

TOWN CENTER ON-STREET PARKING STUDY

Prepared for

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June 2008

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Background

The City of Mercer Island Town Center On-Street Parking Study has focused on gathering data pertaining to existing on-street parking supplies and the associated demand for parking. The data and assessment of existing conditions is summarized in this report. Potential opportunities for additional on-street parking supply have also been identified.

Existing Situation

In the broadest terms, the primary parking concern in the Town Center is frequently described as a real or perceived case of demand exceeding supply at certain times of the day. In addition, as redevelopment occurs within the area, existing off-street parking supplies that were available to the public may be lost.

Parking demand involves a dynamic mix of user groups, each with parking needs that vary by time, duration, and location. Demand varies both within and among user groups. Stakeholder categories include residential, commercial, and service. These general categories include user groups whose interests sometimes vary. Business-related stakeholders include customers, employees, and management. While customers and employees compete with each other for parking, management must consider the needs of both. Employers may perceive the parking needs of their employees differently than employees perceive their own needs. Residents, due to their proximity to the area of highest parking demand, compete for on-street parking with both the employees and customers of the businesses within the study area.

Study Area

The area under consideration for this review generally extends between 76th Avenue SE and 80th Avenue SE from east to west and from Sunset Highway to SE 32nd Street, from north to south. All field parking data collection for this project occurred within this area. This area is referred to in this report as the *study area*. Sunset Highway and the section of 78th Avenue SE between Sunset Highway and SE 27th Street have not been included in this study due to construction activity. A map of the study area is shown in Figure 1 on the following page.



Figure 1 – Study Area

Inventory of Existing Parking Supply

KPG conducted a study of on-street parking within the study area boundary of the Town Center. Parking supply was inventoried and data was collected and analyzed to provide information on parking supply and demand within this area.

The City of Seattle uses the following table to determine the number of legal on-street parking spaces available along a block front. The approximate parking supply was obtained by measuring block fronts on scaled aerials of the area, supplemented with physically inventorying restrictions such as “load-only” zones, driveways, fire hydrants, and no parking zones upstream of stop signs. Each segment of the available parking block front was then compared with the table supplied by the City of Seattle to determine the approximate number of parking spaces available.

Table 1. On-Street Parking Space Measurements

Unobstructed Length	Number of Spaces	Unobstructed Length	Number of Spaces
16-31 feet	1	168-183 feet	9
32-53 feet	2	184-205 feet	10
54-69 feet	3	206-221 feet	11
70-91 feet	4	222-243 feet	12
92-107 feet	5	244-259 feet	13
108-129 feet	6	260-281 feet	14
130-145 feet	7	282-297 feet	15
146-167 feet	8	298-319 feet	16

Source: City of Seattle DPD CAM #117

Using Table 1 as guidance, it was determined that there are approximately 207 on-street parking spaces within the study area. The inventory shows that the majority of on-street parking is not time restrictive. However, the 26 angled parking spaces along the SE 27th Street Extension are limited to two hours.

The majority of the available on-street parking is limited to permit-only users during the hours of 7 AM and 9 AM. This permitting system was put into practice by the City of Mercer Island in January of 2002 to discourage non-resident commuter parking on the streets of the Town Center. Permits are available to all Mercer Island residents.

Parking Demand

Parking demand has been established for several representative time periods. Parking demand within the study area has been quantified for typical mid-morning, mid-day, mid-afternoon and weekend conditions.

During these different parking demand periods of both the weekday and the weekend, a count of occupied parking spaces was conducted to determine the actual demand percentage of the supplied parking. Table 2 summarizes the parking demand and supply.

Table 2. On-Street Parking Demand vs. Supply

Day and Date	Time	Weather	Parking Demand	Parking Supply	% Demand
Friday, 4/11/08	10:30 AM	Sunny	132	207	64%
Tuesday, 4/15/08	4:30 PM	Cloudy	107	207	52%
Thursday, 4/17/08	12:00 PM	Sunny	153	207	74%
Saturday, 4/19/08	11:30 AM	Sleet	76	207	37%

As would be expected, the parking demand was found to be greater on weekdays than on the weekend. The data also suggests that the greatest demand for on-street parking occurs during the noon hour. The following is a graphical representation of on-street parking demand during the weekday.

