



MEMORANDUM

TO: TPB Technical Committee
FROM: Jon Schermann, TPB Transportation Planner
SUBJECT: Critical Urban Freight Corridors within the National Capital Region
DATE: October 6, 2017

This memorandum describes the proposed critical urban freight corridor (CUFC) segments for the National Capital Region. It includes the Maryland CUFCs that were provisionally designated by the Steering Committee on June 2, 2017 as well as the Virginia and District of Columbia CUFC segments that have been developed since then.

BACKGROUND

The Fixing America's Surface Transportation (FAST) Act established the National Highway Freight Program (NHFP) to improve the efficient movement of freight on the National Highway Freight Network (NHFN). The NHFP provides Federal funding eligibility for a wide range of activities including planning, engineering, and construction on the NHFN.

The NHFN consists of four components:

- Primary Highway Freight System (PHFS);
- The portions of the Interstate System not on the PHFS;
- Critical Rural Freight Corridors (CRFC); and
- Critical Urban Freight Corridors (CUFC).

The first two components (PHFS and other interstate portions not on the PHFS) were designated within the FAST Act itself. The last two components (Critical Rural Freight Corridors and Critical Urban Freight Corridors) may be designated by either State Departments of Transportation (DOT) or by Metropolitan Planning Organizations (MPO) depending on the type of corridor (CRFC or CUFC) and the size of the MPO. In all cases, the FAST Act requires DOTs and MPOs to coordinate on CRFC and CUFC designations as shown in Table 1 (next page).

Table 1: Role in Designating CUFCs and CRFCs

Corridor Type	State DOT role	MPO role
CRFC	Designates all CRFC's – must coordinate with MPOs	Coordinates with state DOTs
CUFC	Designates CUFCs in MPOs with less than 500,000 population – must coordinate with MPOs	Designates CUFCs in MPOs with greater than 500,000 population – must coordinate with state DOTs

After December 4, 2017, designated and approved CUFCs and CRFCs become part of the National Highway Freight Network (NHFN) and thereby become eligible for National Highway Freight Program (NHFP) funding.¹ The remainder of this memorandum will focus exclusively on Critical Urban Freight Corridors (CUFC).

REQUIREMENTS FOR DESIGNATION OF CRITICAL URBAN FREIGHT CORRIDORS

To be designated as a Critical Urban Freight Corridor, a candidate public roadway must be located within an urbanized area and meet at least one of the following criteria:

- Connects an intermodal facility to the PHFS, the Interstate System, or an intermodal freight facility;
- Is located within a corridor of a route on the PHFS and provides an alternative option important to goods movement;
- Serves a major freight generator, logistics center, or manufacturing and warehouse industrial land; or
- Is important to the movement of freight within the region, as determined by the MPO or the State.

MILEAGE LIMITATIONS

For each state, a maximum of 75 miles of highway or 10% of the PHFS mileage in the state, whichever is greater, may be designated as a CUFC. Table 2 shows the relevant mileage limitations for Maryland, Virginia, and the District of Columbia.

¹ Provided the State has an approved, FAST-Act compliant State Freight Plan.

Table 2: Critical Urban Freight Corridor Mileage

State	CUFC Miles: Total	CUFC Miles: National Capital Region
Maryland	75.00	25.00
District of Columbia	75.00	75.00
Virginia	83.35	17.80

MARYLAND CRITICAL URBAN FREIGHT CORRIDORS

The proposed Maryland CUFC segments listed here are **identical to those that the Steering Committee provisionally designated at their June 2, 2017 meeting**. The Steering Committee action was part of an expedited process that MDOT requested for the approval of provisional CUFCs within Maryland to enable completion of their FAST Act-compliant State Freight Plan by June 30, 2017. The TPB will be requested to designate the full set of National Capital Region CUFCs including those in Maryland, Virginia, and the District of Columbia in November 2017. The Maryland Public Roads listed in Table 3 and shown in Figures 1 through 4 (below and following pages) are proposed as CUFCs.

Table 3: Critical Urban Freight Corridors in the Maryland Portion of the National Capital Region

ID	Route Number	Start Point	End Point	Length (miles)	Criteria*
CUFC 01	US 15	MD 26	US 40 / S. Jefferson St.	3.21	J, K
CUFC 02	US 40	US 15	I-70 / I-270	0.62	I, J, K
CUFC 03	US 15	I-70	Mt. Zion Rd.	2.47	K
CUFC 04	US 15	Hayward Rd.	MD 26	1.05	J, K
CUFC 05	US 301	Prince George's / Charles County line	Smallwood Dr.	4.26	I, J, K
CUFC 06	US 50	DC / MD line	MD 410	4.05	I, J, K
CUFC 07	MD 198	Old Columbia Pike	I-95	2.98	J, K
CUFC 08	MD 201	US 50	MD / DC line	0.46	I, J, K
CUFC 09	MD 4	I-95	MD 337	0.91	J, K
CUFC 10	MD 185	I-495	MD 410	1.21	J, K
CUFC 11	MD 5	Surratts Rd.	MD 373	3.48	K

* Criteria code:

- H: Connects an intermodal facility to the PHFS, the Interstate System, or an intermodal freight facility
- I: Is located within a corridor of a route on the PHFS and provides an alternative option important to goods movement
- J: Serves a major freight generator, logistics center, or manufacturing and warehouse industrial land
- K: Is important to the movement of freight within the region, as determined by the MPO or the State

