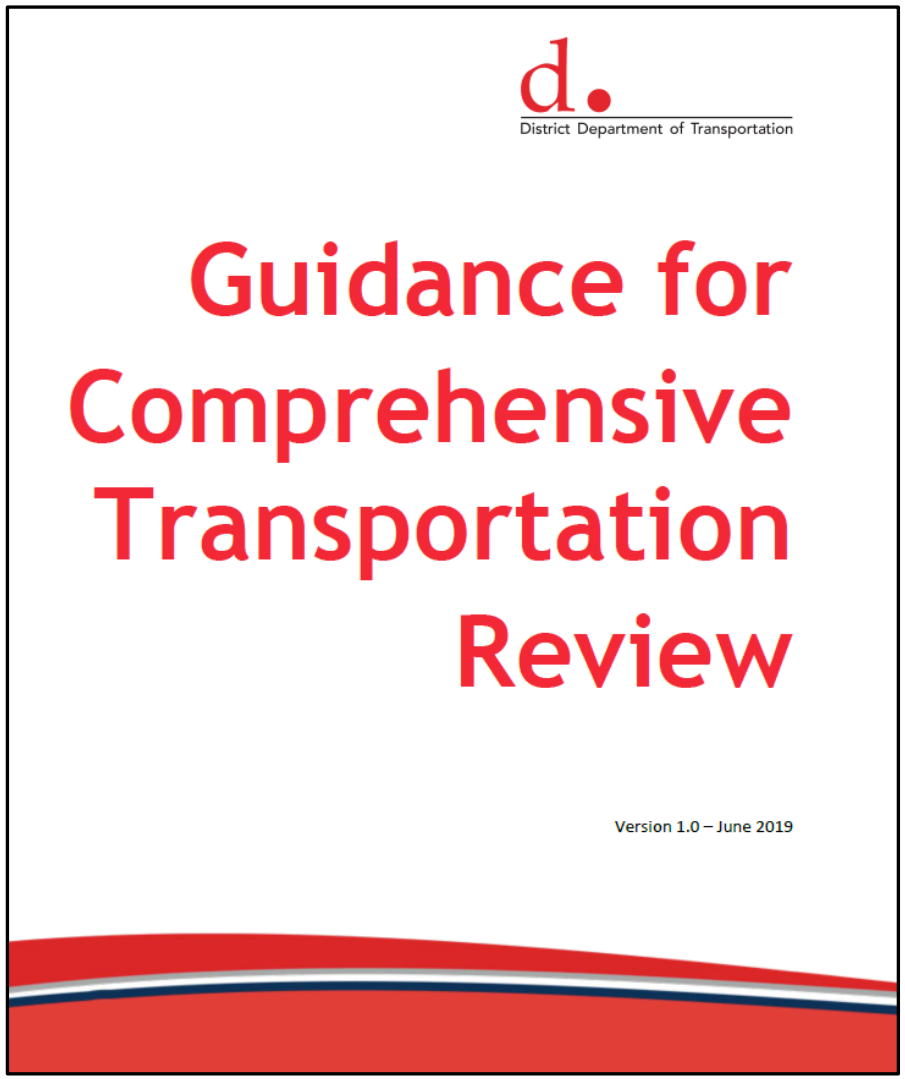
# Guidance for Comprehensive Transportation Review (CTR)

# 2019 Edition

December 2, 2019

# Introduction




## *DDOT Released new CTR Guidelines in June 2019*

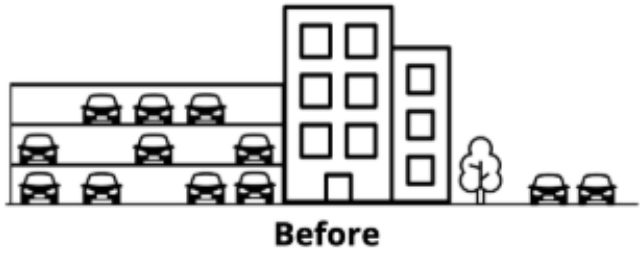
- **2019 WDCSITE Project of the Year Award Recipient!**
- 143 page doc – guides traffic consultants on CTR requirements and documents DDOT philosophy on review of development, everything needed for a CTR in one location
- **First in the Nation!** Parking ratio based on land use and distance to transit is now primary metric. Good proxy for traffic and turns project into a "form based" design review – incentivizes good development
- Greater focus on site design + public realm design + Vision Zero
- Significantly revamped TDM programming tied to parking ratio, distance to transit, and transportation network impacts
- Continues shift away from LOS and traffic impacts. TIA now a smaller component of larger CTR study and can be waived in more situations
- Fewer CTR/TIAs saves DDOT staff time scoping/reviewing studies that often do not yield any actionable recommendations (staff time better spent on public space design / Vision Zero)

*CTR Guidelines can be found at: https://ddot.dc.gov/node/470382*

# Focus on Vehicle Parking and TDM

## Why Focus on TDM + Minimizing Parking?

- DC projected population increase of 200,000 by 2035. Roadway system is built out and congested, everybody can't bring a car, growth must rely on non-auto options
- **More density** – less parking allows for more density while generating minimal additional new personal vehicle trips
  - 88% of new DC households are car-free *(Census, Chung GGW Article 9/12/14)*
  - 78% of new development within ½ mile of Metrorail *(2014 DC Development Report)*
- **Reduce vehicle trips** – TDM, minimal parking, priced parking, and high quality transit all work together to reduce vehicle trips
- **Reduce auto dependency** – parking is permanent site feature and driver of vehicle trips, availability of parking induces more driving and reinforces auto dependency
- **Transit supportive** – little or no parking brings "transit-ready" residents/workforce
- **Housing affordability** – not building parking saves $$ that can be passed on to future residents/tenants
- **Mitigation and TIAs are also costly** – more $$ can be saved by not conducting TIAs or implementing physical mitigation if meeting parking DDOT benchmarks
- **Vision Zero** – no on-site parking means no need for a driveway or curb cut, thus minimizing conflicts w/pedestrians
- **Climate change** – less exhaust and lower CO2 per capita
- **Site design flexibility** – buildings can be moved around into more optimal locations, more green space, trees, and bike racks





