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EXECUTIVE SUMMARY

Introduction
The primary purpose of this project is to determine short-term and long-term recommendations to improve parking and transportation in Olde Town Arvada.

Project Study Area
The overall study area for this project is roughly bounded by Barbara Ann Drive to the north, 52nd Avenue to the south, Newland Way to the east, and Brentwood Street to the west. The primary parking analysis zone is roughly bounded by Ralston Road to the north, 52nd Avenue to the south, the Wadsworth Boulevard Bypass to the east, and Yarrow Street to the west.

Public Input Process
In order to solicit input from the Olde Town community, several public input meetings were held and one online survey was completed. Input meetings were held on the following dates:

1. December 11, 2008 (two meetings – general public and stakeholders)
2. January 21, 2009 (two meetings – general public and stakeholders)

Additional public input meetings were held on January 27-28, 2010 to review the draft parking and transportation plan.
Assessment of Current Conditions (pages 3 – 34)

Current Parking Supply (pages 3 – 8)

The overall parking study area has a total parking supply of approximately 7,681 parking spaces. Of these, 7,315 parking spaces (95.2%) are in off-street parking areas and 366 spaces (4.8%) are located on-street. A breakdown of the parking supply is as follows:

1. There are currently 295 general public off-street parking spaces and 7,020 private off-street parking spaces. All of the public parking spaces are located within the Olde Town Core.

2. All of the public on-street spaces are controlled by the city. Approximately 288 on-street parking spaces are located within the Olde Town Core (78.7% of the overall on-street parking supply).

Current Parking Demand (pages 8 – 15)

The observed peak period of parking occupancy for the overall study area occurred at 12:00 p.m. on Wednesday, December 10 (see adjacent table). During this period, a total of 2,263 parking spaces were occupied in all parking areas. This level of occupancy translates into 29.5% of the total parking supply. Of the total public parking supply in the study area (661 spaces - both off-street and on-street), approximately 53.9% of the spaces (356 spaces) were occupied during the overall observed peak period of parking.

Key parking occupancy statistics for the Olde Town Core include the following:

1. The total Olde Town Core parking supply (1,190 spaces) was 56.1% occupied at 12:00 p.m. on Wednesday.

2. Approximately 59.7% of the on-street parking supply (288 spaces) and 54.9% of the off-street parking supply (902 spaces) in the core was occupied.

3. Approximately 56.6% of the off-street public parking supply in the core (295 spaces) was occupied during the overall peak period of parking.
4. Of the total public parking supply in the Olde Town Core (583 spaces - both off-street and on-street), approximately 58.1% of the spaces (339 spaces) were occupied during the overall observed peak period of parking.

5. Most of the 244 public parking spaces that were not utilized at the peak period of observed occupancy were located on-street (116 spaces) and in the Tiller Lot (Block 17, Lot A – 92 spaces).

In addition to the parking inventory and occupancy counts, a parking duration survey was conducted in two on-street parking areas. Key turnover and duration statistics are as follows:

1. Average observed parking durations on Olde Wadsworth Boulevard were between .60 and 1.50 hours, with approximately 3 of 28 spaces occupied by a vehicle for periods of over 2 hours (11% of the available supply). The average parking space turnover on Olde Wadsworth Boulevard was 4.93 vehicles per space over an eight hour period.

2. Average observed parking durations on Grandview Avenue were between 0.00 and 3.00 hours, with approximately 6 of 26 spaces occupied by a vehicle for periods of over 2 hours (23% of the available supply). The average parking space turnover on Grandview Avenue was 3.88 vehicles per space over an eight hour period.

Current Parking Adequacy (pages 15 – 20)

Based on the effective parking supply of the entire parking study area, there is currently a parking surplus of approximately 4,424 spaces or approximately 64% of the effective supply. Based on the effective parking supply of the Olde Town Core, there is currently a parking surplus of approximately 337 spaces or approximately 31% of the effective supply.
Parking adequacy is based solely on observed parking demand as land-use data by block was not available for this report.

On a block-by-block basis, parking adequacies in the Olde Town Core range from a surplus of 5 spaces (Blocks 10, 12, and 15) to 79 spaces (Block 17). Currently, there are no blocks with a calculated parking deficit during the overall peak period of parking. However, there are six blocks with estimated parking adequacies under 25% of the effective parking supply (Blocks 5, 10, 11, 12, 15 and 16) – four of which have parking adequacies under 10%.

**Current Transportation Conditions** (pages 20 – 34)

The pedestrian accessibility of the Olde Town Core is generally very good. However, some of the pedestrian connections between residential areas and the Olde Town core need improvement to encourage more walking activity. The effectiveness of TDM programs in and around the Olde Town area will depend heavily upon improvements to pedestrian accessibility, particularly those that attract people to the rail station on the southern end of Olde Town.

The Olde Town area currently benefits from a variety of transit services provided by RTD and Ride Provide. The most productive routes from a ridership and cost standpoint appear to be the 52, 76, and the 76x.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drove Alone</td>
<td>1,321</td>
<td>67.7%</td>
</tr>
<tr>
<td>Carpool</td>
<td>215</td>
<td>11.0%</td>
</tr>
<tr>
<td>Vanpool</td>
<td>12</td>
<td>0.6%</td>
</tr>
<tr>
<td>Bus</td>
<td>70</td>
<td>3.6%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>14</td>
<td>0.7%</td>
</tr>
<tr>
<td>Walk</td>
<td>96</td>
<td>4.9%</td>
</tr>
<tr>
<td>Other Means</td>
<td>52</td>
<td>2.7%</td>
</tr>
<tr>
<td>Worked At Home</td>
<td>170</td>
<td>8.7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,950</td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

According to the last census (2000), the work-trip mode split for residents to access their jobs was approximately 68 percent drive alone. A significant number of residents are working from home, carpooling, and to a lesser extent using the bus and walking as shown in the adjacent table.
The mode split of people traveling into Olde Town to work in 2000 is 76 percent as shown in the following table.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drove Alone</td>
<td>2,659</td>
<td>75.9%</td>
</tr>
<tr>
<td>Carpool</td>
<td>401</td>
<td>11.4%</td>
</tr>
<tr>
<td>Vanpool</td>
<td>40</td>
<td>1.1%</td>
</tr>
<tr>
<td>Bus</td>
<td>66</td>
<td>1.9%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>8</td>
<td>0.2%</td>
</tr>
<tr>
<td>Walk</td>
<td>108</td>
<td>3.1%</td>
</tr>
<tr>
<td>Other Means</td>
<td>52</td>
<td>1.5%</td>
</tr>
<tr>
<td>Worked At Home</td>
<td>170</td>
<td>4.9%</td>
</tr>
<tr>
<td>All Workers</td>
<td>3,504</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Projection of Future Conditions (pages 45 – 54)

Based on near-term projects, no parking shortage is projected. However, longer-term redevelopment assumptions provided by the City of Arvada could result in a significant impact on overall future parking conditions. Future redevelopment around the proposed Olde Town commuter-rail station could result in the loss of approximately 2,317 parking spaces in the study area. The number of parking spaces currently anticipated to be added with the new development projects would not be enough to fully address the loss of existing parking nor increased parking demands.

Two major components will impact future transportation conditions in Olde Town. These include the opening of the Gold Line commuter rail station and the redevelopment of land in the station area. For the purposes of this study and projecting parking demand at full buildout with commuter rail service, it is assumed that no more than 70 percent of the trips into Olde Town will be drive alone automobile trips. The remaining 30 percent will be trips that access Olde Town either by walking, bus, carpool, bike, or trips avoided due to telework.

Redevelopment projects/assumptions could result in parking deficits at 11 of 16 Olde Town Core study area blocks if no additional parking is constructed or no new TDM strategies are
implemented. If these redevelopment projects occur as anticipated, and no new parking is constructed (outside of what is already contained within the assumptions), overall parking deficits could surpass 2,000 parking spaces (most of the redevelopment assumptions do not include on-site parking). Parking deficits would be less if additional on-site parking is included with the redevelopment assumptions.

Recommended Parking and Transportation Management Strategies (pages 105 – 110)

Parking and transportation management strategies are recommended to help improve Olde Town parking conditions, both now and in the future. The parking management alternatives will help provide overall system direction, improve parking efficiency, increase utilization/turnover, encourage the use of alternative forms of transportation, and help meet anticipated future parking needs.

Immediate Action –2010:

1. **Designate Lead Division and Support Units and Determine Resources for Further Implementation**
   Designate an existing city department as responsible for the Olde Town parking and transportation system. This would include both operations and management. Determine needed staffing and budget for implementation of the plan in the short-term and mid-term.

2. **Create Master Signage Plan and Install Signs**
   Provide additional parking-related signage and wayfinding to increase the potential utilization of existing public parking areas. Work with private parking lot owners to ensure existing signage does not discourage appropriate parking in the lots.

3. **Prepare Parking Map and Marketing Materials - Brand the System**
   a. Work with the Olde Town community to determine appropriate methods to communicate parking and transportation system issues and goals.
   b. Develop an Olde Town parking map. Distribute printed copies to Olde Town businesses and post a version on the city’s website.
   c. Begin the process of branding the Olde Town parking system, developing a logo, signage, and other marketing materials.
   d. Develop an “Olde Town Employee Kit” that would include information on appropriate parking locations and alternative forms of transportation.

4. **Designate Long-term Parking in Conjunction with HOTA and Communicate to Business Owners**
   Encourage long-term parkers (e.g., Olde Town employees and business owners) to park in off-street parking areas, especially the Tiller Lot.
5. **Delineate all On-street Parking Spaces**
   Parking time limits should be longer in underutilized areas (e.g., eight to ten hour limits on Blocks 7, 8, and 14) and shorter in heavily utilized areas (e.g., existing two hour limits on Blocks 11, 12, 13, 15, and 16).

6. **Develop Ordinance to Authorize Enforcement of Time Restrictions**
   Work with Legal to draft an ordinance that will codify the enforcement of parking time restrictions.

7. **Prepare Shared-Use Agreements with Private Parking Lot Owners**
   Work with Olde Town parking facility owners to improve the utilization of private parking supplies.

8. **Delineate Loading and Delivery Zones**
   a. Work with the Olde Town community to determine appropriate loading zone locations and policies.
   b. Delineate loading zones in Olde Town.

**Short-Term 2010 and 2011:**

1. **Conduct a Safety Assessment of Parking Facilities**
   a. Ensure existing parking facilities are safe and well lighted.
   b. Ensure pedestrian paths between parking facilities and Olde Town destinations are well lighted and safe.
   c. Ensure existing parking facilities meet Crime Prevention Through Environmental Design (CPTED) standards.
   d. Update parking-related zoning requirements to include appropriate lighting standards.

2. **Adopt Municipal and Land Development Code Changes**
   a. Begin drafting an ordinance that will address parking and transportation demand issues in Olde Town. Use the issues described in Section 4.05 as a starting point.
   b. Instead of a zero parking requirement for new developments in Olde Town, provide flexible parking requirements that allow reasonable parking reductions and encourage shared parking. Also, provide new developments with the option of paying an in-lieu fee instead of providing on-site parking.

3. **Establish Procedures for Enforcement**
   While not necessary in the near term, parking enforcement capabilities should be available prior to the opening of the Gold Line commuter rail station. Completing the following steps will be necessary:
a. Ensure the proper authority exists for parking enforcement (city ordinance).

b. Decide which city department will provide parking enforcement – preferably the department that will be charged with Olde Town parking and transportation system management. Consider the “parking ambassador” approach to parking management.

c. Determine how parking appeals and citation collection will be handled (using the information contained in Section 4.06 as a starting point).

d. Determine which parking enforcement methodologies/technologies will be used (e.g., paper tickets or handheld computers).

e. Using the enforcement goals noted in Section 4.06 as a guide, define enforcement objectives.

f. Consider the implementation of a tiered parking fine structure.

g. Consider using “Olde Town ambassadors” to provide parking enforcement, as well as basic security in Olde Town.

h. Involve the community in the process to define parking enforcement goals and objectives, and provide sufficient notice prior to implementation.

4. Address Staffing and Funding for Mid-Term and Long-Term Implementation

See Sections 4.03 and 4.04 for alternative strategies (pages 65 – 78).

a. Work to diversify parking-related revenue streams to ensure sufficient funds exist to cover parking-related management, operations, marketing, maintenance, and construction expenses. Work with the community to evaluate alternative ways of funding the parking system, including pay parking, a business improvement or parking district and fees in lieu for new projects.

b. Strongly consider public/private partnerships to develop future parking resources. Work with new developments to help defray at least a portion of parking construction costs.

c. Encourage the development of additional on-street parking spaces (e.g., more angled parking) when Olde Town areas are redeveloped.

d. As future developments occur, determine appropriate financing strategies for public parking facilities.

e. Provide limited parking operations services in-house. This would include parking-related signage, parking system marketing, parking enforcement, planning, special events assistance, and maintenance.

5. Monitor Parking Usage and Initiate Parking Enforcement when Overall Peak Public Parking Utilization Exceeds 85% or when Average Parking Durations in Time-limited Public Parking Areas Exceed 70% of the Posted Time Limit.
Mid-Term 2012 through 2015:

1. Institute Active Enforcement

2. Initiate Transportation Demand (TDM) Programs
   a. Market transportation options for downtown visitors and employees:
      i. Add TDM components to a parking website (ridematching, interactive transportation map, and a virtual commute store).
      ii. Provide information and wayfinding kiosks in Olde Town.
      iii. Promote TDM alternatives at community events.
      iv. Provide transportation options kits to employers, employees and visitors.
      v. Create a Residential Individualized Marketing campaign focused on increasing the use of carpools, bicycling, walking, and a secondary emphasis on transit.
   b. Encourage the following employer programs:
      i. Encourage telework and alternative work schedules.
      ii. Support pre-tax transportation benefits for employees.
      iii. Encourage secure, on-site bicycle storage in new developments.
   c. Utilize the following ridesharing strategies:
      i. Provide preferential carpool and vanpool parking.
      ii. Create a Local ridematching website.
   d. Consider the following bicycling strategies:
      i. Install bike parking inside buildings as they are developed.
      ii. Install changing rooms/showers as buildings are developed.

3. Install Safety Improvements in Parking Facilities
   a. Consider installing panic alarms or emergency call boxes in public parking lots and future parking structures.
   b. Ensure all future parking facilities incorporate CPTED standards.
   c. Incorporate parking industry best practices related to facility safety and security into future parking structure design standards.

4. Develop Agreements for RTD Transit Parking Overflow
   Prior to the opening of the Gold Line, the city and RTD should explore options to utilize available parking areas adjacent to the existing Park-n-Ride lot (e.g., the parking surrounding the movie theater).
5. Develop Design and Phasing Concepts for RTD Parking Garage

While not needed for Olde Town parking today or the early years of Gold Line operation (except maybe special events), constructing a Park-n-Ride garage could reduce the impact of commuter parking in Olde Town. A parking facility could also help spur area development as shared parking could be provided.

6. Execute Agreement with RTD for Phasing, Construction, and Shared use of Parking Garage

Ideally, the parking structure would be constructed by RTD or as a public/public partnership between RTD and the city. The parking garage should include consideration of other appropriate uses such as retail, office, residential, and public spaces. If the facility is constructed as a joint-use facility, the costs of construction and operations should be divided between RTD and the city based on facility use.

7. Evaluate Options for Long Term Parking and TDM Management and Funding

   a. Working with the community, consider the implementation of a community-based management approach, such as a parking district, parking authority, or downtown business organization.

   b. Consider outsourcing daily parking operations once the parking system becomes more complex (e.g., staffed facilities and/or on-street pay parking).

   c. Develop methods to encourage public participation in the parking system, such as periodic public/stakeholder input meetings, online surveys or comment forms, mail-in comment cards, etc.

   d. Create a parking system annual report to communicate system progress, challenges, and parking supply/demand changes.

   e. Incorporate parking system branding initiatives into new parking facilities as they are developed.

   f. All facets of the parking and transportation operation should be placed in a vertically-oriented management structure.

Long-Term 2016 and Beyond:

1. Continue to Work with the Community to Determine the Long Term Management and Operation of the Parking System

2. Expand TDM Program

   a. Continue TDM programs, except retool the Residential Individualized Marketing program for transit.

   b. Develop a Residential Individualized Marketing campaign focused on new Gold Line service.

   c. Create a RTD Pass Outlet.
d. Develop a bikesharing program.

3. Work with RTD on Phasing, Construction, and Shared Use of Parking Garage
   Continue to work with RTD on the proper phasing and design of the garage, focusing on high quality design that includes others uses.

4. Develop Additional Public Parking Supplies as Necessary
   Monitor parking usage and the effectiveness of TDM strategies and develop additional parking supplies when needed. Use the sites noted in Section 4.02 of this report as preliminary public parking facility locations.
1.0 INTRODUCTION

1.01. Study Purpose and Approach

The primary purpose of this project is to determine short-term and long-term recommendations to improve parking and transportation in Olde Town Arvada. The scope of services for this project consists of four phases:

1. Phase 1: Review of Background Data, Initial Site Visit, and Public Outreach
2. Phase 2: Strategy Development and Refinement
3. Phase 3: Draft Plan Development
4. Phase 4: Final Plan

Phase One of the project includes an assessment of existing parking and transportation conditions, determined primarily through reviews of background materials, detailed parking inventory and occupancy surveys, and stakeholder input meetings. This examination of existing conditions will provide the baseline data from which future developments, with associated impacts on parking and transportation supply and demand, can be evaluated. Parking and transportation alternatives will then be considered to address future needs, as well as improve the utilization and efficiency of existing parking and transportation resources. Future alternatives may include potential parking supply changes, as well as general parking and transportation management strategies and improvements.

1.02. Study Area

The study area for this project was divided into several sections. The overall study area for this project is roughly bounded by Barbara Ann Drive to the north, 52nd Avenue to the south, Newland Way to the east, and Brentwood Street to the west. Parking analysis zones within the overall study area were designated for varying levels of parking occupancy counts. The primary parking analysis zone is roughly bounded by Ralston Road to the north, 52nd Avenue to the south, the Wadsworth Boulevard Bypass to the east, and Yarrow Street to the west. Two secondary analysis zones were also identified, located to the north and southeast of the primary zone. Hourly parking occupancy counts were completed in the primary zone, and one-time “snapshot” occupancy counts were completed in the secondary zones.

The following graphic (Figure 1) illustrates the overall study area (area outlined in red) and the primary and secondary parking occupancy analysis zones. The primary analysis zone is highlighted in orange and the secondary zones are highlighted in green.
1.03. Public Input Process

In order to solicit input from the Olde Town community, several public input meetings and one online survey were completed. Input meetings were held on the following dates:

1. December 11, 2008 (two meetings – general public and stakeholders)
2. January 21, 2009 (two meetings – general public and stakeholders)

The sessions included representatives from city staff, downtown business and property owners, developers, and members of the public. Background issues, parking inventory/occupancy counts, and basic management concepts were discussed. Also, attending community members were provided an opportunity to voice their concerns and provide potential solutions. A summary of draft report comments are provided in Appendix F.
2.0 ASSESSMENT OF CURRENT PARKING AND TRANSPORTATION CONDITIONS

2.01. Current Parking Supply

On December 9, 2008 an inventory of parking spaces located within the Olde Town Arvada parking study areas was conducted (highlighted in orange and green in Figure 1). The parking spaces were classified into two primary categories, on-street and off-street. For this study, on-street spaces generally refer to spaces located on a roadway, adjacent to a block, oriented parallel or angled to the curb. Off-street spaces refer to spaces located within a block and within the curb face. Generally, all on-street parking spaces were available for public parking while the majority of off-street spaces were reserved for a particular group (e.g., specific customers, reserved parking). In this report, public parking will refer to general public parking available to all user groups. Private parking will refer to parking owned privately and/or designated for a specific business or user group.

Prior to conducting the parking inventory counts, each block and parking lot located within the parking analysis zones was identified with a number (blocks) or letter (lots) designation. A total of 25 blocks were designated. The following figures (Figures 2, 3, and 4 – pages 4 through 6) illustrate the block and parking lot identifier sequence. These labels can be used to review specific parking inventory and occupancy figures located in Appendix A.

The overall parking study area has a total parking supply of approximately 7,681 parking spaces. Of these, 7,315 parking spaces (95.2%) are in off-street parking areas and 366 spaces (4.8%) are located on-street. The on-street parking inventory includes both marked parking spaces and locations where on-street parking is possible but not currently marked. The amount of on-street parking was estimated based on block face lengths and street widths.

Some parking areas could not be accurately inventoried, as they lacked parking stripes or existing stripes were not visible. In these situations, inventories were estimated based on the size of the parking area. Residential parking areas, including apartment complexes and private driveways were not counted in the parking inventory as they would not contribute to any shared parking opportunities.
Figure 2. Parking Study Area – 59th Avenue to the Railroad Tracks
Figure 3. Parking Study Area – The Railroad Tracks to 53rd Avenue
Figure 4. Parking Study Area – 53rd Avenue to Interstate 70
The following two subsections summarize the current parking supply in the parking analysis zones by type (off-street versus on-street) and user allocation (public versus private).

2.01.1. Off-Street Parking Supply

The designated parking analysis zones contain a total of approximately 7,315 off-street parking spaces. There are currently 295 general public off-street parking spaces and 7,020 private parking spaces. General public parking accounts for approximately 4.0% of the total off-street parking supply based on current parking space inventories. All of the public parking spaces are located within the Olde Town Core, as shown in the following graphic (Figure 5). The Olde Town Core consists of Blocks 5 through 16, and Lot A in Block 17.

Figure 5. General Public Off-Street Parking Supply in the Olde Town Core

The public off-street spaces are not currently controlled using any parking control technology such as parking meters, exit cashiering, etc. Some public parking spaces are time-limited, but some parking spaces are available for long-term (longer than three hours) public parking (e.g., public lots on the northeast corner of Webster Street and 57th Avenue – Block 10, Lots A and B). Parking time-limits are not currently enforced by the city.

The vast majority of parking spaces located within the parking analysis zones are located south of the railroad tracks in the “New Town” area. All of these parking spaces are reserved for employees and visitors of specific businesses, buildings, commercial developments, or regional transit system users. Of the 7,020 private parking spaces located in the parking analysis zones, approximately 607 are located in the Olde Town Core and 6,413 are located outside of the Olde Town Core (all other areas).
A total of 902 off-street parking spaces are located within the Olde Town Core and 6,413 spaces are located in all other off-street areas.

### 2.01.2. On-Street Parking Supply

The study area contains approximately 366 public on-street spaces, all of which are controlled by the city. Approximately 288 on-street parking spaces are located within the Olde Town Core (78.7% of the overall on-street parking supply). The amount of on-street parking available on each block face is shown in Appendix A.

The on-street parking is available to the public on a first-come-first-serve basis, and a significant portion of the spaces are currently time restricted (up to two hours). The on-street parking located in the residential areas (e.g., north of Ralston Road) is not time limited nor is it controlled using permits.

### 2.02. Current Parking Demand

After the inventory of parking was completed, several occupancy surveys were conducted to determine how many parking spaces were utilized during a typical day and evening. The completed survey essentially provided a “snapshot” of parking occupancy, and did not attempt to determine the absolute peak parking period.

Based on other similar municipal parking occupancy studies conducted, it was determined that occupancy surveys in the primary analysis zone would be conducted every two hours between 8:00 a.m. and 4:00 p.m. on one weekday. In addition to the daytime occupancy counts, parking occupancy in the primary analysis zone would also be observed during one Friday night and one Saturday night. The primary zone occupancy surveys were conducted on Wednesday, December 10 and the Friday and Saturday observations occurred on December 12 and 13 respectively.

Parking occupancy counts in the secondary analysis zones were completed between 10:00 a.m. and 12:00 p.m. on Wednesday, December 10 only. After discussions with the city, it was determined that only a limited amount of parking occupancy data for these areas was needed to provide a baseline for determining the future impacts of commuter rail and associated transit-oriented developments.

The parking occupancy surveys focused on the two primary categories of parking in the study area, on-street and off-street. Each off-street parking area was counted individually, and counts were separated between private and publicly-controlled parking facilities. The intent of the survey was to determine the overall level of parking utilization in the study area both by facility and by block. The results of the occupancy surveys will serve as a baseline for determining future parking expansion needs and possible parking management alternatives.

