-SITE UNCONTROLLED = 0.84 ACRES

2. POST-DEVELOPMENT SITE RUN-OFF:

A. SUB-AREA "A1"; PROPOSED ON-SITE UNCONTROLLED
Q2 = 0.53 CFS ---> *0.53 CFS < 1.48 CFS (64% REDUCTION FROM EXISTING)*
Q10 = 0.71 CFS ---> *0.71 CFS < 1.98 CFS (64% REDUCTION FROM EXISTING)*

B. SUB-AREA "B1"; PROPOSED ON-SITE UNCONTROLLED
Q2 = 0.78 CFS ---> *0.78 CFS < 2.09 CFS (63% REDUCTION FROM EXISTING)*
Q10 = 1.05 CFS ---> *1.05 CFS < 2.79 CFS (62% REDUCTION FROM EXISTING)*

C. SUB-AREA "C1"; PROPOSED ON-SITE UNCONTROLLED
Q2 = 0.06 CFS ---> *0.06 CFS < 0.09 CFS (33% REDUCTION FROM EXISTING)*
Q10 = 0.08 CFS ---> *0.08 CFS < 0.12 CFS (33% REDUCTION FROM EXISTING)*

D. SUB-AREA "D1"; PROPOSED ON-SITE UNCONTROLLED
Q2 = 2.90 CFS ---> *2.90 CFS > 2.35 CFS (0.55 CFS INCREASE FROM EXISTING)***
Q10 = 3.87 CFS ---> *3.87 CFS > 3.13 CFS (0.74 CFS INCREASE FROM EXISTING)***

E. SUB-AREA "G1"; PROPOSED ON-SITE UNCONTROLLED
Q2 = 0.55 CFS ---> 0.55 CFS > 0.19 CFS *(0.36 CFS INCREASE FROM EXISTING)***
Q10 = 0.73 CFS ---> 0.73 CFS > 0.25 CFS *(0.48 CFS INCREASE FROM EXISTING)***

F. SUB-AREA "F1"; PROPOSED ON-SITE CONTROLLED
Q2 = 7.28 CFS
Q10 = 9.71 CFS

G. SUB-AREA "F2"; PROPOSED ON-SITE CONTROLLED
Q2 = 29.74 CFS
Q10 = 39.67 CFS

H. SUB-AREA "H1"; PROPOSED OFF-SITE UNCONTROLLED
Q2 = 3.71 CFS ---> INCREASE OF 0.05 CFS FROM EXISTING SUB-AREA "H"
Q10 = 4.95 CFS ---> INCREASE OF 0.06 CFS FROM EXISTING SUB-AREA "H"

3. ALLOWABLE RELEASE RATE FROM PROPOSED SWM FACILITY #2

CUMULATIVE EXISTING FLOW TO PROPOSED OUTFALL POINT:
Q2 SUB-AREA "D" + Q2 SUB-AREA "E" + Q2 SUB-AREA "F" + Q2 SUB-AREA "G"
Q2(pre) = 2.35 CFS + 0.51 CFS + 6.27 CFS + 0.19 CFS = *9.32 CFS*

Q10 SUB-AREA "D" + Q10 SUB-AREA "E" + Q10 SUB-AREA "F" + Q10 SUB-AREA "G"
Q10(pre) = 3.13 CFS + 0.68 CFS + 8.36 CFS + 0.25 CFS = *12.42 CFS*

CUMULATIVE PROPOSED ON-SITE UNCONTROLLED FLOW:
Q2 SUB-AREA "D1" + Q10 SUB-AREA "G1"
Q2(on-site ucontrolled) = 2.90 CFS + 0.55 CFS = *3.45 CFS*

Q10 SUB-AREA "D1" + Q10 SUB-AREA "G1"
Q10(on-site uncontrolled) = 3.87 CFS + 0.73 CFS = *4.60 CFS*

CUMULATIVE PROPOSED OFF-SITE CONTROLLED FLOW: N/A

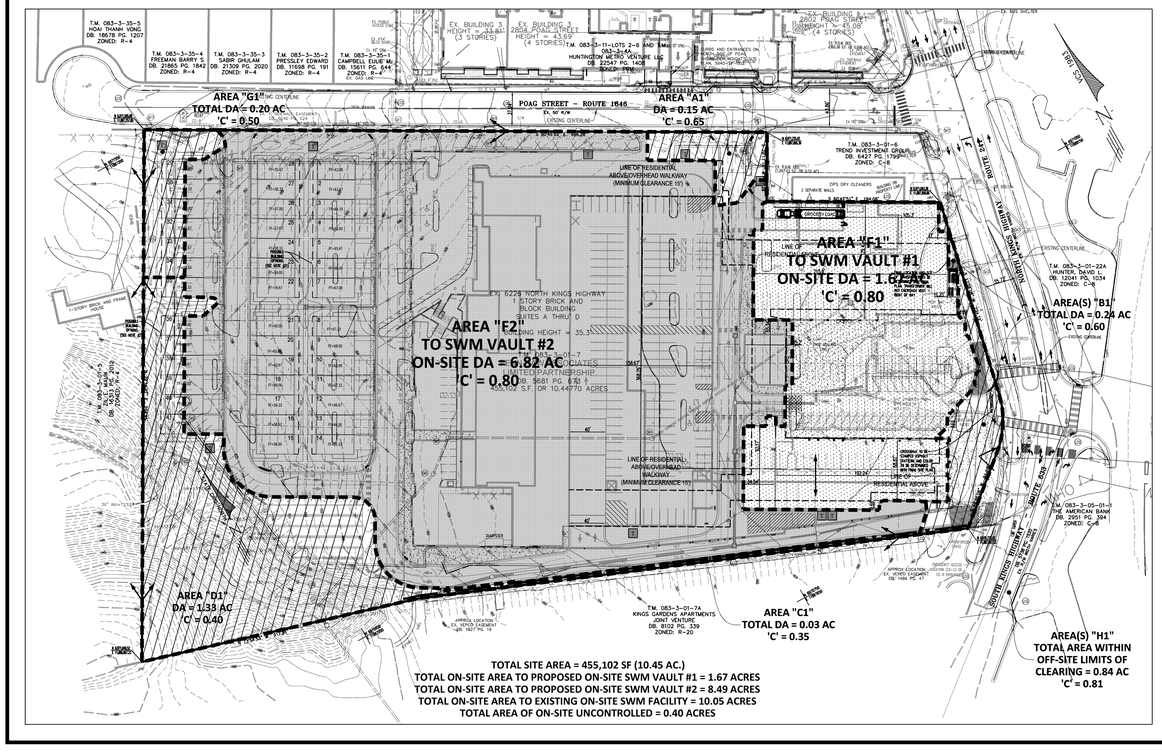
**AN ADDITIONAL 0.91 CFS WILL BE DETAINED IN THE 2-YEAR STORM CONDITION AND AN ADDITIONAL 1.22 CFS WILL BE DETAINED IN THE 10-YEAR STORM CONDITION DUE TO THE INCREASES IN FLOW ANTICIPATED FROM SHEDS 'D1' & 'G1'

4. Q(allowable) = Q(pre) - Q(on-site uncontrolled) + Q(off-site controlled) - Q(over-detainment for off-site improvements)
Q2(allowable) = 9.32 CFS - 3.45 CFS + 0.00 CFS - 0.91 CFS - 0.05 CFS = *4.91 CFS*
Q10(allowable) = 12.42 CFS - 4.60 CFS + 0.00 CFS - 1.22 CFS - 0.06 CFS = *6.54 CFS*

5. PER SECTION 6-1301.5 OF THE FAIRFAX COUNTY PFM, THE 2 YEAR STORM AND THE 10 YEAR STORM WERE USED AS THE BASIS OF THIS SWM ANALYSIS. PLEASE REFERENCE SHEET #8 FOR ADDITIONAL INFORMATION RELATED TO THE PRELIMINARY VAULT DESIGN.

POST-DEVELOPED DRAINAGE DIVIDES

SCALE: 1"=80'



TOTAL SITE AREA = 455,102 SF (10.45 AC.)
TOTAL ON-SITE AREA TO PROPOSED ON-SITE SWM VAULT #1 = 1.67 ACRES
TOTAL ON-SITE AREA TO PROPOSED ON-SITE SWM VAULT #2 = 8.49 ACRES
TOTAL ON-SITE AREA TO EXISTING ON-SITE SWM FACILITY = 10.05 ACRES
TOTAL AREA OF ON-SITE UNCONTROLLED = 0.40 ACRES

POST-DEVELOPED DRAINAGE DIVIDE SUMMARY

SUB-AREA DESIGNATION "A1": 0.15 ACRES @ 'C' = 0.65; Tc = 5 MIN
Q2 = 0.53 CFS (I2 = 5.45 IN/HR)
Q10 = 0.71 CFS (I10 = 7.27 IN/HR)

OUTFALLS INTO AN EXISTING CLOSED CONDUIT SYSTEM ALONG POAG STREET TOWARDS NORTH KINGS HIGHWAY

SUB-AREA DESIGNATION "B1": 0.24 ACRES @ 'C' = 0.60; Tc = 5 MIN
Q2 = 0.78 CFS (I2 = 5.45 IN/HR)
Q10 = 1.05 CFS (I10 = 7.27 IN/HR)

SHEET FLOWS INTO AN EXISTING CLOSED CONDUIT SYSTEM ALONG NORTH KINGS HIGHWAY

SUB-AREA DESIGNATION "C1": 0.03 ACRES @ 'C' = 0.35; Tc = 5 MIN
Q2 = 0.06 CFS (I2 = 5.45 IN/HR)
Q10 = 0.08 CFS (I10 = 7.27 IN/HR)

SHEET FLOWS INTO THE ADJACENT PROPERTY TO THE SOUTH, THEN SUBSEQUENTLY BACK INTO THE EXISTING ON-SITE SWM FACILITY LOCATED IN THE SOUTHWEST CORNER OF THE SITE

SUB-AREA DESIGNATION "D1": 1.33 ACRES @ 'C' = 0.40; Tc = 5 MIN
Q2 = 2.90 CFS (I2 = 5.45 IN/HR)
Q10 = 3.87 CFS (I10 = 7.27 IN/HR)

ON-SITE SHEET FLOW THAT DRAINS TO THE EXISTING ON-SITE SWM FACILITY LOCATED IN THE SOUTHWEST CORNER OF THE SITE AND ULTIMATELY TOWARDS THE PRIMARY SITE OUTFALL POINT OF INTEREST

SUB-AREA DESIGNATION "F1": 1.67 ACRES @ 'C' = 0.80; Tc = 5 MIN
PROPOSED SWM CONTROLLED AREA; PLEASE REFERENCE THIS SHEET FOR ADDITIONAL INFORMATION

ON-SITE FLOW THAT TRAVELS IN A PROPOSED CLOSED CONDUIT SYSTEM INTO PROPOSED SWM VAULT #1 (UPSTREAM OF PROPOSED SWM VAULT #2); THIS SYSTEM ULTIMATELY OUTFALLS INTO THE EXISTING ON-SITE SWM FACILITY LOCATED IN THE SOUTHWEST CORNER OF THE SITE

SUB-AREA DESIGNATION "F2": 6.82 ACRES @ 'C' = 0.80; Tc = 5 MIN
PROPOSED SWM CONTROLLED AREA; PLEASE REFERENCE THIS SHEET FOR ADDITIONAL INFORMATION

ON-SITE FLOW THAT TRAVELS IN A PROPOSED CLOSED CONDUIT SYSTEM INTO PROPOSED SWM VAULT #2 WHERE IT CONVERGES WITH THE OUTFLOW FROM PROPOSED SWM VAULT #1

SUB-AREA DESIGNATION "G1": *0.20 ACRES @ 'C' = 0.50; Tc = 5 MIN*
Q2 = 0.55 CFS (I2 = 5.45 IN/HR)
Q10 = 0.73 CFS (I10 = 7.27 IN/HR)

OFF-SITE FLOW FROM EXISTING POAG STREET THAT OUTFALLS INTO PROPOSED SWM VAULT #2 VIA A PROPOSED CLOSED CONDUIT SYSTEMS WHERE IT CONVERGES WITH THE OUTFLOW FROM PROPOSED SWM VAULT #1

SUB-AREA DESIGNATION "H1": *0.84 ACRES @ 'C' = 0.81; Tc = 5 MIN*
Q2 = 3.71 CFS (I2 = 5.45 IN/HR)
Q10 = 4.95 CFS (I10 = 7.27 IN/HR)

OFF-SITE FLOW WITHIN PROPOSED LIMITS OF DISTURBANCE IN CONJUNCTION WITH PROPOSED CONSTRUCTION ON EXISTING SOUTH KINGS HIGHWAY

No.	DATE	REVISIONS
		DESCRIPTION

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-17-13
10-31-13
–

Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
(703) 449-5186
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
Robert W. Brown
ROBERT W. BROWN
LIC. NO. 027041
PROFESSIONAL ENGINEER
10/31/13

SWM ANALYSIS

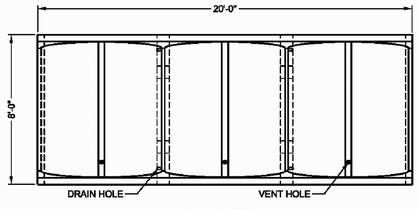
PENN DAW PLAZA

LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

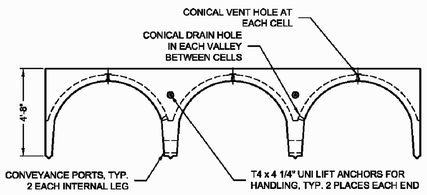
DATE: JUNE, 2013
SCALE: 1"=80'
C.I.: 1'

SHEET 7 OF 17

RZ-12679

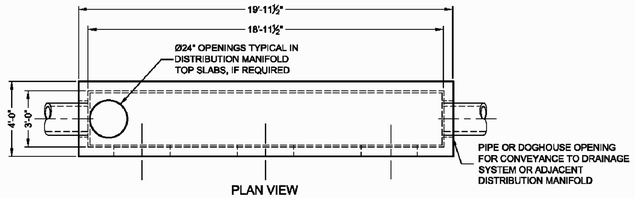


PLAN VIEW

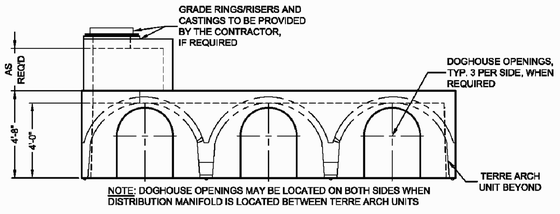


ELEVATION VIEW

TERRE ARCH 48 STRUCTURE



PLAN VIEW



NOTE: DOGHOUSE OPENINGS MAY BE LOCATED ON BOTH SIDES WHEN DISTRIBUTION MANIFOLD IS LOCATED BETWEEN TERRE ARCH UNITS

ELEVATION VIEW

TERRE ARCH 48 DISTRIBUTION MANIFOLD

I:\STORMWATER\COMMOP\506 TERRE ARCH 48 STANDARD DRAWINGS\TERRE ARCH 48 STD DTL.DWG 11/16/2012 1:58 PM

TERRE ARCH 48 DESIGN DETAILS

PART TYPE	VOLUME	INFILTRATION AREA	WEIGHT	DIMENSIONS
DISTRIBUTION MANIFOLD	226 CF	57 SF	16,500 LBS	4'-0" x 20'-0" x 4'-8"
ARCH	541 CF*	160 SF	19,500 LBS	8'-0" x 20'-0" x 4'-8"
CAPPING SLAB	N/A	N/A	2,400 LBS	0'-4" x 10'-0" x 4'-8"

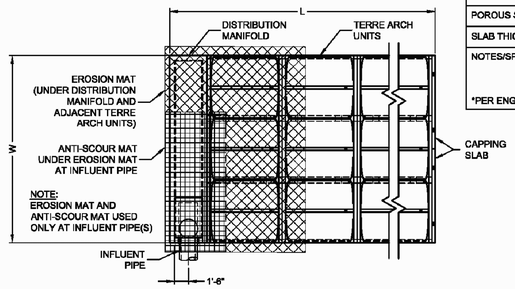
*INCLUDES VALLEYS BETWEEN ARCHES FILLED WITH STONE TO THE TOP OF THE BUTTRESSES (40% VOID SPACE TYPICAL WITH STONE)

TERRE ARCH CONFIGURATIONS MAY BE SET ON A CLEAN STONE BASE OR ON A SLAB BASE. CLEAN STONE BASE TYPICALLY CONSISTS OF12 INCHES OF #8 AASHTO (1/2-INCH STONE) LEVEL TO PLUS OR MINUS 3/8-INCH. STANDARD WIDTH AND HEIGHT DIMENSIONS ARE SHOWN. TO ACCOMMODATE LARGER PIPE SIZES, CONTACT YOUR CONTECH REPRESENTATIVE.

SITE SPECIFIC DATA REQUIREMENTS*

TOTAL REQUIRED STORAGE VOLUME (CF or m³)	
LIMITING WIDTH (FT or m³)	
LIMITING LENGTH (FT or m³)	
STONE POROSITY (0 to 40%)	
POROUS STONE ABOVE ARCH (IN or mm)	
POROUS STONE BELOW ARCH (IN or mm) OR	
SLAB THICKNESS BELOW ARCH (IN or mm)	
NOTES/SPECIAL REQUIREMENTS:	

*PER ENGINEER OF RECORD



TYPICAL LAYOUT

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. TERRE ARCH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 20'.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE TERRE ARCH AND ASSOCIATED STRUCTURES (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL TERRE ARCH STRUCTURES, DISTRIBUTION MANIFOLDS AND CAPPING SLAB SECTIONS
D. CONTRACTOR TO INSTALL TWO STRAP CONNECTIONS (PROVIDED BY CONTECH) AT EACH CAPPING SLAB.
E. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH ALL PIPE INVERTS WITH FINAL CONTECH CONTRACT DRAWINGS.
F. 2" STONE COVER RECOMENDED ABOVE TOP OF PRECAST. NOT REQUIRED FOR DESIGN LOADING.

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
605 Global Way, Suite 113, Linthicum, MD 21090
866-740-3318 410-740-8490 866-376-8511 FAX

TERRE ARCH 48
STANDARD DETAIL

PENN-DAW - PLAZA - SWM VAULT #1
SWM/BMP STORAGE-ELEVATION CHART

ELEVATION (ft)	AREA (ft^2)	INT (ft)	VOL (ft^3)	ACCUM. VOL. (ft^3)	ACCUM. VOL. (ac.-ft)	ACCUM. VOL. (yd^3)
UNDERGROUND INFILTRATION SYSTEM						
SWM STORAGE-ELEVATION CHART						
158.00	2,880.00	0.00	0.00	0.00	0.00	0.00
158.25	2,861.27	0.25	715.32	715.32	0.02	26.49
158.50	2,843.80	0.25	710.95	1,426.27	0.03	52.82
158.75	2,826.34	0.25	706.58	2,132.85	0.05	78.99
159.00	2,808.87	0.25	702.22	2,835.07	0.07	105.00
159.25	2,791.41	0.25	697.85	3,532.92	0.08	130.85
159.50	2,773.94	0.25	693.49	4,226.41	0.10	156.53
159.75	2,756.48	0.25	689.12	4,915.53	0.11	182.06
160.00	2,714.32	0.25	678.58	5,594.11	0.13	207.19
160.25	2,617.15	0.25	654.29	6,248.39	0.14	231.42
160.50	2,493.23	0.25	623.31	6,871.70	0.16	254.51
160.75	2,338.32	0.25	584.58	7,456.28	0.17	276.16
161.00	2,145.71	0.25	536.43	7,992.71	0.18	296.03
161.25	1,904.00	0.25	476.00	8,468.71	0.19	313.66
161.50	1,590.96	0.25	397.74	8,866.45	0.20	328.39
161.75	1,149.74	0.25	287.44	9,153.89	0.21	339.03
162.00	0.00	0.25	0.00	9,153.89	0.21	339.03

PENN-DAW - PLAZA - SWM VAULT #2
SWM/BMP STORAGE ELEVATION CHART

ELEVATION (ft)	AREA (ft^2)	ACCUM. VOL. (ft^3)	ACCUM. VOL. (ac.-ft)	ACCUM. VOL. (yd^3)	h	m	ArcCos(m/r) (Radians)	θ
140.00	0.000	0	0	0	0	2.50	1.05	0
140.50	1.468	807	0.0185	29.91	0.50	4.50	0.45	0.90
141.00	4.088	2,248	0.0516	83.26	1.00	4.00	0.64	1.29
141.50	7.387	4,063	0.0933	150.49	1.50	3.50	0.80	1.59
142.00	11.182	6,150	0.1412	227.79	2.00	3.00	0.93	1.85
142.50	15.355	8,445	0.1939	312.78	2.50	2.50	1.05	2.09
143.00	19.817	10,899	0.2502	403.68	3.00	2.00	1.16	2.32
143.50	24.498	13,474	0.3093	499.03	3.50	1.50	1.27	2.53
143.75	26.901	14,796	0.3397	547.99	3.75	1.25	1.32	2.64
144.50	34.278	18,853	0.4328	698.26	4.50	0.50	1.47	2.94
145.00	39.270	21,598	0.4958	799.94	5.00	0.00	1.57	3.14
145.50	44.262	24,344	0.5589	901.62	5.50	-0.50	1.67	3.34
146.00	49.203	27,062	0.6212	1,002.28	6.00	-1.00	1.77	3.54
146.50	54.042	29,723	0.6823	1,100.85	6.50	-1.50	1.88	3.75
147.00	58.723	32,298	0.7415	1,196.21	7.00	-2.00	1.98	3.96
147.50	63.185	34,752	0.7978	1,287.11	7.50	-2.50	2.09	4.19
148.00	67.357	37,047	0.8505	1,372.10	8.00	-3.00	2.21	4.43
148.50	71.152	39,134	0.8984	1,449.40	8.50	-3.50	2.35	4.69
149.00	74.452	40,949	0.9401	1,516.62	9.00	-4.00	2.50	5.00
149.50	77.072	42,389	0.9731	1,569.98	9.50	-4.50	2.69	5.38
150.00	78.540	43,197	0.9917	1,599.89	10.00	-5.00	3.14	6.28

SWM NARRATIVE:

SWM VAULT #1 & SWM VAULT #2 ARE PROPOSED TO BE UNDERGROUND DETENTION VAULTS UTILIZING INFILTRATION. PER SECTION 6-1304.4I OF THE FAIRFAX COUNTY PFM, A MINIMUM FIELD MEASURED INFILTRATION RATE OF 0.52 INCHES PER HOUR YIELDS REDUCTIONS IN INFLOW FOR EACH PROPOSED VAULT AS FOLLOWS:

SWM VAULT #1 INFILTRATION FOOTPRINT = 2,880 SF
0.52 IN/HR / 3,600 * 2,880 SF / 12 = 0.035 CFS

SWM VAULT #2 INFILTRATION FOOTPRINT = 14,796 SF
0.52 IN/HR / 3,600 * 14,796 SF / 12 = 0.178 CFS

BECAUSE THESE FLOW REDUCTIONS ARE NEGLIGIBLE, THIS SWM ANALYSIS WAS CALCULATED WITHOUT TAKING INTO ACCOUNT INFILTRATION LOSSES AS A CONSERVATIVE DESIGN MEASURE. IN ADDITION, THE ORIFICES FOR BOTH PROPOSED VAULTS HAVE BEEN SET AT 1-FOOT ABOVE THE PROPOSED BOTTOM OF VAULT PER THE PRELIMINARY DETAIL(S) SHOWN ON THIS SHEET.

SWM VAULT #1 WAS DESIGNED WITH A 8-INCH ORIFICE AT ELEVATION 159.00 OF THE INFILTRATION SYSTEM (THE VOLUME BETWEEN 158.00 AND 159.00 IS TO BE USED FOR INFILTRATION PURPOSES) COUPLED WITH A 1.00-FOOT LONG WEIR AT ELEVATION 161.00. THIS DESIGN YIELDS THE FOLLOWING OUTFLOWS FOR SWM VAULT #1:

SWM VAULT #1 Q2 = 1.94 CFS
SWM VAULT #1 Q10 = 2.34 CFS

SWM VAULT #2 WAS DESIGNED WITH A 9-INCH ORIFICE AT ELEVATION 143.50 OF THE INFILTRATION SYSTEM (THE VOLUME BETWEEN 140.00 AND 143.50 IS TO BE USED FOR INFILTRATION PURPOSES) COUPLED WITH A 1.00-FOOT LONG WEIR AT ELEVATION 149.00. AS SWM VAULT #2 IS DOWNSTREAM AND IN-SERIES WITH SWM VAULT #1, THE OUTFLOW FOR INCREMENTAL TIME-STEPS FROM SWM VAULT #1 WAS ADDED TO THE CORRESPONDING TIME-STEP INFLOW FOR SWM VAULT #2. THIS APPROACH YIELDS THE FOLLOWING OUTFLOWS FOR SWM VAULT #2:

SWM VAULT #2 Q2 = 3.99 CFS
SWM VAULT #2 Q10 = 5.68 CFS

PER THE PRELIMINARY ANALYSIS SHOWN ON SHEET #7:
Q(allowable) = Q(pre) - Q(on-site uncontrolled) + Q(off-site controlled)
Q2(allowable) = 9.32 CFS - 3.45 CFS + 0.00 CFS - 0.91 CFS = *4.96 CFS*
Q10(allowable) = 12.42 CFS - 4.60 CFS + 0.00 CFS - 1.22 CFS = *6.60 CFS*

SWM VAULT #2 Q2 = 3.99 CFS < 4.91 CFS ---> *18.74% REDUCTION*
SWM VAULT #2 Q10 = 5.68 CFS < 6.54 CFS ---> *13.15% REDUCTION*

THE ABOVE ANALYSIS WAS GENERATED USING THE RATIONAL METHOD AS THE CUMULATIVE DRAINAGE AREA TO BOTH PROPOSED FACILITIES ARE LESS THAN 20-ACRES (PER SECTION 6-0803 OF THE FAIRFAX COUNTY PFM). IN ADDITION, THE FLOW REDUCTIONS ASSOCIATED WITH INFILTRATION LOSSES HAVE NOT BEEN ACCOUNTED FOR IN THE SWM ANALYSIS. PLEASE REFERENCE THIS SHEET FOR ADDITIONAL PRELIMINARY DETAILS RELATED TO OUTFALL CONTROL STRUCTURE AND VAULT CROSS-SECTION.

REVISIONS

No.	DATE	DESCRIPTION

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-04-13
10-17-13
10-31-13
-

Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
703-642-8336
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
ROBERT W. BROWN
LIC. NO. 037041
PROFESSIONAL ENGINEER
10/5/15

SWM ANALYSIS

PENN DAW PLAZA
LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: JUNE, 2013
C.L.: 1"
SCALE: 1"=80'

SHEET 8 OF 17

RZ-12679

BMP NARRATIVE & COMPUTATIONS

THE EXISTING SITE HAS BEEN PREVIOUSLY DEVELOPED FOR A COMMERCIAL USE AND ASSOCIATED PARKING. THERE IS ONE EXISTING BMP MEASURE FOUND ON-SITE, AND IT IS NOT PROPOSED TO BE REMOVED WITH THE PROPOSED IMPROVEMENTS ASSOCIATED WITH THIS APPLICATION. AS A CONSERVATIVE DESIGN MEASURE, HOWEVER, NO BMP CREDIT WILL BE TAKEN FOR THIS EXISTING FACILITY. IN ADDITION, ALTHOUGH THIS APPLICATION CAN BE CLASSIFIED AS A "REDEVELOPMENT", THE BMP METHODOLOGY HAS BEEN DESIGNED WITH A TARGET 40% REMOVAL RATE.

PER THE NORTHERN VIRGINIA BMP HANDBOOK, THE PROPOSED SITE SHALL DEMONSTRATE COMPLIANCE WITH THE BMP CRITERIA BY UTILIZING A POST-DEVELOPMENT PHOSPHORUS REMOVAL REQUIREMENT OF 40% (OCCOQUAN METHOD). THE FOLLOWING PRELIMINARY BMP COMPUTATIONS SHOW THAT THE TARGET 40% REMOVAL REQUIREMENT IS ACHIEVED VIA TWO (2) DISTINCT BMP MEASURES IN THREE (3) SEPERATE LOCATIONS ON-SITE. THEY ARE AS FOLLOWS:

- 4'X8' FILTERRA UNIT (0.15 ACRE DRAINAGE AREA)
- SWM VAULT #1: INFILTRATION AREA (3,123 SF FOOTPRINT)
- SWM VAULT #2: INFILTRATION AREA (6,221 SF FOOTPRINT)

IT IS ANTICIPATED THAT THE INFILTRATION AREA FOR SWM VAULT #1 WILL BE CONSTRUCTED AS A CONTECH TERRE ARCH #48, OR SIMILAR PRODUCT. SWM VAULT #2 WILL BE CONSTRUCTED AS A 10' DIAMETER PEFORATED CMP PIPE VAULT SYSTEM. PLEASE REFERENCE SHEET #8 FOR PRELIMINARY DETAILS RELATED TO THE CONTECH TERRE ARCH #48 PRODUCT.

THE INFILTRATION AREAS ASSOCIATED WITH PROPOSED SWM VAULTS #1 & #2 HAVE BEEN ASSIGNED A 50% REMOVAL RATE AS IT WILL BE SIZED TO HANDLE THE 0.5" RAINFALL EVENT. IN ADDITION, PER FAIRFAX COUNTY STANDARD PRACTICE, THE PROPOSED FILTERRA HAS BEEN ASSIGNED A 55% REMOVAL RATE. AS AN ADDITIONAL CONSERVATIVE DESIGN MEASURE, NO ADDITIONAL CREDIT WILL BE TAKEN FOR THE VAULTS IN SERIES, INCLUDING THE PERVIOUS PAVEMENT. THIS DESIGN WILL MEET OR EXCEED THE SWM REGULATIONS FOR PRIOR DEVELOPED LAND THAT GO INTO AFFECT JANUARY 1, 2014.

II. WATERSHED INFORMATION

Part 1: List all of the Subareas and "C" factors used in the BMP Computations

Subarea Designation (1)	"C" (2)	Acres (3)
On-Site Controlled by SWM Vault #1	0.80	1.67
On-Site Controlled by SWM Vault #2	0.80	6.82
On-Site Controlled by Fillterra #1	0.65	0.15
On-Site Uncontrolled	0.40	1.81
Off-Site Road Improvements (Additional Impervious Area Only)	0.90	0.02
	Total	10.47

*Assumes 0.2 * Off-Site Area

III a. PHOSPHORUS REMOVAL - "OCCOQUAN METHOD"

Part 2: Compute the Weighted Average "C" Factor for the Site

(A) Area of the Site (a) 8.66 acres

Subarea Designation (1)	"C" (2)		Acres (3)		Product (4)
On-Site Controlled by SWM Vault #1	0.80	x	1.67	=	1.34
On-Site Controlled by SWM Vault #2	0.80	x	6.82	=	5.46
On-Site Controlled by Fillterra #1	0.65	x	0.15	=	0.10
On-Site Uncontrolled	0.40	x	1.81	=	0.72
Off-Site Road Improvements (Additional Impervious Area Only)	0.90	x	0.02	=	0.01

(b) Total 7.63

(C) Weighted average "C" factor (b)/(a) = (C) 0.88

Part 3: Compute the Total Phosphorus Removal for the Site

Subarea Designation (1)	Removal Efficiency (%) (3)		Area Ratio (4)		"C" Ratio (5)		Product (6)
On-Site Controlled by SWM Vault #1	50%	x	0.19	x	0.91	=	0.09
On-Site Controlled by SWM Vault #2	50%	x	0.79	x	0.91	=	0.36
On-Site Controlled by Fillterra #1	55%	x	0.02	x	0.74	=	0.01
On-Site Uncontrolled	0%	x	0.21	x	0.45	=	0.00
Off-Site Road Improvements (Additional Impervious Area Only)	0%	x	0.00	x	1.02	=	0.00

(a) Total = 0.45

Part 4: Determine Compliance with Phosphorus Removal Requirement

(A) Select Requirement (a) 40.00%

Water Supply Overlay District (Occoquan Watershed) = 50% (Fairfax County and Prince William County)

Chesapeake Bay Preservation Area (New Development) = 40% (Fairfax County) 50% (Prince William County)

Chesapeake Bay Preservation Area (Redevelopment) [1 - 0.9 x ("I" pre/"I" post)] x 100 = 10.00 %

(B) If Line 3(a) > Line 4(a), the Phosphorus removal requirement is satisfied.

Line 3(a) 0.45 >= 0.40

PHOSPHORUS REMOVAL REQUIREMENT IS SATISFIED

ROUGHLY 1.67 ACRES WILL DRAIN TO PROPOSED SWM VAULT #1, APPROXIMATELY 1.33 ACRES OF WHICH IS IMPERVIOUS. A PRELIMINARY DESIGN FOOTPRINT HAS BEEN PROVIDED THAT ASSUMES UP TO 1.50 IMPERVIOUS-ACRES CAN BE TREATED IN THIS FACILITY. THEREFORE, A TOTAL VOLUME OF:

(1.50 * 43,560 SF) * 0.50" / 12"/HR = *2,722.50 CF IS REQUIRED FOR ADEQUATE BMP*

AS SHOWN ON SHEET #8, AN INFILTRATION FOOTPRINT OF 2,880 CF IS PROPOSED FOR SWM VAULT #1. THE ADDITIONAL STORAGE IS REQUIRED TO SATISFY SWM REQUIREMENTS.

SWM VAULT #2 IS DOWNSTREAM AND IN-LINE WITH SWM VAULT #1. THIS FACILITY HAS BEEN DESIGNED TO HANDLE ROUGHLY AN ADDITIONAL 6.82 ACRES, APPROXIMATELY 5.50 ACRES OF WHICH IS IMPERVIOUS. THIS EQUATES TO A TOTAL OF APPROXIMATELY 6.83 ACRES OF IMPERVIOUS AREA BEING ROUTED TO SWM VAULT #2. A PRELIMINARY DESIGN FOOTPRINT HAS BEEN PROVIDED THAT ASSUMES UP TO 7 IMPERVIOUS-ACRES CAN BE TREATED IN THIS FACILITY. THEREFORE, A TOTAL VOLUME OF:

(7.00 * 43,560 SF) * 0.50" / 12"/HR = *12,705.00 CF IS REQUIRED FOR ADEQUATE BMP*

AS SHOWN ON SHEET #8, AN INFILTRATION FOOTPRINT OF 14,796 CF IS PROPOSED FOR SWM VAULT #2. THE ADDITIONAL STORAGE IS REQUIRED TO SATISFY SWM REQUIREMENTS.

A MINIMUM OF 80% IS SERVED BY THE THREE (3) PROPOSED STRUCTURAL CONTROLS. THE PROPOSED FILTERRA HAS AN ASSOCIATED ON-SITE DRAINAGE AREA OF 0.15 ACRES; PROPOSED SWM VAULT #1 HAS AN ASSOCIATED ON-SITE DRAINAGE AREA OF 1.67 ACRES; PROPOSED SWM VAULT #2 HAS AN ASSOCIATED ON-SITE DRAINAGE AREA OF 6.82 ADDITIONAL ACRES. THIS EQUATES TO A TOTAL ON-SITE DRAINAGE AREA OF 8.64 OF A 10.45 ACRE SITE (82.68% > 80%) THAT CAN BE ACCOUNTED FOR BY A PROPOSED STRUCTURAL CONTROL.

PER THE NORTHERN VIRGINIA BMP HANDBOOK AND PER THE "OCCOQUAN METHOD", NO ADDITIONAL REMOVAL CREDIT WILL BE TAKEN FOR THE DRAINAGE AREA ASSOCIATED WITH SWM VAULT #1 AS IT ENTERS SWM VAULT #2 UNLESS IT IS DEEMED APPROPRIATE BY FAIRFAX COUNTY. IN ADDITION, THE COMPUTATIONS ABOVE HAVE BEEN ORGANIZED TO PRESENT THE VAULTS IN THE ORDER THAT WATER FLOWS THROUGH THEM.

PER SECTION 6-1304.4I OF THE FAIRFAX COUNTY PFM, A MINIMUM FIELD MEASURED INFILTRATION RATE OF 0.52 INCHES PER HOUR HAS BEEN USED FOR THE PURPOSES OF THIS PRELIMINARY ANALYSIS. ALL WATER QUALITY MANAGEMENT SYSTEMS SHALL COMPLY WITH FAIRFAX COUNTY'S PUBLIC FACILITY MANUAL REQUIREMENTS AT THE TIME OF THE SUB-DIVISION PLAT.

REVISIONS

No.	DATE	DESCRIPTION

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-09-13
10-17-13
10-31-13
-

urban
Planners Engineers Landscape Architects Land Surveyors
Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
Tel. 703.642.2306
www.urban-ltd.com

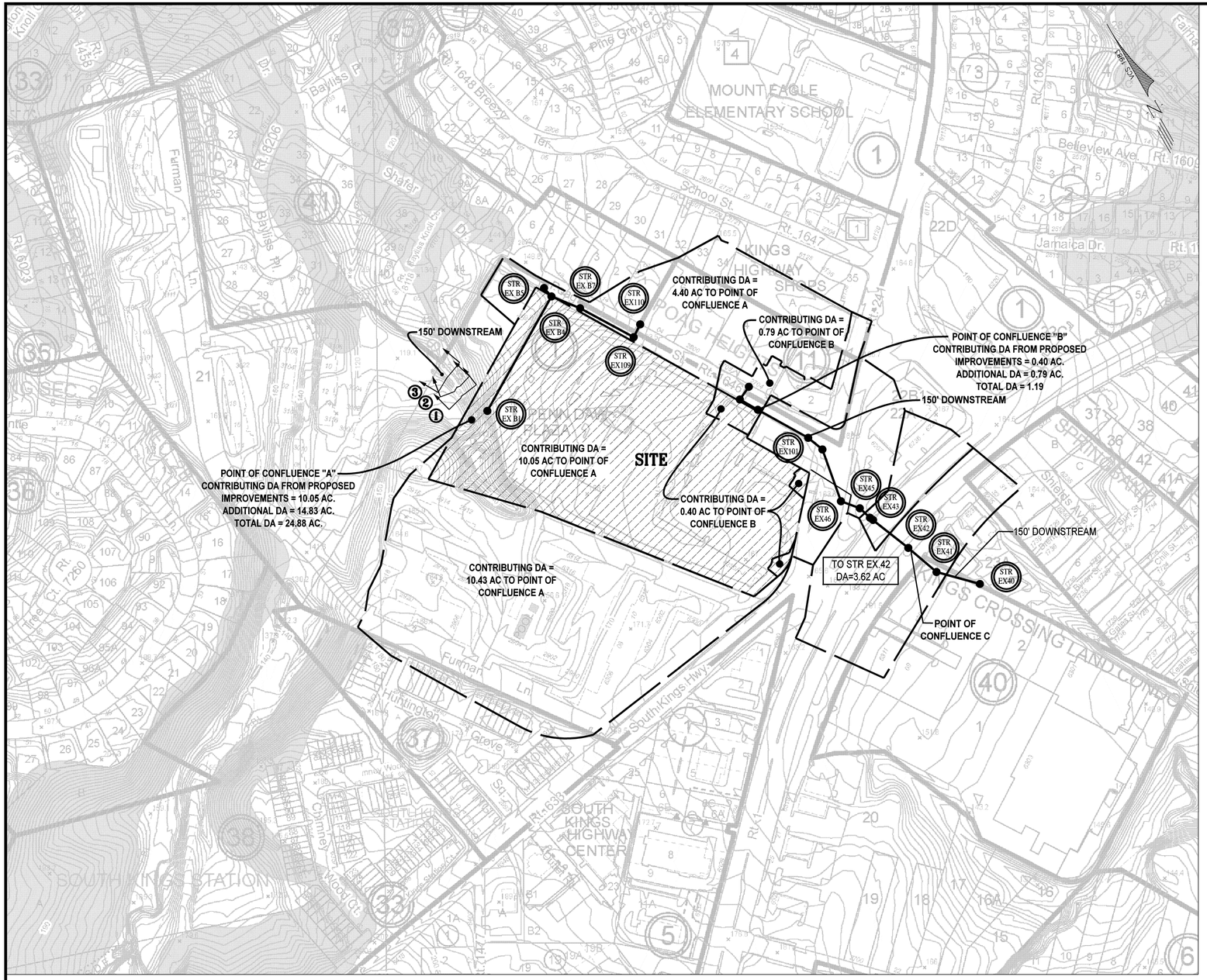
COMMONWEALTH OF VIRGINIA
ROBERT W. BROWN
Lic. No. 037041
10/31/13
PROFESSIONAL ENGINEER

BMP ANALYSIS
PENN DAW PLAZA
LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINA

DATE: JUNE, 2013
C.I.: 2'
SCALE: 1"=50'

SHEET 9 OF 17

RZ-12679



GRAPHIC SCALE

150 0 75 150 300 600

(IN FEET)
1 inch = 150 ft.

BELLE HAVEN WATERSHED NOTE:

THIS SITE HAS BEEN DESIGNED SUCH THAT THE ONSITE POST DEVELOPMENT DRAINAGE AREA AND IMPERVIOUSNESS DRAINING TO THE BELLE HAVEN WATERSHED IS LESS THAN THE PRE DEVELOPMENT DRAINAGE AREA AND IMPERVIOUSNESS.

ADEQUATE OUTFALL NARRATIVE

THE SUBJECT SITE IS LOCATED WITHIN THE CAMERON RUN AND BELLE HAVEN WATERSHEDS. IN THE EXISTING CONDITION, THIS SITE CONTAINS A COMMERCIAL CENTER - THIS APPLICATION PROPOSES THE CONSTRUCTION OF SINGLE FAMILY DETACHED RESIDENCES, MULTIFAMILY RESIDENCES AND COMMERCIAL RETAIL USES. AS SHOWN ON SHEET # 7, IN THE PRE-DEVELOPMENT CONDITION, 9.73 ACRES OF ON-SITE AREA (AREAS "C", "D", "E", "F" & "G" ON SHEET #7) FLOW TO THE CAMERON RUN WATERSHED, WHILE THE REMAINING 0.72 ACRES OF ON-SITE AREA (AREAS "A" & "B" ON SHEET # 7) FLOW TO THE BELLE HAVEN WATERSHED. IN THE POST-DEVELOPMENT CONDITION, 10.05 ACRES OF ON-SITE AREA (AREAS "C1", "D1", "F1", "F2" & "G1" ON SHEET #7) FLOW TO THE CAMERON RUN WATERSHED, WHILE THE REMAINING 0.40 ACRES OF ON-SITE AREA (AREAS "A1" & "B1" ON SHEET # 7) FLOW TO THE BELLE HAVEN WATERSHED.

AS SHOWN ON THE SWM ANALYSIS SHEETS, THE SITE HAS BEEN ENGINEERED TO REDUCE THE POST-DEVELOPMENT FLOW TO BOTH WATERSHEDS. THE 10.05 ACRES ATTRIBUTED TO THE CAMERON RUN WATERSHED IS PROPOSED TO BE FIRST DETAINED BY A SERIES OF SWM INFILTRATION VAULTS. THESE VAULTS HAVE BEEN DESIGNED TO REDUCE THE POST-DEVELOPMENT FLOW TO BELOW THE PRE-DEVELOPED CONDITION, DESPITE THE INCREASE IN DRAINAGE AREA. THESE VAULTS OUTFALL INTO THE EXISTING SWM FACILITY LOCATED IN THE SOUTHWEST CORNER OF THE SITE, AND ULTIMATELY DRAINS TO POINT OF CONFLUENCE 'A' - AT THIS LOCATION, THE 10.05 ACRES OF ON-SITE AREA CONVERGE WITH AN ADDITIONAL 10.43 ACRES OF OFF-LINE DRAINAGE AREA. CROSS-SECTIONS WILL BE TAKEN AT THE LOCATIONS SHOWN TO VERIFY THE ADEQUACY OF THIS OUTFALL CHANNEL. THE 0.40 ACRES ATTRIBUTED TO THE BELLE HAVEN WATERSHED IS PROPOSED TO OUTFALL INTO AN EXISTING CLOSED CONDUIT SYSTEM ALONG NORTH KINGS HIGHWAY. THIS EXISTING CLOSED CONDUIT SYSTEM WILL BE STUDIED AT TWO (2) LOCATIONS. THE FIRST STUDY POINT, POINT OF CONFLUENCE 'B', HAS BEEN POSITIONED WHERE THE INITIAL 0.40 ACRES OF ON-SITE AREA CONVERGE WITH AN OFF-LINE DRAINAGE AREA 0.79 ACRES. THE SECOND STUDY POINT, POINT OF CONFLUENCE 'C', HAS BEEN POSITIONED WHERE THE REMAINING 0.24 ACRES OF ON-SITE AREA CONVERGE WITH ANOTHER OFF-LINE DRAINAGE AREA OF 3.62 ACRES. IN BOTH CONDITIONS, THE CLOSED CONDUIT SYSTEM WILL BE STUDIED TO A POINT AT LEAST 150' DOWNSTREAM OF THE POINT OF CONFLUENCE. PLEASE REFERENCE SHEET #11 FOR THE COMPUTATIONS ASSOCIATED WITH THE EXISTING CLOSED CONDUIT SYSTEM ALL THE WAY TO THE FINAL STUDY POINT. AS THE PROPOSED DRAINAGE AREA TO THE BELLE HAVEN WATERSHED HAS BEEN REDUCED FROM THE EXISTING CONDITION, THE EXISTING CLOSED CONDUIT SYSTEM WILL BE CONSIDERED AN ADEQUATE OUTFALL.

CAMERON RUN WATERSHED
POINT OF CONFLUENCE "A":

APPROXIMATELY 10.05 ACRES OF THE SUBJECT SITE (1.56 ACRES UNDETAINED) IS DISCHARGED INTO AN EXISTING SWM FACILITY, WHICH ULTIMATELY LEADS TO POINT OF CONFLUENCE 'A'. THIS EXISTING SWM FACILITY OUTFALLS INTO A NATURAL STONY STREAM, AND HAS A CUMULATIVE CONTRIBUTING DRAINAGE AREA OF 24.88 ACRES. THIS POINT OF CONFLUENCE HAS BEEN DETERMINED BASED ON THE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL (PFM) 6-0203.2A, WHERE A RECEIVING PIPE OR CHANNEL IS JOINED BY ANOTHER THAT HAS A DRAINAGE AREA THAT IS AT LEAST 90% OF THE SIZE OF THE FIRST DRAINAGE AREA. THEREFORE, THE 24.88 ACRE CUMULATIVE DRAINAGE AREA OF THE EXISTING POND MEETS THE 90% SIZE REQUIREMENT FOR THE 10.01 ACRES OF THE ON-SITE CONTRIBUTING FLOW. AN ADDITIONAL 2.48 ACRES IS PICKED UP BY THE CLOSED CONDUIT SYSTEM EN ROUTE TO THE OUTFALL POINT, AND A TOTAL OF 27.36 ACRES WILL PASS THROUGH THE NATURAL STREAM AT THE POINT OF CONFLUENCE. VALUES OF 5.45 AND 7.27 INCHES PER HOUR WERE USED AS THE 2-YEAR AND 10-YEAR RAINFALL INTENSITIES RESPECTIVELY, WITH A CONSERVATIVE TIME OF CONCENTRATION OF 5 MINUTES. CONSERVATIVELY ASSUMING A 'C' FACTOR OF 0.75, THE TOTAL FLOW DURING THE 2-YEAR AND 10-YEAR STORMS WILL BE 111.83 CFS AND 149.18 CFS RESPECTIVELY. AS DIRECTED BY THE PFM 6-0203.2D, "THE ANALYSIS MUST BE TO A POINT WHERE ALL CROSS-SECTIONS ARE ADEQUATE IN THE FARTHEST DOWNSTREAM REACH OF 150 FEET. A MINIMUM OF THREE CROSS-SECTIONS SHALL BE PROVIDED IN THE 150-FOOT REACH." AS CAN BE SEEN FROM THE OVERVIEW MAP ON THIS SHEET, THREE CROSS-SECTIONS (1-1, 2-2, & 3-3) HAVE BEEN SELECTED AND FIELD VERIFIED FOR ANALYSIS; THE CROSS-SECTION PROFILES AND COMPUTATIONS ARE PROVIDED ON SHEET # 11. PICTURE #1 ON SHEET #11 REPRESENTS A TYPICAL SECTION OF THE NATURAL STREAM AND VERIFIES THAT THE STREAM BED IS STONY AND CONSISTS OF COLLOIDAL ALLUVIAL SILTS, WHICH HAVE A MAXIMUM PERMISSIBLE VELOCITY OF 5.0 FEET PER SECOND. THE MAXIMUM CALCULATED VELOCITY DURING THE 2-YEAR STORM I S 4.25 FEET PER SECOND AND OCCURS AT CROSS-SECTION 3-3. ADDITIONALLY, THE NORMAL DEPTH OF THE 10-YEAR STORM DOES NOT **GO** OVER THE TOP THE BANKS AT ANY OF THE CROSS-SECTIONS.

BELLE HAVEN WATERSHED
POINT OF CONFLUENCE "B" & "C":

AS PREVIOUSLY STATED, THIS SITE HAS BEEN DESIGNED SUCH THAT THE POST-DEVELOPMENT DRAINAGE AREA AND IMPERVIOUSNESS DRAINING TO THE BELLE HAVEN WATERSHED HAS BEEN DECREASED FROM THE PRE-DEVELOPMENT CONDITION. APPROXIMATELY 0.40 ACRES OF THE SUBJECT SITE IS UNCONTROLLED AND DISCHARGES INTO AN EXISTING CLOSED CONDUIT SYSTEM TO THE NORTHEAST OF THE SITE LEADING TO POINT OF CONFLUENCE "B". IN ADDITION TO THE 0.40 ACRES ONSITE, AN ADDITIONAL 0.79 ACRES OF OFFSITE AREA WILL FLOW TO EXISTING STORM STRUCTURE EX46. THE TOTAL FLOW OF 1.19 ACRES WILL THEN BE CARRIED THROUGH THE EXISTING CLOSED CONDUIT SYSTEM TO EXISTING STORM STRUCTURE EX42, WHERE IT IS JOINED BY ANOTHER PIPE RUN HAVING A DRAINAGE AREA OF 3.62 ACRES. THIS POINT OF CONFLUENCE HAS BEEN DETERMINED BASED ON THE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL 6-0203.2A WHERE A RECEIVING PIPE IS JOINED BY ANOTHER THAT HAS A DRAINAGE AREA THAT IS AT LEAST 90% OF THE SIZE OF THE FIRST DRAINAGE AREA. A PIPE ANALYSIS HAS BEEN DONE FROM THE SITE OUTFALL POINT TO 150 FEET PAST THE POINT OF CONFLUENCE AS SHOWN ON SHEET #11. PIPE INFORMATION HAS BEEN TAKEN FROM A COMBINATION OF FIELD VERIFIED INFORMATION AND GIS INFORMATION. THE COMPUTATION PROVIDED ON SHEET #11 SHOWS THAT SOME OF THE PIPES ARE ABOVE 80% CAPACITY, ABOVE CAPACITY, AND SOME HAVE HGLS THAT DO NOT MEET REQUIREMENTS, HOWEVER, THE HGLS ARE MAINTAINED BELOW GRADE AND THE PROPOSED IMPROVEMENTS DO NOT INCREASE THE DRAINAGE AREA OR FLOW TO THIS PIPE RUN. IN ADDITION, THERE ARE NO KNOWN DRAINAGE PROBLEMS FOR THIS RUN OF PIPE. FOR THIS REASON, WE BELIEVE THAT THIS PIPE SYSTEM IS ADEQUATE FOR THE PROPOSED IMPROVEMENTS OF THE SITE.

AS A PROFESSIONAL ENGINEER, IT IS THE OPINION OF URBAN ENGINEERING & ASSOCIATES, INC THAT AN ADEQUATE OUTFALL EXISTS AND THERE WILL BE NO ADVERSE IMPACT TO THE DOWNSTREAM PROPERTIES, WATERCOURSES OR FACILITIES INTO WHICH SUCH OUTFALLS ARE DISCHARGED.

Robert Brown 10/31/13
URBAN ENGINEERING & ASSOCIATES, INC. DATE
ROBERT W. BROWN, P.E., ASSOCIATE

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-17-13
10-31-13
-

Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
TEL 703.642.8700
www.urban-ltd.com
urban
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
Robert Brown
ROBERT W. BROWN
LIC. NO. 038041
10/31/13
PROFESSIONAL ENGINEER

OUTFALL ANALYSIS

PENN DAW PLAZA

LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

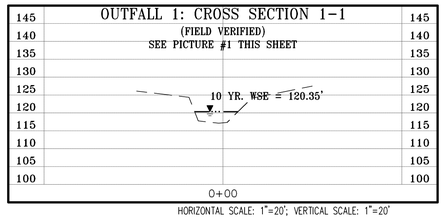
DATE: JUNE, 2013

C.I. : N/A

SCALE: 1"=150'

SHEET 10 OF 17

RZ-12679



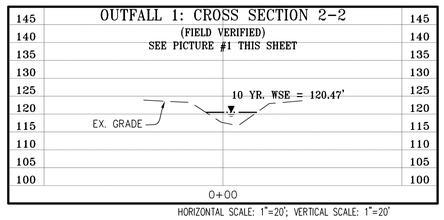
HORIZONTAL SCALE: 1"=20'; VERTICAL SCALE: 1"=20'

POST DEVELOPMENT CONDITIONS - OUTFALL 1:
CROSS SECTION 1-1

DA	=	24.88 AC.
'C' FACTOR =	0.75	
I2	=	5.45 IN/HR
I10	=	7.27 IN/HR
Tc	=	5 MIN
Q2	=	101.70 CFS
Q10	=	134.66 CFS
CHANNEL SLOPE	=	0.940%
'n' FACTOR	=	0.050 (FOR NATURAL STONY STREAMS)

V2 = 4.16 FPS
D10 = 3.22 FT.

***ALLOWABLE VELOCITY FOR ALLUVIAL SILTS (COLLOIDAL) IS 5.0 FPS PER VESCH TABLE 5-22.**



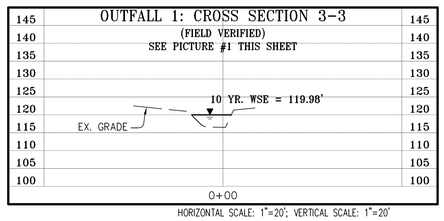
HORIZONTAL SCALE: 1"=20'; VERTICAL SCALE: 1"=20'

POST DEVELOPMENT CONDITIONS - OUTFALL 1:
CROSS SECTION 2-2

DA	=	24.88 AC.
'C' FACTOR =	0.75	
I2	=	5.45 IN/HR
I10	=	7.27 IN/HR
Tc	=	5 MIN
Q2	=	101.70 CFS
Q10	=	135.66 CFS
CHANNEL SLOPE	=	0.940%
'n' FACTOR	=	0.050 (FOR NATURAL STONY STREAMS)

V2 = 4.09 FPS
D10 = 3.56 FT.

***ALLOWABLE VELOCITY FOR ALLUVIAL SILTS (COLLOIDAL) IS 5.0 FPS PER VESCH TABLE 5-22.**



HORIZONTAL SCALE: 1"=20'; VERTICAL SCALE: 1"=20'

POST DEVELOPMENT CONDITIONS - OUTFALL 1:
CROSS SECTION 3-3

DA	=	24.88 AC.
'C' FACTOR =	0.75	
I2	=	5.45 IN/HR
I10	=	7.27 IN/HR
Tc	=	5 MIN
Q2	=	101.70 CFS
Q10	=	135.66 CFS
CHANNEL SLOPE	=	0.940%
'n' FACTOR	=	0.050 (FOR NATURAL STONY STREAMS)

V2 = 4.25 FPS
D10 = 3.47 FT.

***ALLOWABLE VELOCITY FOR ALLUVIAL SILTS (COLLOIDAL) IS 5.0 FPS PER VESCH TABLE 5-22.**

PICTURE #1: TYPICAL CROSS SECTION

DEPICTION OF THE TYPICAL STREAMBED LINING (FOR CROSS SECTIONS 1-1, 2-2, & 3-3) AS BEING NATURALLY STONY. THE SOIL TYPE FOUND IN THIS AREA IS OF THE BIRDSBORO VARIETY, A COLLOIDAL ALLUVIAL SILT.

No.	DATE	DESCRIPTION

REVISIONS

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-09-13
10-17-13
10-31-13
-

urban
Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
Tel. 703.642.2306
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

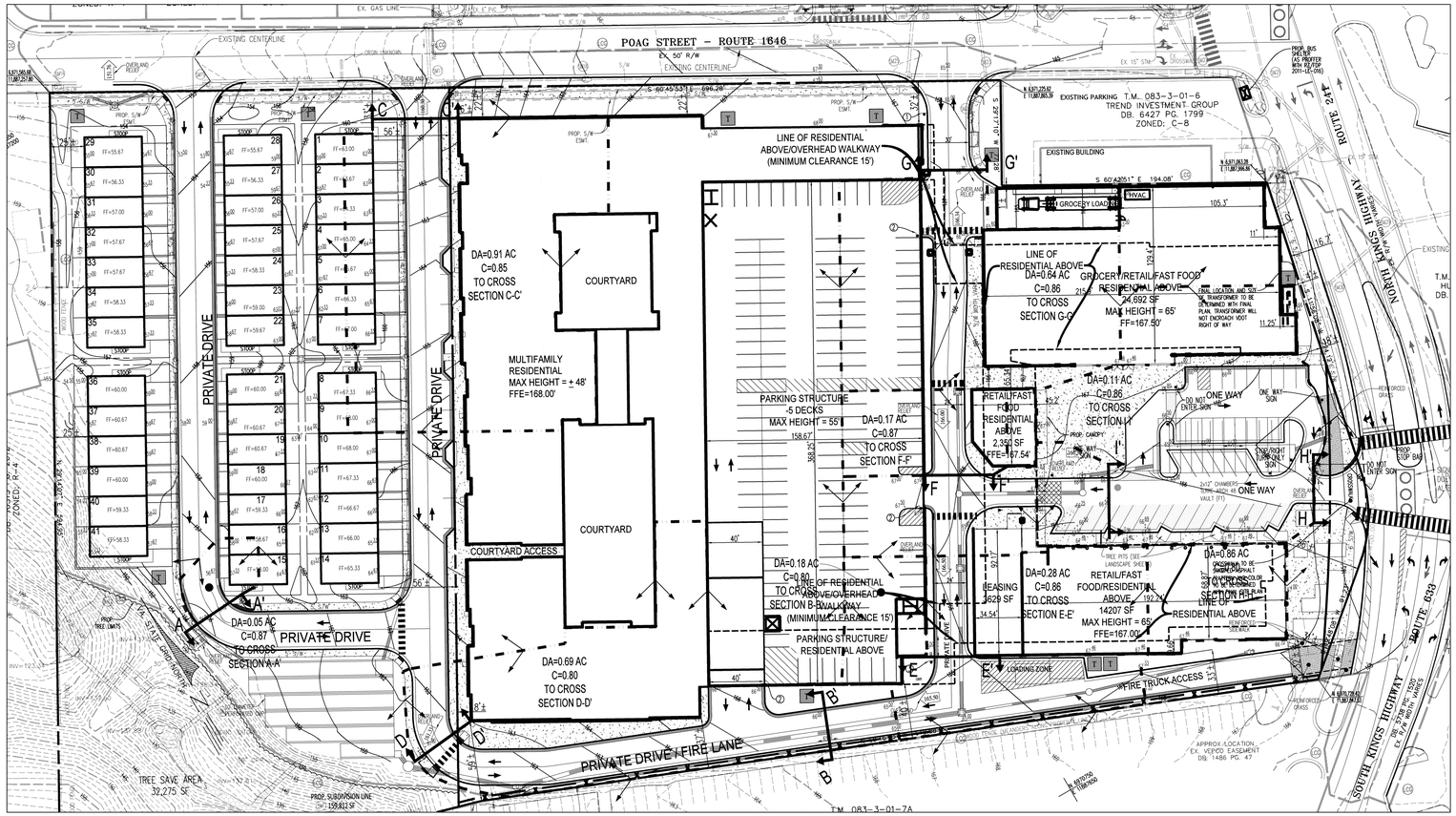
COMMONWEALTH OF VIRGINIA
Robert Brown
ROBERT W. BROWN
Lic. No. 037041
10/31/13
PROFESSIONAL ENGINEER

OUTFALL ANALYSIS

PENN DAW PLAZA
LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINA

SCALE: AS SHOWN
C.I.: N/A
DATE: JUNE, 2013

RZ-12679



OVERLAND RELIEF NARRATIVE:

A TOTAL OF 8 CROSS SECTIONS HAVE BEEN PROVIDED AT LOW AND HIGH POINTS AROUND THE SITE. COMPUTATIONS HAVE BEEN ADDED FOR A 100-YEAR FLOOD CONDITION WITH ALL STORM STRUCTURES BEING FULLY CLOGGED. THE RELIEF POINT FOR ALL CROSS SECTIONS IS IS GREATER THAN 1 FOOT BELOW THE BUILDING FINISHED FLOOR ELEVATIONS. COMPUTATIONS AND PROFILES ARE SHOWN ON SHEETS #12 AND #13.

