

### 1.0 INTRODUCTION

The Town of Winter Park is a dynamic community that is the home of Winter Park Resort – a world-class skiing resort. Winter Park Resort is a major focus of economic activity in the Fraser River Valley and also Grand County. The Town has recently completed <u>The Winter Park Town Plan</u> which is a consolidated guide for land-use decision-making in and adjacent to the Town. The Town Plan included recommendations for further study of the transportation system and also transportation's relationship to economic revitalization of the downtown area.

Winter Park Resort is embarking on an ambitious program to develop the Village at the base area of Winter Park ski area. In the next 15 years, Intrawest (which is a leasehold interest of Winter Park Resort) plans to build approximately 1,550 residential units and approximately 40,000 square feet of commercial space. In addition, significant growth in second homes is forecasted for the Fraser Valley, which includes the towns of Winter Park and Fraser, the community of Tabernash, and surrounding unincorporated areas of Grand County.



Based on these plans and to anticipate the potential growth, the Town of Winter Park, Winter Park Resort, and Grand County combined efforts to prepare a transportation plan for the Fraser Valley. Felsburg Holt & Ullevig was hired as the prime consultant with the assistance of Ecosign Mountain Resort Planners, TransitPlus, and Winter & Company. The transportation plan was closely coordinated with the Winter Park Base Village Economic and Fiscal Impact Study which was prepared by Economic & Planning Systems, Inc. (EPS). Each subconsultant was chosen to fulfill a specific requirement for the transportation plan:

▶ Ecosign Mountain Resort Planners is located in Whistler, British Columbia and has worked on plans for resorts throughout the world. Ecosign has worked closely with Winter Park Resort for a number of years and prepared the Master Plan from which the 2005 Master Development Plan was developed and submitted to Arapahoe National Forest. Through this process, Ecosign developed significant insight into existing development in the Fraser Valley and the future plans for the Resort. One of the elements of the Master Development Plan is a gondola which will link the Resort to downtown Winter Park. Downtown will become the third base area for the Resort as growth exceeds the capacity of the existing base areas (Winter Park and Mary Jane) in the future. Ecosign is also an expert in planning for gondolas at mountain resorts.



- ► TransitPlus is a Denver-area transit planning and operations consultant. A key element of the transportation plan is the future operations of "The Lift" bus system which currently serves Winter Park, Fraser, and the Resort during the winter ski season. During meetings with the public, significant sentiment was expressed to improve the bus service and the condition of the buses. An important element of the transportation plan is describing the steps the community might take to improve the transit service as the Valley expands, with the ultimate goal of integrating it with a gondola.
- ▶ Winter & Company is a Boulder planning firm that specializes in urban planning and design. US 40 through Winter Park is also called Main Street, and it truly services this function in all aspects. Downtown Winter Park is positioned on each side of Main Street through the community, and it provides access and circulation for the majority of the Town's businesses. In recent years, economic activity in downtown has not grown in proportion with the increases in skier activity at the Resort. Winter & Company prepared an element of the transportation plan which develops and blueprints a locally preferred future for Main Street through Winter Park and the businesses along it.

# A. Background

Transportation has historically played an important role in the growth and development of the Fraser Valley. The Fraser Valley was first settled in the mid-1870's when settlers and ranchers entered the valley. In addition to ranching, timber was cut in the surrounding forests, and Tabernash grew around a lumber mill. Rollins Pass (named for John Rollins) was established as a wagon road in the 1870s. In the early 1900's, the Denver, Northwestern, and Middle Park railroad, owned by Denver banker David Moffat completed the railroad line over Rollins Pass from Denver, with an eventual continuation to the west to Utah. Rail travel became an easy ride from the Denver area with the opening of the Moffat Tunnel in 1928. This greatly shortened travel time across the Continental Divide and removed the weather and maintenance challenges of going over Rollins Pass.



The City and County of Denver had an interest in the construction of the Moffat Tunnel, and Denver Water Board took over the pilot bore for the train tunnel as a conduit for water from the Fraser River. The City and County of Denver owns a number of mountain parks west of Denver and in 1940 opened the Winter Park Ski Area (three ski runs) on Water Board and US Forest Service land at the west portal of the Moffat Tunnel. Winter Park Resort is unique among Colorado ski areas in having direct rail service from Denver. The Ski Train provides

same day, round trip service from Denver's Union Station on weekends and some holidays and weekdays from late December through March. Skiers are able to unload and load at the Winter Park base. Amtrack also provides daily eastbound and westbound service for destination visitors with a station in downtown Fraser.





Berthoud Pass was discovered by E. L. Berthoud in 1861 but was found to be unsuited for a railroad. A narrow, private wagon road was completed in 1874. The US Forest Service, Colorado State Highway Department, and neighboring counties joined together to complete a continuous 18-foot wide roadway over the pass in 1923. In the 1930s, US 40 was widened and paved, and in the early 1960s, the west side of the pass was widened to three lanes. Recent widening of the east side was completed in 2006. US 40 provides a link

between Denver and Salt Lake City. It is the primary route for automobiles and buses carrying skiers and visitors from the Front Range and cities in the Midwest. It is also the primary conduit for trucks delivering goods to the Valley and Grand County residents traveling to the I-70 corridor and the Denver area. US 40 is the primary link for the Valley since there are no airports in Grand County providing scheduled commercial air service.

Winter Park was originally known as Hideaway Park until 1978 when the town was incorporated. Several transportation plans have been completed since the 1980's which have helped to provide a solid platform for growth and expansion of the community. The <u>Downtown Improvement Plan</u>, prepared for Winter Park in 1993, included the following discussion of US 40:

"Being located immediately on US 40 has been both a benefit and a negative influence for the town. While the highway provides an excellent route to the community and directs many travelers through the community on their way to other destinations, the highway has also created a development environment which encouraged growth in a long, linear, highway-oriented pattern over the years.

"This linear growth has resulted in a downtown area which is dominated by the presence of US 40, forcing the interaction of moving traffic, parked cars, and pedestrians and bicyclists within the confines of the highway right-of-way. This creates an inefficient transportation corridor, a hazardous environment for both motorists and pedestrians, and an unpleasant downtown "experience" for visitors and residents."



At that time, Main Street through downtown was a three-lane roadway with one lane in each direction and a middle two-way left turn lane. As the only continuous road in the Fraser Valley and through Winter Park, Main Street carried substantial traffic volumes, and peak periods during both the winter and summer were very congested. Since then, Main Street in Winter Park has been widened to provide four continuous, through lanes. Through downtown, there is a wide median that provides left turns at



intersections and is raised in key locations for plantings. There is parking, curb and gutter on each side of the road. In addition, the completion of Lions Gate Drive parallel to Main Street between Kings Crossing Road and Vasquez Road has created the initial element of a street network in downtown Winter Park. South of Village Drive, auxiliary lanes are provided only at intersections, but the four lane cross section continues to the main entrance of the Resort at Winter Park Drive South. All of these improvements have greatly reduced congestion.

# B. Goals and Objectives

As the Fraser Valley continues to grow and develop, planning for improvement and expansion of the transportation system is essential. This will ensure that the level of mobility available in the community improves in the future. Improvements to mitigate existing and potential future transportation problems should be identified so that financial resources are available when needed. The following goals and objectives guided the development of the plan for the future transportation system.

### **Transportation System Goal**

Provide an improved, well-balanced, multimodal transportation system that addresses existing deficiencies and accommodates future travel needs for the Fraser Valley (the towns of Winter Park and Fraser, Winter Park Resort, and surrounding lands in Grand County) in a safe and efficient manner.

### **Objectives**

### Provide a wider range of transportation choices:

- Improve the connectivity and safety for visitors, residents, and employees using all modes of transportation.
- Increase transportation system capacity in response to future growth.
- Provide facilities for pedestrians and bicycles that have continuity throughout the Upper Fraser Valley.
- ► Enhance the funding base for transit so that the entire community participates and benefits.

#### Improve the visitor's experience:

- Increase the reliability, coverage, frequency, and attractiveness of the existing transit system.
- Continue to improve aesthetics of the transportation system and individual projects.
- Provide clear guidance to the multitude of destinations in the Upper Fraser Valley.
- Accommodate seasonal parking demands.



#### Enhance the vitality of Downtown Winter Park:

- Utilize the transportation system and projects as a tool for economic development.
- Create a focus for the transportation system in downtown; initially for transit and ultimately for a gondola.
- Improve the safety and reduce the barrier for pedestrians crossing Main Street through downtown with more crossings, better visibility, and slower speeds.
- Enhance night-time vitality and safety in downtown.

### Improve the environment and minimize congestion:

- Preserve and enhance the scenery and recreational opportunities afforded to visitors in a beautiful mountain environment.
- Reduce environmental impacts by providing alternative modes of transportation that are convenient for visitors and residents.
- Minimize levels of congestion on roads so they can accommodate all appropriate modes of transportation.

# C. Study Process

The Town of Winter Park, Winter Park Resort, and Grand County have made a commitment to involving the public and other agencies throughout this project. This includes involvement of state, county, and local government officials; businesses; and residents. There have been three primary meetings with the public whose focus was to receive input about existing concerns and review comments about proposed improvements. There have been five agency coordination meetings to review work products before or after they are



presented to the public. In addition, there was a meeting with downtown business owners to review concepts for development.

### **Focus Group Discussions**

On March 1, 2006, the Town of Winter Park arranged a series of one-hour group discussions that were designed to elicit comments on the current status of downtown and the transportation system. These sessions involved town staff, Town Council and Planning Commission members, transit riders, downtown resident citizens, property owners, business owners, and the Chamber of Commerce. Town and Winter Park Resort staff sat in on many of these sessions. General topics that were discussed included the current transit system, Main Street in downtown, downtown and real estate in general, transportation system financing, a gondola, emergency services, and Winter Park Resort and Village. The following is a summary of the main thoughts that were shared during the discussions. A more thorough summary of the input from the people that were able to attend is provided in **Appendix A**.



#### **Transit**

- A better bus system is important.
- ► The bus system needs to serve all of the community and provide a better experience. It should be more comprehensive not just get skiers to resort.
- Confidence in transit system reliability is 1<sup>st</sup> priority.
- Buses need to be designed for skiers and adults, cleaner and more attractive.

#### Downtown

- ► There needs to be a reason for people to come downtown. It should be safe and convenient for them to get around downtown once they come.
- Downtown should be pedestrian friendly like Breckenridge.
- ▶ There needs to be nodes at several points in downtown.

#### Main Street in Downtown

- Crosswalk locations need better visibility. It's hard to cross Main Street.
- Speed control is the top priority.

### WP Resort and Village

Downtown is important part of experience for Village guests. Village can't handle all needs.

### **Transportation System Financing**

Private & public dollars will be needed.

#### Gondola

- It is planned after 10 years.
- It will cost \$25M to build and \$1M to operate.

### **Real Estate**

Market Segments – overnight (tourists), 2<sup>nd</sup> home owners (over 80% in future), full-time residents.

### Workshop

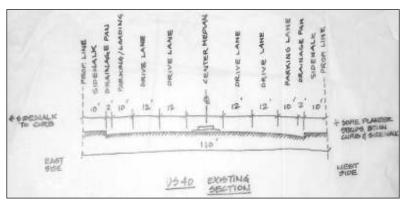
On March 23, 2006, an all-day and evening workshop was held at Town Hall in Winter Park to follow-up on the discussions at the Focus Group meetings. Between 8:00am and 5:00pm, the consultant teams worked on five issues for the downtown area that had been identified as the most important at the March 1<sup>st</sup> meetings. These included:

- Downtown Development with a Pedestrian-Orientation
- Gondola/Bus Interface
- Main Street Pedestrian/Bicycle Safety and Traffic Calming
- Transit System Routes
- Fraser Valley Parkway / Lions Gate Drive



The workshop was open to the public all day but was essentially an internal team work session, on-site. A staff member of Winter Park was available most of the day to host, field basic questions, and help orient people to the progress of exhibits visible on the walls and on desks or tables. Throughout the day, the consultant team engaged in conversations with members of the public and staff. At 6:00pm that evening, there was a public presentation involving a more formal discussion of results of the day. An open house afterwards allowed the public to inspect drawings up close and ask more individual questions one on one with members of the consultant team. The discussions, analyses, and drawings prepared at the meeting have been the genesis of much of the material in this report, particularly related to the downtown area.

The focus group and the workshop allowed the consultant team to establish a clear understanding of the existing conditions, issues and assets associated with the overall project and Main Street. The following images were developed during the workshop and presented at the open house on March 23, 2006. Refinements to these diagrams appear later in the report.

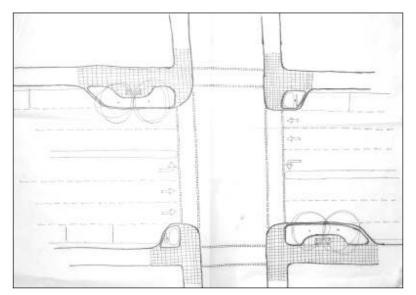


An existing section of Main Street was illustrated (above) along with a proposed section of Main Street (below).

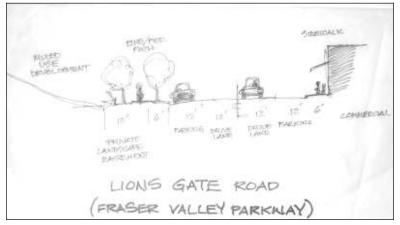


Improvements at crosswalks and landscape improvements.



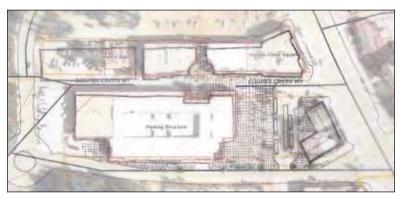


Intersection improvements.

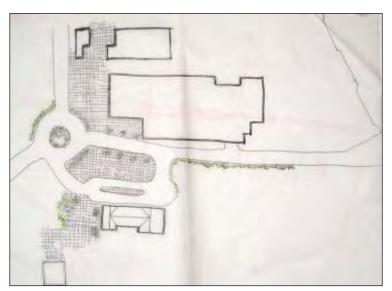


Improvements to Lions Gate Drive (Fraser Valley Parkway).





A transit center located in downtown along Main Street.



A transit center located near a potential gondola.





A road diagram illustrating east/west connections through Main Street and an alternative north/south route was proposed.



An urban design framework plan with potential new development was proposed at the work session.

# **Open House Public Meeting**

On November 16, 2006, an evening open house public meeting was held in the ballroom of the Winter Park Mountain Lodge. Representatives from the consultant team were present to answer questions. A series of boards were prepared that focused on the main elements of the transportation plan and the economic and fiscal impact studies. These boards presented the preliminary recommendations and alternatives for design and transportation improvements and economic strategies in Winter Park and the Fraser Valley. This meeting gave citizens an opportunity to provide input regarding economic strategies, transportation system alternatives, and urban design concepts for downtown. The boards were grouped according to the following five topics:

- ▶ **Introduction** purpose of the open house, project goals and objectives, summary of focus group input, and downtown workshop summary.
- ▶ **Downtown** existing land use and new development, urban design framework plan, phasing diagram, building use, and pedestrian circulation.
- ▶ **Public Transit and Gondola** existing bus routes, transit demand, transit alternatives, year-round transit services, transit funding and institutional options, and the gondola.



- ► Traffic and Roads skier growth and base area capacity, anticipated roadway improvements and future daily traffic projections, and downtown roadway plan.
- ► Economic and Transportation Methodology residential/development, retail sales, skier visits, existing conditions transportation system, existing and future land use, development of transportation model, and projected design day skier attendance and traffic forecasts for gondola.

In addition, a questionnaire regarding transit and downtown development was provided in order to determine what the public would like to see accomplished. A total of 81 completed questionnaires were received. The following is a summary of the main thoughts that were shared during the discussions at the open house and through the written survey. A complete summary of the meeting was provided in a separate technical report.

#### **Transit**

- ► The majority of people surveyed would like to have comfortable and easy to board buses with friendly/knowledgeable drivers.
- Most people would like to see a county-wide transit service and would be willing to pay up to a 1% sales tax to fund it.
- ▶ Most favored a year round commuter service to and from Granby.
- Most people do not need a specialized transit service, but those who do would like service 2 or 3 times per week in order to get to medical, shopping, and recreation.
- Many feel that bus service is vital for the economic development of the county.
- Many would like to see regular service provided in the shoulder and summer seasons.
- Some feel that light rail should be considered along the existing rail lines.

#### Downtown

- Many feel that traffic on Main Street needs to be slowed down and that consideration should be given to constructing a pedestrian walkway over or under the highway.
- Some would like to see roundabouts constructed on Main Street.
- Many people would like to see more cultural/family oriented activities in Winter Park.
- Most would like to see more trees, parks, and courtyards.
- Many would like to see enhanced use of the river through town similar to Breckenridge.
- Most think a more comprehensive transit service would attract more people to and from downtown.
- Most people would like to see more parking in the area and longer store hours.
- Many would like less "tourist shopping" and more stores that sell items to serve daily needs.
- It was stated that prices in Winter Park are too high and that discounts should be given to locals.



### 2.0 EXISTING CONDITIONS

The Transportation and Mobility Plan for Winter Park was developed based on a solid foundation of information about the existing conditions in the Fraser Valley and Grand County. This foundation included recent data about transportation activity, collected annually by the Town of Winter Park and Winter Park Resort, as well as economic and demographic statistics that were compiled in the Town of Winter Park's Economic and Fiscal Impact Study (prepared by EPS) which was conducted as a parallel study to the Transportation and Mobility Plan.

# A. Economic and Demographic Conditions

The Fraser Valley is situated in Grand County on the north side of Berthoud Pass. The Towns of Winter Park and Fraser are the primary population centers in the Valley. The Winter Park Resort serves as the primary attraction in the area, drawing skiers in the winter and hikers and mountain bikers in the summer (see **Figure 2.1**). The Town of Winter Park is a community of approximately 830 full-time residents, while the adjacent Town of Fraser is slightly larger with an estimated 1,020 residents (see **Table 2.1**). Combined, these two towns represent less than



15 percent of the population of Grand County, but they have a much larger impact on the county because of their status as resort communities in a tourist-based economy. This is evident in the housing demographics of each town; the number of housing units far exceeds the number of households (full-time residences) because of the large number of overnight accommodations and second residences. Furthermore, the popularity of the area for second homes has driven up housing prices throughout the Fraser Valley. As a result, many of the employees that work in Winter Park and Fraser commute daily from the Granby and Hot Sulphur Springs, where housing costs are lower.

Because of the resort nature of the area, the number and location of guest accommodation units is an important consideration for the transportation system. **Table 2.2** shows the location and number of lodging units in the primary study area. Winter Park Resort's base area currently has approximately 454 units (17 percent of the total inventory), while overnight accommodation units in the remainder of Winter Park (including Old Town) account for almost 40 percent of the total. If Winter Park Resort units are included, Winter Park represents approximately 57 percent of the Upper Fraser Valley total. In addition, **Figure 2.2** and **Figure 2.3** show the Skier Density Analysis Maps for the Base Area/Old Town area and downtown Winter Park, respectively. These maps graphically illustrate the number of potential skiers generated by accommodation on each building parcel. **Figure 2.3** also graphically illustrates the current proximity of skiers to the ski area staging lifts.



Figure 2.1

# Traffic Analysis Zones and US 40 Traffic Screenlines

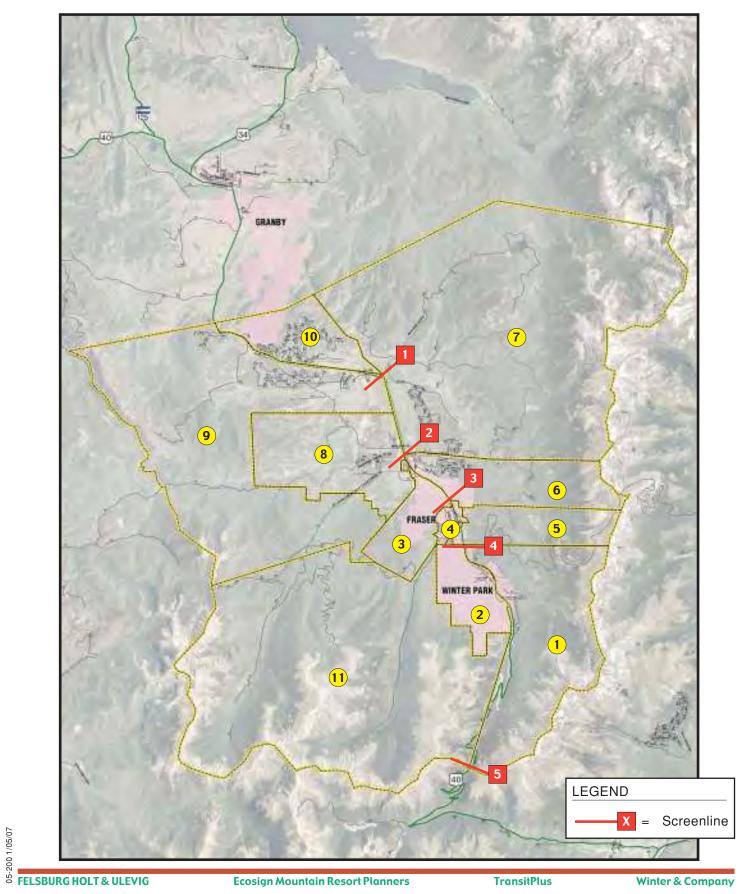




Table 2.1 Study Area Demographics

|                       | 1990  | 2000   | 2004   | % of Total |
|-----------------------|-------|--------|--------|------------|
| Population            |       |        |        |            |
| Winter Park           | 528   | 662    | 830    | 6.0%       |
| Fraser                | 573   | 910    | 1,020  | 7.3%       |
| Grand County          | 7,966 | 12,442 | 13,943 |            |
| Housing Units         |       |        |        |            |
| Winter Park           | 1,361 | 1,231  | 1,846  | 13.3%      |
| Fraser                | 577   | 622    | 746    | 5.4%       |
| Grand County          | 9,985 | 10,894 | 13,871 |            |
| Households            |       |        |        |            |
| Winter Park           | 242   | 318    | 401    | 7.0%       |
| Fraser                | 257   | 410    | 460    | 8.0%       |
| Grand County          | 3,168 | 5,075  | 5,716  |            |
| Vacant (Seasonal Use) | •     |        |        |            |
| Winter Park           | 850   | 703    | -      |            |
| Fraser                | 223   | 165    | -      |            |
| Grand County          | 5,800 | 4,783  | -      |            |

Source: <u>Technical Memorandum #1: Economic Base & Demographic Framework Economic & Planning Systems</u>, April 18, 2006

Table 2.2 Lodging Inventory (2005)

| Location                        | Total Units                  | Percentage                       |
|---------------------------------|------------------------------|----------------------------------|
| Winter Park Resort - Base Area  |                              |                                  |
| Vintage                         | 117                          | 4.5%                             |
| Zephyr Lodge                    | 175                          | 6.7%                             |
| Winter Park Mountain Lodge      | 162                          | 6.2%                             |
| Subtotal                        | 454                          | 17.3%                            |
| Other Areas in the Upper Fraser | Valley                       |                                  |
| Winter Park                     | 869                          | 33.1%                            |
| Old Town                        | 177                          | 6.7%                             |
| Fraser                          | 365                          | 13.9%                            |
| Snow Mountain Ranch             | 749                          | 28.5%                            |
| Tabernash                       | <u>12</u>                    | 0.5%                             |
| Subtotal                        | 2,172                        | 82.7%                            |
| Total                           | 2,626                        | 100.0%                           |
| Source: Technical Memorandum #  | 1: Economic Base & Demograph | ic Framework Economic & Planning |

Source: <u>Technical Memorandum #1: Economic Base & Demographic Framework Economic & Planning</u>
<u>Systems</u>, April 18, 2006



Figure 2.2

# Existing Skier Density Analysis - Old Town / West Portal

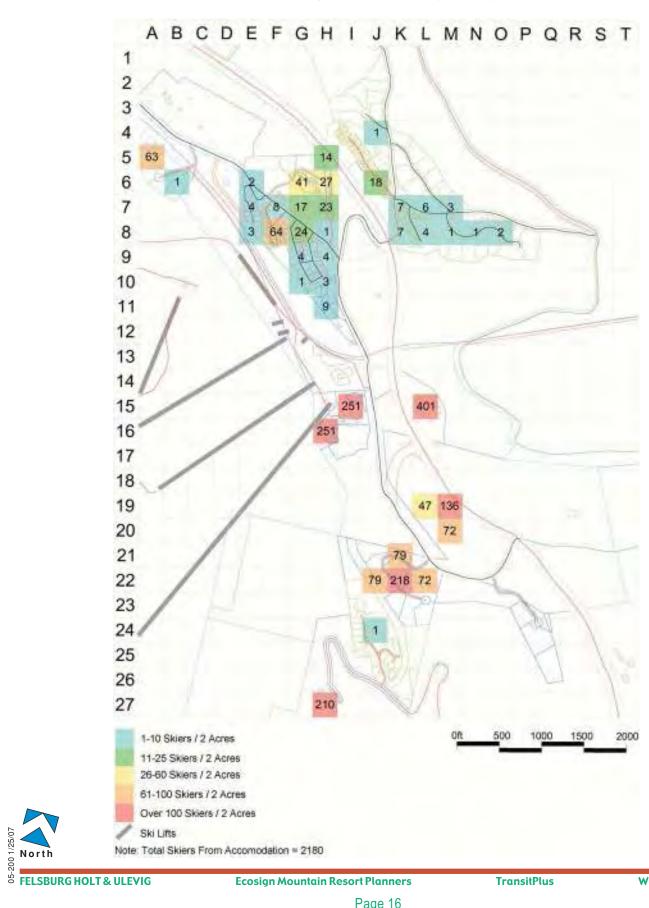
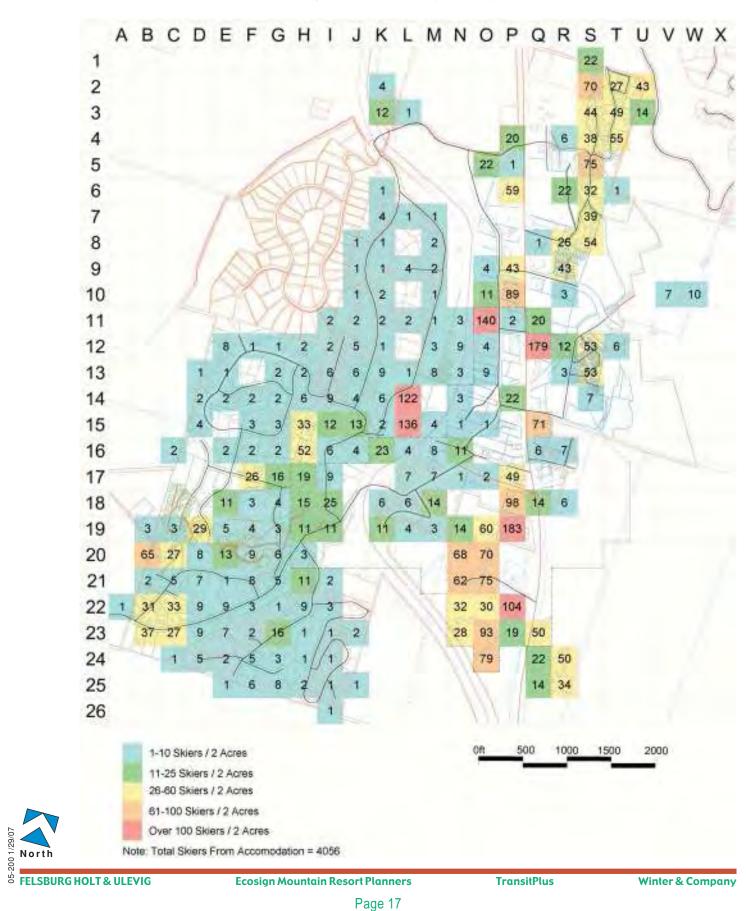






Figure 2.3

# Existing Skier Density Analysis - Downtown Winter Park





For this study, the Fraser Valley study area has been divided into 11 traffic analysis zones (TAZs) (see Figure 2.1). This zone system allows for more precision and refinement in forecasting future levels of demographic and transportation-related activities. Table 2.3 provides a summary of the inventory of residential and commercial properties for each TAZ. These activities have been grouped into general land use categories according to their trip generation characteristics. The Institute of Transportation Engineers Trip Generation, 7<sup>th</sup> Edition, 2003 was used to develop trip information for each category. As would be expected, most of the commercial development is retail-related and is concentrated in downtown Winter Park and Fraser. Support office and construction/manufacturing represent a much smaller portion of commercial development. On the residential side, there are nearly 2.5 times more short-term housing and second homes than primary residences.

Table 2.3 Study Area Land Use by TAZ

|       |                                       |   | ITE La                         | nd Use Co                         | ode                                     |                                  |   |
|-------|---------------------------------------|---|--------------------------------|-----------------------------------|---|----------------------------------|---|
| TAZ   | 110<br>Construction/<br>Support (ft²) | 210<br>Full-time<br>Residences<br>(Units) | 260<br>2nd<br>Homes<br>(Units) | 310<br>Hotel/<br>Lodge<br>(Units) | 330<br>Short-term<br>Rentals<br>(Units) | 710<br>Office (ft <sup>2</sup> ) | 820<br>General<br>Retail (ft <sup>2</sup> ) |
| 1     | -                                     | 6   | 35                             | 162                               | -                                       | -                                | -   |
| 2     | -                                     | 51  | 118                            | 152                               | 317                                     | -                                | 18,500                                      |
| 3     | 10,224                                | 31  | 31                             | 39                                | 143                                     | 8,420                            | 127,493                                     |
| 4     | 6,826                                 | 279                                       | 279                            | 286                               | 583                                     | 15,578                           | 275,074                                     |
| 5     | -                                     | 132                                       | 132                            | -                                 | -                                       | -                                | 54,528                                      |
| 6     | 20,218                                | 652                                       | 979                            | 39                                | 143                                     | 18,180                           | 88,150                                      |
| 7     | 17,871                                | 235                                       | 101                            | -                                 | -                                       | -                                | -   |
| 8     | -                                     | 103                                       | 155                            | -                                 | -                                       | -                                | 1,581                                       |
| 9     | 58,969                                | 277                                       | 92                             | -                                 | 749                                     | 12,660                           | 20,835                                      |
| 10    | 86,183                                | 403                                       | 134                            | 7                                 | 5                                       | 2,400                            | 19,759                                      |
| 11    | -                                     | -   | -                              | -                                 | -                                       | -                                | -   |
| Total | 200,291                               | 2,169                                     | 2,056                          | 685                               | 1,940                                   | 57,238                           | 605,920                                     |

es from <u>Trip Generation, 7th Edition,</u> Institute of Transportation Er

The most important economic force in the Fraser Valley is skiing at Winter Park and Mary Jane. Table 2.4 shows that annual skier visits to Winter Park Resort have been approximately 1,000,000 skiers over this last 10 years. This is pattern of little growth is consistent with statewide Colorado trends.



Table 2.4 Winter Park Annual Skiers (1994-2005)

| Season         | Visits    | Cha     | ange    |
|----------------|-----------|---------|---------|
| Season         | Visits    | #       | Percent |
| 1994-95        | 986,077   | -       | -       |
| 1995-96        | 1,012,580 | 26,503  | 2.7%    |
| 1996-97        | 991,393   | -21,187 | -2.1%   |
| 1997-98        | 1,042,290 | 50,897  | 5.1%    |
| 1998-99        | 980,408   | -61,882 | -5.9%   |
| 1999-00        | 902,827   | -77,581 | -7.9%   |
| 2000-01        | 978,539   | 75,712  | 8.4%    |
| 2001-02        | 975,256   | -3,283  | -0.3%   |
| 2002-03        | 998,972   | 23,716  | 2.4%    |
| 2003-04        | 955,615   | -43,357 | -4.3%   |
| 2004-05        | 990,837   | 35,222  | 3.7%    |
| 11 Season Avg. | 983,163   |         |         |

Source: <u>Technical Memorandum #1: Economic Base & Demographic Framework Economic & Planning Systems</u>, April 18, 2006



In the course of normal business activities, Winter Park Resort keeps daily statistics of skier volumes at Winter Park and Mary Jane. This information is essential for the transportation plan since the system must be robust enough to handle high levels of activity. Daily skier statistics for both base areas are shown in **Table 2.5** for the 2003-04 and 2004-05 seasons when most of the transportation surveys were conducted. As expected, this table shows that peak activity generally occurs over the Christmas-New Years holidays, the Martin

Luther King and Presidents Day holidays, and during spring break in March.



Table 2.5 Peak Daily Skiers

| Highest     | 2              | 003-04 Ski Season |        | 20         | 004-05 Ski Season |        |
|-------------|----------------|-------------------|--------|------------|-------------------|--------|
| Day         | Date           | Day of Week       | Skiers | Date       | Day of Week       | Skiers |
| 1           | 2/7/2004       | Saturday          | 15,120 | 12/30/2004 | Thursday          | 14,600 |
| 2           | 12/30/2003     | Tuesday           | 15,044 | 12/29/2004 | Wednesday         | 13,902 |
| 3           | 12/29/2003     | Monday            | 14,477 | 2/12/2005  | Saturday          | 13,682 |
| 4           | 1/1/2004       | Thursday          | 14,441 | 12/28/2004 | Tuesday           | 13,386 |
| 5           | 12/31/2003     | Wednesday         | 14,305 | 2/19/2005  | Saturday          | 13,373 |
| 6           | 1/3/2004       | Saturday          | 13,664 | 1/8/2005   | Saturday          | 13,371 |
| 7           | 1/17/2004      | Saturday          | 12,966 | 12/31/2004 | Friday            | 13,305 |
| 8           | 1/10/2004      | Saturday          | 12,928 | 2/20/2005  | Sunday            | 13,213 |
| 9           | 2/21/2004      | Saturday          | 12,766 | 1/15/2005  | Saturday          | 12,961 |
| 10          | 2/14/2004      | Saturday          | 12,734 | 12/19/2004 | Sunday            | 12,833 |
| 11          | 2/15/2004      | Sunday            | 12,703 | 2/5/2005   | Saturday          | 12,542 |
| 12          | 1/2/2004       | Friday            | 12,495 | 2/26/2005  | Saturday          | 12,425 |
| 13          | 12/28/2003     | Sunday            | 12,289 | 1/16/2005  | Sunday            | 12,090 |
| 14          | 3/16/2004      | Tuesday           | 11,848 | 12/27/2004 | Monday            | 11,983 |
| 15          | 3/7/2004       | Sunday            | 11,533 | 3/19/2005  | Saturday          | 11,766 |
| Source: Wir | nter Park Reso | rt                |        |            |                   |        |

# B. Transportation Surveys

The capacity of transportation projects is typically designed to accommodate a high level of activity that will only be exceeded a few times during the year. For example, rural roadways are designed to have capacity for the 30<sup>th</sup> highest hour of the year. In the case of ski areas, the 10<sup>th</sup> highest day is frequently chosen as a basis for design. This has been the case at Winter Park Resort for previous transportation studies. The 10<sup>th</sup> highest day during the two recent seasons when the transportation surveys were being conducted had a skier total of approximately 12,800. Since complete transportation statistics were collected for the Saturday of Presidents Holiday (February 14th) in 2004, this date and the inventory information were utilized as the basis for this study.