Figure 1: Critical Urban Freight Corridors in the Maryland Portion of the National Capital Region – Frederick County area detail

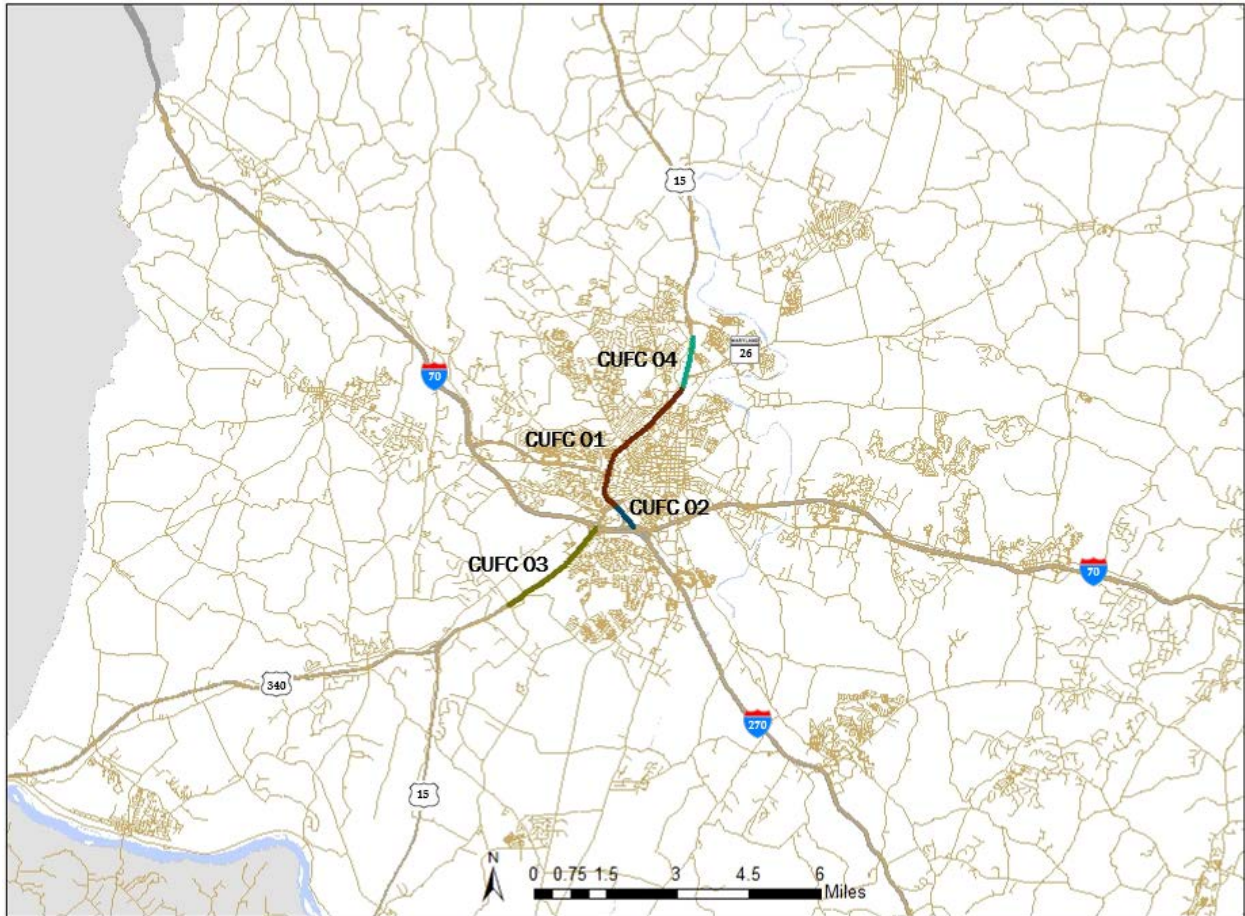


Figure 2: Critical Urban Freight Corridors in the Maryland Portion of the National Capital Region – Montgomery County area detail