Cross Section C-C'

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.03000 ft/ft
Discharge	9.51 ft^3/s

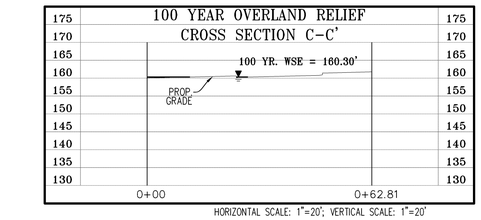
Section Definitions

Station (ft)	Elevation (ft)
0+00	160.02
0+24	160.58
0+25	160.68
0+26	160.25
0+48	160.75
0+49	160.92
0+50	161.42
0+53	161.75

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 160.02)	(0+53, 161.75)	0.013

Options	
Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method
Results	
Normal Depth	0.28 ft
Elevation Range	160.02 to 161.75 ft
Flow Area	1.98 ft^2
Wetted Perimeter	18.21 ft
Hydraulic Radius	0.12 ft
Top Width	15.85 ft
Normal Depth	0.28 ft
Critical Depth	0.39 ft
Critical Slope	0.00462 ft/ft
Velocity	4.86 ft/s
Velocity Head	0.37 ft
Specific Energy	0.65 ft
Froude Number	2.44
Flow Type	Supercritical



HORIZONTAL SCALE: 1"=20'; VERTICAL SCALE: 1"=20'

Cross Section A-A'

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.01790 ft/ft
Discharge	0.54 ft^3/s

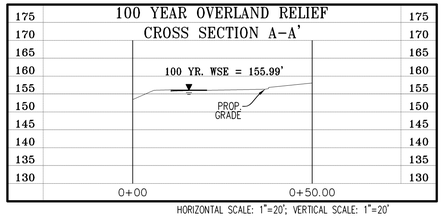
Section Definitions

Station (ft)	Elevation (ft)
0+00	153.38
0+06	156.00
0+11	156.13
0+11	155.63
0+13	155.80
0+21	156.00
0+37	156.30
0+39	156.47
0+39	156.80
0+50	156.60
0+50	156.97

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 153.38)	(0+50, 156.07)	0.013

Results	
Normal Depth	0.36 ft
Elevation Range	153.38 to 156.97 ft
Flow Area	0.15 ft^2
Wetted Perimeter	1.25 ft
Top Width	0.82 ft
Normal Depth	0.36 ft
Critical Depth	0.43 ft
Critical Slope	0.00729 ft/ft
Velocity	3.67 ft/s
Velocity Head	0.21 ft
Specific Energy	0.57 ft
Froude Number	1.52
Flow Type	Supercritical



HORIZONTAL SCALE: 1"=20'; VERTICAL SCALE: 1"=20'

Cross Section B-B'

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.01900 ft/ft
Discharge	1.77 ft^3/s

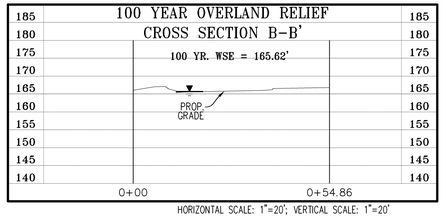
Section Definitions

Station (ft)	Elevation (ft)
0+00	166.00
0+08	167.00
0+09	167.06
0+12	166.34
0+12	165.83
0+12	165.33
0+14	165.50
0+37	166.00
0+39	166.17
0+39	166.50
0+50	166.78

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 166.00)	(0+50, 166.78)	0.013

Results	
Normal Depth	0.29 ft
Elevation Range	165.33 to 167.06 ft
Flow Area	0.74 ft^2
Wetted Perimeter	7.83 ft
Top Width	7.54 ft
Normal Depth	0.29 ft
Critical Depth	0.32 ft
Critical Slope	0.00541 ft/ft
Velocity	2.38 ft/s
Velocity Head	0.09 ft
Specific Energy	0.38 ft
Froude Number	1.34
Flow Type	Supercritical



HORIZONTAL SCALE: 1"=20'; VERTICAL SCALE: 1"=20'

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
03-18-13
08-06-13
09-09-13
09-19-13
10-17-13
10-24-13
10-31-13
–

urban
Urban, Ltd.
4294-D Technology Court
Chantilly, Virginia 20151
(703) 642-8700 FAX 642-3766
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
Robert W. Brown
ROBERT W. BROWN
LIC. No. 035041
10/31/13
PROFESSIONAL ENGINEER

OVERLAND RELIEF PLAN

PENN DAW PLAZA

LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: JUNE, 2013

SCALE: 1"=50'

C.L.: 2'

SHEET
12
OF
17

RZ-12679

Cross Section H-H'

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.01796	ft/ft
Discharge	8.46	ft³/s

Section Definitions

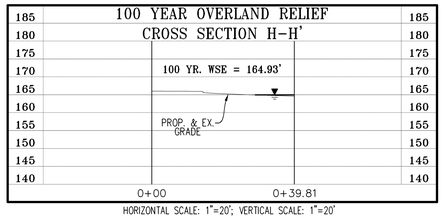
Station (ft)	Elevation (ft)
0+00	166.00
0+14	165.94
0+14	165.61
0+16	165.44
0+26	165.00
0+35	164.75
0+40	164.56
0+40	165.08

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 166.00)	(0+40, 165.08)	0.013

Results

Normal Depth	0.35	ft
Elevation Range	164.59 to 166.00 ft	
Flow Area	1.85	ft²
Wetted Perimeter	11.55	ft
Top Width	10.99	ft
Normal Depth	0.35	ft
Critical Depth	0.45	ft
Critical Slope	0.00423	ft/ft
Velocity	4.57	ft/s
Velocity Head	0.32	ft
Specific Energy	0.68	ft
Froude Number	1.96	
Flow Type	Supercritical	



Cross Section D-D'

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.01490	ft/ft
Discharge	7.21	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
0+00	161.05
0+05	161.38
0+10	160.88
0+11	161.05
0+33	161.50
0+34	161.67
0+35	162.17
0+50	162.00

Roughness Segment Definitions

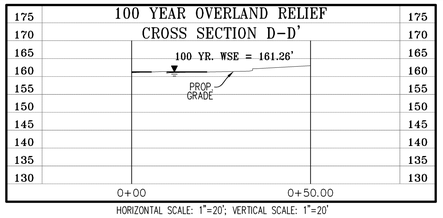
Start Station	Ending Station	Roughness Coefficient
(0+00, 161.05)	(0+50, 163.00)	0.013

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	0.38	ft
Elevation Range	160.68 to 163.00 ft	
Flow Area	2.15	ft²
Wetted Perimeter	18.36	ft
Hydraulic Radius	0.12	ft
Top Width	18.00	ft
Normal Depth	0.38	ft
Critical Depth	0.44	ft
Critical Slope	0.00476	ft/ft
Velocity	3.29	ft/s
Velocity Head	0.17	ft
Specific Energy	0.55	ft
Froude Number	1.96	
Flow Type	Supercritical	



Cross Section F-F'

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.01000	ft/ft
Discharge	1.92	ft³/s

Section Definitions

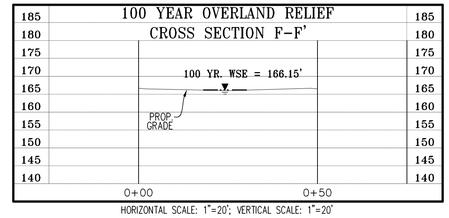
Station (ft)	Elevation (ft)
0+00	197.00
0+00	196.67
0+02	196.50
0+25	196.00
0+48	196.66
0+50	196.49
0+50	196.99

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 197.00)	(0+50, 196.99)	0.013

Results

Normal Depth	0.15	ft
Elevation Range	166.03 to 167.00 ft	
Flow Area	0.90	ft²
Wetted Perimeter	12.06	ft
Top Width	12.05	ft
Normal Depth	0.15	ft
Critical Depth	0.17	ft
Critical Slope	0.00555	ft/ft
Velocity	2.03	ft/s
Velocity Head	0.06	ft
Specific Energy	0.21	ft
Froude Number	1.31	
Flow Type	Supercritical	



Cross Section E-E'

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.02000	ft/ft
Discharge	2.96	ft³/s

Section Definitions

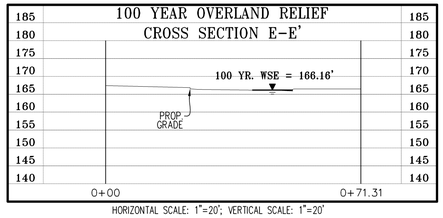
Station (ft)	Elevation (ft)
0+00	167.44
0+24	166.85
0+24	166.52
0+26	166.35
0+49	166.06
0+52	166.69
0+52	166.39
0+53	166.50
0+71	166.50

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 167.44)	(0+71, 166.50)	0.013

Results

Normal Depth	0.27	ft
Elevation Range	165.89 to 167.44 ft	
Flow Area	0.96	ft²
Wetted Perimeter	11.22	ft
Top Width	10.95	ft
Normal Depth	0.27	ft
Critical Depth	0.32	ft
Critical Slope	0.00334	ft/ft
Velocity	3.12	ft/s
Velocity Head	0.15	ft
Specific Energy	0.42	ft
Froude Number	1.97	
Flow Type	Supercritical	



Cross Section G-G'

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.01000	ft/ft
Discharge	6.77	ft³/s

Section Definitions

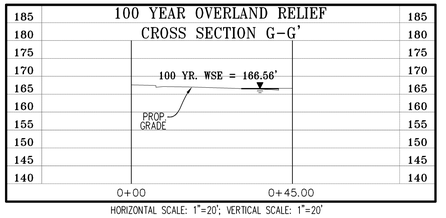
Station (ft)	Elevation (ft)
0+00	167.60
0+07	167.48
0+07	166.96
0+09	167.13
0+17	167.00
0+39	166.30
0+41	166.13
0+41	166.63
0+45	166.68
0+50	166.70

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 167.60)	(0+50, 166.70)	0.013

Results

Normal Depth	0.43	ft
Elevation Range	166.13 to 167.60 ft	
Flow Area	1.90	ft²
Wetted Perimeter	10.97	ft
Top Width	10.53	ft
Normal Depth	0.43	ft
Critical Depth	0.50	ft
Critical Slope	0.00437	ft/ft
Velocity	3.56	ft/s
Velocity Head	0.20	ft
Specific Energy	0.63	ft
Froude Number	1.47	
Flow Type	Supercritical	



Cross Section I-I'

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.01000	ft/ft
Discharge	1.16	ft³/s

Section Definitions

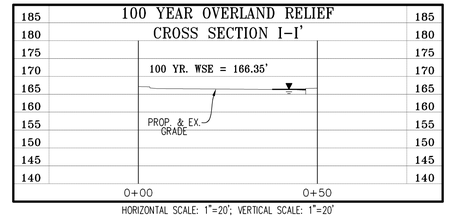
Station (ft)	Elevation (ft)
0+00	167.15
0+03	167.09
0+03	166.76
0+05	166.59
0+20	166.50
0+43	166.30
0+47	166.13
0+47	166.63
0+50	166.69

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00, 167.15)	(0+50, 166.69)	0.013

Results

Normal Depth	0.22	ft
Elevation Range	166.13 to 167.15 ft	
Flow Area	0.83	ft²
Wetted Perimeter	9.91	ft
Top Width	9.59	ft
Normal Depth	0.22	ft
Critical Depth	0.24	ft
Critical Slope	0.00617	ft/ft
Velocity	1.84	ft/s
Velocity Head	0.05	ft
Specific Energy	0.27	ft
Froude Number	1.26	
Flow Type	Supercritical	



No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-17-13
10-31-13
-

Urban, Ltd.
4260-D Technology Court
Chantilly, Virginia 20151
703-961-8206
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
ROBERT W. BROWN
LIC. NO. 023418
PROFESSIONAL ENGINEER
10/31/13

OVERLAND RELIEF PLAN

PENN DAW PLAZA

LEE MAGISTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: JUNE, 2013

C.I.: N/A

SCALE: AS NOTED

SHEET
13
OF
17

RZ-12679

T.M. 083-3-35-5
HOAI THANH VONG
DB. 18678 PG. 1207
ZONED: R-4

T.M. 083-3-35-4
FREEMAN BARRY S
DB. 21865 PG. 1842
ZONED: R-4

T.M. 083-3-35-3
SABIR GHULAM
DB. 21309 PG. 2020
ZONED: R-4

T.M. 083-3-35-2
PRESSLEY EDWARD
DB. 11698 PG. 191
ZONED: R-4

T.M. 083-3-35-1
CAMPBELL EULIE M,
DB. 15611 PG. 644
ZONED: R-4

T.M. 083-3-11-LOTS 2-6 AND T.M. 083-3-4A
HUNTINGTON METRO VENTURE LLC
DB. 22547 PG. 1408
ZONED: PRM

EX. BUILDING 3
HEIGHT = 33.81'
(3 STORIES)

EX. BUILDING 3
2804 POAG STREET
HEIGHT = 43.69'
(4 STORIES)

EX. BUILDING 1 & PROP.
2802 POAG STREET
HEIGHT = 45.08'
(4 STORIES)

POAG STREET – ROUTE 1646
EX. 50' R/W

EXISTING CENTERLINE

FUTURE SIGNAL
PROFFERED BY OTHERS

PROP. BUS SHELTER (AS PROFFER WITH RZ/FDP 2011-LE-016)

EXISTING PARKING T.M. 083-3-01-6
TREND INVESTMENT GROUP
DB. 6427 PG. 1799
ZONED: C-8

EXISTING BUILDING
DRY CLEANERS
2 SEPARATE WALLS

LINE OF RESIDENTIAL ABOVE/OVERHEAD WALKWAY (MINIMUM CLEARANCE 15')

COURTYARD

MULTIFAMILY RESIDENTIAL
MAX HEIGHT = ± 48'
FFE=168.00'

PARKING STRUCTURE
-5 DECKS
MAX HEIGHT = 55'

COURTYARD ACCESS

LINE OF RESIDENTIAL ABOVE/OVERHEAD WALKWAY (MINIMUM CLEARANCE 15')

PARKING STRUCTURE/ RESIDENTIAL ABOVE

LINE OF RESIDENTIAL ABOVE

GROCERY/RETAIL/FAST FOOD RESIDENTIAL ABOVE
24,692 SF
MAX HEIGHT = 65'
FFE=167.50'

FINAL LOCATION AND SIZE OF TRANSFORMER TO BE DETERMINED WITH FINAL PLAN. TRANSFORMER WILL NOT ENCROACH VDOT RIGHT OF WAY

RETAIL/FAST FOOD RESIDENTIAL ABOVE 2,350 SF
FFE=167.54'

LEASING 3629 SF

RETAIL/FAST FOOD/RESIDENTIAL ABOVE
14207 SF
MAX HEIGHT = 65'
FFE=167.00'

LOADING ZONE

FIRE TRUCK ACCESS

PRIVATE DRIVE

PRIVATE DRIVE / FIRE LANE

ROUTE 244 – SOUTH KINGS HIGHWAY – NORTH LANES VARIABLE WIDTH

SOUTH KINGS HIGHWAY – ROUTE 638 – VARIABLE WIDTH

±3,515 SF PROP. R/W DEDICATION

T.M. 083-3-01-22A
HUNTER, DAVID L.
DB. 12041 PG. 1034
ZONED: C-8

T.M. 083-3-05-01-1
THE AMERICAN BANK
DB. 2951 PG. 394
ZONED: C-8

T.M. 083-3-01-5
ZIEGLER, MALIK
DB. 26133 PG. 2012
ZONED: R-4

1-STORY BRICK AND FRAME HOUSE

SHED

TREE SAVE AREA
32,275 SF

PROP. SUBDIVISION LINE
159,812 SF
3.669 ACRES

PROP. TREE LIMITS

T.M. 083-3-01-7A
KINGS GARDENS APARTMENTS
JOINT VENTURE
DB. 8102 PG. 339
ZONED: R-20

APPROX LOCATION EX. VEPCO EASEMENT DB. 1927 PG. 19

APPROX LOCATION EX. VEPCO EASEMENT DB. 1486 PG. 47

APPROXIMATE LOCATION OF ZONING LINE PER 2005 FAIRFAX COUNTY ZONING MAP

APPROXIMATE LOCATION OF OVERLAY DISTRICT PER FAIRFAX COUNTY ZONING MAP

NOTES:
1. MAX HEIGHT FOR ALL PROPOSED BUILDINGS IS 65'

2. CONSTRUCTION TYPES:
RESIDENTIAL = 5A
RETAIL = 1B
PARKING STRUCTURE = 1A

3. BUILDING SKIN MATERIAL WILL BE NON-COMBUSTIBLE SIDING MATERIALS OF MASONRY AND FIBER CEMENT.

4. SPRINKLER TYPES:
RESIDENTIAL =NFPA 13R
RETAIL =NFPA 13
PARKING STRUCTURE = N/A

5. ROOF TYPE: CLASS B

FIRE LANE ACCESS NOTES:
RESIDENTIAL ABOVE RETAIL BUILDING
LENGTH = 1450'
COVERAGE = 734'
PERCENT = 50.6%

PARKING STRUCTURE
LENGTH = 536'
COVERAGE = 312'
PERCENT = 58.2%

LEGEND

??? COVERAGE — FIRE HYDRANT COVERAGE
EMERGENCY VEHICLE EGRESS ONLY
MAIN INGRESS TO SITE
MAIN INGRESS/EGRESS TO SITE
EMERGENCY ACCESS TO ENTER BUILDINGS
FIRE LANE ACCESS TOWARDS COVERAGE

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

No.	DESCRIPTION	DATE
	REVISIONS	

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-04-13
10-17-13
10-31-13
–

Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
(703) 642-8546
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
ROBERT W. BROWN
LIC. No. 019041
PROFESSIONAL ENGINEER
Robert W. Brown
10/31/13

FIRE ACCESS AND HYDRANT COVERAGE PLAN

PENN DAW PLAZA

LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: JUNE, 2013

C.I.: N/A

SCALE: 1"=40'

SHEET 14 OF 17

RZ-12679

GRAPHIC SCALE

(IN FEET)
1 inch = 50 ft.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-09-13
10-17-13
10-31-13
-

urban™
Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
Tel. 703.642.2306
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
ROBERT W. BROWN
Lic. No. 037041
10/31/13
PROFESSIONAL ENGINEER

SIGHT DISTANCE PROFILES

PENN DAW PLAZA

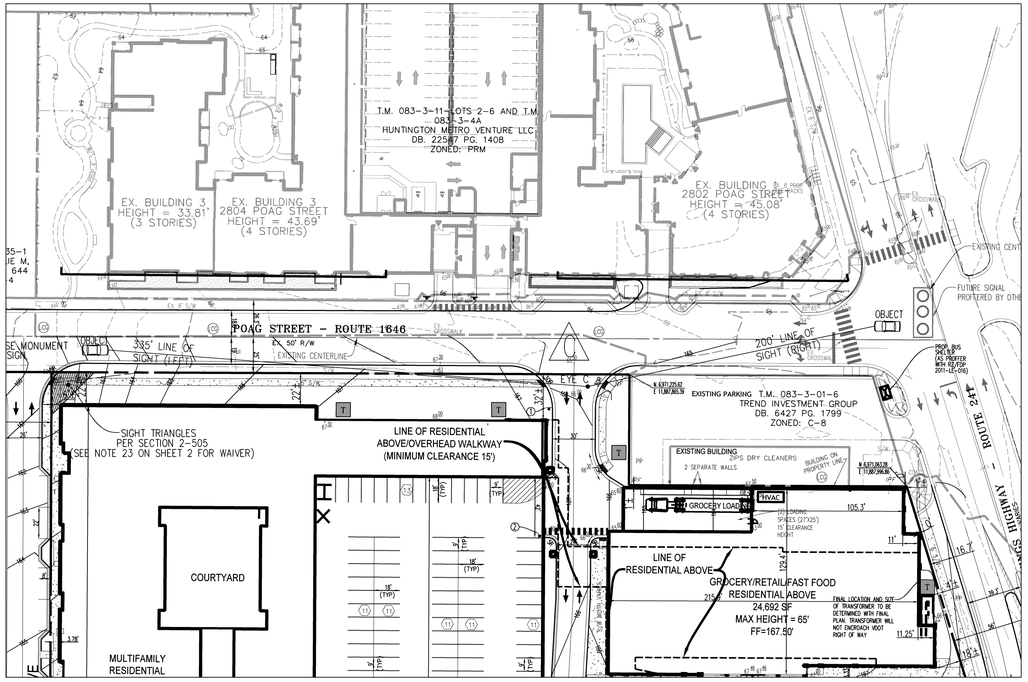
LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINA

SCALE: 1"=50'(H); 1"=5'(V) C.I.: 1'

DATE: JUNE, 2013

SHEET 15 OF 17

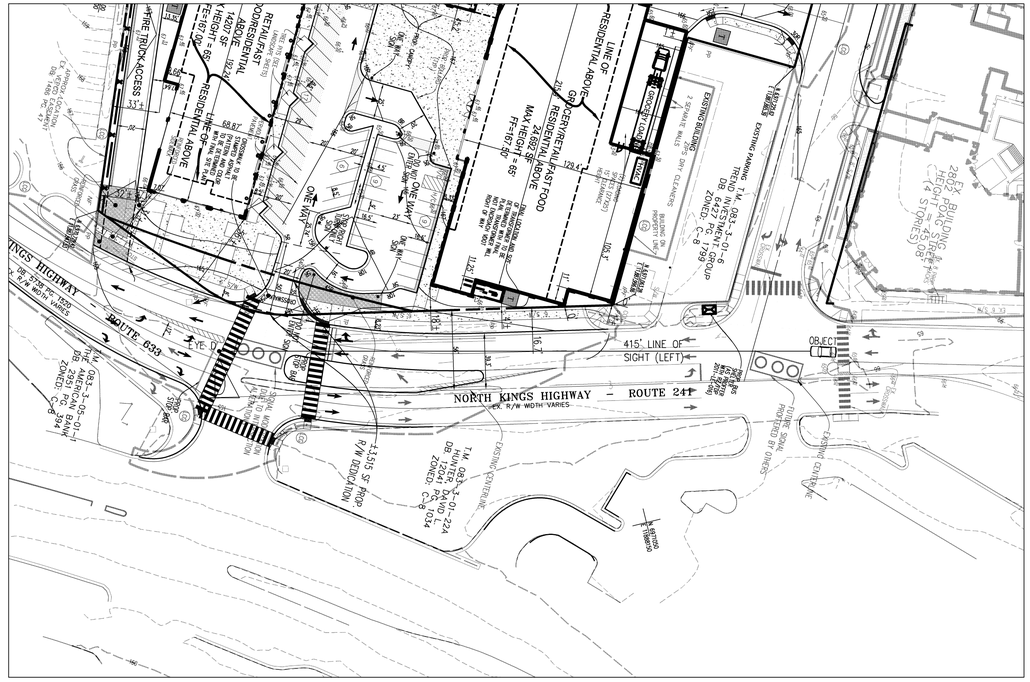
RZ-12679



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

SIGHT DISTANCE PROFILE

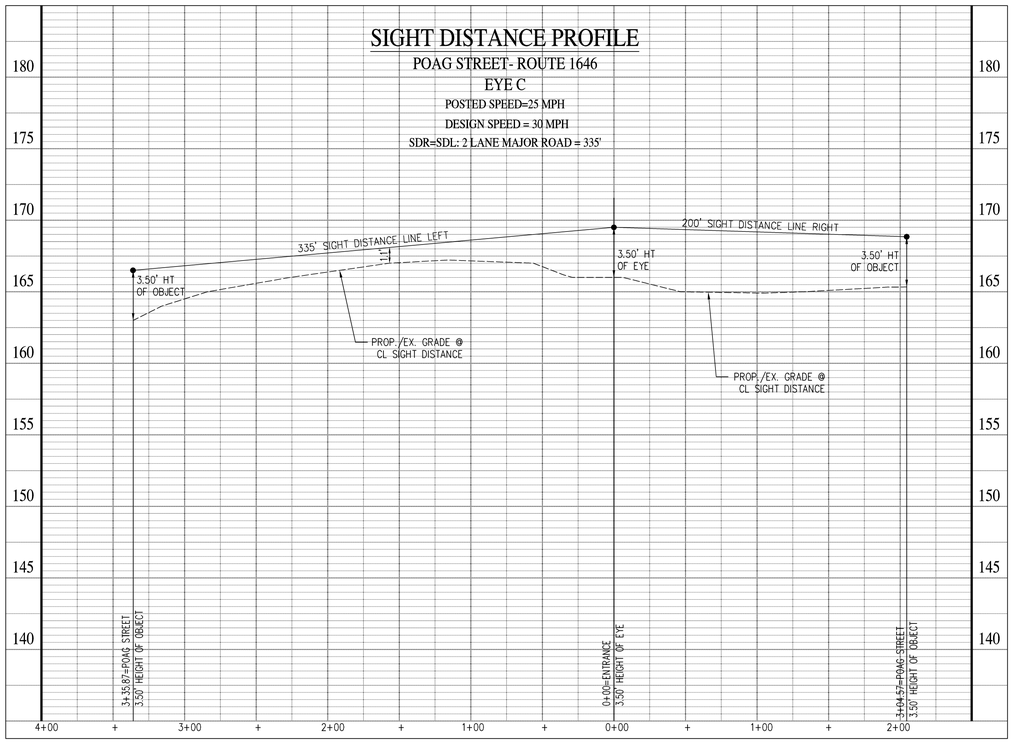
POAG STREET- ROUTE 1646

EYE C

POSTED SPEED=25 MPH

DESIGN SPEED = 30 MPH

SDR=SDL: 2 LANE MAJOR ROAD = 335'



NORTH BOUND LEFT TURN SIGHT DISTANCE PROFILE

NORTH KINGS HIGHWAY- ROUTE 241

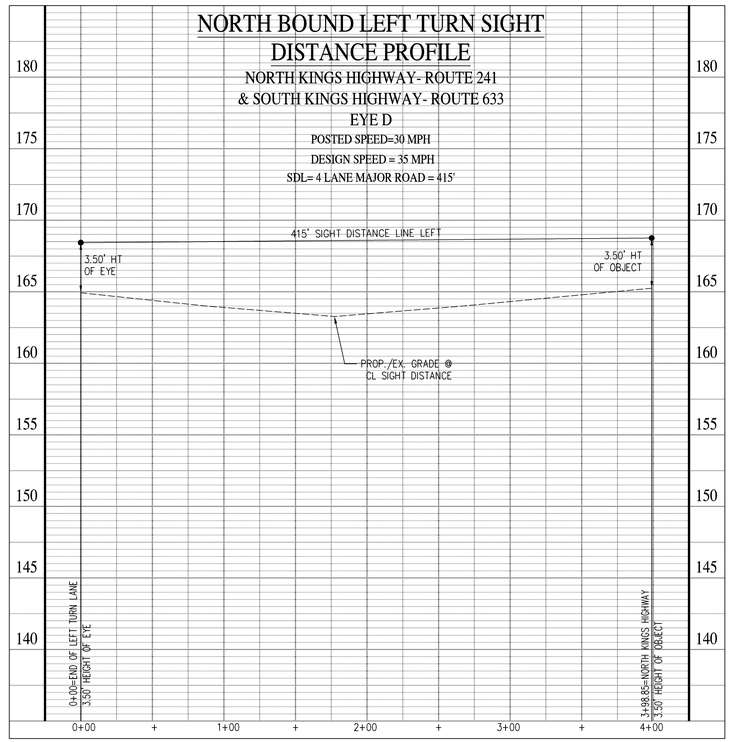
& SOUTH KINGS HIGHWAY- ROUTE 633

EYE D

POSTED SPEED=30 MPH

DESIGN SPEED = 35 MPH

SDL= 4 LANE MAJOR ROAD = 415'



No.	DATE	REVISIONS

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-17-13
10-31-13
-

urban
Urban, Ltd.
4260-D Technology Court
Chantilly, Virginia 20151
Tel. 703-263-3766
www.urban-ltd.com
Planners Engineers Landscape Architects Land Surveyors

COMMONWEALTH OF VIRGINIA
ROBERT W. BROWN
LIC. NO. 029041
PROFESSIONAL ENGINEER
10/31/13

SIGHT DISTANCE PROFILES

PENN DAW PLAZA

LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINIA

DATE: JUNE, 2013

SCALE: 1"=50'(H); 1"=5'(V) C.L.: 1'

SHEET
16
OF
17

RZ-12679

	Cover Type	Primary Species	Successional Stage	Condition	Acreage	Comments
A	Landscaped Tree Canopy	Bradford Pear, White Pine, Leyland Cypress, Linden, Pin Oak, Willow Oak, Zelkova	n/a	fair-good	1.2 ac.	This cover type consist primarily of parking islands and landscape beds. The average size of the trees range from 6" to 26" DBH, and the Leyland Cypress range in height from 25' to 30'. The understory consists primarily of lawn and mulch, with Daylilies, Junipers, Variegated Liriope, Pennisetum, Miscanthus, Shrub Roses, and Coreopsis.
B	Bottomland Forest	Red Oak, Tulip Poplar, Sweetgum, White Pine, Catalpa, Black Cherry	Mature Forest	fair-good	1.34 ac.	This cover type has a mature canopy composed of Tulip Poplar (Liriodendron tulipifera), Sweetgum (Liquidambar styraciflua) and a variety of Oaks, ranging in size (12-18" D.B.H.). The dominant species in the understory includes White Pine (Pinus strobus), Black Cherry (Prunus serrulata) and Northern Catalpa (Catalpa speciosa). There is very little vegetation on the ground plane.
C	Developed Land	Parking lots, sidewalks and buildings	n/a	n/a	7.91 ac.	
					Total Acreage: 10.45 ac.	

*DBH = Diameter at Breast Height (measured 4.5 feet above the ground)

NOTE: Existing vegetation data provided through field study on October 25, 2012

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

No.	DATE	DESCRIPTION
		REVISIONS

PLAN DATE
03-18-13
08-08-13
09-09-13
09-19-13
10-09-13
10-17-13
10-31-13
-

urban™
Planners Engineers Landscape Architects Land Surveyors

Urban, Ltd.
4200-D Technology Court
Chantilly, Virginia 20151
Tel. 703.642.2306
www.urban-ltd.com

COMMONWEALTH OF VIRGINIA
Robert Brown
ROBERT W. BROWN
Lic. No. 037041
10/31/13
PROFESSIONAL ENGINEER

EXISTING VEGETATION MAP

PENN DAW PLAZA

LEE MAGESTERIAL DISTRICT
FAIRFAX COUNTY, VIRGINA

SCALE: 1"=40'   C.I.: 1'   DATE: JUNE, 2013

SHEET 17 OF 17

RZ-12679

OVERALL TREE PLAN SCHEDULE

(CAT. IV) DECIDUOUS - INTERIOR PARKING LOT SCREENING — 17
CATEGORY IV - DECIDUOUS TREE
4" min. Caliper at 300 SF Projected 10yr Tree Canopy
Acer rubrum / Red Maple
Quercus phellos / Willow Oak
Ulmus parvifolia / Chinese Elm
Zelkova serrata / Sawleaf Zelkova

(CAT. III) DECIDUOUS - INTERIOR PARKING LOT SCREENING — 4
CATEGORY III - DECIDUOUS TREE
3" Caliper at 175 sf Projected 10 yr Tree Canopy
Gleditsia triacanthos / Honey Locust

(LD) LARGE DECIDUOUS - TRANSITIONAL SCREENING — 14
CATEGORY IV - DECIDUOUS TREE
3" - 3.5" Caliper at 250 SF Projected 10yr Tree Canopy
CATEGORY IV - DECIDUOUS TREE
Acer rubrum / Red Maple
Liriodendron tulipifera / Tulip Tree
Quercus alba / White Oak

(LE) LARGE EVERGREEN - TRANSITIONAL SCREENING — 16
CATEGORY IV - EVERGREEN TREE
3" - 3.5" Caliper at 175 SF Projected 10yr Tree Canopy
Picea abies / Norway Spruce
Pinus nigra / Austrian Black Pine

(ME) MEDIUM EVERGREEN - TRANSITIONAL SCREENING — 14
CATEGORY II - EVERGREEN TREE
3" - 3.5" Caliper at 125 SF Projected 10yr Tree Canopy
Cryptomeria japonica / Japanese Cedar
Ilex opaca / American Holly
Pseudotsuga menziesii / Douglas Fir

(CAT. IV) DECIDUOUS - RICHMOND HWY CORRIDOR* — 13
CATEGORY IV - DECIDUOUS TREES
*NO CANOPY COVER CONTRIBUTION
Platanus x acerifolia / London Plane Tree
Quercus phellos / Willow Oak
Quercus rubra / Red Oak

(CAT. III) DECIDUOUS - PLAZA TREE — 3
CATEGORY III - DECIDUOUS TREE
3" Caliper at 175 sf Projected 10 yr Tree Canopy
Betula nigra / River Birch
Gleditsia triacanthos inermis / Thornless Common Honeylocust
Koelreuteria paniculata / Golden Rain Tree
Prunus x yedoensis / Yoshino Cherry

(CAT. IV) DECIDUOUS - SITE TREES — 33
CATEGORY IV - DECIDUOUS TREE
3" - 3.5" Caliper at 250 SF Projected 10yr Tree Canopy
Acer rubrum `October Glory` TM / October Glory Maple
Platanus x acerifolia / London Plane Tree
Quercus phellos / Willow Oak
Ulmus parvifolia `Allee` / Allee Lacebark Elm

EVERGREEN SHRUB - TRANSITIONAL SCREENING — 104
Euonymus kiautschovicus `Manhattan` / Manhattan Euonymus
Ilex cornuta `Dwarf Burford` / Dwarf Burford Holly
Taxus x media / Dense Yew

LandDesign™
200 S. Peyton St., Alexandria, VA 22314
V: 703.549.7784 F: 703.549.4984
www.LandDesign.com

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
10/31/2013
LANDSCAPE ARCHITECT

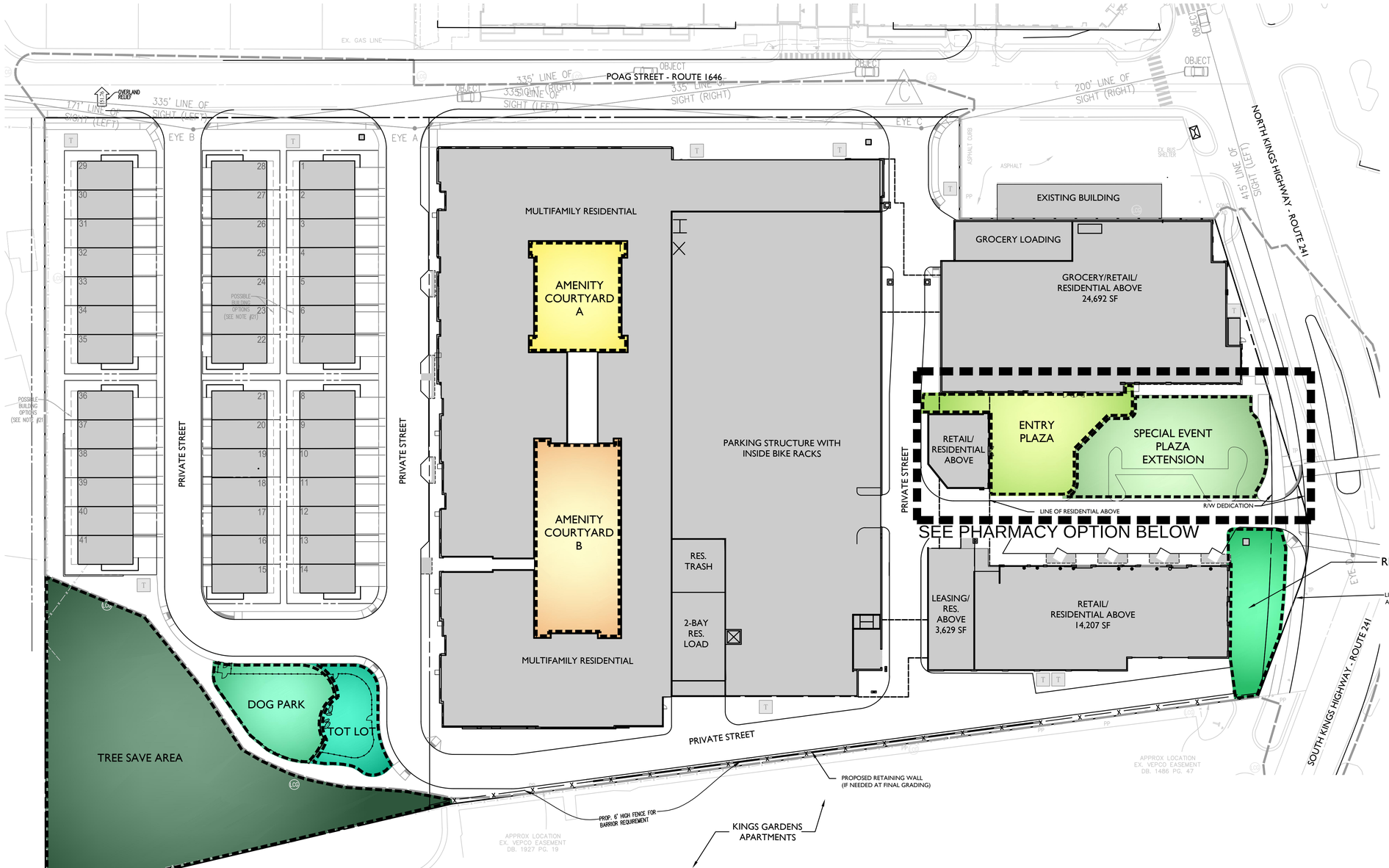
Penn Daw Plaza
CDP / FDP
Penn Daw Associates Limited Partnership
OVERALL LANDSCAPE PLAN

REVISIONS:
09/09/2013
09/19/2013
10/09/2013
10/17/2013
10/31/2013

DATE: 08/08/2013
DESIGNED BY: GC
DRAWN BY: JG / MB
CHECKED BY: GC
Q.C. BY:
SCALE: 1" = 40'
PROJECT #: 2013058

SHEET NUMBER:
L-1

Oct 29, 2013 - 3:55pm
G:\2013\2013058\Cad\Exhibits\Zoning Plans\CDP-FDP\3058-Overall Plan.dwg



URBAN PUBLIC PARKS SPACE

SYMBOL	NOTES	QTY
	DOG PARK	5,061 sf
	TOT LOT	3,500 sf
	ENTRY PLAZA	7,117 sf
	SPECIAL EVENT PLAZA EXTENSION	10,127 sf
	TREE SAVE AREA	33,192 sf

TOTAL: 58,997 sf

MULTIFAMILY BLDG OPEN SPACE

SYMBOL	NOTES	QTY
	AMENITY COURTYARD A MULTIFAMILY RESIDENTIAL INTERNAL COURTYARD	5,741 sf
	AMENITY COURTYARD B MULTIFAMILY RESIDENTIAL INTERNAL COURTYARD	9,608 sf

TOTAL: 15,349 sf

SITE DEVELOPMENT

SYMBOL	NOTES	QTY
	RETAIL OPEN SPACE	4,952 sf

TOTAL: 4,952 sf

NORTH

20' 0' 20' 40' 80'

LandDesign.
200 S. Peyton St., Alexandria, VA 22314
V: 703.549.7784 F: 703.549.9984
www.LandDesign.com

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
10/31/2013
LANDSCAPE ARCHITECT

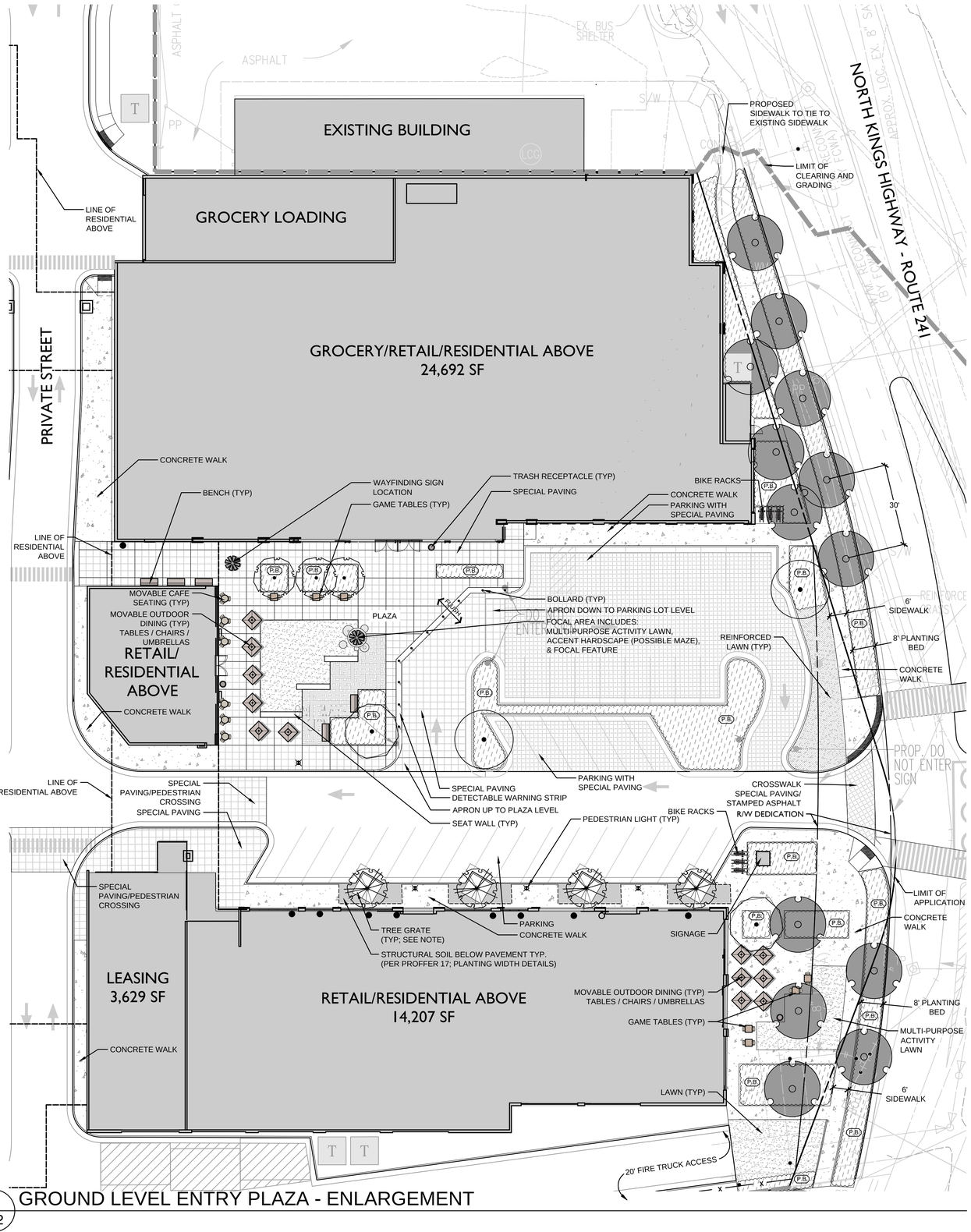
Penn Daw Plaza
CDP / FDP
Penn Daw Associates Limited Partnership
OVERALL OPEN SPACE PLAN

REVISIONS:
09/09/2013
09/19/2013
10/09/2013
10/17/2013
10/31/2013

DATE: 08/08/2013
DESIGNED BY: GC
DRAWN BY: G. KLG
CHECKED BY: GC
Q.C. BY:
SCALE: 1" = 40'
PROJECT #: 2013058

SHEET NUMBER:
L-1.1

Oct 29, 2013 - 3:55pm
G:\2013\2013058\Cad\Exhibits\Zoning Plans\CDP-FDP\
3058-Open Space Plan.dwg



1 L-2 GROUND LEVEL ENTRY PLAZA - ENLARGEMENT

TREE LAWN AND SIDEWALK ALONG ROADWAY

SPECIAL PAVING/CONCRETE PAVERS

SPECIAL PAVING/STAMPED ASPHALT

LAWN/FIRE ACCESS

SEAT WALL

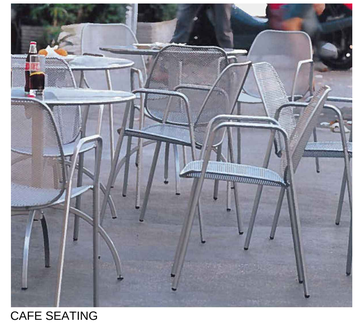
GAME TABLE

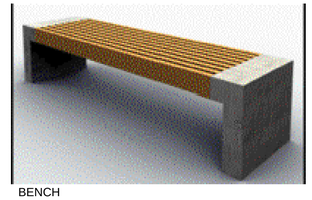
GAME TABLE

TREE GRATE

PLANTERS

OUTDOOR DINING


CAFE SEATING


BENCH

NOTE: FINAL TREE GRATE LOCATIONS TO BE DETERMINED AT SITE PLAN

BIKE RACK

FOCAL FEATURE CHARACTER

BOLLARD

TRASH RECEPTACLE

SPECIAL PAVING/BOLLARDS

FOCAL FEATURE CHARACTER

ENTRY COURTYARD

SYMBOL	DESCRIPTION
	CONCRETE WALK
	SPECIAL PAVING CONCRETE PAVERS
	STAMPED ASPHALT
P.B.	PLANTING BED MIGHT INCLUDE A COMBINATION OF: DECIDUOUS & EVERGREEN SHRUBS, ORNAMENTAL GRASSES AND/OR GROUNDCOVERS.
	LAWN
	AREA OF STRUCTURAL SOIL BELOW PAVEMENT FOR TREE ROOT ZONE

SYMBOL	DESCRIPTION
	BENCH
	MOVABLE CAFE SEATING
	MOVABLE OUTDOOR DINING TABLES / CHAIRS / UMBRELLA
	BOLLARD
	SPECIALTY ITEM / FOCAL FEATURE
	TRASH RECEPTACLE
	BIKE RACK
	PEDESTRIAN LIGHT

NORTH 10' 0' 10' 20' 40'

LandDesign
200 S. Peyton St., Alexandria, VA 22314
V: 703.549.7784 F: 703.549.9984
www.LandDesign.com

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
10/31/2013
LANDSCAPE ARCHITECT

Penn Daw Plaza
CDP / FDP
Penn Daw Associates Limited Partnership
ENLARGEMENT DETAIL PLANS - ENTRY PLAZA

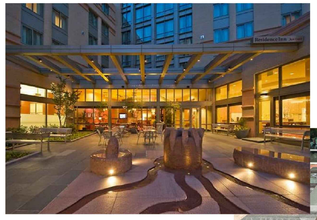
REVISIONS:
09/09/2013
09/19/2013
10/09/2013
10/17/2013
10/31/2013

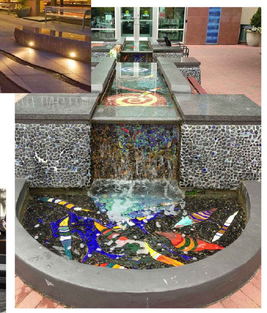
DATE: 08/08/2013
DESIGNED BY: GC
DRAWN BY: EG/KG
CHECKED BY: GC
Q.C. BY:
SCALE: 1" = 20'
PROJECT #: 2013058

SHEET NUMBER: L-2

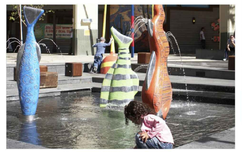
Oct 29, 2013 - 3:56pm
G:\2013\2013058\Cad\Exhibits\Zoning Plans\CDP-FDP\3058-Enlargment Plans.dwg

CLIMBABLE ART





WATER FEATURE



INTERACTIVE ART

LIGHTED SCULPTURE

ANIMATED SCULPTURE

INTERACTIVE SCULPTURE

LandDesign.
200 S. Peyton St., Alexandria, VA 22314
V: 703.549.7784 F: 703.549.9984
www.LandDesign.com

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
10/31/2013
LANDSCAPE ARCHITECT

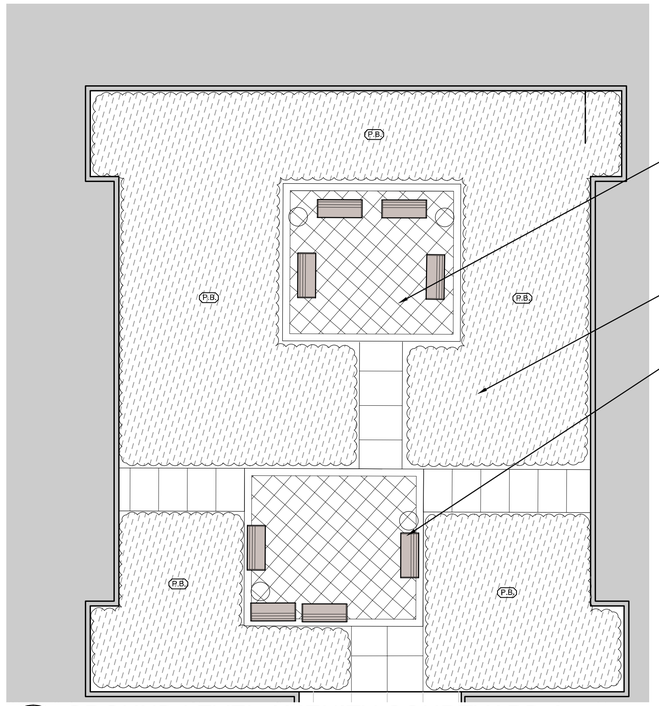
Penn Daw Plaza
CDP / FDP
Penn Daw Associates Limited Partnership
CHARACTER IMAGES - FOCAL FEATURE

REVISIONS:
09/09/2013
09/19/2013
10/09/2013
10/17/2013
10/31/2013

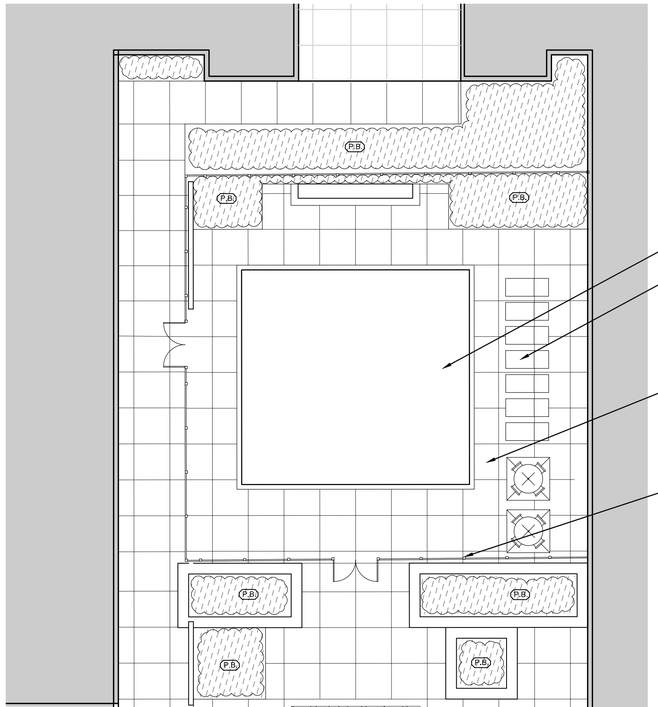
DATE: 08/08/2013
DESIGNED BY: GC
DRAWN BY: GC / GG
CHECKED BY: GC
Q.C. BY:
SCALE: 1" = 20'
PROJECT #: 2013058

SHEET NUMBER:
L-2.0

Oct 29, 2013 - 3:56pm
G:\2013\2013058\Cafe\Exhibits\Zoning Plans\CDP-FDP\
3058-Enlargment Plans.dwg

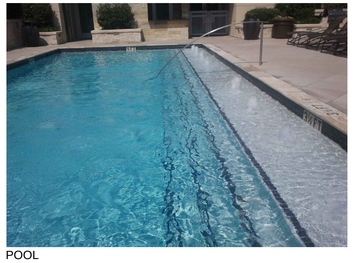


1 L-2.1 GROUND LEVEL AMENITY COURTYARD A ENLARGEMENT



2 L-2.1 GROUND LEVEL AMENITY COURTYARD B ENLARGEMENT

OVERALL COURTYARD


POOL

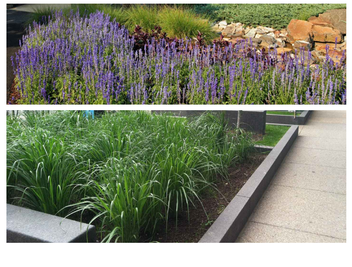
SPECIAL PAVING/CONCRETE PAVERS

OUTDOOR DINING

OUTDOOR GRILL

OUTDOOR FIREPLACE

LANDSCAPING/SEASONAL INTEREST



PLANTERS

TRASH RECEPTACLE

LEGEND

SYMBOL	DESCRIPTION
P.B.	PLANTING BED MIGHT INCLUDE A COMBINATION OF: DECIDUOUS & EVERGREEN SHRUBS, ORNAMENTAL GRASSES AND/OR GROUNDCOVERS.

NORTH 5' 0' 5' 10' 20'

LandDesign.
200 S. Peyton St., Alexandria, VA 22314
V: 703.549.7784 F: 703.549.9984
www.LandDesign.com

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
10/31/2013
LANDSCAPE ARCHITECT

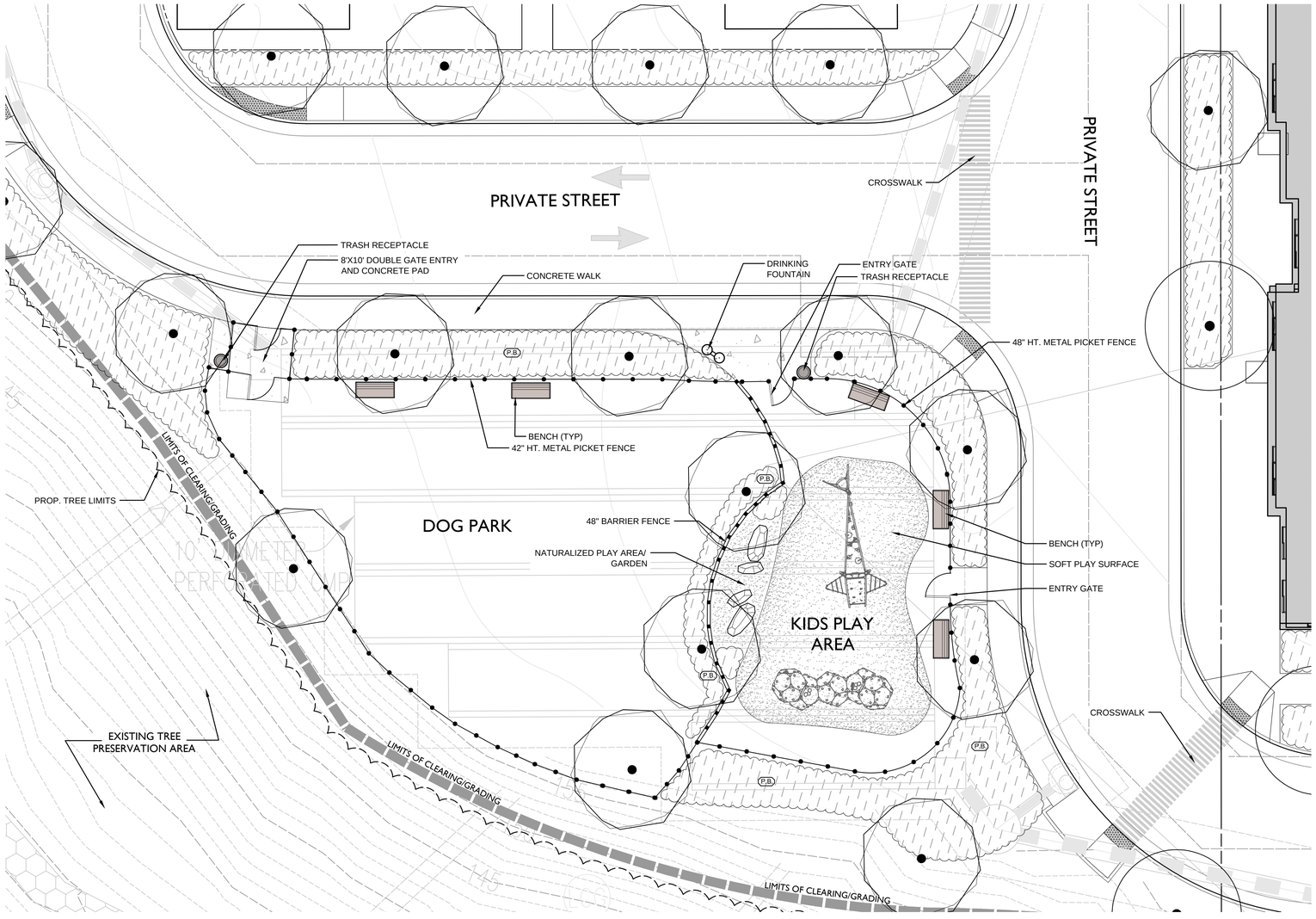
Penn Daw Plaza
CDP / FDP
Penn Daw Associates Limited Partnership
ENLARGEMENT DETAIL PLANS - AMENITY COURTYARDS

REVISIONS:
09/09/2013
09/19/2013
10/09/2013
10/17/2013
10/31/2013

DATE: 08/08/2013
DESIGNED BY: GC
DRAWN BY: GC/CG
CHECKED BY: GC
Q.C. BY:
SCALE: 1" = 10'
PROJECT #: 20 3058

SHEET NUMBER: L-2.1

Oct 29, 2013 - 3:56pm
G:\2013\20\3058\Cad\Exhibits\Zoning Plans\CDP-FDP\
3058-Enlargment Plans.dwg



1 L-2.1A DOG PARK & TOT LOT - ENLARGEMENT

NATURALIZED PLAY AREA/GARDEN

NATURALIZED PLAY AREA/GARDEN

DOG PARK

DOG STATION

KIDS PLAY AREA

DUAL DRINKING FOUNTAIN

48" BARRIER FENCE

DOG PARK & TOT LOT

SYMBOL	DESCRIPTION
	CONCRETE WALK
P.B.	PLANTING BED MIGHT INCLUDE A COMBINATION OF: DECIDUOUS & EVERGREEN SHRUBS, ORNAMENTAL GRASSES AND/OR GROUNDCOVERS.