To better understand how the transportation system currently functions in the Fraser Valley today, Winter Park Resort conducted inventories of the existing system over the last several ski seasons. Information was gathered on the roadway network, transit system, and parking availability within the study area. A summary of the extent and nature of the inventories is provided in **Table 2.6**.



Table 2.6 Transportation Surveys (2003–06)

| Date   |    | Hour<br>Counts | Vehicle<br>Occupancy | Lift Bus<br>Riders | Lodge<br>Bus/Van<br>Riders | Parking Lot<br>Occupancy |
|--------|----|----------------|----------------------|--------------------|----------------------------|--------------------------|
|        | AM | PM             |                      |                    | Riders                     |                          |
| Dec-03 | V  | √              | -                    | -                  | -                          | -                        |
| Jan-04 | V  | V              | V                    | √                  | √                          | V                        |
| Feb-04 | V  | V              | V                    | √                  | √                          | V                        |
| Mar-04 | V  | V              | V                    | √                  | √                          | V                        |
| Dec-04 | V  | V              | $\sqrt{}$            | -                  | -                          | -                        |
| Feb-05 | V  | V              | V                    | -                  | -                          | -                        |
| Mar-05 | V  | V              | V                    | -                  | -                          | -                        |
| Jul-05 | V  | √ V            | -                    | -                  | -                          | -                        |
| Dec-05 | V  | V              | V                    | -                  | -                          | -                        |
| Jan-06 | V  | √              | V                    | -                  | -                          | -                        |

Four reports were prepared for Winter Park Resort that provided a complete summary of the inventories and the data that was collected. These are:

- Winter Park Resort Transportation Survey, Felsburg Holt & Ullevig, April 2004 (2003-2004 season).
- Winter Park Resort 2004-2005 Transportation Survey, Felsburg Holt & Ullevig, July 2005.
- Summer 2005 Count Summary of Hawg Fest, Felsburg Holt & Ullevig, August 2005.
- Winter Park Resort 2005-2006 Transportation Survey, Felsburg Holt & Ullevig, May 2006.

#### **Traffic Inventories**

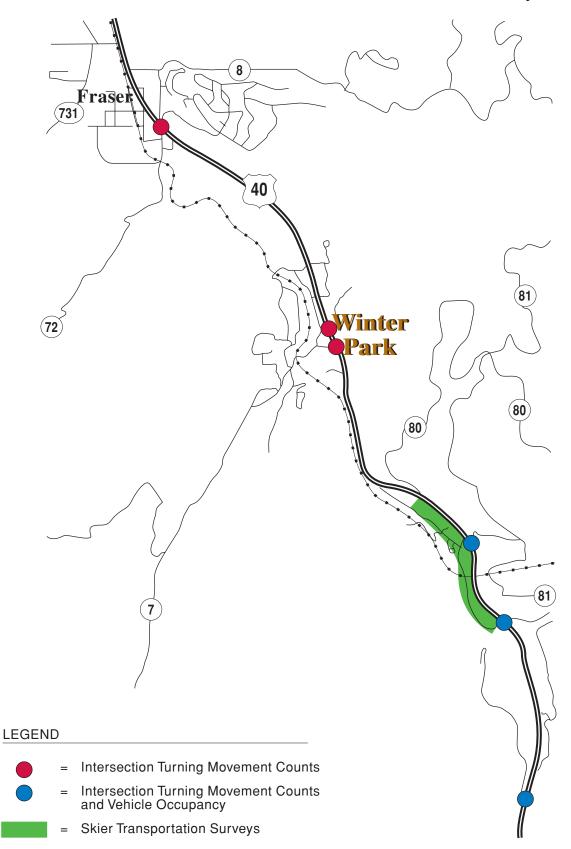
The transportation surveys primarily involved turning movement traffic counts and vehicle occupancy counts inventoried during the 2003-04, 2004-05, and 2005-06 winter seasons. Counts were also conducted during Hawg Fest in the summer of 2005. Ski season counts were planned to coincide with Christmas-New Years, Martin Luther King Day, Presidents Day and Spring Break. The locations of the count programs are shown graphically on **Figure 2.4**.





# Figure 2.4

# Counts and Survey Locations





Turning movement counts have been conducted at four intersections providing direct access to Winter Park Resort:

- US 40 / Mary Jane
- US 40 / Winter Park Drive South
- US 40 / Winter Park Drive North
- US 40 / Old Town Drive

Additional traffic volumes were counted at three signalized intersections during the most recent two ski seasons (2004-05 and 2005-06) - two in downtown Winter Park and one in Fraser:

- ► US 40 / Vasquez
- US 40 / Midtown Road
- ► US 40 / County Road 72 (Safeway intersection)

The analyses to determine the "design day" for the study were conducted in the fall of 2005, before the 2005-06 ski season counts were obtained. Thus, the design day calculations relied on the prior two seasons, and as mentioned previously, February 14, 2004 was the 10<sup>th</sup> highest day of that season and was selected for the design day. In order to determine turning movements for the design day, counts from the five holiday and/or holiday Saturday counts during these two seasons (12/31/03, 1/17/04, 2/14/04, 12/28/04, and 2/19/05) were considered. The other four days adjusted to the design day based on factors derived from the daily skier attendance. To be conservative, the four highest volumes of the five potential count days were averaged to obtain design day turning movements at each intersection. These turning movement volumes are shown in **Figure 2.5**. In addition, **Figure 2.6** shows the total number of existing design day skiers and what portion come from the base village, Fraser Valley, and Front Range. Traffic operations at these intersections have also been analyzed, and the levels of service at each are also shown in these figures.

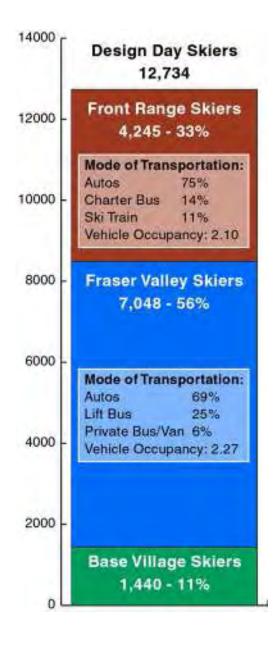
Another important consideration in analyzing the transportation system is to determine the number of people in the vehicles that are being surveyed. Occupancy counts were conducted simultaneously with the turning movement counts at the three primary intersections serving Winter Park Resort to determine the average number of resort guests in each vehicle. These counts were conducted as follows:

- ► US 40 / Mary Jane (2004-05 and 2005-06 seasons)
- ▶ US 40 / Winter Park Drive South (2004-05 and 2005-06 seasons)
- US 40 / Old Town Drive (2004-05 season only)

Wintersole Winter Park Multi-Modal Transportation and Mobility Plan Figure 2.5 **Existing Design Day Traffic Volumes** and Levels of Service C/D Frase (731) B/B 40 Winter **Park** Midtown Vasquez (80) A/A Old Town 70(145<u>)</u> 5(5) 105(45) Winter Park Dr. South Mary Jan€ B/C



Figure 2.6 Existing Design Day Skier Transit Mode and Origin/Destination





During these surveys, Fraser Valley skiers (southbound right-turns) were counted separately from Front Range day skiers (northbound left-turns). **Table 2.7** summarizes the vehicle occupancy information. As the table indicates, Fraser Valley skiers entering at the Winter Park portal have the highest vehicle occupancy, while Front Range skiers entering the Winter Park portal have the lowest vehicle occupancy; vehicle occupancy at the Mary Jane Portal is generally the same for both Fraser Valley and Front Range skiers. Old Town Drive has the lowest vehicle occupancy, but it is a secondary access point to the Winter Park base and also includes vehicles not destined to the resort.

Table 2.7 Summary of Vehicle Occupancy Counts

|            | Winter Park Drive South |      | 0       | Old Town Drive |      |         | Mary Jane |      |         |
|------------|-------------------------|------|---------|----------------|------|---------|-----------|------|---------|
|            | SB                      | NB   | Average | SB             | NB   | Average | SB        | NB   | Average |
| 12/28/2004 | 2.37                    | 1.94 | 2.20    | 1.32           | 1.33 | 1.99    | 2.22      | 2.00 | 2.07    |
| 2/19/2005  | 2.32                    | 1.81 | 2.13    | 1.92           | 1.87 | 1.90    | 2.10      | 1.94 | 2.01    |
| 3/21/2005  | 2.35                    | 2.14 | 2.29    | 2.04           | 2.28 | 2.08    | 2.08      | 2.15 | 2.11    |
| 12/27/2005 | 2.53                    | 2.05 | 2.35    | -              | -    | -       | 2.30      | 2.25 | 2.27    |
| 1/14/2006  | 2.30                    | 2.25 | 2.27    | -              | -    | -       | 2.17      | 2.36 | 2.28    |
| Total      | 2.37                    | 2.04 | 2.25    | 1.76           | 1.83 | 1.99    | 2.17      | 2.14 | 2.15    |

Combining the traffic counts with the vehicle occupancy provides an interesting perspective on the patterns of traffic and access to the Resort. As can be seen in **Table 2.8**, vehicle traffic at the two main entrances into Winter Park is fairly directional in nature. The majority of motorists and passengers entering Mary Jane and Winter Park Drive South come from the north (Fraser Valley).

Table 2.8 Skier in Automobiles (PM Peak Period 2/14/06)

|                           | # of<br>Vehicles | % of<br>Total | Average<br>Occupancy | # of<br>People | % of<br>Total |
|---------------------------|------------------|---------------|----------------------|----------------|---------------|
| US 40 / Mary Jane         |                  |               |                      |                |               |
| To the Front Range (SB)   | 634              | 49%           | 2.14                 | 1,357          | 49%           |
| To the Fraser Valley (NB) | 641              | 51%           | 2.17                 | 1,391          | 51%           |
| Total Exiting             | 1,275            |               |                      | 2,748          |               |
| US 40 / Winter Park       |                  |               |                      |                |               |
| To the Front Range (SB)   | 675              | 31%           | 2.04                 | 1,377          | 28%           |
| To the Fraser Valley (NB) | 1,477            | 69%           | 2.37                 | 3,500          | 72%           |
| Total Exiting             | 2,152            |               |                      | 4,877          | ·             |



#### **Transit and Private Shuttle Services**

Transit and shuttle services represent a significant element of the transportation system in the Fraser Valley. The Lift bus service is funded primarily by Winter Park Resort (daytime operations) and by the Town of Winter Park (nighttime operations), and provides regularly scheduled service between the Resort, Winter Park, Fraser and major residential developments in the valley. In addition, there are a number of hotels, motels, and lodges that provide private bus and/or van service to the ski area for their guests. Inventories of these activities were conducted at the resort during the 2003-04 season.

Together these services are an important component of how visitors and workers arrive and depart the ski base. Counts of passengers using each mode were conducted as part of the data collection efforts.

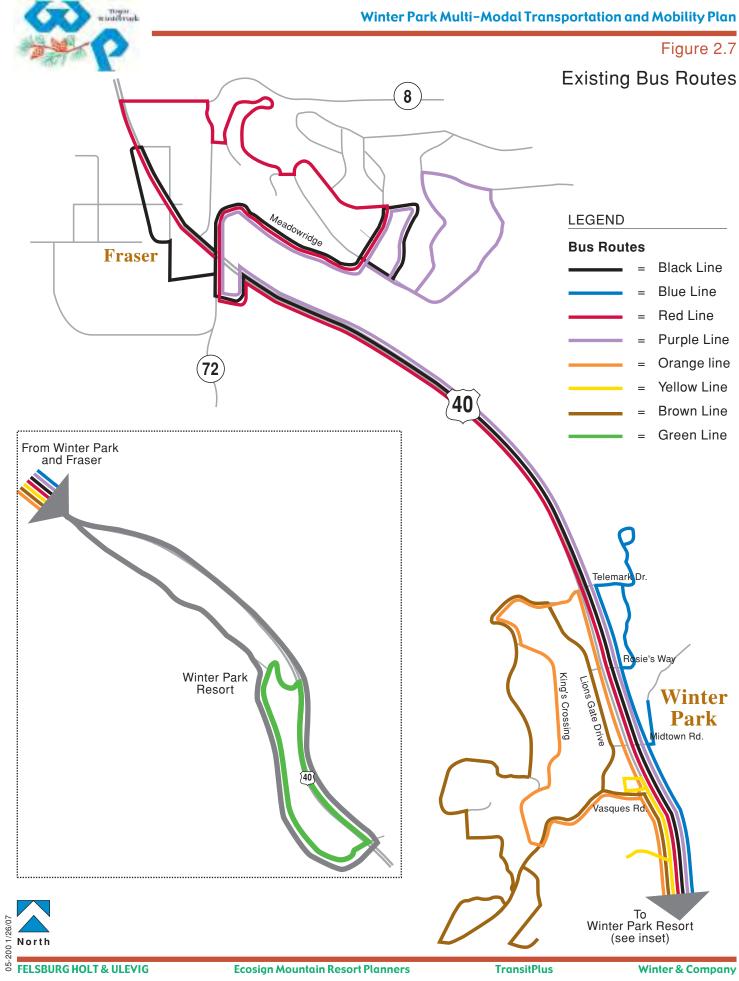
Figure 2.7 shows the route structure for the existing transit system, and Table 2.9 shows ridership by route at the Resort during the three days when detailed counts were taken. The table provides a summary of the total activity during the 3 ½ hour peak period in the morning (7:30 am to 11:00 am) and during the 3 hour peak period during the afternoon (2:30 pm to 5:30 pm), as well as the morning and evening peak hour volumes for the design day. As the table indicates, far fewer riders arrive at the Resort during the morning peak hour than leave



during the evening peak hour, which is to be expected since it is common for skiers to arrive throughout the morning, but all leave at the same time when the ski lifts close at the end of the day.

Table 2.9 Lift Bus Ridership

|        | Design Day | Peak Period | Design D | ay Peak Hour |
|--------|------------|-------------|----------|--------------|
|        | AM         | PM          | AM       | PM           |
| Brown  | 243        | 250         | 51       | 131          |
| Orange | 124        | 112         | 0        | 50           |
| Red    | 137        | 326         | 20       | 242          |
| Purple | 284        | 115         | 111      | 38           |
| Black  | 140        | 123         | 43       | 88           |
| Yellow | 198        | 350         | 110      | 169          |
| Blue   | 210        | 333         | 54       | 158          |
| Green  | 253        | 293         | 73       | 161          |
| Total  | 1589       | 1902        | 462      | 1037         |





Similar inventories were conducted for the lodge buses and vans. These vehicles carry skiing guests from hotels, motels, lodges, and resorts in the Grand County area to Winter Park Resort. Snow Mountain Ranch on Red Dirt Hill is one of the larger properties transporting guests in this fashion. Private groups along the Front Range charter buses to transport their members to the ski area. The Eskimo Ski Club is one of the larger users of charter buses. **Table 2.10** shows passenger arrival and departure data for these private services during the design day. As the



table indicates, these services transport a significant number of skiers that would otherwise need to use automobiles or The Lift. Finally, the Ski Train operates a passenger train from Denver Union Station on Fridays, Saturdays, and Sundays in January, February, and March. The train has a capacity of approximately 750 passengers, and the operator estimates that approximately 60% of the passengers are skiers.

**Table 2.10** Private Transportation

|                      | Design Day<br>Peak Period | Design Day<br>Peak Hour |
|----------------------|---------------------------|-------------------------|
| Buses/Vans (Morning) | 508                       | 200                     |
| Buses/Vans (Evening) | 391                       | 107                     |
| Charter Buses        | 593                       | 593                     |
| Ski Train            | 450                       | 450                     |

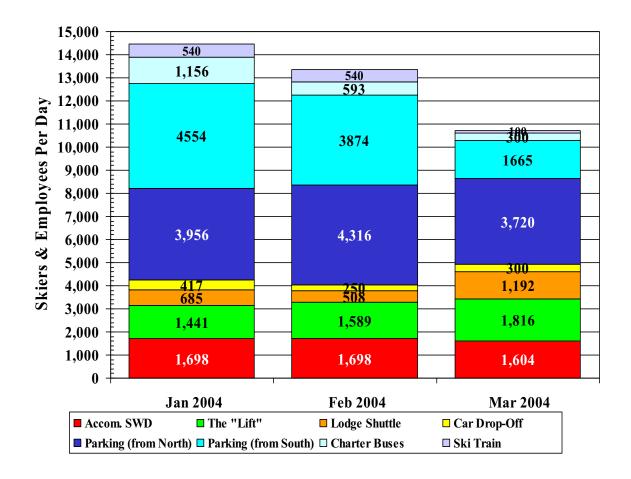
# Valley Skiers & Employees

The number of Valley skiers was determined by using data from the Transportation Surveys performed by Felsburg Holt & Ullevig in 2004 and 2005, from a parallel economic study by EPS, from the <u>Winter Park Resort 2005 Master Plan Development</u> (by Ecosign), and from information provided by the Town of Winter Park.

**Figure 2.8** summarizes skier arrival data surveyed for the 2004 Transportation Survey and includes the number of skiers accessing the base areas and their modes of arrival. This figure also implicitly illustrates the traffic loads on the highway generated by the skiing activity. It should be noted that the bars have been organized to illustrate the split between the Front Range (day) skiers and Fraser Valley skiers. Day skiers are shown at the top of the bars, consisting of the Parking (from South), Charter Buses and Ski Train classifications. The lower part of the bars shows the number of people arriving from the Valley, which includes both skiers and employees. It is interesting to note that the number of people arriving from the Valley is relatively constant over these 3 days, at a level of 8,200-8,600 people. This level is consistent with the estimate (approximately 8,500 skiers) shown in **Figure 2.6** for the design day.



Figure 2.8 Skier Arrival Data





**Table 2.11** summarizes the modes of travel for people exiting the Winter Park Resort during the evening peak period on the design day. As the table indicates, overall, approximately 65 percent of Resort guests arrive from the north and 35 percent from the south, with a stronger north orientation at both the Winter Park and Mary Jane portals.

 Table 2.11
 Winter Park Guest Departure Mode Summary

|                       | Winte | r Park | Mary        | Jane  | Total |       |
|-----------------------|-------|--------|-------------|-------|-------|-------|
|                       | North | South  | North       | South | North | South |
| Cars                  | 3,500 | 1,377  | 1,391       | 1,357 | 4,891 | 2,734 |
| The Lift              | 1,902 | -      | -           | -     | 1,902 | -     |
| Buses/Vans            | 391   | -      | -           | -     | 391   | -     |
| Charter Bus           | -     | 593    | -           | -     | -     | 593   |
| Ski Train             | -     | 450    | -           | -     | -     | 450   |
| Total by<br>Direction | 5,793 | 2,420  | 1,391       | 1,357 | 7,184 | 3,777 |
| Percent of<br>Total   | 70%   | 30%    | 51%         | 49%   | 65%   | 35%   |
| Total Exiting         | 8,2   | 213    | 2,748 10,96 |       | 961   |       |

### C. Transit Overview

The Lift bus service consists of eight routes that are named by color (see **Figure 2.7**). In addition, other transit services include employee shuttles to Granby and a shuttle between Winter Park and Mary Jane. US 40 is the backbone and most of the routes overlap along at least some portion in getting to the Resort. The Lift operates eight routes in the Winter Park and Fraser area from 7:30am to 5pm. In addition, there is a demand response van (ADA accessible) from 8am to 5pm. In the evenings, four fixed routes operate using all ADA accessible vehicles.

The transit service plan – the routes, days and hours operated, and frequency of service provided on each route – describes the transit network. Key characteristics of the routes and service are listed in **Table 2.12**. The Lift only operates in the winter, with a lower level of service in the first month of the season than in the main winter season. A Summer Fun bus operates in the summer, provided by the Resort.



**Table 2.12** The Lift Service and Route Characteristics

|                       |   | Service Cha            |                          |                 |                            |                  |
|-----------------------|---|------------------------|--------------------------|-----------------|----------------------------|------------------|
| Service Perio         | d in 2005-06 Season                                 |                        | Frequencies              | Peak            | Ridership                  |                  |
| Service r eno         | a III 2003-00 Season                                | Peak                   | Base                     | Night           | Vehicles                   | Ridership        |
| Early Season          | Nov. 16 - Dec. 16                                   | 60 min                 | 60 min                   | 60 min          | 9                          |                  |
| Main Season           | Dec. 17 - April 16                                  | 30 min                 | 60 min                   | 30 min          | 15                         |                  |
| Paratransit           | Nov. 16 - April 16                                  | Reserv                 | e 1 day in ac            | dvance          | 1                          |                  |
|                       |   | Route Char             | acteristics              |                 |                            |                  |
| Route                 | Hours of Operation                                  | Round<br>Trip<br>Miles | Annual<br>Route<br>Miles | Running<br>Time | Annual<br>Service<br>Hours | Peak<br>Vehicles |
| Purple                | 7:30 am - 5:30 pm                                   | 15.2                   | 35,978                   | 60              | 2,367                      | 2                |
| Purple Night          | 5:45 pm - 11:15 pm                                  |                        | 0                        |                 | 0                          | n/a              |
| Red                   | 8:15 am - 5:45 pm                                   | 15.4                   | 34,111                   | 60              | 2,215                      | 2                |
| Black                 | 7:50 am - 5:20 pm                                   | 15                     | 33,225                   | 60              | 2,215                      | 2                |
| Black Night           | 5:30 pm - 11:00 pm                                  |                        | 0                        |                 | 0                          | n/a              |
| Blue                  | 7:30 am - 5:30 pm                                   | 8.8                    | 20,830                   | 30              | 1,184                      | 1                |
| Yellow                | 7:45 am - 5:30 pm                                   | 8.3                    | 18,385                   | 30              | 1,108                      | 1                |
| Orange                | 7:30 am - 5:30 pm                                   | 9.2                    | 21,776                   | 30              | 1,184                      | 1                |
| Orange Night          | 6:00 pm - 11:30 pm                                  |                        | 0                        |                 | 0                          | n/a              |
| Brown                 | 8:15 am - 5:45 pm                                   | 10.3                   | 22,815                   | 60              | 2,215                      | 2                |
| Green                 | 8:00 am - 5:30 pm                                   | 6.6                    | 14,619                   | 30              | 1,108                      | 1                |
| Green Night           | 5:30 pm - 11:00 pm                                  |                        | 0                        |                 | 0                          | n/a              |
| Mary Jane             | 8:15 am - 6:00 pm                                   | 18.2                   | 55,328                   | 60              | 3,040                      | 2                |
| Old Town              | 7:30 am - 5:30 pm                                   | 6.2                    | 14,675                   | 30              | 1,184                      | 1                |
| Employee<br>Shuttles* | 6; 6:45 (2); 9:15 am; 1;<br>4:45 (2); 5:45; 7;10 pm | 48                     | 71,472                   | 120             | 2,978                      | 3                |
| Overload<br>Service   | As needed in peak periods                           |                        | 15,000                   |                 | 1,000                      |                  |
|                       | TOTAL   |                        | 397,946                  |                 | 26,254                     | 18               |
| Parking Lot Sh        | uttles* (Not Lift Service                           | ∍)                     | ·                        |                 |                            |                  |
| Village               | 7:30 am - 5:30 pm                                   | 5.8                    | 13,729                   | 30              | 1,184                      | 1                |
| Overload<br>Service   | As needed   |                        | 15,000                   | - 30            | 1,500                      |                  |
|                       |   |                        | 583,150                  |                 | 37,139                     |                  |

<sup>\*</sup> These are the responsibility of Intrawest. It is noted here because a regular employee shuttle will be needed. It would likely need to be expanded as it would serve all employees, not just those of the resort.

The Lift day routes carried 474,574 riders in the 2005-06 season. The night service carried 92,668 riders and the employee shuttle carried 35,402 riders. The total system carried 602,644 riders. Parking lot shuttles carried an additional 412,995 passengers.



The present service, operated only in the peak periods, is very productive. The Lift averaged approximately 16 passengers per hour in the 2005-06 season, and the employee shuttles averaged 24 passengers per trip. These regional employee routes are often measured on the basis of the number of passengers per trip, indicating how full the buses are on average. Since the employee shuttles are only full one way and riders travel long distances, it is expected that the number of riders per hour is lower than on local routes.

The transit infrastructure also includes the fleet and facilities, such as the maintenance and operations facility, bus stops, shelters. It includes the people required to operate the network such as the drivers, mechanics, and management. First Student, Inc. has operated the service since 1999 under a contract that includes The Lift daytime service, the four night bus routes, YMCA buses, a Meadowridge employee shuttle and three employee shuttles to Granby.



Funding for the service comes primarily from Winter Park Resort. In 2005-06 Intrawest paid approximately \$1.25 million annually in operating costs for The Lift, as well as providing a maintenance facility and parking for vehicles, 6,000 gallon fuel tank, communications equipment, utilities, a season pass for each employee, and staff for contract administration. The Towns of Winter Park and Fraser fund night service. Some accommodations management firms also provide limited funding for service in specific subdivisions that might otherwise not be served. The County also funds some services.

#### Vehicle Fleet

The contract requires First Student to provide a minimum of 38 buses. These are either 44 passenger school buses or 59 passenger transit buses. As these buses are provided by the contractor, they are not an existing system asset. In the past, all were fully depreciated in other systems so the overall condition of the fleet was fair to poor. For the 2006 season, six new buses have been leased as part of the contract. Two body-on-chassis vehicles are also part of the First Student fleet and are used for providing the paratransit service.

The older buses are mostly configured for school bus service, resulting on seats that are close together, especially for adults with ski gear. The ski racks do not hold snowboards so these are carried inside the vehicles. Some of these vehicles have only one door, slowing access and egress. Not all vehicles are ADA lift-equipped.



### Staffing

In the 2005-06 season the staff included 53 drivers (19 are full time), two mechanics, a Safety Manager, a Technician in Charge and a Transit Manager. A total of five employees are year round and the other positions are seasonal. In the summer, First Student employs 15 part time drivers to operate rafting service as a separate contract. First Student, like most resort transit systems in Colorado, was unable to hire as many full-time drivers as they would have liked to hire.

### **Grand County Council on Aging**

In addition to The Lift services, Grand County Council on Aging operates demand response services in the County, targeted to seniors. The Council on Aging would like to coordinate their services with any public service that is developed for the Fraser Valley.

The COA drivers provide door-to-door service, and most trips are to Kremmling Hospital and medical facilities in Granby. In addition, there are some trips to Summit County for shopping. They also provide two trips per month outside the County, usually to medical facilities in Denver.

The Council on Aging is a non-profit organization, and their service is operated from donations and grants. No fare is charged for the transportation service; however donations are suggested. The 2006 agency budget includes \$70,000 for drivers and van supervisor, fuel, and maintenance. Other expenses (such as a portion of the director's time, office costs, and communications) would need to be added to provide a complete picture of program costs.

Six vehicles are operated in regular service – one station wagon, two vans, and three minibuses. A seventh vehicle, a van, is used for back-up. Three vehicles are stationed in Granby, two in Kremmling, and one in Grand Lake.

Access to medical services is an important issue for rural residents, especially for people who are elderly or have disabilities. Providing year-round services is important to this population as well. The Council on Aging believes coordination on paratransit services, particularly in the US 40 corridor between Winter Park and Granby, would provide significant benefits to residents.



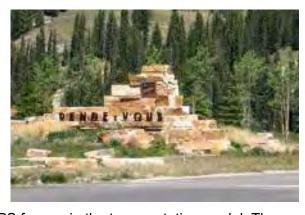
# 3.0 FORECASTING MODEL AND FUTURE CONDITIONS

The transportation model for Winter Park was developed using methods and procedures previously applied by Felsburg Holt & Ullevig to the planning effort in the City of Steamboat Springs, Colorado. The study area, previously seen on **Figure 2.1**, was divided into 11 TAZs and follows US 40 from Berthoud Pass on the south end to just north of Tabernash on the north end. The spreadsheet model was calibrated by comparing existing design day traffic (10<sup>th</sup> highest day) at five screenlines along US 40. Each of these screenlines were placed on US 40 at a key location in order to provide a snap shot of how traffic generated by the existing land uses and skier traffic in the study area changes between the Resort and the two towns along the US 40 corridor. Screenline #1 is just east of Tabernash, Screenline #2 is on the north side of the Town of Fraser, Screenline #3 is between the Towns of Fraser and Winter Park, Screenline #4 is between downtown Winter Park and Winter Park Resort, and Screenline #5 is located at Berthoud Pass. Once calibrated, proposed future land uses and skier totals were input in order to forecast traffic, transit trips, and skier attendance for the 10<sup>th</sup> highest day for 2020 and 2026.

# A. Model Demographic Information and Calibration Procedure

### **Existing Land Use Inputs**

Before the transportation model could be calibrated, several components of existing traffic were taken into account. Background traffic (through the study area on US 40) was estimated based on the comparison of traffic counts on the north and south ends of the study area. Due primarily to the orientation of traffic to the Towns of Fraser and Winter Park as well as to Winter Park Resort, through traffic is a small portion of the traffic on US 40 in the winter. In order to determine traffic on US 40 related to development, existing and future land use totals



as well as skier visit forecasts were provided by EPS for use in the transportation model. The existing land use totals were previously shown in **Table 2.3**. This information was used to calculate existing non-skier trips in the study area based on nationally recognized trip generation rates developed by the Institute of Transportation Engineers. **Figure 3.1** shows the existing lane use and other future large developments in the study area. The destinations and modal split (use of automobiles and higher occupancy vehicles such as The Lift buses, private shuttle vans and buses, and charter buses) of skiers during the evening peak hour was determined based on a number of factors. These included the lodging/home locations of skiers (based on information from EPS shown in **Table 3.1**), skier orientation by TAZ (see **Table 3.2** which is based on skier forecast totals provided by Ecosign), daily skier attendance, design hour traffic counts, design hour transit ridership, and vehicle occupancy rates.



Figure 3.1

# Existing Land Use and Large Developments

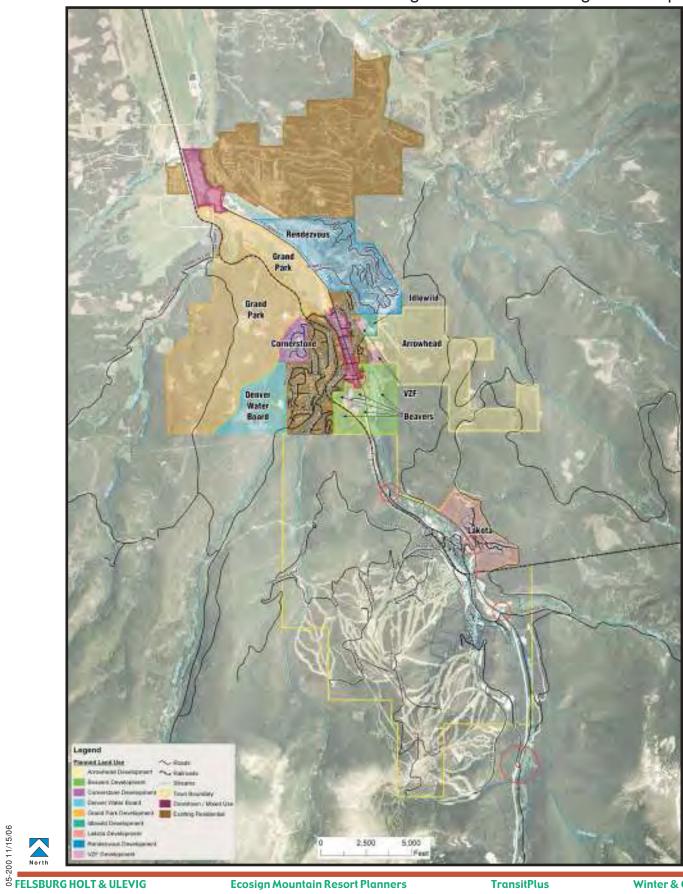




Table 3.1 Existing Skiers by Type

| Lodging/Home Location                     | 2005/2006 Season |
|---|------------------|
| Front Range – south of<br>Berthoud Pass   | 390,000          |
| Granby/Silver Creek                       | 77,422           |
| Base Village                              | 113,192          |
| Other Accommodations in the Fraser Valley | 350,252          |
| Seasonal/2nd Home                         | 69,134           |

Analysis, Calibration, and Results

Based on the existing land use, residential and commercial trips were calculated for each of the TAZs and totaled with the skier traffic to determine

Table 3.2 2005 Percent of Skiers by TAZ

|        | % of Skiers |
|--------|-------------|
| TAZ 1  | 6.8%        |
| TAZ 2  | 17.1%       |
| TAZ 3  | 5.7%        |
| TAZ 4  | 44.3%       |
| TAZ 5  | 2.4%        |
| TAZ 6  | 16.5%       |
| TAZ 7  | 0.9%        |
| TAZ 8  | 0.8%        |
| TAZ 9  | 4.3%        |
| TAZ 10 | 1.5%        |
| TAZ 11 | 0.0%        |

the total origins and destinations for the study area. Factors were then applied to determine what percent of trip origins during the existing peak hour are work-related and what percent are commercial-related.

