

I-70 Coalition Land Use Planning Study For Rail Transit Alignment Throughout the I-70 corridor

Final Report

March 2009





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- Task 4 Technical Memorandum – Summary of Similar Projects/Best Practices
- Task 5 Technical Memorandum – I-70 Coalition Meetings and Develop Guidelines
- Task 6 Technical Memorandum – Define Project Purpose and Jurisdiction Dialog
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Study Project Manager

Dr. Florine Raitano, Executive Director I-70 Coalition

I-70 Coalition Technical Committee

Thad Noll, Summit County (Chair)	Bill Linfield, Silverthorne
Greg Hall, Vail	Dan Burroughs, Dillon
Tom Daugherty, Breckenridge	Eva Wilson, Eagle County
C.A. Lane, Winterpark Ski Area	Harry Dale, Clear Creek County
Mike Spies, Empire	Will Kerns, Jefferson County
John Jones, Summit Stage	Bob Bowland, Idaho Springs
Cynthia Neely, Georgetown	

Jefferson County Working Group

Zeke Zebauers, Jefferson County	Jeanie Rossillon, Jefferson County
John Wolforth, Jefferson County	Tim Carl, Jefferson County
Will Kerns, Jefferson County	Mike Schuster, Jefferson County
Ken Tribby, Golden	Rick Muriby, Golden
Steve Glueck, Golden	

Clear Creek County Working Group

Kerry Ann McHugh, Georgetown	Greg Sterett, Georgetown
Chuck Stearns, Georgetown	Cindy Condon, Idaho Springs
Mary Jane Loevlie, Idaho Springs	Gary Regester
Fred Rollenhagen, Clear Creek County	JoAnn Sorensen, Clear Creek County
Michael Spies, Empire	Rick Caldwell, Silver Plume
Cindy Olson, Idaho Springs	Trent Hyatt, Clear Creek County
Cynthia Neely, Georgetown	Krasimir Koev, Easter Seals of Colorado
Jim Pals, Landowner	

Summit County Working Group

Melissa Wyatt, Dillon	Bob French, Summit County Commissioner
Mark Leidal, Silverthorne	John Roberts, Summit County
Peter Grosshuesch, Breckenridge	Tim Gager
John Warner	Bernie Zurbringer - Frisco
Michael Penny, Frisco	Devin Graybery, Dillon
Dave Koop, Frisco	Kevin Batchelder, Silverthorne
Thomas Davidson, Summit County	Tom Long, Summit County
Steve Hornback	Gary Martinez, Summit County
Barbara Davis	Mark Gage, Frisco
Thad Noll, Summit County	Bill Linfield, Silverthorne
Chris Kslich, Breckenridge	



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Eagle County Working Group

Eva Wilson, Eagle County	Lana Gallegos, Gypsum
Cindy Schwartz, Gypsum	David Johnson, ECO Transit
Ben Gerdes, Eagle County	Greg Schroeder, Eagle County
Greg Hall, Vail	Peter Runyon, Eagle County Commissioner
Matt Gennett, Avon	Harry Taylor, ECO Transit
Keith Montag, Eagle County	Ian Craig, Gypsum
Tom Gosiorowski, Eagle	Bob Narracci, Eagle County
Alex Potente, Eagle County	Rachel Friede, Vail
Chris Cerimele, Minturn	Keith Montag, Eagle County
Mike Budd, Berry Creek	Kelley Collier, ECO Transit
Jenny Strehler, Avon	William Gray, Eagle
Tom Kassmel, Vail	Cliff Simonton, Eagle County
Pete Fralick, Eagle County	Tom Johns, Eagle County
Ross Morgan, Gypsum	Don Cohen, Eagle County Economic Council
Mark Haugen, Eagle	Jerry Law, Gypsum

Garfield County Working Group

Kristin Kenyon, Roaring Fork Transit Authority	Dan Blankenship, RFTA
Tresi Houpt, Garfield County Commissioner	Dave Sturges, Glenwood Springs City Council
David Pesnichak, Garfield County	Jason White, RFTA
Craig Richardson, Garfield County	

Other Jurisdiction Input

Roger Baker, Gilpin County	Ron Slinger, Gilpin County Commissioner
Forest Whitman, Gilpin County Commissioner	Tony Petersen, Gilpin County
Thomas Isbester, Blackhawk	Medill Barnes
Brook Svoboda, Central City	Bud Elliot, Leadville
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Consultant Team

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Norris Design
Arland Land Use Economics



Executive Summary

The I-70 Corridor is like none other in the world. Its majestic peaks, scenic views, and abundant recreational opportunities combine with a host of vibrant communities and resorts that draw thousands of visitors every day to this area. Grades, traffic volumes, and difficult weather conditions, however, can make travel along this essential east-west corridor a challenge and leave corridor communities contending with the transportation congestion typical of much larger urban areas. The members of the I-70 Coalition recognize the need to address not only the transportation issue, but the communities' interests in creating an alternative means of travel through this high demand area, while maintaining land use development patterns that reflect the unique mountain character and charm of these communities.

The I-70 Coalition envisions a high speed Advanced Guideway System (AGS) designed to serve the residents, employees, resorts and visitors that comprise the travel pool in this corridor. A year ago, the I-70 Coalition embarked on a very unique planning effort, this I-70 Coalition Land Use Planning Study for Rail Transit Alignment throughout the I-70 Corridor. The study planning process engaged representatives from all communities along the corridor in conversations about local transit, land use decision-making and regional mobility. This year-long collaborative planning effort was designed to address local and corridor-wide visions, goals, and understanding of transit service implementation, along with concepts for land use development patterns that support and integrate with future transit. The process was divided into four general phases of work:

- Phase 1 – Listening and Generating Ideas.
- Phase 2 – Station Location Evaluation Criteria and Screening.
- Phase 3 – Integrating Transit and Land Use Planning.
- Phase 4 – Conclusion and Thinking Forward.

The study closely coordinated with other ongoing I-70 studies and the Colorado Department of Transportation (CDOT), including the I-70 Programmatic Environmental Impact Statement (PEIS), the Context Sensitive Solutions (CSS) project, and the Rocky Mountain Rail Authority (RMRA) rail feasibility study regarding local community interests in station locations and transit alignments. The I-70 Coalition's process and recommendations have continuously informed these studies over the past year, and been an integral source for local input to these corridor wide efforts.

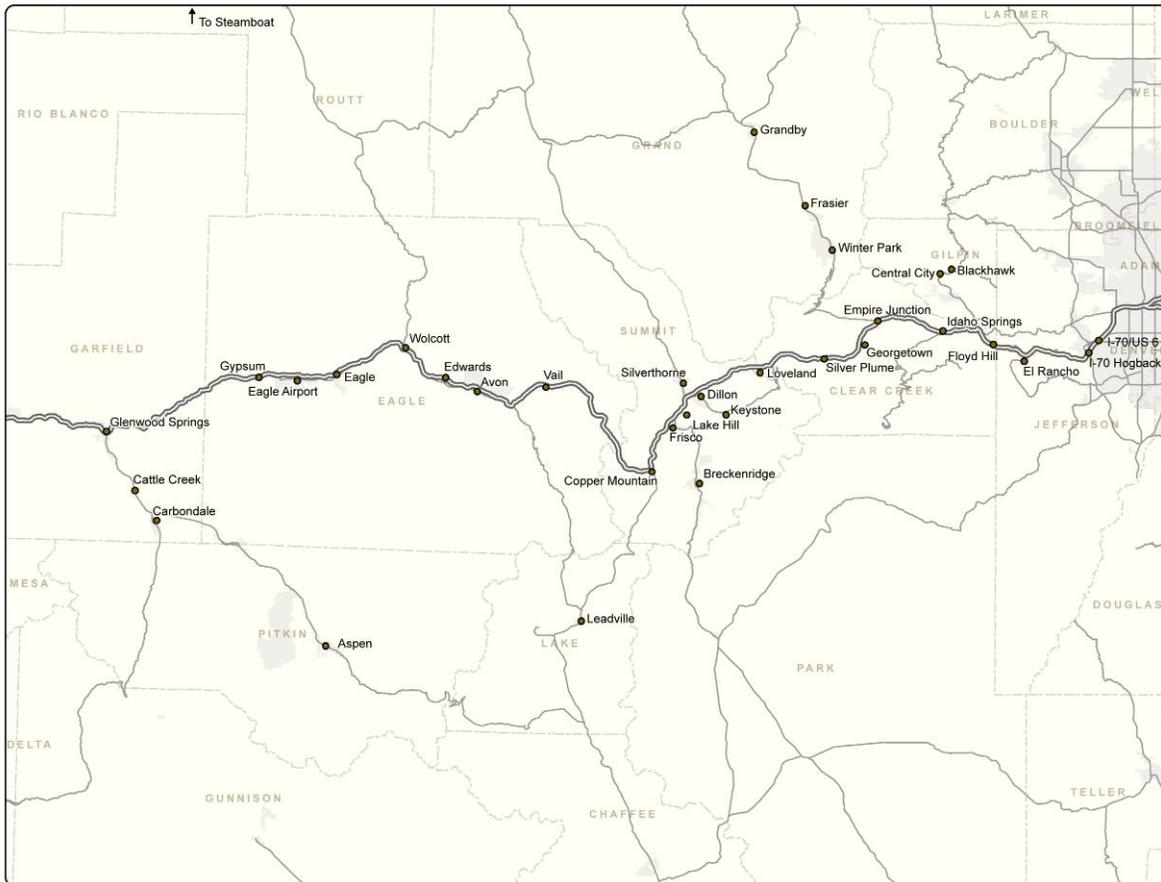
The outcome of the I-70 Coalition's Land Use Planning Study is not only the integration of community preferred station locations and land use planning practices, but the communication and collaborative decision-making process that occurred among the corridor representatives. Their engagement and work throughout the past year has resulted in local ownership of a regional approach to future AGS stations, an understanding of local land use practices on regional mobility and a framework for ongoing coordination moving forward.

The Land Use Planning Study is just one element of the body of information that will be needed to develop the answers to AGS and land use planning in the corridor. In starting the conversation among counties along the I-70 corridor, the I-70 Coalition has taken a critical step



toward understanding and ownership of the I-70 Coalition vision for AGS and in implementing the Preferred Alternative of the I-70 PEIS. The general boundary for the study was along the I-70 corridor from Jefferson County in the east to Garfield County in the west, including the off-corridor communities of Gilpin County (Blackhawk and Central City), Grand County (Winter Park, Fraser, and Granby), Routt County (Steamboat Springs), Lake County (Leadville), and Pitkin County (Aspen), as shown below.

I-70 Coalition Land Use Study Area



The establishment of County Working Groups was the first step to ensuring a collaborative and open planning process. The County Working Groups met five times during the course of the study bringing together representatives from the county and municipal governments, transportation managers and planners, land use planners, public works staff, local transit agencies, interested citizens, and public officials. The core County Working Groups along the I-70 corridor were:

- Jefferson County including Golden.
- Clear Creek County including Idaho Springs, Empire, and Georgetown.
- Summit County including Dillon, Silverthorne, Frisco, and Breckenridge.
- Eagle County including Vail, Avon, Edwards, Eagle, Gypsum, and ECO Transit.



- Garfield County, including Glenwood Springs, Carbondale, Roaring Fork Transportation Authority (RFTA), and Pitkin County (Aspen).

The first phase of the study process was devoted to listening and sharing regional needs for travel, along with local visions for transit within each area. The County Working Groups identified guiding principles representative of the local concerns, interests, and objectives discussed during the process which include:

*Future AGS service through **Jefferson County** should accommodate local needs of commuting residents, rural residents, the elderly and those with special needs. It should create critical connections to future light rail and connecting transit services in the region.*

*Future AGS service through **Clear Creek County** should provide key connections to adjacent communities in order to accommodate the local needs for connectivity and improve access to the Clear Creek community for tourist activity. It should create a transit system that creates a “wow” factor while maintaining the unique historic character of the local towns.*

*Future AGS service through **Summit County** should strengthen mobility into and out of the county, support visitor destination travel, strengthen employee commuter patterns to the resort area and maintain the unique mountain character and moderate development scale found in Summit County.*

*Future AGS or high speed rail through **Eagle County** should provide seamless regional interconnectivity for both local resident commuters as well as visitors to our world-class resort recreation destinations. Visitors to Eagle County arriving primarily from the Front Range/DIA or the Eagle County Airport should be provided with fast, convenient, efficient and reliable transportation to Vail and Beaver Creek resorts. The AGS or high speed rail should smoothly interface with the Summit Stage, ECO and RFTA services.*

*Future AGS service through **Garfield County** should strengthen mobility into and out the county, support visitor destination travel, strengthen employee commuter patterns north-south through Glenwood and east-west along I-70. AGS service should be environmentally sensitive and be an element of sustainability in Glenwood Canyon.*

Input from the County Working Groups, the I-70 Coalition’s Technical Committee, and the Full I-70 Coalition membership was essential to this regional planning process and the determination of community preferred future station locations. The County Working Groups identified over 24 station location possibilities that served both passengers and potentially light freight services throughout the corridor. The County Working Groups established guidelines and screening criteria for evaluation of these station locations based on 1) County Working Group values; 2) technical siting requirements; 3) consistency with the Context Sensitive Solutions project for the I-70 corridor; 4) I-70 Coalition transit criteria, and 5) the I-70 Collaborative Effort. Specifically, the final siting criteria for group evaluation and discussion included the following questions:

- Does the location serve a population center?
- Is the location an established activity center (or will be someday)?
- Does the location serve a geographic area (have the potential to capture ridership)?



- Is the location compatible with future land use plans?
- Does the location have good vehicular access?
- Does the location complement future transit plans and connections?
- Are there any known environmental issues with the location?
- Is there County Working Group support for the location?

Several months of the planning process were spent in the debate, discussion, and evaluation of community preferred station locations and the evaluation of responses to these primary criteria. The eventual outcome of the criteria evaluation and screening process represent months of consideration of regional mobility needs and local interests in transit system and community context. The community preferred station recommendations are a substantive achievement on the part of County Working Group members and are considered to be the top priorities of the County Working Groups. These recommendations, however, do not preclude additional or alternative locations that might be served by spurs or skip service that could be developed at a later date. The list represents each County Working Group's recommendation of what locations they believe would best serve the people in the community, as well as those traveling to their communities. The County Working Groups recognize that technical data, such as ridership, are still being developed and such information may cause these recommendations to be reconsidered. Recommendations by the County Working Groups for major hub locations (called Tier 1 regional station locations) are as follows (see following map):

Jefferson County

- I-70/US 6 Interchange Area (or Washington Street/SH 58 Area).

Clear Creek County

- Idaho Springs (includes five potential sites).
- Empire Junction/Georgetown (or somewhere in between).

Summit County

- Frisco or Silverthorne.
- Also recognizing that Keystone, Breckenridge, and Copper Mountain may be preferred depending on ridership and alignment considerations. Copper Mountain is likely to have a station regardless because potential alignments are likely to pass through there.

Eagle County

- Vail or Avon (east end of county).
- Eagle Airport (west end of county).

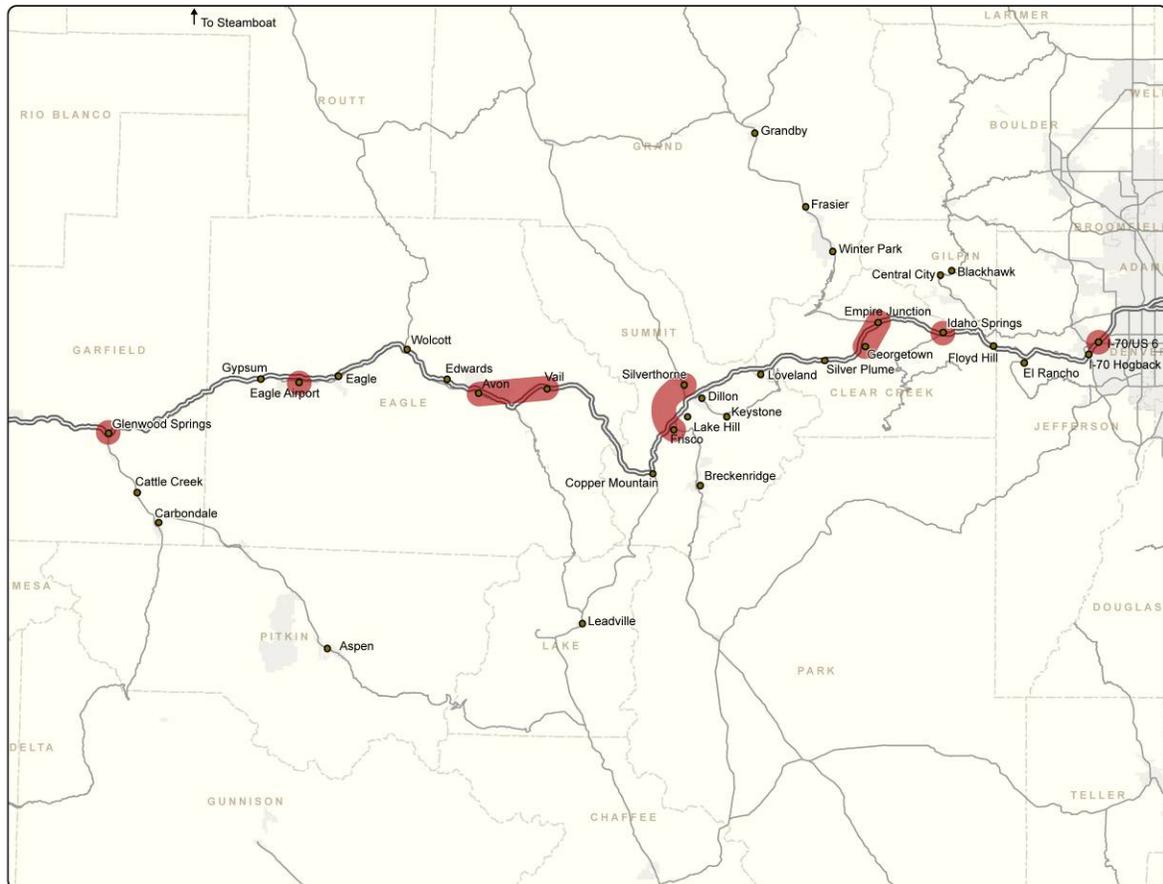
Garfield County

- Glenwood Springs - Downtown Wye.



- Mid-valley/Carbondale if alignment follows Cottonwood Pass.

County Working Group Recommended Tier 1 Regional Station Locations (red dots)



The County Working Groups discussed the potential functionality of these stations, including the anticipated need for passenger drop-off facilities, bus bays for integration with local transit systems, and park-n-Ride facilities, depending on the location and role within the system. The communities addressed questions of physical size and acreage needed to accommodate future facilities and compatibility with local land use and community characteristics. Following these discussions, an example station with typical specifications was developed for illustrative purposes, although the eventual design of each station will vary due to site specific characteristics, passenger types, boarding and alighting patterns, community character, and adjacent land use (see example below).



Visual Simulation Representing an Example Tier 1 Regional Station Location



Today's land use decisions and land use planning practices will be the base of tomorrow's transit ridership. Future resident, visitor and employee travel patterns in the I-70 corridor will be enhanced and sustained by the synergy between the local land use development and transit service. The County Working Groups discussed ideas for integrated land use and transit planning, supportive development principles, and concepts for connectivity. They participated in a high-level assessment of corridor comprehensive plans, sub-area plans, zoning code, and other land development tools and practices, the result of which indicated that the majority of I-70 corridor communities recognize through their community visions and planning policies that future transportation systems should be inclusive of transit options, that transit and bike/pedestrian connectivity is essential, and that land use development practices will influence whether transit service is effective in reducing automobile trips.

In preparation for future AGS service implementation, corridor jurisdictions can conduct community visioning sessions; perform comprehensive plan updates; develop specialty sub-area plans such as bike or pedestrian plans; and identify land availability or other resources that may affect their community's ability to support station development. A transit-ready planning process should, of course, be tailored individually to each agency and community; and the timing of actions may occur sooner or later than shown based on the development practices, land availability, infrastructure needs, etc. A related toolbox of example planning practices was designed as a reference to accompany this outline and a guideline for corridor communities in moving forward as AGS station locations and alignments are confirmed. Guidelines for a transit-supportive planning process were discussed with County Working Groups and outlined in near-term, mid-term, and near-term time frames for action as summarized below.



Near Term Planning- Today's Actions

- Continue to coordinate with ongoing I-70 corridor studies.
- Develop a vision for transit in your community through a broad-based community visioning process.
- Strengthen the policy language in the comprehensive/master plans to signify a strong direction for transit and integrated land use.
- Develop policies that identify how to realize the vision and goals for transit including;
 - Location.
 - Supporting land use type.
 - Density.
 - Sustainable growth patterns.
 - Community character.
 - Multi modal connectivity.
- Evaluate whether current zoning practices or planned unit development (PUD) allowances ensure desired development patterns, mixed-use, higher density or greater walkability.
- Continue specialty planning efforts such as bicycle/pedestrian master plans, transit service plans, design guidelines, etc.
- Evaluate existing and future needs for a local transit system.

Mid Term Planning – Three to Ten Years Prior to AGS

- Confirm station site and begin/continue local land assemblage.
- Develop a station area sub-plan that includes:
 - Land use mix and density recommendations based on a market analysis.
 - Design guidelines.
 - Zoning tools and recommendations.
 - Infrastructure evaluation and recommendations.
 - Parking strategies.
 - Pedestrian and bicycle connectivity.
 - Transportation demand management (TDM) strategies.
 - Implementation strategies.
- Evaluate infrastructure availability and set a plan to deal with these limitations. This could include improving the infrastructure or limiting development.
- Identify funding mechanisms.
- Engage a developer, if appropriate, for implementation of the land use vision.
- Continue planning, funding and implementation of local transit system if needed.
- Continue coordination with the AGS or corridor transit planning team.



Long Term Planning – One to Three Years Prior to AGS

- Coordinate and implement infrastructure improvements related to the site if not already underway.
- Continue coordination with developer on site development.
- Implement transit system connections to tie into AGS.

Path Forward

This I-70 Coalition Land Use Planning Study for Rail Transit Alignment Throughout the I-70 Corridor established a framework for cooperation and coordination among all corridor jurisdictions. It is essential groundwork for future system planning, station sub-area planning, and community education and involvement. Through this planning process, corridor jurisdictions have initiated conversations about transit networks and AGS integration, broadened community understanding of transit and land use decision-making parameters, and strengthened each community's ability to navigate its own future for transit mobility. After this study concludes, it will be the role of the I-70 Coalition and each municipal or county agency to pass on the information discussed through this process and to educate members of their community.

The I-70 Coalition and member agencies in the I-70 corridor should follow closely the Final I-70 Mountain Corridor PEIS that will document the Preferred Alternative for the I-70 corridor; a multimodal solution with non-infrastructure components, a commitment to the evaluation and implementation of an AGS, and highway improvements.

It is also important that over the next eight months or longer, that the I-70 Coalition and its participating agencies continue to coordinate with the RMRA study, examining whether inter-city high-speed rail is technically, financially, and economically feasible for I-70. The RMRA study should give strong consideration to the community interests for station locations identified during this Land Use Planning Study; however, the technical considerations for alignment may need to be reconciled with the results of this study. It will be important to clarify the components of each study for the public and the resulting outcomes.

It will also be critical to identify a path for decision-making and information going forward. It will be important to continue the momentum established during this planning process and to maintain an increased communication level with local agency staff and their communities over the next several years. The continuation of the County Working Group structure organized for this study process may prove to be an appropriate vehicle for open and collaborative dialogue and ongoing planning cooperation for the corridor. Additionally, CDOT's Public Information team for the I-70 corridor and the CSS I-70 Project Leadership Teams will be future forums for collaboration and information. The ability of the multitude of agencies to stay informed and be involved rests in a central location for that activity. The I-70 Coalition represents the broadest participation of agencies in or adjacent to the I-70 corridor and is a good conduit for this ongoing coordination.



