

Ward 6 Ballpark District Performance Based Parking Report



District Department
of Transportation

2010

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Executive Summary

The Ward 6 Ballpark District performance parking pilot zone is comprised of 145 blocks with a total of 6,260 curbside parking spaces on Washington Nationals non game days. The number of on street spaces is reduced to 6,207 parking spaces on game days due to ‘Emergency No Parking’ signs that are installed on the blocks in the immediate vicinity of the ballpark by the District Department of Transportation (DDOT).

Performance parking is a management strategy DDOT began in the Ballpark District in March 2008 to address special traffic generators such as the new Washington Nationals Ballpark, the expansion of Arena Stage as well as increased residential and commercial developments, particularly in the southeast quadrant of the zone near South Capitol Street, SE and New Jersey Avenue, SE. 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.

The department’s goals for variable pricing curbside parking remain established in the concept that parking demand does not generally distribute evenly throughout any area. Given the scarcity of public right of way and the high costs of parking construction, cities have an obligation and an opportunity to manage public parking to best achieve clearly delineated purposes. Parking demand tends to be highest for the most convenient parking which tends to be located nearest to special traffic generators. These traffic generators may be commercial, residential, institutional, and recreational or there may be a blend of activities; nonetheless, each type draws parking patrons from beyond the immediate community thereby increases traffic congestion. 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.
- **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 of Columbia provides curbside 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.

In 2010, the District of Columbia ranked fifth on the Forbes Magazine annual poll of the 100 most congested cities in the United States. Ward 6 residents directly benefit from performance parking through reduced traffic on their streets and non automotive transportation improvements paid for with pilot zone revenues.

Non automotive transportation improvement funding in the pilot zone may be used for pedestrian, bicycle and mass transit congestion mitigation measures. During fiscal year 2010, DDOT funded and completed the following improvements:

- Purchased Big Belly solar trash compactors
- Purchased ornate bike racks with area specific names on them such as Barracks Row, Pennsylvania Avenue and Southwest DC

- Purchased Capitol Hill Historic Disc signs
- Purchased ornate benches for public space
- Developed a design and build plan for an Eastern Market Information Hub in conjunction with the Comprehensive Building Design Studio (CBDS) at Catholic University of America (CUA). The Hub is scheduled for construction in public space at the Eastern Market Metro Plaza during fiscal year 2011.

DDOT, in partnership with the National Capital Region Transportation Planning Board (TPB) of the Metropolitan Council of Governments (COG) has completed 2010 data collection for the Ballpark District. This data represents the reporting requirements under the Performance Based Parking law and provides updates on each of the following:

EXECUTIVE SUMMARY: PERFORMANCE PARKING LAW REPORTING REQUIREMENTS	
2.0	Curbside Occupancy Rates by block segments and per block for all streets in pilot zone
3.0	Turnover Rates by block segment and per block for all streets in the pilot zone
4.0	Ward 6 Ballpark District Visitor Parking Pass (VPP) Program Update
5.0	Revenue Update with Expenditures, and Non Automotive Transportation Improvements and Recommendations
6.0	Proposed Pilot Zone Modifications for Fiscal Year 2011

During this data collection cycle DDOT refined its methodology. For example, last year occupancy and turnover rates were based on curbside parking supply estimates determined by calculating the linear footage of block segments in the pilot zone. In 2010, data collectors went to all 145 blocks and counted the parking spaces, therefore this report provides curbside occupancy and turnover rates block by block as well as in segments. As a result of this new approach DDOT can provide per block occupancy and turnover rates for Washington Nationals game days as well as non game days.

Below are the blocks with the highest occupancy rates during the 2010 data collection process:

EXECUTIVE SUMMARY: 2010 TOP TEN HIGHEST CURBSIDE OCCUPANCY RATES BY HUNDRED BLOCK ON WASHINGTON 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	6 th Street, SW	3	10	333%	16	533%	1:27
A	100	M Street, SW	3	6	200%	12	400%	1:20
A	1600	South Capitol Street	6	16	267%	19	317%	1:58
A	1100	Delaware Avenue, SW	8	11	138%	21	263%	2:12
B	900	Half Street, SE	5	7	140%	11	220%	0:46
B	1000	New Jersey Avenue, SE	24	14	58%	67	279%	1:56
B	1000	8 th Street, SE	3	4	133%	6	200%	2:01
B	1200	New Jersey Avenue, SE	22	19	86%	46	209%	2:13
A	UNIT	O Street, SW	8	8	100%	13	163%	1:25
A	1500	Half Street, SW	22	22	100%	34	155%	0:08

Curbside occupancy rates are determined by dividing the number of legal parking spaces per block by the vehicles parked per block. A percentage over 100% means the block is parked at full capacity. Two reasons for extremely high occupancy rates are illegal parking and increased ‘smart car’ usage. Illegal parking is usually the culprit when analyzing blocks with extremely high curbside occupancy percentages. For example, it is illegal to park within ten feet of a fire hydrant, within five feet of a curb cut or within twenty five feet of many intersections. Therefore, the data collector’s number of parking spaces per block is based on the legal curbside spaces not the total number of vehicles that can fit on the curbside if parked illegally.

Vehicles parked illegally are included in the occupancy rate which generates very high overall occupancy percentages on some full capacity blocks. Small blocks with very few legal spaces but have curbsides at full capacity is another element of illegal parking because if parked beyond legal space capacity these small blocks will yield very high occupancy percentages.

Another reason for very high occupancy percentages are the volume of ‘smart vehicles’ such as Mini Cooper’s on District streets. Smart vehicles take up less curbside space allowing more vehicles to park legally and illegally. On Tables 5a through 6d of this report blocks with occupancy rates at or above 150% are designated as full capacity. In the Executive Summary the actual curbside occupancy rates for the ten most heavily occupied blocks are included for game and non game days. It is important to note that blocks with the highest occupancy rates tend to be short blocks with very few spaces; therefore a relatively small number of parked vehicles will yield a very high occupancy rate.

EXECUTIVE SUMMARY: 2010 TOP TEN HIGHEST CURBSIDE OCCUPANCY RATES BY HUNDRED BLOCK ON NON 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	100	M Street, SW	3	7	233%	14	467%	2:11
B	1000	5 th Street, SE	11	19	173%	26	236%	1:22
A	300	K Street, SW	9	13	144%	20	222%	2:28
B	900	Half Street, SE	5	7	140%	12	240%	1:45
A	400	I Street, SW	8	11	110%	26	260%	1:33
B	UNIT	L Street, SE	10	11	110%	25	250%	1:07
A	500	K Street, SW	15	19	127%	32	213%	1:45
A	900	Makemie Place, SW	12	12	100%	36	300%	2:01
A	300	I Street, SW	43	8	100%	17	213%	1:22
B	1100	5 th Street, SE	14	16	114%	24	171%	1:29

In 2010, DDOT continued to collect data using License Plate Reader (LPR) technology. Data collection vehicles were equipped with LPR cameras and laptops that recorded plates on each block in the zone. Some blocks in Tables 5a through 6d do not have data for game days or non game days because either (i) DDOT does not allow parking on these blocks during Nationals stadium events or (ii) the LPR technology could not gather enough license plate data to generate a valid turnover rate.

Table 1 of the report attempts to address this LPR technology issue by providing license plate data by duplicate registrations, or plates identified more than once on a block segment during data collection; each of these 30,094 plates were counted. Table 2 provides LPR collected data

without duplicate registrations. Several data collection vehicles with LPR were used for each data cycle and they followed the same three routes each time. These routes were delineated by zones within the pilot (see Ballpark District map) and broken down into sub zones for easier evaluation.