*Source: MAPC Perfect Fit Parking*

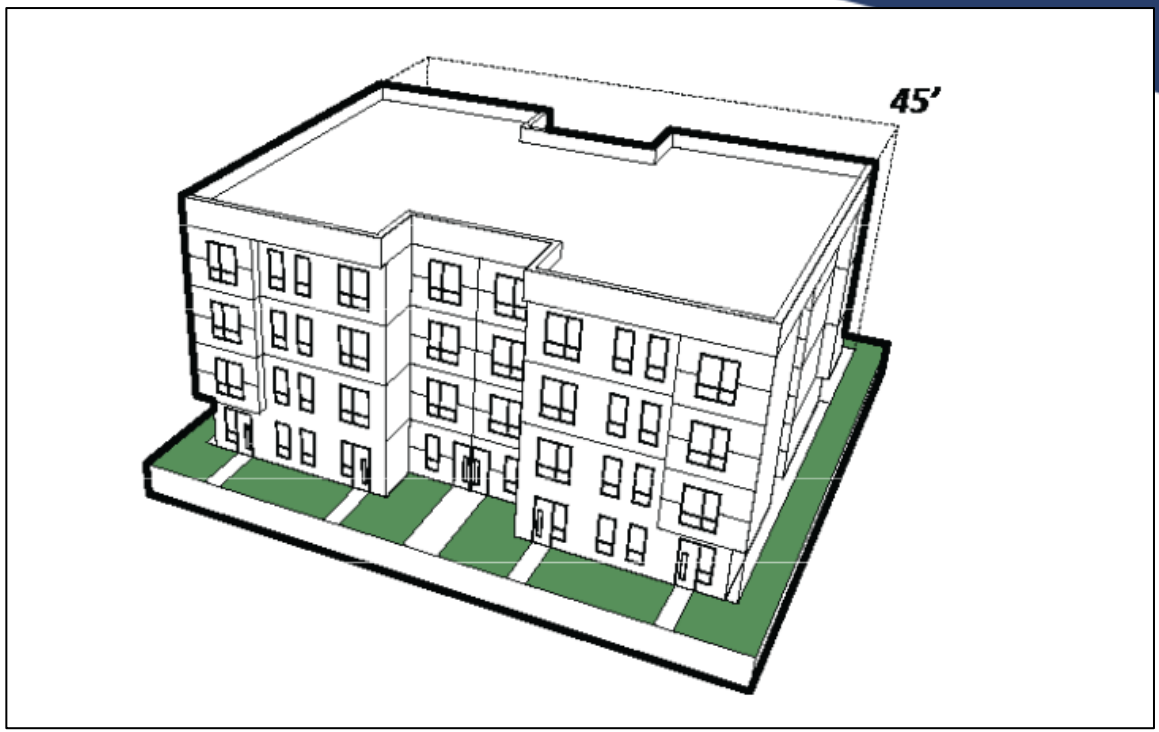
# Impact of Parking on Housing

## Example from Portland, OR

$733,000 each

10 townhouses

w/garage for each




$280,000 each

28 condos

no parking

Source: https://www.sightline.org/2019/10/02/in-mid-density-zones-portland-has-a-choice-garages-or-low-prices/

# Evolution of CTRs in the District

## Pre-2012: Traditional Traffic Impact Study (TIS)

- Propose a development, do a traffic study, directly mitigate roadway LOS impacts

## 2012-2018: Multi-Modal CTR Study ("2012 Beta Version")

- DDOT was an early national leader in using person-trips methodology and multi-modal evaluation
- Changed from TIS to Comprehensive Transportation Review (CTR)
  - De-emphasized TIA/TIS as "be all, end all" of site review
- Introduced concept that parking is a driver of vehicle trips – adjust trip gen based on parking supply

## 2019+: CTR w/greater focus on Site Design, Parking, TDM ("2019 v1.0")

- Introduces on-site vehicle parking benchmarks by use and proximity to transit
  - Benchmarks tied to parking demand research and MoveDC modeshare goal of 75% non-auto H-W trips
- Moves toward a "form-based" review which incentivizes high quality project design, transit accessibility, and incorporating DDOT Vision Zero principles
- TIS/TIA now just one component of much broader multi-modal evaluation and only triggered in certain situations

# DDOT Research Papers, Presentations, and Tools

**2013:** Transitioning from Traditional TIS to Comprehensive Multi-Modal Transportation Review

**2014:** An Innovative Approach for Establishing Vehicular Trip Caps for New Developments

**2015:** Estimating Parking Utilization in Multi-Family Residential Buildings in Washington DC
Predicting Travel Impacts of New Development in Major Cities: Testing Alternative Trip Gen Models
Methodology to Gather Multi-Modal Urban Trip Generation Data

**2016:** Park Right DC - http://parkrightdc.org/
Trips DC - https://tripsdc.org/
District Mobility - https://districtmobility.org/

**2017:** Multimodal Trip Generation Model to Assess Travel Impacts of Urban Developments in DC

**2019:** Guidance for Comprehensive Transportation Review, v 1.0
Comprehensive Transportation Review in DC: Parking and Design-Focused Alternative to the TIS



*All of the above studies, papers, and posters are available upon request*

# DDOT Site Review Priorities

**(1) Site Access** – must be via alley if available, minimize # of curb cuts, break up superblocks, provide connections w/neighbors, amenities, and multi-modal options

**(2) Loading** – head-in/head-out from alley and berths, no backing through public space, accommodate loading/trash operations on private property

**(3) Vehicle Parking** – minimize # of spaces, if parking exceeds DDOT's max rates must provide non-auto or TDM commitments, parking pricing

**(4) Public Realm Design** – high quality streetscape w/ADA accessible ped facilities, do not externalize private site operations into public space, ped safety, Vision Zero

**(5) Bike Facilities** – meet or exceed zoning requirements for bike parking and shower/changing facilities in easily accessible locations

**(6) Travel Characteristics –** understand anticipated market, who is coming to the site (regional vs local patrons) and how do they travel there, multi-modal trip gen

**(7) Transportation Demand Management** – must provide robust TDM plan to discourage driving and encourage transit usage, TDM Plans based on parking supply and traffic impacts, tailored to each land use and anticipated users

**(8) Curbside Management** – accommodate curbside needs of site, address rapidly evolving pick-up/drop-off trends, minimize conflicts w/bikes & peds

**(9) Traffic Impact Analysis** – study traffic impacts if project meets trip gen threshold OR if change to roadway proposed (i.e., reverse direction or close road)

- Can possibly waive #9 if DDOT is satisfied with #1-8 (generally applies below 300k SF office, 350 res. units)

# Vision Zero Design Strategies

- Install curb extensions to shorten crossing distances
- Reduce curb radii to modern standards
- Remove slip lanes / channelized turn lanes to slow traffic
- Head-in / head-out loading so truck drivers can see peds
- Minimize # of curb cuts to minimize conflicts between vehicles and peds
- Treeboxes and street trees to be ped buffer
- Convert bike lanes to protected bikeways
- No laybys since they cause a jog in sidewalk, encourage faster driving, preclude trees
- Road diets, narrower lanes, lower design speeds
- Upgrade sidewalks, curb ramps, crosswalks, etc. to ADA

