APPENDICES

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OCTOBER 2006

NoMA Developments, Redevelopment Area Boundary by Section

Section A

	Name	Developer	Square Footage									# of Residential Units	Renovation?	Comments	$ (In Millions)
			Total	Residential	Total Commercial	*Office (w/in Comm.)*	Education	Transportation/ Communication	Industrial/ Warehouse	Cultural/ Entertainment	Hotel				
1	175 R Street		131,905		131,905								yes	Footprint x 5 Stories	1.4
2	XM Satellite Radio		62,000		62,000										
3	XM Satellite/Qwest		221,346		221,346								yes		
4	Federal Express		207,574						207,574				?	Footprint x 2 Stories	
21	Capitol Overlook		12,000	12,000								??			4.634
22	ATF Headquarters	GSA	438,000		438,000	*423,000*								Retail was measured from plan.	
28	The Eckington	Trammel Crow	165,000		17,000.00						148,000			242 rooms, 10000 sf conf space	
55	Capital Commerce Center	Fairfield Development	750,000	750,000								700		Footprint x 6 Stories	
56	Pepco Site	Trammel Crow	550,000	550,000								450-550		Footprint x 6 Stories	130
57	Washington Gateway	Greenebaum & Rose	650,000	325,000	325,000	*325,000*						??			
58	Jemal's Gateway	Douglas Developments	3,000,000	1,500,000	1,500,000	*1,500,000*						??		**	
59	Capitol Square	Morgan Stanley	650,000		650,000	*650,000*									
	Max Total Sq Ft:		**7,487,825**	**2,587,000**	**3,345,251**	**2,898,000**	**0**	**0**	**1,407,574**	**0**	**148,000**	**700**	**0**	**0**	**6**

Section B

	Name	Developer	Square Footage									# of Residential Units	Renovation?	Comments	$ (In Millions)
			Total	Residential	Total Commercial	*Office (w/in Comm.)*	Education	Transportation/ Communication	Industrial/ Warehouse	Cultural/ Entertainment	Hotel				
5	New York Avenue Metrorail Station														90
6	One NoMA Station	Bristol Group	408,000		408,000	*408,000*							yes		
23	Capitol Plaza (Phase I)	The Goldberg Co.	293,000.		293,000	*293,000*									
30	Capitol Plaza (Phase II-VI)	The Goldberg Co.	1,700,000	850,000	850,000	*850,000*						??		** (Undefined use, 50/50 sq ft split is assumed.)	
31	NoMA Station	Bristol Group	1,400,000	700,000	700,000	*700,000*						??		**	
40	Electronic Equipment Facility		16,850						16,850				?		
41	First Place	J Street Development	1,000,000	450,000	550,000	*500,000*						??		**	
44	20 K Street		137,911						137,911						
45	90 K	Trammel Crow	295,000-1,300,000		295,000-1,300,000	*295,000-1,300,000*									
59	Capitol Square	Morgan Stanley	650,000		650,000.00	*650,000*									
60	Constitution Square	Stonebridge	2,000,000		2,000,000.00	*1,975,000*									
	Min Total Sq Ft:		**7,900,761**		**5,746,000**	**5,671,000**									
	Max Total Sq Ft:		**8,905,761**	**2,000,000**	**6,751,000**	**6,676,000**	**0**	**0**	**154,761**	**0**	**0**	**0**	**0**		**90**

Section C

	Name	Developer	Square Footage									# of Residential Units	Renovation?	Comments	$ (In Millions)
			Total	Residential	Total Commercial	*Office (w/in Comm.)*	Education	Transportation/ Communication	Industrial/ Warehouse	Cultural/ Entertainment	Hotel				
34	Augusta/Louisa Apartments		30,500	30,500										Footprint x 1 Story	
43	NW One & Mt Vernon Redevelopments		600,000	600,000										Footprint x 8 Stories	
	Max Total Sq Ft:		**630,500**	**630,500**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Section D

	Name	Developer	Square Footage									# of Residential Units	Renovation?	Comments	$ (In Millions)
			Total	Residential	Total Commercial	*Office (w/in Comm.)*	Education	Transportation/ Communication	Industrial/ Warehouse	Cultural/ Entertainment	Hotel				
10	Republic Square	Republic Properties	385,000		385,000	*385,000*									
27	Gonzaga College High School		82,300				82,300						yes	Footprint x 3 Stories	10.27
35	Gales School		38,640				38,640						?	Sq ft taken from Aug. 2004 OP doc.	7.30
36	Republic Square Phase II	Republic Properties	200,000		200,000	*103,000*									
62	G & New Jersey Avenue		510,000	255,000	255,000	*255,000*						??		**, Footprint x 8.5 Stories	
64	801 New Jersey Avenue		1,131,690		1,121,890		9,800							*Data taken from PUD 830	
	Max Total Sq Ft:		**2,347,630**	**255,000**	**1,961,890**	**743,000**	**130,740**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18**

Section E

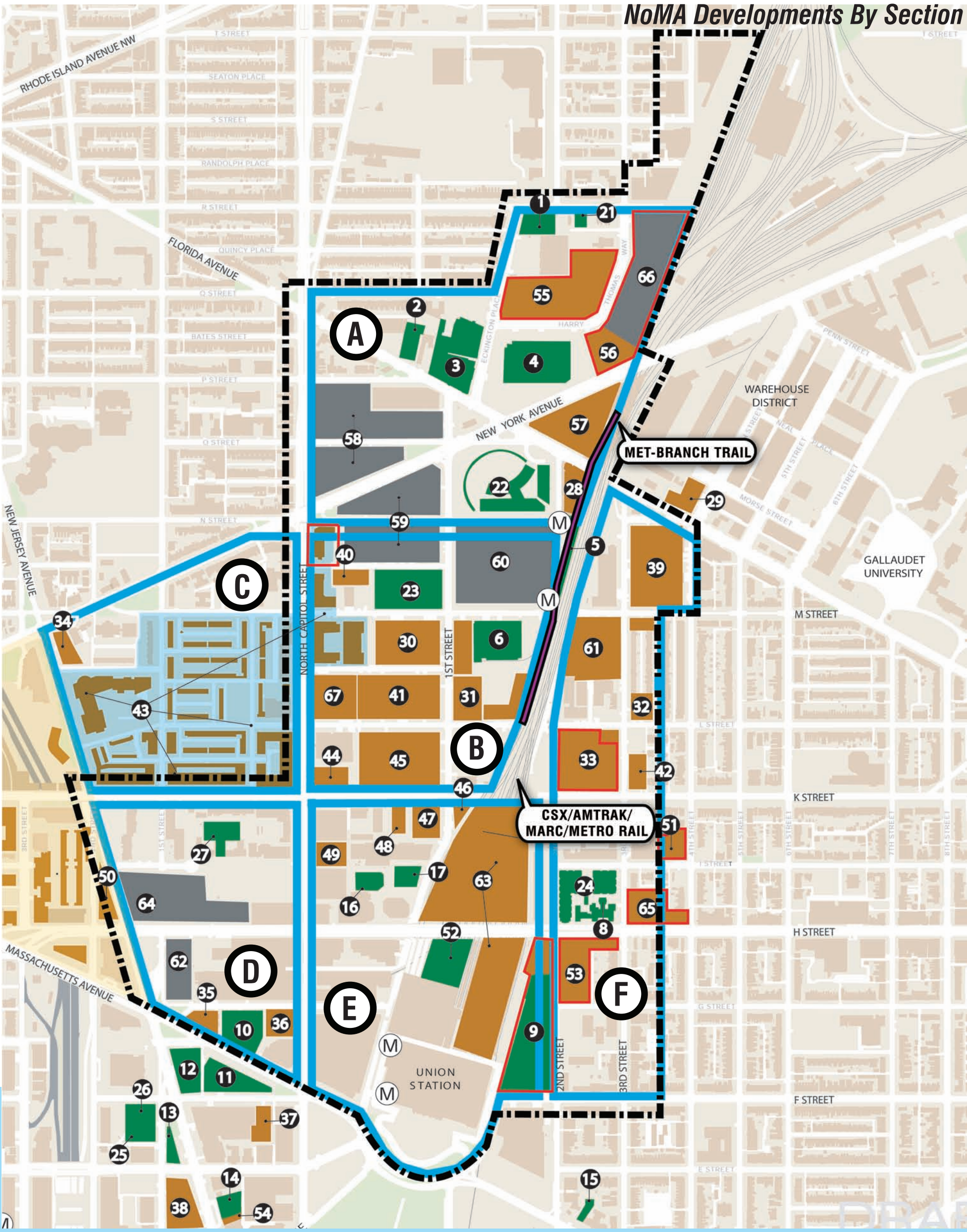
	Name	Developer	Square Footage									# of Residential Units	Renovation?	Comments	$ (In Millions)
			Total	Residential	Total Commercial	*Office (w/in Comm.)*	Education	Transportation/ Communication	Industrial/ Warehouse	Cultural/ Entertainment	Hotel				
9	Station Place I-III	LDPG	1,525,500		1,525,500	*1,525,500*									
16	Union Center Plaza III		225,000		225,000	*225,000*									75
17	Union Center Plaza V		244,300		244,300	*244,300*									65
52	Union Station Parking Garage Extension														
46	101 K Street, LLC		77,836		77,836	77,836									
47	Capitol City Plaza	Carter-Cafritz	335,000		335,000	*335,000*									
48	65 K Street		310,194		310,194	*310,194*									85
49	Union Square III	Akridge	234,666		234,666	*234,666*									
63	Burnham Place	Akridge	2,000,000	1,000,000	1,000,000	*100,000*						??		**	
	Max Total Sq Ft:		**4,922,552**	**1,000,000**	**3,922,552**	**3,022,552**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**229**