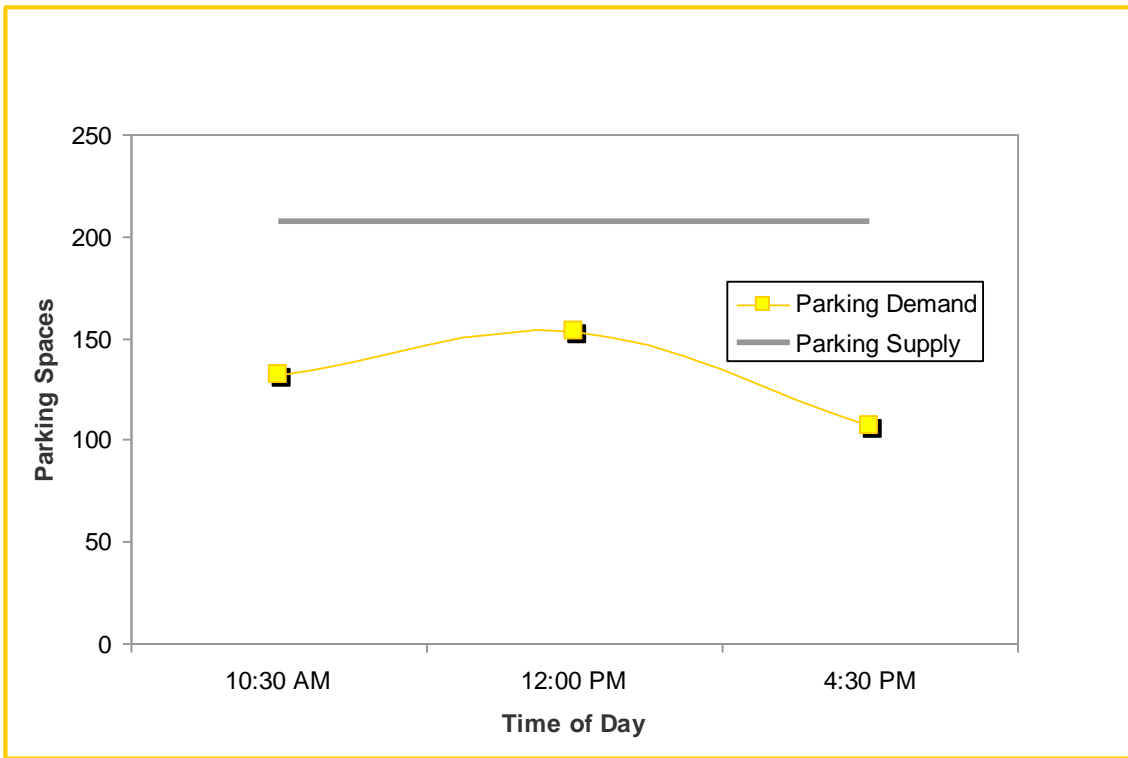


Figure 2 – Parking Demand During A Typical Weekday

In order to show a more precise level of parking demand, the Town Center has been divided into four sub-areas:

- Northwest
- Northeast

- Southwest
- Southeast

The following figure shows the demand percentage by sub-area during the peak demand period.