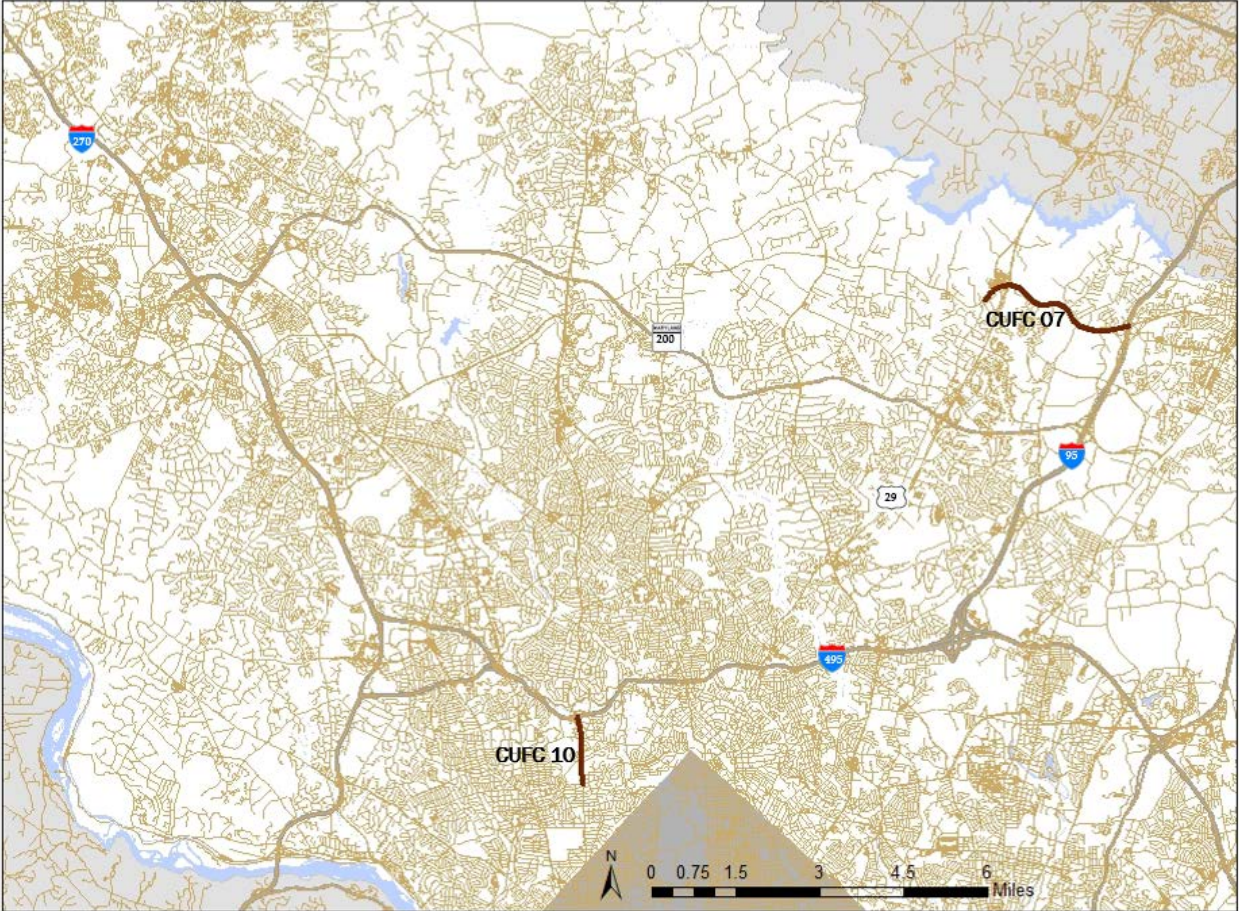


Figure 3: Critical Urban Freight Corridors in the Maryland Portion of the National Capital Region – Prince George’s County area detail