Below are the zones and subzones used by the data collectors:

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

Following is a summary of the 2010 Ballpark District pilot zone findings:

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

2010 Vehicle by State of Registration Data

- 42% of parked vehicles on game days were registered in other States
- 35% of parked vehicles on game days were registered in the District of Columbia
- 12% of parked vehicles on game days were registered in the State of Maryland
- 11% of parked vehicles on game days were registered in the Commonwealth of Virginia
- 43% of parked vehicles on non game days were registered outside of the District, Maryland or Virginia
- 37% of parked vehicles on non game days were registered in the District of Columbia
- 10% of parked vehicles on non game days were registered in the State of Maryland
- 10% of parked vehicles on non game days were registered in the Commonwealth of Virginia

2010 Ballpark District Revenue Numbers

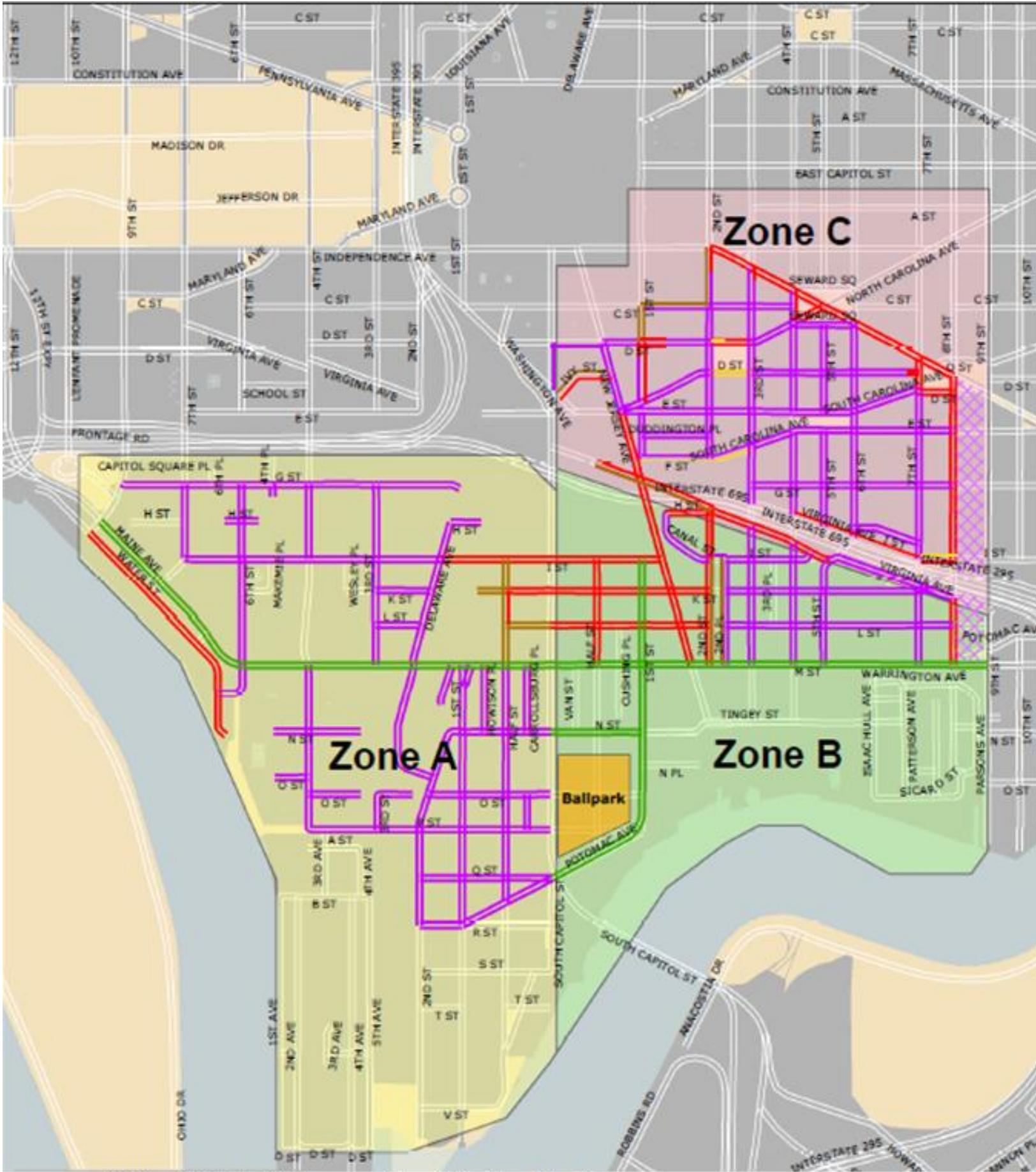
DDOT has completed or obligated \$597,100.00 of pilot zone funds for the following FY 2011 projects:

- \$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

2011 Ballpark District Proposed Modifications

- Increase non game day rates from \$4.00 for three hours to \$6.00 for three hours on variably priced meters on blocks near the Washington Nationals Ballpark (subzone B2)
- Reduce daily meter rates at DDOT off street parking facility under I-395 (8th Street, SE and I Street, SE) from \$1.50 per hour to \$.75 per hour, Monday – Saturday 7am – 9:30pm :
- Expand Ballpark District to the following boundaries:
 - North: 200 – 300 blocks of 7th Street, SE.
 - East: 500 – 1100 blocks of 11th Street, SE
 - South: Potomac Avenue, SE would remain boundary.

- West: Water Street, SW between Fisherman's Wharf and 9th Street, SW.
- Expand hours of Residential Permit Parking (RPP) enforcement until 2am
- Provide grants to pilot zone schools and community based organizations for student based transportation initiatives.



Ballpark District Performance Based Parking Pilot Zone

1.0 Introduction: Data Collection Methodology and Approach

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. This data includes on street usage and the duration that vehicles were parked in either free (non metered mix used or residential parking) spaces and on street metered spaces.



DDOT Multi Space Meter in the Ballpark District

Data collectors used two or three private vehicles outfitted with LPR systems¹ traveling the same routes, with both free and pay parking, continuously for eight hour intervals for three consecutive days, including a Saturday or Sunday, in the spring summer and fall of 2010. Data collection took place during both day and night games and it was grouped into game day and non game days to determine the impact of ballpark patrons to the curbside parking supply. LPR technology allowed the data collectors to record the registration plate numbers of parked vehicles hands free while driving each block in the Ballpark District. Each tag number observed was recorded into a computer file, along with timestamp and geographic coordinates where the tag was read. The LPR equipped vehicles used three routes for the data collection cycles. These routes were on (i) the west side of New Jersey Avenue, SE; (ii) the east side of east side of New Jersey Avenue, SE; and (iii) the Pennsylvania Avenue, 8th Street, SE (Barracks Row) and Water Street, SW commercial corridors.

Once collected, the data was subjected to extensive processing before analysis. First, 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. Registration numbers that seemed illogical were removed.² Each tag number was examined for State of registration (this is not something that the LPR units are currently capable of interpreting), and when possible, the state was assigned (D.C., Maryland, Virginia and Other State)³.

Data collected was coded to each hundred block within the study area and if a record was not found to have a matching entry with the same tag number, it was marked as such, and not used to compute the average duration of parked vehicles. If a record had one or more matches, the

¹ 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.

² The LPR software will, at times, recognize street signs and lettering on commercial vehicles (especially telephone numbers) as “registration plates.”

³ Staff was conservative in assigning the State of Registration since some valid series of plates overlap between states and region, particularly six digit registration numbers, nonetheless tags assigned to other States were used for this analysis.

duration of time between the earliest observation and the latest observation was computed. These durations were then averaged for each zone and sub-zone.

The overall State of registration data is shown in Tables 1 and 2. This data was then assigned to blocks in the study area and to one of the three zones. For analytical purposes, blocks with conventional or multi-space parking meters were broken out or in some cases aggregated with nearby blocks if the number of observed records was small.

		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%

Parking capacities were determined through a block by block field check. The parking capacities were then used as the basis for the analysis for home and away days, as seen in Tables 3 and 4, respectively. Consideration was also given to the impact of United States Marine Corps activities which draw many visitors to 8th Street, SE on Friday evenings in the late spring and summer months.