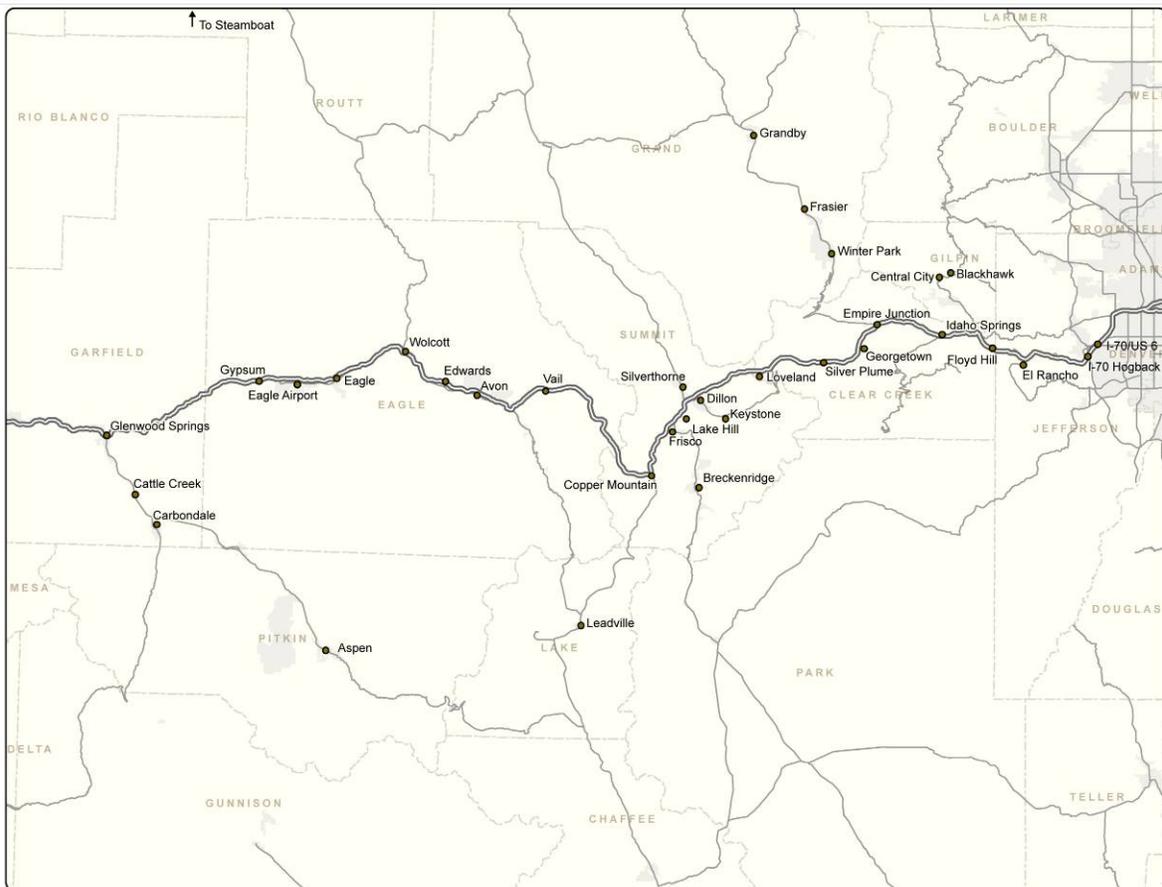
Introduction

This report does not represent a typical land use study that most land use planners, public officials, and community members have come to expect in terms of specific land use maps and plans. Rather it provides documentation of a year-long outreach effort by the I-70 Coalition to inform and gather input and preferences about potential transit station locations and land use impacts for a future high-speed advanced guideway system (AGS) along the I-70 corridor. The general boundary for the study is along Interstate 70 (I-70) from Jefferson County in the east to Garfield County in the west (see **Figure 1**). Also, input was obtained from counties adjacent to the I-70 corridor that might be affected by implementation of a regional high-speed transit system.



Example of an Advanced Guideway System

Figure 1: I-70 Coalition Land Use Planning Study Area





This report is organized into eight sections. Section 1.0 provides the study purpose and process and Section 2.0 describes the organization and involvement of county groups. The I-70 corridor vision is summarized in Section 3.0 and the identification and screening of potential station locations is provided in Section 4.0. Section 5.0 provides example specifications for regional stations, and Section 6.0 describes transit-supportive development and land use planning. Finally, Section 7.0 provides recommendations for the path forward. The Appendix contains the comments received on the Draft Report and technical memoranda that were prepared during the course of the study, which have been generally summarized in this report.

1.1 Purpose

The purpose of the I-70 Land Use Planning Study is to engage local jurisdictions along the I-70 corridor from Golden to Glenwood Springs in a conversation about future AGS service, station locations, and community land use. The study is a collaborative effort designed to address local I-70 corridor visions, goals, and understanding of transit service implementation, along with concepts for land use development that support and integrate with future transit. This project identifies local land use needs, prepares individual action plans, addresses implementation tools related to future transit land use integration, works with agencies in assessing how land uses drive transit decisions, and determines how future transit will affect land use.

Additionally, this project closely coordinates with other ongoing I-70 studies and the Colorado Department of Transportation (CDOT), including the I-70 Programmatic Environmental Impact Statement (PEIS), the Context Sensitive Solutions (CSS) project, and the Rocky Mountain Rail Authority (RMRA) rail feasibility study regarding local community interests in future land use, station locations, and transit alignments.

1.2 Study Process

The planning process was divided into four phases to help focus and organize the results:

- Phase 1 – Listening and Generating Ideas
- Phase 2 – Station Location Evaluation Criteria and Screening
- Phase 3 – Integrating Transit and Land Use Planning
- Phase 4 – Conclusion and Reporting of Findings

1.2.1 Phase 1 - Listening and Generating Ideas

Phase 1 was the core information gathering and idea generation step in the project. The consultant team's role was to listen to the County Working Groups and gain an understanding of local interests and concerns with regard to transit and land use practices. This phase included the actions listed below.

Organizing County Working Groups

The County Working Group organization was an essential step in establishing an open and collaborative planning process among all the corridor jurisdictions. Five working groups were created including; Jefferson County, Clear Creek County, Summit County, Eagle County, and Garfield County. These Working Groups were the basis for continued dialogue and decision-making throughout the project.



Reviewing Existing Studies and Evaluating Opportunities and Barriers

Previous I-70 corridor work was examined as an element of defining the I-70 corridor area conditions, feeding the opportunities and constraints analysis, and gathering important information related to community areas. The following documents and plans were reviewed:

- I-70 Mountain Corridor Major Investment Study
- I-70 Programmatic Environmental Impact Statement
- Colorado Mag-Lev Study
- Arapahoe and White River National Forest Management Plans
- I-70 Coalition Preferred Alternative
- I-70 Collaborative Effort
- I-70 Context Sensitive Solution Project

The Task 3 Technical Memorandum summarizes the results of this review (see Appendix).

Hosting the Transit Friendly Planning and Development Forum

The transit forum was held on June 12, 2008 at the Copper Mountain Resort Conference Center and was attended by 120 county, municipal, and citizen representatives. The purpose of the forum was to bring current transit-oriented development (TOD) ideas to the forefront and explore the possibilities for future implementation.

Speakers at the forum included Allan Zreet (Jacobs), a national TOD expert who shared national trends, John Durham (Norris Design), a Colorado-based land use planner who discussed local mountain development trends and issues, Jennifer Merer (Jacobs), a transit station development specialist who discussed station functions and characteristics, and Arleen Taniwaki (Arland Land Use Economics), a land use economic planner who shared information on how market forces shape TOD. The presenters covered a portfolio of best practices for land use development and rural and mountain TOD and transit station typologies.

In breakout sessions, forum leaders explored I-70 opportunities, participated in charettes for particular locations along the I-70 corridor, and discussed integration with their communities. Discussion included community values; potential station locations and types; site development or redevelopment opportunities and product mix; walkability; access; parking; and bus, pedestrian, and vehicle interfaces.

Collecting Land Use Plans/Identifying Barriers and Opportunities

With the assistance of the local jurisdictions, the consultant team collected and reviewed land use plans, codes, and zoning from the jurisdictions along the I-70 corridor. The consultant team conducted a focused review of these plans and codes for transportation and transit-related information to identify any barriers or opportunities to the development of a viable intermodal transit system through the I-70 corridor. The data are summarized in the Task 7 Technical



Memorandum in a matrix table that lists the member jurisdictions and easily summarizes key attributes, such as:

- Date of plan or code.
- Planning area summary.
- Goals/policies in regard to land use.
- Goals/policies in regard to growth and urban boundaries.
- Goals/policies with regard to transportation (transit).
- Existing implementation tools/strategies (such as growth boundaries, transfer development rights).
- Mixed-use zoning regulations.
- Downtown zoning regulations (or higher density stuff).
- Transit-related zoning regulations.

1.2.2 Phase 2 - Develop Specifications and Strategies Phase 2

Phase 2 primarily addressed the development of the transit station evaluation criteria and screening guidelines, application of the criteria through the County Working Group discussions, and the identification of community station locations. This phase of work also included the development of example technical specifications typical of a primary AGS station for illustration to the County Working Groups.

Developing Evaluation Criteria and Screening Guidelines

For this step in the process, station location guidelines and screening criteria were developed and reviewed with all the County Working Groups. The criteria were based on 1) County Working Group value input, 2) technical siting requirements, 3) consistency with the Context Sensitive Solutions project for the I-70 corridor, 4) I-70 Coalition transit criteria, and 5) the I-70 Collaborative Effort. County Working Groups are well informed as to their own local needs and helped establish guidelines and screening criteria for stations on a corridor-wide, regional, and site-specific level.

Identifying Station Locations

Potential transit station locations were determined by the County Working Groups during the Round 2 and 3 monthly meetings, as well as from input received during the transit forum breakout sessions. Initially, the groups considered any and all locations that served both passengers and light freight throughout the I-70 corridor. Included in the discussions were preliminary considerations of potential staging and maintenance facility sites for the transit system.

The station guidelines and criteria developed by the consultant team and County Working Groups first served as a corridor level overview of potential station locations. Potential station locations were explored further at a county level, considering locations at the towns and resorts along the I-70 corridor. For county level locations in which jurisdictions had more information, specific sites were identified for consideration. As the list of potential sites grew, the discussion



focused back up to the county and corridor level to evaluate how the locations met guidelines and criteria at all three levels. Some potential locations were dropped through this process. The result is the Task 8 Technical Memorandum with an I-70 corridor map of potential station locations, including a prioritization of sites in areas where there are multiple potential locations.

Developing Example Specifications for Transit Centers

The guidelines and criteria previously developed for station locations were used as a basis for developing more specific technical specifications for transit center locations. The specifications provide a much more detailed look at siting, spacing, and physical dimensions of a typical AGS station.

Typical operational characteristics were used to develop and define example size and infrastructure needs. The specifications do not define the transit center layout, but provide the tools necessary to plan these stations in the future as location and system specifications are developed and approved. Technical specifications and criteria were developed separately for maintenance facilities and for freight sites. As a result, these facilities could be sited at different locations or concurrent with or adjacent to passenger station sites.

Once the preferred station sites were selected, a photo-based visual simulation was developed. A photo of a representative site was used as the background for the visual simulation. Information for these visual simulations included applicable data for industry practices.

1.2.3 Phase 3 - Integrating Transit and Land Use Planning

Phase 3 opened up conversations with the County Working Groups regarding the importance of integrating future land use planning practices with transit services in order to increase overall transit ridership and mobility within the community. This phase included the review of the land use planning documents and regulatory tools in use by jurisdictions along the I-70 corridor, and the high level assessment of whether local I-70 corridor communities are working toward successful transit operations through integrated land use planning. Actions Plans were developed for each jurisdiction.

Reviewing Land Use and Zoning Codes

It was the goal of this study to not only converse with local jurisdictions about future station locations and changing land use, but to prepare for the implementation of a coordinated station and land use plan. Local jurisdictions and the consulting team reviewed land use regulations, design guidelines, and zoning codes and discussed the relevancy of those practices to the proposed station locations.

Developing Strategies and Action Plans

At this step in the process, the County Working Groups weighed in on land use strategies for successful transit. The consultant team worked closely with agencies to develop action plans that reflect the values of local communities and agencies and that coincide with the overriding goals and objectives developed through the I-70 Coalition. The consultant team continued a strong dialogue with the County Working Groups to garner input and support of action plans for each area.



Identifying Potential Transit Alignments

The consultant team and I-70 Coalition initiated conversations with the US Forest Service (USFS) to explore options for transit alignments that essentially “connects the dots” for station locations. This task was important in determining the potential desire of the USFS to assist with and work in conjunction with future transportation options, and to weigh-in on other possible alignment scenarios. Schematic alignment exhibits were developed and a cursory analysis of the possible off-alignment corridors conducted.

1.2.4 Phase 4 – Conclusion and Reporting of Findings

For this final phase, the consultant team prepared and presented a Draft Report to the I-70 Coalition and other stakeholders in the I-70 corridor. The consultant team gathered the feedback and comments from the I-70 Coalition and other stakeholders in the I-70 corridor on the Draft Report and incorporated this input into the Final Report. The conclusion of this task ended the project and left the I-70 Coalition with an important tool that identified potential station locations that reflect the local community values and land use needs, helps to guide land use planning in the I-70 corridor, and provides input to other studies and agencies.



2.0 I-70 corridor Organization and Involvement

This I-70 Coalition Land Use Planning Study was developed, in part, by the need to establish a dialogue among stakeholder agencies regarding multimodal transportation solutions and supportive land use patterns for the I-70 corridor. To accomplish this dialogue, the consultant team established a collaborative forum for decision-making through the development of County Working Groups where the issues related to transit supportive land use and station locations were discussed and assessed. The Full I-70 Coalition and the I-70 Coalition's Technical Committee also served as a venue for updates and participation in the study process. All groups were invited to contribute to discussions and planning efforts underway in the study.

2.1 County Working Groups

Central to the collaborative process was the establishment of working groups for each county. The County Working Groups consisted of representatives from the county and municipal governments, local transit agencies, and some interested citizens. Representatives included public officials, transportation managers and planners, land use planners, public works staff, and community representatives. The core County Working Groups along the I-70 corridor were:

- Jefferson County, including Golden.
- Clear Creek County, including Idaho Springs, Empire, Georgetown, and Silver Plume.
- Summit County, including Dillon, Silverthorne, Frisco, and Breckenridge.
- Eagle County, including Vail, Avon, Edwards, Eagle, Gypsum, and ECO Transit.
- Garfield County, including Glenwood Springs, Carbondale, and Roaring Fork Transportation Authority (RFTA).

Other I-70 Coalition members outside the main I-70 corridor were also engaged during the project through I-70 Coalition meetings, individual meetings, and regular updates. These included Gilpin County, Grand County, Lake County, Routt County, Pitkin County, and Mesa County.

The County Working Groups were established as a way of organizing the many players in the I-70 corridor and providing a regional forum for group communication and decision-making. The County Working Group meetings were held in April (Round 1), May (Round 2), July (Round 3), August/September (Round 4), and October/November (Round 5). The Working Groups allowed representatives of the county, municipal and local organizations to stay updated on overall project progress and to provide direct input to the desired role of transit and land use within the communities, the consideration of potential station locations, the development and application of evaluation criteria, and the eventual prioritizing of possible station locations and land use tools supportive of those decisions. Members of each group, along with the consultant team, shared experiences and expertise about station planning processes, land use considerations, and community visions for future character and mobility options.

2.2 On-going Communication

The planning discussions held through this study process are the groundwork for future community work and public education about AGS operations, station location requirements, and land use development patterns. This planning process initiated those conversations, broadened

I-70 Coalition

Land Use Planning Study for Rail Transit Alignment throughout the I-70 Corridor



the I-70 communities understanding of transit and land use decision-making parameters, and strengthened each community's ability to navigate its own future for transit mobility. After this study concludes, it will be the role of each municipal or county agency to assimilate the information discussed through this process and share that with the public within its community. Presentation materials, reports, and other informational tools developed during this process will be available through the I-70 Coalition website so that each agency can make it available at its community forums. The continued input from the public will be a significant part of guiding station locations in the future.



3.0 I-70 Corridor Vision

The vision for AGS through the I-70 corridor is primarily expressed by the I-70 Coalition's Preferred Alternative for the I-70 PEIS, as well as, priorities discussed by each of the County Working Groups. Subsequent to the development of the I-70 Coalition's Preferred Alternative, the I-70 Coalition also participated in and supported the I-70 Collaborative Effort. This maintains the vision for AGS and development of transit in the corridor.

3.1 I-70 Coalition Preferred Alternative

The I-70 Coalition's Preferred Alternative for the I-70 PEIS is a long-range, multimodal, sequenced alternative that addresses the transportation concerns of the I-70 corridor for at least the next 50 years. It is designed to align available funding with a sequenced plan to safely increase the long-range capacity of the corridor while addressing the concerns of local communities represented by the I-70 Coalition. The I-70 Coalition's Preferred Alternative consists of five different components: highway, transit, aviation, alternate routes and non-motorized. Implementation of the I-70 Coalition's Preferred Alternative requires balanced, concurrent planning of each of those components with constant community and Coalition involvement regarding the schedule, need and mitigation. This collaborative planning effort will allow local jurisdictions to coordinate their own improvements and land uses (i.e. future transit facilities, feeder lines, etc.) with CDOT. Concurrent and joint planning for each of these components should preclude doing any work in the corridor that will have to be replaced to accommodate subsequent actions. In addition, the I-70 Coalition's Preferred Alternative includes steps for the logical reevaluation of the capacity requirements, technological advancements and available financing for the corridor. This reevaluation will help determine the sequencing of subsequent actions. The I-70 Coalition's Preferred Alternative envisions I-70 Coalition and member involvement for any and all future transportation decisions affecting the I-70 corridor.

The I-70 Coalition's Preferred Alternative is a comprehensive long-range plan for the I-70 corridor that evolved from the I-70 Coalition consensus on the following twelve macro-planning elements:

1. Transportation in the corridor is a system that must serve off-corridor communities as well as those on I-70. The system must be scenic in and of itself and not simply a way to move people and goods.
2. The system must be multi-modal and include highway, transit, aviation, alternate routes and non-motorized components.
3. The system must increase capacity.
4. Planning must be expanded to at least 50 years. The system cannot become obsolete in 25 to 30 years.
5. Planning for the components must be concurrent.
6. Solutions should be incrementally implemented and address the problem areas first.
7. No alternative should preclude any other component of transportation.
8. Transit must be alluring and at least as fast as the highway component, corridor-wide, networked to a system extending beyond the I-70 corridor and provide seamless connections to DIA.



9. Building a rapid transit component must be an essential element of a long range, integrated transportation system in the region.
10. Transit must move things in addition to people.
11. Mitigation must be implemented with each solution. Any plan must provide for the immediate mitigation of existing environmental and community impacts.
12. The artificial constraints of 25 years and \$4 billion do not address the needs of the corridor and should be eliminated as screening criteria.

The I-70 Coalition's Preferred Alternative is a stand-alone alternative and is not a derivative of any single alternative discussed in the PEIS; however, it is often described in terms of different parts of alternatives found in the PEIS.

3.2 I-70 Collaborative Effort

The I-70 Collaborative Effort was an element of the I-70 PEIS process designed to facilitate stakeholders in discussions about the transportation alternatives for the I-70 mountain corridor. The I-70 Collaborative Effort Team consisted of a 27-member group that included representatives of different interests in the 144 mile corridor, including local governments and members of the I-70 Coalition.

The recommendation of the I-70 Collaborative Effort for I-70 through Colorado's mountain corridor is a multi-modal solution including a commitment to the evaluation and implementation of AGS. The AGS includes a vision of transit connectivity beyond the PEIS study area and local accessibility to such a system.

3.3 Working Group Priorities

Throughout the I-70 Coalition Land Use Planning Study process, County Working Group members identified several elements of an overall vision for future AGS through their County. Through group discussions, workshops at the Transit Friendly Planning and Development Forum, and the station electronic survey, the group provided an abundance of input regarding local priorities for future transit services.

3.3.1 Jefferson County

The overall guiding principle for future transit in Jefferson County could be summarized as follows:

Future AGS or high speed rail through Jefferson County should accommodate local needs of commuting residents, rural residents, the elderly and those with special needs. It should create critical connections to future light rail and connecting transit services in the region.

The Jefferson County Working Group identified the following planning goals for AGS or high-speed rail project to fulfill:

- Confirm AGS service within the I-70 corridor footprint and avoid an alignment that follows the pristine Clear Creek Canyon to Black Hawk.



- Preserve the environment and the I-70 scenic corridor through Mount Vernon Canyon and Genesee areas.
- Maintain the scenic view shed throughout this unique approach to the mountains, particularly as the Genesee exit frames a visual gateway to the Colorado Rockies as people leave Denver on I-70.
- Provide commuter service to the residential populations of Lookout Mountain, Genesee and Evergreen through a common central station.
- Support the mutually beneficial opportunity to work collaboratively with Golden on future land planning in the station area.
- Create strong transit connections to the Golden community and ensure connections to regional light rail systems.
- Determine the infrastructure needed to support a station and identify whose responsibility it is to provide those improvements.
- Minimize design and operational impacts to wildlife in the corridor.

3.3.2 Clear Creek County

The overall guiding principle for future transit in Clear Creek County could be summarized as follows:

Future AGS or high speed rail through Clear Creek County should provide key connections to adjacent communities in order to accommodate the local needs for connectivity and improve access to the Clear Creek community for tourist activity. It should create a transit system that creates the “wow” factor while maintaining the historic character of the towns.

Clear Creek County identified the following goals for future planning and implementation of AGS or high speed rail along the I-70 Corridor. The system should:

- Create a “Wow!” factor.
- Provide key connections into Denver, Black Hawk/Central City, Winter Park, and Loveland.
- Maintain historic character and traditions and play to the history of the area as a transportation hub.
- Be designed with consideration to the environment.
- Provide alternative modes of transportation to county residents.
- Create livelihood in downtowns.
- Create and maintain community cohesiveness.



3.3.3 Summit County

The overall guiding principle for future transit in Summit County could be summarized as follows:

Future AGS or high speed rail through Summit County should strengthen mobility into and out of the county, support visitor destination travel, strengthen employee commuter patterns to the resort area and maintain the unique mountain character and moderate development scale found in Summit County.

Summit County identified the following goals for future planning and implementation of AGS along the I-70 Corridor. The system should:

- Be in keeping with the context and character of the mountains; development scale must be preserved.
- Designed in context with the environment of Summit County with consideration of an increasing population base and resource availability concerns.
- Not be considered a tool for continued growth.
- Support employee trip patterns; accommodate employees coming to Summit County from surrounding communities.
- Utilize US Forest Service lands in the area, if possible.
- Reduce truck traffic into local communities, if possible.

3.3.4 Eagle County

The overall guiding principle for future transit in Eagle County could be summarized as follows:

Future AGS or high speed rail through Eagle County should provide seamless regional interconnectivity for both local resident commuters as well as visitors to our world-class resort recreation destinations. Visitors to Eagle County arriving primarily from the Front Range/DIA or the Eagle County Airport should be provided with fast, convenient, efficient and reliable transportation to Vail and Beaver Creek resorts. The AGS or high speed rail should smoothly interface with the Summit Stage, ECO and RFTA services.

Eagle County identified the following goals for future planning and implementation of AGS along the I-70 Corridor. The system should:

- Take Eagle County residents and employees to employment and help address affordable housing issues present in resort communities.
- Help to maximize opportunities for growth in residential, retail and airport related uses in the County.
- Be a focal point for interconnectivity in region.
- The system should help reduce local vehicle congestion and promote mass transit use.
- Enable Gypsum area to act as a hub between ECO and Roaring Fork Transit Authority transit systems.
- Preserve land along US 6 and Union Pacific rail corridor for future transit stations.



- Rely on a high level of bus, rail, bicycle, pedestrian, and other intermodal connectivity.

3.3.5 Garfield County

The overall guiding principle for future transit in Garfield County could be summarized as follows:

Future AGS through Garfield County should strengthen mobility into and out the county, support visitor destination travel, strengthen employee commuter patterns south out of Glenwood and east west along I-70. AGS service should be environmentally sensitive and be an element of sustainability in the County.

Garfield County identified the following goals for future planning and implementation of AGS along the I-70 Corridor. The system should:

- Increase ease of access, improve timeliness of travel and enhance the traveler's experience to the county.
- Transit needs to be user friendly—"fast, fun and easy" and connect regional and local transit systems with minimal transfers.
- Work seamlessly with future bus rapid transit (BRT) in US 82 Corridor.
- Contribute to the redevelopment potential of areas in and around stations but preserve local small town character and maintain open space.
- Be designed to protect air quality, river corridor and environmental conditions unique to the County, Glenwood Canyon, Cottonwood Pass, and the Roaring Fork Valley areas.
- Support affordable workforce housing and recreational use.

3.4 Preferences for Service and Freight

County Working Groups preferences for future service and freight are summarized below.

Jefferson County

The County Working Group thought a regional transit system should serve Golden and rural county residents who work in the Denver area. The system should also serve the same residents who travel into the mountain areas for recreation. Some participants also believed it was important to serve special needs populations such as seniors and lower income.

The County Working Group identified a concern about the type of freight service that would be accommodated by the regional transit system. Light freight service for daily consumables would be preferable over heavy freight. The County would be opposed to heavy freight that included shipments of hazardous waste and had the look and feel of an industrial freight service (visual impacts). The type of freight service for the system should be clearly defined prior to acceptance by the County.

Clear Creek County

Most County Working Group members believed that regular service to and from Denver would be important. Attracting people from Denver to spend the day meets the community's desire for tourist attractions. Equally important was service for locals who work in Denver. The County's



close proximity to Denver provides more opportunities for regular interaction between the towns and Denver. Local service between the towns was also important, particularly for workers traveling to the Henderson Mine.

The group thought that freight service would be an important component to the transit system. Many businesses rely on daily deliveries for consumables. There is also a desire to see truck traffic on Floyd Hill reduced where truck accidents are common.

Summit County

The County Working Group noted that the most important user group to accommodate would be tourists who come up from Denver for the day or multiple days (more frequent service in the mornings and evenings). Secondly would be locals traveling to Denver or other mountain communities. Also there would be some workers traveling from Denver to Summit County to work, but most would come from surrounding communities.

Freight service is considered important to local businesses. Many trucks come from Denver daily (UPS, FedEx, Safeway, etc.) and minimizing local truck traffic (and associated accidents) on I-70 is a priority. Locations for off-loading freight and distribution would need to be identified. Silverthorne could be a potential location because of its desire to maintain a commercial hub.

Eagle County

The County Working Group identified two primary users of the system including the local work force and tourists/second home owners, while acknowledging that future mobility may be required for all aspects of daily life. Most believed providing service levels to accommodate people from Eagle County working in Denver or from Denver to Eagle County would not be as important. Local service levels would need to accommodate morning and evening work commuters. Providing service levels that accommodate tourists would be important to help the county leverage economic benefits. This includes winter time skier visits and summer time recreational/shopping visits. This service level would likely consist of people coming up in the morning, spending the day, and returning in the evening.

Most County Working Group Members agreed that accommodating freight service was important. Many local businesses rely on daily truck shipments, both to and from Denver. Eagle County Airport is already developing as an industrial center. There would likely be a need for another location at east end of county for local distribution.

Garfield County

A regional transit system would likely serve tourists from the Front Range traveling to the Roaring Fork Valley for recreation opportunities. Also service should consider traffic/people coming into the Roaring Fork Valley from west I-70 and the communities of New Castle, Silt, and Rifle. There are many workers who travel this way to jobs up valley. The transit system should accommodate both east-west and north-south travel demand. Garfield County residents would value a transit connection from the county to the Denver International Airport. Currently residents and visitors use both the Eagle County and Grand Junction airports to access the county, but there are challenges with each (distance, connections, flight availability, etc). Community members are interested in both local and regional transit service, such as skip service.