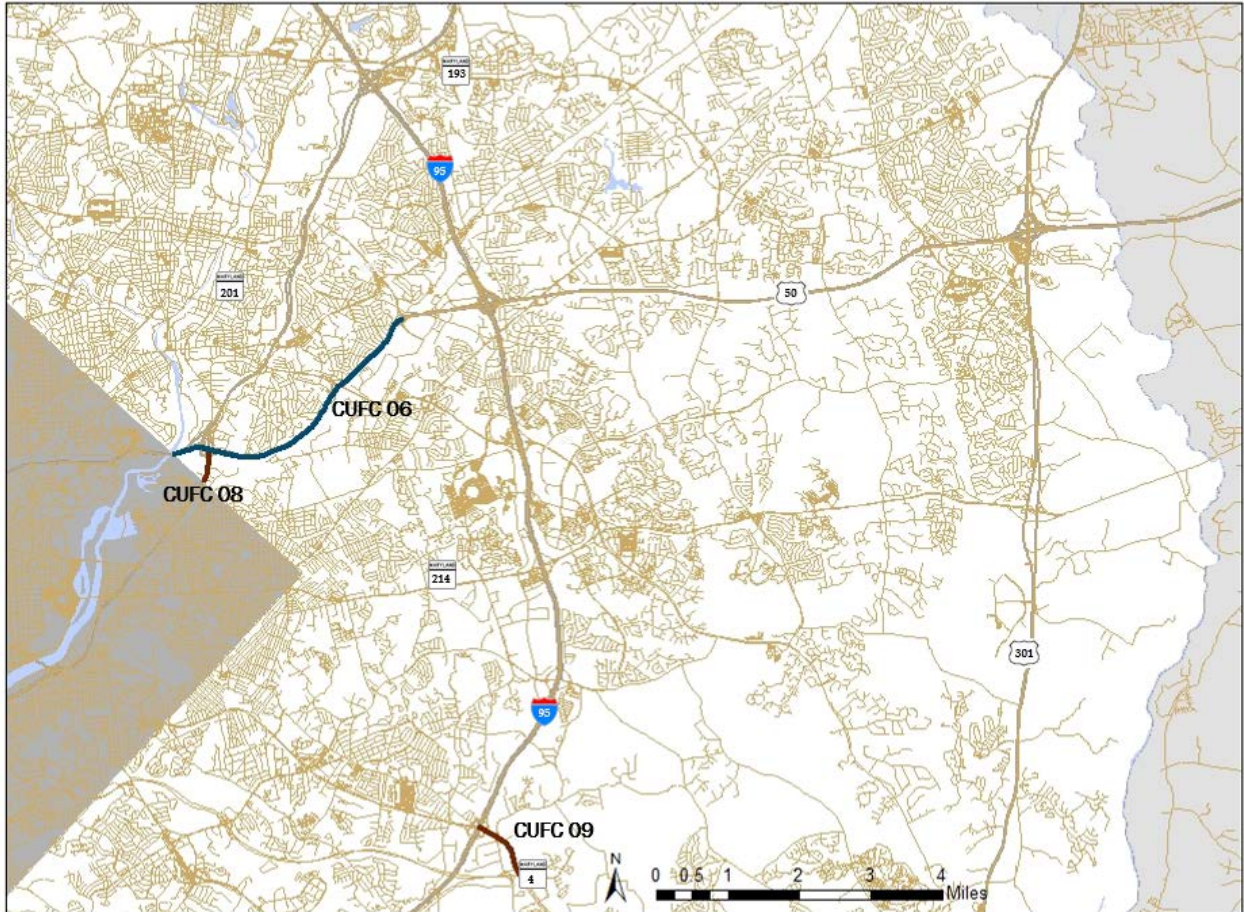
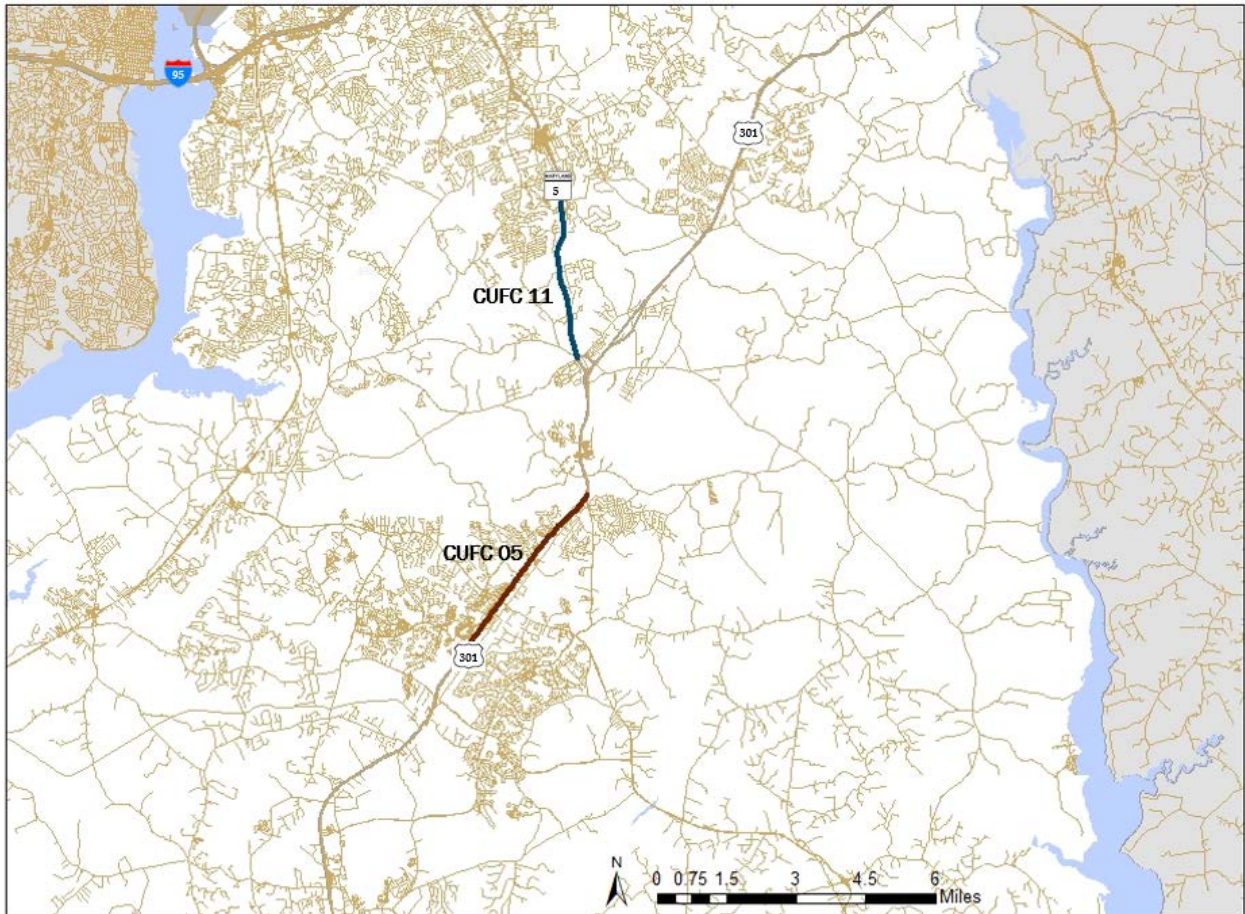


Figure 4: Critical Urban Freight Corridors in the Maryland Portion of the National Capital Region – Charles County area detail



MARYLAND METHODOLOGY

TPB and SHA staff worked together to identify the CUFCs shown above. The methodology utilized both objective data and professional judgment and is outlined below:

- The Maryland State Highway Administration (SHA) and its consultant partner Cambridge Systematics developed a Geographic Information System (GIS) geodatabase that assigned truck volumes and a freight density score² to each link in Maryland’s highway network.

