



Rail~Volution Parking Innovations Presentation

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District Department of Transportation (DDOT)**



DDOT Performance Parking Presentation

What is Performance Based Parking?

Performance parking is a curbside parking management strategy DDOT began in March 2008 in the Ballpark District of Ward 6.

Performance parking works by adjusting the rates and/or the time restrictions on metered blocks while protecting the parking supply on surrounding residential and mixed used corridors through increased residential parking enforcement.

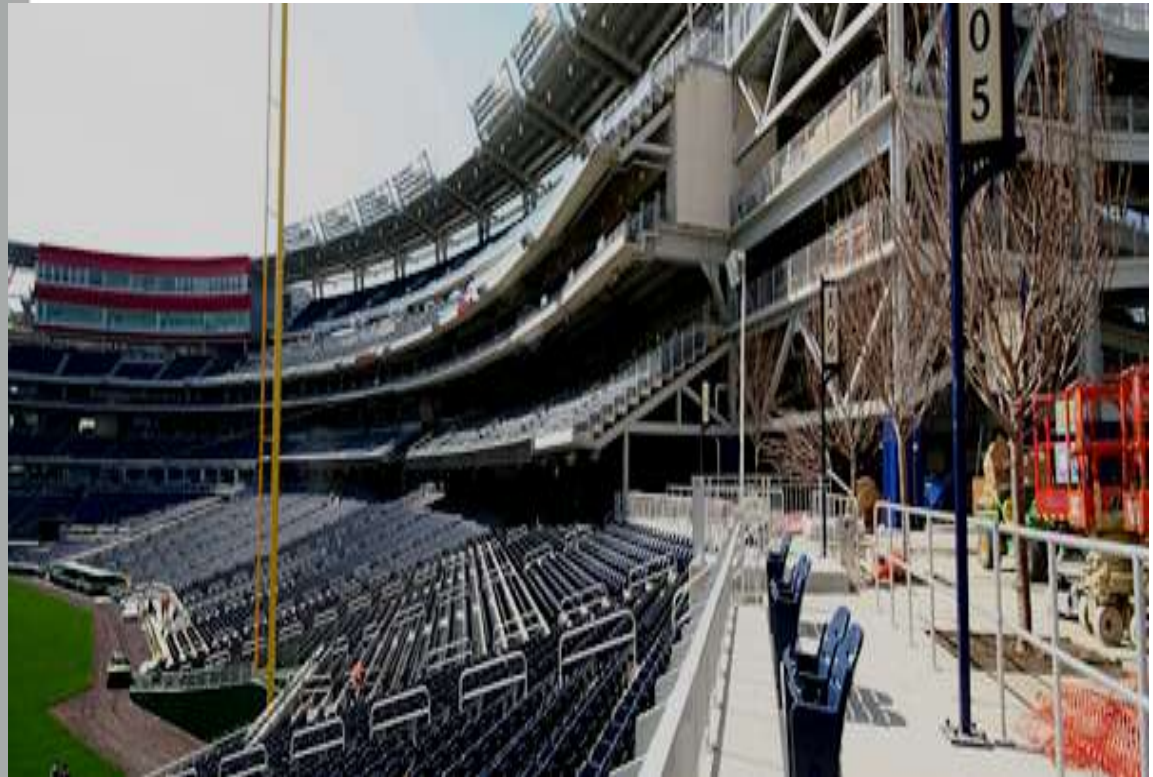


Why Implement Performance Parking?

Through performance based parking DDOT seeks to distribute demand to underutilized areas of the Ballpark District zone and this process is guided by **Three Principles** articulated by Donald Shoup.

Principle #1: *People don't come to traffic generating areas to park.*

People are attracted to communities such as the Ballpark District as places to work, live, shop, dine, and play, and parking is simply a means of access. The demand for parking is *derived* from the demand for these other activities.