County Working Group members believed that it would be important for a regional transit system to provide light freight service to remove truck traffic from I-70. Currently there is a UPS/Fedex shipping center at Cattle Creek near Carbondale. There is also a rail switching yard in Glenwood Springs that could be used as a distribution center. Larger freight service is not likely to be served by the regional transit system.



4.0 Regional Station Locations

The evaluation and screening process conducted in this study was developed and implemented with direct input by County Working Group members. The results are the Groups' assessments of station locations in relation to anticipated land use patterns and densities, consideration of community character, understanding of supportive transit service systems, and discussion of potential ridership patterns assumed to be conducive to certain station locations, among other things. County Working Group members listened to all jurisdictional participants and participated in a consensus-building process with regard to station options. They considered community and regional interests in their discussions and, to the extent possible, weighed the technical considerations from of the Rocky Mountain Rail Authority's Feasibility Study. The evaluation and screening process results were agreed upon by participants and represent a collaborative and informed decision-making process that included:

- The broad-based identification of potential station locations via County Working Group meetings Round 1 and 2 and the Transit Friendly Planning and Development Forum workshop.
- The discussion and development of screening criteria to be applied to the station location evaluation.
- Input to the criteria evaluation and screening of proposed locations via the web-based survey of County Working Group members.
- Discussion and debate of the results of the evaluation screening through the Round 4 County Working Group meetings.

The eventual outcome of the criteria evaluation and screening process is a substantive achievement on the part of County Working Group members as it represents months of discussion and consideration of both local and regional needs for a future AGS. The Community's Preferred Tier 1 stations, or primary station locations, are considered to be the top priorities of the County Working Groups. However, the Tier 2 or secondary stations can be considered alternatives to the Tier 1 sites based on alignment options, or supplemental sites based on service characteristics of a future AGS.

See the Tasks 5 and 8 Technical Memoranda in the Appendix.

4.1 Development of Guidelines and Criteria

The development of guidelines and criteria is a critical step for siting potential transit station locations along the I-70 corridor. The purpose of the criteria is to provide a list of evaluation factors that communities can use to identify and screen potential locations in a manner that is consistent with other communities in the I-70 corridor. Developing criteria before station locations are chosen provides a fair and uniform set of standards against which each potential location can be evaluated, as well as compared to other locations. The study process was focused on developing community-based recommendations for "trunkline" or regional transit stations. However, input on all levels of transit stations was considered with the variation that some transit stations would be regional in nature while others might be more local in nature.



As a starting point, the land use consultant team brought together an initial list of criteria from industry standards and previous projects, the I-70 Coalition Transit Criteria, and the I-70 CSS project. Relevant criteria from these sources related to station and geographic siting were summarized and organized into corridor wide, regional (county wide) and site-specific categories to address a wide range of needs. I-70 corridor wide criteria refer to the entire I-70 corridor and provide an overall framework for station siting that supports a successful regional transit system. Regional or county wide criteria address more localized needs within a county. Site-specific criteria were assembled to help towns and resorts eventually evaluate specific parcels within their boundaries.

The initial list of criteria was then discussed with each of the five County Working Groups to obtain input and refine the list. The following discussion details the sources of information used to develop the list of station siting criteria.

Transit Industry Standards

Development of a regional transit system through the mountainous terrain and historic context of the towns and resorts along the I-70 corridor requires a unique set of standards. However, there are some basic requirements that all technologies must consider to operate successfully. For example, locations where stations can be sited are strongly encouraged to have less than 1% grade and space for a tangent (straight) section of track for the length of the platform. Additionally, while not yet determined, consideration must be given to locations that will generate the greatest number of riders. There must also be enough land for supporting infrastructure, such as passenger and freight accommodations, access roads, bus pickup and drop-offs, and water and sewer hookups. Finally, past experience with recognizing community values, such as connections to employment centers, strengthening desired development patterns, and enhancing connections to other modes of travel, provided additional criteria for County Working Groups to consider.

I-70 Coalition Transit Criteria

The I-70 Coalition developed corridor wide transit criteria that I-70 Coalition members believed were important for a regional transit system to meet. The criteria cover a wide range of topics related to a transit system, from alignment to technology considerations. Because of this range, not all criteria are applicable to station siting, but all were considered nonetheless. The I-70 Coalition Transit Criteria include:

- Noise (external) – less than highway noise levels.
- Elevated – more than just for short spans like bridges.
- Weight – refers to minimum/maximum passenger and light freight carrying capacity.
- Travel Time (express) – at least as fast as unimpeded vehicle travel on highway.
- Grade – accommodate demand between Denver and Glenwood Springs without significant degradation of speed and efficiency.
- Safety – grade-separated crossings and weather considerations.
- Weather – all weather.
- Wind – able to withstand wind shear in excess of extreme alpine wind storms.



- Scalability – expansion of alignments and carrying capacity over time and peak/off-peak.
- Passenger Comfort and Safety – be able to have coffee and work on laptop, accessible and seating for all passengers, and acceleration considerations.
- Carry “Stuff” – bring luggage/outdoor gear and minimize station boarding times.
- Light Freight Compatibility – consumer freight during off hours.
- Energy Efficiency – incorporates green technology for power sources.
- Growth – able to accommodate 50 years of growth in demand.
- Accommodate express and local traffic simultaneously.
- Tunneling Considerations – if needed.
- Adaptable to future technological developments.
- Reliability – consistent, predictable travel times in all weather conditions.
- Frequency – headway times capable of addressing peak period demands.
- Operational efficiencies and low maintenance costs.
- Equipment Design Flexibility – accommodate multiple needs for passengers and freight.
- Apply CSS principles in construction and operations.

Context Sensitive Solutions Core Values

The I-70 CSS project is a process that assists in the integration and coordination among I-70 corridor studies, processes, and projects along the I-70 corridor. The I-70 CSS process has developed a context statement and set of core values that to give guidance to current and future plans. The following CSS core values were considered during the development of station siting criteria:

- Sustainability
- Decision-Making
- Safety
- Healthy Environment
- Historic Context
- Communities
- Mobility and Accessibility
- Aesthetics

County Working Group Input

During July 2008, the third round of meetings with the County Working Groups from Jefferson, Clear Creek, Summit, Eagle, and Garfield Counties were held. The purpose of these meetings



was to present and discuss the list of station siting criteria to be applied to potential station locations, as recommended by each group. Working group members provided key insight to criteria important to their communities such as whether a location has community support, minimizing impacts to historic properties, providing opportunities for renewable/alternative energy and maintaining key view sheds. Minutes from these meetings are located in the Appendix of this report.

4.1.1 I-70 corridor Wide Criteria

I-70 corridor wide criteria cover the entire I-70 corridor and provide the overall framework for station siting. These criteria are broad in nature and were grouped into two categories: communities and mobility/accessibility. I-70 corridor wide criteria agreed to by the County Working Groups are listed in **Table 1**.

Table 1: I-70 corridor Wide Criteria for Potential Station Locations

Category	Criteria
Communities	Serves a role on the I-70 corridor, i.e., resort destination, work force connection, residential
	Has community support
Mobility and Accessibility	Supports express travel time through the I-70 corridor
	Accommodates local and express service simultaneously
	Enhances connections to resort areas
	Close proximity to resorts, employment centers, activity centers, or residential centers
	Maximizes connections to local/regional transit system
	Meets transit ridership

4.1.2 Regional Criteria (County Level)

Regional criteria address transit station needs at the county level and provide a basis for comparing multiple locations within a county, such as at towns or resorts. These criteria are more detailed in nature and were grouped into six categories: safety, healthy environment, historic context, communities, mobility/ accessibility, and aesthetics. Regional criteria agreed to by the County Working Groups are listed in **Table 2**.



Table 2: Regional Criteria for Potential Station Locations

Category	Criteria
Safety	Platform can be accommodated on a 1% grade or less
	Site can accommodate tangent track for the length of the platform
Healthy Environment	Noise should be less than highway noise
Historic Context	Preserves historic character and scale
Communities	Synergizes with or is integrated with future local land uses
	Protects community character or preserves key characteristics
	Contributes to local "values" about community
	Strengthens desired development patterns in community
	Has potential availability of land
	Increases future economic opportunities
	Opportunity for affordable housing
	Allows for growth potential
	Minimizes number of parcels impacted
	Provides joint development opportunities
	Serves a role on the I-70 corridor, i.e., resort destination, work force connection, residential
Has community support	
Mobility and Accessibility	Maximizes connections to local/regional transit and different technologies
	Complements future transit plans
	Meets transit ridership
	Compatible with light freight needs
	Connects to employment centers
Aesthetics	Location of station fits within context of future character
	Minimizes visual impacts - maintains key view sheds

4.1.3 Site-Specific Criteria

Site-specific criteria address transit station needs at the town or resort level and provide a basis for comparing multiple parcels within a town or resort. These criteria are even more detailed in nature, but were still grouped into the same categories as the regional criteria: safety, healthy environment, historic context, communities, mobility and accessibility, and aesthetics. Site-specific criteria agreed to by the County Working Groups are listed in **Table 3**.



Table 3: Site-Specific Criteria for Potential Station Locations

Category	Criteria
Safety	Platform can be accommodated on a 1% grade or less
	Site can accommodate tangent track for the length of the platform
Healthy Environment	Noise should be less than highway noise
	Does not impact wetlands
	Does not impact wildlife or threatened and endangered species
	Minimizes impacts to hazmat and other potential hazardous sites
	Minimizes impacts to publically owned properties such as parks
	Minimizes impacts to environmental justice properties
	Provides opportunities for renewable/alternative energy sources
Historic Context	Minimizes impacts to historic properties
	Preserves historic character and scale
Communities	Synergizes with or is integrated with future local land uses
	Protects community character or preserves key characteristics
	Contributes to local “values” about community
	Strengthens desired development patterns in community
	Consistent with local transit and land use plans
	Increases future economic opportunities
	Provides opportunities for affordable housing
	Allows for growth potential
	Has potential availability of land
	Serves a role on the I-70 corridor, i.e., resort destination, residential, work force connection
Has community support	
Mobility and Accessibility	Proximity to resort, activity center, employment center, or residential
	Existing road network can handle additional capacity or has ability to be expanded
	Enhances or links to bike or pedestrian connections within community
	Maximizes connections to local/regional transit
	Compatible with light freight needs
	Has storage capability for baggage and recreation equipment
Aesthetics	Location of station fits within context of future character
	Scale of services required fits into the scale of site
	Passenger comfort and safety – for multiuse passengers
	Minimizes visual impacts - maintains key view sheds

4.2 Initial Preferences for Station Locations

An initial list of potential transit station locations was developed during the Round 1 and 2 County Working Group meetings and the Transit Friendly Planning and Development Forum



and is documented in the Task 6 Technical Memorandum. The list included potential stations at the following 24 locations (also see **Figure 2**):

Jefferson County

- East Terminus Station (three potential sites)
 - I-70/US 6 Interchange Area
 - Washington Street/SH 58 Area (downtown Golden)
 - I-70 Hogback
- El Rancho

Clear Creek County

- Floyd Hill
- Idaho Springs (includes five potential sites)
- Empire Junction (I-70/US 40 Interchange Area)
- Georgetown
- Loveland Ski Area

Summit County

- Keystone
- Dillon
- Silverthorne
- Breckenridge (includes four potential sites)
- Lake Hill
- Frisco
- Copper Mountain Ski Area

Eagle County

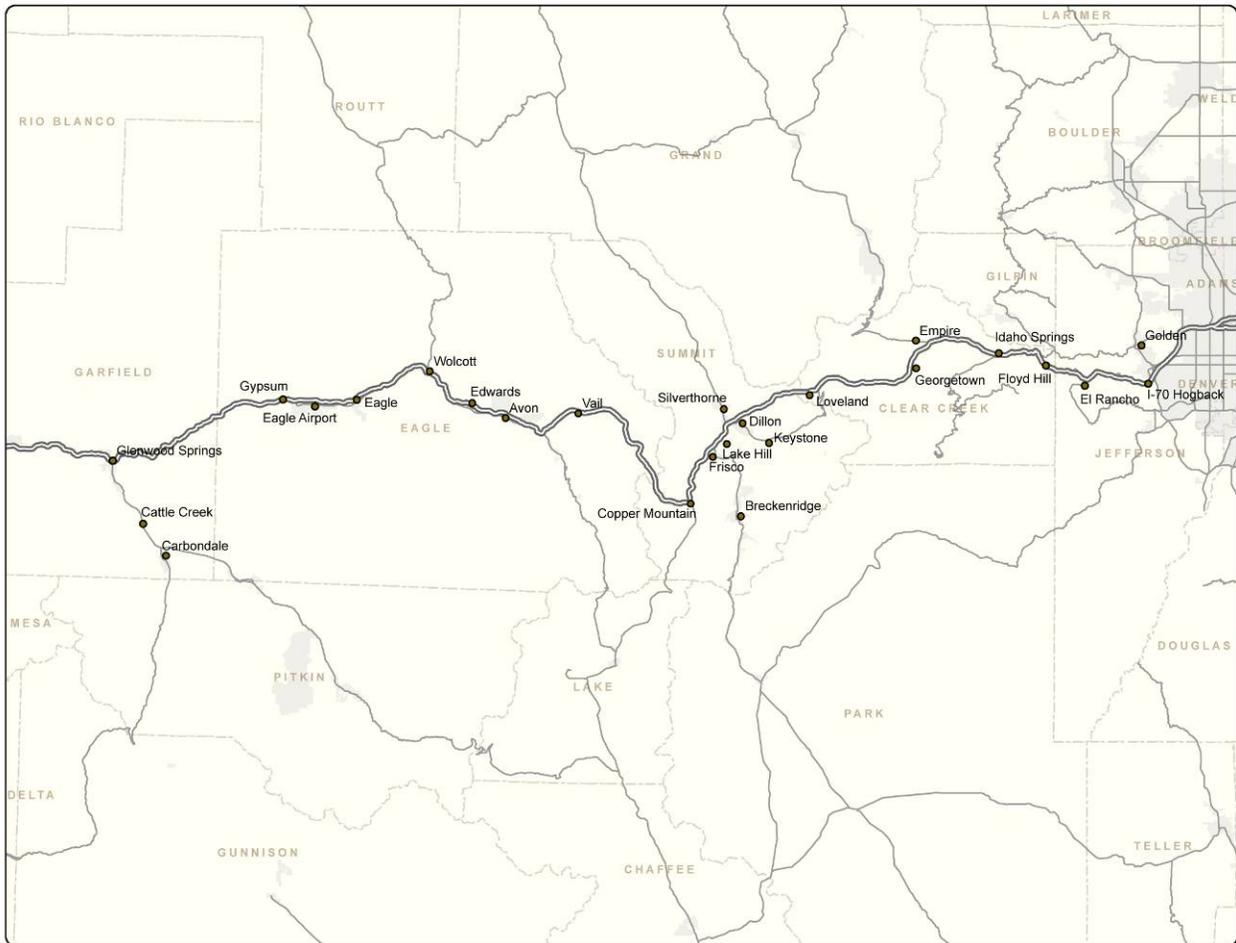
- Vail
- Avon
- Edwards
- Wolcott
- Eagle (Town)
- Eagle Airport
- Gypsum

Garfield County

- Glenwood Springs (includes three potential sites)
- Cattle Creek
- Carbondale (includes three potential sites)



Figure 2: Initial Station Locations Considered



4.3 Screening of Initial Station Locations

Following development of screening criteria for transit station locations in Task 5, the consultant team worked with the County Working Groups to apply the criteria to the initial list of potential regional (county wide) transit station locations through a two-step screening process. The first step in the process was for the County Working Groups to share their values about the screening criteria and to conduct an initial assessment of locations via a web-based criteria screening application. The second step in the process was to report back to the Working Groups the results of the web-based survey and to work hand-in-hand with the group members to integrate the survey results and the member input and discussion into a focused location screening table during the Round 4 County Working Group meetings held in August and September 2008. The screening tables document the input by location and the prioritizing or acceptance of each location. The following section details this process and results.



4.3.1 Web-Based Location Screening and Preferences

The I-70 Coalition consultant team prepared an electronic station screening survey tool to facilitate input into the regional (county wide) station screening process. In some locations, such as Golden, the County Working Groups identified more than one potential “site”, such as the I-70/US 6 Interchange area or at Washington Street/SH 58, where a station would be appropriate. At other locations, such as Copper Mountain, no specific sites were discussed in detail, which was fine for this level of screening. For the screening survey itself, the consultant team encouraged county and municipal input on the regional locations, such as Golden, Idaho Springs, Frisco, Vail, and Glenwood Springs, and not on sites within a town or resort.

The web-based survey requested participants to answer three questions pertaining to the screening criteria and initial station locations:

1. From the list of 23 regional siting criteria, select five criteria you feel are most important in selecting a regional station location.
2. For each of the initial station locations in your county, list which of the 23 criteria you believe the site meets or does not meet (or if don't know, indicate that).
3. Because the transit technology for the I-70 corridor is currently under study and could influence the number and location of regional stations viable on a high-speed system, please list your top two station locations and why.

The survey results for each County Working Group are attached to the Task 8 Technical Memorandum and summarized below. The summary considers the highest percentage responses from the survey, or what most respondents agreed on. It is important to note that the survey was only a tool to facilitate discussions, did not have enough responses for a robust statistical analysis, and did not represent the final selection of potential station locations.

Criteria Priorities

In terms of the location screening criteria, the majority of survey respondents from all County Working Groups believed that it was most important for potential station locations to be compatible with future land use plans, strengthen desired development patterns in the community, maximize connections to local transit, have community support, and serve a role on the I-70 corridor. Preserving or protecting community character, connecting to employment centers, and availability of land were also viewed to be important to many respondents.

Regional Location Criteria Screening

In terms of addressing regional criteria for potential station locations, most respondents appeared to indicate that they did not know how well a site met or did not meet the criteria (especially considering specific sites within a town or resort were not always known). However, in comparison to other regional or county wide locations, some locations within a county appeared to have more criteria that respondents agreed upon than others, based on available data.

In Jefferson County, a location at the base of the foothills in the Golden area appeared to meet more of the siting criteria than a location at El Rancho. For Clear Creek County, most



respondents agreed that a location in Idaho Springs met more of the regional criteria than other locations, although Floyd Hill, Empire Junction/Georgetown, and Loveland Ski Area all met a number of criteria. In Summit County, respondents indicated that locations in Silverthorne, Lake Hill, and Breckenridge met more of the criteria than other locations, although a Lake Hill location may have some obstacles. In Eagle County, respondents clearly believed that a location at the Eagle County Airport would meet many of the siting criteria and to a lesser extent, Avon or Edwards (Vail was also recognized as a large tourist destination). Garfield County respondents indicated that Glenwood Springs would meet more of the criteria than potential locations at Cattle Creek or Carbondale.

Regional Location Priorities

When factoring in potential technologies and the need to limit the number of stations for a viable high-speed transit system, respondents indicated a need for at least one or two locations within each county along the I-70 corridor. For Jefferson County, respondents indicated a location at the base of the foothills in Golden was their first priority; a secondary priority would be a location that serves the foothills communities from El Rancho. For Clear Creek County, respondents indicated that Idaho Springs was their first priority; the Georgetown area, including Empire Junction, was their second priority. Respondents from Summit County revealed that Lake Hill would be their first priority in terms of a centralized location in the county; Frisco or Silverthorne would be their second priority. For Eagle County respondents, there was less agreement on a first or second priority, but there was a clear indication that a location in the east end of the county at Vail or Avon would be a priority, as well as a location in the west end at the Eagle County Airport. Finally, respondents from Garfield County clearly noted that Glenwood Springs would be their first priority and Carbondale their second.

4.3.2 Focused Siting Criteria and Screening

Using input from the web-based survey regarding criteria priorities and factoring in additional industry/expert-based criteria, the consultant team developed a shortened list of eight focused siting criteria for consideration by the County Working Groups. Specifically, the focused list of siting criteria included:

- Does the location serve a population center?
- Is the location an established activity center (or will be someday)?
- Does the location serve a geographic area (have the potential to capture ridership)?
- Is the location compatible with future land use plans?
- Does the location have good vehicular access?
- Does the location complement future transit plans and connections?
- Are there any known environmental issues with the location?
- Is there County Working Group support for the location?

During the Round 4 County Working Group meetings in August and September 2008, the groups debated answers to each of these questions for each initial station location proposed and provided recommendations for Tier 1 regional and Tier 2 local stations. Tier 1 regional stations are considered major hub-type regional transit centers; Tier 2 local stations are



considered local or “milk run” stations and are smaller in scale, but still important to the community. The results were captured in a comparative matrix table for each County Working Group. The matrix tables provide the basic rationale for selection of the station locations by each County Working Group (see the Round 4 meeting summaries in Task 8 Technical Memorandum). A summary of the rationale is provided in the following sections.

4.3.3 Jefferson County

City of Golden (I-70/US 6 Interchange Area)

Opportunities

- Near large population center - location draws from regional population centers of Golden, Denver West, Union/Federal Center area, and future C-470/Rooney Road growth area, as well as west Denver metropolitan area.
- Large activity center - expanding retail area with Home Depot and other chain retail. Proximity to Colorado Mills. Also a visible location.
- Good ridership/geographic capture area – likely high ridership capture based on proximity to west metro urban populations and visibility of site from converging highways.
- Compatible with land use plans – station use compatible with site uses. Commercial and retail density and redevelopment potential supported by local land use plans.
- Complements future transit plans - site is within the Regional Transportation District (RTD) urban service area and within 1 to 2 miles of future light rail station at the Jefferson County Building. Also within the County’s Americans with Disabilities Act (ADA) transit service area.
- Maximizes connections to transit – possible connection to West Corridor light rail (end of line connection) and other RTD routes.

Challenges

- Limited vehicular access - limited access based on current highway/road configuration at site. Increased vehicular access capacity to site necessary to accommodate future demand for park-n-Ride facilities.

Working Group Recommendation

This site is recommended as a Tier 1 regional station. This location is central to Golden/Jefferson County, has the potential for land use development supportive of future transit operations, and has the land mass needed to support a significant transit center or park-n-Ride operation related to a west metro station. It also has potential capacity for a large-scale parking structure. Access to the site would need to be improved for future demand levels. Recommendations also include further consideration of the downtown Golden site near Washington Street and SH 58 as alignment alternatives and parking requirements are identified.



I-70 Hogback (at US 40)

Opportunities

- Near large population center – location draws from regional population centers of Golden, Denver West, Union/Federal Center area, and future C-470/Rooney Road growth area, as well as west Denver metropolitan area.
- Good ridership/geographic capture area – potentially high ridership capture because of proximity to west metro area urban populations and demand patterns currently associated with existing park-n-Ride lots.
- Compatible with land use plans – station use consistent with existing park-n-Ride activities. Moderate commercial and retail development east of area supported by local land use plans.
- Good vehicular access - access to I-70 and US 40 in all directions.
- Complements future transit plans – site within RTD urban service area. Also within county ADA transit service area.

Challenges

- Not a local population center - nearby quarry and regional park-n-Ride lots make site difficult to support population center adjacent to site.
- Not a local activity center – nearby quarry and regional park-n-Ride parking lots make site difficult to support significant activity center in future. Some mixed-use retail currently under construction east of site.
- May not maximize connections to transit – somewhat isolated from West Corridor light rail end of line. Connection would need to be explored.
- May have potential environmental issues – potential archeological resources and poor soils.

Working Group Recommendation

Not recommended as a Tier 1 regional or Tier 2 local station. This location has issues with availability of services, including water and sewer, and a lack of potential supportive development for a major station. Location recommended to be eliminated from consideration because of proximity of the I-70/US 6 Interchange area site, which better meets criteria.

El Rancho

Opportunities

- Near population centers – location draws from rural Bergen Park and Evergreen population centers of over 30,000 residents.
- Is a local activity center – El Rancho area is an emerging activity and retail center.



- Good ridership/geographic capture area – not as strong a ridership capture as west metro location, but substantial number of rural residents with reverse commute to and from Denver.
- Compatible with land use plans – station use compatible with area use. Commercial and retail development densities in this area support transit and are consistent with local land use plans.
- Good vehicular access - generally good access from the south on SH 74. Access capacity off I-70 interchange sufficient.
- Complements future transit plans – within RTD rural service area.

Challenges

- Not a local population center or regional destination – mostly would serve rural residents (park-n-Ride).

Working Group Recommendation

Recommended as a Tier 2 local station. This location would serve the Evergreen and western Jefferson County residents (over 30,000 population) and pull potentially high reverse commute numbers into Denver. This station would be a second priority to the I-70/US 6 location.

4.3.4 Clear Creek County

Floyd Hill

Opportunities

- Generally compatible with land use plans – station development could be compatible with future mixed-use land use patterns suggested in current master planning effort. Scale and density may not support station use.
- Potential for transit connection to Central City/Black Hawk gaming area.

Challenges

- Small population center - approximately 800 rural residents.
- Small local activity center – only a few commercial/retail businesses. Future plans include some mixed-use activities, but not a large center.
- Small ridership/geographic capture area – small amount of reverse commuters to Denver. Little or no destination travel.
- Limited vehicular access - half diamond interchange at I-70 with access onto I-70 westbound and exit from I-70 eastbound.
- No existing transit connections in area.
- Water and sewer infrastructure is currently limited to the top of Floyd Hill. Area has wildlife migration corridor and wetlands.



Working Group Recommendation

Not recommended as a Tier 1 regional or Tier 2 local station. Depending on alignment and/or spur routes, this location could serve the gaming area. It should be noted that this location is currently undergoing planning efforts to add some mixed-use development, but is not likely to be a big population or activity center in comparison to Idaho Springs or Georgetown.