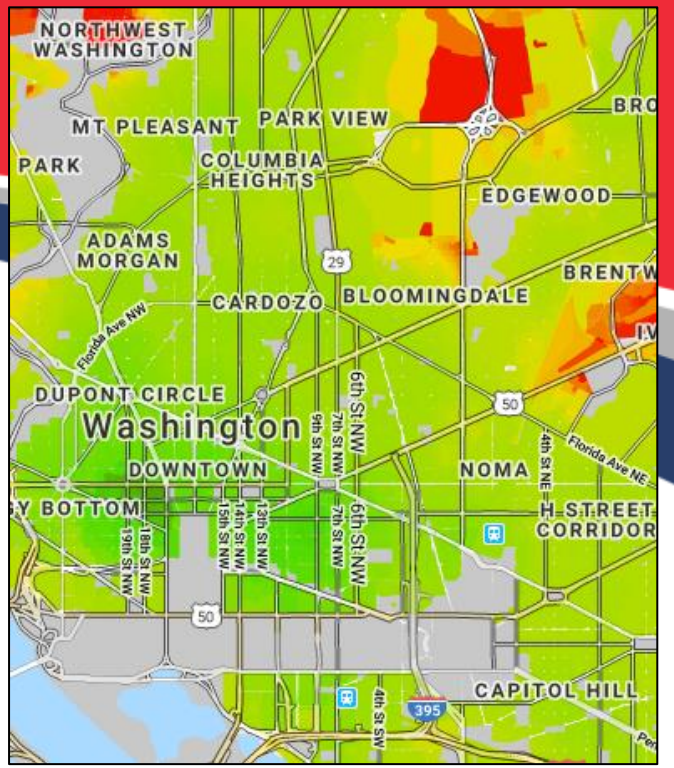
*7th St and I St SW - July 2016 vs July 2019*

# Benchmark Parking Rates for Project Evaluation

| Land Use | < ¼ mile of Metrorail | < ½ mile of Metrorail OR < ¼ mile of Priority Bus/Streetcar | <1.0 mile of Metrorail | >1.0 mile of Metrorail |
|---|---|---|---|---|
| **Residential** *(spaces/unit)* | **0.30 or less** 1 per 3.3 units | **0.40 or less** 1 per 2.5 units | **0.50 or less** 1 per 2 units | **0.60 or less** 1 per 1.67 units |
| **Office** *(spaces/1k SF)* | **0.40 or less** 1 per 6.25 employees | **0.50 or less** 1 per 5 employees | **0.65 or less** 1 per 4 employees | **0.85 or less** 1 per 2.85 employees |
| **Hotel** *(spaces/1k SF)* | **0.40 or less** 1 per 6 rooms | **0.45 or less** 1 per 5 rooms | **0.60 or less** 1 per 4 rooms | **0.75 or less** 1 per 3 rooms |
| **Retail** *(spaces/1k SF)* | **1.00 or less** | **1.25 or less** | **1.60 or less** | **2.00 or less** |

*Source: Table 2, Guidance for Comprehensive Transportation Review*

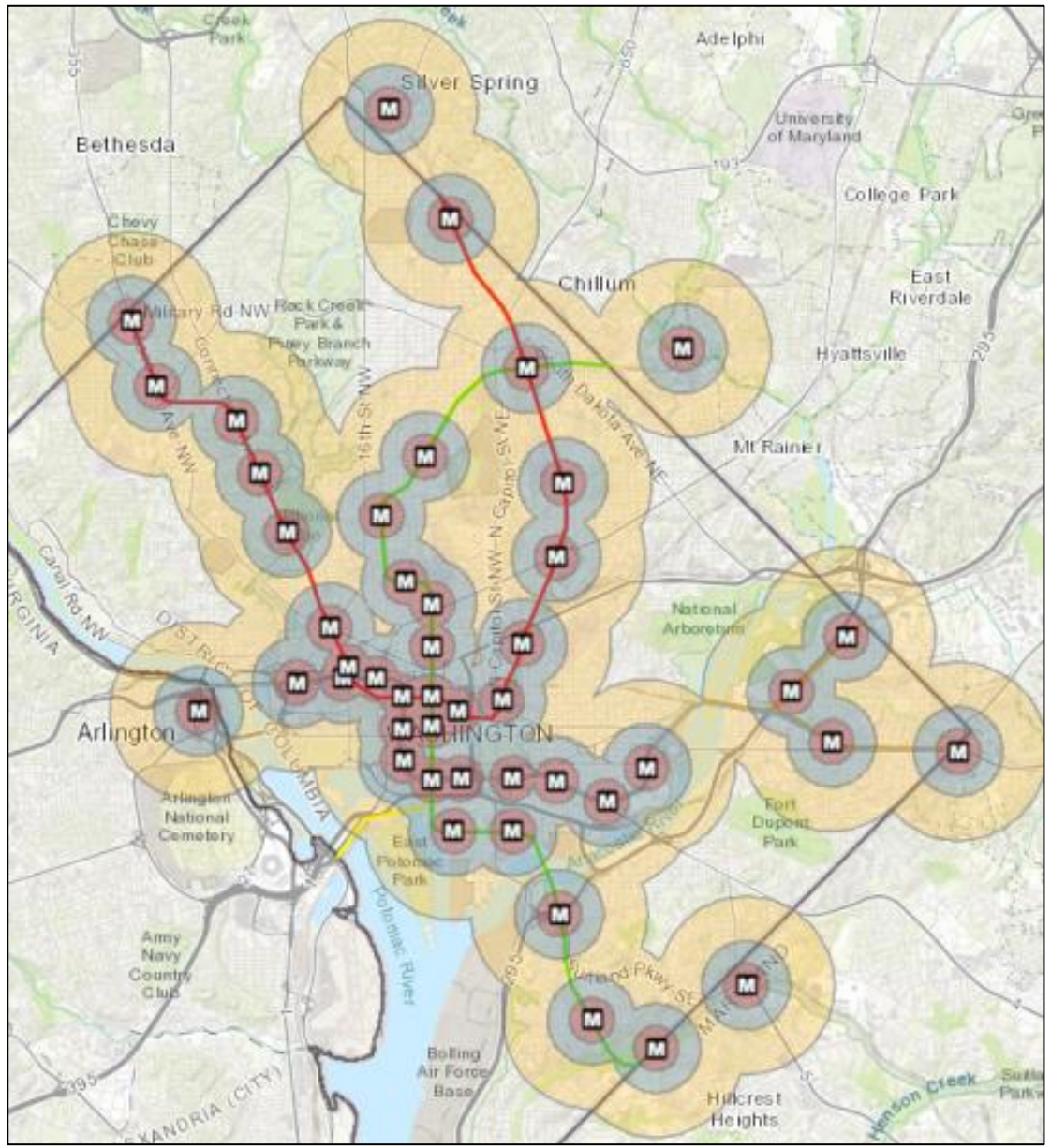
- Benchmarks based on MoveDC and Comp Plan non-auto home-work modeshare goal of 75% and ParkRightDC parking demand data collected at 115 residential buildings
- DDOT-preferred rates fit within zoning mins and maxes