The observed peak period of parking occupancy for the entire study area occurred at 12:00 p.m. on Wednesday, December 10. During this period, a total of 2,263 parking spaces were
occupied in all parking areas. This level of occupancy translates into 29.5% of the total parking supply. The following table (Table 1) illustrates the total observed occupancy levels for all blocks in the study area during the peak period of observed parking occupancy.

Table 1. Overall Parking Occupancy Survey Results

<table>
<thead>
<tr>
<th>Parking Type/Location</th>
<th>Parking Inventory</th>
<th>10am</th>
<th>12pm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off-Street Public</td>
<td>295</td>
<td>134</td>
<td>167</td>
</tr>
<tr>
<td>Off-Street Private</td>
<td>7,020</td>
<td>1,506</td>
<td>1,907</td>
</tr>
<tr>
<td><strong>Total Off-Street</strong></td>
<td><strong>7,315</strong></td>
<td><strong>1,640</strong></td>
<td><strong>2,074</strong></td>
</tr>
<tr>
<td>Total On-Street</td>
<td>366</td>
<td>143</td>
<td>189</td>
</tr>
<tr>
<td><strong>Total Area Parking</strong></td>
<td><strong>7,681</strong></td>
<td><strong>1,783</strong></td>
<td><strong>2,263</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Occupancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Off-Street Public Occupancy %</td>
<td>45.4% 56.6%</td>
</tr>
<tr>
<td>Total Off-Street Private Occupancy %</td>
<td>21.5% 27.2%</td>
</tr>
<tr>
<td>Total Off-Street Parking Occupancy %</td>
<td>22.4% 28.4%</td>
</tr>
<tr>
<td>Total On-Street Parking Occupancy %</td>
<td>39.1% 51.6%</td>
</tr>
<tr>
<td><strong>Total Parking Occupancy %</strong></td>
<td>23.2% 29.5%</td>
</tr>
</tbody>
</table>

Of the total public parking supply in the study area (661 spaces - both off-street and on-street), approximately 53.9% of the spaces (356 spaces) were occupied during the overall observed peak period of parking.

Parking occupancy within the primary analysis zone peaked at 37.5% on December 10 (12:00 p.m.) During this time period, a total of 1,521 vehicles were parked in 4,060 on-street and off-street spaces. The on-street supply was 59.7% occupied and the off-street supply was 35.8% occupied. The off-street public supply of 295 spaces was 56.6% occupied (167 vehicles).

While the parking supply appears adequate for the study area as a whole, certain parking lots were more utilized than others. For example, the following figure (Figure 6) illustrates off-street parking areas that had levels of utilization greater than 75%:
Key parking occupancy statistics within the Olde Town Core (Blocks 5 through 16, and Lot A in Block 17) are as follows:

1. The total parking supply was 56.1% occupied at 12:00 p.m. on Wednesday.
2. During the peak period of observed parking occupancy in the Olde Town Core, approximately 59.7% of the on-street parking supply and 54.9% of the off-street parking supply was occupied.
3. Of the available off-street public parking supplies located in the core, approximately 56.6% of the spaces were occupied during the overall peak period of parking.
4. Of the total public parking supply in the Olde Town Core (583 spaces - both off-street and on-street), approximately 58.1% of the spaces (339 spaces) were occupied during the overall observed peak period of parking.
5. Most of the 244 public parking spaces that were not utilized at the peak period of observed occupancy were located on-street (116 spaces) and in the Tiller Lot (Block 17, Lot A – 92 spaces).

The following figures (Figures 7 and 8) illustrate parking occupancies in the Olde Town Core for both on-street and off-street parking areas during the observed period of peak demand. Off-street public parking lots are identified with a “P.”
Figure 7. Percentage of On-Street Parking Occupied in the Olde Town Core at Peak

Figure 8. Percentage of Off-Street Parking Occupied in the Olde Town Core at Peak
While approximately 523 parking spaces in the Olde Town Core were unoccupied during the observed period of peak parking, many of the spaces were in private parking facilities and use was restricted. There were a total of 244 publicly-controlled parking spaces and 279 private parking spaces available during the peak period of parking occupancy. It is important to note however that many of the available parking spaces may be at greater walking distances from primary demand generators than some people would typically tolerate – although many spaces are located within industry-standard acceptable walking distances to most demand generators (within 800 feet).

The following table (Table 2) summarizes the observed parking occupancies in the Olde Town Core on Wednesday, December 10.

Table 2. Olde Town Core Parking Occupancy Survey Results

<table>
<thead>
<tr>
<th>Parking Type/Location</th>
<th>Parking Inventory</th>
<th>8am</th>
<th>10am</th>
<th>12pm</th>
<th>2pm</th>
<th>4pm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off-Street Public</td>
<td>295</td>
<td>102</td>
<td>134</td>
<td>167</td>
<td>167</td>
<td>146</td>
</tr>
<tr>
<td>Off-Street Private</td>
<td>607</td>
<td>132</td>
<td>199</td>
<td>328</td>
<td>259</td>
<td>218</td>
</tr>
<tr>
<td><strong>Total Off-Street</strong></td>
<td><strong>902</strong></td>
<td><strong>234</strong></td>
<td><strong>333</strong></td>
<td><strong>495</strong></td>
<td><strong>426</strong></td>
<td><strong>364</strong></td>
</tr>
<tr>
<td>Total On-Street</td>
<td>288</td>
<td>79</td>
<td>126</td>
<td>172</td>
<td>160</td>
<td>141</td>
</tr>
<tr>
<td><strong>Total Area Parking</strong></td>
<td><strong>1,190</strong></td>
<td><strong>313</strong></td>
<td><strong>459</strong></td>
<td><strong>667</strong></td>
<td><strong>586</strong></td>
<td><strong>505</strong></td>
</tr>
<tr>
<td>Total Off-Street Public Occupancy %</td>
<td>34.6%</td>
<td>45.4%</td>
<td>56.6%</td>
<td>56.6%</td>
<td>49.5%</td>
<td></td>
</tr>
<tr>
<td>Total Off-Street Private Occupancy %</td>
<td>21.7%</td>
<td>32.8%</td>
<td>54.0%</td>
<td>42.7%</td>
<td>35.9%</td>
<td></td>
</tr>
<tr>
<td>Total Off-Street Parking Occupancy %</td>
<td>25.9%</td>
<td>36.9%</td>
<td>54.9%</td>
<td>47.2%</td>
<td>40.4%</td>
<td></td>
</tr>
<tr>
<td>Total On-Street Parking Occupancy %</td>
<td>27.4%</td>
<td>43.8%</td>
<td>59.7%</td>
<td>55.6%</td>
<td>49.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Total Parking Occupancy %</strong></td>
<td><strong>26.3%</strong></td>
<td><strong>38.6%</strong></td>
<td><strong>56.1%</strong></td>
<td><strong>49.2%</strong></td>
<td><strong>42.4%</strong></td>
<td></td>
</tr>
</tbody>
</table>

In addition to reviewing daytime parking occupancies, parking occupancy counts for one Friday evening and one Saturday evening were also conducted (December 12 and 13). Table 3 (next page) summarizes the observed parking occupancies during the peak period of evening parking (Friday, December 12 between 7:00 p.m. and 8:00 p.m.) The figures shown do not include Block 8 or Block 16 (a total of 217 spaces). The occupancy counts for each block are shown in Appendix A.

Approximately 43.9% of the available parking supply was occupied on Friday evening. There were 171 public off-street spaces and 101 on-street spaces available between 7:00 p.m. and 8:00 p.m. However, there were some areas with high levels of parking utilization (greater than 75%) including:

1. The on-street parking surrounding Block 5 (88.5% occupied)
2. The on-street and off-street parking on Block 12 (98.3% occupied)
3. The on-street and off-street parking on Block 15 (88.0% occupied)
### Table 3. Olde Town Core Parking Occupancy Survey Results – Friday Evening

<table>
<thead>
<tr>
<th>Parking Type/Location</th>
<th>Parking Inventory</th>
<th>7pm-8pm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off-Street Public</td>
<td>295</td>
<td>124</td>
</tr>
<tr>
<td>Off-Street Private</td>
<td>416</td>
<td>142</td>
</tr>
<tr>
<td><strong>Total Off-Street</strong></td>
<td><strong>711</strong></td>
<td><strong>266</strong></td>
</tr>
<tr>
<td><strong>Total On-Street</strong></td>
<td><strong>262</strong></td>
<td><strong>161</strong></td>
</tr>
<tr>
<td><strong>Total Area Parking</strong></td>
<td><strong>973</strong></td>
<td><strong>427</strong></td>
</tr>
</tbody>
</table>

- Total Off-Street Public Occupancy %: 42.0%
- Total Off-Street Private Occupancy %: 34.1%
- Total Off-Street Parking Occupancy %: 37.4%
- Total On-Street Parking Occupancy %: 61.5%
- Total Parking Occupancy %: 43.9%

The following figures (Figures 9 and 10) illustrate parking occupancies for both on-street and off-street parking areas on Friday, December 12 between 7:00 p.m. and 8:00 p.m.

**Figure 9. Percentage of On-Street Parking Occupied in the Olde Town Core on Friday Evening**
During the observed period of peak evening parking occupancy, approximately 51.2% of the publicly-controlled supply (on-street and off-street) and 34.1% of the private supply was occupied. There were a total of 272 publicly-controlled parking spaces available during the observed period of evening parking. As stated previously, many of the available spaces may be at greater walking distances from primary demand generators than some people would tolerate.

In addition to the parking inventory and occupancy counts, a parking duration survey was conducted in two on-street parking areas. The duration surveys were conducted in select on-street spaces located on Olde Wadsworth Boulevard and Grandview Avenue (a total of 54 spaces). The last three digits of parked vehicle license plates were recorded every half-hour during the survey period. The turnover and duration surveys were conducted from 8:00 a.m. to 4:00 p.m. on two weekdays, Wednesday, December 10 and Thursday, December 11.

Key turnover and duration statistics are as follows:

1. Observed parking durations in the designated areas averaged between 0.00 hours (space was not utilized) to 3.00 hours per vehicle, per space. The average amount of time vehicles were parked in the survey areas was .94 hours on Olde Wadsworth Boulevard and 1.16 hours on Grandview Avenue. As the posted time limit is two hours,
most vehicles parked well below the set time limit. Based on the information gathered during the surveys, it appears that the on-street parking supply is generally used appropriately and vehicle durations are consistent with posted parking limits.

2. Average observed parking durations on Olde Wadsworth Boulevard were between .60 and 1.50 hours, with approximately 3 of 28 spaces occupied by a vehicle for periods of over 2 hours (11% of the available supply). The average parking space turnover on Olde Wadsworth Boulevard was 4.93 vehicles per space.

3. Average observed parking durations on Grandview Avenue were between 0.00 and 3.00 hours, with approximately 6 of 26 spaces occupied by a vehicle for periods of over 2 hours (23% of the available supply). The average parking space turnover on Grandview Avenue was 3.88 vehicles per space.

It is important to note that the average duration of vehicles parking in the study area may be slightly higher than what was recorded during the duration survey. This is due to vehicles that were parked before the survey was started, and vehicles that were still parked at the conclusion of the survey each day.

2.03. Current Parking Adequacy

In determining the current parking adequacy for the study area, it is important to define two terms typically used in analyzing parking adequacy: Effective Supply and Design Day Conditions. When a parking area’s occupancy reaches 85-90% of the total capacity, depending on the user group, the area becomes effectively full. When parking lot occupancy exceeds effective capacity, users become frustrated as it becomes increasingly difficult to find an available parking space. Users will begin to either park illegally in the lot or leave the lot altogether and search for parking elsewhere. When visitors are faced with significant parking difficulties, they could choose to avoid the downtown altogether and shop elsewhere. The accepted effective fill percentage for parking in the downtown study area is 90%. This 10% “cushion” of spaces is used to accommodate spaces lost temporarily due to construction, improper or illegal parking, and provides for shorter searches for available parking.

Design day parking conditions attempt to represent typical peak activity that may be exceeded only occasionally during the year. Due to the limited nature of the occupancy study for this project, as well as the lack of available information concerning study area land uses and historical parking utilization/activity, specific demand day adjustments cannot be calculated. However, due to the time of year the surveys were completed, an estimated design day adjustment may be necessary to better reflect parking conditions during a busier period (e.g., spring and summer seasons). Therefore, based on previous parking study projects in similar environments, a 10% increase in parking demand will be factored into the adequacy model. While the occupancy survey that was conducted provided an adequate “snapshot” of parking conditions during a typical parking period, it may not reflect typical peak conditions.
The following table (Table 4) illustrates the total estimated parking adequacy for the entire study area. Current parking adequacy is based on the observed parking occupancy at the peak parking period (Wednesday at 12:00 p.m.) Overall, there is a substantial surplus of parking available in the parking analysis zones.

<table>
<thead>
<tr>
<th>Number of Spaces</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Total Parking Supply¹</td>
<td>7,681</td>
</tr>
<tr>
<td>Current Effective Parking Supply (90% of Total)</td>
<td>6,913</td>
</tr>
<tr>
<td>Adjusted Observed Parking Occupancy²</td>
<td>2,489</td>
</tr>
<tr>
<td><strong>Current Effective Parking Surplus/Deficit (Effective Supply minus Adjusted Observed Occupancy)</strong></td>
<td><strong>4,424</strong></td>
</tr>
</tbody>
</table>

Notes:
1: Total parking supply equals both on-street and off-street inventories throughout the entire parking study area.
2: Adjusted observed parking occupancy includes a 10% increase over observed utilization levels. Percentage shown is the percentage of the total supply occupied (observed plus 10% adjustment).

Based on the effective parking supply of the entire study area, there is currently a parking surplus of approximately 4,424 spaces or approximately 64% of the effective supply. Parking adequacy is based solely on observed parking demand as land-use data by block was not available for this report. Also, the parking associated with land uses that experience peak parking demand during evenings (e.g., the movie theater) are not accurately reflected in Table 4. However, as a majority of the land uses located within the study area likely peak during daytime hours (e.g., offices, retail stores, the library, and the school), the estimated adequacy shown in Table 4 provides a reasonable estimate of daily peak parking demands.

It is important to note however that while a significant parking surplus exists in the study area overall, a substantial portion of the parking is located south of the railroad tracks and is private. At the peak parking period, approximately 54% of the total public parking supply and 27% of the total private parking supply was utilized.

With respect to parking in the Olde Town Core, there appears to be a small overall parking surplus. Table 5 (below) illustrates the estimated parking adequacy in the Olde Town Core.
Table 5. Estimated Parking Adequacy in the Olde Town Core

<table>
<thead>
<tr>
<th>Number of Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,190</td>
</tr>
<tr>
<td>1,071</td>
</tr>
<tr>
<td>734</td>
</tr>
<tr>
<td>337</td>
</tr>
</tbody>
</table>

Notes:
1: Total parking supply equals both on-street and off-street inventories in the Olde Town Core.
2: Adjusted observed parking occupancy includes a 10% increase over observed utilization levels.
Percentage shown is the percentage of the total supply occupied (observed plus 10% adjustment).

Based on the effective parking supply of the Olde Town Core, there is currently a parking surplus of approximately 337 spaces or approximately 31% of the effective supply. As mentioned previously, parking adequacy is based solely on observed parking demand as land-use data by block was not available for this report. Observed parking demands during evening hours did not exceed those observed during the daytime peak, so parking adequacy is based on daytime parking utilization. However, there are some blocks and lots that experience higher levels of parking demand during evenings and weekends.

On a block-by-block basis, parking adequacies in the Olde Town Core range from a surplus of five spaces (Blocks 10, 12, and 15) to 79 spaces (Block 17). Currently, there are no blocks with a calculated overall parking deficit during the overall peak period of parking. However, there are six blocks with estimated parking adequacies under 25% of the effective parking supply (Blocks 5, 10, 11, 12, 15 and 16) – four of which have parking adequacies under 10%. Table 6 and Figure 11 (next page) detail the calculated parking adequacy for each block in the Olde Town Core. As stated previously, these parking adequacies are based on observed parking demands.
Table 6. Estimated Block-by-Block Parking Adequacies in the Olde Town Core

<table>
<thead>
<tr>
<th>Block</th>
<th>Current Total Parking Supply</th>
<th>Effective Parking Supply (90%)</th>
<th>Adjusted Parking Occupancy at Observed Peak</th>
<th>Estimated Adjusted Parking Adequacy</th>
<th>Percentage of Effective Supply Occupied</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>186</td>
<td>167</td>
<td>146</td>
<td>21</td>
<td>87.4%</td>
</tr>
<tr>
<td>6</td>
<td>58</td>
<td>52</td>
<td>36</td>
<td>16</td>
<td>69.5%</td>
</tr>
<tr>
<td>7</td>
<td>119</td>
<td>107</td>
<td>29</td>
<td>79</td>
<td>26.7%</td>
</tr>
<tr>
<td>8</td>
<td>119</td>
<td>107</td>
<td>46</td>
<td>61</td>
<td>43.1%</td>
</tr>
<tr>
<td>9</td>
<td>74</td>
<td>67</td>
<td>44</td>
<td>23</td>
<td>66.1%</td>
</tr>
<tr>
<td>10</td>
<td>129</td>
<td>116</td>
<td>111</td>
<td>5</td>
<td>95.7%</td>
</tr>
<tr>
<td>11</td>
<td>77</td>
<td>69</td>
<td>55</td>
<td>14</td>
<td>79.4%</td>
</tr>
<tr>
<td>12</td>
<td>59</td>
<td>53</td>
<td>48</td>
<td>5</td>
<td>91.1%</td>
</tr>
<tr>
<td>13</td>
<td>53</td>
<td>48</td>
<td>34</td>
<td>14</td>
<td>71.5%</td>
</tr>
<tr>
<td>14</td>
<td>14</td>
<td>13</td>
<td>1</td>
<td>12</td>
<td>8.7%</td>
</tr>
<tr>
<td>15</td>
<td>90</td>
<td>81</td>
<td>76</td>
<td>5</td>
<td>93.7%</td>
</tr>
<tr>
<td>16</td>
<td>98</td>
<td>88</td>
<td>83</td>
<td>6</td>
<td>93.5%</td>
</tr>
<tr>
<td>17 (Lot A)</td>
<td>114</td>
<td>103</td>
<td>24</td>
<td>78</td>
<td>23.6%</td>
</tr>
<tr>
<td>Overall</td>
<td>1,190</td>
<td>1,071</td>
<td>734</td>
<td>337</td>
<td>68.5%</td>
</tr>
</tbody>
</table>

Notes:
1. Adjusted Parking Occupancy equals the observed demand at peak plus 10%.
2. Blocks highlighted in yellow have adjusted occupancies greater than 75% of the effective supply.
3. Blocks highlighted in orange have adjusted occupancies greater than 90% of the effective supply.

Figure 11. Illustration of Block-by-Block Parking Adequacies in the Olde Town Core
With respect to publicly-controlled parking supplies in the Olde Town Core, parking adequacies on a block-by-block basis range from -7 spaces to 78 spaces. Most of the available public parking supply is located in the Tiller Lot (Block 17, Lot A). There are currently two blocks with estimated parking deficits (Blocks 12 and 15), and there are four additional blocks with estimated parking adequacies under 25% of the calculated effective publicly-controlled parking supply (Blocks 5, 10, 13, and 16). Table 7 and Figure 12 (next page) detail the publicly-controlled parking adequacy for each block in the study area based on the peak period of observed demand.

Overall, there appears to be a sufficient supply of parking in the Olde Town Core. However, there are some blocks and lots with parking occupancies that are approaching or surpassing effective parking supplies. In these situations, existing parking demands must be distributed to available resources or new parking supplies will be needed.

Table 7. Estimated Block-by-Block Public Parking Adequacies in the Olde Town Core

<table>
<thead>
<tr>
<th>Block</th>
<th>Current Total Parking Supply</th>
<th>Effective Parking Supply (90%)</th>
<th>Adjusted Parking Occupancy at Observed Peak</th>
<th>Estimated Adjusted Parking Adequacy</th>
<th>Percentage of Effective Supply Occupied</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>70</td>
<td>63</td>
<td>61</td>
<td>2</td>
<td>96.0%</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
<td>18</td>
<td>12</td>
<td>6</td>
<td>67.2%</td>
</tr>
<tr>
<td>7</td>
<td>26</td>
<td>23</td>
<td>9</td>
<td>15</td>
<td>37.6%</td>
</tr>
<tr>
<td>8</td>
<td>20</td>
<td>18</td>
<td>4</td>
<td>14</td>
<td>24.4%</td>
</tr>
<tr>
<td>9</td>
<td>37</td>
<td>33</td>
<td>20</td>
<td>14</td>
<td>59.5%</td>
</tr>
<tr>
<td>10</td>
<td>129</td>
<td>116</td>
<td>111</td>
<td>5</td>
<td>95.7%</td>
</tr>
<tr>
<td>11</td>
<td>27</td>
<td>24</td>
<td>18</td>
<td>7</td>
<td>72.4%</td>
</tr>
<tr>
<td>12</td>
<td>37</td>
<td>33</td>
<td>34</td>
<td>-1</td>
<td>102.4%</td>
</tr>
<tr>
<td>13</td>
<td>33</td>
<td>30</td>
<td>23</td>
<td>7</td>
<td>77.8%</td>
</tr>
<tr>
<td>14</td>
<td>14</td>
<td>13</td>
<td>1</td>
<td>12</td>
<td>8.7%</td>
</tr>
<tr>
<td>15</td>
<td>50</td>
<td>45</td>
<td>52</td>
<td>-7</td>
<td>114.9%</td>
</tr>
<tr>
<td>16</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>81.5%</td>
</tr>
<tr>
<td>17 (Lot A)</td>
<td>114</td>
<td>103</td>
<td>24</td>
<td>78</td>
<td>23.6%</td>
</tr>
<tr>
<td>Overall</td>
<td>583</td>
<td>525</td>
<td>373</td>
<td>152</td>
<td>71.1%</td>
</tr>
</tbody>
</table>

Notes:
1. Adjusted Parking Occupancy equals the observed demand at peak plus 10%.
2. Blocks highlighted in yellow have adjusted occupancies greater than 75% of the effective supply.
3. Blocks highlighted in orange have adjusted occupancies greater than 90% of the effective supply.
2.04. Current Transportation Conditions

This section is focused on understanding current transportation conditions in Olde Town as they pertain to planning for transportation demand management strategies. Understanding the physical infrastructure, particularly related to transit and pedestrian modes of travel, is important to determine what types of transportation demand management (TDM) programs and policies could be implemented in the short-term as well as the long-term.

No matter what form of transportation access one takes into Olde Town, everyone becomes a pedestrian at some point. This will become even more important once rail service arrives. The Draft Environmental Impact Statement for RTD’s future Gold Line rail service predicts 12% of the access trips will be via walking, and 44% will be via transit. Therefore, pedestrian accessibility in and around Olde Town is critical and was analyzed specifically. Accessibility is analyzed in terms of the conditions of sidewalks, streetscapes, intersections, and crosswalks. Particular attention was paid to transition areas between adjacent neighborhood areas and the Olde Town Core. The Olde Town Core is defined as the area roughly bordered by the railroad tracks, Yukon Street, Ralston Road, and Wadsworth Bypass.

Current transit service provided by RTD and other providers was also evaluated. Reports on local and express route frequency, headways, and productivity were analyzed to understand how well transit is utilized today. This evaluation will provide context for deciding what types of TDM strategies related to transit in the near-term and long-term are applicable for the Olde Town area.
In addition to understanding the built environment and how it relates to TDM, a survey was distributed to all travelers in the Olde Town area for feedback regarding transportation issues and the feasibility of implementing several TDM strategies in tandem with parking management techniques. The results of the survey and its implications for future TDM programs are described in a separate document (the Arvada Olde Town Parking and Transportation Survey Summary). To support the findings of this survey, the Census 2000 Journey to Work data was also compiled for the Olde Town area for work trips that begin and end in the study area.

### 2.04.1. Pedestrian Accessibility

The pedestrian accessibility of the Olde Town Core is generally very good. Much attention has been paid to improving the streetscape and making the downtown environment appealing to pedestrians. Building off of this positive start, the transition areas between the Olde Town Core and surrounding residential areas will likely improve with the growth associated with FasTracks. At this time, some of the pedestrian connections between residential areas and the Olde Town Core need improvement to encourage more walking activity.

Five specific questions were reviewed to assess pedestrian accessibility in the Olde Town Core. The answers provided from the site review are presented below.

**Question 1:**
Are there paved sidewalks at least four feet wide on both sides of the street accessing a variety of land uses **inside** the Olde Town Core area?