		TABLE 2: BALLPARK DISTRICT TOTAL CURBSIDE OCCUPANCY BY STATE WITH TURNOVER RATES ON ALL BLOCKS (with duplicate registration numbers 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	917	25%	403	11%	323	9%	2,076	56%
	ZONE B	383	24%	200	12%	215	13%	825	51%
	ZONE C	1,358	37%	278	8%	442	12%	1,582	43%
	TOTAL	2,658	30%	881	10%	980	11%	4,483	50%
HOME GAMES	ZONE A	1,222	28%	502	12%	404	9%	2,202	51%
	ZONE B	572	19%	445	15%	559	18%	1,460	48%
	ZONE C	1,547	33%	412	9%	507	11%	2,222	47%
TOTAL OR AVG.		3,341	28%	1,359	11%	1,470	12%	5884,	49%

2.0 2010 Ballpark District Occupancy Rates: Performance of Spaces by Block

The following performance metrics were adopted for this project: (i) number of tag numbers observed exactly once in any given data collection day in a specific block; (ii) duration of time that a vehicle is parked in a block; (iii) average utilization for each block that is metered; and (iv) maximum utilization for each metered block.

Tag numbers observed exactly once on a block on a given day implies that the vehicle may not have been parked on the block during subsequent data collection passes.⁴

		TABLE 3: BALLPARK DISTRICT CURBSIDE OCCUPANCY RATE BY STATE ON NON METERED BLOCKS (GAME AND NON GAME DAYS)			
		DISTRICT OF COLUMBIA	MARYLAND	VIRGINIA	OTHER STATES
		TURNOVER RATE PER ZONE	TURNOVER RATE PER ZONE	TURNOVER RATE PER ZONE	TURNOVER RATE PER ZONE
AWAY GAMES	ZONE A	31%	11%	9%	50%
	ZONE B	40%	9%	11%	40%
	ZONE C	48%	7%	9%	37%
	TOTAL	40%	9%	10%	43%
HOME GAMES	ZONE A	34%	12%	9%	46%
	ZONE B	32%	16%	16%	36%
	ZONE C	49%	6%	8%	37%
TOTAL		38%	11%	11%	40%

Below are the occupancy rates results for all 145 blocks in the Ballpark District pilot:

- **34% of blocks had a maximum occupancy rate at or above 85% on game days:** during the four hours of variable rate meter pricing for Washington Nationals games each of these blocks had an occupancy rate at or above 85% for at least one data collection run but this occupancy rate was not maintained for the entire eight hour data cycle.
- **24% of blocks had a maximum occupancy rate at or above 85% on non game days:** blocks with occupancy rates at or above 85% during the eight hour collection period drops by 10% on non game days.
- **10% of blocks averaged an occupancy rate at or above 85% on game days:** these blocks had an occupancy rate at or above 85% for the entire eight hour data collection cycle.
- **10% of blocks averaged an occupancy rate at or above 85% on non game days:** this average at or above 85% indicates that these blocks consistently reach the 85% occupancy rate threshold regardless of Washington Nationals games.

For unmetered blocks only, an analysis of States of registration at the zone level was conducted for game days and non game days, this being a possible surrogate for measuring changes in vehicles visiting the area from outside the District of Columbia. See Table 3. An average duration of parked vehicles was computed for all vehicles observed twice or more than twice in a given block.

⁴ Though the lack of further matches could also be due to the registration plate of the vehicle being obstructed by another vehicle parked very close behind.

3.0 2010 Ballpark District Turnover Rates: Performance of Spaces by Block

The block segment with the shortest turnover rate on non game days is the 200 – 700 blocks of Pennsylvania Avenue, SE. There are a total of 104 curbside parking spaces along this corridor and on average, a parking space turned over every one hour and fifteen minutes.

TABLE 3: 2010 BALLPARK DISTRICT NON GAME DAYS TOTAL PARKING SUPPLY, CURBSIDE OCCUPANCY AND TURNOVER RATES BY BLOCK SEGMENTS							
ZONE	BLOCK SEGMENTS	PARKING SPACES PER BLOCK SEGMENT	AVERAGE OCCUPANCY		MAXIMUM OCCUPANCY		TURNOVER RATE
			NUMBER OF VEHICLES	OCCUPANCY PERCENTAGE	NUMBER OF VEHICLES	OCCUPANCY PERCENTAGE	
A	4 th Street, SW between I and M Streets, SW	60	38	63%	99	FULL CAPACITY	1:40
A	500 – 900 blocks of Water and Maine Streets, SW	272	210	77%	393	144%	1:25
A	All Remaining Blocks in Near Southeast	2,230	832	37%	1,221	55%	2:08
TOTALS OR AVERAGES FOR ZONE A:		2,562	881	49%	1,304	71%	
B	8 TH Street, SE between I-395 and M Street, SE	53	15	28%	22	42%	1:20
B	All Metered Blocks between South Capitol Street and 2 nd Street, SE	545	142	26%	356	65%	1:27
B	All Remaining Blocks south of I-395 between South Capitol Street and 8 th Street, SE	719*	199	28%	648	90%	1:38
TOTALS OR AVERAGES ZONE B:		1,317	356	27%	1,026	66%	
C	8 th Street, SE between Pennsylvania Avenue and I-395	169	111	66%	203	120%	1:15
C	All blocks on F Street, SE and South Carolina Avenue, SE	88	26	30%	54	61%	2:11
C	Remaining Metered Blocks	107	47	44%	130	121%	1:26
C	200 – 700 blocks of Pennsylvania Avenue, SE	104	119	114%	228	FULL CAPACITY	1:15
C	All Remaining Blocks	1,913	956	50%	1,016	53%	1:46
TOTALS OR AVERAGES ZONE C:		2,381	1,259	50%	1,631	115%	
AVERAGE TURNOVER RATE FOR ALL PILOT ZONE BLOCKS: 1:38 AVERAGE TURNOVER RATE FOR METERED BLOCKS: 1:31 AVERAGE TURNOVER RATE FOR RESIDENTIAL BLOCKS: 1:49 *DIFFERENCE BETWEEN DAY AND NON GAME DAY PARKING SUPPLY BASED DUE TO NO PARKING SIGNS POSTED ON GAME DAYS BLOCK SEGMENTS HAVE AN AVERAGE OR MAX OCCUPANCY RATE AT OR ABOVE 85% PERCENTAGES ABOVE 100% MEAN TOTAL VEHICLES COUNTED PER BLOCK SEGMENT EXCEEDED TOTAL NUMBER OF PARKING SPACES COUNTED PER BLOCK SEGMENT							

The block segment with the longest non game day turnover rate is subzone C2 which encompasses F Street, SE between 1st Street, SE and 2nd Street, SE and South Carolina Avenue, SE between 2nd Street, SE and 3rd Street, SE. There are 88 on street parking spaces in this corridor and a space turned over every two hours and eleven minutes. Although there is a two hour limit for non Zone 6 permit holders it should be noted that Ward 6 visitor passes are valid on these blocks so many of the parkers can stay beyond two hours without fear of a ticket.

The block segment with the shortest turnover rate on Washington Nationals game days is the 400 – 700 blocks of 4th Street, SW. This corridor is recently constructed and has 60 curbside parking spaces. The spaces turned over once every one hour and twenty nine minutes.