² The freight density score is based on each roadway link’s proximity to freight dependent businesses. It is derived using US Census Bureau economic census data and other sources.

- TPB staff scored each urban link within the Maryland portion of the National Capital Region by normalizing the truck volumes and freight density scores and then combining them into a “total score”.
- The links were sorted in descending order by total score.
- The highest scoring corridor segments (by total score) totaling 50 miles in length (twice the mileage allotted) were identified by TPB staff iteratively querying the geodatabase.
- The resulting 50 miles of CUFC corridor “candidates” were compared to project locations within Maryland’s 2017 Consolidated Transportation Program to identify those candidate corridors where expenditures are planned for budget years 2018 through 2022.
- Those candidate corridors (less than 25 miles in total length) were advanced to the final stage.
- The highest scoring remaining candidates were advanced to the final stage such that the total combined mileage of all the identified corridors did not exceed 25 miles.
- These “final” CUFCs comprise the list displayed in Table 4 and are the Critical Urban Freight Corridors the Steering Committee will be asked to provisionally approve.

VIRGINIA CRITICAL URBAN FREIGHT CORRIDORS

The Virginia Public Roads listed in Table 4 and Figure 5 (below and following page) are proposed as CUFCs.

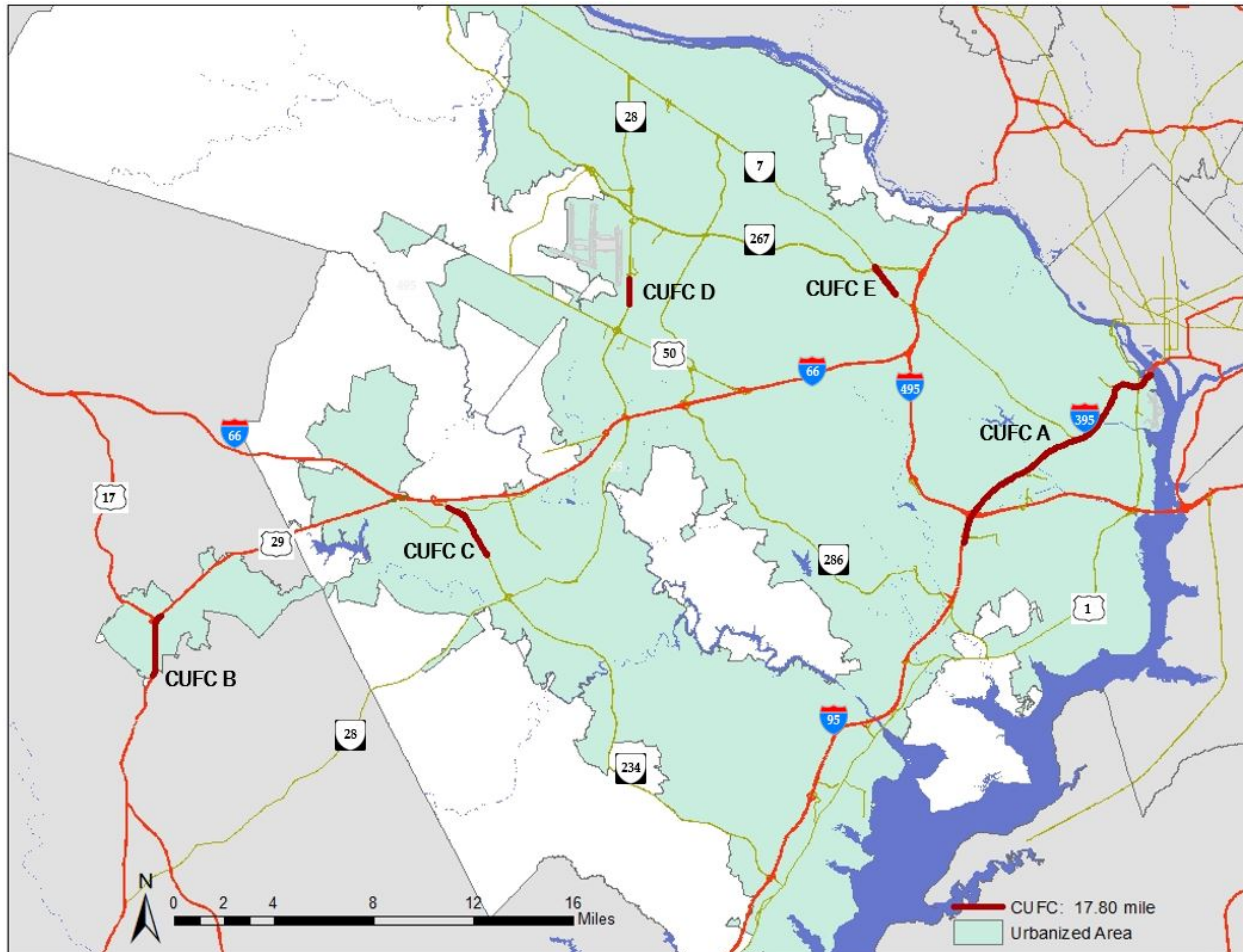
Table 4: Critical Urban Freight Corridors in the Virginia Portion of the National Capital Region

