

DRAFT

2007 Parking Study Update

Introduction

In September, 2003, a study was undertaken to ascertain the optimal location, needed capacity, and schematic design for a parking structure in Downtown Fargo. After evaluating several locations, the site on Block 8 (referred to as the US Bank Block) was determined to be the location that would best meet future demand.

Since the completion of the 2003 study, there have been several changes in Downtown Fargo, but the US Bank block still appears to be the best location to accommodate a parking structure that will address the apparent increase in demand in the central and northern portions of the Downtown. The Parking Commission requested that the 2003 Study be updated to account for changes that have occurred and for development proposals that are currently under consideration. The original study evaluated 18 blocks in Downtown Fargo. The update concentrated on the 10-block area nearest the US Bank block. Figure 1 presents the original Study Area for the 2003 effort as well as for the current update.

Current Parking Inventory

There was a total of 2005 parking spaces in the Study Area: 546 (27%) on-street, and 1459 (73%) off-street. See Table 1.

Block #	Current Inventory By Block Number of Parking Spaces		
	On-Street	Off-Street	Total
2	28	57	85
3	38	274	312
5	91	294	385
6	57	40	97
7	53	119	172
8	55	206	261
9	45	290	335
10	78	96	174
11	46	73	119
12	55	10	65
Total	546	1459	2005
%	27%	73%	

Off-Street Parking Facilities

Public off-street parking is located at 6 locations in the Study Area. 2 of the facilities are privately owned and operated, 4 are owned and operated by the City of Fargo. The locations, capacities, and ownership status are presented in Table 2.

Block #	Name	Spaces	Ownership
2	No facilities		
3	No facilities		
5	2nd Avenue "N" Lot	100	Public
6,7	No facilities		
8	US Bank Lot	56	Private
8	US Bank Ramp	150	Public
9	Radisson Ramp	250	Public
10	2nd Avenue "S" Lot	65	Public
11	Gate City Lot	63	Private
12	No facilities		
Total		684	

Parking Occupancy Counts

Occupancy counts were conducted between 9:00 a.m. and 5:00 p.m. on Wednesday, November 28, 2007 and again on Thursday, December 13, 2007. The counts were not done on sequential days due to environmental conditions. The counts on December 13 were 4% - 7% higher than the November 28 counts. The reason for the difference was not determined, however storm warnings, Christmas shopping, and unidentified Downtown events were all considered as potential reasons. It was concluded that Downtown is subject to a broad variety of influences on a daily basis, and attempting to identify those influences for a specific day was unnecessary. In other words, unpredictability is the norm. It was noted that the occupancy rate for each day was higher than the corresponding day's counts from the 2003 study. This was a trend that was expected from observation, and was validated by the counts.

The peak hour parking occupancy for combined on- and off-street parking occurred between 2:00 and 3:00 p.m. on Thursday, December 13, when 64.26% of the total spaces were occupied. At that time, 63.6% of the off-street spaces were occupied and 65.9% of the on-street spaces were occupied. Overall, the occupancy rates for the current 2007 Study exceeded those from the previous Study. Tables 3-11 present the results of the counts.

Parking Occupancy Counts Cont'd

As shown in Table 3, of the 539 on-street spaces surveyed, 311 (57.7%) were occupied at the peak hour of 12:00 noon on Wednesday, November 28.

Table 3									
On-Street Parking Occupancy, Wednesday, November 28, 2007									
Block #	Capacity	Occupied Spaces							
		9 a.m.	10 a.m.	11 a.m.	Noon	1p.m.	2 p.m.	3 p.m.	4 p.m.
2	28	8	8	11	7	9	8	11	10
3	38	8	9	5	9	19	20	15	14
5	84	39	32	40	53	37	39	38	39
6	57	18	21	17	19	34	30	34	32
7	53	33	22	16	12	31	28	34	28
8	55	22	17	8	37	28	23	29	28
9	45	21	27	26	27	29	23	25	24
10	78	31	45	52	56	48	58	46	44
11	46	29	33	31	47	33	33	39	41
12	55	37	42	32	44	35	38	36	35
Total	539	246	256	238	311	303	300	307	295
%		45.64%	47.50%	44.16%	57.70%	56.22%	55.66%	56.96%	54.73%

Table 4 shows that 65.86% of the on-street spaces were occupied during the peak hour of 2:00 on Thursday, December 13. 355 of the 539 on-street spaces were occupied. This was the overall peak hour for on-street parking during the survey.

