

Town of Castle Rock

Downtown Parking Management Study



DRAFT
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Executive Summary

The Town of Castle Rock retained Carl Walker, Inc. and Felsburg Holt and Ullevig....

For the purposes of this study, the study area is.....

Parking occupancy.....

Parking demand.....

Parking Management Recommendations

Etc.

Recommendations for Implementation

1. INTRODUCTION

For many years, the Town of Castle Rock has considered the parking situation, listened to businesspeople and customers, and attempted to determine just how parking affects visitation levels, visitor's perceptions, and convenience for Downtown employees. Whether or not there is a parking problem can be strongly influenced by user's expectations and perceptions. In one sense, there can never be enough parking Downtown. Yet, we have a situation in place whereby most of the recent land uses are exempt from providing parking. Downtown parking is different from the suburban model. Parking generation numbers provided from the National Institute of Transportation Engineers (ITE) parking generation data are based on a suburban model and would create a parking oversupply in Downtown Castle Rock.

Carl Walker, Inc. in collaboration with Felsburg, Holt and Ullevig, has been retained to assess existing and future parking demand, and determine the feasibility of constructing a parking structure. A draft study completed by Burlstone Engineering in 2001 was used as the basis for the parking demand and supply analysis.

The scope of work for this study was developed by the Downtown Steering Committee and Town staff and includes:

- Determining the supply of parking spaces within the Downtown;
- Determine the existing and future demand for parking
- Determine where additional parking is needed;
- Determine the perception to parking by different user groups, based on surveys distributed to property owners, business owners, employees, and customers.

1.1 Report Organization

This study is divided into three sections: a Supply/Demand Analysis, a Parking Facility Feasibility analysis, and a Parking Management Strategies. The purpose of the Supply/Demand analysis is to inventory existing on-street parking and duration, determine the likely future parking demand, then determine if a parking surplus or deficit exists. With the anticipated deficit, the Parking Facility Feasibility analysis determined the most suitable location for a parking structure, the design, costing and the potential funding sources. The Parking Management Strategies section recommends various strategies to better utilize on-street parking spaces, public parking, and other items considered important as recommended by Downtown Steering Committee and the public surveys.

1.2 Study Methodology

(insert – if not in Carl Walker study)

1.3 Study Area

The study areas consists of the north, central and south Downtown. It is bordered by the railroad by I-25 on the west, the railroad on the east, Wilcox Street on the north, and Plum Creek Parkway on the south. The area south of First Street is considered to be adequately parked since the most of the development is fairly recent and meets off-street parking requirements. The study area with the existing on-street parking time limits is shown in Figure 1.

Figure 1. Parking Study Area Boundary



1.4 Definition of Terms

The following definitions are provided to clarify terminology used in this study:

- *Demand*: The number of parking spaces required to satisfy visitor needs on any given day.
- *Effective Parking Supply*: The total number of parking spaces adjusted by the optimum utilization factor.
- *Occupancy*: The number parking spaces occupied by vehicles compared to the number of available spaces. This information is gathered by performing parked vehicle counts on each block and comparing it to the supply.
- *Optimum utilization factor*: The occupancy rate at which on-street and lot parking operates at peak efficiency. This factor provides for the dynamics of vehicles moving in and out of spaces, and the time spent looking for a parking space. In this study, the factor is _____ for on-street parking and _____ for parking in public lots.
- *Parking adequacy*: The difference between the effective parking supply and the estimated parking demand. A negative adequacy indicates a deficit while a positive result shows a surplus.
- *Supply*: The total number of spaces within the study area.

2. SUPPLY/DEMAND ANALYSIS

2.1 Parking Supply Inventory

This section provides information on the parking supply, the results of a parking duration study, existing and 2030 parking conditions and a recommendation for spaces needed to accommodate future demand. The study area includes 26 blocks and has been divided into four zones. It is depicted in Figure 1.