*Above: ParkRightDC*

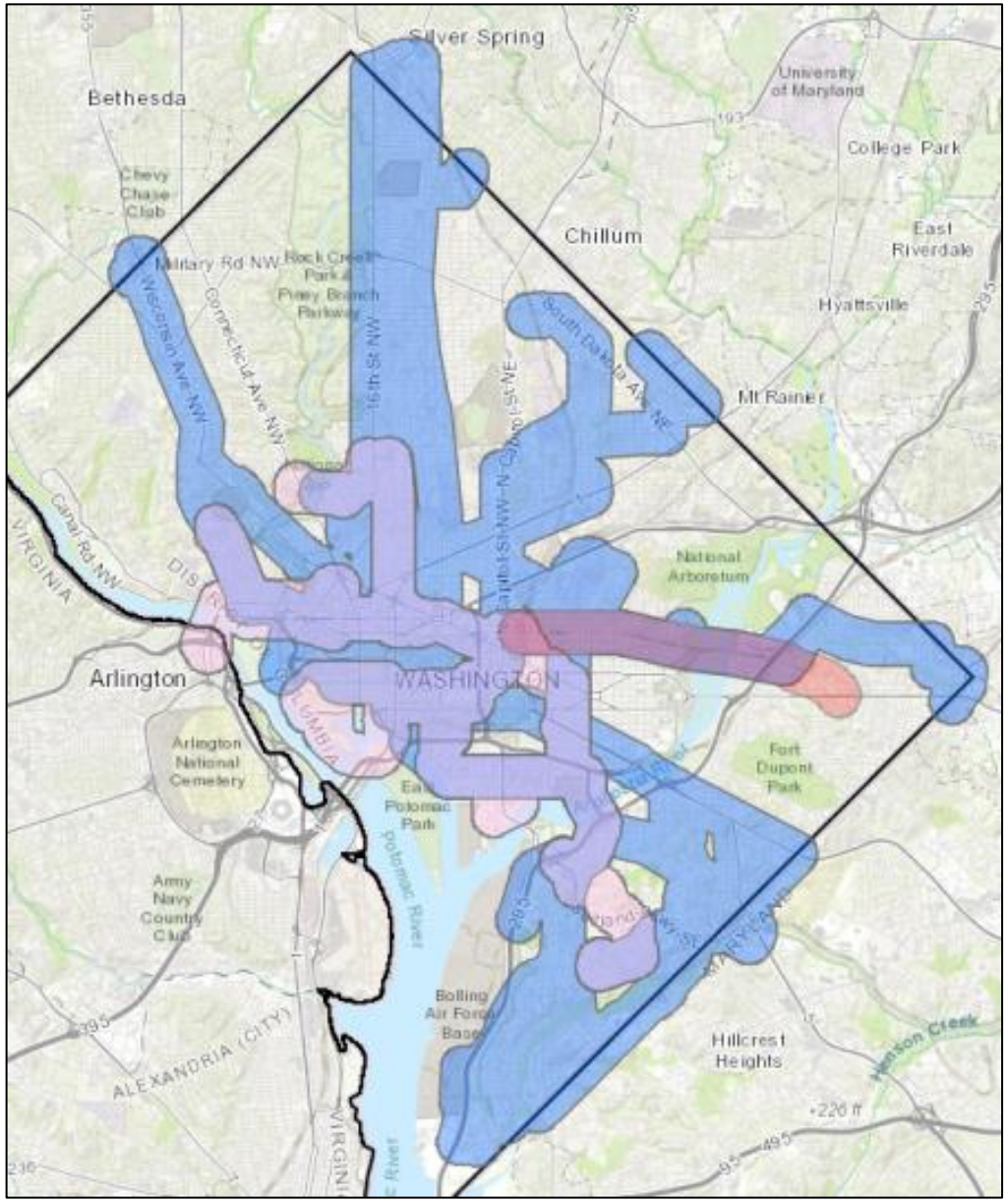
- ~88% of <u>new</u> DC households are car-free (Census, Payton Chung GGW Article 9/12/14)
- ~78% of <u>all new</u> development within ½ mile of a Metrorail station (2014 DC Development Report)

# Distance from Metrorail Stations




- ¼, ½, 1 mile buffers from Metrorail stations shown (corresponds to Table 2 parking rates)
- "As the crow flies" rather than walking distances matches Zong Regs methodology
- DDOT prefers little or no parking spaces near Metrorail stations
- Interactive map can be found here: https://arcg.is/19ajqu

# Distance from Priority Transit




- If site is over ½ mile from Metrorail, defer to this map
- ¼ mile buffer from Streetcar, Circulator, and ZR16 Priority Bus Routes shown (corresponds to Table 2 parking rates)
- fewer parking spaces within these buffers helps support transit ridership
- Interactive map can be found here: https://arcg.is/1CHTeb

# DDOT Approach to Mitigation

## Impact Policy

- Must mitigate high parking ratio and intersection capacity impacts (LOS, V/C, queueing).
- Must propose roadway mitigation to demonstrate they could work, but DDOT reserves right to request something else in lieu of comparable value or considering modeshift impact.
- Signal timing/cycle length adjustments not implemented in conjunction w/specific project since signals are in coordinated networks + not clear traffic will materialize as projected.
- DDOT updates signal timings on 5 +/- year rotating basis which picks up traffic from new developments and changes in travel patterns.