**Answer 1:**
Yes. Paved sidewalks inside the Olde Town Core are a minimum of 5 feet wide and in excellent condition. In general, the sidewalks in the core area have been designed for moderate to heavy pedestrian use and provide a good base for future pedestrian traffic associated with the rail station. Olde Wadsworth Boulevard and Grandview Avenue in the Olde Town Core are unique walking environments and a great deal of attention has been paid to design of the streetscape and maintaining an adequate space for pedestrian movements (Figures 13 and 14).
Section 2: Assessment of Current Parking and Transportation Conditions - 22

Figure 13. Olde Wadsworth Boulevard (northeast corner of Olde Wadsworth and Grandview). Sidewalks are well over 5 feet in width and have excellent intersection and curb ramp conditions. Textured sidewalk design adds an interesting visual element.

Figure 14. Grandview Avenue, looking east. Sidewalk width along Grandview maintains enough space for pedestrian movements, street furniture, and a tree buffer between parked vehicles and pedestrians. Brick sidewalk pavers are in excellent condition and add a unique design element to the streetscape.
Question 2:
Are there paved sidewalks at least four feet wide on both sides of the street in the transition areas into the Olde Town area?

Answer 2:
Yes. Overall, the transition into the Olde Town Core from surrounding areas is fair for pedestrian accessibility. In areas where redevelopment has recently occurred, sidewalk and crosswalk conditions are very good. This is mostly true south of Olde Town in the “New Town” area where the RTD Park-n-Ride and Olde Town Cinemas are located (Figure 15).

Figure 15. Sidewalk conditions heading into Olde Town from the Olde Town Cinema parking lot (looking north). Sidewalk conditions are very good, snow removal adequate, and no obstacles to pedestrian movement.

There are some accessibility issues in areas that have not been redeveloped. None of these issues are major barriers to accessing Olde Town on foot; however, as redevelopment occurs in these areas, special attention should be paid to pedestrian accessibility. The main accessibility issue is sidewalk width and maintenance of the sidewalk surface. These issues are particularly important where RTD bus connections
need to be made along Ralston Road. Several transition areas are displayed in Figures 16 and 17.

Figure 16. Olde Wadsworth Boulevard, east side looking south. Ralston Road traffic signal is visible in background. This sidewalk section is approximately 2.5 – 3 feet wide. Given the speeds of adjacent vehicle traffic and width of the overall roadway, this sidewalk width is problematic for pedestrian accessibility.

Figure 17. Pedestrian right of way at an RTD bus stop is blocked by street furniture along Ralston Road at the intersection of Ralston Road and Olde Wadsworth (southeast corner of intersection). Preserving as much space as possible for pedestrian traffic and bus patrons along Ralston increases the viability of using transit as a transportation alternative to access Olde Town.
Question 3: Is there lighting present to adequately provide visibility on the sidewalks in and around the Olde Town Core?

Answer 3: Yes, there are stylized light posts at several locations on each block within the Olde Town Core providing an adequate level of light for pedestrians along walkways (Figure 18). City street lights mounted on traffic utility poles at corners such as Ralston Road and Olde Wadsworth Boulevard provide a large lightshed for vehicles as well as pedestrians (Figure 19). Many of the buildings/businesses also have outdoor lighting.

Figure 18. Typical lamppost in the Olde Town core area.

Figure 19. Lighting provided at the intersection of Ralston Road and Olde Wadsworth provides adequate visibility for pedestrians as well as vehicles.
Question 4: Is the terrain flat (grades do not exceed 5%)? If the terrain is not flat, are there adequate stairways, elevators, etc to overcome terrain barriers?

Answer 4: Yes, in general the terrain is mostly flat in and around the Olde Town Core area. The notable exception is the hill descending south of Grandview Avenue into the “New Town” district (Olde Town Cinemas, Olde Town Arvada Park-n-ride). This elevation difference is not severe, but it does pose a barrier for pedestrians who have difficulty walking or are mobility impaired. Steps and staircases are in good condition and can serve increased levels of pedestrian traffic in the future (Figure 20). RTD is planning to construct an elevator between the Olde Town Arvada Park-n-Ride and the future rail station (Figure 21).

Figure 20. Staircases provided along the west side of Vance Street. Olde Town Cinemas and the RTD Olde Town Arvada Park-n-Ride are located at the bottom of the hill in the background.

Figure 21. Proposed elevator connection between Olde Town Arvada Park-n-Ride and the future train station, looking north on Vance Street (RTD, Gold Line Draft EIS, June 30, 2008).
Question 5: Along roadways with two or more or lanes in each direction and/or speed limits in excess of 30 miles per hour, are there planted median strips, on-street parking, or street furniture between street curb and sidewalk?

Answer 5: No (Ralston Road). This question is targeted towards streets that are outside of the Olde Town Core area. The main street that is outside of the core area and a critical connection for pedestrians is Ralston Road. Ralston has 2 lanes in each direction and speeds over 30 miles per hour. Sidewalks are quite narrow and do not contain a buffer between vehicle travel lanes and pedestrian space. For pedestrians and users of transit, navigating the narrow sidewalk space on Ralston Road can be challenging, particularly during the winter season when snow tends to accumulate in the pedestrian right-of-way. Some of the pedestrian right-of-way along these narrow sidewalks could be preserved by negotiating with adjacent landowners and placing newspaper stands, benches, and signs on their property since there is little space to accommodate them on the sidewalk. An example of how sidewalk furniture and snow removal is impeding pedestrian access at an RTD bus stop on Ralston Road at Olde Wadsworth is presented in Figure 22.

Figure 22. Sidewalk conditions at the intersection of Ralston Road and Olde Wadsworth. A waiting transit passenger is seated very close to Ralston Road, a 4-lane roadway. Snow removal and sidewalk maintenance are also an impediment to pedestrian accessibility.
The results of the pedestrian assessment show that the Olde Town Core area is overall a very pedestrian friendly environment. Sidewalk and crosswalk design and condition are favorable to pedestrians and enable them to walk conveniently and safely.

The **transition areas** will need attention in future years to encourage more walking behavior through the design of the sidewalk and streetscape. The effectiveness of TDM programs in and around the Olde Town area will depend heavily upon improvements to pedestrian accessibility, particularly those that attract people to the rail station on the southern end of Olde Town. The biggest challenge for the transition areas are sidewalk width along roadways such as Ralston Road and Olde Wadsworth north of Ralston Road. Pedestrian accessibility at the intersection at Olde Wadsworth and Ralston Road could also benefit from improvements in crosswalk delineation, countdown pedestrian signals, and sidewalk maintenance. There may be opportunities for these improvements as the land adjacent to the intersection undergoes future redevelopment.

**Table 8. Pedestrian Accessibility Summary**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer and Overall Ranking*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are there paved sidewalks at least four feet wide on both sides of the street accessing a variety of land uses inside the Olde Town core area?</td>
<td>Yes</td>
</tr>
<tr>
<td>2. Are there paved sidewalks at least four feet wide on both sides of the street in the transition areas into the Olde Town area?</td>
<td>n/a</td>
</tr>
<tr>
<td>3. Is there lighting present to adequately provide visibility on the sidewalks in and around the Olde Town core?</td>
<td>Yes</td>
</tr>
<tr>
<td>4. Is the terrain flat (grades do not exceed 5%)? If the terrain is not flat, are there adequate stairways, elevators, etc to overcome terrain barriers?</td>
<td>Yes</td>
</tr>
<tr>
<td>5. Along roadways with two or more or lanes in each direction and/or speed limits in excess of 30 miles per hour, are there planted median strips, on-street parking, or street furniture between street curb and sidewalk?</td>
<td>n/a</td>
</tr>
</tbody>
</table>

* Rankings: OLow ●Medium ●High

**2.04.2. Transit Conditions Assessment**

The transit conditions assessment was conducted to understand the current level of bus service provided to the Olde Town area and how effective the services are in generating ridership. These data will help determine the types of TDM strategies applicable to promoting and encouraging more use of transit.
The Olde Town area currently benefits from a variety of transit services provided by RTD and Ride Provide. These routes and their frequencies are described in more detail in Table 9.

### Table 9. Description of Bus Service at Olde Town Arvada Park-n-Ride

<table>
<thead>
<tr>
<th>Route</th>
<th>Areas Served</th>
<th>Service Frequency</th>
</tr>
</thead>
</table>
| **RTD 52** (West 52nd Avenue) | Ward Road, Ralston Road, Arvada Middle School, City hall, Regis University, Northwest Denver, Downtown Denver (Civic Center) | Weekday: 15 min peak, 30 min off-peak, hourly after 6:30 pm  
Weekend: 30 min, hourly after 6:30 pm |
| **RTD 72** (72nd Avenue Crosstown) | Marshall Street, West 72nd Avenue, Westminster High School, Westminster Senior Center, The Plaza at Westminster, 70th and Broadway PnR | Weekday: 30 min frequency, hourly after 6:30 pm until 7:30 pm  
Weekend: Hourly, 8AM – 5PM |
| **RTD 76** (Wadsworth Crosstown) | Wadsworth Boulevard, Broomfield PnR, Arvada Center, Arvada High School, Colfax Avenue, Belmar, Alameda High School, Wadsworth and Hampden PnR, Southwest Plaza | Weekday: 15 min service between 6:00 AM and 6:30 PM. 30 min service after 6:30 PM. Hourly service after 10:00 PM.  
Weekend: 30 min service, hourly after 7:00 PM |
| **RTD 68x** | Blake Street, Market Street Station | Peak direction only, 5 runs in AM, 4 return runs in PM. |
| **RTD 76x** | Blake Street, Market Street Station | Peak direction only, 3 runs in AM, 3 return runs in PM. |
| **RTD Arvada Call-n-Ride (discontinued)** | Started in May 2005 and never met performance standards. The service was discontinued in May 2007. | Service discontinued. |
Productivity data was obtained from RTD and Ride Provide, Inc. (contracted operator of the A-line shuttle). These data give a sense of the cost to provide the services and their benefits in terms of ridership. RTD conducts annual performance reviews of their entire system based on the annual cost to operate and total boardings. The most recent report at the time of this plan was compiled for the 2007 calendar year (Table 10). For the A-line, Ride Provide, Inc. maintains records on annual ridership and productivity as summarized in Table 11 (next page).

These data show the most productive routes from a ridership and cost standpoint are the 52, 76, and the 76x. These routes are all under a subsidy per boarding of $5.00. However, this performance is applicable to the entire route, not just the boardings at the Olde Town Arvada Park-n-Ride. Most likely the productivity of these routes at this specific Park-n-Ride is similar to their entire route, but field verifications would be necessary to confirm that assumption.

The 52 is a local service that services Arvada, Regis, and downtown Denver. Most likely the destination of downtown Denver has a heavy impact on the productivity of this route, much of which would not apply to the Olde Town Arvada Park-n-Ride due its distance from Denver. However, this route does serve a variety of important destinations close to Olde Town, including schools, Regis University, and many neighborhoods of Northwest Denver.
The 76 is the most productive service at the Olde Town Park-n-Ride, which is reasonable given it is the frequent transit service provided for Wadsworth Boulevard. Because Wadsworth Boulevard has many regional attractions along its route (e.g., Belmar, Southwest Plaza), as well as a heavy concentration of regional retail in Arvada, using the 76 to access shopping and entertainment is a viable alternative to driving as the Olde Town area is developed around the rail station.

The 76x and 68x bus lines served downtown Denver directly, but have been replaced with the 55x line which will be eliminated once the rail is in place. These two services give a good picture of how productive rail transit will be, at a minimum, since they serve Olde Town directly and make very few stops between the Park-n-Ride and downtown Denver.

Table 11. Arvada A-line 2008 Ridership Summary (provided by Ride Provide, Inc.)

<table>
<thead>
<tr>
<th>2008 Quarter</th>
<th>Boardings</th>
<th>Fare Box Revenue</th>
<th>Cost (Est.)</th>
<th>Subsidy per boarding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>8,652</td>
<td>$62,909</td>
<td>$110,993</td>
<td>$5.56</td>
</tr>
<tr>
<td>Q2</td>
<td>9,758</td>
<td>$75,605</td>
<td>$120,855</td>
<td>$4.64</td>
</tr>
<tr>
<td>Q3</td>
<td>9,665</td>
<td>$74,233</td>
<td>$132,014</td>
<td>$5.98</td>
</tr>
<tr>
<td>Q4</td>
<td>9,243</td>
<td>$72,334</td>
<td>$130,171</td>
<td>$6.26</td>
</tr>
<tr>
<td>Total</td>
<td>37,318</td>
<td>$285,081</td>
<td>$494,033</td>
<td>$5.60</td>
</tr>
</tbody>
</table>

The productivity of the A-line in Arvada is very good compared to equivalent costs for DIA SkyRide service by RTD from this location previously (service was discontinued in 2003). Their data show the demand for shuttle-type service for airport access is strong enough to warrant ongoing support from RTD. RTD supported the A-line service with $160,000 in 2008 and the City of Arvada offers gas for the vehicles at city contract rates (approximately a $15,000 in 2008). The A-line subsidy per boarding is in the range of $5.00, very comparable to the average RTD SkyRide service in 2007 ($4.29). Their farebox recovery for 2008 is 58 percent, which performs as well as the best performing SkyRide route, the AS.

The A-line productivity will be studied more closely in the next phases of the Olde Town Arvada Parking and Transportation Study as we consider the viability of local circulators and shuttle services around the rail station.

2.04.3 Census 2000 Journey to Work Data

The Census 2000 compiled information on the journey to work as part of the decennial census. For every census tract, information was compiled on the characteristics of the commuters coming into that tract for work, as well as the residents in that tract leaving for work. For relevance to this project, these data show where the residents of Olde Town are commuting to, as well as where the workers in Olde Town are commuting from.

Figure 23 (next page) shows where residents who lived in Olde Town in 2000 were commuting to on a daily basis. As can be seen in the map, the future suitability of the
Gold Line commuter rail may suit many of these trips, provided the individual can access their job site from the destination rail station and work-trip conditions have not changed substantially since 2000 (yet this is the best data available). In 2000, the work-trip mode split for residents to access their jobs was approximately 68 percent drive alone. A significant number of these residents are working from home, carpooling, and to a lesser extent using the bus and walking (shown in Table 12).

*Figure 23. Work Location of Olde Town Residents (Census 2000)*
Table 12. Work Trip Mode Split of Residents of Olde Town (Census 2000)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drove Alone</td>
<td>1,321</td>
<td>67.7%</td>
</tr>
<tr>
<td>Carpool</td>
<td>215</td>
<td>11.0%</td>
</tr>
<tr>
<td>Vanpool</td>
<td>12</td>
<td>0.6%</td>
</tr>
<tr>
<td>Bus Or Trolley Bus</td>
<td>70</td>
<td>3.6%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>14</td>
<td>0.7%</td>
</tr>
<tr>
<td>Walk</td>
<td>96</td>
<td>4.9%</td>
</tr>
<tr>
<td>Other Means</td>
<td>52</td>
<td>2.7%</td>
</tr>
<tr>
<td>Worked At Home</td>
<td>170</td>
<td>8.7%</td>
</tr>
<tr>
<td>Total</td>
<td>1,950</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Looking at the workers of Olde Town, many of whom travel into Olde Town from outlying areas everyday, it is also clear that many could utilize the future Gold Line commuter rail (Figure 24 - next page). Again, it depends heavily on how these workers can access the stations in their residential areas and whether it will be convenient and cost-effective to do so (should RTD charge for parking, etc). The mode split of people traveling into Olde Town to work in 2000 is 76 percent (Table 13 below).

Table 13. Work Trip Mode Split of Workers Commuting into Olde Town (Census 2000)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drove Alone</td>
<td>2,659</td>
<td>75.9%</td>
</tr>
<tr>
<td>Carpool</td>
<td>401</td>
<td>11.4%</td>
</tr>
<tr>
<td>Vanpool</td>
<td>40</td>
<td>1.1%</td>
</tr>
<tr>
<td>Bus Or Trolley Bus</td>
<td>66</td>
<td>1.9%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>8</td>
<td>0.2%</td>
</tr>
<tr>
<td>Walk</td>
<td>108</td>
<td>3.1%</td>
</tr>
<tr>
<td>Other Means</td>
<td>52</td>
<td>1.5%</td>
</tr>
<tr>
<td>Worked At Home</td>
<td>170</td>
<td>4.9%</td>
</tr>
<tr>
<td>All Workers</td>
<td>3,504</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
2.05. Parking and Transportation SWOT Analysis

The project team conducted a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis of current conditions in order to assist with the investigation of possible future parking and transportation management strategies. This section presents a brief summary of the results of the SWOT analysis. The full SWOT analysis can be found in Appendix B.
SWOT ANALYSIS SUMMARY

Strengths

1. Recognition of Parking as a Vital Component of Economic Development
   Project stakeholders and members of the public recognize that parking is a key component of success in Olde Town.

2. Willingness of Downtown Community to Address Parking and Transportation Issues
   The Olde Town community of business and land owners, local government, employers, and residents are supportive of developing sound parking and transportation policies which will improve the Olde Town experience and assist in economic development.

3. Current Transit Station Framework Plan
   Arvada has already taken proactive steps to plan for the future of Olde Town. In 2007, the city completed a detailed Arvada Transit Station Framework Plan.

4. Current Study Area Parking Supply Appears Adequate
   Overall, there appears to be a sufficient supply of parking in the Olde Town core.

5. On-Street Parking Turnover and Duration Appears Appropriate
   Based on the information gathered during the surveys, it appears that the on-street parking supply is used appropriately and vehicle durations are consistent with posted parking limits.

6. Existing Off-Street Public Parking Lots
   The public parking lots in Olde Town appear to be in good condition and within reasonable walking distances of primary demand generators.

7. Familiarity with Parking Lots
   More than 90 percent of respondents to the Olde Town survey knew about free parking at the lots east of the Library and the Tiller Lot (south of the railroad tracks).

8. Availability of Land for Future Economic Development
   There appear to be several locations in Olde Town that can support future development projects, including additional parking supplies when warranted.

9. Olde Town Core Sidewalk Design
   There is a strong Olde Town core in terms of pedestrian accessibility and in comparison to surrounding pedestrian conditions.
10. Pedestrian Connections into New Town

The New Town area south of Grandview Avenue is generally well connected for pedestrians.

11. City-funded A-line Service

Overall, this service has proven itself with good ridership and a farebox recovery of 58% in 2008.

12. Current Travel Patterns

A significant number of individuals traveling to Olde Town do so via carpools (27%), which lessens demand for parking.

Weaknesses

1. Parking and Transportation Goals/Objectives Need Definition

Without clearly identified parking system objectives, there can be little measurable achievement.

2. Lack of Parking System Management and Organization

The lack of a management structure negatively impacts daily parking operations/management, parking system planning, and parking management for special events.

3. Lack of Marketing Plan to Promote Olde Town Parking

Additional marketing is needed to increase public awareness of parking facilities, policies, and regulations. Also, more work is needed to educate both long-term and short-term parkers about appropriate parking areas and designated time limits.

4. Lack of Parking Requirements in Olde Town Without Plan or Structure for Addressing Needs

There is currently a zero parking requirement for new developments in Olde Town. A lack of funds and no suitable organizational structure will make the development and efficient operation of public parking facilities more difficult.


Real or perceived, we heard from numerous sources that parking availability was a problem in the Olde Town core. Having both good data and a clear and accurate understanding of the perceptions of parking, combined with a multifaceted and ongoing marketing and community education program, is the best way to combat this common problem.
6. **Strong Community Preference for On-Street Parking**

   Based on comments received during the various public input processes, it is clear there is a significant preference for on-street parking - despite the availability of convenient and accessible off-street parking options.

7. **Lack of Parking Enforcement**

   Current parking regulations are not currently enforced in Olde Town.

8. **Lack of Parking Fees to Encourage Appropriate Parking Behaviors**

   All of the parking in Olde Town is currently provided at no charge. Since all of the parking is free, and there is no parking enforcement, parkers are encouraged to search for the parking space closest to their destination and park as long as they want.

9. **Lack of Parking-Related Revenues to Fund Parking Operations and Future Projects**

   As all parking is provided at no charge, there are currently no revenue streams available to support on-going parking operations and management or the development of future parking facilities.

10. **Current Parking-Related Signage and Wayfinding is Inadequate**

    While parking may be available in several locations throughout Olde Town, some parkers may have a difficult time locating public parking areas.

11. **Inadequate Parking for Loading and Unloading in Olde Town**

    While there is a significant amount of on-street parking, there is not enough customer loading and unloading space adjacent to Olde Town businesses.

12. **Insufficient Parking Availability for Some Olde Town Residents**

    While residential space is limited in the Olde Town core, there are some concerns that existing parking restrictions make resident and residential guest parking difficult.

13. **Inadequate Differentiation of Parking for Short-Term Visitors and Long-Term Visitors/Employees**

    It can be difficult for some long-term visitors and Olde Town employees to know where to park.

14. **Existing Street Widths Make On-Street Parking More Difficult or Feel Unsafe**

    One of the most common complaints during the initial public input processes was existing street widths. Many people feel the streets (specifically Olde Wadsworth Boulevard and Grandview Avenue) are too narrow.
15. Intersection at Ralston Road and Olde Wadsworth Boulevard
   From a pedestrian perspective, this intersection is a barrier to accessing Olde Town via foot.

16. Wadsworth Boulevard Bypass
   The eastern portion of the study area is bisected by the Wadsworth Boulevard Bypass. The long distance that must be covered to cross the street is still a barrier to some pedestrians.

17. Lack of Transit Service through Olde Town Core
   Signage, maps, and the promotion of transit services being close and available may boost transit ridership.

18. Density and Mix of Land Uses
   Today the Olde Town area is isolated within the greater context of Arvada, which is composed of low density residential and commercial land uses.

Opportunities

1. Ability to Create a Parking Management System from the Ground Up
   Since there isn’t an existing system to contend with, the community has a significant amount of flexibility in creating and managing an Olde Town parking system.

   The existing parking supply appears to have sufficient capacity to provide alternatives for shared parking and more efficient allocations of parking between short-term and long-term parking demands.

3. Improve Parking-Related Marketing, Communications, and Education
   When a new organizational model for parking system management is determine, it should be done with a focus on marketing the parking assets of Olde Town.

4. Ability to Create a Unified Olde Town Signage and Wayfinding Plan
   The opportunity exists to design and implement a unified parking-related signage and wayfinding plan (consistent with existing city graphic standards).

5. Several Locations Appear Available for Future Parking Facilities
   There are several areas of land available in the Olde Town core that could provide opportunities for the development of parking resources in the future.
Section 2: Assessment of Current Parking and Transportation Conditions - 39

6. Future Commuter Rail Could Help Mitigate Parking Demands and Bring More Visitors
   Once the commuter-rail station is operational, parking demand in certain locations in Olde Town (related to existing buildings) could be reduced as transit to Olde Town would be more convenient and efficient.

7. Opportunity to Create a Customer-Friendly Parking Enforcement Program
   If parking regulations are enforced in the future, and the legal authority is provided to conduct parking enforcement, the citation fine system could be more forgiving to first-time offenders and provide higher penalties for repeat offenders.

8. Implementing Pay Parking Could Help Fund Parking System Improvements and Future Construction, as well as Encourage Appropriate Parking Behaviors
   If pay parking is utilized, on-street parking rates and citation fines should be established that demonstrate the value of on-street parking. On-street parking rates should be higher than those for off-street parking. Pay parking can be an effective tool to encourage preferred parking behaviors and help keep valuable on-street spaces available for the short-term patrons coming into Olde Town.

9. Opportunity to Make Parking as “Green” as Possible
   Incorporating responsible systems and technologies can help reduce the environmental impact of providing parking.

10. Explore New Customer Services and Parking Amenity Programs
    To further enhance the image and customer friendly nature of the parking system, create and promote new customer service and parking amenity programs.

11. Provide More Opportunities for Community Feedback Related to the Parking System
    The most successful parking management programs regularly listen to the community and develop specific programs based on elements that community member’s value.

12. Consider New Parking Technologies
    While a significant investment in parking technologies may not be warranted in the short-term, future demands may increase the need to install parking access and revenue control technologies.

    As part of an enhanced parking planning process, establishing a process to better integrate parking garage operational and program criteria early in the design process can be very beneficial.
14. Connecting Travelers to RTD Services

The transit services provided at the Olde Town Arvada park-n-Ride create ample opportunity for vehicle trip reduction in the Olde Town area.