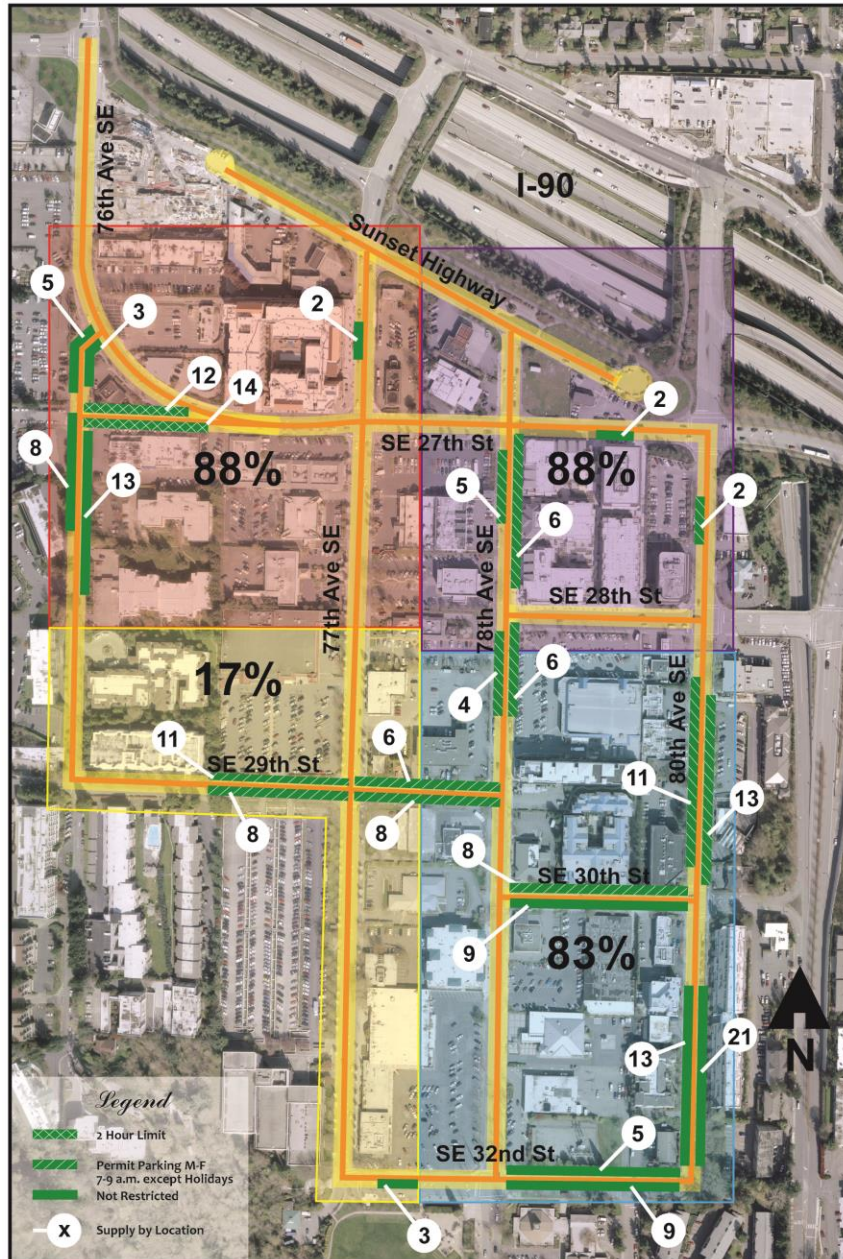


Figure 3 – On-Street Parking Supply by Location and Percent Demand by Sub-Area

As can be seen in Figure 3, the majority of the Town Center area has an on-street parking demand greater than 80 percent during the peak period of the day, with the north end of the Town Center at over 85 percent capacity. A parking demand greater than 85 percent has, in all practicality, exceeded supply and is perceived as such.

A parking deficiency such as this adds to congestion on the surrounding road network as drivers circulate over and over around the block in search of parking.

Suggested Improvements

Wayfinding with Signage

With the concentration of parking demand being in the north and east sub-areas of the Town Center, there is an opportunity for wayfinding to the underutilized sub-area of the southwest through the introduction of signage. The signage could be decorative and located in such a way as to compliment the Town Center's aesthetics.

Time Limited Parking

Time limited parking has been shown to provide more opportunities for on-street parking throughout the day. There is an opportunity to expand on the 2-hour time limited parking in the northwest sub-area and possibly introduce 30-minute parking along select block fronts where the type of commercial activity requires only 30 minutes or less for patrons.

Time limited parking could be introduced to the northeast sub-area as well. Public involvement in the form of a survey of business owners and patrons for their input is suggested before the introduction of any new time limited parking is put in place.

Time limited parking is only effective when enforcement is applied. The City would need to work with the police department to ensure there was a commitment to enforcement.

Additional On-street Parking

A roadway's primary purpose is to move people and goods, whether it is in a vehicle or on a bicycle. However when a roadway is not the main artery of a system and the introduction of parking maneuvers along the roadway would not create noticeable delay, the addition of on-street parking may be acceptable.

SE 28th Street

One roadway identified within the Town Center as a potential candidate for the introduction of on-street parking is SE 28th Street, between 78th Avenue SE and 80th Avenue SE. The roadway is not part of a heavily-traveled commuter corridor and the cross-section would allow for angled-parking along the north edge. The attached schematic shows a draft layout which could potentially add 15 parking spaces to the heavily burdened on-street parking supply in the northeast sub-area of Town Center. With the current mixed-use development at this location, this additional parking should be time limited.