Section F

	Name	Developer	Square Footage									# of Residential Units	Renovation?	Comments	$ (In Millions)
			Total	Residential	Total Commercial	*Office (w/in Comm.)*	Education	Transportation/ Communication	Industrial/ Warehouse	Cultural/ Entertainment	Hotel				
8	Landmark Lofts	ABDO Development	240,000	240,000								150	yes	500 Total units when combined with Senate Square *We assume one unit = 1600 sq. ft.	
24	Senate Square	ABDO Development	560,000	560,000								350		500 Total units when combined with Landmark Lofts. *We assume one unit = 1600 sq. ft.	
32	The New Yorker	KL Associates	70,400	70,400								44		* We assume one unit = 1600 sq. ft.	
33	Union Place	Cohen Cos.	875,000	855,000	20,000							??		Numbers from John Walensham (ZOM)	
39	Wilkes Company	Wilkes Company	672,000	336,000	336,000	*300,000*								would require zoning change (as-of-right would be 300K office only)	
42	Greenbaum & Rose	Greenbaum & Rose	114,000	114,000								??		Numbers from John Walensham (ZOM)	
53	777 2nd Street		82,000	34,000	48,000										19
61	Uline arena	Douglas Developments	246,000	123,000	50,000					73,000				**, Footprint x 3 Stories	
	Max Total Sq Ft:		**2,859,400**	**2,332,400**	**454,000**	**300,000**	**0**	**0**	**0**	**73,000**	**0**	**544**	**0**	**0**	**19**

Min GRAND Total Sq Ft:	**26,148,668**	**8,804,900**	**15,429,693**	**12,765,929**	**130,740**	**0**	**1,562,335**	**73,000**	**148,000**	**1,244**	**0**	**0**	**362**
Max GRAND Total Sq Ft:	**27,153,668**	**8,804,900**	**16,434,693**	**13,639,552**	**130,740**	**0**	**1,562,335**	**73,000**	**148,000**	**1,244**	**0**	**0**	**362**

NoMA Developments By Section



LEGEND

0' 500' 1000'

N

Construction Complete/Near Complete

1 175 R Street
2 XM Satellite Radio
3 XM Satellite/Qwest
4 Federal Express
5 New York Avenue Metrorail Station
6 One NoMA Station, *Bristol Group*
8 Landmark Lofts, *ABDO Development*
9 Station Place I-III, *LDPG*
10 Republic Square, *Republic Properties*
11 20 Massachusetts Avenue
12 601 New Jersey Avenue
13 National Association of Realtors
14 Holiday Inn on the Hill
15 208 Massachusetts Avenue
16 Union Center Plaza III
17 Union Center Plaza V
21 Capitol Overlook
22 ATF Headquarters, *GSA*
23 Capitol Plaza I, *The Goldberg Co./Prudential*
24 Senate Square, *ABDO Dev.*
25 Erik Hotung Int. Law Center
26 Scott Ginsburg Fitness Center
27 Gonzaga College High School
52 Union Station Parking Garage Ext.

Planned/Site Cleared/Proposed

28 The Eckington, *Trammel Crow*
29 Washington Beef RFP
30 Capitol Plaza II-IV, *The Goldberg Co.*
31 NoMA Station, *Bristol Group*
32 The New Yorker, *KL Associates*
33 Union Place, *Cohen Cos.*
34 Augusta/Louisa Apartments
35 Gales School (Homeless Shelter)
36 Republic Square Phase II, *Republic Prop.*
37 20 F Street
38 Hyatt Regency Washington
39 The Wilkes Company
40 Electronic Equipment Facility
41 First Place, *Tishman Speyer*
42 Greenbaum & Rose, *Greenbaum & Rose*
43 North West One & Mount Vernon Redev.
44 20 K Street
45 90 K, *Greenebaum & Rose*
46 101 K Street, *J Street Development*
47 Capitol City Plaza, *Carter-Cafritz*
48 65 K Street
49 Union Square III, *Akridge*
50 Prevocational Schoool Site
51 318 Eye Street, *The Broadway Group*
53 Capital Place, *Louis Dreyfuss*
54 415 New Jersey Avenue
55 Capital Commerce Center, *Fairfield*
56 Pepco
57 Washington Gateway, *MRP*
61 Uline Arena, *Douglas Dev.*
63 Burnham Place, *Akridge*
65 3rd & H Streets NE, *Steuart*
67 C & P Telephone Comp. Warehouse, *J Street Development*

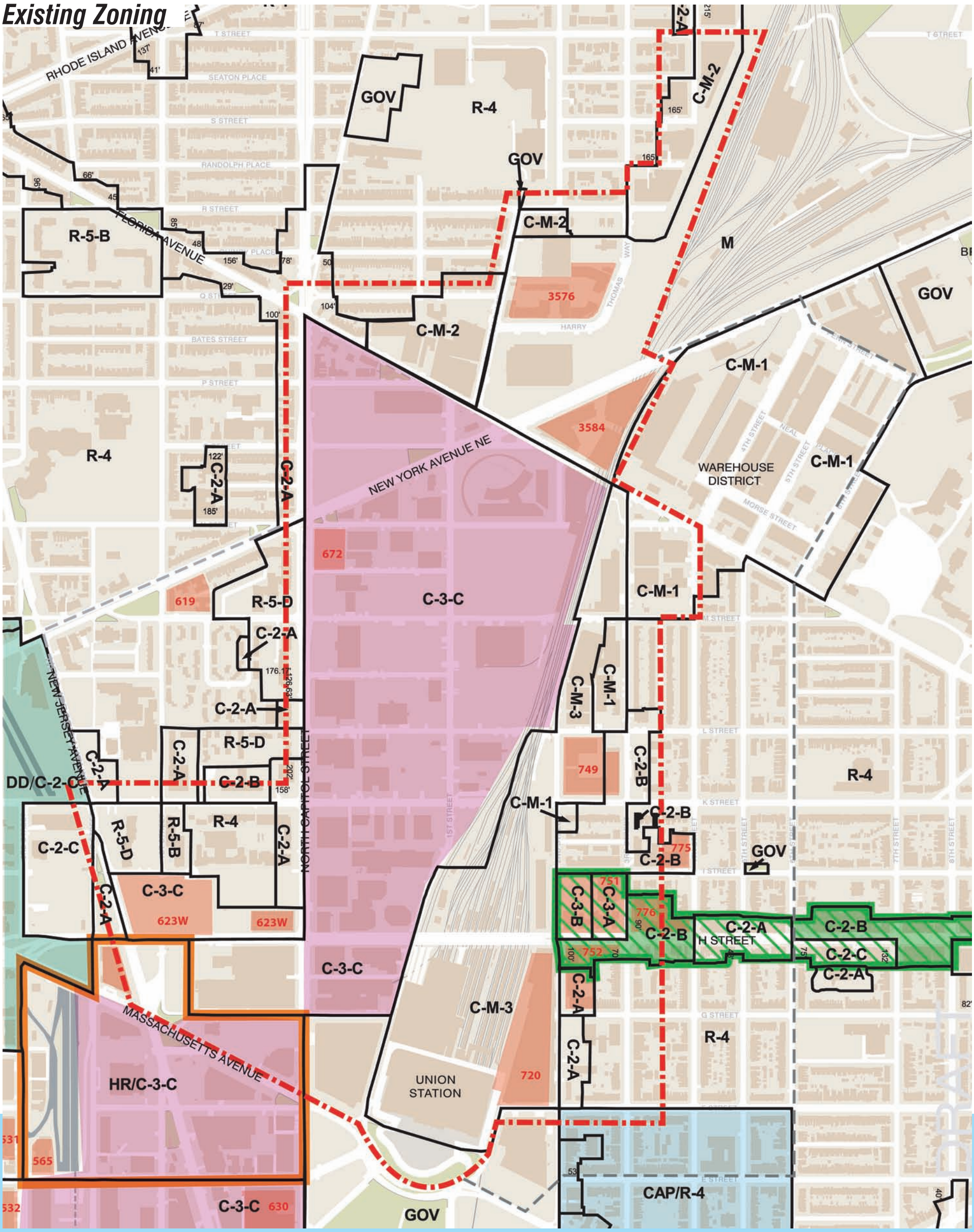
Potential Development

58 Jemal's Gateway, *Douglas Dev.*
59 Capitol Square, *Morgan Stanley/JBG*
60 Constitution Square, Stonebridge Carras
62 G & New Jersey Avenue
64 801 New Jersey Avenue
66 PEPCO Disposition Site

Developmnt Totals by Section
Northwest One (Hope VI)
Mount Vernon Triangle
Planned Unit Developments Underway
Study Area Boundary

APPENDIX B: ZONING, BID & SPECIAL ASSESSMENT BOUNDARIES

Existing Zoning



LEGEND

0' 500' 1000' 1/2 mile

C-M-1
Use: low bulk commercial and light manufacturing maximum FAR of 3.0 and a maximum height of three (3) stories/forty (40) feet, new residential prohibited

C-M-2
Use: medium bulk commercial and light manufacturing maximum FAR of 4.0 and a maximum height of sixty (60) feet, new residential prohibited

C-M-3
Use: high bulk commercial and light manufacturing maximum FAR of 6.0 and a maximum height of ninety (90)feet with, new residential prohibited

M
Use: general industry maximum FAR of 6.0 and a maximum height of ninety (90) feet, new residential prohibited

C-2-A
Use: low density, including office, retail, and residential uses to a maximum lot occupancy of 60% for residential use, max FAR of 2.5 for residential use and 1.5 FAR for other permitted uses, and a maximum height of fifty (50)

C-2-B
Use: medium density, including office, retail, housing, and mixed uses to a max lot occupancy of 80% for residential use, a max FAR of 3.5 for residential use and 1.5 FAR for other permitted uses, and a maximum height of sixty-five (65) feet.