Traffic across each of the five screenlines for the existing design day and the model output were then compared. The calibrated model was within two percent of existing traffic for four of the screenlines with one screenline having a seven percent difference below existing design day traffic. The model was calibrated by checking the commercial trip origin/destination table for reasonableness and applying factors to adjust the amount of traffic crossing any one screenline in order to get closer to the design day volumes. An example of this reasonableness check is at Screenline #1 where a significant amount of the commercial related traffic from TAZs 9 and 10 was going to/from the Fraser (TAZ 3) and Winter Park (TAZ 4) zones. Due to the location of TAZs 9 and 10 in relation to the commercial areas in the Towns of Tabernash and Granby, it would be more likely that commercial-related traffic would stay within these zones or go north out of the study area to Granby. A basic flow chart of the inputs, analysis, and results for the existing conditions transportation model are shown on **Figure 3.2**.

### B. Future Land Use Forecasts

Two future scenarios have been developed for modeling purposes. The first analysis year, 2020, was selected since this is when construction of the Winter Park Village is expected to be near completion. The second analysis year, 2026, was selected since skier growth (see following discussion) could require that a gondola be built from downtown so that it can serve as the third base area for the Winter Park Resort. This allows consideration of the impacts that construction of a gondola may have on travel patterns within the study area. The forecasted land use growth by TAZ that was provided by EPS for the two analysis years is shown in **Table 3.3** for 2020 and **Table 3.4** for 2026. A graphical summary of the forecasted land use is presented in **Figure 3.3**.



Figure 3.2

Existing Model - 2005

### **INPUT**

- Existing land uses for residential and commercial by type and TAZ
- ► ITE trip generation rates by use
- Design day skiers
  - traffic volumes and occupancy
  - transit and shuttles
- Out of Area (through) traffic on US 40

## **ANALYSIS**

- Origins and Destinations for residential, commercial and skier traffic
- Factor trip origin tables
- Compare model results to design day traffic counts
- Calibrate existing model traffic by factoring commercial trip O/D table

### **OUTPUT**

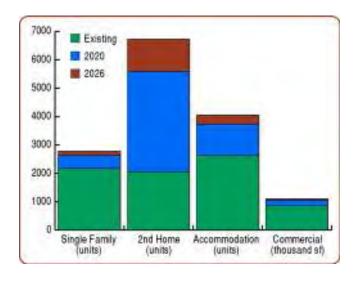
▶ Total existing trips across screenlines



Table 3.3 New Development by 2020 (in addition to existing)

|       | ITE Land Use Code                      |                          |                                |   |  |  |  |
|-------|--|--------------------------|--------------------------------|---|--|--|--|
| TAZ   | 210<br>Full-time<br>Residences (Units) | 260<br>2nd Homes (Units) | 310<br>Hotel/<br>Lodge (Units) | 820<br>General Retail<br>(ft <sup>2</sup> ) |  |  |  |
| 1     | 40                                     | 320                      | 40                             | -   |  |  |  |
| 2     | 69 (61)                                | 493 (433)                | 749 (741)                      | 40,000                                      |  |  |  |
| 3     | 56                                     | 450                      | 56                             | 75,000                                      |  |  |  |
| 4     | 10                                     | 80                       | 10                             | 75,000                                      |  |  |  |
| 5     | 74                                     | 591                      | 74                             | -   |  |  |  |
| 6     | 59                                     | 468                      | 59                             | -   |  |  |  |
| 7     | 7                                      | 59                       | 7                              | -   |  |  |  |
| 8     | 7                                      | 59                       | 7                              | -   |  |  |  |
| 9     | 29                                     | 236                      | 29                             | -   |  |  |  |
| 10    | 44                                     | 236                      | 15                             | -   |  |  |  |
| 11    | -                                      | -                        | -                              | -   |  |  |  |
| Total | 395                                    | 2,992                    | 1,046                          | 190,000                                     |  |  |  |

Figure 3.3 Land Use Forecast Summary





| Table 3.4 New Development by 2026 (in addition to existing | Table 3.4 | New Development b | y 2026 (in addition t | to existing |
|--|-----------|-------------------|-----------------------|-------------|
|--|-----------|-------------------|-----------------------|-------------|

|       | ITE Land Use Code                      |                          |                                |                                |  |  |  |
|-------|--|--------------------------|--------------------------------|--------------------------------|--|--|--|
| TAZ   | 210<br>Full-time<br>Residences (Units) | 260<br>2nd Homes (Units) | 310<br>Hotel/<br>Lodge (Units) | 820<br>General Retail<br>(ft²) |  |  |  |
| 1     | 50                                     | 400                      | 50                             | -                              |  |  |  |
| 2     | 88 (78)                                | 624 (544)                | 942 (932)                      | 40,000                         |  |  |  |
| 3     | 74                                     | 590                      | 74                             | 100,000                        |  |  |  |
| 4     | 10                                     | 80                       | 10                             | 100,000                        |  |  |  |
| 5     | 104                                    | 831                      | 104                            | -                              |  |  |  |
| 6     | 76                                     | 608                      | 76                             | -                              |  |  |  |
| 7     | 10                                     | 79                       | 10                             | -                              |  |  |  |
| 8     | 10                                     | 79                       | 10                             | -                              |  |  |  |
| 9     | 39                                     | 316                      | 39                             | -                              |  |  |  |
| 10    | 59                                     | 316                      | 20                             | -                              |  |  |  |
| 11    | -                                      | -                        | -                              | -                              |  |  |  |
| Total | 612                                    | 4,663                    | 1,427                          | 240,000                        |  |  |  |

## C. Resort Capacity and Skier Forecasts

#### **Overview**

The resort staging analysis calculates the number of skiers that the base areas can supply to the mountains. This is a critical parameter when evaluating a ski area, as it is the one factor that strictly controls the maximum business level at the resort. Although one may be able to manipulate the levels of each mode of arrival over time (by increasing day skier parking, increasing base area accommodation, and encouraging transit and shuttle activity, etc.), one cannot change it during the course of a day or a week. Once the parking lots are full, it is very difficult for more skiers to access the mountain.



The base area capacity is the sum of the number of skiers who come from accommodation within a comfortable walking distance, plus the number of skiers that can be supplied to the resort from the available day skier parking and other modes of transportation.

The Winter Park base area will be undergoing major reconfiguration and redevelopment during the next 20 years, while the Mary Jane base area will only see minor additions and upgrading. The Winter Park Village development includes the construction of a large addition to the accommodation base adjacent to the ski area, as well as a reconfiguration of the day skier



parking. There will also be construction of more accommodations in the adjacent developments (Old Town, Lakota, Ironhorse, etc.).

### **Peak Day Base Area Staging Capacity**

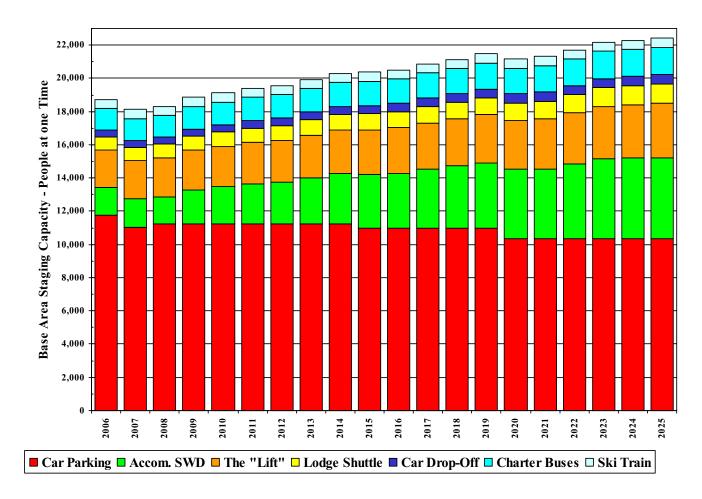
- ▶ Day Skier Parking Intrawest has supplied a schedule for day skier parking relocation over the next 20 years. The parking at Mary Jane will remain the same as present, while all of the parking spaces in the Winter Park base will be relocated. By agreement with the Town, Winter Park Resort is required to provide at least 3,971 parking spaces. The number of spaces varies only slightly over the course of redevelopment. Parking spaces will be used by day skiers, Valley skiers, and employees of the ski area and the new village development.
- ▶ Accommodation within a comfortable skier walking distance The new Winter Park Resort Village will contain an additional 1,553 units of public and private accommodation. The Vintage may be converted to employee housing, reducing the number of guest accommodation units close to the ski area, but eliminating the need for many employees to drive (or bus) to work. The area surrounding the Winter Park base contains several developments that will continue to be developed and in-filled (Old Town, Ironhorse, Winter Park Mountain Lodge, Lakota).
- ➤ The Lift Transit Bus It was assumed that ridership will increase at a rate of approximately 2% per year (which is a significantly slower pace than the development in the Fraser Valley).
- ➤ Charter Buses Currently, the peak day sees about 32 buses coming primarily from Denver. It was assumed that this will increase by 1 bus every 2 years (approximately 1.5% per year).
- ▶ Ski Train It was assumed that this service will continue at its current level of use.
- ▶ Drop-Offs by Car & Drop-Offs by Shuttle Bus It was assumed that, like transit ridership, these modes will increase by approximately 2% per year.

**Figure 3.4** illustrates the peak day base area capacity at the ski area over the next 20 years. Obviously, the capacities can be increased or decreased in any given year by encouraging or discouraging various modes of transportation or by rescheduling of the Village development at the Winter Park Base. The current peak day capacity is approximately 18,600, but will rise to a level of almost 21,800 by 2025-26.

One must realize that business levels, by definition, cannot exceed these limits, and if business levels are anticipated to exceed these levels, then action must be taken to prevent visitor dissatisfaction due to their inability to access the base area on their chosen day to ski. Actions could include encouraging alternative modes of transportation to the private car, constructing a remote parking lot, building a third base area, etc.



Figure 3.4 Base Area Staging Capacity Forecasts



## **Skier Visit Projections**

In order to determine the impact on the economy, the road system, and the general operation of the overall resort (including businesses in the entire valley), projections of the number of visitors and skiers must be made. As mentioned previously, visitors (and skiers) either originate from the Fraser Valley, or they visit for the day from a longer distance (Denver, other Front Range cities, and west on I-70).

EPS has estimated the number of visits and skiers per season based on historical data and projections of accommodation growth in the Fraser Valley (within the study area). **Table 3.5** shows the projected annual skier visits for each of these planning years.

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Table 3.5 Projected Annual Skier Visits

|   | Basic Current<br>Numbers | 2020-21 Season | 2025-26 Season |
|---|--------------------------|----------------|----------------|
| Berthoud Pass                             | 390,000                  | 408,100        | 418,400        |
| Granby/Silver Creek                       | 77,400                   | 81,000         | 83,000         |
| Base Village                              | 113,200                  | 343,000        | 392,100        |
| Other Accommodations in the Fraser Valley | 350,300                  | 407,800        | 426,800        |
| Seasonal/2nd Home                         | 69,100                   | 164,200        | 195,900        |
| Total                                     | 1,000,000                | 1,331,100      | 1,516,200      |

Using EPS's information and the information used to develop the skier density maps, daily skier visit projections for the peak days during the next 20 years were also calculated.

#### **Day Skiers**

Based on historical visitation levels at Winter Park and in Colorado, EPS has estimated that day skier visitation will increase at a rate of 0.5% per year.

#### **Valley Skiers**

The current number of skiers coming from the Fraser Valley was estimated at approximately 9,500 during the Christmas break and 8,500 during other peak periods.

Skier visits originating in the Fraser Valley are projected to increase in direct relation to the growth of full-time residences, second homes, and accommodation units in the study area. EPS has developed a model for the yearly absorption of accommodation units for each TAZ by type (second homes, permanent resident, or overnight public), which was used to develop these peak day skier visit forecasts. The number of units in the study area is projected to increase by approximately 90% during the next 20 years.

#### Employees (Ski Area & Base Village)

The number of employees required at the base area was estimated using current employee levels at the ski area (adjusted for the increase in business) and industry standards for accommodation and commercial space (for the Village & Zephyr Mountain Lodge).

The last 10 years of daily skier visit statistics were analyzed to provide a base line for the activity levels on the peak days. **Figure 3.5** illustrates the business levels projected on the peak days for each future season based on the projected accommodation development in the valley and the base line peak 10 days. As illustrated, the peak day projected for 2006 would be approximately 16,000 people (all required to access the base area with one transportation method or another) and is expected to rise to about 22,200 by 2025-26. The 10<sup>th</sup> highest day increases from 13,350 to approximately 18,000 to 19,300.



Figure 3.5

## Skier Growth and Base Area Capacity

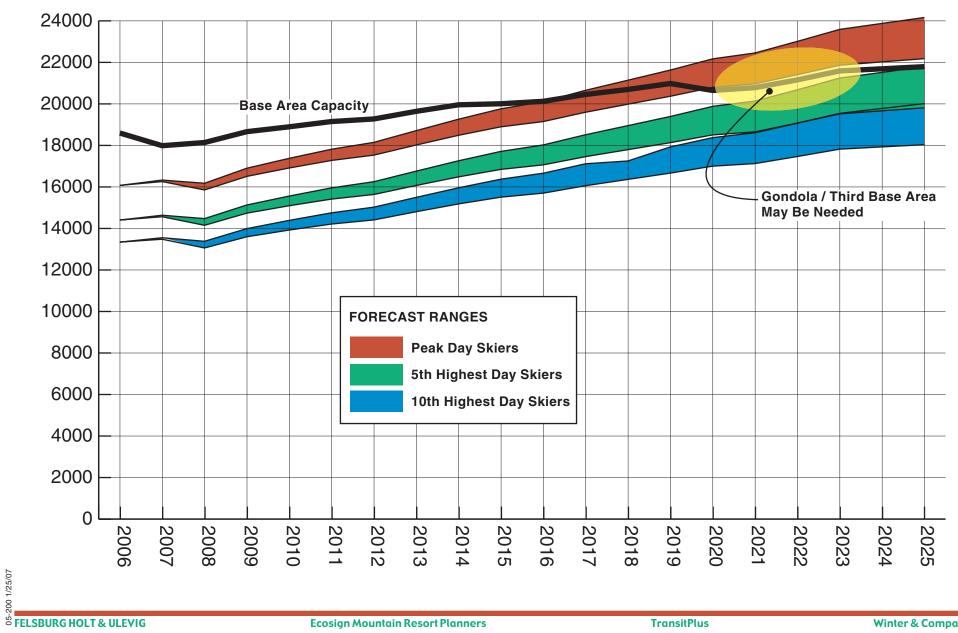




Table 3.6 shows the forecasted skier attendance at the Resort for the design day and the number of skiers leaving during the PM peak. Based on these results, attendance at the Winter Park Resort on the design day is projected to grow about 50 percent by 2026. This increase in attendance results in a growth in vehicular traffic of approximately 10 percent in and around the Winter Park Resort. The increase in vehicular traffic is moderated by the construction of lodging in the Village at the Winter Park base.

**Table 3.7** shows the forecasted percent of skiers by TAZ. These percentages were used to assign skier related traffic, both transit and vehicle related, to the roadway network.

Figure 3.6 provides a summary of future skier forecasts by general area of origination for 2020 and 2026. Comparing these bar graphs shows that the largest growth in skiers will come from the Fraser Valley. This will be a minor amount of growth at the Resort base as the Village is built out, and the number of Front Range skiers is anticipated to remain fairly constant.

The Base Area/Old Town area (see **Figure 3.7**) and downtown Winter Park (see **Figure 3.8**) were analyzed in more detail, creating Skier Density Analysis Maps for both these areas. These maps graphically illustrate the number of skiers generated by accommodation on each building parcel. The maps also graphically illustrate the proximity of those skiers to the ski area staging lifts (including the proposed gondola in Town).

Table 3.6 Design Day Skier
Attendance at Winter Park
Resort

|          | Daily  | PM Peak<br>Departure |
|----------|--------|----------------------|
| Existing | 12,734 | 7,350                |
| 2020     | 17,900 | 10,050               |
| 2026     | 19,300 | 10,800               |

Table 3.7 2020 and 2026 Percent of Skiers by TAZ

|        | 2020 % of<br>Skiers | 2026 % of<br>Skiers |
|--------|---------------------|---------------------|
| TAZ 1  | 7.0%                | 6.9%                |
| TAZ 2  | 24.9%               | 25.7%               |
| TAZ 3  | 6.5%                | 6.7%                |
| TAZ 4  | 34.6%               | 33.1%               |
| TAZ 5  | 7.9%                | 9.3%                |
| TAZ 6  | 13.1%               | 12.6%               |
| TAZ 7  | 0.7%                | 0.6%                |
| TAZ 8  | 0.6%                | 0.6%                |
| TAZ 9  | 3.2%                | 3.1%                |
| TAZ 10 | 1.4%                | 1.5%                |
| TAZ 11 | 0.0%                | 0.0%                |

Figure 3.6 Design Day
Skier Attendance

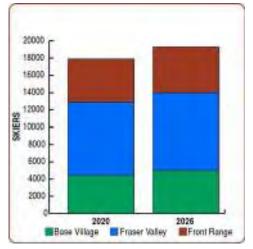




Figure 3.7

## Proposed Skier Density Analysis - Old Town / West Portal

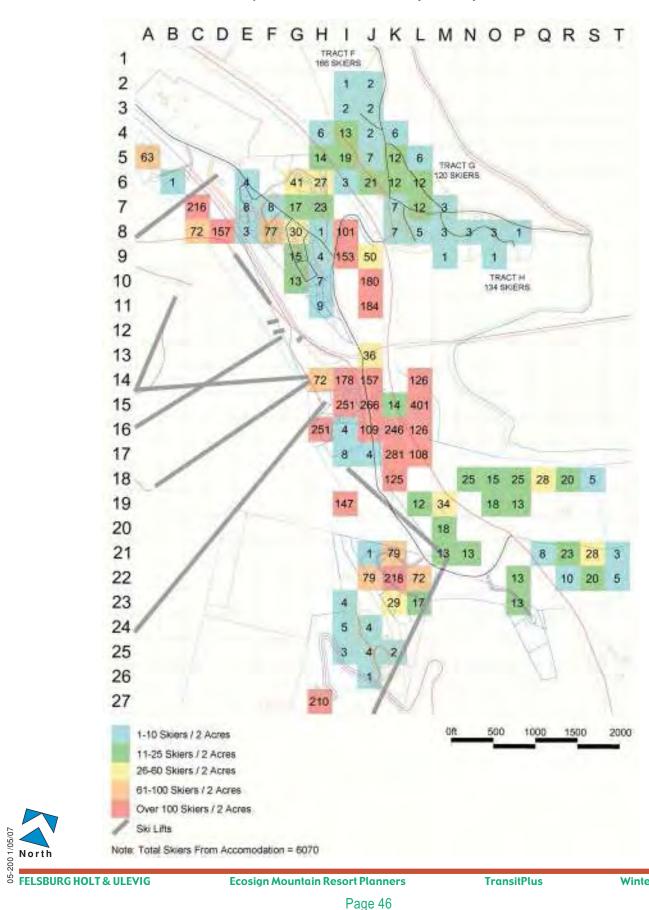
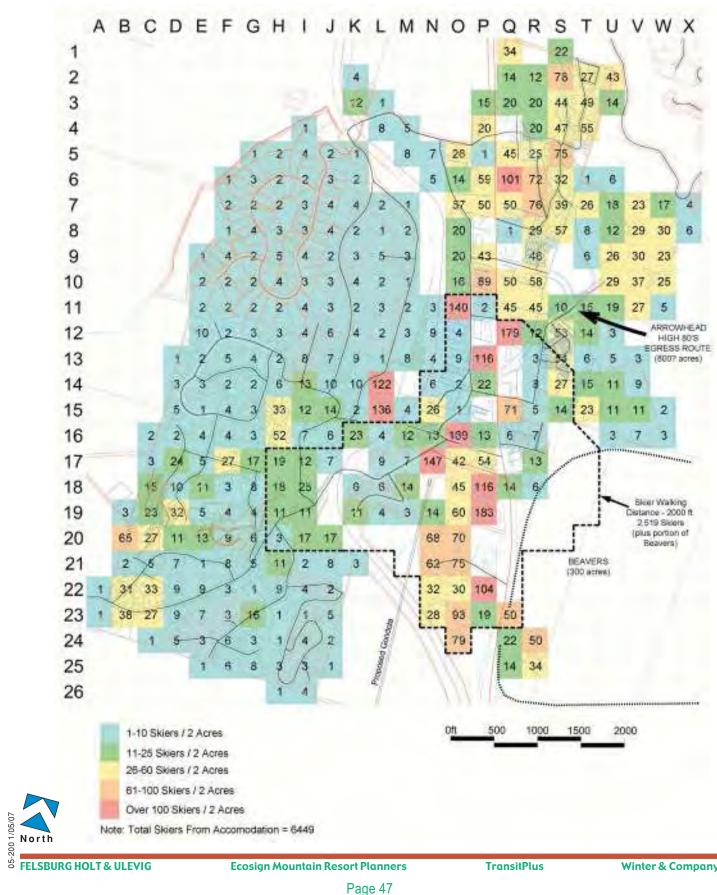




Figure 3.8

## Proposed Skier Density Analysis - Town of Winter Park





## D. Future Traffic and Skier Projections

#### **Future Traffic Forecasts**

Based on future total unit counts, commercial square footage totals, and skier projections, future traffic volumes were projected with the calibrated model. A basic flow chart of the inputs, analysis, and results for the future transportation model can be seen on **Figure 3.9** for both future scenarios. The model output provides a forecast of vehicle origin/destination totals, transit trips, and also forecasts the skier attendance at the Winter Park Resort for the 10<sup>th</sup> highest day in the future.

With the transportation model calibrated and the projected future land use input to the model, PM peak hour traffic forecasts for 2020 and 2026 were determined for the screenlines on US 40. **Table 3.8** shows a comparison between the existing volumes and the forecasted traffic volumes for each of the future scenarios if the roadways in the study area remain in their current configuration,

Table 3.8 PM Peak Existing and Projected Roadway Volumes

|            | Existing |                                |              | 2020 Base |                                | 2026 Base    |        |                                |              |
|------------|----------|--------------------------------|--------------|-----------|--------------------------------|--------------|--------|--------------------------------|--------------|
| Screenline | Volume   | Current<br>Roadway<br>Capacity | v/c<br>Ratio | Volume    | Current<br>Roadway<br>Capacity | v/c<br>Ratio | Volume | Current<br>Roadway<br>Capacity | v/c<br>Ratio |
| 1          | 1,045    | 2,000                          | 0.52         | 1,710     | 2,000                          | 0.86         | 1,915  | 2,000                          | 0.96         |
| 2          | 1,330    | 2,000                          | 0.67         | 2,065     | 2,000                          | 1.03         | 2,290  | 2,000                          | 1.15         |
| 3          | 1,835    | 2,000                          | 0.92         | 2,690     | 2,000                          | 1.35         | 2,975  | 2,000                          | 1.49         |
| 4          | 1,700    | 4,000                          | 0.43         | 2,700     | 4,000                          | 0.68         | 2,900  | 4,000                          | 0.73         |
| 5          | 1,005    | 2,000                          | 0.50         | 1,435     | 2,000                          | 0.72         | 1,520  | 2,000                          | 0.76         |

As can be seen in **Table 3.8**, volumes on US 40 within the study area are projected to grow approximately 70 percent overall in the next twenty years. In addition, Screenlines #2 and #3 are projected to be over capacity by 2020 (highlighted in red), while Screenline #1 nears capacity by 2026. This will result in congested conditions along US 40 in and around the Towns of Fraser and Winter Park.



Figure 3.9

Future Models - 2020 and 2026

## **INPUT**

- Future land use for residential and commercial by type and TAZ
- **▶** Skier Forecasts
- ▶ Changes to modal split
- **▶** Background traffic growth on US 40

## **ANALYSIS**

- Future residential, commercial and skier traffic (O&D)
- Review results for reasonableness and relative mode utilization

# **OUTPUT**

- ▶ Total future trip assignments across screenlines
- Modal shares



#### E. Transit Demand

In refining alternatives for the transit system, the level of service would develop in response to demand and grow gradually over time. In comparing alternatives, the demand levels have been considered at three time points: existing, 2020, and 2026. The 2026 numbers are "pre-Gondola". The season before the Gondola is constructed represents the peak level of bus transit service, as ridership and the length of trips will decrease once the Gondola opens. This peak service level is what must be used to size the system: determining the vehicle fleet size, the facility size, and the revenues needed for operation. Once the Gondola opens, it may be that some vehicles will be retired rather than replaced.

In a ski resort, transit demand consists of visitor trips to the mountain base; visitor trips for dining, shopping, etc; employee trips to and from work; and resident (seasonal and full-time) trips for other activities, including shopping, recreation, or other personal business. The importance of each component varies depending on the type of transit service provided, the location of the base area relative to the visitor lodging, and the location of employee housing relative to work sites.

In Winter Park, the existing system primarily serves skiers. It is operated mainly in the winter and provides critical transportation between the lodging facilities and mountain base. Two events will change system demand over the study period:

- The first is that with the development of more lodging at the base area, many more skiers will be within walking distance of the base area. Those staying within walking distance of the mountain base will not need transit during the day but will shift transit use to evening trips into town for evening activities (to eat out, go to bars, or go to grocery store or other shopping). They will likely not make as many trips into town not everyone will travel to town each evening so the overall transit ridership levels from this population may decline somewhat. However, at present the ridership into town from people staying in TAZ 1 and 2 is guite high.
- ➤ The second event is the development of the third base the gondola from downtown. When this is built, approximately 2,500 people will be within 2,000 feet of the mountain base and may choose to walk rather than use transit on a peak day.

If the system begins operating regularly in the summer and shoulder seasons, more residents will find they can use transit to meet their travel needs. People will then be more likely to use the transit system for regular work trips and for other activities. A significant number of Winter Park resort employees (76% of those living in Granby and 19% of total employees) take the employee shuttle bus provided by the resort. A small percentage of other employees living in Fraser or Winter Park also use The Lift in the winter for employment trips (estimated at 5%). Opening employment shuttles from Granby to all employees would also increase the importance



of employment trips in the overall demand. Another outcome of increased availability of employment transportation is likely that employees would be able to live further out, in less expensive housing. Over time this may be important as a larger employment base is needed for the growing economy.

### **Peaking Characteristics for Transit Services**

The impact of peak travel times is a critical component for designing the transit system, but the impacts vary somewhat from those on the roadway network. Key points are:

- ▶ Route structure will be sized for "average" daily transit volume; spares and creative dispatching¹ will be used to address peak demand. In addition, more people are crowded into each vehicle.
- ▶ Employment trips will not vary much between average and peak periods.
- ▶ While the peak transit demand resulting from skiers will decline as more lodging is built at the base, the evening trips for dining and shopping will likely increase. The net effect is that this will soften the peak demand in the morning and afternoon, spreading ridership to the evening hours.

### **Demand Projections**

The number of riders was calculated based on the number of residential units in the Valley, including single family, multiple-family, and hotel rooms. The type of trips and when they occur will change as the area develops. As more visitors stay in lodging units at the Village, their trips will be into Town, especially in the evening.

From a macro planning perspective, these characteristics of the community provide a reasonable reflection of demand, and they could more than double the current levels of ridership. Approximately 600,000 riders are carried today in Winter Park. A comparable system, Steamboat Springs Transit, carries approximately 1 million annual riders. Their service, however, has developed over many years and night-time and summer ridership are now both important parts of the system. The amount of parking and convenience of transit service will also affect the use of transit, so these numbers should be used to gauge the overall system size that might be expected if each of the above markets is served.

The transit demand was identified based on the current system, as identified in **Table 3.9** and on **Figure 3.10**. Transit demand reflects, to a certain extent, the level of service available: the better the service the more people will ride. As service improves and becomes a viable alternative for more individuals, one would expect ridership to increase. This is especially true for the employment trips. At present, the commuter service from Granby to the Resort is provided only to Resort employees. If service were open to the general public, the number of trips would likely increase. If commuter service were available year-round, it is likely that the

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Dispatching techniques such as extra trips and "short-turns" are used to allow the extra vehicles to move crowds just when and where they are needed. The vehicles are turned back as soon as they are empty.



percentage of employees using transit for commute trips would gradually increase over time. More details about the demand forecasts are provided in **Appendix B**.

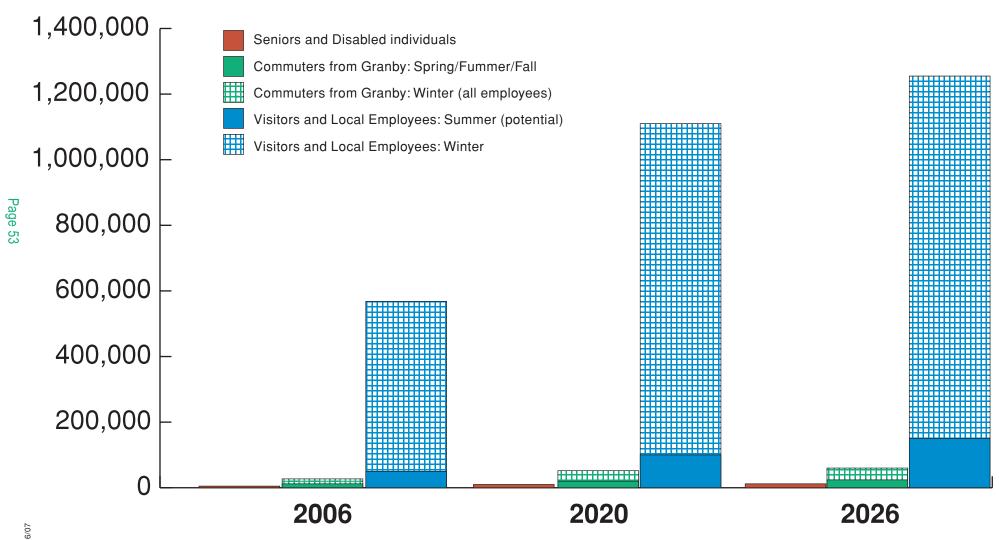
Table 3.9 Characteristics of Transit Alternatives: Annual Estimated Ridership

| Markets Served                  | Current | 2020      | 2026      |  |
|---------------------------------|---------|-----------|-----------|--|
| Visitors and Local Employees    |         |           |           |  |
| Winter                          | 568,000 | 1,110,000 | 1,255,000 |  |
| Spring/Summer/Fall              | 50,000  | 100,000   | 150,000   |  |
| Commuters from Granby           |         |           |           |  |
| Winter (all employees)          | 36,000  | 51,000    | 56,000    |  |
| Spring/Summer/Fall              | 15,000  | 21,000    | 25,000    |  |
| Elderly or Disabled Individuals | 5,000   | 10,000    | 12,000    |  |
| TOTAL                           | 674,000 | 1,292,000 | 1,498,000 |  |

Figure 3.10

**Transit Demand** 

# Anticipated Growth Based on Development of Fraser Valley





### 4.0 DOWNTOWN SUBAREA PLAN

### A. Introduction

A key focal point of the transportation system is the downtown area, where commercial, institutional and accommodations facilities are concentrated. Residential neighborhoods flank this area and combined with the downtown area form the core of the community. This chapter addresses urban design issues and opportunities related to downtown Winter Park. This includes consideration of new and enhanced pedestrian circulation systems as well as supporting land uses that encourage pedestrian activity and connectivity. Recommendations for potential



improvements apply urban design concepts that will enhance pedestrian mobility, promote economic development and improve overall safety.



In this context, it is important to understand the evolution of the downtown and the role that circulation systems have played in shaping its character. Winter Park, located in the Arapahoe National Forest, was first settled as a farming, ranching and lumber area. When the Moffat Tunnel was constructed in 1927, rail travel to the Fraser Valley became an easy ride from the Denver metropolitan area, drawing a group of sports and wildlife enthusiasts. In 1940 the City of Denver opened the Winter Park Resort as a local ski destination. Over the next fifty years Winter Park developed into a world-class outdoor destination. It is currently home to 830 full-time residents with many more part-time and seasonal residents and accommodates an influx of visitors during the summer and winter outdoor recreation seasons.

Downtown Winter Park has become an outdoor recreation destination because of its beautiful scenery and unparalleled proximity to outdoor recreation opportunities including hiking,

camping, mountain bike trails, and world-class ski areas just minutes away. However, it has done so with constraints on circulation, which are a result of early transportation and development patterns. The area evolved along a single circulation spine, Main Street (US 40). Initial businesses fronted the highway, and secondary streets linked to it, often without providing connections to other roads. The result was a single corridor that served through-traffic circulation, internal mobility and as the commercial focus for businesses and services.



With the increased popularity of outdoor activities, Winter Park is experiencing new infill and redevelopment in downtown as well as in surrounding neighborhoods which compounds the dependence upon Main Street. Significant new development is also occurring at the base of the ski resort itself, which raises a new challenge to improve mobility access between downtown and the village. Recent public and private investment in ski area base facilities and infrastructure has thus prompted an interest in reassessing the existing transportation



framework of Main Street within the town boundary, and the Multi-Modal Transportation and Mobility Plan is a planning tool aimed to strengthen the viability of downtown and improve circulation in general.

The Town of Winter Park also has been actively engaged in developing long-range planning policies and development strategies to create a vision for the community that gives direction for downtown development. A primary element of this vision is to create a pedestrian-friendly, vital downtown that closely relates to the ability to promote an effective multimodal program.



Although Main Street is the main access into and out of Winter Park as a whole, the focus of this urban design component is the area north of Vasquez Road and south of Kings Crossing Road. This is an important area of interest that serves as the Town's existing primary commercial corridor, or "Main Street", and includes the Town's primary concentration of commercial development, pedestrian corridors and links to local street networks. Within this study area, the plan introduces options to enhance existing circulation systems; promote compatible land use; and refine the streetscape

to meet pedestrian needs, amplify connectivity, and promote growth through both public and private investment.