Re-striping this block to add parking in this manner would result in the loss of the existing two-way left turn lane. This is not anticipated to result in significant operational impacts due to relatively low traffic volumes, but may result in minor delays as persons making left turn movements wait for conflicting traffic to clear. The loss of the 2-way left turn lane will impact deliveries to businesses in the Island Square complex. Truck drivers sometimes

inappropriately park in this lane while making deliveries. Island Square has an “alley” on its east side that is available for such deliveries. The designation of one of the angled parking stalls as “load only” parking may also help to mitigate this situation.

Finally, loss of the 2-way left turn lane might add to what is considered by some as a confusing access situation to the Island Square parking garage. Improved signage could mitigate this situation.

77th Avenue SE

Another roadway with a cross-section that could geometrically support the addition of on-street curb parking would be 77th Avenue SE. This would likely require the removal of the center two-way left-turn lane.

However, this roadway is the designated north/south bicycle route through the Town Center and also provides a parallel alternative to 78th Avenue SE for pass-through vehicular volume. The introduction of curb-side parking along this corridor would increase the potential for vehicle versus vehicle collisions and vehicle versus bicycle collisions. Additional operational analysis of this corridor with and without parking would be needed to determine whether this could be considered an appropriate improvement.

Other On-Street Parking Opportunities

Other on-street parking opportunities were found to be limited. The cross-section of SE 27th Street through the Town Center is wide enough to provide for on-street parking but because this is the main east/west corridor, carrying the most volume within the Town Center, the introduction of parking on this corridor is discouraged.

Other roadways within the Town Center would need to be widened to provide on-street parking. This would likely mean a reduction in sidewalk width and other urban landscaping treatments.

Summary

The existing parking supply in the Town Center was inventoried and determined to be approximately 207 spaces. Of these spaces, 26 of them are time limited to 2 hours. These time-limited spaces are the angled parking stalls in the northwest sub-area of the Town Center.

The peak on-street parking demand period was determined to be midday of the weekday. During this time period, both the northwest and northeast sub-areas of the Town Center can be expected to be at perceived capacity (demand exceeds 85% of supply); while the southwest sub-area has ample available on-street parking (demand is less than 20% of supply).

Several improvements have been suggested to improve parking opportunities within the Town Center. These improvements consist of the following:

- Wayfinding with Signage
 - Appropriate signage could be used to direct motorists to the underutilized on-street parking within the Town Center

- Time-limited Parking
 - Parking in front of commercial establishments could be limited in the range of 30 minutes to 2 hours, depending on feedback from stakeholders
 - Would require enforcement in order to be effective

- Additional On-street Parking
 - SE 28th Street, between 78th Avenue SE and 80th Avenue SE has been identified as a potential location of additional on-street parking
 - As many as 15 angled parking spaces could be added
 - These new spaces would be time-limited to serve the commercial establishments that are located along SE 28th Street
 - 77th Avenue SE between Mercerdale Park and SE 27th Street may provide an opportunity for additional on-street parking, but would require further operational analysis and consideration of bicycle route impacts.
 - Other on-street parking opportunities, such as along SE 27th Street are limited and not recommended at this time.

Appendix A

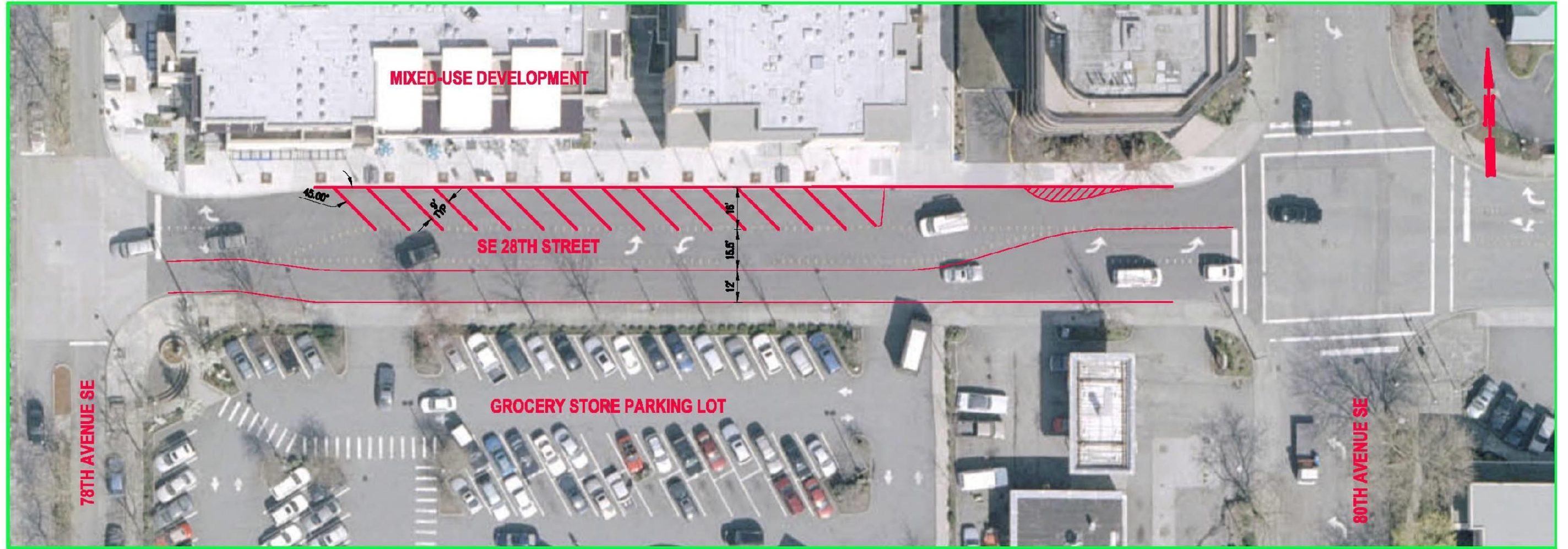
On-Street Parking Supply vs. Demand (Weekday and Weekend Demand and Supply Worksheet)