C-3-C
Use: medium/high density development, including office, retail, housing, and mixed uses to a maximum lot occupancy of 100%, a max FAR of 6.5 for residential and for other permitted uses, and a maximum height of ninety (90) feet.

GOV
Use: major federal tracts

DD-C-2-C
Use: Downtown Development District- Permits incentives and requirements for Downtown sub-areas to a maximum FAR of 6.0 to 10.0, and a maximum height of one hundred-thirty (130) feet

HR/C-3-C
Use: Hotel/Residential Overlay District - Permits development incentives for residential and hotel uses only, maximum FAR of 8.5, and a maximum height as permitted by the "Act to Regulate the Height of Buildings, June 1, 1910, as amended". A minimum of 2.0 FAR must be devoted to hotel or apartment house

CAP/ R-4
Use: Capitol Interest District - Permits uses consistent with US Capitol Master Plan, to a maximum FAR of 1.8, and a maximum height of three (3) stories/forty (40) feet

H St NE Amendment (Change from C-2-A to C-2-B)
Use: medium density development, including office, retail, housing, and mixed uses to a max lot occupancy of 80% for residential use, a max FAR of 3.5 for residential use and 1.5 FAR for other permitted uses, and a maximum height of sixty-five (65) feet

H St Overlay

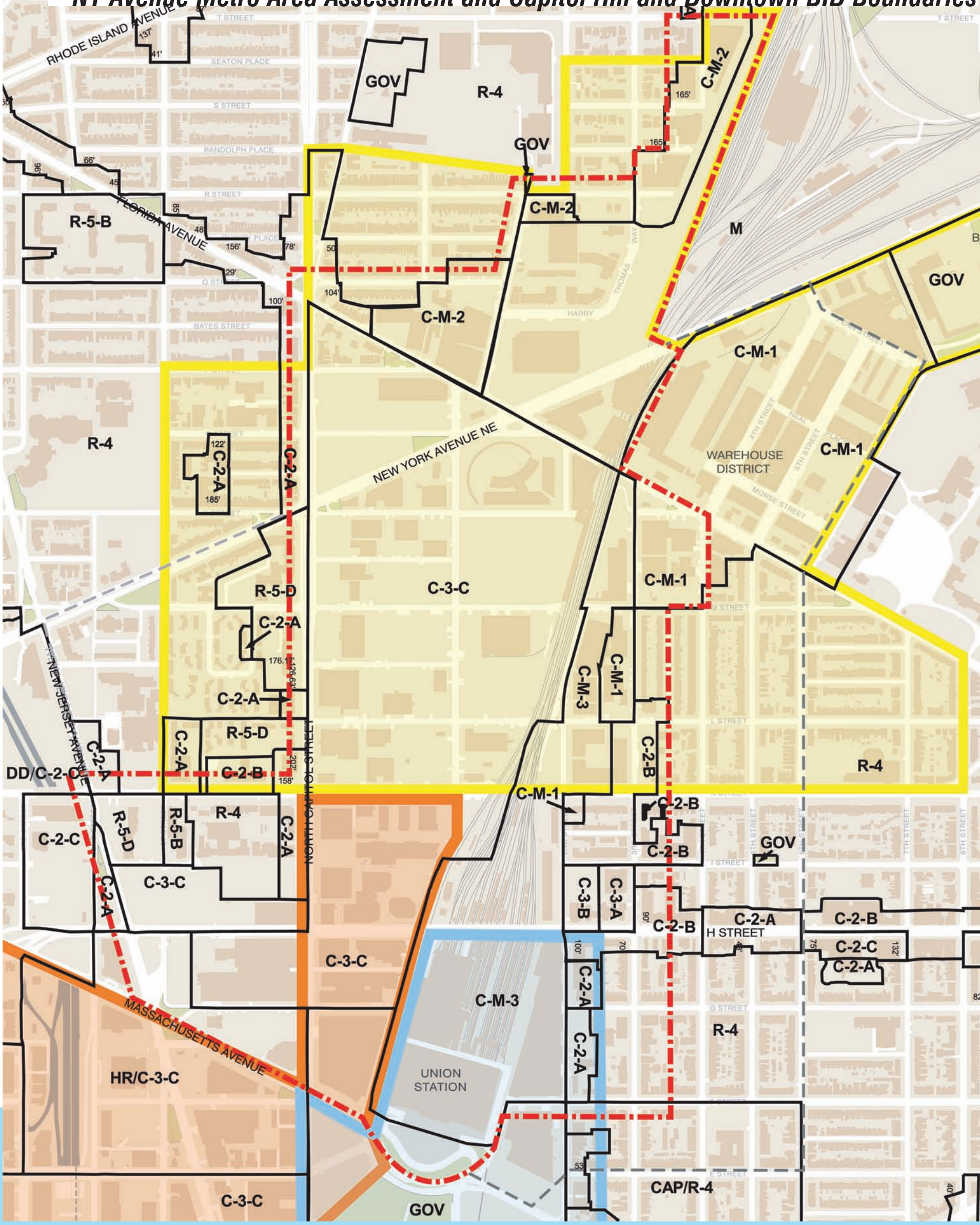
TDR: Transfer of Development Rights Receiving Zones

PUD: Planned Unit Development

000 **Block Number**

Site Boundary

NY Avenue Metro Area Assessment and Capitol Hill and Downtown BID Boundaries



LEGEND

0' 500' 1000' 1/2 mile

- NY Ave Metro Special Assessment District
- Downtown Business Improvement District (BID) Boundary
- Capitol Hill BID Boundary

Note: See page 5.3 for recommended NoMA BID Boundary

Supporting Transportation Data

1. Traffic Projections

Traffic on New York Avenue is expected to increase by 37,700 vpd, or by 60 percent, from 63,300 to 101,000 vpd by 2025, according to the New York Avenue Corridor Study. Average weekday traffic on Florida Avenue would increase by 24,000 vpd, or by 77 percent, from 31,000 to 55,000 vpd. Traffic on North Capitol Street would increase by 17,900 vpd, or by 62 percent, from 29,100 to 47,000 vpd.

These increases are attributable, in part, to redevelopment of NoMa. Automobile, transit, pedestrian, and bicycle use would substantially increase, if and when the full development potential of NoMa is realized. Full NoMa development potential is estimated at approximately:

Office: 10,000,000 S.F.
Retail: 300,000 to 800,000 S.F.
Residential: 10,000 D.U.'s

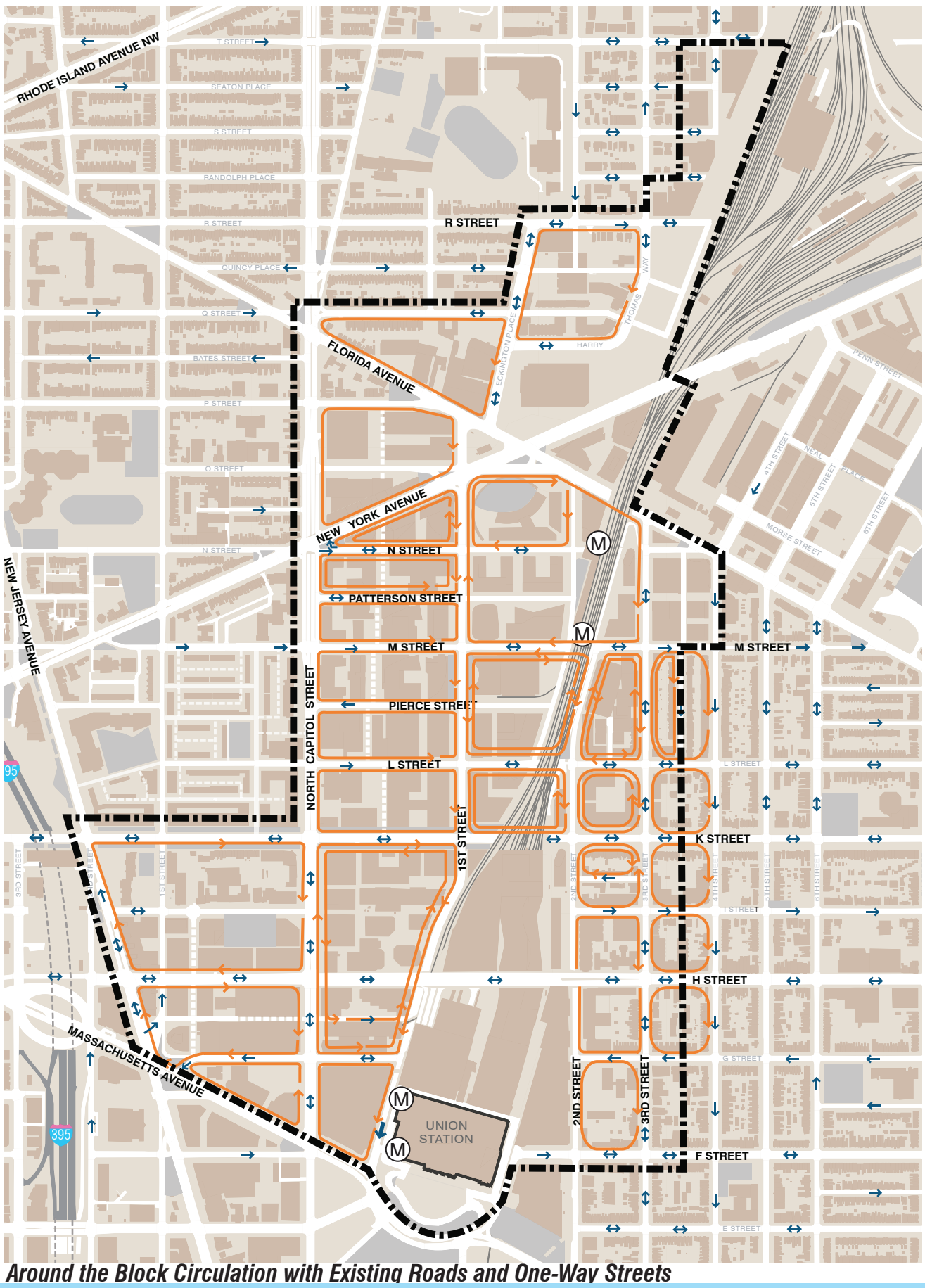
These uses ultimately could generate up to approximately 4,700 to 4,900 AM peak hour; 7,400 to 8,200 PM peak hour; and 47,000 to 55,000 daily vehicle-trips on an average weekday.