City of Idaho Springs

Opportunities

- Largest population center in county - approximately 2,000 residents.
- Local activity center and destination – largest retail and commercial center in county with shopping, tourism, lodging, and USFS. Attempting to develop more recreational activities.
- Good ridership/geographic capture area – destination travel to Idaho Springs and the I-70 mountain corridor from Front Range. Also has employment reverse commute to Denver.
- Compatible with land use plans – several potential locations in town could accommodate infill development and mixed-use supportive of future transit operations.
- Good vehicular access – has three interchange access points on I-70. East end of Town offers easiest access configuration. Other interchange locations somewhat constrained.
- Could serve as a potential transit connection to gaming area or transit hub for county.

Challenges

- Currently no transit service, but there is an employee shuttle to Loveland Ski Area.
- Potential infill issues related to historic mining activities. Preservation of historical properties and context is critical.

Working Group Recommendation

Recommended as a Tier 1 regional station. Major activity economic center for Clear Creek County. Depending on alignment and/or spur routes, this location could also serve the gaming area.

Town of Empire

Opportunities

- Generally compatible with land use plans – land use plans support existing residential and small retail use patterns in Empire.
- Good location for connection to Winter Park and Grand County.

Challenges

- Small population center – approximately 400 residents.



- Small local activity center – minor retail activities, but strong employment demand at Henderson Mine.
- While existing land uses would not be inconsistent with transit operations, the desired scale and density of the Town may not be significant enough to support station activities.
- Small ridership/geographic capture area – local employment to Henderson Mine, regional capture greater if station is transfer point to Grand County spur.
- Limited vehicular access - access limited because of steep grade and reliance on US 40.
- No existing transit connections in area.
- Adjacent to wildlife corridor.

Working Group Recommendation

Not recommended for a Tier 1 regional or Tier 2 local station. This location might be of higher interest if a spur to Grand County were considered.

Empire Junction (I-70/US 40 Interchange Area)

Opportunities

- Generally compatible with land use plans – current light industrial uses, has land availability, and future plans for mixed-use development considered to be compatible with transit. CDOT is a big land owner in area.
- Available land.
- Good location for connection to Winter Park and Grand County.
- Good vehicular access – direct access to I-70 and US 40.

Challenges

- Not a population center - little to no residential use in proximity. There could be some public debate regarding change.
- Small local activity center – Easter Seals Camp and Henderson Mine employment base.
- Small ridership/geographic capture area – local employment to Henderson Mine, regional capture greater if station were a transfer point to Grand County spur.
- No existing transit connections in area.
- Location not on municipal water and sewer. Also wildlife migration considerations.

Working Group Recommendation

Recommended as a Tier 1 regional station (Empire Junction or Georgetown or in between). This location or a location in Georgetown or somewhere in between is recommended as a Tier 1 regional station. This location would also be of higher value if a spur to Grand County were implemented. Availability of land and compatibility of existing/future uses are important to this site.



Town of Georgetown

Opportunities

- Second largest population center in county - approximately 1,400 residents and home of Clear Creek County seat. Town has land available adjacent to lake and highway for future growth and/or station planning area.
- Local activity center and destination – summer tourist center for shopping, historic, railroad, and recreational uses. Considered to be somewhat lower activity level than Idaho Springs.
- Good ridership/geographic capture area – destination travel to Georgetown and I-70 mountain corridor from Front Range. Reverse commute to Denver.
- Compatible with land use plans – planned land use mix and density compatible with transit service.
- Good vehicular access – direct access to I-70 and potential location adjacent to US 6.

Challenges

- No existing transit connections in area.
- Town has National Historic Landmark status.
- Potential infill issues related to historic mining activities.
- Community concerned about noise.

Working Group Recommendation

Recommended as a Tier 1 regional station (Empire Junction or Georgetown or in between). This location or a location at Empire Junction or somewhere in between was recommended as Tier 1 regional station. Georgetown has infrastructure in place and is the political center of county.

Loveland Ski Area

Opportunities

- Potential ridership/geographic capture – seasonal destination travel to ski area and recreation.
- Good vehicular access – access at interchange with I-70 and US 6.

Challenges

- Not a population center – no existing or future residential base or lodging.
- Not a full time activity center – seasonal recreational activities include skiing (winter) and hiking (summer). Hiking is dispersed and would still require shuttle service.
- Only somewhat compatible with land use plans. Entire ski area, including the base, is on USFS lands. Would require USFS approval and NEPA process. Master plan proposes moderate expansion of recreation, but primarily preservation of USFS lands.



- No existing transit connections in area, only employee shuttle.
- Located near important I-70 wildlife crossing/corridor.

Working Group Recommendation

Recommended as Tier 2 local station. This location is under consideration as a seasonal destination stop during peak recreational periods.

4.3.5 Summit County

Keystone

Opportunities

- Local activity center and destination – ski area employment center, ski destination, and second most popular off-season resort in Summit County.
- Good ridership/geographic capture area – popular ski destination from Front Range and local employment.
- Keystone is the third most visited resort in the United States and currently ranked sixteenth best resort in North America by *SKI* magazine.
- Generally compatible with land use plans – included in goals and policies, but not shown on plans.
- Potential for available land in existing parking lots.

Challenges

- Not a year-round large population center – mostly seasonal (winter) residents and tourists. Summit Cove is not high density but nearby.
- Limited vehicular access – good at ski area, but out of way for most local residents. US 6 limited eastbound by Loveland Pass.
- May not maximize connections to local transit – more end of line for local transit. Served by resort shuttle and Summit Stage.
- May have some environmental issues – elk migration corridor, near land fill, and potential alignment impacts.

Working Group Recommendation

Recommended as a Tier 2 local station depending on alignment. Considered as potential stop on a Loveland Pass alignment. If service focuses on resorts, then Keystone, Breckenridge, and Copper Mountain would provide large ridership base.

Town of Dillon

Opportunities

- Local activity center – town center, marina, concerts and events, and shopping draw. Year-round events but most activity in summer.



- Fair ridership/geographic capture area – mostly summer destination and lodging and shopping in winter. Centrally located in Summit County.
- Compatible with land use plans – infill growth desired at town center or main shopping area. Depending on the results of the blight survey, development could be compatible with the urban renewal of the town center. Land assemblage could be a challenge.
- Average vehicular access - central portion of county and good access to US 6, I-70, and Dam Road. Town center may have local traffic limitations.

Challenges

- Limited local population center – approximately 850 year-round residents. Grows to 3,000 to 5,000 with tourists and shoppers.
- Limited connections to transit – central access to town center and shopping areas by Summit Stage, but no direct routes to other locations.
- May have wetland issues in certain locations.

Working Group Recommendation

Not recommended as a Tier 1 regional or Tier 2 local station. Might be better served as a local stop.

Town of Silverthorne

Opportunities

- Local population center - approximately 4,000 year-round residents. Largest base of permanent residential population in Summit County. Provides regional services to towns and resorts.
- Local activity center – strong shopping/outlet location, commercial employment, and civic uses.
- Best location in Summit County for freight service and related infrastructure.
- Compatible with land use plans – comprehensive plan updates will include higher density, mixed-use, and development possibilities conducive to transit use in the area.
- Potential for available land and residential growth.
- Good vehicular access – direct interchange access at I-70 and Hwy 9.
- Maximizes connections to transit – central location at interchange with access to town center and shopping areas by Summit Stage.

Challenges

- Somewhat lower ridership/geographic capture area – local and regional draw to shopping area, employment and civic uses, but not a resort destination.
- May have potential environmental issues from nearby Blue River.



Working Group Recommendation

Recommended as a Tier 1 regional station (or Frisco). One of the most central locations in Summit County. Likely best location for light freight service with commercial uses, access, and land availability. Also optimal location for forward travel to other parts of county.

Lake Hill

Opportunities

- Centrally located in Summit County.
- Potential for available land, but currently owned by USFS.

Challenges

- Not a population center – currently not a population center.
- Not an activity center – no commercial or retail draw.
- Poor ridership/geographic capture area – centrally located, but no population or activity center within proximity of the site.
- Not compatible with land use plans – currently designated by USFS as open space and developed/dispersed recreation in order to maintain an open space buffer and separation between communities.
- Poor vehicular access – access to site is limited to the Dam Road.
- Poor connections to transit – currently no transit connections, but central location in Summit County and could support future connections to multiple county destinations.
- Potential environmental issues – property owned by USFS and would require trade/NEPA analysis. Denver Water has concerns about the use and viability of the Dillon Dam Road, which could significantly influence the future use of the site.

Working Group Recommendation

Not recommended as a Tier 1 regional or Tier 2 local station. This location was evaluated as it exists today and is currently planned. Opportunity may exist for large tract of USFS land to be developed in manner supportive of transit services in the future.

Town of Breckenridge

Opportunities

- Local population center – approximately 3,500 year-round residents. Also draws residents from upper Blue River.
- Good local year-round activity center and destination – downtown and ski area draw. Shopping popular year-round. Most popular off-season resort in Summit County.
- Good ridership/geographic capture area – high potential capture based on regional and ski destination travelers, and employees traveling to and from the area.



- Breckenridge is the single most visited resort in the United States and currently ranked ninth best resort in North America by *SKI* magazine.
- Compatible with land use plans – land use mix, residential base, and accepted densities in town are supportive of current transit and gondola service, and conducive to future services.
- Good connections to transit - existing Summit Stage and local service in and out of Breckenridge.

Challenges

- Limited vehicular access – SH 9 access in and out of Breckenridge could be considered to be out of the way for travelers.

Working Group Recommendation

Recommended as a Tier 2 local station depending on alignment. Would be largest ridership draw for a southern Summit County alignment serving Loveland, Keystone, and Breckenridge.

Town of Frisco

Opportunities

- Local population center – approximately 2,700 year-round residents.
- Local activity center – downtown, marina, and shopping draw. Year-round events with majority of activity in summer.
- Fair ridership/geographic capture area – close proximity to I-70 interchange, local residential base, and Breckenridge destination if the station is not located in Breckenridge.
- Compatible with land use plans – mixed land use and residential base supported in comprehensive plan and conducive to transit operation. Acceptance of higher densities and land availability will be issues in the future.
- Good vehicular access – in proximity to I-70 interchange and easy access to SH 9.
- Good connections to transit – central access to town center by Summit Stage. Central location in county.

Challenges

- The size and scale of station compared to the availability of land may be an issue.

Working Group Recommendation

Recommended as a Tier 1 regional station (or Silverthorne). One of most central locations providing access to Summit County, including Breckenridge. Some back-tracking required to get to Keystone. Changes in land use mix and density may be hindered by growth or build-out concerns in Frisco at this time.



Copper Mountain

Opportunities

- Local activity center – employment center, ski destination, and off-season tourist recreational activity center.
- Good ridership and destination – popular ski destination and employee commute connection from Leadville to resort employment.
- Compatible with land use plans – destination and related uses outlined in the master plan and conducive to transit operation.
- Good vehicular access – direct and visible access at interchange with I-70. Easy access to and from Leadville.
- Good connection to Leadville workforce.

Challenges

- Not a year-round population center – seasonal residents only. Not envisioned as a significant year-round population base.
- May not complement future transit plans – serves as more end of line for local transit in Summit County. Served by resort shuttle and Summit Stage.

Working Group Recommendation

Recommended as a Tier 2 local station. Might be better served as a local transit stop. However, if service focuses on resorts, then Keystone, Breckenridge, and Copper Mountain would add to the ridership base. Also, Copper Mountain is likely to have a station regardless because potential alignments are likely to pass through there.

4.3.6 Eagle County

Town of Vail

Opportunities

- Local population center – large hotel base but somewhat lower year-round residential base.
- Local activity center – largest in county. Employment, recreation/resort, retail. 35,000 beds. Destination location.
- Good ridership/geographic capture area for tourists coming into county.
- Vail is the second most visited resort in the United States and currently ranked second best resort in North America by *SKI* magazine, receiving the top honor in 14 of the past 21 years.
- Compatible with land use plans – planned land use mix and densities within the village strongly support transit operations and ridership.
- Good vehicular access – interchange access off I-70 to Vail Village and Lionshead. Increased travel demand between interchange and station or park-n-Ride location could



create substantial congestion at key locations. Increased transit ridership may free up existing parking.

- Complements future transit plans and connections – served by ECO Transit and Vail Transit. Connection to Leadville.

Challenges

- Difficult geographic capture area for regular/commuter use by all county residents.
- Large expansion of local Vail transit system difficult.

Working Group Recommendation

Recommended as a Tier 1 regional station (or Avon). This could be a potential hub location. If there were to be only one location in Eagle County, most would support an eastern county location at Vail, or possibly Avon location because of east travel direction. Vail would likely work best for tourists coming to county, whereas, Avon would work best for county residents using the system.

Town of Avon

Opportunities

- Local population center - year-round residential base of about 7,000.
- Local activity center – regional commercial/retail and recreation base, and access point to Beaver Creek Ski Area.
- Good geographic capture area – ridership would consist of both tourists and county residents.
- Centrally located for several alignment options and destinations (both Vail and Beaver Creek).
- Beaver Creek (above Avon) is the 9th most visited resort in the United States and currently ranked sixth best resort in North America by *SKI* magazine.
- Compatible with land use plans – currently developing mixed-use, high-density town center plan supported by multimodal transit center.
- Has sufficient undeveloped land located around potential station sites to provide sufficient parking, freight transfer, pedestrian trails, and shuttle service.
- Good vehicular access - two interchanges provide good access to I-70.
- Complements future transit plans and connections – ECO Transit hub with planned expansion of a transit center in Avon. Offers service connections to Leadville, Vail, and Beaver Creek.

Challenges

- Could have reverse travel to Vail depending on alignment.
- Large expansion of local Avon/Beaver Creek transit system difficult.



Working Group Recommendation

Recommended as a Tier 1 regional station (or Vail). This could be a potential hub location. If there were to be only one location in Eagle County, most would support an eastern county location at Vail or Avon location because of east travel direction. Vail would likely work best for tourists coming to county, whereas, Avon would work best for county residents using system.

Edwards

Opportunities

- Local population center – largest population base in county, also more diversified.
- Some geographic capture – would consist of both tourists and county residents, but not a destination.
- Compatible with land use plans – current land use plans indicate growth in residential base and retail/commercial, supportive of commuter transit patterns.
- Somewhat complements future transit plans and connections – served by ECO Transit.

Challenges

- Not a major local activity center – local retail and schools.
- Limited vehicular access – road system has limited capacity and access would require use of spur road. Limited land availability for substantial parking infrastructure.
- May have potential environmental issues – close to Eagle River.

Working Group Recommendation

Not recommended as a Tier 1 regional or Tier 2 local station. This is likely a local transit system location only.

Wolcott

Opportunities

- Compatible with land use plans – greenfield development possible. Building 500 to 1,000 new residential units.
- Good vehicular access – direct access to I-70 and has potential parking capacity.

Challenges

- Not a population center – currently only minor population base. In future could have 500 to 1,000 dwelling units or up to 2,000 residents.
- Not an activity center – only one local store.
- Small geographic capture area - regional commuter ridership possible, but limited since the area is not a population base or activity center. Could serve as a connection to Steamboat Springs.



- Not likely to complement future transit plans and connections – served by one ECO Transit stop only.
- Least built-out location, but may have soil issues and close to Eagle River.

Working Group Recommendation

Not recommended as a Tier 1 regional or Tier 2 local station. This is likely a local transit system location only.

Town of Eagle

Opportunities

- Local population center – but smaller population base than Edwards.
- Local activity center – local retail, county government center, and workforce services.
- Good geographic capture area for regular/commuter use by all county residents.
- Compatible with land use plans – ultimate build out 10,000 to 12,000 rooftops.

Challenges

- Poor ridership/geographic capture area for tourists coming into county.
- Limited vehicular access – some parking availability but poor road system would require building additional capacity.
- Only somewhat complements future transit plans and connections – served by ECO Transit.

Working Group Recommendation

Not recommended as a Tier 1 regional or Tier 2 local station. This is likely a local transit system location only.

Eagle Airport

Opportunities

- Good ridership/geographic capture area – for both tourists and county residents. Centrally located within the County and could pull regional commuter ridership.
- Compatible with land use plans – existing and planned commercial and industrial uses are compatible with future transit operations.
- Complements future transit plans and connections – served by ECO Transit and a potential RFTA connection. Direct airport connection.

Challenges

- Not a population center – no population base in proximity to airport.
- Limited activity center – activity center between 10:00 a.m. and 2:00 p.m. Seasonal fluctuation in use levels as well.



- Somewhat limited vehicular access - widened Cooley Mesa Road to better accommodate increased local travel demand. Might need to increase capacity with construction of new I-70 interchange.

Working Group Recommendation

Recommended as Tier 1 regional station. This is a potential multi-modal hub location. This location would provide a western connection to the regional system and connect airport to system. Good light freight location.

Town of Gypsum

Opportunities

- Local population center – residential base of 6,000 and growing, similar in size to Eagle.
- Good geographic capture area for regular/commuter use by all county residents.
- Compatible with land use plans – planned residential growth up to 10,000 rooftops would support future transit operations.
- Some vehicular access – improvements at US 6 and I-70 would make access more direct. Parking planned at location close to I-70.
- Complements future transit plans and connections – served by ECO Transit and a potential RFTA connection. Close to airport.

Challenges

- Limited activity center – local retail and workforce services.
- Poor ridership/geographic capture area for tourists coming into county.

Working Group Recommendation

Not recommended as a Tier 1 regional or Tier 2 local station. This is likely local transit system location only.

4.3.7 Garfield County

Glenwood Springs (Downtown Wye)

Opportunities

- Near population center – within a 1 to 3 minute walk for residents in established downtown neighborhoods.
- Local and destination activity center – top overall Garfield County location because of downtown attractions, tourist draw, retail, and hot springs pool.
- Good ridership/geographic capture area – close to 9th Street residential area and Amtrak train station, and tourist draw to mix of uses and potential access for regional capture.
- Compatible with land use plans – redevelopment plans for large mixed-use area highly supportive of integrated transit service.



- Good vehicular access – plans to punch 8th Street through to future site would improve direct access. Other improvements may be needed depending on demand.
- Complements future transit plans and connections – connections to local and regional bus and future bus rapid transit service via RFTA.

Challenges

- May have potential environmental issues – historical industrial uses.

Working Group Recommendation

Recommended as a Tier 1 regional station. Central connectivity to Garfield/Pitkin locations, urban population and activity centers, tourist destinations. Residents up-valley toward Aspen and to west toward Rifle easily drawn to location to use regional transit. Proposed bus rapid transit system would cover transit needs up valley and bring users to the regional transit station. Planned land use mix conducive to successful transit services from site.

Cattle Creek/Colorado Mountain College and US 82 Intersection Area

Opportunities

- Mid-valley location with connection to the Colorado Mountain College.

Challenges

- Not a population center – mostly rural development in area. CMC nearby. Proposed Cattle Creek Crossing development could add 900 units.
- Not an activity center – only minor retail, not many activities to draw people. Some activity associated with Colorado Mountain College.
- Poor ridership/geographic capture - mostly just a local bus stop. Not a future bus rapid transit stop.
- May not be compatible with land use plans – current planning for smaller mix of uses.
- Limited vehicular access – limited access to US 82, which has congestion issues. Also, frontage road is congested. Future stop light at CR 114 may be required.
- Does not complement future transit plans and connections – no future bus rapid transit stop planned, only local bus service.
- May have potential environmental issues – wetlands and presence of wildlife; herons, eagles and elk.
- Would be out of direction travel if alignment passes through Glenwood Canyon.

Working Group Recommendation

Not recommended as a Tier 1 regional or Tier 2 local station. Under consideration if an alignment were to come over Cottonwood Pass. But even then, most would prefer a location at an existing urban center.



Town of Carbondale (RFTA Park-n-Ride)

Opportunities

- Local population center – growing TOD area.
- Local activity center – near downtown, mixed uses, transit, trail connections, and Colorado Rocky Mountain school.
- Ridership/geographic capture area – existing transit stop with ridership capture from up-valley. Not as strong a tourist draw as Glenwood Springs.
- Compatible with land use plans – currently planning for and providing incentives for TOD.
- Good vehicular access – recent improvements with direct access to SH 133. Also somewhat close to US 82.
- Complements future transit plans – planned for BRT station. Local and regional bus connections.

Challenges

- Would be out of direction travel if alignment were to pass through Glenwood Canyon.

Working Group Recommendation

Recommended as a Tier 2 local station. Under consideration for a mid-valley location if an alignment were to come over Cottonwood Pass. Best Carbondale location because minimizes impacts to downtown and takes advantage of existing TOD and transit connections.

4.4 Summary of Tier 1 Regional Station Locations

Through three rounds of County Working Group meetings and application of the two-step screening process, each group developed a list of priority regional station locations (Tier 1) to be served by a high-speed AGS. The list of recommendations does not preclude additional or alternative locations that might be served as part of spurs or skip service that could be developed at a later date. The list represents each County Working Group's recommendation of what locations they believe would best serve the people in the community, as well as those traveling to their communities. It is important to note that the County Working Groups recognize that technical data, such as ridership, will be developed through other studies and such information may cause these recommendations to be reconsidered. Recommendations by the County Working Groups for Tier 1 regional station locations are as follows (also see **Figure 3**):

Jefferson County

- I-70/US 6 Interchange Area (or Washington Street/SH 58 Area).

Clear Creek County

- Idaho Springs (includes five potential sites).



- Empire Junction/Georgetown (or somewhere in between).

Summit County

- Frisco or Silverthorne.
- Also recognizing that Keystone, Breckenridge, and Copper Mountain may be preferred depending on ridership and alignment considerations. Copper Mountain is likely to have a station regardless because potential alignments are likely to pass through there.

Eagle County

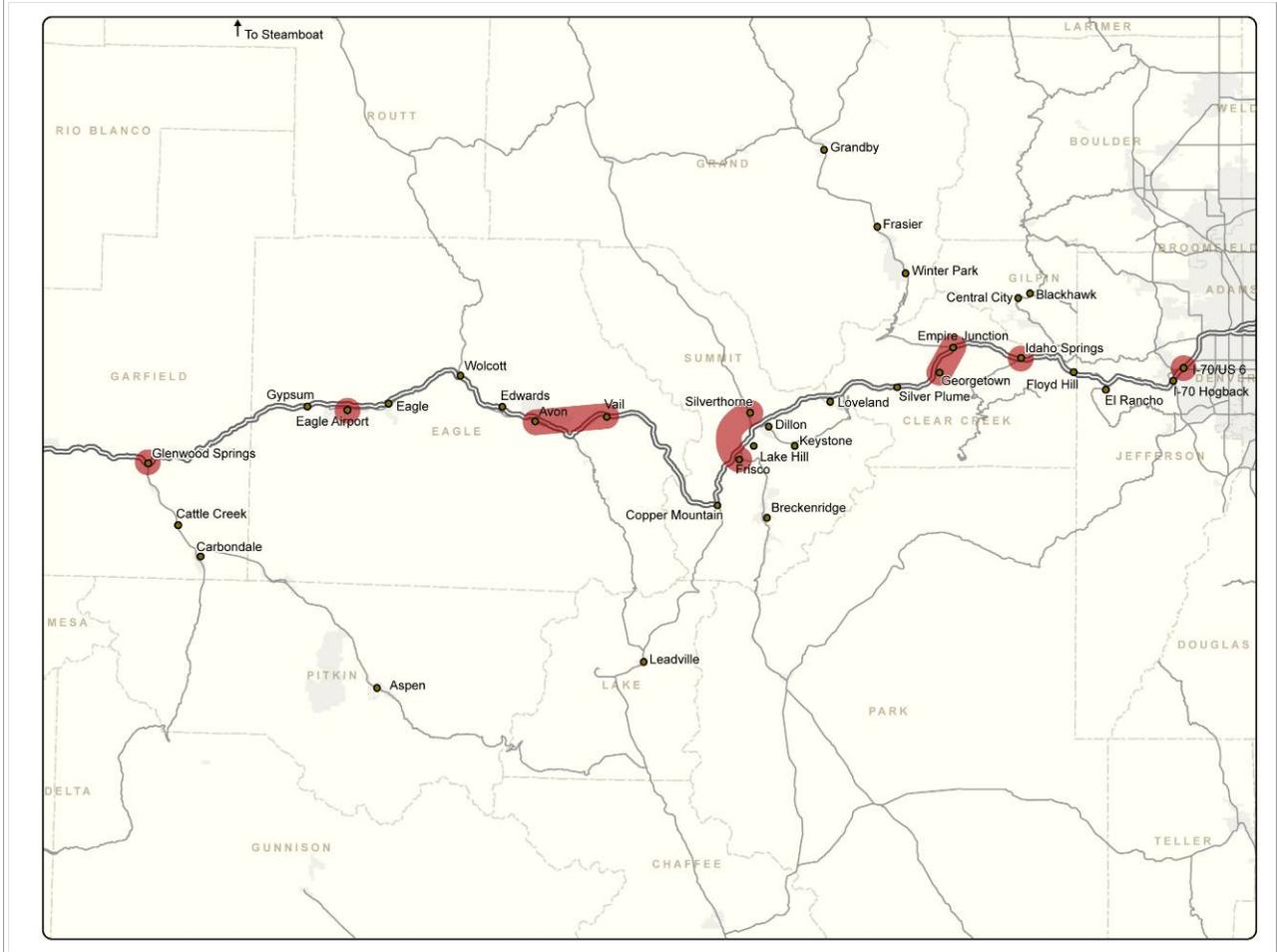
- Vail or Avon (east end of county).
- Eagle Airport (west end of county).

Garfield County

- Glenwood Springs - Downtown Wye.
- Mid-valley/Carbondale if alignment follows Cottonwood Pass.