## Hierarchy of Mitigation (in order of DDOT preference):

(1) Establish optimal site design

(2) Reduce vehicle parking

(3) Implement more TDM

(4) Upgrade ped/bike/transit facilities

(5) Monetary contribution toward non-auto facilities

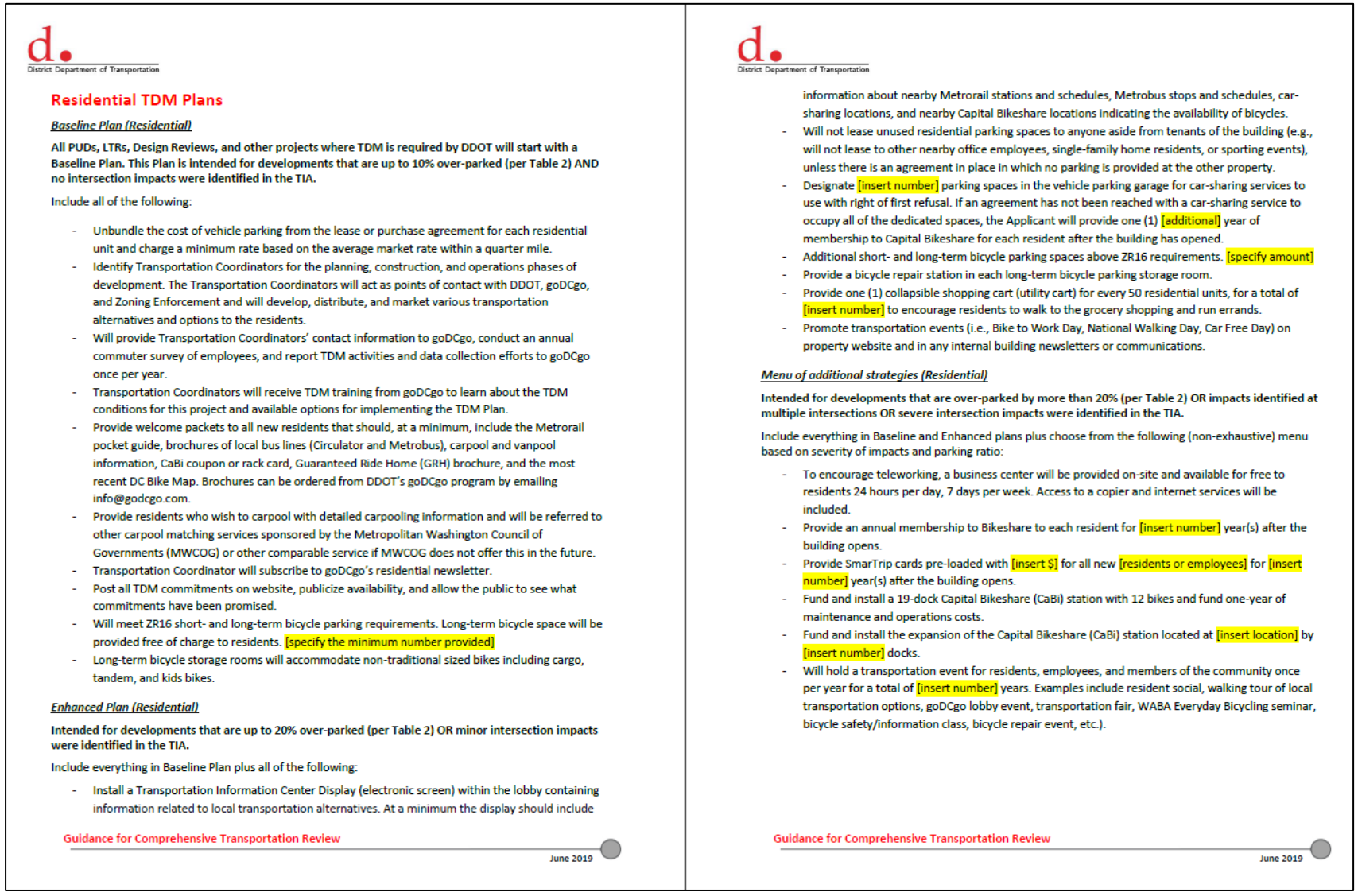
(6) Roadway capacity changes (only if deemed necessary by DDOT)

# Mitigation Matrix

| PARKING SUPPLY (see Table 2 in CTR Guidelines) | TRAFFIC IMPACTS: No Impacts (no intersections degrade to unacceptable levels) | Minor Impacts at One Intersection (signal timing or cycle length adjustments only) | Minor Impacts at Multiple Intersections (signal timing or cycle length adjustments only) | Severe Impacts at One or More Intersections (physical roadway improvements beyond signal timing adjustment) |
|---|---|---|---|---|
| **At or Below Benchmark** | Baseline TDM Plan | Baseline TDM Plan | Enhanced TDM Plan | Enhanced TDM Plan + Direct Mitigation OR Additional TDM OR Monetary Contribution OR Non-Auto Upgrades OR Performance Monitoring TBD |
| **Up to 10% Over-Parked** | Baseline TDM Plan | Enhanced TDM Plan | Enhanced TDM Plan + Additional TDM OR Non-Auto Upgrades to be Negotiated | Enhanced TDM Plan + Direct Mitigation OR Additional TDM OR Monetary Contribution OR Non-Auto Upgrades OR Performance Monitoring TBD |
| **Up to 20% Over-Parked** | Enhanced TDM Plan | Enhanced TDM Plan + Additional TDM OR Non-Auto Upgrades to be Negotiated | Enhanced TDM Plan + Additional TDM OR Non-Auto Upgrades to be Negotiated | Enhanced TDM Plan + Direct Mitigation OR Additional TDM OR Monetary Contribution OR Non-Auto Upgrades OR Performance Monitoring TBD |
| **Over 20% Over-Parked** | Enhanced TDM Plan + Additional TDM OR Non-Auto Upgrades to be Negotiated | Enhanced TDM Plan + Additional TDM OR Non-Auto Upgrades to be Negotiated | Enhanced TDM Plan + Additional TDM OR Non-Auto Upgrades to be Negotiated | Enhanced TDM Plan + Direct Mitigation OR Additional TDM OR Monetary Contribution OR Non-Auto Upgrades OR Performance Monitoring TBD |

- Developers get consistent mitigation "asks" from DDOT
- DDOT gets lower parking ratios and better TDM programming
- Yellow area = only TDM is required for mitigation

# Standardized TDM Plans by Land Use and Impact



District Department of Transportation

## Residential TDM Plans

***Baseline Plan (Residential)***

**All PUDs, LTRs, Design Reviews, and other projects where TDM is required by DDOT will start with a Baseline Plan. This Plan is intended for developments that are up to 10% over-parked (per Table 2) AND no intersection impacts were identified in the TIA.**

Include all of the following:

- Unbundle the cost of vehicle parking from the lease or purchase agreement for each residential unit and charge a minimum rate based on the average market rate within a quarter mile.
- Identify Transportation Coordinators for the planning, construction, and operations phases of development. The Transportation Coordinators will act as points of contact with DDOT, goDCgo, and Zoning Enforcement and will develop, distribute, and market various transportation alternatives and options to the residents.
- Will provide Transportation Coordinators' contact information to goDCgo, conduct an annual commuter survey of employees, and report TDM activities and data collection efforts to goDCgo once per year.
- Transportation Coordinators will receive TDM training from goDCgo to learn about the TDM conditions for this project and available options for implementing the TDM Plan.
- Provide welcome packets to all new residents that should, at a minimum, include the Metrorail pocket guide, brochures of local bus lines (Circulator and Metrobus), carpool and vanpool information, CaBi coupon or rack card, Guaranteed Ride Home (GRH) brochure, and the most recent DC Bike Map. Brochures can be ordered from DDOT's goDCgo program by emailing info@godcgo.com.
- Provide residents who wish to carpool with detailed carpooling information and will be referred to other carpool matching services sponsored by the Metropolitan Washington Council of Governments (MWCOG) or other comparable service if MWCOG does not offer this in the future.
- Transportation Coordinator will subscribe to goDCgo's residential newsletter.
- Post all TDM commitments on website, publicize availability, and allow the public to see what commitments have been promised.
- Will meet ZR16 short- and long-term bicycle parking requirements. Long-term bicycle space will be provided free of charge to residents. [specify the minimum number provided]
- Long-term bicycle storage rooms will accommodate non-traditional sized bikes including cargo, tandem, and kids bikes.