SYMBOL	DESCRIPTION
	BENCH
	TRASH RECEPTACLE
	DRINKING FOUNTAIN

NORTH 5' 0' 5' 10' 20'

LandDesign
200 S. Peyton St., Alexandria, VA 22314
V: 703.549.7784 F: 703.549.9984
www.LandDesign.com

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
10/31/2013
LANDSCAPE ARCHITECT

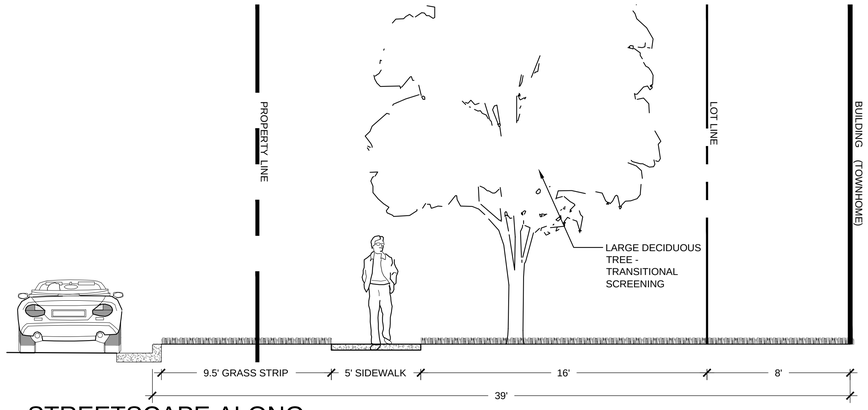
Penn Daw Plaza
CDP / FDP
Penn Daw Associates Limited Partnership
ENLARGEMENT DETAIL PLANS - DOG PARK AND TOT LOT

REVISIONS:
09/09/2013
09/19/2013
10/09/2013
10/17/2013
10/31/2013

DATE: 08/08/2013
DESIGNED BY: GC
DRAWN BY: C KG
CHECKED BY: GC
Q.C. BY:
SCALE: 1" = 10'
PROJECT #: 2013058

SHEET NUMBER: L-2.1A

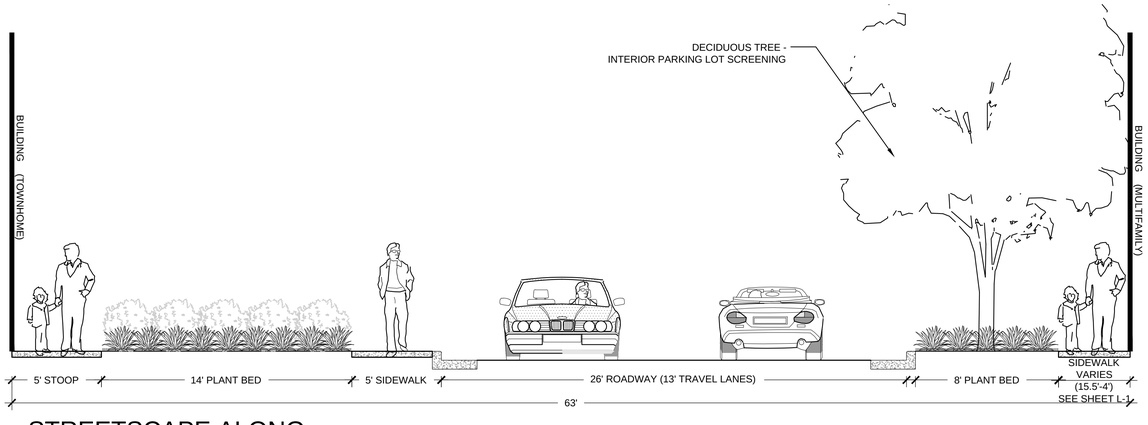
Oct 29, 2013 - 3:57pm
G:\2013\2013058\Cad\Exhibits\Zoning Plans\CDP-FDP\
3058-Enlargment Plans.dwg



1 L-2.2 SECTION

STREETSCAPE ALONG POAG ST. AT TOWNHOMES

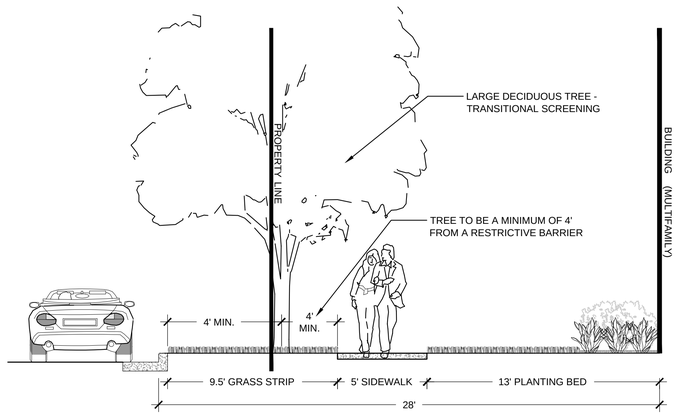
1/4"=1'-0"



4 L-2.2 SECTION

STREETSCAPE ALONG PRIVATE STREET AT STREET TREE AT TOWNHOMES & RESIDENTIAL BUILDING

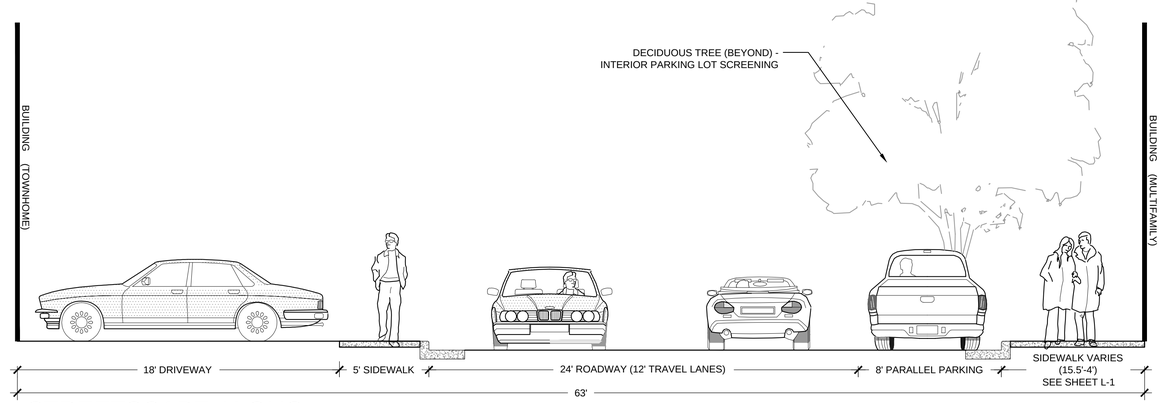
1/4"=1'-0"



2 L-2.2 SECTION

STREETSCAPE ALONG POAG ST. AT RESIDENTIAL BUILDING

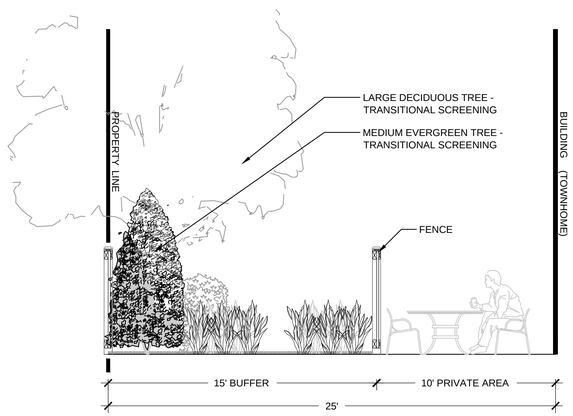
1/4"=1'-0"



5 L-2.2 SECTION

STREETSCAPE ALONG PRIVATE STREET WITH ON ST. PARKING AT TOWNHOMES & RESIDENTIAL BUILDING

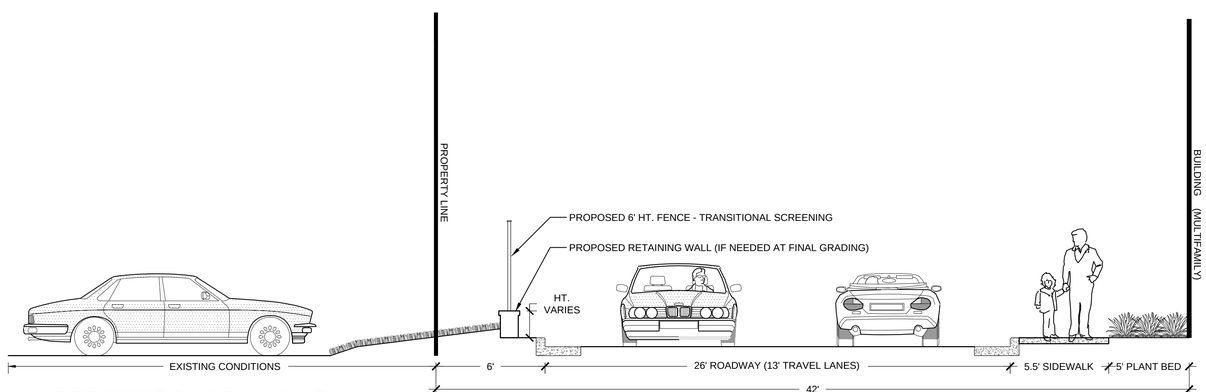
1/4"=1'-0"



3 L-2.2 SECTION

WESTERN PROPERTY LINE TRANSITIONAL SCREENING BUFFER AT TOWNHOMES

1/4"=1'-0"



6 L-2.2 SECTION

STREETSCAPE ALONG PRIVATE DRIVE / FIRELANE AT RESIDENTIAL BUILDING

1/4"=1'-0"

LandDesign.
200 S. Peyton St., Alexandria, VA 22314
V: 703.549.7784 F: 703.549.9984
www.LandDesign.com

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
10/31/2013
LANDSCAPE ARCHITECT

Penn Daw Plaza

CDP / FDP

Penn Daw Associates Limited Partnership

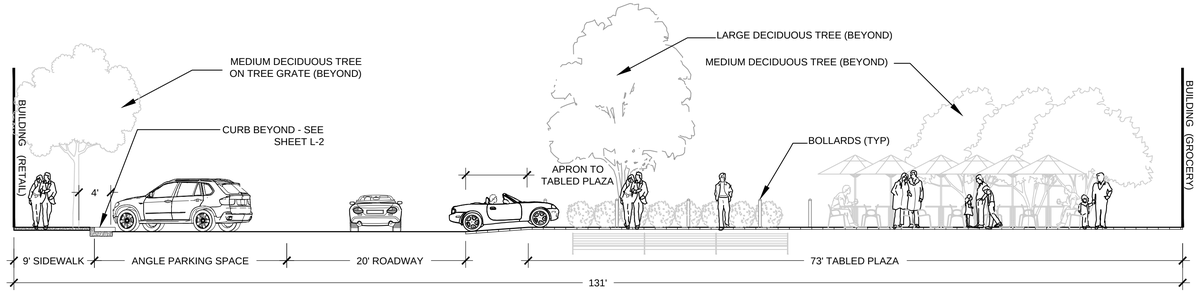
SECTIONS

REVISIONS:
09/09/2013
09/19/2013
10/09/2013
10/17/2013
10/31/2013

DATE: 08/08/2013
DESIGNED BY: GC
DRAWN BY: KG
CHECKED BY: GC
Q.C. BY:
SCALE: AS NOTED
PROJECT #: 2013058

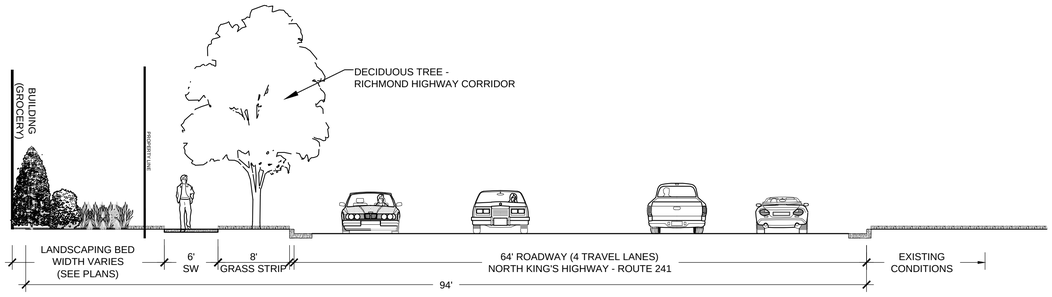
SHEET NUMBER: L-2.2

Oct 29, 2013 - 3:57pm
G:\2013\2013058\Cad\Exhibits\Zoning Plans\CDP-FDP\
3058-Sections.dwg



1 L-2.3 SECTION — RETAIL PLAZA LOOKING NORTHWEST

1/8"=1'-0"



2 L-2.3 SECTION — STREETSCAPE ALONG KING`S HIGHWAY LOOKING NORTHEAST

1/8"=1'-0"

LandDesign.
200 S. Peyton St., Alexandria, VA 22314
V: 703.549.7784 F: 703.549.9984
www.LandDesign.com

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
10/31/2013
LANDSCAPE ARCHITECT

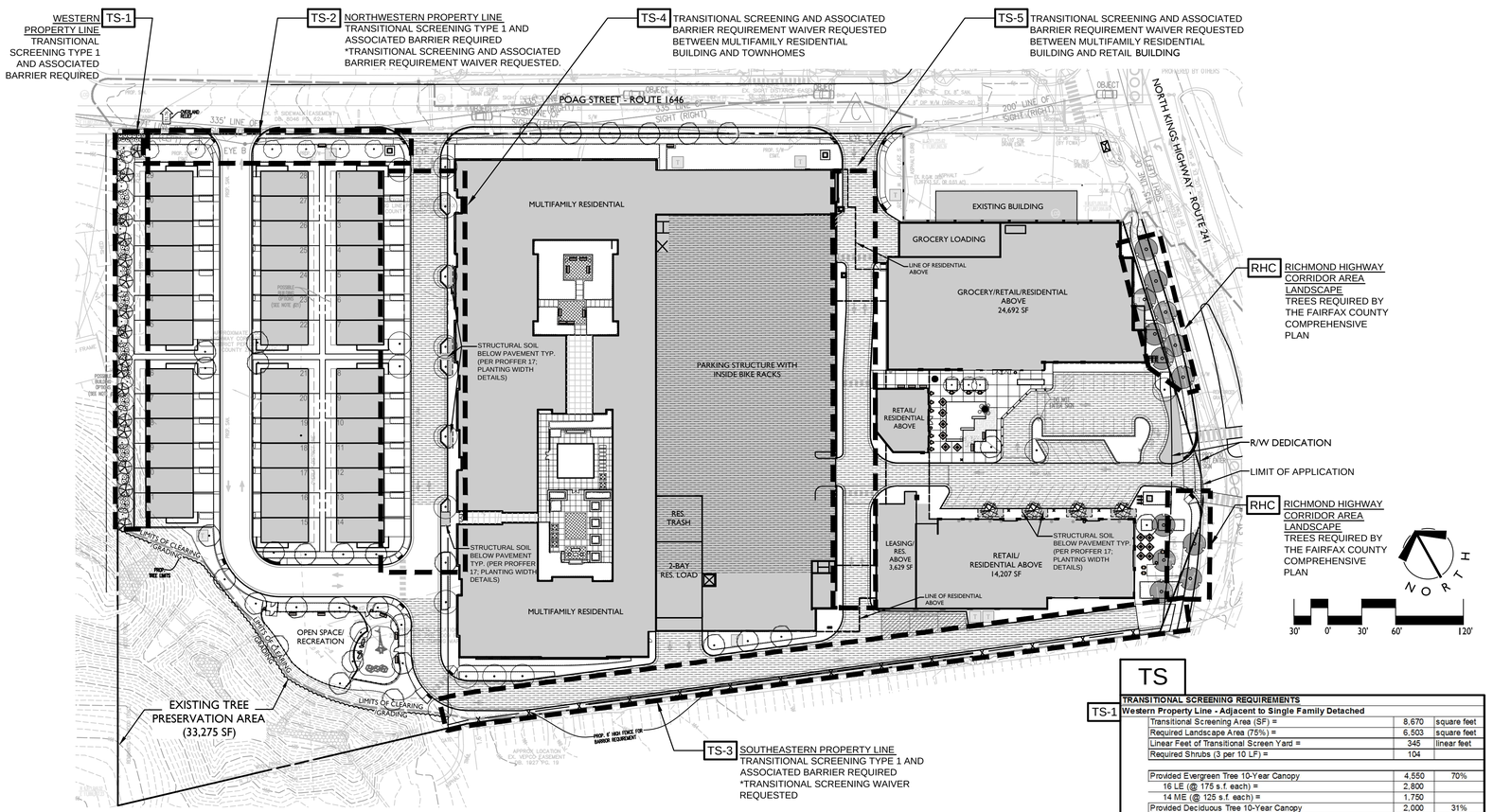
Penn Daw Plaza
CDP / FDP
Penn Daw Associates Limited Partnership
SECTIONS

REVISIONS:
09/09/2013
09/19/2013
10/09/2013
10/17/2013
10/31/2013

DATE: 08/08/2013
DESIGNED BY: GC
DRAWN BY: KG
CHECKED BY: GC
Q.C. BY:
SCALE: AS NOTED
PROJECT #: 201308

SHEET NUMBER:
L-2.3

Oct 29, 2013 - 3:57pm
G:\2013\201308\Cad\Exhibits\Zoning Plans\CDP-FDP\
3058-Sections.dwg



OVERALL TREE CALCS

FOR PROJECTED 10 YR. TREE COVER CANOPY CALCULATIONS

PLANT SCHEDULE			
QTY	CATEGORY	AREA PER TREE (sf)	TOTAL (SF)
TRANSITIONAL SCREENING			
14	TYPE IV DECIDUOUS TREES	250	3,500
16	TYPE IV EVERGREEN TREES	175	2,800
14	TYPE II EVERGREEN TREES	125	1,750
104	SHRUBS		
INTERIOR PARKING LOT LANDSCAPING			
17	TYPE IV DECIDUOUS TREES	250	4,250
4	TYPE IV DECIDUOUS TREES	175	700
ADDITIONAL PLANTINGS			
33	TYPE IV DECIDUOUS TREES	250	8,250
3	TYPE III DECIDUOUS TREES	175	525
0	TYPE I EVERGREEN TREES	75	0
205			**21,775**

Note: Trees shaded in gray are NOT included in the above chart and will not be counted in Table 12.10 10-Year Tree Canopy Calculations Worksheet

NOTES:

1. TREES SHADED IN GRAY ARE NOT INCLUDED IN TABLE 12.10 10-YEAR TREE CANOPY CALCULATION WORKSHEET.

Table 12.10 10-Year Tree Canopy Calculation Worksheet

Step		Totals	Reference
A. Tree Preservation Target Calculations and Statement			
AA	Pre-development area of existing tree canopy (from exisiting vegetation map)(SF) =	82,764	see § 12-0507.2
AB	Percentage of gross site area covered by existing tree canopy =	18.2%	
AC	Percentage of 10-year tree canopy required for site =	10.0%	see Table 12.4
AD	Percentage of the 10-year tree canopy requirement that should be met through tree preservation =	18.2%	
AE	Proposed percentage of canopy requirement that will be met through tree preservation =	91.5%	
AF	Has the Tree Preservation Target minimum been met?	Yes	Provide Yes or No
AG	If No for line A 6, 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 T		Provide sheet number, see § 12-0507.3
AH	If step A 7 requires a narrative, it shall be prepared in accordance with § 12-0507.4	–	see § 12-0507.4
B. Tree Canopy Requirement			
B1	Identify gross site area (SF) =	454,727	§ 12-0510.1A
B2	Subtract area dedicated to parks, road frontage(SF) =	0	§ 12-0510.1B
B3	Subtract area of exemptions(SF) =	0	§ 12-0510.1C(1) through § 12-0510.1C(6)
B4	Adjusted gross site area (B1-B2 B3)(SF) =	454,727	Square feet
B5	Identify the site's zoning and/or use	PDH	
B6	Percentage of 10-year tree canopy required =	10.0%	§ 12-0509.1 and Table 12.4
B7	Area of 10-year Tree Canopy Required (B4 x B6)(SF) =	45,473	Square feet
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			
C 1	Tree Preservation Target Area(SF) =	8,276	Square Feet
C 2	Total canopy area meeting standards of § 12-0400 (SF) =	33,275	Square Feet
C 3	C 2 x 1.25(SF) =	41,594	§ 12-0509.3B
C 4	Total canopy area provided by unique or valuable forest or woodland communities(SF) =	0	Square Feet
C 5	C 4 x 1.5(SF) =	0	§ 12-0509.3B(1)
C 6	total of canopy area provided by "Heritage," "Memorial," "Specimen," or "Street" trees (SF) =	0	Square Feet
C 7	C 6 x 1.5 to 3.0 (SF)=	0	§ 12-0509.3B(2)
C 8	Canopy area of trees within resource Protection Areas and 100-year floodplains (SF) =	0	Square Feet
C 9	C 8 x 1.0 (SF) =	0	§ 12-0509.3C(1)
C 10	Total of C 3, C 5, C 7 and C 9 =	41,594	If area of C 10 is less than B 7 remainder of requirement must be met through tree planting - go to D
D. Tree Planting			
D 1	Area of canopy to be met through tree planting (B 7-C10) =	3,879	Square feet
D 2	Area of canopy planted for air quality benefits =	0	Square feet
D 3	D 2 x 1.5 (SF) =	0	§ 12-0509.4B(1)
D 4	Area of canopy planted for energy conservation =	0	Square feet
D 5	D 4 x 1.5 (SF) =	0	§ 12-0509.4B(2)
D 6	Area of canopy planted for water quality benefits =	0	Square feet
D 7	D 6 x 1.25 (SF) =	0	§ 12-0509.4B(3)
D 8	Area of canopy planted for wildlife benefits =	0	Square feet
D 9	D 8 x 1.5 (SF) =	0	§ 12-0509.4B(4)
D 10	Area of canopy provided by native trees =	0	Square feet
D 11	D 10 x 1.5 (SF) =	0	§ 12-0509.4B(5)
D 12	Area of canopy provided by improved cultivars and varieties =	0	Square feet
D 13	D 12 x 1.25 (SF) =	0	§ 12-0509.4B(6)
D 14	Area of canopy provided through tree seedlings (SF) =	0	§ 12-0509.4D(1)(a)
D 15	D 14 x 1.0 =	0	Square feet
D 16	Percentage of D 14 represented by D 15 =	0	Must not exceed 33% of D 14
D 17	Area of canopy to be planted with no benefit credits =	21,775	Square feet
D 18	Total of canopy area provided through tree planting =	21,775	Square feet
D 19	Is an offsite planting relief requested?	No	Yes or No
D 20	Tree Bank or Tree Fund?	No	Yes or No § 12-0511
D 21	Canopy area requested to be provided through offsite banking or tree fund =	No	Square feet
D 22	Amount to be deposited into the Tree Preservation and Planting Fund =	No	
E. Total of 10-year Tree Canopy Provided			
E 1	Total of canopy area provided through tree preservation (C 10) =	41,594	Square feet
E 2	Total of canopy area provided through tree planting (D 18) =	21,775	Square feet
E 3	Total of canopy area provided through offsite mechanism (D 21) =	0	Square feet
E 4	Total of 10-year Tree Canopy Provided (SF)=	63,369	Total of E 1 through E 3, area should meet or exceed area in B 7

GROSS SITE AREA: 454,727 SF

AREA OF 10-YEAR TREE CANOPY REQUIRED: 45,473 SF
(10% OF GROSS SITE AREA)

TOTAL TREE COVER PROVIDED BY PLANTING: 63,369 SF (EXCEEDS TREE CANOPY REQUIREMENT BY 39%)

OVERALL TREE PLAN SCHEDULE

IPLS — INTERIOR PARKING LOT SCREENING

(CAT. IV) DECIDUOUS - INTERIOR PARKING LOT SCREENING — 17
CATEGORY IV - DECIDUOUS TREE
4" min. Caliper at 300 SF Projected 10yr Tree Canopy
Acer rubrum / Red Maple
Quercus phellos / Willow Oak
Ulmus parvifolia / Chinese Elm
Zelkova serrata / Sawleaf Zelkova

(CAT. III) DECIDUOUS - INTERIOR PARKING LOT SCREENING — 4
CATEGORY III - DECIDUOUS TREE
3" Caliper at 175 sf Projected 10 yr Tree Canopy
Gleditsia triacanthos / Honey Locust

TS — TRANSITIONAL SCREENING

(LD) LARGE DECIDUOUS - TRANSITIONAL SCREENING — 14
CATEGORY IV - DECIDUOUS TREE
3" - 3.5" Caliper at 250 SF Projected 10yr Tree Canopy
CATEGORY IV - DECIDUOUS TREE
Acer rubrum / Red Maple
Liriodendron tulipifera / Tulip Tree
Quercus alba / White Oak

(LE) LARGE EVERGREEN - TRANSITIONAL SCREENING — 16
CATEGORY IV - EVERGREEN TREE
3" - 3.5" Caliper at 175 SF Projected 10yr Tree Canopy
Picea abies / Norway Spruce
Pinus nigra / Austrian Black Pine

(ME) MEDIUM EVERGREEN - TRANSITIONAL SCREENING — 14
CATEGORY II - EVERGREEN TREE
3" - 3.5" Caliper at 125 SF Projected 10yr Tree Canopy
Cryptomeria japonica / Japanese Cedar
Ilex opaca / American Holly
Pseudotsuga menziesii / Douglas Fir

RHC — RICHMOND HWY CORRIDOR

(CAT. IV) DECIDUOUS - RICHMOND HWY CORRIDOR* — 13
CATEGORY IV - DECIDUOUS TREES
*NO CANOPY COVER CONTRIBUTION
Platanus x acerifolia / London Plane Tree
Quercus phellos / Willow Oak
Quercus rubra / Red Oak

TS — TRANSITIONAL SCREENING

(CAT. III) DECIDUOUS - PLAZA TREE — 3
CATEGORY III - DECIDUOUS TREE
3" Caliper at 175 sf Projected 10 yr Tree Canopy
Betula nigra / River Birch
Gleditsia triacanthos inermis / Thornless Common Honeylocust
Koelreuteria paniculata / Golden Rain Tree
Prunus x yedoensis / Yoshino Cherry

(CAT. IV) DECIDUOUS - SITE TREES — 33
CATEGORY IV - DECIDUOUS TREE
3" - 3.5" Caliper at 250 SF Projected 10yr Tree Canopy
Acer rubrum `October Glory` TM / October Glory Maple
Platanus x acerifolia / London Plane Tree
Quercus phellos / Willow Oak
Ulmus parvifolia `Allee` / Allee Lacebark Elm

EVERGREEN SHRUB - TRANSITIONAL SCREENING — 104
Euonymus kiautschovicus `Manhattan` / Manhattan Euonymus
Ilex cornuta `Dwarf Burford` / Dwarf Burford Holly
Taxus x media / Dense Yew

SYMBOL	DESCRIPTION	AREA
IPLS	INTERIOR PARKING LOT SURFACE:	110,716 SF

INTERIOR PARKING LOT LANDSCAPING CALCULATIONS (Table 12.13)

		Remarks
Area to be counted (SF) =	110,716	square feet
Interior Landscaping Required (5%) =	5,536	square feet
17 Category IV Decidous Trees - 4" cal. (@ 300 ft²) ea.) =	5,100	
4 Category III Decidous Trees - 3" cal. (@ 175 ft²) ea.) =	700	
Total Area Required (SF) =	5,536	5%
Total Area Provided (SF)=	5,800	5%

RHC — TABLE INTENT TO SHOW TREES REQUIRED BY THE FAIRFAX COUNTY COMPREHENSIVE PLAN

RICHMOND HIGHWAY CORRIDOR AREA LANDSCAPE

	REQUIRED		
	Frontage (LF) =	382	linear feet
	1 Large Deciduous @ 1 per 30 LF =	13	
or	1 Small or Medium Deciduous @ 1 per 25 LF	16	
	PROVIDED		
	13 Category IV Deciduous Trees		
	1 Large Deciduous @ 1 per 30 LF =	13	
or	1 Small or Medium Deciduous @ 1 per 25 LF	0	

TS — TRANSITIONAL SCREENING

TS-1

TRANSITIONAL SCREENING REQUIREMENTS		
Western Property Line - Adjacent to Single Family Detached		
Transitional Screening Area (SF) =	8,670	square feet
Required Landscape Area (75%) =	6,503	square feet
Linear Feet of Transitional Screen Yard =	345	linear feet
Required Shrubs (3 per 10 LF) =	104	
Provided Evergreen Tree 10-Year Canopy	4,550	70%
16 LE (@ 175 s.f. each) =	2,800	
14 ME (@ 125 s.f. each) =	1,750	
Provided Deciduous Tree 10-Year Canopy	2,000	31%
8 LD (@ 250 s.f. each) =	2,000	
Total Provided Transition Yard Landscaping(SF) =	6,550	square feet
Provided Shrubs =	104	

TS-2

Northwestern Property Line - Adjacent to Single Family Detached		
Transitional Screening Area (SF) =	5,835	square feet
Required Landscape Area (75%) =	4,376	square feet
Linear Feet of Transitional Screen Yard =	235	linear feet
Required Shrubs (3 per 10 LF) =	71	
Provided Evergreen Tree 10-Year Canopy	0	0%
0 LE (@ 175 s.f. each) =	0	
0 ME (@ 125 s.f. each) =	0	
Provided Deciduous Tree 10-Year Canopy	1,500	34%
6 LD (@ 250 s.f. each) =	1,500	
Total Provided Transition Yard Landscaping(SF) =	1,500	square feet
Provided Shrubs =	0	
*Barrier requirement waiver requested.		

TS-3

Southeastern Property Line - Adjacent to Multi-Family		
Transitional Screening Area (SF) =	16,625	square feet
Required Landscape Area (75%) =	12,469	square feet
Linear Feet of Transitional Screen Yard =	665	linear feet
Required Shrubs (3 per 10 LF) =	200	
Provided Evergreen Tree 10-Year Canopy	0	0%
0 LE (@ 175 s.f. each) =	0	
0 ME (@ 125 s.f. each) =	0	
Provided Deciduous Tree 10-Year Canopy	0	0%
0 LD (@ 250 s.f. each) =	0	
Total Provided Transition Yard Landscaping(SF) =	0	square feet
Provided Shrubs =	0	
*Transitional screening and associated barrier requirement waiver requested.		

TS-4

Area Between Multifamily Residential Building and Townhomes		
Transitional Screening Area (SF) =	8,375	square feet
Required Landscape Area (75%) =	6,281	square feet
Linear Feet of Transitional Screen Yard =	335	linear feet
Required Shrubs (3 per 10 LF) =	101	
Provided Evergreen Tree 10-Year Canopy	0	0%
0 LE (@ 175 s.f. each) =	0	
0 ME (@ 125 s.f. each) =	0	
Provided Deciduous Tree 10-Year Canopy	0	0%
0 LD (@ 250 s.f. each) =	0	
Total Provided Transition Yard Landscaping(SF) =	0	square feet
Provided Shrubs =	0	
*Transitional screening and associated barrier requirement waiver requested.		

TS-5

Area Between Multifamily Residential Building and Retail Building		
Transitional Screening Area (SF) =	9,625	square feet
Required Landscape Area (75%) =	7,219	square feet
Linear Feet of Transitional Screen Yard =	385	linear feet
Required Shrubs (3 per 10 LF) =	116	
Provided Evergreen Tree 10-Year Canopy	0	0%
0 LE (@ 175 s.f. each) =	0	
0 ME (@ 125 s.f. each) =	0	
Provided Deciduous Tree 10-Year Canopy	0	0%
0 LD (@ 250 s.f. each) =	0	
Total Provided Transition Yard Landscaping(SF) =	0	square feet
Provided Shrubs =	0	
*Transitional screening and associated barrier requirement waiver requested.		

LandDesign
200 S. Peyton St., Alexandria, VA 22314
V: 703.549.7784 F: 703.549.9984
www.LandDesign.com

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
10/31/2013
LANDSCAPE ARCHITECT

Penn Daw Plaza
CDP / FDP
Penn Daw Associates Limited Partnership
LANDSCAPE CALCULATIONS

REVISIONS:
09/09/2013
09/19/2013
10/03/2013
10/17/2013
10/31/2013

DATE: 08/08/2013
DESIGNED BY: CC
DRAWN BY: C. NIB
CHECKED BY: GC
Q.C. BY:
SCALE: 1" = 60'
PROJECT #: 2013058

SHEET NUMBER:
L-3

Oct 29, 2013 - 3:57pm
G:\2013\2013058\CadExhibits\Zoning Plans\CDP-FDP\
3058-Landscape Calculations.dwg

1.0 GENERAL NOTES:

1.1 THIS SHEET IS FOR PLANTING ONLY.

1.2 UTILITIES: THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS, AND NOTIFY MISS UTILITY OR EQUIVALENT UTILITY LOCATION COMPANY OF THE PROPOSED CONSTRUCTION. IN ADDITION, THE CONTRACTOR IS TO BE NOTIFIED WHICH UTILITIES, INCLUDING STORM AND SANITARY SEWERS ARE LOCATED IN THE VICINITY OF THE PROPOSED WORK. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND STAKING THE LOCATION OF ALL EXISTING UTILITIES AND PROTECTING THEM DURING THE WORK AND SHALL BEAR ANY COSTS TO REPAIR UTILITIES DAMAGED AS A CONSEQUENCE OF HIS WORK.

1.3 REQUIREMENTS: ALL WORK SHALL MEET OR EXCEED THE REQUIREMENTS OF ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, ORDINANCES AND REQUIREMENTS.

1.4 PROTECTION OF EXISTING WORK: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL WORK IN A MANNER THAT PROTECTS COMPLETED WORK BY OTHERS, SUCH AS CURBS, UTILITIES, STORM DRAINAGE, FENCES, DRIVEWAY APRONS, DRIVES, VEGETATION, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF SATISFACTORY REPAIR OF ALL DAMAGE IN KIND RESULTING FROM HIS FAILURE TO COMPLY.

1.5 APPLICABLE STANDARDS: ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT. THE OWNER SHALL RECEIVE TAGS FROM EACH PLANT SPECIES AND A LIST OF PLANT SUPPLIERS . WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL MEET THE NORMAL REQUIREMENTS FOR THE VARIETY OR CULTIVAR PER THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN). PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT.

1.6 SUBSTITUTIONS: NO SUBSTITUTIONS OF PRODUCTS, PLANT TYPES OR SIZES SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE OWNER, LANDSCAPE ARCHITECT AND COUNTY REVIEW AGENCY. REQUESTS FOR SUBSTITUTION SHALL BE IN WRITING, AND SHALL STATE THE REASONS FOR THE SUBSTITUTION REQUEST, THE SUGGESTED ALTERNATIVE, AND THE CHANGES IN COST. REQUESTS FOR SUBSTITUTION IN PLANT MATERIALS SHALL STATE THE NAMES OF NURSERIES WHO HAVE BEEN UNABLE TO SUPPLY THE ORIGINALLY SPECIFIED MATERIAL.

1.7 QUANTITIES: QUANTITIES OF PLANTS AS SHOWN BY PLANT SYMBOLS ON THE PLAN SHALL GOVERN OVER THE QUANTITIES SHOWN IN THE PLANT LIST. THE CONTRACTOR IS TO VERIFY PLANT LIST TOTALS WITH QUANTITIES SHOWN ON PLAN. THE LANDSCAPE ARCHITECT SHALL BE ALERTED BY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO FINAL BID NEGOTIATION.

1.8 PLANTING SEASON: PLANTING SHALL ONLY OCCUR DURING SPECIFIED PLANTING SEASONS. SPRING SEASON SHALL BE FROM MARCH 1 TO JUNE 15. FALL PLANTING SEASON SHALL BE FROM SEPTEMBER 15 THROUGH NOVEMBER 15. NO PLANTING SHALL OCCUR WHEN THE GROUND IS FROZEN.

1.9 GUARANTEE: THE CONTRACTOR SHALL GUARANTEE ALL LANDSCAPE IMPROVEMENTS, INCLUDING SEEDING, FOR ONE FULL YEAR AS REQUIRED BY THE SPECIFICATIONS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL PLANT MAINTENANCE DURING THE GUARANTEE PERIOD.

1.10 DEAD PLANTS: DEAD PLANTS ARE TO BE REMOVED FROM THE SITE IMMEDIATELY, REGARDLESS OF SEASON, WEEKLY FROM THE JOB BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN AN UPDATED, COMPREHENSIVE LIST OF ALL DEAD MATERIALS REMOVED AND PRESENT A COPY OF THE LIST TO THE OWNER AT THE END OF EVERY MONTH DURING THE CONTRACT PERIOD.

1.11 PLANT MATERIAL REMOVAL: NO EXISTING TREES SHALL BE REMOVED WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER EXCEPT WHERE NOTED ON PLANS. NO GRUBBING SHALL OCCUR WITHIN EXISTING TREE AREAS UNLESS SPECIFICALLY NOTED ON PLANS.

1.12 PLANT COSTS: INSTALLED UNIT PRICES FOR ALL PLANT MATERIALS SHALL BE SUPPLIED TO THE OWNER AND LANDSCAPE ARCHITECT AT THE BIDDING TIME.

2.0 MATERIALS:

2.1 SOIL AMENDMENTS SHALL BE APPLIED ANNUALLY ACCORDING TO THE FOLLOWING CHART:

TREES:

SOIL AMENDMENTS ------- RATE---------- SIZE OR SQ.FT.
10-6-4 FERTILIZER ---- 10 LBS ------------ 1,000 SQ.FT.

SHRUBS:

SOIL AMENDMENTS ------- RATE---------- SIZE OR SQ.FT.
10-6-4 FERTILIZER ---- 5 LBS ---------- 100 SQ.FT.

PERENNIALS & GROUNDCOVERS:

SOIL AMENDMENTS ------- RATE---------- SIZE OR SQ.FT.
14-14-14 FERTILIZER -- 3 LBS ---------- 100 SQ.FT.
COMPOST ------------ 3 YARDS ---------- 1,000 SQ.FT.

SEASONAL COLOR: SUMMER ANNUAL BED PREPARATION

SOIL AMENDMENTS ------- RATE---------- SIZE OR SQ.FT.
14-14-14 FERTILIZER -- 3 LBS ---------- 100 SQ.FT.
COMPOST ------------ 1.5 YARDS ---------- 1,000 SQ.FT.

SEASONAL COLOR: FALL PANSY BED PREPARATION

SOIL AMENDMENTS ------- RATE---------- SIZE OR SQ.FT.
14-14-14 FERTILIZER -- 3 LBS ---------- 100 SQ.FT.
COMPOST ------------ 1.5 YARDS ---------- 1,000 SQ.FT.

CONTAINERS / POTS:

SOIL AMENDMENTS ------- RATE---------- SIZE OR SQ.FT.
14-14-14 FERTILIZER -- 3 LBS ---------- 100 SQ.FT.

2.2 PLANTS: ALL PLANTS WILL BE NURSERY GROWN. THEY SHALL BE TYPICAL OF THEIR SPECIES, CULTIVAR OR VARIETY. THEY SHALL BE SOUND, HEALTHY, AND VIGOROUS, AND SHALL BE FREE OF DISEASE AND ANY EVIDENCE OF INSECTS. IF IN LEAF, THEY SHALL BE DENSELY FOLIATED, WITHOUT LEAF SPOTS, DISCOLORATION, CURL, WILTING, CHLOROSIS OR DAMAGE. THEY SHALL HAVE HEALTHY, WELL-DEVELOPED ROOT SYSTEMS. UNLESS SPECIFIED ON THE PLANT LIST, TREES WITH BROKEN, CROOKED OR MULTIPLE LEADERS WILL NOT BE ACCEPTED. TREES WILL BE REJECTED IF THEY HAVE BARK ABRASIONS, SUN SCALD DAMAGE, DISFIGURING KNOTS OR PRUNING CUTS MORE THAN 1-1/4 INCHES IN DIAMETER WHICH HAVE NOT COMPLETELY GROWN OVER.

2.3 BALLED AND BURLAPPED (B&B) MATERIAL: BALLED AND BURLAPPED PLANTS SHALL BE DUG WITH FIRM NATURAL BALLS OF EARTH, OF DIAMETER AND DEPTH TO INCLUDE MOST OF THE FIBROUS ROOTS, AND MEET THE MINIMUM AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS, LATEST EDITION. ROOT BALLS OF PLANTS SHALL BE ADEQUATELY PROTECTED AT ALL TIMES FROM SUN AND DRYING WINDS OR FROST.

2.4 CONTAINER GROWN MATERIAL: ROOTBALL MASS WHICH IS LOOSE WITHIN CONTAINER, OR WHICH IS SMALLER THAN THE CONTAINER WHEN REMOVED, SHALL BE REJECTED. PEAT OR FIBER POTTED PLANTS SHALL BE ROOTED THROUGH ALL SIDES AND BOTTOM OF THE POTS.

2.5 DORMANT PROPAGULES: (RHIZOMES, TUBERS, CORMS AND BULBS): SHOOTS AND RHIZOMES SHALL EXHIBIT TURGOR AND SHOOTS SHALL BE LIGHTLY COLORED. BODIES OF TUBERS AND BULBS SHALL BE RIGID TO THE TOUCH. PROPAGULES WHOSE SHOOTS AND BODIES ARE SOFT OR MUSHY TO THE TOUCH, OR WHOSE SHOOTS LACK TURGOR OR ARE DARK COLORED SHALL BE REJECTED.

2.6 SHADE TREES: CALIPER SHALL BE MEASURED AT SIX (6") INCHES ABOVE THE ROOTBALL. HEIGHT SHALL BE MEASURED FROM THE CROWN OF THE ROOT BALL TO THE TOP OF MATURE GROWTH. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE CROWN FROM THE CENTER OF THE TRUNK. MEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH. SINGLE TRUNK TREES SHALL BE FREE OF "V" CROTCHES THAT COULD BE POINTS OF WEAK LIMB STRUCTURE OR DISEASE INFESTATION. WHERE TREES ARE PLANTED IN ROWS, THEY SHALL BE UNIFORM IN SIZE AND SHAPE.

2.7 SHRUBS: HEIGHT SHALL BE MEASURED FROM THE GROUND TO THE AVERAGE HEIGHT OF THE TOP OF THE PLANT. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE SHRUB MASS. MEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH.

2.8 MINIMUM SIZES: SIZES SPECIFIED IN THE PLANT LIST ARE MINIMUM SIZES TO WHICH THE PLANTS ARE TO BE JUDGED.

2.9 PLANT HARDINESS: THE SUPPLIER OF ALL PLANTS SHALL CERTIFY THAT THE ORIGIN OF THE PLANTS IS FROM HARDINESS ZONES 6 OR 7, FROM THE EASTERN OR CENTRAL PORTIONS OF THE U.S., PRIOR TO PLANTING UNLESS AGREED TO OTHERWISE WITH THE LANDSCAPE ARCHITECT.

2.10 MULCH: IS TO BE DOUBLE SHREDDED HARDWOOD BARK FOR TREES AND SHRUBS. FINE GROUND BARK MULCH SUCH AS NATURE'S HELPER OR APPROVED EQUAL IS TO BE USED FOR PERENNIAL BEDS. PINE BARK FINES SHALL BE GROUND PINE BARK WITH NO PARTICLES WITH A DIMENSION GREATER THAN 3/4". DOUBLE SHREDDED HARDWOOD BARK IS TO BE USED AT "EXISTING TREES TO REMAIN". MULCH SHALL EXTEND INWARD INTO TREE PRESERVATION AREAS A MINIMUM OF 10 FEET OR 3.3 METERS FROM EDGE OF TREE SAVE.

2.11 GEO-TEXTILE EROSION CONTROL BLANKET: SHALL BE A NATURAL FIBER WOVEN MESH OR A PHOTO DEGRADABLE NETTING WITH 1" x 3" OR 2" x 2" SQUARE OPENINGS, SUCH AS: COCONUT COIR MESH, WOOD EXCELSIOR OR APPROVED EQUAL WITH FABRIC TENSILE STRENGTH 432 LB/FT. X 138 LB/FT. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

2.12 SOIL TESTING: PRIOR TO PLANTING, ANY TOPSOIL TO BE SPREAD SHALL BE TESTED BY AN APPROVED SOIL TESTING LABORATORY OR AGRICULTURAL EXTENSION SERVICE LABORATORY. TESTS SHALL INCLUDE MECHANICAL AND CHEMICAL ANALYSIS. A SOILS REPORT SHALL INCLUDE RECOMMENDATIONS FOR THE ADDITION OF FERTILIZER AND ADJUSTMENTS TO PH, OR OTHER AMENDMENTS AND INDICATE THE AMOUNT OF ORGANIC MATTER. A WRITTEN REVIEW OF SAID ANALYSIS AND RECOMMENDATIONS IS REQUIRED TO BE SUBMITTED TO THE LANDSCAPE ARCHITECT AND OWNER 15 DAYS PRIOR TO INSTALLATION.

2.13 TOPSOIL: ACCEPTABLE TOPSOIL SHALL BE A FERTILE, FRIABLE NATURAL LOAM, UNIFORM IN COMPOSITION, FREE OF STONES, LIMBS, PLANTS AND THEIR ROOTS, DEBRIS AND OTHER EXTRANEOUS MATTER OVER 1 INCH IN DIAMETER. THE SOIL SHALL BE CAPABLE OF SUSTAINED PLANT GROWTH AND HAVE A 5% MINIMUM ORGANIC CONTENT. IN SITUATIONS WHICH REQUIRE A CUSTOM TOPSOIL OR STRUCTURAL SOIL, THE SOIL MIXTURE SPECIFICATION WILL BE PROVIDED BY THE LANDSCAPE ARCHITECT.

2.14 ORGANIC AMENDMENTS: IF ADDITIONAL ORGANIC MATERIAL IS REQUIRED, COMPOST, LEAF MOLD, ECOLOGY - A LOW PH COMPOSED SEWAGE SLUDGE PRODUCT, OR OTHER APPROVED ORGANIC MATERIAL SHALL BE THOROUGHLY DISCED INTO THE TOPSOIL AREA.

3.0 INSTALLATION:

3.1 VERIFY GRADES: PRIOR TO PLANTING, THE CONTRACTOR SHALL VERIFY THAT CONSTRUCTED GRADES ARE AS INDICATED ON PLANS. THE CONTRACTOR SHALL NOTIFY THE OWNER AND LANDSCAPE ARCHITECT IF ADJUSTMENTS TO PLANT PLACEMENT MAY BE REQUIRED DUE TO FIELD CONDITIONS AND FINAL GRADING.

3.2 STAKE PLANT LOCATIONS: PRIOR TO PLANTING, THE CONTRACTOR SHALL LAY OUT THE EXTENT OF PLANT BEDS, AND THE PROPOSED LOCATIONS FOR B&B PLANTS FOR REVIEW BY OWNER AND LANDSCAPE ARCHITECT.

3.3 PLANTING FIELD ADJUSTMENTS: THE CONTRACTOR IS TO SLIGHTLY ADJUST PLANT LOCATIONS IN THE FIELD AS NECESSARY TO BE CLEAR OF DRAINAGE SWALES AND UTILITIES. FINISHED PLANTING BEDS SHALL BE GRADED SO AS NOT TO IMPEDE DRAINAGE AWAY FROM BUILDINGS.

3.4 TOPSOIL INSTALLATION: TOPSOIL SHALL BE SPREAD TO FINISH GRADE OVER THE ENTIRE ROUGH GRADED AREA TO BE LANDSCAPED. TOPSOIL SHALL BE SPREAD TO A MINIMUM DEPTH OF 6" AND WORKED INTO THE TOP 12" OF SOIL. AFTER TOPSOIL IS APPLIED, THE SOIL SHALL BE SCARIFIED AS NEEDED TO BREAK UP ANY REMAINING COMPACTION.

3.5 PLANTING HOLES FOR CONTAINER GROWN PLANTS: SHALL BE ONE FOOT (1') DEEP PLUS THE CONTAINER DEPTH IN WHICH THE PLANT HAS BEEN GROWN AND TWO FEET (2') WIDER THAN THE CONTAINER.

3.6 PLANTING HOLES FOR B&B PLANTS: THE CROWN OF THE ROOTBALL SHALL BE HIGHER AFTER SETTLING THAN THE ADJACENT SOIL. THE PLANTING HOLE SHALL BE EXCAVATED ONE FOOT (1') DEEP PLUS THE ROOTBALL DEPTH AND TWO FEET (2') WIDER THAN THE ROOTBALL.

3.7 PLANTING: BACKFILL THE PLANTING HOLES WITH IN-SITU SOIL MATERIALS REMOVED FOR PLANTING AFTER REMOVING ALL STONES, ROOTS AND OTHER DEBRIS GREATER THAN 1-1/2" IN DIAMETER. A MYCORRHIZAL INNOCULANT SHALL BE ADD TO THE BACKFILL PER THE MANUFACTURER'S INSTRUCTIONS. FOLLOWING THE BACKFILLING, WATER TO THE POINT OF SOIL SATURATION AND TAMP TO COMPACT THE BACKFILL MIXTURE. ADD EXISTING SOIL TO BRING THE FINAL GRADE IN THE PLANTING HOLE TO THE SURROUNDING SOIL SURFACE. RAKE THE UNUSED EXISTING SOIL OUTSIDE THE PLANTING HOLES, TAKING CARE NOT TO MOUND THE SOIL OR TO SIGNIFICANTLY ALTER THE EXISTING GRADES AND THEN PLACE MULCH ATOP ENTIRE PLANTING HOLE. (SEE APPLICABLE PLANTING DETAILS FOR THICKNESS.) THE PLANTING HOLE AREAS MUST NOT BE DEPRESSED BELOW THE SURROUNDING SOIL SURFACE ELEVATIONS.

3.8 WATERING: ALL PLANTS SHALL BE WATERED IMMEDIATELY AFTER PLANTING UNTIL THE SOIL IS SATURATED. PLANTS SHALL BE WATERED A MINIMUM OF EVERY TWO WEEKS, SHOULD THE SOILS DRY, UNTIL ACCEPTANCE BY THE OWNER. DURING DRY CONDITIONS WATER AS REQUIRED TO MAINTAIN PLANTS IN A WILT FREE CONDITION.

3.9 SITE WORK CONDITIONS: ALL CONTRACTORS SHALL BE REQUIRED TO COMPLETELY REMOVE ALL TRASH, DEBRIS AND EXCESS MATERIALS FROM THE WORK AREA AND THE PROPERTY (ESPECIALLY AT ALL CURB, GUTTERS AND SIDEWALKS) DAILY DURING INSTALLATION.

3.10 EROSION CONTROL: ALL DISTURBED, NON-VEGETATED SLOPES SHALL BE PLANTED WITH AN ANNUAL RYE GRASS OR AN APPROVED EQUAL BEFORE INSTALLATION AT THE RECOMMENDED RATE TO STABILIZE AREA, OR OTHER EQUIVALENT EROSION CONTROL PRATICE.

3.11 FIELD ADJUSTMENTS: LARGE GROWING PLANTS ARE NOT TO BE PLANTED IN FRONT OF WINDOWS, UNDER BUILDING OVERHANGS, OR IN DRAINAGE SWALES. SHRUBS PLANTED NEAR H.V.A.C. UNITS TO BE LOCATED SO THAT SHRUBS AT MATURITY WILL MAINTAIN (1 FOOT OR .3 METERS) AIRSPACE BETWEEN UNIT AND PLANT. ANY PLANTING WHICH IS SHOWN ADJACENT TO CONDENSOR UNITS SHALL BE PLANTED AS REQUIRED TO SCREEN THE UNITS. SHOULD THE CONDENSOR UNITS BE INSTALLED IN LOCATIONS DIFFERENT FROM THOSE SHOWN ON THE PLAN IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE LANDSCAPE ARCHITECT AND INSTALL THE MATERIALS AROUND THE CONDENSORS AND TO ADJUST OTHER ADJACENT PLANTING ACCORDINGLY.

3.12 TREE STAKING AND GUYING : SHALL BE DONE PER DETAILS IN THIS SET OF LANDSCAPE PLANS. THE CONTRACTOR SHALL ENSURE THAT TREES REMAIN VERTICAL AND UPRIGHT FOR THE DURATION OF THE GUARANTEE PERIOD.

3.13 BURLAP, TAGS AND TWINE: ARE TO BE REMOVED AND BURLAP IS TO BE ROLLED BACK ONE-THIRD ON ALL B&B PLANT MATERIAL. ANY SYNTHETIC BURLAP SHALL BE COMPLETELY REMOVED FROM ANY PLANT MATERIAL

3.14 PLANT SPACING: SHRUBS, BULBS AND GROUNDCOVERS SHALL BE TRIANGULARLY SPACED AT SPACING SHOWN ON PLANTING PLANS AND IN APPLICABLE PLANTING DETAILS.

3.15 A.D.A.: THE AMERICANS WITH DISABILITIES ACT (A.D.A.) STANDARDS REQUIRE THAT A (7 FOOT OR 2.13 METER) VERTICAL CLEARANCE BE MAINTAINED FROM TREE BRANCHES TO FINISHED GRADE WHERE PEDESTRIAN SIDEWALKS AND/OR TRAILS ARE LOCATED. THE CONTRACTOR IS TO ADJUST TREE PLANTINGS IN FIELD SLIGHTLY TO MINIMIZE BRANCH OVERHANG. THE HOMEOWNERS ASSOCIATION SHALL BE RESPONSIBLE TO MAINTAIN CLEAR ACCESS OF PEDESTRIAN WAYS IN ACCORDANCE WITH THE ADA REQUIREMENTS.

3.16 SLOPES: SHRUBS, GROUNDCOVERS AND PERENNIALS PLANTED ON SLOPES GREATER THAN 3:1 SHALL HAVE A NATURAL FIBER GEO-TEXTILE WOVEN MESH MATERIAL PINNED TO GROUND PER MANUFACTURER'S SPECIFICATIONS. GROUNDCOVER BEDS SHALL HAVE 2 INCHES OF GROUND LEAF COMPOST SPREAD ONTO SLOPE PRIOR TO PLACING MESH. EXCAVATE PLANT PITS THROUGH MESH.

3.17 SOIL EXCAVATION: ALL TREE PITS, SHRUB BEDS AND PREPARED PLANTING BEDS ARE TO BE COMPLETELY EXCAVATED IN ACCORDANCE WITH THE PLANTING DETAILS IN THIS SET OF LANDSCAPE PLANS.

3.18 INSPECTIONS: THE CONTRACTOR MUST CONTACT THE OWNER AT LEAST 10 WORKING DAYS IN ADVANCE TO SCHEDULE ACCEPTANCE INSPECTION(S). THE CONTRACTOR MUST REPLACE ALL DEAD OR UNACCEPTABLE PLANTS AND PLANT ANY MISSING PLANTS DURING THE FOLLOWING RECOMMENDED PLANTING SEASONS.

3.19 PLANT BED EDGES/LINES: GROUPS OF SHRUBS, PERENNIALS AND GROUNDCOVERS SHALL BE PLACED IN A CONTINUOUS MULCH BED WITH SMOOTH CONTINUOUS LINES. ALL MULCHED BED EDGES SHALL BE CURVILINEAR IN SHAPE FOLLOWING THE CONTOUR OF THE PLANT MASS. TREES LOCATED WITHIN 4 FEET OR 1.22 METERS OF PLANT BEDS SHALL SHARE THE SAME MULCH BED.

3.20 TREE SPACING MINIMUMS: TREES SHALL BE LOCATED A MINIMUM OF (3 FEET OR.91 METERS OR 4 FEET OR 1.20 METERS) FROM WALLS AND WALKS WITHIN THE PROJECT. IF CONFLICTS ARISE BETWEEN ACTUAL SIZE OF AREA AND PLANS, THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO THE OWNER OR LANDSCAPE ARCHITECT WILL RESULT IN CONTRACTOR'S LIABILITY TO RELOCATE MATERIALS.

4.0 PROJECT SPECIFIC:

4.1 *** SPECIFICATIONS: THE SPECIFICATIONS FOR ALL WORK INCLUDED IN THIS CONTRACT SHALL BE LANDSCAPE SPECIFICATION GUIDELINES BY THE LANDSCAPE CONTRACTORS ASSOCIATION, MDADCAVA, CURRENT EDITION , OR A PROJECT SPECIFIC SPECIFICATION MANUAL, UNLESS OTHERWISE NOTED IN THESE PLANS.

4.2 *** PREVENTATIVE MAINTENANCE PLAN: THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING A PREVENTATIVE PLAN FOR PROTECTION AGAINST ANIMAL GRAZING SUCH AS NETTING, STRING LINES OR AN APPROVED METHOD, AS PLANT MATERIAL IS INSTALLED ON A DAILY BASIS.

4.3 *** TOPSOIL: TOPSOIL REQUIRED FOR SOIL MIXES AND SPECIAL SEEDING AREAS SHALL BE PROVIDED BY (OWNER OR CONTRACTOR). THE CONTRACTOR MUST LOAD, HAUL, MIX, TEST AND SPREAD ALL TOPSOIL AND OTHER SOIL ADDITIVES AS SPECIFIED OR REQUIRED.

4.4 *** SEASONAL COLOR SPACING & ROTATION: ALL SEASONAL COLOR SHALL BE TRIANGULARLY SPACED AT SPACING SHOWN IN THE PLANTING DETAIL IN THIS SET OF LANDSCAPE PLANS. CONTRACTOR IS TO BID ONE YEAR (4 ROTATIONS) OF SEASONAL COLOR BUT ONLY INSTALL THE FIRST ROTATION WHICH IS "IN SEASON" AT TIME THAT ADJACENT PLANTINGS ARE INSTALLED. WHEN THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF THE SITE, THE CONTRACTOR'S BID SHALL INCLUDE THE INSTALLATION OF ALL THE ROTATIONS FOR THE YEAR.

4.5 *** BULBS: THE INTENT OF THE PROJECT IS TO HAVE NATURAL DRIFTS OF BULBS, KEEP SWEEPS OF SIMILAR BULBS IN SEPARATE GROUPS.

4.6 *** LAWNS: THE CONTRACTOR SHALL BE RESPONSIBLE TO REGRADE, HYDROSEED, STRAW MULCH, AND TACK ALL EXISTING LAWN AREAS DISTURBED AS THE RESULT OF HIS WORK.

4.7 *** CUSTOM SOIL MIX: ALL EXISTING SOIL SHALL BE REMOVED FROM PERENNIAL BEDS TO A DEPTH OF 12" AND REPLACED WITH SOIL MIX PER THE CUSTOM SOIL MIX DETAIL IN THIS SET OF LANDSCAPING PLANS.

4.8 *** GUIDELINES: ALL PLANTING SHALL CONFORM TO THE REQUIREMENTS OF (STATE) DEPARTMENT OF TRANSPORTATION'S GUIDELINES.

4.9 ***PLANTERS: IN FREE STANDING PLANTERS INCORPORATE INTO POTTING SOIL GRANULAR TERRASORB CRYSTALS OR APPROVED EQUAL FOR MOISTURE RETENTION PER MANUFACTURER'S SPECIFICATION. PLANTERS ARE TO BE LINED WITH MIRAFI-FILTER FABRIC OR APPROVED EQUAL AND TO HAVE HOLES IN BOTTOM. MATCHING SAUCERS ARE TO BE PROVIDED.

4.10 *** SEASONAL COLOR SOIL BERMS: ALL SEASONAL COLOR BEDS ARE TO BE BERMED WITH A SOIL MIX ON A CASE BY CASE BASIS BETWEEN .65 FEET (OR .2 METERS) - 1.2 FEET (OR .38 METERS) AS NECESSARY TO SHOWCASE ANNUALS WITHIN THE PLANT BED. NOTE: DO NOT BLOCK DRAINAGE FLOW WITH BERMING.

4.11 *** VINES: ATTACH ALL VINES AND ESPALIERED PLANTS TO TRELLIS AND FENCE WITH GALVANIZED HOOKS AND NAILS. REMOVE ALL PLANT ATTACHMENT COMPONENTS WHICH ARE SUPPLIED WITH THE PLANT.

4.12 *** SPECIMEN TREES: HIGH PROFILE TREES AT THE ENTRY TO CLUB/LEASING OR FRONT OF SIGN SHALL USE LEAST VISIBLE TREE STAKING TECHNIQUES. SEE DETAILS IN THIS SET OF LANDSCAPE PLANS.

OVERALL TREE PLAN SCHEDULE

(CAT. IV) DECIDUOUS - INTERIOR PARKING LOT SCREENING 17
CATEGORY IV - DECIDUOUS TREE
4" min. Caliper at 300 SF Projected 10yr Tree Canopy
Acer rubrum / Red Maple
Quercus phellos / Willow Oak
Ulmus parvifolia / Chinese Elm
Zelkova serrata / Sawleaf Zelkova

(CAT. III) DECIDUOUS - INTERIOR PARKING LOT SCREENING 4
CATEGORY III - DECIDUOUS TREE
3" Caliper at 175 sf Projected 10 yr Tree Canopy
Gleditsia triacanthos / Honey Locust

(LD) LARGE DECIDUOUS - TRANSITIONAL SCREENING 14
CATEGORY IV - DECIDUOUS TREE
3" - 3.5" Caliper at 250 SF Projected 10yr Tree Canopy
CATEGORY IV - DECIDUOUS TREE
Acer rubrum / Red Maple
Liriodendron tulipifera / Tulip Tree
Quercus alba / White Oak

(LE) LARGE EVERGREEN - TRANSITIONAL SCREENING 16
CATEGORY IV - EVERGREEN TREE
3" - 3.5" Caliper at 175 SF Projected 10yr Tree Canopy
Picea abies / Norway Spruce
Pinus nigra / Austrian Black Pine

(ME) MEDIUM EVERGREEN - TRANSITIONAL SCREENING 14
CATEGORY II - EVERGREEN TREE
3" - 3.5" Caliper at 125 SF Projected 10yr Tree Canopy
Cryptomeria japonica / Japanese Cedar
Ilex opaca / American Holly
Pseudotsuga menziesii / Douglas Fir

(CAT. IV) DECIDUOUS - RICHMOND HWY CORRIDOR* 13
CATEGORY IV - DECIDUOUS TREES
*NO CANOPY COVER CONTRIBUTION
Platanus x acerifolia / London Plane Tree
Quercus phellos / Willow Oak
Quercus rubra / Red Oak

(CAT. III) DECIDUOUS - PLAZA TREE 3
CATEGORY III - DECIDUOUS TREE
3" Caliper at 175 sf Projected 10 yr Tree Canopy
Betula nigra / River Birch
Gleditsia triacanthos inermis / Thornless Common Honeylocust
Koelreuteria paniculata / Golden Rain Tree
Prunus x yedoensis / Yoshino Cherry

(CAT. IV) DECIDUOUS - SITE TREES 33
CATEGORY IV - DECIDUOUS TREE
3" - 3.5" Caliper at 250 SF Projected 10yr Tree Canopy
Acer rubrum `October Glory` TM / October Glory Maple
Platanus x acerifolia / London Plane Tree
Quercus phellos / Willow Oak
Ulmus parvifolia `Allee` / Allee Lacebark Elm

EVERGREEN SHRUB - TRANSITIONAL SCREENING 104
Euonymus kiautschovicus `Manhattan` / Manhattan Euonymus
Ilex cornuta `Dwarf Burford` / Dwarf Burford Holly
Taxus x media / Dense Yew

LandDesign.
200 S. Peyton St., Alexandria, VA 22314
V: 703.549.7784 F: 703.549.9984
www.LandDesign.com

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
10/31/2013
LANDSCAPE ARCHITECT

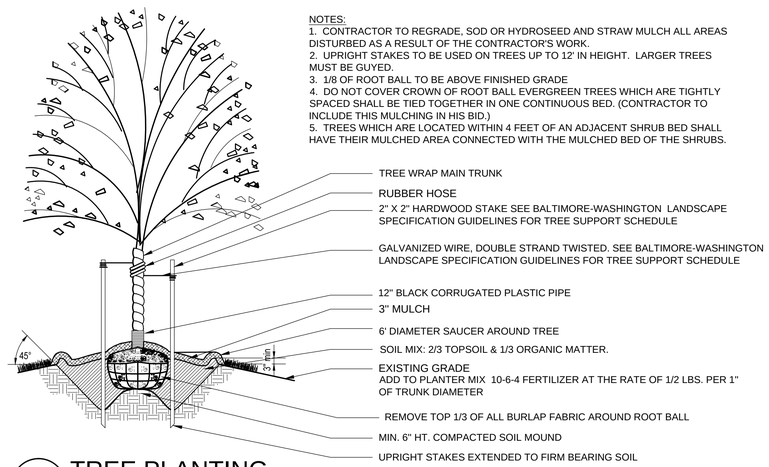
Penn Daw Plaza
CDP / FDP
Penn Daw Associates Limited Partnership
PLANTING NOTES & SCHEDULE

REVISIONS:
09/09/2013
09/19/2013
10/09/2013
10/17/2013
10/31/2013

DATE: 08/08/2013
DESIGNED BY: GC
DRAWN BY: GC / CG
CHECKED BY: GC
Q.C. BY:
SCALE: N/A
PROJECT #: 2013058

SHEET NUMBER:
L-4

Oct 29, 2013 - 3:57pm
G:\2013\2013058\Cad\Exhibits\Zoning Plans\CDP-FDP\
3058-Landscape Details.dwg



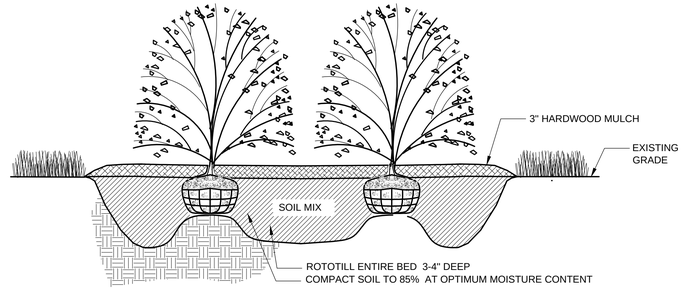
NOTES:
1. CONTRACTOR TO REGRADE, SOD OR HYDROSEED AND STRAW MULCH ALL AREAS DISTURBED AS A RESULT OF THE CONTRACTOR'S WORK.
2. UPRIGHT STAKES TO BE USED ON TREES UP TO 12' IN HEIGHT. LARGER TREES MUST BE GUYED.
3. 1/8 OF ROOT BALL TO BE ABOVE FINISHED GRADE
4. DO NOT COVER CROWN OF ROOT BALL EVERGREEN TREES WHICH ARE TIGHTLY SPACED SHALL BE TIED TOGETHER IN ONE CONTINUOUS BED. (CONTRACTOR TO INCLUDE THIS MULCHING IN HIS BID.)
5. TREES WHICH ARE LOCATED WITHIN 4 FEET OF AN ADJACENT SHRUB BED SHALL HAVE THEIR MULCHED AREA CONNECTED WITH THE MULCHED BED OF THE SHRUBS.

1 L-4.1 TREE PLANTING

08A-031

SECTION

N.T.S.



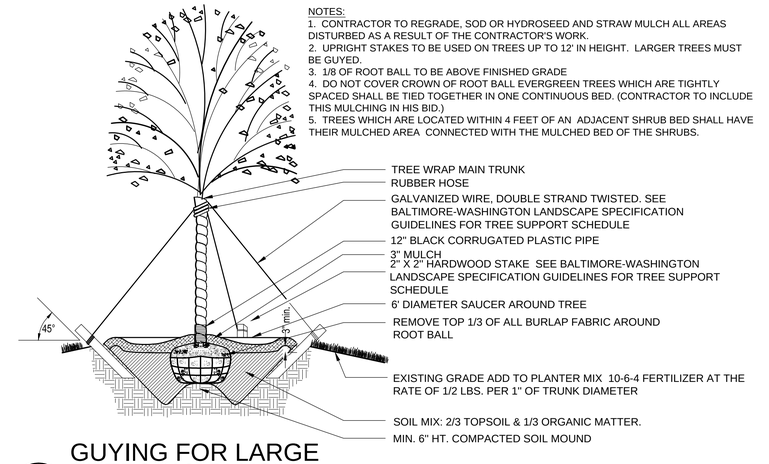
NOTES:
1. BEDS TO HAVE SMOOTHLY CONTOURED AND CLEANLY DEFINED EDGES. BEDS SHALL BE CURVILINEAR EXCEPT AS NOTED ON PLAN
2. PROPOSED BEDS MUST BE LAID OUT ON SITE AND APPROVED BY OWNER, IF REQUESTED BY OWNER
3. REMOVE TOP 1/3 OF ALL BURLAP FABRIC AROUND ROOT BALL.
4. COMPLETELY REMOVE ALL STRINGS, RIBBONS, AND TAGS FROM THE PLANT.
5. SCARIFY ROOTS ON POT BOUND PLANTS
6. PLANT SPACING VARIES - (SEE PLAN)
7. ALL SHRUBS TO BE PLANTED IN MULCHED BEDS
8. PRUNE ALL BROKEN, DISEASED, AND WEAK BRANCHES.
9. ALL SHRUB BEDS TO BE COMPLETELY EXCAVATED OF ALL EXISTING SOIL TO REQUIRED DEPTH AND BACKFILLED WITH REQUIRED SOIL MIX
10. SOIL MIX: 2/3 TOPSOIL & 1/3 ORGANIC MATTER.
11. TOP DRESS BED WITH 10-6-4 FERTILIZER AT THE RATE OF 5 LBS. PER 100 S.F. OF BED AREA.

4 L-4.1 SHRUB PLANTING BED

08A-035

SECTION

N.T.S.



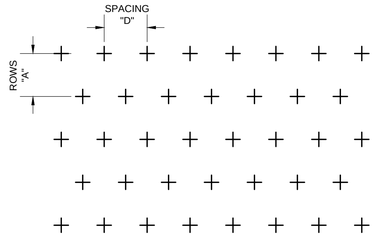
NOTES:
1. CONTRACTOR TO REGRADE, SOD OR HYDROSEED AND STRAW MULCH ALL AREAS DISTURBED AS A RESULT OF THE CONTRACTOR'S WORK.
2. UPRIGHT STAKES TO BE USED ON TREES UP TO 12' IN HEIGHT. LARGER TREES MUST BE GUYED.
3. 1/8 OF ROOT BALL TO BE ABOVE FINISHED GRADE
4. DO NOT COVER CROWN OF ROOT BALL EVERGREEN TREES WHICH ARE TIGHTLY SPACED SHALL BE TIED TOGETHER IN ONE CONTINUOUS BED. (CONTRACTOR TO INCLUDE THIS MULCHING IN HIS BID.)
5. TREES WHICH ARE LOCATED WITHIN 4 FEET OF AN ADJACENT SHRUB BED SHALL HAVE THEIR MULCHED AREA CONNECTED WITH THE MULCHED BED OF THE SHRUBS.