TABLE 4: 2010 WASHINGTON NATIONALS GAME DAYS BALLPARK DISTRICT TOTAL PARKING SUPPLY, CURBSIDE OCCUPANCY AND TURNOVER RATES BY BLOCK SEGMENTS							
ZONE	BLOCK SEGMENTS	PARKING SPACES PER BLOCK SEGMENT	AVERAGE OCCUPANCY		MAXIMUM OCCUPANCY		TURNOVER RATE
			NUMBER OF VEHICLES	OCCUPANCY PERCENTAGE	NUMBER OF VEHICLES	OCCUPANCY PERCENTAGE	
A	4 th Street, SW between I and M Streets, SW	60	40	67%	59	98%	1:29
A	500 – 900 blocks of Water and Maine Streets, SW	272	131	48%	189	69%	1:28
A	All Remaining Blocks in Near Southeast	2,230	710	32%	1,056	47%	2:05
TOTALS OR AVERAGES FOR ZONE A:		2,562	881	49%	1,304	71%	
B	8 th Street, SE between I-395 and M Street, SE	53	13	25%	17	32%	1:54
B	All Metered Blocks between South Capitol Street and 2 nd Street, SE	545	207	38%	471	86%	1:44
B	All Remaining Blocks south of I-395 between South Capitol Street and 8 th Street, SE	666	253	38%	527	79%	1:53
TOTALS OR AVERAGES ZONE B:		1,264	473	34%	1,015	66%	
C	8 th Street, SE between Pennsylvania Avenue and I-395	169	58	34%	119	70%	1:50
C	All blocks on F Street, SE and South Carolina Avenue, SE	88	50	57%	89	101%	2:43
C	Remaining Metered Blocks	107	86	80%	112	105%	1:55
C	200 – 700 blocks of Pennsylvania Avenue, SE	104	125	120%	133	128%	1:35
C	All Remaining Blocks	1,913	1,043	55%	1,476	77%	2:22
TOTALS OR AVERAGES ZONE C:		2,381	1,362	69%	1,929	96%	
AVERAGE TURNOVER RATE FOR ALL PILOT ZONE BLOCKS: 2:00 AVERAGE TURNOVER RATE FOR METERED BLOCKS: 1:49 AVERAGE TURNOVER RATE FOR RESIDENTIAL BLOCKS: 2:06 HIGHLIGHTED BLOCK SEGMENTS HAVE AN AVERAGE OR MAX OCCUPANCY RATE AT OR ABOVE 85% PERCENTAGES ABOVE 100% MEAN TOTAL VEHICLES COUNTED PER BLOCK SEGMENT EXCEEDED TOTAL NUMBER OF PARKING SPACES COUNTED PER BLOCK SEGMENT							

The block segment with the longest game day turnover is also subzone C2. This corridor’s turnover rate rose nearly a half hour to two hours and forty three minutes. The average occupancy rate for this corridor is 57% well below the optimal threshold of 85%. However, the maximum occupancy rate recorded for this segment is above optimal capacity at 101%. Tables 5a through 6d provide a block by block break down of occupancy and turnover rates for all 145 blocks in the pilot.

TABLE 5a: 2010 WASHINGTON NATIONALS GAME DAYS BALLPARK DISTRICT TOTAL PARKING SUPPLY, CURBSIDE OCCUPANCY AND TURNOVER RATES BY HUNDRED BLOCK

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	1200	1 st Street, SW	14	12	86%	18	129%	3:32
A	1300	1 st Street, SW	36					
A	1500	1 st Street, SW	22					
A	1500	2 nd Street, SW	16	10	63%	14	88%	2:06
A	1100	3 rd Street, SW	18					
A	700	4 th Street, SW	47	18	38%	32	68%	2:46
A	1000	4 th Street, SW	53	26	49%	63	119%	1:27
A	1200	4 th Street, SW	45	23	51%	50	111%	2:48
A	1300	4 th Street, SW	40	23	58%	38	95%	3:00
A	1400	4 th Street, SW	23	10	43%	27	117%	1:18
A	900	6 th Street, SW	3	10	FULL CAPACITY	16	FULL CAPACITY	1:27
A	1000	6 th Street, SW	57	20	35%	23	40%	1:31
A	1200	6 th Street, SW	29	15	52%	39	134%	2:55
A	900	Delaware Avenue, SW	8	7	88%	11	138%	2:02
A	1000	Delaware Avenue, SW	9	11	122%	16	178%	1:22
A	1100	Delaware Avenue, SW	8	11	FULL CAPACITY	21	FULL CAPACITY	2:12
A	100	H Street, SW	16	5	31%	5	31%	1:04
A	1200	Half Street, SW	46	12	26%	19	41%	1:26
A	1300	Half Street, SW	39	13	33%	17	44%	1:28
A	1400	Half Street, SW	21	5	24%	6	29%	1:30
A	1500	Half Street, SW	22	22	FULL CAPACITY	34	FULL CAPACITY	0:08
A	UNIT	I Street, SW	12	9	75%	14	117%	1:12
A	100	I Street, SW	43	10	23%	24	56%	1:33
A	300	I Street, SW	8					
A	400	I Street, SW	10	8	80%	11	110%	0:55
A	UNIT	K Street, SW	23	11	48%	11	48%	1:31
A	200	K Street, SW	36	10	28%	12	33%	2:47
A	300	K Street, SW	9					
A	500	K Street, SW	15					
A	UNIT	L Street, SW	18	12	67%	17	94%	1:32
A	100	M Street, SW	3	6	FULL CAPACITY	12	FULL CAPACITY	1:20
A	200	M Street, SW	11	6	55%	14	127%	1:58
A	300	M Street, SW	20	10	50%	22	110%	0:15
A	400	M Street, SW	21	9	43%	16	76%	2:20
A	900	Makemie Place, SW	12					
A	300	N Street, SW	14					
A	UNIT	O Street, SW	8	8	FULL CAPACITY	13	FULL CAPACITY	1:25
A	UNIT	P Street, SW	20	11	55%	11	55%	0:11
A	100	P Street, SW	15	9	60%	10	67%	1:29
A	300	P Street, SW	10	11	110%	13	130%	1:40
A	1600	South Capitol Street	6	16	FULL CAPACITY	19	FULL CAPACITY	1:58
A	1700	South Capitol Street	21	15	71%	15	71%	1:58
A	UNIT	S Street, SW	33	13	39%	17	52%	1:58
A	500	Water Street, SW	35	11	31%	36	103%	2:28
A	600	Water Street, SW	62	23	37%	56	90%	1:05
A	700	Water Street, SW	37	14	38%	39	105%	1:46

TABLE 5b: 2010 WASHINGTON NATIONALS GAME DAYS BALLPARK DISTRICT TOTAL PARKING SUPPLY, CURBSIDE OCCUPANCY AND TURNOVER RATES BY HUNDRED BLOCK

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	Water Street, SW	37	26	70%	43	116%	1:12
A	900	Wesley Place, SW	9					
B	900	1 st Street, SE	14	9	64%	15	107%	1:26
B	1000	1 st Street, SE	19	11	58%	32	FULL CAPACITY	1:10
B	1100	1 st Street, SE	16	13	81%	22	138%	1:43
B	1000	2 nd Street, SE	9	5	56%	9	100%	1:11
B	1100	2 nd Street, SE	22	8	36%	20	91%	1:01
B	800	3 rd Street, SE	21	8	38%	21	100%	1:20
B	900	3 rd Street, SE	15	10	67%	15	100%	0:13
B	1000	3 rd Street, SE	22	14	64%	22	100%	2:33
B	1100	4 th Street, SE	17					
B	900	5 th Street, SE	20	5	25%	7	35%	0:22
B	1000	5 th Street, SE	11	8	73%	11	100%	4:21
B	1100	5 th Street, SE	14					
B	1000	7 th Street, SE	21					
B	1000	8 th Street, SE	3	4	FULL CAPACITY	6	FULL CAPACITY	2:01
B	1100	8 th Street, SE	21					
B	100	Canal Street, SE	14	9	64%	16	114%	2:42
B	1100	Cushing Place, SE	14	7	50%	13	93%	2:51
B	100	H Street, SE	34	10	29%	19	56%	1:12
B	900	Half Street, SE	5	7	FULL CAPACITY	11	FULL CAPACITY	0:46
B	UNIT	I Street, SE	27	14	52%	32	119%	1:59
B	200	I Street, SE	23	8	35%	22	96%	1:13
B	300	I Street, SE	28					
B	UNIT	K Street, SE	18	16	89%	20	111%	0:07
B	100	K Street, SE	20	4	20%	5	25%	3:21
B	200	K Street, SE	14					
B	300	K Street, SE	25	9	36%	17	68%	1:02
B	400	K Street, SE	19					
B	500	K Street, SE	20					
B	UNIT	L Street, SE	10	6	60%	11	110%	1:51
B	100	L Street, SE	34	6	18%	11	32%	2:26
B	200	L Street, SE	19	7	37%	16	84%	2:42
B	300	L Street, SE	27	15	56%	29	107%	1:39
B	400	L Street, SE	21	10	48%	15	71%	1:31
B	600	L Street, SE	69	9	13%	16	23%	1:34
B	700	L Street, SE	26	6	23%	10	38%	1:26
B	800	L Street, SE	10					
B	800	New Jersey Avenue, SE	30	6	20%	11	37%	1:21
B	900	New Jersey Avenue, SE	21	9	43%	21	100%	1:13
B	1000	New Jersey Avenue, SE	24	14	58%	67	FULL CAPACITY	1:56
B	1100	New Jersey Avenue, SE	20	11	55%	29	145%	1:14
B	1200	New Jersey Avenue, SE	22	19	86%	46	FULL CAPACITY	2:13
B	800	Potomac Avenue, SE	6					
B	200	Tingey Street, SE	15	14	93%	20	133%	2:46