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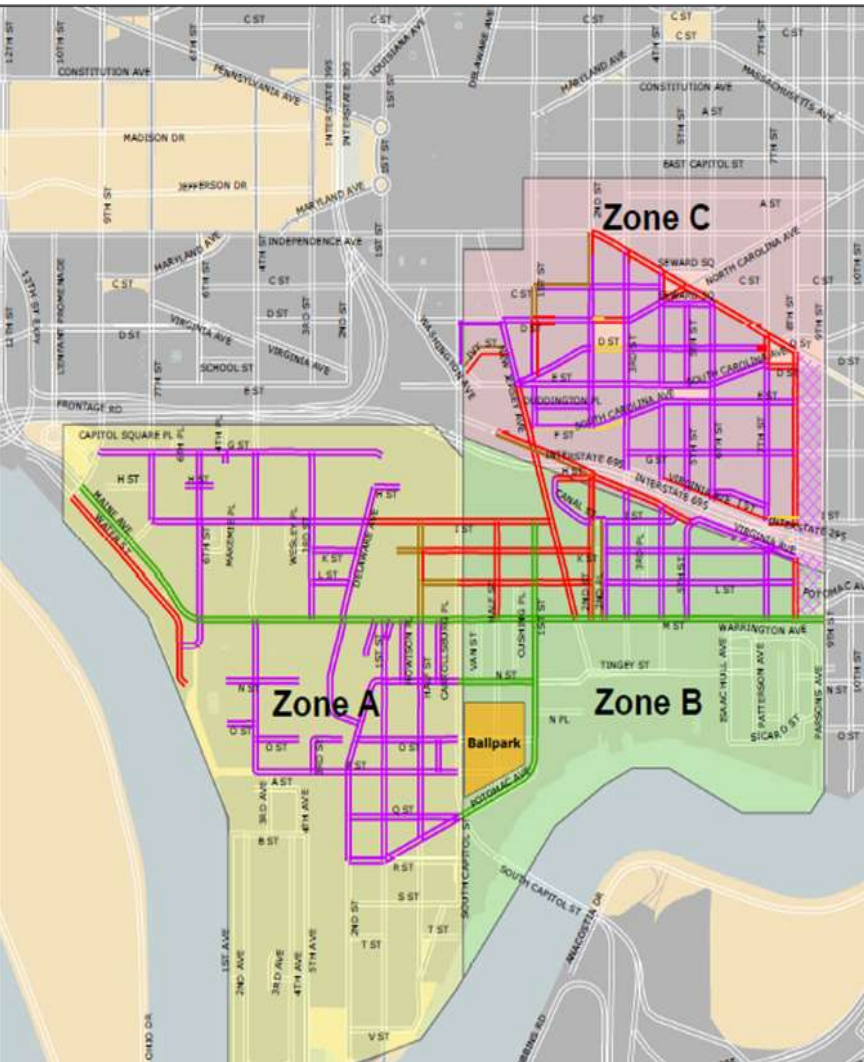
Principle #2: *Cities don't provide parking in order to store cars.* Like roadways, transit service, sidewalks, and other transportation facilities, public parking is an infrastructure investment in one of the critical links in the transportation/land use connection. The District provides parking to support the development and viability of adjacent land uses such as retail and housing developments.



Principle #3: *Parking does not live alone.* Parking resides in a complex and dynamic universe of transportation, access and land use alternatives. The demand for parking is certainly affected by the price for parking; but demand is also impacted by cost, convenience, and availability of other modes as well as development patterns that support trip combining and pedestrian accessibility.



