DDOT Released new CTR Guidelines in June 2019

• 144 page doc – guides traffic consultants on CTR requirements and documents DDOT philosophy on review of development. Everything needed for a CTR in one location.

• 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 in urban setting. TIA now a smaller component of larger CTR study and can be waived in more situations

• Fewer CTR/TIAs has saved DDOT staff a lot of time scoping/reviewing studies that do not yield any actionable recommendations
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, have to rely on non-auto options.
- Less parking allows for more density while generating minimal additional new personal vehicle trips.
- TDM, minimal parking, priced parking, and high quality transit all work together to reduce vehicle trips.
- Parking is permanent site feature and driver of vehicle trips. Availability of parking induces more driving and reinforces auto dependency.
- Little or no parking in a building brings “transit-ready” residents / workforce.
- Parking is costly to build. Not building parking saves $$ that can be passed on to future residents/tenants.
- If meeting DDOT-preferred parking rates and other TDM requirements, more $$ can be saved by not conducting CTR/TIAs.
- No on-site parking means no need for a curb cut, thus minimizing conflicts w/pedestrians, consistent w/DDOT Vision Zero strategy.
Evolution of CTRs in the District

Pre-2012: Traditional Traffic Impact Study (TIS)
  • Propose a development, do a traffic study

  • 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 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 Site Review Priorities

(1) Site Access + Connectivity – must be via alley if available, minimize # of curb cuts, provide connections w/neighbor ing properties, break up superblocks

(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 and Vision Zero

(5) Transit Supportive – site is in close proximity and well connected to transit, other policies to encourage ridership

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

(7) Transportation Demand Management – must provide robust TDM plan to discourage driving and encourage transit usage, TDM Plans based on parking supply and impacts

(8) Curbside Management – accommodate curbside needs of site, address rapidly evolving pick-up/drop-off trends

(9) Traffic Impact Analysis – study intersection 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 through #8

Vision Zero Site Design Strategies

- Install curb extensions to shorten crossing distances
- Reduce curb radii to modern standards
- Remove slip lanes / channelized turn lanes to slow turning traffic
- Head-in/head-out loading so truck drivers can see pedestrians
- Minimize # of curb cuts to minimize conflicts between vehicles and peds
- Treeboxes and street trees as ped buffer
- No laybys – they cause a jog in sidewalk, encourage faster driving, preclude trees
- Upgrade sidewalks, curb ramps, crosswalks, etc. to ADA compliance
## Table 2 | DDOT-Preferred Vehicle Parking Rates

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Less than ⅓ Mile from Metrorail</th>
<th>⅓ to ½ Mile from Metrorail OR Less than ⅓ Mile from Priority Transit**</th>
<th>½ to 1 Mile from Metrorail</th>
<th>More than 1 Mile from Metrorail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>DDOT: 2R16 Min-Max:</td>
<td>0.30 or less</td>
<td>0.50 or less</td>
<td>0.60 or less</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.17* - 0.67</td>
<td>0.33 – 0.67</td>
<td>0.33 – 0.67</td>
</tr>
<tr>
<td>Office</td>
<td>DDOT: 2R16 Min-Max:</td>
<td>0.40 or less</td>
<td>0.65 or less</td>
<td>0.85 or less</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.25* - 1.00</td>
<td>0.50 – 1.00</td>
<td>0.50 – 1.00</td>
</tr>
<tr>
<td>Hotel</td>
<td>DDOT: 2R16 Min-Max:</td>
<td>0.40 or less</td>
<td>0.60 or less</td>
<td>0.75 or less</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.25* - 1.00</td>
<td>0.50 – 1.00</td>
<td>0.50 – 1.00</td>
</tr>
<tr>
<td>Retail ***</td>
<td>DDOT: 2R16 Min-Max:</td>
<td>1.00 or less</td>
<td>1.60 or less</td>
<td>2.00 or less</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.67* - 2.66</td>
<td>1.33 – 2.66</td>
<td>1.33 – 2.66</td>
</tr>
<tr>
<td>Other Uses</td>
<td>DDOT: 2R16 Min-Max:</td>
<td>75% of § 701.5 or less</td>
<td>120% of § 701.5 or less</td>
<td>150% of § 701.5 or less</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50% - 200% of § 701.5*</td>
<td>100% - 200% of § 701.5*</td>
<td>100% - 200% of § 701.5*</td>
</tr>
</tbody>
</table>