TABLE 5c: 2010 WASHINGTON NATIONALS GAME DAYS BALLPARK DISTRICT TOTAL PARKING SUPPLY, CURBSIDE OCCUPANCY AND TURNOVER RATES BY HUNDRED BLOCK

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	
B	300	Tingey Street, SE	15	12	80%	16	107%	2:08
B	200	Virginia Avenue, SE	31	7	23%	15	48%	1:05
B	300	Virginia Avenue, SE	24	15	63%	18	75%	3:34
C	400	1 st Street, SE	37	18	49%	46	124%	2:27
C	300	2 nd Street, SE	22	13	59%	23	105%	2:48
C	400	2 nd Street, SE	47	11	23%	29	62%	1:43
C	300	3 rd Street, SE	35	9	26%	19	54%	3:09
C	400	3 rd Street, SE	22	8	36%	15	68%	2:32
C	600	3 rd Street, SE	12	8	67%	11	92%	3:09
C	300	4 th Street, SE	30	6	20%	10	33%	1:08
C	700	5 th Street, SE	27	13	48%	30	111%	3:09
C	400	7 th Street, SE	33					
C	600	7 th Street, SE	36					
C	700	7 th Street, SE	63					
C	400	8 th Street, SE	14	6	43%	10	71%	0:38
C	600	8 th Street, SE	42	11	26%	16	38%	1:34
C	700	8 th Street, SE	59	14	24%	23	39%	1:54
C	400	Canal Street, SE	8	6	75%	13	FULL CAPACITY	0:31
C	UNIT	D Street, SE	31	11	35%	22	71%	2:18
C	100	D Street, SE	53	23	43%	62	117%	2:10
C	200	D Street, SE	62	9	15%	31	50%	2:09
C	700	D Street, SE	14	10	71%	13	93%	2:22
C	100	Duddington Place, SE	55	23	42%	28	51%	2:55
C	UNIT	E Street, SE	6	4	67%	6	100%	2:50
C	100	E Street, SE	53	17	32%	49	92%	2:47
C	200	E Street, SE	21	9	43%	27	129%	2:47
C	300	E Street, SE	25	11	44%	25	100%	2:29
C	400	E Street, SE	42	12	29%	23	55%	1:58
C	500	E Street, SE	53	10	19%	18	34%	2:28
C	600	E Street, SE	51	12	24%	17	33%	1:54
C	700	E Street, SE	12	6	50%	8	67%	1:13
C	100	F Street, SE	60	16	27%	26	43%	2:43
C	300	G Street, SE	29	18	62%	28	97%	0:17
C	400	G Street, SE	21	8	38%	14	67%	3:50
C	500	G Street, SE	26					
C	600	G Street, SE	47	15	32%	31	66%	0:34

TABLE 5d: 2010 WASHINGTON NATIONALS GAME DAYS BALLPARK DISTRICT TOTAL PARKING SUPPLY, CURBSIDE OCCUPANCY AND TURNOVER RATES BY HUNDRED BLOCK

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	
C	700	G Street, SE	22					
C	700	I Street, SE	22					
C	UNIT	Ivy Street, SE	15	10	67%	21	140%	2:02
C	400	New Jersey Avenue, SE	47	22	47%	64	136%	2:38
C	500	New Jersey Avenue, SE	30	12	40%	34	113%	1:10
C	300	North Carolina Avenue, SE	30	11	37%	21	70%	2:36
C	400	North Carolina Avenue, SE	15	8	53%	10	67%	1:23
C	200	Pennsylvania Avenue, SE	22	12	55%	20	91%	1:50
C	300	Pennsylvania Avenue, SE	28	15	54%	34	121%	1:36
C	600	Pennsylvania Avenue, SE	40	17	43%	45	113%	1:24
C	400	Seward Square, SE	10	6	60%	9	90%	1:37
C	500	Seward Square, SE	9	4	44%	7	78%	2:02
C	200	South Carolina Avenue, SE	28	10	36%	20	71%	2:34
C	300	South Carolina Avenue, SE	35	13	37%	26	74%	3:02
C	600	South Carolina Avenue, SE	58					

ALL HIGHLIGHTED TABLE 6 BLOCK SEGMENTS HAVE AN AVERAGE OR MAX OCCUPANCY RATE AT OR ABOVE 85% PERCENTAGES ABOVE 100% MEAN TOTAL VEHICLES COUNTED PER BLOCK SEGMENT EXCEEDED TOTAL NUMBER OF PARKING SPACES COUNTED PER BLOCK SEGMENT

TABLE 6a: 2010 BALLPARK DISTRICT NON GAME DAY TOTAL PARKING SUPPLY, CURBSIDE OCCUPANCY AND TURNOVER RATES BY HUNDRED BLOCK

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	1200	1 st Street, SW	14					
A	1300	1 st Street, SW	36	14	39%	26	72%	2:23
A	1500	1 st Street, SW	22	5	23%	8	36%	1:48
A	1500	2nd Street, SW	16					
A	1100	3rd Street, SW	18	9	50%	12	67%	:50
A	700	4 th Street, SW	47	28	60%	56	119%	1:58
A	1000	4 th Street, SW	53	20	38%	57	108%	1:39
A	1200	4 th Street, SW	45	18	40%	41	91%	2:08
A	1300	4 th Street, SW	40	25	63%	46	115%	2:46
A	1400	4 th Street, SW	23	12	52%	19	83%	5:20
A	900	6 th Street, SW	3					
A	1000	6 th Street, SW	57	22	39%	48	84%	2:32
A	1200	6 th Street, SW	29	14	48%	38	131%	2:22
A	900	Delaware Avenue, SW	8					
A	1000	Delaware Avenue, SW	9					
A	1100	Delaware Avenue, SW	8	8	100%	13	FULL CAPACITY	:51
A	100	H Street, SW	16					
A	1200	Half Street, SW	46					
A	1300	Half Street, SW	39	9	23%	13	33%	2:49
A	1400	Half Street, SW	21	6	29%	9	43%	4:27
A	1500	Half Street, SW	22	6	27%	7	32%	2:20
A	UNIT	I Street, SW	12					
A	100	I Street, SW	43					
A	300	I Street, SW	8	8	100%	17	FULL CAPACITY	1:22
A	400	I Street, SW	10	11	110%	26	FULL CAPACITY	1:33
A	UNIT	K Street, SW	23					
A	200	K Street, SW	36					
A	300	K Street, SW	9	13	FULL CAPACITY	20	FULL CAPACITY	2:28
A	500	K Street, SW	15	19	127%	32	FULL CAPACITY	1:45
A	UNIT	L Street, SW	18					
A	100	M Street, SW	3	7	FULL CAPACITY	14	FULL CAPACITY	2:11
A	200	M Street, SW	11					
A	300	M Street, SW	20	5	25%	10	50%	1:32
A	400	M Street, SW	21	4	19%	8	38%	1:37
A	900	Makemie Place, SW	12	12	100%	36	FULL CAPACITY	1:12
A	300	N Street, SW	14	19	136%	22	FULL CAPACITY	2:01
A	UNIT	O Street, SW	8	7	88%	8	100%	1:48
A	UNIT	P Street, SW	20	8	40%	15	75%	1:13
A	100	P Street, SW	15					
A	300	P Street, SW	10					
A	1600	South Capitol Street	6					
A	1700	South Capitol Street	21					
A	UNIT	S Street, SW	33					
A	500	Water Street, SW	35	12	34%	25	71%	1:35
A	600	Water Street, SW	62	30	48%	83	134%	1:10
A	700	Water Street, SW	37	16	43%	46	124%	1:17