15. Roadway Widths in Some Areas are Conducive to Bicycle Paths

The streets in many of the adjacent neighborhoods and retail areas to Olde Town contain sufficient roadway width to restripe with bike lanes that would increase bicycle accessibility as well as pedestrian accessibility.

16. Providing More Bicycle Parking

Olde Town survey respondents who are familiar with the existing level of bicycle parking were evenly split as to whether they felt the existing level is adequate.

17. Proximity of the Ralston Creek Trail

Better connections are needed between the Olde Town core and the crossing of the trail with Olde Wadsworth north of Ralston Road.

18. Marketing Transportation Alternatives at Olde Town Festivals and Events

The local events held in Olde Town today are good opportunities to market transportation alternatives, particularly if parking and access are difficult.

Threats

1. The Future Commuter-Rail Station will Significantly Impact Area Parking

The completion of the new commuter-rail station could have a significant impact on the parking environment.

2. Future Development Projects May Reduce Parking Supplies

As there are no parking requirements in the Olde Town core, future development projects may not provide enough parking supplies for the new land uses – let alone provide sufficient replacement spaces.

3. City May Not be in Position to Fund Parking Operations or Future Construction

As future Olde Town developments may not be required to provide sufficient on-site parking, additional public parking resources will likely be needed.

4. Parking Demand for Special Events May Increase Over Time

As the Olde Town core becomes more popular, the frequency and size of Olde Town special events may increase. If this occurs, the need for uniform parking system management will likewise increase.
5. **Continued Lack of Department/Organization Responsible for Parking**
   In order for Olde Town parking to serve visitors/customers and be a tool for economic prosperity and redevelopment there needs to be a consistent voice promoting the parking system.

6. **Continued Negative Perception of Olde Town Parking Adequacy**
   Perception can be reality to some, and it takes great patience coupled with a well orchestrated and concerted marketing program to change public perceptions.

7. **Continued Negative Perception of Walking Distances and Safety**
   It appears that many Olde Town visitors, employees, and business owners are reluctant to work far from parking to their primary destination. The desire for close parking at all times reduces the positive effects of pedestrian activity (e.g., walking past shops on the way to one’s primary destination), increases traffic and frustration (e.g., searching for the closest parking spot), and leads to the inefficient use of available parking supplies.

8. **Continued Perception that Parking Needs to be Free of Charge**
   Unlimited free parking will continue to cause poor parking choices, frustration, and significant enforcement issues – especially in the future.

9. **Gold Line Fencing May be a Concern**
   The fence could create a physical barrier between the Olde Town area and New Town.

2.06. **Initial Public Input Process**
In order to solicit input from the Olde Town community, the City of Arvada organized several focus group input meetings. Initial public input meetings were held on the following dates:

1. December 11, 2008 (two meetings – general public and stakeholders)

2. January 21, 2009 (two meetings – general public and stakeholders)

The study input sessions included representatives from city staff, downtown business and property owners, developers, and other members of the general public. Background issues, parking inventory/occupancy counts, and basic parking management concepts were discussed at each of the focus group meetings. Also, the attending community was provided an opportunity to voice their concerns and provide potential solutions. Some of the most common comments concerning the challenges of the current parking system included:
1. There is enough parking to meet Olde Town needs, although parking can be challenging at times (e.g., special events). Parking is only a “minor challenge”. Parking is usually available in the public parking lot east of the Library.

2. There is very little parking in Olde Town. The shops/businesses are great, but parking is “scary.” At times, it is difficult to find parking in Olde Town. It can be especially difficult to find parking close to a particular destination.

3. There is a lack of parking enforcement in Olde Town.

4. Additional loading zones appear warranted to facilitate customer needs – especially near businesses that sell large/heavy goods.

5. If parking is available in Olde Town, it is difficult to locate due to a lack of directional signage.

6. Parking for residents living in Olde Town can be extremely difficult – especially during nights, weekends, and special events.

7. Parking demand is greatest on Olde Wadsworth Boulevard and Grandview Avenue (on-street parking).

8. On-street parallel parking in Olde Town poses several challenges. Some of the streets (e.g., Olde Wadsworth Avenue) are too narrow – negatively impacting safety.

9. The Olde Town churches, as well as Olde Town businesses with private parking lots, are experiencing a growing number of illegal parkers in reserved lots.

10. Parking during special events can be difficult (e.g., high level of parking demand, street closures, and increased traffic).

11. Parking may be available in the Tiller Lot (south of the railroad tracks, between Olde Wadsworth Boulevard and Vance Street), and it appears that the lot is currently underutilized. However, pedestrian connections between the lot and Olde Town are not convenient.

12. Additional efforts are needed to communicate parking and transportation related issues to Olde Town merchants and visitors (e.g., education concerning parking regulations, public parking lots, and short-term and long-term parking locations).

13. Some new developments are not being required to provide sufficient parking. This could lead to significant parking shortages in the future if this practice continues.
14. Pay parking could prove difficult to implement due to customer/visitor concerns and the state of the economy.

15. Olde Town employees and business owners should be encouraged/required to park in off-street lots, and the on-street spaces should be reserved for short-term visitors.

16. Parking in residential areas needs to be protected from overflow Olde Town parking.

17. Parking for future commuter rail riders should not negatively impact daily Olde Town customers, visitors, and employees. Future commuter rail parking could provide shared parking opportunities during evenings and weekends.

18. Parking for disabled customers/visitors (accessible parking) needs to be reviewed to ensure the right amount of parking is provided – not too much or too little.

19. Future development and increased densification will negatively impact parking conditions. Parking for future developments should be included in the planning process.

20. Safety in public parking lots, on-street parking areas, and on pedestrian paths (between parking lots and destinations) needs to be improved.

21. Shared parking should be encouraged to ensure the efficient use of existing parking supplies.

22. A parking structure is needed. Multilevel parking structures can park a lot of cars in a smaller building footprint than a surface lot.

23. Bicycle accessibility to/from Olde Town is a challenge. Due to the narrow roads, biking in Olde Town does not feel safe and is not “bike friendly” – especially Olde Wadsworth Boulevard. Also, sidewalk widths are not conducive to bike riding (too narrow). More needs to be done to make Olde Town more accessible to bicycles:

   a. Reduce traffic speeds
   b. Provide adequate bicycle paths
   c. Increase driver awareness of bicycles and bicycle issues/concerns
   d. Ensure sufficient bike parking is provided

24. Public transportation doesn’t work in Olde Town as buses are not always on schedule, bus stops are not appropriately located, and service is poor. Public transportation is simply not an option.

25. Consider an Olde Town circulator shuttle or trolley system.
In addition to the focus group meetings, a study-related survey was conducted by the project team. The full results of the study survey are included in Appendix C.

Key survey findings are as follows:

1. In general, two-thirds (66 percent) of the people traveling to Olde Town drive alone with no other occupants in their car. Twenty-seven percent carpool and less than five percent walk or use other alternatives (bus, bicycle, etc).

2. Convenience and time savings are major factors influencing what modes people use to travel into Olde Town.

3. While approximately half the respondents indicated they use on-street parking when they travel to Olde Town, over 90 percent indicated they knew about the off-street parking available east of the library and south of the railroad tracks.

4. There is a general perception that there is an adequate supply of parking in Olde Town (64 percent rated parking as “adequate” or “somewhat adequate”).

5. Over two-thirds of the respondents indicated they would walk 2 blocks or more to their destination when parking in Olde Town. Considering the average block length in Olde Town is 325 feet, walking two blocks is equivalent to 650 feet. Over 30 percent of the respondent indicated they would be willing to walk further (three blocks or more), which is approximately 950 to 1,000 feet.

6. Over 40 percent of respondents “agreed” or “somewhat agreed” that carpooling is a realistic option to access Olde Town compared to driving alone. Less responded that riding a bike and walking were realistic options (25 to 30 percent). Transit was ranked as the least realistic option (less than 20 percent).

The final round of public input meetings was conducted on January 27 through 28, 2010 to review the draft report. A summary of the comments received during and after the draft review meetings is provided in Appendix F.
3.0 PROJECTION OF FUTURE CONDITIONS

3.01. Anticipated Future Development Projects

Currently, the City of Arvada has few well-defined future redevelopment projects in the planning stages that will impact parking in the study area. However, it is anticipated that future redevelopment projects could include residential, commercial, and mixed-use projects. The known redevelopment projects with specific land uses impacting the parking study area are:

1. Webster Center – 2009 (Jehn Engineering)

   This project was nearing completion while the parking inventory and occupancy counts were being conducted in December 2008. This new building is located on the southeast corner of Webster Street and 57th Avenue and is anticipated to provide space for up to 75 employees. The south side of the building also includes a parking/loading area. This project has been completed since the occupancy counts were conducted.

2. Olde Town Commuter Rail Station – 2015 to 2017 (RTD Gold Line)

   A new commuter rail station is currently in the planning stages for Olde Town. The station will be located between Grandview Avenue and the existing railroad tracks, between Vance Street and Olde Wadsworth Boulevard. The new rail station will result in the loss of 49 parking spaces (Block 15, Lots C and D), approximately 34 of which are public. These parking areas were 84% occupied during the peak period of observed parking occupancy. Since the land uses that are generating current parking demands will remain, the vehicles currently parking in the area will need to be relocated (likely to the Tiller Lot).
This project may also include the construction of a parking structure on Block 18, Lots A and B to support park-n-ride in the future. According to the draft Environmental Impact Statement (EIS) for the Gold Line, it is anticipated that 500 surface parking spaces will be used for commuter parking (including the existing surface parking lots) until additional structured parking is constructed in 2030. RTD estimates that the parking structure would contain 650 parking spaces. A parking structure could be constructed sooner, and it may include more parking, if future redevelopment warrants.

In addition to the Olde Town Commuter Rail Station, the city also provided assumptions for future redevelopment opportunities based on the Olde Town Station Framework Plan. The redevelopment assumptions provided by the city center around the future commuter-rail station and consist of both residential space and possible mixed-use developments. The following figure (Figure 25 – next page) illustrates the locations of the defined redevelopment projects and the redevelopment assumptions provided by the city. Table 14 (page 48) provides the assumed land uses and estimated parking impacts for each opportunity site.
Figure 25. Location of Future Redevelopment Projects and Assumptions

- Webster Center
- Olde Town Station
The redevelopment assumptions provided by the City of Arvada result in a significant impact on overall future parking conditions. Future redevelopment around the proposed Olde Town commuter-rail station could result in the loss of approximately 2,317 parking spaces in the study area. This loss of parking would be somewhat offset by the accompanying losses of parking demand as existing buildings are demolished - but new land uses will also result in new parking demands. While a significant portion of the existing parking supply will be lost if these redevelopment projects occur, approximately 1,200 parking spaces are projected to be added to the study area supply. However, the number of parking spaces added would not be enough to fully address the loss of existing parking nor increased parking demands.

### Table 14. Future Redevelopment Land Use Assumptions and Parking Impacts

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<th>City Location ID</th>
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<th>Residential Units</th>
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<th>Hotel Rooms</th>
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<th>Parking Spaces Lost</th>
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<td>Olde Town Core</td>
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<td>Southeast of Olde Town Core</td>
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</table>
It is important to note that the redevelopment assumptions provided by the city are limited. The assumptions do not include anticipated development timelines (e.g., construction dates or building occupancy dates). Therefore, it is not currently possible to accurately determine parking conditions at specific points in time. Also, most of the redevelopment assumptions do not include estimates for on-site parking. It is possible that many future development projects could decide to include on-site parking, thereby mitigating future parking deficits.

3.02. Projected Future Transportation Conditions

Two major components will impact future transportation conditions in Olde Town. These include the opening of the Gold Line commuter rail station and the redevelopment of land in the station area. These two components are closely related and in combination will create an increase in trips in and out of Olde Town.

An increase in trips does not correlate to an equal increase in vehicle traffic. Particularly at transit oriented developments like the one planned for Olde Town, some of the trips normally made via car in Arvada can be replaced by other modes, such as walking, using transit, biking, and carpooling. There have been several studies completed or ongoing presently to determine what modes will be used to access the rail station, and Olde Town in general, once commuter rail is operating. These resources were researched and their projections are summarized below.

1. Journey to Work Data (Census 2000)
   a. The Census 2000 showed that approximately 76 percent of the trips to work in the Olde Town area were drive alone trips. The remaining percentage used transportation alternatives; primarily carpooling (11 percent), worked from home (5 percent), or walking (3 percent).

2. Gold Line Draft Environmental Impact Statement (Gold Line EIS)
   a. Regional transportation demand modeling conducted in support of the Gold Line EIS projects that 44 percent of the trips to access the rail station will be by bus. An additional 11 percent of people will access by walking from nearby residential and/or commercial uses. The remainder of the travelers, 44 percent, will access the station via private automobile.

3. Arvada Transit Station Framework Plan, Transportation Analysis
   a. This study was conducted in support of the Framework Plan developed for the Olde Town area and projects the level of service (LOS) at several key intersections. Relevant to this study, the LOS projected for the Olde Wadsworth/Grandview, Olde Wadsworth/Ralston, and Grandview/Vance intersections was reviewed and is summarized in Table 15 on the next page.
Table 15. PM Peak LOS at Key Intersections

<table>
<thead>
<tr>
<th>Intersection</th>
<th>2015: Rail Station</th>
<th>2030: Market Constrained</th>
<th>2030: Full Buildout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olde Wadsworth/Grandview</td>
<td>C</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Olde Wadsworth/Ralston</td>
<td>D</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>Grandview/Vance</td>
<td>D</td>
<td>E</td>
<td>F</td>
</tr>
</tbody>
</table>

Importantly, these LOS account for a significant share of walk trips to the station from the various land uses near the station. The analysis assumed the following trip reductions due to mixed use nature of the site and the commuter rail service:

Table 16. Assumed Trip Reductions – Framework Plan Transportation Analysis

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Up to ¼ mile from station</th>
<th>Up to ½ mile for station</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>25 – 33%</td>
<td>20%</td>
</tr>
<tr>
<td>Office</td>
<td>20 – 25%</td>
<td>15 – 20%</td>
</tr>
<tr>
<td>Retail (Mixed Use)</td>
<td>35%</td>
<td>25%</td>
</tr>
</tbody>
</table>

The three sources of data summarized above show that a mixed-use, dense transit-oriented environment will have a substantial impact on drive alone traffic. The Gold Line EIS and the Transportation Analysis associated with the Framework Plan project that single occupant vehicle access into Olde Town could be reduced by up to 20 to 30 percent due to the implementation of commuter rail, local bus service to feed the station, and the buildout of a dense mixed use, pedestrian friendly Olde Town area.

Therefore, for the purposes of this study and projecting parking demand at full buildout with commuter rail service, it is assumed that no more than 70 percent of the trips into Olde Town will be drive alone automobile trips. The remaining 30 percent will be trips that access Olde Town either by walking, bus, carpool, bike, or trips avoided due to telework.

Additional trip reduction can be projected from the impact of parking and transportation demand management strategies. These impacts, however, are summarized later in this report and not reflected in the 70 percent figure above.

3.03. Projected Future Parking Adequacies

Each of the aforementioned development projects and assumptions will impact existing parking supplies and demand. To project future parking adequacy, the anticipated parking demands for each development project/assumption were estimated using base Urban Land Institute parking demand ratios for commercial space (4.0 spaces per 1,000 square feet of commercial space, adjusted for baseline modal splits estimated at 70%) and an assumption of 1.5 spaces per residential unit (based on discussions with city staff). No shared parking impacts were included due to the limited information available. The estimated parking demands were
then compared to the available parking on each block. The following table (Table 17) details the parking supply impacts of the redevelopment projects/assumptions located within the parking study blocks. Table 18 (next page) details the projected parking adequacy for each block due to the changes in parking supply and new parking demands.

Table 17. Future Redevelopment Parking Supply Impacts – Study Area Blocks

<table>
<thead>
<tr>
<th>Block</th>
<th>Current Total Parking Supply</th>
<th>Anticipated Space Losses</th>
<th>Anticipated Space Additions</th>
<th>Projected Future Supply</th>
<th>Projected Effective Parking Supply (90%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>314</td>
<td>300</td>
<td>0</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>103</td>
<td>93</td>
<td>0</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>186</td>
<td>139</td>
<td>300</td>
<td>347</td>
<td>312</td>
</tr>
<tr>
<td>6</td>
<td>58</td>
<td>34</td>
<td>0</td>
<td>24</td>
<td>22</td>
</tr>
<tr>
<td>7</td>
<td>119</td>
<td>93</td>
<td>0</td>
<td>26</td>
<td>23</td>
</tr>
<tr>
<td>8</td>
<td>119</td>
<td>99</td>
<td>0</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>9</td>
<td>74</td>
<td>0</td>
<td>0</td>
<td>74</td>
<td>67</td>
</tr>
<tr>
<td>10</td>
<td>129</td>
<td>103</td>
<td>300</td>
<td>326</td>
<td>293</td>
</tr>
<tr>
<td>11</td>
<td>77</td>
<td>37</td>
<td>0</td>
<td>40</td>
<td>36</td>
</tr>
<tr>
<td>12</td>
<td>59</td>
<td>0</td>
<td>0</td>
<td>59</td>
<td>53</td>
</tr>
<tr>
<td>13</td>
<td>53</td>
<td>20</td>
<td>0</td>
<td>33</td>
<td>30</td>
</tr>
<tr>
<td>14</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>15</td>
<td>90</td>
<td>74</td>
<td>0</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>16</td>
<td>98</td>
<td>0</td>
<td>0</td>
<td>98</td>
<td>88</td>
</tr>
<tr>
<td>17</td>
<td>891</td>
<td>777</td>
<td>0</td>
<td>114</td>
<td>103</td>
</tr>
<tr>
<td>18</td>
<td>548</td>
<td>548</td>
<td>600</td>
<td>600</td>
<td>540</td>
</tr>
<tr>
<td>Overall</td>
<td>2,932</td>
<td>2,317</td>
<td>1,200</td>
<td>1,815</td>
<td>1,634</td>
</tr>
</tbody>
</table>
As shown in Table 18, the redevelopment projects/assumptions could result in parking deficits at 11 of 16 study area blocks if no additional parking is constructed or no new TDM strategies are implemented. The blocks shown in Table 18 generally represent the Olde Town core. If these redevelopment projects occur as anticipated, and no new parking is constructed (outside of what is already contained within the assumptions), overall parking deficits could surpass 2,000 parking spaces. As stated previously, most of the redevelopment assumptions do not include on-site parking. Parking deficits would be less if additional on-site parking is included with the redevelopment assumptions.

For those redevelopment assumptions located outside of the parking study area, parking deficits are also projected to occur without additional on-site parking supplies. Redevelopment assumption sites 17 and 21 (located southwest of the Olde Town core) could result in a combined parking deficit of approximately 155 spaces (assuming 1 parking space per hotel room). The redevelopment assumptions located southeast of the Olde Town core (sites 26 through 35) could result in a combined parking deficit of 623 spaces.

### 3.04. Planning for Future Parking Needs

It appears that current parking supplies are generally adequate to meet near-term parking demands. While no definite development projects are planned outside of those mentioned in the Section 3.01 of this report, additional development projects could materialize in the future.
that may increase parking demands. Also, increases in current building occupancies could impact Olde Town parking adequacies. In order to address parking demands related to future development projects, the following methodology is recommended:

1. Ensure the land use information for Olde Town is current. This will provide additional insight into existing parking demands. The land use data should be updated as new developments occur.

2. The first step in planning for future parking needs is to determine typical parking demands. This is usually achieved by completing a site-specific parking supply and demand survey. This would entail maintaining current parking space inventories and conducting parking occupancy counts (ideally, at least annually – and updating counts as developments occur). This will provide a baseline of demand data from which to project future parking needs. Generally, long-term parking should be provided in off-street parking lots and on-street parking should be managed to ensure availability for downtown visitors.

3. Project the parking needs of each proposed development using a shared parking model. Determine how parking demand for the new development will fluctuate during the day. Then, determine how parking demand for the proposed development will impact parking supplies during the period of greatest parking demand. Use the concept of shared parking to ensure the efficient use of available parking supplies.

4. Once parking demands have been projected, determine how the development will impact existing conditions. If the development creates a parking deficit within the block or zone it is located (the zone would typically be a one to two block radius surrounding the development), additional parking supplies may be necessary.

5. While the parking demand for many land uses can be spread over greater distances, the creation of residential space in downtown should include sufficient, relatively adjacent parking. Residential developments that lack sufficient parking may be less marketable, and conflicts could arise should a significant use of public parking spaces be required to support residential projects. Unbundling residential parking could be an option in the future if additional public parking supplies are constructed and maintained.

6. Future downtown developments should include sufficient ADA accessible parking on-site. The city should require developments to provide a suitable portion of their required parking on-site (or directly adjacent to the site) to ensure enough accessible parking is provided. This parking could be provided in a city parking facility adjacent to the development. Sometimes, parking demand for accessible parking may be larger than the minimum requirements. In order to ensure sufficient space is provided, periodic reviews of accessible parking demand should be part of larger parking inventory and
occupancy surveys. Through periodic occupancy studies, and community input, the city will be in position to ensure sufficient accessible parking is provided.

7. Parking lots could include landscaping or structures that can provide shade to parked vehicles. This can be accomplished through the use of fast growing, low-water shade trees. These trees can be planted around existing parking lots and in internal landscaped islands. Pedestrian paths to/from parking facilities could also provide shade in a similar fashion. This will help make the off-street parking facilities more attractive to downtown parkers.

8. It is important to provide adequate timeframes when planning for future parking needs. It can take between 18 and 24 months to design and construct a parking facility. Therefore, it is important to remain “ahead of the curve” when planning for future parking facilities.
4.0 PARKING AND TRANSPORTATION MANAGEMENT STRATEGIES

This section provides alternatives for parking management strategies that will help improve Olde Town parking conditions, both now and in the future. The parking management alternatives detailed in this section will help provide overall system direction, improve parking efficiency, increase utilization/turnover, encourage the use of alternative forms of transportation, and help meet anticipated future parking needs. With respect to recommendations, short-term refers to pre-commuter rail (before approximately 2015 to 2017) and long-term refers to after commuter rail.

4.01. Parking System Guiding Principles

When planning for parking there is a built in conflict to which all municipalities can easily relate. The conflict revolves around three primary factors: Cost, Convenience and Supply. Unfortunately, usually you can have only two of the three. Given this basic problem, keeping all customers satisfied is an on-going challenge. Having well-defined guiding principles is one way of addressing the policy decisions required by this inherent conflict.

Guiding principles add value in two primary areas. First, the establishment of a set of approved operating guidelines helps define the role and relationships of parking within the larger organizational structure. Secondly, guiding principles can emphasize the importance of planning for parking. Some of the items typically incorporated in such a document by other municipalities include mission/vision, funding strategies, approved uses of parking revenues, parking allocation strategies, departmental relationships, enforcement and maintenance responsibilities, etc.

After reviewing draft principles with community members during the initial input process, parking guiding principles for Olde Town are outlined below. These guiding principles are designed to help support overall downtown development goals and objectives while providing an efficient, effective, and responsive parking program.

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4.01. Guiding Principles

**Short-term Recommendations**
1. Approve a set of parking system guiding principles for Olde Town parking.
2. Provide opportunities for the community to be involved in the process.
3. Communicate these items with community stakeholders.

**Long-term Recommendations**
1. Update the parking system’s guiding principles as needed to support Olde Town economic development goals.
Parking Guiding Principles

1. The City of Arvada will endeavor to meet the transportation needs of Olde Town with an appropriate balance of parking and transportation alternatives. The city will focus on providing visitors, employees, and residents with sufficient short-term and long-term parking options, while encouraging the utilization of alternative modes of transportation to mitigate overall parking needs.

2. The City of Arvada will encourage the efficient use of available land in Olde Town by effectively planning for parking needs. The city will seek to reduce overall parking needs by encouraging the development of shared parking and public parking facilities, offering alternative methods to address anticipated parking demands, ensuring sufficient access linkages between land uses, and encouraging the use of alternatives modes of transportation. The parking program will be included in all planning activities impacting parking in Olde Town, and will seek to provide efficient, cost-effective solutions.

3. The City of Arvada will encourage the design and development of parking resources that support overall strategic and development goals/objectives. Parking facilities that adhere to defined urban design standards and incorporate the desired design qualities identified by the city will be supported.