Information in the Town of Castle Rock Downtown Parking Study prepared by Burlstone, Inc. was used to determine the existing parking supply for each block in the study area. Based on the inventory given in the Burlstone study there are approximately 2,526 parking spaces available in the study area. 624 (about 25 percent) of those spaces are located along curb faces, 268 (11 percent) are located in off-street public lots, and 1,634 (63 percent) are located in off-street private lots. Of the 624 curb spaces, 288 spaces are unrestricted while 336 spaces have a two-hour time limit.

2.2 Parking Occupancy and Duration Survey

A parking occupancy and duration study was conducted for curb spaces for the downtown core area defined by 6th and 3rd Streets and by Jerry and Perry Streets and for three off-street public parking lots. The off street lots were the 70 space lot on Elbert Street between 3rd and 4th Streets, the 22-space lot located on Elbert Street between 4th and 5th Street and the 30-space lot located south of 4th Street adjacent to the fire station. The study was conducted on a Wednesday and Friday from 11:00 am to 5:00 pm. The purpose of this study was to determine 1) the level of occupancy and the parking duration of unrestricted and two-hour curb spaces in the downtown core area.

Table 1 summarizes the results of the occupancy study for curb spaces in the study area. A total of 344 parking spaces were surveyed, with a weekday average ranging from a high of 200 spaces occupied (58 percent) between Noon and 1:00 pm to a low of 138 spaces occupied (40 percent) between 5:00 pm and 6:00 pm. Blocks 15 and 16 were on average over 80 percent occupied for most of the day while blocks 8, 9, 13 and 20 were generally less than 50 percent occupied through the day.

(insert FHU findings)

3. PARKING MANAGEMENT STRATEGIES

3.1 Objectives of Parking Management

The lack of adequate on-street parking is an issue that negatively affects the businesses in the Downtown. The strategies in this section of the report are aimed to address the specific problems that were identified by the Downtown Parking Steering Committee and the public surveys. In summary, the major problems are:

- Employees use parking spaces that should be available for customers;
- Enforcement is by complaint, and tickets are written by sworn personnel from the Police Department;
- The \$10 parking fine is not a deterrent;
- On-street spaces mere blocks away from the Downtown core sit empty even at high demand times;
- Customers expect to park directly in front of their destination;
- There is no signage to direct visitors to public parking lots;
- The sidewalks are not in good repair (i.e., uneven pavement, low light levels), and this makes the pedestrian walking experience lacking.

Parking management strategies are the short-term solutions, and as such, they are fluid and reflect the current situation. These parking management strategies should be re-evaluated when new development occurs or when there is a substantial change in land uses.

3.2 Downtown Parking Opinion Surveys

The Downtown merchants and property owners had voiced concerns about the availability of parking. At the request of the Downtown Parking Steering Committee, the Town developed surveys that would obtain information on the perception towards parking by merchants, employees, property owners, and customers. The survey area included all properties between Sixth and Second Streets, and between the railroad and I-25. The Town hand-delivered approximately 250 surveys to businesses and employees on April 11 and picked up on April ____, 2004. Surveys were mailed to property owners. Customer surveys were distributed to retailers and restaurants to be filled out by patrons and then were then picked up by Town staff. The County buildings were not included in the survey since the County provides employee parking.

The survey information is summarized in Table ____.

The majority of respondents

The surveys and the detailed results are in the Appendices.

3.3 Disabled Permit Parking Spaces

The comment most frequently written in on the surveys was a request for more on-street disabled permit parking. There are currently four such spaces in the Downtown, but they do not all have side access aisles, curb cuts or visible signage. Special parking privileges for disabled persons are mandated by state law (42-4-1208 of the Colorado Revised Statutes). That law prohibits local governments from limiting on street disabled parking privileges to less than four hours and requires the posting of the parking space with the recognized international symbol and the time limits. It also states the any person who is not a person with a disability and who uses a license plate or placard to park in this designated space can be fined up to two hundred dollars.



It is recommended that nine disabled permit parking spaces be located in the Downtown core. Since there are currently no official ADA guidelines for on street parking, it is recommended that the dimensions of the space and side aisle are to be according to ADA requirements. Curb cuts should be adjacent to the access aisle. Where sidewalks are less than eight feet, a ramp should be constructed into the access aisle. Disabled permit parking spaces are identified in Figure ____.