Table 4									
On-Street Parking Occupancy, Thursday, December 13, 2007									
Block #	Capacity	Occupied Spaces							
		9 a.m.	10 a.m.	11 a.m.	Noon	1p.m.	2 p.m.	3 p.m.	4 p.m.
2	28	6	8	13	20	13	15	8	11
3	38	20	11	8	12	16	20	14	11
5	84	22	24	45	46	38	48	48	50
6	57	10	15	30	43	35	46	32	43
7	53	37	32	24	23	34	40	31	33
8	55	14	14	20	47	35	28	29	42
9	45	25	24	22	25	21	27	21	22
10	78	23	31	48	55	52	57	50	46
11	46	23	32	29	43	26	33	34	45
12	55	33	34	35	25	31	41	39	33
Total	539	213	225	274	339	301	355	306	336
%		39.52%	41.74%	50.83%	62.89%	55.84%	65.86%	56.77%	62.34%

Parking Occupancy Counts Cont'd

Of the 1411 off-street spaces surveyed, 62.08% were occupied during the peak hour of 1:00 p.m. on Thursday, November 28 as presented in Table 5. The number of off-street spaces was 56 spaces lower than the 2003 Study due to the closing of the Fargo Theater Parking Lot.

Table 5									
Off-Street Parking Occupancy, Wednesday, November 28, 2007									
Block #	Capacity	Occupied Spaces							
		9 a.m.	10 a.m.	11 a.m.	Noon	1 p.m.	2 p.m.	3 p.m.	4 p.m.
2	57	33	34	36	39	70	40	47	44
3	274	118	127	129	134	111	117	109	100
5	240	136	131	149	155	161	152	151	148
6	40	10	13	12	14	12	13	17	16
7	119	84	67	62	69	64	59	77	73
8	206	157	156	152	138	145	148	150	126
9	290	231	236	237	223	223	235	226	221
10	112	50	45	47	39	40	37	29	32
11	73	44	35	45	40	50	47	50	46
12	0								
Total	1411	863	844	869	851	876	848	856	806
%		61.16%	59.82%	61.59%	60.31%	62.08%	60.10%	60.67%	57.12%

As shown in Table 6, the peak hour for off-street parking on Thursday, December 13 was 10:00 a.m. when 66.27% of the 1411 spaces were occupied. This represented the highest occupancy rate for both on- and off-street parking during the two-day counts.

Table 6									
Off-Street Parking Occupancy, Thursday, December 13, 2007									
Block #	Capacity	Occupied Spaces							
		9 a.m.	10 a.m.	11 a.m.	Noon	1 p.m.	2 p.m.	3 p.m.	4 p.m.
2	57	31	36	34	38	38	36	44	39
3	274	125	141	143	148	125	131	123	114
5	240	125	186	85	159	158	160	162	105
6	40	11	19	18	16	18	17	18	18
7	119	42	87	70	67	77	87	81	72
8	206	149	156	150	149	136	134	99	119
9	290	235	229	230	200	223	245	247	208
10	112	34	39	35	46	51	45	36	34
11	73	43	42	44	41	44	43	49	49
12	0								
Total	1411	795	935	809	864	870	898	859	758
%		56.34%	66.27%	57.34%	61.23%	61.66%	63.64%	60.88%	53.72%

Parking Occupancy Counts Cont'd

Table 7 presents a summary of the on- and off-street occupancy for Wednesday, November 28. As can be seen, of the 1950 total spaces in the Study Area, 1198 were occupied at 2:00 p.m. This represented a peak occupancy of 61.44%.

Table 7									
On- And Off-Street Parking Occupancy, Wednesday, November 28, 2007									
Block #	Capacity	Occupied Spaces							
		9 a.m.	10 a.m.	11 a.m.	Noon	1p.m.	2 p.m.	3 p.m.	4 p.m.
2	85	39	44	45	45	47	44	55	49
3	312	133	150	148	157	144	151	138	128
5	324	164	218	125	212	195	199	200	144
6	97	29	40	35	35	52	47	52	50
7	172	75	109	86	79	108	115	115	100
8	261	171	173	158	186	164	157	128	147
9	335	256	256	256	227	252	268	272	232
10	190	65	84	87	102	99	103	82	78
11	119	72	75	75	88	77	76	88	90
12	55	37	42	32	44	35	38	36	35
Total	1950	1041	1191	1047	1175	1173	1198	1166	1053
%		53.38%	61.08%	53.69%	60.26%	60.15%	61.44%	59.79%	54.00%

Table 8 presents the total parking occupancy on Thursday, December 13. The peak occupancy was 64.26% at 2:00 p.m. A total of 1,253 spaces were occupied out of the 1950 spaces available in the Study Area. This was the highest occupancy rate for the entire term of the study.