Ballpark District Pilot Zone



EXECUTIVE SUMMARY: 2010 BALLPARK DISTRICT ZONES AND SUB ZONES FOR DATA COLLECTION CYCLES	
ZONE OR SUBZONE	BOUNDARIES
A	North: I-395; East: South Capitol Street, SW; West: Water Street, SW; South: Anacostia River
SUBZONE A1: 4 th Street, SW	New section of 4 th Street, SW between I Street, SW and M Street, SW
SUBZONE A2: Water Street, SW and Maine Avenue, SW	Water Street, SW from 9 th Street, SW to M Place, SW and Maine Avenue, SW between 9 th Street, SW and 6 th Street, SW
B	North: I-395; East: 9 th Street, SE; South: M Street, SE (including New Jersey Avenue, SE and Tingey Street, SE south of M Street, SE; West: South Capitol Street, SE
SUBZONE B1 Barracks Row south of I-395	Barracks Row south of I-395 and Virginia Avenue, SE, L Street, SE and Potomac Avenue east of Barracks Row
SUBZONE B2 Blocks between South Capitol Street, SE and 2 nd Street, SE	Sections of Half Street, 1st Street, New Jersey Avenue, I Street, K Street, L Street and Cushing Place bounded by I Street, SE; 2nd Street, SE; M Street, SE and South Capitol Street, SE
C	North: Pennsylvania Avenue, SE; East: 9 th Street, SE; South: I-395 and West: South Capitol Street, SE
SUBZONE C1 Barracks Row north of I-395	8th Street, SE between Pennsylvania Avenue and I-395, D Street, SE between 7th Street and 8th Street, SE and I Street, SE between 7th Street, SE and 8th Street, SE.
SUBZONE C2 F Street, SE and South Carolina Avenue, SE	F Street, SE between 1st Street, SE and 2nd Street, SE and South Carolina Avenue, SE between 2 nd Street, SE and 3rd Street, SE.
SUBZONE C3 All other MSM blocks in Zone	D Street, SE between 2 nd Street, SE and 3 rd Street, SE (both sections), Ivy Street, S.E. and New Jersey Avenue, SE between E Street and I-395
SUBZONE C4 200 – 700 blocks of Pennsylvania Avenue, SE	Pennsylvania Avenue, SE between 2nd Street, SE and 7 th Street, SE and North Carolina Avenue, SE between 4 th Street, SE and Pennsylvania Avenue, SE

Ballpark District Pilot Zone Data Collected

2010 Ballpark District Occupancy Rates

- 34% of blocks had a maximum occupancy rate at or above 85% on game days
- 24% of blocks had a maximum occupancy rate at or above 85% on non game days
- 10% of blocks averaged an occupancy rate at or above 85% on game days
- 10% of blocks averaged an occupancy rate at or above 85% on non game days

2010 Ballpark District Turnover Rates

The average turnover rates in the Ballpark District pilot zone on game days:

- 2:00 (two hours) for all blocks
 - 1:49 (one hour and forty nine minutes) for metered blocks
 - 2:06 (two hours and six minutes) for non metered blocks
- The average turnover rates in the Ballpark District pilot zone on non game days:
- 1:38 (one hour and thirty eight minutes) for all blocks
 - 1:31 (one hour and thirty one minutes) for metered blocks
 - 1:49 (one hour and forty minutes) for non metered blocks

Data Collection Process and Outcomes

In 2010, DDOT and COG enhanced the data collection methodology and approach by generating per block occupancy and turnover rates based on actual manual counts instead of mathematical formulas measuring curbside footage. The purpose of this data collection effort was to determine the impact of performance parking in the vicinity of the Washington Nationals Ballpark in southeast and Near Southeast DC.

		TABLE 1: BALLPARK DISTRICT TOTAL CURBSIDE OCCUPANCY BY STATE WITH TURNOVER RATES ON ALL BLOCKS (with duplicate registration numbers not removed)							
		DISTRICT OF COLUMBIA		MARYLAND		VIRGINIA		OTHER STATES	
		TOTAL CURBSIDE OCCUPANCY BY ZONE	TURNOVER RATE BY STATE PER ZONE	TOTAL CURBSIDE OCCUPANCY BY ZONE	TURNOVER RATE BY STATE PER ZONE	TOTAL CURBSIDE OCCUPANCY BY ZONE	TURNOVER RATE BY STATE PER ZONE	TOTAL CURBSIDE OCCUPANCY BY ZONE	TURNOVER RATE BY STATE PER ZONE
AWAY GAMES	ZONE A	1,553	31%	590	12%	387	8%	2,482	50%
	ZONE B	811	32%	316	13%	309	12%	1,066	43%
	ZONE C	2,321	45%	412	8%	559	11%	1,897	37%
	TOTAL	4,685	37%	1,318	10%	1,255	10%	5,445	43%
HOME GAMES	ZONE A	1,917	34%	714	12%	479	8%	2,610	46%
	ZONE B	1,078	24%	778	17%	796	17%	1,931	42%
	ZONE C	3,135	44%	568	8%	657	9%	2,728	38%
TOTAL OR AVG.		6,130	35%	2,060	12%	1,932	11%	7,269	42%