On-Street Parking Supply and Demand Worksheet						
Block Front	Demand	Demand	Demand	Demand	Supply	Peak Demand Percentage
	Weekday 10:30 AM	Weekday Noon	Weekday 4:30 AM	Saturday 11:30 AM		
76th Ave btn 27th and 27th ext (w)	4	5	2	2	5	100%
76th Ave btn 27th and 27th ext (e)	2	3	2	1	3	100%
27th St e of 76th (n)	6	9	8	9	12	75%
27th St e of 76th (s)	8	11	9	5	14	79%
76th Ave btn 27th and 28th (w)	6	8	4	2	8	100%
76th Ave btn 27th and 28th (e)	9	12	7	6	13	92%
77th Ave btn Sunset and 27th (w)	2	2	2	2	2	100%
Sub-Area Total	37	50	34	27	57	88%
27th St btn 78th and 80th (s)	2	2	1	1	2	100%
78th Ave btn 27th and 28th (w)	5	5	3	2	5	100%
78th Ave btn 27th and 28th (e)	6	5	5	2	6	83%
80th Ave btn 27th and 28th (w)	2	2	2	0	2	100%
78th Ave btn 28th and 29th (w)	4	1	1	4	4	25%
78th Ave btn 28th and 29th (e)	6	4	2	5	6	67%
80th Ave btn 28th and 30th (w)	10	11	10	0	11	100%
80th Ave btn 28th and 30th (e)	13	13	11	1	13	100%
Sub-Area Total	48	43	35	15	49	88%
29th St btn 76th and 77th (n)	6	3	0	0	11	27%
29th St btn 76th and 77th (s)	3	1	0	0	8	13%
29th St btn 77th and 78th (n)	2	1	0	0	6	17%
29th St btn 77th and 78th (s)	1	0	0	0	8	0%
32nd St btn 77th and 78th (s)	1	1	2	2	3	33%
Sub-Area Total	13	6	2	2	36	17%

Block Front	Demand Weekday 10:30 AM	Demand Weekday Noon	Demand Weekday 4:30 AM	Demand Saturday 11:30 AM	Supply	Peak Demand Percentage
30th St btn 78th and 80th (n)	2	4	1	3	8	50%
30th St btn 78th and 80th (s)	5	5	3	3	9	56%
80th Ave btn 30th and 32nd (w)	5	10	10	7	13	77%
80th Ave btn 30th and 32nd (e)	15	23	14	6	21	110%
32nd St btn 78th and 80th (n)	4	5	4	6	5	100%
32nd St btn 78th and 80th (s)	3	7	4	7	9	78%
Sub-Area Total	34	54	36	32	65	83%
TOWN CENTER TOTAL	132	153	107	76	207	74%

Appendix B

Potential On-Street Parking Layout on SE 28th Street
(Schematic Only)



- POTENTIAL HEAD-IN ANGLE PARKING SHOWN
- NEW PARKING WOULD BE TIME-LIMITED IN THE RANGE OF 30 MINUTES TO 2 HOURS