These estimates assume that 49 to 57 percent of all office trips, 27 to 36 percent of all retail trips, and 42 to 58 percent of all residential trips would be made on transit or some other non-auto mode, based on distance from the New York Avenue/Florida Avenue/Gallaudet University and Union Station Metro stations and experience in other Metro station areas in the Washington metropolitan area.

2. Existing & Proposed Street Circulation

Existing street directions and around-the-block circulation patterns within NoMa are shown below. Clockwise circulation currently is possible around 22 blocks within NoMa; counter-clockwise circulation is possible around 15 blocks. Both clockwise and counter-clockwise circulation is possible around only eight blocks.

Proposed new streets, two-way street operations, and around-the-block circulation patterns within NoMa are shown on the facing page C.3. Clockwise circulation would be possible around 35 blocks, or 13 more blocks than at present. Counter-clockwise circulation would be possible around 24 blocks, or nine more blocks than at present. Both clockwise and counter-clockwise circulation would be possible around 19 blocks (more than double the number today). Clockwise circulation would increase by 59 percent; counter-clockwise circulation would increase by 60 percent, as a result of the recommended new links and street direction changes.



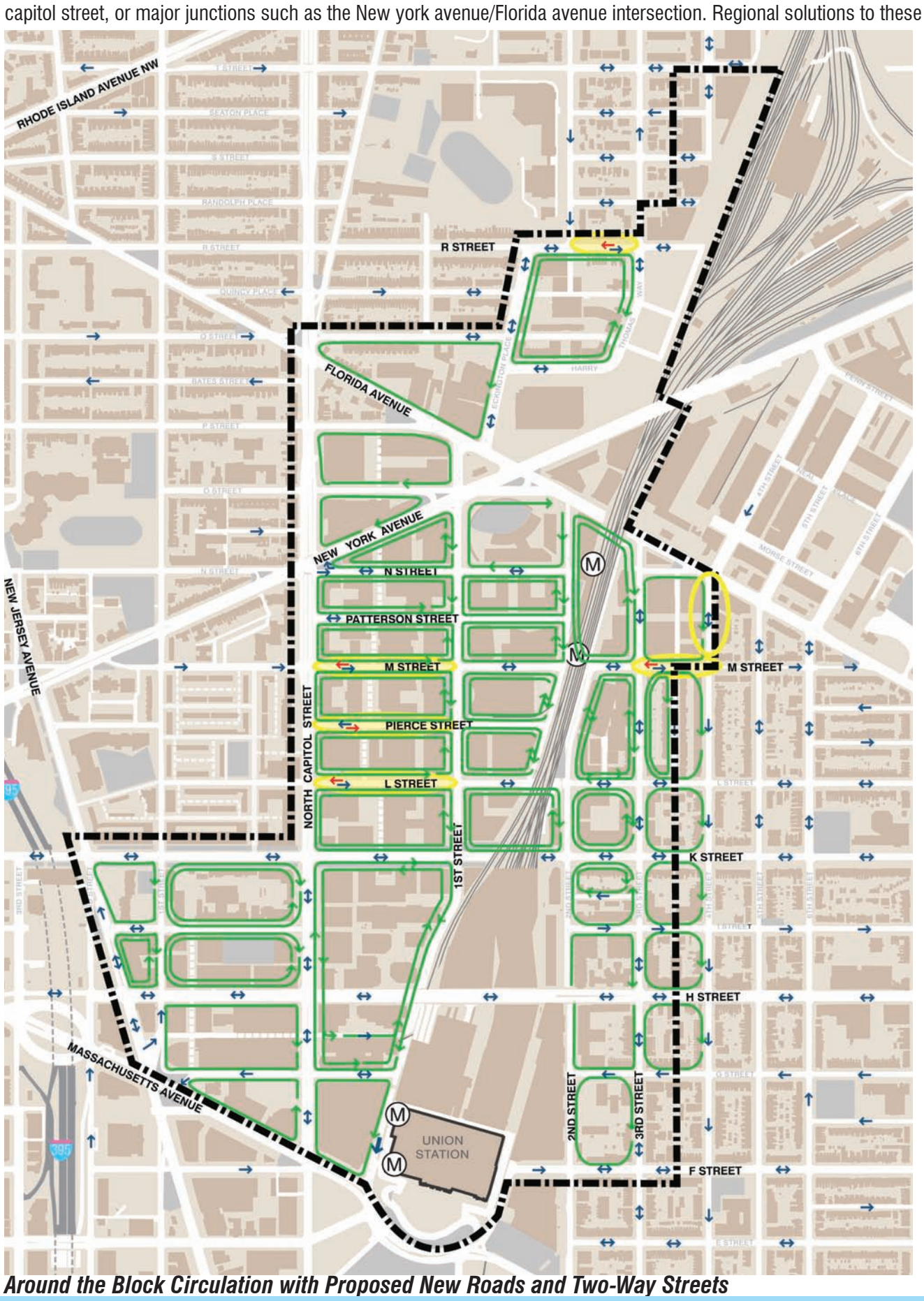
Around the Block Circulation with Existing Roads and One-Way Streets

3. Screenline Analysis

A screenline analysis is a useful tool for evaluating traffic counts and forecasts across a large planning area such as NoMA. A “screenline” is an imaginary line that crosses each of several north-south or east-west streets in order to project and count all traffic that crosses it. Such counts are a broad forecast and measure of traffic capacity and demand within a corridor rather than an individual street. Existing and projected future traffic volumes were measured along the north-south “screenline”, intersecting North Capitol Street, 1st Street NE, proposed 2nd Street extended between Pierce and M Streets. The east-west “screenline” crosses Florida Avenue, P Street, New York Avenue, N Street, Patterson Street, M Street, Pierce Street, L Street, K Street, H Street, G Place, and Massachusetta Avenue between North Capitol and 1st Streets. The following table shows the numbers of AM peak hour, PM peak hour, and weekday trips crossing these screenlines:

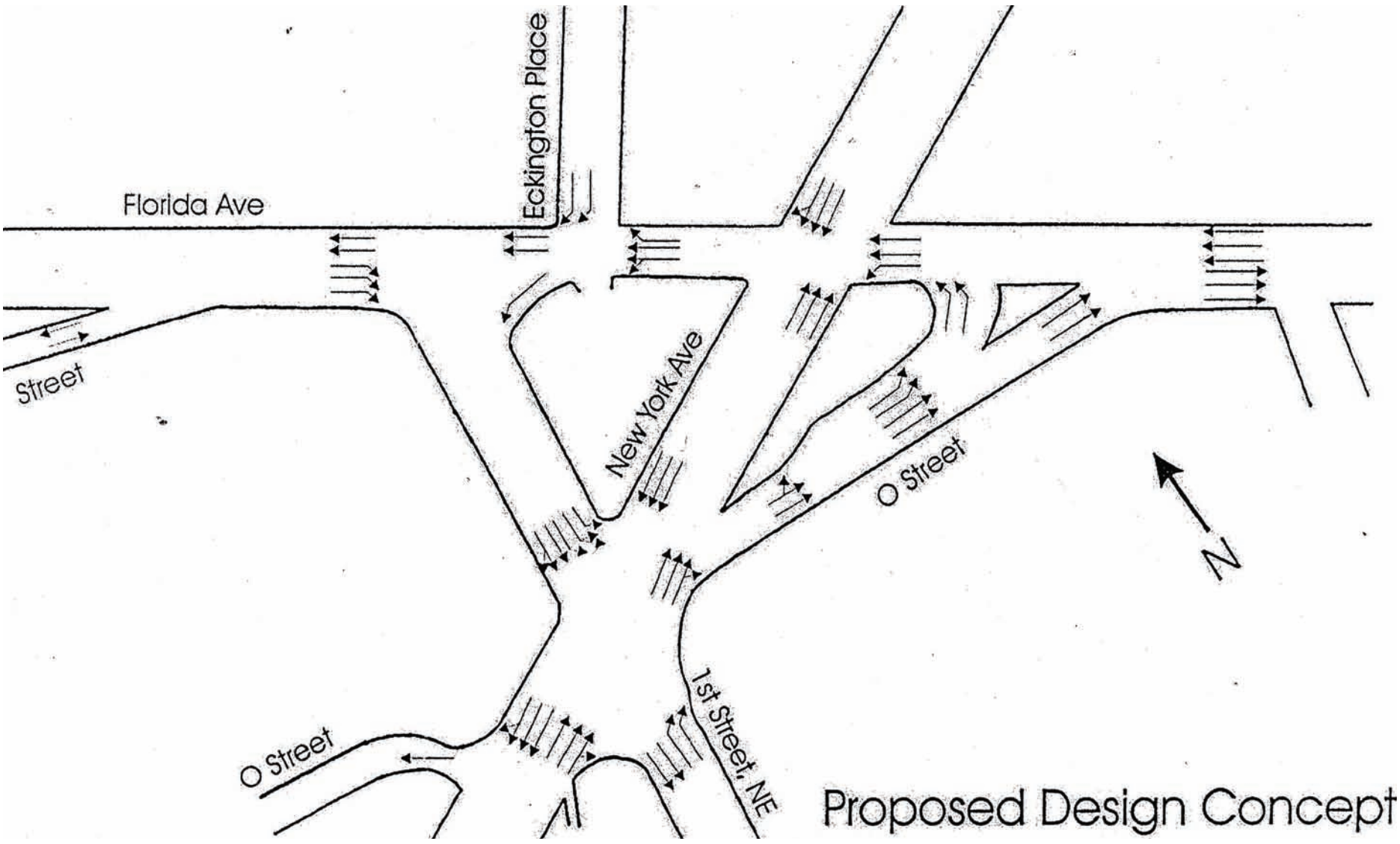
Screenline	AM Peak Hour	PM Peak Hour	Average Weekday (24 Hours)
North-South Streets			
Existing Traffic	3,250	3,850	38,600
Trips Per Lane (8 lanes)	405	480	4,825
Future Traffic	3,700	4,800	43,800
Trips Per Lane			
Without 2nd St. Extended (8)	460	600	5,475
With 2nd Street Extended (10)	370	480	4,380
East-West Streets			
Existing Traffic	12,300	14,575	145,750
Trips Per Lane (36 lanes)	340	405	4,050
Future Traffic	13,900	17,700	163,200
Trips Per Lane	385	490	4,530