2 L-4.1 GUYING FOR LARGE TREES (12' PLUS)

08A-033

SECTION

N.T.S.



PLANT SPACING CHART

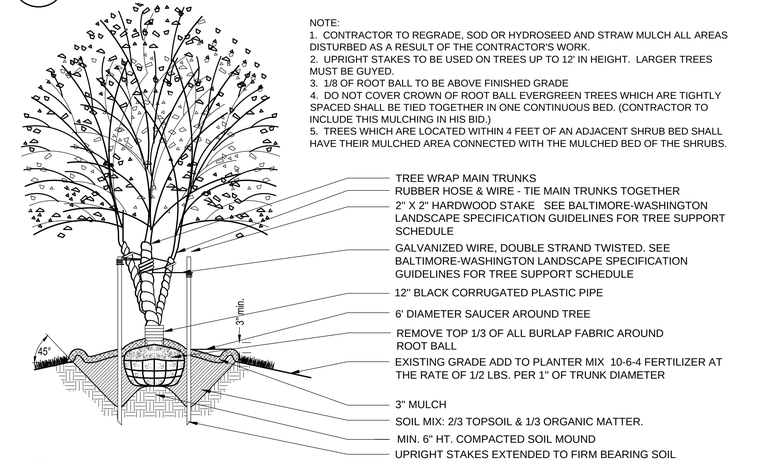
SPACING "D"	ROW "A"	PLANTS / S.F.
6" O.C.	5.20" O.C.	4.61
8" O.C.	6.93" O.C.	2.60
10" O.C.	8.66" O.C.	1.66
12" O.C.	10.40" O.C.	1.15
15" O.C.	13.00" O.C.	0.73
18" O.C.	15.60" O.C.	0.51
24" O.C.	20.80" O.C.	0.29

5 L-4.1 TRIANGULAR SPACING FOR SHRUBS AND GROUNDCOVERS

08A-009

PLAN

N.T.S.



NOTE:
1. CONTRACTOR TO REGRADE, SOD OR HYDROSEED AND STRAW MULCH ALL AREAS DISTURBED AS A RESULT OF THE CONTRACTOR'S WORK.
2. UPRIGHT STAKES TO BE USED ON TREES UP TO 12' IN HEIGHT. LARGER TREES MUST BE GUYED.
3. 1/8 OF ROOT BALL TO BE ABOVE FINISHED GRADE
4. DO NOT COVER CROWN OF ROOT BALL EVERGREEN TREES WHICH ARE TIGHTLY SPACED SHALL BE TIED TOGETHER IN ONE CONTINUOUS BED. (CONTRACTOR TO INCLUDE THIS MULCHING IN HIS BID.)
5. TREES WHICH ARE LOCATED WITHIN 4 FEET OF AN ADJACENT SHRUB BED SHALL HAVE THEIR MULCHED AREA CONNECTED WITH THE MULCHED BED OF THE SHRUBS.

3 L-4.1 MULTI TRUNK TREE PLANTING

08A-034

SECTION

N.T.S.

LandDesign.
200 S. Peyton St., Alexandria, VA 22314
V: 703.549.7784 F: 703.549.9984
www.LandDesign.com

COMMONWEALTH OF VIRGINIA
MATTHEW V. CLARK
Cert. No. 952
10/31/2013
LANDSCAPE ARCHITECT

Penn Daw Plaza

CDP / FDP

Penn Daw Associates Limited Partnership

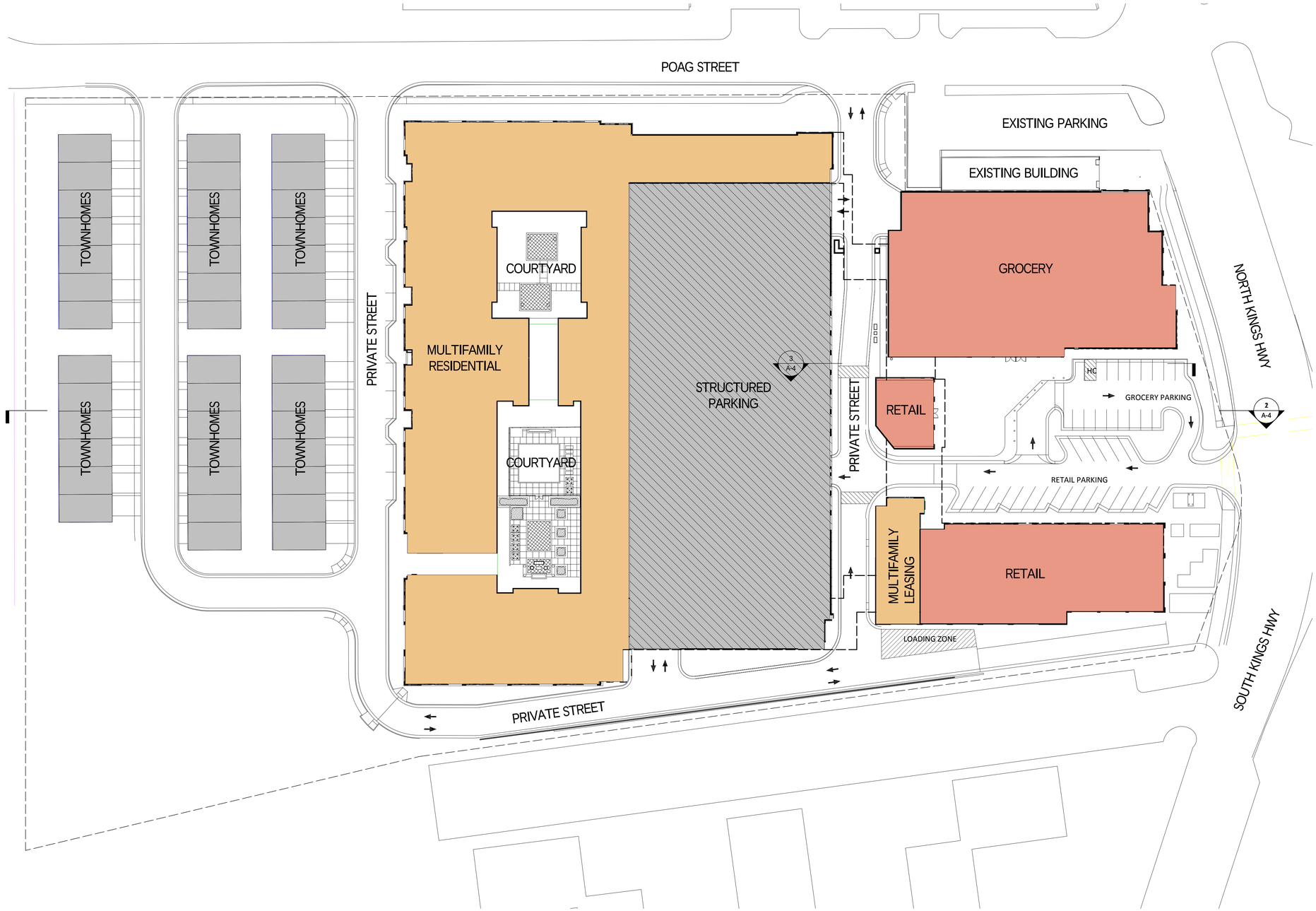
PLANTING DETAILS

REVISIONS:
09/09/2013
09/19/2013
10/09/2013
10/17/2013
10/31/2013

DATE: 08/08/2013
DESIGNED BY: GC
DRAWN BY: KG
CHECKED BY: GC
Q.C. BY:
SCALE: AS NOTED
PROJECT #: 2013058

SHEET NUMBER:
L-4.1

Oct 29, 2013 - 3:57pm
G:\2013\2013058\Cad\Exhibits\Zoning Plans\CDP-FDP\
3058-Landscape Details.dwg



1 LEVEL 01
A-1 1" = 40'-0"

N

0 20 40 80

ARCHITECT
Hord Coplan Macht, Inc.
750 E. Pratt St, Suite 1100 Baltimore, MD 21202
p. 410. 837. 7311 f. 410. 837. 6530

STRUCTURAL ENGINEER
Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

M/E/P ENGINEER
Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

CIVIL ENGINEERS
Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

PENN DAW PLAZA

hord | coplan | macht

ARCHITECTURE

LANDSCAPE ARCHITECTURE

PLANNING

INTERIOR DESIGN

PROFESSIONAL CERTIFICATION. I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND
LICENSE NUMBER:
EXPIRATION DATE:

no.	date	revision
	10.31.13	7th Submission
	10.17.13	6th Submission
	09.09.13	3rd Submission
	08.08.13	2nd Submission

Project Name
PENN DAW PLAZA

Project Number
212103.00

Date
05 FEBRUARY 2013

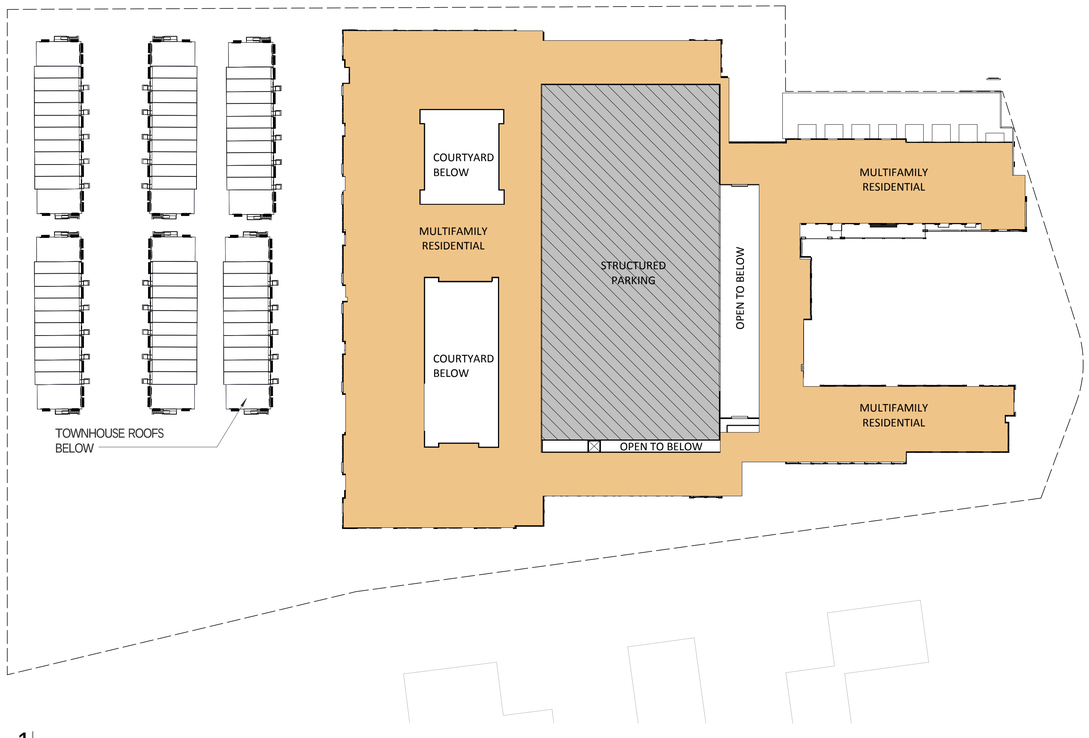
Scale
1" = 40'-0"

Drawing
GROUND LEVEL PLAN

A-1

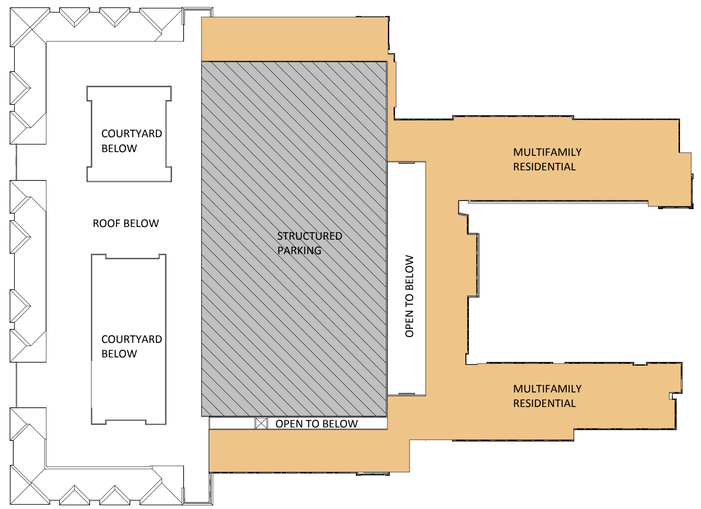
© Hord Coplan Macht, Inc.

10/30/2013 4:14:52 PM
C:\Users\jharris\Documents\212103 Penn Daw Plaza 2013 - site option L4_jharris.rvt



1 LEVELS 02-04

A-2 1/64" = 1'-0"



2 LEVEL 05

A-2 1/64" = 1'-0"

N

0 20 40 80

ARCHITECT

Hord Coplan Macht, Inc.
750 E. Pratt St, Suite 1100 Baltimore, MD 21202
p. 410. 837. 7311 f. 410. 837. 6530

STRUCTURAL ENGINEER

Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

M/E/P ENGINEER

Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

CIVIL ENGINEERS

Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

PENN DAW PLAZA

hord | coplan | macht

ARCHITECTURE

LANDSCAPE ARCHITECTURE

PLANNING

INTERIOR DESIGN

PROFESSIONAL CERTIFICATION. I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND
LICENSE NUMBER:
EXPIRATION DATE:

no.	date	revision
1	10.31.13	7th Submission
2	10.17.13	6th Submission
3	09.09.13	3rd Submission
4	08.08.13	2nd Submission

Project Name
PENN DAW PLAZA

Project Number
212103.00

Date
05 FEBRUARY 2013

Scale
1/64" = 1'-0"

Drawing
UPPER LEVEL PLANS

A-2

© Hord Coplan Macht, Inc.

10/17/2013 9:23:53 AM
C:\Users\jharris\Documents\212103 Penn Daw Plaza 2013 - site option L4_jharris.rvt

1 PLAZA VIEW

A-3 NTS

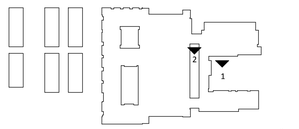
2 VIEW BETWEEN RETAIL AND PARKING GARAGE

A-3 NTS

3 AERIAL PERSPECTIVE

A-3 NTS

PERSPECTIVES ARE FOR BUILDING ILLUSTRATIVE PURPOSES ONLY. REFER TO LANDSCAPE DRAWINGS FOR TREE AND VEGETATION INFORMATION.



KEY PLAN

ARCHITECT
Hord Coplan Macht, Inc.
750 E. Pratt St, Suite 1100 Baltimore, MD 21202
p. 410. 837. 7311 f. 410. 837. 6530

STRUCTURAL ENGINEER
Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

M/E/P ENGINEER
Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

CIVIL ENGINEERS
Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

PENN DAW PLAZA

hord | coplan | macht

ARCHITECTURE

LANDSCAPE ARCHITECTURE

PLANNING

INTERIOR DESIGN

PROFESSIONAL CERTIFICATION. I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND
LICENSE NUMBER:
EXPIRATION DATE:

no.	date	revision
10.31.13		7th Submission
10.17.13		6th Submission
09.09.13		3rd Submission
08.08.13		2nd Submission

Project Name
PENN DAW PLAZA

Project Number
212103.00

Date
05 FEBRUARY 2013

Scale
1 1/2" = 1'-0"

Drawing
BUILDING PERSPECTIVES

A-3

© Hord Coplan Macht, Inc.

5 VIEW AT NORTHEAST CORNER

A-3.1 NTS

6 PRIVATE DRIVE VIEW

A-3.1 NTS

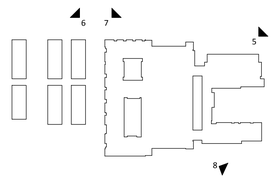
8 VIEW SOUTH FACADE

A-3.1 NTS

7 VIEW AT TOWN HOMES

A-3.1 NTS

PERSPECTIVES ARE FOR BUILDING ILLUSTRATIVE PURPOSES ONLY. REFER TO LANDSCAPE DRAWINGS FOR TREE AND VEGETATION INFORMATION.



KEY PLAN

ARCHITECT
Hord Coplan Macht, Inc.
750 E. Pratt St, Suite 1100 Baltimore, MD 21202
p. 410. 837. 7311 f. 410. 837. 6530

STRUCTURAL ENGINEER
Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

M/E/P ENGINEER
Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

CIVIL ENGINEERS
Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

PENN DAW PLAZA

hord | coplan | macht

ARCHITECTURE

LANDSCAPE ARCHITECTURE

PLANNING

INTERIOR DESIGN

PROFESSIONAL CERTIFICATION. I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND
LICENSE NUMBER:
EXPIRATION DATE:

no.	date	revision
5	10.31.13	7th Submission
4	10.17.13	6th Submission
3	09.09.13	3rd Submission
2	08.08.13	2nd Submission

Project Name
PENN DAW PLAZA

Project Number
212103.00

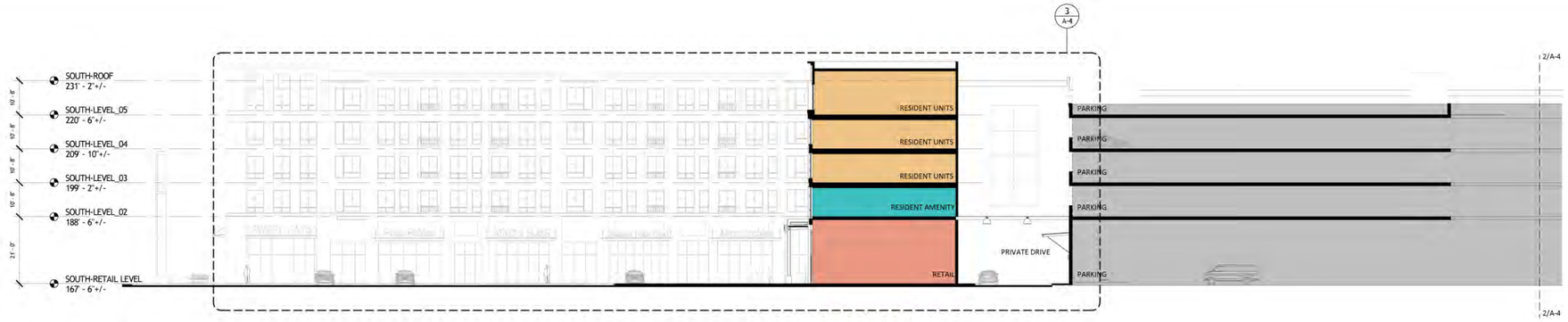
Date
05 FEBRUARY 2013

Scale
1 1/2" = 1'-0"

Drawing
BUILDING PERSPECTIVES

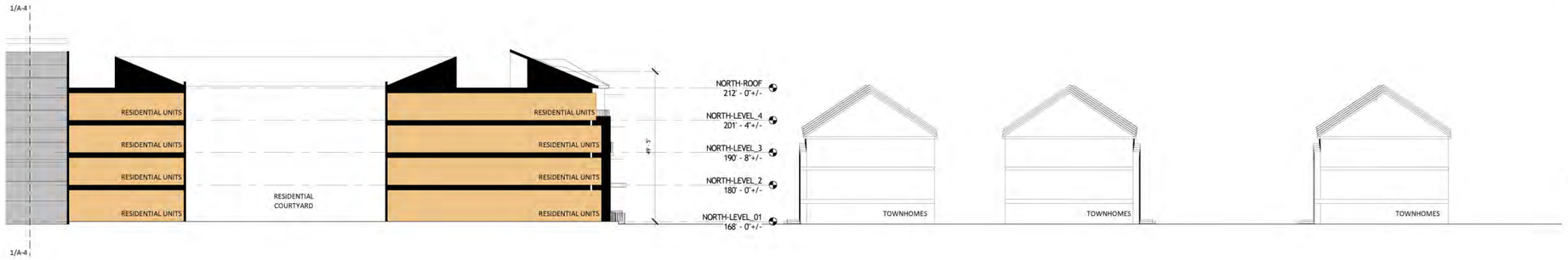
A-3.1

© Hord Coplan Macht, Inc.



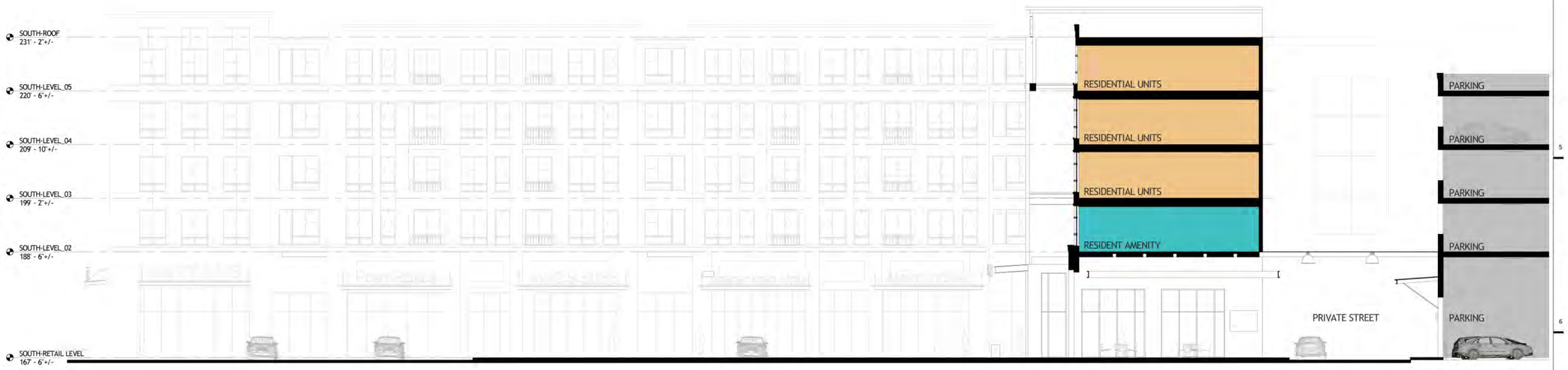
1 BUILDING SECTION

A-4 1" = 20'-0"



2 BUILDING SECTION

A-4 1" = 20'-0"



3 PRIVATE DRIVE SECTION

A-4 3/32" = 1'-0"

ARCHITECT
Hord Coplan Macht, Inc.
750 E. Pratt St, Suite 1100 Baltimore, MD 21202
p. 410. 837. 7311 f. 410. 837. 6530

STRUCTURAL ENGINEER
Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

M/E/P ENGINEER
Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

CIVIL ENGINEERS
Name
Address
p. xxx.xxx.xxxx f. xxx.xxx.xxxx

PENN DAW PLAZA

hord | coplan | macht

ARCHITECTURE

LANDSCAPE ARCHITECTURE

PLANNING

INTERIOR DESIGN

PROFESSIONAL CERTIFICATION. I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND
LICENSE NUMBER:
EXPIRATION DATE:

no.	date	revision
10.31.13		7th Submission
10.17.13		6th Submission
09.09.13		3rd Submission
08.08.13		2nd Submission

Project Name
PENN DAW PLAZA

Project Number
212103.00

Date
05 FEBRUARY 2013

Scale
As indicated

Drawing
BUILDING SECTIONS

A-4

© Hord Coplan Macht, Inc.

DESCRIPTION OF THE APPLICATION

The applicant, Penn-Daw Associates Limited Partnership, requests to rezone approximately 10.45 acres from the Highway Commercial District (C-8) and the Residential District, Four Dwelling Units/Acre District (R-4) to the Planned Development Housing District, 40 Dwelling Units/Acre District (PDH-40). The Richmond Highway Corridor Revitalization District (CRD) and the Highway Corridor Overlay District (HC) are not proposed to change.

The applicant proposes to redevelop the existing Penn Daw Shopping Center with a mixed-use development consisting of up to:

- 400 multi-family units (21 affordable dwelling units and 37 workforce dwelling units)
- 41 single family attached units (townhomes)
- 45,500 square feet of non-residential uses.

The application includes a total of 56 bonus units (50 multi-family and 6 townhomes) related to the provision for affordable dwelling units (ADUs) and workforce dwelling units (WDUs).

Three buildings are proposed (a maximum of 65 feet in height) along North and South Kings Highway (Kings Highway) with ground floor commercial uses (such as a grocery store, retail and eating establishments) with four-stories of multi-family units above. An approximately 24,692 square foot (sf) grocery store with an approximately 7,117 sf public urban plaza is proposed in the northern building. Stepping back and away from Kings Highway is a centrally located five-story parking structure wrapped with four-stories of multi-family units, which is connected to the northern and southern buildings by two above grade enclosed walkways. Behind the parking structure/multi-family building are 41 three-story (up to 40 ft in height), single family attached dwelling units.

In addition to the public plaza, recreational amenities are proposed that include an approximately 5,061 sf dog park and an approximately 3,500 sf tot lot at the southwest quadrant of the site and two ground level outdoor courtyards within a multi-family building. Approximately 32% (3.36 acres) of the site is provided as open space. Figures 1A and 1B depict the proposed development and grocery plaza detail.

The total gross square footage of the proposed development is 610,544 sf (1.34 FAR inclusive of bonus units) with a proposed density of 42.21 dwelling units/acre, which includes affordable dwelling units, workforce dwelling units, and bonus units.

It is noted that the applicant originally proposed a drive-through pharmacy option. As such, this necessitated rezoning to the PDH-40 District, which permits drive-through uses rather than to the Planned Residential Mixed-Use (PRM) District, which does not

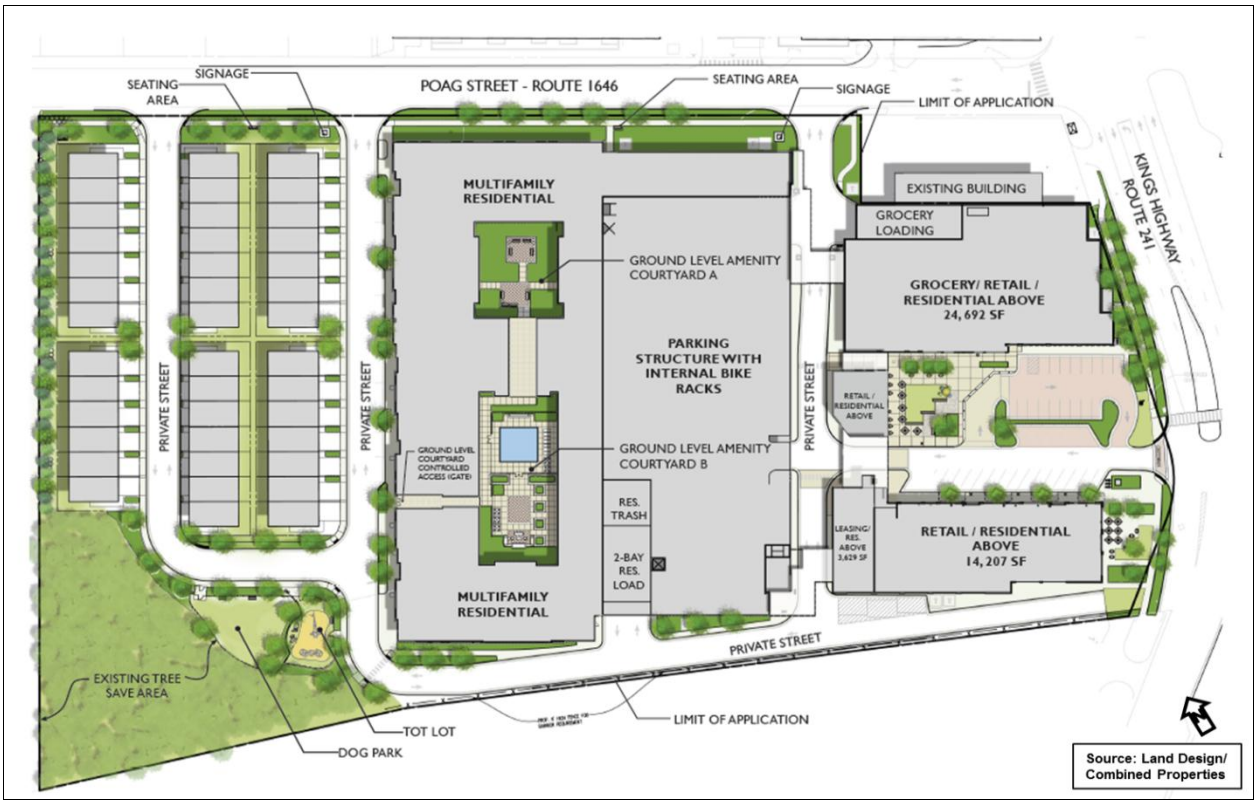


Figure 1A: Proposed development.

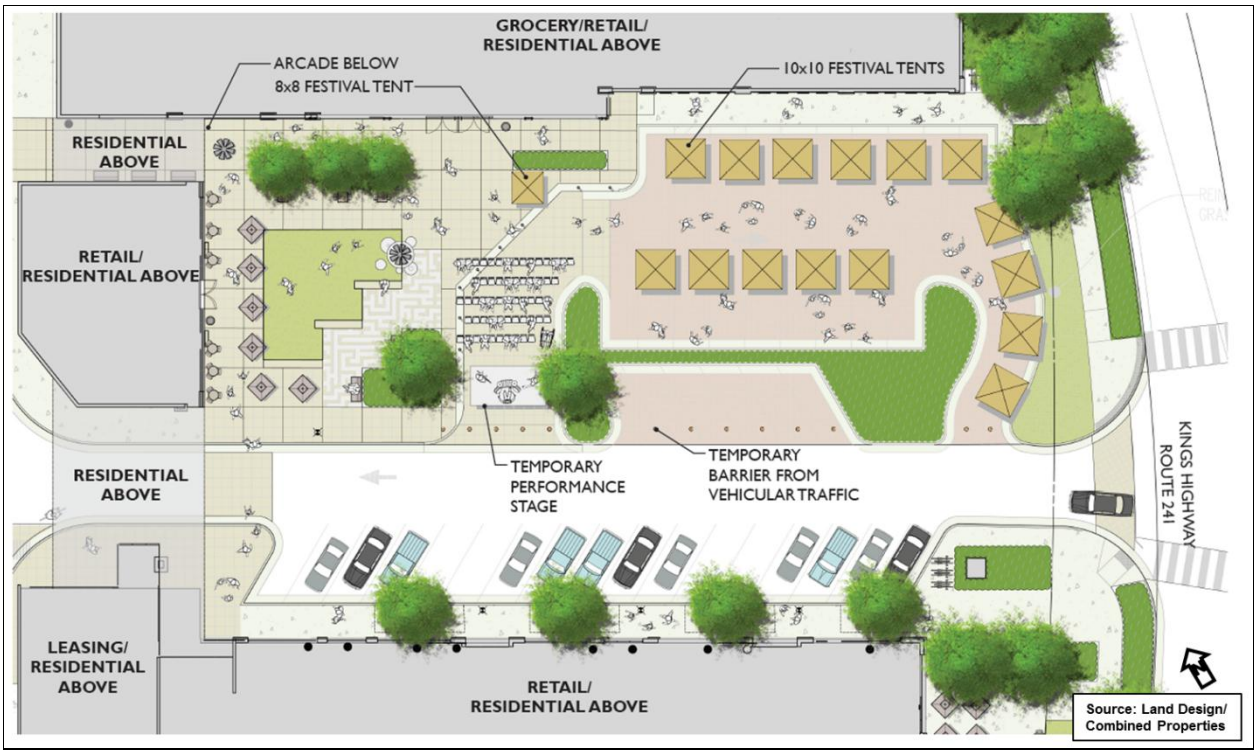


Figure 1B: Expanded plaza in front of proposed grocery store.

permit drive-through uses. The applicant is no longer proposing a drive-through pharmacy use and has not proposed to change the proposed zoning district. It is noted that the PDH District does not permit fast food restaurants and a Special Exception (SE) is required to be approved. An SE application has been filed but has not been accepted for review and is being processed separately.

A reduction of the proposed Conceptual/Final Development Plan (CDP/FDP) is included at the front of this report. The applicant's draft proffers, staff's proposed Final Development Plan conditions, statement of justification, and the applicant's affidavit are provided as Appendices 1-4, respectively.

Waivers and Modifications

The applicant requests the following waivers and modifications:

- Modification of Sect. 13-303 and 13-304 of the Zoning Ordinance for the transitional screening planting materials and barrier requirement along the northeastern property line; waiver of the transitional screening requirement along the southeastern property line; modification of the transitional screening requirement along the northwest property line; waiver of the transitional screening requirement between the multi-family and single family attached uses; and waiver of the transitional screening requirement between the multi-family and retail uses, pursuant to Sect. 13-305 of the Zoning Ordinance to that shown on the CDP/FDP.

- Waiver of Sect. 13-202 of the Zoning Ordinance for dispersing of the interior parking landscaping for the surface parking lot area and landscaping on the top level of the parking structure.

- Modification of the Countywide Trails Plan along North Kings Highway to permit six foot wide sidewalks to that shown on the CDP/FDP.

- Waiver of Sect. 2-505 of the Zoning Ordinance on use limitations on corner lots for a corner of a building.

- Waiver of Sect. 17-201 of the Zoning Ordinance and Sect. 7-0104.1 of the Public Facilities Manual for a service drive.

LOCATION AND CHARACTER

The subject property consists of one parcel with a total land area of approximately 10.45 acres. The existing use on the eastern half of the subject property, zoned C-8, includes a 132,203 sf one-story brick and block commercial retail center known as the Penn Daw

shopping center. The western portion of the property, zoned R-4, is developed as a surface parking lot.

The property is located near the southwest corner of the intersection of Poag Street and North Kings Highway with approximately 696 ft of frontage along Poag Street and approximately 224 ft of frontage along North Kings Highway. The proposal does not include the existing Zips drycleaner, located on approximately 0.30 acre at tax map parcel 83-3 ((1)) 6, directly at the corner of the Poag Street and North Kings Highway intersection. Figure 2 illustrates the surrounding uses, zoning districts, and Comprehensive Plan recommendations.

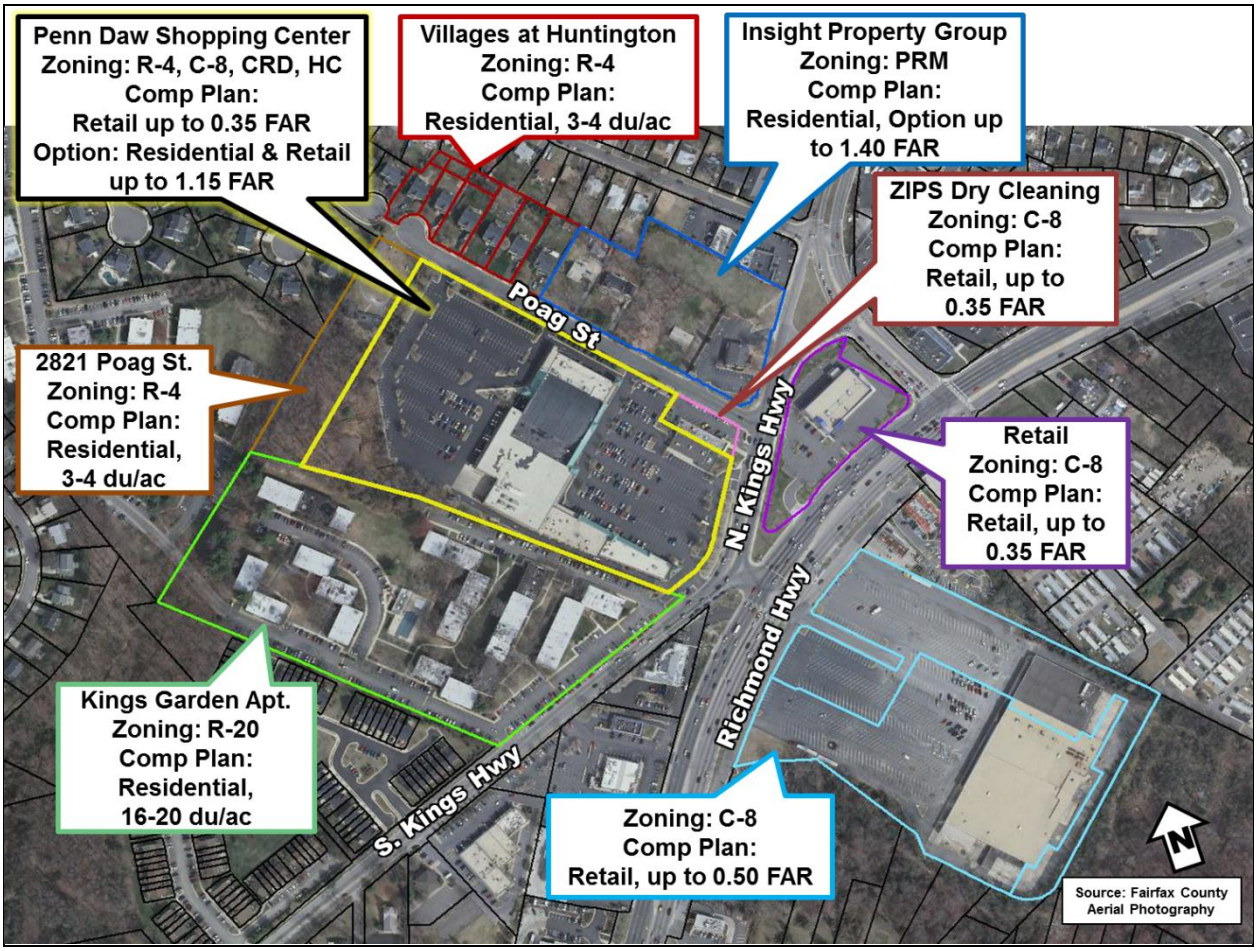


Figure 2: Surrounding uses, zoning districts, and Comprehensive Plan recommendations.

BACKGROUND

On July 11, 1983, the Board of Supervisors approved Special Exception SE 83-L-029 to permit parking in the residentially zoned portion of the property, subject to development conditions.

On March 18, 1991, the Board of Supervisors approved Special Exception Amendment SEA 83-L-029 to permit renovation and expansion of the Penn Daw Shopping Center, subject to development conditions**.**

On June 27, 1994, the Board of Supervisors approved Special Exception SE 94-L-014 to permit an increase in sign area and height for one freestanding sign along the eastern boundary of the property, subject to development conditions.

On October 12, 1998, the Board of Supervisors approved Rezoning RZ 1998-MD-037 to establish five Commercial Revitalization Districts (CRD), which included the Richmond Highway Commercial Revitalization District. Appendix A7-400 of the Zoning Ordinance provides additional guidance for CRDs. CRD provisions only apply to commercially zoned properties within the CRD and only the eastern portion of the site (the C-8 portion of the site) is zoned to the CRD.

On May 11, 2010, the Board of Supervisors authorized the Penn Daw CBC-West Special Study Plan Amendment ST10-IV-MV1 to more fully consider the future vision of the land area west of North Kings Highway and south of Poag Street.

On April 10, 2012, the Board of Supervisors adopted Plan Amendment ST10-IV-MV1, which amended the Comprehensive Plan for Sub-unit F-2 and Land Unit H (which includes the subject property) of the Penn Daw Commercial Business Center.

COMPREHENSIVE PLAN PROVISIONS

The Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, Amended through April 9, 2013, Richmond Highway Corridor Area, Page 41- 45, states:

> ***Land Unit H***
>
> *The land unit is envisioned to be a visually and functionally cohesive pedestrian-oriented environment. Necessary improvements and amenities such as road and sidewalk enhancements, useable open space, plazas, and bus shelters are expected to be phased with development in support of this goal. These improvements should off-set impacts of redevelopment and ensure adequate functioning of critical intersections through a combination of roadway capacity improvements, intersection traffic mitigation, circulation and access improvements, transit, pedestrian and bicycle connectivity enhancements and effective Transportation Demand Management options. Development should be phased in such a way that effective transportation measures are in place concurrent with development.*

The development concept for Land Unit H reflects up to a maximum of 735 dwelling units and a minimum of 40,000 square feet of retail use provided that an appropriate pattern and character of development is achieved. New retail use should be located on the ground floor of buildings and not in freestanding buildings. Service uses such as professional offices may be included in this category. Specific recommendations are provided in the sections that follow.

The land unit is divided into Sub-units H-1 and H-2. Within Sub-unit H-1, residential use is recommended to be in the form of multifamily units with neighborhood serving retail use (new and/or existing). In Sub-unit H-2, a mixture of multifamily units and townhouses is recommended to provide variety in dwelling types.

Sub-unit H-2

Sub-unit H-2 is located south of Poag Street along North Kings Highway and contains the Penn Daw Shopping Center and other commercial uses. The sub-unit is planned for retail use up to .35 FAR. Free-standing uses should be discouraged to preserve an opportunity for connections to the proposed gateway park in Sub-unit F-2. Additional parking lot landscaping is encouraged.

As an option, redevelopment with a mix of predominately residential use and ground-floor retail at an overall intensity up to 1.15 FAR may be appropriate. There is a desire to accommodate as much retail in the sub-unit as possible. The following conditions should be met:

- *Full consolidation should be achieved for Sub-unit H-2. If full consolidation cannot be achieved, functional and aesthetic coordination of design, to include unconsolidated area(s), should be demonstrated.*

- *High-quality site design and architecture should be provided. Design should be coordinated throughout Sub-units H-1 and H-2, especially if redevelopment is phased.*

- *Buildings should align with roadways along Poag Street and North Kings Highway, and should be built close to the street to create an urban street edge.*

- *Retail uses should be located on the ground floor of the residential buildings. The location of retail uses should maximize visibility along the frontage of North/South Kings Highway, with additional*

retail sited along Poag Street near North/South Kings Highway. Retail should offer community amenities, such as sidewalk cafés or restaurants, to the surrounding residential uses.

- *Building height should be limited to a maximum of five stories. The tallest buildings should be concentrated along North/South Kings Highway, with building height tapering down toward single-family residential neighborhoods to the west. Townhouses should be used to provide a transition to the neighborhoods to the west.*

- *Adequate buffering should be provided to minimize the visual impact of redevelopment on existing single-family neighborhoods. Buffer areas should be appropriately landscaped with year-round vegetation to aid in the transition to single-family neighborhoods. This buffer area should include publicly accessible open space.*

- *Well-designed, publicly accessible urban plazas and parks should be integrated to enhance the recreational options and a sense of place for the development, consistent with the Urban Park Framework document, as modified by the Fairfax County Park Authority. Redevelopment of the sub-unit should provide a central gathering space or plaza. To the extent possible, these open spaces should be contiguous to on-site retail uses.*

- *Parking facilities should be designed to avoid adverse visual impacts to the streetscape and neighboring properties. Parking should be consolidated into structures that are integrated into the development using aesthetically appealing architectural detailing, screening, lighting, and landscaping. Limited convenience surface parking may be appropriate provided need is demonstrated and such spaces are appropriately integrated into the pedestrian environment.*

- *Development should dedicate adequate right-of-way for planned transportation improvements in the vicinity of Sub-units H-1 and H-2, as shown in Figures 13, 30, 37, and 44. A minor realignment of North/South Kings Highway, that minimizes impacts to the Kings Garden Apartments, to the west in the vicinity of the existing connection of Richmond Highway should be considered to enhance traffic flow on North/South Kings Highway and to create a pedestrian refuge for improved crossing of Richmond Highway and North/South Kings Highway. Dedication of right-of-way would be needed for this realignment to occur. If deemed appropriate, this*

realignment should take place concurrent with the severing of the Richmond Highway connection.

- *Design and/or construction of other planned transportation improvements, on-site and off-site, should be provided. A financial contribution may be provided towards facilitating implementation of off-site planned transportation improvements, as deemed appropriate.*

- *In the interim period prior to severing the connection between North/South Kings Highway and Richmond Highway, the entrance to Penn Daw Plaza south of Poag Street, which is currently offset, should be realigned with the existing connection to Richmond Highway. This realignment, along with an internal network of well-connected streets, is intended to improve access to the site and provide adequate circulation to more evenly distribute trips with Poag Street.*

- *Efforts should be made to enhance the walkability and multi-modal connectivity of the land unit, through the addition of sidewalks, streetscaping, and bicycle facilities. Multi-modal connectivity between this land unit and the Huntington Metrorail Station should be enhanced to improve bicycle/pedestrian access through the incorporation of bus shelters and enhanced transit service.*

- *Shaffer Drive and Poag Street should not be connected.*

- *Stormwater quantity and quality control measures that are substantially more extensive than minimum requirements should be provided, with the goal of reducing the total runoff volume. The emphasis should be on low impact development (LID) techniques and best management practices (BMPs) that evapotranspire water, filter water through vegetation and/or soil, and return water to the ground or reuse it and should include such features as rooftop landscaping on the proposed parking structures. Stormwater management measures that are sufficient to attain the stormwater design-quantity control credit and stormwater design-quality control credit of the most current version of the Leadership in Energy and Environmental Design for New Construction (LEED®-NC) or Leadership in Energy and Environmental Design for Core and Shell (LEED®-CS) rating system (or third party equivalent of these credits) should be provided. If this goal is demonstrated not to be achievable, all measures should be implemented to the extent possible in support of this goal.*

Fairfax County Comprehensive Plan, 2013 Edition, Mount Vernon Planning District, as amended through April 9, 2013, Richmond Highway Corridor Area, Urban Design Recommendations, pages 83-94 may be accessed at: http://www.fairfaxcounty.gov/dpz/comprehensiveplan/area4/mtvernon1.pdf

DESCRIPTION OF THE CONCEPTUAL/FINAL DEVELOPMENT PLAN (CDP/FDP)
(A copy is located at the front of this report.)

The CDP/FDP entitled "Penn Daw Plaza," was submitted by Urban, Ltd., consisting of 35 sheets dated March 18, 2013 and revised through October 31, 2013, is reviewed below.

Site Layout

Three buildings are proposed (a maximum of 65 feet in height) along Kings Highway with ground floor commercial uses (such as a grocery store, retail sales and eating establishments) with four-stories of multi-family dwellings above. These buildings form a "U" shape that opens toward Kings Highway with the center of the "U" containing a one-way drive aisle, surface parking, and a public plaza. An approximately 24,692 square foot (sf) grocery store is proposed in the ground floor of the northern building. An approximately 7,117 sf public plaza (which includes a portion of the drive aisle and walkway in the calculation of the plaza square footage) is located in front of the grocery store.

The proposed plaza contains a focal feature with accent hardscape to distinguish this area, game tables, movable outdoor café seating, dining tables, chairs, and umbrellas, benches, seating walls, a multi-purpose activity lawn, and special paving to define the plaza area. Landscaping includes Category III and IV deciduous trees and planting beds (may include deciduous and evergreen shrubs, ornamental grasses, and/or ground cover). The plaza has the potential to be expanded for special events by closing the surface parking lot in front of the proposed grocery store. This would increase the total plaza area to approximately 17,244 sf. The expanded plaza is shown in Figure 1B.

An approximately 4,952 sf retail open space area is located at the southeast portion of the site. This area contains bicycle racks, movable outdoor dining tables, chairs, and umbrellas, game tables, Category IV deciduous trees, planting beds, and a multi-purpose lawn area. To the west of the commercial/multi-family buildings is a centrally located five-story, 763 space parking structure (maximum 55 feet in height) wrapped with four-stories of multi-family units, which is connected the northern and southern buildings by two above grade enclosed walkways. Three-story (maximum 40 ft in height), front load two car garage townhomes are proposed at the rear of the site as a transition from the multi-family building to the single family dwellings to the west of the site. A total of 41 townhomes are proposed. Eight parallel visitor parking spaces are

provided along the private road between the rear of the multi-family building and the townhomes. Figure 1A depicts the proposed overall site layout.

Recreational amenities are proposed and include two ground level multi-family courtyards. The northern courtyard (Courtyard A) consists of approximately 5,741 sf and is intended to be a passive courtyard developed primarily with benches, planting beds, and special paving/concrete pavers, as depicted on Sheet L-2.1 of the CDP/FDP. The southern courtyard (Courtyard B) contains approximately 9,608 sf and consists of a pool, outdoor lounge furniture, outdoor dining furniture, fireplace, grill, planters, planting beds, and special paving/concrete pavers. Access to both courtyards is provided through the multi-family building with a gated emergency access at the rear of the building. In addition, an indoor amenity area is proposed for the multi-family residents in the parking structure/multi-family building.

An approximately 5,061 sf dog park and an approximately 3,500 sf tot lot area are located in the southwestern quadrant of the site and are depicted on Sheet L-2.1A of the CDP/FDP. The dog park contains benches and a trash receptacle and landscaping is located outside of the 3 ½ ft metal fence that surrounds the dog park. Access to the dog park is provided through a double gate entry. The tot lot, located beside and to the east of the dog park, is shown with play equipment, benches, and a naturalized play area/garden. Two access points to the tot lot are provided and a four foot metal fence surrounds the tot lot. A dual drinking fountain is shown outside of the dog park and tot lot area for dogs and people.

Access, Parking, and Transportation Improvements

A central one-way drive aisle provides ingress only access to the site from Kings Highway; egress is prohibited from this location. Ingress and egress is provided from three access points along the site's Poag Street frontage. Vehicles circulate the site by either proceeding west along the central one-way drive aisle to either the surface parking on either side or to the parking structure at the end of the one-way drive aisle. A surface parking lot is provided in front of the grocery store building with access provided by a one-way drive aisle located in front of the plaza and continues through the grocery store parking lot. A stop sign is provided for vehicles as they exit the grocery store parking lot and back into the main one-way drive aisle.

A 24-space surface parking lot (six angled spaces) is located in front of the grocery store and 17 angled parking spaces are located in front of the southern retail building for a total of 41 parking spaces. A total of 763 structured parking spaces (153 retail and 610 residential spaces, which includes a 20% parking reduction in a CRD for the retail spaces) are provided in the parking structure. A total of 144 parking spaces (95 required) are provided for the townhomes. Four parking spaces are provided for townhome lots 1-14 and lots 29-41 consisting of two spaces in the garage and two spaces on the driveway. Townhome lots 15-28 have two garage parking spaces only

because these lots have shorter driveway lengths that preclude vehicular parking. Eight parallel visitor parking spaces are provided along the private road between the townhomes and the multi-family units. Six loading spaces are provided consisting of three loading spaces located at the rear of the southern building, two loading spaces located on the western side of the parking structure/multi-family building, and a loading area is provided at the rear of the grocery store building.

Sidewalks are provided throughout the site. A six foot wide sidewalk with an eight foot wide buffer area is provided along Kings Highway. An approximately 8.33 foot wide sidewalk is located in front of the proposed grocery store. An 8 ½ ft wide sidewalk is located in front of the southern retail building. Bicycle racks are provided on-site.

Dedication of approximately 3,515 sf of right-of-way is provided along Kings Highway for the future realignment of the road.

Building Perspectives

Building perspectives are provided and exterior materials may include brick, masonry/stone, aluminum, steel, glass, cement board paneling and siding, aluminum/vinyl windows, architectural pre-cast concrete headers, sills, and trim details, as shown in the building perspectives on Sheets A-3 and A-3.1 of the CDP/FDP.

Streetscape

Streetscape is shown along Kings Highway and includes an eight foot wide landscape strip with Category IV deciduous trees and planting beds (which may include a combination of deciduous and evergreen shrubs, ornamental grasses, and/or groundcover). A six foot wide sidewalk is adjacent to the eight foot wide landscape strip and additional planting beds are adjacent to the six foot wide sidewalk. Streetscape also is provided along Poag Street and consists of a four foot wide grass strip, a five foot wide sidewalk, Category IV deciduous trees, planting beds, seating area.

Landscaping

Along Kings Highway and the site's boundaries, Category IV deciduous trees are provided. As discussed earlier, landscaping is provided with both plaza options and with the retail open space area. Along the front of the southern building, Category IV deciduous trees are provided for interior parking lot screening. Between the multi-family building and townhomes Category IV deciduous trees are provided for interior parking lot screening. Category IV deciduous trees also are provided along Poag Street as part of the streetscape and for transitional screening. Interior parking lot landscaping accounts for 5% of the site and consists primarily of Category IV deciduous trees and some Category III deciduous trees. A 25 ft transitional screening width is provided along the western property line, adjacent to the existing single family dwelling.

Stormwater

There is an existing Best Management Practices (BMP) measure on-site and it is not proposed to be removed. For water quality purposes, this application has been identified as a redevelopment site and 40% phosphorous removal is required. A filterra and two underground stormwater management detention vaults utilizing filtration are shown to address the 40% phosphorous removal requirement. The infiltration areas associated with the two stormwater management vaults have been assigned a 50% removal rate. The filterra has been assigned a 55% removal rate. No additional BMP credit is being taken for the stormwater vaults in series, including the pervious pavement shown in front of the southern retail building.

Approximately 1.67 acres is shown to drain to stormwater management vault #1, approximately 1.33 acres is impervious. A preliminary design assumes up to 1.50 impervious acres can be treated in this facility. Stormwater management vault #2 is downstream and in-line with stormwater management vault #1. This vault has been designed to handle approximately 6.82 acres and approximately 5.50 acres is impervious. A preliminary design footprint has been provided that assumes up to 7 acres of impervious surface can be treated in this facility. The proposed filterra has an associated drainage area of approximately 0.15 acres. A minimum of 80% of the site is required to be served by the three proposed structural controls (two stormwater management vaults and one filterra). The total drainage area associated with these three structural controls is 82.68% (8.64 acres), which exceeds the 80% requirement.

The subject property is located within the Cameron Run and Belle Haven watersheds. In the pre-development condition, 9.73 acres of on-site area flow to the Cameron Run watershed, while the remaining 0.72 acres of on-site area flow to the Belle Haven watershed. The site has been engineered to reduce the post-development flow to both watersheds. A series of infiltration vaults have been designed to reduce the post-development flow to below the pre-development condition, despite an increase in drainage area.

RESIDENTIAL DEVELOPMENT CRITERIA AND STAFF ANALYSIS

Fairfax County expects new residential development to enhance the community by: fitting into the fabric of the neighborhood, respecting the environment, addressing transportation impacts, addressing impacts on other public facilities, being responsive to our historic heritage, contributing to the provision of affordable housing, and being responsive to the unique site specific considerations of the property. To that end, the Board of Supervisors adopted the Residential Development Criteria contained in the Policy Plan of the Comprehensive Plan, to be used in evaluating zoning requests for new residential development and the eight criteria are discussed below along with staff analysis.

The resolution of issues identified during the evaluation of the application is critical if the proposal is to receive a favorable recommendation. To that end, the following is an analysis of the proposal and an excerpt of each of the eight Residential Development Criteria with staff's analysis incorporated into the discussion. The majority of the Residential Development Criteria is cited below. The complete text is provided as Appendix 5.

Site Design (Appendices 6-9)

All rezoning applications for residential development should be characterized by high quality site design. Rezoning proposals for residential development, regardless of the proposed density, will be evaluated based upon the following principles, although not all of the principles may be applicable for all developments.

Consolidation: Developments should provide parcel consolidation in conformance with any site specific text and applicable policy recommendations of the Comprehensive Plan. Should the Plan text not specifically address consolidation, the nature and extent of any proposed parcel consolidation should further the integration of the development with adjacent parcels and the proposed consolidation should not preclude nearby properties from developing as recommended by the Plan.

The Comprehensive Plan includes an option for redevelopment, which states that full consolidation should be achieved for Sub-unit H-2 and if full consolidation cannot be achieved, functional and aesthetic coordination of design, to include unconsolidated area(s), should be demonstrated. The two properties in Sub-unit H-2 are the applicant's property and the Zips drycleaner site, located at tax map parcel 83-3 ((1)) 6, to the northeast, directly at the intersection of Poag Street and North Kings Highway.

The applicant is taking advantage of the redevelopment option, and to date, the applicant has not achieved full consolidation by including the unconsolidated drycleaner parcel as part of this application. The applicant indicated several attempts to reach out to the owner of the drycleaner site to be part of this application, but has been unsuccessful.

The grocery store building has been designed to abut the drycleaner building. This provides a physical integration of the two sites and a functional appearance. To demonstrate functional and aesthetic coordination of design, the applicant proffered to provide facade improvements for the drycleaner building to include, but not limited to: the use of complementary building materials and colors, repetition in building façade treatments used in the proposed development, awnings, signage, landscaping, lighting or similar articulations or features. The applicant further proffered documentation to staff on efforts to implement the facade improvements. In the event the applicant is unable to secure approval from the owner of the drycleaner site to make such improvements, the applicant proffered to contribute $45,000 to the Board of Supervisors

for supplemental streetscape and/or landscaping improvements in the vicinity of the property prior to the issuance of the first Residential Use Permit for the multi-family units.

Staff recommends that to more fully achieve the intent of the Comprehensive Plan recommendation for functional and aesthetic coordination of design with the unconsolidated drycleaner site, if the owner of the drycleaner site agrees, the applicant should also proffer to provide streetscape/landscaping along the drycleaner site's Poag Street and North Kings Highway frontages. This would more fully achieve the Comprehensive Plan recommendation for functional (streetscape/landscaping along the drycleaner's Poag Street and North Kings Highway frontages) and aesthetic (building façade improvements) coordination of design so that the two sites are functionally and aesthetically coordinated as if they are one site. The drycleaner site is located at a prominent corner location and should be functionally and aesthetically integrated with the proposed development. A proffer contribution to achieve the Comprehensive Plan recommendation is an option that the applicant has chosen to pursue. Staff is open to other options that the applicant could propose to demonstrate functional and aesthetic consolidation with the unconsolidated parcel. The applicant proffered to provide $45,000 toward supplemental streetscape and/or landscaping improvements within the vicinity of the property if the owner of the drycleaner site is not agreeable to the applicant providing architectural/facade improvements. Staff is concerned that this proffer amount may not be adequate for streetscape and facade improvements on the drycleaner site if permission is granted. The applicant should consider increasing the contribution to include the cost of streetscape improvements.

Layout: The layout should provide logical, functional and appropriate relationships among the various parts (e.g. dwelling units, yards, streets, open space, stormwater management facilities, existing vegetation, noise mitigation measures, sidewalks, and fences); provide dwelling units that are oriented appropriately to adjacent streets and homes; include usable yard area within the individual lots; provide logical and appropriate relationships among the proposed lots; provide convenient access to transit facilities; identify all existing utilities and make every effort to identify all proposed utilities and stormwater management outfall areas; encourage utility collocation where feasible.

The Comprehensive Plan provides recommendations that are applicable to the proposed layout of the site. Such recommendations include buildings to be aligned along Poag Street and North Kings Highway and built close to the street to create an urban street edge ; retail uses on the ground floor of residential buildings for maximum visibility along Kings Highway with additional retail along Poag Street/North Kings Highway; building heights limited to a maximum of five stories with the tallest buildings concentrated along Kings Highway and tapering toward the single family residences; townhomes to provide a transition to neighborhoods to the west; and a publicly accessible urban plaza.

The Comprehensive Plan recommends building heights a maximum of five stories with the tallest buildings concentrated along Kings Highway, building heights tapering down toward the single family residential neighborhoods to the west, and townhomes should be used to provide a transition to the neighborhoods to the west. In keeping with the Comprehensive Plan recommendation, five story buildings containing first floor retail with four stories of multi-family dwellings above (65 ft in height) are located closest to Kings Highway. The building height tapers down to a parking structure/multi-family building that is a maximum of 55 feet in height. Three-story (maximum 40 ft in height), townhomes are provided to transition from the multi-family building to the single family dwellings to the west of the site. The proposed site layout achieves this recommendation.

The applicant has attempted to achieve the Comprehensive Plan recommendation for buildings aligned with Poag Street and North Kings Highway and built close to the street to create an urban street edge. The applicant provides an urban edge along Poag Street by locating the buildings close to the street, providing a sidewalk, and varying the height and articulation of the buildings. Along North Kings Highway, the applicant is providing a multi-family building with ground floor retail primarily facing a central surface parking lot in front of the grocery store. Due to the lack of consolidation, as well as, the Comprehensive Plan recommendation to provide a minimum of 25,000 sf of retail space and the applicant's desire to accommodate a central surface parking lot, the retail component of the site is focused inward rather than along Kings Highway. As a result, the building footprint does not align with Kings Highway and is not built close to the street, creating a more suburban and auto-oriented shopping center rather than an urban street edge and pedestrian oriented environment. The applicant, however, has indicated that because between 30,000 sf and 45,500 sf of retail uses are proposed, the building alignment lends itself better to the proposed site layout than to a site layout where the buildings are more closely aligned with Kings Highway. In addition, the applicant is providing approximately 3,515 sf of right-of-way along its Kings Highway frontage for the future realignment of this road, which prevents the buildings to be located close to the street edge at this time.

While the buildings do not align with Kings Highway, staff recommends that to achieve the latter portion of the Comprehensive Plan recommendation of creating an urban street edge, the central surface parking lot in front of the proposed grocery store could be reduced in size to the greatest extent possible to provide a larger plaza area thus creating a more urban space. The parking lot reduces the ability to create a more urban space and likewise reduces the possibility for a larger public amenity in the form of a public plaza. Instead, an auto-oriented environment is created instead of a pedestrian-oriented environment. In addition, the number of surface parking spaces exceeds the number of parking spaces that could be considered "convenience" parking. A total of 41 surface parking spaces are proposed with 24 spaces located in front of the grocery store. The Comprehensive Plan states that "limited convenience surface parking may be appropriate provided need is demonstrated and such spaces are appropriately

integrated into the pedestrian environment." Staff recognizes a need for some surface parking with a grocery store use, but such a need has not been demonstrated. The applicant did angle the surface parking spaces along the central one-way drive aisle; however, staff recommended that all of the surface parking spaces should be angled.

In general, staff is supportive of the surface parking area in front of the grocery store, but with only a grocery store use. If the applicant fails to obtain a grocery store as a tenant and other types of retail or eating establishments are provided in its place, staff would not support the surface parking lot in front of this building. A demonstrated need for such parking has not been provided by other uses pursuant to the Comprehensive Plan recommendation for limited convenience surface parking. As such, staff strongly recommends that the area shown as surface parking in front of the grocery store should be replaced as a plaza area in order to provide a larger plaza for the site and to create a more urban environment. This would better achieve the goal of the Comprehensive Plan recommendation for a well-designed, publicly accessible urban plaza consistent with the Fairfax County Park Authority's Urban Park Framework. As stated, while buildings do not align with the street because of the amount of retail proposed, there are opportunities for the applicant to more fully achieve the latter part of the Comprehensive Plan recommendation to create an urban street edge.

In addition to the building alignment, the Comprehensive Plan recommends that retail uses should be located on the ground floor of residential buildings and located for maximum visibility along the Kings Highway frontage with additional retail located along Poag Street and North Kings Highway. The proposed retail is located on the ground floor of the multi-family building but is not located along the frontage of Kings Highway due to the inward facing nature of the site. The exception to this is the retail and associated outdoor space located at the southeastern portion of the site, which can be considered to meet the retail frontage and amenity recommendation with adequate buffering from Kings Highway. Additionally, due to the lack of consolidation, no additional retail is located along Poag Street at North Kings Highway. The applicant indicated that because of the amount of retail proposed (between 30,000 sf and 45,500 sf), visibility to the site lends itself better to a site layout as proposed rather than to a site layout where the buildings are more closely aligned with Kings Highway. While the site layout does not provide for buildings to be located along Kings Highway for visibility, staff has determined that the proposed development can be found in conformance with the Comprehensive Plan recommendation for ground floor retail and visibility along Kings Highway. This is due to the visibility of the retail space located at the southeastern portion of the site from Kings Highway; as well, as the visibility of the retail that fronts the plaza and surface parking.