Figure 3: County Working Group Recommended Tier 1 Regional Station Locations (Red Dots)



5.0 Example Specifications for Tier 1 Regional Stations

After identifying the Tier 1 regional station locations, the County Working Groups began to discuss the functionality of stations, including the anticipated need for passenger drop-off facilities, bus bays for integration with local transit systems, and park-n-Ride facilities. The questions of physical size and acreage needed to accommodate these primary facilities and compatibility with local land use and community characteristics becomes more relevant. To assist the County Working Groups begin to answer these questions, the consultant team developed an example station with typical specifications for illustrative purposes.



Typical Transit Station

5.1 Background

It is important to understand that communities along the I-70 corridor cannot prescribe specific station types, sizes, or required levels of operation by location without knowing projected ridership in the I-70 corridor and the type of AGS technology used. The Rocky Mountain Rail Authority Study is developing projected ridership and appropriate rail technologies for the I-70 corridor that will be available after this study is complete. Without this information, the County Working Groups and Technical Committee discussed the general characteristics likely to be part of primary or Tier 1 regional stations, as well as more technical detail regarding approximate size, operational requirements, and typical amenities. Tier 2 local or “milk-run” stations are assumed to be smaller in scale and require only elements of these larger facilities, as appropriate to each community and station function.

This section describes typical platform, drop-off area, transit center, and other station elements for consideration in future planning efforts, and includes an example typical Tier 1 regional station footprint and visual simulation. Final designs will vary by station because of site specific characteristics such as passenger types, boarding and alighting, community character, and adjacent land use.

5.2 Function and Features

A transit station’s primary function is to support rail or guideway operations and provide a platform for passenger access to the transit system. The transit station is the “front door” or entry point to the larger I-70 corridor of communities on the line. A station location is designed to fit the context of the community, as well as the specific characteristics and land use needs of the site. The station reflects the image of the local community by serving as a public or civic space or as an anchor to an economically viable mix of land uses supportive of transit use. Planning for a station will bring together the technical facility requirements with the local needs for community integration.

Tier 1 regional stations will eventually be designed and sized to serve the projected ridership, the community and regional operational functions, land use, and character/context of setting.



The following elements are estimations of the requirements and sizing characteristics that could be associated with a Tier 1 regional station:

- Passenger platform - approximately 500 feet in length to accommodate a four-car train.
- Passenger drop-off - access lane or loop to accommodate up to 15 vehicles and provide pedestrian access to station platform.
- Transit center - transit drop-off/pick-up area with up to eight bus bays located in close proximity to the station with pedestrian access to station platform. This facility could need to accommodate local transit connections, resort connections, and bus transfer operations.
- Park-n-Ride - approximately 6 to 10 acres to support around four stories of structured parking with 1,500 parking spaces and vehicular access to the site. The required number of parking spaces and configuration of a multistoried structure will depend on future ridership estimates, function, and land availability of the specific station.
- Bike parking - lockers or racks to accommodate up to 30 bicycles.

The footprint of a Tier 1 regional station that has the above components is illustrated in **Figure 4**. The footprint is overlaid on an aerial map of Copper Mountain Ski Resort, a location chosen by the I-70 Coalition Technical Committee to use as an example. The image is intended to provide example sizing requirements of a Tier 1 regional station and give communities a sense of the land requirements needed to accommodate this size facility. Specific site and structure requirements would need to be examined in future planning phases once more detailed ridership estimates are known and may vary at each Tier 1 location. Additionally, site characteristics and the role of the station as either an origin or destination station will influence demand for parking supply. The Tier 1 regional station's scale and massing is illustrated in the visual simulations provided in **Figure 5** and **Figure 6**.

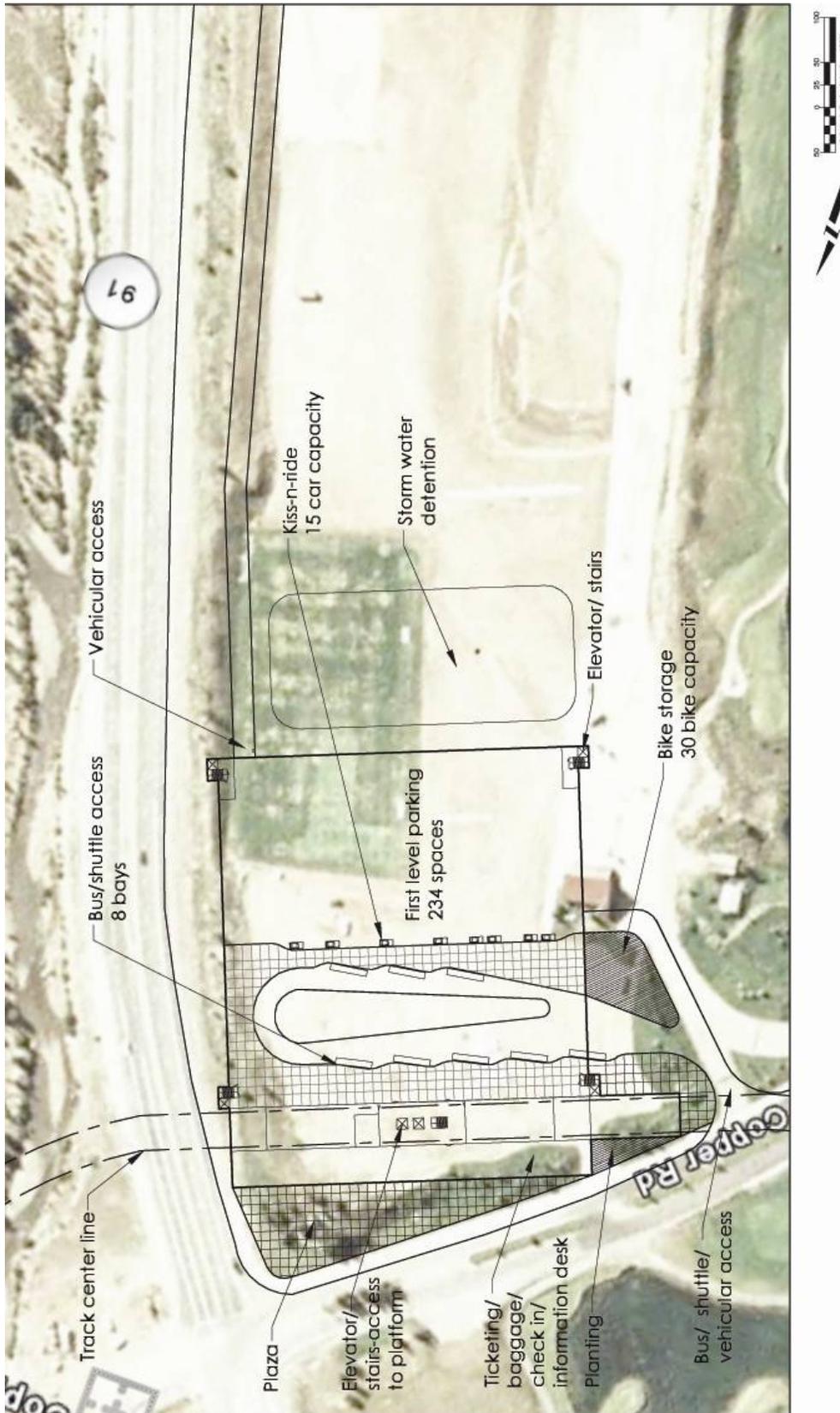


Figure 4: Plan View of the First Floor of an Example Tier 1 Regional Station at Copper Mountain Ski Area



Figure 5: Visual Simulation Representing an Example Tier 1 Regional Station at Copper Mountain Ski Area

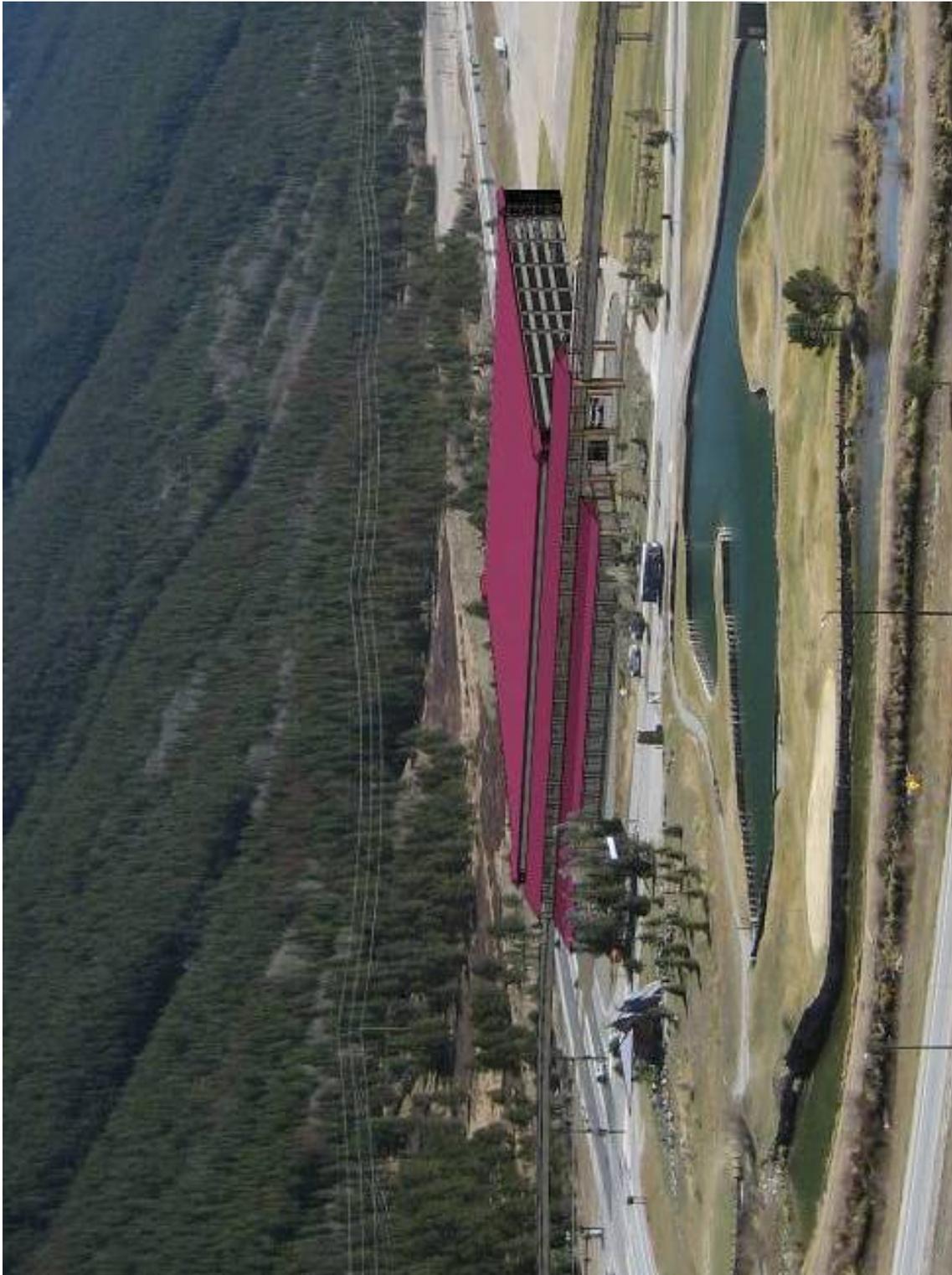


Figure 6: Visual Simulation Representing an Example Tier 1 Regional Station at Copper Mountain Ski Area

The basic elements or amenities typically associated with a Tier 1 regional station include:

- Platform
- Bus interface
- Kiss and ride (passenger drop-off)
- Parking
- Vehicular access
- Baggage storage
- Ticketing
- Landscaping
- Stormwater detention
- Pedestrian/bicycle circulation and bike parking



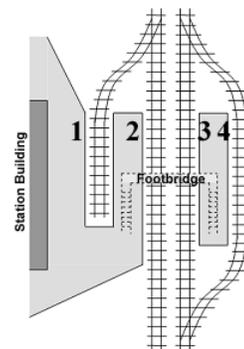
Example Station Platform

The exact combination of these elements depends on the transit technology, layout of station and the particular needs of each station within the community. In designing a station layout, there is a hierarchy for how these elements are located in relation to access to the AGS vehicle. The first priority in the hierarchy is to provide convenient access for the pedestrian and bicyclist to the station, the second priority is to accommodate access via other transit services or shuttles, and the final priority is to provide vehicular access to the site for passenger drop-off or park-n-Ride facilities.

Each element of a station has distinct characteristics associated with it. The following provides details on the spatial requirements, safety considerations, and varying options for each transit element. The unique characteristics of each element form how the station functions and looks.

5.2.1 Platform

A platform is a surface alongside rail tracks from which passengers board or alight from trains. A platform is a level hardscape surface that runs the complete length of the train boarding area. The platform is located on a tangent track (straight track for at a minimum the distance of the platform and 100 feet on each side) with a longitudinal slope not to exceed a 1% grade and a cross slope not to exceed 2%. To eliminate any conflicts between the AGS service and vehicular traffic, the platform needs to be constructed a minimum of 200 feet from roadway intersections. It is anticipated that an AGS operation would require platform lengths up to 500 feet.



Platform Loading Types
(Platform 1 is a bay platform. Platforms 2, 3 and 4 are through platforms. Platforms 2 and 3 are side-loaded platforms and 3 and 4 are center-loaded platforms)¹

There are three types of platforms. A platform can be a bay platform, a center-loaded platform, or a side-loaded platform. A bay platform is where the tracks dead end, requiring a train to reverse in or out. A center-loaded platform and a side-loaded platform are both through-station; the train pulls into the platform from one end and leaves through the other end. A center-loaded platform is one platform located between two tracks

¹ Wikipedia-[http://en.wikipedia.org/wiki/Railway_platform]

servicing both directions of train service. A side-loaded platform consists of two platforms on the outside of the tracks. Each platform serves a single-direction train.

The platform provides disabled passengers with a level boarding surface to the AGS vehicle and is ADA accessible. This can be accommodated by designing the platform to be level with the AGS vehicle floor or providing a high or low block access on the platform to bring the disabled persons up or down to the vehicle floor level. The platform is designed so that the horizontal gap between a car door at rest and the platform is no greater than 3 inches, and the height of the car floor is within plus or minus 5/8 inch of the platform height under all normal passenger load conditions.² All platforms must have a visual and tactile warning system on the edge of the platform to keep passengers away from the tracks. This is done using a tactile warning strip consisting of 24-inch-wide truncated



Example Truncated Dome Warning Strip (yellow strip)

domes that are a contrasting color to the adjacent ground plane and extend the length of the platform. The platforms are slightly sloped upwards towards the platform edge to prevent wheeled objects, such as strollers and wheelchairs, from rolling into the path of the train.

A platform must be designed and sized to meet the National Fire Protection Association (NFPA) 130 requirement. The NFPA 130 requirement sets design standards to ensure safe evacuation of the platform in case of a fire or emergency. This calculation takes into account the maximum number of passengers waiting on a platform, the crush load level of passengers on the vehicles at the platform, and the frequency in train service. NFPA 130 states that passengers should be cleared from the platform in four minutes and at a point of safety in six minutes, unless tenability along the egress path can be established for a longer duration.³

Platform Elements

There are numerous elements on the platform that create a convenient, pleasant environment for the transit patron. Elements that are typically found on a platform are:

- Overhead shelter (if located outside)
- Wind shelter (if located outside)
- Seating
- Trash and recycling receptacles
- Pedestrian lights
- Signage
- Message systems (variable message system and audio speakers)

² Henry Perritt, Jr. American with Disabilities Act, Forth Edition Volume 1, Aspen Publishers, 673

³ Robert C. Till, Timed egress requirements for transit and passenger rail station evacuation as described in NFPA 130 ASHRAE Transactions, July, 2006

- Emergency phone
- Security cameras
- Ticket vending machine and ticket validation (depending if a machine or attendant is used)



Overhead shelter



Wind shelter/bench



Bench



Trash receptacle



Lights at a platform



Signage



Variable message system



Ticket vending machine

Example Platform Elements

When locating the elements on the platform a 6-foot clear zone must be maintained at all times. A platform must provide ease of pedestrian movement. The platform design must also coordinate with the doors of the train so that boarding and alighting can occur smoothly even when long queuing lines are present.

To cross the tracks to access the platforms either a grade-separated crossing or an at-grade crossing is used. Both crossings must be ADA accessible. Not knowing the chosen AGS technology for the I-70 corridor, a safe assumption for a grade separated crossing would be 24 feet from the top of guideway to the bottom of the bridge. This meets the standard requirements for freight rail design. Vertical access to a grade-separated crossing is provided with stairs, elevators, and/or escalators. Two forms of access need to be provided in case of an emergency. This could consist of two vertical accesses or one vertical and one at-grade crossing. An at-grade crossing takes into account crossing safety considerations. Pedestrians need to have an awareness of approaching trains. This is accomplished by signage or by limiting access across the tracks with fencing, z-crossings, or swing gates. Typically mid-block crossings cross the tracks at an angle to provide visual site line to trains; there is no gate so often flashing lights are used.



Example Swing Gate

Utilities are also provided on the platform. At a minimum, electricity, water and telecommunication lines are required. Electricity is needed to operate the lights and message systems; water is required to wash the platform and potentially for emergency fire protection; and telecommunications lines are required to transmit video surveillance information, update message systems, and carry transmissions from the emergency phone.

It is anticipated that in addition to passenger service, the I-70 corridor AGS would carry light freight to and from the mountain corridor communities. Not knowing what kind of freight service would be provided or if the AGS would utilize existing tracks, information is being provided for a conservative design for light freight rail compatibility requirements. Stations may not need to meet them if the AGS does not provide freight access at that location.

Oftentimes freight cars are required to carry oversized objects requiring the freight car to be larger than the typical car. If high-level platforms are used, two options are available. The platform can be set back several inches outside of the dynamic envelope, and ADA access can be provided by a bridge plate (ramp) between the passenger car and the platform. Regular passengers would simply step across the slightly wider gap. Otherwise, special track work is required (typically gauntlet or bypass tracks) to allow freight trains to travel farther away from the platform.

If low-level platforms and ADA blocks are used, the ADA blocks would have to be set back in a manner similar to high-level platforms. Many systems today use a bridge plate for ADA access with ADA blocks, so the operational impacts are a part of normal service. The low-level platform would be required to meet both freight and passenger rail clearances. These clearances are very similar in the area between the top of rail and the typical 6- to 9-inch height of low-level platforms.

The platform is sized to allow for loading and unloading of freight. It needs to extend the length of the entire passenger and freight train and provide a large enough space on the platform for equipment to maneuver to load and unload freight and to transport the freight to truck service. Trucks need a space adjacent to the platform to pull in and load and unload the freight.

5.2.2 Bus Interface

There are numerous bus systems serving the local communities along the I-70 corridor. In the future, local transit services will likely expand to carry a greater number of passengers between the mainline station and local destinations. The following transit agencies operate in the I-70 corridor and will be critical to future connectivity within I-70 corridor communities:

- RTD
- Summit Stage
- ECO Transit
- RFTA
- Resort and community shuttle services

The local transit systems operate numerous types and sizes of buses. They have regional buses, bus rapid transit (BRT), local buses and shuttle service. In order to accommodate the variety of needs for the different bus types and sizes, facilities will need to be designed to serve a 60 foot long and 10'-6" wide vehicle with a 16'-6" vertical clearance. Access roads servicing the bus system should be designed using a minimum of a 32-foot inside radius for bus turning movements. The AGS service must also interface with shuttles, van pools, and taxis. Local bus service and shuttles would be a significant component in connecting the AGS system to the destinations and the local community.

In laying out the transit station, buses should have a high priority and be given easy access to the station. The number of buses to be accommodated at each transit station would be determined by the local transit operator, the local municipality, and the resorts. The number of bus bays would be based on the maximum number of transit vehicles that would serve the station at one time. The local transit agency and municipality would work together to determine if an on-street facility or off-street facility best serves the station.



Example Bus Transit Center



Example Bus Plaza

An on-street facility is efficient in utilizing minimum space and reducing travel times for through passengers. An off-street facility serves larger volumes of passengers, provides easier transfers, allows for bus layovers, and allows a space for passengers to load and unload baggage. To maintain travel time and pedestrian safety, an off-street facility should separate bus circulation from vehicular traffic. When designing an off-street facility, planners typically account for 4,250 square feet for each bus. This takes into account an access lane, landscaping, and a stormwater detention pond. Depending on site configuration, access lanes could require additional space.



Example On-Street Sawtooth Bus Bay

The bus service at a transit facility could be constructed in the following configurations:

- Linear bus bays.
- Sawtooth bus bays.
- Angled bus bays (requiring the bus to back out).
- On-street bus stops.

The bus facility accommodates seating, trash receptacles, newspaper dispensers, and a shelter to serve the waiting bus patrons. The bus facility accommodates layover space and amenities (toilet and sink) for drivers.

5.2.3 Passenger Drop-off

The passenger drop-off area is a place where automobiles are permitted to stop and park temporarily to drop off or pick up transit patrons (also called a kiss-n-Ride). The vehicle lane is located in close proximity to the transit station with convenient pedestrian access to the platform. A passenger drop-off is sized to serve



Example Drop-off Loop



Example On-Street Drop-off

approximately 2 to 5% of the estimated parking demand for the facility (typically 325 square feet per car to account for an access lane, space to stop, sidewalk, and landscaping). The passenger drop-off could be configured as a separate access loop, on-street drop off with signed designation, or incorporated in the park-n-Ride structure. Vehicular access to the passenger drop-off is from an arterial or secondary road and needs to be easy and convenient.

5.2.4 Parking

The number of parking spaces at each transit station is determined through a combination of a ridership forecast and community planning. The ridership forecast takes into account the number of projected riders, the capture area, the proximity to other stations, the presence of a feeder bus system, and whether it is an end-of-line station. Community planning factors include type of TOD, walkability of the location, land availability, traffic impacts, traffic capacity, potential for shared parking, and community vision.

When designing a park-n-Ride, there is not a typical prototype that can be applied everywhere. Each park-n-Ride needs to respond to its land configuration, topography, local municipal requirements, vehicular access, and pedestrian access. A park-n-Ride is configured as either a surface parking lot or structured parking. A surface parking lot parks all of the cars at-grade, while a structured parking lot parks cars vertically. Whether a park-n-Ride is going to be a surface parking lot or a structured parking lot is determined by land availability, location, community desire, budget, and the number of parking spaces required. A structured park-n-Ride is more expensive per car but frees up valuable land for other land uses. A surface parking lot is less expensive but requires more land to construct.



Example Park and Ride



Example Structured Parking

A surface park-n-Ride requires 500 square feet for each car. This equates to roughly 85 cars per acre. The 500 square feet takes into account the space required for a 9-foot wide by 19-foot long parking space, access drives, a 24-foot wide travel aisle, pedestrian access, landscaping, and stormwater detention ponds. Landscaping requirements are determined by each municipality in the zoning code. To maximize the space, parking is recommended to be right-angle parking. A structured park-n-Ride requires 285 square feet for each car. The 285 square feet takes into account the space required for a 8-foot 6-inch wide by 17-foot 8-inch long parking space, the structure, two elevator cores, and two sets of stairs. Additionally, a percentage of parking needs to be provided for the disabled. The amount of disabled spaces must follow local code requirements; typically, this is about 4 spaces per 100 parking spaces. Disabled parking spaces need to be clearly marked and are typically wider than the typical parking space to accommodate a loading area. The disabled parking space must be located in close proximity to the transit center with safe, accessible access to the station.

The location of the park-n-Ride and its access points are designed to provide safe convenient access while minimizing disturbance to local traffic. Park and ride access occurs on arterials where feasible. Direct park-n-Ride access to I-70 is generally precluded by federal interstate standards. Arterials that access I-70 at interchanges could provide access to park-n-Ride



facilities with I-70 connectivity. The details of traffic signalization, number of access points, and other traffic flow elements depend on the station site and local development requirements.

Local zoning code usually state design requirements for parking lots. At a minimum, the park-n-Ride should be configured and designed to reduce the overall mass and visual dominance of paved areas. To accomplish this, the following basic guidelines should be incorporated. The parking aisles should not exceed 20 contiguous parking spaces in length. To help break up the visual impact of the pavement and improve the aesthetic environment, a landscaped island should be provided between approximately every 20 parking bays. This landscaped island should be sized appropriately to accommodate a tree and low-level vegetation. In cases where land is at a premium, the islands could also be used as water quality facilities to minimize the impact of a large detention pond. Landscaping would require a maintenance program. When laying out the park-n-Ride, walking distance must be kept in mind. According to the Washington Metro Area Transit Authority, the maximum walking distance that a transit patron would be willing to walk from a parked car to the bus loading area is 1,500 feet.⁴

The park-n-Ride must incorporate walkways as an integral design component to safely move pedestrians in this auto-dominated environment. To promote a safe pedestrian environment, parking should be perpendicular to the station access. This provides a clear, visible zone for pedestrians to walk. Pedestrian walkways should be clearly marked. When possible, pedestrian sidewalks are separated from vehicular traffic with a curb and a landscape buffer and walkways should be a minimum of 5 feet wide.



Example Pedestrian Connection Through a Park-n-Ride

Park and rides should be equipped with directional signage, site lighting, and trees. Appropriate lighting levels with consistent coverage should be provided in parking areas to provide a safe environment. The height and intensity of light standards should be sensitive to adjacent land uses.

The park-n-Rides are expected to have utilization restrictions associated with them. Some restrictions to consider would be:

- Would parking be free or is there a cost associated with parking?
- Would there be time limits or restrictions?
- Would passengers be allowed to park overnight?
- Would there be any assigned parking spaces?
- Would there be a vehicle size restriction (campers and recreation vehicles)?