ID	Route Number	Start Point	End Point	Length (miles)	Criteria*
CUFC A	I-395	I-95	VA-DC Line	10.53	I, K
CUFC B	US 29	Old Route 670	NCL Warrenton	2.45	K
CUFC C	VA 234	Wellington Rd	I-66	2.44	J, K
CUFC D	VA 28	Air-Space Museum Pkwy	VA 668	1.01	H, J, K
CUFC E	VA 7	VA 209	VA 625	1.37	J, K

* Criteria code:

- H: Connects an intermodal facility to the PHFS, the Interstate System, or an intermodal freight facility
- I: Is located within a corridor of a route on the PHFS and provides an alternative option important to goods movement
- J: Serves a major freight generator, logistics center, or manufacturing and warehouse industrial land
- K: Is important to the movement of freight within the region, as determined by the MPO or the State

Figure 5: Critical Urban Freight Corridors in the Virginia Portion of the Washington Region



VIRGINIA METHODOLOGY

TPB staff coordinated with VDOT to identify the CUFCs shown above. The methodology outlined below is similar to that used for the Maryland CUFCs and utilized both objective data and professional judgment:

- VDOT provided truck volumes for each urban roadway link
- TPB staff examined available data and developed a freight density score for each link based on total square footage of industrial, warehouse/distribution, and retail buildings within $\frac{3}{4}$ mile
- TPB staff developed an intermodal connector score for each link based on whether it provided access to NOVA freight intermodal terminals
- Truck volumes, freight density scores, and intermodal connector scores were normalized and combined into an overall score

- Urban roadway links in Virginia’s portion of the TPB planning area were sorted in descending order by overall score
- TPB staff iteratively identified top 50 miles of CUFC “candidates”
- Three tiers (17.8, 22.4, and 30.1 miles) of CUFCs were identified based on total scores and planned VDOT investments
- VDOT notified TPB staff that the 17.8-mile tier would be the correct tier to use at this time.

DISTRICT OF COLUMBIA CRITICAL URBAN FREIGHT CORRIDORS

The District of Columbia Public Roads listed in Table 5 and Figures 6 and 7 (below and following pages) are proposed as CUFCs.

Table 5: Critical Urban Freight Corridors in the District of Columbia Portion of the National Capital Region

ID	Route	Start Point	End Point	Length (miles)	Criteria*
CUFC 01	16th St	U St NW/New Hampshire Ave NW	K St NW	0.9986	K
CUFC 02	Georgia Ave	DC Line/Eastern Ave NW	Florida Ave NW	4.7550	J, K, I
CUFC 03a	Massachusetts Ave.	Dupont Cir NW	9th St NW	1.0611	J, K
CUFC 03b	Massachusetts Ave.	7th St NW	North Capitol St BN	0.7636	J, K
CUFC 04a	Pennsylvania Ave.	29th St NW	22nd St NW	0.4744	J, K
CUFC 04b	Pennsylvania Ave.	14th St NW	3rd St NW	0.9522	J, K
CUFC 04c	Pennsylvania Ave.	Independence Ave SE	DC Line/Southern Ave SE	3.4834	K
CUFC 05	Wisconsin Ave.	DC Line/Western Ave NW	M St NW	4.1218	J, K
CUFC 06	Connecticut Ave.	DC Line/Western Ave NW	K St NW	5.0031	J, K
CUFC 07	Rhode Island Ave.	DC Line/Eastern Ave NE	Scott Cir NW	4.5508	J, K
CUFC 08	South Dakota Ave.	Riggs Rd NE	New York Ave NE	3.7028	J, K
CUFC 09	Florida Ave.	9th St NW	H St NE	2.4386	J, K
CUFC 10	North Capitol St.	New Hampshire Ave NE	Louisiana Ave NE	4.3487	K, I
CUFC 11	14th St.	Rhode Island Ave NW	I-395	2.5628	J, K
CUFC 12	Nebraska Ave.	Military Rd NW	Tenley Cir NW	1.1852	K
CUFC 13	H St.	Florida Ave NE	Massachusetts Ave NW	1.7157	K
CUFC 14	7th St.	Florida Ave NW	Independence Ave SW	1.9797	J, K
CUFC 15	Benning Rd.	East Capitol St BN	Florida Ave NE	2.6696	J, K
CUFC 16	Missouri Ave.	Military Rd NW	North Capitol St BN	1.3273	K
CUFC 17	K St.	27th St NW	7th St NW	1.8414	J, K