## **Planning Process**

The urban design component began on March 1, 2006 with a series of stakeholder interviews with citizens, property owners and Town officials to discuss the current issues of transportation as well as the goal of the Multi-Modal Transportation and Mobility Plan. The result of these interviews allowed the consultant team to establish a clear understanding of the existing conditions, issues, and assets associated with the overall project and Main Street.



On March 23, 2006 during an on-site work session, members of the community, Town staff, and consultants generated preliminary design concepts that respond to issues identified in the stakeholder interviews. The issues discussed included the state of transportation in and around Winter Park, the relationship of existing development to circulation and the relationship of the ski resort to the Town. A public open house followed the same evening to present the issues and preliminary design concepts to the community-at-large (shown in **Chapter 1**).

From these initial design concepts, the consultant team developed an Urban Design Framework Plan and additional supporting graphics to illustrate the primary goals for the downtown area. After a series of review meetings with Town staff, elected and appointed officials and local stakeholders, the Framework Plan was refined and presented to the public at an open house conducted November 16, 2006. Initial comments received from open house attendees are located in the Open House Technical Report (under separate cover).

### **Existing Conditions**

Although downtown Winter Park has developed as an area that serves both the local residents and visitors, development in downtown has struggled with the challenges and opportunities that often accompany a "Main Street". The high speeds and volumes of traffic, expansive width of the right of way and the constraints of state and federal engineering design requirements make Winter Park's "Main Street" both an asset and a hindrance. The road brings a tremendous number of travelers directly into downtown, but it is also difficult for people to cross and meander through and between multiple retail developments.



The highway is currently a four-lane road with a turn lane in the center and parallel parking. The speed limit through the study area is 35 miles per hour. This results in a condition that inhibits convenient circulation for those seeking to cross the road, either on foot or by car. Circulation within and through downtown Winter Park is difficult due to a lack of continuity of secondary streets and related circulation routes. This is true for all modes of circulation, including automobiles, buses, bicycles and pedestrians.



#### **Pedestrian Circulation**



There are two places (Vasquez Road and Midtown Road) where a traffic signal provides a safe opportunity for pedestrians to cross the highway, and these can be difficult to identify. During the summer, signs are located in the median that highlight the pedestrian crossings which are taken down for snow removal in the winter, making it difficult to identify the crossings when pedestrian traffic is at its peak. Public signs intended to indicate the location of crosswalks are temporary and can be distracting. The perception of high traffic speeds and a short crossing timing at signals compounds the problem.

As well as feeling unsafe crossing the highway, pedestrians often complain about the length of the blocks in the downtown area. Long blocks discourage pedestrian activity, especially when sidewalks are intermittent, and businesses are sparsely distributed along



the way. This leads to jay-walking across Main Street, which is an added frustration for drivers. It is important to fragment long blocks and encourage denser development to promote increased pedestrian activity downtown.

#### Vehicular Circulation

An incomplete street grid creates confusion and is a nuisance to drivers trying to navigate downtown. Since the highway is the only continuous north-south route through downtown, most motorists must return to it when circulating between different businesses. There are some back street options for limited segments (which local users are familiar with) but these are not well marked and serve only as limited alternatives. While some streets parallel Main Street, only Lions Gate Drive has significant continuity. This means that most traffic ultimately must use the highway, which results in numerous



curb cuts and fragmented access points along this route. The lack of east/west connector



streets, alleys, service routes and pedestrian walkways inhibits convenient access to many businesses and makes it difficult to move from one business to another without returning to the highway. Ideally, parallel streets and pedestrian corridors would interconnect, providing a "grid" of streets, alleys and walkways that facilitates movement among properties.

#### B. Current Land Use Patterns and Uses

#### Downtown

Presently, downtown consists of a scattering of commercial uses along Main Street. These are sparsely distributed, with large areas of surface parking separating individual buildings. Diverse businesses exist along the Main Street corridor including retail, restaurant, hospitality, and various services. This variety attracts local residents and visitors to the area throughout the day. Civic uses (including Town Hall, Post Office, Visitors Center and Arapahoe National Forest Information Center, and expanding park facilities) are also located in this vital area and provide important services that help to energize downtown. **Figure 4.1** shows an aerial view of downtown Winter Park.

A variety of setbacks exist along the highway. Buildings are set apart from each other, toward the center of a parcel with parking located in front, on the side, and occasionally to the rear of the building. There is a utility easement that parallels the highway, which results in a significant setback for parcels located between Rosie's Way and Telemark Drive on the east side of Main Street. Overall, the result is a low density of development that fails to encourage pedestrian activity and inhibits automobile circulation between businesses and properties. This low density challenges business operations and results in inefficient use of downtown land.

Landscaped areas and parking flank the highway in many locations, but these are also intermittent. The community has accomplished important improvements in recent years, but there is a lack of visual continuity. These recent improvements, however, form a foundation for



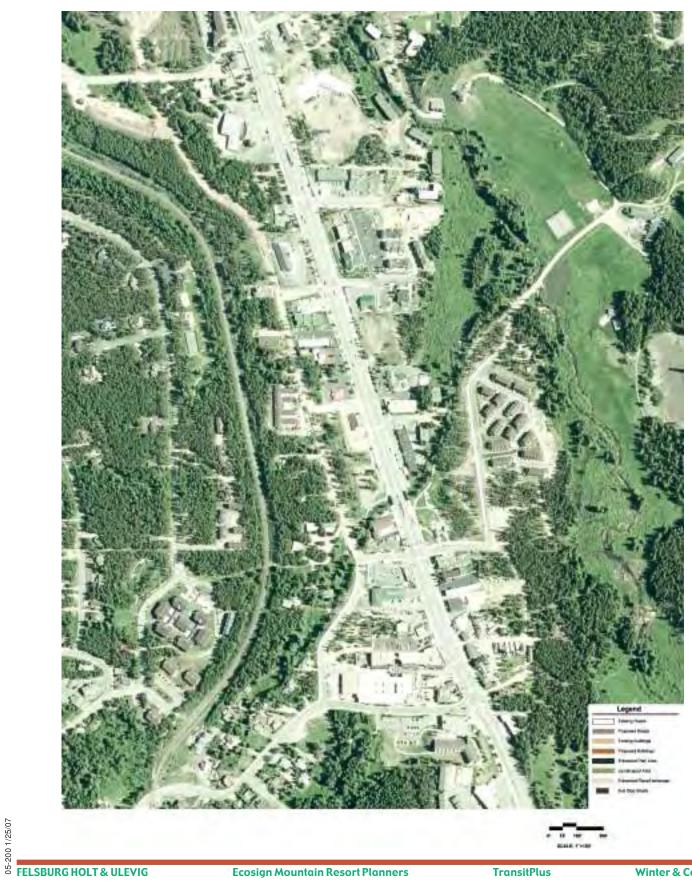






# Figure 4.1

## Aerial: Downtown Winter Park





future investment. Similarly, there are a few areas where development is more integrated and includes strategically located pedestrian paths and public spaces. These developments demonstrate the potential for success in other areas and currently serve as examples of thoughtful site planning and cooperation among adjoining property owners.

### Neighborhoods

Residential developments flank both sides of downtown Winter Park, and a substantial amount of new development has been targeted to these areas. This offers an opportunity to bring more users into downtown. New transportation links will be vital to the residents of these neighborhoods as well as beneficial to downtown business owners. This influx of additional residential use will support new development and redevelopment within the downtown.

Another important consideration is the continued development of mixed use projects in the downtown area. Mixed use projects in downtown locations typically include retail uses at the street level and office and residential uses on the upper stories. This results in a diversity of uses within a single development as well as increased development densities, both from a square footage perspective, as well as population increases. This is an important consideration in any area that seeks to increase pedestrian activity at the street level. Downtown



residents create the need for specific retail businesses which results in an increase of business activity during the daylight and evening hours.

Residential uses in downtown Winter Park should contain a diversity of unit types that cater to a variety of users. Pubic accommodations in the form of hotels and short-term rentals should be interspersed with opportunities for permanent residents. While the downtown will benefit directly from public accommodations that increase skier visits and provide animation and additional businesses in the downtown core, the overall community of Winter Park would also benefit by additional opportunities for permanent residential development. While the predominant residential unit types should be developed to encourage commercial development and private investment, there may be an opportunity for the Town to expand affordable housing units in downtown Winter Park. For example, the Town may permit increased residential densities if the proposed project includes affordable housing units. This type of incentive has worked well in other communities seeking to expand permanent housing opportunities in a resort environment.



## C. Downtown in Relation to the Vision for Winter Park

The vision for Winter Park as presented in the recently adopted of Winter Park Town Plan is:

- ► A small, real town that includes a world class ski resort;
- An attractive, convenient destination resort for Front Range visitors;
- A low-key, unpretentious alternative to glitzy, stylized resorts; and
- A vibrant downtown with diverse retailers, nightlife and a high quality pedestrian environment.

In order to work toward that vision, there are these objectives for downtown:

- 1. Enhance the connection between downtown and the ski area and provide amenities and opportunities for visitors in downtown Winter Park.
- 2. Increase the appeal of the downtown by incorporating natural qualities of the region such as native landscape material and more fully celebrate the edges and crossing of Vasquez Creek as it meanders through downtown.
- 3. Maintain the community's small-town character in the infill and redevelopment of downtown.
- 4. Continue to provide public services and locate civic facilities downtown to ensure that downtown Winter Park is the hub of civic and public activities.
- 5. Create an opportunity for investment to encourage property owners to collaborate on infill and redevelopment projects.
- 6. Above all else, seek to create a pedestrian-friendly downtown with numerous, accessible public spaces, walkable streets and pedestrian corridors.

### D. Framework Plan

Based on those objectives, this section provides an overview of the urban design recommendations for downtown Winter Park. Additional graphics that provide background information used in developing the plan are provided in **Appendix C**.

#### **Future Land Patterns and Uses**

Downtown should develop with a higher concentration of buildings and a greater diversity of users. This should include multi-storied, mixed-use commercial operations that serve local residents, regional users, and visitors. Public facilities and services for residential users and local residents are also important components to the development of downtown. Future development projects in downtown should:



- Reinforce the identity of the entire community.
- Contribute to a sense of a greater neighborhood rather than individual buildings.
- Contribute to an integrated circulation system that links individual properties with adjoining uses.
- ► Encourage pedestrian activity along secondary streets and pedestrian corridors that parallel and are perpendicular to Main Street.
- Promote the use of public transit.

### **Downtown Design Concepts**

- ► Increase the density of mixed-use development between Vasquez Road and Kings Crossing Road.
- ▶ Widen the core of downtown by introducing a series of east-west streets and pedestrian connections that increase development opportunities, promote connectivity and improve circulation between Ski Idlewild Road to the east and Lions Gate Drive to the west.
- Provide continuous and convenient pedestrian access that improves and encourages pedestrian connectivity throughout downtown.
- ▶ Introduce an alley system that allows vehicular traffic to access parking and loading/service areas from the rear of parcels.
- Encourage infill and redevelopment projects to locate all buildings at the sidewalk edge, applying a 0'-0" setback along the sidewalk edge, when feasible.
- ▶ Encourage sidewalk widths in new commercial areas to be a minimum of 15 feet. This allows for adequate pedestrian movement along the sidewalk in addition to potential outdoor dining and tree grates and other potential sidewalk furnishings such as bollards and/or bicycle racks.
- Encourage infill and redevelopment projects between Vasquez Road and Midtown Road to locate building at the street corners.
- ► Encourage mixed use development that targets **retail and commercial uses at street level** with residential uses above.
- Encourage new buildings to incorporate architectural detailing that creates visual interest at the street level: display windows, recessed building entrances, etc.
- ▶ Direct on-site parking to the rear of buildings or parking lots that are internal to the block.
- Encourage shared parking policies between complementing land uses.
- Minimize and consolidate curb cuts, when feasible.
- ▶ **Develop a new east-west pedestrian corridor** directly north of Copper Creek Square to create additional retail frontage that links the future gondola portal to downtown. This



corridor should accommodate special events (adequate lighting, emergency access, adequate utilities include water and electricity, etc).

- ► Ensure that new development and potential annexations respond to existing and future pedestrian corridors by providing sidewalks and/or trails that link the new development and/or proposed annexations to downtown.
- ➤ Construct a roundabout at the Vasquez Road/Lions Gate Drive intersection to minimize vehicular congestion in this area.
- ▶ Promote pedestrian access across Vasquez Road at one specific point that links the gondola to public uses to the north.
- ▶ Redevelopment and associated public improvements should be phased; in the next few years, redevelopment should be targeted for parcels located between Midtown Road and Vasquez Road.

### Neighborhoods

Residential neighborhoods currently exist near downtown. As Winter Park continues to grow, new residential development within and adjacent to downtown should be anticipated. As mentioned earlier, mixed-use infill and redevelopment projects should include permanent residential units to promote permanent residential opportunities within the downtown core.

#### **Pedestrian Circulation**

The crosswalk system along Main Street should be improved with a significant emphasis on high quality design and attractiveness. This should include installing special vertical "markers" (see **Figure 4.2**) to identify the location of cross walks, providing new traffic signals (where warranted) and adding more crosswalks (see **Figure 4.3**). The markers could be considered one component of an overall wayfinding and signage palette or could be targeted as public art. The primary goal is to create a permanent element that is visually appealing, is readily apparent in summer and winter, and can withstand snow removal and storage requirements. **Figure 4.4** shows the pedestrian circulation patterns in the Town of Winter Park.



Figure 4.2 Main Street Extension

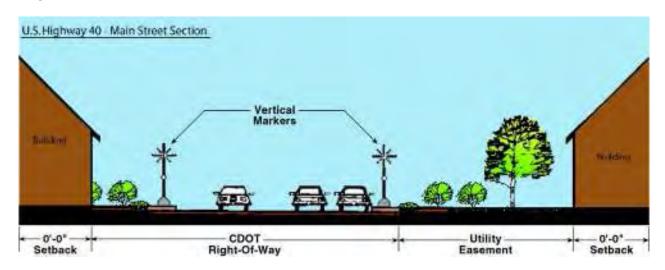
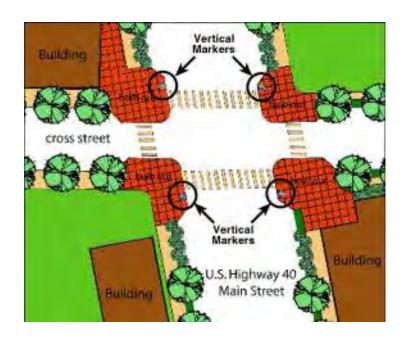


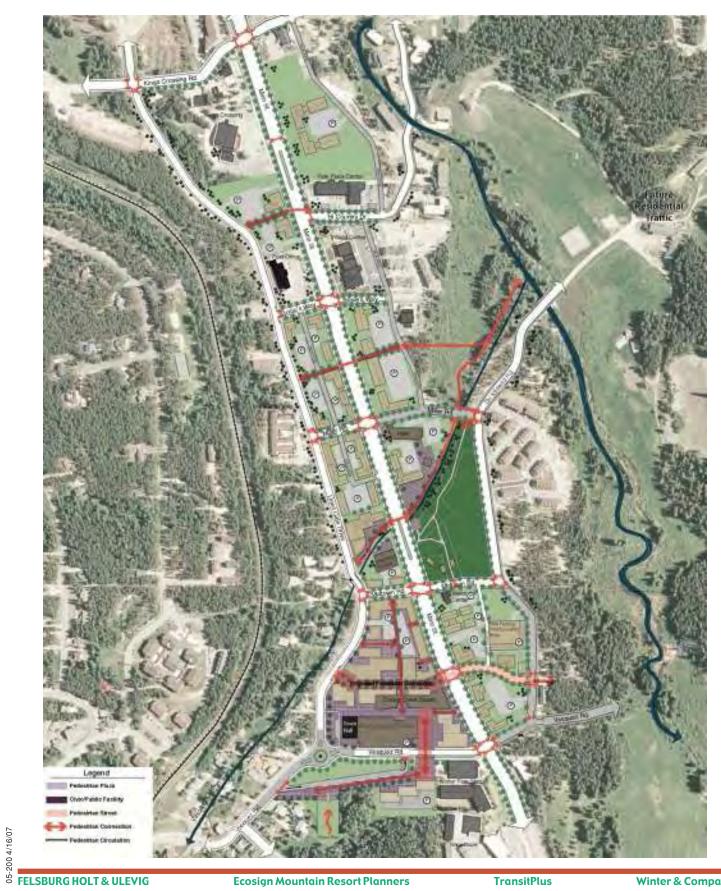
Figure 4.3 Main Street Intersection Detail





# Figure 4.4

## **Pedestrian Circulation**





To encourage pedestrian activity downtown, the Town of Winter Park should:

- ▶ Create short, walkable blocks. Where feasible, in longer blocks, introduce new cross streets and/or pedestrian corridors that will provide access to properties that are located behind the primary street and that offer opportunities for businesses to face these quieter lanes and walkways.
- ▶ Align cross streets. In some cases, streets on either side of the highway do not align. This again forces traffic onto the highway. In some cases, it may be possible to realign pairs of streets on either side of the highway such that they form a four-way intersection.
- ▶ Add more traffic signals where warrants are justified. This will provide more opportunities for safely crossing the highway, both for motorists and pedestrians.
- easier to see by adding signage, but also introduce vertical, sculptural elements that will readily identify these crossings to pedestrians and motorists that are more than 100 feet away from an intersection. Such an element would be designed to function throughout the year, including during times when significant snow deposits occur. A sculptural pylon, designed to feature the assets of the community, should be used. This should include lights that will help to identify the crossing at night and add "sparkle" to the night scene. It should be designed to add excitement and interest to the street, and be a signature element that is unique to downtown Winter Park. In addition, cross walks should be evenly and predictably spaced to allow for multiple access points. This may require the relocation of some existing crosswalks and the introduction of new mid-block and/or signalized crosswalks at street intersections.

In addition to the structural elements, there are several signing improvements that can be made along Main Street to reduce speeds and improve pedestrian safety. Currently, there are two dynamic message signs that tell motorists what there current speed is. These signs use radar to determine the speed of approaching cars. One is located just south of Vasquez Road for northbound traffic and the other is just south of Kings Crossing Road for southbound traffic. Two more signs (one for each direction) could be added in the vicinity of Midtown Road to reinforce the message that Winter Park is concerned about excessive speeds.





The pedestrian crossing signs located at the Cooper Creek Station crosswalk have small LED lights around the periphery to draw attention to the signs. Unfortunately, the LED lights are too small to be readily visible, particularly in the bright sun. Larger LED lights have been used on pedestrian signs on state highways in Estes Park, Avon, and Boulder with good results. These should be utilized at mid-block pedestrian crossings wherever possible. They work



best with a raised median, but this is not a requirement.

- ▶ Design cross streets and walkways to be pedestrian oriented. Extend "main street development" to the side streets in the form of short cross streets and/or walkways where sidewalks can be provided and buildings can be located close to the street or walkway edge. This will create pockets of pedestrian zones that will encourage walking and reduce vehicular traffic between individual businesses. These side streets and walkways should include streetscape furnishings, street trees in tree grates, and decorative lighting.
- Extend streetscape improvements north on Lions Gate Drive. Throughout the planning process, residents often cited the need for safe pedestrian improvements along Lions Gate Road. Although the Town has invested in significant pedestrian and streetscape improvements at the Vasquez/Lions Gate intersection, including a new bridge across Vasquez Creek, the improvements currently terminate at the bridge and pedestrians are forced along the unimproved shoulder of existing drive lanes.



#### Vehicular Circulation

To relieve pressure on Main Street through downtown and create a more navigable, accessible downtown, the town should:

- Align cross streets to maximize convenience and clarity of movement.
- ▶ Maintain clear internal circulation with a possible route circumventing Main Street through downtown.
- Develop diverse public transit options to increase pedestrian activity and encourage pedestrian-friendly development.



An extremely critical component to resolving the conflict between existing/future development and traffic along Main Street is to extend "main street commercial" development beyond Main Street onto east-west cross streets and pedestrian corridors. New access routes that are perpendicular to the highway will result in increased densities of development in downtown, provide additional alternatives for pedestrian movement through downtown Winter Park and minimize the need for pedestrians to cross Main Street multiple times. **Figure 4.5** shows the Urban Framework plan for downtown.

### **Parking Strategy**

To the extent feasible, parking should be visually subordinate to the street. Key parking principles for the Town of Winter Park are:

- Place parking internal to blocks and locate primary building facades at the street edge.
- Develop short-term, signed on-street parallel parking along east-west streets.
- ▶ Buffer the edges of surface parking lots to make them attractive for pedestrians.
- Locate parking to be convenient to businesses and provide attractive pedestrian routes linking them.
- Concentrate parking in structures (above ground or underground) in coordination with infill and redevelopment to the extent feasible.
- Encourage public transit by integrating bus shelters and transit hubs that are well marked, attractive, and conveniently positioned.
- Encourage walking downtown by completing the network of existing sidewalks and trails.



## **Streetscape Improvements**

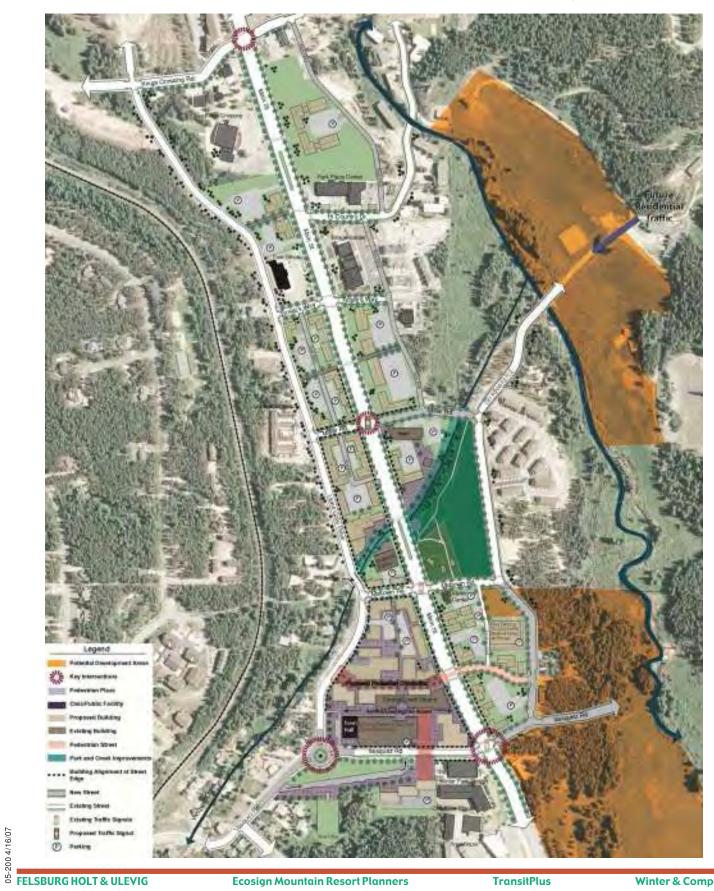
Streetscape improvements should be unified and coordinated to ensure continuity along the street edge.

▶ Along Main Street between Midtown Road and Kings Crossing Road, detached sidewalks with a planted buffer should be continued. Access from on-street parking spaces through the planted median should be provided to direct pedestrians to the sidewalk. This will also require snow removal at designated intervals along the planted buffer during the winter months. Along cross streets, detached sidewalks with landscaping may also be used where space permits, but attached sidewalks are also appropriate.



# Figure 4.5

# Downtown Urban Design Framework Plan





- ▶ Along the highway between Vasquez Road and Midtown Road, attached sidewalks should be 15' wide (minimum) with buildings located at the sidewalk edge. Street trees should be located in tree grates and positioned to accommodate snow storage in the winter.
- Install street trees along side streets to identify them and invite use.
- Continue the installation of benches, waste receptacles and planters that have a signature design reflecting downtown.

### **Opportunity Sites**

As an example of how the urban design principles may combine to create an enhanced downtown, a set of specific sites are illustrated in this section. These "opportunity sites" reflect preliminary concepts. They are not to be considered formal proposals for development. Implementation of such concepts would require participation by property owners, developers and the Town. A key concept is to create clusters of development with enough critical mass to encourage pedestrian use and create a sense of place (see **Figure 4.6**). These areas reflect these principles:

- Create a comfortable commercial core area away from the traffic on Main Street.
- Encourage dense development with a mix of uses.
- Site buildings at sidewalk edge (see Figure 4.7).
- Encourage active public spaces.



Figure 4.6

## Opportunity Site: Conceptual Design

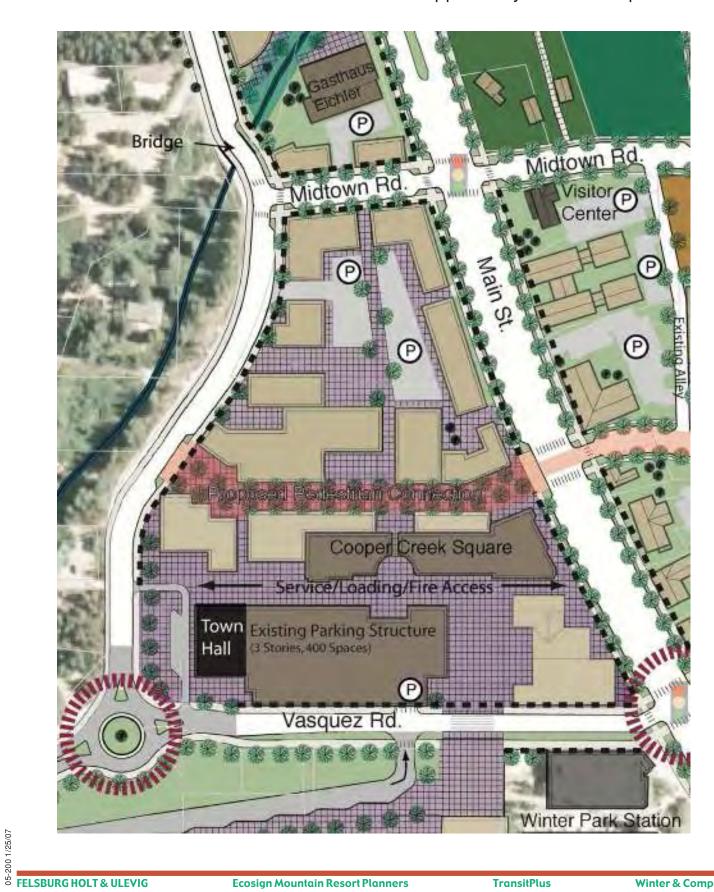
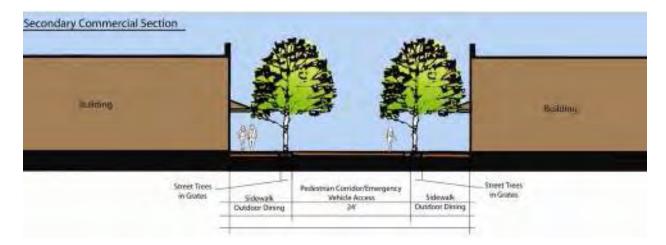




Figure 4.7 Secondary Commercial Areas Section



### **Lions Gate Drive Improvements**

An improved Lions Gate Drive will serve as an internal alternative to Main Street (see **Figure 4.8**). Enhancing the pedestrian and street connections and moving localized pedestrian and vehicular traffic from Main Street to Lions Gate Drive provides an opportunity for the Town to create additional pedestrian-oriented development that could have street frontage along this critical connector. This can be achieved by:



- Orienting building frontage along Lions Gate Drive.
- Locating a detached sidewalk on the east side of the street, creating a buffer between traffic and pedestrian activity.
- Creating a wandering detached sidewalk on the west side of the street, when feasible.
- Maintaining the natural topography and landscape on the west side of the street.

Extending Vasquez Road to connect with Ski Idlewild Road will create a second alternative to Main Street. These improvements along with more detailed information pertaining to public transit are located in subsequent sections of this document.



Figure 4.8 Lion's Gate Section Looking North





# 5.0 IMPROVEMENT ALTERNATIVES AND EVALUATIONS

The traffic forecasts for 2020 and 2026 (see **Table 3.7**) show that there may be potential capacity issues on US 40 at Screenlines #2 (just north of Winter Park) and #3 (just north of Fraser). Traffic volumes should be monitored through this area so that measures can be taken in a timely manner to either reduce the amount of traffic on US 40 or provide more capacity for traffic projected for US 40. Several transportation alternatives have been developed and analyzed which include improvements to US 40 and extension of the Fraser Valley Parkway. Other measures to address transportation and downtown development issues that were analyzed intensively during the study include: development of a more complete downtown grid, increased transit service, and/or completion of a gondola system in downtown Winter Park. Each of these potential improvements impacts the travel patterns on US 40 in the downtown area and around the Winter Park Resort in differing ways.

## A. Potential Roadway Improvements

#### Widen US 40

One feasible alternative to provide additional capacity on US 40 would be to widen the roadway to a four-lane section north of the Town of Winter Park and through the Town of Fraser to County Road (CR) 8. By adding one additional travel lane in each direction, the capacity of the road would be doubled. **Table 5.1** shows a summary of the volume to capacity ratios during the peak hour of the design day in the future with and without the additional lanes on US 40.



Table 5.1 Comparison of V/C Ratios with and without Additional Lanes

|                                    | 20             | 20  | 2026              |   |  |  |
|------------------------------------|----------------|---|-------------------|---|--|--|
| Screenline                         | Base Condition | New Lanes<br>North of Winter<br>Park thru<br>Fraser | Base<br>Condition | New Lanes<br>North of Winter<br>Park thru<br>Fraser |  |  |
| 1 (Just East of Tabernash)         | 0.86           | 0.86  | 0.96              | 0.96  |  |  |
| 2 (North side of Fraser)           | 1.03           | 0.52  | 1.15              | 0.57  |  |  |
| 3 (Between Fraser and Winter Park) | 1.35           | 0.67  | 1.49              | 0.74  |  |  |
| 4 (Between Winter Park and Resort) | 0.68           | 0.68  | 0.73              | 0.73  |  |  |
| 5 (Berthoud Pass)                  | 0.72           | 0.72  | 0.76              | 0.76  |  |  |





As can be seen in the table, with an additional travel lane on US 40 in each direction, the highway would be able to handle the design hour volumes projected for 2020 and 2026. The widening could occur in three phases as the surrounding land develops (which creates the increases in traffic that would need to be addressed). The section of US 40 from just north of the Town of Winter Park to the intersection US 40/CR 72 would be the first section. This segment of US 40 is relatively unconstrained today and the current right-of-way

should be wide enough to accommodate the two additional through lanes. The second section would be from the intersection of US 40/CR 72 to the intersection of US 40/Eisenhower Drive in the Town of Fraser. The third, and final section, would be from the intersection of US 40/Eastom Avenue to the intersection of US 40/CR 8. Within the Town of Fraser there is a roadway segment that is 74 feet wide between Eisenhower Road and Eastom Avenue that does not need additional pavement. The roadway segments proposed to be widened need to accommodate four lanes which would require the existing sidewalk to be set back an additional 11 feet. In Fraser, existing development is close to the existing road and widening will need to be closely coordinated with adjacent businesses to minimize disruption. US 40 is under the jurisdiction of CDOT and the widening can potentially be funded as a regional improvement through the Northwest Colorado Regional Planning Commission planning process.

#### Fraser Valley Parkway

The Fraser Valley Parkway is a partially completed roadway that parallels US 40 to the west. It utilizes Lions Gate Drive through the Town of Winter Park and will continue through the Grand Park development as the main north-south road. An informal connection to CR 72 will be provided through the commercial area in the northwest corner of Grand Park.

The Parkway will use CR 72 and the existing railroad underpass. There is an existing



segment of the Parkway between CR 72 and CR 73 on the west side of the tracks. A new section of road will be required between CR 73 and CR 50. From CR 5, the alignment of the Parkway would initially follow CR 514 to its current end and a new alignment would need to be constructed to the Tabernash area. The existing roads have a gravel surface and will need to be paved in the future. **Figure 5.1** shows the general location of the Parkway alignment. The <u>Fraser Valley Master Road Plan</u>, completed by Grand County in 1999, analyzed this roadway and showed the proposed route. When this roadway is completed, it will provide another option for local-oriented traffic traveling north/south between the Towns of Winter Park and Fraser.



The transportation model was used to determine what the volumes would be if the Parkway were built. With the construction of the Parkway from Winter Park to Tabernash, traffic volumes on Screenlines #1, #2, and #3 are affected. The total traffic at each of these screenlines does not change but there is a shift in traffic from US 40 to the Fraser Valley Parkway. **Figure 5.1** shows how much traffic is expected to be shifted in both the 2020 and 2030 future scenarios.

As can be seen on this figure, even with the construction of the Fraser Valley Parkway, US 40 between Winter Park and Fraser will still be over capacity in both 2020 and 2026. However, Fraser Valley Parkway will still provide some relief for US 40 and the timing of widening will depend on the amount of Main Street use by locals.

#### Improved Downtown Winter Park Roadway Grid

There are several roadway improvements recommended for downtown Winter Park to help improve connectivity and provide circulation alternatives to using Main Street for short distance trips. Some improvements are recommended for existing roadways while others are new connections to Main Street. **Chapter 4** provides a comprehensive discussion of the context of these for new roads and extensions. **Figure 5.2** shows the existing and proposed roadways. Improvements recommended for Lions Gate Drive include widening the roadway (where necessary), striping the roadway to provide on-street parking in front of businesses along this road, and the construction of curb and gutter on Lions Gate Drive throughout the downtown area.