2nd Street Extended would increase the number of north-south street lanes in the heart of NoMa by two, from eight to 10 lanes. This additional capacity would fully accommodate the additional traffic that likely would be generated by future development in the heart of NoMA. these additional lanes would not, however, address regional capacity deficiencies observed today and projected to worsen in the future, along New York avenue, florida avenue, North capitol street, or major junctions such as the New york avenue/Florida avenue intersection. Regional solutions to these regional problems are needed.



Around the Block Circulation with Proposed New Roads and Two-Way Streets

4. Planned Interim Changes to New York and Florida Avenue Intersection (dubbed "Virtual Circle")



5. Summary of New York Avenue Corridor Planning

The New York Avenue Corridor Plan identifies long-range solutions to the current congestion problems and intersection deficiencies. It includes two proposed intersection improvements that would increase traffic-carrying capacity and improve traffic safety:

1. **North Capitol Street/New York Avenue:** Remove the existing North Capitol Street underpass at New York Avenue and construct a new at-grade intersection.

2. **New York Avenue/Florida Avenue:**
   There presently is no consensus regarding a preferred plan for improving the New York Avenue/Florida Avenue intersection. Alternatives include:
   a. Either construct a new bridge on New York Avenue over Florida Avenue, connecting the I-395 tunnel to the west that meets New York avenue near 4th Street NW with the top of the New York Avenue bridge over the railroad tracks to the east, or
   b. Extend the I-395 tunnel beneath Florida Avenue, coming to the surface east of the railroad, just west of 9th Street NE,
   or
   c. Construct an at-grade street that favors local traffic over regional by-pass traffic.

Both alternatives "a" and "b" would meet local and regional traffic needs and accommodate additional turning movements. Pedestrian connections across New York Avenue would be enhanced to better serve the New York Avenue/Florida Avenue/Gallaudet University Metro Station, existing neighborhoods, and a future NoMA neighborhood. However, the long-range grade-separated improvements to the New York Avenue/Florida Avenue junction such as alternative "a" do not allow traffic on 1st Street, N.E. to cross New York Avenue, thereby restricting access to NoMa.

Alternative "c" is a long-range solution that favors local traffic access and function over regional by-pass traffic capacity. It was recommended by the National Capitol Planning Commission/District Department of Transportation-sponsored charrette held in Summer 2006. An at-grade street connection between First Street NE, (NoMA's "mainstreet") and New York Avenue will enhance the NoMA neighborhood's accessibility and visibility as well as better accommodate pedestrians and future transit lines on New York Avenue.

Supporting Market Assumptions

Economic Impact Analysis Assumptions:

GENERAL

- The Jair Lynch Companies (JLC) assumes tax revenue will escalate annually at 2.6% for income tax revenue and 1.3% for all other tax revenue. These rates are consistent with the District's CPI estimates.
- JLC assumes that escalation will begin in year after tax is first collected, with the first year of tax revenue at the level determined using current data, unadjusted for year.
- JLC assumes that all developed space will become occupied at end of construction.
- JLC discounts cash flows at an annual rate of 10%.

DISTRICT OF COLUMBIA TAX RATES

- Income Taxes: $2,000 flat rate on first $30,000, then 9.30% on income over $30,000.
- Unemployment Taxes:
  - Standard tax rate of 2.7% (or average rate paid by all employers in the preceding year, whichever is higher) for new employers until they can be rated based on experience.
  - Maximum taxable wage per employee is $9,000.
- Property Taxes:
  - Construction Period: 1.85% of land value for properties not yet fully developed (assumes all land exempted from vacant land tax of 5%).
  - Residential: 0.92% of value of each unit (based on sale price), after subtracting $60,000 from the value of each unit.
  - Retail: 1.85% of value of rentable space (based on Net Operating Income of $35 per SF and a cap rate of 8.5%).
  - Office: 1.85% of value of rentable space (based on Net Operating Income of $25 per SF and a cap rate of 8.5%).
- Hotel Taxes:
  - Transient Residential Tax: 14.5% of room revenue.
- Motor Vehicle Excise Taxes:
  - Vehicles 3499 lbs. or less: 6% of fair market value.
  - Vehicles 3500 lbs. or more: 7% of fair market value.
- Sales & Use Taxes:
  - Retail: 5.75% of annual retail sales (based on spending by new DC residents and new DC office workers in DC).
  - Parking: 12% of revenue from the daily rental of parking spaces.
- Public Utility Taxes:
  - Residential: 11% of annual utilities use (based on estimated usage of $1.28/sf for electric, $0.32/sf for water & sewer, and $0.32/sf for gas).
  - Commercial: 10% of annual utilities use (based on estimated usage of $1.75/sf for electric, $0.15/sf for water & sewer, and $0.32/sf for gas).
- Deed Transfer Tax: 1.5% of fair market value (purchase price of land and projected sales price of condominiums).
- Deed Recordation Tax: 1.5% of fair market value (purchase price of land and projected sales price of condominiums).

LAND VALUE

- Land value is based 20.5 million SF of build-out at an average acquisition price of $50 per SF.

DEVELOPMENT SCHEDULE

- 10-Year Build Out assumes that 10% of development, evenly distributed across product type, will begin in 2007, with an estimated two-year duration until completion. Each year another 10% of build out will commence. For hotels, assumes development of a new hotel approximately every 2.5 years.
- 20-Year Build Out assumes that 5% of development, (for office and residential) evenly distributed across product type, will begin in 2007, with an estimated two-year duration until completion. Each year another 5% of build out will commence. For hotels, assumes development of a new hotel approximately every 5 years.

RESIDENTIAL

- JLC assumes, for the purposes of this order-of-magnitude analysis, that 100% of residential development will be for-sale product.
- JLC assumes that 25% of residential households purchasing condominium units will be new District residents. JLC assumes that all new District residents will purchase their units at market rate.
- JLC assumes that each household purchasing a condominium unit has an income equal to the minimum annual income required of a household paying 33% of its annual income to purchase a home.
- JLC assumes that the average taxable income of these households is 80% of annual income.
- JLC assumes that the affordability requirement tied to development in NoMa is that eight percent of by-right development be affordable, with half that amount to be affordable at 80 percent of AMI and half to be affordable at 50 percent of AMI. (This is the language in the current mandatory inclusionary zoning legislation before the DC Council at the time this report is being prepared.)

UNEMPLOYMENT TAXES

- JLC assumes that all new office workers will receive wages exceeding $9,000.
- JLC assumes that employers will pay the standard tax rate of 2.7% throughout the term of the analysis.

HOTEL TAXES

- JLC assumes an average annual occupancy rate of 71.8%.
- JLC assumes an average annual room rate of $182.02.

MOTOR VEHICLES

- JLC assumes that each new DC household will have one vehicle.
- JLC assumes 50% of vehicles weigh 3499 lbs. or less and 50% of vehicles weigh 3500 lbs or more, with an average tax rate of 6.5% of market value.
- JLC assumes fair market value is $20,000 per vehicle.

RETAIL SALES

- JLC assumes average retail sales of $500 per SF for all new retail.

NEW RETAIL SPENDING

- JLC assumes that new residents will spend approximately 25% of household income on retail goods and services. JLC also assumes that these households will do 33% of their retail spending in the District.
- JLC assumes that each office worker would spend $20 daily, over 260 work days per year.

CONSTRUCTION PERIOD PROPERTY TAX

- JLC assumes that all land will be taxed at the development period property tax rate in 2006, with the amount of land taxable as under development decreasing by 10% per year under the 10-year build out model and by 5% per year under the 20-year build out model. The corresponding incremental increase in developed land is taxed at either the residential or commercial property tax rates.

DEED TRANSFER AND RECORDATION TAXES

- JLC assumes land value based on an average $50 per FAR SF land value.
- JLC assumes that the developer will maintain ownership of the retail and office portions of the project, with no deed transfer or recordation tax paid on this portion of the property.
- For the purposes of this analysis, JLC assumes that 7% of delivered residential units will be re-sold each year.