Restrictions at a park-n-Ride would be determined by the operating transit agency and the local municipality. Restrictions require personnel to enforce the restrictions. For example, if there is a fee for parking, either a parking attendant or a ticket machine would be required. Enforcement at the park-n-Ride is also necessary to create a safe environment for patrons. If the park-n-Ride

⁴[http://www.wmata.com/metrotransit/bike_workshop/Safety_and_Access.pdf]

is located in close proximity to residential housing, a permit parking program could be considered for the surrounding neighborhoods. This would discourage patrons from parking on local streets instead of at the park-n-Ride.

5.2.5 Bicycle Parking

To promote a multimodal transit facility, convenient and secure bicycle parking needs to be provided. The parking for bicycles is generally sized to be approximately 2% of the parking area. If there is no vehicle parking, enough bicycle parking spaces must be provided to meet the municipal standards. Approximately 18 square feet for each bicycle storage unit is assumed. This takes into account the average space requirement for a rack and a locker. Bicycle parking could come in a variety of forms. Bicycle parking could be open air bike racks, enclosed lockers, a secured covered storage system, or a bike station. A bike station consists of bicycle parking, bicycle rentals, transit and route information, changing rooms, and a bicycle repair shop. Each community evaluates their storage needs to determine which storage element or combination of elements should be used. Bicycle parking is located in close proximity to the platform and clearly visible from the approach. It is visible, accessible, easy to use, convenient, and plentiful. It needs to be well lit, and in plain view without being in the way of pedestrians or motor vehicles. In addition, AGS vehicles, local buses, and shuttles must also be designed to accommodate bicycle storage.



Bicyclists Exiting a Train



Open air bike rack



Enclosed bike locker



Bike station

Example Bicycle Parking Facilities



5.2.6 Ticketing

There are two options for ticketing. One is to have a ticket vending machine where patrons purchase a ticket and then enter the train. On the train, a security guard randomly checks for tickets. The other option is to pay a ticket attendant and then submit the ticket for access through a turnstile. Ticketing is centrally located in a convenient place that serves the pedestrian, bicyclist, transit commuter, park-n-Ride patron, and kiss-n-Ride patron. The location must make it as easy as possible for an AGS patron to purchase a ticket and access the AGS vehicle. When using a ticket vending machine, multiple options should be evaluated. A ticket vending machine could be provided at the park-n-Ride and the platform. Both ticketing options have space requirements that will need to be taken into consideration when designing the platform and station. The need for security check of passengers should be evaluated. If a security check is recommended, then the ticketing turnstile entrance might be an ideal location for this to occur.



Ticket vending machine



Ticket attendant



Ticket turnstile entrance

Example Ticketing Facilities

5.2.7 Baggage

The AGS stations on the I-70 corridor must have a baggage handling system that can handle the variety of needs of the different travelers. There are day trippers who transport recreational equipment and/or minimal luggage, and longer-term travelers who have recreational equipment and/or baggage. Recreational equipment could be anything from skis, bicycles, and golf clubs to kayaks. Therefore, the space set aside for baggage needs to be large enough to accommodate these large, bulky items.

The baggage system could be handled in a number of different ways. Transit patrons could be responsible for their own luggage, taking their luggage on and off the AGS vehicle. The luggage could either be loaded into their compartment, or it could be loaded on to a separate compartment of the train designated for bags. Another option would be to have a baggage check system where the bags are checked and then a baggage handler loads and unloads the baggage on the AGS vehicle. At the end of the trip, the luggage could be delivered to a specific location on the platform, inside the train station, or to a carousel system. There could also be a baggage check system, where the baggage is checked in and then delivered directly to a traveler's destination. The need for a security check of baggage must also be evaluated.



Patrons responsible for their own baggage



Baggage unloaded from transit vehicle and stored at one spot



Baggage check-in



Patrons self-loading a baggage compartment



Carts for patrons to move baggage



Baggage carousel

Example Baggage Handling Facilities

5.2.8 Train Depot

The amenities at each station can vary greatly depending on the individual needs of each station. A train depot could enhance a station and provide convenient amenities to the AGS patrons. A train depot offers an indoor atmosphere protected from the outdoor elements to wait for the AGS, local bus or shuttle; purchase tickets; and obtain information. In addition, a train depot could offer luxuries, such as retail shopping and restaurants. The following services could be provided at a train depot:

- Ticketing for AGS service.
- Ticketing for ski resorts and other local activities.
- Information (hotel, ski resorts, activities).
- Shuttle information.
- Bus information.
- Restrooms/showers/baby changing area.



Bern Train Station, Switzerland
(acts as an activity center)



- Lockers (as stated in the baggage section, the AGS patrons are going to be traveling for a variety of reasons; it would be beneficial to have plenty of lockers for day and overnight use).
- Restaurants.
- Retail.
- Currency exchange.
- Post office.
- Internet access.

5.2.9 Stormwater

As a result of building a new station, new hardscape surfaces would be added to the site, requiring additional stormwater detention. Stormwater detention could be handled with detention ponds or tied into an existing municipal drainage system if the system has enough capacity to accommodate the additional flows. If stormwater detention is to be handled with a detention pond, the space requirement assumed for the detention pond is approximately 10% of all new hardscape surfaces. Other options include infiltration and rainwater capture and reuse.

5.2.10 Utilities

Water, electricity, telecommunication lines, and sanitary sewer utilities are required to service the different elements that comprise a station. Water is required for fire protection services, cleaning, restrooms and irrigation. Electricity is required to power lights, potential baggage services, potential ticket vending machines, elevators or escalators, and a variable message system. Telecommunication lines are necessary for elements like emergency phones, security cameras, and variable message signs. Sanitary sewer service is required to service the restrooms.



6.0 Transit-Supportive Development and Land Use Planning

Throughout the study, the consultant team worked closely with the County Working Groups to inform and gather input about transit-supportive development and land use planning for a future high-speed advanced AGS along the I-70 corridor. This effort consisted of hosting a Transit Friendly Planning and Development Forum, developing best practices, integrating land use and transit through county action plans, and developing a toolbox of land use planning tools to assist communities become transit ready.

6.1 Transit Friendly Planning and Development Forum

The Transit Friendly Planning and Development Forum was held on June 12, 2008, at the Copper Mountain Resort Conference Center, and attended by 120 county, municipal, and citizen representatives (see Figure 7 for a copy of the announcement and agenda). The purpose of the forum was to discuss current TOD ideas and explore the possibilities for future implementation.

Speakers at the forum were Allan Zreet (Jacobs), a national TOD specialist who shared national trends; John Durham (Norris Design), a local land use planner who discussed local mountain development trends and issues; Jennifer Merer (Jacobs), a transit station development specialist who discussed station functions and characteristics; and Arleen Taniwaki (Arland Land Use Economics), a land use economic planner who shared information on how market forces shape TOD. The presenters covered a portfolio of best practices for land use development and rural and mountain TOD and transit station typologies.

The opportunities, constraints, characteristics, and best practices were shared with the attendees. In breakout sessions, forum leaders explored I-70 opportunities, participated in charettes for particular locations along the I-70 corridor, and discussed integration with their communities. Discussion included community values, potential station locations and types; site development or redevelopment opportunities and product mix; walkability; access; parking; and bus, pedestrian, and vehicle interfaces. Input from attendees and breakout session results have been incorporated into the various aspects of this study.



Presentation by Panel Experts at the Forum



Attendee Presenting Breakout Session Results



Figure 7: Transit Forum Announcement and Agenda



Transit Friendly Planning and Development Forum

Copper Mountain Resort, Copper Conference Center

JUNE 12, 2008

PURPOSE:

The Transit Friendly Planning and Development Workshop is intended to serve as an introduction to the benefits, opportunities, components and basic elements involved with Transit-related planning and development. It will include a look at how rural and resort communities may adapt planning and development strategies to meet their individual and unique community needs. This workshop should be of interest to community leaders, planning, engineering and administrative staff, business leaders and anyone with a strong interest in the potential benefits of transit and land use planning for transit.

WHO SHOULD ATTEND:

Elected Officials, Local Agency staff, and interested community members.

TO REGISTER:

- » \$25.00 Registration (through 6/6/08)
- » \$35.00 Late Registration (after 6/6/08)

Make checks payable and mail to:

I-70 Coalition
P.O. Box 4528
Dillon, CO 80435

Sorry, credit cards are not accepted.

agenda	
8:15 - 9:00	Coffee and Registration [FOYER]
9:00 - 9:45	<i>Transit Friendly Development Principles and Practices</i> [BIG HORN ROOM] Key Note Speaker Allen Zreet, National TOD expert, Jacobs Carter Burgess
9:45 - 10:15	<i>Mountain Corridor Character and Development Practices</i> John Durham, Principal, Norris Design
10:15 - 10:30	Break
10:30 - 11:30	County Group Breakout Session #1
11:30 - 12:30	Lunch [JACK'S ROOM]
12:30 - 1:15	County Group Reporting Back Session
1:30 - 2:30	<i>Speaker Panel: "Shaping Station Planning and Development"</i> <ul style="list-style-type: none"> • <i>Land Use and Station Integration</i> Jennifer Merer, Allen Zreet, Jacobs Carter Burgess • <i>Function and Characteristics of Transit Stations</i> Jennifer Merer, Jacobs Carter Burgess • <i>Market Forces in Station Planning</i> Arleen Taniwaki, Arland Land Use and Economics
2:15 - 2:30	Break
2:30 - 2:45	Preference Survey
2:45 - 3:45	County Group Breakout Session #2
3:45 - 4:00	Closing Remarks – Next Steps
4:00 +	After Forum – Informal Q & A





6.2 Best Practices

The I-70 Coalition is in a unique position to develop a vision for AGS stations on the I-70 corridor, based on land use opportunities and community vision. Nationwide, the move towards transit friendly planning is occurring because of a desire for increased transit ridership, economic revitalization, limited sprawl, and a more sustainable community with less reliance on the automobile. A well-planned community with an integrated transit station can generate investment in new businesses and revitalize existing businesses. When introducing transit to a community, it is important to capitalize on land uses to take advantage of transit.

This section highlights the standard characteristics and opportunities associated with development around transit stations, or TOD, and summarizes several nationwide best practices. However, the I-70 Coalition recognize that today's standard TOD characteristics are drawn from urban or metro settings, and typically reflect urban development patterns supported by a significant population base. This review of best practices is intended to provoke thought about the commonalities applicable to development in this unique mountain corridor setting. It is not anticipated that national urban TOD models will be consistent with the I-70 corridor because of the difference in density, targeted market for ridership, and development constraints found in mountain communities.

6.2.1 Development at Transit Stations

The American Public Transportation Authority's Transit Resource Guide states that "TOD is compact mixed-use development, located within an easy walk of a transit stop, generally with a mix of residential, employment and shopping opportunities designed for pedestrians without excluding the auto."⁵

Development that is focused around a transit station provides an opportunity to live, work, and play within close proximity. Transit development is not appropriate for every station. It is important that the development around a station is viable without transit. When development is viable, development focused around a station has the potential to generate investment, attract new businesses, maintain affordability, and maintain the region's quality of life.



Example TOD at Addison Circle, Texas

⁵ The American Public Transportation Authority's (APTA) Transit Resource Guide

Standard Characteristics

The typical characteristics of development around a transit station include (drawn from numerous urban examples):

- Moderate to high density.
- Mix of land uses.
- Destinations within an easy walk.
- Pedestrian oriented.
- New construction or redevelopment.
- Quality infrastructure.
 - Signature streets (streetscapes)
 - Plazas/public spaces
 - Gateway
 - Open space/trails
- Spatial Organization.
 - Urban form
 - Street grid
 - Pedestrian linkages
 - Public spaces
 - Plazas
 - Open Space
 - Art
- Maximizes access to local public transportation.



Example Activity Center at Power Plant TOD, Baltimore



Example of TOD Spatial Organization

Benefits

When development is focused around a transit station, there are many benefits to the people who live and work within this area. The transit development often includes a higher level of amenities than a typical development. A high quality of life is created with the combination of signature streets, design elements, public plazas, parks, and a quality pedestrian experience. By creating a walkable community centered on a high-quality train system, it is possible to live a higher quality of life with more opportunity to walk and less stress.

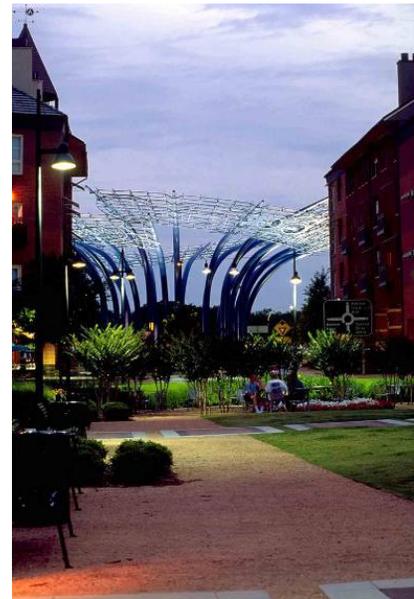
Concentrating development around a transit station minimizes sprawl and increases mobility by providing an alternative to the car. A draft of a new federal study for the Transit Cooperative Research Program evaluated 17 TOD sites to measure the connection between TOD and trip generation and found an average of 44% fewer daily vehicle trips than estimated by the Institute for Transportation Engineers (ITE) Trip Generation Manual.⁶

⁶ Draft Transit Cooperative Research Program Project H-27A.

Studies have shown that there are increased property values around transit stations. “Properties within a 5 or 10 minute walk of a transit station are valued at 20-25% higher than comparable properties further away.”⁷ People are willing to pay higher property values to avoid traffic congestion and to live a higher quality life. “Evidence to date shows that real estate development near transit stops enjoys land-value premiums and generally out-performs competitive markets. This generally holds for residential housing (especially condominiums and rental units) as well as office, retail, and other commercial facilities.”⁸

Transit-supportive development patterns allow for:

- A focused development.
- Improved mobility.
- Congestion mitigation.
- Increased revenue.
- Increased opportunities for economic development.
- Diversity of economic base.



Example Public Space at Mockingbird Station TOD, Texas

6.2.2 Development at Transit Stations in Mountain Communities

Each development around a station is unique and needs to respond to its unique environment. Development at a transit station on the I-70 corridor will look different than what has been described in the case studies. The communities on the I-70 corridor are not large urban centers and do not rely on increased density to support transit as much as urban areas, but instead will mostly rely on tourism and employment.

Some of the proposed stations are anticipated to be located at or near an existing activity center, such as a ski resort or downtown area. This provides a different source for ridership than a typical dense residential development. Each community should understand what type of rider they are serving. What type of rider is riding the transit system and what type of rider is stopping in the community? Is the community serving:



Typical Mountain Character

⁷ Cervero, Robert et al. *Transit-Oriented Development in the United States: Experiences, Challenges, and Prospects*, Report 102, Transit Cooperative Research Program, 2004; Litman, Todd, *Comprehensive Evaluation of Rail Transit Benefits*, Victoria Transport Policy Institute, June 2006.

⁸ Transit-oriented Development in the United States: Experiences, Challenges, And Prospects By Robert Cervero, United States Federal Transit Administration, Transit Cooperative Research Program, National Research Council (U.S.). Transportation Research Board, Transit Development Corporation Published by Transportation Research Board, 2004.

- Front Range day trips (primarily weekend trips)?
- Destination tourism – Denver International Airport to resorts?
- Workforce commuters?
- Reverse commuters – commuter trips into the Front Range?

Once there is an understanding of the ridership market, then the development can be designed to serve the needs of the community and the transit riders.

In cases where there is an existing activity center, infill development should be evaluated to enhance the activity center. While communities may not want to increase density within their community, they should focus development at stations to maximize the potential to create a 24-hour active environment. Transit can provide a new framework for development, less focused upon auto use. By creating a walkable community centered on a high-quality train system, an enhanced experience is created that limits the need for the automobile.

Benefits

Development focused around a transit station provides numerous benefits to the people who live in the communities and for the tourists who are visiting. For communities that rely heavily on tourism, development oriented around transit can improve the tourist's mobility, allowing a customer to access their destination without a car. Having a transit station adjacent to a destination and then focusing development around the station creates one compact destination for tourists. This allows for:

- A focused development.
- Improved tourist mobility allowing customers to access activity centers and retail.
- Congestion mitigation.
- Workforce mobility.
- Increased revenue to the community.
- Increased opportunities for economic development.
- Diversity of economic base.



Typical European Mountain Transit Station



Vail Village Mountain Character



Reducing Congestion on I-70 Would be a Benefit



Challenges

There are challenges that the communities along the I-70 corridor may face when setting the stage for development oriented around transit in the mountains. Some of the challenges include:

- Protecting view corridors.
- Existing land use patterns may not be transit friendly.
- Zoning may not support mixed-use development.
- Whether codes address form-based zoning (a method of regulating development to achieve a specific urban form).
- Maintaining community character.
- Impacting existing infrastructure.
- Providing adequate infrastructure to serve access needs.
- Obtaining funding for infrastructure and high quality public spaces.
- Availability of greenfield development (easier solution and has potential to move station site to the cheaper location).
- High cost for land and infill development.
- Community concerns over higher density.
- Matching market opportunities to community values.



Maintaining Community Character May be a Challenge

Transit will provide connectivity between the different communities on the I-70 corridor. This will not only link the communities along the I-70 corridor but will also link the land uses. It will be important for the communities to coordinate their planning efforts to make sure that their plans complement each other and the proposed land uses maximize opportunities for all communities along the I-70 corridor.



Potential Impacts

While development at a station would provide many benefits to a community, it could also create localized issues including:

- Gentrification.
- Change in the character of a neighborhood.
- Increased local traffic.
- Increased housing costs.
- Population influx of reverse commuters.

With proper planning these impacts can be mitigated or minimized.



6.3 Integrating Land Use and Transit

Impacts from Increased Local Traffic

The scale, mix, and pattern of today's land use developments are the base of tomorrow's ridership. Destination travelers to the I-70 corridor will look for supportive and mixed land use in proximity to station locations to enhance their experience and broaden their recreational, entertainment, or other experiences. Commuters or members of the workforce will seek residential development that eases access to regional transit and enables movement along the I-70 corridor between employment bases and residential areas. Each travel pattern unique to the I-70 corridor is built and sustained on the synergy between the area's land use and its transit service.

6.3.1 Land Use Review and Community Action Plans

As part of this study, the consultant team worked hand in hand with members of the County Working Groups to review and discuss the ways in which in each jurisdiction is addressing transit, multimodal transportation, and land use planning in its vision, guiding policies, and practices. The team conducted a high-level assessment of each jurisdiction's comprehensive plans, sub-area plans, zoning code, and other land development tools and practices. The outcome of this general review was very favorable; the majority of all communities along the I-70 corridor have recognized that future transportation systems should be inclusive of transit options, that transit and bike/pedestrian connectivity is essential, and that land use development practices can influence whether transit service is effective in reducing automobile trips. The majority of communities have developed these ideas in a community vision or comprehensive plan policies.

Currently, the I-70 corridor communities are years away from an AGS system implementation; therefore, local planning efforts should focus on high-level and long-range actions that establish the groundwork for later, more detailed site-specific plans. Jurisdictions can conduct visioning sessions; comprehensive plan updates; specialty plans, such as bike or pedestrian plans; and identifying considerations of land availability or resources that may affect the community's ability to support station development. As AGS planning moves forward and station locations are evaluated through an environmental review process, local communities can begin the station sub-area planning process and necessary land assemblage to support future implementation. Once planning efforts are complete, jurisdictions will turn their attention toward implementation



techniques specific to the site, including potential redevelopment efforts, tax increment financing, developer incentives, etc. The identification of the implementation tools needed for success will depend upon the land use plans unique to the station site and, in the case of the mountain communities, may include resort operations, retail-commercial mix, or public space or civic monument uses.

The consultant team also identified an outline of planning steps for each jurisdiction to consider as it moves forward in implementation of these concepts, and in accommodation of future AGS stations or transit centers within its community. The planning process should, of course, be tailored individually to each agency; and the timing of actions may occur sooner or later than shown based on the development practices, land availability, infrastructure needs, etc., of each community. Each action plan also asks whether there are steps that can be addressed or re-visited at this point in the process in order for the community to become more transit-ready.

The guidelines for land use planning in support of future transit development have been tied to near term, mid-term, and long-range time frames. The following actions typically set the stage for a station or supporting transit center in each community:

Near Term Planning- Today's Actions

- Continue to coordinate with ongoing I-70 corridor studies.
- Develop a vision for transit in your community through a broad-based community visioning process.
- Strengthen the policy language in the comprehensive/master plans to signify a strong direction for transit and integrated land use.
- Develop policies that identify how to realize the vision and goals for transit including;
 - Location.
 - Supporting land use type.
 - Density.
 - Sustainable growth patterns.
 - Community character.
 - Multi modal connectivity.
- Evaluate whether current zoning practices or planned unit development (PUD) allowances ensure desired development patterns, mixed-use, higher density or greater walkability.
- Continue specialty planning efforts such as bicycle/pedestrian master plans, transit service plans, design guidelines, etc.
- Evaluate existing and future needs for a local transit system.

**Mid Term – Three to Ten Years Prior to AGS**

- Confirm station site and begin/continue local land assemblage.
- Develop a station area sub-plan that includes:
 - Land use mix and density recommendations based on a market analysis.
 - Design guidelines.
 - Zoning tools and recommendations.
 - Infrastructure evaluation and recommendations.
 - Parking strategies.
 - Pedestrian and bicycle connectivity.
 - Transportation demand management (TDM) strategies.
 - Implementation strategies.
- Evaluate infrastructure availability and set a plan to deal with these limitations. This could include improving the infrastructure or limiting development.
- Identify funding mechanisms.
- Engage a developer, if appropriate, for implementation of the land use vision.
- Continue planning, funding and implementation of local transit system if needed.
- Continue coordination with the AGS or corridor transit planning team.

Long Term – One to Three Years Prior to AGS

- Coordinate and implement infrastructure improvements related to the site if not already underway.
- Continue coordination with developer on site development.
- Implement transit system connections to tie into AGS.

6.3.2 Jefferson County

Jefferson County has adopted a number of long-range and community plans that recognize a growing need for increased transit services and the integration of land use practices to support transit demand. The Jefferson County communities of Lookout Mountain, Genesee and Evergreen host a population over 30,000, but are characterized as low-density residential areas. Jefferson County has addressed this land use pattern in several of its existing planning documents by identifying key areas for concentrated development.

The Evergreen Area Community Plan states policies in support of increased residential density in accordance with mountain design guidelines and concentrated development, although these recognized densities are not typical of those found in highly transit supportive developments. The Evergreen Area Community Plan identifies El Rancho (a tier 2 station) as a designated activity center that is an area of high intensity land uses such as high density residential, commercial, mountain light industrial, and community uses. Today, planning and development efforts in El Rancho follow this direction, particularly between the El Rancho exit and the Bergen Park area. Implementation of these policies has been accomplished through use of a PUD



process. Jefferson County zoning code does not currently address specific mixed-use or high density residential zoning categories for the mountain communities.

Jefferson County is in the process of updating its Comprehensive Master Plan into one overarching document that provides a broader vision for overall County policies. This County led planning process is separate from local planning efforts by the City of Golden. In this process the County should undertake a community visioning effort that would allow input to the existing sub-area master plans as part of the Comprehensive Master Plan. The County planners acknowledge that their existing planning documents provide very general guidance on mixed land use development supportive of transit service, but do not state clearly policy language, goals and objectives that specify the parameters of that development including the densities, development patterns or mix of uses that intentionally support future transit options. Connectivity between land uses and the integration of those uses with transit opportunities should also be explored. As the County goes through their Comprehensive Master Plan update and eventually their sub-area master plans update for the mountain communities, stronger efforts should be made to capture language suitable to the community and permissive of land use and mobility patterns move conducive to generating transit ridership.

While the identification of rail through Genesee and Lookout Mountain makes sense at this time, ultimately the County will need to look at implications to the El Rancho area, especially if it becomes a transit stop. If El Rancho becomes a future transit connection for the mountain communities, update of the Evergreen Area Community Plan should also better specify the mix of land uses for that area in the future and the discussion of appropriate densities that might support a more walkable community with greater pedestrian connections between those uses. Policies related to walkability, while not appropriate for all county areas, would be very applicable to continued development at El Rancho. In fact, as station locations are approved for the AGS system, the County may want to consider a specific zoning overlay or form-based code that encourages the mix and density of uses appropriate at an El Rancho station.

The County has an important role in the proposed station preferred by the County and of interest to Golden, located at the I-70 and 6th Avenue intersection area, with discussions and evaluation of planning, layout, and activities. This location would be close to the West Corridor RTD Light Rail Line and have implications to the Jefferson County Government Center. The County sees a mutually beneficial opportunity to work collaboratively with Golden on future land planning for the area. The County respects the focus and direction that the City of Golden has; recognizing that it is a separate community who may not have the same views as those of the County.

City of Golden

The City of Golden's Comprehensive Plan calls for a stronger emphasis on mixed use development in areas of redevelopment, especially at the I-70 and 6th Avenue gateway area. This area is also slated for increased high density residential use to be incorporated into a regional employment center. The Annexation Plan promotes infill development and mixed-use density at the I-70 and Hwy 40 interchange. Currently the City of Golden manages land use development and planning approvals through the PUD process. They do not utilize any special zoning districts or zoning overlays at this time to achieve particular development designs.

The City of Golden has worked to re-establish its historic downtown district and maintain a western historic character while allowing for new development. Golden's Urban Renewal



Authority has implemented a redevelopment zone and higher density, mixed use residential development that has become part of the downtown fabric over the last five years. This change in the mix and density of uses has resulted in greater walkability in the downtown area, a higher concentration of residents and an identifiable destination for transit use in and out of the area.

Golden's recent update of its Bike Master Plan identifies key bicycle connections within the community. Planning and infrastructure improvements over the last ten years are a solid base from which to promote future transit connections.