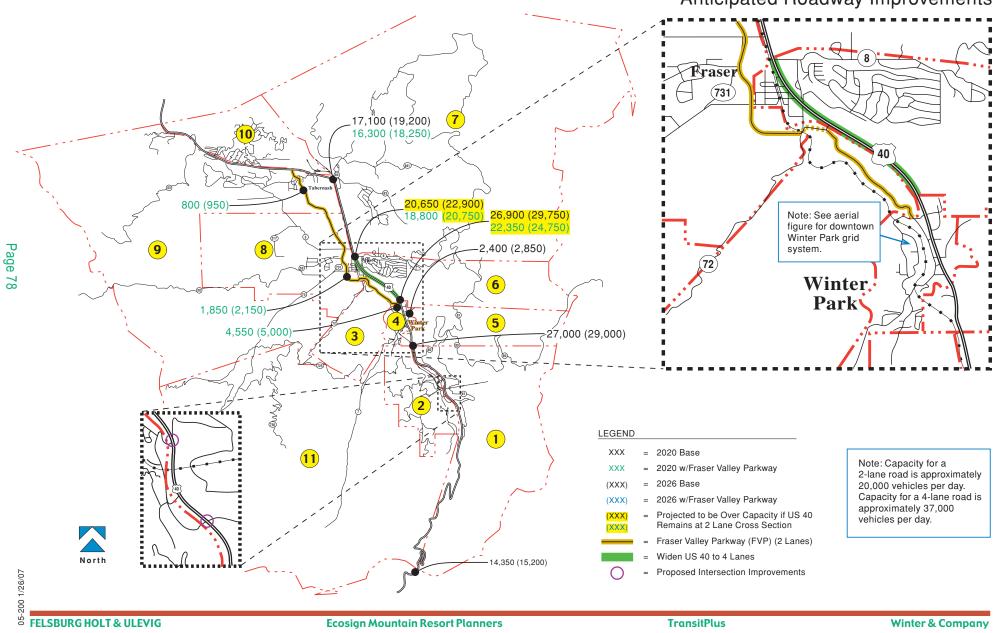
The existing railroad crossing along Kings Crossing Road is anticipated to be closed in the near future (possibly by Fall 2007), and a grade separated crossing will be constructed to the north in the Grand Park development so there will be access for residents and emergency vehicles at all times. Currently, trains occasionally obstruct both crossings at Kings Crossing Road and Vasquez Road so the grade separation near Grand Park will provide continuous access. The possibility of a grade separated crossing at Vasquez Road was conceptually investigated but grades and nearby



residential accesses preclude building a grade separated crossing in the foreseeable future at an affordable cost.

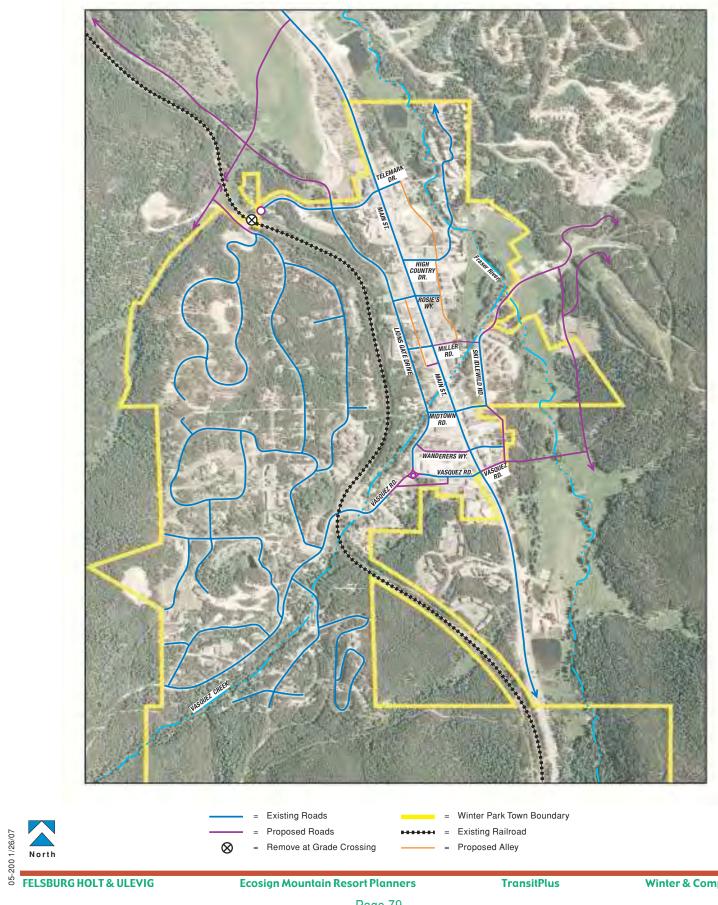


## Future Daily Traffic Projections & **Anticipated Roadway Improvements**





## Downtown Roadways





In addition to improvements to existing roadways, some connections are proposed to be added in order to begin to develop a downtown grid pattern. These include:

- ➤ An extension of Miller Road to Ski Idlewild Road to the east of Main Street. This extension is a long-term project that would need to be accomplished in conjunction with a redevelopment of the Alpenglo Lodge, should that occur.
- ➤ An extension of Wanderers Way to Lions Gate Drive on the west side of Main Street. This would occur in conjunction with the redevelopment of the area north of Cooper Creek Square and may only be open to pedestrians.
- An extension of Ski Idlewild Road from Midtown Road to Vasquez Road. This extension might be initiated to provide access to the parking lot owned by the Town when the amphitheater in Hideaway Park is built. Further extension to the south would probably pass west of the telephone switching facility and may displace several trailer homes.
- ➤ An extension of Vasquez Road to Ski Idlewild Road on the east side of Main Street. This would primarily involve widening and paving the existing private gravel road. There would be a further east-west extension of Vasquez Road across the Fraser River as the Beavers property develops.
- Construction of a future connection to the Beavers development on the east side of the Fraser River. This would start at Ski Idlewild Road and travel south at the base of the hillside.

All of these roadway improvements and additional connections will be constructed as development of new properties or redevelopment of areas in downtown occurs over the next 20 or more years. An in-depth discussion of the entire downtown sub-area plan can be found in **Chapter 4** of this report.

## **Intersection Improvements at Winter Park Resort**

There are several intersection related improvements recommended for the intersections of Winter Park Drive South/US 40 and Old Town Drive/US 40. These improvements are driven by 20-year development plan for the Winter Park Village that is currently underway. A traffic analysis entitled Winter Park Resort Traffic Impact Analysis was completed by Felsburg Holt & Ullevig in May of 2006 to address the impacts of the proposed development. Intersection improvements on US 40 at Winter Park Drive South and Old Town Drive were recommended in this traffic analysis. The proposed land use in this report was taken into account in the development of the transportation model for the overall transportation plan. The following intersection improvements are recommended:

- Winter Park Drive South/US 40
  - Lengthen the eastbound right turn lane to provide a continuous lane between US 40 and the first access onto Winter Park Drive South.
  - Construct a second eastbound left turn lane.
  - Reconstruct the signal installation once the second eastbound left turn lane is added.



- Construct a southbound right turn lane.
- Old Town Drive/US 40
  - Widen the eastbound approach to provide a three lane cross section (one lane in and two lanes out).
  - Construct an additional left turn lane for the eastbound approach.
  - Construct a southbound right-turn lane.

Most of these improvements were recommended to be completed in the next two to three years with the exception of the additional eastbound left turn lane which was recommended to be completed in conjunction with the residential development in Tract 41 and North Bench.

## B. Potential Transit System Alternatives

Three transit alternatives have been developed, illustrating differences in: (1) what markets or travel movements are served and (2) when service is provided. All of the alternatives are based on a relatively conservative level of transit service, with ridership levels similar to what occurs at present.

The Visitor Focused Transit Service Alternative focuses on visitor travel, in the winter season. If only the winter visitor movements are considered, a winter-only service is acceptable. Options are to include summer service (Memorial Day to Labor Day) or to contract for specialized services in the County.

- Travel Movements: Visitors to slopes and downtown.
- Service Area: Winter Park and Fraser.
- Seasons: Winter (150 days).
- Options:
  - Add summer season (Memorial Day through Labor Day weekend).
  - Develop contracts for specialized services in County.
  - Allow contracts for large employers or for summer activities.
- Institutional Options: Intergovernmental Agreement (IGA) or Regional Transit Authority (RTA) has been redefined.





The Community Focused Transit Service Alternative takes more of a community transportation focus for the Fraser Valley, with an emphasis on serving employee transportation needs. For this alternative, year-round service will be needed. Employment service might be a mix of commuter bus service and/or vanpool services. Over time, the importance of employment transportation is likely to grow unless significant employee housing is provided within the Fraser Valley.

- ► Travel Movements:
  - Visitors to slopes and downtown.
  - Employees to jobs.
  - Residents to varied destinations.
- Service Area:
  - Winter Park and Fraser for primary bus service.
  - Granby for commuter service (bus and/or vanpool service).
- ➤ Seasons: Year-round with service levels based on demand in 3 seasons winter, summer, and shoulder.
- Options:
  - One-month break in Spring, at end of winter season.
  - Develop contracts for specialized services in County.
  - Support contracts for summer activities.
- County-wide Transit Service Institutional Options: Intergovernmental Agreement (IGA) or RTA.

The County-Wide Transit Service Alternative extends both the employment and specialized service transportation in the County to destinations that could include Hot Sulphur Springs or Kremmling. Providing direct service to individuals with disabilities or seniors who live in other portions of Grand County or supporting the efforts of the Council on Aging provides good value for the region if the transit system is already operating in much of the County. This support would include regional specialized services (even if one day a week or less often) for people who need to access medical or other services outside their community. This is something that it can be difficult for a senior center or volunteer drivers to accomplish, but which provides significant benefits to County residents.







#### Travel Movements:

- Visitors to slopes and downtown.
- Employees to jobs.
- Residents to varied destinations.
- Individuals who are elderly or have disabilities for varied trips.

#### Service Area:

- Grand County, with core bus service in Winter Park and Fraser.
- Other destinations as warranted based on demand Granby for commuter service or ridesharing (carpool or vanpool programs) and Hot Sulphur Springs / Kremmling for trips for people who are elderly or who have disabilities.
- ➤ Seasons: Year-round with service levels based on demand in 3 seasons winter, summer, and shoulder.
- Options:
  - One-month break in Spring for fixed route service, at end of winter season.
  - Support contracts for summer activities.
- Institutional Options: Intergovernmental Agreement (IGA), RTA, or County District.

#### **Service Characteristics**

Although the level of ridership is anticipated to more than double in the next 20 years, other characteristics would not necessarily increase at the same pace. The peak periods are anticipated to not be as strong in the future, so the peak vehicle requirements won't be as high (when compared to daily average vehicle requirements). First, the effort the Resort is making to draw more destination skiers, filling in the weekdays, will result in the transit system carrying more riders on weekdays. Therefore, the weekend peaks will not be as strong compared to the weekdays. Second, with the development of lodging units near the base, more visitors will be within walking distance of the base, so their transit trips will occur at night, not during the peak morning and afternoon times. This will soften the peaks that occur throughout the day. A third factor that will affect the peak periods is employee ridership. Employees will be stable daily riders and many of their trips will occur outside the peak skier travel times.

**Table 5.2** identifies the anticipated service hours for each alternative. An average of 20 to 22 passengers per service hour was used for the winter (20 for current and 22 for outlying years). Ten passengers per hour were estimated in the spring/summer/fall as it will take some time to build ridership in the off-season. For all alternatives, the service configuration would initially be fairly similar to the present one, with additional routes added to serve new development as warranted. Thirty-minute service is assumed in the Fraser Valley initially, building to 20 minute service as warranted by demand. Commuter service would be provided with six morning and afternoon trips in the winter – double what is provided today in order to serve all employees in the Valley. In the winter, three trips were provided morning and evening. To expand by three trips in the winter, an additional three vehicles would be needed. The service for individuals who are elderly or have disabilities has been estimated at around 2.5 passengers per hour.



Table 5.2 Characteristics of Transit Alternatives: Annual Estimated Service Hours

| Markets Served                  | Current | 2020   | 2026   |  |  |
|---------------------------------|---------|--------|--------|--|--|
| Visitors and Local Employees    | 28,000  |        |        |  |  |
| Winter                          | 5,000   | 50,000 | 57,000 |  |  |
| Spring/Summer/Fall              |         | 10,000 | 10,000 |  |  |
| Commuters from Granby           |         |        |        |  |  |
| Winter (all employees)          | 5,000   | 5,000  | 5,000  |  |  |
| Spring/Summer/Fall              | 4,000   | 4,000  | 4,000  |  |  |
| Elderly or Disabled Individuals | 2,000   | 4,000  | 5,000  |  |  |
| TOTAL                           | 44,000  | 73,000 | 81,000 |  |  |

The addition of approximately 9,000 annual service hours for local and commuter service in the Spring / Summer / Fall will enable the system to qualify for Federal Transit Administration funds for general public services. In the long run, the use of these funds will cover the cost of the additional service hours.

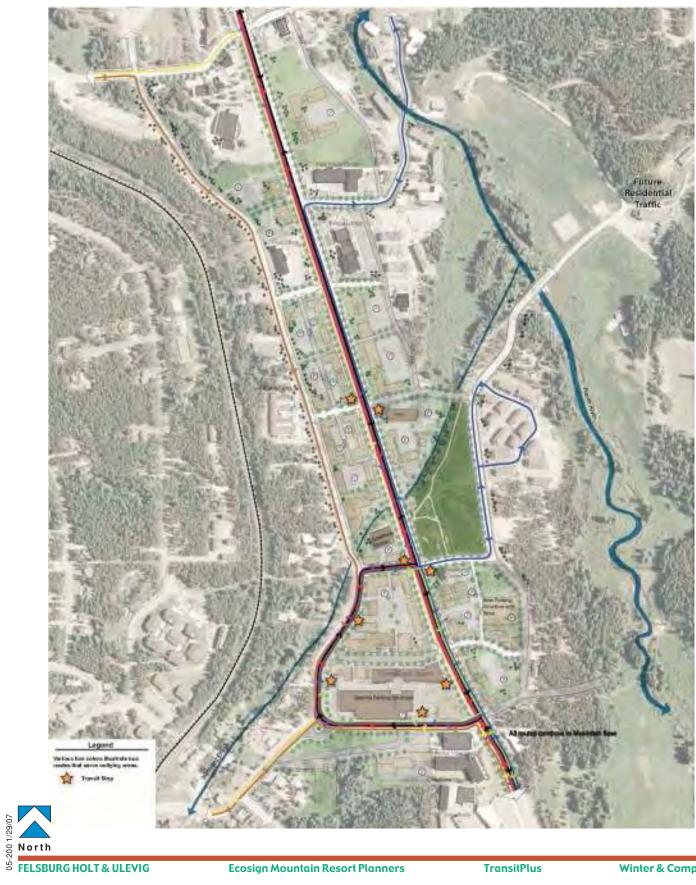
#### **Downtown Bus Routes**

The transit system can play a role in encouraging development/redevelopment activity in downtown Winter Park. The northbound legs of several of the bus routes can be shifted to Lions Gate Drive. The initial rerouting (see **Figure 5.3**) would have some of the buses turning left at Vasquez Road, traveling west to Lions Gate Drive, north along Lions Gate Drive to Midtown Road. The buses would utilize the signal at Midtown Road to turn left to continue north on Main Street. Bus stops would be added to this loop as development occurs and the encourage more.

Later phases (see **Figures 5.4 and 5.5**) would extend the bus routes further north along Lions Gate Drive before returning to Main Street. This would increase the visibility and attractiveness of Lions Gate Drive for developments that are now solely dependent on Main Street traffic.

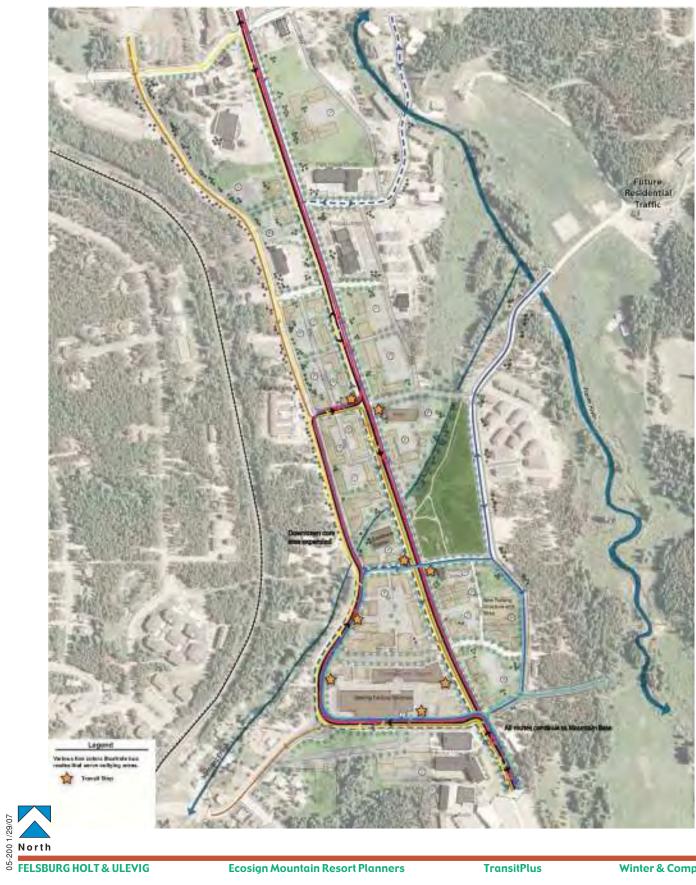


## Downtown Transit Patterns: Phase 1



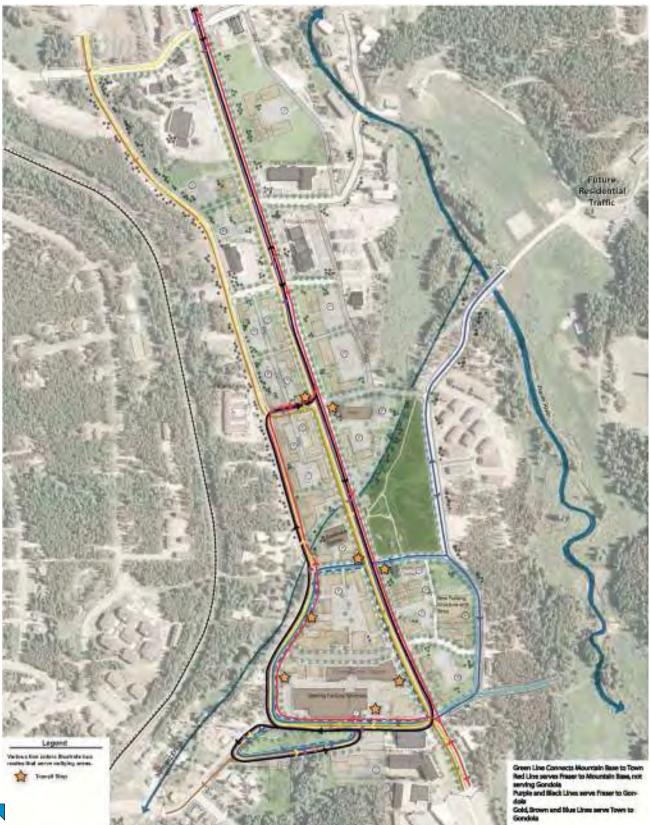


## Downtown Transit Patterns: Phase 2





## Downtown Transit Patterns: Phase 3





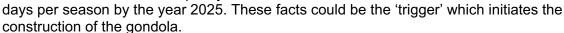
## C. Construction of Gondola in Downtown Winter Park

#### Impact of Increased Skier Visits on the Base Area

As mentioned previously, the base area capacity at the Winter Park Resort imposes quite a strict limit on the business levels of the ski area. If business levels exceed the numbers of visitors that the base area can accommodate, then some people are going to be turned away. That experience may discourage visitors from ever returning, particularly if they paid a large sum of money to vacation at that resort, or if they drove several hours to get there. Therefore, it is imperative that actions be taken to ensure the base area capacity is never exceeded. Ultimately, due to the prevalent use of the private automobile, this limit is usually directly influenced by the amount of day skier parking. One can easily add more transit buses or lodge shuttles than develop more day skier parking on a limited land base.

The Master Plan for the Winter Park Ski Resort has included the development of a gondola connection into Town for many years now. In fact, some years ago, the Resort purchased 3 acres of land adjacent to Town Hall to accommodate the bottom terminal of this lift and the staging facilities necessary when it is eventually constructed. As envisioned in the past, the construction of this connection into the ski area would be a long term solution to allow business levels business levels to comfortably exceed the capacity of the Mary Jane and Winter Park base areas, to provide a more convenient route into the ski area from Town, and to reduce vehicle use in the corridor.

The base area capacity by year as compared to the demand for base area capacity (skiers and employees) was shown on **Figure 3.5** (page 44) for peak days. This figure shows that based on the Valley visit projections, the base area capacity could be exceeded on the top day by the year 2020. It also shows that the base area capacity could be exceeded on 5





In addition, an analysis was completed to determine the impact the Gondola would have on parking in the vicinity of the proposed base in downtown Winter Park. Both a constrained and unconstrained scenario was analyzed to determine how many skiers may potentially want to park near the Gondola base. Currently, the existing parking garage has approximately 400 spaces with the potential to expand to about 500 spaces. This constrains the number of skiers arriving by automobile at the Gondola to approximately a total of 800. If parking is unconstrained near the Gondola base, approximately 1,500 skiers would arrive at the Gondola to park via automobile which results in the need for approximately 660 parking spaces.



The installation of the gondola would also have many other effects on the Town and the Resort by changing the way people move in and between the Winter Park Base and Town. **Figure 5.6** shows the routing plan from the Resort and **Figure 5.7** shows a concept for the gondola base in downtown Winter Park.

This new gondola terminal would bring a substantial number of accommodation units within a comfortable walking distance of the terminal (see **Figure 3.8** - page 47), eliminating the need for cars or alternative modes of transportation to access the ski area. This would remove a substantial number of cars off the road and reduce the need for some transit capacity and lodge shuttles. Currently, approximately 1,822 skiers are



- accommodated within 2,000 feet of the terminal and that could increase with redevelopment to approximately 2,519 skiers based on current zoning.
- ▶ Depending on the exact levels of existing bus use from the Town, this could reduce the traffic on US 40 by approximately 290 to 540 cars (assuming 50 percent of current bus use is from the downtown area 2,240 / 2 = 1,120 skiers).
- ➤ Transit would also be dramatically affected. Because many people will be located within walking distance of the gondola terminal (see **Figure 3.8** page 47), several bus stops would likely become redundant for skier staging. Ridership would drop dramatically. In addition, it is anticipated that most buses would unload close to the gondola terminal rather than continuing to the Winter Park base because of the convenience and proximity. This would dramatically reduce the circuit time for each route. The result is that in order to maintain (and likely improve) the level of transit service, fewer buses would be required and therefore, cost significantly less money. Savings could be quite substantial.
- ▶ Because this gondola could stage over 6,000 skiers per day in the industry-accepted staging period, careful consideration must be made when designing the traffic system in and around the terminal. It should be noted that there is parking for only about 500 cars adjacent to the lift, so car traffic would be limited. Much of the traffic would be pedestrian (about 2,000 to 2,500 skiers) or transit and car/shuttle drop-off.



## Potential Gondola Routing Plan

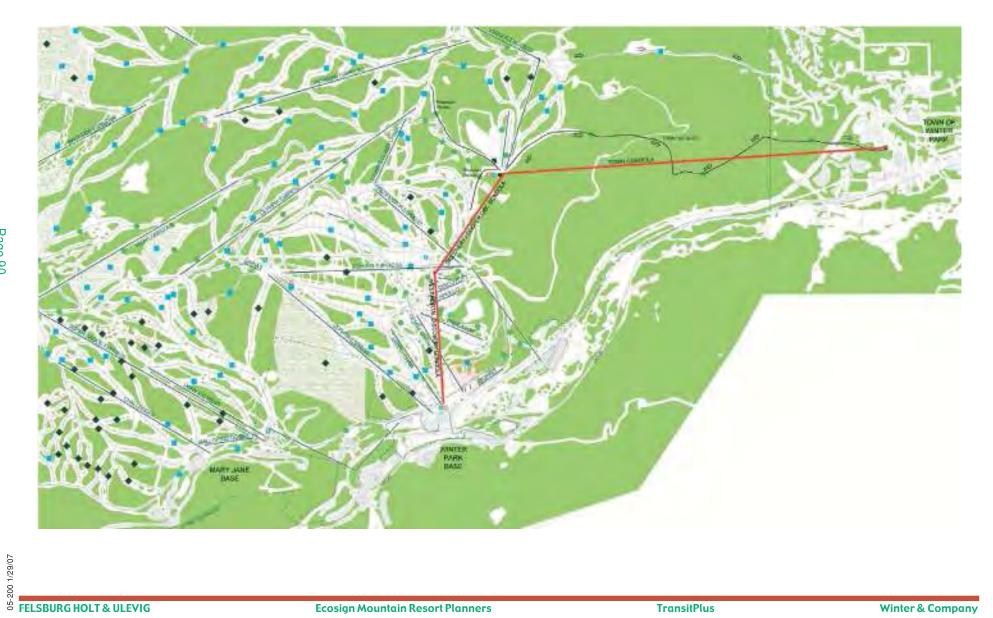




Figure 5.7 Concept for Gondola Base



- ▶ Due to the convenience of this new third base area, the other two base areas would experience an immediate and significant decrease in the number of people using those portals. As mentioned previously, there could be up to 1,000 fewer cars at the other two base areas (and using US 40), including approximately 540 fewer cars coming from the Town and up to 500 cars diverted to the parking structure in Town. Because most of the transit would be diverted to the gondola, over 1,000 skiers would not be using those areas as staging portals. Many of the lodge shuttles and car drop-offs (as high as 1,200 skiers) may use the gondola base as well.
- ▶ It is also believed that the installation of the gondola would substantially increase the value of properties in downtown (obviously price, but more importantly, desirability) and could precipitate redevelopment. Because developers would be eager to develop in this area, the Town could encourage more density and more public accommodation development through zoning changes. Public accommodation and increased density is beneficial for minimization of



the transit system and maximization of number of guests and economic impact.



## 6.0 INSTITUTIONAL AND FINANCIAL ARRANGEMENTS

## A. Background

The following discussion focuses on potential institution and financial arrangements for improved transit services that the Town of Winter Park could pursue. Funding for roadway improvements is not included as most of the future improvements will be funded through traditional mechanisms: by developers of the adjacent properties, through state and regional programs, or through the capital improvement programs of the towns of Winter Park and Fraser and Grand County

#### **Institutional and Financial Characteristics for Transit Services**

The eligible financing mechanisms used to fund transit services vary depending on the institutional structure. Colorado law enables regions to form a Regional Transit Authority (RTA) and charge up to one percent above the sales tax limit in order to fund mass transit services. Counties also have the authority to charge a Mass Transit sales tax, again up to 1%, also above the sales tax limit. Governmental agencies also have the ability to enter into contracts and agreements, and intergovernmental agreements may be used to fund and operate transit services. If an intergovernmental agreement is used, local general funds can be used to fund services – but these fall within the state limit on local taxes.

The Visitor Focused and Community Focused Transit Service Alternatives could be implemented using an intergovernmental agreement (IGA) between the participating communities or forming a RTA. For the County-Wide Transit Service Alternative, the primary institutional options would be a County Mass Transit District or an RTA, although an IGA could also be used.

#### **Federal Funds**

All of the resort transit systems in Colorado utilize federal funds as a partial source for capital operations. There are a variety of federal programs that fund transit services (see **Table 6.1**). The funds are accessed through the Colorado Department of Transportation and/or the Colorado Transit Coalition and will likely be key for both building the fleet and potentially in building a maintenance facility. They require the operation of service year-round. Services can be reduced in the Spring, but most regions find ongoing service is needed to provide steady employee transportation and to maintain a core staff with year-round employment.



**Table 6.1** Federal Transit Administration (FTA) Funding Programs

| Program  | Apply Through                 | Comments   |
|--|-------------------------------|--|
| 5304 Planning Funds                                | CDOT                          | Used for planning studies; 70/30 match ratio   |
| 5309 Bus Capital Funds                             | Colorado Transit<br>Coalition | The coalition consists of over 25 organizations that seek an earmark of capital dollars. This is used primarily for vehicles and facilities. Must pay dues one year before applying for funds. Annual submittal. |
| 5310 Elderly & Individuals with Disabilities Funds | CDOT                          | Funds may be used for vehicles and now for coordination activities. Grand County relies on these funds for vehicles for the Council on Aging services. Apply in odd years.                                       |
| 5311 Rural Transit Program<br>Funds                | CDOT                          | Primary source for operating and administrative funds; also are used for capital funds. Apply in odd years for two-year grant approvals. Update application in even years.                                       |
| 5316 Job Access Funds                              | CDOT                          | Has allocation for rural areas. Requires 50% match ratio. Apply in odd years. Commuter service would be eligible for these funds.  |
| 5317 New Freedom Funds                             | CDOT                          | For new service that exceeds the ADA requirements (providing services outside the 3/4 mile boundary, during longer hours, etc.). Apply in odd years.   |

Together these FTA funding sources can be used to help expand the services available in the region, but they will be only one part of the overall funding picture for transit.

These funds come with important conditions including provision of year-round service, coordination with other providers and human service agencies, and decisions made in a planning process that includes citizens and a wide variety of agencies. **Appendix B** identifies recent awards in resort communities to provide a perspective on the amount of funding available. Many of these fund sources can be applied for at the same time, and a single application is recommended for Grand County services.



## B. Capital Investment

The transit system is facing a substantial need for capital investment for both vehicles and a maintenance-operations facility. All vehicles used at present are leased and are provided by the contractor. While six new vehicles have been leased for the 2006-2007 season and the paratransit vehicles are new, most of the rest were fully depreciated before they were brought to the system. The system will need to plan for obtaining all new vehicles over the next ten to fifteen years.

The existing fleet size of 38 vehicles is used as the basis of the initial capital plan for the Winter Park Lift. The vehicle fleet is expected to increase to accommodate the additional ridership as the system almost doubles in ridership by 2020. However, the speed of the ridership increase and the effect of development on the peaking patterns of the system will impact the number of additional vehicles that will be needed. The capital plan can be adjusted every few years in response to changing conditions. A draft capital plan illustrating anticipated needs by year is contained in **Appendix B**. This should be used only to provide an order of magnitude estimation of the capital requirements. As the system moves towards implementation, a detailed capital plan will need to be developed.

Heavy-duty transit coaches are recommended for most service, although over-the-road vehicles would be desirable for employee bus service between Fraser and Granby. The heavy-duty transit vehicles have a standard life of 12 years, but in a resort setting they can last much longer. A 15-year or more life has been used in the estimations for the capital plan as only two full-size coaches are programmed for replacement annually.

Body-on-chassis buses will continue to be used for paratransit services and any call-and-ride service that is provided. This type of vehicle will also be appropriate for the Grand County Council on Aging services provided to seniors in the County. Grand County Council on Aging vehicle requirements are also identified in the capital plan.

Finally, there will be minor requirements for a supervisory vehicle, a maintenance truck, and office equipment.

Adding up the total cost of new vehicles gives a cost of approximately \$9 million. In addition, a maintenance and operation facility could be expected to cost \$3 to \$4 million. Based on the useful life of vehicles (estimated at 15 years for heavy duty transit coaches) and a 40-year life for a building, the amortized cost would be about \$740,000 annually in current dollars. These are significant costs, and it is worthwhile examining how other resort systems have addressed these costs.

A key has been to access federal dollars for capital funding, where 80% of the costs can be covered. The various federal funding sources are described in more detail in the next section. There is significant competition for the federal funds, and over the years a good number of buses have been purchased and facilities constructed using only local dollars, with outright purchases for smaller amounts and bonding for larger amounts. Realistically, the system would



not be likely to obtain the full 80% for its capital needs – but might be able to average closer to 60% based on the amount of funding the state has been able to obtain through earmarks.

The picture has changed recently now that Senate Bill 1 is beginning to make some state funding available for transit. This past year CDOT went through a process of selecting projects for Senate Bill 1 monies for transit, and it is anticipated that this may relieve some of the pressure for federal capital funds. For example, Colorado Springs was awarded several million dollars for purchasing new buses for the commuter service between Colorado Springs and Denver.

Choices for obtaining the vehicles and building the facility include:

- Leasing or purchasing vehicles.
- ➤ Slowly upgrading the fleet, purchasing an average of 2-3 buses annually; obtaining vehicles in groups of approximately 10 every few years, or bonding for the entire cost of replacing the fleet and doing it at once.
- A combination of some leases and some purchases may make it financially feasible to obtain a core of new vehicles sooner than waiting to purchase all of them.

Because the system will want to work towards a sustainable replacement plan, it may be wiser to make larger purchases every few years, although it will take longer to have a "new look". This will also reduce the amount of work needed for obtaining the vehicles – a task that is not simple to have to do every year. Obtaining enough funding so that primary services can be covered with new buses and using the older buses for peak overloads may be a viable strategy.

The facility needs are critical because the facility is inadequate, and there are future plans to develop that site. Finding a viable site for an operations facility and having it ready to go (environmental reviews completed, design work underway) will give the region a stronger position should funding become available sooner than anticipated. At present, there is a "facilities group" of agencies that are waiting for funding through the annual earmark funds that Colorado receives. It may be 2011 before all agencies currently on the list are funded.

#### C. Financial Plan

Looking at the operating and capital cost together provides a perspective on what may be needed in order to finance the alternatives. A first cut of a financial plan was prepared to illustrate the financial constraints that must be considered as the region develops a transit plan.

**Table 6.2** identifies approximate costs to assist the region in making decisions about service level, capital investment, potential taxes to support transit, and the role of the resort in supporting the transit network. This first cut at developing a financial plan provides an order-of-magnitude estimate of overall expenses and the revenues needed to support the service over time. More detailed information can be found in **Appendix B**.