NEW EMPLOYMENT

- JLC estimates the retail portion of the build out will result in one full-time equivalent job for each 350 SF of retail space, and that 25% of the positions created will be filled by District of Columbia residents.
- To estimate construction employment, JLC assumes that 50% of total development costs (less land acquisition) goes to labor expense and that the average annual construction industry wage, including benefits, is approximately $54,000 in the District of Columbia. JLC assumes that 25% of these jobs will be held by District residents. Under District policy, 51% of any new jobs should go to District residents.
- JLC assumes office development of 10 million SF, at 85% efficiency, and 5% vacancy rate resulting in one office employee for every 225 SF of office space and that 100% of office workers are new to the District of Columbia.
- JLC assumes that 100% of office jobs (and consequently, office workers, are new to the District of Columbia (i.e., the positions were not previously located in the District, even if the workers are or were District residents).

ECONOMIC OUTPUT FROM DEVELOPMENT

- JLC assumes a potential for LSDBE participation in development of approximately 25% of projected TDC.

METRO USAGE

- JLC assumes that 50% of new residents and 50% of all office workers (regardless of whether they are District residents or not) will use METRO on a daily basis.
- JLC assumes an average fare of $1.50 ($3 roundtrip).
- JLC assumes 250 days of METRO use per year.

National Capital Planning Commission's National Capital Urban Design and Security Plan: An Overview

The commercial, cultural, and social vitality of Washington, D.C. depend upon the openness and access that have defined the city from its begining. Security measures deployed around individual buildings may protect the occupants inside the buildings, but also have the potential to disrupt the public realm that constitutes the framework within which buildings function, impeding access to and movement through the surrounding streets and sidewalks.

In response to the accelerating demand for perimeter security projects for government office buildings since September 11th, the National Capital Planning Commission (NCPC) has developed the Urban Design and Security Plan and related design policies to guide the placement and design of perimeter security elements in the urban landscape. The plan and its policies are designed to limit adverse impacts of perimeter security on the urban realm and to incorporate projects seamlessly into the existing streetscape. NCPC's policies discourage security projects with barriers that limit access to or hinder movement through public space, those that set buildings back behind established building lines, and projects that require the elimination of ground floor retail. The policies specifically address:

- Limiting the use of physical elements, particularly those in public space
- Relying on operational security measures instead of physical measures
- Coordinating physical elements in precincts, rather than protecting each individual building
- Incorporating elements into the landscape and keeping them out of the public realm
- Hardening the building itself instead of introducing the elements into public space
- Designing curbside elements to read as a family of street furniture
- Building to established building lines rather than setting buildings back for security reasons
- Including ground floor retail

The Urban Design and Security Plan and its implementing policies are directly applicable to both federal and private tenants desiring perimeter security in NoMA. Large building setbacks that result in unanimated building yards and the exclusion of ground floor retail have the potential to deprive the development area of the very vitality that is necessary to attract teants. Federal tenants seek office space in lively neighborhoods with amenities that will serve their employees. Bollards and other security elements that interrupt public space or create visual clutter detract from the overall quality of the urban realm. As NoMA develops from the ground up, the city is presented with a unique opportunity to incorporate creative security solutions invisibly into the urban fabric of this emerging district.

As NoMA emerges, perimeter security strategies should be incorporated into the public space design to avoid the need to add on physical security elements after the public realm has been developed. These perimeter security strategies need not result in additional physical security elements, but may be achieved more organically through streetscape and public space design at the outset.

Individual threat assessments should be used to customize solutions for each side of a building for which perimeter security is proposed. Design responses should relate to specific angle and approach speeds, as risks can vary according to the relative exposure of each building corner or façade. Not all sides of sensitive buildings need necessarily be protected to the same degree with physical security elements.

While NCPC recommends limiting the use of physical security solutions, many creative solutions can serve perimeter security needs. Lively public plazas with surrounding retail could serve as building setbacks for sensitive tenants. Through streets in sensitive areas could be designed to limit access to large vehicles, while trucks are limited to specific delivery hours or to designated streets. Ground floor retail space can be embedded in front of the hardened walls of sensitive office buildings. (See diagram on facing page.) In any case, perimeter security strategies should be tailored to meet the needs of the public realm, and should not be deployed in a manner that is harmful to the public realm's function or form. Building design, placement and ground floor uses should contribute to the vitality of the precinct as a whole.

There are six goals for The National Capital Urban Design and Security Plan:

- Providing an appropriate balance between the need to accommodate perimeter security for sensitive buildings and their occupants and the need to maintain the vitality of the public realm.
- Providing security in the context of streetscape enhancement and public realm beautification, rather than as a separate or redundant system of components whose only purpose is security.
- Expanding the palette of elements that can gracefully provide perimeter security in a manner that does not clutter the public realm, while avoiding the monotony of endless lines of jersey barriers or bollards, which only evoke defensiveness.
- Producing a coherent strategy for deploying specific families of streetscape and security elements in which priority is given to achieving aesthetic continuity along streets, rather than solutions selected solely by the needs of a particular building under the jurisdiction of one public agency.
- Providing perimeter security in a manner that does not impede the City's commerce and vitality, excessively restrict or impede operational use of sidewalks or pedestrian and vehicular mobility, nor impact the health of existing trees.
- Identifying an implementation strategy that can be efficiently coordinated in the most cost effective manner.

Urban Design Framework:

Street and landscape features are a major contribution to the framework of unique urban design contextual areas within the city. Unique streetscape design solutions exist for the following four street types, based on roadway widths, sidewalks, and building setbacks.

Monumental Avenues connect and define the most important areas of the city. The design of these avenues should emphasize streetscapes as a whole, rather than the parts, with attention given to axiality and formality.

Diagonal Avenues are typically wider than most city streets, have significant landscaping, and should be treated in a manner that emphasizes their landscape features. Significant tree cover and ground planting are appropriate elements to characterize the design of these streets.

Special Streets are those that make important connections or have been included in special planning areas. The streetscape designs of these streets should derive from and further reinforce their unique conditions and individual character.

Grid Streets are the consistent and repeated city streets, running at right angles to one another, north-south and east-west. Design should build upon existing streetscape standards of the District to provide continuity with previous design efforts and to minimize the contrast between security and streetscape elements.

Streetscape Design Solutions:

High security design includes an array of streetscape elements that incorporate security components. Their composition and arrangement should respond to the various conditions and street typologies within the contextual areas. Streetscapes should be designed as an amenity to the public realm that will provide necessary security and not unduly impede street life activities and the normal movements of pedestrians and traffic.

Security Zones:

The General Services Administration identifies several security zones located between a building and the street. All of the proposed perimeter streetscape design solutions occur within one of these three security zones:

Building Yard: The exterior space between the building and the sidewalk. Security components located here should complement the building architecture and the landscaping of the yard. When the security barrier is provided in this location, the sidewalk can remain free from all security elements. Security appears as an extension of the building, visually present yet seamlessly integrated.

Sidewalk: Located between the building yard and the curb. The sidewalks should be left open and accessible to pedestrian movement. Streetscape designs incorporating hardened versions of: parking meters, streetlights, benches, planters, and trash receptacles should be used to reinforce the pedestrian realm.

Curb Lane: The area of the street closest to the sidewalk, and location of curbside parking, passenger drop-off, loading and service vehicles. In very limited circumstances when curb land restrictions are contemplated, consideration should be given to using this portion of the roadway as a secure dedicated transit way to accommodate mass transit.

Streetscape Security Elements:

In developing security design solutions, no solution exists for every building and context. Landscape architects and urban designers should be consulted during the design development of streetscape elements to ensure that a scheme is appropriate to the setting and security needs of a specific building or site. The most common security elements include:

- Walls, terraces, and raised planting beds
- Trees and Individual Planters
- Knee Walls and Fencing
- Gatehouses
- Bollards
- Street Furniture

Hardened streetscape elements must respond to their contextual areas, reflecting the unique character through use of appropriate materials, scale, and design detail. Utilizing elements typically found along a streetscape such as benches, lampposts, and drinking fountains helps to prevent clutter and make security appear seamless. Items such as newspaper stands, bus shelters, and lampposts can all be designed with sleeves that fit over reinforced bollards or posts to stop a moving vehicle.

Mobility and Parking:

Security needs should be addressed by measures that have the least adverse impact on parking, traffic, and pedestrian circulation. Improvements of traffic flow also promote safety because they allow for faster emergency response and evacuation times when necessary.

Recent Technology:

NCPC highlights recent technology used for security protection, including:

RK12 Security Architecture of New York's Tiger Trap™ System: Involves the placement of a specialized material under the surface of a building's perimeter that holds pedestrian/common sidewalk traffic, but collapses if a vehicle were to drive on the surface, preventing the vehicle from penetrating the perimeter.

Vehicle Approach Analysis: The use of Vehicle Approach Analysis in making perimeter security decisions is a policy adopted by the NCPC. Final design and placement of perimeter security elements depends on a vector analysis, which seeks to understand the possible angles and speeds of approach around a site for any vehicular threat. Knowing the context of the site and the level of protection required will save money and allow for aesthetically pleasing streetscapes.

Review Policy for Public Space:

All development of a perimeter security design should have input from the agencies that have jurisdiction over the project. The NCPC has specific design review jurisdiction over federal and private sector development projects in the nation's capital, and the District Department of Transportation has jurisdiction over the installation of objects in the city's public space.