ID	Route	Start Point	End Point	Length (miles)	Criteria*
CUFC 18a	Constitution Ave.	14th St NW	Pennsylvania Ave NW	0.7297	K
CUFC 18b	Constitution Ave.	Pennsylvania Ave NW	Louisiana Ave NW	0.1781	K
CUFC 19	Independence Ave.	14th St SW	3rd St SW	0.9043	H, K
CUFC 20	South Capitol St.	Firth Sterling Ave SE	Washington Ave SW	2.3447	J, K, I
CUFC 21	M St.	US29	29th St NW	0.6764	J, K
CUFC 22	Military Rd.	Nebraska Ave NW	Missouri Ave NW	1.9496	K
CUFC 23	New Hampshire Ave.	DC Line/Eastern Ave NE	North Capitol St BN	0.7020	J, K
CUFC 24	Dupont Cir.	Massachusetts Ave NW	Massachusetts Ave NW	0.2682	K
CUFC 25	U St.	15th St NW	9th St NW	0.5700	J, K
CUFC 26	Thomas Cir.	M St NW	M St NW	0.1569	K
CUFC 27	Tenley Cir.	Nebraska Ave NW	Nebraska Ave NW	0.1359	K
CUFC 28	Washington Cir.	Pennsylvania Ave NW	Pennsylvania Ave NW	0.2318	K
CUFC 29	Scott Cir.	Massachusetts Ave NW	Massachusetts Ave NW	0.1165	K
CUFC 30	New York Ave. (US 50)	DC Line NE	7th St NW	4.6039	J, K, I
CUFC 31	East Capitol St.	DC Line/Southern Ave SE	Benning Rd SE	1.3113	K, I
CUFC 32	Louisiana Ave.	North Capital St BN	Constitution Ave NW	0.3042	K
CUFC 33	Riggs Rd.	South Dakota Ave NE	North Capitol St BN	0.4001	K
CUFC 34a	9th St.	Mt Vernon Pl NW	K St NW	0.0581	K
CUFC 34b	9th St.	Pennsylvania Ave NW	Frontage Rd SW	0.7452	K
CUFC 35	12th St.	I-395 BN	Pennsylvania Ave NW	1.1082	K
CUFC 36	Francis Scott Key Bridge	DC Line/GW Memorial Pkwy	M St NW	0.3111	K
CUFC 37	Mt. Vernon Pl.	7th St NW	9th St NW	0.1145	K
CUFC 38	Anacostia Fwy	I-295	East Capitol St BN	2.4600	K, I
CUFC 39	Kenilworth Ave	East Capitol St BN	DC Line/Eastern Ave NE	2.0424	K
CUFC 40	Water St NW/Whitehurst Fwy NW	350' east of Key Bridge NW	27th St NW	0.7850	K

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Figure 6: Critical Urban Freight Corridors in the District of Columbia