4. The City of Arvada will endeavor to create a customer-oriented parking management structure that is unified, centralized, and vertically integrated. The parking management organization will provide all public parking management services within Olde Town including (but not limited to) public on-street and off-street parking, parking planning, enforcement, maintenance, parking system marketing, and other parking programs. The Olde Town parking system will be managed in a fair and equitable fashion for the benefit of all community members.

5. The City of Arvada will ensure all public parking facilities, both on-street and off-street, are safe and well-maintained.

6. Any revenues generated by the management of the parking system will be used to fund on-going parking operations and management, as well as the development of new public parking facilities within Olde Town. Available revenues can also be used to fund other transportation alternatives and approved Olde Town economic development initiatives. Parking system profits will be used for the benefit of the neighborhood/district in which they were generated.

7. The Olde Town parking management organization will be an active member of the community by assisting in the achievement of overall goals and objectives, as well as communicating goals/objectives, policies, regulations, and systems changes to all
parking customers. The parking management organization will be responsive in addressing community concerns and meeting parking needs.

8. The Olde Town parking management organization will endeavor to incorporate new technologies into parking management initiatives to ensure the efficient use of available parking and to create a convenient and hospitable experience for visitors, commuters, employees, and residents.

4.02. Alternatives for Dealing with Future Parking Demands

While many of the assumed redevelopment projects may not occur in the near future, it is clear that a plan is needed to address future parking needs. Several alternatives are typically available to municipalities relative to meeting anticipated future parking demands:

1. The city could decide to improve the utilization of existing parking supplies. This could include working with parking lot owners within impact areas to better utilize private parking supplies.

2. The city could create spaces (either on-street or off-street) to provide additional parking. As most of the available land is currently planned to support buildings, there is likely insufficient space available to construct any significant surface parking in Olde Town. However, structured parking could become a viable option in the future. The cost for providing parking could be covered through parking user fees and/or fees charged to developers, property owners, and/or Olde Town businesses (e.g., in-lieu fees, special assessments, development fees).

4.02. Alternatives for Dealing with Future Parking Demands

**Short-term Recommendations**

1. Decide if zero parking requirements will be continued in Olde Town, or if new developments will be required to provide parking or pay in-lieu fees.

2. Consider the implementation of in-lieu fees in Olde Town to help fund future public parking facilities.

3. Work to ensure the efficient use of available parking supplies, both public and private, before adding new spaces.

4. Begin the process of delineating (marking) all on-street parking spaces.

5. Consider enforcing parking time limits in Olde Town.

6. Encourage long-term parkers to use off-street parking spaces (e.g., employees parking in the Tiller Lot).

7. Look for opportunities to implement, improve, and market alternative forms of transportation to reduce parking demands.

8. Improve the management of downtown parking resources to improve utilization and efficiency.

9. Determine potential locations for future public parking resources.

**Long-term Recommendations**

1. Develop additional parking supplies when needed.

2. Strongly consider public/private partnerships to develop future parking resources. Work with new developments to help defray at least a portion of parking construction costs.

3. Encourage the development of additional on-street parking spaces (e.g., more angled parking) when Olde Town areas are redeveloped.

4. Encourage RTD to construct additional parking capacity for their patrons to reduce the impact on Olde Town.

5. Consider pay parking in downtown.
3. The city could require new Olde Town developments to provide sufficient parking. New developments would provide their own parking for employees and visitors. This could result in higher costs for developers and possibly the overdevelopment of parking supplies. An alternative could be charging in-lieu fees or development fees to require developers to help fund needed public parking resources.

4. The city could work to reduce parking needs in the study area through the implementation of various transportation demand management and parking demand management strategies. These strategies would be geared toward reducing parking demands by encouraging the use of alternative modes of transportation and improving parking resource management.

5. The city could utilize a combination of alternatives.

In the First Alternative, the city would attempt to better utilize available parking supplies. This would mitigate the need to construct additional parking. As sufficient parking is available in some areas where development is planned (based on the parking occupancy study), this alternative may have merit. Better utilization of the available supply would eliminate at least the need for near-term parking supply additions, maintain existing green space or future development space, encourage pedestrian movement through Olde Town, and reduce city parking responsibilities (e.g., maintenance and signage). Ideally, long-term parkers would be directed to available off-street parking facilities and on-street parking would be held for short-term Olde Town visitors.

The improved utilization of existing parking areas is substantially less costly than creating new spaces. For example, the amount of currently underutilized parking observed in the Tiller Lot could potentially provide all of the necessary parking for the Webster Center. This would provide parking for the development and reduce the impact of the development on the public parking lot east of the library.

The use of some of the underutilized parking areas will require the approval of the various property owners. For example, a significant amount of underutilized parking is located east of St. Anne’s Church. In order to encourage the shared use of private parking facilities, the city could use one or more of the following techniques/incentives:

1. The city could communicate the positives of shared parking to the private parking lot owners. The positives include increased pedestrian traffic near their businesses, continued Olde Town development, maintaining green spaces and other non-parking land-uses, easier to use parking for Olde Town visitors, the generation of income related to “selling” parking, etc.

2. Shared parking could be limited to daytime, evenings, weekends and/or special event days if land uses permit.
3. The city could provide periodic lot maintenance for private parking lot owners that agree to allow shared parking.

4. The city could provide periodic trash pick-up for private parking lot owners that agree to allow the use of their lots for other visitors.

5. The city could provide improved signage for private parking lots. The signage could denote parking restrictions and periods of open public parking.

6. The city could help care for parking lot landscaping in private parking lots for owners that permit shared parking.

7. The city could assist surplus parking space owners with the purchase and installation of parking access and revenue control equipment to help generate revenue and protect reserved parking areas.

As mentioned earlier, a significant amount of underutilized on-street parking exists on several streets. In order to better utilize the parking in these areas, all of the on-street parking in the study zone (except residential areas) should be marked, and angled parking could be provided in all areas with sufficient dimensions. The on-street parking could be marked when needed, as the new developments are constructed. Time limits should be set to encourage the use of underutilized areas for longer-term parking and discourage long-term parking in areas with high levels of utilization (e.g., eight to ten hour parking around Block 8, but two hours on Grandview Avenue).

However, this approach to dealing with future parking needs will not adequately meet projected parking deficits. First, the number of parking lot owners willing to cooperate may not be sufficient to provide the necessary parking. Second, the location of available parking supplies may not provide “acceptable” parking to future Olde Town developments. The available parking supplies may not be within an acceptable walking distance, lot conditions could be poor, etc. Third, some of the underutilized parking areas may be lost to future developments. Finally, the available parking supply will be insufficient to meet all anticipated parking demands. Therefore, additional measures will be necessary to address future needs.

Another option for improving the use of existing parking supplies could be valet parking. The city could consider providing a centralized valet parking service during periods of heavy parking activity to help make parking more convenient. Ideally, this service would be provided in a location convenient to most businesses located on Olde Wadsworth Boulevard and/or Grandview Avenue. One possible location would be the north side of Grandview Avenue, south of Block 12. Valet vehicle storage could be located in the Tiller Lot or other available parking lot. This would help improve the utilization of available parking, as well as minimize customer walking distances. The cost of providing valet parking could be covered by charging customers for the service or funded by local businesses/organizations.
The **Second Alternative** available to the city is to create additional parking spaces, or improve the capacities of existing lots to provide sufficient parking to meet future demands. Improving parking efficiency would involve an analysis of existing parking lot physical layouts to determine if improvements could be made to increase capacities. Theoretically, both public and private parking supplies could be included in this analysis with the consent of private parking owners. After reviewing existing conditions, few substantial opportunities for improving parking efficiencies appear available (outside of delineating all on-street parking spaces to minimize improper parking). As several of the off-street parking lots will eventually be lost to development, improving efficiencies in these areas may only provide a limited benefit.

As a significant amount of parking would not be created through lot improvements, additional parking supplies could be constructed using available land. Currently, there are several locations within the study area that could support new parking facilities, and some future developments are anticipated to include structured parking components. New parking facility opportunities would only include parking structures, as insufficient land is available for substantial surface parking lots.

Parking structures can provide several advantages over surface parking. First, a parking structure could provide needed parking closer to the central core (or a specific parking demand generator). This will provide Olde Town visitors and employees with more reasonable walking distances between the parking supply and their destination. Second, a parking structure could consolidate parking into one location. This could free other nearby surface parking lots for future economic development. Finally, parking structures would provide a stable parking supply. Surface parking will be lost to development over time, whereas it is unlikely that a future development would result in the removal of a parking structure.

However, it is important to note the disadvantages to new parking facility construction. First, the city may have to pay for the construction of the new parking facilities, as well as annual maintenance and operating costs. While the current industry average construction cost per space for structured parking is approximately $14,000 to $15,000, the cost to construct surface parking is much less – approximately one-tenth that of structured parking. Annual operating and maintenance cost could be between $250 and $600 per space, per year.

A second potential challenge is that the anticipated parking demands for some known development projects may not be sufficient to warrant new structured parking supplies if other parking resources could be better utilized. This assumes the city works with private parking owners to improve the overall utilization and visitors and employees are willing to walk greater distances. Depending on the development of Olde Town over time (as well as the increased utilization of existing buildings), additional parking supplies may not be needed immediately.

A final challenge to the development of a public parking structure is that the construction of a public parking facility will necessitate generating enough revenue from parking (or related economic development revenues – e.g., fees, increased tax revenues) to financially justify the
expense of building the parking. Many businesses, building owners, developers, and Olde Town employees/visitors may not support the institution of pay parking.

The following graphic (Figure 26) illustrates possible locations for future parking structures. The highlighted areas shown in Figure 26 do not illustrate the size of each parking structure, only the approximately location.

*Figure 26. Potential Parking Structure Locations*

Site A could provide the parking needed for the assumed developments on Block 5, as well as replace the loss of public parking at the Elks Lodge site and help meet demands on Block 6. Assuming a site footprint of 124' x 290', this site could provide approximately 110 parking spaces per level. Assuming a parking need of approximately 400 spaces, this site could provide the needed parking in approximately four floors (one ground plus three supported). Public parking should be included in the parking structure to help support existing parking demands (at least 50 parking spaces).

Site B could provide the parking needed for the assumed developments on Block 5, as well as help meet demands on Blocks 6 and 7. Assuming a site footprint of 124’ x 290’, this site could provide approximately 110 parking spaces per level. Assuming a parking need of approximately 400 spaces, this site could provide the needed parking in approximately four
floors (one ground plus three supported). Public parking should be included in the parking structure to help support existing parking demands (approximately 50 parking spaces).

Site C could provide parking for the assumed developments on Blocks 7, 9, and 10, as well as replace the public parking that would be lost. Assuming a site footprint of 124' x 290', this site could provide approximately 110 parking spaces per level. Based on anticipated parking needs of approximately 300 parking spaces, the needed parking could be provided in approximately 3 levels. The actual configuration of a parking facility on this site will depend on future design efforts.

Site D could provide parking for the assumed developments on Block 8. Assuming a site footprint of 124' x 290', this site could provide approximately 110 parking spaces per level. Based on anticipated parking needs of approximately 230 parking spaces, the needed parking could be provided in approximately 2 to 3 levels. As with the other sites, the actual configuration of a parking facility on this site will depend on future design efforts.

Site E could provide parking for the assumed developments on Block 18, as well as parking for park-n-ride. Assuming a site footprint of 186' x 290', this site could provide approximately 160 parking spaces per level. Based on anticipated parking needs of approximately 800 parking spaces, the needed parking could be provided in approximately 5 levels. As with the other sites, the actual configuration of a parking facility on this site will depend on future design efforts.

Finally, Site F could provide parking for the assumed developments on Block 17 and additional nearby parking demands. Assuming a site footprint of 124' x 290', this site could provide approximately 110 parking spaces per level. Based on anticipated parking needs of approximately 570 parking spaces (including approximately one-half of the Block 17 need, all of the projected deficits for Blocks 13 and 15, and the replacement of the Tiller Lot), the needed parking could be provided in approximately 5 to 6 levels. It is assumed the remainder of the parking needed for the developments on Block 17 would be met with additional parking on the south side of the block. Two significant challenges with this site would be constructing the facility into the hill south of the railroad tracks and maintaining the current southern view from Grandview Avenue.

Ideally, off-street parking facilities would provide long-term parking to area visitors and employees, leaving the on-street parking spaces for short-term visitors. If multiple locations are designated for structured parking, the facilities could be designated for a single user group or provide parking for both visitors and employees.

The Third Alternative available to the city would be to require future Olde Town developments to provide their own parking resources. This would involve setting parking requirements for new developments, based on projected land uses, and enforcing typical parking zoning codes. The main advantage to this alternative is that the city would not be required to construct, maintain, and operate new parking supplies in Olde Town. While some towns and
cities require developments to provide their own parking supplies, many downtowns that are encouraging development reduce or eliminate parking requirements. Instead, the city works with the development to provide sufficient parking. A variation of this alternative could be requiring developers to pay a fee to cover the construction of new public parking resources. This could be a development fee or an in-lieu fee. Also, special assessments could be levied to area commercial developments to help fund the construction and/or operation of parking supplies.

An in-lieu fee would allow developers to pay the city for the right to not construct a portion or all of the parking required for the development. The funds raised through parking in-lieu fees would help fund future public parking facilities constructed by the city. This could be a specific development fee or an in-lieu fee.

The use of in-lieu parking fees can have several advantages:

1. Offering parking in-lieu fees provide developers with an alternative to providing expensive on-site parking. The cost of purchasing the necessary land and funding lot construction is typically more expensive than paying in-lieu fees.

2. Parking in-lieu fees encourage shared parking. As developers stop constructing small private parking facilities, parking is consolidated into larger public parking supplies. This results in a more efficient use of available land, the creation of fewer parking spaces, and conditions that encourage pedestrian movement.

3. As less parking is created, and the parking that is created is consolidated, more space is available for other land uses.

4. The city would have greater control over Olde Town parking spaces, providing the opportunity for more uniform parking operations and management.

While the use of in-lieu parking fees can provide many benefits to the city, there are also some drawbacks:

1. Parking may have to be located less conveniently to primary destinations. As parking is consolidated into fewer locations, some primary destinations will be located further away than if they provided their own parking.

2. As the city creates more public parking facilities, the city will have to cover annual operating, maintenance, and management costs.

3. As shared parking would be used, fewer parking spaces would be created. This could mean more traffic and frustration during unusually high periods of parking demand, such as during special events.
4. The use of these fees could discourage development of Olde Town in favor of other locations with space for surface parking.

5. Depending on how the construction of the facility is financed, the city could be limited in how the facility is used to provide parking for private developments.

The fees charged to developers are typically determined by either the cost of land or the typical construction cost of parking per parking space. Ideally, the construction cost per space would be set at the cost to provide structured parking. For example, the city could decide to charge the estimated construction costs of a structure parking space at $18,000 per space (based on anticipated development plans). A development that would typically be required to provide 50 parking spaces would therefore be charged $900,000 in lieu of providing the necessary parking. This fee could be converted into an impact fee of “X” dollars per square foot by dividing the total calculated parking in-lieu fee by the gross square footage of the development. Also, this fee could be charged up-front, or payments could be made to the city over time. It is recommended to set development fees or in-lieu fees at a minimum of providing structured parking, or approximately $15,000 to $18,000 per space to help fund future parking construction (adjusted as needed each year). A lower fee could be required if the city can identify other funding sources for future public parking needs. This fee would not be required, but would be another option that developers could use to provide parking.

The **Fourth Alternative** involves encouraging the use of alternative modes of transportation and using parking demand management strategies to reduce parking demands. Encouraging the use of alternative modes of transportation could include providing adequate pedestrian and bicycle linkages, providing sufficient mass transit alternatives, encouraging the use of carpools/vanpools, guaranteed ride home programs, telecommuting, parking cash-out programs (in future), etc. Some of these transportation options are already available in Olde Town. Parking/transportation demand management strategies could include any of the following options (but not limited to):

1. using shared parking concepts;
2. instituting and enforcing parking time limit and user group restrictions;
3. providing flexibility in determining development parking needs;
4. using parking maximums to limit parking development;
5. using car sharing programs to reduce or eliminate the need for some Olde Town residents to own vehicles;
6. improved parking system information and marketing;
7. charging for parking;
8. improved parking enforcement.

The goal of each of the aforementioned parking demand management strategies is to spread parking demands to appropriate locations, improve the utilization of parking supplies, and/or reduce overall parking demand. A detailed discussion of parking and transportation demand management alternatives is provided in later sections of this report.
The **Final Alternative** is actually a combination of the previous four alternatives. This alternative would involve the city working with private parking lot owners to better utilize the existing parking surplus before adding additional parking supplies. If sufficient parking could not be secured using this approach, then the city would consider improving existing parking supplies and/or adding new supplies as appropriate. If new parking spaces were added, either through additional on-street spaces, new or improved parking lots, or parking structures, the city could look to developers to help defray at least a portion of the costs. Finally, the city would continue encouraging the use of alternative modes of transportation, as well as other parking demand management strategies, to reduce overall parking demands. This alternative is recommended as it provides a reasonable approach to dealing with future demands and should limit future parking expenses. Also, this approach will allow the city to show the community that all options were explored prior to expending any city funds for constructing parking facilities. The goal is to provide the “right” amount of parking; not too much and not too little.

While it appears that there is a significant opportunity to improve the utilization of available parking supplies before adding any parking facilities, it is important to note that the city may not be able to improve the utilization of available private parking facilities. Most, if not all, private parking lot owners may not cooperate with the city. Therefore, the city (or future developments) will most likely need to construct a public parking facility in the future if other alternatives are not available (e.g., incorporating public parking into other private developments).

### 4.03. Parking System Organization, Management and Operations

City involvement in parking management is currently limited to designating public parking locations (on-street and off-street), cleaning and maintenance of existing public parking facilities, and limited signage upkeep. There is currently no single city department responsible for parking management. Parking-related responsibilities are currently distributed among several departments (e.g., traffic deals with on-street parking spaces and signage, and planning deals with parking requirements). There is currently no city department providing routine parking enforcement and there is no ordinance in place that provides authority for the enforcement of time-limited parking.

Many parking systems, especially in municipal or district environments, have evolved over time into organizational structures that are “horizontally integrated”. This means that various parking system components are spread among multiple departments or entities. The following example illustrates how many municipal parking systems evolved:
There was a need to establish a parking function. The initial need was to manage on-street parking supplies. Because the Public Works Department already managed the streets, this function was located under Public Works. In some communities, the city’s traffic department was initially responsible for on-street public parking.

When the need for an enforcement function achieved critical mass, this was logically assigned to the Police Department.

Over time, off-street lots and parking structures were added. The management of these resources was placed under the Facilities Management Division, because they managed the city’s other real estate assets and facilities.

Soon there was enough revenue being generated that an audit/accounting function was established to ensure the accurate accounting of revenues and expenses. This function was placed under the Finance Division.

In a horizontally integrated parking program, where each department only manages one aspect of the parking system (such as on-street parking, enforcement, or parking structures), no one has responsibility, or the perspective, to manage all these interrelated components as a system. In one locality, where different departments each managed a small amount of the parking supply along with responsibilities for several other areas, the observation was made that “parking was everyone’s part-time job, but no one’s full-time job”.

As the parking profession has evolved, several very effective parking system organizational models have emerged. Each of these models has its own strengths and weaknesses depending on several factors including the parking system’s size, degree of development, programs offered, political landscape, community goals, etc. Four successful and commonly utilized parking organizational models are:

4.03. Parking Organization and Management

**Short-term Recommendations**

1. Designate an existing city department as responsible for the Olde Town parking system.

2. Begin discussions concerning how the Olde Town parking system will be managed and operated in the future. Involve community stakeholders in the decision-making process.

3. Work toward creating a vertically-integrated parking system, with one department or organization responsible for parking management and operations (on-street and off-street), planning, maintenance, enforcement, etc.

4. Begin discussions concerning how the Olde Town parking system will be funded.

**Long-term Recommendations**

1. Determine how the parking system will be managed long-term. Consider the implementation of a community-based management approach, such as a parking district, parking authority, or downtown business organization.

2. Work to diversify parking-related revenue streams to ensure sufficient funds exist to cover parking-related management, operations, marketing, maintenance, and construction expenses.

3. As future developments occur, determine appropriate financing strategies for public parking facilities.
1. A Consolidated (“vertically-integrated”) City/District Department model;
2. The Parking Authority model;
3. The “Contract” or Business District model;
4. The Parking District model.

The following is a brief description of parking system organizational models that have shown demonstrated success in recent years. Examples of each organization can be found in Appendix D.

**Consolidated (“Vertically Integrated”) City/District Department Model**

A Consolidated “Vertically Integrated” City/District Department Model is essentially a typical department – lead by a department head and a varying assortment of support staff. The defining characteristic of this model is that the department director has complete responsibility for the management of all parking related program elements. The primary elements of these being:

1. off-street parking facilities;
2. on-street parking resources;
3. parking system planning;
4. parking enforcement.

There are numerous other related areas that can become involved including (but not limited to):

1. Transportation demand management (trip reduction programs, preferential parking for carpool/vanpool, transit programs, etc.)
2. Parking system branding, marketing, and community outreach.
4. Parking system planning (e.g., zoning, financial planning).
5. Residential permit parking programs.
6. Interface with area redevelopment and economic development.

**The Parking Authority Model**

Parking authorities typically operate with a small staff and engage a private parking operator to manage day-to-day operations. One advantage of the Parking Authority model, especially in a municipal setting, is that it puts all the major parties at the same table. This helps stakeholders gain a deeper appreciation for the competing agendas between constituents.

The defining characteristics of a Parking Authority Model can include:

1. It has a defined mission and vision.
2. It is governed by a detailed management agreement.
3. Often has bonding capability.
4. Most often has responsibility for all aspects of parking operations (off-street, on-street, and enforcement).
5. It is typically headed by a President or Executive Director.
   a. Because of this, they tend to attract high caliber management personnel.
6. The President or Executive Director reports to a board (Typically 7 – 15 members).
7. The board is comprised of influential and invested stakeholders.
   a. Board composition typically includes:
      i. High level city staff.
         1. Mayor or City Manager (or appointee).
         2. Director of Finance.
         3. Director of Public Works.
      ii. Property owners/developers.
      iii. Downtown association members.
      iv. Chamber of Commerce representative.
      v. Large downtown employers.

The “Contract” or Business District Model

In a surprising number of communities across the United States, downtown business improvement districts or downtown associations are taking operational responsibility for parking. Similar to the Parking Authority Model, the Contract or Business District Model is governed by a well-defined operating agreement that sets specific expectations and limits on the use of parking assets. These contracts or agreements must typically be reauthorized every 3 – 5 years based on whether the defined contract goals were met. If reauthorized, it is not uncommon for new goals and program objectives to be set for the next contract period.

The Parking District Model

The Parking District Model is slightly different than the previously defined model, but as mentioned earlier, the one common element of all of these successful models is the goal of creating a “comprehensive parking management function” under the control of one leader (“vertical integration”).

The characteristics of a parking district include:

1. They typically have a defined area with set boundaries.
2. They may have a special assessment that applies to all properties within the district.
   a. This revenue generally goes toward defined district improvements, but could be restricted to parking or transportation related projects.
3. They are generally run by an Executive Director or President (although some are run by city department heads).
4. All revenues are collected and managed by the district for reinvestment in the district.
   a. In some cases, if revenues exceed operational or capital program needs, the additional funds or returned to the city’s general fund.
   b. In other cases, the city assesses the district a fee based on a percentage of net revenues in-lieu of not assessing property taxes on the parking facilities. This money goes to the city’s general fund.

5. Revenue sources typically include:
   a. Special assessment revenue (if applicable).
   b. Off-street parking revenue.
      i. Could include miscellaneous revenue sources such as: advertising (in parking structures), vending machines or retail space rental (mixed-use parking facilities).
      ii. Could also include special event parking revenue.
   c. On-street parking revenue.
   d. Parking enforcement revenue.

As part of a parking management program, TDM strategies should be managed continuously by a city department or another appropriate stakeholder in the Olde Town area. Potential stakeholders that have been involved long term in the redevelopment of Olde Town include the Historic Olde Town Association, the Chamber of Commerce, the Arvada Economic Development Association, and the Arvada Urban Renewal Authority. Any of these groups could initially be the responsible entity for parking as well as transportation program management with the expectation that a standalone parking management entity, either within the city or incorporated on its own, would assume responsibility in the long term and well-established before the rail service arrives.