(insert figure: Locations: in front of Chamber, in front of Angie's, in front of B & B, Third St. by Masonic Building, Perry St. – north of Third, south of Third, south of Second; Fourth St. by Perry, Jerry300 block)



3.4 Pedestrian Environment

Accommodating parking and preventing pedestrian-vehicular conflicts are important and inter-related issues given the potential for increasing traffic in the Downtown core. Making the walk between where the visitor or the employee parks to their destination as pleasant an experience as possible is also an important finding of the surveys.

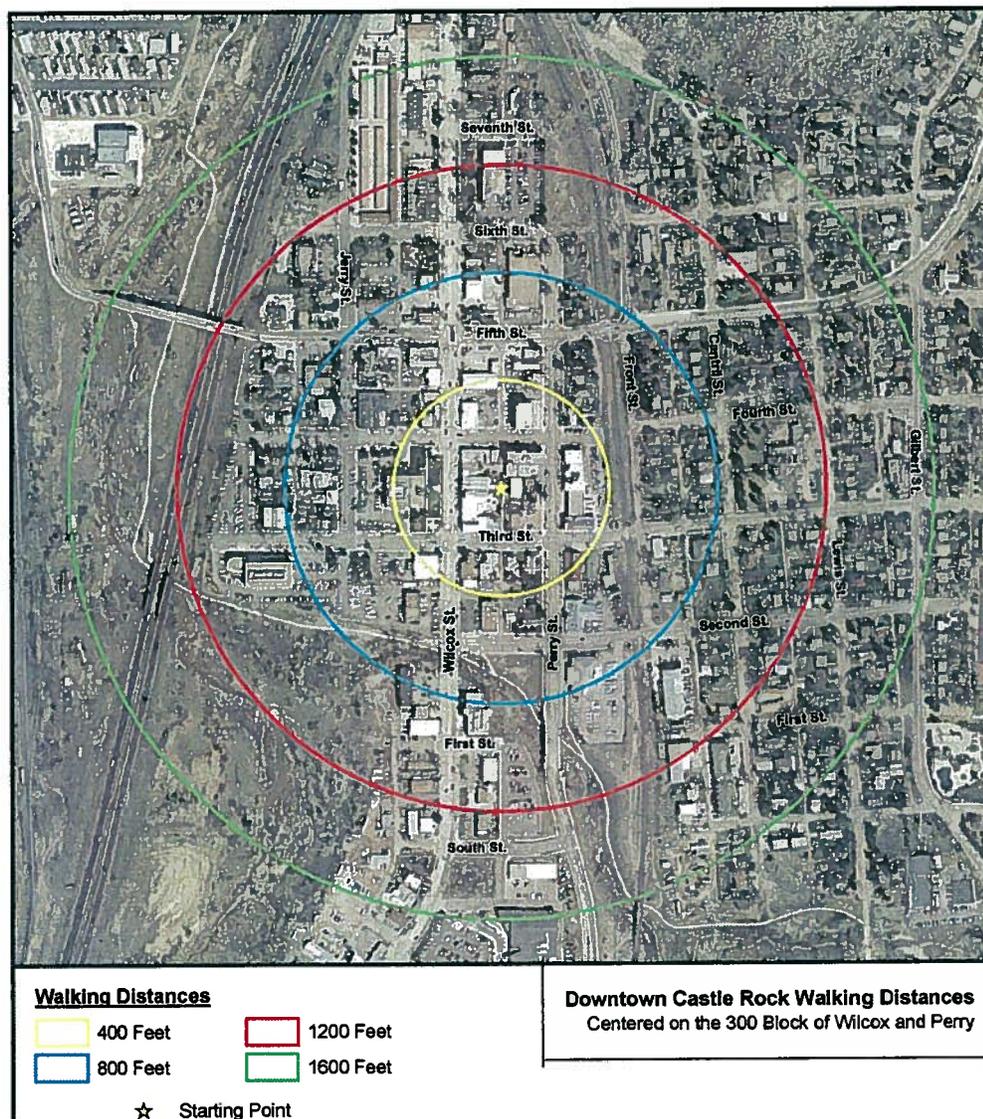
The distance that a customer or employee must walk to reach their destination must be reasonable in terms of time, distance and safety in crossing streets. The normal average walking speed for an average pedestrian is approximately 4.0 per second or 250 feet per minute¹. Walking distances and times are shown in the Table and map below.