The applicant proffered that between 30,000 sf and 45,500 sf of retail square footage is proposed but only depicts a site layout based on 45,500 sf of retail uses on the CDP/FDP. Staff is concerned by the difference of 15,500 sf in non-residential uses. It is unclear to staff how the difference in non-residential square footage would affect the

site layout, in particular, the residential use above the ground floor retail. Such a change in non-residential square footage could require an administrative review by staff or a public hearing process. In addition, the applicant proffered that a grocery store tenant could be a minimum of 5,000 sf. Staff is concerned that 5,000 sf is too small a space to be considered a grocery store use. Such square footage is more common for a quick service food store than for a grocery store use. Staff recommends that the applicant proffer that the grocery store contain no less than 15,000 sf.

In addition, if an eating establishment is provided in lieu of the grocery store, the applicant will have to demonstrate that adequate parking will be provided since the parking rate for retail sales establishments differs from the parking rate for eating establishments.

The plaza layout has been a large part of staff's discussion with the applicant. Staff recommended a larger plaza area than what is proposed to provide a more meaningful public gathering space for the community. Since a larger plaza area is not provided, staff recommended that the plaza should be designed with amenities to make it an inviting central gathering area. As previously discussed, the applicant proposed that the surface parking lot in front of the proposed grocery store could be used as an expanded plaza area for special events by closing this area to parking. The Park Authority further recommended that a programed use of the expanded plaza area combined with a more amenitized plaza would better meet the intent of the Park Authority's Urban Park Framework to create a more desirably used space. The applicant has included additional plaza amenities and proffered to program community gatherings and/or events a minimum of four times per calendar year.

Additionally, staff has had concern with the location of the plaza being in close proximity to the entrance to the grocery store and that the plaza would not appear to be a public amenity due to shoppers walking back and forth to the parking structure, shopping carts, and the drive aisle in front of the plaza. Staff is concerned that the plaza may appear to be an extension of the grocery store entrance area and not a distinct public gathering space. In response, the applicant better defined the plaza area by using hardscape to distinguish this area and differentiated the focal feature area with different hardscape.

The applicant also addressed staff's recommendation to provide a central landscaped median within the surface parking lot to reduce the amount of impervious surface and to enhance the pedestrian experience. The applicant has provided additional landscaping to separate the pedestrian from auto-oriented space around the edges of the parking lot and has improved the pedestrian connections to the parking lot. However, staff has expressed some concern that the grocery store building extends beyond the neighboring drycleaner's building footprint to the sidewalk, which has the effect of creating a prominent and visible corner that is a blank wall. This effect could be

softened through additional landscaping and by paying special attention to the pedestrian experience when approaching from the north along North Kings Highway.

To meet the Urban Design Recommendations for the Richmond Highway Corridor, the applicant is proposing a nine foot wide curb edge landscape strip, a six foot wide sidewalk, and a 17 foot landscape bed along Kings Highway, which meets the guidelines. In addition, on-site sidewalks are provided to connect the site to existing and planned off-site sidewalks and trails, which could lead users to transit facilities. Existing and proposed utilities have been identified. New utilities will be located underground; specifically, three underground utilities are collocated under the private street a rear of the property. Stormwater management outfall areas have been identified and addressed.

As previously noted, the applicant withdrew the proposed drive-through option after staff memos were finalized. Consequently, staff memos contain comments that reference the proposed drive-through option. The withdrawal of the drive-through option has no significant impact on staff's analysis of this application.

Open Space: Developments should provide usable, accessible, and well-integrated open space. This principle is applicable to all projects where open space is required by the Zoning Ordinance and should be considered, whether appropriate, in other circumstances.

In the PDH-40 District with affordable dwelling units, 31% of the site is required to be provided as open space. The applicant is providing approximately 32% (3.36 acres) of the site as open space. The open space provided includes a plaza, retail open space along South Kings Highway, a dog park, tot lot, tree save area, multi-family courtyards, and townhome rear and front yards.

In regard to urban park spaces, based on the open space dimensions that the applicant provided on Sheet L-1.1 of the CDP/FDP, approximately 63,949 sf (1.46 acres) of open space is provided. However, approximately 33,192 sf is a tree save area, which is not considered as park space since it is not usable space to recreate. Therefore, the applicant is providing approximately 32,757 sf (0.70 acres) of usable open space. However, staff feels that the publicly accessible open space is limited to the approximately 7,117 sf plaza.

The Park Authority recommends at least one acre of urban park space on-site. If less than the recommended urban park space is provided, the Park Authority recommends that the public urban park spaces that are provided contain high-quality amenities and programming to ensure that the plaza, in particular, will be activated and a valuable public asset to the extent that the space will allow. While the applicant is not providing one acre of urban park space, in general, the applicant has provided improved plaza amenities and has proffered a programming schedule for the expanded plaza area to

address the Park Authority's recommendation. Further discussion of the plaza and its amenities are contained in the Amenities sub-section of the Residential Development Criteria section of this staff report.

The Park Authority also recommended that a functional use should be incorporated for the lawn area in the public retail open space, such as a bocce court or lawn game and recommended that the applicant should consider adding game tables. The applicant has provided a multi-purpose activity lawn and has provided game tables in this open space area.

Landscaping: Developments should provide appropriate landscaping, for example: in parking lots, in open space areas, along streets, in and around stormwater management facilities, and on individual lots.

The Comprehensive Plan states that "parking should be consolidated into structures that are integrated into the development using aesthetically appealing architectural detailing, screening, lighting, and landscaping. The Richmond Highway Corridor Area Urban Design Recommendations further emphasize that "the visual impacts of structured parking should be reduced by rooftop landscaping on the top level of a parking structure. Landscape areas should be provided and planted with shade trees and shrubs. These should be provided at a minimum at the end of each row of parking." The applicant has not provided rooftop landscaping on the proposed parking structure and is requesting a waiver to provide such landscaping. Staff's analysis and discussion of this waiver request is contained in the Waivers/Modification section of this report.

Category IV deciduous trees are proposed along Kings Highway to meet the intent of the streetscape recommendation in the Comprehensive Plan. Landscaping is provided in the urban plaza consisting of Category IV deciduous trees and planting beds (may include deciduous and evergreen shrubs, ornamental grasses and/or groundcovers). Within the 8 ½ foot wide sidewalk area in front of the southern building Category III deciduous trees are proposed to meet interior parking lot screening requirements in that area. Category III deciduous trees are provided at the rear of the parking structure to provide interior parking lot landscaping and transition to the adjacent townhomes. Structural cells are proffered for Category III trees to promote their survivability. Category IV deciduous trees are proposed along Poag Street to screen the existing single family dwellings from the proposed development. In addition, Category IV deciduous trees are provided around the perimeter of the dog park and tot lot areas. A 15 ft wide transitional screening area is provided along the western property line. An approximately 32,275 sf tree preservation area is proposed to remain.

Transitional screening modifications and waivers are requested between the proposed uses in order to provide a cohesive development rather than uses separated by transitional screening. In addition, a modification has been requested of the interior

parking lot landscaping disbursement in the surface parking lot. The waiver and modification requests are discussed in more detail in the Waivers/Modifications section of the report.

Amenities: Developments should provide amenities such as benches, gazebos, recreational amenities, play areas for children, walls and fences, special paving treatments, street furniture, and lighting.

Plaza amenities are provided, which include a focal feature such as climbable art, interactive art, or a water feature. Staff strongly recommends that the focal feature chosen be an amenity that is engaging and serves to activate the plaza. Additional plaza amenities include game tables; movable outdoor café seating, dining tables, chairs, and umbrellas; benches; seating walls; a landscaped area for naturalized play; and hardscape markings to indicate hopscotch, a maze, or some comparable interactive activity. Landscaping is provided and includes Category III and IV deciduous trees and planting beds (may include deciduous and evergreen shrubs, ornamental grasses, and/or ground cover).

Recreational amenities include a dog park and a children's tot lot area with proffered play equipment. Two multi-family outdoor, ground floor courtyards are proposed. One contains a pool, lounge furniture, grill, and outdoor fire pit, benches, landscaping, and special pavement. The other courtyard is intended as a more passive area containing outdoor seating, landscaping, and special pavement. The applicant proffered that the outdoor recreational amenity and recreational facilities provided with the multi-family buildings are available to the townhomes, which may include a fee or charge.

Seating areas are proposed along the site's Poag Street frontage and lighting is proposed throughout the site to ensure visibility and safety, particular between the parking structure and the retail buildings, in conformance with Article 14 of the Zoning Ordinance.

Neighborhood Context

All rezoning applications for residential development, regardless of the proposed density, should be designed to fit into the community within which the development is to be located. Developments should fit into the fabric of their adjacent neighborhoods, as evidenced by an evaluation of: transitions to abutting and adjacent uses; lot sizes, particularly along the periphery; bulk/mass of the proposed dwelling units; setbacks (front, side and rear); orientation of the proposed dwelling units to adjacent streets and homes; architectural elevations and materials; pedestrian, bicycle and vehicular connections to off-site trails, roadways, transit facilities and land uses; existing topography and vegetative cover and proposed changes to them as a result of clearing and grading. It is not expected that developments will be identical to their neighbors, but that the development fit into the fabric of the community.

As previously discussed, the proposed development addresses the Comprehensive Plan recommendations on site layout in order to fit into the surrounding community. The proposed retail along the site's Kings Highway frontage, while not along the street edge, has frontage and visibility along Kings Highway similar to the retail uses across the street.

Building elevations are shown on Sheets A-3 and A-3.1 of the CDP/FDP to show compatibility between the uses on-site and the surrounding area and architectural materials are included in the proffers. Front facades of the townhome end units are oriented to the side of the unit. In particular along Poag Street, where there are single family residences across from the proposed townhomes, this orientation provides for the front door of a townhome faces the single family dwellings along Poag Street instead of the side of the townhome. While building perspectives are provided for the townhomes, staff recommends that the townhomes should be architecturally compatible with the neighboring developments, although could be distinct in terms of materials and style.

A 15 foot landscaped buffer is provided between the private open space of the townhomes and the single family dwellings along Poag Street, which provides a buffer and minimizes the visual impact. Open space in the form of a dog park and tot lot at the southwestern portion of the site is provided. Bicycle and vehicular connections are provided to connect to off-site trails, roadways, and transit facilities. Both on-site and off-site pedestrian amenities are provided. Staff recommends that the applicant continue to ensure that a carefully planned pedestrian walkway between the parking structure and retail space is provided; as well as, an improved pedestrian experience along North Kings Highway when approaching from the north.

Existing topography, vegetative cover, and any changes to them are either being maintained, such as the slope within the tree save area at the southwest portion of the site, or are being addressed through new landscape plantings.

Environment (Appendix 10)

All rezoning applications for residential development should respect the environment. Rezoning proposals for residential development, regardless of the proposed density, should be consistent with the policies and objectives of the environmental element of the Policy Plan, and will also be evaluated on the following principles, where applicable.

Preservation: Developments should conserve natural environmental resources by protecting, enhancing, and/or restoring the habitat value and pollution reduction potential of floodplains, stream valleys, EQCs, RPAs, woodlands, wetlands and other environmentally sensitive areas.
The application contains an approximately 32,275 square foot tree safe area at the southwest quadrant of the site. There are no floodplains, stream valleys, EQCs, RPAs, or other environmentally sensitive areas.

Slopes and Soils: The design of developments should take existing topographic conditions and soil characteristics into consideration.

There is a slope at the southwest quadrant of the site, which is identified as an approximately 32,275 square foot tree save area. Soil characteristics were taken into consideration in the review of stormwater drainage and detention to determine the type of facility to incorporate into the site in order to meet water quality and stormwater detention requirements.

Water Quality: Developments should minimize off-site impacts on water quality by commitments to state of the art best management practices for stormwater management and better site design and low impact development (LID) techniques.

There is an existing Best Management Practices (BMP) measure on-site and is not proposed to be removed. This is a redevelopment site and 40% phosphorous removal is required and is proposed to be achieved with a filterra and two stormwater management vaults. No additional BMP credit is being taken for the stormwater vaults in series, including the pervious pavement shown in front of the southern retail building.

The Comprehensive Plan recommends substantially more extensive stormwater quality controls than the minimum requirements. In accordance with the Comprehensive Plan recommendation, the applicant has proffered to exceed the Public Facility Manual's (PFM) post development phosphorous removal requirement by at least 10% when compared to the pre-development conditions. To achieve this, the applicant has further proffered to utilize Low Impact Development (LID) techniques such as tree box filters, bioretention areas, pervious hardscapes/streetscapes, stormwater reuse for landscape irrigation, and air conditioning unit makeup water.

In the event that the performance standards set forth in the PFM are modified to use a different method for calculating improvements, then the applicant has proffered in proffer #34B to demonstrate the stormwater management facilities satisfy both the proffered performance standards and the new PFM standards, as may be amended. However, the applicant also proffered in proffer #34C that should the U.S. Environmental Protection Agency, the Commonwealth of Virginia, or Fairfax County issue new or additional stormwater management requirements affecting the subject property, then changes to the stormwater designs would not require an amendment to the CDP/FDP or proffers or gain approval of administrative modifications to the CDP/FDP or proffers. Staff does not support modifications not being subject to an administrative review and does not support the proffer with this language included.

Drainage: The volume and velocity of stormwater runoff from new development should be managed in order to avoid impacts on downstream properties. Where drainage is a particular concern, the applicant should demonstrate that off-site drainage impacts will be mitigated and that stormwater management facilities are designed and sized

appropriately. Adequate drainage outfall should be verified, and the location of drainage outfall (onsite or offsite) should be shown on development plans.

A pre and post development drainage summary is provided and indicates that drainage will be detained and will not impact downstream properties.

Approximately 1.67 acres is shown to drain to stormwater management vault #1, approximately 1.33 acres is impervious. A preliminary design assumes up to 1.50 impervious acres can be treated in this facility. Stormwater management vault #2 is downstream and in-line with stormwater management vault #1. This vault has been designed to handle approximately 6.82 acres and approximately 5.50 acres is impervious. A preliminary design footprint has been provided that assumes up to 7 acres of impervious surface can be treated in this facility. The proposed filterra has an associated drainage area of approximately 0.15 acres. A minimum of 80% of the site is required to be served by the three proposed structural controls (two stormwater management vaults and one filterra). The total drainage area associated with these three structural controls is 82.68% (8.64 acres), which exceeds the 80% requirement.

The subject property is located within the Cameron Run and Belle Haven watersheds. In the pre-development condition, 9.73 acres of on-site area flow to the Cameron Run watershed, while the remaining 0.72 acres of on-site area flow to the Belle Haven watershed. The site has been engineered to reduce the post-development flow to both watersheds. A series of infiltration vaults have been designed to reduce the post-development flow to below the pre-development condition, despite an increase in drainage area. This criteria has been satisfied.

Noise: Developments should protect future and current residents and others from the adverse impacts of transportation generated noise.

The Policy Plan of the Comprehensive Plan provides that new development should not expose people in their homes, or other noise sensitive environments, to noise in excess of DNL 45 dBA, or to noise in excess of DNL 65 dBA in the outdoor recreation areas of homes. To achieve these standards new residential development in areas impacted by highway noise between DNL 65 and 75 dBA will require mitigation.

The applicant completed a noise study, which indicates that portions of the site will be impacted by noise in the 65-70 dBA Ldn range. The areas impacted include portions of the residential over the proposed commercial closest to Kings Highway. To address this, the applicant has proffered that concurrent with the submission of the first site plan, a noise study will be submitted demonstrating that interior areas of residential units will have noise levels reduced to approximately 45 dBA Ldn or less based on future traffic conditions and final site conditions. For those multi-family dwelling units that the noise study indicates will have exterior balconies affected by noise above 65 dBA, the applicant proffered that written disclosure will be provided to the prospective

tenant/purchaser indicating that such unit's balcony may be impacted by exterior noise at levels described in the applicant's noise study.

In addition, the applicant proffered to provide noise attenuation measures to ensure that traffic-related noise in the outdoor plaza does not exceed 65 dBA Ldn. The area shown as retail open space is designed as an outdoor amenity serving both the ground floor retail and residential units and may contain outdoor restaurant seating and landscaping, as shown on Sheet L-2 of the CDP/FDP. This area is intended as an amenity with the plaza serving as the site's central gathering space. As such, mitigating traffic noise in the retail open space area is a challenge without creating a physical barrier that would preclude the intent of the open space area. Staff's analysis is provided in Appendix 10.

Lighting: Developments should commit to exterior lighting fixtures that minimize neighborhood glare and impacts to the night sky.

The applicant has proffered that all lighting will be in conformance with the Outdoor Lighting Standards, which are set forth in Article 14 of the Zoning Ordinance. Parking lot and building mounted security lighting will utilize full cut-off fixtures. The applicant further proffers that light poles in surface parking lots and on the top level of the above grade parking structure will use shielded cut-off fixtures and will be directed inward and downward so that the lamp surface is not directly visible to adjacent properties. This criteria has been satisfied.

Energy: Developments should use site design techniques such as solar orientation and landscaping to achieve energy savings, and should be designed to encourage and facilitate walking and bicycling. Energy efficiency measures should be incorporated into building design and construction.

The applicant has included a sustainable design proffer to address energy conservation and green building techniques by pursuing certification from either the National Green Building Standard (NGBS) or LEED New Construction or LEED for Homes Multifamily Mid-Rise and Earthcraft for both the multi-family dwellings and townhomes. Staff recommends that the applicant clearly distinguish in proffer #11 that the green building certification will include the retail uses. The grocery store would be exempt since in the past, staff has not required such a use to obtain certification. Further, in proffer #11A, staff recommends that the applicant clarify the name of the green building program is the 2012 National Green Building Standard (NGBS) using the ENERGY STAR® Qualified Homes path for energy performance in order to be in conformance with the Policy Plan of the Comprehensive Plan. As proffered, the proffer condition does not specify the 2012 version and includes the option for the Performance Path for energy performance. This option should be deleted. Only the ENERGY STAR® Qualified Homes path for energy performance meets the Comprehensive Plan recommendation for sustainable buildings. In addition, in proffer #11B, the green building escrow only applies to LEED Silver certification or higher. Staff recommends that the applicant

clarify the proffer to state LEED Silver certification or higher for the multi-family buildings.

The plaza landscaping creates a more usable and inviting space by providing shade trees for screening. Bicycle racks are included as part of the development. Staff has encouraged the applicant to provide these bicycle racks in more visible locations relative to the entrances of the retail uses. Staff believes that if the bicycle racks are more visibly placed then an increased comfort level is likely when leaving one's bicycle unattended.

Tree Preservation and Tree Cover Requirements (Appendix 9)

All rezoning applications for residential development, regardless of the proposed density, should be designed to take advantage of the existing quality tree cover. If quality tree cover exists on site as determined by the County, it is highly desirable that developments meet most or all of their tree cover requirement by preserving and, where feasible and appropriate, transplanting existing trees. Tree cover in excess of ordinance requirements is highly desirable. Proposed utilities, including stormwater management and outfall facilities and sanitary sewer lines, should be located to avoid conflicts with tree preservation and planting areas. Air quality-sensitive tree preservation and planting efforts are also encouraged.

The total tree canopy area provided through tree preservation is approximately 41,594 square feet and the total canopy area provided through tree planting is approximately 21,775 square feet. As such, the applicant exceeds the 10-year tree canopy requirement by 39% and is providing approximately 63,369 square feet of total tree cover provided by tree preservation and planting. The applicant worked closely with Urban Forest Management Division (UFMD) to address tree preservation, tree cover, and landscaping requirements. Proposed utilities have been located to avoid conflicts with tree preservation and planting areas.

Transportation (Appendices 7 and 11)

All rezoning applications for residential development should implement measures to address planned transportation improvements. Applicants should offset their impacts to the transportation network. Accepted techniques should be utilized for analysis of the development's impact on the network. Residential development considered under these criteria will range widely in density and, therefore, will result in differing impacts to the transportation network. Some criteria will have universal applicability while others will apply only under specific circumstances. Regardless of the proposed density, applications will be evaluated based upon the following principles, although not all of the principles may be applicable. The principles include: transportation improvements, transit/transportation management, interconnection of the street network, streets, non-motorized facilities, and alternative street designs.

The Fairfax County Department of Transportation (FCDOT) recommends an alternative vehicular circulation to that shown on the CDP/FDP. FCDOT is concerned that the close proximity of the exiting drive aisle (parallel to North Kings Highway) and the parking spaces near the site's King's Highway entrance would impact queuing on-site and cause vehicles to back-up onto Kings Highway. FCDOT recommends closing the exiting grocery store drive aisle; convert the one-way drive aisle in front of the grocery store to a two-way drive aisle; remove the first two parking spaces to the right of the main one-way drive aisle from the site entrance, and angle all parking spaces along the main drive aisle. FCDOT's proposed alternative circulation is shown in Figure 3.

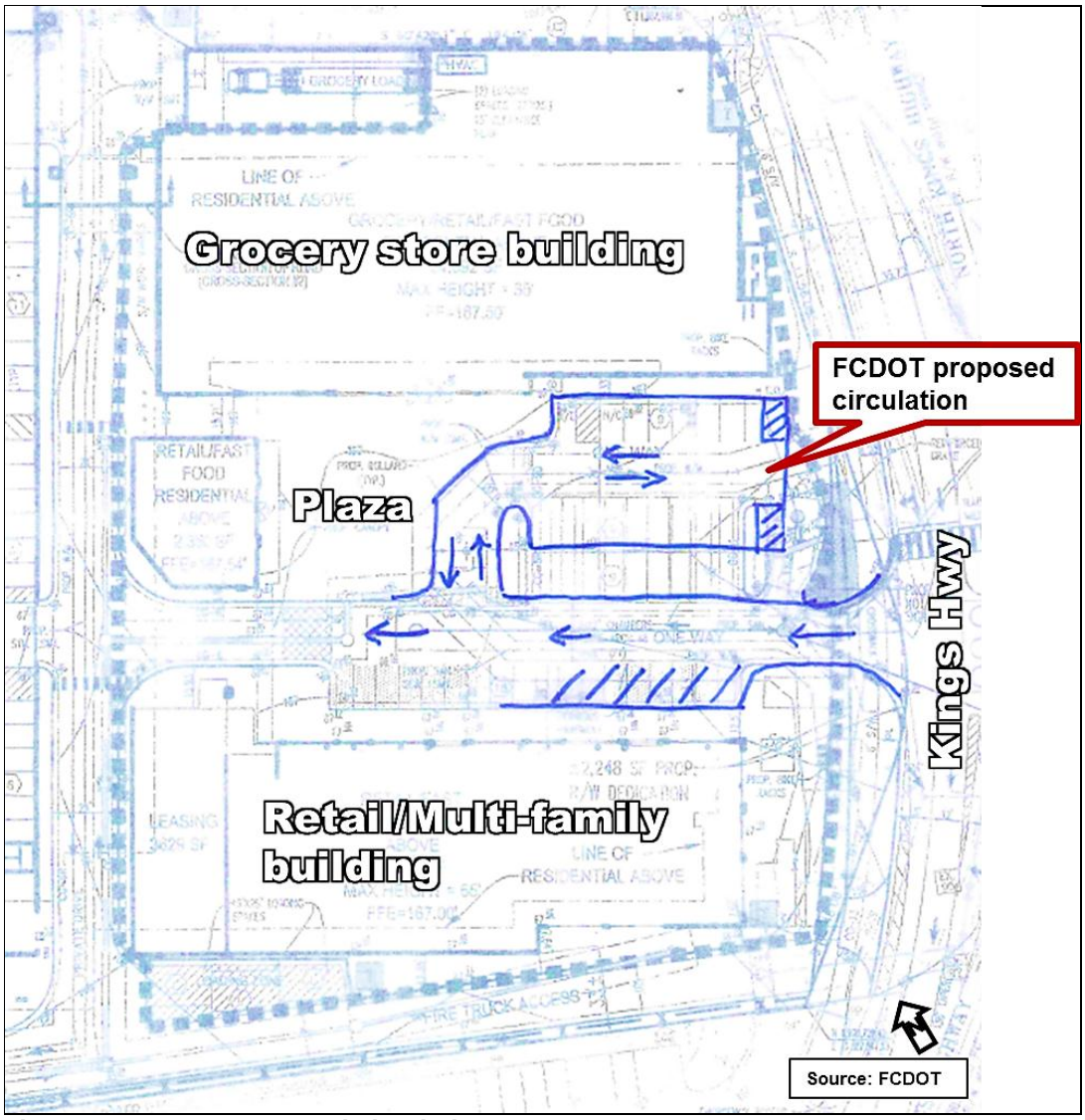


Figure 3: FCDOT proposed circulation.

In contrast to the applicant's proposed grocery store circulation, FCDOT feels that its proposed design would accomplish the following objectives:

- Reduce a potential vehicular conflict point at the site entrance by locating the entrance/exit to the parking lot further into the site from the site's Kings Highway entrance. The grocery store parking lot would then be self-contained with a two-way drive aisle.
- Increase the distance into the site from Kings Highway by removing the first two parking spaces to the right of the main drive aisle. This would reduce the potential of parking maneuvers that would interfere with entering traffic from Kings Highway.
- Reduce the potential for wrong-way vehicular movement in the main drive aisle by angling all parking spaces along the main drive aisle.

By retaining the exiting drive aisle, the applicant's proposed circulation only addresses FCDOT's last two objectives. FCDOT believes the applicant's proposed circulation does not resolve staff's concern regarding a vehicular conflict point at the site's Kings Highway entrance, which may have a spillover effect onto Kings Highway and cause pedestrian conflict points at the crosswalk at this entrance.

While FCDOT's proposed circulation does not allow fire truck turn around in the parking lot, the Fire Marshal's office indicated that the proposed circulation could meet fire access. The plaza amenities would have to be designed so that a fire truck could have a 15-30 ft clearance from the building and a 20 ft wide area is provided to allow a fire truck to back onto the plaza to exit. The proposed bollards in front of the plaza should be designed so that they could be removed, lowered, or knocked down in an emergency situation. Fire access could also be provided from the grocery store parking lot directly onto North Kings Highway with a design similar to that of the fire access provided at the southeastern portion of the site. However, this access would likely impact the streetscape along North Kings Highway and landscaping would have to be located outside of the fire access.

Conversely, the applicant maintains that on-site circulation has been improved with additional traffic control signs to direct traffic and emphasizes the one-way traffic pattern, as shown on Sheet 2A of the CDP/FDP. The applicant has expressed concern with eliminating the exiting drive aisle because this will make the retail space less desirable to prospective tenants. Figure 4 provides the applicant's proposed grocery store circulation. Through an auto turn exhibit (Appendix 12) the applicant demonstrated that a 50 ft fire truck could make the turn in front of the plaza to access the front of the grocery store building and navigate the exiting turn parallel to North Kings Highway. Reinforced grass is shown adjacent to the exiting turn.

The on-site circulation for the grocery store parking lot remains outstanding. The applicant and staff have not reached an agreement on closing the exiting drive aisle.

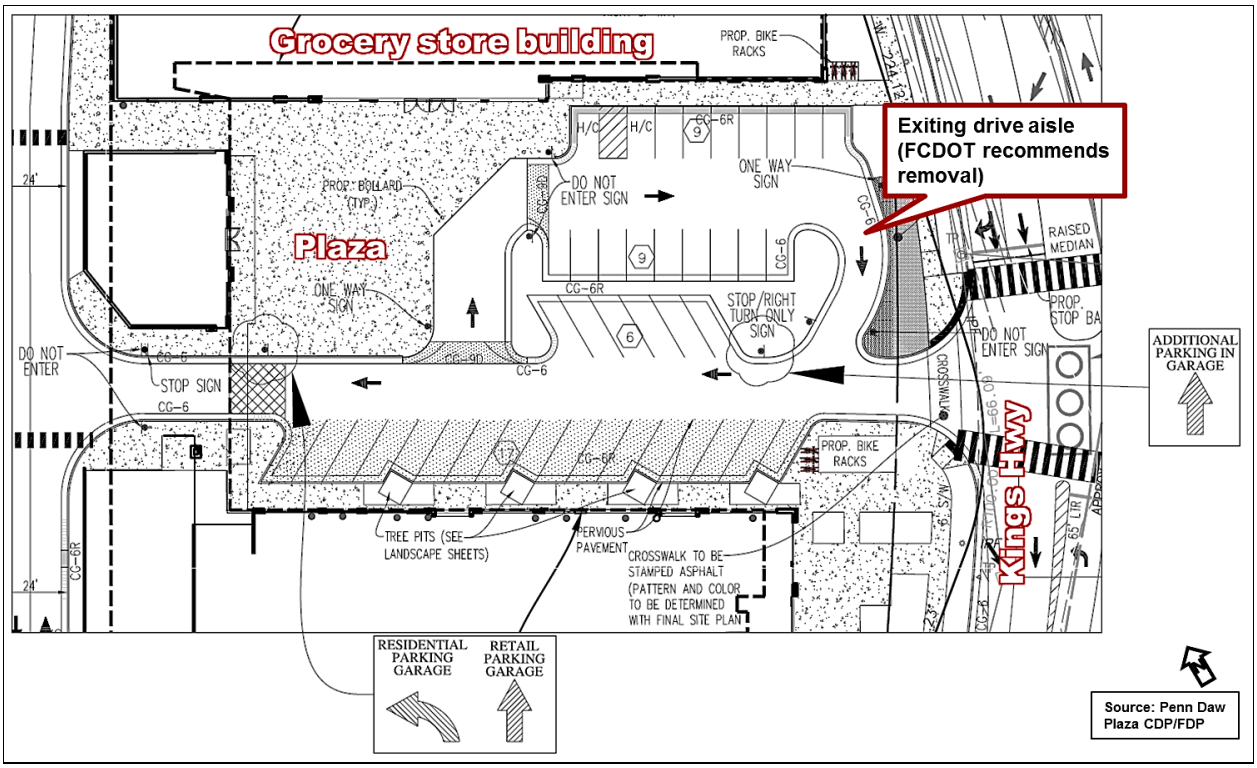


Figure 4: Applicant's proposed circulation and traffic control signs.

Should the exiting drive aisle remain, staff recommends that the applicant submit a waiver to the Fire Marshal for the proposed 16 foot wide exiting drive aisle at the time of site plan. The applicant proffered to submit such a waiver request. In general, the other proposed streets are 20 feet in width to meet the minimum width for fire access. A 28 feet wide street is shown along the townhome portion of the site because three utility lines are located within this area and the additional width is needed to accommodate the utility easements.

With the exception of grocery store parking lot circulation and the issues below that the applicant was unable to address, the applicant responded to all of FCDOT and the Virginia Department of Transportation's (VDOT) recommendations contained in Appendices 7 and 11.

- An 8.33 foot wide sidewalk width in front of the grocery store is proposed. However, the 8.33 ft wide sidewalk width may be insufficient to accommodate possible storefront display, shopping carts, and pedestrian circulation. Staff recommends widening this sidewalk area to the extent possible. The applicant provided that to enlarge this sidewalk would impact fire access. A wider sidewalk width would push the fire access further away from the building precluding an appropriate distance for a fire truck to be able to access the front of the building.

- A continuous five foot sidewalk with a two foot driveway apron along townhome lots 15-28 is recommended. A 7 ft driveway length is proposed for these townhome lots. The applicant has responded that they are unable to provide a continuous five foot wide sidewalk in front of townhome lots 15-28 because the grade prohibits the applicant from being able to install a sidewalk along this row of townhomes. Five foot wide sidewalks are provided across the street and throughout the townhome area for continuous pedestrian movement.

The applicant has proffered the following transportation improvements:

- Two northbound and two southbound through lanes along Kings Highway between Poag Street and the site's entrance.
- A southbound taper between the site's entrance on Kings Highway and its southern boundary.
- A dedicated left turn lane from northbound Kings Highway into the site and a dedicated right turn lane from Kings Highway toward Richmond Highway in the location and configuration.
- Reconstruction and reconfiguration of the curb and gutter and the removal of the existing asphalt along the outside northbound lane on Kings Highway for the realignment of Kings Highway.
- Installation of a new or modified traffic signal with pedestrian countdown signal heads at the site's entrance from Kings Highway along with pedestrian crosswalks across Kings Highway and the site's entrance. If not previously installed by others, the pedestrian countdown signals will be located on the northern, western, southern, and eastern legs of the intersection.
- Dedication of 3,515 square feet of right-of-way (ROW) toward the interim and ultimate realignment of Kings Highway. The dedication is not anticipated to have a significant impact to Kings Garden Apartments. Additionally, the applicant has proffered to reconfigure, at its own expense, the site's entrance and associated streetscape elements on Kings Highway concurrent with the County and/or VDOT's improvements to Kings Highway.

It is noted that the applicant proffered a monetary contribution toward an off-site transportation improvement for the realignment of Shields Avenue/School Street at North Kings Highway. Three rezoning applications are within 500 ft of this area and include this application; Capital Investment Advisors, LLC (RZ/FDP 2012-MV-018), located to the northeast; and Insight Property Group, LLC (RZ/FDP 2011-LE-016), located north of Poag Street. The Comprehensive Plan states that a financial contribution may be provided toward facilitating implementation of off-site planned transportation improvements, as deemed appropriate.

To address this Comprehensive Plan recommendation, Insight Property Group proffered $374,000 ($1,526.50 per dwelling unit) in monetary and site improvement contributions and Capital Investment Advisors proffered $250,000 ($909.10 per dwelling

unit) along with frontage improvements. The applicant has proffered up to $563,000 ($1,276 per dwelling unit), which staff recommended but has concern on the timing of the proffer and is discussed below.

The applicant also proffered a Transportation Demand Management Plan to encourage 25% use of transit, other high occupant vehicle commuting modes, walking, bicycling, and teleworking in order to reduce automobile trips generated by the dwelling units.

The following transportation related proffers remain outstanding:

- Proffer condition #21: The applicant proffered that the five foot sidewalk width may be reduced where insufficient ROW exists. Staff does not support this flexibility because the applicant's property is adjacent to Poag Street and the applicant should be able to provide the full ROW.
- Proffer condition #31 D: The applicant proffered to provide a signal warrant study for the traffic signal at the intersection of Poag Street and Kings Highway. The Insight Property Group development escrowed funding for the installation of this traffic signal. If a traffic signal is warranted and has not been installed by others, staff recommends that the applicant proffer to install the traffic signal and could use the escrowed funds proffered by the Insight Property Group to install the traffic signal.
- Proffer condition #31 E: For the regional road fund contribution, the proffer states that prior to the issuance of each RUP, the applicant shall contribute $1,276 per multi-family unit and per single family attached unit. This is unacceptable since, as proffered, the contribution could dribble in 441 times with each RUP issued for the 441 total residential units that are proposed. Staff recommends that the applicant proffer the contribution at the time of site plan approval, which would be consistent with the timing of this proffer contribution by the applicants for RZ 2011-LE-016 (Insight Property Group) and RZ 2012-MV-018 (Capital Investment Advisors). A proffer contribution that is provided in small increments is not effective in providing funding toward a road improvement project. In addition, staff recommends a minimum contribution of $500,000 should be proffered.
- Proffer condition #32A: The applicant has proposed a pedestrian connection along the property's southern border with the Kings Garden Apartments to facilitate pedestrian activities between the apartment complex and the proposed dog park and tot lot. The proffer states that the location of this proposed pedestrian connection shall be determined by the applicant and at the time of site plan. Staff recommends that regardless of the location of the pedestrian connection in the vicinity of Kings Garden Apartments, the applicant should ensure that there is a continuous sidewalk from the dog park/tot lot connection to the commercial/multi-family building, which would fully meet the intent of the pedestrian connection. Staff recommends providing a continuous sidewalk along the southern edge of the parking structure to the dog park/tot lot area.

Public Facilities

Residential development impacts public facility systems (i.e., schools, parks, libraries, police, fire and rescue, stormwater management and other publicly owned community facilities). All rezoning applications for residential development are expected to offset their public facility impact and to first address public facility needs in the vicinity of the proposed development.

Park Authority (Appendix 8)

In accordance with Sect. 6-110 of the Zoning Ordinance, the applicant is required to provide on-site recreation facilities for future residents of the subject property and shall expend a minimum of $1,700 per non-ADU residential unit. The applicant has provided a proffer for $1,700 per non-ADU residential unit and has provided that in the event that the total cost of recreational improvements constructed is demonstrated to be less than $1,700 per unit, the applicant will provide the remainder in a cash contribution to the Fairfax County Park Authority for development of active recreational facilities in the vicinity of the application area prior to bond release.

The on-site recreational facilities address only a portion of the recreational needs of future residents. In accordance with the Countywide Policy Plan from the Comprehensive Plan, the Park Authority suggests a “fair share” off-site contribution of $893 per new resident associate with any residential rezoning application to offset impacts to district and countywide parks and recreational facilities serving the application area.

A contribution of $731,367 (819 new residents x $893) is recommended by the Park Authority for an off-site recreational facility development at one or more park sites located within the service area of the subject property based on a 1.75 ratio for average multi-family household size in urban growth areas, which this application is considered and that the Park Authority now uses.

However, the applicant has provided a proffer contribution of $575,000 based on a ratio that was previously negotiated by staff on previous rezoning applications. This ratio consists of the following: (a) studio and one-bedroom multi-family units generating 1.25 residents per unit, (b) two-bedroom multi-family units generating two residents per unit, and (c) single-family attached units generating 2.90 residents per unit. This ratio was used during the review of the Insight Property Group and Capital Investment Advisors rezoning applications. This development is proposed to be developed with 60% studio and one bedroom multi-family units, 40% two bedroom multi-family units, and 41 townhomes.

Based on the ratio that the applicant used, $682,000 would be the appropriate off-site park facilities contribution. However, the applicant has proffered $575,000 prior to the

issuance of the first RUP for the multi-family units. Staff recommends that the timing of the proffer should be at site plan approval for the proposed development. As proffered, the contribution would not be provided if the townhomes were to develop before the multi-family units and does not address off-site park facility needs of the townhomes. As such, the applicant has not fully addressed the Park Authority's off-site park facilities contribution and has provided a proffer contribution based on a ratio that is no longer in use. This issue remains outstanding.

Fairfax County Public Schools (Appendix 13)

A net of 55 new students is anticipated (30 elementary, 10 middle, and 15 high school students). Based on the school contribution formula contained in the Residential Development Criteria, FCPS determined that a proffer contribution of $576,840 is recommended to offset the impact that new student growth will have on surrounding schools. Staff recommends that the applicant proffer the school contribution at the time of site plan or building permit approval. As proffered, a contribution at the time of the first RUP for the multi-family units is unacceptable and does not allow the school system adequate time to address new student growth. In the event that the townhomes are developed first, the applicant has not provided a school contribution to offset the impact of new students generated from these dwellings. The applicant has proffered FCPS's requested notification on when construction is anticipated to begin and an anticipated completion date for student enrollment projection purposes.

Fairfax Water (Appendix 14)

Adequate domestic water service is available at the subject property from an existing 12-inch water main located in North Kings Highway and a proposed 8-inch water main to be located in Poag Street. Staff notes that depending on the configuration of the on-site water mains, additional water main extensions may be necessary to satisfy fire flow requirements and accommodate water quality concerns. The applicant is aware of this potential issue and will review further at site plan.

Fire and Rescue (Appendix 15)

The application property is serviced by the Fire and Rescue Station #411, Penn Daw. Sheet 14 of the CDP/FDP was provided for the Fire Marshal on fire access and fire hydrant coverage. The Fire Marshal's office indicated that fire coverage would have to be provided pursuant to Public Facilities Manual (PFM) Section 9-02022.2J(2), which states that "when buildings are more than five stories or 50 feet in height, ladder truck access shall be provide to both the front and rear of the building." A modification to this section of the PFM may be requested. The applicant is aware of the required fire access and has met with the Fire Marshal's office to review the fire access that is being provided.

In addition, in consultation with VDOT and without their objection, CG-7 curbs will be provided in the area of the fire egress lane. The CG-7 curbs will be a mountable curb for the truck to egress onto North Kings Highway. In the area carrying fire truck traffic, the grass will be reinforced with a grass paver and wire mesh for the sidewalk.

Affordable Housing

Ensuring an adequate supply of housing for low and moderate income families, those with special accessibility requirements, and those with other special needs is a goal of the County. Part 8 of Article 2 of the Zoning Ordinance requires the provision of Affordable Dwelling Units (ADUs) in certain circumstances. This criterion is applicable to all rezoning applications and/or portions thereof that are not required to provide any ADUs, regardless of the planned density range for the site.

The applicant is providing 21 ADUs or 4.76% of the site. All of the ADUs are proffered to be provided as multi-family units, which is permissible. The applicant provided that this will allow for ease of administrating the ADUs since the multi-family units will be rental units; whereas, the townhomes will be owner occupied. Staff strongly recommends that the proffered condition clearly state that ADUs will be provided because the development's open space requirement is based on having ADUs and the open space requirement would not be met if ADUs are not provided. The absence of ADUs may change the building construction type.

In addition, 37 workforce dwelling units (WDUs) are provided or 10.24% of the proposed residential uses with ADUs. A total of 56 bonus units are taken (50 multi-family units and 6 townhomes) out of a possible 87 bonus units.

Heritage Resources

Heritage resources are those sites or structures, including their landscape settings, that exemplify the cultural, architectural, economic, social, political, or historic heritage of the County or its communities. Such sites or structures have been 1) listed on, or determined eligible for listing on, the National Register of Historic Places or the Virginia Landmarks Register; 2) determined to be a contributing structure within a district so listed or eligible for listing; 3) located within and considered as a contributing structure within a Fairfax County Historic Overlay District; or 4) listed on, or having a reasonable potential as determined by the County, for meeting the criteria for listing on, the Fairfax County Inventories of Historic or Archaeological Sites.

There are no known historical or archaeological resources on the subject property and no heritage resources have been identified on this site.

ZONING ORDINANCE PROVISIONS

General Standards for All Planned Developments

A rezoning application or development plan amendment application may only be approved for a planned development under the provisions of Article 6 if the planned development satisfies the following general standards:

General Standard 1: The planned development shall substantially conform to the adopted comprehensive plan with respect to type, character, intensity of use, and public facilities. Planned developments shall not exceed the density or intensity permitted by the adopted comprehensive plan, except as expressly permitted under the applicable density or intensity bonus provisions.

The Comprehensive Plan recommends development up to a 1.15 FAR for Sub-unit H-2, which includes both the subject property and the existing Zips drycleaner site located at Tax Map Parcel 83-3 ((1)) 6. The applicant provided that development of the subject property with the 20% maximum allowable bonus density (87 units) will result in a 1.36 FAR. However, the applicant is not taking advantage of all of bonus units allowed and only is taking 56 units. As such, the resultant FAR is 1.34, inclusive of the permitted 56 bonus units. While this FAR exceeds the Comprehensive Plan's recommendation of 1.15 FAR for Sub-unit H-2, the 1.34 FAR includes the bonus units, which is the cause for the FAR being above 1.15 FAR. Therefore, the proposed development is in conformance with the recommended 1.15 FAR. In addition, the type, character and public facilities conform to the Comprehensive Plan recommendation. This standard has been met.

General Standard 2: The planned development shall be of such design that it will result in a development achieving the stated purpose and intent of the planned development district more than would development under a conventional zoning district.

The subject property is split zoned with approximately 6.4 acres to the east zoned to the C-8 District and approximately 4.2 acres to the west zoned to the R-4 District. Under conventional zoning districts, a mix of uses would be precluded.

The PDH District permits innovated and creative design and facilitates use of the most advantageous construction techniques in the development of land for residential and other selected secondary uses. The district regulations are designed to insure ample provision and efficient use of open space; to promote high standards in the layout, design and construction of residential development; to promote balanced developments of mixed housing types; to encourage the provision of dwellings within the means of families of low and moderate income; and otherwise to implement the stated purpose and intent of this Ordinance.

In general, the proposed development provides efficient use of open space; the site layout achieves the Comprehensive Plan recommendation, through a mix of housing types; and ADU and WDU units are provided. A vertical mix of uses could not be achieved without rezoning to a P District. This standard has been met.

General Standard 3: The planned development shall efficiently utilize the available land, and shall protect and preserve to the extent possible all scenic assets and natural features such as trees, streams and topographic features.

The development utilizes available land and retains an approximately 33,275 sf existing tree save area at the southwest quadrant of the site. The applicant is providing approximately 32% (3.36 acres) of the site as open space. This standard has been met.

General Standard 4: The planned development shall be designed to prevent substantial injury to the use and value of existing surrounding development, and shall not hinder, deter or impede development of surrounding undeveloped properties in accordance with the adopted comprehensive plan.
The proposed development is designed with building heights limited to a maximum of five stories with the tallest buildings concentrated along Kings Highway and building height tapering toward single family residential neighborhoods to the west. Townhomes are provided to transition to the neighborhoods to the west. This design is in conformance with the Comprehensive Plan recommendation and has been designed to minimize the impact of the development to the surrounding area.

Adequate buffering and year round vegetation is provided to minimize the visual impact on existing single family dwellings with a 15 ft landscaped area between the private open space of the townhome units and the single family residences to the west. In addition, a dog park and tot lot in the southwest quadrant of the site are provided as publicly accessible open space and provides a buffer to the adjacent Kings Garden Apartments. This standard has been met.

General Standard 5: The planned development shall be located in an area in which transportation, police and fire protection, other public facilities and public utilities, including sewerage, are or will be available and adequate for the uses proposed; provided, however, that the applicant may make provision for such facilities or utilities which are not presently available.

The applicant has proffered to dedicate approximately 3,515 ft of ROW for the interim and ultimate realignment of Kings Highway. In addition and as previously discussed, the applicant proffered $563,000 toward an off-site transportation improvement at Shields Avenue/School Street at North Kings Highway. Adequate public facilities such as police, fire protection, public schools, and public utilities are available for the proposed development. The applicant proffered the suggested school contribution

amount to offset the impact of the development on surrounding schools, but staff recommends that the applicant reconsider the timing of this proffer. The applicant's proffer contribution for the "fair share" off-site park contribution falls short of the Park Authority's recommended $731,367 (819 new residents x $893) contribution, as previously discussed in the Public Facilities sub-section of the Residential Development Criteria section of the staff report. The applicant proffered $575,000 for off-site park improvements. In general, this standard has been addressed; however, the proffers for the park contribution and the timing for the regional transportation improvement contribution remain outstanding.

General Standard 6: The planned development shall provide coordinated linkages among internal facilities and services as well as connections to major external facilities and services at a scale appropriate to the development.

The applicant has provided coordinated internal linkages and services as well as connections to major external facilities, such as sidewalks within the property that connect to existing and planned off-site walkways. This standard has been met.

Design Standards for All Planned Developments

Whereas it is the intent to allow flexibility in the design of all planned developments, it is deemed necessary to establish design standards by which to review rezoning applications, development plans, conceptual development plans, final development plans, PRC plans, site plans and subdivision plats. Therefore, the following design standards shall apply:

Design Standard 1: In order to complement development on adjacent properties, at all peripheral boundaries of the PDH, PRM, PDC, PRC Districts the bulk regulations and landscaping and screening provisions shall generally conform to the provisions of that conventional zoning district which most closely characterizes the particular type of development under consideration.

The R-30 District with affordable dwelling units is the conventional zoning district that most closely characterizes the proposed development. The R-30 District permits a maximum building height of 150 feet and the applicant is proposing a maximum building height of 65 feet for the multi-family/retail uses and a maximum building height of 40 feet for the townhomes.

An R-30 District ADU development requires a minimum front yard of 15 feet, side yard of 10 feet, and rear yard of 15 feet for multi-family dwellings. All other structures (the proposed townhomes and retail buildings) require a minimum front yard of 20 feet, side yard of 10 feet, and rear yard of 25 feet. The proposed development provides four foot front, 22 foot side, and 25 foot rear yards.

While an R-30 District ADU development requires 26% open space, the PDH District with ADUs requires that the site contain 31% open space. The proposed development provides approximately 32% (3.36 acres) of the site as open space.

Landscaping and screening are provided on the periphery boundaries of the site. In staff's opinion this design standard has been addressed.

Design Standard 2: Other than those regulations specifically set forth in Article 6 for a particular P district, the open space, off-street parking, loading, sign and all other similar regulations set forth in this Ordinance shall have general application in all planned developments.

As previously noted, the applicant originally proposed a drive-through pharmacy option, which necessitated rezoning to the PDH-40 District, which permits drive-through uses rather than to the Planned Residential Mixed-Use (PRM) District. Most mixed use infill developments propose to rezone to the PRM District, which does not permit drive-through uses.

The PDH District contains a use limitation on the maximum total land area, including at-grade off-street parking and loading areas, devoted to commercial and office uses. As such, in the PDH-40 District the maximum land area devoted to commercial uses cannot exceed 200 sf of commercial/dwelling unit. The applicant has demonstrated that a maximum of 88,200 sf is permitted for the proposed commercial area and the applicant is providing 86,610 sf, which meets this use limitation. As previously discussed, the applicant exceeds the required amount of open space and exceeds the required parking and loading spaces. This standard has been addressed.

Design Standard 3: Streets and driveways shall be designed to generally conform to the provisions set forth in this Ordinance and all other County ordinances and regulations controlling same, and where applicable, street systems shall be designed to afford convenient access to mass transportation facilities. In addition, a network of trails and sidewalks shall be coordinated to provide access to recreational amenities, open space, public facilities, vehicular access routes, and mass transportation facilities.

The streets and driveways have been designed to conform to the provisions set forth in the Zoning Ordinance and Public Facilities Manual. Where applicable, staff has recommended that streets should be designed to minimize the amount of impervious surface by providing a 20 ft minimum drive aisle width, which meet the Fire Marshal's minimum standard for fire access and would create a more urban environment envisioned for the area. As previously discussed, on-site sidewalks are provided to connect to existing and planned walkways to facilitate access to recreational amenities, open space, public facilities, vehicular access routes, and mass transit.

Richmond Highway Commercial Revitalization District (CRD) (Appendix 16)

The Richmond Highway Commercial Revitalization District (CRD) was established to encourage economic development activities in this older commercial area of the County in order to provide desirable employment and enlarge the tax base. Commercial revitalization districts are intended to enhance the older commercial areas of the County by providing for specific regulations which are designed to facilitate the continued viability and redevelopment of these areas. To that end, the district is intended to provide for additional flexibilities for development and redevelopment in these areas while also providing for urban design measures such as streetscape and landscaping.

As previously stated, the development provides streetscape and landscaping located outside of the right-of-way (ROW) for the ultimate realignment of Kings Highway. This will allow for landscaping to be planted and mature undisturbed as the roadway realignment occurs to create a uniformly aged landscaping along Kings Highway.

Highway Corridor Overlay District (HC) (Appendix 16)

The Highway Corridor Overlay District (HC) sets forth regulations to protect and promote the health, safety, and general welfare of the public by the prevention or reduction of traffic congestion and/or danger in the public and private streets. A limitation is placed on certain automobile-oriented, fast service, or quick turn-over uses by the imposition of this district.

No auto-oriented uses are proposed; however, the Comprehensive Plan states that "efforts should be made to enhance the walkability and multi-modal connectivity of the land unit." As previously discussed, staff recommends that if a grocery store is not obtained, then the surface parking in front of the grocery store should be eliminated and replaced with a plaza area. The surface parking encourages an auto-oriented use rather than enhancing walkability and multi-modal connectivity, as recommended in the Comprehensive Plan. Further, the Comprehensive Plan recommends a need for surface parking should be demonstrated, which the applicant has not been done by the applicant.

In addition and as noted earlier in the staff report, the PDH District does not permit fast food restaurants as a by-right use but by special exception approval. The applicant has filed a special exception application for fast food restaurants within the retail buildings. This application has not been accepted yet and this special exception application would be forthcoming should this rezoning application be approved. Fast food restaurants are regulated uses in the Highway Corridor Overlay District.

WAIVERS/MODIFICATIONS

Waiver of Sect. 13-303 of the Zoning Ordinance for the transitional screening and barrier requirements along the northeastern property line; waiver of the transitional screening requirement along the southeastern property line; modification of the transitional screening requirement along the northwest property line; waiver of the transitional screening requirement between the multi-family and single family attached uses; and waiver of the transitional screening requirement between the multi-family and retail uses to that shown on the CDP/FDP.

Along the northeastern property line

Type 1 Transitional Screening a minimum of 25 ft in width is required. The applicant requests a modification of the Type 1 required planting material and associated barrier in accordance with Par. 3 of Sect. 13-305 and Par. C of Sect. A7-409 of the Zoning Ordinance, which permits a modification to the transitional screening where the building, barrier and/or the land between the building and the property line has been specifically designed to minimize adverse impact through a combination of architectural and landscaping techniques. Par. C of Sect. A7-409 permits the Comprehensive Plan streetscape guidance to be used instead of the transitional screening requirements in Article 13 of the Zoning Ordinance. The applicant maintains that the landscaping provided will promote an open, safe pedestrian environment along the front yards of the townhomes fronting Poag Street. Street trees, plantings, and a sidewalk are provided.

Along the southeastern property line

Type 1 Transitional Screening a minimum of 25 ft in width is required. In accordance with Par. 3 of Sect. 13-305 and Par. 6 of Sect. 13-305 of the Zoning Ordinance, the applicant requests a modification of the Type 1 planting materials. The Zoning Ordinance provision for Par. 3 of Sect. 13-305 is noted above and Par. 6 of Sect. 13-305 provides that transitional screening and barriers may be waived or modified where the adjacent property is zoned to allow a use similar to that of the parcel under site plan. The applicant provides that along the southeastern property line, the available horizontal space between the applicant's property and the neighboring Kings Garden Apartments is narrow to support transitional screening. The applicant will provide the required six foot barrier requirement.

Along the northwestern property line

Type 1 Transitional Screening a minimum of 25 ft in width is required. In accordance with Par. 3 of Sect. 13-305 of the Zoning Ordinance, the applicant requests a modification to reduce the required width between the townhomes and the existing single family homes. The applicant indicates that a reduction in the transitional

screening width would allow for a more cohesive layout of the townhomes throughout the street and open space network. The required plant material and associated barrier will be provided.

Between the multi-family and townhome uses

Type 1 Transitional Screening a minimum of 25 ft in width is required. In accordance with Par. 5 of Sect. 13-305 of the Zoning Ordinance, the applicant requests a waiver of the transitional screening requirement to facilitate an integrated planned development with a mix of housing types. The transition between the multi-family building and townhomes will be an internal street with street trees, tree wells, and sidewalks.

Between the multi-family uses and retail uses

Type 1 Transitional Screening a minimum of 25 ft in width and a Type 2 Transitional Screening a minimum of 35 ft in width are required. In accordance with Par. 5 of Sect. 13-305 of the Zoning Ordinance, the applicant requests a waiver of the Type 1 and 2 transitional screening requirements and the associated barrier requirements to facilitate an integrated planned development with a mix of uses. The applicant further provides that visual and physical access from the multi-family units to the retail and public spaces is typical of an urban mixed-use environment. Furthermore, the two uses will be located in the same building connected by an overhead walkway at the northern and southern ends of the building on the second floor.

Staff supports the requested waivers and modifications.

Waiver of Sect. 13-202 of the Zoning Ordinance for interior parking landscaping

Par. 3 of Sect. 13-202 of the Zoning Ordinance provides that landscaping areas shall be reasonably dispersed throughout the parking lot. Pursuant to Par. 6B of Sect. 13-202 of the Zoning Ordinance, the applicant is requesting a waiver of the landscaping being dispersed throughout the surface parking lot because of the relatively small size of the parking lot. The applicant provides that it is difficult to evenly distribute landscaping without obscuring storefronts. The applicant has distributed canopy trees throughout the proposed development in a manner that preserves the visibility of the retailers. The applicant also has increased the size of the majority of the interior parking lot landscaping trees to be Category IV, four-inch caliper trees to provide additional canopy coverage.

In addition, pursuant to Par. 6B of Sect. 13-202 of the Zoning Ordinance, the applicant requests a waiver for interior parking lot landscaping to be provided on the top level of a screened parking structure. The Comprehensive Plan states that “parking should be consolidated into structures that are integrated into the development using aesthetically appealing architectural detailing, screening, lighting, and landscaping.” The Richmond

Highway Corridor Area Urban Design Guidelines from the Comprehensive Plan states that “the visual impacts of structured parking should be reduced by rooftop landscaping on the top level of a parking structure. Landscape areas should be provided and planted with shade trees and shrubs. These should be provided at a minimum at the end of each row of parking.” Staff recommends that the applicant provide rooftop landscaping on the top level of the parking structure but also recognizes that if this is not done, the top level of the parking structure is not visible from surrounding buildings.

The applicant maintains that the design for the proposed development locates four-stories of multi-family dwellings on all four sides of the parking structure creating a four-sided screen with no residential units overlooking the parking structure. The proposed parking structure is taller than surrounding properties, which are each three to four stories in height. As such, no surrounding uses or buildings will be able to see the top level of the parking structure, whether on the first floor or top floor. The applicant further provided that the landscaping would serve a limited purpose to those who park at the top of the parking structure and difficulties with maintaining the viability of such plantings. Staff supports the waiver to reasonably disperse interior parking lot landscaping and does not object to a waiver of the landscaping on the top level of the parking structure.

Modification of the Countywide Trails Plan along North Kings Highway

The Countywide Trails Plan recommends a minor paved trail (4 ft – 7 ft 11 inches in width) north of the intersection with Route 1 and a major paved trail (8 ft or more in width) south of Route 1. The applicant requests a modification of these trail requirements in favor of the proposed six foot wide sidewalk along the site’s entire North and South Kings Highway frontage.

The Richmond Highway Corridor Urban Design Guidelines recommends a six foot wide sidewalk along Kings Highway as part of the overall streetscape for this area, which would apply. Staff supports the requested modification.

Waiver of Sect. 2-505 of the Zoning Ordinance on use limitations on corner lots.

Sect. 2-505 of the Zoning Ordinance provides that on every corner lot within the triangle formed by the street lines of such lot and a line drawn between the points there shall not be structure or planting that would obstruct sight distance other than a post, column, or truck of a tree that is not greater than one foot in cross section or diameter.

The applicant requests a waiver of the Sect. 2-505 because a small portion of the northwest corner of the parking structure/multi-family building will be located in the sight distance triangle, as shown in Sheet 15 of the CDP/FDP and depicted in Figure 5. It is unknown how much of the building will encroach into the sight distance triangle.

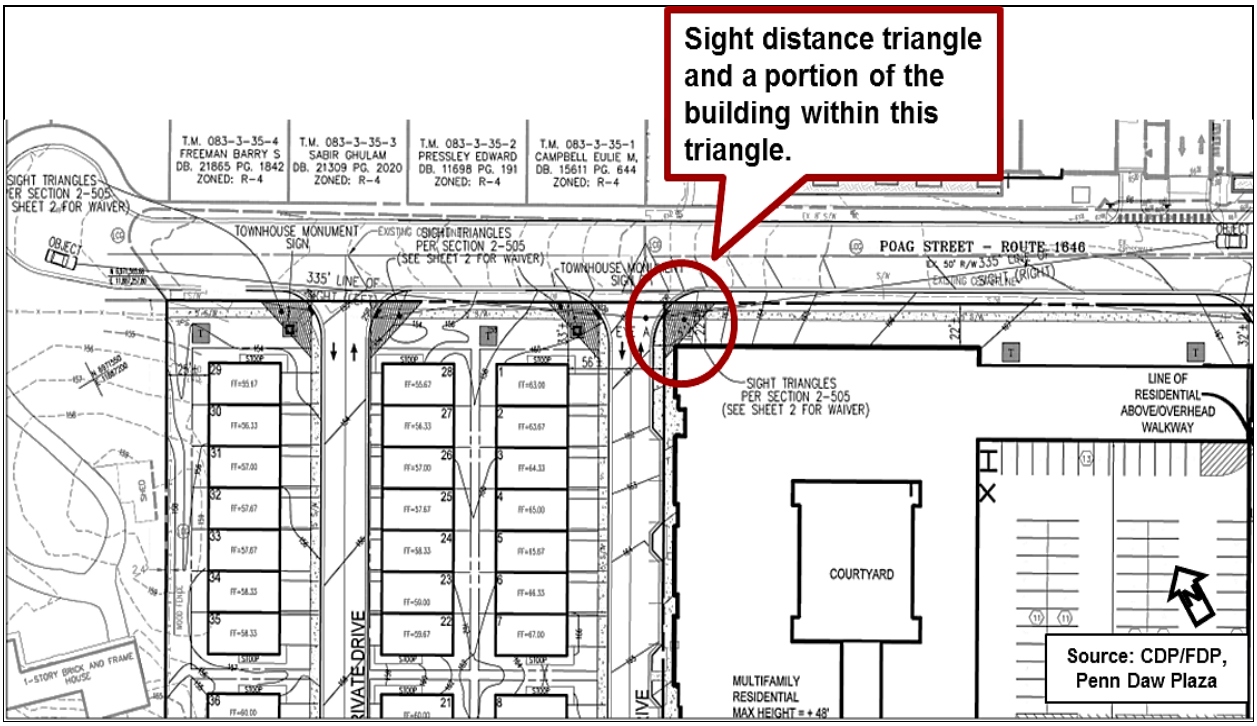


Figure 5: A portion of the multi-family building is located within the sight distance triangle.

It is noted that while the applicant shows additional sight distance triangles for future townhouse monument signs, the waiver request is solely for the building that is within a portion of the sight distance triangle. The waiver request for townhouse monuments signs located within the sight distance triangle is no longer being requested. Staff does not object to the waiver request for the portion of the building that is located within the sight distance triangle.

Waiver of Sect. 17-201 and Sect. 7-0104.1 of the Public Facilities Manual for a service drive.

The applicant requests a waiver of the Sect. 17-201 of the Zoning Ordinance and Sect. 7.0104 of the Public Facilities Manual (PFM), which requires a service drive along a primary highway. A service drive is intended to promote safety by providing free access to adjoining properties and limited access to major thoroughfares.

The Comprehensive Plan discourages a service drive with the recommendation that the "buildings should align with the roadways along Poag Street and North Kings Highway and should be built close to the street to create an urban street edge." In addition, at this time, the applicant is not providing interparcel access but has proffered to accommodate a pedestrian, and if appropriate, vehicular connection between surrounding uses. Staff supports the waiver request.

CONCLUSIONS AND RECOMMENDATIONS

Staff Conclusions

Overall, the applicant addressed staff's recommendations for the proposed development. However, there remain opportunities for improvement, which include more fully demonstrating functional and aesthetic consolidation with the Zips drycleaner site, demonstrating a need for the surface parking in front of the proposed grocery store building and if not a grocery store for other non-residential uses, ensuring that the plaza functions as a usable public space with emphasis on a focal feature that will engage and activate the plaza, and addressing staff's recommendations on the proffered conditions. Staff strongly recommends that if a grocery store is not developed, then the surface parking lot in front of the grocery store building should be replaced with a plaza area to create one large plaza space.

Still outstanding is the internal site circulation in front of the proposed grocery store building and proffers related to the Zips drycleaner site, the difference permitted in non-residential square footage, the minimum grocery store square footage, precluding administrative review if stormwater management requirements change, green building, transportation, and school and park contributions.

Staff Recommendations

Staff recommends of approval of RZ 2013-LE-008 and the Conceptual Development Plan, subject to the execution of proffers consistent with those contained in Appendix 1 of the staff report.