In many downtown areas, cities have developed creative organizations to help manage parking as well as implement TDM programs. Examples of some of these organizations include:

1. Transportation Management Associations
2. Business Improvement Districts and Community Improvement Districts

More information is provided below about these organizations and how they manage parking and transportation demand.

**Transportation Management Associations**

TMAs are generally structured as independent or semi-independent, non-profit organizations, funded by key stakeholder groups from a defined geography (e.g., major employers, developers, property managers, educational institutions, government entities, etc.). Representatives from each of the key stakeholder groups, both private and public, form the TMA Board of Directors, and provide organizational funding. In many cases,
government entities also provide seed funding for TMA start-up. TMAs are run by a professional staff, with staff sizes ranging from one person to more than five people.

Depending on location and circumstances, the specific services provided by TMAs vary. However, as their name suggests, TMAs are primarily engaged in developing, coordinating, and implementing transportation management strategies. For the Olde Town area, this means getting existing resources to work better – and can include things such as:

1. Working with Olde Town employers and other trip generators to develop transportation programs enhancing the travel choices available to the site for both employees and visitors.

2. Exploring the application of parking management, including parking pricing and enforcement, strategies in an area, and implementing specific improvements.

3. Working with RTD to maximize the use of existing (and future) services, and coordinating route or schedule alterations to better serve the station and the surrounding neighborhoods.

4. Coordinating with the City of Arvada, Denver Regional Council of Governments, Colorado Department of Transportation, and other transportation agencies to improve traffic flow, including addressing traffic signal-timing and intersection improvements.

**Business Improvement Districts**

A Business Improvement District (BID) can provide the opportunity for businesses to implement tailored TDM strategies, as provided either by the district directly or contracted to the city. A BID is created by city approval of both a petition from a majority (over 50 percent) of eligible taxpayers in the proposed district as well as a plan of services or improvements to be provided. Eligible properties are defined as those that pay business or occupational taxes. BIDs are enabled by state statute in Colorado and they enable cities and towns to levy assessments on private property or issue bonds to pay for city or town improvements and maintenance activities. These assessments are typically based on square footage of commercial development or the number of dwelling units and/or building footprint in a residential development.

These projects can serve any range of purposes, from building pedestrian malls and maintaining sidewalk streetscape improvements to utilities projects like sewer line installation or stormwater management. For the purposes of managing travel demand, many downtown areas have used BIDs to help pay for wayfinding improvements, on and off street parking improvements, access guide maps, transit services, multi-use trails, and bicycle facilities.
It is recommended that the City of Arvada work to create a vertically-integrated Olde Town parking and transportation system, whether it is a city department, a newly created parking authority, or some other entity. The process of organizing the management of the parking and transportation system will take time and should be set up to maximize the benefits of a coordinated parking and transportation system into the future, not just appeasing the needs of today. All Olde Town public parking assets should be incorporated into the parking system including off-street parking lots, on-street spaces, enforcement, and fine collection. All parking revenues should flow toward the goals of the system, in concert with the designated parking and transportation guiding principles. If the system is financially stable and achieving its goals, then revenue could be diverted to other associated needs. The parking system can also serve the following functions:

1. A clearinghouse for Olde Town parking and transportation information.
2. Provide support for private parking owners/operators.
3. Participate in the planning and development process within Olde Town.
4. Develop policies and procedures based on approved guiding principles.
5. Develop parking system mission and vision statements to reflect alignment with Olde Town development programs strategic goals.

Whichever management organizational model is ultimately selected, it is recommended that a person within the city be designated as responsible for coordinating Olde Town parking and transportation planning and management efforts. This would provide a single point of contact for parking related issues, and help begin to widen the city’s perspective of overall parking and transportation issues/challenges. This person would be responsible for parking and transportation planning and management until a preferred management structure has been selected.

Prior to organizing a new management structure for parking and transportation, the city will need to delineate where the management organization will focus their efforts. The newly created Olde Town parking and transportation management organization would be tasked with managing parking and transportation in the "Olde Town Parking and Transportation District." The borders for this district could initially match the Olde Town Core described in the initial conditions assessment, plus all of Blocks 1, 2, 3, 4, 17 and 18. While issues such as residential permit programs could apply to surrounding areas, the parking and transportation management organization will focus on parking issues within the Olde Town parking district.

In addition to defining district boundaries and selecting a preferred management structure, the city will need to determine what revenue streams will be available to fund parking operations, management, new facilities, and transportation demand management initiatives.
The system could be provided with one or more of the following revenue streams (but not limited to):

1. Pay Parking Revenues: Pay parking revenues would include monthly parking in public parking lots, as well as pay visitor parking in off-street and on-street areas.

2. Parking Enforcement Revenue: If parking enforcement responsibilities are incorporated into a larger Olde Town parking system, revenues generated from parking fines should be used to fund parking needs.

3. Advertising Revenue: The parking system may be able to generate additional revenue through advertising local businesses and/or events on parking tickets or in parking facilities.

4. Parking In-Lieu Fees: The amount generated using this option will ultimately depend on how often the alternative is used. However, the fee should be set to cover at least the projected construction cost of new parking structures.

5. Special Assessments: Within the Olde Town parking district, the city (or Parking Authority) could decide to institute special assessments to generate additional funds to pay for parking operations, management, and future construction.

6. Transfers from Other City Sources: The city may designate other funds to support the Olde Town parking system (e.g., other taxes or assessments).

7. Tax Increment Financing (TIF): The city could explore opportunities to fund new parking construction using tax increment financing.

Financing the construction of future parking facilities could be accomplished in a number of ways. Common options for financing public parking facilities include:

1. Bonds: The city could issue bonds backed by tax revenues or special assessments to finance parking facility construction. The bonds could be either tax-exempt or taxable. Tax-exempt bonds would cost less to repay (due to lower interest rates), but would limit how much of the parking could be reserved for specific land uses. Taxable bonds would be more expensive, but the city would have more flexibility in how the new parking is managed.

Revenue bonds would not be an option as the parking system does not generate any revenue to cover bond debt. However, in the future, sufficient parking-related revenues could be generated to cover bond debts. Also, the city could pledge more than one revenue stream to repay revenue bonds (double-barreled bonds).
2. In-Lieu Fees: As previously mentioned, in-lieu fees could be collected from Olde Town developments and reserved for the construction of new facilities.

3. Federal/State Programs: If a new parking facility incorporates an alternative transportation component (e.g., bus transfer center), or is constructed to support an economic development initiative, federal or state funds may be available to support construction.

4. Public/Private Partnership: The formation of a public/private partnership in the construction of a parking facility could allow the city to construct a structure while minimizing funds needed. This option could work in a number of ways. First, the city and a private developer could split the cost of the parking facility. This would allow the municipality to construct needed spaces while saving on design, equipment, and other consulting/environmental costs. Second, the city could offer land it owns for the construction of a private parking structure that would in turn provide some amount of public parking. In this instance, the city would have the parking spaces it needs without having to construct them. Finally, the city could incentivize private parking construction by providing a development with tax abatements or other development incentives. The developer would then be required to provide their own parking, with the municipality in effect subsidizing its construction.

4.04. Parking Operations

Once a management structure has been determined, operating strategies can be set. There are four primary methodologies for operating parking programs. These are:

1. **Self-Operation** – The managing entity or owner operates the parking program itself. For example, the city could hire the necessary staff to operate the parking system internally.

2. **Outsourced – Management Contract** – The facility owner or managing organization contracts a private parking management firm to handle day-to-day operations and maintenance through a management contract. Through the management contract, the private parking management firm would have the parking system operations.

3. **In-Lieu Fees**

   In-Lieu Fees: As previously mentioned, in-lieu fees could be collected from Olde Town developments and reserved for the construction of new facilities.

4. **Federal/State Programs**

   As previously mentioned, in-lieu fees could be collected from Olde Town developments and reserved for the construction of new facilities.

5. **Public/Private Partnership**

   The formation of a public/private partnership in the construction of a parking facility could allow the city to construct a structure while minimizing funds needed. This option could work in a number of ways. First, the city and a private developer could split the cost of the parking facility. This would allow the municipality to construct needed spaces while saving on design, equipment, and other consulting/environmental costs. Second, the city could offer land it owns for the construction of a private parking structure that would in turn provide some amount of public parking. In this instance, the city would have the parking spaces it needs without having to construct them. Finally, the city could incentivize private parking construction by providing a development with tax abatements or other development incentives. The developer would then be required to provide their own parking, with the municipality in effect subsidizing its construction.
firm is either paid a fixed management fee and/or a percentage of gross revenues and is reimbursed by the owner for all costs incurred in the operation.

3. **Outsourced – Concession Agreement** - The facility owner or managing organization contracts a parking management firm to assume full responsibility for all aspects of the operation, including expenses, and pays the owner a guaranteed amount and/or a percentage of gross revenues.

4. **Professional Service Model** – In this model a smaller, more professional operations group is developed in conjunction with the outsourcing of day-to-day operations.

A more detailed description of each option is provided in the following sub-sections.

**Self-Operation**

Self-operation of the parking system requires that the owning entity provide all the necessary employees (e.g., full or part-time staff and/or temporary employees), equipment, supplies, etc. With this method of operation, the owning entity receives all gross parking revenues and pays for all operating expenses. Self-operation requires internal administrative and managerial staff at a higher level than the management contract or concession style agreements.

Self-operation allows the owning entity to have complete control over the parking facilities and the level of service provided to its patrons. This requires a well-trained and experienced staff to effectively manage a large parking operation with significant daily cash revenues. Parking has become a highly specialized field and also requires good general and facility management skills. Without proper training and professional development, self-operation can result in a lower than desired level of service and revenue controls. This, in conjunction with the requirements for a high level of customer service and the specialized nature of parking, makes the idea of using a professional parking management firm a logical and attractive alternative for larger scale parking operations.

Potential advantages of self-operation include:

1. Complete control over day-to-day parking operations, including customer service.
2. Internal parking knowledge to assist with future planning.
3. Uniform look and feel with other city services.
4. Better control over staff and staff training.

Disadvantages to this approach would include:

1. Typically higher expenses than contracting with a private parking provider due to:
   a. Higher pay rates than private operators
b. More restrictive benefit requirements
c. Higher staff training and development costs
d. Private operators have a greater economy of scale relative to supplies
e. Higher insurance costs/requirements.

2. More operational duties for the city.
3. Smaller staff pool to draw from for covering sick days and vacations.
4. Without adequate training, customer service could suffer.
5. The city would need to find and hire experienced parking staff.
6. The city would have higher administrative and back office costs than an experienced private operator.
7. The city would deal directly with customer complaints.
8. The city would assume all of the financial risks related with the parking system.
9. Can be more difficult to terminate the employment of staff when needed.

Management Agreement Operations

This form of operation can give the owning entity complete control over staffing levels, validation policies, parking rates, and customer service policies. With a management agreement, the parking operator provides the necessary labor and services for the operation of the parking facilities in accordance with an agreed upon annual operating expense budget. The parking operator will then receive a monthly payment, either a lump sum amount or a percentage of the gross or net revenue. This monthly payment represents the fee to manage the system.

The parking operator should provide the owning entity with a detailed monthly report package including: operating statistics, revenue summaries, expenses summaries, budget variance reports, etc. The management agreement still requires some additional personnel time for the owning entity’s staff, since it is necessary to audit the gross parking revenues, as well as the monthly operating expenses. The preferred arrangement is that all reporting guidelines and accounting practices are determined up-front so that each party understands their responsibilities.

The owning entity’s stakeholders and staff should have significant input into establishing the “level of service” for the parking system by deciding on the quantity of cashiers/customer service ambassadors, acceptable traffic queuing upon exit, lost ticket/insufficient funds policies, parking-related services offered (lost vehicle assistance, dead battery assistance, vehicle lock-out assistance), etc.

Potential advantages of in-house management and outsourced operations include:

1. Reasonable control over day-to-day parking operations.
2. An internal parking manager could be hired by the city with sufficient parking knowledge to assist with future planning.
3. A well structured management agreement would provide:
a. Reasonable control over staff and staff training.
b. High customer service expectations.
c. A high level of staff appearance.
d. Strong auditing capabilities
e. Operator accountability.
4. Parking services from an experienced service provider.
5. Typically, operations are less expensive due to:
   a. Lower staffing and training costs.
   b. Lower supply costs.
   c. Lower administrative costs.
   d. Lower insurance costs.
6. The use of a private parking operator, at least for a short time, would provide
   valuable parking experience to the city.
7. A larger pool of operator staff to draw from for sick day and employee vacations.
8. The contracted parking operator would deal with most customer complaints.
9. Relatively predictable parking system expenses.

Disadvantages to this approach would include:

1. The city would have to compensate a private operator with a management fee or
   a percentage of gross revenues.
2. Somewhat less control over day-to-day operations.
3. Somewhat less control over staffing and training issues.
4. The city may need to find and hire an experienced parking manager.
5. The city would have some administrative and back office staffing costs.
6. The city would assume most of the financial risks related with the parking system.

Concession Agreement Operations

With a concession agreement, the concessionaire will provide all necessary labor and
services for the complete operation of parking facilities in return for a percentage of the
gross parking revenues. The actual percentage varies from operation to operation based
on the size, complexity, revenue potential, and perceived risk to the operator. There may
be a guaranteed minimum annual payment to the owning entity.

In general, concession agreements work best in situations where the owning entity wishes
to divest itself from the day-to-day parking operational concerns in order to better focus on
its core business. With this type of agreement, a minimal amount of time is required by the
owning entity’s staff in the day-to-day operations of the parking program. The owning
entity also gives up some level of control as it relates to defining day-to-day operations, as
the concessionaire is responsible for all expenses and most liabilities. Typically, the owning
entity receives a deposit from monthly parking revenues within two weeks after the end of
the each calendar month. Periodic conversations with the parking operator are necessary
to discuss operational issues that affect the quality of service to owning entity’s patrons.
The concession agreement is the simplest type of agreement for administrative purposes, in that only the gross parking revenue need be audited. All operational expenses are the responsibility of the concessionaire, thereby resulting in minimal control of this function by owning entity staff. Also, as with the management agreement, the parking operator serves as a buffer to the owning entity’s management with respect to parking complaints and potential wrongdoing by those employed within the parking system.

Potential advantages of leasing parking facilities include:

1. No real parking operations or management required by the city.
2. No substantial daily auditing required by the city.
3. Facilities would be leased to an experienced parking services provider.
4. Requires no internal parking experience on the part of the city.
5. Relatively predictable revenue stream.
7. Parking operator takes all significant parking customer complaints.

Disadvantages to this approach would include:

1. Little to no control over day-to-day parking operations.
2. No control over staffing and training issues.
3. Less customer service accountability.
4. Difficult to measure expenses, if the parking operator is required to share them at all.
5. The parking operator may be encouraged to reduce facility expenses to a minimum level (negatively impacting customer service), to increase profits.

Professional Services Model

In this model, a smaller more professional level parking services group is developed in conjunction with the outsourcing of day-to-day operations. While there are many potential variations under this category, the most successful variation involves a group that is primarily administrative in nature. The group is responsible for program elements such as: creating the vision and mission of the program, community outreach and program development (including assessment of new technologies, etc.), parking system planning, interface with economic development programs, interface with transportation system functions (including alternative transportation programs), contract administration, parking facility long-term maintenance program development, system financial administration/audit functions, and special projects management.

Parking operations is outsourced to a qualified parking management firm. Their responsibilities would typically include: off-street parking facility operations (cashiering services, pay-on-foot operations, etc.), daily facilities maintenance, security, etc. Some communities have extended these contract services to include the operation of on-street parking and enforcement programs including citation collections and management.
Another feature often used in conjunction with the Professional Services Model is the development of “on-call services agreements” for various types of consulting and professional services such as: engineering facility condition appraisals, technology assessments, revenue control system assessment and audits, etc. The advantages and disadvantages for this model would be similar to those outlined for the Management Agreement option.

Initially, as the city does not generate any revenue from parking operations and there is no need for a complex parking system, it is recommended that the city provide limited parking operations in-house. This would include basic system management (e.g., parking-related signage, marketing/communications (in conjunction with an Olde Town business group), parking enforcement, and parking facility maintenance. As the parking system becomes more complicated (after further development occurs), Carl Walker would recommend that the city strongly consider either the management agreement alternative or the professional services model. The city (or a future parking authority) would outsource day-to-day parking operations to an experienced parking services provider. Overall parking system expenses could be reduced by 15% or more using a contracted parking operator (over self-operation), as pay rates for staff would be lower, benefit costs would be lower, and supply costs would typically be lower. While financial risks would be difficult to mitigate (unless more surface parking supplies could be created), liability risks could be significantly reduced through the structure of the management agreement. The selected parking operator should be required to provide sufficient insurance to cover risks related to the operation of the parking facilities.

4.05. Parking and Transportation Ordinance

Municipal parking and transportation demand management ordinances are typically developed to mitigate traffic, vehicle trip generation, and parking demands in local areas of a city or county. They require the implementation of parking and transportation demand management programs to achieve a stated goal of vehicle trip reduction, typically expressed as a percentage reduction in trips from a baseline with no management strategies. Many cities do not impose fines or penalties on the development if it does not meet the trip reduction goal, but will require more programming, strategies, and/or monitoring. A limited number of cities have used these ordinances in combination with parking management strategies to ultimately reduce parking demand.

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<th>4.05. Parking and Transportation Ordinance</th>
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<tr>
<td><strong>Short-term Recommendations</strong></td>
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<tr>
<td>1. Begin drafting an ordinance that will</td>
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<td>address parking and transportation demand</td>
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<td>issues in Olde Town.</td>
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<td>2. The borders for the new “Olde Town Parking</td>
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<td>and Transportation District” could initially</td>
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<td>match the Olde Town Core described in the</td>
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<td>initial conditions assessment, plus all of</td>
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<td>Blocks 1, 2, 3, 4, 17 and 18.</td>
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<td>3. The ordinance should be in place prior to</td>
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<td>the opening of the Gold Line Station.</td>
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<tr>
<td><strong>Long-term Recommendations</strong></td>
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<tr>
<td>1. Update the ordinance as necessary to</td>
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<td>ensure parking and transportation issues are</td>
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<td>adequately addressed in the future.</td>
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Recommendations on the components of a future parking and TDM ordinance for the Olde Town area of Arvada are summarized below. It is recommended that a comprehensive ordinance be in place prior to the completion of the Gold Line station in Olde Town.

1. Authority

- Arvada needs to amend its zoning code and specific land uses in Olde Town that they think should trigger parking and/or TDM review. This will grant authority to the parking and TDM ordinance. For example, in the City and County of Denver, if a developer seeks to reduce parking in a limited number of mixed-use transit zones designated in the city, they must develop a TDM plan to show how they will reduce vehicle trips.

2. Applicability

- Arvada has a high degree of flexibility in determining what land uses are subject to the ordinance. Ordinances can apply to new or existing development or just to certain traveler populations. In the case of new development, parking and TDM requirements related to site design are most often added to development requirements. This could include provisions to build bike parking, carpool and rideshare parking, design standards for pedestrian facilities, and bus stop amenities. For existing developments, requirements are typically programmatic, such as dedicating staff time and budget towards a parking and TDM program, such as a transit incentive program, ridesharing incentive program, or parking cash-out program. Some of these strategies are recommended for Arvada and detailed more in this section.

- Ordinances can also be applied to certain populations, either residents or employees. Typically, most ordinances in the U.S. have only been applied to major employers with 50 – 100 employees. Boca Raton, Florida and Pasadena, California currently apply requirements to residential developments as well, but only require development of a TDM plan rather than achievement of specific trip reduction targets.

3. Vehicle Trip Reduction Goal

- The recommended strategy for Olde Town is to develop a mode-split based goal based percent alternative mode usage (percent non-single occupant vehicle share) traveling to the properties subject to the ordinance. This will likely be the easiest method for Olde Town considering there are a mix of uses in the area as well as trips generated externally that add to congestion but are not under the purview of the ordinance. Traffic counts would be problematic since they
cannot segregate the vehicles from properties that are subject to the ordinance versus those that are not. In addition, traffic counts would also confound results by counting vehicles on trips that neither start nor end in Olde Town (pass-by, or external-to-external trips).

4. Parking Management Strategies and Requirements

- Parking issues that would be addressed in a combined parking and transportation ordinance for Olde Town could include:

  - Assigning parking management and operations authority to a specific city department or management organization.
  - Providing the ability to outsource parking operations.
  - Providing the authority to charge for public parking (on-street and off-street) and guidelines related to determining parking rates.
  - Providing the authority to enforcement parking regulations and restrictions. This would include the ability to issue parking citations and impound scofflaws.
  - Updating parking requirement ratios and adopting an approved shared parking model.
  - Updating accessible parking requirements (match federal guidelines).
  - Providing automatic parking reductions based on implemented TDM strategies and on locations to mass transit stops.

5. TDM Strategies

- An important section of the ordinance details the minimum strategies a developer or property owner should implement. These strategies should differ based on the type of land use and be left flexible for the land owner/property manager to decide what strategies work best for them. The minimum TDM strategies could include:

  - Designation of a program coordinator. This person could be an employee of a business or a designated representative of a homeowners association, etc.
  - Physical improvements: bike racks, preferential carpool and vanpool parking, transit accommodations, and pedestrian facilities.
  - Communications: information kiosks, general marketing materials.
  - Internal website pages devoted to transportation programs.

These are the basic strategies for any development. However, participating in more significant TDM programs and services could also be strongly encouraged, especially if a local assessment is adopted for the Olde Town area that fund more significant programs.
6. Revenue Commitment

- Arvada has several options to produce revenue for parking and TDM programs. Any financing plan should consider several elements, which could include but are not limited to commercial development assessments, parking revenues, grants, fees for service, special districts, and development trust funds. Picking the right set of financing strategies is dependent on the stakeholders in the area and what strategies they feel are suitable. Many ordinances use at least a development assessment to finance ongoing parking and TDM programs.

7. Reporting Requirements

- Olde Town property managers and/or employers should be required to report at least annually on the status of plan implementation. They should also conduct or participate in survey efforts annually to determine employee mode shares and how they are tracking towards their vehicle trip reduction goal.

8. Ordinance Enforcement

- For new developments, issuance of a development permit should be conditioned on the approval of a TDM plan or set of strategies that the developer has committed to. Most likely, the city should assess penalties only for a failure to implement and/or report progress, rather than a failure to achieve the mode share targets.

- In practice, municipalities have been unwilling to actually impose financial or other penalties and have done so only in a very small number of cases. However, they have noted that it is helpful to have the authority to apply penalties if some situations should resort to those means.

4.06. Parking Enforcement Strategies

The success of any parking management program requires an effective enforcement component. This will be especially true in the future when the commuter-rail station opens. Regulations are intended to produce parking patterns that utilize the on and off-street parking inventory efficiently; this will only happen if on-street rate structures, time restrictions, and other rules are enforced with sufficient frequency so that drivers see an advantage to parking legally.
Building an enforcement program requires making many critical strategic and tactical decisions which can greatly impact a program’s success and ability to adapt with changing conditions. This sub-section addresses several of those key decision areas.

Responsibility for Parking Enforcement

Placement of enforcement within the local police department is typical of many jurisdictions, especially smaller cities and towns. It can have a number of advantages:

1. Reliance on an existing command structure.
2. Use of existing communications networks.
3. Availability of Parking Enforcement Officers (PEOs) for emergency duties, such as intersection control, as needed.
4. Greater respect for PEOs as members of the Police organization.

However, there can also be disadvantages:

1. Second class status, with enforcement not viewed as “real” Police work.
2. Excessive diversion to non-enforcement activities.
3. Separation from the larger parking management program, including failure to relate enforcement activities to other parking-related goals.
4. Police departments are not often experienced in managing the “backend” collection programs necessary to achieve high citation closure rates.

A popular alternative to police oversight of parking enforcement is to place the function in the governmental unit with responsibility for the overall parking mission. For Arvada, this could be another city department, a future parking and transportation authority, an Olde Town business organization, or some other parking management entity.
Benefits of this approach include:

1. Directly linking enforcement activities and personnel to the larger parking mission.
2. Greater likelihood that performance will be evaluated in conjunction with parking goals and actual parking dynamics.
3. Devotion of all PEO hours to parking-related duties.
4. Citation fines and penalties become one component of a larger accounts receivable system managed by the responsible unit.

Disadvantages include:

1. A need to build a new organizational structure within the “owning” department or authority.
2. A need to share police resources (such as communications networks) or build them from the ground up.
3. Potential lowering of public respect for PEOs.