Block by Block Data Collection

EXECUTIVE SUMMARY: 2010 TOP TEN HIGHEST CURBSIDE OCCUPANCY RATES BY HUNDRED BLOCK ON NATIONALS GAME DAYS								
ZONE	HUNDRED BLOCK	STREET NAME	PARKING SPACES PER BLOCK SEGMENT	AVERAGE OCCUPANCY		MAXIMUM OCCUPANCY		TURNOVER RATE
				NUMBER OF VEHICLES	OCCUPANCY PERCENTAGE	NUMBER OF VEHICLES	OCCUPANCY PERCENTAGE	
A	900		3	10	333%	16	533%	1:27
A	100	M Street, SW	3	6	200%	12	400%	1:20
A	1600		6	16	267%	19	317%	1:58
A	1100		8	11	138%	21	263%	2:12
B	900	Half Street, SE	5	7	140%	11	220%	0:46
B	1000		24	14	58%	67	279%	1:56
B	1000		3	4	133%	6	200%	2:01
B	1200		22	19	86%	46	209%	2:13
A	UNIT		8	8	100%	13	163%	1:25
A	1500	Half Street, SW	22	22	100%	34	155%	0:08

Data collectors used two or three private vehicles outfitted with LPR systems traveling the same routes continuously for eight hour intervals for three consecutive days, including a Saturday or Sunday This consists of a digital camera, a laptop computer, a video conversion unit (to convert images from the camera into a format acceptable for computer processing and a global positioning system (GPS) unit.

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Once collected, the geographic coordinates were converted from latitude and longitude to Maryland State Plane Coordinate System, and then each observed record was coded to a block within the Ballpark District using ARCMAP Geographic Information System (GIS) software.

Ballpark District Pilot Zone Funded Projects

2010 Ballpark District Revenue Numbers

DDOT has completed or obligated \$597,100.00 of pilot zone funds for the following FY 2011 projects:

- **\$180,000.00:** Eastern Market Metro Plaza Information Hub
- **\$135,000.00:** New fence on New Jersey Avenue, SE over the railroad tracks.
- **\$100,000.00:** Capital Bikeshare locations
- **\$60,000.00:** Big Belly Solar Powered Trash Compactors.
- **\$42,600.00:** Purchase of Six Multi Space or Smart Meters.
- **\$32,000.00:** Mass Transit and Bicycle ornate Wayfinder Maps.
- **\$25,000.00:** Pedestrian Wayfinder signs
- **\$10,000.00:** Ornate Metal Benches
- **7,500.00:** Capitol Hill Historic Disc signs.
- **\$5,000.00:** Ornate Bike Racks for Barracks Row, Pennsylvania Avenue and Southwest DC

RESIDENTIAL ONLY RESIDENTIAL PARKING PERMIT (RPP) ENFORCEMENT

Resident Only Resident Parking Permit (RPP) signage is a strategy the District Department of Transportation (DDOT) may employ in heavily congested residential areas that are in close proximity to special traffic generators.

- **Mixed Use Residential and Commercial Blocks:** These signs are not appropriate on portions of corridors that may have households but are primarily commercial, such as H Street, NE or Columbia Road, NW. If a block/corridor would not qualify under existing RPP requirements, then it is disqualified from consideration for Resident Only signs.
- **Purely Residential Corridors:** Resident Only signage is not effective on purely residential corridors. If a block is predominantly residential and there is no special traffic generator nearby; then residents are ‘competing’ against each other for curbside parking and Resident Only signage will not provide greater parking opportunities.
- **Extending RPP Hours of Operation:** Extension of RPP hours of operation may be an appropriate compliment to Resident Only signage or a better solution altogether. Extending RPP operations provides residents with greater control over curbside parking on their blocks due to the RPP time limits being enforced for more hours every day.

Residential and Visitor Parking Passes





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