Notes:
* There is no vehicle parking requirement in Downtown “D” and several other zones. DDOT strongly encourages Applicants to provide no on-site vehicle parking where allowable by zoning.
** Priority Transit includes the H Street Streetcar, Streetcar Benning Road Extension, DC Circulator, and Priority Corridor Network Metrobus Routes defined by zoning in DCMR 11, Subtitle C § 702.1(c).
*** Retail rates can be used for either standalone buildings or first floor users of mixed-use projects. The Retail category also includes a wide range of related uses such as fast casual restaurant, bank, drinking establishment, pet grooming, coffee shop, grocery, etc.

Equivalent (Left to Right):
- 1 per 3.3 units, 1:2.5, 1:2, 1:1.67
- 1 per 6.25 emps, 1:5, 1:4, 1:2.85
- 1 per 6 rooms, 1:5, 1:4, 1:3

- Rates are based on MoveDC 75% non-auto home-work trips modeshare goal
- DDOT-preferred rates fit within zoning mins and maxes

*** Parking rates correspond to maps on the next slides ***
Distance from Metrorail Stations

• ¼, ½, 1 mile buffers from Metrorail stations shown (corresponds to Table 2 parking rates)

• 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
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

<table>
<thead>
<tr>
<th>PARKING SUPPLY (see Table 2 in CTR Guidelines)</th>
<th>TRAFFIC IMPACTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Impacts (no intersections degrade to unacceptable levels)</td>
<td>Minor Impacts at One Intersection (signal timing or cycle length adjustments only)</td>
</tr>
<tr>
<td>At or Below Benchmark</td>
<td>Baseline TDM Plan</td>
<td>Baseline TDM Plan</td>
</tr>
<tr>
<td>Up to 10% Over-Parked</td>
<td>Baseline TDM Plan</td>
<td>Enhanced TDM Plan</td>
</tr>
<tr>
<td>Up to 20% Over-Parked</td>
<td>Enhanced TDM Plan</td>
<td>Enhanced TDM Plan + Additional TDM OR Non-Auto Upgrades to be Negotiated</td>
</tr>
<tr>
<td>Over 20% Over-Parked</td>
<td>Enhanced TDM Plan + Additional TDM OR Non-Auto Upgrades to be Negotiated</td>
<td>Enhanced TDM Plan + Additional TDM OR Non-Auto Upgrades to be Negotiated</td>
</tr>
</tbody>
</table>
Standardized TDM Plans for Residential, Office, Retail, Hotel/Tourism

- 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)

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.
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
- 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
Frequently Asked Questions

Q1 – How do you evaluate impacts to transit and other modes?
We focus on a “gap analysis” for all 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 developments. Instead, our focus is on lower on-site parking supplies + TDM programming which will deliver “transit ready” residents and workers to support adjacent bus and rail lines.

Q2 – Won’t limiting on-site parking just cause people to switch to ride-hailing which are still auto trips?
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, but mode-shift to ride-hailing is certainly possible 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 and others with significant parking.

Q3 – How do ANCs and existing residents react to lower on-site parking supplies for new buildings?
Our experience has been that ANCs and existing residents often view projects with little or no parking as likely to result in a surge of on-street parking on adjacent streets from new residents. From research we’ve seen in the industry, when buildings don’t provide parking, new building residents don’t bring cars with them. Our hypothesis is that people make the decision not to own a car prior to moving into a building that they know does not have parking. However, we are looking at doing a research project in the next couple years to collect data on buildings with little parking and compare to buildings with large parking supplies.

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.
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 equity and mobility from reduced on-site parking in still auto-dependent parts of District
- 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)