It is recommended that the responsibility for parking enforcement should rest with a vertically-organized department or authority responsible for the Olde Town parking and transportation program. As suggested above, placing enforcement responsibilities with an Olde Town parking and transportation management organization would increase the likelihood that enforcement goals and performance are aligned with overall parking goals, and facilitate the coordination of all parking related resources.

Placing parking enforcement with an Olde Town parking and transportation management organization would also provide the opportunity to transform the responsibilities of the PEOs from only parking enforcement to “Olde Town Parking Ambassadors”. Instead of only enforcing parking regulations or assisting with traffic direction, the Parking Ambassadors could also provide visitors with information and directions, as well as provide a level of additional security in and between parking facilities. This will improve perceived security in the Olde Town area and will help improve overall customer service.

**Defining Parking Enforcement Policies/Practices/Staffing/Costs**

If the city’s parking plan is to be successful, it is essential that enforcement activity not be driven by anecdotal evidence or become a response to the loudest voices. Rather, there must be a consistent thread running through the larger goals of the program, the policies established and strategies used to achieve those goals, the regulations which govern their application, the application of enforcement to achieve the goals, and how success is evaluated. That common thread is data, collected at regular intervals, on occupancy, turnover, violation rates and capture rates, and the collection of direct parking revenues and citation fines. Thus, for example, when the city determines that it needs to meet a particular level of parking demand on certain blocks, it would decide on a policy and approach (time limits, meters with time limits, etc.), make sure the proper regulations and
signage are in place, assign PEOs to enforce those regulations, measure the impact against a desired goal (such as occupancy of 85-90%), and then adjust meter rates, patrol assignments, fines, etc. to reach parking goals.

To be most useful, industry “standards” should be adapted to local conditions and needs. The following standards are presented as possible starting points for setting goals for Olde Town Arvada:

1. Overall occupancy rate: 85-90%;
2. Overtime violation rate: 5-7%;
3. Overtime capture rate: 20-25%;
4. Average duration of stay: 70-120% of time posted limits.

Ideally, the program’s goals and policies would be developed through a formalized process led by the lead department or authority, but also incorporating input from local businesses, residential communities, city development staff, and staff involved in parking management. Additionally, as suggested above, such goals should be reflected in specific, measurable targets for parking in Olde Town and adjacent areas which might be impacted by development and an increase in parking demand.

Following this model has a number of key benefits:

1. It allows enforcement activity to be directly linked to clear, non-monetary goals.
2. By documenting reality, it moves discussion from “what is happening” to what should be happening and how to move things in the proper direction.
3. It provides elected officials with specific data to evaluate complaints from residents, businesses, etc.
4. It supports better-informed decisions regarding the number of enforcement personnel needed and how/where they should be deployed.

In our experience, the existence of hard data and analysis often produces greater support for enforcement and other parking management strategies. For this reason, it is recommended that the entity managing the parking program have sufficient resources to conduct such analyses on a regular basis. This can be done by a city or authority analyst, by use of consultants, or a combination of the two.

One issue that often arises during the discussion of parking enforcement is the fear that increased parking enforcement will discourage people from visiting Olde Town, or will unfairly inconvenience those that do visit. In order to help mitigate this fear, an approach that reduces the impact on Olde Town visitors and increases the penalties on continual parking policy violators is recommended. This is typically achieved through the use of an escalating fine structure. For example, the first ticket for a specific offense received within a certain timeframe (e.g., every six months or per year) is an automatic warning. The second ticket received within the set timeframe would result in a fine, perhaps $10 to $20.
The third ticket received for the same offense within the set timeframe would result in a higher fine, perhaps $40. The fine would continue to escalate to a maximum fine to discourage breaking the same regulation. This would reduce the impact on visitors, as it is less likely they will continually break the rules. However, the penalties will continue to grow for Olde Town employees abusing set parking time-limits.

Because so many decisions remain to be made in Olde Town, it is neither possible nor practical to make firm recommendations regarding how the city should pursue parking enforcement technology at this time. Decisions regarding the introduction of pay on-street parking, the extent of time limits, the use of permits, etc., will materially impact the type of technology needed and the level of sophistication needed to integrate that technology. Moreover, the technology is advancing rapidly in both capability and potential for integration; therefore, available solutions and options for implementation may be very different in as little as six months. However, the use of computerized parking enforcement equipment would be recommended when feasible.

With respect to staffing, a basic parking enforcement operation would need a PEO, one administrative position (full-time position for community questions, data entry, ticket tracking, collections, etc.), and one appeals officer (possibly a per diem attorney twice per month). Two PEOs (both part-time) should be sufficient to provide consistent coverage for the Olde Town core. PEO coverage should begin at 8:00 a.m. each weekday and end at 6:00 p.m. Weekend coverage should also be provided if parking time limits or pay parking times are in effect.

Approximate parking enforcement costs would be estimated as follows:

1. **Staffing**
   a. PEOs: $36,000 per year (no benefits, includes taxes)
   b. Administrative Position: $31,200 per year (includes benefits and taxes)
   c. Appeals Officer: $48,000 per year (assumes $250/hr, eight hours per day, twice per month – could be less with city staff)

   **Total Staffing:** $115,200 per year

2. **Equipment**
   a. Handheld Computers: $15,000 (three handholds)
   b. Central Computer: $2,500
   c. Software: $10,000
   d. Cell Phones: $200

   **Total Equipment:** $27,700
3. Supplies
   a. Uniforms: $750 per year
   b. Paper products, etc.: $3,000 per year
   c. Chalk and Sticks: $250 per year
   **Total Supplies:** $4,000 per year

4. Other (postage, collections, etc.)
   a. Cell phone service $1,500 per year
   b. Postage $1,000 per year
   c. Collections $4,000 per year
   d. System Maintenance: $3,000 per year
   **Total Other:** $10,500 per year

Total annual parking enforcement costs would be estimated at $129,700 per year, with upfront equipment costs of approximately $27,700.

**Administration of the Adjudication Process**

Adjudication is an important aspect of parking enforcement. Even the best enforcement programs issue some citations for which the vehicle owner is not ultimately liable. Thus it is critical that the public have a fair process by which they can contest a citation. In truth, a sound, fair adjudication process helps validate the entire enforcement effort.

Ideally, citation recipients wishing to contest a fine should be offered an administrative review by email, regular mail, or by telephone prior to more formal action being required. Parking system staff would be authorized to dismiss certain citations based on specific documentary evidence (such as a disabled placard). If the citation is upheld and the recipient remains unsatisfied, he or she could be required to post the fine and have a hearing before an appeals officer, board, or city court. If still unhappy, he or she can pay a fee and schedule a hearing in higher level court. At the last two stages, all posted fines and fees would be returned if the citation is dismissed.

It is recommended that the hearing process be separated organizationally from enforcement. This could be done in several ways. One option, followed by many cities, is to use a per diem attorney as a hearing officer. This would probably require two days a month, perhaps less. Another option is to choose someone from the parking program with sufficient subject matter expertise, but not directly associated with parking enforcement staff or duties.

**Collection of Fines and Penalties**

In the discussion of enforcement goals, it was stressed that revenue should not be the primary goal of parking enforcement. While this is true, parking managers must also do
everything practical to collect all fines and penalties once imposed on violators. Citations lose their deterrent value if the jurisdiction collects only a small percentage of the citations for which the vehicle owner is found liable. Fortunately, the collection tools and supporting technology available to cities have improved in recent years, and the city can employ additional tactics:

*Imposition of late penalties*

If citations remain unpaid or uncontested for a certain amount of time, the fine is increased. However, the longer one has to make up his or her mind about a parking citation, the greater the chance it will be forgotten or ignored. A 15-day window is typically ample and fair.

*Noticing*

Notices could be sent to parking violators concerning outstanding parking tickets.

*Registration Non-Renewal*

If allowed under Colorado law, vehicle owners could be required to satisfy outstanding parking citation debt before renewing his or her registration.

*Booting/Towing*

Vehicles found with a certain number of outstanding parking citations (perhaps five or more) could be immobilized (booted) and/or towed. While booting and towing programs can be very effective, they can also be labor intensive (since enforcement staff must also be assigned to release the boot once the debt is paid). In addition, if the owners of booted vehicles do not come forward within a reasonable period of time (usually 24 to 48 hours) the city must be prepared to tow the vehicles to a secure storage location. Many cities contract out this service to a tow vendor who provides both towing and storage services.

It is recommended that the City of Arvada consider utilizing a consistent booting/towing program, even if it were operated only several days a month. This would not only provide some direct revenue from the booted/towed vehicles, but would also generate publicity that would cause other scofflaws to pay voluntarily.

*Credit Bureau Reporting*

Many cities are now reporting outstanding parking fines to one or more of the national credit reporting agencies. Some cities consider it too harsh, and its use can lead to numerous complaints. It is important that the parking system obtain the informed consent and support of elected officials before starting such a program.
4.07. Parking Signage and Wayfinding

Currently, parking signage in Olde Town is limited to no parking signage, time limit signage, public parking signs (lot east of the Library), and private parking/tow away signage. In order to better direct visitors to available parking, the city should provide adequate wayfinding signage to locate public parking facilities as well as parking facility regulations. Ideally, parking signage should be part of a larger Olde Town wayfinding system. Directional signage should be provided to help visitors locate parking resources within Olde Town, depending on the type of parking they need. Then, signs should be located in each parking lot that provides a name for the lot, who can park there, as well as any specific restrictions. For example, signage should be located on Olde Wadsworth to direct visitors to appropriate public parking lots or on-street supplies. Then, signage in each parking lot would identify the public parking lot, as well as any necessary restrictions. Parking signage should be simple to read, and match the basic design of other wayfinding signage being designed by the city.

Directional signage should be placed on local streets to direct visitors to both on-street and off-street parking options. Additional parking identification signs should be placed at the entrances to each significant public parking location to denote public parking and any applicable restrictions (e.g., fees, time limits). A possible sign design for on-street parking could include a “P” with a circle around it and the following wording: “Visitor Parking – 2-Hour Limit, Monday – Friday 8:00 a.m. to 5:00 p.m.” This signage will simultaneously reinforce visitor parking and a specified time limit.

Use of Collection Agencies

The city could contract with a collection firm specializing in parking fines. Such firms know the issues associated with parking citations, and have programming in place to accept vehicle-based referrals and report payments for application to the correct plate/citation. If the city does opt for additional collection services, the city could pass on the collection fees to the violator as an additional penalty.
Some of the no-parking signage currently in private parking lots can discourage visitor use, as they are fairly threatening and not clear as to who is authorized to park. While reserved parking signs are common, they should clearly denote which business the parking serves. Ideally, parking located behind businesses should first be used by employees, in order to keep the spaces reserved and open more on-street or other public parking for visitors.

Figure 27. Parking Signage Examples

4.08. Parking Security and Lighting

A common concern in many communities is the need to improve security and lighting in parking lots and on pedestrian paths to/from parking areas. This section will provide options for improving parking facility security and lighting.

There are basically two types of parking facility security options: passive security and active security. Passive security refers to designing a facility to create a secure environment, without the need for an active human security response. This typically includes eliminating potential hiding places, appropriate lighting levels, low-level landscaping around the parking facility perimeter, etc. These elements promote a secure environment.

Active security refers to the addition of systems that require a human response, such as panic alarms, closed-circuit television, etc. While passive security creates an environment that deters
criminal activity, sometimes additional steps are necessary to further discourage crime or to improve perceived facility security.

Clearly, all public facilities should embody the concepts of Crime Prevention through Environmental Design (or CPTED), and parking is no exception. According to the National Crime Prevention Institute, CPTED is "... the proper design and effective use of the built environment which may lead to a reduction in the fear and incidence of crime, and an improvement of the quality of life." Parking facilities should be properly landscaped, lines of sight should be unobstructed, potential hiding places should be eliminated, and adequate lighting should be provided. Local law enforcement should be able to provide a CPTED review of city parking facilities and provide additional security design recommendations.

Several active security methods could be included in public parking facilities to improve real and perceived security. First, panic alarms could be installed in parking areas. These alarms would generate a loud noise when activated, and could also incorporate a pulsating light to indicate where help is needed. Several types of alarm systems are available including wireless systems with intercom features. The intercoms could provide a voice connection directly to local police in the event of an emergency. Ideally, the alarms should be placed within a 100-foot walking distance from anywhere in the parking area. Other active security measures, such as closed-circuit television, would not be recommended at this time due to costs and/or the lack of personnel to continually monitor the system (liability concern).

Parking facility lighting should be sufficient to help avoid vehicle accidents, provide visibility of pedestrian hazards, deter criminal activity and meet parking industry lighting standards. A minimum horizontal illuminance of 0.5 footcandies (measured on the parking surface, without any shadowing effect from parking vehicles, trees, etc.) is recommended for enhanced security in parking lots by the Illuminating Engineering Society of North America (IESNA RP-20-98). The recommended minimum vertical illuminance (measured at 5.0’ above the parking surface) is also 0.5 footcandies. In order to reduce the amount of light scatter, fixtures that direct light downward onto the parking lot (cutoff luminaire) are recommended. For parking structures, a minimum illuminance of 1 to 2 footcandies as measured on the parking surface is

### 4.08. Parking Security and Lighting

**Short-term Recommendations**

1. Ensure existing parking facilities are safe and well-lighted. Consider conducting a security review with local law enforcement and an Olde Town lighting study.
2. Ensure pedestrian paths between parking facilities and Olde Town destinations are well-lighted and safe.
3. Ensure existing parking facilities meet CPTED standards.
4. Consider using “Olde Town ambassadors” to provide parking enforcement, as well as basic security in Olde Town.
5. Update parking-related zoning requirements to include appropriate lighting standards.

**Long-term Recommendations**

1. Consider installing panic alarms or emergency call boxes in public parking lots and future parking structures.
2. Ensure all future parking facilities incorporate CPTED standards.
3. Incorporate parking industry best practices related to facility safety and security into future parking structure design standards.
recommended. In order to determine if lighting is sufficient in parking areas and pedestrian pathways, it is recommended that the city conduct parking-facility specific and larger Olde Town lighting studies in the future.

### 4.09. Loading and Delivery Parking

During the parking inventory and occupancy counts, survey staff did not observe any occurrences of delays or inconveniences associated with delivery vehicles in the Olde Town. Currently, delivery vehicles park on-street, in off-street parking facilities and/or in no parking areas to deliver products and services to Olde Town businesses. There are currently no designated loading zones in Olde Town.

Delivery vehicles can impede traffic flow, block alleyways, block visitor parking spaces, and inhibit pedestrian visibility. Deliveries can often create an environment in conflict with visitor and employee parking, pedestrians, and other groups. However, delivery vehicles are an inevitable component of Olde Town business. Obviously, the loading/unloading needs of delivery vehicles will increase as Olde Town continues to develop.

Although delivery vehicles cannot be removed from Olde Town, their impact can be minimized through coordinated efforts among area businesses. Potential strategies for addressing delivery vehicle and loading space challenges could include the following:

1. **Short-term Recommendations**
   - Work with the Olde Town community to determine appropriate loading zone locations and policies.
   - Delineate loading zones in Olde Town. This would typically include loading zone curbs painted yellow, 20-minute limit notices stenciled on the curbs in black, and appropriate signage.

2. **Long-term Recommendations**
   - Update loading zone locations as appropriate.

   - Delivery vehicles should be discouraged from parking on narrow streets and in no parking zones. Delivery parking in these areas can cause traffic delays, cause visitors to wait to enter or exit the on-street public parking and can cause pedestrian obstacles.

   - The city should consider the creation of loading zones in strategic locations. The loading zones would provide time-limited parking for delivery vehicles or private vehicles, and provide a designated loading area. The zones should be appropriately marked, typically with yellow curb paint and stenciling or signage. These loading zones should be developed with assistance from Olde Town businesses and future developments in order to mitigate delivery problems as demand grows.

   - The city should identify specific delivery vehicle concerns and work with Olde Town businesses to encourage deliveries during off-peak parking periods (e.g., mornings), as well as encourage the use of smaller delivery vehicles whenever possible.
4.10. Parking Communications and Marketing

While the current Olde Town parking system is not overly complex, a breakdown in communications can foster a perception of parking problems. Parking communications and marketing refer to two key issues. First, communicating parking policies, regulations and services to parking customers. Second, communicating parking system issues, challenges and improvements to Olde Town community stakeholders.

Communicating parking policies and regulations to parkers is typically done through the use of parking maps and the city (or future parking organization) website. One-page parking maps could be created to show the locations of public parking supplies, provide Olde Town parking policies and regulations, provide contact information for questions and provide other Olde Town information (see Figure 28 on the next page). These maps would be available at city offices, the Historic Olde Town Arvada office, and at Olde Town businesses. The map would also be available for download from the city website. Other Olde Town marketing materials, either developed by the city or other organizations, should include parking information for visitors.

In addition to communicating parking system issues to the Olde Town community, the parking system needs an easily identifiable “brand”. The city (or parking organization) will need to develop a branding strategy and incorporate these concepts into Olde Town parking marketing efforts. The following is a list of potential action items that can help launch a new parking program:

1. Develop a consistent system “brand”.
2. The brand should promote the image you want people to have of the system.
3. A “brand” is more than a logo or tag-line.
4. The brand should reinforce the positive aspects of the system.
5. Use consistent external signage to tie the system together.
6. Have a parking tie-in to promotional materials.

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4.10. Parking and Transportation System Communications and Marketing

**Short-term Recommendations**

1. Work with the Olde Town community to determine appropriate methods to communicate parking and transportation system issues and goals.
2. Develop an Olde Town parking map. Distribute printed copies to Olde Town businesses and post a version on the city’s website. Links to the Olde Town parking map could be placed on Olde Town business organization websites.
3. Begin the process of branding the Olde Town parking system, developing a logo, signage, and other marketing materials.
4. Develop an “Olde Town Employee Kit” that would include information on appropriate parking locations and alternative forms of transportation.

**Long-term Recommendations**

1. Develop methods to encourage public participation in the parking system, such as periodic public/stakeholder input meetings, online surveys or comment forms, mail-in comment cards, etc.
2. Continue working to brand the parking system.
3. Create a parking system annual report to communicate system progress, challenges, and parking supply/demand changes.
4. Incorporate parking system branding initiatives into new parking facilities as they are developed.
7. Develop new employee/tenant parking brochures or information packets.
8. Develop parking “E-Bulletins” to be distributed to community members.
9. Develop strategies for regular contact with customers.
10. Look for practical opportunities to connect the parking program to community initiatives, for example: develop parking deck floor identification (themed graphics, music, etc.) as an extension of a local public arts program.

Improving communications with Olde Town stakeholders could be accomplished through periodic parking-specific input meetings (perhaps twice per year), annual parking system reports, and parking staff involvement in appropriate Olde Town organizations (e.g., Historic Olde Town Arvada and the Arvada Urban Renewal Authority). All of these options provide opportunities for the parking system to provide information concerning Olde Town parking conditions to stakeholders, in addition to gaining valuable public input.

Promoting the awareness of transportation options in the Olde Town area is key to changing travel behavior. Before TDM strategies can be effective, people have to know they exist and understand how to use them. The marketing and communication strategies described below are intended raise awareness of these benefits specifically in Olde Town.

1. **TDM Components to Parking Website**

A parking and transportation website detailing the transportation options available in Olde Town is a primary means to promote TDM strategies. Ideally this site would be independent of any city websites so that it is flexible in the components it can offer. Also, these websites are commonly seen as an economic development tool in creating awareness of how to access the unique offerings of an area like Olde Town. Therefore, local economic development organizations such as Historic Olde Town Arvada, Arvada Economic Development
Association, Arvada Urban Renewal Authority, and the Chamber of Commerce are potential partners in website development. Components could include:

1. Carpool ridematching board or service specifically for Olde Town (several private vendors can develop site-specific ridematching websites and DRCOG also has regional ridematching capabilities).

2. Interactive parking and transportation map that displays parking information, transit routes and links to their service frequency, location of preferential carpool and rideshare parking, bike parking locations, and any other alternative transportation options advanced in the future (shuttle circulators, bikesharing stations, etc).

3. Virtual commute store that enables easy purchase of RTD passes online. RTD has piloted such a program that also couples a pass subsidy for commuters in the southeast Denver region: www.trip2work.com.

2. Information and wayfinding Kiosks

Kiosks are typically stand-alone signs that present information on the following:

1. Parking
2. RTD schedules and route information
3. Information on carpooling and vanpooling opportunities
4. Multimodal maps specific to the Olde Town area
5. Bike map or tips highlighting connections to the Ralston Creek Trail and the Clear Creek Trail

3. RTD Pass Outlet

Create an on-site RTD Pass Outlet in the Olde Town area, possibly in the public library on 57th Avenue and Olds Wadsworth. The outlet will allow individual employees and residents to purchase RTD monthly transit passes for bus and light rail service. Passes will be offered at full price; however, the program manager will work with any employers who wish to subsidize the costs of passes for their specific employees. The administration of this program should be kept simple and could be incorporated into other community services that the library provides.

4. Promotions at Community Events

Depending on the types of promotions held in Olde Town and the number of people attracted, it may be cost effective to promote TDM programs at community events. Some likely events include:
1. Arvada Trails Day (early June)  
2. Gold Strike Festivals (mid June)  
3. Fourth of July Celebration  
4. Harvest Festival (mid September)  

5. Transportation Options Kit  
This “kit” would contain information on the parking and transportation options in the Olde Town area and any TDM programs. Hardcopy brochure-style maps could display links to transportation alternatives and be a copy of the online interactive map tool. Kits should be distributed mainly to new employees and residents of the Olde Town area and occasionally to visitors and customers (at large community events). Kits could also contain one or several free-ride passes for RTD and suggest a host of activities that people can try using transit other than work trips (rides to Rockies games, to the airport, etc).

4.11. Incorporating Parking and Transportation  
The concept of integrating transportation and parking elements as part of the larger strategic vision for Olde Town supports the adoption of a “Park Once – Pedestrian First” planning concept. This concept encourages employees and visitors to park their vehicles in one location and then use another form of transportation to move around Olde Town with excellent pedestrian, transit, parking, and bicycle facilities. This concept will become very important as Olde Town develops over time.

Several key action elements are needed to achieve this vision and are outlined below:

1. Provide adequate transportation options for people visiting or working in Olde Town. The future commuter-rail station will
provide improved mass transit options for Olde Town visitors and employees. As parking management changes in the future (e.g., improved parking enforcement, increased utilization, implementation of pay parking) other transportation options will become more attractive. Options could include (but not be limited to):

a. Employer-based Strategies

i. Employer-based strategies are those that are implemented specifically at a worksite. These strategies are primarily focused on the commute trip. For the Olde Town area, there is a particular emphasis on transit strategies and establishing programs that promote employees using transit to get to work. Strategy recommendations include:

ii. Encouraging Telework and Compressed Workweek or Flextime

1. Telework support can include workplace policies that allow and enable teleworking, high capacity Internet access and business centers available in the residential components of Olde Town. The Denver Regional Council of Governments and several private contractors can provide telework assistance to workplaces and residences.

2. Compressed work week policies allow employees to work 40 hours in 4 days or 80 hours in 9 days. Encouraging these workplace policies allow employees to avoid work commutes once a week or once every two weeks.

3. Flexible work schedules allow employees to “flex” their shift start and end times by as much as two hours. Flexible work schedules allow employees to adjust their work schedules to better match transit schedules and the schedules of other alternative transportation modes. Workplace policies vary depending on the type of workforce, nature of work performed, and workplace culture. The Olde Town program can encourage these types of schedules by increasing awareness and by providing program and policy assistance to employers.

iii. Encourage Employers to Establish Pre-tax Transportation Benefits for Employees

1. Established in 2001 by the United States Internal Revenue Service (IRS), this benefit enables commuters to pay for transit passes, vanpool fares, bicycle commuting costs, and parking costs on a pre-tax basis up to monthly limits set by the IRS. The limits vary by
mode used and are generally updated annually by the IRS. For the 2009 tax year, the benefit levels are $230 per month for transit and vanpool services and $220 per month for parking. The bicycling commuter benefit was recently introduced and while the benefit is $20 per month, the logistics on how it is provided are still being finalized.

iv. Transit Incentives for First-time Users

1. Special transit campaigns can be used to introduce employees who do not currently use transit to the rail system and other transit services available to them. A typical campaign might include a one-month incentive program where the participant is provided a monthly RTD transit pass, enrolled in prize drawings, and given discounts or rewards to local retailers for reaching certain milestones using transit, such as the number of trips taken during the campaign.