Walking Distances

¹ *Pedestrian Planning and Design*, John. J. Fruin

Distance	400 ft.	800 ft.	1,200 ft.	1,600 ft.
Time	1.6 min.	3.2 min.	4.8 min.	6.4 min.

Figure ____. Walking distances



It is recommended that:

- sidewalks in poor repair with tripping hazards should be repaired;
- pedestrian crossings on Wilcox and Perry Streets should have white striping, additional signage, or other improvements that increase their visibility;
- consistent night time lighting levels are important so streetlight outages should be fixed in a timely manner.

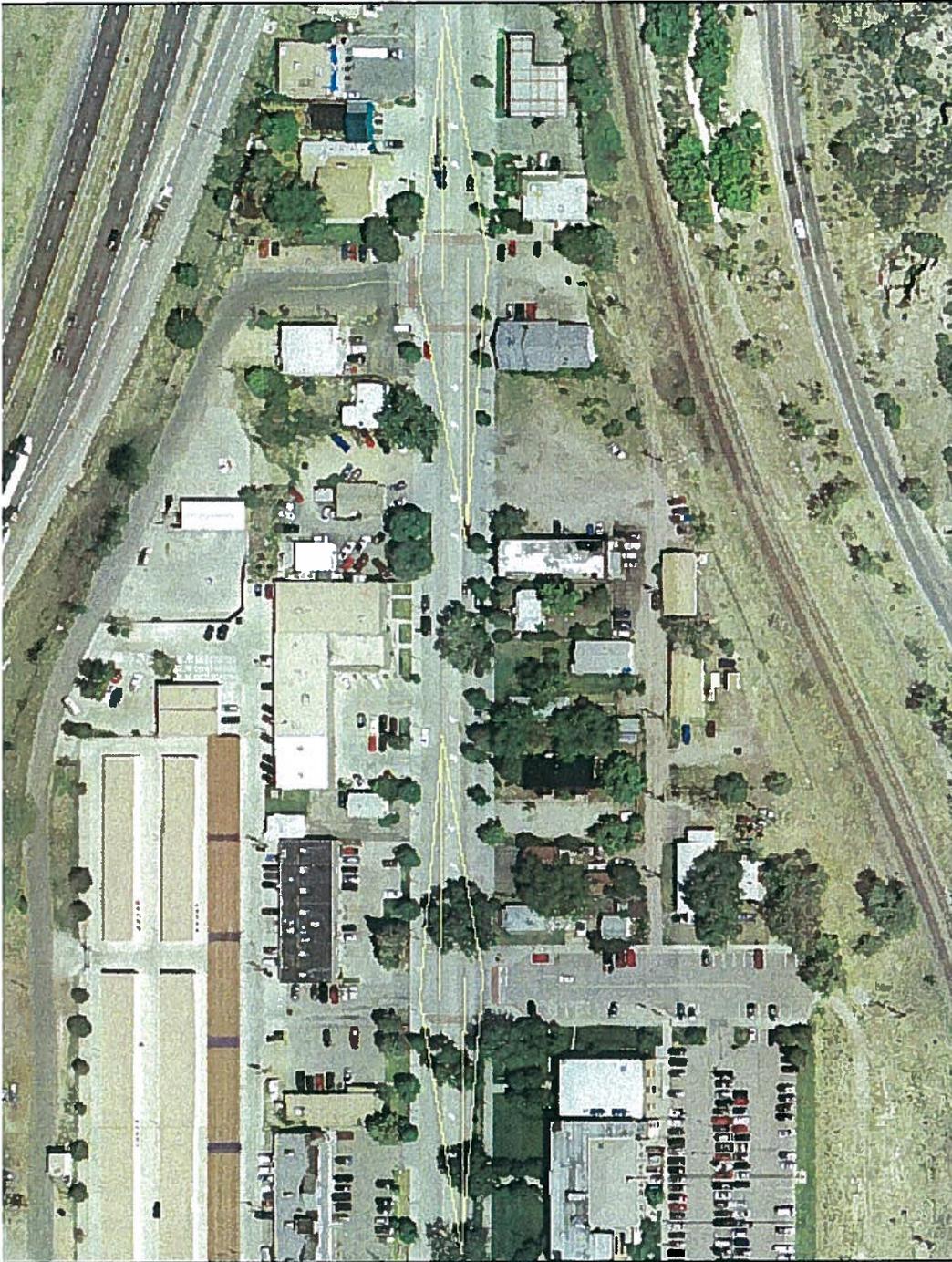
3.5 Sight distances

There are several intersections on Perry and Wilcox Streets that have visibility problems due to parked cars and landscaping at the corner bulbs. The sight lines determined by the Public Works Department are shown in Figure _____. There are seventeen parking spaces on Perry Street and that are within the sight line areas that affect visibility of oncoming cars. On Wilcox Street there are _____ parking spaces within the sight line areas. Removing these parking spaces does worsen the on-street parking shortage, particularly on Perry Street. In addition, since Perry Street does function as a north-south thoroughfare, vehicles sometimes exceed the 25-mile per hour speed limit. The objective of clearing the sight lines is to lessen the possibility of vehicular accidents as well as provide for pedestrian safety.

Figure _____. Downtown Sight Triangles (South)



Figure _____. Downtown Sight Triangles (Seventh and Eighth on Wilcox)



To resolve this visibility problem requires a solution involving parking duration, the number of on-street spaces, and traffic calming methods. For Perry Street, the options that have been evaluated include:

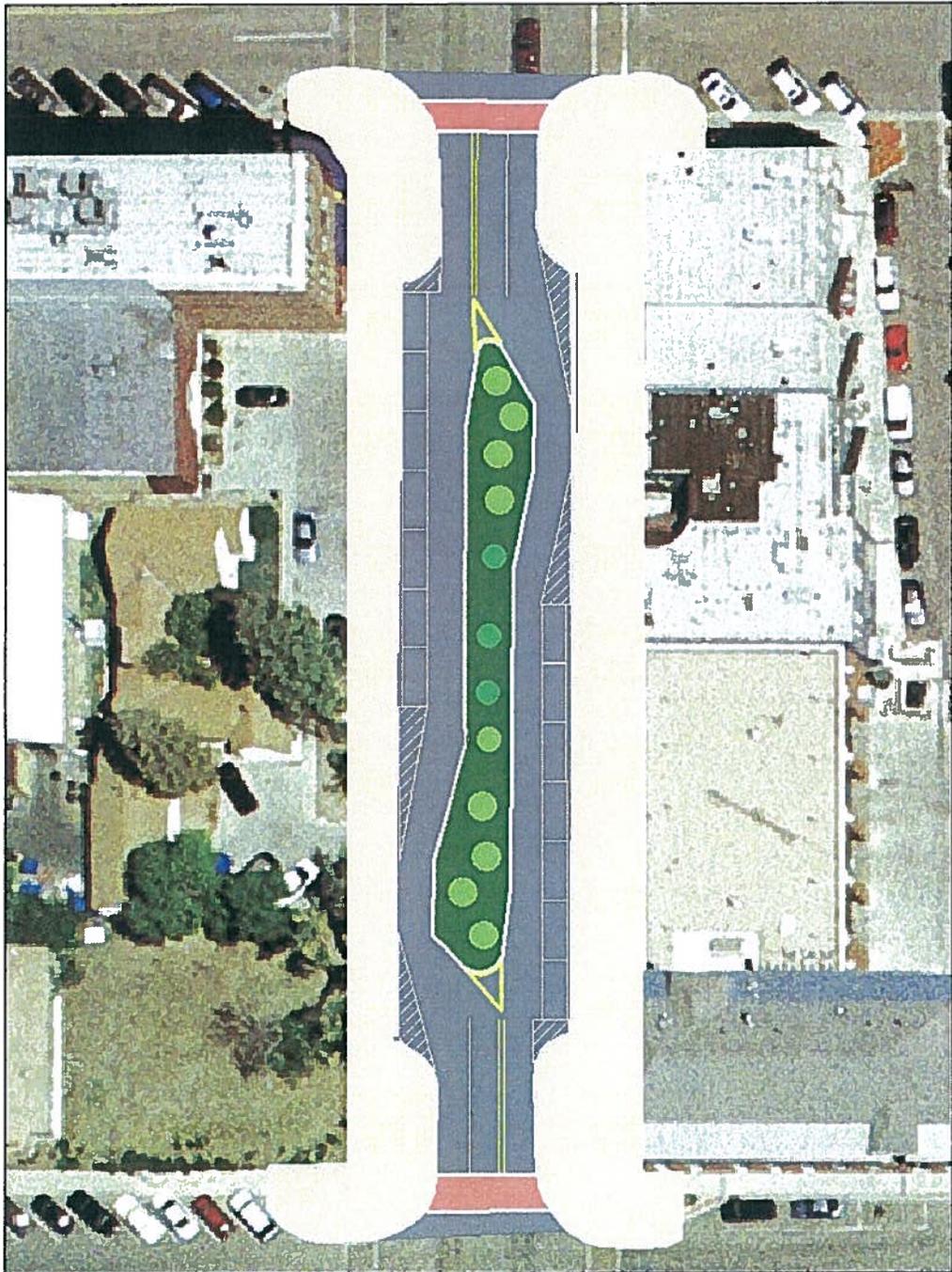
- removal of parking spaces at the identified intersections;
- stop signs at Second and Third Street;

- a traffic signal at Third Street;
- a raised median and removal of left turn lanes.

The recommendation for Perry Street is shown in Figure ____ and consists of introducing a median

- convert six parking spaces on Perry Street and two on Wilcox Street to disabled permit parking;
- * our recommendation???

Figure ____ . Perry Street Traffic Calming Concept



3.6 Manage Existing On-street Parking

It is not possible to create additional on-street parking spaces in the Downtown. Existing parallel and angle parking optimizes the parking availability on all Downtown streets and restriping recently completed by the Public Works Department has formalized the parking arrangement in the triangular parking area northwest of the Philip S. Miller building. Fourth Street east of Perry Street could be restriped to ninety degree parking in order to provide a few more parking spaces.

The option of parking meters was identified as a means to discourage employee parking in the two-hour time zones. It is not recommended at this time to introduce metered parking because it adds an additional cost to visitors, thereby reducing the appeal of visiting Downtown stores, offices and restaurants. Paid parking also requires enforcement and there is also the cost associated with meter maintenance. However, the feasibility of a parking structure is acutely related to the perceived cost of an on-street parking space. National studies have shown that there is a value as high as \$9,000 per stall that can be attributed to on street parking in front of a retail business.

(further discussion on paid parking dependent on Steering Committee and Walker study)

More short-term parking spaces could be freed up if employees were encouraged to park in the long-term on-street parking areas outside of the core. To encourage this change in parking pattern requires creating a pleasant walking experience and informing and encouraging employees and customers to park in long term spaces.

3.7 Time Limits

Existing on-street parking time limits are shown in Figure _____. Problems are apparent in the long-term parking zones on Second Street where the parking duration study showed that there is approximately a 10% level of parking violation. The parking duration study also showed that the average length of time parked by vehicles closely matched the posted time limits.