Staff recommends approval of FDP 2013-LE-008, subject to the proposed Final Development Plan conditions contained in Appendix 2 of the staff report and the Board of Supervisors approval of RZ 2013-LE-008 and the associated Conceptual Development Plan.

Staff recommends approval of the following waivers and modifications:

- Modification of Sect. 13-303 and 13-304 of the Zoning Ordinance for the transitional screening planting materials and barrier requirement along the northeastern property line; waiver of the transitional screening requirement along the southeastern property line; modification of the transitional screening requirement along the northwest property line; waiver of the transitional screening requirement between the multi-family and single family attached uses; and waiver of the transitional screening requirement between the multi-family and retail uses, pursuant to Sect. 13-305 of the Zoning Ordinance to that shown on the CDP/FDP.

- Waiver of Sect. 13-202 of the Zoning Ordinance for dispersing of the interior parking landscaping for the surface parking lot area and landscaping on the top level of the parking structure.

- Modification of the Countywide Trails Plan along North Kings Highway to permit six foot wide sidewalks to that shown on the CDP/FDP.

- Waiver of Sect. 2-505 of the Zoning Ordinance on use limitations on corner lots for a corner of a building.

- Waiver of Sect. 17-201 of the Zoning Ordinance and Sect. 7-0104.1 of the Public Facilities Manual for a service drive.

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 Proffers
2. Proposed Final Development Plan Development Conditions
3. Statement of Justification
4. Affidavit
5. Residential Development Criteria
6. Land Use Analysis
7. Office of Community Revitalization Analysis
8. Park Authority Analysis
9. Urban Forest Management Analysis
10. Environmental Analysis
11. Transportation Analysis
12. Auto Turn Exhibit
13. Fairfax County Public Schools Analysis
14. Fairfax Water Analysis
15. Fire and Rescue Analysis
16. Zoning Ordinance Provisions

PROFFER STATEMENT
PENN DAW PLAZA

RZ/FDP 2013-LE-008

August 8, 2013
Revised September 13, 2013
Revised September 20, 2013
Revised October 17, 2013
Revised October 21, 2013
Revised October 31, 2013

Penn-Daw Associates Limited Partnership (the "Applicant"), as owner of the property identified on the Fairfax County Tax Map as Tax Map 83-3 ((1)) 7 (the "Property"), seeks to rezone the Property from the C-8 (Highway Commercial) and R-4 (Residential, Four Dwelling Units/Acre) Districts to the Planned Development Housing, 40-Units per Acre ("PDH-40") District (the "Rezoning").

Pursuant to Section 15.2-2303(A) of the Code of Virginia, as amended, and subject to approval by the Fairfax County Board of Supervisors of the Rezoning, the Applicant hereby proffers that development of the Property shall be in accordance with the following conditions (the "Proffers"), which, if the Rezoning is approved by the Board of Supervisors, shall replace and supersede any and all existing proffered conditions applicable to the Property. In the event the Rezoning is denied, these Proffers shall immediately be null and void and any previous proffered conditions shall remain in full force and effect.

GENERAL

1. Substantial Conformance. Subject to these Proffers and the provisions of Sections 6-400, 16-400 and 18-204 of the Zoning Ordinance of Fairfax County, as amended (the "Zoning Ordinance"), the Property shall be developed in substantial conformance with the Conceptual Development Plan/Final Development Plan ("CDP/FDP") dated June 2013 and revised through October 31, 2013, and prepared by Urban, Ltd.

2. Proffered CDP/FDP Elements. The proffered elements of the CDP/FDP are limited to the uses, general location of the points of access to the Property, maximum building heights, maximum number of dwelling units, maximum gross floor area, amount and location of open space, the location of the limits of clearing and grading, minimum setbacks from peripheral lot lines, the general location and arrangement of the buildings and parking, and the general quality and character of the streetscape (collectively the "Proffered Elements"). Other elements of the CDP/FDP may be adjusted or modified with approval of a Final Development Plan Amendment ("FDPA") in accordance with the provisions set forth in Section 16-402 of the Zoning Ordinance and these Proffers.

3. Minor Modifications to the CDP/FDP. Minor modifications to the CDP/FDP shall be

permitted pursuant to Paragraph 4 of Section 16-403 of the Zoning Ordinance when necessitated by sound engineering or when necessary as part of final site design, and when such modifications are determined to be in substantial conformance with the Proffered Elements and these Proffers, as determined by the Zoning Administrator, and does not increase the total number of dwelling units or non-residential square footage, increase building height, increase surface parking, decrease the amount of open space or reduce landscaping.

A. Drive Aisle Width. Notwithstanding the dimensions shown on Sheet 4 of the CDP/FDP, the Applicant may reduce the width of the internal drive aisle serving the eastern end of the surface parking lot from twenty feet (20') to a minimum of sixteen feet (16') if such reduction is approved by the Fire Marshal as part of site plan approval for the Proposed Development. Any reduction of the width of the drive aisle shall result in a compatible increase in the width of the adjacent landscape islands.

4. Proposed Development. The Applicant shall be permitted to develop the Property with up to 610,544 gross square feet of development consisting of (a) up to a maximum of 400 multifamily residential units (inclusive of bonus units as permitted under Proffers 13 and 14 below) (the "Multifamily"), (b) up to 41 single family attached dwelling units (inclusive of bonus units as permitted under Proffers 13 and 14 below), and (c) a minimum 30,000 square feet and up to a maximum 45,500 gross square feet of secondary uses (collectively, the "Proposed Development"). The permitted secondary uses shall include commercial uses such as retail sales establishments, eating establishments, personal service establishments and/or other non-residential uses permitted by-right, by Special Exception, or by Special Permit in the PDH District, all as more particularly shown on the CDP/FDP and described in these Proffers. Notwithstanding the foregoing sentence, the Applicant may not establish the following uses on the Property without first obtaining approval of an FDPA and/or Proffered Condition Amendment ("PCA") as determined by the Zoning Administrator: drive through financial institutions, drive-through pharmacy, service stations, golf courses, country clubs, golf driving ranges, marinas, docks and boating facilities, service station/mini-marts, vehicle light service establishments, miniature golf courses, riding or boarding stables, veterinary hospitals, but only ancillary to riding or boarding stables, zoological parks, bus or railroad stations, electrically-powered regional rail transit facilities, heliports, helistops, regional non-rail transit facilities, and light public utility uses.

A. Grocery Store. The Applicant shall use its "best efforts" to locate on the ground floor of the Proposed Development (a) a grocery store tenant containing a minimum 5,000 gross square feet and designed to provide daily necessities and prepared foods for residents and tenants of the Proposed Development and surrounding neighborhoods (the "Grocery Store") and (b) an eating establishment containing at least 4,000 gross square feet. For purposes of these Proffers, Grocery Store means a retail sales establishment that offers for sale a variety of foodstuffs and household supplies, but shall not be only convenience retail or

quick service food store. The design of the Grocery Store shall include features or characteristics intended to animate the storefront, draw attention to the building and convey a sense of activity for pedestrians.

The Applicant's "best efforts" shall include retaining a qualified retail broker or internal leasing agent and marketing the Proposed Development for a Grocery Store and an eating establishment for at least twenty-four (24) months following submission of a building permit application for the Multifamily building. In connection with such leasing efforts, the Applicant also shall consult with the Southeast Fairfax Development Corporation ("SFDC") and the office of the Lee District Supervisor and shall provide periodic written reports, not fewer than once every six (6) months, to the Lee District Land Use Committee ("LDLUC") and the Supervisor's office outlining the Applicant's leasing activities and the corresponding results. Should the Applicant lease any portion of the Proposed Development to a Grocery Store, then the obligation to provide an eating establishment automatically shall become void, and the Applicant may lease the balance of the ground floor retail space of the Proposed Development for any other permitted secondary use as more particularly set forth in this Proffer.

BUILDING DESIGN

5. Architecture. The architectural design of the buildings and dwellings shall be consistent with the conceptual elevations as shown on the CDP/FDP. Exterior building materials for the multifamily residential building and the single family attached dwellings shall be selected by the Applicant from among the following: brick, masonry/stone, aluminum, steel, glass, cementitious paneling and siding, aluminum/vinyl windows, architectural pre-cast concrete headers, sills, and trim details, provided that final architectural details, roofs and accents may include other materials. While design details are provided with the CDP/FDP and these Proffers, the Applicant may adjust or modify the architectural plans, elevations, illustrations, materials, and building heights subsequent to CDP/FDP approval as part of its final design without requiring CDPA, FDPA, PCA or other zoning approval, provided the general quality and characteristics of design remain in substantial conformance with those shown on the CDP/FDP and set forth in these Proffers. Bay windows, balconies, awnings, storefronts and other architectural details may be provided so long as (i) such features do not extend more than eight (8) feet beyond the building footprints shown on the CDP/FDP and (ii) the required streetscape features are maintained.

   A. Architectural and Landscaping Coordination with Adjacent Dry Clean Use. The Applicant shall pursue approval for and complete architectural and/or façade improvements to the neighboring commercial dry cleaning business located in the southwest corner of the intersection of Poag Street and Kings Highway (Fairfax County Tax Map 83-3 ((1)) 6) (the "Zips Site") designed to achieve aesthetically compatible facades for the Zips Site and the Proposed Development, generally as shown on Sheets A-3 and A-3.1 of the CDP/FDP (the "Zips Improvements").

The Zips Improvements shall be completed prior to the issuance of the first RUP for the Multifamily or Non-RUP for the Proposed Development unless the Zoning Administrator extends the time within which such improvements must be completed per the request of the Applicant, provided that the Applicant's obligation to complete the Zips Improvements is dependent on its obtaining all requisite approvals from the owner of the Zips Site. The Zips Improvements may include, but need not be limited to, the use of complementary building materials and colors, repetition in building façade treatments used in the Proposed Development, awnings, signage, landscaping, lighting or similar articulations or features. Prior to (i) Site Plan approval and (ii) issuance of the first building permit for the Proposed Development, the Applicant shall provide to the Director of the Zoning Evaluation Division of the Department of Planning and Zoning ("ZED") documentation summarizing the Applicant's efforts to implement the Zips Improvements. In the event the Applicant is unable to secure approval from the owner of the Zips Site to make the improvements contemplated by this Proffer, then the Applicant shall, prior to the issuance of the first RUP for the Multifamily or Non-RUP for the Proposed Development, contribute $45,000 to the Board of Supervisors to be used for supplemental streetscape and/or landscaping improvements within the vicinity of the Property.

B. Façade Treatments on Kings Highway. The ground-floor portions of the Proposed Development fronting Kings Highway shall incorporate architectural features or façade elements to help break up the mass and bulk of the building, as well as provide a pedestrian sense of scale. Examples of the façade treatments to be provided under this Proffer include canopies, awnings, building material or color changes, signage, lighting elements or similar treatments, generally as shown on Sheets A-3 and A-3.1 of the CDP/FDP. The Applicant shall be permitted to vary the façade treatments to match the architectural style of the tenant(s) located in each affected building, provided that the character and quality of treatments are comparable across the Property.

C. Architectural Treatment on Single Family Attached Dwellings. The townhome portion of the Proposed Development shall utilize building architecture, colors and materials designed to complement those of the multifamily buildings so as to create the appearance of a unified development, generally as shown on Sheet A-3.1 of the CDP/FDP.

D. Architectural Treatment and Lighting in Internal Drive Aisle. The Applicant shall install architectural elements and treatments, lighting, signage and/or similar features and techniques designed to animate and improve the visibility in the pedestrian and vehicular drive aisle located between the ground-floor secondary uses and the above-grade parking structure as shown on Sheet A-3 of the CDP/FDP.

6. Building Height. The building height of the Proposed Development shall not exceed the maximum height identified on the CDP/FDP, exclusive of accessory structures and uses outlined in Section 2-506 of the Zoning Ordinance that may be constructed above the roof level of the Proposed Development. Final building height shall be determined at the time of site plan approval, and may be less than the maximum height shown on the CDP/FDP, provided that the Proposed Development retains a compatible urban form to that shown on the CDP/FDP.

7. Universal Design. At time of site plan and building plan approval for the Proposed Development, the Applicant shall designate up to one percent (1%) of the multifamily dwelling units as compliant with the universal design criteria set forth in the ICC/ANSI A117.1 (American National Standard Accessible and Usable Buildings and Facilities as referenced in the current edition of the Virginia Statewide Building Code) and the 1988 Fair Housing Design Manual.

   A. Such residential units shall have the following accessible design features:

      i. At least one accessible route that connects all spaces and elements that are part of the unit as defined by ANSI;

      ii. User passage doorways with a minimum width of 32 inches;

      iii. Threshold beveled changes between ¼ and ½ inch maximum;

      iv. Compliance of lighting controls, electrical switches and receptacle outlets, environmental controls and user controls for security and intercom systems with clear floor spaces and heights as defined by ANSI;

      v. Reinforcement for furniture installation of bath fixtures by ANSI; and

      vi. Levered knobs throughout the unit.

8. Rooftop Telecommunications Equipment and Mechanical Units. Telecommunications equipment, mechanical units and all appurtenant facilities may be placed on the rooftop of the Proposed Development and shall comply with the applicable requirements of the Zoning Ordinance and be screened and/or set back sufficiently from the perimeter of the roof such that they are generally not visible from the surrounding streets at street level when viewed at a reasonable distance from the property line of the Property.

9. Lot Typical, Decks and Similar Appurtenances. Decks, bay windows, patios, chimneys, areaways, stairs and stoops, mechanical equipment and other similar appurtenances may encroach into minimum yards as depicted on the "Typical Lot Layout " for the single family attached portion of the Proposed Development and shown on Sheet 2 of the CDP/FDP (the "Townhome Lots"), as permitted by Section 2-412 and Article 10 of the Zoning Ordinance.

No sheds shall be permitted in the rear yards of dwelling units constructed on the Townhome Lots. Porches (including screened in porches) or sunrooms may be permitted in the rear yard of the Townhome Lots in the area identified as "Possible Building Options" on Sheet 2 of the CDP/FDP. The specifications of this proffer shall be disclosed to future homeowners in the homeowners association documents applicable to the affected Townhome Lots.

10. Noise Study and Mitigation. Concurrent with the submission of the first site plan for the Proposed Development, the Applicant shall submit to the Department of Planning and Zoning (the "DPZ") and the Department of Public Works and Environmental Services ("DPWES") for review and comment a noise study demonstrating that, based on noise mitigation measures the Applicant proposes to include in its building design (if any), all affected interior areas of the residential units constructed on the Property will have noise levels reduced to approximately 45 dBA Ldn or less based on future traffic conditions and final site conditions, as more particularly set forth below.

    A. Noise Levels within Residential Units.

        i. 70 dBA Ldn to 75 dBA Ldn. Except as set forth in paragraph (B) below, in order to reduce interior noise to a level of no more than 45 dBA Ldn for residential units that are projected to be impacted by noise greater than 70 dBA Ldn (but not more than 75 dBA Ldn), the Applicant shall construct such units using the following acoustical measures:

            a. Exterior walls shall have a laboratory STC rating of at least 45;

            b. Doors and glazing shall have a laboratory STC rating of at least 37 unless glazing constitutes more than twenty percent (20%) of any façade exposed to noise levels of Ldn 70 dBA or above;

            c. If glazing constitutes more than twenty percent (20%) of an exposed façade, then the glazing shall have a laboratory STC rating of at least 45; and

            d. All surfaces shall be sealed and caulked in accordance with methods approved by the American Society for Testing and Materials ("ASTM") to minimize sound transmission.

        iii. 65 dBA Ldn to 70 dBA Ldn. Except as set forth in paragraph (B) below, in order to reduce interior noise to a level of no more than 45 dBA Ldn for residential units that are projected to be impacted by noise projected greater than 65 dBA Ldn (but not more than 70 dBA Ldn), the Applicant shall construct such units using the following acoustical measures:

            a. Exterior walls shall have a laboratory sound transmission class ("STC") rating of at least 39;

b. Doors and glazing shall have a laboratory STC rating of at least 28 unless glazing constitutes more than twenty percent (20%) of any façade exposed to noise levels of Ldn 70 dBA or above;

c. If glazing constitutes more than twenty percent (20%) of an exposed façade, then the glazing shall have a laboratory STC rating of at least 39; and

d. All surfaces shall be sealed and caulked in accordance with methods approved by the ASTM to minimize sound transmission.

B. As an alternative to the mitigation strategies set forth in subparagraphs A(i) and A(ii) above, the Applicant may submit a certification by an acoustical engineer that the construction practices and/or materials proposed for the Proposed Development structure will provide sufficient noise mitigation to achieve the required interior noise levels. As part of such certification, the acoustical professional shall submit relevant information to permit the Director to verify that the proposed measures will achieve the interior noise level standard.

C. All building permit applications and building plans submitted to the County shall indicate whether such portion of the Proposed Development is required to include noise attenuation measures and, if so, the type of attenuation measure to be implemented. Building plans for the Proposed Development also shall depict the final noise contours as determined by the noise study.

D. For those multifamily dwelling units that the noise study indicates will have exterior balconies affected by noise above 65 dBA, the Applicant shall include in each lease/initial purchase agreement for such units a written disclosure to the prospective tenant/purchaser indicating that such unit's balcony may be impacted by exterior noise at levels described in the Applicant's noise study.

E. Noise Levels at Public Plaza. As applicable, the Applicant shall provide noise attenuation measures to ensure that traffic-related noise in the outdoor plaza identified on Sheet L1.1 of the CDP/FDP do not exceed 65 dBA Ldn. Adjustments to the noise attenuation measures that are in substantial conformance with those indicated on the CDP/FDP may be permitted subject to the approval of the Zoning Evaluation Division (ZED) to ensure that the noise attenuation measures provide the necessary noise attenuation.

11. Sustainable Design. In order to promote energy conservation and green building techniques, the Applicant shall select one or more of the following sustainable design programs to be implemented as part of the Proposed Development. The Applicant may elect to have the townhome portion of the Proposed Development certified under a different program, and on a different timeframe, from the balance of the Proposed Development. In the event that, subsequent to approval of this Application and these Proffers, the Board of Supervisors or its

designee adopts new or modified green building policies to permit certification of mixed use developments under a different or revised certification program or rating system than those listed below, then the Applicant may elect to seek certification under such alternate program as determined by the Planning Division of DPZ. As part of the first site plan submission for the portion(s) of the Proposed Development for which a particular certification will be sought, the Applicant will inform the Environment and Development Review Branch of DPZ of its choice(s) for sustainable design.

A. NGBS. If the Applicant selects the Home Innovations Research Lab's National Green Building Standard ("NGBS"), then the Applicant shall seek NGBS certification using either the ENERGY STAR® Qualified Homes Path or the Performance Path for energy performance as demonstrated through documentation submitted to DPWES and the Environment and Development Review Branch of DPZ from a home energy rater and/or an NGBS Verifier certified through the Home Innovations Research Lab. The Applicant also shall install Energy Star appliances and HVAC systems as part of initial construction of each dwelling unit. Documentation demonstrating certification under the NGBS rating system in accordance with this Proffer shall be submitted to DPWES and the Environment and Development Review Branch of DPZ prior to the issuance of the first RUP for each building for which certification has been obtained.

B. LEED New Construction or LEED for Homes Multifamily Mid-Rise. If the Applicant selects LEED New Construction or LEED for Homes Multifamily Mid-Rise, then the Applicant will include, as part of the site plan submission and building plan submission, a list of specific credits within the most current version of the U.S. Green Building Council's Leadership in Energy and Environmental Design—for Homes Multifamily Mid-Rise (LEED®-for Homes Multifamily Mid-Rise) or LEED-NC rating system determined to be applicable to the Proposed Development (or portion thereof) in consultation with the Environment and Development Review Branch of the DPZ. A LEED-accredited professional ("LEED-AP") who is also a professional engineer or licensed architect will provide certification statements at both the time of site plan review and the time of building plan review confirming that the items on the list will meet at least the minimum number of credits necessary to attain LEED certification of the project.

In addition, the Applicant will designate the Chief of the Environment and Development Review Branch of the DPZ as a team member in the USGBC's LEED Online system (as applicable or available, depending on the form of LEED pursued). This team member will have privileges to review the project status and monitor the progress of all documents submitted by the project team, as applicable, but will not be assigned responsibility for any LEED credits and will not be provided with the authority to modify any documentation or paperwork.

Prior to building plan approval, the Applicant will submit documentation, to the Environment and Development Review Branch of DPZ, regarding the U.S. Green

Building Council's preliminary review of design-oriented credits in the LEED program (as applicable or available, depending on the form of LEED pursued). This documentation will demonstrate that each building is anticipated to attain a sufficient number of design-related credits that, along with the anticipated construction-related credits, will be sufficient to attain LEED certification. Prior to release of the bond for the Proposed Development (or applicable portion thereof), the Applicant shall provide documentation to the Environment and Development Review Branch of DPZ demonstrating the status of attainment of LEED certification or a higher level of certification from the U.S. Green Building Council for the building.

If the U.S. Green Building Council's review of design-oriented credits indicates that the Proposed Development (or applicable portion thereof) is not anticipated to attain a sufficient number of design-related credits to support attainment of LEED certification, the Applicant will post a "green building escrow" in the form of cash or a letter of credit from a financial institution authorized to do business in the Commonwealth of Virginia in the amount of $2 per gross square foot of each multifamily residential building. This escrow will be in addition to and separate from other bond requirements and will be released upon demonstration of attainment of LEED certification, or higher level of certification, by the U.S. Green Building Council, under the most current version of the LEED for Homes Multifamily Mid-Rise rating system or the LEED-NC rating system, as applicable. The provision to the Environment and Development Review Branch of DPZ of documentation from the U.S. Green Building Council that the Proposed Development (or applicable portion thereof) has attained LEED certification will be sufficient to satisfy this commitment.

If the Applicant provides to the Environment and Development Review Branch of DPZ, within one year after issuance of the final RUP for the Proposed Development (or applicable portion thereof), documentation demonstrating that LEED certification has not been attained but that the Proposed Development (or applicable portion thereof) has been determined by the U.S. Green Building Council to fall within three points of attainment of LEED certification, fifty percent (50%) of the escrow will be released to the Applicant; the other fifty percent (50%) will be released to Fairfax County and will be posted to a fund within the County budget supporting implementation of County environmental initiatives.

If the Applicant fails to provide, within one year after issuance of the final RUP for the Proposed Development (or applicable portion thereof), documentation to the Environment and Development Review Branch of DPZ demonstrating attainment of LEED certification or demonstrating that the Proposed Development (or applicable portion thereof) has fallen short of LEED certification by three points or more, the entirety of the escrow for that building

will be released to Fairfax County and will be posted to a fund within the County budget supporting implementation of County environmental initiatives.

If the Applicant provides documentation from the USGBC demonstrating, to the satisfaction of the Environment and Development Review Branch of DPZ, that USGBC completion of the review of the LEED certification application has been delayed through no fault of the Applicant, the Applicant's contractors or subcontractors, the time frame may be extended as determined appropriate by the Zoning Administrator, and no release of escrowed funds shall be made to the Applicant or to the County during the extension.

C. EarthCraft. If the Applicant selects EarthCraft, then the Applicant shall provide documentation to DPWES and DPZ that the Proposed Development (or applicable portion thereof) has been awarded certification in accordance with the EarthCraft House Program prior to the issuance of the first RUP for the portion of the Proposed Development for which such certification is sought.

12. Lighting. All on-site, outdoor and parking garage lighting provided with the Proposed Development shall comply with the Outdoor Lighting Standards of Section 14-900 of the Zoning Ordinance. All proposed parking lot and building mounted security lighting shall utilize full cut-off fixtures.

A. Parking Structure/Lot Lighting. Light poles in surface parking lots and on the top level of the above-grade parking structures, as well as building-mounted security lighting, shall all use shielded cut-off fixtures and be directed inward and downward such that the lamp surface is not directly visible to adjacent properties.

B. Street Lighting. Subject to VDOT approval, as applicable, street lamps located along Kings Highway, Poag Street and the private streets within the Proposed Development shall be designed to be complementary in design so as to create the appearance of a unified development, despite the different functions such lighting may have within the Proposed Development.

AFFORDABLE HOUSING

13. Affordable Dwelling Units. Affordable Dwelling Units ("ADUs") shall be provided pursuant to the provisions of Part 8 of Article 2 of the Zoning Ordinance unless modified by the ADU Advisory Board. The Applicant reserves the right to locate any of the ADUs required as part of the single family attached units within the Multifamily portion of the Proposed Development.

14. Workforce Dwelling Units. In addition to any ADUs that may be required pursuant to these Proffers, the Applicant shall also provide for-sale and/or rental housing units on the Subject Property in accordance with the Board of Supervisors' Workforce Dwelling Unit Administrative Policy Guidelines dated October 15, 2007. Workforce Dwelling Units ("WDUs") shall be provided such that the total number of ADUs, if any, plus the total

number of WDUs results in not less than 15 percent (15%) of the total residential units constructed as part of the Proposed Development. If ADUs are provided in the development, both the ADUs and the ADU bonus units shall be deducted from the total number of dwelling units on which the WDU calculation is based.

The Applicant reserves the right to enter into a separate binding written agreement with the appropriate Fairfax County agency as to the terms and conditions of the administration of the WDUs following approval of this Application without the need for a proffered condition amendment. Such an agreement shall be on terms mutually acceptable to both the Applicant and Fairfax County and may occur after the approval of this Application. Neither the Board of Supervisors nor Fairfax County shall be obligated to execute such an agreement. If such an agreement is executed by all applicable parties, then the WDUs shall be administered solely in accordance with such an agreement and the provisions of this proffer as it applies to WDUs shall become null and void. Such an agreement and any modifications thereto shall be recorded in the land records of Fairfax County.

15. Parking for Affordable Dwelling Units and Workforce Dwelling Units. Except as set forth immediately below, the terms under which parking spaces are made available for purchase/lease by the owner/lessee of an ADU or WDU unit shall be the same as those offered to purchasers/lessees of the market rate units, such that if market rate units are provided the option to purchase/lease a reserved/designated space, then parking for ADUs and WDUs similarly must be provided on a designated/reserved basis, subject to availability.

LANDSCAPING, OPEN SPACE, AND RECREATION

16. Landscaping. Sheet L-1 of the CDP/FDP includes a conceptual landscape plan for the Proposed Development (the "Conceptual Landscape Plan"), which the Applicant shall update and separately submit to the Urban Forest Management Division ("UFMD") of DPWES for review and approval with its first site plan submission for the Proposed Development. The Applicant may modify the landscaping during site plan review to allow for final engineering and design considerations, provided that such modifications are in substantial conformance with the quality and quantity of plantings and materials shown on the Conceptual Landscape Plan. The Applicant shall install the final landscaping as shown on the approved site plan prior to issuance of the first RUP for the Multifamily or the first Non-Residential Use Permit ("Non-RUP") for the Proposed Development.

17. Planting Width Details. Street tree species and planting sites are depicted on the Conceptual Landscape Plan but may be revised during site plan review. Where minimum planting widths of eight (8) feet cannot be provided, alternative measures as approved by the UFMD shall be used to satisfy the following specifications for all planting sites:

    A. A minimum of 5.5 feet open surface width and 50 square feet open surface area for Category III trees (as defined in Table 12.17 of the PFM), with the tree located in the center of such open area.

B. A minimum rooting area of eight (8) feet wide (may be achieved with techniques to provide uncompacted soil below hardscape areas), with no barrier to root growth within four feet of the base of the tree.

C. Soil volume for Category III trees (as defined in Table 12.17 of the PFM) shall be 700 cubic feet per tree for single trees, but may be reduced to a minimum of 400 cubic feet where paving above root zones is necessary to accommodate pedestrian traffic or where utility locations preclude greater soil volume. For two (2) trees planted in a contiguous planting area, a total soil volume of at least 600 cubic feet per tree shall be provided. For three or more trees planted in a contiguous area, the soil volume shall equal at least 500 cubic feet per tree. A contiguous area shall be any area that provides root access and soil conditions favorable for root growth throughout the entire area. Minimum soil volumes of 700 cubic feet will be achieved in areas of lower pedestrian volume and where pavement is not required over tree rooting zones. Soil specifications in planting sites shall be provided in the planting notes to be included in all site plans filed subsequent to the approval of this Rezoning.

18. Tree Survey and Preservation Plan.

A. Preservation of Existing Trees. A small portion of the southwestern end of the Property contains a stormwater management facility surrounded by existing trees worthy of preservation, if possible. This area is identified on Sheet L-3 of the CDP/FDP as being approximately 33,275 square feet and is labeled thereon as "Existing Tree Preservation Area." The Applicant shall submit a tree preservation plan and narrative as part of the first site plan submission for the Proposed Development (the "Tree Preservation Plan"). The Tree Preservation Plan shall be prepared by a Certified Arborist or a Registered Consulting Arborist, and shall be subject to the review and approval of the Urban Forest Management Division, DPWES. The Tree Preservation Plan shall include a tree inventory that identifies the general location, species, critical root zone, size, crown spread and condition analysis percentage rating for all individual trees to be preserved, as well as all on and off-site trees, living or dead, with trunks 12 inches in diameter and greater (measured at 4 ½ -feet from the base of the trunk or as otherwise allowed in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture) located within 25 feet to either side of the limits of clearing and grading. The Tree Preservation Plan shall include all items specified in PFM 12-0507 and 12-0509 and shall identify individual trees the Applicant proposes for preservation and those trees it plans to remove because they (i) are dead, dying or diseased, (ii) pose or create a hazard, or (iii) negatively impact the viability and survivability of other existing trees. Any tree in the Existing Tree Preservation Area that the Applicant proposes to remove shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-grinding machine in a manner

causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions.

B. Tree Preservation Walk-Through. Prior to commencement of construction activity adjacent to the Existing Tree Preservation Area, the Applicant shall mark the limits of clearing and grading with a continuous line of flagging and conduct a pre-construction walk-through with the Applicant's certified arborist or landscape architect and a UFMD representative to determine where adjustments to the clearing limits can be made to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation.

C. Limits of Clearing and Grading. The Applicant shall conform strictly to the limits of clearing and grading as shown on the CDP/FDP, subject to allowances specified in these Proffers and for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the CDP, they shall be located in the least disruptive manner necessary as determined by the UFMD. A replanting plan shall be developed and implemented, subject to approval by the UFMD, DPWES, for any areas protected by the limits of clearing and grading that must be disturbed for such trails or utilities."

D. Tree Preservation Fencing. All trees shown to be preserved on the Tree Preservation Plan shall be protected by one or more tree protection fence(s). Tree protection fencing may be in the form of (i) four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, (ii) super silt fence to the extent that required trenching for super silt fence does not sever or wound compression roots. All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities adjacent to the Existing Tree Preservation Area. The installation of all tree protection fencing shall be performed under the supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved.

19. Streetscape. Prior to the issuance of the first RUP for the Multifamily or the first Non-RUP for the Proposed Development, the Applicant shall install streetscape improvements along Poag Street and Kings Highway as conceptually illustrated on Sheets L-2.2 and L-2.3 of the CDP/FDP. The Applicant shall be permitted to modify the streetscape elements during site plan review to allow for final engineering and design considerations provided such modifications are in substantial conformance with the CDP/FDP. The Applicant shall be responsible for maintaining sidewalks and streetscape elements located on the Property and, subject to execution of a maintenance agreement with VDOT, within the public right-of-way

abutting the Property along Poag Street and Kings Highway. Maintenance shall include keeping the walking surface in good repair and snow removal in inclement weather.

A. Kings Highway. The streetscape shall include a six foot (6') wide sidewalk and eight foot (8') wide landscaping buffer along Kings Highway as illustrated on Sheet L-2.3 of the CDP/FDP. The Applicant shall coordinate the installation of the sidewalk with VDOT.

B. Poag Street. The streetscape shall include a five foot (5') wide sidewalk and landscaping along the Property's Poag Street frontage, as illustrated on Sheet L-2.2 of the CDP/FDP. The Applicant shall coordinate the installation of the sidewalk with VDOT.

20. Easements.

A. Sidewalk Access. Prior to site plan approval for the Proposed Development, the Applicant shall convey to the Board of Supervisors a sidewalk easement, in a form as reviewed and approved by the County Attorney, over the sidewalks located outside the public right-of-way along the Property's Poag Street and Kings Highway frontage, as well as the sidewalk west of the Multifamily building and linking Poag Street and the Tot Lot/Dog Park.

B. Emergency Access. Prior to site plan approval for the Proposed Development, the Applicant shall convey to the Board of Supervisors an emergency access easement, in a form as reviewed and approved by the County Attorney, over the private streets within the Proposed Development.

21. Poag Street Sidewalk. Prior to the issuance of the first RUP for the single-family attached dwelling units, the Applicant shall construct or extend within the public right-of-way a sidewalk along the southern side of Poag Street to connect with the existing sidewalk at the Poag Street cul de sac, as illustrated on the CDP/FDP. The sidewalk shall be a minimum five feet (5') in width, provided that the Applicant may reduce the sidewalk width where insufficient right-of-way exists to accommodate the full section. The Applicant shall coordinate the installation of the sidewalk with VDOT. Nothing in this Proffer shall require the Applicant to acquire additional off-site right-of-way or construction easements from adjacent properties as a condition of fulfilling this Proffer.

22. Plaza. The Applicant shall install an outdoor plaza (the "Plaza") as shown on Sheets 4 and L-2 of the CDP/FDP to serve as public outdoor space benefitting the Proposed Development. The Applicant shall equip the Plaza with outdoor furniture and amenities intended to create a sense of place and identity for the Proposed Development, which should include, at a minimum, permanent and movable seating/benches, hardscape and landscaping, pedestrian-scale lighting, a focal feature and similar amenities, generally as shown on Sheets L-2 and (new sheets) of the CDP/FDP, with final amount, style and location to be determined as part of site plan approval for the Proposed Development. The Applicant shall include in the Plaza

design a landscaped area for naturalized play, hardscaped markings to indicate hopscotch, a maze or some comparable interactive activity, and game tables shall be provided in the Plaza, generally as shown on Sheet L-2 of the CDP/FDP. The required focal feature shall be of a quality and character comparable to those examples shown on Sheet ___ of the CDP/FDP. Minor modifications to the Plaza design, which may include the addition of noise-attenuating measures, may be permitted at time of site plan approval so long as the character and quality of the Plaza remains in conformance with the CDP/FDP.

A. Plaza Programming. The Applicant or its designee shall develop and implement a plan or programs designed to utilize the Plaza for community gatherings and/or events on a periodic basis, but in no event fewer than four (4) times per calendar year, which events may include, but need not be limited to, farmers markets, food, art or craft festivals, concerts, etc. (collectively, the "Plaza Programs"). The Applicant shall coordinate advertising and marketing for the Plaza Programs with the office of the Lee District Supervisor. No sooner than ten (10) years following the issuance of the first RUP for the Multifamily, the Applicant may petition the Zoning Administrator to modify the frequency of the Plaza Programs based on the success of such programs to date and/or other changes in circumstances that may warrant such a modification.

23. Signage. Signage for the Property shall be provided in accordance with the requirements of Article 12 of the Zoning Ordinance or with a Comprehensive Sign Plan. The Applicant reserves the right to pursue approval of a comprehensive sign plan in accordance with the requirements set forth in the Zoning Ordinance.

A. Directional Signage. The Applicant shall install way finding and directional signage throughout the Proposed Development intended to reduce conflicts among vehicles and pedestrians and to direct drivers to their desired locations. Such signage shall be located generally as shown on Sheet 4 of the CDP/FDP and be installed prior to the issuance of the first RUP for the Multifamily or the first Non-RUP for the Proposed Development.

24. Private Amenities and Recreation Facilities for Residents. Pursuant to Paragraph 2 of Section 6-110 of the Zoning Ordinance, the Applicant shall provide on-site recreational facilities, as shown on the CDP/FDP, for the future residents of the Property and shall expend a minimum of $1,700.00 per residential unit (exclusive of ADUs) in doing so. The outdoor amenity and recreation facilities provided with the Multifamily buildings shall be made available to the residents of the single-family attached dwelling units, subject to reasonable rules and regulations governing such use, which may include a fee or charge. In the event the total cost of recreational improvements constructed on the Property is demonstrated to be less than one thousand seven hundred dollars ($1,700.00) per unit, the Applicant shall provide the remainder in a cash contribution to the Fairfax County Park Authority ("FCPA") for the development of active recreational facilities in the vicinity of the Property prior to bond release for the proposed development.

A. Tot Lot and Dog Walk. Prior to issuance of the first RUP for the Multifamily, the Applicant shall install (i) a tot lot with at least one (1) piece of playground equipment and (ii) a fenced dog walk/park composed of synthetic turf with an underdrain system or stone dust, generally as shown on Sheet **[L-2.1A][?]** of the CDP/FDP. Details concerning the proposed tot lot and dog park amenities shall be shown on the initial site plan submission for the portion of the Property on which such facilities are to be constructed. The Applicant or a successor owners association shall provide ongoing maintenance, repair and/or replacement of the tot lot and dog park.

25. Off-site Recreational Facilities. Prior to the issuance of the first RUP for the Multifamily, the Applicant shall contribute $893.00 per resident generated by the Proposed Development up to a maximum total $575,000.00 to the Board of Supervisors for park, trail and athletic field improvements in the Lee District intended to serve the future residents, as determined by FCPA in consultation with the Supervisor for Lee District. The contribution shall be made on or before the issuance of the initial building permit for the Proposed Development, and the number of residents generated shall be calculated based on the following ratio: (a) studio and one-bedroom multifamily units generating one and one-quarter (1.25) residents per unit, (b) two-bedroom multifamily units generating two (2) residents per unit, (c) single-family attached units generating two and nine-tenths and (2.90) residents per unit. For purposes of this Proffer, the Applicant anticipates an approximate mix of dwelling unit types that includes sixty-percent (60%) studio and one-bedroom multifamily units, forty-percent (40%) two-bedroom multifamily units and forty-one (41) single-family attached units, with the final unit/bedroom mix and total contribution amount to be determined as part of site plan approval for the Proposed Development, provided that the total contribution amount under this Proffer shall not exceed $575,000.00.

PARKING AND LOADING

26. Bicycle Parking. The Applicant shall install bicycle racks, bike lockers, and/or bike storage areas in the Proposed Development providing a minimum of (a) fourteen (14) outdoor bicycle parking spaces for the multifamily residential and secondary uses and (b) forty-two (42) bicycle parking spaces located in a secure storage area within the Proposed Development (collectively "Bicycle Parking"). Specific locations for the outdoor Bicycle Parking shall be determined as part of site plan approval for the Proposed Development and in consultation with the Fairfax County Department of Transportation ("FCDOT") Bicycle Coordinator or his/her designee and be consistent with the Fairfax County Policy and Guidelines for Bicycle Parking. The Bicycle Parking shall be installed prior to the issuance of the first RUP for the Multifamily of the first Non-RUP for the Proposed Development.

27. Townhome Parking. The Applicant shall include in all homeowners association documents (and in all initial and subsequent purchase documents) recorded against the Property that the garages located in each single family attached dwelling unit shall be used for parking purposes only and shall not be converted to habitable space or used for storage in a way that would preclude parking for automobiles. The Applicant also shall include in such documents

information indicating that guest or visitor parking for these same units is available on a temporary basis (no long term parking) in the parking structure serving the retail uses in the Proposed Development, subject to reasonable rules and regulations established by the Applicants or its successor/designee.

28. Parking Reduction. Parking for the Proposed Development shall generally be provided as shown on Sheet 4 of the CDP/FDP. Notwithstanding anything in this Proffer to the contrary, the Applicant reserves the right to seek a parking reduction for the Proposed Development given its proximity to the Huntington Metrorail Station, as the same may be approved by the Board of Supervisors.

29. Construction Parking. The Applicant shall develop, in consultation with its general contractor, a parking management policy for construction workers hired to construct each phase of the Proposed Development (each a "Construction Parking Plan"). As part of each Construction Parking Plan, the Applicant shall identify locations on or off the Property where construction workers are permitted and forbidden to park given the building(s) that are under construction. The Applicant shall include provisions in its construction contracts and a requirement for similar provisions in all subcontracts requiring all construction workers to adhere to the Construction Parking Plan(s). Prior to the commencement of each phase of construction, the Applicant shall also erect signage on the Property in both English and Spanish that lists the permitted parking areas and prohibits parking by construction workers outside the designated areas. The Construction Parking Plan shall prohibit construction parking on any private streets adjacent to the Property unless permission has been expressly granted for construction parking by the owner or designated agent of the private parking area. A copy of the Construction Parking Plan shall be provided to the Lee District Supervisor's Office.

30. Shopping Cart Returns. In the event the Applicant elects to establish the grocery store option shown on Sheet 4 of the CDP/FDP, the Applicant shall, as part of site plan approval for such use, designate a location within the structured parking facility for the storage, capture and return of shopping carts. This location shall be in addition to any cart storage areas the grocery store may provide within its interior space. Additionally, the Applicant shall include a provision in its lease with the grocery store that assigns the grocery store responsibility for ensuring shopping carts are corralled and not left unattended in the surface parking lot.

TRANSPORTATION

31. Transportation Improvements. The Applicant shall make the following transportation improvements/contributions as part of the Proposed Development.

    A. Right-of-Way Dedication. Subject to VDOT and DPWES approval, the Applicant shall dedicate at no cost and convey in fee simple to the Board of Supervisors right-of-way (with no encumbrances precluding its intended use for public street purposes) totaling approximately 3,515 square feet along the Property's Kings Highway frontage as shown on Sheet 4 of the CDP/FDP. Such

dedication shall be made prior to site plan approval for the Proposed Development.

B. Kings Highway Realignment and Entrance. Prior to issuance of the first RUP for the Multifamily or the first Non-RUP for the Proposed Development, and subject to approval by FCDOT and VDOT, the Applicant shall reconstruct the Property's frontage along Kings Highway as more particularly shown on Sheet 4 of the CDP/FDP and described below (the "Kings Highway Improvements"). Notwithstanding the vehicular circulation directional arrows shown on the CDP/FDP and the descriptions set forth below, the final lane configurations and striping for the Kings Highway Improvements shall be determined as part of site plan approval in consultation with FCDOT and VDOT. The Kings Highway Improvements include:

i. Two northbound and two southbound through lanes along Kings Highway between Poag Street and the Property's entrance, with transitions to one northbound and one southbound lanes along Kings Highway south of the Property's entrance;

ii. A southbound taper between the Property's entrance on Kings Highway and its southern boundary, as more particularly as shown on Sheet 4 of the CDP/FDP;

iii. A dedicated left turn lane from northbound Kings Highway into the Property and a dedicated right turn lane from Kings Highway toward Richmond Highway in the location and configuration shown on Sheet 4 of the CDP/FDP;

iv. Reconstruction and reconfiguration of the curb and gutter and the removal of the existing asphalt along the outside northbound lane on Kings Highway for the realignment of Kings Highway;

v. Installation of a new or modified traffic signal with pedestrian countdown signal heads at the Property's entrance from Kings Highway (but not the portion at or across Route 1/Richmond Highway), along with pedestrian crosswalks across Kings Highway and the Property's entrance as shown on the CDP/FDP. If not previously installed by others, the pedestrian countdown signals shall be located on all four legs of the intersection at the Property's entrance.

C. Ultimate Kings Highway Alignment and Property Entrance. In recognition of Fairfax County's intent to further align Kings Highway along the Property's frontage in connection with future offsite road improvements, the Applicant acknowledges and commits, subject to VDOT and FCDOT approval, to reconfigure at its own expense the Property's entrance and associated streetscape

elements on Kings Highway as may be necessary or required to accommodate the ultimate section of Kings Highway. The Applicant shall complete any required entrance modifications concurrent with Fairfax County's and/or VDOT's improvements to Kings Highway and may contract directly with the constructing entity's general contractor for the portion of the improvements for which the Applicant is responsible. Nothing in this Proffer shall require the Applicant to dedicate additional right-of-way, outside of temporary construction or grading easements, for such improvements beyond that shown on the CDP/FDP and set forth in these Proffers.

D. Traffic Signal at Poag Street and Kings Highway. Prior to issuance of the first RUP for the Multifamily or the first Non-RUP for the Proposed Development, if requested by FCDOT or VDOT, the Applicant shall conduct and submit to VDOT a warrant study for a traffic signal at the intersection of Poag Street and Kings Highway.

E. Regional Road Fund Contributions. Prior to the issuance of each RUP for the Proposed Development, the Applicant shall contribute to the Board of Supervisors $1,276.00 per multifamily residential unit and per single family attached dwelling unit constructed in the Proposed Development, up to a maximum total of $563,000.00, to be used for transportation improvements at or near the intersection of Shields Avenue/North Kings Highway or for other transportation improvements in proximity to the Property as determined by FCDOT.

32. Interparcel Access to Adjacent Properties. In connection with the further development/redevelopment of the (a) retail use located northeast of the Property at Poag Street (Tax Map # 083-3-01-6) and/or (b) existing residential development presently known as the Kings Garden Apartments (Tax Map # 083-3-01-7A), the Applicant shall cooperate with the neighboring owner(s) to accommodate a pedestrian and, if appropriate, vehicular connection between such parcels and the Property in a mutually agreeable location(s). The specific locations of the proposed interpacel connections shall be determined in consultation with FCDOT and/or ZED as part of site plan approval for the adjacent parcels, and the Applicant shall be required to execute offsite easements and/or agreements with the owners of such adjacent parcels to facilitate the proposed connections. The granting of such connections by the Applicant or the construction of the proposed improvements shall not require the approval of a PCA/CDPA/FDPA for the Property.

A. Pedestrian Connection from Kings Garden Apartments. The Applicant shall provide an opening or gate through the fence that is to be constructed along the Property's southern border in order to facilitate pedestrian access between the Kings Garden Apartments and the community serving retail uses and tot lot/dog park to be constructed as part of the Proposed Development. The location of the pedestrian opening shall be determined by the Applicant, in consultation with FCDOT, and identified on the site plan on which the fence is proposed. The

Applicant shall maintain the fence and associated pedestrian opening consistent with its ongoing maintenance obligations under Proffer 36 below.

33. Transportation Demand Management. This Proffer sets forth the programmatic elements of a transportation demand management program (the "TDM Program") that shall be implemented by the Applicant, and subsequently, as appropriate, the property owner or Condominium Owners Association (COA), to encourage the use of transit (Metrorail and bus), other high-occupant vehicle commuting modes, walking, biking and teleworking, all in order to reduce automobile trips generated by the multifamily dwelling uses constructed on the Property. The proffered elements of the TDM Program are set forth below and will be implemented through a Transportation Demand Management Work Plan (the "TDM Work Plan") developed by the Applicant with input from and approval by FCDOT. It is the intent of this Proffer that the TDM Work Plan will be adapted over time to respond to the changing transportation related circumstances of the Property, the surrounding community and the region, as well as to technological and/or other improvements, all with the objective of meeting the trip reduction goals as set forth in these Proffers. Accordingly, modifications, revisions, and supplements to the TDM Work Plan as coordinated with FCDOT can be made without the need for a PCA, provided that the TDM Work Plan continues to reflect the proffered elements set forth below.

A. Transportation Demand Management Work Plan. The Applicant shall submit the TDM Work Plan to FCDOT prior to site plan approval for the Proposed Development.

B. Definitions. For purposes of this Proffer, "Stabilization" shall be deemed to occur one (1) year following issuance of the last initial RUP or Non-RUP for the final new building to be constructed on the Property. "Pre-stabilization" shall be deemed to occur any time prior to Stabilization.

C. Transportation Management Association. The Applicant shall participate in or otherwise become associated with a larger Transportation Management Association should one be established for this area.

D. Trip Reduction Objective. The objective of the TDM Work Plan shall be to reduce the number of weekday peak hour vehicle trips generated by the dwelling units located on the Property through the use of mass transit, ridesharing and other strategies including but not limited to those outlined in the TDM Strategic Plan. In addition, the implementation of enhanced pedestrian and bicycle connections/facilities will provide safe and convenient access to nearby Metrorail and bus facilities thereby encouraging commuting options other than the automobile to residents, employees and visitors to the Property.

(i) Baseline. The baseline number of weekday peak hour residential vehicle trips for the dwelling units against which the TDM Goal (as defined in subparagraph C.ii) will be measured shall be derived upon the number of

dwelling units constructed and occupied on the Property as part of the Proposed Development at the time traffic counts are conducted in accordance with subparagraph D.v. and using the trip generation rates/equations applicable to such uses as set forth in the Institute of Transportation Engineers, Trip Generation, 9th Edition for Land Use Code 220. In the event at Stabilization, the Applicant has constructed fewer than 441 dwelling units as part of the Proposed Development, then the Baseline trip generation numbers applicable upon Stabilization shall be calculated as if 441 dwelling units had actually been constructed as reflected in the Traffic Impact Study for the Applicant prepared by Gorove/Slade, dated August 12, 2013.

(ii) TDM Goal. The objective of this TDM Program shall be to reduce by twenty-five percent (25%) the number of vehicle trips generated by residents of the dwelling units in the Proposed Development (i.e., not including trips by customers of the retail uses) during weekday peak hours as compared to the baseline number of vehicle trips that otherwise would have been expected to be generated (the "Maximum Trips After Reduction").

E. Process of Implementation. The TDM Program shall be implemented as follows, provided that modifications, revisions, and supplements to the implementation process as set forth herein as coordinated with FCDOT can be made without requiring a PCA.

(i) TDM Program Manager. The Applicant shall appoint and continuously employ, or cause to be employed, a TDM Program Manager (TPM) for the Property. The TPM shall be appointed no later than sixty (60) days after the issuance of the building permit for the Property. The TPM duties may be part of other duties associated with the appointee. The Applicant shall notify FCDOT and the District Supervisor in writing within 10 days of the appointment of the TPM. Thereafter the Applicant shall do the same within ten (10) days of any change in such appointment.

(ii) Annual Report and Annual Budget. At the beginning of each calendar year after the issuance of the first RUP for the Multifamily or the first Non-RUP for the Proposed Development, but no later than February 1st, the TPM shall submit an Annual Report, based on a report template provided by FCDOT, which may revise the Annual Budget in order to incorporate any new construction on the Property. Any changes to the TDM Work Plan shall be highlighted in this report.

The Annual Report and Budget shall be reviewed by FCDOT. If FCDOT has not responded with any comments within sixty (60) days after submission, then the Annual Report and Budget shall be deemed

approved, and the TDM Work Plan shall be implemented. If FCDOT responds with comments on the TDM Work Plan, Annual Report or Budget, then the TPM will meet with FCDOT staff within fifteen (15) days of receipt of the County's comments. Thereafter but in any event, no later than thirty (30) days after the meeting, the TPM shall submit such revisions to the program and/or budget as discussed and agreed to with FCDOT and begin implementation of the approved program and fund the approved TDM Budget.

(iii) TDM Account. If not previously established, the TPM shall establish a separate interest bearing account with a bank or other financial institution qualified to do business in Virginia (the "TDM Account") within 30 days after approval of the initial TDM Work Plan and subsequent Annual Report and TDM Budget. All interest earned on the principal shall remain in the TDM Account and shall be used by the TPM for TDM purposes. The TDM Account shall be funded by the Applicant through the TPM. Funds in the TDM Account shall not be utilized for purposes other than to fund TDM strategies/programs and/or specific infrastructure needs as may be approved in consultation with FCDOT.

Funding of the TDM Account shall be in accordance with the budget for the TDM Work Plan elements to be implemented in each calendar year. The TPM shall provide written documentation to FCDOT demonstrating the establishment of the TDM Account within ten (10) days of its establishment. The TDM Account shall be replenished annually thereafter following the establishment of each year's TDM Budget. The TDM Account shall be managed by the TPM.

(iv) TDM Incentive Fund. The "TDM Incentive Fund" is an account into which the Applicant through the TPM, shall deposit contributions to fund a multimodal incentive program for initial purchasers/lessees within the Proposed Development. Such contributions shall be made one time at the rate of $0.01 per gross square foot of new multifamily dwelling uses constructed on the Property and provided prior to the issuance of the first RUP. If funds remain after incentives are provided to initial purchasers/lessees, the Applicant shall continue to provide incentives until the fund is depleted.

(v) Monitoring. The Applicant shall verify that the proffered trip reduction goals are being met through the provision of person surveys, trip counts of residential uses and/or other such methods as may be reviewed and approved by FCDOT. The results of such person surveys and vehicular trip counts shall be provided to FCDOT as part of the Annual Reporting process. Person surveys and vehicular traffic counts shall be conducted for the Property beginning one year following issuance of the final initial

RUP for the first new multifamily dwelling building to be constructed on the Property. Person surveys shall be conducted every three (3) years and vehicular traffic counts shall be collected biennially until the results of three (3) consecutive annual traffic counts conducted upon Stabilization show that the applicable trip reduction goals for the Property have been met. Any time the TPM's person survey response rates do not reach twenty percent (20%), FCDOT may request additional surveys be conducted the following year. At such time, and notwithstanding Paragraph E below, Person Surveys and Vehicular Traffic Counts shall thereafter be provided every five (5) years. Notwithstanding the foregoing sentence, at any time prior to or after Stabilization, FCDOT may suspend the requirement to conduct vehicle traffic counts if conditions warrant such action.

F. Additional Trip Counts. If an Annual Report indicates that a change has occurred that is significant enough to reasonably call into question whether the TDM Goal continues to be met, then FCDOT may require the TPM to conduct additional vehicle trip counts (pursuant to the methodology set forth in the TDM Work Plan) within 90 days to determine whether in fact such objectives are being met. If any such trip counts demonstrate that the Maximum Trips After Reduction are being exceeded, then the TPM shall meet with FCDOT to review the TDM strategies in place and to develop modifications to the TDM Work Plan to address the surplus of trips.

G. Review of Trip Reduction Goals. Upon 85% residential occupancy and concurrent with remedial actions as outlined in Paragraph D, the Applicant may request that FCDOT review the TDM Goal established for the Property and set a revised lower goal for the Property consistent with the results of such surveys and traffic counts provided for by this Proffer. In the event a revised lower goal is established for the Property, the Maximum Trips After Reduction shall be revised accordingly for the subsequent review period without the need for a PCA.

H. Continuing Implementation. The Applicant through the TPM shall bear sole responsibility for the implementation of the TDM Program and compliance with this Proffer. The Applicant through the TPM shall continue to administer the TDM Program in the ordinary course in accordance with this Proffer including submission of Annual Reports.

I. Notice to Owners. The current owner shall advise all successor owners and/or developers of their funding obligations pursuant to the requirements of this Proffer prior to purchase and the requirements of the TDM Program, including the annual contribution to the TDM Program (as provided herein), shall be included in all initial and subsequent purchase documents.

J. Enforcement. If the TPM fails to timely submit a report to FCDOT as required by this Proffer, Fairfax County will thereafter issue the TPM a written notice stating the TPM has violated the terms of this Proffer and providing the TPM with sixty (60) days within which to cure such violation. If after such sixty (60) day period the TPM has not submitted the delinquent report, then the Applicant shall be subject to a penalty of $50 per day until such time as the report is submitted to FCDOT. Such penalties shall be payable to Fairfax County and shall be used for transit, transportation, or congestion management improvements within the vicinity of the Property.

STORMWATER MANAGEMENT

34. Stormwater Management. In order to protect receiving waters downstream of the Property, the Applicant shall provide stormwater management ("SWM") measures designed in accordance with the Public Facilities Manual ("PFM") in order to control the quantity and quality of stormwater runoff from the Property. Stormwater detention and Best Management Practices (BMPs) facilities shall be provided in an appropriate system per the PFM and may include, but are not limited to, an underground detention vault, LID facilities, and infiltration measures, all as generally set forth on the CDP/FDP (collectively, the "SWM Facilities"). At the time of site plan approval, the Applicant shall demonstrate that the SWM Facilities serving the Proposed Development will exceed the post-development phosphorus removal requirements of the PFM by at least ten percent (10%) when compared to pre-development conditions on the Property. To achieve compliance with this Proffer, the Applicant may utilize Low Impact Development ("LID") techniques such as tree box filters, bio-retention areas, pervious hardscapes/streetscapes, and stormwater reuse for landscape irrigation and air conditioning unit makeup water. The specific SWM Facilities shall be identified at the time of site plan approval and approved by DPWES.

A. Prior to site plan approval for the Proposed Development, the Applicant shall execute an agreement with the County in a form satisfactory to the County Attorney (the "SWM Agreement") providing for the perpetual maintenance of the SWM Facilities. The SWM Agreement shall require the Applicant (or its successors) to perform regular routine maintenance of the SWM Facilities and to provide a maintenance report annually to the Fairfax County Maintenance and Stormwater Management Division of DPWES, provided DPWES requests such a maintenance report. The SWM Agreement also shall address easements for County inspection and emergency maintenance of the SWM Facilities to ensure that the facilities are maintained by the Applicant in good working order.

B. In the event that, prior to site plan approval for the Proposed Development, the performance standards set forth in the PFM are modified to use a different method for calculating improvements in water quality and the technologies for achieving such improvements, then the Applicant shall provide on its site plan calculations demonstrating that the SWM Facilities satisfy both the performance standards set

forth in this Proffer and the new PFM standards, as the same may be amended from time to time.

C. Should the U.S. Environmental Protection Agency, the Commonwealth of Virginia, Fairfax County or their designee, issue new or additional stormwater management requirements or regulations affecting the Property, the Applicant shall have the right to accommodate necessary changes to its stormwater management designs without the requirement to amend the CDP/FDP or these proffers or gain approval of administrative modifications to the CDP/FDP or proffers. Such changes to the stormwater management design shall not materially impact the limits of clearing and grading, building locations or road layouts as determined by the Zoning Administrator.

MISCELLANEOUS

35. Fairfax County Public Schools Contribution. The Applicant shall contribute $10,488 per expected net new student (beyond the current zoning designation) generated by the Proposed Development up to a maximum $576,840.00, as subject to the escalation in Proffer 35 below, to the Fairfax County School Board to be utilized for (a) construction of a new fence at Mount Eagle Elementary School along its frontage on Kings Highway and/or (b) capital construction and capacity enhancements to schools in the area that serve the Proposed Development. The contribution shall be made on or before the issuance of the first RUP for the Multifamily and shall be based on the actual number of residential units to be constructed. Prior to beginning construction of the Proposed Development, the Applicant shall notify the Fairfax County Public Schools of the intended construction and anticipated completion date.

36. Escalation in Contribution Amounts. All monetary contributions specified in these Proffers shall be adjusted on a yearly basis from the base month of January 2014 and change effective each January 1 thereafter, as permitted by Section 15.2-2303.3 of the Code of Virginia, as amended.

37. Ongoing Maintenance Obligations. Prior to the issuance of the first RUP for the Proposed Development, the Applicant shall record a declaration and/or establish an Umbrella Owners' Association (the "UOA") for the Property to address the general maintenance and other obligations of the owner(s) (and their successors and assigns), including the fulfillment of these Proffers. The declaration and/or UOA documents shall separately identify those maintenance or proffer obligations that will or are expected to fall principally on owners or residents of single family attached dwelling units and such obligations shall be disclosed to the owners/residents in accordance with the terms of this Proffer. Purchasers of individual dwelling units shall be advised in writing of these proffer conditions and maintenance obligations prior to entering into a contract of sale.

38. Construction Hours. Outdoor construction of the Proposed Development shall take place only during the hours between 7:00 a.m. and 9:00 p.m. Monday through Friday and between

the hours of 8:00 a.m. and 6:00 p.m. on Saturday. There will be no outdoor construction on New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, the Fourth of July, Labor Day, Thanksgiving and Christmas Day. The permitted hours of construction shall be posted on-site in both English and Spanish.

39. Transformer Location. The final location of the transformers to serve the Proposed Development shall be decided as part of site plan approval for the buildings each transformer is to serve.

40. Density Credit. All intensity/density attributable to land areas dedicated and/or conveyed at no cost to the Board or any other public entity pursuant to these Proffers shall be subject to the provisions of Paragraph 4 of Section 2-308 of the Zoning Ordinance and is hereby reserved to the residue of the parcel of land from which it came.

41. Binding Effect. These Proffers will bind and inure to the benefit of the Applicant and its successors and assigns. If any portion of the Property is sold or otherwise transferred, the associated Proffers become the obligation of the purchaser or other transferee and shall no longer be binding on the seller or other transferor.

42. Counterparts. These Proffers may be executed in one or more counterparts, each of which when so executed and delivered shall be deemed an original, and all of which taken together shall constitute but one and the same instrument.

[SIGNATURES ON FOLLOWING PAGES]

TITLE OWNER/APPLICANT:

PENN-DAW ASSOCIATES LIMITED PARTNERSHIP, a Virginia limited partnership

By: PENN-DAW GP, INC., a Delaware corporation, its General Partner

By: _____
Katherine D. Roberson, its Vice President

CONTRACT PURCHASER:

Penn D LLC, a Virginia limited liability company

By: Craftstar Homes, Inc., its manager

By: _____
Kenneth G. Malm, its President

PROPOSED FINAL DEVELOPMENT CONDITIONS

FDP 2013-LE-008

NOVEMBER 7, 2013

If it is the intent of the Planning Commission to approve FDP 2013-LE-008 for Tax Map 83-3 ((1)) 7, staff recommends that the Planning Commission condition the approval by requiring conformance with the following development condition:

1. Development of the property shall be in substantial conformance with the CDP/FDP entitled “Penn Daw Plaza,” submitted by Urban, Ltd., consisting of 35 sheets dated March 18, 2013 and revised through October 31, 2013.

The proposed development conditions are a staff recommendation and do not reflect the position of the Planning Commission, unless and until adopted by the Planning Commission.

APPENDIX 3

RECEIVED
Department of Planning & Zoning

SEP 20 2013

Zoning Evaluation Division

PENN DAW PLAZA

CONCEPTUAL DEVELOPMENT PLAN
FINAL DEVELOPMENT PLAN

STATEMENT OF JUSTIFICATION

February 7, 2013
Revised August 8, 2013
Revised September 20, 2013

I. Introduction

Penn-Daw Associates Limited Partnership (the "Applicant") is the owner of the approximately 10.45-acre property located at 6226 North Kings Highway in Alexandria, Virginia. The Property is located west of the intersection of Richmond Highway and North Kings Highway and south of Poag Street in the Lee Magisterial District and is more particularly identified on the Fairfax County Tax Map as 83-3 ((1)) 7 (the "Property").

The Applicant is proposing to rezone the Property from the C-8 (Highway Commercial) and R-4 (Residential District, Four Dwelling Units/Acre) Zoning Districts to the Planned Development Housing (PDH) District to permit a dynamic mix of residential dwelling unit types and retail uses in an area of Fairfax County in palpable need of significant redevelopment and reinvestment (the "Proposed Development"). The Property is further situated in the Richmond Highway Commercial Revitalization District ("Richmond Highway CRD") and the HC (Highway Corridor) Overlay District.

II. Existing Conditions and Background

The Property is split-zoned: approximately 6.4 acres to the east are zoned to the C-8 district and 4.2 acres to the west are zoned to the R-4 district. The majority of the Property is also zoned to the HC overlay district; and, as discussed in more detail below, the entire Property is zoned to the Richmond Highway CRD, although only the commercially-zoned portion is subject to the CRD regulations. The Property is at present developed with a 132,203 square-foot shopping center (the "Penn Daw Shopping Center"), which is located on the C-8 portion of the Property. Some of the parking for the Penn Daw Shopping Center is located on the R-4 portion of the Property. Although several inline retailers continue to operate, the anchor tenant space—formerly leased to Shoppers Food Warehouse—has been vacant since mid-2011.