TABLE 6b: 2010 BALLPARK DISTRICT NON GAME DAY TOTAL PARKING SUPPLY, CURBSIDE OCCUPANCY AND TURNOVER RATES BY HUNDRED BLOCK

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	Water Street, SW	37	25	68%	46	124%	1:17
A	900	Wesley Place, SW	9	10	111%	15	FULL CAPACITY	1:30
B	900	1 st Street, SE	14	7	50%	12	86%	1:10
B	1000	1 st Street, SE	19	7	37%	13	68%	1:07
B	1100	1 st Street, SE	16	8	50%	14	88%	1:09
B	1000	2 nd Street, SE	9					
B	1100	2 nd Street, SE	22	6	27%	17	77%	1:32
B	800	3 rd Street, SE	21	6	29%	20	95%	2:06
B	900	3 rd Street, SE	15	5	33%	8	53%	1:58
B	1000	3 rd Street, SE	22	7	32%	25	114%	1:05
B	1100	4 th Street, SE	17	7	41%	15	88%	1:32
B	900	5 th Street, SE	20					
B	1000	5 th Street, SE	11	19	FULL CAPACITY	26	FULL CAPACITY	1:22
B	1100	5 th Street, SE	14	16	114%	24	FULL CAPACITY	1:29
B	1000	7 th Street, SE	21	11	52%	28	133%	0:52
B	1000	8 th Street, SE	3					
B	1100	8 th Street, SE	21	4	19%	10	48%	1:13
B	100	Canal Street, SE	14	7	50%	12	86%	1:15
B	1100	Cushing Place, SE	14					
B	100	H Street, SE	34					
B	900	Half Street, SE	5	7	140%	12	240%	1:45
B	UNIT	I Street, SE	27	12	44%	42	FULL CAPACITY	1:55
B	200	I Street, SE	23	12	52%	19	83%	1:48
B	300	I Street, SE	28	13	46%	19	68%	1:40
B	UNIT	K Street, SE	18					
B	100	K Street, SE	20	9	45%	16	80%	1:29
B	200	K Street, SE	14	11	79%	26	186%	1:12
B	300	K Street, SE	25	5	20%	10	40%	2:39
B	400	K Street, SE	19	8	42%	9	47%	1:34
B	500	K Street, SE	20	7	35%	9	45%	1:51
B	UNIT	L Street, SE	10	11	110%	25	FULL CAPACITY	1:07
B	100	L Street, SE	34	16	47%	37	109%	1:32
B	200	L Street, SE	19	10	53%	25	132%	1:31
B	300	L Street, SE	27	12	44%	27	100%	1:40
B	400	L Street, SE	21	21	100%	35	FULL CAPACITY	1:33
B	600	L Street, SE	69	13	19%	29	42%	0:58
B	700	L Street, SE	26	10	38%	19	73%	1:29
B	800	L Street, SE	10	3	30%	5	50%	2:04
B	800	New Jersey Avenue, SE	30					
B	900	New Jersey Avenue, SE	21	5	24%	21	100%	1:50
B	1000	New Jersey Avenue, SE	24	8	33%	17	71%	1:19
B	1100	New Jersey Avenue, SE	20	8	40%	15	75%	1:00
B	1200	New Jersey Avenue, SE	22					
B	800	Potomac Avenue, SE	6	4	67%	7	117%	1:03
B	200	Tingey Street, SE	15					

TABLE 6c: 2010 BALLPARK DISTRICT NON GAME DAY TOTAL PARKING SUPPLY, CURBSIDE OCCUPANCY AND TURNOVER RATES BY HUNDRED BLOCK

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	
B	300	Tingey Street, SE	15					
B	200	Virginia Avenue, SE	31					
B	300	Virginia Avenue, SE	24	6	25%	7	29%	0:25
C	400	1 st Street, SE	37	9	24%	17	46%	2:00
C	300	2 nd Street, SE	22					
C	400	2 nd Street, SE	47	12	26%	31	66%	1:37
C	300	3 rd Street, SE	35	7	20%	13	37%	1:32
C	400	3 rd Street, SE	22	7	32%	14	64%	1:49
C	600	3 rd Street, SE	12					
C	300	4 th Street, SE	30	6	20%	22	73%	2:24
C	700	5 th Street, SE	27					
C	400	7 th Street, SE	33	11	33%	46	139%	1:43
C	600	7 th Street, SE	36	15	42%	39	108%	5:47
C	700	7 th Street, SE	63	25	40%	56	89%	5:50
C	400	8 th Street, SE	14	8	57%	14	100%	1:31
C	600	8 th Street, SE	42	10	24%	39	93%	1:17
C	700	8 th Street, SE	59	11	19%	29	49%	1:16
C	400	Canal Street, SE	8	4	50%	7	88%	1:02
C	UNIT	D Street, SE	31	10	32%	45	145%	1:19
C	100	D Street, SE	53	18	34%	36	68%	1:47
C	200	D Street, SE	62	16	26%	40	65%	1:17
C	700	D Street, SE	14	7	50%	14	100%	1:06
C	100	Duddington Place, SE	55					
C	UNIT	E Street, SE	6	3	50%	7	117%	1:20
C	100	E Street, SE	53	15	28%	40	75%	1:40
C	200	E Street, SE	21					
C	300	E Street, SE	25					
C	400	E Street, SE	42					
C	500	E Street, SE	53					
C	600	E Street, SE	51					
C	700	E Street, SE	12					
C	100	F Street, SE	60	19	32%	30	50%	2:16
C	300	G Street, SE	29	14	48%	26	90%	0:25
C	400	G Street, SE	21	12	57%	14	67%	0:25
C	500	G Street, SE	26	17	65%	21	81%	0:26
C	600	G Street, SE	47	42	89%	50	106%	0:26

TABLE 6d: 2010 BALLPARK DISTRICT NON GAME DAY TOTAL PARKING SUPPLY, CURBSIDE OCCUPANCY AND TURNOVER RATES BY HUNDRED BLOCK

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	
C	700	G Street, SE	22	10	45%	23	105%	0:47
C	700	I Street, SE	22	6	27%	9	41%	1:17
C	UNIT	Ivy Street, SE	15	7	47%	13	87%	1:43
C	400	New Jersey Avenue, SE	47	10	21%	21	45%	1:35
C	500	New Jersey Avenue, SE	30					
C	300	North Carolina Avenue, SE	30	11	37%	24	80%	1:35
C	400	North Carolina Avenue, SE	15					
C	200	Pennsylvania Avenue, SE	22	8	36%	18	82%	1:24
C	300	Pennsylvania Avenue, SE	28	10	36%	21	75%	1:39
C	600	Pennsylvania Avenue, SE	40	13	33%	39	98%	1:03
C	400	Seward Square, SE	10					
C	500	Seward Square, SE	9					
C	200	South Carolina Avenue, SE	28	8	29%	11	39%	1:57
C	300	South Carolina Avenue, SE	35					
C	600	South Carolina Avenue, SE	58	27	47%	42	72%	1:14

ALL HIGHLIGHTED TABLE 7 BLOCK SEGMENTS HAVE AN AVERAGE OR MAX OCCUPANCY RATE AT OR ABOVE 85% PERCENTAGES ABOVE 100% MEAN TOTAL VEHICLES COUNTED PER BLOCK SEGMENT EXCEEDED TOTAL NUMBER OF PARKING SPACES COUNTED PER BLOCK SEGMENT

4.0 Ballpark District Visitor Parking Pass (VPP) Program and Technology Improvements

The VPP program was one of the first operations DDOT commenced in the Ballpark District during the March 2008 rollout. VPP works in concert with enhanced Residential Permit Parking (RPP) enforcement. Enhanced RPP entails increased hours of operation as well as ‘Resident Only’ enforcement. The hours of RPP operations in the southwest quadrant of the pilot are 7am – midnight, Monday – Sunday; while the southeast hours are 7am – 9:30pm, Monday – Saturday.