It is recommended that:

- all parking on Perry Street between Fifth and Second Street have a two hour time limit;
- parking on Second Street east of Perry have a two hour time limit;
- 15 minute parking zones are installed adjacent to Crowfoot Valley Coffee and the commercial building at ____ Fifth Street. These signs are dependent on the tenant, therefore it is recommended that these signs be affixed to buildings where the sidewalk is narrower than eight feet;
- several different curb colors should be used to indicate specific curb space:
 - yellow curb for load/unload zone;
 - red curb for two-away zone;
 - alternating red and yellow for a bus zone.

3.8 Parking Fines and Enforcement

Municipality	Amount of parking fine	Fine for repeat offenders	Metered or non-metered	Non-metered signage?	Enforcing agency	Enforcement
Parker	\$35, doubled if 15 days late	no, keep receiving tickets	non-metered	striping to indicate 2 hour limit	Police Department	Checked regularly
Arvada	\$15	none	non-metered	2 hour limit	N/A	Complaint only
Littleton	\$15, \$50-handicapped	3 parking tickets and then on a tow list	metered	N/A	Police Department	Checked regularly
Golden	\$15	tow and boot for not paying tickets	non-metered	striping to indicate 2 hour limit	Police Department	Checked regularly
Lone Tree	\$15	graduated fee schedule for a one year period: increase of \$15 for each subsequent violation to not exceed \$300. Subject to tow or impound of the vehicle at owner's expense	non-metered	striping to indicate 2 hour limit	Police Department	Checked regularly
Denver	\$20, \$40-10 days late payment	tow and boot for not paying tickets. \$50 boot fee is assessed, \$100 tow fee plus a \$20 per day holding fee	metered and non-metered	striping to indicate 2 hour limit	Police Department	Checked regularly
Broomfield	\$15, \$50-handicapped	plea by mail \$5 cost, but no other fine	non-metered	striping to indicate 2 hour limit	Police Department	Checked regularly
Lakewood	\$16	not at this time	metered and non-metered	striping to indicate 2 hour limit	Belmar Security - metered, Police Dept - rest of the parking fines	Checked regularly
Longmont	\$10, additional \$10- 7 days late payment	not at this time	non-metered	striping and signs to indicate 2 hour limit	Police Department	Checked regularly
Castle Rock	\$10	\$20 added for late payment, but no other fine	non-metered	striping and signs to indicate 2 hour limit	Police Department	Complaint only
Boulder	\$15, \$50-handicapped	booted, impounded or tow vehicles	metered and non-metered	striping to indicate two hour limit	Police Department	Checked regularly
Colorado Springs	\$15	not at this time	metered and non-metered	striping and signs to indicate two hour limit	Police Department	Checked regularly
Breckenridge	\$15, \$100-handicapped	not at this time	metered and non-metered	striping and signs to indicate two hour limit	Parking Division and Police Department	Checked regularly
Loveland	\$15	not at this time	non-metered	striping and signs to indicate two hour limit	Police Department	Checked regularly
Fort Collins	1st - warning, 2nd - \$10, 3rd - \$25, 4 or more - \$50	4 or more tickets or \$75 in outstanding fines and the car will be booted	non-metered. Parking on street, in parking lots and in two parking garages	signs indicating 2 hour parking limit	Police Department and parking garages have security personnel	Checked regularly

3.9 Commercial Vehicle Loading Zones

The lack of loading zones has resulted in commercial delivery companies parking vehicles in the center of Perry and Wilcox Streets. It is recommended that commercial loading zones be located on Fourth Street east of Perry, and on Third Street east of Wilcox Street.



3.10 Bicycle Parking

Although most Downtown visitors and employees arrive by car, it is important to install bicycle racks to encourage alternative modes of transportation. It is recommended that a bicycle rack be installed on the corner bulb at Wilcox and Fourth Street (on the east side) on Jerry Street and Fourth Street.

(photo of B&B corner bulb)

3.11 Public Information

Long-term public parking is available by the Museum and behind the Firestation. It is recommended that:

- a Downtown parking map be developed and printed by the Town; and
- parking directional signage be installed to direct motorists to the public parking lots.