The Penn Daw Shopping Center was constructed in 1959. On April 20, 1960, the Fairfax County Board of Supervisors approved a use permit to allow commercial parking for the shopping center on the residentially-zoned portion of the Property.

On July 11, 1983, the Fairfax County Board of Supervisors approved Special Exception SE 83-L-029 to permit expanded commercial parking on the residentially-zoned portion of the Property (the "1983 SE").

On March 18, 1991, the Board of Supervisors approved Special Exception Amendment SEA 83-L-029 to permit a renovation and expansion of the Penn Daw Shopping Center (the "SEA"), which required additional parking concessions on the residentially-zoned portion of the Property and driveways for uses on the commercially-zoned portion. The SEA was approved subject to ten development conditions pertaining to the improvement of Poag Street, the total number of parking spaces and geometrics, the landscaping and buffering of the existing shopping center from the adjacent apartments, the enclosure of trash dumpsters, and the addition of a stop sign.

On June 27, 1994, the Board of Supervisors approved Special Exception SE 94-L-014 to permit an increase in sign area and height for one free-standing sign along the eastern perimeter of the Property (the "1994 SE"). The 1994 SE was approved subject to five development conditions, which generally pertain to the specifications of the sign.

On October 12, 1998, the Board of Supervisors approved Rezoning RZ 1998-MD-037 (the "CRD Rezoning") to facilitate redevelopment in the County's older commercial areas. The CRD Rezoning established five Commercial Revitalization Districts ("CRDs"), including the Richmond Highway CRD which overlays the Property (the "Rezoning"). Neither development plans nor proffers were approved with creation of the CRDs. As CRD provisions apply only to commercially-zoned properties within its boundaries, here, only the eastern portion of the Property which is zoned to the C-8 district is subject to the CRD regulations.

IV. Comprehensive Plan Recommendations

The Property is located in Sub-Unit H-2 in Planning Area IV of the Mount Vernon Planning District. It was part of a significant comprehensive planning exercise that began in December 2010 to study alternative development options for the Property as well as parcels contained within Sub Units H-1 and F-2. As part of that planning exercise, the Board of Supervisors initiated a task force of neighbors and community representatives to work with staff on developing alternative development scenarios to the retail and office planned uses. The Applicant closely followed the task force discussions, attending every meeting during the 17-month process, which resulted in Comprehensive Plan Amendment ST10-IV-MV1 (the "Comprehensive Plan Amendment"), recommending the Property for a mix of residential uses and ground-floor retail up to a 1.15 FAR. The Fairfax County Board of Supervisors adopted the Comprehensive Plan Amendment on April 10, 2012.

A. Land Use and Intensity

When looked at collectively, the Comprehensive Plan recommends Land Unit H for a maximum of 735 residential dwelling units and a minimum of 40,000 square feet of retail uses. Sub Unit H-2 is specifically identified as appropriate for a mix of multi-family units and townhouses with ground-floor retail up to a 1.15 FAR. Importantly, the Board of Supervisors approved 245 units for Sub Unit H-1 on July 10, 2012, leaving 490 units available under the recommended Comprehensive Plan for Sub Unit H-2.

The Applicant is proposing to retire the aging Penn Daw Shopping Center and revitalize the Property with a mix of multi-family units, townhouses and retail uses. Specifically, the Proposed Development will include 400 multi-family units with a variety of bedroom types, at a multifamily FAR of 1.58, 41 townhouses, and up to approximately 45,500 square feet of retail uses including a grocery store or alternate drive-through pharmacy, and multiple in-line retail tenants at a commercial FAR of 0.158. The Applicant has requested under separate application a special exception for fast food restaurants as part of the retail program. As such, the Proposed Development falls squarely within the Comprehensive Plan's recommendations.

The Proposed Development contains 42.41 units per acre, exceeding the PDH-40 density of 40 units per acre. The additional units are provided in workforce and affordable housing units in accordance with Zoning Ordinance requirements and the policies adopted by the Board of Supervisors in the Comprehensive Plan. The 15 dwelling units above 40 units per acre represent bonus units available to the Applicant in accordance with the adopted workforce and affordable housing policies.

B. Consolidation

The Comprehensive Plan recommends full consolidation of the properties in Sub-Unit H-2; or, if full consolidation is not possible, encourages a coordinated design in terms of functionality and aesthetics of the unconsolidated areas. In addition to the Property, there is one additional, much smaller parcel in this Sub-Unit (Tax Map Parcel 83-3 ((1)) 6), which the Applicant has unsuccessfully sought to acquire for more than one year. In light of the fact that actual consolidation will not happen as part of this application, the Applicant nonetheless is pursuing approvals from the adjacent owner to implement architectural and urban design improvements to the neighboring building to better integrate it into the Penn Daw redevelopment. In furtherance of this effort, the Applicant has included a proffer committing it to pursuing such façade improvements and to keeping the Department of Planning and Zoning informed of its efforts along the way.

C. High-Quality Site Design and Architecture

The Comprehensive Plan makes several recommendations, highlighted below in italics, as to high-quality site design and architecture, to which the Applicant has responded as follows:

- *Buildings should align with Poag Street and North Kings Highway and should be built close to the streets to create an urban street edge.*

The buildings were carefully configured so as to align with Poag Street to the north and North/South Kings Highway to the east. In order to maximize the amount of retail square footage that can be located in the redevelopment – a key objective of the Comprehensive Plan – the Applicant designed the buildings along Kings Highway to form a u-shaped space that provides more sidewalk and circulation opportunities to accommodate more inline retail tenants than if all of the buildings were pushed to the edge of Kings Highway. The result is an entry drive and associated urban plaza that provides the project with a distinct identity and sense of

place while maintaining a very urban, mixed-use form. The site's layout allows for cars, pedestrians, and cyclists to permeate the urban space created by the buildings and plaza.

- *Retail uses should be located on the ground floors of the residential buildings and their visibility along North/South Kings Highway and Poag Street should be maximized.*

This is a true, vertically mixed-use development—the Applicant is proposing to locate retail uses on the ground-floors of the residential buildings fronting Kings Highway, which will ensure strong visibility from both Poag Street and Kings Highway, as recommended.

- *Adequate buffering should be provided to minimize the visual impact of the Proposed Development, including landscaping with year-round vegetation and publically-accessible open space.*

The Applicant has designed a landscape plan that creates a composed sense of place for the Proposed Development and relates well to the adjacent properties. The landscape plan depicts, among other features, an urban plaza for the use and enjoyment of the residents, visitors and retail employees at the eastern end of the Property and adequate open space for the multifamily tenants and townhouse occupants. Included in the design are a tot lot and a dog park to give residents of this and surrounding developments a location to socialize and relax.

In short, the site design and architecture for the Proposed Development are in conformance with the Comprehensive Plan's guidance for the Property.

D. Building Heights

The Comprehensive Plan recommends that buildings be limited to five stories, with the tallest buildings concentrated along Kings Highway and tapering down toward the single-family residential neighborhoods to the west. The Comprehensive Plan further recommends that townhouses should be used to provide a transition to the neighborhoods to the west. The Proposed Development incorporates five-story buildings along North Kings Highway (one story of retail with four stories of residential), which step back to four stories of multifamily and eventually three-story townhouses to provide the desired transition in conformance with the Plan. Furthermore, the massing of the townhouses provides an additional aesthetic transition to the single-family residential neighborhoods to the west.

E. Urban Plazas, Parks, and Recreation Opportunities

The Applicant is proposing a significant amount of publically accessible open space, with a particularly expansive public plaza at the eastern end of the Property adjacent to the retail anchor, as shown on the CDP/FDP. The two development scenarios – be it a pharmacy anchored development, or one anchored by a grocery store – each produce a uniquely designed public plaza. Under the grocery-anchor scenario, the plaza will relate directly to that store's entrance, inviting pedestrians to travel from the parking garage through the plaza to access the store. Outdoor tables, pedestrian-scaled landscaping and lighting and a focal feature will draw pedestrians into the space and encourage them to congregate there. If a

pharmacy becomes the anchor tenant, the plaza lengthens, as it can replace much of the surface parking that is required by the grocery tenant. That larger plaza incorporates additional landscaped and hardscaped areas, further inviting the public into the Proposed Development while giving shoppers and residents space to recreate and relax.

The design of both plazas will encourage different experiences for the pedestrian. The Applicant has carefully planned the plazas to include space for formal and informal gatherings, fixed and movable seating, focal features, and outdoor dining. Seating will be interspersed among a blend of trees, shrubs, ground cover and other plantings and special landscape features. Under both scenarios, the plaza is designed to accept community events such as farmer markets or outdoor festivals that will establish a sense of place at Penn Daw. Additional park and open space has been generously programmed around the property, including, as noted above, a dog park and children's play area in the rear of the Property to provide easy access for residents in the townhomes and multifamily buildings. In addition, the Applicant has programmed recreational amenities such as a swimming pool and fitness facility for its multifamily tenants.

F. Parking

The Comprehensive Plan recommends that parking be consolidated in structures that are appropriately screened, lit, and landscaped. Limited convenience surface parking is appropriate, if also integrated into the pedestrian environment. The Applicant intends to park the Proposed Development exactly as envisioned in the Plan—parking for the multi-family residential and retail uses will be mostly consolidated in a structured garage that is wrapped by additional residential buildings with ground-floor retail uses and residential amenity, lobby, and leasing space. A small but critical amount of surface parking is provided for the retail uses to serve as the "teaser" parking on which retailers depend.

Lastly, the townhouses will each have two-car parking garages – some with additional driveway parking – for residents, with complementary surface parking for visitors and guests. Visitors and guests also will have the opportunity to use portions of the retail garage parking when available (except overnight parking).

G. Transportation Improvements and Access

The Comprehensive Plan encourages the Proposed Development to include adequate right-of-way dedications for planned transportation improvements and to incorporate the design and/or construction of certain of those on and off-site improvements. To that end, the Applicant will construct improvements to accommodate a 35 mph design speed along Kings Highway, while also dedicating additional right-of-way to accommodate future improvements consistent with a 40 mph speed.

On site, the Comprehensive Plan recommends that the entrance to Penn Daw Plaza south of Poag Street be realigned with the existing connection to Route 1 so as to improve access to the Property and allow a direct connection rather than a sinewy one between the Property and Route 1. The Applicant agrees with this recommendation and has accommodated

this realignment in the CDP/FDP. Importantly, that new alignment will serve as the Proposed Development's primary access point, as the Applicant has consolidated its entrances along that busy corridor.

The Applicant has also proffered a significant contribution toward regional road improvements that will further the Comprehensive Plan goals for transportation near the Property.

H. Multi-Modal Connectivity

The Comprehensive Plan encourages efforts to enhance the walkability and multi-modal connectivity of the land uses in this Sub-Unit. By its integrated nature, the Proposed Development will reduce single-occupancy vehicle trips that are currently made to the Penn Daw Shopping Center—instead of being served exclusively by cars, residents of the 430 dwelling units will walk from their homes to the on-site retailers. And, to further promote walkability, the Applicant has designed a pedestrian circulation plan that encourages pedestrian movements to, through, and around the Property, which will connect with the existing and proposed sidewalks along North Kings Highway to lead people north to the Huntington Metro station. Additionally, the Applicant is excited to explore the idea of bringing Capital Bike Share to this portion of Fairfax County, a regional program that allows people to rent bicycles for short commutes. Connecting the Property to the Huntington Metro by bike would be an impressive asset both for the future residents and shoppers. As such, the Proposed Development is precisely the type of pedestrian-oriented environment contemplated in the Comprehensive Plan.

I. Storm Water Management

Pursuant to the Comprehensive Plan and with the goal of reducing the total runoff volume on the Property, the Applicant is providing extensive storm water quantity and quality control measures, including the use of infiltration devices. As recommended, the Applicant is emphasizing Low Impact Development ("LID") techniques and Best Management Practices ("BMP").

V. Waivers and Modifications

The Applicant is seeking the following waivers and modifications:

1. Section 9-622 of the Zoning Ordinance, Provisions for Modifications/Waivers/Increases and Uses in a Commercial Revitalization District

The Applicant requests a modification in accordance with Section 9-622 of the Zoning Ordinance to reduce the minimum open space required in the PDH-40 district from 31% to 24% of the gross area. The PDH district's open space requirement is substantially higher than that of the PRM zoning district, which is the zoning district under which most urban residential mixed use projects of this type are zoned in Fairfax County. The Applicant's proposal for a pharmacy drive-through necessitates the PDH zoning (such uses are prohibited in the PRM district),

resulting in a modification request to more closely match (indeed, exceed) the PRM district standards available to comparable projects elsewhere in the County.

A landscaped and hardscaped central plaza will anchor the Proposed Development, offering an active gathering area for all users of the Property. Further, there will be a separate recreational area, including a pool, for residents, as well as pocket parks with designated children and pet areas near the townhouses. The amount of open space provided will support the recreational needs of residents and visitors to the Property.

2. Sections 13-303 and 13-304 of the Zoning Ordinance, Transitional Screening and Barrier Requirements

In accordance with Section 13-305 of the Zoning Ordinance, the Applicant requests a series of waivers and modifications of Sections 13-303 and 13-304 for the requirements for Transitional Screening and Barriers. Site constraints and the integrated nature of the Proposed Development (multifamily units above retail and transitional townhomes adjacent to existing single-family neighborhood) result in a more cohesive development, rather than disparate uses separated by significant plantings. Therefore, the Applicant requests relief in the following locations:

- Along the northeastern property line: Pursuant to Section 13-305(3) and A7-407(C) of the Zoning Ordinance, modification of the Type 1 required plant material and associated barrier to promote an open, safe pedestrian environment along the front yards of the townhomes fronting Poag Street. The proposed landscape strategy is consistent with the adopted Comprehensive Plan calling for an animated streetscape with street trees, accent plantings, and a sidewalk to provide a direct visual and physical connection between the townhomes, Poag Street, and the uses to the north.
- Along the southeastern property line: Pursuant to Section 13-305(3) and 305(6), modification of the Type 1 required plant material as the available horizontal space between the Applicant's and the neighboring multifamily dwellings is extremely narrow. A six-foot high fence, sometimes located on a retaining wall of less than three feet, will be provided in this location.
- Along the northwestern property line: Pursuant to Section 13-305(3), modification of the Type 1 requirements to reduce the required width between the townhomes and the existing single family homes. This reduced width allows for a more cohesive layout of the townhomes throughout the street and open space network. The required plant material and associated barrier (fence) will be provided, albeit in a narrower area.
- Between the multifamily uses and townhomes: Pursuant to Section 13-305(5), waiver of the Type 1 requirements to facilitate an integrated planned development with a mix of housing types. The transition between the multifamily building and townhomes will be an internal street, with street trees, lushly landscaped tree pits, and sidewalks.
- Between the multifamily uses and retail uses: Pursuant to Section 13-305(5), waiver of the Type 1 and 2 requirements and associated barriers to facilitate an integrated planned development with a mix of uses. Visual and physical access from the multifamily units to the retail and public spaces is typical of an urban mixed-use environment. Furthermore, the two uses will be located in the same building.

Please see the landscape sheets of the CDP/FDP for details of the proposed screening.

3. Section 13-202 of the Zoning Ordinance, Interior Parking Lot Landscaping

Pursuant to Section 13-202(6)(b) of the Zoning Ordinance, the Applicant requests a waiver of the requirement that landscaping areas be dispersed throughout the surface parking lot. Given the relatively small size of the surface parking areas, it is difficult to evenly distribute landscaping without obscuring storefronts. The Applicant has made an effort to distribute canopy trees throughout the Proposed Development in a manner that preserves the visibility of retailers, which is vital to their success. Notwithstanding the above, the Applicant has increased the size of the majority of the interior parking lot landscaping trees to be Category 4, 4-inch caliper, therefore providing additional canopy coverage.

Pursuant to Section 13-202(6)(b) of the Zoning Ordinance, the Applicant also requests a waiver of the requirement that interior parking lot landscaping be provided on the top deck of the screened parking garage. The Applicant's design for the Proposed Development locates five-story multifamily buildings on all four sides of the parking deck, creating a four-sided screen, with no units overlooking the parking structure. The Applicant's buildings and parking structure are taller than all surrounding properties (each of which are 3-4 stories tall), such that no surrounding uses or buildings will be able to see the top deck of the parking structure, whether on the first floor or the highest floor. Moreover, the cost of providing irrigation, planter boxes and other facilities required to support the decktop landscaping outweighs the minimal benefits of such plantings where the trees would not be visible anyway. Waiver of this standard permits the Applicant to spend its limited resources on improvements to the plaza areas and other site amenities.

4. Section A7-409 of the Zoning Ordinance, Additional Provisions

Consistent with the Richmond Highway Commercial Revitalization District, pursuant to Section A7-409 of the Zoning Ordinance, the Applicant requests a 20% reduction in the minimum required parking for non-residential uses. The synergy among the proposed uses lessens the demand for parking for the retail uses, consistent with the Comprehensive Plan's objectives.

5. Modification of the Countywide Trails Plan along North Kings Highway

The Countywide Trails Plan shows a minor paved trail (4' to 7'11" in width) north of the intersection with Route 1 and a major paved trail (8' or more in width) south of Route 1. The Applicant requests a modification to reduce the major paved trail requirement along the southern portion of the site's Kings Highway frontage from 8 feet to 6 feet to allow a consistent width path along the entire Property. Therefore, the Applicant will provide a 6-foot wide sidewalk with a 4-foot wide buffer along the entire Kings Highway frontage to create a consistent and safe pedestrian environment.

6. Section 2-505 of the Zoning Ordinance, Use Limitations on Corner Lots

The Applicant requests a waiver of this section in anticipation of future subdivision of the Property. The Property is considered one "lot" for purposes of application of the Zoning Ordinance, despite having different uses, sections, buildings and possible phases. However, the Applicant has been told by DPWES that, upon subdivision and the construction of private streets, each subdivided lot will then be subject to the applicable setbacks standards. Consequently, the Applicant requests a waiver of Section 2-505 to permit structures such as project identification signs or other urban design elements to be located within the required setback areas.

7. Section 2-412 of the Zoning Ordinance, Permitted Extensions Into Minimum Required Yards

The Applicant requests that extensions of decks, cornices, canopies, awnings, eaves and other similar features into minimum required yards be permitted in the PDH district pursuant to Section 2-412.

8. Section 7-0104.1 of the Public Facilities Manual, Service Drive

The Applicant requests a wavier of Section 7-0104.1 of the PFM to not provide a service drive where the Property abuts a primary highway, adjacent to Kings Highway, because there is no interparcel access. Future interparcel access is accommodated further into the site.

VI. Conclusion

Saddled with an aging and largely vacant shopping center, the Property is currently under-utilized and long overdue for redevelopment. The Applicant is proposing the precise mix of residential dwelling unit types and retail uses contemplated by the Board of Supervisors when it amended the Comprehensive Plan provisions for this Sub-Unit last year.

Respectfully submitted:

Molly Novotny 9/20/13

Molly M. Novotny
Cooley LLP

REZONING AFFIDAVIT

DATE: October 4, 2013
(enter date affidavit is notarized)

I, Mark C. Looney, 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

120792a

in Application No.(s): RZ/FDP 2013-LE-008
(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)
Penn-Daw Associates Limited Partnership Agents: Lee Randy Kenna Steven G. Rolls	1025 Thomas Jefferson Street NW, Suite 700E Washington, DC 20007	Title Owner/Applicant
Gorove/Slade Associates, Inc. Agents: Chad A. Baird Cheryl L. Sharp	3914 Centreville Road, Suite 330 Chantilly, VA 20151	Traffic Engineer/Agent
Urban Engineering & Associates, LLC (t/a Urban, Ltd.) Agents: Robert W. Brown Michael B. Keith Charles A. Harper	7712 Little River Turnpike Annandale, VA 22003	Engineer/Agent

(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).

Rezoning Attachment to Par. 1(a)

DATE: October 4, 2013
(enter date affidavit is notarized)

1207922

for Application No. (s): RZ/FDP 2013-LE-008
(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)
Cooley LLP Agents: Antonio J. Calabrese, Esq. Mark C. Looney, Esq. Colleen P. Gillis Snow, Esq. Jill S. Parks, Esq. Brian J. Winterhalter, Esq. Shane M. Murphy, Esq. Jeffrey A. Nein Ben I. Wales Molly M. Novotny Katherine P. Humphrey	One Freedom Square, Reston Town Center 11951 Freedom Drive, Suite 1500 Reston, VA 20190	Attorney/Agent
Hord Coplan Macht, Inc. Agents: Joseph A. Schneider Edward M. Hord Miguel I. Iraola Chris J. Harvey John J. Harris Chris L. Schein	750 East Pratt Street, Suite 1100 Baltimore, MD 21202	Architect/Agent
LandDesign, Inc. Agents: Ralph J. Giangrandi III Gabriela C. Clark Matthew V. Clark Marci E. Bonner	200 South Peyton Street Alexandria, VA 22314	Landscape Architect/Agent
Penn D LLC Agents: Kenneth G. Malm David I. Kaufman Matthew C. Treuth Robert C. Malm Benjamin A. Chando	1355 Beverly Road, Suite 330 McLean, VA 22101	Contract Purchaser/Agent for Title Owner

(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

DATE: October 4, 2013
(enter date affidavit is notarized)

120792a

for Application No. (s): RZ/FDP 2013-LE-008
(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)
Penn-Daw GP, Inc. ✓
1025 Thomas Jefferson Street NW, Suite 700E
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 SHAREHOLDERS: (enter first name, middle initial, and last name)
Ronald S. Haft

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name & title, e.g. **President, Vice President, Secretary, Treasurer**, etc.)
Ronald S. Haft, President/Treasurer
Katherine D. Roberson, Vice President
Alexis S.C. Iszard, Vice President/Secretary
Kenneth E. Troxell, Assistant Secretary
Steven S. Gothelf, Chief Financial Officer

(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.

Rezoning Attachment to Par. 1(b)

1207928

DATE: October 4, 2013
(enter date affidavit is notarized)

for Application No. (s): RZ/FDP 2013-LE-008
(enter County-assigned application number (s))

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)
Gorove/Slade Associates, Inc.
3914 Centreville Road, Suite 330
Chantilly, VA 20151

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)
Christopher M. Tacinelli
Chad A. Baird
Daniel B. VanPelt
Erwin N. Andres

==========

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)
Barry B. Smith
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: October 4, 2013
(enter date affidavit is notarized)

1207924

for Application No. (s): RZ/FDP 2013-LE-008
(enter County-assigned application number (s))

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)
Hord Coplan Macht, Inc.
750 East Pratt Street, Suite 1100
Baltimore, MD 21202

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)
Edward M. Hord
Lee E. Coplan
Carol D. Macht

==========

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)
LandDesign, Inc.
200 South Peyton Street
Alexandria, VA 22314

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)
Peter R. Crowley
Dale C. Stewart

==========

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: October 4, 2013
(enter date affidavit is notarized)

120792a

for Application No. (s): RZ/FDP 2013-LE-008
(enter County-assigned application number (s))

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)
Penn D LLC
1355 Beverly Road, Suite 330
McLean, VA 22101

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)
Kenneth G. Malm (99% interest)
Craftstar Homes, Inc. (1% interest)

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

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)
Craftstar Homes, Inc.
1355 Beverly Road, Suite 330
McLean, VA 22101

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)
David D. Flanagan
Kenneth G. Malm
Matthew C. Treuth
Robert C. Malm
Frank J. Malacane

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name, and title, e.g. **President, Vice-President, Secretary, Treasurer**, etc.)
Kenneth G. Malm, Director & President
Frank J. Malacane, Director & Sr. VP/Secretary
David D. Flanagan, Director
Mathhew C. Treuth, Vice President
David I. Kaufman, Vice President
Robert C. Malm, Vice President
Angeli Massoud Ansari, Treasurer

(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: October 4, 2013
(enter date affidavit is notarized)

120792a

for Application No. (s): RZ/FDP 2013-LE-008
(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)

Cooley LLP
One Freedom Square, Reston Town Center
11951 Freedom Drive, Suite 1500
Reston, VA 20190

(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)**

Gian-Michele a Marca
Jane K. Adams
Maureen P. Alger
DeAnna D. Allen
Thomas R. Amis
Mazda K. Antia
Orion (nmi) Armon
Gordon C. Atkinson
Michael A. Attanasio
Jonathan P. Bach
Charles J. Bair
Scott S. Balber
Celia Goldwag Barenholtz
Frederick D. Baron
Matthew S. Bartus
Keith J. Berets
Laura Grossfield Birger
Thomas A. Blinka
Barbara L. Borden
Jodie M. Bourdet
Wendy J. Brenner
Matthew J. Brigham
James P. Brogan
Nicole C. Brookshire
Matthew D. Brown
Alfred L. Browne III
Matthew T. Browne
Peter F. Burns
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
Samuel S. Coates

(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.

Rezoning Attachment to Par. 1(c)

DATE: October 4, 2013
(enter date affidavit is notarized)

for Application No. (s): RZ/FDP 2013-LE-008
(enter County-assigned application number (s))

120792a

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

Cooley LLP (continued)
One Freedom Square, Reston Town Center
11951 Freedom Drive, Suite 1500
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**)

Jeffrey L. Cohen
Thomas A. Coll
Joseph W. Conroy
Carolyn L. Craig
John W. Crittenden
Janet L. Cullum
Nathan K. Cummings
John A. Dado
Benjamin G. Damstedt
Craig E. Dauchy
Renee R. Deming
Darren K. DeStefano
Jennifer Fonner DiNucci
Michelle C. Doolin
Joseph M. Drayton
Christopher (nmi) Durbin
John C. Dwyer
Shannon (nmi) Eagan
Gordon H. Empey
Sonya F. Erickson
Michael R. Faber
Lester J. Fagen
Jesse D. Farmer
Brent D. Fassett
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
Stephen D. Gardner
Jon E. Gavenman
Wendy C. Goldstein
Kathleen A. Goodhart
Lawrence C. Gottlieb
Shane L. Goudey
William E. Grauer
Jonathan G. Graves
Jacqueline I. Grise
Kenneth L. Guernsey
Patrick P. Gunn
Jeffrey M. Gutkin
John B. Hale
Danish (nmi) Hamid
Walter G. Hanchuk
Ray (nmi) Hartman
Bernard L. Hatcher
Matthew B. Hemington
David M. Hernand
Cathy Rae Hershcopf
John (nmi) Hession
Gordon (nmi) Ho
Lila W. Hope
C. Thomas Hopkins
Mark M. Hrenya
Christopher R. Hutter
Jay R. Indyke
Craig D. Jacoby
Eric C. Jensen
Robert L. Jones
Barclay J. Kamb
Richard S. Kanowitz
Kimberly J. Kaplan-Gross
Matthew A. Karlyn
Jeffrey S. Karr
Sally A. Kay
Heidi M. Keefe
Jason L. Kent
John (nmi) Kheit
Mehdi (nmi) Khodadad
Charles S. Kim
Kevin M. King
Michael J. Klisch
Jason M. Koral
Barbara A. Kosacz
Kenneth J. Krisko
John S. Kyle (Former)
Carol Denise Laherty
Mark F. Lambert
Matthew E. Langer
Samantha M. LaPine
John G. Lavoie
Robin J. Lee
Louis (nmi) Lehot
Jamie K. Leigh
Ronald S. Lemieux
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
Andrew P. Lustig
Thomas O. Mason
Jennifer (nmi) Massey
Joshua O. Mates
Keith A. McDaniels
Michael J. McGrail
John T. McKenna
Bonnie Weiss McLeod
Mark A. Medearis
Laura M. Medina
Beatriz (nmi) Mejia
Craig A. Menden
Erik B. Milch

(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: October 4, 2013
(enter date affidavit is notarized)

120792a

for Application No. (s): RZ/FDP 2013-LE-008
(enter County-assigned application number (s))

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

Cooley LLP (continued)
One Freedom Square, Reston Town Center
11951 Freedom Drive, Suite 1500
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**)

Chadwick L. Mills
Patrick J. Mitchell
Ali M.M. Mojdehi
Ann M. Mooney
Timothy J. Moore
William B. Morrow, III
Howard (nmi) Morse
Frederick T. Muto
Ryan E. Naftulin
Jeremy M. Naylor
Stephen C. Neal
Ian (nmi) O'Donnell
Kathleen (nmi) Pakenham
Nikesh (nmi) Patel
Timothy G. Patterson
Anne H. Peck
D. Bradley Peck
David G. Peinsipp
Nicole K. Peppe
Susan Cooper Philpot
Frank V. Pietrantonio
Mark B. Pitchford
Michael L. Platt
Christian E. Plaza
Marya A. Postner
Steve M. Przesmicki
Seth A. Rafkin
Frank F. Rahmani
Marc (nmi) Recht
Danielle Naftulin Reed
Michael G. Rhodes
Michelle S. Rhyu
Lyle (nmi) Roberts
John W. Robertson
Ricardo (nmi) Rodriguez
Kenneth J. Rollins
Kevin K. Rooney
Adam J. Ruttenberg
Thomas R. Salley III
Jessica Valenzuela Santamaria
Glen Y. Sato
Martin S. Schenker
Joseph A. Scherer
Marc G. Schildkraut
William J. Schwartz
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
Colleen P. Gillis Snow
Tower C. Snow, Jr.
Whitty (nmi) Somvichian
Wayne O. Stacy
Anthony M. Steigler
Steven M. Strauss
Ronald R. Sussman
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
Miguel J. Vega
Erich E. Veitenheimer III
Aaron J. Velli
Emily Woodson Wagner
David A. Walsh
Mark B. Weeks
Mark R. Weinstein
Thomas S. Welk
Peter H. Werner
Francis R. Wheeler
Geoffrey T. Willard
Andrew S. "Drew" Williamson
Peter J. Willsey
Mark Windfeld-Hansen
Nancy H. Wojtas
Amy M. Wood
Nan (nmi) Wu
Babak (nmi) Yaghmaie
David R. Young
Christina (nmi) Zhang
Kevin J. Zimmer

(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: October 4, 2013
(enter date affidavit is notarized)

for Application No. (s): RZ/FDP 2013-LE-008
(enter County-assigned application number (s))

120792a

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

Penn-Daw Associates Limited Partnership
1025 Thomas Jefferson Street NW, Suite 700E
Washington, DC 20007

(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**)

Penn-Daw GP, Inc., General Partner
Ronald S. Haft, Limited Partner

(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: October 4, 2013
(enter date affidavit is notarized)

1207922

for Application No. (s): RZ/FDP 2013-LE-008
(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: October 4, 2013
(enter date affidavit is notarized)

120792a

for Application No. (s): RZ/FDP 2013-LE-008
(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:

(check one) [ ] Applicant [✓] Applicant's Authorized Agent

Mark C. Looney
(type or print first name, middle initial, last name, and title of signee)

Subscribed and sworn to before me this 4th day of October 2013, in the ~~State/~~Comm. of Virginia, County/~~City~~ of Fairfax.

Betty C. Leyshion
Notary Public

My commission expires: 10/31/2014

Betty C. Leyshion
NOTARY PUBLIC
Commonwealth of Virginia
Reg. #322548
Com. Exp. Oct. 31, 2014

RESIDENTIAL DEVELOPMENT CRITERIA

Fairfax County expects new residential development to enhance the community by: fitting into the fabric of the neighborhood, respecting the environment, addressing transportation impacts, addressing impacts on other public facilities, being responsive to our historic heritage, contributing to the provision of affordable housing and, being responsive to the unique site specific considerations of the property. To that end, the following criteria are to be used in evaluating zoning requests for new residential development. The resolution of issues identified during the evaluation of a specific development proposal is critical if the proposal is to receive favorable consideration.

Where the Plan recommends a possible increase in density above the existing zoning of the property, achievement of the requested density will be based, in substantial part, on whether development related issues are satisfactorily addressed as determined by application of these development criteria. Most, if not all, of the criteria will be applicable in every application; however, due to the differing nature of specific development proposals and their impacts, the development criteria need not be equally weighted. If there are extraordinary circumstances, a single criterion or several criteria may be overriding in evaluating the merits of a particular proposal. Use of these criteria as an evaluation tool is not intended to be limiting in regard to review of the application with respect to other guidance found in the Plan or other aspects that the applicant incorporates into the development proposal. Applicants are encouraged to submit the best possible development proposals. In applying the Residential Development Criteria to specific projects and in determining whether a criterion has been satisfied, factors such as the following may be considered:

- the size of the project
- site specific issues that affect the applicant's ability to address in a meaningful way relevant development issues
- whether the proposal is advancing the guidance found in the area plans or other planning and policy goals (e.g. revitalization).

When there has been an identified need or problem, credit toward satisfying the criteria will be awarded based upon whether proposed commitments by the applicant will significantly advance problem resolution. In all cases, the responsibility for demonstrating satisfaction of the criteria rests with the applicant.

1. Site Design:

All rezoning applications for residential development should be characterized by high quality site design. Rezoning proposals for residential development, regardless of the proposed density, will be evaluated based upon the following principles, although not all of the principles may be applicable for all developments.

a) *Consolidation:* Developments should provide parcel consolidation in conformance with any site specific text and applicable policy recommendations of the Comprehensive Plan. Should the Plan text not specifically address consolidation, the nature and extent of any proposed parcel consolidation should further the integration of the development with adjacent parcels. In any event, the proposed consolidation should not preclude nearby properties from developing as recommended by the Plan.

b) *Layout:* The layout should:

- provide logical, functional and appropriate relationships among the various parts (e. g. dwelling units, yards, streets, open space, stormwater management

facilities, existing vegetation, noise mitigation measures, sidewalks and fences);

- provide dwelling units that are oriented appropriately to adjacent streets and homes;
- include usable yard areas within the individual lots that accommodate the future construction of decks, sunrooms, porches, and/or accessory structures in the layout of the lots, and that provide space for landscaping to thrive and for maintenance activities;
- provide logical and appropriate relationships among the proposed lots including the relationships of yards, the orientation of the dwelling units, and the use of pipestem lots;
- provide convenient access to transit facilities;
- Identify all existing utilities and make every effort to identify all proposed utilities and stormwater management outfall areas; encourage utility collocation where feasible.

c) *Open Space:* Developments should provide usable, accessible, and well-integrated open space. This principle is applicable to all projects where open space is required by the Zoning Ordinance and should be considered, where appropriate, in other circumstances.

d) *Landscaping:* Developments should provide appropriate landscaping: for example, in parking lots, in open space areas, along streets, in and around stormwater management facilities, and on individual lots.

e) *Amenities:* Developments should provide amenities such as benches, gazebos, recreational amenities, play areas for children, walls and fences, special paving treatments, street furniture, and lighting.

2. Neighborhood Context:

All rezoning applications for residential development, regardless of the proposed density, should be designed to fit into the community within which the development is to be located. Developments should fit into the fabric of their adjacent neighborhoods, as evidenced by an evaluation of:

- transitions to abutting and adjacent uses;
- lot sizes, particularly along the periphery;
- bulk/mass of the proposed dwelling units;
- setbacks (front, side and rear);
- orientation of the proposed dwelling units to adjacent streets and homes;
- architectural elevations and materials;
- pedestrian, bicycle and vehicular connections to off-site trails, roadways, transit facilities and land uses;
- existing topography and vegetative cover and proposed changes to them as a result of clearing and grading.

It is not expected that developments will be identical to their neighbors, but that the development fit into the fabric of the community. In evaluating this criterion, the individual circumstances of the property will be considered: such as, the nature of existing and planned development surrounding and/or adjacent to the property; whether the property provides a transition between different uses or densities; whether access to an infill development is through an existing neighborhood; or, whether the property is within an area that is planned for redevelopment.

3. Environment:

All rezoning applications for residential development should respect the environment. Rezoning proposals for residential development, regardless of the proposed density, should be consistent with the policies and objectives of the environmental element of the Policy Plan, and will also be evaluated on the following principles, where applicable.

a) *Preservation:* Developments should conserve natural environmental resources by protecting, enhancing, and/or restoring the habitat value and pollution reduction potential of floodplains, stream valleys, EQCs, RPAs, woodlands, wetlands and other environmentally sensitive areas.

b) *Slopes and Soils:* The design of developments should take existing topographic conditions and soil characteristics into consideration.

c) *Water Quality:* Developments should minimize off-site impacts on water quality by commitments to state of the art best management practices for stormwater management and better site design and low impact development (LID) techniques.

d) *Drainage:* The volume and velocity of stormwater runoff from new development should be managed in order to avoid impacts on downstream properties. Where drainage is a particular concern, the applicant should demonstrate that off-site drainage impacts will be mitigated and that stormwater management facilities are designed and sized appropriately. Adequate drainage outfall should be verified, and the location of drainage outfall (onsite or offsite) should be shown on development plans.

e) *Noise:* Developments should protect future and current residents and others from the adverse impacts of transportation generated noise.

f) *Lighting:* Developments should commit to exterior lighting fixtures that minimize neighborhood glare and impacts to the night sky.

g) *Energy:* Developments should use site design techniques such as solar orientation and landscaping to achieve energy savings, and should be designed to encourage and facilitate walking and bicycling. Energy efficiency measures should be incorporated into building design and construction.

4. Tree Preservation and Tree Cover Requirements:

All rezoning applications for residential development, regardless of the proposed density, should be designed to take advantage of the existing quality tree cover. If quality tree cover exists on site as determined by the County, it is highly desirable that developments meet most or all of their tree cover requirement by preserving and, where feasible and appropriate, transplanting existing trees. Tree cover in excess of ordinance requirements is highly desirable. Proposed utilities, including stormwater management and outfall facilities and sanitary sewer lines, should be located to avoid conflicts with tree preservation and planting areas. Air quality-sensitive tree preservation and planting efforts (see Objective 1, Policy c in the Environment section of this document) are also encouraged.

5. Transportation:

All rezoning applications for residential development should implement measures to address planned transportation improvements. Applicants should offset their impacts to the transportation network. Accepted techniques should be utilized for analysis of the development's impact on the network. Residential development considered under these criteria will range widely in density and, therefore, will result in differing impacts to the transportation network. Some criteria will have universal applicability while others will apply only under specific circumstances. Regardless of the proposed density, applications will be evaluated based upon the following principles, although not all of the principles may be applicable.

a) *Transportation Improvements:* Residential development should provide safe and adequate access to the road network, maintain the ability of local streets to safely accommodate traffic, and offset the impact of additional traffic through commitments to the following:

- Capacity enhancements to nearby arterial and collector streets;
- Street design features that improve safety and mobility for non-motorized forms of transportation;
- Signals and other traffic control measures;
- Development phasing to coincide with identified transportation improvements;
- Right-of-way dedication;
- Construction of other improvements beyond ordinance requirements;
- Monetary contributions for improvements in the vicinity of the development.

b) *Transit/Transportation Management:* Mass transit usage and other transportation measures to reduce vehicular trips should be encouraged by:

- Provision of bus shelters;
- Implementation and/or participation in a shuttle bus service;
- Participation in programs designed to reduce vehicular trips;
- Incorporation of transit facilities within the development and integration of transit with adjacent areas;
- Provision of trails and facilities that increase safety and mobility for non-motorized travel.

c) *Interconnection of the Street Network: Vehicular connections between neighborhoods should be provided, as follows:*

- Local streets within the development should be connected with adjacent local streets to improve neighborhood circulation;
- When appropriate, existing stub streets should be connected to adjoining parcels. If street connections are dedicated but not constructed with development, they should be identified with signage that indicates the street is to be extended;
- Streets should be designed and constructed to accommodate safe and convenient usage by buses and non-motorized forms of transportation;
- Traffic calming measures should be implemented where needed to discourage cut-through traffic, increase safety and reduce vehicular speed;
- The number and length of long, single-ended roadways should be minimized;
- Sufficient access for public safety vehicles should be ensured.

d) *Streets:* Public streets are preferred. If private streets are proposed in single family detached developments, the applicant shall demonstrate the benefits for such streets.

Applicants should make appropriate design and construction commitments for all private streets so as to minimize maintenance costs which may accrue to future property owners. Furthermore, convenience and safety issues such as parking on private streets should be considered during the review process.

e) *Non-motorized Facilities:* Non-motorized facilities, such as those listed below, should be provided:

- Connections to transit facilities;
- Connections between adjoining neighborhoods;
- Connections to existing non-motorized facilities;
- Connections to off-site retail/commercial uses, public/community facilities, and natural and recreational areas;
- An internal non-motorized facility network with pedestrian and natural amenities, particularly those included in the Comprehensive Plan;
- Offsite non-motorized facilities, particularly those included in the Comprehensive Plan;
- Driveways to residences should be of adequate length to accommodate passenger vehicles without blocking walkways;
- Construction of non-motorized facilities on both sides of the street is preferred. If construction on a single side of the street is proposed, the applicant shall demonstrate the public benefit of a limited facility.

f) *Alternative Street Designs:* Under specific design conditions for individual sites or where existing features such as trees, topography, etc. are important elements, modifications to the public street standards may be considered.

6. Public Facilities:

Residential development impacts public facility systems (i.e., schools, parks, libraries, police, fire and rescue, stormwater management and other publicly owned community facilities). These impacts will be identified and evaluated during the development review process. For schools, a methodology approved by the Board of Supervisors, after input and recommendation by the School Board, will be used as a guideline for determining the impact of additional students generated by the new development.

Given the variety of public facility needs throughout the County, on a case-by-case basis, public facility needs will be evaluated so that local concerns may be addressed.

All rezoning applications for residential development are expected to offset their public facility impact and to first address public facility needs in the vicinity of the proposed development. Impact offset may be accomplished through the dedication of land suitable for the construction of an identified public facility need, the construction of public facilities, the contribution of specified in-kind goods, services or cash earmarked for those uses, and/or monetary contributions to be used toward funding capital improvement projects. Selection of the appropriate offset mechanism should maximize the public benefit of the contribution.

Furthermore, phasing of development may be required to ensure mitigation of impacts.

7. Affordable Housing:

Ensuring an adequate supply of housing for low and moderate income families, those with special accessibility requirements, and those with other special needs is a goal of the County. Part 8 of Article 2 of the Zoning Ordinance requires the provision of Affordable Dwelling Units (ADUs) in certain circumstances. Criterion #7 is applicable to all rezoning applications and/or portions thereof that are not required to provide any Affordable Dwelling Units, regardless of the planned density range for the site.

a) *Dedication of Units or Land:* If the applicant elects to fulfill this criterion by providing affordable units that are not otherwise required by the ADU Ordinance: a maximum density of 20% above the upper limit of the Plan range could be achieved if 12.5% of the total number of single family detached and attached units are provided pursuant to the Affordable Dwelling Unit Program; and, a maximum density of 10% or 20% above the upper limit of the Plan range could be achieved if 6.25% or 12.5%, respectively of the total number of multifamily units are provided to the Affordable Dwelling Unit Program. As an alternative, land, adequate and ready to be developed for an equal number of units may be provided to the Fairfax County Redevelopment and Housing Authority or to such other entity as may be approved by the Board.

b) *Housing Trust Fund Contributions:* Satisfaction of this criterion may also be achieved by a contribution to the Housing Trust Fund or, as may be approved by the Board, a monetary and/or in-kind contribution to another entity whose mission is to provide affordable housing in Fairfax County, equal to 0.5% of the value of all of the units approved on the property except those that result in the provision of ADUs. This contribution shall be payable prior to the issuance of the first building permit. For for-sale projects, the percentage set forth above is based upon the aggregate sales price of all of the units subject to the contribution, as if all of those units were sold at the time of the issuance of the first building permit**,** and is estimated through comparable sales of similar type units. For rental projects, the amount of the contribution is based upon the total development cost of the portion of the project subject to the contribution for all elements necessary to bring the project to market, including land, financing, soft costs and construction. The sales price or development cost will be determined by the Department of Housing and Community Development, in consultation with the Applicant and the Department of Public Works and Environmental Services. If this criterion is fulfilled by a contribution as set forth in this paragraph, the density bonus permitted in a) above does not apply.

8. Heritage Resources:

Heritage resources are those sites or structures, including their landscape settings, that exemplify the cultural, architectural, economic, social, political, or historic heritage of the County or its communities. Such sites or structures have been 1) listed on, or determined eligible for listing on, the National Register of Historic Places or the Virginia Landmarks Register; 2) determined to be a contributing structure within a district so listed or eligible for listing; 3) located within and considered as a contributing structure within a Fairfax County Historic Overlay District; or 4) listed on, or having a reasonable potential as determined by the County, for meeting the criteria for listing on, the Fairfax County Inventories of Historic or Archaeological Sites.

In reviewing rezoning applications for properties on which known or potential heritage resources are located, some or all of the following shall apply:

a) Protect heritage resources from deterioration or destruction until they can be documented, evaluated, and/or preserved;

b) Conduct archaeological, architectural, and/or historical research to determine the presence, extent, and significance of heritage resources;

c) Submit proposals for archaeological work to the County for review and approval and, unless otherwise agreed, conduct such work in accordance with state standards;

d) Preserve and rehabilitate heritage resources for continued or adaptive use where feasible;

e) Submit proposals to change the exterior appearance of, relocate, or demolish historic structures to the Fairfax County Architectural Review Board for review and approval;

f) Document heritage resources to be demolished or relocated;

g) Design new structures and site improvements, including clearing and grading, to enhance rather than harm heritage resources;

h) Establish easements that will assure continued preservation of heritage resources with an appropriate entity such as the County's Open Space and Historic Preservation Easement Program; and

i) Provide a Fairfax County Historical Marker or Virginia Historical Highway Marker on or near the site of a heritage resource, if recommended and approved by the Fairfax County History Commission.

County of Fairfax, Virginia

MEMORANDUM

DATE: October 10, 2013

TO: Barbara Berlin, Director
Zoning Evaluation Division, DPZ

FROM: Pamela G. Nee, Chief
Environment and Development Review Branch, DPZ

SUBJECT: **Land Use Analysis**
RZ/FDP 2013-LE-008 (Penn Daw Plaza)

The memorandum, prepared by Michelle Stahlhut, includes citations from the Comprehensive Plan that provide guidance for the evaluation of the Rezoning (RZ) and Final Development Plan (FDP) application dated March 18, 2013 as revised through September 9, 2013 and draft proffers dated September 20, 2013. The extent to which the application conforms to the applicable guidance contained in the Comprehensive Plan is noted. Possible solutions to remedy identified issues are suggested. Other solutions may be acceptable, provided that they achieve the desired degree of mitigation and are also compatible with Plan policies.

DESCRIPTION OF THE APPLICATION

The applicant, Penn Daw Associates Limited Partnership, is requesting a rezoning of one parcel zoned C-8 (Highway Commercial) and R-4 (Residential, Four Dwelling Units Per Acre) within the Commercial Revitalization (CRD) and Highway Corridor (HC) Overlay Districts, to the PDH-40 (Planned Development Housing), CRD and HC Districts, in order to demolish an existing commercial retail center and construct 400 multi-family units, 41 townhouses, and up to 45,500 square feet of retail. The buildings would taper from a maximum of 5 stories and 65 feet at the eastern end of the site near Kings Highway down to a maximum of 3-story, 40 foot single-family attached townhomes at the western end of the site.

The applicant would provide approximately 2.48 acres (24% of the total area) of open space. Two residential courtyards are proposed for the multi-family residential building, a tot lot and dog park are proposed near the rear of the property. A public plaza is proposed for the mixed-use portion of the site the size of which will depend on whether a grocery or pharmacy is the ultimate retail choice. A five deck parking structure and surface parking lot will provide up to 808 parking spaces for the multi-family and retail uses.

LOCATION AND CHARACTER OF THE AREA

The subject property consists of one parcel with a total land area of 10.45 acres. The property is located near the southwest corner of the intersection of Poag Street and North Kings Highway in the Lee District with approximately 696 feet of frontage on Poag Street, and 224 feet of frontage on North Kings Highway. The proposal does not include an approximately 0.30 acre parcel located directly on the corner fronting the Poag Street and North King Highway intersection.

The existing use on the eastern half of the subject property includes a 1-story brick and block commercial retail center known as Penn Daw Plaza shopping center originally constructed in 1959, which is zoned C-8, and on the western half of the subject property, additional surface parking, which is zoned R-4.

Single-family detached residential (R-4) and a new four-story 245 unit multi-family building (PRM) approved in July 2012 are located across Poag Street to the north of the property. Single-family detached residential is located just to the west of the property and the Kings Garden Apartments (R-20) are located directly to the south. Across Kings Highway to the east is a triangular piece of land that is bounded by Kings Highway, Richmond Highway, and is further broken up into smaller pieces by various access drives. The intersection of Kings Highway and Richmond Highway, and another triangular piece of land that contains a bank are also major features located along the eastern side of the property.

COMPREHENSIVE PLAN CITATIONS

Land Use

Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, Land Unit Recommendations, as amended through April 9, 2013, pages 41-42, 44-45, the Plan states:

> LAND UNIT RECOMMENDATIONS
>
> **"Land Unit H**
>
> The land unit is envisioned to be a visually and functionally cohesive pedestrian-oriented environment. Necessary improvements and amenities such as road and sidewalk enhancements, useable open space, plazas, and bus shelters are expected to be phased with development in support of this goal. These improvements should off-set impacts of redevelopment and ensure adequate functioning of critical intersections through a combination of roadway capacity improvements, intersection traffic mitigation, circulation and access improvements, transit, pedestrian and bicycle connectivity enhancements and effective Transportation Demand Management options. Development should be phased in such a way that effective transportation measures are in place concurrent with development.
>
> The development concept for Land Unit H reflects up to a maximum of 735 dwelling units and a minimum of 40,000 square feet of retail use provided that an appropriate pattern and character of development is achieved. New retail use should be located on the ground floor of buildings and not in freestanding buildings. Service uses such as

professional offices may be included in this category. Specific recommendations are provided in the sections that follow.

The land unit is divided into Sub-units H-1 and H-2. Within Sub-unit H-1, residential use is recommended to be in the form of multifamily units with neighborhood serving retail use (new and/or existing). In Sub-unit H-2, a mixture of multifamily units and townhouses is recommended to provide variety in dwelling types."

...

"Sub-unit H-2

Sub-unit H-2 is located south of Poag Street along North Kings Highway and contains the Penn Daw Shopping Center and other commercial uses. The sub-unit is planned for retail use up to .35 FAR. Free-standing uses should be discouraged to preserve an opportunity for connections to the proposed gateway park in Sub-unit F-2. Additional parking lot landscaping is encouraged.

As an option, redevelopment with a mix of predominately residential use and ground-floor retail at an overall intensity up to 1.15 FAR may be appropriate. There is a desire to accommodate as much retail in the sub-unit as possible. The following conditions should be met:

• Full consolidation should be achieved for Sub-unit H-2. If full consolidation cannot be achieved, functional and aesthetic coordination of design, to include unconsolidated area(s), should be demonstrated.

• High-quality site design and architecture should be provided. Design should be coordinated throughout Sub-units H-1 and H-2, especially if redevelopment is phased.

• Buildings should align with roadways along Poag Street and North Kings Highway, and should be built close to the street to create an urban street edge.

• Retail uses should be located on the ground floor of the residential buildings. The location of retail uses should maximize visibility along the frontage of North/South Kings Highway, with additional retail sited along Poag Street near North/South Kings Highway. Retail should offer community amenities, such as sidewalk cafés or restaurants, to the surrounding residential uses.

• Building height should be limited to a maximum of five stories. The tallest buildings should be concentrated along North/South Kings Highway, with building height tapering down toward single-family residential neighborhoods to the west. Townhouses should be used to provide a transition to the neighborhoods to the west.

• Adequate buffering should be provided to minimize the visual impact of redevelopment on existing single-family neighborhoods. Buffer areas should be appropriately landscaped

with year-round vegetation to aid in the transition to single-family neighborhoods. This buffer area should include publicly accessible open space.

• Well-designed, publicly accessible urban plazas and parks should be integrated to enhance the recreational options and a sense of place for the development, consistent with the Urban Park Framework document, as modified by the Fairfax County Park Authority. Redevelopment of the sub-unit should provide a central gathering space or plaza. To the extent possible, these open spaces should be contiguous to on-site retail uses.

• Parking facilities should be designed to avoid adverse visual impacts to the streetscape and neighboring properties. Parking should be consolidated into structures that are integrated into the development using aesthetically appealing architectural detailing, screening, lighting, and landscaping. Limited convenience surface parking may be appropriate provided need is demonstrated and such spaces are appropriately integrated into the pedestrian environment.

• Development should dedicate adequate right-of-way for planned transportation improvements in the vicinity of Sub-units H-1 and H-2, as shown in Figures 13, 30, 37, and 44. A minor realignment of North/South Kings Highway, that minimizes impacts to the Kings Garden Apartments, to the west in the vicinity of the existing connection of Route 1 should be considered to enhance traffic flow on North/South Kings Highway and to create a pedestrian refuge for improved crossing of Richmond Highway and North/South Kings Highway. Dedication of right-of-way would be needed for this realignment to occur. If deemed appropriate, this realignment should take place concurrent with the severing of the Route 1 connection.

• Design and/or construction of other planned transportation improvements, on-site and off-site, should be provided. A financial contribution may be provided towards facilitating implementation of off-site planned transportation improvements, as deemed appropriate.

• In the interim period prior to severing the connection between North/South Kings Highway and Richmond Highway, the entrance to Penn Daw Plaza south of Poag Street, which is currently offset, should be realigned with the existing connection to Route 1. This realignment, along with an internal network of well-connected streets, is intended to improve access to the site and provide adequate circulation to more evenly distribute trips with Poag Street.

• Efforts should be made to enhance the walkability and multi-modal connectivity of the land unit, through the addition of sidewalks, streetscaping, and bicycle facilities. Multi-modal connectivity between this land unit and the Huntington Metrorail Station should be enhanced to improve bicycle/pedestrian access through the incorporation of bus shelters and enhanced transit service.

• Shaffer Drive and Poag Street should not be connected.

• Stormwater quantity and quality control measures that are substantially more extensive than minimum requirements should be provided, with the goal of reducing the total runoff volume. The emphasis should be on low impact development (LID) techniques and best management practices (BMPs) that evapotranspire water, filter water through vegetation and/or soil, and return water to the ground or reuse it and should include such features as rooftop landscaping on the proposed parking structures. Stormwater management measures that are sufficient to attain the stormwater design-quantity control credit and stormwater design-quality control credit of the most current version of the Leadership in Energy and Environmental Design for New Construction (LEED®-NC) or Leadership in Energy and Environmental Design for Core and Shell (LEED®-CS) rating system (or third party equivalent of these credits) should be provided. If this goal is demonstrated not to be achievable, all measures should be implemented to the extent possible in support of this goal.

Fairfax County Comprehensive Plan, 2013 Edition, Mount Vernon Planning District, as amended through April 9, 2013, Richmond Highway Corridor Area, Urban Design Recommendations, pages 83-94 may be accessed at:
http://www.fairfaxcounty.gov/dpz/comprehensiveplan/area4/mtvernon1.pdf

LAND USE ANALYSIS

Use, Intensity and Consolidation

Land Use and Intensity. The subject property was included as part of a larger Comprehensive Plan Amendment adopted in April, 2012 that was the result of task force recommendations and meetings in which the applicant participated. The resulting Plan guidance for the whole of Land Unit H calls for a maximum of 735 dwelling units and a minimum of 40,000 square feet of retail use provided that an appropriate pattern and character of development is achieved. Specifically, Sub-unit H-2 is planned for retail use up to 0.35 FAR. Under the redevelopment option for Sub-unit H-2, redevelopment with a mix of predominately residential use and ground-floor retail at an overall intensity up to 1.15 FAR may be appropriate by meeting the site specific conditions provided. The applicant's proposal for multi-family and single-family attached units with ground floor retail at the front of the property are under this development option and subject to the development conditions. There is a desire at this site to accommodate as much retail as possible.

In July 2012, the Board of Supervisors approved 245 units for Sub-unit H-1 as well as improvements for a neighboring 10,000 square foot retail site, leaving 490 units and minimum of 30,000 square feet available for Sub-Unit H-2. The applicant is proposing and proffering up to a maximum of 400 multifamily residential uses, up to 41 single-family attached dwelling units and a minimum of 25,000 square feet and maximum of 45,500 square feet of secondary uses at the site. The remaining 5,000 square feet are credited to the corner retail site that is not included in this proposal. The proposed land use mix meets the Comprehensive Plan recommendations.

The subject property is 10.45 acres, and with the proposed 441 residential dwelling units and up to 45,500 square feet of retail space. The applicant has submitted FAR calculations demonstrating that the FAR of the proposed project meets the Comprehensive Plan recommendation of 1.15 for both the grocery and pharmacy development options.

Consolidation. The development option encourages full consolidation for the entire Sub-unit H2, however the applicant is taking advantage of the development option without full consolidation. The conditions provide that if full consolidation cannot be achieved:

> "...functional and aesthetic coordination of design, to include unconsolidated area(s) should be demonstrated."

To date, the applicant has not achieved full consolidation of Sub-unit H-2, and has not demonstrated functional and aesthetic coordination of design with the unconsolidated area. The applicant does proffer to cooperate with the neighboring owner(s) to accommodate a pedestrian and, if appropriate, vehicular connections in either option in connection with further development/redevelopment of the neighboring parcels. The applicant is proposing aesthetic coordination of design via proffer, stating that the applicant will provide documentation summarizing the applicant's efforts to secure approval for and complete architectural and/or façade improvements to the neighboring "Zips" (a dry-cleaners) site.

The first development option proposes a mixed-use building that directly abuts the "Zips" building, and the second development option proposes a drive-through and pick-up window between the mixed-use building and the "Zips" property.

Although the applicant has informally provided renderings demonstrating possible architectural coordination with the "Zip's" site, additional proffers or details should be provided that indicate a coordinated approach to the design between the mixed-use building and the improvements that will be done for the "Zip's" site. Additionally, the second development option proposing a drive-through isolates the "Zips" building and reduces the opportunity for connectivity and coordination with the unconsolidated property. Staff prefers the contiguous option and discourages the drive-through.

OTHER APPLICABLE CONDITIONS

High Quality Site Design & Architecture. The applicant is providing a multi-family residential building with high-quality amenities located above and within walking distance of a significant amount of retail space, as well as single-family attached townhomes at the western edge of the property. The applicant's townhomes should be architecturally compatible with the neighboring development although distinct in terms of materials and style. Opportunities for improved site design include reduction and additional landscaping for hardscape areas, angled parking lining the one-way entrance to the site, design coordination with the adjacent "Zips" site, a carefully planned and pedestrian friendly walkway between the parking garage and retail spaces, improved pedestrian experience along North Kings Highway when approaching from

the north, and careful programming of the urban plazas to encourage use of the space as a central gathering space.

Further discussion of site design are detailed below.

Alignment. Plan guidance calls for the buildings to align with roadways and to be built close to the street to create an urban street edge. The applicant provides a more urban edge along Poag Street by locating the buildings close to the street, providing a sidewalk, and varying the height and articulation of the buildings.

Along North Kings Highway, the applicant is providing a multi-family building with ground-floor retail frontage primarily facing a central surface parking lot. Due to the lack of consolidation of the prominent corner of Poag and King's Highway, as well as the Plan expectation to provide a minimum of 25,000 square feet of retail space, and the applicant's desire to accommodate a central surface parking lot, the retail component of the site is focused inward rather than along the major street frontage. As a result, the building footprint does not align with North Kings Highway and is not built close to the street, creating a more suburban and auto-oriented shopping center rather than an urban street edge and pedestrian oriented environment.

To create a more urban feel along the North Kings Highway portion of the site, the central surface parking lot should be reduced in size to the greatest extent possible for the first development option, and hardscape should be reduced through the use of a planting strip in the parking lot, as well as additional landscaping to separate pedestrian from auto-oriented space around the edges of the parking lot. Another larger scale alternative would include changing the orientation of the buildings and pushing them closer to the street in line with the Plan guidance.

Ground Floor Retail. The Plan calls for retail uses to be located on the ground floor and located for maximum visibility along the frontage of North/South Kings Highway, with additional retail located along Poag Street at North/South Kings Highway. The retail should offer community amenities to the surrounding residential uses.

The proposed retail is located on the ground-floor of the multi-story building, but is not located along the frontage of North/South Kings Highway due to the inward facing nature of the site. The exception to this is the retail and associated outdoor space located at the southeastern portion of the site, which can be considered to meet the retail frontage and amenity guidance with adequate buffering from South Kings Highway. Additionally, due to the lack of consolidation, no additional retail is located along Poag Street at North/South Kings Highway. The applicant is proposing a retail space and associated outdoor seating fronting a proposed urban plaza located on the interior of the site.

The development can be found in conformance with this condition due to the visibility of the retail space located at the southeastern portion of the site from North/South Kings Highway, as

well as the visibility of the retail fronts the urban plaza from the main entry parking lot to the site.

Building Height. The Plan states that buildings should be limited to a maximum of five stories, and tallest buildings should be concentrated along Kings Highway and should taper back toward the neighboring single-family residential down to townhomes, which should be used to transition to the surrounding neighborhood.

The proposed development proposes up to 5 stories and 65 feet at the mixed residential/retail portion of the site, and tapers down to the central four story multi-family and parking structure building, and finally down to a maximum of three-story and 45 foot high single-family attached townhome units located nearest to the surrounding single-family residential at the west end of the site. The proposed development meets this condition.

Buffering. Plan guidance calls for adequate buffering to minimize the visual impact of redevelopment on existing single-family neighborhoods. The applicant is providing a 15 foot landscaped buffer between the private open space of the townhomes and the single-family residential property located to the west of the subject property, as well as open space in the form of a dog park and tot lot at the southwestern portion of the site. This is an acceptable buffer to the neighboring single-family residence.

Parks, Plazas, and Pedestrian Amenities. The Plan calls for a well-designed publicly accessible urban plaza that should provide a central gathering space or plaza at this site that is consistent with the Urban Park Framework document, as modified by the Fairfax County Park Authority.

The applicant is providing two development options with two different urban plazas. The first option provides a 4,300 square foot interior central plaza that is contiguous to the retail lining the northern edge of the surface parking lot. This square footage includes a driveway for the parking lot that cuts through the plaza. The applicant additionally proposes closing the larger parking lot periodically for use as additional gathering space, however staff does not consider this to be part of the urban plaza square footage since the applicant has indicated that the enlarged plaza condition would happen only once or twice a year.

Staff has concerns that the smaller plaza will not feel like a public gathering place due to the limited size and that the potential drive-way cut through will primarily be used as a drop-off/pick-up. Additionally, staff is concerned that the plaza will not seem to be a public amenity and rather become part of the adjoining private use due to shoppers walking back and forth to the parking lot, shopping carts, and the aforementioned drop-off/pick-up driveway. Options to improve the design of the small plaza include enlarging it and removing the drive-way and providing a focal point that can activate the space and structured landscaping clearly defining the space as public.

The second option proposes an approximately 15,000 square foot interior plaza with lawn area as well as structured landscaping near the entrances to the ground-floor retail. Although staff

prefers the larger plaza option, the proposal could benefit from more defined programming that may include a central focal point to activate the space. Additionally, the eastern edge of the plaza should be a flexible space that should be buffered from the excessive road noise of the neighboring North Kings Highway.

Parking Facilities. The Plan calls for structured parking that is integrated into the site, and states that limited convenience surface parking may be appropriate provided need is demonstrated and such spaces are appropriately integrated into the pedestrian environment.

The applicant is providing a parking garage for a majority of the on-site parking, and the structure is wrapped with residential above the ground-floor, which sufficiently integrates the structure into the design of the site.