The program has become so successful that DDOT is employing elements of the Ballpark District VPP program in other areas of the District such as Resident Only signs on many of the residential blocks abutting the H Street, NE corridor and the new Ward 1 Enhanced RPP law which extends Resident Only RPP to Ward 1 blocks that ‘opt in’ to the program through an ANC resolution. Resident Only



DDOT provides annual visitor’s passes to residents in the Ballpark District pilot zone

RPP works in the Ballpark District due to the proliferation of special traffic generators in close proximity to mixed use and residential corridors.

During fiscal year 2011, DDOT plans to introduce electronic VPP and RPP enforcement in the pilot zone. This innovative approach to parking enforcement will be built on the pay by phone platform DDOT is developing. In February 2011 a vendor was selected to implement pay by phone District wide. An element of this system will become electronic permit enforcement which should begin in the third or fourth quarter of this year.



DDOT Single Use Visitor Pass: This pass is valid within ANC 6B and 6D

The exiting visitor passes are valid through March 31, 2011 and DDOT will mail out new passes to all households on RPP blocks in the Ward 6 pilot zone during March 2011.

5.0 Revenue Update with Expenditures and Non Automotive Transportation Improvement Recommendations

DDOT has completed or obligated \$597,100.00 of pilot zone funds for ten projects. DDOT completed the following projects during fiscal year 2010:

- \$60,000.00 for the purchase and installation of Big Belly solar powered trash compactors.
- \$10,000.00 for purchase and installation of metal benches.
- 7,500.00 for Capitol Hill Historic Disc signs.
- \$5,000.00 for purchase and installation of ornate bike racks along Barracks Row, Pennsylvania Avenue and Southwest DC.

The rollout of Big Belly solar units was very successful, the department installed units in public space throughout portions of Advisory Neighborhood Commissions (ANC's) 6B and 6D within the pilot zone. Once installed stakeholder groups within the zone are responsible for emptying the units. The stakeholder groups who have taken responsibility for the Big Belly units are CHAMPS, the Capitol Hill Business Improvement District (BID), Barracks Row Main Street, Arena Stage, the King Greenleaf Recreation Center and the Capitol Riverfront BID.

The Capitol Hill historic disc signs have begun and DDOT now has a surplus of signs if new requests come in to the department from community stakeholders.

DDOT will continue installing ornate bike racks throughout fiscal year 2011 and also has an inventory at our warehouse awaiting additional requests.

Projects obligated for funding during fiscal year 2011 are as follows:

- \$180,000.00 for the Eastern Market Metro Plaza Information Hub.
- \$135,000.00 for new fence over New Jersey Avenue, SE.
- \$100,000.00 for the purchase of two full sized Bikeshare Stations.
- \$42,600.00 for the purchase of six multi space or smart meters.
- \$32,000.00 for research and text on Neighborhood Heritage Trail Wayfinder the bicycle and mass transit maps/signs.
- \$25,000.00 for research and text on Neighborhood Heritage Trail Wayfinder pedestrian maps/signs.

The Eastern Market project is collaboration between DDOT and Comprehensive Building Design Studio (CBDS) at Catholic University of America (CUA). During 2010, DDOT and CUA invited Ballpark District stakeholders to the CBDS to review over forty potential information hub designs.

From this initial offering by CUA undergraduate architecture students pilot zone stakeholders chose three designs to present to the Ballpark District community. Last December, these final three concepts were presented to the public in the Eastern Market North Hall over a weekend and a final design was chosen.

DDOT is performing this project in conjunction with Celebrate Capitol Hill, LLC (CCH). The Attorney General for DDOT has completed a donation agreement where Celebrate Capitol Hill, LLC has agreed to provide \$50,000 for operations, maintenance and insurance for the Hub. In May, DDOT AG notified CCH that project cannot commence until the \$50,000.00 has been provided to DDOT.

During fiscal year 2010 the DDOT bike team led an effort to install new Capital Bikeshare kiosks in southeast and near southeast public space. These kiosks have proved to be so successful that the department will fund additional locations in fiscal years 2011 and 2012. One location, at the Yards Park, has already been chosen and the department is actively seeking stakeholder input for the other locations.

DDOT has also developed a cost estimate and worked with staff of the Capitol Riverfront BID on replacing the existing fence over the CSX railroad tracks on New Jersey Avenue, SE. Funds have been obligated for project. On July 28th DDOT notified Capitol Riverfront BID that work will begin no later than fall 2011.

This year DDOT will order six additional multi space meters that will be installed in the southwest quadrant of the zone along Water Street, SW and Maine Street, SW. Presently, this area has 272 curbside spaces and is underserved by its existing meter stock. On non game days, this segment of Water and Maine Streets has an average curbside occupancy rate of 77%, nearly at the optimal parking supply. However, a maximum occupancy rate of 144%, or 393 vehicles were parked along the curb designated for 272 spaces, was observed. The non game day turnover rate for this block segment is one hour and twenty five minutes. See Table 3.

On Washington Nationals game day occupancy rates for the Water and Maine Streets, SW block segment averaged 48% with a maximum of 69%. Of the 292 curbside spaces only 189 were occupied during the data collection runs. See Table 4. Initially it may seem counter intuitive that these blocks segments would have higher occupancy rates on non game days; however this segment underscores the point that Nationals Ballpark is not the only special traffic generator in the pilot zone. On weekends during the day District residents and their guests regularly frequent Fisherman's Wharf and there are several very popular night clubs along Water Street, SW that are busy weekend evenings. During fiscal year 2011 DDOT will monitor these new meters to determine if variable pricing should be implemented to assist in bringing down the maximum occupancy rates on non game days.

Purchase and installation of pedestrian, bicycle and mass transit friendly Neighborhood Heritage Trail wayfinder maps will begin during fiscal year 2012. The maps will follow the Cultural Tourism DC design found throughout the District of Columbia.

6.0 Proposed Pilot Zone Modifications for Fiscal Year 2011

Revenue used for modifications to the Ballpark District pilot zone must be used for non-automotive transportation improvements. These uses must generally fall within the following categories:

- Mass Transit Enhancements: these include funding for bus and rail such as electronic real-time schedule displays outside of stations and stops; bus and rail maps; bus-only and bus priority lanes; and programs to increase electronic fare payment technologies.
- Pedestrian Enhancements: these include: new or improved sidewalks, lighting, signage, benches; improved streetscapes; countdown crosswalk signals; and neighborhood traffic calming.
- Bicycle Enhancements: these include: painted and separated bicycle lanes; installation of bicycle racks or bike share kiosks; and wayfinding signage for bicyclists.

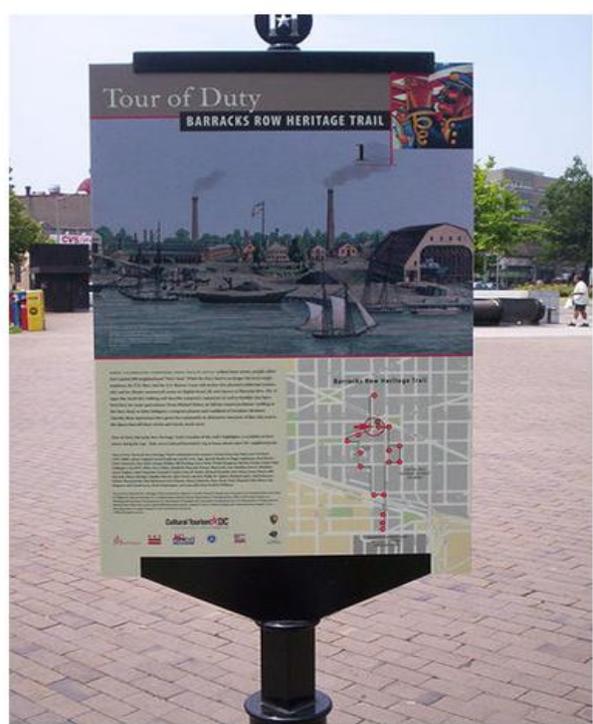
Individuals or organizations within the Ballpark District pilot zone with an idea for non automotive transportation improvements should submit a written proposal to DDOT. Included in this proposal should be:

- Individual/Organization Information: name and contact information for the individual or organization submitting request.
- Type of Non Automotive Enhancement: a detailed description of the project and its funding category (e.g., mass transit, pedestrian or bicycle enhancement).
- Approximate Cost: approximate cost of the proposed enhancement.