Table 6.2 Initial Draft Financial Plan – Constant Dollars (1) (2)

|                             |              | '07     | '08     | '09     | '10     | '11     | '12     | '13     | '14     | '15     | '16     | '17     | '18     | '19     | '20     | '21     | '22     | '23     | '24     | '25     | '26     |
|-----------------------------|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Service Level               | Annual Hrs   | 44,000  | 46,200  | 48,400  | 50,700  | 52,900  | 55,100  | 57,400  | 59,600  | 61,800  | 64,100  | 66,300  | 68,500  | 70,800  | 73,000  | 74,300  | 75,600  | 76,900  | 78,200  | 79,500  | 81,000  |
| Operating<br>Expenses       | @ \$45/hour  | \$1,980 | \$2,079 | \$2,178 | \$2,282 | \$2,381 | \$2,480 | \$2,583 | \$2,682 | \$2,781 | \$2,885 | \$2,984 | \$3,083 | \$3,186 | \$3,285 | \$3,344 | \$3,402 | \$3,461 | \$3,519 | \$3,578 | \$3,645 |
| Capital Expenses            |              | \$0     | \$460   | \$460   | \$460   | \$2,000 | \$3,085 | \$460   | \$460   | \$625   | \$460   | \$460   | \$460   | \$625   | \$460   | \$460   | \$460   | \$625   | \$460   | \$460   | \$460   |
| Total Expenses              |              | \$1,980 | \$2,539 | \$2,638 | \$2,742 | \$4,381 | \$5,565 | \$3,043 | \$3,142 | \$3,406 | \$3,345 | \$3,444 | \$3,543 | \$3,811 | \$3,745 | \$3,804 | \$3,862 | \$4,086 | \$3,979 | \$4,038 | \$4,105 |
| Revenues                    |              |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | ,       |
| Local Taxes at 1%           | 6 (3)        | \$790   | \$820   | \$850   | \$880   | \$900   | \$930   | \$950   | \$980   | \$1,010 | \$1,030 | \$1,060 | \$1,090 | \$1,120 | \$1,150 | \$1,170 | \$1,190 | \$1,210 | \$1,230 | \$1,260 | \$1,260 |
| Resort                      |              | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 |
| Federal Operating           | Funds        | \$0     | \$175   | \$175   | \$200   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   |
| Federal Capital Fr<br>5311) | unds (5309 & | \$0     | \$300   | \$350   | \$250   | \$1,100 | \$2,100 | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   |
| Fares (Regional S           | Services)    | \$0     | \$51    | \$53    | \$54    | \$56    | \$58    | \$60    | \$61    | \$63    | \$65    | \$66    | \$68    | \$70    | \$71    | \$73    | \$75    | \$77    | \$78    | \$80    | \$81    |
| TOTAL                       |              | \$2,040 | \$2,596 | \$2,678 | \$2,634 | \$3,556 | \$4,588 | \$2,860 | \$2,891 | \$2,923 | \$2,945 | \$2,976 | \$3,008 | \$3,040 | \$3,071 | \$3,093 | \$3,115 | \$3,137 | \$3,158 | \$3,190 | \$3,191 |
| Short or Excess             | Revenues     | \$60    | \$57    | \$40    | -\$107  | -\$824  | -\$977  | -\$184  | -\$251  | -\$483  | -\$400  | -\$467  | -\$535  | -\$771  | -\$674  | -\$710  | -\$747  | -\$949  | -\$821  | -\$848  | -\$914  |

#### Notes:

- 1. Costs Calculated in Constant Dollars 2006
- 2. Costs are in thousands of dollars
- 3. Land value for a facility may be provided as an in-kind contribution and could off-set much of the loss shown in 2011 and 2012.



## **Assumptions**

The financial analysis is based on planning level assumptions that would need to be refined as part of establishing a financial mechanism. Cost and service hour estimates are approximate and are meant to provide a picture of what might be expected with steady growth levels. Actual service levels, budgets, and revenues will vary on an annual basis in response to development patterns, travel demand, availability of resources, and decisions made regarding service level and capital investment.

The plan is built upon the service level described in the second alternative "Community Focused Transit Services" so that it illustrates how Federal funds would support a general public transit system.

- Revenue estimates are based on Fraser Valley forecasts prepared by EPS, as that is the study area for this project. Revenues from the County area or other communities are not included, either as taxes or contract services. As the region considers how to implement services, it may decide that services and funding should be County-wide instead.
- ▶ The revenue forecast is based on implementing a 1% mass transit tax.
- ➤ Capital costs are spread evenly throughout the plan, with transit coaches replaced at 2 per year and body-on-chassis vehicles replaced every four years. This results in operating vehicles longer than the standard vehicle life, but it is common to run vehicles for 15 or more years in the resort communities. Vehicles are assumed to be purchased rather than leased, although some combination of the two may be appropriate.
- An operations and maintenance facility is identified for construction in 2011 and 2012, and it is assumed that federal funds could be obtained to fund 80% of the cost of this facility. It may be possible to cover the local match with donated land value, off-setting much of the loss shown in these years.
- No adjustments are made for the leased costs of vehicles, although it is understood that several vehicles now operating are leased vehicles.
- ➤ The cost per service hour (\$45 per hour) provides a realistic assessment of current expenditures. Detailed financial planning would be needed to determine if this is an adequate number for the future.
- At the end of the planning horizon, significant funding will be required to build and operate the gondola. This is envisioned as a partnership between the public transit system and resort. The gondola will reduce the amount of transit service needed between Winter Park and mountain, reducing bus operating and capital costs. Neither the changes in transit costs and fleet nor the additional gondola costs have been included in the initial capital plan.



#### **Financial Issues**

The first cut shows that even a 1% sales tax does not raise adequate revenues to fund the alternatives. While in the early years the gap in funding may be manageable through a combination of decisions on service level and capital replacement, by 2015 the gap is over one-half million dollars annually. The gap grows to \$1.0 million annually by 2026.

One issue is that sales taxes are not projected to increase as steadily as service levels.

Capital issues contribute significantly to the shortfall. The system will need to basically build the system from scratch, as most vehicles need to be replaced, and an operating and maintenance facility needs to be built. Even with federal support, the annual amounts available are not adequate to fund 80% of the cost of what is needed to upgrade the Winter Park fleet and the maintenance facility. Funding the capital needs may require a consideration of leasing, bonding, and seeking additional state or federal allocations or hoping that some funding frees up as other entities are able to access state Senate Bill 1 funds. It also may require careful attention to fleet size and productivity. At present the system is heavily weighted to peak service; as the resort community develops, more passengers will be carried in the evening and other off-peak times. This may allow the area to reduce the peak vehicle fleet.

Peer systems have smaller fleets than Winter Park, and still many have trouble funding capital costs. Productivity is also important. The level of service programmed is based on the current productivity levels – starting with the current average of 15 to 16 passengers per hour and increasing only gradually to 18 passengers per hour. The productivities of peer systems varies widely, depending on the amount of regional service (long-distance trips) provided. However, the system with the most similarities to Winter Park in terms of the service mix is Steamboat Springs. They operate at an average of 24 passengers per hour. An emphasis on increasing productivities will result in fewer hours that need to be operated and fewer vehicles, helping the system in two ways.

The financial issues are significant and are likely to affect the service levels, decisions about capital investment, and the partnerships developed between the cities, counties, and resort. Given the need to build a facility and obtain a new fleet, it will be critical to become actively involved in the State and Federal processes for transit funding.

More detailed financial planning will be needed to determine the decision points and the level of service that can be sustained over time.



## D. Implementation Activities

This plan was prepared through a study that had a long-term vision. As the stakeholders in the region move forward to implement improved transit service, more detailed implementation work will be needed. This section describes the major activities that need to be undertaken.

#### Challenges to Transitioning the Service to Public Operation

The initial challenges are the greatest as the system will need to establish a stable financial and institutional structure and to invest in capital equipment and facilities. A summary of these challenges are:

- ▶ Determining institutional structure and obtaining voter approval for financing that will support the system growth and development.
- Negotiating a transition and financial support from the resort.
- Transitioning the system from private operation to public operation, and upgrading as needed to comply with federal regulations.
- Improving fleet with a phased plan to purchase and / or lease vehicles.
- Building a new maintenance facility as the current site will be re-developed.

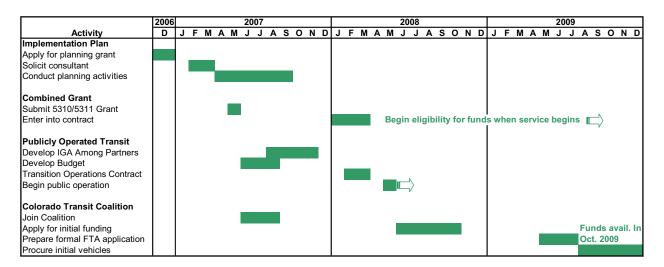
The completion of an implementation plan is recommended to assist in identifying options in each of the key areas – service plan, institutional structure, financial planning, and capital planning. This detailed planning process would be geared to getting the agreements in place and making the transition from a private sector operation to a public sector operation. This planning process would be used to develop service plans, obtain public comment, negotiate agreements, and adopt budget and IGA agreements. The results of the implementation plan would then be used to refine the region's application for funding, once awards are announced.

## **Timing Issues**

The timing of the grant cycle is important. In late Spring of 2007, CDOT will accept applications for grant funding in 2008-2009. In order to apply for federal funds, it will be important for the region to move forward with implementation planning in the Spring of 2007 and to submit a grant application at the same time. A draft schedule of activities for making the transition to general public service is presented in **Figure 6.1**.



Figure 6.1 Draft Timetable for Grant Activities



It is suggested that the service transition be planned for the end of the 2007-2008 winter season because the First Student contract will be easiest to transfer at either the beginning or end of the winter season. April of 2008 looks like a more comfortable date than November of 2007, but either would be feasible.



## 7.0 TRANSPORTATION AND MOBILITY PLAN

Several alternatives and proposed improvements have been developed to provide the Town of Winter Park with the information needed to make decisions and plan for the future with regard to transportation and mobility. Through transportation modeling, downtown planning, the consideration of the need for more comprehensive transit, and the possible construction of a gondola in the future, the following transportation plan has been developed:

## A. Roadway Improvements

As roadway improvements (see **Figures 5.1** and **5.2**) are considered and/or constructed, phasing for these improvements needs to fit within the development of the community. Some of the proposed roadway improvements include widening US 40, construction of the Fraser Valley Parkway, and the development of a roadway grid system in downtown Winter Park. The widening of US 40 to four lanes from County Road 72 to the north city limits of Winter Park primarily depends on the buildout of the Grand Park and Rendezvous developments. By 2020, this segment of US 40 is anticipated to be over capacity based on the transportation model. The improvements to US 40 could most appropriately be funded through the regional planning and funding process or with the help of the Colorado Department of Transportation.

## B. Transit System

Currently, the Lift bus service consists of eight routes that are named by color. In addition, other transit services include employee shuttles to Granby and a shuttle between Winter Park and Mary Jane. US 40 is the backbone and most of the routes overlap along at least some portion in getting to the Resort. The eight Lift routes operate in the Winter Park and Fraser area from 7:30 a.m. to 5 p.m. In addition, they operate a demand response van (ADA accessible) from 8a.m. to 5p.m. In the evenings four fixed routes are operated using all ADA accessible vehicles. The Lift only operates in the winter, with a lower level of service in the first month of the season than in the main winter season. A Summer Fun bus operates in the summer, provided by the resort.

Three alternatives have been developed based on feedback received at the November 16, 2006, at the open house meeting, and comparisons to other transit systems at nearby resorts. The Visitor Focused Transit Service Alternative focuses on visitor travel in the winter season. If only the winter visitor movements are considered, a winter-only service is acceptable. Options are to include summer service (Memorial Day to Labor Day) or to contract for specialized services in the County.

The Community Focused Transit Service Alternative takes more of a community transportation focus for the Fraser Valley, with an emphasis on serving employee transportation needs. For this alternative year-round service will be needed. Employment service might be a mix of commuter bus service and vanpool services. Over time, the importance of employment transportation is likely to grow unless significant employee housing is provided within the Fraser Valley.



The County-Wide Focused Transit Service Alternative extends both the employment and specialized service transportation in the County to destinations to include Hot Sulphur Springs or Kremmling. Providing direct service to individuals with disabilities or seniors who live in other portions of Grand County or supporting the efforts of the Council on Aging provides good value for the region. This type of transit service is already operating in much of the County. This support would include regional specialized services (even if one day a week or less often) for people who need to access medical or other services outside their community. This is something that it can be difficult for a senior center or volunteer drivers to accomplish but provides significant benefits to County residents. **Figure 7.1** shows a summary of how the proposed transit system may look in the Winter Park / Fraser area.

#### **Summary of Key Points**

- ▶ Peak demand will drive capital costs, a significant component of the start-up costs. Decisions on other services (night, summer, spring and fall, and regional services) can be made based on the marginal costs of these services. Several factors may soften peak demands: transition to more destination skiers, carrying more employees on the transit system, and carrying more night-time visitors to town.
- ▶ Providing effective employee services will support employees living outside the core visitor area and more dense development in the downtown core area.
- ▶ Long-term plans are recommended to be based on year-round service and the levels of service that will be required just before the third base, the Gondola, opens. If a gondola from downtown is constructed, service levels can be reduced (due to shorter trips and more people walking to the Gondola base) by reducing the fleet size. Older vehicles will not need to be replaced.
- Quality matters in resort communities:
  - Vehicles
  - Driver training (safety, customer service, etc.)
  - Reliability and on-time service
- ► Funding the desired level of transit service will require a variety of sources. Identifying a dedicated local fund source is critical. It will be the primary source of funds.
- ▶ It is important to access federal funds available for transit services for both operating and capital costs. The fleet and facility costs will be significant, in addition to the ongoing operating costs of service.
- ➤ The primary costs of the system should be borne by those benefiting from and using the system.



Figure 7.1

#### Year-Round Transit Services

## Winter

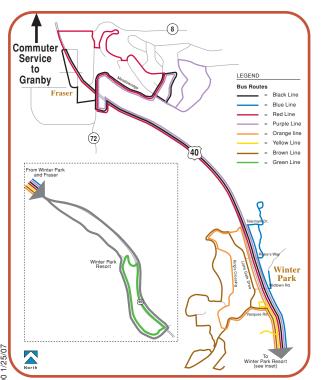
- Routes serve most neighborhoods
- Night service is provided
- Commuter service: four morning and four evening trips, operating daily

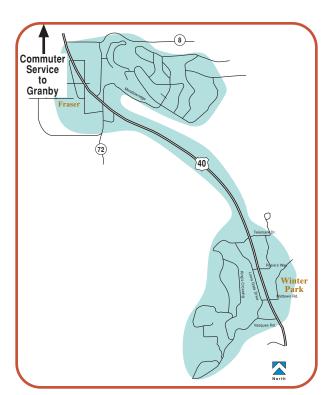
## Shoulder Seasons -Spring & Fall

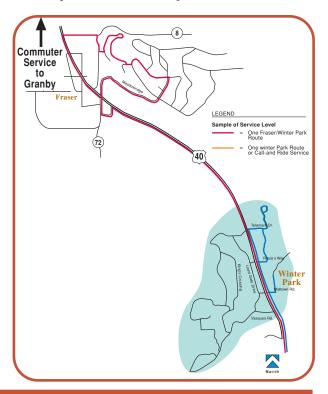
- One call-and-ride vehicle serving Fraser and Winter Park
- ▶ Operates from 7AM to 7PM
- Commuter service: two morning and two evening trips, no Sunday service

#### **Summer**

- Two fixed routes in Winter Park and Fraser, or one fixed route and one call-and-ride vehicles
- Operates hourly from 7AM to 7PM until there is enough demand for evening service
- Commuter service: two morning and two evening trips, no Sunday service









- Common sources of funding in resort communities are sales taxes (including taxes on lift tickets), real estate transfer taxes, and lodging taxes.
- ▶ Most resort communities do not charge fares to visitors or for local services in the resort communities. Many do, however, charge fares for regional services.

#### C. Downtown Winter Park

The development of the downtown subarea plan addresses the urban design issues and opportunities related to downtown. This includes a consideration of circulation systems at a finer scale, as well as the land uses that may thrive there. Recommendations for improvements integrate urban design concepts that will enhance livability and promote economic development while also improving circulation. The following summarizes the proposed roadway improvements and connections needed to develop a downtown grid pattern. These include:

- Widen Lions Gate Drive and construct curb and gutter to provide on-street parking.
- Close the at-grade railroad crossing at Kings Crossing which will be replaced by a grade separated crossing to the north.
- ▶ Construct an extension of Miller Road to Ski Idlewild Road to the east of Main Street.
- Construct an extension of Wanderers Way to Lions Gate Drive on the west side of Main Street.
- Construct an extension of Ski Idlewild Road from Midtown Road to Vasquez Road.
- Construct an extension of Vasquez Road to Ski Idlewild Road on the east side of Main Street.
- Construction of a future connection to the Beavers development on the east side of the Fraser River.

#### D. Gondola

The Master Plan for the Winter Park Ski Resort has included the development of a gondola connection into Town for many years now. In fact, some years ago, the Resort purchased 3 acres of land adjacent to City Hall to accommodate the bottom terminal of this lift and the staging facilities necessary when it is eventually constructed. As envisioned in the past, the construction of this connection into the ski area would be a long term solution for the business levels exceeding the capacity of the Mary Jane and Winter Park base areas.

Based on the Valley visit projections, the base area capacity could be exceeded on the highest day 2020. It also shows that the base area capacity could be exceeded on 5 days per season by 2020. This level of activity could be the "trigger" which initiates the construction of the gondola.



# Appendix A Downtown Focus Group Meetings Summary





# DOWNTOWN FOCUS GROUP MEETINGS SUMMARY MARCH 1, 2006 AT TOWN HALL - TOWN OF WINTER PARK

The following is a summary of the comments that were received at the Focus Group Meetings held on March 1, 2006 in Winter Park

#### **Pedestrians**

- Pedestrians crossing US 40 are a problem, especially at Vasquez and Cooper Creek, often the crossing is unrecognized by motorists.
- Visibility of pedestrian crossings is a concern.
- Safety is a concern due to multiple lanes.
  - Sign congestion is problem ped crossing signs are lost in background.
  - Speed 35 mph feedback signs work but still write a lot of tickets for speeding.
  - Maybe 30 mph in core downtown in future from Vasquez to Miller.
  - People will only walk 1 block (short, urban) before jay walking. Subway to 7-11 is a concentration for crossing demand.
- Need to create more of a pedestrian zone and need more signals to make that work.
- Big crossing needed at Coldwell Banker.

#### **Signal Warrants**

- ➤ Town is doing warrants at Kings Crossing and Rosie's Way (busy at noon/lunch hour with the bank on the east side and the Post Office on the west). Miller will never meet warrants. Getting onto 40 can be a problem for left turns.
- Summer traffic is only bad during music festival weekends along 40.

#### **US 40**

- ▶ US 40 is a Runway. Now that it's widened, can we do angle parking slow traffic down, lower speed limits for safety.
- ▶ Will the state allow a change of speed limit? How can state dictate to local community?
- CDOT won't reduce speed limit, their goal is to move traffic.
- 30 mph or more won't allow angled parking.
- More crosswalks cause more safety issues.
- Yellow flashing lights are difficult with two lanes of traffic in each direction.
- Accentuated lights for pedestrians at crosswalks works!



- Speed control is the top priority not necessarily more needed public parking on street.
- ► How do we get people to stop for peds? Cars only stop for ped in front of car. Cars in another lane won't stop.
- Steamboat has more lights, shorter blocks, and 25 mph.
- Current crosswalk locations need better visibility.
- ▶ Kings Crossing There's a large monument in the median that blocks visibility for peds and cars. It's part of the transition from 2 lanes to 4. There will be further improvement this summer (FHU project).
- ► Four lanes between WP and Fraser is not currently in plans. There will be accel/decel lanes at access points only.
- Mayor said that past discussions with CDOT had revealed the following. No angle parking when speeds are greater than 30 mph. CDOT is trying to move traffic through town.
- What other alternatives exist like bridges and tunnels etc. to move pedestrians across US 40 safely? Obvious reasons why not to do it were mentioned.
- ▶ Police currently direct traffic at Old Town & WP Drive S intersections with US 40.

#### **Emergency Service**

- US 40 is backbone.
- Alternative routes help during emergencies.
- ▶ More signals & slower traffic will slow down emergency responses.
- Opticom could be important in future with more signals on US 40.
- Raised crosswalks would be helpful for peds and won't necessarily be a problem for emergency response. Raised crosswalks don't work on highway for semi trucks and snow removal.
- ▶ 25 to 35 mph is acceptable speed as long as the vehicles can keep moving.
- US 40 is essentially 2 through lanes with 2 full auxiliary lanes.
- Emergency response needs to be considered in planning.
- ► Keep vehicles moving with traffic. They are not going 45 mph and won't go out of lanes to pass.
- Over time, they have fewer emergency runs. Calls are more intelligent. They don't respond with red lights/sirens to building call, spills, etc. Fast responses are primarily accidents and medical emergencies. They have better information about the nature of the call and the proper response before they leave the station.
- ➤ Traffic calming no dips, but humps are not a problem because fire truck drivers know where they are and can anticipate them. Look at trafficcalming.com on the Internet.



#### **Pedestrian Crossings**

- Some cars, stops, next lane doesn't stop, very dangerous, doesn't trust cars to stop
- Pedestrians crossing at night is real dangerous
- Lots of jay walking directly across, short blocks help, people won't walk more than 1 block to cross at crosswalk.
- Has noticed congestion lately and would like something done so it doesn't get worse.

#### Downtown

- Needs underground utilities.
- Hodge-podge of architecture.
- Better identification of ped crossings red brick crossings.
- More signals and street lights downtown to give more chances to cross.
- Garden islands at each end of town are unsafe (particularly north of Kings Crossing).
   Can't see cars or peds sight distance at intersection.
- Need to better define downtown area for motorists so they know to slow down.
- Backlit signs are tacky.
- Define a feeling of downtown more with improvements.

#### **Downtown**

- Need nodes at several points in downtown.
- 2<sup>nd</sup> node that works for both transit & development.
- Need more than gondola to strive for. Gondola may no happen because the Forest Service may have concerns about animal habitat preservation.
- Focus on getting people between resort & town efficiently.
- Want to make it safe and convenient to get to Town. Country mile vs urban mile.
- People need to come to town with money still in their pockets after going thru shops in village.
- Need to give people a reason to come to downtown.
- ▶ Want to make it safe/convenience for people to get around downtown once they come.



#### **Downtown Issues**

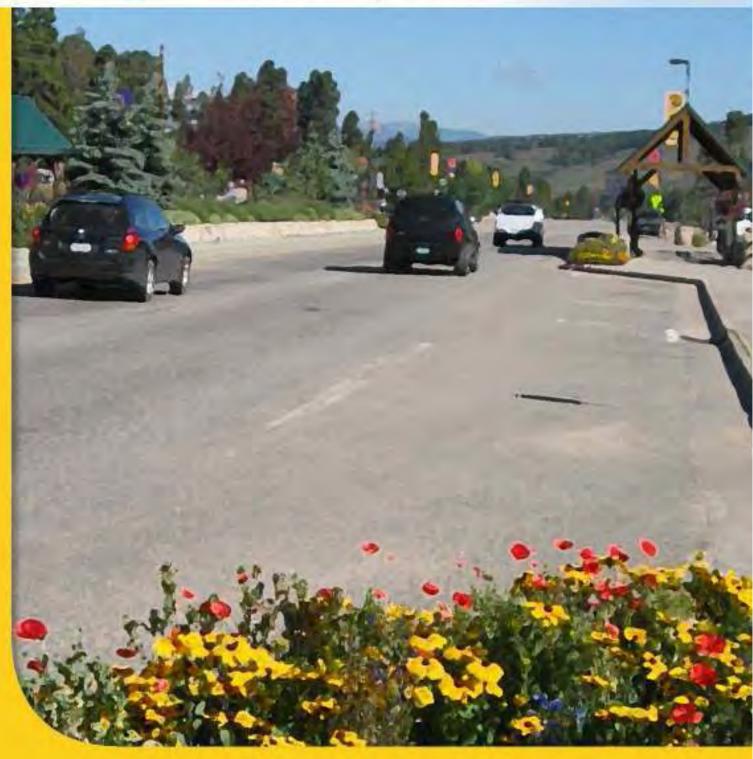
- Signage It's hard to find where the bus stops are. Signage is still difficult.
- Need better way finding to get people around. Good signage to tell people where they are, whey they are going.
- Issue of crossing US 40 safely.
- ▶ Putting bus stops at ped-crossings is a problem. Drivers don't know whether people are waiting for a bus or to cross the street. One way to help this problem is to move near side bus stops to far side.
- Issue of how far will people walk.
  - Residents going to bus stop ¼ mile.
  - Urban core areas 500 to 600 feet.
  - Tourists downtown at night can walk farther distances because they have regular shoes.
  - At the WP Village People who ride bus will walk 1000' to the base.
  - Next time They will go somewhere else or stay at the Village due to the discouraging factor of distances.

#### **US 40 Utilization**

- ► HOV lanes more efficient use of 4 lanes?
- ▶ 30 mph in Granby.
- go back to 3 lanes, would need to justify to CDOT.
- Don't tear it up just change use during certain hours of the day.
- Management of highway cones & gates.
- Would get more parking close to businesses.
- Calming traffic is basic need.
- Buses stopping in right lane instead of pullouts.
- Better enforcement existing speed limits and parking restriction parking over cross walks.
- Balance of signing/enforcement.
- ▶ Winter Park wants to be pedestrian friendly ski town not speed trap like Empire.
- Smaller, cuter buses on US 40 every 5 minutes unique.



# Appendix B Winter Park and Grand County Transit Plan



## WINTER PARK AND GRAND COUNTY TRANSIT PLAN

## Prepared For:

Town of Winter Park

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April 2007



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#### 1.0 INTRODUCTION

This transit plan has been prepared as part of the Winter Park Multi-Modal Transportation and Mobility Plan. Presented as an appendix to the main report, it includes information that is focused on the transit mode and provides additional detail than in the main report. For the transit mode, the planning area has also been expanded to include all of Grand County. It is envisioned that this appendix will be used in applications where only the transit mode is considered.

The Winter Park Multi-Modal Transportation and Mobility Plan has a long-term horizon, examining what services in each mode will be needed in twenty years. A mid-range plan has also been prepared for 2015. However, for the transit mode, it is also necessary to examine the short-range steps necessary to implement the recommended alternative. In this appendix, more detail has been provided related to the short-term steps required to move towards the transit alternative and specific projects that will be needed by the transit operators in the next five years.

This transit plan is organized as follows:

- ► Section 2.0: Existing Services
- ▶ Section 3.0: Demand Estimation (examining demand for visitor travel, employees, and other market segments)
- ► **Section 4.0**: Peer Systems
- Section 5.0: Alternatives
- Section 6.0: Capital Investment
- Section 7.0: Financial Plan
- Section 8.0: Implementation Activities

Some foundation information, including demographic and economic information and transportation forecasting, is found in the Winter Park Multi-Modal Transportation and Mobility Plan and in the Winter Park Village Economic and Fiscal Impact Study which was conducted as a parallel study to the Transportation and Mobility Plan. The reader is referred to these documents for more detail in these areas.

Finally, the public outreach process was conducted as part of the Winter Park Multi-Modal Transportation and Mobility Plan. Public involvement included stakeholder discussion groups, a design charrette, and an open house presenting the alternatives and soliciting comments. The results of the public outreach is also documented as part of the main study.



## 2.0 EXISTING SERVICES

Existing transit services include public and resort operated transit services, lodge shuttle services, the Ski Train, the Summer Fun Bus (a Winter Park Resort operated transit service), and the specialized services for seniors operated by Grand County Council on Aging.

## A. The Lift and Other Transit Services

#### **Transit Overview**

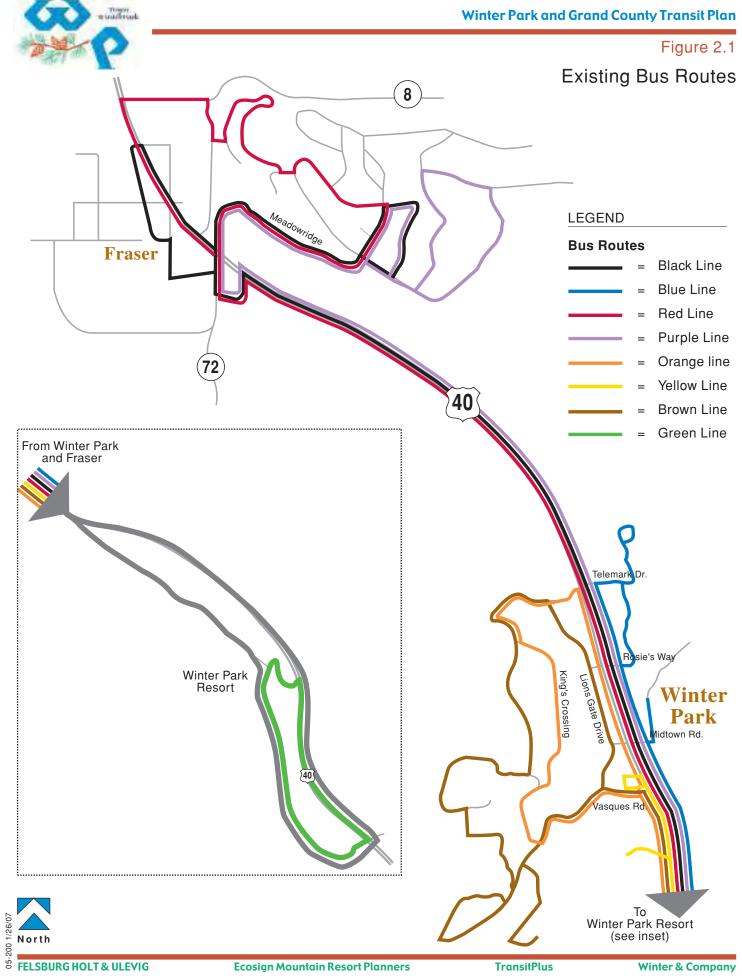
The Lift bus service consists of eight routes that are named by color. In addition, other transit services include employee shuttles to Granby and a shuttle between Winter Park and Mary Jane. **Figure 2.1** shows the existing Lift system. US 40 is the backbone and most of the routes overlap along at least some portion in getting to the Resort. The eight Lift routes operate in the Winter Park and Fraser area from 7:30am to 5pm. In addition, they operate a demand response van (ADA accessible) from 8am to 5pm. In the evenings four fixed routes are operated using all ADA accessible vehicles.

The transit service plan – the routes, days and hours operated, and frequency of service provided on each route – describes the transit network. Key characteristics of the routes and service are listed in **Table 2.1**. The Lift only operates in the winter, with a lower level of service in the first month of the season than in the main winter season. A Summer Fun bus operates in the summer, provided by the resort.

The Lift day routes carried 474,574 riders in the 2005-06 season. The night service carried 92,668 riders and the employee shuttle carried 35,402 riders. The total system carried 602,644 riders. Parking lot shuttles carried an additional 412,995 passengers.

The present service, operated only in the peak periods, is very productive. The Lift averaged approximately 16 passengers per hour in the 2005-06 season, and the employee shuttles averaged 24 passengers per trip. Regional employee routes are often measured on the basis of the number of passengers per trip, indicating how full the buses are on average. Since the employee shuttles are only full one way and riders travel long distances, it is expected that the number of riders per hour is lower than on local routes.

The transit infrastructure also includes the fleet and facilities, such as the maintenance and operations facility, bus stops and shelters. It includes the people required to operate the network such as the drivers, mechanics, and management. First Student, Inc. has operated the service since 1999 under a contract that includes The Lift daytime service, the four night bus routes, YMCA buses, a Meadowridge employee shuttle and three employee shuttles to Granby.





**Table 2.1** The Lift Service and Route Characteristics

|                       |   | Service Cha            | racteristics             |                 |                            |                  |
|-----------------------|---|------------------------|--------------------------|-----------------|----------------------------|------------------|
| Sarvica Paria         | d in 2005-06 Season                                 |                        | Frequencies              | •               | Peak                       | Ridership        |
| Service Ferio         | u III 2005-00 Season                                | Peak                   | Base                     | Night           | Vehicles                   | Ridership        |
| Early Season          | Nov. 16 - Dec. 16                                   | 60 min                 | 60 min                   | 60 min          | 9                          |                  |
| Main Season           | Dec. 17 - April 16                                  | 30 min                 | 60 min                   | 30 min          | 15                         |                  |
| Paratransit           | Nov. 16 - April 16                                  | Reserv                 | e 1 day in ac            | dvance          | 1                          |                  |
|                       |   | Route Char             | acteristics              |                 |                            |                  |
| Route                 | Hours of Operation                                  | Round<br>Trip<br>Miles | Annual<br>Route<br>Miles | Running<br>Time | Annual<br>Service<br>Hours | Peak<br>Vehicles |
| Purple                | 7:30 am - 5:30 pm                                   | 15.2                   | 35,978                   | 60              | 2,367                      | 2                |
| Purple Night          | 5:45 pm - 11:15 pm                                  |                        | 0                        |                 | 0                          | n/a              |
| Red                   | 8:15 am - 5:45 pm                                   | 15.4                   | 34,111                   | 60              | 2,215                      | 2                |
| Black                 | 7:50 am - 5:20 pm                                   | 15                     | 33,225                   | 60              | 2,215                      | 2                |
| Black Night           | 5:30 pm - 11:00 pm                                  |                        | 0                        |                 | 0                          | n/a              |
| Blue                  | 7:30 am - 5:30 pm                                   | 8.8                    | 20,830                   | 30              | 1,184                      | 1                |
| Yellow                | 7:45 am - 5:30 pm                                   | 8.3                    | 18,385                   | 30              | 1,108                      | 1                |
| Orange                | 7:30 am - 5:30 pm                                   | 9.2                    | 21,776                   | 30              | 1,184                      | 1                |
| Orange Night          | 6:00 pm - 11:30 pm                                  |                        | 0                        |                 | 0                          | n/a              |
| Brown                 | 8:15 am - 5:45 pm                                   | 10.3                   | 22,815                   | 60              | 2,215                      | 2                |
| Green                 | 8:00 am - 5:30 pm                                   | 6.6                    | 14,619                   | 30              | 1,108                      | 1                |
| Green Night           | 5:30 pm - 11:00 pm                                  |                        | 0                        |                 | 0                          | n/a              |
| Mary Jane             | 8:15 am - 6:00 pm                                   | 18.2                   | 55,328                   | 60              | 3,040                      | 2                |
| Old Town              | 7:30 am - 5:30 pm                                   | 6.2                    | 14,675                   | 30              | 1,184                      | 1                |
| Employee<br>Shuttles* | 6; 6:45 (2); 9:15 am; 1;<br>4:45 (2); 5:45; 7;10 pm | 48                     | 71,472                   | 120             | 2,978                      | 3                |
| Overload<br>Service   | As needed in peak periods                           |                        | 15,000                   |                 | 1,000                      |                  |
|                       | TOTAL   |                        | 397,946                  |                 | 26,254                     | 18               |
| Parking Lot Sh        | uttles* (Not Lift Service                           | e)                     |                          |                 |                            |                  |
| Village               | 7:30 am - 5:30 pm                                   | 5.8                    | 13,729                   | 30              | 1,184                      | 1                |
| Overload<br>Service   | As needed   |                        | 15,000                   |                 | 1,500                      |                  |
|                       |   |                        | 583,150                  |                 | 37,139                     |                  |

<sup>\*</sup> These are the responsibility of Intrawest. It is noted here because a regular employee shuttle will be needed. It would likely need to be expanded as it would serve all employees, not just those of the resort.