Table 8									
On- And Off-Street Parking Occupancy, Thursday, December 13, 2007									
Block #	Capacity	Occupied Spaces							
		9 a.m.	10 a.m.	11 a.m.	Noon	1p.m.	2 p.m.	3 p.m.	4 p.m.
2	85	37	44	47	58	51	51	52	50
3	312	145	152	151	160	141	151	137	125
5	324	147	210	130	205	196	208	210	155
6	97	21	34	48	59	53	63	50	61
7	172	79	119	94	90	111	127	112	105
8	261	163	170	170	196	171	162	128	161
9	335	260	253	252	225	244	272	268	230
10	190	57	70	83	101	103	102	86	80
11	119	66	74	73	84	70	76	83	94
12	55	33	34	35	25	31	41	39	33
Total	1950	1008	1160	1083	1203	1171	1253	1165	1094
%		51.69%	59.49%	55.54%	61.69%	60.05%	64.26%	59.74%	56.10%

Parking Occupancy Counts Cont'd

Peak occupancy occurred at 2:00 on Thursday, December 13. A summary of parking at that time is presented in Table 9. It can be seen that 80.7% of the on-street spaces were occupied on Block 6 (Sammy's Pizza, Fargoan, etc.) and 84.5% of the off-street spaces were occupied on Block 9 which includes the Radisson Hotel and parking ramp. Overall, Blocks 7, 9, and 12 had the highest occupancy rates.

Block #	On-Street Parking			Off-Street Parking			Total Parking		
	Capacity	Occupied	% Occupied	Capacity	Occupied	% Occupied	Capacity	Occupied	% Occupied
2	28	15	53.6%	57	36	63.2%	85	51	60.0%
3	38	20	52.6%	274	131	47.8%	312	151	48.4%
5	84	48	57.1%	240	160	66.7%	324	208	64.2%
6	57	46	80.7%	40	17	42.5%	97	63	64.9%
7	53	40	75.5%	119	87	73.1%	172	127	73.8%
8	55	28	50.9%	206	134	65.0%	261	162	62.1%
9	45	27	60.0%	290	245	84.5%	335	272	81.2%
10	78	57	73.1%	112	45	40.2%	190	102	53.7%
11	46	33	71.7%	73	43	58.9%	119	76	63.9%
12	55	41	74.5%	0	0		55	41	74.5%
Total	539	355	65.9%	1411	898	63.6%	1950	1253	64.3%

On-street parking was also analyzed on Broadway between 1st Ave. N. and 5th Ave. N. Table 10 shows that 62% of the on-street spaces were occupied at noon on Wednesday, November 28. Occupancy on Blocks 8, 10, and 11 was very high, exceeding the 85% target occupancy that seems to provide readily available and convenient parking. Also of note was that occupancy peaked at noon, dipped slightly, and then was on the upturn again in the late afternoon. This would seem to indicate an increase in activity, hence parking demand, in the late afternoons and early evenings.

Block #	Capacity	9 a.m.	10 a.m.	11 a.m.	Noon	1p.m.	2 p.m.	3 p.m.	4 p.m.	Peak Hour
2E	23	4	5	8	6	7	6	10	9	26%
3W	13	1	3	2	6	4	4	5	4	46%
5E	35	15	12	9	22	17	15	16	17	63%
6W	18	4	8	5	5	8	8	10	9	56%
8W	16	7	5	1	15	6	7	7	9	94%
10E	18	10	12	15	15	12	18	16	15	100%
11W	18	13	16	16	18	17	18	17	18	100%
Total	141	54	61	56	87	71	76	81	81	62%
		38%	43%	40%	62%	50%	54%	57%	57%	

Parking Occupancy Counts Cont'd

Table 11 presents the Broadway on-street parking occupancy on Thursday, December 13. Peak occupancy of 85% occurred at noon. While overall occupancy was very high, parking on Blocks 6, 8, 10, and 11 was essentially at capacity. The occupancy rate of 106% on Block 10 can be accounted for by illegal parking (fire hydrant, alley, etc.) which occurs more frequently when spaces are not available. Again, the upturn in occupancy during the late afternoon was observed.