The City of Golden will be launching a Vision 2030 community visioning effort in 2009. This visioning effort should serve as a jumping off point for future comprehensive plan policy amendments and future site specific planning efforts that integrate land use and transit services. Golden should look to incorporate a specific vision for transit and identify key corridors or connections where transit or multi-modal connections are part of the overall community mobility vision.

The City's gateway area at I-70 and 6th Avenue should be examined for application of more specific land use tools that shape specific mix and density of uses. The location of this gateway area between the future light rail station at the Jefferson County Government Center and potential Golden AGS station at the adjacent commercial area make this a key location for transit supportive development. Golden should analyze transit-oriented development (TOD) zone districts and form-based code possibilities that would implement the specific vision of the community for future redevelopment of the site to a more transit supportive land use pattern.

Local Transit Assessment

Jefferson County is in the RTD service area. Along the I-70 corridor in Jefferson County, RTD operates regional, express, and local fixed route bus service, as well as specialized services such as SeniorRide, Call-n-Ride, Access-a-Ride, and Ride Arrangers VanPool. Park-n-ride lots for commuter express bus service into downtown Denver are located at Bergen Park, Genesee Park and Lookout Mountain. The future West Corridor light rail line will connect the end of the line station at the Jefferson County Government Center to downtown Denver in 2012, bringing a very strong transit presence to the County and surrounding communities.

Jefferson County's Transportation Plan and the Evergreen Area Community Plan all identify policies in support of increased transit opportunities with an emphasis on service out of El Rancho. In fact, the Evergreen Area Community Plan specifies that public transit service should be expanded, additional Park-n-rides added, commuter rapid transit created when demand exists, and feeder bus routes to service those stations developed. These planning documents also call for a stronger emphasis on a coordinated multi-modal transportation system that incorporates the use of bicycle, pedestrian and equestrian facilities to reduce dependence on the automobile. Ultimately Jefferson County will need to examine the implications of expanded transit service and station operations out of El Rancho if that location is later confirmed through the Colorado Department of Transportation (CDOT), the I-70 Coalition, or a separate transit agency.

The City of Golden's Comprehensive Plan encourages land use development within walking distance of transit stops, and emphasizes continued improvement to the regional transit system in the area. Similar policies emphasizing a balanced transportation system consisting of



vehicular circulation, transit and bike/pedestrian connections can be found in specialty planning efforts including the Annexation Plan and the Bicycle Master Plan. The City has also kicked off the Golden Transit Circulator Feasibility Study which will examine local transit demand and routing to connect the community with RTD's light rail service to Golden. The combination of these sub-area planning efforts for Golden is the groundwork for developing a sustainable land use and transit supportive planning effort.

It is the interest of Jefferson County and Golden to work collaboratively on future transit services and related land use development patterns. However, each jurisdiction represents its own community and wishes to respect the focus and direction of that community on how future AGS might impact its community. These talks should continue between the two jurisdictions as transit planning efforts move forward. Jefferson County and Golden will also want to continue to work with RTD in the development of future transit services that provide local connections to any future high speed rail station.

6.3.3 Clear Creek County

Clear Creek County consists of a broad range of communities located along the I-70 corridor between Jefferson County and Summit County. Many of these communities are historic mining communities. An economic shift is occurring in Clear Creek County; mineral production is decreasing, causing a shift in the tax base. The County is currently taking steps to become more economically diversified. The Clear Creek County Master Plan sets goals to achieve economic diversity, environmental sustainability, desired development and housing patterns, a regional open space facility, multimodal transportation system, preservation, and a desired character.

The Clear Creek County Master Plan encourages development in unincorporated areas of Clear Creek County. Mixed use development is recommended at Floyd Hill, Dumont/Lawson/Downieville, and at Empire Junction (the I-70/US 40 interchange). Currently the master planning process at Floyd Hill calls for mixed use development and higher densities. Clear Creek County has limited infrastructure in unincorporated areas. All developments need to be mindful of infrastructure availability; water, sewer, and transportation infrastructure that would accommodate additional development or density. Development at Dumont/Lawson/Downieville and Floyd Hill requires additional infrastructure to support proposed growth. Clear Creek County has access to a water bank but this bank has constraints associated with it of where it can be used. Water rights are a concern for Clear Creek County. There is the question of how much increased density can be supported by groundwater service while still providing adequate service to the existing residents.

The zoning code has a Planned Development (PD) in place which allows for flexibility in development and is a comprehensive approach to allowing for a mix of uses. The PD zoning utilizes a more comprehensive list of criteria so it could take longer than the typical zoning process. Open space buffers are encouraged to provide a separation between the communities.

Clear Creek County's Master Plan has goals to achieve economic diversity, environmental sustainability, desired development and housing patterns, a regional open space facility, multimodal transportation system, preservation and a desired character. This is a great start in preparing for the AGS. The next steps will be to add language that directly addresses the AGS and how Clear Creek County will integrate with the system. Clear Creek County needs to continue to evaluate infrastructure needs in coordination with desired development. There is a



strong understanding that the current infrastructure has limits. Clear Creek County needs to evaluate if their PD zoning is sufficient to guide future mixed use development.

City of Idaho Springs

Idaho Springs is a town rich in history. The City developed during the gold rush and has continued to thrive as a tourist town and a service industry center serving Denver, the gaming towns and the mountain communities. Idaho Springs is now “a vibrant community with a thriving downtown, steady population and growing economy.” It has a historic downtown with a good walkable retail environment and serves as the local service center for the County.

Growth in Idaho Springs has included infill around service areas, property annexation and supporting changes in the east end business district through redevelopment of commercial properties and the conversion of residential areas. Idaho Springs has sufficient amounts of water and sewer utilities to accommodate future development in the City.

Idaho Springs zoning code has a PUD process in place which allows for flexibility in development. The PUD provides flexibility in land use type, setbacks, minimum lot area and maximum floor area ratio. Historic preservation is a key issue for future development. Future development must be designed to correspond with the historic context. Idaho Springs utilizes zoning and a 1041 process to regulate development and infrastructure improvements to maintain the character of Idaho Springs.

Idaho Springs is very interested in having a station in their community and has begun the process of identifying potential sites to accommodate a station. There are several potential sites that are single property owners with 10-60 acres that provide connectivity to the community.

As a result of this study, the City of Idaho Springs has begun conversations to discuss where a station could be located in their community. The City should continue these conversations and work to develop a vision for a station that integrates with the community of Idaho Springs, that is economically viable, that retains the town’s unique historic character and that jointly serves residents and visitors. For Idaho Springs, context and setting will be critical elements of a site location.

The City of Idaho Spring should also address the future role of transit and a station within their community through a local visioning process and the identification and adoption of updated Comprehensive Plan goals and policies that clearly support transit and land use integration within the community. A visioning effort would set the stage for local buy-in on future transit and transportation mixes. Stronger goals and policies should be set to determine the type, mix and density of development the town would like to see associated with a station and how this development fits within the historic fabric. It should be clearly stated how the station and future land use would blend with the historic fabric. Multi-modal goals should be established that provide direction in creating a walkable station that connects the Idaho Springs downtown and the surrounding community.

After identification and adoption of Goals and Policies, Idaho Springs should evaluate whether their PUD zoning is sufficient to guide future development and station integration in the manner desired. Idaho Springs may want to consider design guidelines that direct the look and feel of



development, or a specific zoning district surrounding a future station location that would regulate the mix of uses, heights and densities to support transit and yet retain community character.

Town of Georgetown

The Town of Georgetown is a part of the Georgetown/Silver Plume National Historic Landmark District located on the I-70 corridor. Georgetown's economy relies on tourism, mining, and local government. Clear Creek County government offices are located in Georgetown. Georgetown is considered a territorial town which provides Georgetown land use and planning authority by both its town charter and the state statute. This provides Georgetown with a different set of rules for land use, trails, open space, parks, and transportation planning.

Georgetown's Comprehensive Plan 2000 anticipates an AGS and encourages cooperation with the I-70 Coalition. The comprehensive plan goes so far as to recommend that adequate land is reserved for a station and if a station is not located in Georgetown then land should be reserved to support a transit center and shuttle system to ensure the necessary connections to an AGS station elsewhere.

Georgetown has begun to address specific land use designations that typically support concentrated development or transit-supportive development patterns. Georgetown utilizes a mixed use, Downtown Commercial, and Gateway Commercial land use designation. These particular zoning designations help ensure the type, design, and mix of uses desired in particular locations within the community. New development areas in Georgetown are encouraged to be developed to existing town densities and to reflect Georgetown's historic, compact, and small town character. There is still land available for development within the community.

The sidewalk system is outdated and needs to be updated. Georgetown's Comprehensive Plan 2000 and the Gateway Commercial Design Guidelines set a goal to improve the pedestrian system and provide multi modal solutions. New projects are to be designed to encourage pedestrian activity and create an attractive street edge.

Infrastructure improvements also need to occur. The sewer system needs to be upgraded and there is inadequate wastewater treatment to support significant future development. The community is aware of these concerns with regard to future opportunities.

Georgetown is off to a good start in preparing for the AGS with its specific comprehensive plan references to land preservation for station or transit services. As plans for the AGS evolve, the next steps will be to solidify a community vision for transit - what is the role of transit in Georgetown's future? The town should then look to strengthen the language in the comprehensive plan to define goals and policies that move forward that transit service and clarify the types and mix of land uses that the community could accommodate in support of transit. In the case of Georgetown, both the visioning and comprehensive plan policy amendments should look to address how future development and historic preservation and be achieved.

Georgetown's comprehensive plan has goals to improve the pedestrian system and provide multi modal solutions. In addition to requiring new developments to implement pedestrian



improvements, the town should consider grant funding opportunities in order to implement pedestrian improvements on existing properties. Creating a multi modal network through the Town of Georgetown will help to improve mobility in Georgetown and set the stage for future access to bus transit and/or station sites.

Town of Empire

The Town of Empire is located on US 40 north of I-70 and is a bedroom community with a population of 400 people. Approximately eighty percent of the land surrounding the Town is owned by various government agencies and as a result wildlife is abundant. Much of the land surrounding Empire is considered undevelopable because it is owned by government agencies or is too steep for development, creating limited housing opportunities. The Town of Empire would like to preserve its open space, wildlife habitats, and scenic views and maintain its small town atmosphere.

The Town of Empire is historically a mining community. In addition to mining there is retail trade, recreation and tourism. As of the year 2000, there were 15 businesses in the town of Empire. These businesses primarily consist of restaurants, hotels, gas stations, and convenience/liquor stores. US 40 bisects the town, providing a vehicular connection to Winter Park and Rocky Mountain National Park. Empire would like to continue to capitalize on the tourist volume that travels on US 40. With the close proximity to the ski resorts, future growth is projected to continue.

The Town of Empire's Comprehensive/Master Plan sets a goal to develop a current land use map for both the town and the urban boundary area to identify suitable areas for development. Incorporated in the master plan is an extraterritorial land use plan that guides decision making process within the Three-Five Mile planning area, annexations, and defines urban boundary district.

There is a lack of pedestrian walkways in Empire. The Comprehensive/Master Plan identifies a goal to provide efficient circulation of people, goods, and services in the planning area. The plan recommends initiating a task force to coordinate and enhance Empire's pedestrian and motorized environment. All new development is required to be Americans with Disabilities Act accessible.

The Town has a Planned Development (PD) District. The PD allows for mixed land uses, variations in development densities, and variety in the type, design, and layout of buildings in a manner not allowed under traditional zoning. The PD District provides a means for clustering development and allowing for the preservation of open space, more effective land utilization, and for more cost-effective and efficient extensions of infrastructure. The Town of Empire has sufficient water and has an adequate wastewater treatment facility.

The Town of Empire Comprehensive/Master Plan recommends coordination with CDOT and supporting regional alternative modes of transportation, but does not address an AGS in their community. Through the County Working Group meetings, Empire has expressed an interest in housing an AGS maintenance facility or freight operation.

The Empire Comprehensive/Master Plan sets goals to preserve open space, wildlife habitats, and scenic views and to maintain its small town atmosphere. Empire should update the plan to



anticipate and plan for AGS in Clear Creek County. The community should undergo a visioning effort and determine goals that address desired land use type and density, and transportation integration. An effort should be made to capture language suitable to the community and permissive of development patterns that are conducive to transit services. The Comprehensive/Master Plan sets a goal to enhance the pedestrian environment. The town should take the next steps and develop a pedestrian and bicycle master plan which defines necessary connections. Through this study it has been discussed that Empire would potentially like to house the maintenance operation for the AGS. Empire needs to evaluate this in further detail and address this in the Comprehensive/Master Plan. The Comprehensive/Master Plan should address how a maintenance facility will tie into and serve the Empire community.

Local Transit Assessment

The communities in Clear Creek County have limited transit service that consists of shuttles and buses for targeted needs. Planning documents for Clear Creek, Idaho Springs, Georgetown and the Town of Empire recognize a need for a transit system. The Clear Creek Master Plan encourages a commercial public transit system and a multi-modal transportation system. The Idaho Springs 2008 Comprehensive Plan provides recommendations to work with regional partners and CDOT to establish effective public transportation alternatives in the I-70 corridor. The Town of Empire has a policy to support regional alternative modes of transportation. Georgetown's Comprehensive Plan suggests a shuttle service to reduce congestion downtown.

The communities in Clear Creek need to evaluate whether a local transit service is viable in their community and whether it would enhance travel for their residents and visitors. Clear Creek County should establish a county-wide task force which includes the communities to evaluate the existing and future needs for an internal transit system. If a local transit service is determined to be viable, the Clear Creek communities need to do a study to determine the extent and routing of the service and need to work together to form or engage a transit agency. The continuation of the Clear Creek County Working Group may be an appropriate forum in which to continue these planning efforts.

6.3.4 Summit County

From 1990 to 2000 the population of Summit County nearly doubled, growing from approximately 13,000 to 24,000 residents, an increase of about 83%. During this period, Summit County was one of the fastest growing counties in the state, growing three times as fast as the state average and eight times faster than the national average. By 2007, the Summit County population had reached a high over 28,000 residents. The rate and magnitude of growth and the supply of resources to support that growth are primary concerns of Summit County.

Summit County and the unincorporated county areas along I-70 such as Copper Mountain are well positioned for transit and transit supportive development. In its 2003 Comprehensive Plan, Summit County addresses the desire to promote mass transit programs and facilitate development that more readily accommodates pedestrian and bike use. The County recognizes, through policy, the need for a multi-modal transportation network that connects residences to commercial and employment, recreation and schools. Summit County continues to work with CDOT and other entities to develop long-term solutions to I-70 related traffic.



The County's comprehensive plan calls for no more residential density than is allowed for today, noting that the county is nearly 70% built-out for residential use and 60% built-out in commercial use. Mixed use residential-commercial densities are promoted in "new urban" development to create a diversity of housing types and sizes, other than low density housing. The County has also addressed the need for Transferable Development Rights to redistribute density and increase intensity of uses in sustainable areas. This management of land use development and distribution includes the institution of a "buffer" or urban growth boundary in the Snake River Master Plan.

Summit County's PUD process is currently used to address desired land use patterns or development. The Copper Mountain PUD has been a two-year process and identifies the need for mass transit, bike facilities and higher density land use concentrated around the town center.

Summit County has done a good job addressing the comprehensive plan goals and policies in support of transit, multi-modalism and transit supportive development. They continue to address growth and development demands in the area through a number of land use tools. Summit County should continue to implement, wherever possible, the policies toward transit and mixed-use development. However, Summit County has noted that it is critical that the station and alignment work move forward so that station locations can be solidified and station area planning initiated. With a better handle on station location, Summit County can focus on plans and implementation tools that will integrate the transit function with the local community land use pattern and land use mix.

Town of Silverthorne

Silverthorne's Comprehensive Plan has been updated to strengthen policies regarding transit and land use, among other things. However, Silverthorne has recognized the need for a circulation system of roadways, mass transit, pedestrian, and bicycle ways. The interchange of I-70 and Hwy 9 is a Gateway District allowing 70-foot heights, hotels, gas, and retail and higher density development. Silverthorne would like to create a "place" in this location that encourages visitors to stay, not just access I-70 services. Redevelopment opportunities are typically high with redevelopment occurring every 10 to 15 years. Silverthorne can envision a future AGS station as part of a future redevelopment phase in this area.

The Gateway District (I-70 on SH 9 and west to Wilderness Road) includes a mix of lodging and commercial uses. Reduced parking and increased building heights are also in the Town Core District. District design standards guide general form and relationship of buildings within the districts. Silverthorne recognizes that the quality, look, and character of development are important to the community, as well as the environmental integrity of the area. While some of the development within Silverthorne falls under existing zoning, typically Silverthorne manages the mix of uses, parking, heights, and design integration through the PUD process, allowing the greatest flexibility in managing the development.

Silverthorne's Gateway and Town Core Districts pose good opportunities for future higher density, mixed use developments around an AGS station. The integration of station development and Gateway redevelopment will require evaluation of preferred land use mix, type, density and design that is consistent with community character, but that supports a high travel demand to the area via AGS. The Town will want to take a comprehensive look at station



area planning elements and the accommodation of bus transit or shuttle services and potentially even light freight operations out of this area.

Silverthorne should evaluate whether their PUD zoning is sufficient to guide future development and station integration in the manner desired. It may be that the level and design of development may be best addressed through form-based code or a transit supportive zoning code for areas directly around the station, once location is confirmed. The majority of Silverthorne's work may come with the final confirmation of station location and the beginning of the station area planning process.

Town of Dillon

In 2007, the population of Dillon was 820 full-time residents; although this number typically swells to 5000 or more visitors in a given day. Much of the land use planning efforts in Dillon are designed to promote infill development and redevelopment within the town core, creating an identifiable community that can more easily accommodate local and visitor use. Dillon's Comprehensive Plan calls for the development of identifiable gateways to the town center that include distinct landscape design and coordinated transit facilities. All modes of transit, including bikes and pedestrians, should create connections with the town center. Mixed-use retail, commercial and office development, as well as residential uses are encouraged in the core area.

The Town of Dillon is currently working to support an urban renewal district in the downtown area that will encourage greater mixed-use infill. The Town is also currently addressing changes to the subdivision regulations.

The Town of Dillon is working to boost its town center, concentrate uses and encourage a mix of uses that would likely support greater transit service to the area. There are several other action items that Dillon can pursue to support its downtown efforts and ensure greater future transit connections.

The town should consider strengthening its comprehensive plan goals to better specify how and why transit within the community means greater mobility to and from Dillon. These policies should specifically recognize the land use mix, building design and density, as well as pedestrian facilities that create a more walkable environment. Dillon could consider a small-scale bike and pedestrian plan that identifies key routes and connections within and outside of town that would ensure pedestrian, bike, and transit connectivity. These connections should be noted, facilities identified and funding opportunities for implementation examined so that the ground work that links Dillon to a future AGS is in place.

Dillon should also consider whether the PUD zoning process will enable them to achieve the mix and density of uses desired under the redevelopment effort or whether a form-based code or overlay district will better ensure the type, look and feel of future development. Whichever the zoning method, it should also include the development of pedestrian and bicycle facilities that will ensure walkability within town, and key connections to future transit.

Dillon should also continue to participate in transit planning efforts in the County. As downtown Dillon redevelops, the demand for more direct transit service from downtown to the resorts may increase, especially if greater visitor facilities and/or affordable housing increase in the town



center. Dillon should work toward better “complete streets” elements that accommodate transit stations, bus stops and bike facilities more easily. Improved street facilities, changing land use patterns and supporting regulations and greater walkability will generate greater transit demand and transit access for downtown Dillon in the future.

Town of Frisco

Frisco’s Comprehensive Plan identifies transit and land use patterns that are supportive of transit in general. The plan promotes transportation and transit planning for transit, commuter connections and roadway improvements to Highway 9 and I-70. Policies include providing an efficient multi-modal transportation system that encourages alternatives modes. The comprehensive plan also calls for compact land uses and urban form along Main Street and the utilization of land efficiently by encouraging mixed use buildings and projects that combine residential and non-residential uses, all policies supportive of future transit use.

The Town of Frisco typically relies on its existing underlying zoning and revises that zoning as developments come in. Applications for zoning changes can take 4 months to 1 year. Frisco does not typically use a PUD process, although an overlay district or other method may be employed for larger developments. The town’s zoning districts include mixed use, central core, Main Street overlay, and the Summit Boulevard Corridor overlay.

Frisco appears to be well-positioned for transit and future transit-supportive development with the existing development patterns along the Main Street area, and the opportunities for redevelopment and re-zoning in the commercial area near I-70 and Wal-Mart. Frisco may want to continue to examine local goals and policies that support transit use throughout the community, identify pedestrian and bike connections and create opportunities for a greater transit ridership base.

Once station locations are confirmed, Frisco may want to evaluate the development and adoption of a transit supportive zoning district for areas around a future station. Since Frisco typically amends the zoning by development, it may make sense to be prepared for the use of a zoning district that specifically calls out transit supportive development patterns, vertical zoning or density allowances that enable transit supportive land use, but within a small geographic land area. The ability to zone for appropriate use and density, combined with community interests and context, may be part of the evaluation process for a Frisco station location.

Town of Breckenridge

The Town of Breckenridge has identified and adopted an extensive number of transit use and transit supportive land use patterns in its Development Code, Comprehensive Plan, Land use Guidelines and Vision Plan. The policies and practices identified in these documents strongly support the implementation of non-auto transit systems in town, coordination between town and ski area transit system operations, a wide-range of transit solutions to traffic congestion, the discouragement of land development that interferes with non-auto oriented transportation and the linking of pedestrian systems with activity areas. Breckenridge has identified specific goals and actions within these documents to ensure the implementation of these land use and transit system desires.

The Town and Breckenridge Ski Area have recently generated a land development plan for the 20 acres of surface parking surrounding the new gondola base and transit station. The plan



meets the definition of transit-oriented development. It features a multimodal transit station, structured parking for 1200 vehicles, 180 units of residential development, and is located adjacent to the Main Street business district for convenient pedestrian access. Terminating a rail spur there that connects with an AGS in Frisco, would be a near model configuration for other mountain TOD plans to emulate.

According to Breckenridge, an important issue for the town is the availability and preservation of land within the community for transit or AGS facilities. Large new developments go through a master planning process, and master plans can incorporate form-based code, be more flexible, and supersede the underlying zoning. These large developments need to be worked into the existing fabric and with appropriate scale and pedestrian connections that support a non-auto oriented pattern.

Breckenridge has initiated a Transfer of Density code in conjunction with comprehensive plan policies that support the transfer of development rights from low-density areas to other areas more suited for development within town.

Breckenridge is well-positioned for transit use and transit supportive development patterns when station locations are confirmed. Breckenridge should stay actively engaged in the AGS planning process through the I-70 Coalition and be cognizant of station location and alignment decisions forthcoming. As stations are confirmed, and if a station or key transit center expands in Breckenridge, the town should initiate a station area planning process to address dimensional and design requirements of development, as well as connectivity to surrounding uses and ski amenities.

Town of Leadville (not in Summit County, but addressed herein because of close connection to Copper Mountain)

The Leadville Comprehensive Plan (2003) calls for the town to explore locations for developing a “park-n-ride” or regional transit center, and identifies several locations for this activity. The plan provides detail about the current rail operations and facilities in the area for consideration in long-range AGS planning. (The Union Pacific Railroad recently abandoned a rail spur within the Leadville City limits, yet retained the segment between Leadville and Malta, 5 miles south. Malta is on the mainline which extends north over Tennessee Pass and south through the Arkansas River valley to Pueblo).

The Comprehensive Plan identifies several multi-modal connections within town including, the Mineral Belt Trail, a 12 mile regional trail, a link to the Colorado Mountain College and a vision for the Heart of the Rockies Trail along the Tennessee Pass line if abandoned. The plan also addresses a mixed- use development category specific to the core commercial area and transitional mixed use areas adjacent to the core. These areas are distinct from highway commercial uses but landscaping and sign control are meant to unify all uses with a consistent community character.

Leadville is located within proximity of many resort employment areas and should continue its efforts to offer more affordable housing options for numerous employees. Coordination with ECO Transit should continue and should focus on expanded revenue service in and out of Leadville. The Town may want to consider a community visioning effort to better identify the role of local and regional transit for Leadville in the future. The transit and land use vision could



be supplemented by stronger comprehensive plan policies for residential and retail uses. The community may want to consider the mix of residential options available and how their form and function integrate with transit service, bike trails and pedestrian facilities connected to key town destinations such as schools and the community centers. If transit services into and out of the community are essential to support a residential population, then that vision and the policies and actions to drive that should be further explored and defined in more detail.

Local Transit Assessment

Local transit service in Summit County is provided by the Summit Stage program. Additionally, the Town of Breckenridge provides local service in Breckenridge with the Free Ride program.

Summit Stage's mission is to promote and provide quality transportation to residents and visitors of Summit County. The system provides free scheduled, fixed-route buses and advance reservation para-transit service. Buses are equipped with bike racks between May 1st and October 31st. Local bus service is provided along the US 6 corridor to Dillon, Summit Cove, and the Keystone Ski Area, parallel to I-70 in the Dillon Valley, along the SH 9 corridor to Silverthorne, Frisco, and Breckenridge, and to the Copper Mountain Ski Area. Bus transit centers are located in Silverthorne, Frisco, and Breckenridge. The bus routes generally wind around within the communities, stopping at shopping, business, and residential locations.

Summit Stage offers bus service seven days a week, every day of the year. Buses typically depart the Silverthorne, Frisco, and Breckenridge transit centers at least once an hour, from about 6:00 am until 1:30 am the next day. Buses generally serve stops every half hour from 6:00 am to 6:00 pm and every hour after that until 1:30 am.

The Town of Breckenridge operates a free fixed route bus service. There are eight routes that serve the Breckenridge Ski Area, downtown, and north and south Breckenridge. The Free Ride system also connects to the Summit Stage system for travel elsewhere in the County. Busses generally operate between 6:30 am and midnight, seven days a week. Buses generally serve stops every 30 minutes with 15 minutes service on some routes during peak morning and afternoon hours.