The applicant is providing a surface parking lot at the entrance of the retail portion of the site consisting of 45 parking spaces for the first development option. This design reduces the possibility for a larger public amenity in the form of an urban plaza, creates an auto-oriented environment instead of a pedestrian oriented environment, and exceeds the number of spaces that can be considered "convenience" parking. In addition, the applicant has not demonstrated the need for the surface parking.

The applicant should demonstrate the need for the surface parking lot, or reduce the parking to include limited convenience parking such as a few parallel spaces or ADA parking. Additionally, the applicant should provide landscaping and buffering along the edge of the site, as well as a landscaped strip in the middle of the parking lot to reduce the hardscape of the interior of the site and make the parking lot more amenable to pedestrians. Additionally, the substitution of angled parking along the one-way drive aisle entrance would reduce conflict by reducing the opportunity for cars to pull out the the wrong way and exit onto North Kings Highway and instead naturally direct the cars toward the exit onto Poag Street.

Walkability. The Comprehensive Plan states that efforts should be made to enhance the walkability and multi-modal connectivity of the land unit. Opportunities to enhance the pedestrian experience on-site include additional landscaping to break up the parking lot and as well as to separate the parking from the sidewalk on the north side. Special attention should be paid to the pedestrian experience when approaching from the north along North Kings Highway. The first development option includes a larger northern building footprint that extends past the neighboring Zip's building and extends to the sidewalk, in effect creating a prominent and visible corner that is a blank wall.

Urban Design Guidelines

Streetscape Elements

To meet the Urban Design Recommendations for the Richmond Highway Corridor, the streetscape along North Kings Highway should include a minimum 9' curb edge landscape strip, a 6' sidewalk, and a 5' browsing area adjacent to the building. The applicant is proposing a 9' curb edge landscape strip, a 6' sidewalk, and a 17' landscape bed, which does meet the guidelines.

Parking Elements
The Urban Design Recommendations for the Richmond Highway Corridor includes recommendations for parking lot design, including "Divide lots into smaller sections using landscaped medians to avoid large expanses of parking areas". The central feature of the first development option with the proposed project is a 45-car parking lot, including a double-row of parking stalls. Additional landscaping options to break up the expanse of the parking lot should include a central linear landscaped median in this double-row.

Additionally, the recommendations to reduce the visual impact of structured parking includes rooftop landscaping, with shade trees and shrubs at a minimum located at the end of each row of parking. The proposed project does not show any landscaping on the parking structure. The applicant is encouraged to provide multi-level planting along the roof, landscaping on the rooftop and at the end of each row of parking.

Conclusion

The proposed development demonstrates improvement to the Richmond Highway Corridor, however falls short of the Plan guidance for this entire land unit to be a visually and functionally cohesive pedestrian-oriented environment.

According to the plans revised through September 9, 2013, staff feels several outstanding issues remain that do not meet the conditions established in the Comprehensive Plan for development at the 1.15 FAR intensity. First, the lack of consolidation of the site results in an underutilized corner property that remains difficult to integrate either functionally or aesthetically. Additionally, the buildings do not align with North Kings Highway and are not built close to the street to create an urban street edge. The buildings instead focus inward on the site and in the grocery development option, face a surface parking lot. Finally, the central surface parking lot in the grocery development option is not "integrated into the pedestrian environment" as called for in the Plan, but instead creates an auto-oriented environment that struggles to integrate pedestrians and also severely limits the size of the public plaza. Alternatively, the latest pharmacy option eliminates this central parking and provides a larger public plaza, although the drive-through related to the pharmacy presents difficulty in achieving functional coordination of design with the unconsolidated corner parcel.

Overall, staff would like to see demonstration of the need for the surface parking lot, and additional effort in developing this proposal into a more consolidated pedestrian environment that encourages use as a central gathering place for the community.

PGN/MKS

County of Fairfax, Virginia

MEMORANDUM

DATE: September 18, 2013

TO: Barbara C. Berlin, Director, Zoning Evaluation Division
Department of Planning & Zoning

FROM: Barbara A. Byron, Director
Office of Community Revitalization (OCR)

SUBJECT: RZ 2013-LE-008, Penn Daw Plaza

The Office of Community Revitalization (OCR) has reviewed the above referenced Conceptual Development Plan/Final Development Plan dated stamped as "Received Department of Planning and Zoning, September 9, 2013."

The rezoning application would allow for the redevelopment of a prominent site at the confluence of Kings Highway and Richmond Highway that has experienced long-term tenant vacancies. With some additional attention to design elements in this proposal, this redevelopment would contribute to a more attractive and economically viable Penn Daw Community Business Center.

In this latest submittal, the applicant has responded to the concern of enlivening the pedestrian access way along the private drive between the retail and the parking garage. The applicant is proposing lighting, colorful graphics and façade treatments to make it more inviting to pedestrians. However, vehicles in the garage will still be visible through openings in the façade and, OCR recommends that steps be taken to camouflage the ground-floor openings. Also, the applicant should provide a perspective drawing that shows what the retaining wall and fence and the southern façade of the parking garage would look like from the adjacent Kings Garden Apartments.

The applicant should demonstrate functional and aesthetic coordination between the new development and the existing Zips Cleaner commercial establishment. One way of achieving this could be by providing for façade improvements to the adjacent Zips Cleaners establishment that tie it architecturally to the proposed redevelopment.

The Comprehensive Plan for Penn Daw envisions publically accessible urban plazas and parks consistent with the county's Urban Park Framework document. The

OCR
Office of Community Revitalization
12055 Government Center Parkway, Suite 1048
Fairfax, VA 22035
703-324-9300, TTY 711
www.fcrevit.org

applicant has two options for a public entry plaza, depending upon whether the retail anchor is a pharmacy or a grocery store. The entry plaza for the pharmacy option is much larger and has improved features from the previous submittal. The entry plaza for the grocery store option should be expanded by moving the parking lot drive aisle further to the east and adding more landscaping and other amenities. Both options of the entry plaza would benefit from having a water feature to reduce noise and add visual interest.

Cc. Mary Ann Tsai, DPZ
OCR files

Office of Community Revitalization
12055 Government Center Parkway, Suite 1048
Fairfax, VA 22035
703-324-9300, TTY 711
www.fcrevit.org

FAIRFAX COUNTY PARK AUTHORITY

M E M O R A N D U M

TO: Barbara Berlin, AICP, Director
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Sandy Stallman, AICP, Manager
Park Planning Branch, PDD

DATE: September 18, 2013

SUBJECT: RZ-FDP 2013-LE-008, Penn-Daw Association – **Revised**
Tax Map Number: 83-3((1)) 7

BACKGROUND

The Park Authority has reviewed the revised Development Plan (dated September 9, 2013) for the above referenced application. This memorandum is intended to replace the previous memorandum dated May 29, 2013 regarding the subject application. The Development Plan shows 400 multi-family dwelling units, 41 single-family attached townhouses, and +/- 45,500 square feet of non-residential uses on a 10.4-acre parcel to be rezoned from R-4/C-8/CRD to PDH-40/HC/CRD. Based on an average multi-family household size of 1.75 in urban growth areas (discussed later re: park and recreation needs) and an average single-family attached household of size of 2.9 in the Mount Vernon Planning District, the proposed development is likely to add 819 new residents (400 MF units x 1.75 + 41SFA units x 2.9 = 819) to the Lee Supervisory District.

COMPREHENSIVE PLAN GUIDANCE

The County Comprehensive Plan includes both general and specific guidance regarding parks and resources. Located in Area IV of the Comprehensive Plan, the recommendations for the Richmond Highway Corridor Area states that, "Well-designed, publicly accessible urban plazas and parks should be integrated to enhance the recreational options and a sense of place for the development, consistent with the Urban Park Framework document, as modified by the Fairfax County Park Authority. Redevelopment of the sub-unit should provide a central gathering space or plaza. To the extent possible, these open spaces should be contiguous to on-site retail uses" (Area IV, Mount Vernon Planning District, Richmond Highway Corridor Area, Recommendations, Penn Daw Community Business Center, Sub-unit H-2, pp. 44).

Further, according to the Great Parks, Great Communities comprehensive park system plan, "...the County could eventually see increased demand for recreation facilities in [the Mount Vernon] part of the County. Both increased demand and additional constraints on where recreation facilities can be developed may affect this District in the future" (Great Parks Great Communities, Mount Vernon District).

ANALYSIS & RECOMMENDATIONS

Park and Recreation Needs:
Using adopted local-serving parkland service level standards, existing nearby public parks (Jefferson Manor, Huntington, Mount Eagle, Lenclair) meet only a portion of the demand for parkland generated by the proposed development. In addition to public parkland, the recreational facilities in greatest need in this area include rectangle fields, adult softball fields, basketball courts, playgrounds, and trails.

Due to the location in the Richmond Highway Corridor (a Fairfax County urban growth area) and the urban character of the proposed development, the Park Authority will be applying the Urban Parks Framework as adopted by the Board of Supervisors on May 14, 2013. Using the adopted urban park service level standard, the proposed development generates a need for about one acre of urban parkland onsite.

Recreational Impact of Residential Development:
The Fairfax County Zoning Ordinance requires provision of open space and recreational features within Planned Development Districts (see Zoning Ordinance Sections 6-110 and 16-404). The minimum expenditure for park and recreational facilities within these districts is set at $1,700 per non-ADU residential unit for facilities to serve the development population. Whenever possible, the facilities should be located within the residential development site. With 422 non-ADUs proposed, the Ordinance-required amount to be spent onsite is $717,400 (441 non-ADUs x $1,700). Any portion of this amount not spent onsite should be conveyed to the Park Authority for recreational facility construction at one or more park sites in the service area of the development.

The $1,700 per unit funds required by Ordinance offset only a portion of the impact to provide recreational facilities for the new residents generated by this development. Typically, a large portion if not all of the Ordinance-required funds are used for recreational amenities onsite. As a result, the Park Authority is not compensated for the increased demands caused by residential development for other recreational facilities that the Park Authority must provide.

With the Countywide Comprehensive Policy Plan as a guide, (Appendix 9, #6 of the Land Use section, as well as Objective 6, Policy a, b, and c of the Parks and Recreation Section), the Park Authority requests a fair share contribution of $893 per new resident with any residential rezoning application to offset impacts to park and recreation service levels. This allows the Park Authority to build additional facilities needed as the population increases. To offset the additional impact caused by the proposed development, the applicant should contribute $731,367 (819 new residents x $893) to the Park Authority for recreational facility development at one or more park sites located within the service area of the subject property.

Onsite Park and Recreation:
Overall, the Development Plan proposes a series of public open spaces with varying treatments, amenities, facilities, and uses.

- Staff appreciates the Applicant's willingness to provide the dimensions of each proposed park space. Based on the provided dimensions, the proposed development is providing approximately 32,005 square feet (0.73 acres) of public urban park space. However, staff

considers a portion of the proposed park spaces to be streetscape which subsequently reduces the amount of available public park space onsite.

The Development Plan shows a public park space labeled "Plaza" in the eastern portion of the site near North/South Kings Highway that is approximately 10,544 square feet (0.24 acres) in size and adjacent to a grocery store. The plaza is shown with a focal feature, a mix of hardscape and landscaping, special paving, wayfinding, and a variety of seating options including café seating, benches, and outdoor dining with tables, chairs, and umbrellas. Adjacent to the plaza is approximately 8,205 square feet (0.19 acres) of surface parking that the Applicant proposes to use for special events.

- Staff considers a portion of the plaza to be streetscape which subsequently reduces the amount of available public park space onsite.
- Staff understands that the grocery store is a highly desired use in the community that consequently limits the amount of available space for the plaza. Moreover, staff encourages the Applicant to provide high-quality amenities and programming to ensure the plaza will be activated and a valuable public asset to the extent the space will allow.
- In particular, staff recommends the Applicant incorporate a functional use to the proposed focal feature, such as climbable art or interactive water feature, etc. In addition, the Applicant should consider adding movable tables and chairs, interactive public art, and gaming tables (checkers, chess, etc.) in the plaza.
- Staff also recommends the Applicant proffer to a programming schedule to ensure the surface parking area will be used for special events continuously throughout the year. Further, staff recommends the Applicant provide at least one special event per season or four in total per year.

The Development Plan shows an alternative layout/design of the plaza in the event a pharmacy is pursued rather than a grocery store. The alternative plaza is approximately 8,302 square feet (0.19 acres) in size and is shown with the same features/amenities from the non-alternative plaza. Adjacent to the plaza is approximately 10,477 square feet (0.24 acres) of extended plaza area that the Applicant proposes to use for special events and is shown with additional plaza features/amenities and two lawn panels.

- The alternative plaza is not shown consistently in the Development Plan. Plan Sheet L-1.1 indicates the plaza is separate from the extended plaza area for special events, whereas Plan Sheet L-2A indicates the plaza and extended plaza area as one consolidated space. Staff recommends the Applicant provide clarification of the relationship between the alternative plaza and extended plaza area.
- Staff considers a portion of the plaza and extended plaza area to be streetscape which subsequently reduces the amount of available public park space onsite.
- Staff prefers the alternative plaza and extended plaza area which provides the greatest amount of available public urban park space. Further, the extended plaza area reaches North/South Kings Highway that will subsequently help activate the streetscape and encourage pedestrians to enter the site.
- Staff recommends the Applicant incorporate a functional use to at least one of the two lawn panels, such as a bocce court or other lawn game. Further, staff recommends the Applicant incorporate a functional use to the proposed focal feature, such as climbable art

or interactive water feature, etc. In addition, the Applicant should consider adding movable tables and chairs, interactive public art, and gaming tables (checkers, chess, etc.) in the plaza and extended plaza area.

The Development Plan shows a public park space labeled "Retail Open Space" in the southeast corner of the site that is approximately 4,952 square feet (0.11 acres) in size and consists of a mix of hardscape and landscaping, four lawn panels, and outdoor dining with tables, chairs, and umbrellas.

- Staff considers a portion of the retail open space to be streetscape which subsequently reduces the amount of available public park space onsite.
- Staff recommends the Applicant incorporate a functional use to at least two of the four lawn panels, such as a bocce court or other lawn game.

The Development Plan shows a public park space labeled "Open Space/Recreation" in the southwest corner of the site that is approximately 8,274 square feet (0.19 acres) in size and consists of an off-leash dog area (0.09 acres) and tot-lot playground (0.10 acres).

- Staff appreciates the Applicant's willingness to slightly alter the park space design to reflect previous staff recommendations.
- However, now that dimensions have been provided by the Applicant, staff recommends that the off-leash dog area be increased in size to achieve the recommended minimum size of 0.25 acres with a preference for at least 0.5 acres according to Park Authority standards regarding public off-leash dog areas. Based on experience in maintaining eight off-leash dog areas, the recommended surfacing should be synthetic turf with an underdrain system or stone dust.

In regard to private park and recreation, the Development Plan shows two interior courtyards within the multi-family residential building that are a combined approximate 15,349 square feet (0.35 acres) in size. The courtyards consist of a mix of hardscape and landscaping, furnished terraces, a variety of seating options, and a pool area with lounge furniture and deck. The Applicant's statement of justification also indicates a fitness center will be provided onsite.

- These private facilities will apply to the Zoning Ordinance requirement for onsite park and recreational facilities.

SUMMARY OF RECOMMENDATIONS:

This section summarizes the recommendations included in the preceding analysis section. Following is a table summarizing required and recommended recreation contribution amounts:

Proposed Uses	P-District Onsite Expenditure	Requested Park Proffer Amount	Total
41 SFA units (37 non-ADU)	$62,900	$106,267	$175,967
400 MF units (385 non-ADU)	$654,500	$625,100	$1,305,100
Total	**$717,400**	**$731,367**	**$1,448,767**

In addition, the analysis identified the following major issues:

- Applicant should provide at least one acre of urban parkland onsite. In the event the Applicant pursues the grocery store option which limits the amount of available urban park space, Applicant should provide high-quality amenities and programming to ensure the public plaza will be activated and provide some functional use by the public.
- Applicant should incorporate a functional use to the proposed focal feature in the public plaza, such as climbable art or interactive water feature, etc. In addition, the Applicant should consider adding movable tables and chairs, interactive public art, and gaming tables (checkers, chess, etc.).
- Applicant should proffer to a programming schedule to ensure the surface parking area will be used for special events continuously throughout the year
- Applicant should provide clarification of the relationship between the alternative public plaza and extended plaza area.
- Applicant should incorporate a functional use to at least one of the two lawn panels in the extended plaza area (alternative plaza option), such as a bocce court or other lawn game.
- Applicant should incorporate a functional use to at least two of the four lawn panels in the public retail open space, such as a bocce court or other lawn game. In addition, the Applicant should consider adding gaming tables (checkers, chess, etc.).
- Applicant should increase the size of the off-leash dog area and provide surfacing that is synthetic turf with an underdrain system or stone dust.

Please note the Park Authority would like to review and comment on proffers and development conditions related to park and recreation issues. We request that draft and final proffers and development conditions be submitted to the assigned reviewer noted below for review and comment prior to final Board of Supervisors approval.

FCPA Reviewer: Jay Rauschenbach
DPZ Coordinator: Mary Ann Tsai

Copy: Cindy Walsh, Director, Resource Management Division
Mary Ann Tsai, Department of Planning and Zoning, ZED
Chron Binder
File Copy

County of Fairfax, Virginia

MEMORANDUM

DATE: September 23, 2013

TO: Mary Ann Tsai, Staff Coordinator
Department of Planning and Zoning

FROM: Samantha Wangsgard, Urban Forester II
Forest Conservation Branch, DPWES

SUBJECT: Penn Daw; RZ/FDP 2013-LE-008

This review is based on the resubmission of the Conceptual Development Plan/Final Development Plan (CDP/FDP) RZ 2013-LE-008, and Statement of Justification date stamped "Received, Department of Planning and Zoning, September 9, 2013" and revisions sent to the Urban Forest Management Division on September 20th and 23rd by the Department of Planning and Zoning. A meeting was held with the applicant on September 16, 2013.

1. Comment: It appears that the applicant is requesting to waive the interior parking lot requirement that landscaping areas shall be reasonably dispersed throughout the parking lot, including the parking structure deck. This waiver request is subject the approval of the Board.

   Recommendation: The applicant should provide interior parking lot landscaping on the parking structure deck and provide planter details, to demonstrate how landscaping will be reasonably dispersed throughout the parking lot, should the Board not approve the request to waive this requirement for the interior parking lot landscaping.

If further assistance is desired, please contact me at 703-324-1770.

SW/

UFMDID #: 180881

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: 703-324-1877, Fax: 703-803-7769
www.fairfaxcounty.gov/dpwes

County of Fairfax, Virginia

MEMORANDUM

DATE: September 6, 2013

TO: Barbara Berlin, Director
Zoning Evaluation Division, DPZ

FROM: Pamela G. Nee, Chief PGN
Environment and Development Review Branch, DPZ

SUBJECT: **ENVIRONMENTAL ASSESSMENT** for: **RZ/FDP 2013-LE-008**
Penn-Daw

This memorandum, prepared by John R. Bell, includes citations from the Comprehensive Plan that provide guidance for the evaluation of the above referenced special exception plat as revised through August 8, 2013. Possible solutions to remedy identified environmental impacts are suggested. Other solutions may be acceptable, provided that they achieve the desired degree of mitigation and are also compatible with Plan policies.

COMPREHENSIVE PLAN CITATIONS:

The Comprehensive Plan is the basis for the evaluation of this application. The assessment of the proposal for conformity with the environmental recommendations of the Comprehensive Plan is guided by the following citations from the Plan:

Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through February 12, 2013, pages 19 and 20:

"**Objective 13:** **Design and construct buildings and associated landscapes to use energy and water resources efficiently and to minimize short- and long-term negative impacts on the environment and building occupants.**

Policy a. Consistent with other Policy Plan objectives, encourage the application of energy conservation, water conservation and other green building practices in the design and construction of new development and redevelopment projects. These practices can include, but are not limited to:

Department of Planning and Zoning
Planning Division
12055 Government Center Parkway, Suite730
Fairfax, Virginia 22035-5509
Phone 703-324-1380
Fax 703-324-3056
www.fairfaxcounty.gov/dpz/

DEPARTMENT OF PLANNING & ZONING

- Environmentally-sensitive siting and construction of development.

- Application of low impact development practices, including minimization of impervious cover (See Policy k under Objective 2 of this section of the *Policy Plan*).

- Optimization of energy performance of structures/energy-efficient design.

- Use of renewable energy resources.

- Use of energy efficient appliances, heating/cooling systems, lighting and/or other products.

- Application of water conservation techniques such as water efficient landscaping and innovative wastewater technologies.

- Reuse of existing building materials for redevelopment projects.

- Recycling/salvage of non-hazardous construction, demolition, and land clearing debris.
- Use of recycled and rapidly renewable building materials.

- Use of building materials and products that originate from nearby sources.

- Reduction of potential indoor air quality problems through measures such as increased ventilation, indoor air testing and use of low-emitting adhesives, sealants, paints/coatings, carpeting and other building materials.

Encourage commitments to implementation of green building practices through certification under established green building rating systems (e.g., the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) program or other comparable programs with third party certification). Encourage commitments to the attainment of the ENERGY STAR® rating where applicable and to ENERGY STAR qualification for homes. Encourage the inclusion of professionals with green building accreditation on development teams. Encourage commitments to the provision of information to owners of buildings with green building/energy efficiency measures that identifies both the benefits of these measures and their associated maintenance needs.

Policy b. Ensure that zoning proposals for nonresidential development and zoning proposals for multifamily residential development of four or more stories

within the Tysons Corner Urban Center, Suburban Centers, Community Business Centers and Transit Station Areas as identified on the Concept Map for Future Development incorporate green building practices sufficient to attain certification through the LEED program or its equivalent, where applicable, where these zoning proposals seek at least one of the following:

- Development in accordance with Comprehensive Plan Options;
- Development involving a change in use from what would be allowed as a permitted use under existing zoning;
- Development at the Overlay Level; or
- Development at the high end of planned density/intensity ranges. For nonresidential development, consider the upper 40% of the range between by-right development potential and the maximum Plan intensity to constitute the high end of the range.

Policy c. Ensure that zoning proposals for residential development will qualify for the ENERGY STAR Qualified Homes designation, where such zoning proposals seek development at the high end of the Plan density range and where broader commitments to green building practices are not being applied."

In the Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition, Environment section as amended through February 12, 2013, on page 7 through 9, the Plan states:

"Objective 2: Prevent and reduce pollution of surface and groundwater resources. Protect and restore the ecological integrity of streams in Fairfax County. . . .

Policy k. For new development and redevelopment, apply better site design and low impact development techniques such as those described below, and pursue commitments to reduce stormwater runoff volumes and peak flows, to increase groundwater recharge, and to increase preservation of undisturbed areas. In order to minimize the impacts that new development and redevelopment projects may have on the County's streams, some or all of the following practices should be considered where not in conflict with land use compatibility objectives:

- Minimize the amount of impervious surface created. . . .
- Encourage the use of innovative BMPs and infiltration techniques of stormwater management where site conditions are appropriate, if consistent with County requirements.

- Apply nonstructural best management practices and bioengineering practices where site conditions are appropriate, if consistent with County requirements. . . .

- Maximize the use of infiltration landscaping within streetscapes consistent with County and State requirements. . . .

Development proposals should implement best management practices to reduce runoff pollution and other impacts. Preferred practices include: those which recharge groundwater when such recharge will not degrade groundwater quality; those which preserve as much undisturbed open space as possible; and, those which contribute to ecological diversity by the creation of wetlands or other habitat enhancing BMPs, consistent with State guidelines and regulations. . . ."

In the Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, Land Unit Recommendations, as amended through April 9, 2013, page 45, the Plan states:

"Sub-unit H-2 (Penn Daw Plaza)

Sub-unit H-2 is located south of Poag Street along North Kings Highway and contains the Penn Daw Shopping Center and other commercial uses. The sub-unit is planned for retail use up to .35 FAR. Free-standing uses should be discouraged to preserve an opportunity for connections to the proposed gateway park in Sub-unit F-2. Additional parking lot landscaping is encouraged.

As an option, redevelopment with a mix of predominately residential use and ground-floor retail at an overall intensity up to 1.15 FAR may be appropriate. There is a desire to accommodate as much retail in the sub-unit as possible. The following conditions should be met: . . . .

- Stormwater quantity and quality control measures that are substantially more extensive than minimum requirements should be provided, with the goal of reducing the total runoff volume. The emphasis should be on low impact development (LID) techniques and best management practices (BMPs) that evapotranspire water, filter water through vegetation and/or soil, and return water to the ground or reuse it and should include such features as rooftop landscaping on the proposed parking structures. Stormwater management measures that are sufficient to attain the stormwater design-quantity control credit and stormwater design-quality control credit of the most current version of the Leadership in Energy and Environmental Design for New Construction (LEED®-NC) or Leadership in Energy and Environmental Design for Core and Shell (LEED®-CS) rating system (or third party equivalent of these credits) should be provided. If this goal is demonstrated not to be achievable, all measures should be implemented to the extent possible in support of this goal."

In the Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through February 10, 2013, pages 11 and 12, the Plan states:

Objective 4: **Minimize human exposure to unhealthful levels of transportation generated noise.**

Policy a: Regulate new development to ensure that people are protected from unhealthful levels of transportation noise.

Policy b: Reduce noise impacts in areas of existing development.

New development should not expose people in their homes, or other noise sensitive environments, to noise in excess of DNL 45 dBA, or to noise in excess of DNL 65 dBA in the outdoor recreation areas of homes. To achieve these standards new residential development in areas impacted by highway noise between DNL 65 and 75 dBA will require mitigation. New residential development should not occur in areas with projected highway noise exposures exceeding DNL 75 dBA. "

ENVIRONMENTAL ANALYSIS:

This section characterizes the environmental concerns raised by an evaluation of this site and the proposed land use. Solutions are suggested to remedy the concerns that have been identified by staff. There may be other acceptable solutions.

Green Buildings

The subject property is located within the Penn Daw Community Business Center and development is being pursued under a Comprehensive Plan option. Therefore, under the Policy Plan's green building policy, the development is expected to attain LEED certification or an equivalent third party green building program. The applicant had offered a basic commitment to seek LEED Silver for the proposed development. However, the proffers contain no commitment for any green building measures on the commercial/residential portions of the site. The applicant has also been advised that alternative programs, such as EarthCraft or National Green Building Standard using the Energy Star Qualified Homes path for energy performance would satisfy the Comprehensive Plan guidance regarding provisions for green building certification for residential buildings. The proffers note options for EarthCraft or NGBS. The proffers should be revised to specify that NGBS will be attained using the Energy Star Qualified Homes path for energy performance. There is no commitment for the remainder of the proposed development as neither of these green building rating systems (EarthCraft or NGBS) can be applied to buildings with a mix of retail/residential or non-residential uses. It seems that this may simply be an oversight on the part of the applicant. Staff feels that the proposed measures warrant further discussion at this time. To be in

conformance with the green building policy, the applicant should commit to attain LEED certification for the retail/residential or non-residential buildings.

Water Quality

The subject property is located in an area divided between drainage to Cameron Run and Belle Haven streams. The applicant is proposing to meet runoff control requirements through the use of two underground detention facilities and a filterra for one area of the site. As a result, post-development runoff will be reduced to levels below pre-development runoff levels. While these measures appear to meet the requirements for runoff reduction, the applicant is encouraged to seek additional measures to improve water quality through a variety of Low Impact Development techniques. In addition, in support of site-specific Comprehensive Plan guidance, stormwater management measures that are sufficient to attain the stormwater design-quantity control credit and stormwater design-quality control credit of the most current version of the Leadership in Energy and Environmental Design for New Construction (LEED®-NC) or Leadership in Energy and Environmental Design for Core and Shell (LEED®-CS) rating system (or third party equivalent of these credits) should be provided. If this Comprehensive Plan goal is demonstrated not to be achievable, all measures should be implemented to the extent possible in support of this goal. Proffer #30, Stormwater Management, includes the notation, "To be Revised" at the beginning of the proffer. It appears that this proffer is incomplete and may warrant further discussion. Any final determination regarding the adequacy of the PFM required measures to meet stormwater management requirements will be subject to review and approval by staff within the Department of Public Works and Environmental Services (DPWES).

Transportation Noise

Portions of the subject property are impacted by transportation generated noise from North Kings Highway, South Kings Highway and Richmond Highway. The applicant has completed a noise study, which indicates that portions of the site will be impacted by noise in the 65-70 dBA Ldn range. The areas impacted include portions of the residential over the proposed commercial closest to North/South Kings Highway. In accordance with Policy Plan's guidance on noise attenuation for interior areas within residential structures, the applicant has proffered to provide mitigation measures to ensure that interior noise levels are maintained at levels not to exceed 45 dBA.

The Policy Plan guidance also recommends that noise levels not exceed DNL 65 dBA for outdoor activity areas. In accordance with this guidance, proposed courtyards and dog park/tot lot are located on the site outside the 65-70 dBA Ldn impacted portions. Given the provision and location of these outdoor activity areas, Plan guidance on outdoor noise attenuation in staff's view should not be applied to residential balconies and the outdoor seating area for the eating establishment. The applicant has included a disclosure statement regarding potential balcony noise for future residents. Staff concludes that the development, as currently

proposed, conforms to the Comprehensive Plan guidance on attenuation of transportation generated noise.

PGN:JRB

County of Fairfax, Virginia

MEMORANDUM

DATE: September 25, 2013

TO: Barbara Berlin, Director
Zoning Evaluation Division, DPZ

FROM: Angela Kadar Rodeheaver, Chief
Site Analysis Section, DOT

FILE: 3-4(RZ/FDP 2013-LE-008)

SUBJECT: RZ/FDP 2013-LE-008; Penn-Daw Associates Limited Partnership
Land Identification Map: 83-3 ((1)) 7

This department has reviewed the rezoning and final development plan revised through September 9, 2013 and proffers revised through September 20, 2013. Staff finds the proposed development plan is deficient in meeting three of the five transportation conditions in the Comprehensive Plan for Sub-unit H-2, on which the property is located. The three unmet conditions are: 1) dedication of right-of-way, 2) contribution to the planned transportation improvement fund, and 3) walkability and multi-modal connectivity. Moreover, the applicant's proposed transportation improvements fall short of the transportation improvements packages provided by RZ/FDP 2011-LE-016 Insight Property Group and RZ/FDP 2012-MV-018 Capital Investment Advisors, two recently approved rezoning applications in the 500-ft vicinity along North Kings Highway. During the review process, staff worked with the applicant to improve transportation issues. However, many issues remain unresolved, and we strongly advise the applicant to address staff's concerns and resubmit. The applicant has yet to meet the following conditions per the Comprehensive Plan:

1. **Dedication of Right-of-Way (ROW)**

The Comprehensive Plan recommends that dedication of ROW would be needed for a minor realignment of North/South Kings Highway. The applicant's property has frontage on North and South (N/S) Kings Highway and has proffered ROW dedication of 2,248 sq. ft. for an interim realignment and reserved ROW for future dedication of 1,267 sq. ft for the ultimate realignment. This ROW reservation is attached with a 20-year sunset clause that is unacceptable to staff. Furthermore, staff recommended that the applicant should dedicate the entire ROW area needed for the ultimate realignment of N/S Kings Highway rather than simply reserve a small land area. The applicant did not make any changes in the most recent resubmittal.

With a similar land use mix and 275 multi-family units on less than half of the size of Penn-Daw's property, RZ/FDP 2012-MV-018 Capital Investment Advisors proffered to dedicate the ROW needed for the ultimate realignment of Shields Avenue/School Street at North Kings Highway on two of its four frontages. The Penn-Daw applicant has only proffered for ROW dedication for the interim realignment of N/S Kings Highway.

2. **Contribution to the Planned Transportation Improvements Fund**

In addition to the design and/or construction of transportation improvements, the Comprehensive Plan contains a recommendation that a financial contribution be provided towards facilitating the implementation of off-site planned transportation improvements, as deemed appropriate.

FCDOT strongly recommends that the applicant continue to work with staff to achieve an agreeable solution of an appropriate financial contribution. The applicant's actual contribution is less than

Fairfax County Department of Transportation
12055 Government Center Parkway, Suite 1034
Fairfax, VA 22035-5500
Phone: (703) 324-1100 TTY: (703) 324-1102
Fax: (703) 324 1450
www.fairfaxcounty.gov/fcdot

FCDOT
Serving Fairfax County for 25 Years and More

$330,750, or less than $750 per dwelling unit, towards facilitating the implementation of off-site planned transportation improvements. Insight Property Group and Capital Investment Advisors provided greater contributions. In addition to frontage improvements and necessary interim improvements, Insight contributed $374,000, or $1,526.50 per dwelling unit, and the Grande contributed $250,000, or $909.10 per dwelling unit.

In an email to Planning Commissioner Migliaccio for the Lee District, the applicant provided an itemized list of transportation improvements to count towards its financial contribution and how its contribution compares to Insight Property Group and Capital Investment Advisors. A majority of the items listed should be deducted from Penn-Daw's contribution as they are either the applicant's frontage improvements, interim improvements, or improvements that serve only the applicant's property. Per staff's review of the itemized list, more than $1,829,200 should be deducted from the claimed $2,159,950 total contribution. Following are items that should not be included:

- $1,190,000 for two northbound and 2 southbound through lanes. The 4-lane configuration already exists on North Kings Highway north of the existing entrance of the Penn Daw Shopping Center and the applicant is not proposing to extend the through lanes south of the realigned site entrance. This improvement should not be included because it is on the applicant's frontage, and therefore, it is not off-site.
- $136,500 for a dedicated northbound left turn lane into the site. This improvement should not be included as it serves only the applicant's property. The applicant's traffic analysis shows that an estimated 2 to 3 vehicles will make a left during the peak hour, and they could be accommodated in the left turn bay at the intersection at Poag St, which is to be constructed by Insight.
- $1,700 for North Kings Highway frontage improvements. It is unclear to staff which frontage improvements are referred to by the applicant. Frontage improvements are often necessary for property development, as in the case of applicant's proposed development. The proposed development is located the Richmond Highway Commercial Revitalization District and in an area that was recently approved by the Board of Supervisors to be pedestrian-oriented environment that the applicant should facilitate.
- $1,000 to restripe eastbound right-turn lane. This item should not be included because it is a frontage improvement that benefits the proposed development's generated traffic.
- $250,000 for signal and crosswalk at Poag Street. This item should not be counted because it is an improvement proffered by Insight to construct or to escrow funds for construction by others. A signal warrant analysis completed by Insight shows that a signal is needed in this intersection.
- $250,000 for a new or modified signal and crosswalks at North Kings Highway entrance. This improvement is needed to accommodate northbound left turn vehicles into the site from the proposed dedicated northbound left turn lane. The proposed crosswalks should not be counted because one needs to be relocated for the interim realignment of the site entrance with the connection to Richmond Highway and the other crosswalk is for the applicant's proposed site entrance.
- The $330,750, or $750 per each of the residential dwelling units, stated is not accurate since the applicant's proposed proffers specifically excludes ADUs. Therefore, the contribution would be less than the stated $330,750. Furthermore, staff objects the exclusion of ADUs from the per unit financial contribution.

3. Walkability and Multi-modal Connectivity

Per the Comprehensive Plan, efforts should be made to enhance walkability and multi-modal connectivity of the land unit through the addition of sidewalks, streetscaping, and bicycle facilities.

Numerous pedestrian issues remain unresolved. Overall, walkability is a major issue that has not been

carefully considered and given attention to by the applicant. Pedestrian connectivity is deficient in the following areas:

- The proposed development does not include crosswalks to facilitate pedestrian connectivity to and from the adjacent Insight property.
    - The applicant should also extend the proposed sidewalk from the townhouse area to the existing sidewalk at the end of the Poag Street cul-de-sac.
- A pedestrian connection should be provided from the 6-ft sidewalk on North Kings Highway to the 8-ft pedestrian walkway in front of the proposed grocery store building.
    - The 8-ft pedestrian walkway in front of the proposed grocery store is insufficient for possible storefront display, shopping cart pick-ups and returns, and pedestrian circulation. The retail building zone on the other side of the parking lot is 12-ft wide. A 12-ft building zone is a more acceptable width for the pedestrian environment in front of the grocery store.
- A 5-ft minimum and continuous pedestrian walkway with ADA ramps should be provided along the eastern side of the parking garage across the driveway from the proposed retail area and urban plaza. FCDOT and VDOT reviewers recommended that an adequate pedestrian walkway be provided on both sides of the driveway between the parking garage and the retail/urban plaza center. However, the applicant has not made any change and stated that they do not foresee people walking alongside the parking structure and that crossing in front of parking garage entrances is not safe. Staff disagrees as the proposed plan already shows crosswalks from the retail area and a stair/elevator access at the southern end of the garage building. It is possible that shoppers and visitors of the proposed development would prefer to walk alongside the parking garage to their cars rather than crossing at the Poag Street entrance. If the proposed development is supposed to be a more urban and pedestrian-oriented environment, adequate pedestrian access and connectivity ought to be provided to facilitate pedestrian circulation and to avoid counter-intuitive pedestrian paths that are the result of placing priority on vehicular circulation over pedestrian circulation and accessibility.
- The proposed 6-ft sidewalk south of the site entrance on North Kings Highway needs to be clearly delineated on the plan.
- The applicant should construct a continuous 5-ft sidewalk with a 2-ft driveway apron along the row of townhomes with a proposed 7-ft driveway. The proposed development plan shows no pedestrian amenities for this row of townhomes. Sidewalks should be provided to all proposed townhomes.
- In the alternative drive-through pharmacy option, there is no pedestrian and bicycle connectivity shown from the 6-ft sidewalk on North Kings Highway to the CVS/plaza area is shown in Sheet 4A. The applicant should demonstrate that there is a continuous, adequate, and safe pedestrian circulation via the provision of walkways, crosswalks, ADA-accessible ramps, and other amenities. The proposed plaza is isolated from North Kings Highway sidewalk by a 22-ft drive-through that should be narrowed.

Other Significant Proffers Issues

In addition to the dedication of ROW and the contribution to planned, off-site transportation improvements, staff has the following concerns regarding the proposed proffers:

- FCDOT does not accept an escrow in lieu of construction of Kings Highway Improvements that are either necessary in the interim condition before the planned ultimate realignment or that benefit only the proposed development. These improvements need to be completed prior to the first issuance of RUP or non-RUP. Escrow is unacceptable for these improvements. Proffer 28C needs to be revised per FCDOT comments.
- A signal warrant study should not be counted as part of the applicant's proposed Regional Road Fund Contribution. This is unacceptable as the warrant study should be part of the analysis of traffic impacts imposed by the applicant's development, not a contribution to

planned capital improvements of the roadways that would be impacted by the proposed development. Proffer 28D should be revised.

- The installation of the Poag Street signal was proffered to be constructed or funded by the Insight property. The Penn-Daw applicant should not include this improvement as part of its proposed financial contribution. Poffer 28D should be revised.
- Regardless of the timing of the ultimate realignment of N/S Kings Highway, the applicant should be responsible for reconfiguring its site entrance and frontage on the private property when the ultimate alignment occurs. This provision should be included in the applicant's proffers.
- The Transportation Demand Management Plan proffer provisions should adhere to the County's standards for non-Tysons TDM Light Program. Proffer 30 should be revised.

Other Sheet 4 CDP/FDP Issues

Several issues have been identified and communicated by staff to improve on-site vehicular circulation and the overall pedestrian environment. Other design comments are included as well.

- Surface retail parking spaces should be designed as 45- or 60-degree angled parking, especially along the main one-way driveway from the ingress-only North Kings Highway entrance. Staff has repeatedly advised against the proposed 90-degree angled parking in the one-way drive aisle as the potential is high for drivers to reverse out of parking spaces and go the wrong direction toward the ingress-only site access on North Kings Highway. The initial recommendation provided by staff was to provide parallel parking spaces in the retail area as they are more appropriate in an urban and pedestrian-oriented development. Staff has brought this safety issue to the applicant's attention but no change has been made. Additionally, 45- or 60-degree angled parking should be used for the entire surface parking spaces since they are along one-way drive aisles.
- The applicant needs to show that the 50-ft throat length is met and would not interfere with entering traffic from North Kings Highway.
- The geometry of the 14-ft wide one-way driveway, parallel to North Kings Highway, should be redesigned to facilitate a better egress vehicular movement toward the direction of the proposed parking garage.
    - Staff recommends reducing the one-way width to 14-16 feet wide and using the reinforced grass and mountable curb design to meet the fire marshal's requirement of a 20-ft wide access in case of emergency. The proposed 22-ft wide one-way driveway is not necessary and appropriate for a pedestrian-oriented mixed-use environment.
- Similar to the comment above, staff recommends reducing the 20-ft wide driveway aisle located in front of the grocery store and the urban plaza through the use of mountable curb, reinforced grass, or other means.
- The large island in the parking lot near the plaza should be reduced in size as it is an under-utilized space and provides little benefit to vehicular circulation through the surface parking lot and to the pedestrian environment. A redesign is encouraged to allocate the under-utilized space to provide pedestrian or bicycle amenities or to increase the size of the proposed urban plaza.
- The proposed landscape treatments in the retail building zone should not be in the dedicated ROW on North Kings Highway frontage. The applicant should relocate landscape treatments outside of dedicated ROW.
- The proposed crosswalk from the Richmond Highway connection to the applicant's property should be relocated to the south of the entrance to align with the existing crosswalk from Richmond Highway that is on the southern leg of the two intersections.
- An arrow pointing south is shown in the southbound outside lane on North Kings Highway south of the site entrance. If the arrow is meant to alert southbound traffic that the outside lane will

merge, a merge sign should be proposed and installed, per VDOT approval, before the applicant's site entrance on the applicant's frontage.

- Please adjust the angle of the fire truck curb-cut on North Kings Highway as it seems to direct vehicles from the retail building wall instead of the fire lane. Additionally, ADA ramp should be provided across the fire lane curb-cut on North Kings Highway.
- The sidewalk to the west of Zips Dry Cleaners building and along the west side of the grocery store building, leading to the urban plaza should be straightened. The applicant should consider the transformer box closer to the curb so the sidewalk could be straightened.
- The sidewalk on the western side of the multi-family building should be at least 5-ft wide. Sheet L-2.2 indicates the sidewalk width varies.
- Bicycle racks need to be located in areas visible to visitors and shoppers. The proposed bicycle parking spaces next to the grocery store and retail buildings should be relocated closer to the front of the stores or somewhere in the urban plaza.

Other Sheet 4A CDP/FDP Comments

All issues/concerns on Sheet 4, except those specific to the grocery store building/use are applicable to Sheet 4A. The following are additional comments on Sheet 4A:

- The applicant should reduce the width of the drive-through lane to no greater than 20 feet, preferably less if mountable curb, reinforced grass, or other treatment can be used to meet the fire marshal's requirement. The use of the drive-through lane is incompatible to urban and pedestrian-friendly environment. While the drive-through lane, which also functions like a parallel service drive, is discouraged, it might be more acceptable if mitigation treatments are proposed to reduce vehicle speed and to improve pedestrian and bicyclist safety and connectivity.
- The by-pass lane next to the drive-through window should be eliminated. The proposed drive-through lane is long enough to store vehicle queue so staff does not see the purpose of a wide drive-through. Furthermore, the applicant should provide proper signage to direct drive-through vehicles to make immediate right after entering the site and all other retail-use vehicles to continue through the one-way drive aisle to find parking spaces.

Traffic Impact Study (TIS) Comments

The applicant should address FCDOT's comments regarding assumptions made in the TIS analysis:

- The existing plaza trips removed per Figure 10 have a different trip assignment than trip generated by the new development and assigned in Figure 11. Intersection 1 (US 1 & Shields) is particularly conspicuous. The applicant should use consistent trip assignments or provide explanation.
- The trips distributed from the site to US 1 south are assigned to South Kings Highway and leave the network before crossing to US 1 on Franklin Street. However, it is likely that traffic would make a left out of Poag Street and make the two right turns to go southbound on US 1. If the consultant believes that Franklin Street will carry this traffic to US 1, some modeling would appropriate.

Based on assumptions in question above, we have the following comments:

- Trips generated by the proposed development may have greater impact on the Shields Ave/School St/North Kings Highway intersection. Appropriate monetary contribution should be made to the realignment of the said intersection to improve traffic operations in the Kings Highway corridor.
- Staff recommends that the left turn lane be eliminated at the site entrance on North Kings

Highway. The left turn vehicles at the site entrance on North/South Kings Highway is about 2-3 vehicles per hour and can be accommodated in the left turn bay at the intersection with Poag Street. The northbound left turn bay on North Kings Highway at Poag Street has adequate storage capacity.

- Based on comments above, staff recommends the applicant consider reconfiguring the North/South Kings Highway/site/US 1 transfer point to have either two northbound through lanes and one right turn lane or one northbound through lane and dual right turn lanes. This would improve the overall traffic operation in the system. Ultimately, when the connection to US 1 is severed at this point, two northbound through lanes would remain and a left turn lane into the site can be considered.
    - On future lane uses at the South Kings Highway/site/US 1 transfer point, a lane utilization factor of 0.65 is used to account for short lanes. This reduces the delays in 2017 Synchro by about half: 200 seconds per vehicle for the PM peak (the larger) and about 100 seconds for the AM peak.

FCDOT Recommendation

FCDOT strongly recommends that the applicant continue to work with this department to resolve the major outstanding issues and resubmit a revised CDP/FDP before a rezoning decision is made.

AKR/AY

COMMONWEALTH of VIRGINIA
DEPARTMENT OF TRANSPORTATION
GREGORY A. WHIRLEY
COMMISSIONER
14685 Avion Parkway
Chantilly, VA 20151
(703) 383-VDOT (8368)
August 20, 2013

To: Ms. Barbara Berlin
Director, Zoning Evaluation Division

From: Paul J. Kraucunas, Land Development Program Manager
Virginia Department of Transportation

Subject: RZ/FDP 2013-LE-008, Penn Daw Plaza

All submittals subsequent to the first submittal shall provide a response letter to the previous VDOT comments. Submittals without comment response letters are considered incomplete and will be returned without review.

This office has reviewed the revised plan submitted on August 12, 2013 and offers the following comments.

Please note that these comments have been prepared without the benefit of a traffic study as the accompanying Traffic Study for this project was not submitted in time for VDOT to complete a review at this time. Additional comments may be forthcoming when the review is completed.

Sheet 4 of 17

1. The easternmost entrance on Poag Street is in a very awkward position in relation to the approved development across the street and should be relocated to align with that entrance.

2. A separate right-turn lane may be required for southbound North Kings Highway at Poag Street.

3. A separate right-turn lane may be required for eastbound Poag Street at North Kings Highway.

4. The applicant should provide a Signal Warrant Analysis for the intersection of Poag Street and North Kings Highway.

5. The applicant should design and construct a traffic signal at the intersection of Poag Street and North Kings Highway if it is warranted and approved for installation by VDOT.

6. Lane transitions for the two southbound lanes on North Kings Highway should not be located within the intersection with Poag Street.

7. The proposed northbound North Kings Highway left-turn lane is not sufficiently shielded from the southbound lanes.

8. Is additional ROW required along North Kings Highway to construct the ultimate roadway improvements envisioned in the Comprehensive Plan?

9. The site entrance at North Kings Highway should have at a separate left-turn lane.

10. The driveway immediately adjacent to the entrance on North Kings Highway does not meet the Access Management corner clearance requirements and should be eliminated. If an Access Management exception is requested from VDOT, the traffic flow should be reversed so as to avoid clogging this signalized intersection.

11. The proposed left-turn lane from northbound North Kings Highway into the site is too short.

12. The applicant will need to provide a signal modification for the signal at North Kings Highway and their entrance.

13. The proposed trail to the south of the North Kings Highway entrance needs a wider buffer to from the roadway or should be converted to a sidewalk.

14. The proposed entrance type for the fire lane is inappropriate. This should be a full CG-11 or CG-13.

15. The gate on the fire lane should be removed.

16. The roadways for the townhouse units should be labeled as "Private Streets".

17. There does not appear to be sufficient on-site parking for the townhouse units. Some units have no driveway and the only guest parking is along the multifamily units to the east.

Sheet 4A of 17

18. All applicable comments from Sheet 4 of 17 remain.

19. Having a drive through access so close to North Kings Highway might be confusing to motorist, particularly at night.

20. Having a drive through access so close to North Kings Highway would reduce the comfort level for pedestrians.

Sheet 5 of 17

21. There is a real scarcity of sidewalks between the garage and the retail areas, along the internal roadway between the garage and the retail area, and along the fire access road.

Sheet 7 of 17

22. All new impervious surfaces in the ROW should be accounted for in the SWM/BMP design as "Off-site Uncontrolled".

Sheet 14 of 17

23. All curbing in VDOT ROW should not have yellow paint, including that portion of curb at entrances.

Sheet 16 of 17

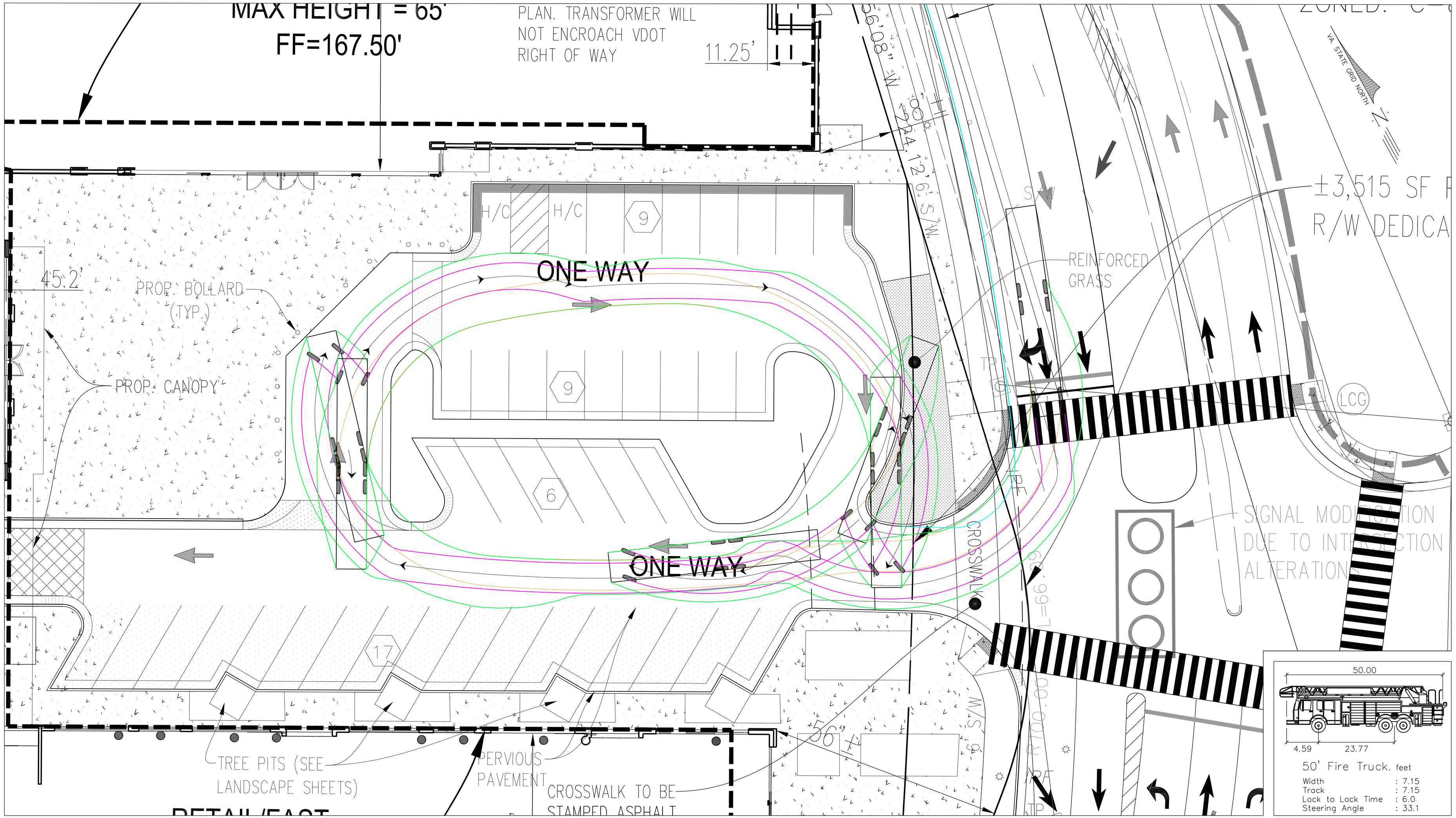
24. Provide Sight Distance Profiles for entrance on North Kings Highway.

Sheet L-1 and L-2

25. Show Sight Distance, including North Kings Highway, on all landscape sheets and remove any landscaping that would block sight distance.

Please contact me if you have any questions.

cc: Ms. Angela Rodeheaver
Mr. Michael Davis
Ms. Mary Ann Tsai



TRUCK MOVEMENT EXHIBIT

urban
Planners Engineers Landscape Architects Land Surveyors

PENN DAW

FAIRFAX COUNTY, VIRGINIA
SCALE: 1"=10'
OCTOBER 30, 2013

LEGEND
- FRONT TIRES
- REAR TIRES
- VEHICLE BODY
- 15' RADIUS CURB

APPENDIX 12

FAIRFAX COUNTY
PUBLIC SCHOOLS

Department of Facilities and Transportation Services
Office of Facilities Planning Services
8115 Gatehouse Road, Suite 3300
Falls Church, Virginia 22042

August 14, 2013

TO: Barbara Berlin, Director, Zoning Evaluation Division
Fairfax County Department of Planning & Zoning
Zoning Evaluation Division

FROM: Lee Ann Pender, Director
Office of Facilities Planning Services

SUBJECT: RZ/FDP 2013-LE-008, Penn Daw Association (Updated)

ACREAGE: 10.45 acres

TAX MAP: 83-3 ((1)) 7

PROPOSAL:
The application is located in the Penn Daw Community Business Center and requests to rezone the site from C-8 and R-4 to PDH-40. This project would redevelop the site from a free standing commercial development to a mixed use center to include 386 Multi-family units, 38 Townhouses units, and retail uses.

ANALYSIS:
School Capacities
The schools serving this area are Mount Eagle Elementary, Twain Middle, and Edison High schools. The chart below shows the existing school capacity, enrollment, and projected enrollment.

School	Capacity 2012 / 2017	Enrollment (9/30/12)	Projected Enrollment 2013-14	Capacity Balance 2013-14	Projected Enrollment 2017-18	Capacity Balance 2017-18
Mount Eagle ES	387 / 387	369	401	-14	575	-188
Twain MS	1025 / 1025	885	868	157	953	72
Edison HS	2108 / 2108	1683	1761	347	1914	194

Capacities based on 2014-2018 Capital Improvement Program (November 2012)
Project Enrollments based on 2012-13 to 2017-18 6-Year Projections (April 2012)

The school capacity chart above shows a snapshot in time for student enrollments and school capacity balances. Student enrollment projections are done on a six year timeframe, currently through school year 2017-18 and are updated annually. At this time, if development occurs within the next five years, Mount Eagle is projected to have a capacity deficit. Twain and Edison are projected to have sufficient capacity. Beyond the six year projection horizon, enrollment projections are not available.

Capital Improvement Program Projects
The Capital Improvement Program (CIP) identifies an unfunded need for a Richmond Highway Area Elementary School. A recent CIP project was completed for the renovation of Edison High School.

Development Impact
Based on the number of residential units proposed, the chart below shows the number of anticipated students by school level based on the current countywide student yield ratio.

Existing (Potential By-right)

School level	Single Family Detached ratio	Potential By-right # of units	Existing Student yield
Elementary	.268	16	4
Middle	.085	16	1
High	.178	16	3
			8 total

2011 Countywide student yield ratios (August 2012)

Proposed

School level	Townhouse ratio	Current # of units	Existing Student yield
Elementary	.249	41	10
Middle	.063	41	3
High	.128	41	5
			18 total

2011 Countywide student yield ratios (August 2012)

School level	Mid/High-rise Multi-family ratio	Proposed # of units	Proposed Student yield
Elementary	.059	400	24
Middle	.019	400	8
High	.032	400	13
			45 total

2011 Countywide student yield ratios (August 2012)

RECOMMENDATIONS:

Proffer Contribution

A net of 55 new students is anticipated (30 Elementary, 10 Middle and 15 High School). Based on the approved Residential Development Criteria, a proffer contribution of $576,840 (55 x $10,488) is recommended to offset the impact that new student growth will have on surrounding schools. It is recommended that the proffer contribution be directed toward schools in Cluster V or to schools in the Edison High School Pyramid at the time of site plan or building permit approval. A proffer contribution at the time of occupancy is not recommended since this does not allow the school system adequate time to use the proffer contribution to offset the impact of new students.

In addition, an "escalation" proffer is recommended. The suggested per student proffer contribution is updated on an annual basis to reflect current market conditions. The amount has decreased over the last several years because of the down turn in the economy and lower construction costs for FCPS. As a result, an escalation proffer would allow for payment of the school proffer based on either the current suggested per student proffer contribution at the time of zoning approval or the per student proffer contribution in effect at the time of development, whichever is greater. This would better offset the impact that new student yields will have on surrounding schools at the time of development. For your reference, below is an example of an escalation proffer that was included as part of an approved proffer contribution to FCPS.

> *Adjustment to Contribution Amounts. Following approval of this Application and prior to the Applicant's payment of the amount(s) set forth in this Proffer, if Fairfax County should increase the ratio of students per unit or the amount of contribution per student, the Applicant shall increase the amount of the contribution for that phase of development to reflect the then-current*

ratio and/or contribution. If the County should decrease the ratio or contribution amount, the Applicant shall provide the greater of the two amounts.

Proffer Notification
It is also recommended that the developer proffer notification be provided to FCPS when development is likely to occur or when a site plan has been filed with the County. This will allow the school system adequate time to plan for anticipated student growth to ensure classroom availability.

ADDITIONAL INFORMATION:
FCPS will be undertaking a review of schools in the Richmond Highway corridor in the near future. This review will likely include schools served by the study area. Currently, there are several schools in the area that are over capacity; projections indicate this trend will likely continue in out years.

Future Development Impacts
In additional to the potential increase in development with this proposal, there are several existing projects currently in the pipeline for development within the Twain and Edison attendance areas. Student yields from these developments are likely to impact receiving schools. These developments include:

Application #	Application Name	Status	Proposed Units**	Estimated Students
RZ 2004-LE-026	Burgundy Woods	Approved	27 SFD	13
RZ 2005-LE-021	Curtiss	Approved	17 SFA	7
RZ 2006-LE-018	Beulah Fleet	Approved	49 SFA	18
RZ 2010-LE-007	Fosters Crest	Approved	34 SFA	15
RZ 2011-LE-019	Potters Glen, Sec. 3	Approved	17 SFA	6
RZ 2011-MV-031	Mid-Atlantic	Approved	390 MF	34
RZ 2011-LE-016	Penn Daw	Approved	245 MF	22*
RZ 2012-MV-018	Capital Investments	Approved	300 MF	34*
ST09-IV-MV1	Jefferson Manor Special Study	Approved	603 (SFA & MF)	100*

**Also in Mount Eagle ES Attendance Area*

LAP/gjb

Attachment: Locator Map

cc: Tamara Derenak Kaufax, Vice Chairman, School Board Member, Lee District
Dan Storck, School Board Member, Mount Vernon District
Sandy Evans, School Board Member, Mason District
Ilryong Moon, Chairman, School Board Member, At-Large
Ryan McElveen, School Board Member, At-Large
Ted Velkoff, School Board Member, At-Large
Jeffrey Platenberg, Assistant Superintendent, Facilities and Transportation Services
Frances Ivey, Cluster V, Assistant Superintendent
Pamela Brumfield, Principal, Edison High School
Baek Chong, Principal, Twain Middle School
Jean Consolla, Principal, Mount Eagle Elementary School

Fairfax Water

FAIRFAX COUNTY WATER AUTHORITY
8560 Arlington Boulevard, Fairfax, Virginia 22031
www.fairfaxwater.org

PLANNING & ENGINEERING
DIVISION
Jamie Bain Hedges, P.E.
Director
(703) 289-6325
Fax (703) 289-6382

May 2, 2013

Ms. Barbara Berlin, Director
Fairfax County Department of Planning and Zoning
12055 Government Center Parkway, Suite 801
Fairfax, Virginia 22035-5505

Re: RZ 2013-LE-008
FDP 2013-LE-008
Pen Daw Plaza
Tax Map: 83-3

Dear Ms. Berlin:

The following information is submitted in response to your request for a water service analysis for the above application:

1. The property is currently served by Fairfax Water.

2. Adequate domestic water service is available at the site from an existing 12-inch water main located in North Kings Highway and a proposed 8-inch water main to be located in Poag Street. See the enclosed water system map.

3. Depending upon the configuration of the on-site water mains, additional water main extensions may be necessary to satisfy fire flow requirements and accommodate water quality concerns.

If you have any questions regarding this information please contact Dave Guerra at (703) 289-6343.

Sincerely,

Traci K. Goldberg

Traci K. Goldberg, P.E.
Manager, Planning Department

Enclosure

County of Fairfax, Virginia

MEMORANDUM

DATE: June 10, 2013

TO: Barbara C. Berlin, Director
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Eric Fisher, GIS Coordinator
Information Technology Section
Fire and Rescue Department

SUBJECT: Fire and Rescue Department Preliminary Analysis of Rezoning/Final Development Plan Application RZ/FDP 2013-LE-008

The following information is submitted in response to your request for a preliminary Fire and Rescue Department analysis for the subject:

1. The application property is serviced by the Fairfax County Fire and Rescue Department Station **#411, Penn Daw**

2. After construction programmed ___(n/a)____ this property will be serviced by the fire station _____(n/a)_____

ZONING ORDINANCE PROVISIONS

PART 6 7-600 HIGHWAY CORRIDOR OVERLAY DISTRICT

7-601 Purpose and Intent

In furtherance of the purposes set forth in Sections 15.2-2200, 15.2-2283, 15.2-2284 and 15.2-1200 of Va. Code Ann. and, in general, to protect and promote the health, safety and general welfare of the public by the prevention or reduction of traffic congestion and/or danger in the public and private streets, a limitation is placed on certain automobile oriented, fast service, or quick turn-over uses by the imposition of the Highway Corridor Overlay District. Except as allowed by right or except as qualified by Sections 607 and 608 below, the following uses shall be regulated in the Highway Corridor Overlay District:

1. Drive-in financial institutions.
2. Fast food restaurants.
3. Quick-service food stores.
4. Service stations.
5. Service station/mini-marts.

Nothing herein shall be construed so as to impair a vested right.

PART 4 A7-400 RICHMOND HIGHWAY COMMERCIAL REVITALIZATION DISTRICT

A7-401 Purpose and Intent

The Richmond Highway Commercial Revitalization District is established to encourage economic development activities in this older commercial area of the County in order to provide desirable employment and enlarge the tax base consistent with the provisions of Sections 15.2-2200, 2283 and 2284 of the Code of Virginia, as amended. Commercial revitalization districts are intended to enhance the older commercial areas of the County by providing for specific regulations which are designed to facilitate the continued viability and redevelopment of these areas. To that end, the district is intended to provide for additional flexibilities for development and redevelopment in these areas while also providing for urban design measures such as streetscape and landscaping.

A 7-405 Use Limitations

As set forth in the underlying zoning district regulations