***Enhanced Plan (Residential)***

**Intended for developments that are up to 20% over-parked (per Table 2) OR minor intersection impacts were identified in the TIA.**

Include everything in Baseline Plan plus all of the following:

- Install a Transportation Information Center Display (electronic screen) within the lobby containing information related to local transportation alternatives. At a minimum the display should include



District Department of Transportation

information about nearby Metrorail stations and schedules, Metrobus stops and schedules, car-sharing locations, and nearby Capital Bikeshare locations indicating the availability of bicycles.

- Will not lease unused residential parking spaces to anyone aside from tenants of the building (e.g., will not lease to other nearby office employees, single-family home residents, or sporting events), unless there is an agreement in place in which no parking is provided at the other property.
- Designate [insert number] parking spaces in the vehicle parking garage for car-sharing services to use with right of first refusal. If an agreement has not been reached with a car-sharing service to occupy all of the dedicated spaces, the Applicant will provide one (1) [additional] year of membership to Capital Bikeshare for each resident after the building has opened.
- Additional short- and long-term bicycle parking spaces above ZR16 requirements. [specify amount]
- Provide a bicycle repair station in each long-term bicycle parking storage room.
- Provide one (1) collapsible shopping cart (utility cart) for every 50 residential units, for a total of [insert number] to encourage residents to walk to the grocery shopping and run errands.
- Promote transportation events (i.e., Bike to Work Day, National Walking Day, Car Free Day) on property website and in any internal building newsletters or communications.

***Menu of additional strategies (Residential)***

**Intended for developments that are over-parked by more than 20% (per Table 2) OR impacts identified at multiple intersections OR severe intersection impacts were identified in the TIA.**

Include everything in Baseline and Enhanced plans plus choose from the following (non-exhaustive) menu based on severity of impacts and parking ratio:

- To encourage teleworking, a business center will be provided on-site and available for free to residents 24 hours per day, 7 days per week. Access to a copier and internet services will be included.
- Provide an annual membership to Bikeshare to each resident for [insert number] year(s) after the building opens.
- Provide SmarTrip cards pre-loaded with [insert $] for all new [residents or employees] for [insert number] year(s) after the building opens.
- Fund and install a 19-dock Capital Bikeshare (CaBi) station with 12 bikes and fund one-year of maintenance and operations costs.
- Fund and install the expansion of the Capital Bikeshare (CaBi) station located at [insert location] by [insert number] docks.
- Will hold a transportation event for residents, employees, and members of the community once per year for a total of [insert number] years. Examples include resident social, walking tour of local transportation options, goDCgo lobby event, transportation fair, WABA Everyday Bicycling seminar, bicycle safety/information class, bicycle repair event, etc.).

Guidance for Comprehensive Transportation Review
June 2019

- Standardized TDM Plans for Residential, Office, Retail, Hotel/Tourism in Appendix C
- Strategies tailored to users: residents, employees, visitors, customers
- Three Tiers of TDM Plans based on parking and traffic impacts
  - Baseline
  - Enhanced
  - Menu of Add'l Strategies

# Performance Monitoring Plans (PMP)

## When is a PMP Required?

- Campus Plans (Georgetown, Catholic, American, etc)
- Larger developments (Wharf, McMillan, etc)
- Projects with high SOVs (schools, daycares, etc)

## PMPs Include the Following:

- Initial trigger (i.e., % occupancy) and set of initial TDM strategies
- Trip cap or modeshare goal
- Reporting requirements (i.e., frequency, data needs, surveys)
- Sun setting conditions (i.e., number of years)
- Course of action if goals not met

## PMP Enforcement if Goals Not Met:

- Meet w/DDOT to determine more effective TDM strategies
- PMP extended for additional years, until goals met
- DDOT could report zoning violation to Office of Zoning and/or Zoning Administrator
- DDOT to recommend denial in future zoning cases or withhold public space permit

# Waiver from CTR and/or TIA - Criteria

**CTR Required**: 100 total peak hour person trips

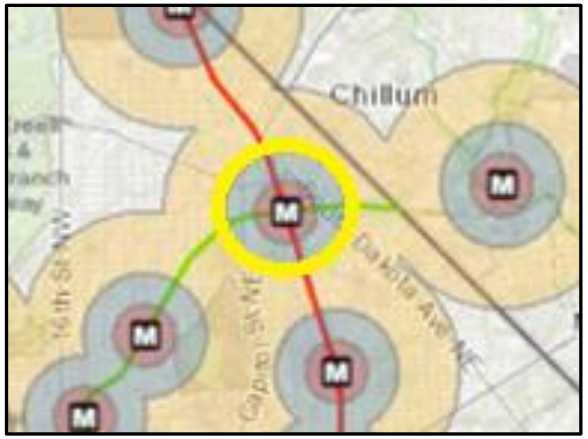
**TIA Required**: 25 peak hour inbound or outbound vehicle trips

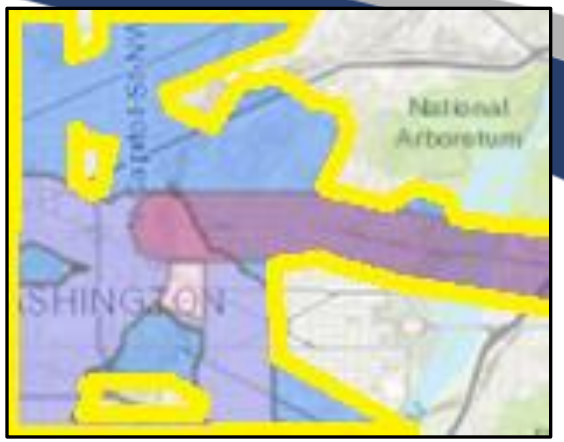
**One or both may be waived if all criteria met:**

- Within ½ mile of Metrorail station or ¼ mile from Streetcar/Priority Bus
- Parking supply lower than amount for ¼ mile from Metrorail column (Table 2)
- Total parking supply of 100 or fewer spaces
- Implement "Enhanced" tier TDM Plan
- Ensure complete ped network (install missing sidewalks and curb ramps, etc.)
- Curb cuts and loading meet standards (or approved by PSC)
- Meets bike parking and showers/lockers requirements
- Provide 2 EV charging stations

**However…**

- Will still need to provide a Transportation Statement explaining all agreed to commitments, rationale for waiver, and other basic info about project.
- DDOT may still require analysis of site access, curbside uses, pick-up/drop-off, on-street/off-site parking, etc. depending on specific proposal.
- Developer may still choose to do a "defensive TIA" to address specific concerns raised by the ANC and members of the community.