Table 11										
On-Street Parking Occupancy-Broadway, 5th Ave 1st Ave N - Thurs, December 13, 2007										
Block #	Capacity	9 a.m.	10 a.m.	11 a.m.	Noon	1p.m.	2 p.m.	3 p.m.	4 p.m.	Peak Hour
2E	23	4	5	2	18	12	12	6	8	78%
3W	13	1	2	2	6	10	8	5	7	77%
5E	35	6	7	18	26	16	15	14	22	74%
6W	18	1	5	8	17	11	14	10	14	94%
8W	16	5	6	8	16	14	11	10	14	100%
10E	18	12	13	18	19	15	16	13	17	106%
11W	18	8	15	16	18	14	14	13	17	100%
Total	141	37	53	72	120	92	90	71	99	85%
%		26%	38%	51%	85%	65%	64%	50%	70%	

Land Use Analysis

The land use information from the 2003 Study was updated, and is presented in Table 12. There was approximately 1.8 million square feet of space within the Study Area. The two largest land use categories were Office/Bank (29.56%) and Residential (30.2%). The emergence of Residential as a primary land use was already apparent in the 2003 Study, but has increased further. Hotel/Motel accounted for 6.05% and Retail Service 13.56%. Government accounted for 3.88% and Eating/Drinking for 3.61%. Automotive, Industrial/Warehouse, Social/Religious, and Other accounted for the remaining 13%.

Table 13 presents information regarding occupancy within the Study Area. Of the 1.8 million square feet of space available, approximately 1.08 (60%) million square feet are occupied.

It can be seen that the categories of occupied space presented in Table 13 roughly track the space available by land use shown in Table 12. It was difficult to reconcile the data from the 2003 Study with the data collected in 2007.

See the following page(s) for Tables 12 and 13.

Land Use Analysis Cont'd

Table 12											
Land Use By Block											
Block #	Office/Bank	Gov.	Retail/ service	Eating/ Drinking	Auto.	Residential	Social/ Religious	Industrial/ Warehouse	Hotel/ Motel	Other/ Usable Basement	Total
2	0	-	17,942	5,600	-	95,913	-	-	-	-	119,455
3	5,006	-	18,450	-	9,420	17,112	-	11,735	-	-	61,723
5	43,741	-	25,395	23,975	-	96,445	1,733	10,604	-	8,400	210,293
6	34,030	-	38,500	3,500	-	68,037	15,000	11,342	-	18,700	189,109
7	48,950	43,410	-	-	-	-	-	-	-	-	92,360
8	26,774	-	-	-	-	-	-	-	-	-	26,774
9	107,492	26,400			15,000				108,962	30,858	288,712
10	138,213		85,696	32,023		140,045		2,500			398,477
11	58,240		58,240			98,732					215,212
12	70,000					27,812		17,550		84,000	199,362
Total	532,446	69,810	244,223	65,098	24,420	544,096	16,733	53,731	108,962	141,958	1,801,477
%	29.56%	3.88%	13.56%	3.61%	1.36%	30.20%	0.93%	2.98%	6.05%	7.88%	100.00%

Land Use Analysis Cont'd

Table 13											
Occupied Space By Land Use Category And Block											
Block #	Office/ Bank	Gov.	Retail/ service	Eating/ Drinking	Auto.	Residential	Social/ Religious	Industrial/ Warehouse	Hotel/ Motel	Other	Total
2	-	-	17,942	5,600		95,913	-	-	-	-	119,455
3	5,006	-	18,450	-	9,420	17,112	-	1,735	-	-	61,723
5	40,241	-	19,745	23,975	-	96,445	1,733	10,604	-	-	192,743
6	34,030	-	31,090	-	-	59,411	-	11,200	-	9,200	144,931
7	44,055	43,410	-	-	-	-	-	-	-	-	87,465
8	26,774	-	-	-	-	-	-	-	-	-	26,774
9	102,117	26,400			15,000				108,962	27,772	280,251
10	95,000		50,000	30,000		140,000		2,500			317,500
11	50,000		50,000			45,000					145,000
12	56,000	-	-	-	-	27,812	-	17,550	-	67,200	168,562
Total	453,223	69,810	187,227	59,575	24,420	481,693	1,733	53,589	108,962	104,172	1,544,404
% of Total	29.3%	4.5%	12.1%	3.9%	1.6%	31.2%	0.1%	3.5%	7.1%	6.7%	100.0%
Vacant Space	4%	0%	3%	0%	0%	3%	1%	0%	0%	2%	14%