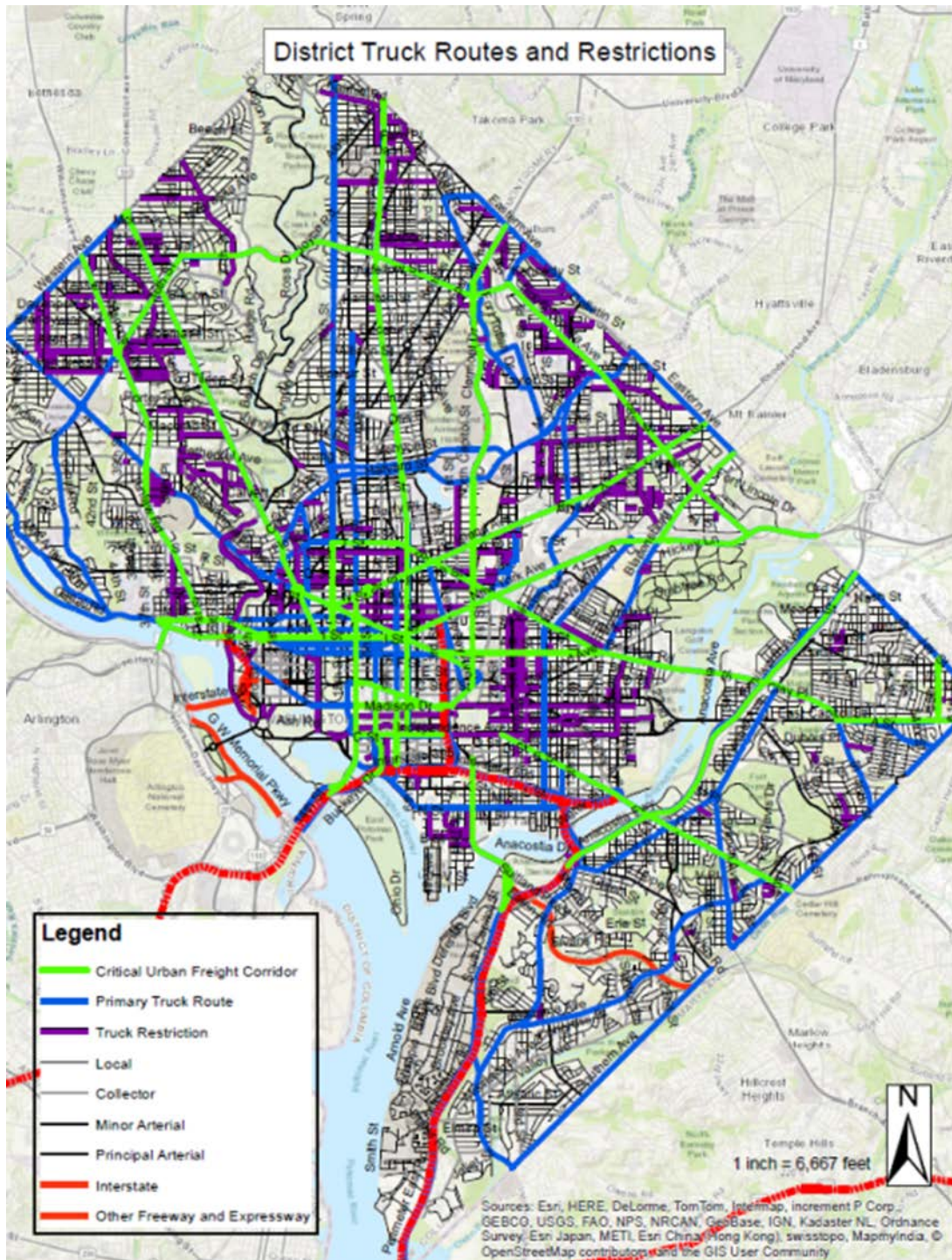
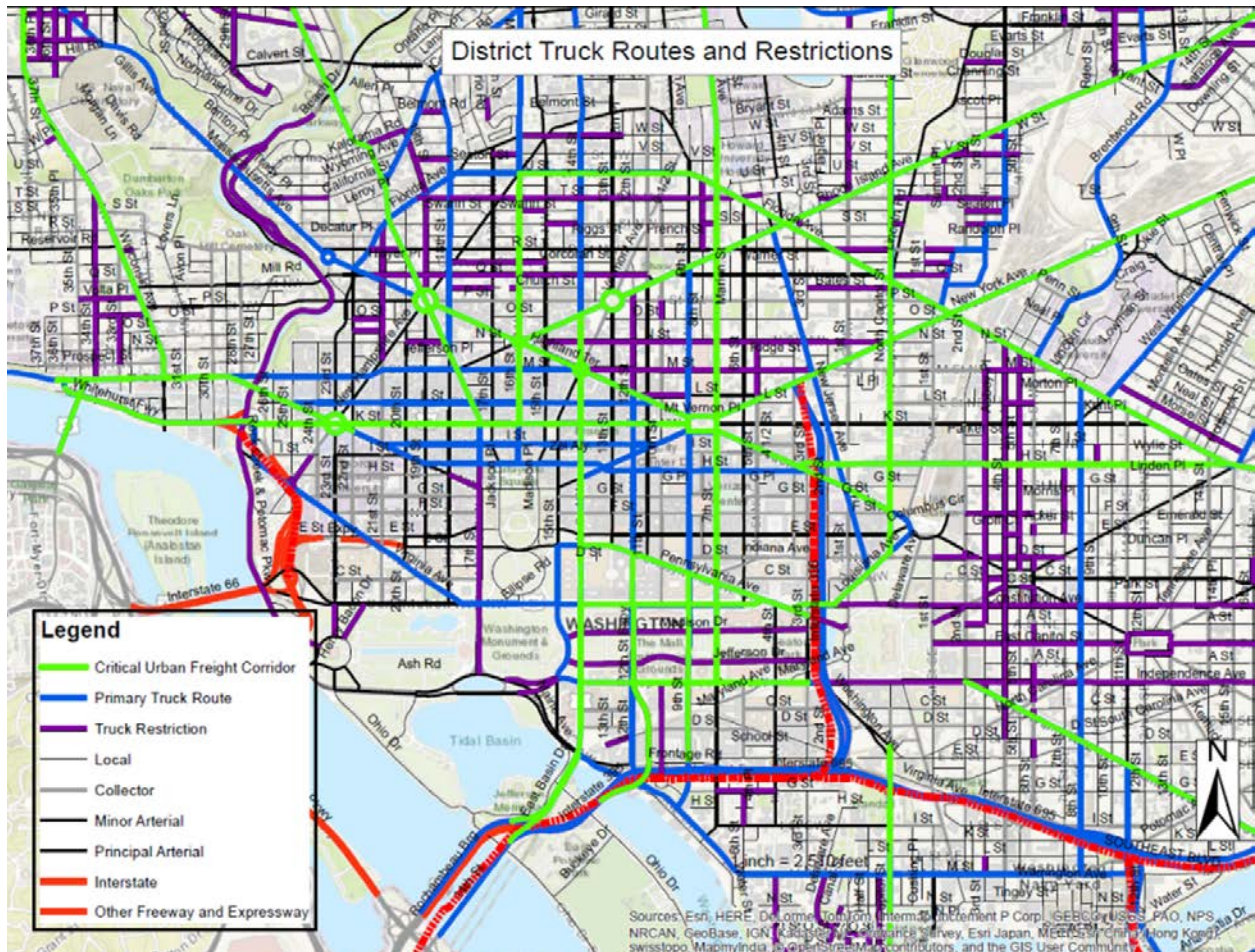


Figure 7: Critical Urban Freight Corridors in the District of Columbia – Downtown Area Detail



DISTRICT OF COLUMBIA METHODOLOGY

DDOT staff used their 2010 District truck and bus route designation as a starting point in their work to identify CUFC segments. The effort to designate truck and bus routes in the District included extensive data collection and analysis that considered road characteristics, percent truck traffic, AADT, functional classification, and connectivity. The truck and bus route designation process also included a thorough review of existing restrictions and outreach to the public and private industry.

Because the extent of the designated truck and bus routes was greater than the 75 mile CUFC limit, DDOT staff analyzed additional factors to select the most important segments from the overall truck and bus route network. This included analysis of high traffic corridors, connections to freight generators and commercial districts, and locations of planned investments, among other considerations.

NEXT STEPS

- Staff will respond to input from this Committee and then present the draft regional CUFC candidates (MD, VA, and DC) to the TPB as an information item in October.
- Board action to designate CUFCs for DC, Maryland, and Virginia will be requested at the November TPB meeting in order to meet the December 4, 2017 federal deadline.
- Following TPB action, the TPB resolution designating CUFCs will be submitted to the FHWA with copies to the state DOTs.