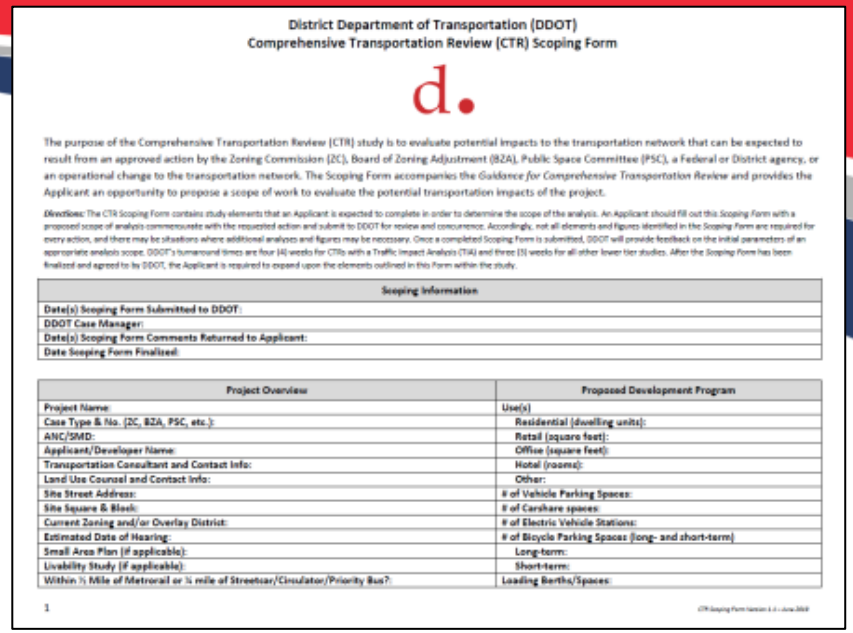



| Land Use | | Less than ¼ Mile from Metrorail | ¼ to ½ Mile from Metrorail OR Less than ¼ Mile from Priority Transit** |
|---|---|---|---|
| Residential *(spaces/unit)* | DDOT: ZR16 Min-Max: | 0.30 or less 0.17* - 0.67 | 0.40 or less 0.17* - 0.67 |
| Office *(spaces/1,000 GSF)* | DDOT: ZR16 Min-Max: | 0.40 or less 0.25* - 1.00 | 0.50 or less 0.25* - 1.00 |
| Hotel *(spaces/1,000 GSF)* | DDOT: ZR16 Min-Max: | 0.40 or less 0.25* - 1.00 | 0.45 or less 0.25* - 1.00 |
| Retail *** *(spaces/1,000 GSF)* | DDOT: ZR16 Min-Max: | 1.00 or less 0.67* - 2.66 | 1.25 or less 0.67* - 2.66 |
| Other Uses | DDOT: ZR16 Min-Max: | 75% of § 701.5 or less 50% - 200% of § 701.5* | 90% of § 701.5 or less 50% - 200% of § 701.5* |

# Other Noteworthy Changes in 2019 Edition

- Revamped and reorganized CTR Scoping Form
- Established parameters for TripsDC Tool
  - Based on parking ratio, land use mix, distance from transit
- Creation of Mitigation Fund for developers to make monetary contributions to DDOT
- New Analyses in CTRs
  - Capital Bikeshare demand analysis (see CaBi Tracker website)
  - Parking garage queueing analysis (over 150 spaces + direct access to public street)
  - Street tree inventory w/in 2-3 block radius
- Three-year collision analysis no longer required
  - Replaced w/qualitative safety review surrounding site
  - Vision Zero office leading safety studies
- Standardized Synchro/SimTraffic inputs when TIA required
- Provide TMCs in spreadsheet format for HUTRC database



District Department of Transportation (DDOT)
Comprehensive Transportation Review (CTR) Scoping Form

d.

The purpose of the Comprehensive Transportation Review (CTR) study is to evaluate potential impacts to the transportation network that can be expected to result from an approved action by the Zoning Commission (ZC), Board of Zoning Adjustment (BZA), Public Space Committee (PSC), a Federal or District agency, or an operational change to the transportation network. The Scoping Form accompanies the *Guidance for Comprehensive Transportation Review* and provides the Applicant an opportunity to propose a scope of work to evaluate the potential transportation impacts of the project.

*Directions:* The CTR Scoping Form contains study elements that an Applicant is expected to complete in order to determine the scope of the analysis. An Applicant should fill out this Scoping Form with a proposed scope of analysis commensurate with the requested action and submit to DDOT for review and concurrence. Accordingly, not all elements and figures identified in the Scoping Form are required for every action, and there may be situations where additional analyses and figures may be necessary. Once a completed Scoping Form is submitted, DDOT will provide feedback on the initial parameters of an appropriate analysis scope. DDOT's turnaround times are four (4) weeks for CTRs with a Traffic Impact Analysis (TIA) and three (3) weeks for all other lower tier studies. After the Scoping Form has been finalized and agreed to by DDOT, the Applicant is required to expand upon the elements outlined in this Form within the study.

| Scoping Information | |
|---|---|
| Date(s) Scoping Form Submitted to DDOT: | |
| DDOT Case Manager: | |
| Date(s) Scoping Form Comments Returned to Applicant: | |
| Date Scoping Form Finalized: | |

| Project Overview | Proposed Development Program |
|---|---|
| Project Name: | Use(s): |
| Case Type & No. (ZC, BZA, PSC, etc.): | Residential (dwelling units): |
| ANC/SMD: | Retail (square feet): |
| Applicant/Developer Name: | Office (square feet): |
| Transportation Consultant and Contact Info: | Hotel (rooms): |
| Land Use Counsel and Contact Info: | Other: |
| Site Street Address: | # of Vehicle Parking Spaces: |
| Site Square & Block: | # of Carshare spaces: |
| Current Zoning and/or Overlay District: | # of Electric Vehicle Stations: |
| Estimated Date of Hearing: | # of Bicycle Parking Spaces (long- and short-term) |
| Small Area Plan (if applicable): | Long-term: |
| Livability Study (if applicable): | Short-term: |
| Within ½ Mile of Metrorail or ¼ mile of Streetcar/Circulator/Priority Bus?: | Loading Berths/Spaces: |

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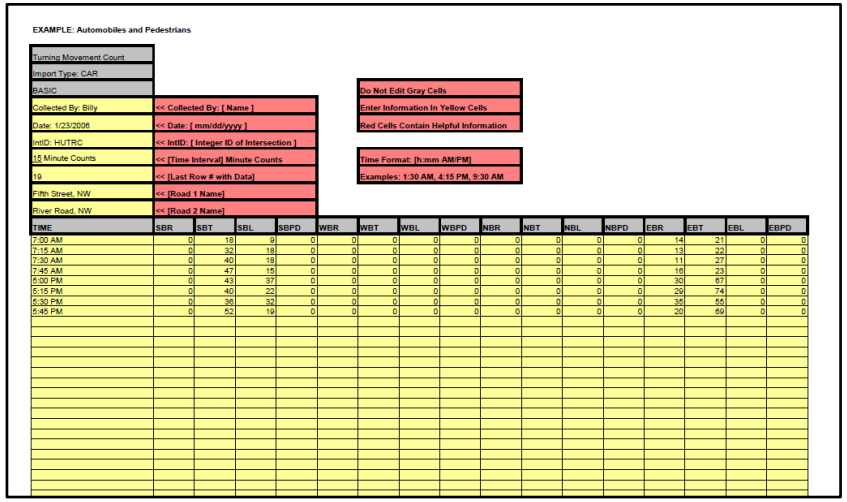