Parking Demand Ratios

Table 14 lists the average parking demand ratios by land use category. These were included in the 2003 Study. Specific land use categories are presented in column 1. Average suburban ratios are presented in column 2. A range of demand ratios from several downtown parking studies is shown in column 3; and the downtown average in column 4. The ratios used in the 2003 parking study are contained in column 5. These ratios were derived by calculating the Downtown Fargo demand ratios and then increasing them by 25% due to what was perceived as an unrealistically low demand generated by using the standard methodology.

The uncharacteristically low demand was explained by the inexact science of estimating occupied space; customers, employees, and visitors parking outside of the Study Area; and the large amount of residential space. For consistency, the demand ratio calculated by Carl Walker for the 2003 Study was also used in the completion of this Study.

The demand ratios were low when compared to the demand ratios that were used in the Fargo Land Development Code, as well as ratios recommended by other national sources such as Urban Land Institute. The lower demand ratios are explained by factors such as transit, pedestrian activity, bicycle use, lower levels of auto ownership, and other urban activities that are significantly different from less dense, suburban development.

Land Use Category	Avg Parking Demand Ratio (Per 1,000 ft ²)	Downtown Range	Downtown Average	Fargo Parking Demand Ratio	Fargo Ratio + 25%
Office/Bank	3.60	1.00 - 3.50	2.20	1.50	1.88
Government	4.00	1.50 - 4.00	2.60	1.70	2.13
Retail/Service	3.30	0.50 - 4.00	1.80	1.20	1.50
Eating/Drinking	20.0	0.50 - 20.0	5.70	2.20	2.75
Automotive	2.50	1.00 - 2.00	1.80	1.20	1.50
Residential	1.50	0.40 - 1.50	0.80	0.50	0.63
Social/Religious	Varies	0.10 - 0.80	0.50	0.40	0.50
Industrial/Warehouse	1.50	0.50 - 1.00	0.80	0.70	0.88
Hotel/Motel	1.70	0.40 - 1.70	0.90	0.60	0.75
Other	n/a	0.80 - 2.00	1.30	0.80	1.00

Parking Demand Ratios Cont'd

Table 15 integrates the parking demand ratio information from Table 14 with the space occupancy information from Table 13 to provide an estimate of parking demand by block. Block 9 (Radisson Hotel) generated the highest demand largely due to the concentration of office uses on the block. Blocks 5 (Fargo Theater) 6 (Sammy's Pizza) and 12 (Forum) also generated high demand due to office uses and the growing concentration of retail.

Table 15											
Parking Demand By Block And Land Use Category											
Block #	Office/ Bank	Gov.	Retail/ service	Eating/ Drinking	Auto.	Resi- dential	Social/ Religious	Industrial/ Warehouse	Hotel/ Motel	Other	Total
2	-	-	22	12	-	48	-	-	-	-	82
3	8	-	22	-	11	9	-	8	-	-	58
5	60	-	24	53	-	48	1	7	-	-	193
6	51	-	37	-	-	30	-	8	-	7	133
7	66	74	-	-	-	-	-	-	-	-	140
8	40	-	-	-	-	-	-	-	-	-	40
9	153	45	-	-	18	-	-	-	65	22	304
10	143	-	60	66	-	70	-	2	-	-	340
11	75	-	60	-	-	23	-	-	-	-	158
12	84	-	-	-	-	14	-	12	-	54	164
Total	680	119	225	131	29	241	1	38	65	83	1,611
%	42%	7%	14%	8%	2%	15%	0%	2%	4%	5%	100%

Current Parking Adequacy

Table 16 below provides a review of current parking adequacy by block. This is based on land uses rather than parking occupancy. In other words, this table indicates where the demand is generated, rather than where the parking supply is located. Demand is then compared to effective parking supply, and surpluses and deficits are identified for each block. Effective supply is defined as the level at which the parking system operates at peak efficiency. This is when occupancy is 85% which allows for, and promotes, availability and turnover of parking spaces. Therefore the effective supply is calculated by multiplying the parking supply by 0.85. It can be seen that the current supply approximately meets overall demand in the Study Area.