2. If these programs are successful, TDM program managers may consider offering a permanent subsidy for transit users in this area. Many companies in the Denver region fully subsidize the cost of EcoPass annual passes for their employees. Because of the proximity of rail to employers at this site, a full subsidy may not be needed, but a partial subsidy could have a substantial impact on vehicle trip reduction.

v. Secure Bike Storage and Changing Rooms/Showers at Worksite

1. Provide one men’s and one women’s locker room where employees who bike to work can store personal items, shower, and change clothes at each worksite. This is a common facility provided now in most new development, particularly if the developer is seeking LEED (Leadership in Energy and Environmental Design) certification.

b. Ridesharing Strategies

i. Carpooling was ranked as the most realistic option for people to access Olde Town in the Parking and Transportation Survey administered in January and February of 2009. Over 40 percent of respondents “agreed” or “somewhat agreed” that carpooling is a realistic option to access Olde Town compared to driving alone today. Transit had a much lower share of interest currently, but that is expected to change with the rail service.
ii. Due to the low density and auto-dominated nature of the areas surrounding Olde Town, carpooling is still expected to be a strong potential transportation alternative to access the rail or employment in Olde Town for those who live outside of the area and cannot walk. The following strategies are intended to increase carpooling in the short and long term.

iii. Preferential Carpool and Vanpool Parking Spaces

1. Dedicate parking spaces closest to building entrances/elevators or other conveniences for carpool/vanpool vehicles. These spaces are primarily encouraged for private commercial development. Monthly parking rates/fees could be less for carpools/vanpools.

iv. Local Ridematching

1. Local ridematching programs automatically match participants with carpool partners based on their commute start and end locations and work hours. The Denver Regional Council of Governments (DRCOG) currently operates an online ridematching database that could be used at no cost.

v. Individualized Marketing Campaign Specific to Carpooling and Transit

1. Individualized marketing campaigns provide information on alternative transportation options that are individualized to the recipient. Participants generally indicate interest in specific transportation modes and programs and applicable information is provided to them either electronically, through the mail, or in person. These programs use survey instruments to identify individuals who are most likely to use alternative modes of transportation and focus marketing efforts on those individuals. In the case of Olde Town, a carpool-specific program could be implemented to focus on getting people into Olde Town without parking, either because they are taking rail transit or they work in Olde Town.

c. Bicycling Strategies

i. Bicycling strategies include basic improvements like ensuring bike parking is built with new development as well as more sophisticated strategies to build a bikesharing system in Olde Town once the rail station is active. These strategies are summarized below:
ii. Install Bike Parking

1. Ensure that bike parking is installed according to Arvada city standards, as established in the Arvada Municipal Code, Section 6.8.3. This standard applies to outside racks as well as more secure bike lockers.

iii. Bikesharing Program

1. Local bikesharing programs are emerging in the United States as a possible form of public transportation to link high capacity transit (like rail) with neighborhoods and mixed uses areas nearby. In many ways Olde Town is a good setting for a small, less than three station bikesharing program. The elements of modern bikesharing systems include:

   a. User accountability. Users must register online to checkout a bike and charged for overtime use and charged the full price of the bike plus an administrative fee if they don’t return it.

   b. Liability Insurance. This is still a big concern for many municipalities, but insurance programs are realizing a new market exists. Both Denver and Washington DC have overcome liability insurance issues and are moving forward with their bikesharing programs.

   c. Station density no more than 300 meters apart. This ensures that users have a bike available at another station and that they can drop off bikes if one station is full.

   d. Staggered fee system. Typically bikesharing programs only charge after the first 30 minutes. This incentivizes people to use the bikes for short trips and not overnight, etc. It also frees up the bikes so many people can use them.

   e. Station location. Without a doubt, the largest station should be immediately adjacent to the rail station. The other two stations should be located near walkable retail and employment destinations. Overall, the emphasis of the program would be on retail and commercial development, not residential trips.
f. Creative sponsorship. Typically local business, advertising agencies, or other private entities are large contributors to bikesharing programs to help defray the long term costs.

g. The City and County of Denver has funding to implement a bikesharing system in the summer of 2009.

2. Institute pay parking for all visitors and employees to improve the utilization and turnover of existing parking supplies, encourage the use of alternative modes of transportation, and generate funds that can be used to improve streetscapes, transportation options, etc.

3. Ensure Olde Town streets and sidewalks adequately serve the needs of pedestrians, transit users, bicyclists, and vehicles with the focus on serving pedestrians first. This element can be supported by:

   a. The creation of safe, attractive, shaded, and inviting pedestrian linkages to connect Olde Town destinations and parking facilities.

   b. Where necessary, using traffic calming strategies such as speed humps, lower speed limits, on-street parking, etc.

   c. Where possible, including bicycle paths on roadways. In some cases on-street angled parking may make bicycle lanes less safe, as vehicles must back out of the spaces (e.g., drivers not seeing bicycles).

   d. Providing amenities such as improved lighting, signage, street furniture, landscaping, etc. in public right-of-ways to support and encourage pedestrian activity.

   e. Bicycle racks, lockers or other bicycle friendly facilities should be provided throughout Olde Town.

4. Developing, managing, and operating parking as an essential civic infrastructure and reducing overall parking ratios over time to create a “Park Once” environment. This concept can be supported by:

   a. The usage of in-lieu fees for developments planned in Olde Town to support the funding of strategically located parking resources.

   b. Encouraging the “Park-Once” strategy through shared parking for both public and private parking resources.
c. Ensuring all public parking resources are efficiently and effectively designed and managed. Encourage efficient design and management in private parking resources as well.

d. Maximizing on-street parking throughout Olde Town and monitoring vehicle duration and turnover. Encourage the turnover of short-term parking resources by monitoring activities, communicating with Olde Town business owners, as well as through other means such as parking enforcement, pay parking, etc.

e. Locating long-term parking facilities on the perimeter of Olde Town (except possible parking structures) and locate short-term parking throughout Olde Town. Ensure the proper mix of parking through periodic parking occupancy counts and duration/turnover surveys.

f. Incorporating ground floor commercial activity into parking facility designs (where appropriate) when a parking structure is developed in the future.

g. Where necessary, improving existing surface parking lots in Olde Town (e.g. paving, landscaping, lighting, identification signage, etc.)

5. Modifying the identity of Olde Town to make it more understandable and attractive to infrequent users. This element is supported by:

a. Actively promoting Olde Town attractions and developments including parking availability/locations and alternative transportation options. This can be done using printed materials and a city website.

b. Developing and implementing an Olde Town informational and directional (wayfinding) signage program with a special emphasis on available parking resources.

**Vehicle Trip Reduction Analysis**

For both the short and long term TDM strategies summarized above, UrbanTrans analyzed the vehicle trip reduction potential of the TDM strategies by researching best practice examples and modeling impacts using EPA’s COMMUTER model. Estimates were produced for resident trips living in the Olde Town area and employees of the commercial uses. Note that this vehicle trip reduction analysis only applies to these traveler groups and not the visitors, customers, and other travelers to the Olde Town area outside of residents and employees.

The impacts of TDM programs presented in the best practice summary have been standardized to show the increase in transit and alternative mode use as a result of the TDM program (detail for each example is provided in Appendix E). Because the best practices all measure the impact of TDM programs differently, these standardized increases to alternative
mode use are general ranges and only estimates interpreted from study data. They will be generally applied to the impacts of the Olde Town TDM program. These impacts are displayed in Table 19 as “impact to drive alone trips.”

Table 19. Standardized Impacts of Best Practices TDM Examples

<table>
<thead>
<tr>
<th>Residential Examples</th>
<th>Program Description</th>
<th>Impact to drive alone trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case</td>
<td>Program description</td>
<td>Impact to drive alone trips</td>
</tr>
<tr>
<td>Orenco Station,</td>
<td>Transit passes given to all new tenants for one year</td>
<td>2 percent decrease in station area</td>
</tr>
<tr>
<td>Hillsdale, Oregon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smart Trips Summit-U</td>
<td>Residential based Individualized Marketing program</td>
<td>4 percent decrease in neighborhood area</td>
</tr>
<tr>
<td>Program, St. Paul</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minnesota</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employer and Downtown Examples</th>
<th>Program Description</th>
<th>Impact to drive alone trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case</td>
<td>Program description</td>
<td>Impact to drive alone trips</td>
</tr>
<tr>
<td>Lloyd District, Portland, Oregon</td>
<td>Establishment of metered on-street parking; introduction of a subsidized transit pass for all District employees; multimodal facility improvements; promotional efforts</td>
<td>7 percent decrease in district</td>
</tr>
<tr>
<td>SAFECO Insurance Company</td>
<td>Transit passes, preferential parking, ridematching, and guaranteed ride home services all offered to employees at no cost</td>
<td>22 percent decrease (employment site only, not city wide)</td>
</tr>
<tr>
<td>Santa Clara Transportation Authority</td>
<td>Transit pass subsidies to employees in Mountain View and Palo Alto, CA</td>
<td>16 percent decrease (employment sites only, not city wide)</td>
</tr>
<tr>
<td>Downtown Management Commission, Boulder, Colorado</td>
<td>Provide EcoPass to all full-time, permanent downtown Boulder employees within the Business Improvement District</td>
<td>No data</td>
</tr>
<tr>
<td>Downtown Commuter Program, Olympia Washington</td>
<td>Financial incentives provided to take the bus, walk, bike, carpool, and vanpool</td>
<td>3.5 to 4 percent decrease in all home-to-work trips into downtown</td>
</tr>
</tbody>
</table>

**TDM modeled impacts**

EPA’s COMMUTER model is used to estimate the impacts of TDM programs at employer sites associated with Olde Town. The model impacts help assign the decrease in drive alone commute trips for the employment-related land uses in study area only. These impacts are modeled for both the short and long terms.

The COMMUTER model allows the user to input the existing use of transportation alternatives at the site and understand the impact of adding employer-based TDM programs. The short term modeled impacts show an 8 percent reduction in drive alone commute trips by employees. This impact is driven largely by the financial incentives that will be provided to employees when they enroll in local programs, especially covering carpool costs (gas) and transit costs (fare).
With the addition of the Gold Line commuter rail in the long term, the modeled impacts show an 18 percent reduction in drive alone commutes. The impacts are primarily due to the addition of high speed commuter rail and charging for parking in Olde Town. Both of these components improve the success of the TDM program in reducing drive alone trips.

Table 20. Summary of Best Practices Review and COMMUTER Modeling

<table>
<thead>
<tr>
<th>Trip Reduction Source</th>
<th>Short Term (pre-rail)</th>
<th>Long Term (post-rail)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent decrease in drive alone trips</td>
<td>Percent decrease in drive alone trips</td>
</tr>
<tr>
<td></td>
<td>Residents</td>
<td>Employees</td>
</tr>
<tr>
<td>Best Practices Summary</td>
<td>-4%</td>
<td>-5%</td>
</tr>
<tr>
<td>COMMUTER model</td>
<td>n/a</td>
<td>-8%</td>
</tr>
<tr>
<td>Factors used in parking reduction analysis</td>
<td>-4%</td>
<td>-5%</td>
</tr>
</tbody>
</table>

Considering the variety of impacts between modeled results and the best practices summary, conservative decreases in drive alone trips into Olde Town due to TDM programs are displayed in Table 21. The decreases in drive alone mode share for employees will help reduce future parking demand.

Table 21. Decrease in Drive Alone Trips due to Short and Long Term TDM Programs

<table>
<thead>
<tr>
<th></th>
<th>Baseline (Census 2000)</th>
<th>Short Term (pre-rail)</th>
<th>Long Term (post-rail)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Trips</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drive Alone</td>
<td>68%</td>
<td>64%</td>
<td>61%</td>
</tr>
<tr>
<td>Non-Drive Alone</td>
<td>32%</td>
<td>36%</td>
<td>39%</td>
</tr>
<tr>
<td>Employment Trips</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drive Alone</td>
<td>76%</td>
<td>71%</td>
<td>58%</td>
</tr>
<tr>
<td>Non-Drive Alone</td>
<td>24%</td>
<td>29%</td>
<td>42%</td>
</tr>
</tbody>
</table>

Cost of TDM Strategies

The costs of implementing the TDM strategies in the short and long term are summarized in Table 22 on the next page. Because the number of residents and employees actually engaging in the TDM program is unknown at this time, these costs are approximate and subject to change.
## Table 22. TDM Program Costs

<table>
<thead>
<tr>
<th></th>
<th>Startup/One-time Costs</th>
<th>Ongoing Annual Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short Term (present - 2015)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program manager (part time, salary + benefits and overhead)</td>
<td>--</td>
<td>$39,000</td>
</tr>
<tr>
<td>Interactive parking website</td>
<td>$10,000</td>
<td>$2,000</td>
</tr>
<tr>
<td>Information and wayfinding kiosks</td>
<td>$5,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Promotions at community events</td>
<td>--</td>
<td>$1,000</td>
</tr>
<tr>
<td>Transportation options kit</td>
<td>$4,000</td>
<td>$500</td>
</tr>
<tr>
<td>Residential Individualized Marketing campaign (pre rail)</td>
<td>$50,000</td>
<td></td>
</tr>
<tr>
<td>Employer programs</td>
<td>--</td>
<td>$5,000</td>
</tr>
<tr>
<td>Preferential carpool space parking</td>
<td>$2,500</td>
<td>--</td>
</tr>
<tr>
<td>Bike racks, indoor storage, showers</td>
<td>$10,000</td>
<td>--</td>
</tr>
<tr>
<td><strong>Additional Long Term (2015 onward)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTD pass outlet (housed in library)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Residential Individualized Marketing campaign (post rail)</td>
<td>$50,000</td>
<td>--</td>
</tr>
<tr>
<td>Bikesharing Program</td>
<td>$10,000</td>
<td>$1,500</td>
</tr>
<tr>
<td><strong>Total Startup/One-time and Ongoing Annual Costs</strong></td>
<td><strong>$141,500</strong></td>
<td><strong>$50,000</strong></td>
</tr>
</tbody>
</table>
5.0 RECOMMENDATIONS SUMMARY

Currently, approximately 68% of the available parking supply in the overall study area and 38% of the supply in the Olde Town core is unused during the typical peak parking period. However, future developments in Olde Town could lead to significant parking supply deficits in some areas. Therefore, future Olde Town development will necessitate the construction of additional parking resources – both on-street and off-street. With this in mind, Carl Walker recommends the following strategies (in order of priority):

Immediate Action – 2010:

1. Designate Lead Division and Support Units and Determine Resources for Further Implementation
   Designate an existing city department as responsible for the Olde Town parking and transportation system. This would include both operations and management. Determine needed staffing and budget for implementation of the plan in the short-term and mid-term.

2. Create Master Signage Plan and Install Signs
   Provide additional parking-related signage and wayfinding to increase the potential utilization of existing public parking areas. Additional identification signage may also be required in some areas, such as the Tiller Lot, to denote public parking. Lot identification signs should note the Lot’s name and applicable restrictions. Finally, work with private parking lot owners to ensure existing signage does not discourage appropriate parking in the lots (e.g., signs saying the parking is reserved, but not noting for whom the parking is reserved).

3. Prepare Parking Map and Marketing Materials - Brand the System
   a. Work with the Olde Town community to determine appropriate methods to communicate parking and transportation system issues and goals.
   b. Develop an Olde Town parking map. Distribute printed copies to Olde Town businesses and post a version on the city’s website. Links to the Olde Town parking map could be placed on Olde Town business and organization websites.
   c. Begin the process of branding the Olde Town parking system, developing a logo, signage, and other marketing materials.
   d. Develop an "Olde Town Employee Kit" that would include information on appropriate parking locations and alternative forms of transportation.

4. Designate Long-term Parking in Conjunction with HOTA and Communicate to Business Owners
   Encourage long-term parkers (e.g., Olde Town employees and business owners) to park in off-street parking areas, especially the Tiller Lot. Parking in long-term off-street lots,
such as the Tiller Lot or the lot east of the Library, may need to be limited in the future due to commuter rail parking demand. This could include time limits (e.g., 4-hour parking), pay parking, and/or long-term parking permits for Olde Town employees.

5. Delineate all On-street Parking Spaces

Begin the process of delineating all on-street parking spaces in Olde Town. Parking time limits should be longer in underutilized areas (e.g., eight to ten hour limits on Blocks 7, 8, and 14) and shorter in heavily utilized areas (e.g., existing two hour limits on Blocks 11, 12, 13, 15, and 16).

6. Develop Ordinance to Authorize Enforcement of Time Restrictions

Work with Legal to draft an ordinance that will codify the enforcement of parking time restrictions.

7. Prepare Shared-Use Agreements with Private Parking Lot Owners

Work with Olde Town parking facility owners to improve the utilization of private parking supplies. This could include private parking areas north of Ralston Road, Lot A on Block 6, and St. Anne’s Church (surface lot directly south of Ralston Road – Lot A on Block 7). Using the information contained in Section 4.02 – First Alternative (page 58 of this report), work with parking lot owners to find equitable solutions to provide additional public parking.

8. Delineate Loading and Delivery Zones

a. Work with the Olde Town community to determine appropriate loading zone locations and policies. This could include loading zones on Grandview Avenue, Olde Wadsworth Boulevard, and near the public library.

b. Delineate loading zones in Olde Town. This would typically include loading zone curbs painted yellow, 20-minute limit notices stenciled on the curbs in black, and appropriate signage.

Short-Term 2010 and 2011:

1. Conduct a Safety Assessment of Parking Facilities

a. Ensure existing parking facilities are safe and well lighted. Conduct a security review with local law enforcement and city staff knowledgeable in lighting issues.

b. Ensure pedestrian paths between parking facilities and Olde Town destinations are well lighted and safe.

c. Ensure existing parking facilities meet Crime Prevention Through Environmental Design (CPTED) standards.

d. Update parking-related zoning requirements to include appropriate lighting standards.
2. **Adopt Municipal and Land Development Code Changes**

   a. Begin drafting an ordinance that will address parking and transportation demand issues in Olde Town. Use the issues described in Section 4.05 as a starting point.

   b. Instead of a zero parking requirement for new developments in Olde Town, provide flexible parking requirements that allow reasonable parking reductions (e.g., using existing underutilized spaces and reductions for TDM) and encourage shared parking. Also, provide new developments with the option of paying an in-lieu fee instead of providing on-site parking.

3. **Establish Procedures for Enforcement**

   While not necessary in the near term, parking enforcement capabilities should be available prior to the opening of the Gold Line commuter rail station. Completing the following steps will be necessary:

   a. Ensure the proper authority exists for parking enforcement (city ordinance).

   b. Decide which city department will provide parking enforcement – preferably the department that will be charged with Olde Town parking and transportation system management. Also, consider the “parking ambassador” approach to parking management (see Section 4.06, page 83 of the main report).

   c. Determine how parking appeals and citation collection will be handled (using the information contained in Section 4.06 as a starting point).

   d. Determine which parking enforcement methodologies/technologies will be used (e.g., paper tickets or handheld computers).

   e. Using the enforcement goals noted in Section 4.06 as a guide, define enforcement objectives.

   f. Consider the implementation of a tiered parking fine structure.

   g. Consider using “Olde Town ambassadors” to provide parking enforcement, as well as basic security in Olde Town.

   h. Involve the community in the process to define parking enforcement goals and objectives, and provide sufficient notice prior to implementation.

4. **Address Staffing and Funding for Mid-Term and Long-Term Implementation**

   See Sections 4.03 and 4.04 for alternative strategies (pages 65 – 78).

   a. Work to diversify parking-related revenue streams to ensure sufficient funds exist to cover parking-related management, operations, marketing, maintenance, and construction expenses. Work with the community to evaluate alternative ways of funding the parking system, including pay parking, a business improvement or parking district and fees in lieu for new projects. Communicate goals prior to implementation.
b. Strongly consider public/private partnerships to develop future parking resources. Work with new developments to help defray at least a portion of parking construction costs.

c. Encourage the development of additional on-street parking spaces (e.g., more angled parking) when Olde Town areas are redeveloped.

d. As future developments occur, determine appropriate financing strategies for public parking facilities.

e. Provide limited parking operations services in-house. This would include parking-related signage, parking system marketing, parking enforcement, planning, special events assistance, and maintenance. It is unlikely that outsourced parking management would be necessary given the limited amount of day-to-day operational needs in the short-term.

5. Monitor Parking Usage and Initiate Parking Enforcement when Overall Peak Public Parking Utilization Exceeds 85% or when Average Parking Durations in Time-limited Public Parking Areas Exceed 70% of the Posted Time Limit.

Mid-Term 2012 through 2015:

1. Institute Active Enforcement

2. Initiate Transportation Demand (TDM) Programs
   a. Market transportation options for downtown visitors and employees:
      i. Add TDM components to a parking website (ridematching, interactive transportation map, and a virtual commute store).
      ii. Provide information and wayfinding kiosks in Olde Town.
      iii. Promote TDM alternatives at community events.
      iv. Provide transportation options kits to employers, employees and visitors.
      v. Create a Residential Individualized Marketing campaign focused on increasing the use of carpools, bicycling, walking, and a secondary emphasis on transit.
   b. Encourage the following employer programs:
      i. Encourage telework and alternative work schedules.
      ii. Support pre-tax transportation benefits for employees.
      iii. Encourage secure, on-site bicycle storage in new developments.
   c. Utilize the following ridesharing strategies:
      i. Provide preferential carpool and vanpool parking.
      ii. Create a local ridematching website.
3. **Install Safety Improvements in Parking Facilities**
   - a. Consider installing panic alarms or emergency call boxes in public parking lots and future parking structures.
   - b. Ensure all future parking facilities incorporate CPTED standards.
   - c. Incorporate parking industry best practices related to facility safety and security into future parking structure design standards.

4. **Develop Agreements for RTD Transit Parking Overflow**
   Prior to the opening of the Gold Line, the city and RTD should explore options to utilize available parking areas adjacent to the existing Park-n-Ride lot (e.g., the parking surrounding the movie theater). The need for a parking structure could be delayed if these areas can be better utilized. This could also include a shuttle for commuter rail customers between parking lots and the station.

5. **Develop Design and Phasing Concepts for RTD Parking Garage**
   While not needed for Olde Town parking today or the early years of Gold Line operation (except maybe special events), constructing a Park-n-Ride garage could reduce the impact of commuter parking in Olde Town. A parking facility could also help spur area development as shared parking could be provided.

6. **Execute Agreement with RTD for Phasing, Construction, and Shared use of Parking Garage**
   Ideally, the parking structure would be constructed by RTD or as a public/public partnership between RTD and the city. The parking garage should include consideration of other appropriate uses such as retail, office, residential, and public spaces. If the facility is constructed as a joint-use facility, the costs of construction and operations should be divided between RTD and the city based on facility use (e.g., divided by operating hours with RTD covering costs during Monday through Friday 8:00 a.m. to 5:00 p.m. and the City of Arvada paying for expenses during all other hours).

7. **Evaluate Options for Long-Term Parking and TDM Management and Funding**
   - a. Working with the community, consider the implementation of a community-based management approach, such as a parking district, parking authority, or downtown business organization.
   - b. Consider outsourcing daily parking operations once the parking system becomes more complex (e.g., staffed facilities and/or on-street pay parking).
c. Develop methods to encourage public participation in the parking system, such as periodic public/stakeholder input meetings, online surveys or comment forms, mail-in comment cards, etc.

d. Create a parking system annual report to communicate system progress, challenges, and parking supply/demand changes.

e. Incorporate parking system branding initiatives into new parking facilities as they are developed.

f. All facets of the parking and transportation operation should be placed in a vertically-oriented management structure.

Long-Term 2016 and Beyond:

1. **Continue to Work with the Community to Determine the Long Term Management and Operation of the Parking System**

2. **Expand TDM Program**
   a. Continue TDM programs, except retool the Residential Individualized Marketing program for transit.
   b. Develop a Residential Individualized Marketing campaign focused on new Gold Line service.
   c. Create a RTD Pass Outlet.
   d. Develop a bikesharing program.

3. **Work with RTD on Phasing, Construction, and Shared Use of Parking Garage**
   Continue to work with RTD on the proper phasing and design of the garage, focusing on high quality design that includes others uses.

4. **Develop Additional Public Parking Supplies as Necessary**
   Monitor parking usage and the effectiveness of TDM strategies and develop additional parking supplies when needed. Use the sites noted in Section 4.02 of this report as preliminary public parking facility locations.