EXAMPLE: Automobiles and Pedestrians

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turning Movement Count | | | | | | | | | | | | | | | | |
| Import Type: CAR | | | | | | | | | | | | | | | | |
| BASIC | | | | | | | | | | | | | | | | |
| Collected By: Billy | << Collected By: [ Name ] | | | | | | | | | | | | | | | |
| Date: 1/23/2006 | << Date: [ mm/dd/yyyy ] | | | | | | | | | | | | | | | |
| IntID: HUTRC | << IntID: [ Integer ID of Intersection ] | | | | | | | | | | | | | | | |
| 15 Minute Counts | << [Time Interval] Minute Counts | | | | | | | | | | | | | | | |
| 19 | << [Last Row # with Data] | | | | | | | | | | | | | | | |
| Fifth Street, NW | << [Road 1 Name] | | | | | | | | | | | | | | | |
| River Road, NW | << [Road 2 Name] | | | | | | | | | | | | | | | |

| Do Not Edit Gray Cells |
|---|
| Enter Information In Yellow Cells |
| Red Cells Contain Helpful Information |

| Time Format: [h:mm AM/PM] |
|---|
| Examples: 1:30 AM, 4:15 PM, 9:30 AM |

| TIME | SBR | SBT | SBL | SBPD | WBR | WBT | WBL | WBPD | NBR | NBT | NBL | NBPD | EBR | EBT | EBL | EBPD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7:00 AM | 0 | 18 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 21 | 0 | 0 |
| 7:15 AM | 0 | 32 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 22 | 0 | 0 |
| 7:30 AM | 0 | 40 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 27 | 0 | 0 |
| 7:45 AM | 0 | 47 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 23 | 0 | 0 |
| 6:00 PM | 0 | 43 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 67 | 0 | 0 |
| 6:15 PM | 0 | 40 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 74 | 0 | 0 |
| 6:30 PM | 0 | 36 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 55 | 0 | 0 |
| 6:45 PM | 0 | 52 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 69 | 0 | 0 |

# Early Results

- Prevented creation of 1,000+/- parking spaces in 2017-2019
  - Getting harder to track since almost all new developments are meeting benchmarks
  - More buildings are getting approved with little or no parking
- Turned DDOT's review from exercise in traffic impact analysis to "form-based" design review
  - Reduced number of TIA/CTRs by about one-third – TIA/CTR waiver
  - Scope of studies are better tailored to needs of project – no need to study 20 intersections for every project
  - Saving significant amount of staff time on scoping and reviewing
  - Greater frequency of DDOT reports submitted on time
- Site design, parking supply, TDM, and mitigation negotiation all resolved earlier process
  - Prevents a lot of back-and-forth w/developer in week leading up to zoning hearing
  - More discussions on ped realm and Vision Zero have resulted in more curb extensions + removal of slip lanes
- Quicker review allows staff to work on other agency priorities
- Change in skill sets in employees hired in Neighborhood Planning group – less Synchro, more design
- CTR Guidelines being considered as a case study in up-coming ITE Multi-Modal Transportation Impact Assessment (MTIA) publication
- Collaborating with peer cities to develop a similar approach to evaluating development

# Topics for Future Research / Exploration

- Relationships between parking, auto-ownership, and trip generation
- Is there a need to split vehicle trip gen into trips by personal vehicles vs ride-hailing vehicles?
- Implications to mode shift, transit ridership, auto ownership, and curbside usage from reduced parking
- Implications to mobility for different lifestyles, stages of life, and geographic and socioeconomic equity from reduced on-site parking
- Explore ways to use VMT or VMT/capita at site level
- Metrics for non-auto modes (beyond connectivity and ADA accessibility)
- Quantify impacts of individual and cumulative TDM strategies
- Respond to rapidly evolving urban freight and curbside challenges
- Measure impacts of micro-mobility and other last-mile travel options
- Differing needs and travel patterns between projects targeting affluent, market rate, and affordable markets
- Explore implementation of development and/or transit impact fees
- Prepare for AVs and ensure they do not encourage SOVs and undermine public transit

(more topics listed in *Guidance for Comprehensive Transportation Review*)

# Frequently Asked Questions

## Q1 – What can lower density and more auto-oriented cities do?

*The first step is understanding and coming to terms with the fact that auto-oriented development is going to lead to traffic congestion. So a good place to start to encourage less on-site parking is to allow a vehicle trip gen credit for sites with reduced parking and conversely applying a vehicle trip gen penalty for sites with a high amount of parking. For this to work without encouraging the over-building of the roadway network, a city must resist widening roads or adding lanes. Instead, use the LOS analysis to get non-automotive improvements or cash in-lieu which can be spent on other transportation priorities. Another option is to establish parking caps as part of the sector planning process for transit-oriented areas.*

## Q2 – How do you evaluate impacts to transit and other modes?

*We focus on a "gap analysis" for non-auto modes – whether the sidewalk, bike lane, or bus shelter exists or is missing and whether they are ADA accessible. Any improvements to Metrorail quickly get into the millions of $$ which is burden we do not put onto relatively small projects. Instead, our focus on lower on-site parking supplies + TDM programming will deliver "transit ready" residents and workers to support adjacent Metrobus and Metrorail lines.*

## Q3 – Won't limiting on-site parking just cause people to switch to ride-hailing which are still auto trips?

*From DDOT's data collection efforts over the last 5 years, we expect most of the reduced parking will eliminate empty parking spaces first. Beyond that, from the little research and data available on the topic, our hypothesis is that mode-shift for home-work trips will likely be to non-auto modes where transit is present, but shift to ride-hailing for hotel, tourism, and retail uses. We are monitoring the research as it is released throughout the industry. We are also looking to do a follow-up study in the coming year or two to measure and compare mode-shift at buildings with little parking vs others with significant parking.*

## Q4 – How do you quantify the impacts of individual and cumulative TDM strategies?

*There is not a lot of good data out there right now. We have reviewed two studies published in 2010 by FHWA and CAPCOA that attempted to quantify impacts of specific TDM strategies. What we do know is that TDM implementation combined with quality transit, low parking supplies, and parking priced at market rates all work together to reduce auto-dependency and auto-usage.*

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CTR Guidelines can be found at: https://ddot.dc.gov/node/470382

# Questions?