Example of Embedded Retail

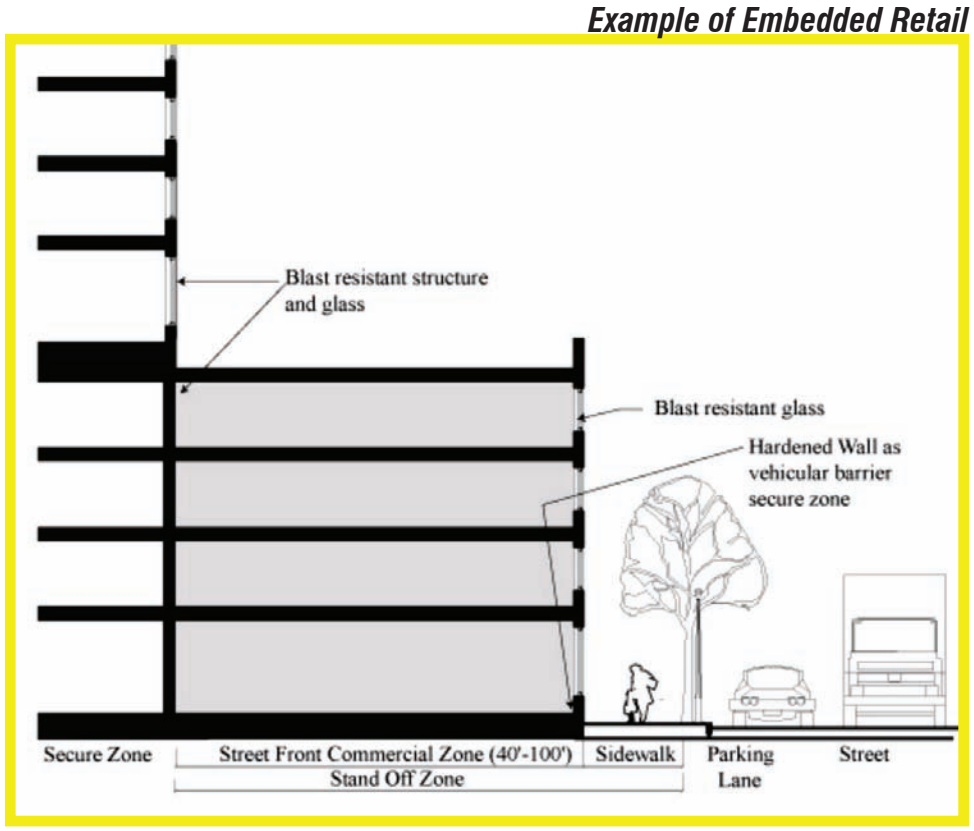


Image Courtesy of the National Capital Planning Commission

* Text is taken directly from NCPC's National Capital Urban Design and Security Plan-October 2002

National Capital Planning Commission's National Capital Urban Design and Security Plan Objectives and Policies

Adopted by the National Capital Planning Commission on May 5, 2005

Intent and Applicability

Many aspects of security planning and design must be considered when designing security measures to protect buildings and their occupants. The following objectives and policies should be used as guidelines to address important city planning and design issues inherent to the construction of physical perimeter security in urban areas. They are intended to balance the need for perimeter security with the need to protect public space by keeping it open, accessible and attractive.

Objectives

1. To protect the design principles inherent to Washington, D.C.'s historic plan
2. To strike a balance between physical perimeter security and the vitality of the public realm
3. To acknowledge that acceptance of a reasonable level of risk is inherent in striking an appropriate balance between security provisions and other planning and design objectives
4. To encourage a multi-faceted approach to the selection of appropriate security measures that considers design strategies such as structural engineering, window glazing, emergency egress and physical perimeter barriers
5. To limit the vulnerability from explosives entering or being placed adjacent to sensitive federal and private sector buildings

Policies

I. Security Measures

Using a variation of different risk management is effective in minimizing the placement and impact of security barriers on public space. In an urban environment, it is encouraged that more operational security measures and sensitive building design be used to minimize the impact of physical security barriers on public space, noting that the use of greater standoff distances are more appropriate to suburban or campus-like conditions.

II. Physical Perimeter Security and Mobility

The following physical perimeter security policies strive to balance security with the needs of the city's multi-modal transportation system:

a. Prohibit the permanent closure of streets or sidewalks within right-of-ways established by the L' Enfant Plan.
b. Limit the temporary closure or restricted access to streets, parking lanes, or sidewalks to immediate continuity of critical government operations, and allowed solely during times of extraordinary security threats, or brief periods of time during extraordinary events or activities.
c. Do not close, block or restrict access to streets necessary for emergency evacuation, except for brief periods when required for extraordinary events or activities.

III. Physical Perimeter Security

Building hardening, operational procedures and risk management measures have little or no physical impact on public space. When physical perimeter security is necessary, it should be located within and integrated into the design of the building yard. As building yards aren't often found in urban areas, physical perimeter security measures may be necessary in public space. Placement in an unobtrusive manner that appropriately integrates the security barriers into an attractive urban landscape is essential.

Barrier Placement and Design:

a. Construct new buildings at established urban building lines.
b. Provide habitable building space along the street frontage for public space or activated ground floor uses, such as retail or other commercial enterprises, as appropriate.
c. Locate critical uses and operations in areas of the building that will minimize the need for placement of perimeter security in public space.
d. Place perimeter security barriers in public space adjacent to an existing building only if the building yard is less than 20 feet.
e. Integrate hardened existing streetscape, landscape or building site features into the topography of the site.
f. Accommodate visual and physical public access to the building lawn and designated entries.
g. Locate and arrange security barriers so that they are compatible with the placement of security barriers for other buildings on the street.
h. Minimize placement of perimeter security barriers at intersections, corners and near cross walks. Always allow safe pedestrian waiting areas and pedestrian movement.
i. Incorporate best design practices by arranging security barriers to:
   - Comply with the American Disabilities Act (ADA) and Architectural Barriers Act (ABA)
   - Provide visual clues to signify important circulation routes
   - Allow sufficient clearances for access to and from transit stops
   - Ensure that maintenance equipment can access and maneuver within building yards, sidewalks, and plazas
   - Provide at least two feet from the face of the curb to the face of the barrier for loading and unloading of passengers and ease of access to public space.
j. Prevent security elements at the curb from impeding pedestrian access to various permitted sidewalk and street activities.

Urban Landscape Contextual Design

k. Design security barriers to respond to the architectural and landscape context in which they are located, and to complement the special character of the associated building and precinct
l. Incorporate physical perimeter security barriers within the building yard into the landscape design, including the use of low walls, fences, seating, and landscaping.
m. Incorporate physical perimeter security barriers with decorative tree wells, planters, light poles, signage, benches, parking meters, trash receptacles and other streetscape elements.
n. Plant new trees, and protect existing trees as they help minimize the visual impact and physical intrusion of the security barriers in the urban landscape.
o. Respect established view corridors
p. Strive for continuity and consistency in design while avoiding a reliance on the repetitive use of a single element such as continuous rows of bollards or planters.
q. Security design should respond to specific building and site conditions, relational vehicle design speeds, angles-of-approach and pavement types.
r. Include curbs, copings and retaining walls into the design to reduce the perceived height of the security barriers

Vehicular and Pedestrian Controls

s. Integrate the guard booth with the building design to minimize interruption of pedestrian movement along the pathway.
t. Locate vehicular controls at building entries so that pedestrian movement along sidewalks is not blocked. Check points should be designed to allow for an off-street queuing space.

Comprehensive Streetscape Design

u. Give special treatment to the Capital's monumental avenues to ensure that security projects are addressed comprehensively and emphasize the streetscape as a whole with attention to their formal and axial character.
v. Emphasize the landscape features of diagonal avenues, including the use of significant tree and ground plantings.
w. Reinforce the linkages and unique character of special streets within the city.
x. Use security design on grid streets to build upon the existing streetscape standards and minimize the contrast between security and streetscape elements.

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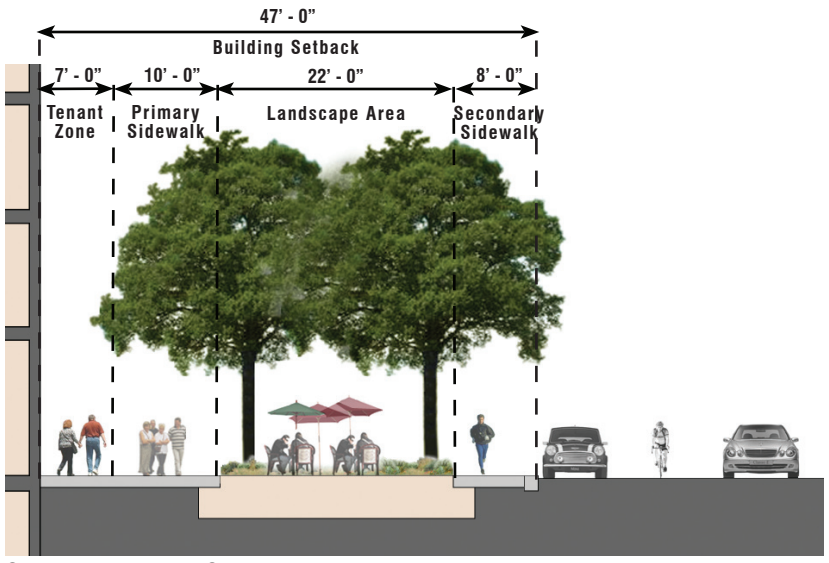
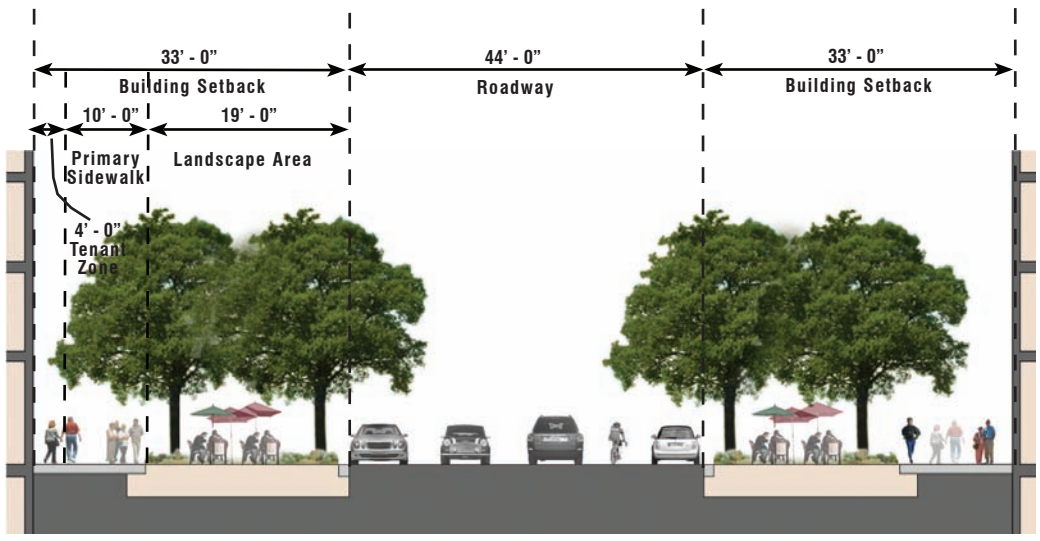
** The above text consists of selections from the National Capital Urban Design and Security Plan Objectives and Policies, relating to urban design and architecture guidelines that are applicable to security design within NoMA*