Funding for the service comes primarily from Intrawest. Intrawest paid approximately \$1.25 million annually in operating costs for The Lift, as well as providing a maintenance facility and parking for vehicles, 6,000 gallon fuel tank, communications equipment, utilities, season pass for each employee, and staff for contract administration. The Towns of Winter Park and Fraser



fund night service. Some management firms also provide limited funding for service in specific subdivisions that might otherwise not be served. The County also funds some services. **Table 2.2** shows peak ridership by route at the Resort during the three days when detailed counts were taken. The table provides a summary of the total activity during the 3 ½ hour peak period in the morning (7:30 am to 11:00 am) and during the 3 hour peak period during the afternoon (2:30 pm to 5:30 pm), as well as the morning and evening peak hour volumes for the design day. As the table indicates, far fewer riders arrive at the Resort during the morning peak hour than leave during the evening peak hour, which is to be expected since it is common for skiers to arrive throughout the morning, but all leave at the same time when the ski lifts close at the end of the day.

Table 2.2 Lift Bus Ridership

|        |       | Design Day |       |                          |      |           |     |      |
|--------|-------|------------|-------|--------------------------|------|-----------|-----|------|
|        | 1/17/ | 2004       | 2/14/ | 2/14/2004 3/15/2004 Peak |      | 3/15/2004 |     |      |
|        | AM    | PM         | AM    | PM                       | AM   | PM        | AM  | PM   |
| Brown  | 139   | 133        | 243   | 250                      | 186  | 163       | 51  | 131  |
| Orange | 115   | 144        | 124   | 112                      | 130  | 164       | 0   | 50   |
| Red    | 75    | 167        | 137   | 326                      | 153  | 115       | 20  | 242  |
| Purple | 244   | 193        | 284   | 115                      | 121  | 293       | 111 | 38   |
| Black  | 158   | 106        | 140   | 123                      | 155  | 152       | 43  | 88   |
| Yellow | 99    | 377        | 198   | 350                      | 332  | 491       | 110 | 169  |
| Blue   | 254   | 214        | 210   | 333                      | 257  | 542       | 54  | 158  |
| Green  | 323   | 279        | 253   | 293                      | 482  | 344       | 73  | 161  |
| Total  | 1407  | 1613       | 1589  | 1902                     | 1816 | 2264      | 462 | 1037 |

Because of the overlap between routes on US 40, skiers may ride one of several routes from the ski area to downtown. It is common for people to take advantage of this and may result in different peak load patterns in the afternoon than in the morning.

#### Vehicle Fleet

The contract requires First Student to provide a minimum of 38 buses. They are either 44 passenger school buses or 59 passenger transit buses. As these buses are provided by the contractor, they are not an existing system asset. In the past, all were fully depreciated in other systems so the overall condition of the fleet was fair to poor. For the 2006 season, six new buses have been leased as part of the contract. Two body-on-chassis vehicles are also part of the First Student fleet and are used for providing the paratransit service.

The older buses are mostly configured for school bus service, resulting on seats that are very close together, especially for adults with ski gear. The ski racks do not hold snowboards so these are carried inside the vehicles. Some of these vehicles have only one door, slowing access and egress. Not all vehicles are lift-equipped.



#### Staffing

In the 2005-06 season the staff included 53 drivers (of those 19 are full time), two mechanics, a Safety Manager, a Technician in Charge and a Transit Manager. A total of five employees are year round and the other positions are seasonal. In the summer, First Student employees 15 part time drivers to operate rafting service as a separate contract. First Student, like most resort transit systems in Colorado, was unable to hire as many full-time drivers as they would have liked to hire.

#### B. Private Shuttles and Buses

Private shuttles and buses provide an important of the transportation network. This includes local hotels, motels, and lodges that provide private bus and/or van service to the ski area for their guests and charter buses that bring skiers from the Front Range. Inventories of these activities were conducted at the resort during the 2003-2004 season.

Lodge buses and vans carry skiing guests from hotels, motels, lodges, and resorts in the Grand County area to Winter Park Resort. Snow Mountain Ranch on Red Dirt Hill is one of the larger properties transporting guests in this fashion. Private groups along the Front Range charter buses to transport their members to the ski area. The Eskimo Ski Club is one of the larger users of charter buses. Finally, the Ski Train operates a passenger train from Denver Union Station on Fridays, Saturdays, and Sundays in January, February, and March. The train has a capacity of approximately 750 passengers, and the operator estimates that approximately 60% of the passengers are skiers. **Table 2.3** shows passenger arrival and departure data for these private services during the survey period. As the table indicates, these services transport a significant number of skiers that would otherwise need to use automobiles or The Lift.

**Table 2.3** Private Transportation

|                      |           | Design Day |           |           |
|----------------------|-----------|------------|-----------|-----------|
|                      | 1/17/2004 | 2/14/2004  | 3/15/2004 | Peak Hour |
| Buses/Vans (Morning) | 685       | 508        | 1192      | 200       |
| Buses/Vans (Evening) | 466       | 391        | 561       | 107       |
| Charter Buses        | 1,156     | 593        | -         | 593       |
| Ski Train            | 450       | 450        | -         | 450       |

Home James is the local provider of taxi and airport shuttle services.

**Table 2.4** summarizes the modes of travel for people entering the Winter Park Resort during the morning on the design day. As the table indicates, overall, approximately 65 percent of Resort guests arrive from the north and 35 percent from the south, with a stronger north orientation at both the Winter Park and Mary Jane portals.



Table 2.4 Winter Park Guest Arrival Mode Summary

|                       | Winter Park |       | Mary  | Jane  | Total  |       |
|-----------------------|-------------|-------|-------|-------|--------|-------|
|                       | North       | South | North | South | North  | South |
| Cars                  | 3,500       | 1,377 | 1,391 | 1,357 | 4,891  | 2,734 |
| The Lift              | 1,902       | -     | -     | -     | 1,902  | -     |
| Buses/Vans            | 391         | -     | -     | -     | 391    | -     |
| Charter Bus           | -           | 593   | -     | -     | -      | 593   |
| Ski Train             | -           | 450   | -     | -     | -      | 450   |
| Total by<br>Direction | 5,793       | 2,420 | 1,391 | 1,357 | 7,184  | 3,777 |
| Percent of Total      | 70%         | 30%   | 51%   | 49%   | 65%    | 35%   |
| Total Entering        | 8,213       |       | 2,748 |       | 10,961 |       |

## C. Grand County Council on Aging

In addition to The Lift services, Grand County Council on Aging operates demand response services in the County, targeted to seniors. The Council on Aging would like to coordinate their services with any public service that is developed for the Fraser Valley.

The COA drivers provide door-to-door service and at times get out of the van to accompany passengers to the grocery store or doctor's office. COA's service operates Monday through Friday from 8:00 am to 5:00 pm, however they only visit certain parts of the County once or twice per week when their focus is on transporting seniors to nutrition sites. Their schedule includes service in Grand Lake on Mondays; Fraser and Winter Park on Thursdays; and Kremmling on Fridays. Most COA trips are to Kremmling Hospital and medical facilities in Granby. In addition, there are some trips to Summit County to Wal-Mart and Target. They also provide two trips per month outside the County, usually to medical facilities in Denver.

The Council on Aging is a non-profit organization and their service is operated from donations and grants. No fare is charged for the transportation service, however donations are suggested (\$2 for in-county, \$25 to/from Denver). Their current agency budget is \$220,000 with nutrition and transportation services the largest expense items. The 2006 budget includes \$70,000 for drivers and van supervisor, fuel, and maintenance. Other expenses (such as a portion of the director's time, office costs, and communications) would need to be added to provide a complete picture of program costs.

Six vehicles are operated in regular service – one station wagon, two vans, and three minibuses – and a seventh vehicle, a van, is used for back-up. Three vehicles are stationed in Granby, two in Kremmling, and one in Grand Lake. A vehicle roster is included as **Table 2.5**. Vehicle replacement requests are included in the short-term project list included in **Appendix B-I**.



**Table 2.5** Grand County Council on Aging Vehicle Roster

| Make/Model     | Year | VIN  | Status                    | Mileage | Capacity              | Condition                          |
|----------------|------|------|---------------------------|---------|-----------------------|------------------------------------|
| Ford E350      | 1993 | 8998 | Back-up                   | 186,000 | 11-person<br>van, w/c | Frequently needs minor repairs (3) |
| Ford Taurus    | 1986 | 0610 | Regular use in Granby     | 145,000 | Station wagon         | Infrequent minor repairs (4)       |
| Chevy Venture  | 2001 | 1294 | Regular use in Granby     | 8,184   | 7-person van          | New, no problems (5)               |
| Chevy Venture  | 1997 | 8346 | Regular use in Kremmling  | 30,593  | 7-person van          | Infrequent minor repairs (4)       |
| Ford Minibus   | 2003 | 6564 | Regular use in Kremmling  | 1,220   | 15-person<br>bus, w/c | New, no problems (5)               |
| Ford Candidate | 2006 | 9079 | Regular use<br>Grand Lake | 1,292   | 10+2 w/c<br>minibus   | New, no problems (5)               |
| Goshen         | 2004 | 5347 | Regular use<br>Granby     | 1,410   | 9+2 w/c<br>minibus    | New, no problems (5)               |

Access to medical services is an important issue for rural residents, especially for people who are elderly or have disabilities. Providing year-round services is important to this population as well. The Council on Aging believes coordination on paratransit services, particularly in the US 40 corridor between Winter Park and Granby, would provide significant benefits to residents. Consideration could be given to including the regular service provided by the Council on Aging between Granby and Winter Park as part of the overall public transit service plan.



### 3.0 DEMAND ESTIMATION

## A. Components of Demand

In a ski resort, transit demand consists of visitor trips to the mountain base, visitor trips for dining, shopping, etc, employee trips to and from work, and resident (seasonal and full-time) trips for other activities, including shopping, recreation, or other personal business. The importance of each component varies depending on the type of transit service provided, the location of the ski area base relative to the visitor lodging, and the location of employee housing relative to work sites.

In Winter Park, the existing system primarily serves skiers. It is operated mainly in the winter and provides critical transportation between the lodging facilities and mountain base. Two events will change system demand over the study period.

- ▶ The first is that with the development of more lodging at the base area, many more skiers will be within walking distance of the base area. Those staying within walking distance of the mountain base will not need transit during the day but will shift transit use to evening trips into town for evening activities (to eat out, go to bars, or go to grocery store or other shopping). They will likely not make as many trips into town not everyone will travel to town each evening so the overall transit ridership levels from this population may decline somewhat. However, at present the ridership into town from people staying in TAZ 1 and 2 is quite high.
- ► The second event impacting system demand would be the development of the third base, the gondola from downtown as a third base area. When this is built, approximately 2,500 people will be within 2,000 feet of the mountain base and may choose to walk rather than use transit, on a peak day.

If the system begins operating in the summer and longer in the shoulder seasons, more residents will find they can use transit to meet their travel needs. People will then be more likely to use the transit system for regular work trips and for other activities. A significant number of Winter Park Resort employees (76% of those living in Granby and 19% of total employees) take the employee shuttle bus provided by the resort. A small percentage of other employees living in Fraser or Winter Park also use The Lift in the winter for employment trips (estimated at 5%). Opening employment shuttles from Granby to all employees would also increase the importance of employment trips in the overall demand. Another outcome of increased availability of employment transportation is likely that employees would be able to live further out, in less expensive housing. Over time this may be important as a larger employment base is needed for the growing economy.



#### **Peaking Characteristics for Transit Services**

The impact of peak travel times is a critical component for designing the transit system, but the impacts vary somewhat from those on the roadway network. Key points are:

- ▶ Route structure will be sized for "average" daily transit volume; spares and creative dispatching¹ will be used to address peak demand. In addition, more people are crowded into each vehicle.
- ▶ Employment trips will not vary much between average and peak periods.
- ▶ While the peak transit demand resulting from skiers will decline as more lodging is built at the base, the evening trips for dining and shopping will likely increase. The net effect is that this will soften the peak demand in the morning and afternoon, spreading ridership to the evening hours.

## B. Demand Projections

The number of riders was calculated based on the number of residential units in the Valley, including single family, multiple-family, and hotel rooms. The type of trips and when they occur will change as the area develops. As more visitors stay in lodging units at the base, their trips will be into Town, especially in the evening.

From a macro planning perspective, these characteristics of the community provide a reasonable reflection of demand, and they could more than double the current levels of ridership. Approximately 600,000 riders are carried today in Winter Park. A comparable system, Steamboat Springs Transit, carries approximately 1 million annual riders. Their service, however, has developed over many years and night-time and summer ridership are now both important parts of the system. The amount of parking and convenience of transit service will also affect the use of transit, so these numbers should be used to gauge the overall system size that might be expected if each of the above markets is served.

Demand projections were developed using a three-step process. Documentation, at the TAZ level is included in the travel model that is a part of the main report. A table showing the detailed employment projections can be found in **Appendix B-II** of this report.

**Step One**: The total riders on the existing system were compared to the residential units. No distinction was made between type of unit – single family, multi-family, or hotel. These riders reflect day and evening riders in TAZ's 1-6, where service is currently provided. They include skiers and some employees and miscellaneous trips in the daytime. In the evening they include visitors going into Town and some employees or trips made by residents (i.e. going shopping). A total of:

▶ 103.6 daytime riders were carried by The Lift in the 2005-06 season for each housing unit.

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Dispatching techniques such as extra trips and "short-turns" are used to use the extra vehicles to move crowds just when and where they are needed. The vehicles are turned back as soon as they are empty.



20.2 night-time riders were carried by The Lift in the 2005-06 season for each housing unit.

**Step Two**: Seasonal ridership was calculated for each zone based on the existing housing units, and compared to the actual ridership carried by routes serving each zone. Some routes serve several zones (especially US 40 and neighborhoods) so estimations were made in comparing the ridership by route to each zone ridership. Key points are:

- Overall numbers are conservative, as they reflect current patterns of travel; as viability of transit service increases, and service operates most or all of the year, the number of people using transit will likely increase.
- ➤ The night service is only reliable in total. There are difficulties in projecting demand as the level of ridership depends on the type of housing and location of activity centers. It is likely that the primary night ridership will be between the mountain resort, downtown Winter Park, and Fraser. Two illustrations are:
  - The existing night-time Green line, serving TAZ 1, 2, and 5, carried 48,000 passengers in the 2005 2006 season while the formula only predicts about 22,000 passengers, and;
  - The night-time Orange line, serving TAZ 4 only carried 5,000 passengers in the 2005-2006 season while the formula predicts 29,000. The predictions for Zone 6 and some of Zone 3, covering much of Fraser, is fairly close to the actual ridership on the night-time Black and Purple routes of 39,000 passengers.
- ▶ The number of new units for 2020 and 2026 (for the entire Fraser Valley) as identified by EPS were used to determine the total seasonal transit demand based on the current trip generation rates per residential unit. Note that this covers area where service is not now provided and may not be provided in the future.
- ► The seasonal rates were adjusted to daily rates again by TAZ to determine the average level of service needed to meet this demand.

**Step Three**: Employment transportation was calculated separately, using modal splits that were calibrated to current employment levels and adjusted based on the growth of employment and housing by community. Higher mode splits are used as distance between jobs and housing increased. The employment projections are found in the EPS Final Report.

The transit demand was identified based on the current system, as identified in **Table 3.1**. Transit demand reflects, to a certain extent, the level of service available: the better the service the more people will ride. As service improves and becomes a viable alternative for more individuals, one would expect ridership to increase. This is especially true for the employment trips. At present, the commuter service from Granby to the resort is provided only to resort employees. If service were open to the general public, the number of trips would likely increase. If commuter service were available year-round, it is likely that the percentage of employees using transit for commute trips would gradually increase over time.



Table 3.1 Characteristics of Transit Alternatives: Annual Estimated Ridership

| Markets Served                  | Current | 2020      | 2026      |
|---------------------------------|---------|-----------|-----------|
| Visitors and Local Employees    |         |           |           |
| Winter                          | 568,000 | 1,110,000 | 1,255,000 |
| Spring/Summer/Fall              | 50,000  | 100,000   | 150,000   |
| Commuters from Granby           |         |           |           |
| Winter (all employees)          | 36,000  | 51,000    | 56,000    |
| Spring/Summer/Fall              | 15,000  | 21,000    | 25,000    |
| Elderly or Disabled Individuals | 5,000   | 10,000    | 12,000    |
| TOTAL                           | 674,000 | 1,292,000 | 1,498,000 |



#### 4.0 PEER SYSTEMS

The mountain resort towns of Colorado provide the best examples of peer systems. Steamboat Springs and Crested Butte are closest in size and travel demand to Winter Park, but all systems are instructive when it comes to considering institutional structure and financing for the system.

**Table 4.1** identifies the relative size of the resort transit systems in the State in terms of annual ridership and annual hours of service. The systems have quite different characteristics. Some primarily operate within a constrained service area, making short trips for many passengers. The Breckenridge, Town of Vail, and Avon-Beaver Creek systems are examples of this type of systems. The high productivity of Vail and Avon-Beaver Creek systems reflects results from their limited service areas. Some have long-distance services connecting towns as their core service. ECO Transit and Summit Stage are good examples of this type of service. RFTA also has a large percentage of its service in long-distance operations. Others blend the two, but their longer-distance service is not the largest part of their operations. Services in Steamboat Springs and Crested Butte are good examples. Similar to Winter Park, a few morning and evening commute trips are made to outlying communities.

**Table 4.1** Comparison of Colorado Resort Transit Systems

|                                       | Annual     | Vehicle | Vehicle Miles  | Passengers |
|---------------------------------------|------------|---------|----------------|------------|
| Transit Service                       | Riders     | Hours   | venicie willes | per Hour   |
| Avon - Beaver Creek Transit           | 1,361,000  | 43,903  | 567,797        | 31         |
| Breckenridge                          | 288,100    | 26,189  | 259,095        | 11         |
| Mountain Express (Crested Butte)      | 508,719    | 12955   | 147474         | 39         |
| ECO Transit                           | 780,000    | 52,000  | 1,377,103      | 15         |
| Roaring Fork Transportation Authority | 3,590,500  | 211,203 | 3,408,880      | 17         |
| Snowmass                              | 628,000    | 34,890  | 412,464        | 18         |
| Steamboat Springs Transit             | 963,000    | 40,123  | 622,903        | 24         |
| Summit County                         | 1,400,900  | 77,828  | 1,415,570      | 18         |
| Telluride (Town and Metro District)   | 1,545,086  | 23,717  | 314,691        | 65         |
| Vail                                  | 3,164,600  | 62,050  | 620,500        | 51         |
| Winter Park                           | 600,000    | 35,000  | 600,000        | 17         |
| TOTAL                                 | 14,829,905 | 619,858 | 9,746,477      |            |
| AVERAGE                               | 1,348,173  | 56,351  | 886,043        | 24         |

Sources: Intermountain TPR Transit Element, Northwest 2030 Regional Transportation Plan, CASTA, and The Lift operating statistics.

**Table 4.2** illustrates the financial resources and institutional structures used in these transit operations. The operating budget is identified for each system, providing a relative comparison of the size of each system's budget. Capital expenses vary significantly by year, so they are not included. The organizational structure and type of taxes are also identified. Resort communities use a variety of funding sources in order to provide a stable funding stream for service. A key issue is that those who benefit from and use the service pay for the cost of providing it.



**Table 4.2 Transit Resources** 

| Provider  | County   | Annual<br>Operating<br>Budget (2001-<br>2004) | Structure   | Funding Source  |
|---|--|---|---|---|
| Aspen   | Pitkin   | \$2,987,000                                   | Part of larger<br>Mass Transit<br>District                                | 0 .5% sales/use tax in<br>Pitkin County   |
| Avon/Beaver Creek   | Eagle  | \$1,816,000                                   | Town Operation  | 0.5% sales tax in Eagle<br>County   |
| Breckenridge<br>(Town of)   | Summit   | \$2,088,250                                   | Town Operation  | 0.75% sales tax in Summit<br>County   |
| ECO (Eagle<br>County)   | Eagle  | \$4,324,781                                   | County Mass<br>Transit District   | 0.5% sales tax in Eagle<br>County   |
| Mountain Express<br>and Gunnison<br>Valley RTA<br>(Crested Butte /<br>Gunnison) | Gunnison   | N/A   | Rural<br>Transportation<br>Authority and<br>Town Operation                | Sales tax of 0.6% in most of Gunnison County; 0.35% with in Gunnison City limits  |
| Roaring Fork<br>Transit Agency  | Pitkin<br>(portions of<br>Eagle and<br>Garfield) | \$12,047,232                                  | Mass Transit District in Pitkin County and Rural Transportation Authority | MTA 0.5% sales/use tax in Pitkin County and RTA sales/use tax in some cities and Eagle County ranging from 0.2% to 0.7% |
| Snowmass Village  | Pitkin   | \$1,383,466                                   | Town Operation;<br>also in a County<br>Mass Transit<br>District           | 0.5% sales/use tax in<br>Pitkin County  |
| Steamboat Springs   | Routt  | \$1,832,815                                   | City Operation  | None  |
| Summit Stage  | Summit   | \$4,661,000                                   | County Mass<br>Transit District   | 0.75% sales tax in Summit<br>County   |
| Mountain Village /<br>Telluride   | San Miguel                                       | \$4,803,515                                   | Metropolitan District for Mountain Village                                |   |
| Vail  | Eagle  | \$3,193,000                                   | Town Operation  | 0.5% sales tax in Eagle<br>County   |
| Winter Park   | Grand  | \$1,400,000                                   | Resort operation with town contract                                       | Most funding from resort  |

<sup>&</sup>quot;Total Budget" Source: Intermountain TPR Transit Element

<sup>&</sup>quot;Tax Rate" Source: Colorado Sales/Use Tax Rates 1/13/06 - Dept. of Revenue \* Based on Projected 2004 budgets from the Intermountain TPR Transit Element Chapter 9



The most common funding source is sales tax, and resort communities generally have between 0.35% and 1% sales tax for transit. Winter Park and Fraser do tax groceries. In Vail there is a 4% tax on lift tickets. Other sources include general fund monies from cities and counties, lodging taxes, and real estate transfer taxes.

All of the resort communities except Winter Park access Federal Transit Administration funds for rural transportation programs and for capital expenses. Providing year-round service (call-and-ride service in town and commuter service in the Spring/Summer/Fall) will enable the system to qualify for Federal Transit Administration funds for general public services.

As transit systems develop, it has been common for entities to develop multiple systems and funding sources. The Roaring Fork Valley is a good example of one of the more complex structures. Twenty-five years ago, Pitkin County operated a county-wide system, and the towns of Aspen and Snowmass Village also operated local systems. In 2000, a Rural Transportation Authority was formed. Aspen services are provided through the RFTA while Snowmass operates its own local services and coordinates with RFTA for regional services. As needs developed, RFTA expanded to include other areas (it now extends to Rifle) and folded in the operation of the Roaring Fork Railroad Holding Authority into its operations in 2001.

Because RFTA serves towns in southeastern Eagle County and charges taxes there, when Eagle County formed a County Mass Transit District, adjustments were needed so these communities only paid taxes to the agency providing them transit services. As a result, some communities are exempt from taxes because they are not served. The tax rates in other towns served by RFTA vary from 0.2% to 0.7%.



#### 5.0 ALTERNATIVES

Three transit alternatives have been developed, illustrating differences in: (1) what market or travel movements are served and (2) when service is provided. Each is described in this section. All of the alternatives are based on a relatively conservative level of transit service, with ridership levels similar to what occurs at present.

The first alternative focuses on visitor travel, in the winter season. If only the winter visitor movements are considered, a winter-only service is acceptable. Options are to include summer service (Memorial Day to Labor Day) or to contract for specialized services in the County.

The second alternative takes more of a community transportation focus for the Fraser Valley, with an emphasis on serving employee transportation needs. For this alternative, year-round service will be needed. Employment service might be a mix of commuter bus service and vanpool services. Over time, the importance of employment transportation is likely to grow unless significant employee housing is provided within the Fraser Valley.

The third alternative extends both the employment and specialized service transportation in the County to destinations to include Hot Sulphur Springs or Kremmling. Providing direct service to individuals with disabilities or seniors who live in other portions of Grand County or supporting the efforts of the Council on Aging provides good value for the region the transit system is already operating in much of the County. This support would include regional specialized services (even if one day a week or less often) for people who need to access medical or other services outside their community. This is something that it can be difficult for a senior center or volunteer drivers to accomplish, but which provides significant benefits to County residents.

In all cases, the level of service would develop in response to demand, and grow gradually over time. In comparing alternatives, the consultant has considered the demand levels at three time points: existing, 2020, and 2026. The 2026 numbers are "pre-Gondola". The season before the Gondola is constructed represents the peak level of bus transit service, as ridership and the length of trips will decrease once the Gondola opens. This peak service level is what must be used to size the system, determining the vehicle fleet size, the facility size, and the revenues needed for operation. Once the Gondola opens, it may be that some vehicles will be retired rather than replaced.

Each alternative is summarized on the following pages.



#### A. Alternate I: Visitor Focus

- Travel Movements: Visitors to slopes and downtown
- Service Area: Winter Park and Fraser
- Seasons: Winter (150 days)
- Options:
  - Add summer season (Memorial Day through Labor Day weekend)
  - Develop contracts for specialized services in County
  - Allow contracts for large employers or for summer activities
- Institutional Options: Intergovernmental Agreement (IGA) or RTA



## B. Alternate II: Community Transportation Focus

- Travel Movements
  - Visitors to slopes and downtown
  - Employees to jobs
  - Residents to varied destinations
- Service Area
  - Winter Park and Fraser for primary bus service
  - Granby for commuter service (bus and/or vanpool service)
- Seasons: Year-round with service levels based on demand in 3 seasons – winter, summer, and shoulder



- One-month break in Spring, at end of winter season
- Develop contracts for specialized services in County
- Support contracts for summer activities
- Institutional Options: Intergovernmental Agreement (IGA) or RTA





## C. Alternate III: Countywide

- Travel Movements
  - Visitors to slopes and downtown
  - Employees to jobs
  - Residents to varied destinations
  - Individuals who are elderly or have disabilities for varied trips
- Service Area
  - Grand County, with core bus service in Winter Park and Fraser
  - Other destinations as warranted based on demand - Granby for commuter service or ridesharing (carpool or vanpool programs) and Hot Sulphur Springs / Kremmling for trips for people who are elderly or who have disabilities.
- Seasons: Year-round with service levels based on demand in 3 seasons – winter, summer, and shoulder



- One-month break in Spring for fixed route service, at end of winter season
- Support contracts for summer activities
- Institutional Options: Intergovernmental Agreement (IGA), RTA, or County District.

#### **Service Characteristics**

Although the level of ridership is anticipated to more than double in the next 20 years, other characteristics would not necessarily increase at the same pace. The peak periods are anticipated to not be as strong in the future, so the peak vehicle requirements won't be as high. First, the effort the Resort is making to draw more destination skiers, filling in the weekdays, will result in the transit system carrying more riders on weekdays. Therefore the weekend peaks will not be as strong compared to the weekdays. Second, with the development of lodging units near the base, more visitors will be within walking distance of the base, so their trips will occur at night, not during the peak morning and afternoon times. This will soften the peaks that occur throughout the day. A third factor that will affect the peak periods is employee ridership. Employees will be stable daily riders and many of their trips will occur outside the peak skier travel times.

The following chart identifies the anticipated service hours for each alternative. An average of 20 to 22 passengers per service hour was used for the winter (20 for current and 22 for outlying years). Ten passengers per hour were estimated in the spring/summer/fall as it will take some time to build ridership in the off-season. For all alternatives, the service configuration would initially be fairly similar to the present one, with additional routes added to serve new development as warranted. Thirty-minute service is assumed in the Fraser Valley initially,





building to 20 minute service as warranted by demand. Commuter service would be provided with six morning and afternoon trips in the winter – double what is provided today in order to serve all employees in the Valley. In the winter, three trips were provided morning and evening. To expand by three trips in the winter, an additional three vehicles would be needed. The service for individuals who are elderly or have disabilities has been estimated at around 2.5 passengers per hour.

Table 5.1 Characteristics of Transit Alternatives: Annual Estimated Service Hours

| Markets Served                  | Current | 2020   | 2026   |
|---------------------------------|---------|--------|--------|
| Visitors and Local Employees    |         |        |        |
| Winter                          | 28,000  | 50,000 | 57,000 |
| Spring/Summer/Fall              | 5,000   | 10,000 | 10,000 |
| Commuters from Granby           |         |        |        |
| Winter (all employees)          | 5,000   | 5,000  | 5,000  |
| Spring/Summer/Fall              | 4,000   | 4,000  | 4,000  |
| Elderly or Disabled Individuals | 2,000   | 4,000  | 5,000  |
| TOTAL                           | 44,000  | 73,000 | 81,000 |

#### **Financial and Institutional Characteristics**

The eligible financing mechanisms used to fund transit services vary depending on the institutional structure. Colorado law enables regions to form a Regional Transit Authority and charge up to one percent above the sales tax limit in order to fund mass transit services. Counties also have the authority to charge a Mass Transit sales tax, again up to 1%, also above the sales tax limit. Governmental agencies also have the ability to enter into contracts and agreements, and intergovernmental agreements may be used to fund and operate transit services. If an intergovernmental agreement is used, local general funds can be used to fund services – but these fall within the state limit on local taxes.

The Visitor Focused and Community Focused Transit Service Alternatives could for be implemented using an intergovernmental agreement (IGA) between the participating communities or forming a RTA. For the County-Wide Transit Service Alternative, the primary institutional options would be a County Mass Transit District or an RTA, although an IGA could also be used.

#### **Federal Funds**

All of the resort transit systems in Colorado utilize federal funds as a partial source for capital operations. There are a variety of federal programs that fund transit services, as listed below. The funds are accessed through the Colorado Department of Transportation and/or the Colorado Transit Coalition and will likely be key for both building the fleet and potentially in



building a maintenance facility. They do require the operation of service year-round. Services can be reduced in the Spring, but most regions find ongoing service is needed to provide steady employee transportation and to maintain a core staff with year-round employment.

**Table 5.2** Federal Transit Administration (FTA) Funding Programs

| Program  | Apply Through                 | Comments   |
|--|-------------------------------|--|
| 5304 Planning Funds                                | CDOT                          | Used for planning studies; 70/30 match ratio   |
| 5309 Bus Capital Funds                             | Colorado Transit<br>Coalition | The coalition consists of over 25 organizations that seek an earmark of capital dollars. This is used primarily for vehicles and facilities. Must pay dues one year before applying for funds. Annual submittal. |
| 5310 Elderly & Individuals with Disabilities Funds | CDOT                          | Funds may be used for vehicles and now for coordination activities. Grand County relies on these funds for vehicles for the Council on Aging services. Apply in odd years.                                       |
| 5311 Rural Transit Program Funds                   | CDOT                          | Primary source for operating and administrative funds; also are used for capital funds. Apply in odd years for two-year grant approvals. Update application in even years.                                       |
| 5316 Job Access Funds                              | CDOT                          | Has allocation for rural areas. Requires 50% match ratio. Apply in odd years. Commuter service would be eligible for these funds.  |
| 5317 New Freedom Funds                             | CDOT                          | For new service that exceeds the ADA requirements (providing services outside the 3/4 mile boundary, during longer hours, etc.). Apply in odd years.   |

Together these FTA funding sources can be used to help expand the services available in the region, but they will be only one part of the overall funding picture for transit.

These funds come with important conditions including provision of year-round service, coordination with other providers and human service agencies, and decisions made in a planning process that includes citizens and a wide variety of agencies. **Appendix B-III** identifies recent awards in resort communities to provide a perspective on the amount of funding available. Many of these fund sources are applied for at the same time, and a single application is recommended for Grand County services.



#### **Summary of Key Points**

- ▶ Peak demand will drive capital costs, a significant component of the start-up costs. Decisions on other services (night, summer, spring and fall, and regional services) can be made based on the marginal costs of these services. Several factors may soften peak demands:
  - Transition to more destination skiers.
  - Carrying more employees on the transit system.
  - Carrying more night-time visitors to town.
- Providing effective employee services will support employees living outside the core visitor area and more dense development in the downtown core area.
- ▶ Long-term plans are recommended to be based on year-round service and the levels of service that will be required just before the third base, the gondola, opens.
  - If a gondola from downtown is constructed, service levels can be reduced (due to shorter trips and more people walking to the Gondola base) by reducing the fleet size.
  - Older vehicles will not need to be replaced.
- Quality matters in resort communities
  - Vehicles
  - Driver training (safety, customer service, etc.)
  - Reliability and on-time service
- ► Funding the desired level of transit service will require a variety of sources. Dedicated local fund source is critical to providing stable transit services. Local dollars will be the primary source of funding for services.
- ▶ It is important to access federal funds available for transit services for both operating and capital costs. The fleet and facility costs will be significant, in addition to the ongoing operating costs of service.
- Costs of the system should be borne by those benefiting from and using the system.
- Common sources of funding in resort communities are sales taxes (Vail has a tax on lift tickets), real estate transfer taxes, and lodging taxes.
- Most resort communities do not charge fares to visitors or for local services in the resort communities. Many do, however, charge fares for regional services.