Table 16				
Current Parking Adequacy				
Block #	Parking Demand	Parking Supply	Effective Supply	Surplus/Deficit
2	82	85	72	(10)
3	58	312	265	207
5	193	285	242	49
6	133	97	82	(51)
7	140	172	146	6
8	40	261	222	182
9	304	335	285	(19)
10	340	174	148	(192)
11	158	119	101	(57)
12	164	65	55	(109)
Total	1,612	1,905	1,619	7

Table 17 provides an estimate of current parking adequacy by type of parking (short-term v. long-term). On-street parking appears to be adequate, however the short-term surplus (9) is much lower than it was for the same block in 2003 (211). The long-term demand was determined by subtracting short-term occupancy from total parking demand. It can be seen that there is a long-term parking deficit of -188. This compared to a surplus of 164 for the same blocks in 2003.

Table 17						
Current Parking Adequacy by Type of Parking						
Block #	Short Term Parking			Long Term Parking		
	Demand	Effective Supply	Surplus/Deficit	Demand	Effective Supply	Surplus/Deficit
2	15	25	10	67	48	(19)
3	20	34	14	38	233	195
5	48	76	28	145	204	59
6	46	51	5	87	34	(53)
7	40	48	8	100	101	1
8	28	50	22	12	175	163
9	27	41	14	277	247	(31)
10	57	70	13	283	95	(188)
11	33	41	8	125	62	(63)
12	41	50	9	123	0	(123)
Total		485	130	1257	1199	-58

Development Projects

Table 18 summarizes potential development projects and provides estimates of parking demand for each project based on the proposed land use and demand ratios. The listed projects were estimated to generate the demand for 347 additional parking spaces. Approximately 80% (211) was expected to be long-term demand, and 20% (136) short-term demand.

Block 3 will see a decrease if approximately 40 spaces due to the development of Island Park Cycles at that location.

Block 5 was projected to have a 72 space increase in demand and an overall 14 space increase in supply. This included the current development of the Fargo Theater Lot and the Knight Formal Wear building as well as new development at the site of the 2nd Ave "N" Lot (the 14-space increase in demand for residential space at this site was not included in the calculations).

Block 6 revealed a 23-space increase in demand and a net gain of 10 spaces.

Block 8 generated a 161-space increase in demand and a net loss of 206 spaces. Again, residential demand was not factored into the calculations.

Block 10 generated a 41-space increase in demand and a net gain of 16 spaces. Block 11 generated new demand for 6 spaces.

There were a couple of "wild cards" in the projections. A potential mixed use development was shown for Block 13, even though that block was not included in the Study Area. Another "wild card" was the effect of the NDSU College of Business on 2nd Avenue and 10th Street. Both of these developments are close to the Study Area and could have great influence on demand; however the actual demand that would/could be generated was not ascertained for this study. With that said, planning for future development is an ongoing activity and the changes in future demand and supply can be adjusted to accommodate scenarios as they may surface.

See the following page for Table 18.