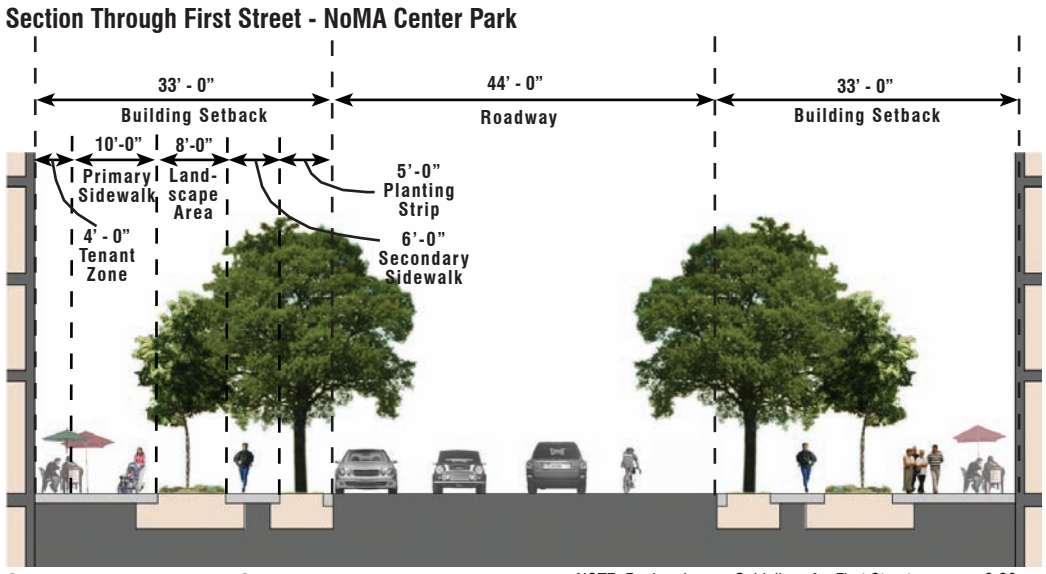
APPENDIX F: STREET SECTIONS SHOWING PUBLIC SPACE



Section Through K Street Linear Park



Section Through First Street - NoMA Center Park



Section Through First Street - Typical

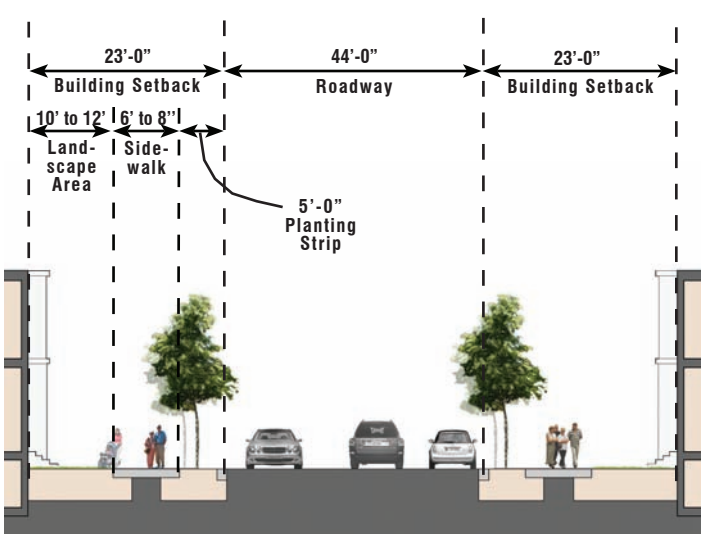
NOTE: For Landscape Guidelines for First Street see page 3.20.

K Street Linear Park - Landscape Guidelines

- K Street Public Space should be designed as a linear park.
- Sidewalk areas shall be warm-toned concrete with aggregate, scored 2'x2', with significant amounts of special paving to distinguish K Street from First Street and other neighborhood streets.
- Landscape area shall include a double row of trees, lush seasonal plantings to create a park-like setting.
- Outdoor seating is encouraged on sidewalk and in the landscaped area between the second row of trees.
- Mature flowering and shade trees shall be limbed-up 8'.
- Some evergreen trees are allowed.
- Vaults and above ground utilities are not allowed.
- Curb cuts are not allowed.

First Street at NoMA Center Park - Landscape Guidelines

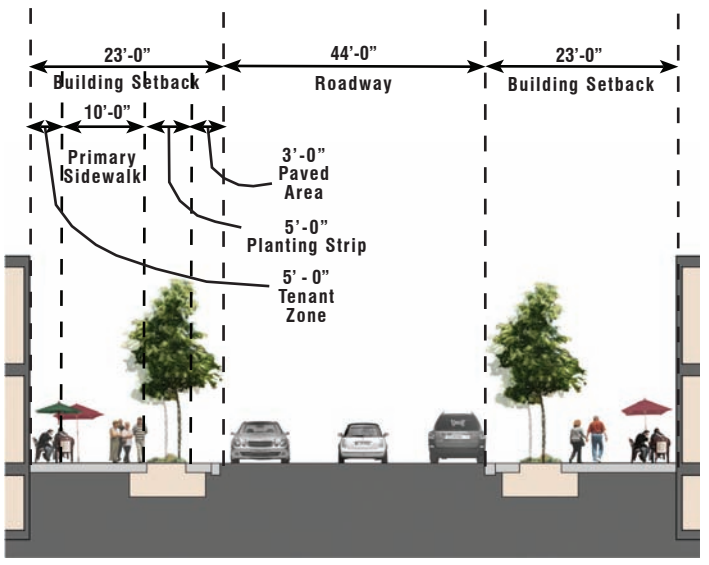
- Sidewalk shall be warm-toned concrete with aggregate, scored 3'x3', with special paving insets at key locations to be determined as part of public space review process.
- Landscape area shall include a row of trees, seasonal plantings, and public art.
- Outdoor seating is encouraged on sidewalk and in the landscaped area between the row of trees.
- All plants and shrubs shall be no higher then 24".
- Mature flowering and shade trees shall be limbed-up 8'.
- Evergreen trees are not allowed.
- Vaults and above ground utilities are not allowed.
- Curb cuts are not allowed.



Section through 90' Street Right-of-Way - Areas with Residential

Smaller East/West Side Street - Landscape Guidelines

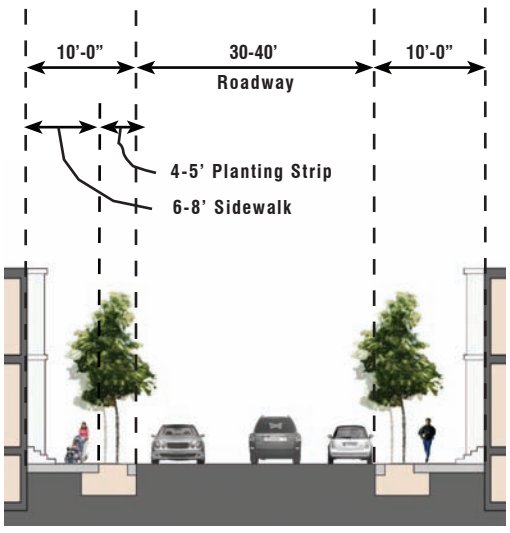
- Sidewalk shall be warm-toned concrete with aggregate scored 3'x3' with special paving insets at key locations to be determined as part of public space review process.
- Landscape area shall include a double row of trees, seasonal plantings, and public art.
- Planting strip shall include street trees.
- 4' paved area between secondary sidewalk and curb every 20' is required where there is on-street parking.
- All plants and shrubs shall be no higher then 24".
- Mature flowering and shade trees shall be limbed-up 8'.
- Evergreen trees are not allowed.
- Outdoor seating is encouraged in commercial areas.
- Stoops and porches are encouraged in residential areas.
- Vaults and above ground utilities are not allowed.



Section through 90' Street Right-of-Way - Select Areas with Retail

East/West Side Street - Landscape Guidelines

- Sidewalk shall be warm-toned concrete with aggregate, scored 3'x3', with special paving insets at key locations to be determined as part of public space review process.
- Land cape area shall include a double row of trees, seasonal plantings, and public art.
- All plants and shrubs shall be no higher then 24".
- Mature flowering and shade trees shall be limbed-up 8'.
- Evergreen trees are not allowed.
- Outdoor seating and storefront projections are encouraged in commercial areas.
- Vaults and above ground utilities are not allowed.



Section Through Narrow Street - Typical

NOTE: More detailed design work for streets, sidewalks, and open spaces will be undertaken as part of proposed NoMA Public Realm Design Project, recommended for funding in Fiscal Year 2008.

Government of the District of Columbia

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