#### 6.0 CAPITAL INVESTMENT

The transit system is facing a substantial need for capital investment for both vehicles and a maintenance-operations facility. All vehicles used at present are leased and are provided by the contractor. While six new vehicles have been leased for the 2006-2007 season and the paratransit vehicles were new, most of the rest were fully depreciated before they were brought to the system. The system will need to plan for obtaining all new vehicles over the next ten to fifteen years.

The existing fleet size of 38 vehicles is used as the basis of the initial capital plan for the Winter Park Lift. The vehicle fleet is expected to increase to accommodate the additional ridership as the system almost doubles in ridership by 2020. However, the speed of the ridership increase and the effect of development on the peaking patterns of the system will impact the number of additional vehicles that will be needed. The capital plan can be adjusted every few years in response to changing conditions. A draft capital plan illustrating anticipated needs by year is contained in **Appendix B-IV**. This should be used only to provide an order of magnitude estimation of the capital requirements. As the system moves towards implementation, a detailed capital plan will need to be developed.

Heavy duty transit coaches are recommended for most service, although over-the-road vehicles would be desirable for employee bus service between Fraser and Granby. The heavy-duty transit vehicles have a standard life of 12 years, but in a resort setting often can last much longer. A 15-year or more life has been used in the estimations for the capital plan as only two full-size coaches are programmed for replacement annually.

Body-on-chassis buses will continue to be used for paratransit services and any call-and-ride service that is provided. This type of vehicle will also be appropriate for the Grand County Council on Aging services provided to seniors in the County. Grand County Council on Aging vehicle requirements are also identified in the capital plan.

Finally, there will be minor requirements for a supervisory vehicle, a maintenance truck, and office equipment.

Adding up the total cost of new vehicles gives a cost of approximately \$9 million. In addition, a maintenance and operation facility could be expected to cost \$3 to \$4 million. Based on the useful life of vehicles (estimated at 15 years for heavy duty transit coaches) and a 40-year life for a building, the amortized cost would be about \$740,000 annually in current dollars.

These are significant costs and it is worthwhile examining how other resort systems have addressed these costs. A key has been to access federal dollars for capital funding, where 80% of the costs can be covered. The various federal funding sources are described in more detail in the next section. There is significant competition for the federal funds, and over the years a good number of buses have been purchased and facilities constructed using only local dollars, with outright purchases for smaller amounts and bonding for larger amounts. Realistically, the system would not be likely to obtain the full 80% for its capital needs – but might be able to



average closer to 60% based on the amount of funding the state has been able to obtain through earmarks.

The picture has changed recently now that Senate Bill 1 is beginning to make some state funding available for transit. This past year CDOT went through a process of selecting projects for Senate Bill 1 monies for transit, and it is anticipated that this may relieve some of the pressure for federal capital funds. For example, Colorado Springs was awarded several million dollars for purchasing new buses for the commuter service between Colorado Springs and Denver

Choices for obtaining the vehicles and building the facility include:

- Leasing or purchasing vehicles
- ➤ Slowly upgrading the fleet, purchasing an average of 2-3 buses annually; obtaining vehicles in groups of approximately 10 every few years, or bonding for the entire cost of replacing the fleet and doing it at once.
- A combination of some leases and some purchases may make it financially feasible to obtain a core of new vehicles sooner than waiting to purchase all of them.

Because the system will want to work towards a sustainable replacement plan, it may be wiser to make larger purchases every few years, although it will take longer to have a "new look". This will also reduce the amount of work needed for obtaining the vehicles – a task you don't want to have to do every year. Obtaining enough so that primary services can be covered with new buses and using the older buses for peak overloads may be a viable strategy.

The facility needs are critical because the current facility is inadequate and there are future plans to develop that site. Finding a viable site for an operations facility, and having it ready to go (environmental reviews completed, design work underway) will give the region a stronger position should funding become available sooner than anticipated. At present, there is a "facilities group" of agencies that are waiting for funding through the annual earmark funds that Colorado receives. It may be 2011 before all agencies currently on the list are funded.



#### 7.0 FINANCIAL PLAN

Looking at the operating and capital cost together provides a perspective on what may be needed in order to finance the alternatives. A first cut of a financial plan was prepared to illustrate the financial constraints that must be considered as the region develops a transit plan.

**Table 7.1** identifies approximate costs to assist the region in making decisions about service level, capital investment, potential taxes to support transit, and the role of the resort in supporting the transit network. This first cut at developing a financial plan provides an order-of-magnitude estimate of overall expenses and the revenues needed to support the service over time.

## A. Assumptions

The financing analysis is based on planning level assumptions that would need to be refined as part of establishing a financial mechanism. Cost and service hour estimates are approximate and are meant to provide a picture of what might be expected with steady growth levels. Actual service levels, budgets, and revenues will vary on an annual basis in response to development patterns, travel demand, availability of resources, and decisions made regarding service level and capital investment.

The plan is built upon the service level described in the second alternative "Community Focused Transit Services" so that it illustrates how Federal funds would support a general public transit system.

- ▶ Revenue estimates were based on Fraser Valley forecasts prepared by EPS. Revenues from the County area or other communities were not included, either as taxes or contract services. As the region considers how to implement services, it may be decided that services and funding should be County-wide instead.
- ▶ The revenue forecast is based on implementing a 1% mass transit tax.
- Capital costs were spread evenly throughout the plan, with transit coaches replaced at 2 per year and body-on-chassis vehicles replaced every four years. This results in operating vehicles longer than the standard vehicle life, but it is common to run vehicles for 15 or more years in the resort communities. Vehicles were assumed to be purchased rather than leased, although some combination of the two may be appropriate.
- ▶ An operations and maintenance facility was identified for construction in 2011 and 2012, and it was assumed that federal funds could be obtained to fund 80% of the cost of this facility. It may be possible to cover the local match with donated land value, off-setting much of the loss shown in these years.
- No adjustments were made for the leased costs of vehicles, although it is understood that several vehicles now operating are leased vehicles.



- ➤ The cost per service hour (\$45 per hour) provides a realistic assessment of current expenditures. Detailed financial planning would be needed to determine if this is an adequate number for the future.
- ▶ At the end of the planning horizon, significant funding will be required to build and operate the gondola. This is envisioned as a partnership between the public transit system and Resort. The gondola will reduce the amount of transit service needed between Winter Park and mountain, reducing bus operating and capital costs. Neither the changes in transit costs and fleet nor the additional gondola costs have been included in the initial capital plan.

#### B. Financial Issues

The first cut shows that even a 1% sales tax does not raise adequate revenues to fund the alternatives. While in the early years the gap in funding may be manageable through a combination of decisions on service level and capital replacement, by 2015, the gap is over one-half million annually. The gap grows to \$1.0 million annually by 2026.

One issue is that sales taxes are not projected to increase as steadily as service levels.

Capital issues contribute significantly to the shortfall. The system will need to basically build the system from scratch, as most vehicles need to be replaced and an operating and maintenance facility needs to be built. Even with federal support, the annual amounts available are not adequate to fund 80% of the cost of what is needed to upgrade the Winter Park fleet and the maintenance facility. Funding the capital needs may require a consideration of leasing, bonding, and seeking additional state or federal allocations or hoping that some funding frees up as other entities are able to access state Senate Bill 1 funds. It also may require careful attention to fleet size and productivity. At present the system is heavily weighted to peak service; as the resort community develops, more passengers will be carried in the evening and other off-peak times. This may allow the area to reduce the peak vehicle fleet.

Peer systems have smaller fleets than in Winter Park, and still many have trouble funding capital costs. Productivity is also important. The level of service programmed is based on the current productivity levels – starting with the current average of 15 to 16 passengers per hour and increasing only gradually to 18 passengers per hour. The productivities of peer systems varies widely, depending on the amount of regional service (long-distance trips) provided. However, the system with the most similarities to Winter Park in terms of the service mix is Steamboat Springs. They operate at an average of 24 passengers per hour. An emphasis on increasing productivities will result in fewer hours that need to be operated and fewer vehicles, helping the system in two ways.

The financial issues are significant and are likely to affect the service levels, decisions about capital investment, and the partnerships developed between the cities, counties, and resort. Given the need to build a facility and obtain a new fleet, it will be critical to become actively involved in the State and Federal processes for transit funding.

More detailed financial planning will be needed to determine the decision points and the level of service that can be sustained over time.



Table 7.1 Winter Park Financing Plan – Constant Dollars (1) (2)

|                            |               | '07     | '08     | '09     | '10     | '11     | '12     | '13     | '14     | '15     | '16     | '17     | '18     | '19     | '20     | '21     | '22     | '23     | '24     | '25     | '26     |
|----------------------------|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Service Level              | Annual Hrs    | 44,000  | 46,200  | 48,400  | 50,700  | 52,900  | 55,100  | 57,400  | 59,600  | 61,800  | 64,100  | 66,300  | 68,500  | 70,800  | 73,000  | 74,300  | 75,600  | 76,900  | 78,200  | 79,500  | 81,000  |
| Operating<br>Expenses      | @ \$45/hour   | \$1,980 | \$2,079 | \$2,178 | \$2,282 | \$2,381 | \$2,480 | \$2,583 | \$2,682 | \$2,781 | \$2,885 | \$2,984 | \$3,083 | \$3,186 | \$3,285 | \$3,344 | \$3,402 | \$3,461 | \$3,519 | \$3,578 | \$3,645 |
| Capital Expenses           | S             | \$0     | \$460   | \$460   | \$460   | \$2,000 | \$3,085 | \$460   | \$460   | \$625   | \$460   | \$460   | \$460   | \$625   | \$460   | \$460   | \$460   | \$625   | \$460   | \$460   | \$460   |
| Total Expenses             |               | \$1,980 | \$2,539 | \$2,638 | \$2,742 | \$4,381 | \$5,565 | \$3,043 | \$3,142 | \$3,406 | \$3,345 | \$3,444 | \$3,543 | \$3,811 | \$3,745 | \$3,804 | \$3,862 | \$4,086 | \$3,979 | \$4,038 | \$4,105 |
| Revenues                   |               |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| Local Taxes at 1           | % (3)         | \$790   | \$820   | \$850   | \$880   | \$900   | \$930   | \$950   | \$980   | \$1,010 | \$1,030 | \$1,060 | \$1,090 | \$1,120 | \$1,150 | \$1,170 | \$1,190 | \$1,210 | \$1,230 | \$1,260 | \$1,260 |
| Resort                     |               | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 | \$1,250 |
| Federal Operatin           | g Funds       | \$0     | \$175   | \$175   | \$200   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   | \$250   |
| Federal Capital F<br>5311) | Funds (5309 & | \$0     | \$300   | \$350   | \$250   | \$1,100 | \$2,100 | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   | \$350   |
| Fares (Regional            | Services)     | \$0     | \$51    | \$53    | \$54    | \$56    | \$58    | \$60    | \$61    | \$63    | \$65    | \$66    | \$68    | \$70    | \$71    | \$73    | \$75    | \$77    | \$78    | \$80    | \$81    |
| TOTAL                      |               | \$2,040 | \$2,596 | \$2,678 | \$2,634 | \$3,556 | \$4,588 | \$2,860 | \$2,891 | \$2,923 | \$2,945 | \$2,976 | \$3,008 | \$3,040 | \$3,071 | \$3,093 | \$3,115 | \$3,137 | \$3,158 | \$3,190 | \$3,191 |
| Short or Excess I          | Revenues      | \$60    | \$57    | \$40    | -\$107  | -\$824  | -\$977  | -\$184  | -\$251  | -\$483  | -\$400  | -\$467  | -\$535  | -\$771  | -\$674  | -\$710  | -\$747  | -\$949  | -\$821  | -\$848  | -\$914  |

#### Notes:

Costs Calculated in Constant Dollars - 2006

<sup>2.</sup> Costs are in thousands of dollars

<sup>3.</sup> Land value for a facility may be provided as an in-kind contribution and could off-set much of the loss shown in 2011 and 2012.



#### 8.0 IMPLEMENTATION ACTIVITIES

This plan was prepared through a study that had a long-term vision. As the stakeholders in the region move forward to implement improved transit service, more detailed implementation work will be needed. This section describes the major activities that need to be undertaken.

## A. Challenges to Transitioning the Service to Public Operation

The initial challenges are the greatest as the system will need to establish a stable financial and institutional structure and to invest in capital equipment and facilities. A summary of these challenges are:

- Determining institutional structure and obtaining voter approval for financing that will support the system growth and development.
- Negotiating a transition and financial support from the resort.
- Transitioning the system from private operation to public operation, and upgrading as needed to comply with federal regulations.
- Improving fleet with a phased plan to purchase and / or lease vehicles.
- Building a new maintenance facility as the current site will be re-developed.

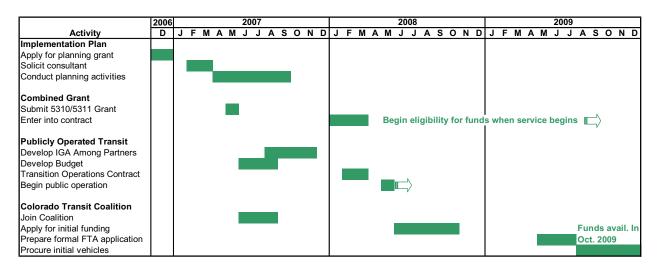
The completion of an implementation plan is recommended to assist in identifying options in each of the key areas – service plan, institutional structure, financial planning, and capital planning. This detailed planning process would be geared to getting the agreements in place and making the transition from a private sector operation to a public sector operation. This planning process would be used to develop service plans, obtain public comment, negotiate agreements, and adopt budget and IGA agreements. The results of the implementation plan would then be used to refine the region's application for funding, once awards are announced.

## B. Timing Issues

The timing of the grant cycle is important. In late Spring of 2007, CDOT will accept applications for grant funding in 2008-2009. In order to apply for federal funds, it will be important for the region to move forward with implementation planning in the Spring of 2007 and to submit a grant application at the same time. A draft schedule of activities for making the transition to general public service is presented in **Figure 8.1**.



Figure 8.1 Draft Timetable for Grant Activities



It is suggested that the service transition be planned for the end of the 2007-2008 winter season because the First Student contract will be easiest to transfer at either the beginning or end of the winter season. April of 2008 looks like a more comfortable date than November of 2007, but either would be feasible.



## APPENDIX I

# **SHORT-TERM TRANSIT PROJECTS**

|                           | 2007        | 2008        | 2009        | 2010            | 2011        | 2012        |
|---------------------------|-------------|-------------|-------------|-----------------|-------------|-------------|
| Lift Operations           | \$1,400,000 | \$1,650,000 | \$1,650,000 | \$1,750,000     | \$1,750,000 | \$1,750,000 |
| COA Operations            | \$90,000    | \$90,000    | \$90,000    | \$90,000        | \$90,000    | \$90,000    |
| Lift Revenue Vehicles     |             |             |             |                 |             |             |
| New 40' buses             |             | \$650,000   | \$650,000   |                 | \$650,000   |             |
| New Over-the-Road buses   |             |             |             | \$650,000       |             |             |
| Replacement minibus       |             |             |             | \$70,000        |             |             |
|                           |             |             |             | <b>4.</b> 0,000 |             |             |
| Lift Other Capital Items  |             |             |             |                 |             |             |
| Replacement truck         |             |             |             |                 | \$40,000    |             |
| Shelters, benches, signs  |             | \$25,000    |             |                 | \$25,000    |             |
| Maintenance Facility      |             |             |             |                 |             |             |
| Construct M & O facility  |             |             |             |                 |             | \$4,000,000 |
| Council on Aging Vehicles | -           |             |             |                 |             |             |
| Replacement vans          |             |             |             |                 |             |             |
| Replacement minibus       |             |             |             | \$50,000        | \$50,000    |             |



# APPENDIX II DATA ON DEMAND PROJECTIONS

| Potential Employment Demand - Based on Public Regional Transit Current Employment Levels |                             |                |                  |                       |                                   |  |  |  |  |  |  |
|--|-----------------------------|----------------|------------------|-----------------------|-----------------------------------|--|--|--|--|--|--|
| Where Employees Work   | Winter<br>Park              | Fraser         | Tabernash        | Granby                | Total or<br>Average               |  |  |  |  |  |  |
| # Winter Park Employees  | 540                         | 940            | 420              | 310                   | 2,350                             |  |  |  |  |  |  |
| Mode Share for Transit   | 10%                         | 15%            | 15%              | 35%                   | 15%                               |  |  |  |  |  |  |
| Number Using Transit   | 50                          | 140            | 60               | 110                   | 360                               |  |  |  |  |  |  |
| # Fraser Employees   | 10                          | 390            | 110              | 120                   | 650                               |  |  |  |  |  |  |
| Mode Share for Transit   | 10%                         | 10%            | 10%              | 25%                   | 12%                               |  |  |  |  |  |  |
| Number Using Transit   | 0                           | 40             | 10               | 30                    | 80                                |  |  |  |  |  |  |
| # Tabernash Employees  | 10                          | 100            | 150              | 100                   | 405                               |  |  |  |  |  |  |
| Mode Share for Transit   | 10%                         | 10%            | 0%               | 25%                   | 10%                               |  |  |  |  |  |  |
| Number Using Transit   | 0                           | 10             | 0                | 30                    | 40                                |  |  |  |  |  |  |
| Total Emp. Using Transit   | 50                          | 190            | 70               | 170                   | 480                               |  |  |  |  |  |  |
| New Employees by 2020  | Winter<br>Park              | Fraser         | Tabernash        | Granby                | Total or<br>Average               |  |  |  |  |  |  |
| # New Employees Living In:   | 62                          | 145            | 65               | 91                    | 363                               |  |  |  |  |  |  |
| Mode Share for Transit   | 10%                         | 15%            | 20%              | 35%                   | 20%                               |  |  |  |  |  |  |
| Number Using Transit   | 6                           | 22             | 13               | 32                    | 73                                |  |  |  |  |  |  |
|  |                             |                |                  |                       |                                   |  |  |  |  |  |  |
| Total Employees Using<br>Transit by 2020   | 56                          | 212            | 83               | 202                   | 553                               |  |  |  |  |  |  |
|  | 56<br>Winter<br>Park        | 212<br>Fraser  | 83<br>Tabernash  | 202<br>Granby         | 553<br>Total or<br>Average        |  |  |  |  |  |  |
| Transit by 2020  | Winter                      |                |                  |                       | Total or                          |  |  |  |  |  |  |
| Transit by 2020  | Winter<br>Park              | Fraser         | Tabernash        | Granby                | Total or<br>Average               |  |  |  |  |  |  |
| Transit by 2020  New Employees by 2026   | Winter<br>Park              | Fraser 40      | Tabernash        | Granby 25             | Total or<br>Average               |  |  |  |  |  |  |
| New Employees by 2026  Mode Share for Transit  | Winter<br>Park<br>17<br>0.1 | Fraser 40 0.15 | Tabernash 18 0.2 | <b>Granby</b> 25 0.75 | Total or<br>Average<br>100<br>31% |  |  |  |  |  |  |



# APPENDIX III ILLUSTRATION OF FEDERAL FUNDING LEVELS

Three sources of funding are presented: Federal Transit Administration (FTA) Section 5311 funding awarded through CDOT; FTA 5309 awards funded through the Colorado Transit Coalition; and Colorado Senate Bill 1 funds awarded through CDOT

Other funding sources, such as the FTA Job Access funds, and New Freedom fund are a part of the overall transit funding options in the state, but the programs are undergoing changes so current information is not available.

The FTA 5310 program for vehicles for programs serving the elderly and disabled is regularly used by Grand County, but the awards haven't been included as they will not have a major impact on the overall funding picture for the transit services at this macro level of planning.

#### 1. CDOT Rural Transit program – FTA Section 5311

#### 2006 Awards to Resort Communities

| Agency                                   | Administration | Operations | Capital   | Total     |
|--|----------------|------------|-----------|-----------|
| Roaring Fork Transportation<br>Authority | \$0            | \$487,950  | \$206,000 | \$693,950 |
| Summit County                            | \$24,150       | \$245,300  | \$0       | \$269,450 |
| Snowmass Village                         | \$8,050        | \$40,650   | \$95,000  | \$143,700 |
| Steamboat Springs, City of               | \$16,100       | \$253,300  | \$294,000 | \$563,400 |
| Crested Butte, Town of                   | \$24,150       | \$165,600  | \$0       | \$189,750 |
| Breckenridge, Town of                    | \$0            | \$90,450   | \$303,000 | \$393,450 |
| AVERAGE AWARD                            |                |            |           | \$375,617 |

#### 2007 Awards to Resort Communities

| Agency                                | Administration | Operations | Capital   | Total     |
|---------------------------------------|----------------|------------|-----------|-----------|
| Roaring Fork Transportation Authority | \$0            | \$640,340  | \$256,000 | \$896,340 |
| Summit County                         | \$0            | \$320,000  | \$0       | \$320,000 |
| Snowmass Village                      | \$25,000       | \$90,000   | \$200,000 | \$315,000 |
| Steamboat Springs, City of            | \$16,905       | \$313,695  | \$0       | \$330,870 |
| Crested Butte, Town of                | \$25,358       | \$173,880  | \$0       | \$199,238 |
| Breckenridge, Town of                 | \$0            | \$94,973   | \$0       | \$94,973  |
| AVERAGE AWARD                         |                |            |           | \$359 404 |



#### 2. CDOT awards for Senate Bill 1 funds to projects in resort communities.

These funds will be available at different times over the next 8 years.

City of Steamboat Springs \$400,000

Northwest Colorado regional transit bus transfer and bus storage facility

on US 40 in Craig.

<u>Town of Avon</u> \$2,130,188

Avon Intermodal Center

Gunnison Valley RTA \$880,000

Vehicles for serving Crested Butte and Gunnison Valley

#### 3. FTA 5309 funds - Capital funds for buses and related facility and capital needs

#### 2004 - 2006 Awards through Colorado Transit Coalition

#### **Vehicles Group**

|                             | 2004    | 2005    | 2006    |
|-----------------------------|---------|---------|---------|
| City of Aspen               | 81,349  | -0-     | 117,159 |
| Mountain Express            | 84,839  | 121,494 | 170,694 |
| Town of Snowmass<br>Village | 196,664 | 96,625  | 100,495 |
| Summit Stage                | 270,145 | 110,765 | 154,026 |
| Town of Avon                | 297,606 | 145,774 | 62,756  |
| ECO Trans                   | 394,922 | 141,396 | 269,388 |
| Mountain Village            | 589,553 | 388,578 | 398,686 |
| Town of Vail                | 677,944 | 301,408 | 378,681 |
| RFTA                        | 880,813 | 477,261 | 544,653 |
| Steamboat Springs           | 887,516 | 334,047 | 363,718 |
| Average Award               | 436,336 | 235,261 | 256,226 |

#### Facilities Group

|                   | 2004      | 2005      | 2006      |
|-------------------|-----------|-----------|-----------|
| Town of Telluride | 1,058,050 | 494,650   | 549,286   |
| Breckenridge      | 2,368,404 | 1,107,256 | 1,629,554 |

Note: The coalition rules prohibit an agency from receiving funding in both the vehicles and facilities group in the same year. It can take several years for full funding of a facility, so during these years no vehicle funds are received.



### APPENDIX IV Capital Plan

An initial capital plan has been developed to identify the magnitude of capital costs. This plan should be used to provide order-of-magnitude information for forecasting. Detailed capital planning will be needed as the system moves towards implementation.

#### Table Notes:

- 1. Currently these vehicles are primarily "school bus style" but the assumption is that they would be transitioned to transit style buses.
- 2. No over-the-road coaches were programmed because of the expense, but may be desirable in the future.
- 3. Vehicle replacements are based on number that would be needed, on average, each year.
- 4. Costs used were \$55,000 for body-on-chassis vehicle, \$230,000 for a heavy duty transit coach, and \$50,000 each for maintenance and supervisory vehicles.

#### **Initial Capital Plan**

|   |       | '07                         | '08 | '0        | 9 '1      | 0 '11     | '1                                      | 2 '1   | 3         |
|---|-------|-----------------------------|-----|-----------|-----------|-----------|---|--|-----------|
| Vehicle Fleet Body-on-chassis Over-the-road coaches (2) 40' Heavy duty transit coaches(1) Non-revenue vehicles    | TOTAL | Total in 2 0 36 <u>0</u> 38 |     | +1        | +2        |           |   |  |           |
| Revenue Vehicles - Number Purchased<br>Body-on-chassis<br>Over-the-road coaches<br>40' Heavy duty transit coaches |       | (3)                         |     | 0<br>2    | 2         | 2         | 3                                       | 2  | 2         |
| Non-revenue vehicles<br>Maintenance Truck<br>Operations Vehicle   |       |                             |     |           |           |           |   |  |           |
| Total Cost of Equipment Purchased (3)   |       |                             | \$0 | \$460,000 | \$460,000 | \$460,000 | \$625,000                               | \$460,000                                      | \$460,000 |
| Maintenance and Operations Facility Land Engineering and Design Construction Equipment Total                      |       |                             |     |           |           | _         | \$1,125,000<br>\$250,000<br>\$1,375,000 | \$2,500,000<br><u>\$125,000</u><br>\$2,625,000 |           |
| TOTAL CAPITAL EXPENSE Notes   |       |                             |     | \$460,000 | \$460,000 | \$460,000 | \$2,000,000                             | \$3,085,000                                    | \$460,000 |

- (1): Currently these vehicles are primarily "school bus style" but the assumption is that they would be transitioned to transit sytle buses.
- $(2) \ \ No\ over-the-road\ coaches\ were\ programmed\ because\ of\ the\ expense,\ but\ may\ be\ desirable\ in\ the\ future.$
- (3) Vehicle replacements are based on number that would be needed, on average, each year.
- $(4) Costs used were \$55,000 for body-on-chassis vehicle, \ \$230,000 for a heavy duty transit coach, and \$50,000 for maintenance trucks.$

#### **Initial Capital Plan**

|   | '14           | '15    | '16      | '17       | 7 '18     | '19       | 9 '20     | )         |
|---|---------------|--------|----------|-----------|-----------|-----------|-----------|-----------|
| Vehicle Fleet Body-on-chassis Over-the-road coaches (2) 40' Heavy duty transit coaches(1) Non-revenue vehicles  | TAL           |        |          |           |           |           |           |           |
| Revenue Vehicles - Number Purchased<br>Body-on-chassis<br>Over-the-road coaches<br>40' Heavy duty transit coaches   |               | 2      | 3        | 2         | 2         | 2         | 3         | 2         |
| Non-revenue vehicles<br>Maintenance Truck<br>Operations Vehicle   |               |        |          |           |           |           |           |           |
| Total Cost of Equipment Purchased (3)   | \$460,        | 000 \$ | 6625,000 | \$460,000 | \$460,000 | \$460,000 | \$625,000 | \$460,000 |
| Maintenance and Operations Facility Land Engineering and Design Construction Equipment Total  |               |        |          |           |           |           |           |           |
| TOTAL CAPITAL EXPENSE  Notes  (1): Currently these vehicles are primarily "school bus style" but (2) No over-the-road coaches were programmed because of the (3) Vehicle replacements are based on number that would be n (4) Costs used were \$55,000 for body-on-chassis vehicle, \$230 | e exp<br>eede | 000 \$ | 6625,000 | \$460,000 | \$460,000 | \$460,000 | \$625,000 | \$460,000 |

#### **Initial Capital Plan**

(2) No over-the-road coaches were programmed because of the exp
 (3) Vehicle replacements are based on number that would be neede
 (4) Costs used were \$55,000 for body-on-chassis vehicle, \$230,000

|  | '21       | '22       | 2 '23     | '24         | 1 '25     |           | 6<br>otal vehicles                 |
|--|-----------|-----------|-----------|-------------|-----------|-----------|------------------------------------|
| Vehicle Fleet Body-on-chassis Over-the-road coaches (2) 40' Heavy duty transit coaches(1) Non-revenue vehicles   | OTAL      |           |           | +1          |           |           | in 2026<br>3<br>3<br>38<br>2<br>46 |
| Revenue Vehicles - Number Purchased Body-on-chassis Over-the-road coaches 40' Heavy duty transit coaches   |           | 2         | 2         | 3<br>0<br>2 | 2         | 2         | 2                                  |
| Non-revenue vehicles Maintenance Truck Operations Vehicle  |           |           |           |             |           |           |                                    |
| Total Cost of Equipment Purchased (3)  |           | \$460,000 | \$460,000 | \$625,000   | \$460,000 | \$460,000 | \$460,000                          |
| Maintenance and Operations Facility Land Engineering and Design Construction Equipment Total   |           |           |           |             |           |           |                                    |
| TOTAL CAPITAL EXPENSE  Notes  (1): Currently these vehicles are primarily "school bus style" but the second | out the a | \$460,000 | \$460,000 | \$625,000   | \$460,000 | \$460,000 | \$460,000                          |



# Appendix C Supplementary Downtown Information





The following graphics are included as background information, which informed the Urban Design Framework Plan:

#### ► Existing and Proposed Development Diagram (Appendix C – Figure 1)

This diagram was developed to highlight the relationships between existing buildings and potential infill and redevelopment sites. Although the consultant team recognizes that many of the properties along Main Street may not be available for redevelopment in the immediate future, there may come a time when one or several individual parcels may seek to redevelop. The Existing and Proposed Development Diagram inventories and identifies individual buildings that are existing and those areas where the consultant team has delineated potential and future redevelopment, including building configurations.

Building Use Diagram (Appendix C – Figure 2)

This diagram was developed to identify existing and proposed land uses.

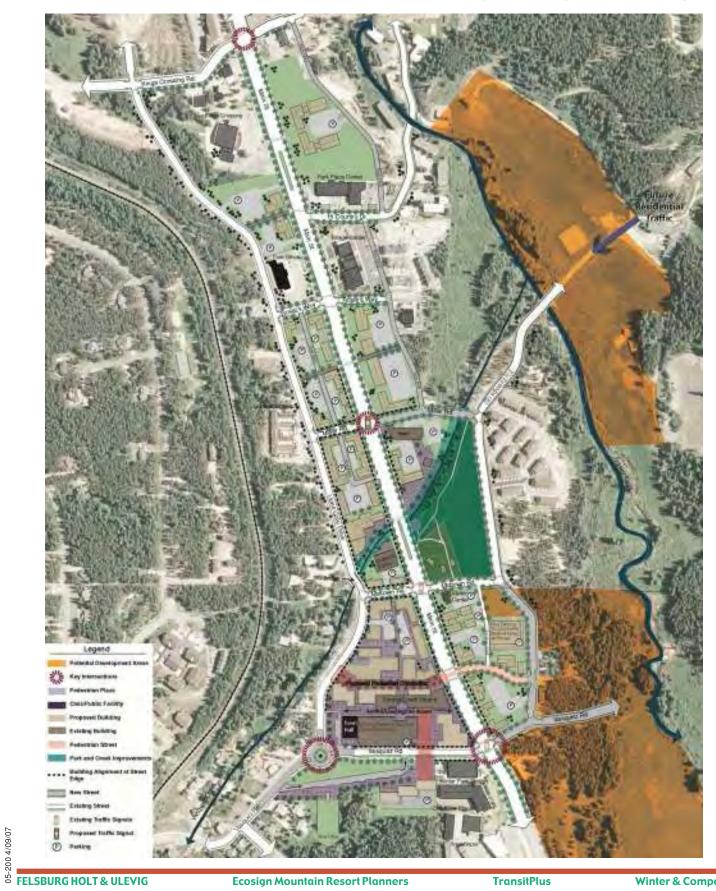
Phasing Diagram (Appendix C – Figure 3)

The phasing diagram corresponds to future land use projections generated in conjunction with the EPS study entitled <u>Winter Park Base Village Economic and Fiscal Impact Study</u>.



# Appendix C — Figure 1

## **Existing and Proposed Development**

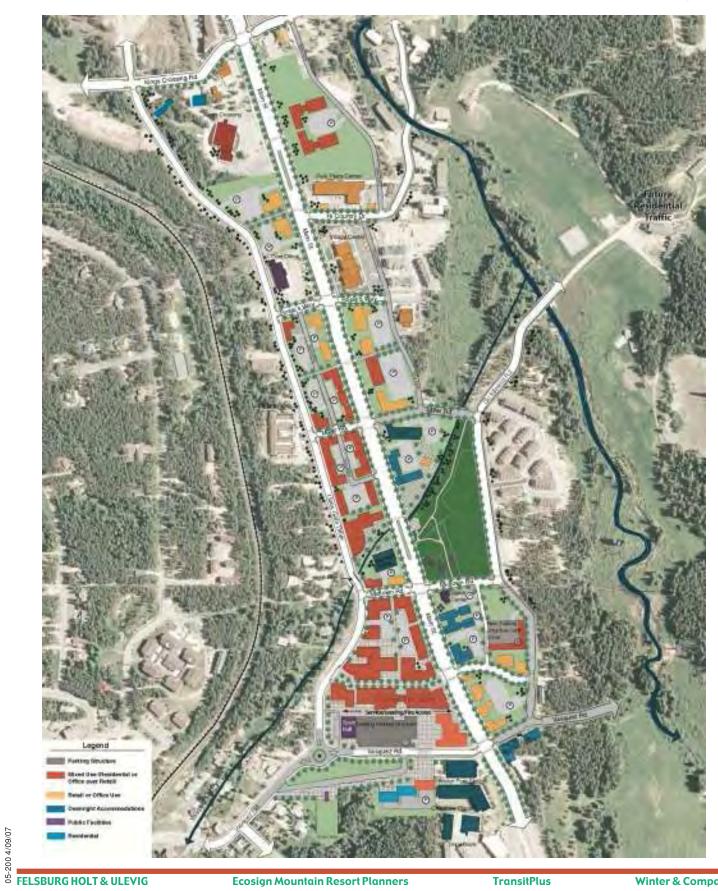


TransitPlus



# Appendix C — Figure 2

# **Building Use**





# Appendix C — Figure 3

# Phasing Diagram