Development Projects Cont'd

Table 18								
Future Downtown Development								
Block #	Description	Parking Demand Ratio	Estimated Parking Demand			Parking Supply		
			Short-Term	Long-Term	Total	Lost	Provided	Gain/Loss
2	No known development plans							
3	12,780 sq ft retail (GN Depot) (Goodyear??)	1.5 per 1000 sq ft	16	4	20	40	0	-40
5	Fargo Theater Lot 6,500 sq ft retail	1.5 spaces per 1000 sq ft	8	2	10	56	32	-24
	100 seat theater	1 space per 4 seats	25	2	27		0	0
	15 residential owner-occupied units	.63 spaces per unit	2	9	11		0	0
	21 residential rental units	.63 spaces per unit	3	11	14			0
	"N" Lot, 6,405 retail	1.5 spaces per 1000 sq ft	8	2	10	100	138	38
	38 units 1-2 bedroom housing	.63 spaces per unit	4	20	24			
6	16 residential units (Fargoan)	.63 spaces per unit	3	10	13	3	13	10
	Moose 2156 sq ft retail	1.5 spaces per 1000 sq ft	2	1	3			
	1 owner occupied residential unit	.63 spaces per unit	1	1	2			
	Dixon, 3407 sq ft retail	1.5 spaces per 1000 sq ft	3	2	5			
7	No known plans							
8	22,500 sq ft retail	1.5 spaces per 1000 sq ft	27	7	34			
	67,500 sq ft office	1.88 spaces per 1000 sq ft	13	114	127	206	0	-206
	Residential?							
9	No known plans (determine daytime demand)							
10	Strauss Bldg - 12,264 Sq ft retail	1.5 per 1000 sq ft	14	4	18	0	16	16
	12,264 sq ft office	1.88 spaces per 1000 sq ft	2	21	23	0	0	0
11	Hotel/apartments	.4 spaces per room	5	1	6	0	0	0
12	No known plans					195	0	-195
13	Potential mixed development							
Other	3,500 additional students at the College of Business							
Total			136	211	347	600	199	-401

Future Parking Adequacy

Table 19 presents future parking adequacy. The estimated future parking demand is compared to the effective parking supply and surpluses and deficiencies are calculated by block. There is an overall parking deficit of 445 spaces. The largest deficits were apparent in Block 8 (154), Block 10 (220), and Block 12 (109). The largest surplus was found on Block 3 (153 spaces).

Table 19				
Future Parking Adequacy				
Block #	Parking Demand	Parking Supply	Effective Supply	Surplus/Deficit
2	82	85	72	(10)
3	78	272	231	153
5	265	363	309	44
6	156	97	82	(74)
7	140	172	146	6
8	201	55	47	(154)
9	304	335	285	(19)
10	381	190	162	(220)
11	164	119	101	(63)
12	164	65	55	(109)
Total	1,935	1,753	1,490	(445)

Table 20 provides estimates of future parking adequacy by type of parking (short-term v. long-term). There is an estimated short-term parking deficit of 1. In the 2003 Study there was a short-term surplus of 236 spaces. The current findings support the apparent increase in demand. When combined with the aggressive development proposals, the surplus rapidly disappeared. The long-term deficit showed a corresponding increase. In 2003 there was a long-term parking deficit of 275 spaces. The current 2007 Study revealed a 462 space deficit.

Table 20						
Future Parking Adequacy By Parking Type						
Block #	Short Term Parking			Long Term Parking		
	Demand	Effective Supply	Surplus/Deficit	Demand	Effective Supply	Surplus/Deficit
2	15	25	10	67	48	-19
3	36	34	-2	42	193	151
5	94	76	-18	171	180	9
6	55	51	-4	101	44	-57
7	40	48	8	100	101	1
8	68	50	-18	133	0	-133
9	27	41	14	277	247	-30
10	73	70	-3	308	111	-197
11	38	41	3	126	62	-64
12	41	50	9	123	0	-123
Total	487	486	-1	1448	986	-462

Findings

Table 21 indicates the future parking adequacy by primary capture area for a parking structure on Block 8. The off-Street parking Surplus/Deficit total was combined with the short-term deficits to determine the final deficit. Short-term surpluses were not included in the calculation in the 2003 Study; therefore they were not included in the current Study.

Block #	Additional Blocks Served	Surplus/Deficit
8	2, 3, 5, 6, 7, 8, 9, 10, 11, 12	-507

According to the data and projections, a ramp with 507 spaces would meet the short-term and long-term parking needs in and around Block 8. As noted, the future development presented in Table 18 is quite subjective. For example, potential residential demand was not included in the demand projections; however potential retail and commercial was included. Future development forecasts could be adjusted to accommodate a variety of development scenarios. Another “wild card” would be private parking that could be developed in conjunction with a potential project.

The 2003 Study presented a schematic design for a 354-space ramp. A 500+ space ramp, as indicated in this update, may not be feasible on the same site, however there is adequate space to expand the footprint, or develop a level (or more) of parking underground or vertically.

This Study update was prepared to ascertain the effects of the development that has occurred since 2003, and to account for development that could feasibly occur. In order to proceed with future planning and development regarding a parking structure size and capacity, a site specific and current study will need to be undertaken.