DDOT has completed the following modifications for the Ballpark District.

- Increase non game day rates from \$4.00 for three hours to \$6.00 for three hours on all meters bounded by:
 - North: Southwest Freeway (I-395)
 - East: 2nd Street, SE
 - South: M Street, SE
 - West: South Capitol Street, SW
- The rates structure would be:
 - First hour: \$1.50
 - Second hour: \$2.00
 - Third hour: \$2.50

There are 545 curbside parking spaces in this block segment with an average non game day occupancy rate of 25% a maximum of 65% and a turnover rate of one hour and twenty seven



Pedestrian Wayfinding Signage on Barracks Row DDOT will purchase additional signs for pilot zone

minutes. See Table 3. On Nationals game days the average occupancy rate rises 13% to 38% and the maximum rate is 86% (or optimal capacity).

The turnover rate also decreases by nearly a half hour to one hour and forty four minutes. Since most curbside parkers on non game days park for less than two hours most patrons will be charged between \$2.00 and \$5.00 to park, merely a \$1.00 increase compared to what patrons are presently paying to park for three hours. This rate adjustment will put these multi space meters on par with prices charged along other commercial corridors throughout the District of Columbia.

- Reduce daily meter rates at DDOT off street parking facility under I-395 (8th Street, SE and I Street, SE) from \$1.50 per hour \$.75 per hour, Monday – Saturday 7am – 9:30pm :
 - First hour: \$.75
 - Second hour: \$.75
 - Two hour limit from 7am - 6:30pm
 - No time limit parking from 6:30pm to 9:30pm

DDOT began meter operations at this parking facility in mid May 2010. From May 2010 through February 2011 the department has only generated \$10,927.60 or an average of less than a dollar per day per space. Congestion pricing orthodoxy suggests that when metered parking is severely underutilized then rates should be reduced. The purpose of lowering pricing at this metered location is twofold: (i) to increase usage; and (ii) support the businesses along Barracks Row who requested release valve parking for their patrons to reduce the tendency to poach residential parking on abutting blocks to 8th Street, SE.

- Expand Ballpark District to the following boundaries:
 - North: 200 – 300 blocks of 7th Street, SE to the intersection with North Carolina Avenue, SE.
 - East: 500 – 1100 blocks of 11th Street, SE (between Pennsylvania Avenue, SE and M Street, SE
 - South: Potomac Avenue, SE would remain boundary.
 - West: Water Street, SW between Fisherman’s Wharf and 9th Street, SW.

Presently, the pilot zone stops at Pennsylvania Avenue, SE. However, several important pilot zone projects abut this boundary, including the Eastern Market Metro Plaza information hub as well as placement of three Big Belly solar trash compactors. Extending the northern boundary to encompass the Eastern Market commercial corridor is a natural progression of the zone and would allow DDOT to incorporate these meters into the zone.

Expanding the zone eastward to 11th Street, SE is designed to alleviate the competition between residents and Barracks Row patrons for curbside parking at night. By extending the eastern boundary to 11th Street, SE these residents would also receive Resident Only RPP enforcement on one side of each RPP block as well as one visitor parking pass per household.

Expanding the western boundary of the zone to include all metered spaces along Water Street, SW to Fisherman’s Wharf is similar to the northern boundary along 7th Street, SE. Water Street, SW is a commercial corridor abutting the zone and this is the area where the department is recommending installing six additional meters.

- Expand hours of Residential Permit Parking (RPP) enforcement until 2am: on any streets within the pilot zone that provide DDOT with a petition as well as an ANC resolution.

This is another congestion mitigation effort designed to protect residential parking supply near commercial corridors such as Barracks Row. Currently, patrons park on residential streets such as G Street, SE or 10th Street, SE and walk to 8th Street, SE leaving their vehicles late in the evening. By expanding hours of RPP enforcement to 2am, with a petition and ANC resolution, residents will have greater curbside parking opportunities and this will encourage Barracks Row patrons to park in the DDOT off street parking facility or at meters along the 8th Street, SE corridor.

- Purchase six multi space or smart meters to be installed in the following locations:

These meters would be installed along Water Street, SW between Fisherman's Wharf and M Place, SW and 600 block of Maine Street, SW near Arena Stage. Stakeholders in this community requested multi space meters in 2010 and based on the occupancy and turnover rates installing new meter stock is a good investment for DDOT.

TABLE 7a: 2011 BALLPARK DISTRICT PILOT ZONE MODIFICATIONS		
	DESCRIPTION	TIMELINE AND/OR APPROXIMATE COST
<p>1. Increase non game day rates from \$4.00 for three hours to \$6.00 for three hours on all meters bounded by: North: Southwest Freeway (I-395) East: 2nd Street, SE South: M Street, SE West: South Capitol Street, SW The rates will be as follows: First hour: \$1.50 Second hour: \$2.50 Third hour: \$3.00</p>	<p>This rate adjustment will put these multi space meters on par with prices charged along other commercial corridors throughout the District.</p>	<p>March 2011</p>
<p>2. Reduce daily meter rates at DDOT off street parking facility under I-395 at Barracks Row (8th Street, SE and I Street, SE) as follows: First hour: \$.75 Second hour: \$.75 Two hour limit Monday – Saturday (7am to 6:30pm and no limit until 9:30pm)</p>	<p>This off street parking was designed for overflow customer parking for Barracks Row. It is underutilized therefore reducing the meter rate may induce more parking patrons.</p>	<p>March 2011</p>
<p>3. Expand Ballpark District Pilot Zone as follows: Northern boundary: 200 – 300 blocks of 7th Street, SE Eastern boundary: 500 - 1100 blocks of 11th Street, SE Western Boundary: Water Street, SW between Fisherman’s Wharf and 9th Street, SW Meter rates along 7th Street, SE will be as follows: First hour:\$1.50 Second hour: \$1.50 Two hour parking limit Monday - Saturday (7am to 6:30pm and no limit until 9:30pm) 11th Street, SE will receive Resident Only signage on one side of all RPP designated blocks. Rates along Water Street, SE will be as follows: First hour: \$1.50 Second hour: \$1.50 Two hour limit Monday – Saturday (7am to 6:30pm and no limit until 9:30pm)</p>	<p>The Eastern Market area north of Pennsylvania Avenue, SE presently abuts the pilot zone. DDOT is currently spending approximately \$180,000. On the Eastern Market HUB project and has installed streetscape improvements in this area. Expanding the boundary to include the Eastern Market commercial corridor will allow pilot zone funds expenditures in a wider area of ANC 6B in an area that already participates in pilot zone activities.</p> <p>The zone is expanded to residential streets along 11th Street, SE between Pennsylvania Avenue, SE and M Street, SE because these blocks continue to experience commercial parking impacts from Barracks Row patrons.</p> <p>Data collected along the 500 – 900 blocks of Water Street, SW indicate that on game days each of these blocks had a maximum occupancy rate at or above 85%, another reason to extend along the entire Water Street, SW corridor.</p>	<p>March 2011</p>

TABLE 7b: 2011 BALLPARK DISTRICT PILOT ZONE MODIFICATIONS		
	DESCRIPTION	TIMELINE AND/OR APPROXIMATE COST
4. Expand hours of Residential Permit Parking (RPP) enforcement until 2am	Any existing Residential Permit Parking (RPP) streets within the pilot zone would qualify for extended hours upon providing DDOT with a petition as well as an ANC resolution.	Ongoing throughout fiscal year 2011
5. Purchase six multi space or smart meters	These meters would be installed along Water Street, SW between Fisherman's Wharf and M Place, SW and 600 block of Maine Street, SW near Arena Stage.	Summer/Fall \$42,600.00