The primary consideration for Summit Stage, Breckenridge Free Ride and other area transit resort operators is the future accommodation of a much larger regional transit system by advance planning and coordination. The existing transit systems are already successful, but will have to transition with the introduction of a regional AGS system from Denver. The regional AGS system will place a larger number of people and their luggage into the towns and resorts and will require expanded transportation distribution services. In comparison to the number of local riders, people taking a regional transit system from Denver would overwhelm the capacity of the local systems. Therefore, as decisions about a regional transit system are made, local transit providers should begin considering:

- Addressing new system users and overall vision of the local system.
- Evaluating if fleet type adequate for new users.
- Considering other types of services such as dedicated shuttles to town centers and resorts.
- Determining how to handle baggage/recreation equipment.



- Coordinating service levels and schedules to pivot from the regional system.
- Considering the need for a Regional Transit Authority (RTA).
- Considering opportunities to make transit facilities more visible and appealing to increase use.
- Addressing the need for increased funding and new funding sources.

6.3.5 Eagle County

Eagle County consists of a number of mountain communities situated linearly along I-70 corridor west of Vail. The County is home to both resort-oriented communities in the eastern portion of the County, and local resident-based communities in the western half of the county. This development pattern has resulted in a strong east-west commuter travel demand within the County. The County continues to experience overall growth in retail, commercial, and light industrial uses, as well as growing residential uses particularly in areas between Gypsum and Eagle.

Eagle County includes the unincorporated areas of Edwards and Wolcott. The Eagle County Comprehensive Plan policies support higher density development that reduces traffic, increases options for mass transit and reduces reliance on personal vehicles. Specifically, a county-wide commuter rail system should remain an important priority, along with pedestrian, bicycle, and multi-modal transportation. All modes of transportation should be connected to the Eagle County Airport to allow full multi-modal access to the County. The County anticipates significant residential and mixed-use growth to continue along the I-70 corridor, meaning likely growth pressure on Wolcott. Edwards has been designated the future educational center for Eagle County which will also bring a mix of development and travel demand. Eagle County policies recognize that fixed-guideway options in line with denser population centers and reduced dependence on auto travel are preferred. County staff recognizes that workers in the County will continue to commute east to the ski resorts for employment in the future.

Eagle County relies primarily on a PUD process for the implementation of mixed-use development. The County has not adopted a transit-oriented or mixed-use zone category, or overlay zoning districts with specific density or building characteristics supportive of transit. However, the County's PUD process states the need to establish land use patterns that promote and expand opportunities for public transportation and for efficient, compact networks of streets and utilities that lower development costs. Additionally, the County does not have a growth boundary and has not implemented transfer of development rights (TDR) program or other restrictive development practices.

The County and communities of Edwards and Wolcott have identified some very clear comprehensive plan policies in support of transit options and land use development patterns that support transit. The County's mix of residential and commercial/retail/light industrial uses and desire for compact development patterns will someday mean a good balance and density of uses supportive of local transit centers and connections to a primary AGS station. Eagle County should continue its efforts to explore a TDR program in order to manage future growth and create the pattern for localized development, density and connectivity to transit.

To address any issues with public support or political will, the County and its communities could revisit a local visioning effort for transit use in conjunction with the Intermountain (rail)



Connection. This visioning process may help politicians and local residents better understand the synergies between land use development patterns, proximity of residential uses and transit connectivity. Revisiting this process may also help explain desires to focus development away from rural areas and toward the towns. A TDR program, developer tax incentives, streamlined development processes and other financial incentives may help drive the desired development patterns toward more defined urban areas.

Right now, the PUD process seems to be able to guide development and maintain flexibility. However, if development pressures increase and plans for transit are confirmed, then Eagle County may want to consider stronger or more specific land use zoning tools such as transit-oriented zoning overlays, or form-based code options to address specific development sites in proximity to transit centers. Often particular development specifications such as height, bulk, scale, amenities and mix composition can ensure better “walkability” between land uses and transit services that are not otherwise evident.

Town of Vail

Vail has some of the greatest densities and mix of residential, retail and visitor-oriented uses in Eagle County. Current Planning Policies and Zoning Regulations in Vail support further densification, a viable mix of land uses and an overall multi-modal transportation approach. Plans and policies are based on the concept of walkable villages with critical transit services linking all parts of the village. Because Vail is a major destination, there are currently two large parking garages that are also fed by transit services that link travelers to town destinations and ski hill amenities. Vail’s Strategic Action Plan calls for ongoing partnership with the I-70 Coalition and ECO Transit to promote and leverage mass transit projects.

The Vail Village Master Plan calls for expansion of the ski area and town, along with interconnecting transit located at the periphery of the village in order to minimize vehicular traffic demand within Vail. Vail Transit Center is designated the primary transit pick up point and location for expanded parking facilities. Current development within the Village and redevelopment of Lionshead Village is occurring under the Special Development District code that allows for a lot of flexibility in design application but maintains control over land use type and mix. Vail also uses a vertical zoning code for new development that preserves ground level uses for sales tax generating businesses and moves office or residential uses to higher floors.

Residential land uses in Vail should be located within a 5 minute walk of transit in urban areas, 10 minute walk from transit in medium density areas and 15 in low density areas. Densities in the Land Use Plan range from 18-20 du/ac for multi-family developments and up to 50 du/ac for hotels and lodging within the mixed-use core area.

Vail has experienced a tremendous level of growth and construction and appears to be driving a land use pattern that is highly supportive of transit use not just in terms of ridership, but in terms of proximity of land uses to the station and between the station and the ski hill. The increasing densities and emerging mix of uses within the Vail Village, Lionshead and surrounding area should strongly support transit use within Vail. A future AGS station will help to link local transit connections being established now with greater regional connections, thereby reducing dependence on automobile access to Vail. Vail’s SDD code seems to adequately address the mix, density and use types desired and it would seem that specific transit supportive zoning codes or overlays would be unnecessary for station expansion in the future. Vail should



continue coordination with surrounding transit providers such as ECO Transit and Summit Stage to work toward better connections for residents and employees from neighboring more-affordable communities.

Town of Avon

The Town of Avon has experienced significant growth that has included infill development, higher densities, redevelopment, revitalization of the village core and greater pedestrian connections among developed uses. The Avon Comprehensive Plan and West Town Center plan identify the Town Center as the town's major transit destination located along the existing rail corridor and adjacent to the new gondola that provides access from town to the ski village. Transit connections within town and to the Beaver Creek Ski village are important elements of the overall vision. Higher densities and a mix of uses, including the West Riverfront Center, are key parts of an integrated transit and land use plan for the Town Center area.

Avon has concentrated on transportation improvements that enhance these land use plans. Roundabout improvements and the realignment of Benchmark Road to wrap around the west side of the library, town hall and recreation center combine to make access to Town Center easier. The east side of Benchmark Road is being straightened to give a better sense of direction within town. The Transit Center expansion is designed to accommodate a greater number of buses during peak times and position the area for future rail passenger service along the railroad right of way. Avon has taken steps to identify policies and implementation plans that direct land use densities in locations that interface easily with transit improvements and bike/pedestrian facilities.

Avon should continue its efforts to strengthen its Town Center both in terms of land use development and transit and pedestrian connectivity. Continued coordination with ECO Transit, the Eagle County Transportation Collaborative and the I-70 Coalition will be important to better define Avon's role in the future transit plans in the region and eventual implementation of AGS service. If Avon continues with its current planning efforts, it should be well positioned to accommodate regional and local transit options in the future.

Town of Eagle

The Eagle Area Community Plan is currently being updated in the Eagle Area Plan. Plan policies are being strengthened in the update process, but retain similar themes. The Plan emphasizes the consensus for multi-modal improvements to the regional transportation system. The integrated system consists of four parts: a roadway network, a transit system and a pedestrian and bicycle system. The Town recognizes through its Plan policies that a well-defined, efficient and compact development pattern surrounded by open space will enhance the local identity. The Eagle Plan calls for a mix of uses, including affordable housing and a wide range of housing unit types, should be developed in town with minimal sprawl. Eagle has identified an Urban Growth Boundary in keeping with goals to manage growth and maintain a separation between Eagle and Gypsum. The Town has also developed a Central Business District where mixed-use and slightly higher densities are promoted, although height and scale remain a local community character concern. Eagle has invested in the development of design guidelines and developer incentives for the main street through town in an effort to shape future development, use and style in keeping with community context and desired land use patterns. Eagle is taking many steps to move the town toward mixed-use and compact development patterns which will be supportive of future transit services both locally and regionally.



The Town of Eagle has expressed interest in a primary or secondary AGS station, or a Transit Center that collects riders locally for transport to an AGS station. Eagle should continue to actively participate in local and regional transit planning efforts in order to best position itself for future service options. Eagle should also continue to examine its local land use policies and practices through the Eagle Area Plan update. The Plan update should adequately address local vision and policies that drive integrated land use and transit. The Town can then evaluate whether the zoning or regulatory tools in place are sufficient to implement the concepts or ideas generated through the update. Is the PUD process flexible and sufficient, or would specific zoning overlays or code changes best secure the mix and development patterns envisioned by the community and most supportive of future transit use? If the number or the scale of development in the future does not warrant zoning code changes, Eagle may want to consider financial tools or developer incentives that shape the scale, design and land use types to be found adjacent to future transit centers.

Town of Gypsum

The Town of Gypsum is an existing and potentially significant multi-modal transit hub in the region. The Eagle County Regional Airport is located on the east side within Gypsum's municipal boundaries. To date Gypsum has seen growth in retail, commercial, light industrial and residential uses for a diverse group of housing needs. The Town of Gypsum addressed some key policies in its Foundation Plan of 1999 and has updated the specifics of those concepts in its more recent 3 Mile Plan and Eagle River Area Plan. The town's Foundation Plan encourages transit system development in the Eagle River corridor and the preservation of a location for a transit station adjacent to the airport. The 2007 3 Mile Plan expands upon this goal and calls for consideration of a fixed guideway scenario, as being studied by CDOT, in local transportation and master planning efforts in the community. Corridor preservation and land uses that accommodate transit stations are specifically mentioned in the Plan. The Plan also recognizes the future impact that changes in technology and transportation could have on growth in the area.

The Foundation Plan specifies high density residential uses only near the town core, but the Eagle River Plan for 2008 encourages the development of high density residential pockets along both sides of Highway 6 adjacent to existing and planned commercial and focused on creating affordable housing options. The Eagle River Plan acknowledges a broader need for higher density, as well as the need to address the growing affordable housing issues in the County. The Eagle River Plan retains the need for low to very low residential uses to separate the Town of Eagle from Gypsum. Current zoning code restricts residential density to 15 du/ac of net developable land in PUD zones.

The Town of Gypsum is currently addressing the changing land use face of the area through its 3 Mile Plan and Eagle River Plan. It has expanded upon and strengthened its previous guiding principles found in the Foundation Plan and is taking the appropriate steps to clarify the local desires for office, commercial and retail uses, as well as residential type and development patterns. Gypsum should stay connected to local and regional transit planning efforts, especially through the Eagle County Transportation Collaborative and the I-70 Coalition. By staying abreast of both bus transit and fixed guideway or AGS options, Gypsum can stay in tune with land availability, land or corridor preservation and eventual station area planning in and around the airport area.



Local Transit Assessment

Regional transit service in Eagle County is primarily through the ECO Transit service. ECO Transit provides multi-modal public transportation service throughout the County and south to Leadville into Lake County. The service area primarily covers the east-west US 6 and I-70 corridor that includes Gypsum, Eagle Airport, town of Eagle, Edwards, Avon, Beaver Creek, Eagle-Vail, and Vail. The system also provides service north-south along the US 24 corridor that includes commuter connections to Minturn and Leadville.

ECO Transit has expanded service throughout the County area over the past years and will likely continue to do so in the future. They are currently examining options for connections to RFTA service and Summit Stage that would enable passengers to travel greater regional distances and employees to commute to farther locations. ECO Transit connections will be essential to future AGS service. Local transit services will remain critical to ridership generation and employment commuter patterns prevalent in the Eagle County area. Future transit goals are outlined in the County's 2030 Transit Vision.

ECO Transit has a fleet of approximately 34 busses and provided 179 bus trips per day during the 2007-2008 winter season. The transit agency provides bus service nearly 24-hours per day, every day of the year. Regular routes such as Highway 6, Vail-Dotsero, and Minturn cost \$3.00 per ride and seasonal premium routes such as Leadville and Vail-Beaver Creek cost \$5.00 per ride.

The Town of Vail provides free local service in Vail Valley through Vail Transit. There are four bus routes that depart every hour from the Vail Transportation Center near Vail Village. The system serves East Vail, Vail Golf Course, Vail Village and Ski Area, and West Vail. Vail's local service could eventually become a feeder and distribution system for riders on AGS service. Vail will want to continue to consider an adequate location with capacity for a primary AGS station and supporting transit center.

As decisions about a regional transit system are made, local transit providers should begin considering the following ideas as applicable to each local system:

- Addressing new system users and overall vision of the local system.
- Evaluating if fleet type adequate for new users.
- Considering other types of services such as dedicated shuttles to town centers and resorts.
- Determining how to handle baggage/recreation equipment.
- Coordinating service levels and schedules to pivot from the regional system.
- Considering the need for a regional TMO to advertise and facilitate system use.
- Considering opportunities to make transit facilities more visible and appealing to increase use.
- Addressing the need for increased funding and new funding sources.



6.3.6 Garfield County

Garfield County has experienced growth pressures in housing, commercial and light industrial uses in recent years related to the expansion of the gas industry in communities west of Glenwood Springs, along the I-70 corridor. Employee commuter patterns related to the industry tend to be east-west along the corridor with a greater housing stock appearing in the areas of New Castle, Rifle and Silt. Additionally, the lack of affordable housing in Aspen continues to drive demand for housing options north toward Glenwood Springs and beyond.

Transit services provided through RFTA have become an important part of moving this workforce, both east-west along the I-70 corridor, and north-south along US 82. In its Comprehensive Plan, the County recognizes the importance of a multi-modal transportation system and ensures that any development within the urban sphere of influence shall evaluate the feasibility of integrating alternative modes of transportation, specifically mass transit. The Plan's policies recommend the expansion of bus service through Glenwood Springs and the evaluation of rail and bus through the area.

The Comprehensive Plan supports integrated bikeways, pedestrian circulation patterns and transit amenities into development design. It also calls for the use of Transfer of Development Rights (TDR) to allow density bonuses for development of more compact developments that are sensitive to environmental constraints and the retention of open space.

The County manages the majority of transit-oriented developer requirements through its 2008 updated Unified Land Use Resolution PUD. The Land Use Resolution requires specific actions and design elements associated with any development that is proposed within 2000 feet of a planned transit facility, and correspondingly identifies that development as a Transit PUD or TPUD. The Resolution calls for pedestrian and bike ways throughout each development to ensure greater connectivity between land uses.

The specifics of Garfield County's recent Land Use Resolution are detailed and drive exactly to the types of land uses, mix of uses and developer requirements necessary to ensure a development pattern that can support greater transit use. The County has recognized the significance of integrating transit use and land use policies in its Comprehensive Plan, but has now taken a step further toward defining the regulatory tools to implement these policies. Garfield County should continue to examine the potential for land use patterns that not only support transit use and environmental protection within this growth area, but incorporate design elements that support community character and context.

Glenwood Springs

Glenwood Springs has also experienced growth, some new commercial development west of town in West Glenwood and infill development within the older sections of town. In the 2003 Confluence Plan, Glenwood Springs identifies the Confluence Area of downtown as a mixed-use business park with a transit station/stop. The Confluence is the primary redevelopment area for downtown and will be connected to surrounding uses by the extension and realignment of 8th Street and the development of the river trail system adjacent to the site.

The City's Comprehensive Plan calls for a multi-modal transportation system and encourages TOD at its four urban transportation nodes; West Glenwood at Mel Ray and Highway 6, Downtown at the Confluence, along 27th Street and near the Roaring Fork River Bridge. The



Plan recommends the use of zoning “bonuses” in development patterns in these urban areas and encourages transit supportive development patterns.

Glenwood Springs’s 82 Corridor Plan recognizes the need to preserve the Rio Grande Rail corridor from 8th Street in Glenwood near City Hall south to Woody Creek in Pitkin County for future transit/rail use. This transportation plan complements the City’s Comprehensive Policies and Confluence Plan.

Throughout the County group discussions, the Glenwood Springs Confluence area at 8th Street was identified as the number one priority station location because of its potential for redevelopment, density, a compact mixed-use development pattern and integration with future bus and rail transit systems with RFTA. The downtown location will be a significant draw for out-of-town travelers to the Glenwood and Aspen areas, as well. Its proximity to downtown entertainment and shopping in Glenwood will ensure pedestrian activity within town. Glenwood Spring’s Confluence Plan addresses many of the goals, objectives and implementation strategies of the stated redevelopment. As land use plans move forward, the City may want to embark on a station area planning exercise to examine the ways in which future land use development will integrate and coexist with transit services and required facilities at the site. Glenwood planning staff may also wish to examine the zoning or regulatory strategy for implementing the desired development pattern at this location. Will a PUD process be sufficient to manage the development densities and integrated transit facilities or should a specific zone, overlay or form-based approach be developed for this important site? Developer incentives and parameters for parking should also be considered as station development is examined.

Town of Carbondale

The Town of Carbondale has devised a Mission Statement that includes the desire to protect the natural environment through the development of mass transit in the Roaring Fork Valley. Carbondale continues to position itself to support existing and future mass transit options through its Comprehensive Plan policies, as well as its zoning ordinance and Infill Guidelines. The Community has recognized a combined interest in environmental sensitivity and preservation combined with land use and multi-modal transportation options as a way of retaining its community integrity. Carbondale’s Zoning Ordinance calls for a 100’ right-of-way for open space and transit use through town and along the Rio Grande Rail Line. Bike and pedestrian connections are encouraged in the open space/transit or O/T District.

The Carbondale Comprehensive Plan includes recommendations for infill development as part of a broad strategy intended to minimize sprawl in and around town, protect the environment and preserve the local small town character of Carbondale. Infill was identified as development of vacant parcels within built-out areas, or the redevelopment of existing developed parcels with greater density. Carbondale undertook a density debate within the community when updating its Comprehensive Plan. The concept of increased density was rejected by the Carbondale community because of concerns over impacts to existing neighborhoods. Carbondale continues to look for ways to increase connectivity between downtown and local neighborhoods.

The Town of Carbondale should continue to examine downtown land use policies and practices, particularly in areas adjacent to the Carbondale park-n-ride or other areas suitable to station locations. As BRT plans continue, and AGS station locations are confirmed, Carbondale may want to consider a station area planning process that integrates existing neighborhoods and



changing development around a station, as well as increased bike and pedestrian connectivity for users and residents.

Local Transit Assessment

RFTA participated in the Garfield County Working Group meetings and represented the interests of not only future transit, but also of Pitkin County in terms of transit service decision-making. Since Spring 2007, RFTA staff and the BRT project development team have been developing service and station plans for the advancement of a Phase 1 BRT Project, with full build out slotted for 2017. RFTA has worked extensively with the local jurisdictions in the planning and evaluation of station locations chosen for their proximity to major travel corridors (including future rail), proximity to central business districts and their potential for transit oriented development patterns. RFTA continues to move forward with its BRT system plans, as well as with partnering efforts with the I-70 Coalition to choose regional AGS station locations. RFTA agreed with the Garfield County working group in its preference for Glenwood Springs as a priority station with Carbondale as a secondary station if alignment considerations took AGS service further south along the 82 corridor. The Rio Grande Rail right-of-way owned by RFTA is being preserved for future transit and multi-modal facilities. The AGS station proposed at the “wye” or confluence area at 8th Street is a designated location also for a BRT station, making connections between the two services possible. If a regional AGS station were to be built in Carbondale, RFTA would prefer it be located at the Carbondale Park-n-Ride that is growing in popularity and is surrounded by incentivized TOD developments. The RFTA owned Rio Grande right-of-way/trail runs through this parcel.

Currently, RFTA provides commuter bus service from Aspen to Glenwood Springs, Glenwood to Rifle, intra city service in Aspen and Glenwood Springs, ski shuttle service to the four Aspen Ski Company ski areas, Maroon Bells guided bus tours, para-transit, and other seasonal services.

RFTA’s Grand Hogback route serves Rifle, Silt, New Castle, and south Glenwood Springs. Buses depart about every hour during the morning and afternoon peak travel times and once every three hours in the middle of the day. The Roaring Fork Valley route provides bus service to Aspen, Snowmass, Basalt, El Jebel, Carbondale, and Glenwood Springs. Buses on this route depart about every 30 minutes, with more frequent service in the mornings to Aspen and in the afternoons to Glenwood Springs.

RFTA also operates Ride Glenwood Springs, a free intra city service that has two fixed bus routes. One route serves south Glenwood Springs and the other serves West Glenwood and the downtown area. Buses depart about every 30 minutes for these routes. RFTA also operates free routes in Aspen to Hunter Creek, Cemetery Lane, Castle/Maroon, Mountain Valley Dial-a-Ride, and Burlingame. These routes begin at the Ruby Park Transportation Center and operate about every 30 minutes. Fares are on a sliding scale with the longest distance (Rifle to Aspen) costing \$9.00 and the shortest distance costing \$1.00. Intra city service in Aspen and Glenwood Springs is free.

RFTA and the Glenwood and Aspen area communities should continue coordination with the I-70 Coalition in its AGS planning efforts. The coordination of the two services, BRT and AGS, will be essential to the success of future transit options in the area, as well as to the development of supportive land use practices. RFTA, Garfield and Pitkin Counties are creating a strong backbone for transit services and future allowances for transit in the region.



6.4 Land Use Toolbox

This toolbox is designed to be a guide for the future integration of land use and transit planning activities for communities within the I-70 corridor. The toolbox includes community visioning, comprehensive planning, TOD policies and strategies, station area sub-plans, zoning strategies, and financial strategies

6.4.1 Community Visioning

Many communities today are undergoing a community visioning process that encourages strong local public participation in identifying community goals for their town, city, or county future. The process moves slowly to allow for open public participation, but remains very strategic in its efforts to identify local values and long-term, mid-term and short-range goals for the community. While visioning projects and programs differ substantially by community and jurisdiction, the focus and organization of the process in each community must be designed to match its character, interests, and opportunities for local involvement in decision-making.

A visioning process is an important step in developing public buy-in to a community planning process. It brings together all sectors of a community to identify problems, evaluate current and future conditions, and establish collective approaches to building a future. It is a good way for a community to discuss local mobility concerns, visions for future mobility patterns, and the role of transit in the long-range transportation network within their community. These ideas, visions, and values form the groundwork for future transportation plans within the community and for the eventual implementation of transportation improvements. The integration of transit into a future vision should be established through a community visioning process.

6.4.2 Comprehensive Planning

A comprehensive plan is a document produced through a planning process designed to establish guidelines for future growth and guidance for future land use decisions within a community. The document is official in nature, meaning that it is designed to be adopted into law by some form of local government. The document should then serve as a policy guide to decisions about community development. The elements of a comprehensive plan can vary from community to community, but typically include existing conditions and a discussion of future trends, goals, and objectives in the areas of land use patterns, housing types, population, roadways, and other infrastructure issues.

A comprehensive plan contains long-term goals, objectives, and policies that establish a community identity and a vision for the future regarding land use, transportation, housing, parks and open space, and much more. It is essential for the comprehensive plan to clearly state its goals and objectives. **Goals** are a broad set of statements that identify a community's long-term desires, whereas the **objectives** are specific statements that are measurable and can be accomplished in the short term. The **policies** are the statements that lay out the course of action that is needed to achieve the goals and objectives.

It is important to clearly and precisely lay out the direction of each goal; for example, communities that have potential for transit in the future should consider goals related to transportation and land use. Comprehensive plans can be used to guide how transit, transit facilities, and future development will be integrated into the community fabric. Communities that are considering updates to their comprehensive plans should create goals that support integrated transit and land use systems, and objectives that are specific steps towards transit



supportive growth. It is critical that local planners, politicians and the public identify the appropriate policies during their comprehensive plan updates and craft and enact language detailed enough to convey the desired result.

The following examples illustrate language for transportation goals and ways in which objectives and policies further that goal:

Transportation Goal: Develop a balanced, equitable, and efficient transportation system that provides a range of transportation choices; reinforces the livability of neighborhoods; supports a strong and diverse economy; reduces air, noise, and water pollution; and lessens reliance on the automobile while maintaining accessibility.

Objective: Publicize activities and the availability of resources and facilities that promote a multimodal transportation system.

Objective: Implement educational programs that recognize the need for developing and maintaining a multimodal transportation system that supports the movement of freight, as well as people.

Objective: Pursue opportunities to improve the transportation system, including grants, private/public partnerships, and other non-traditional funding mechanisms.

Objective: Coordinate the funding and development of transportation facilities with regional transportation and land use plans and with public and private investments.

Objective: Give consideration to Portland Metropolitan's Local Public Involvement Policy for Transportation Planning in transportation planning activities.

Policy: Coordinate with affected state and federal agencies, local governments, special districts, and providers of transportation services when planning for and funding transportation facilities and services.

Policy: Carry out a public involvement process that provides information about transportation issues, projects, and processes to citizens, businesses, and other stakeholders.

Portland, Oregon (Transportation Element Goal #6 Comp Plan – Transportation System Plan Adopted April 2007)

Transportation Goal: Carefully manage and guide growth in a manner that promotes economic development, integrates current and future multimodal transportation systems, and is sensitive to the natural environment.

Objective: Provide for the coexistence of urban and rural land uses.

Objective: Promote diverse employment opportunities near population base.



Policy: Encourage, coordinate, and support commercial and industrial land uses in appropriate areas to maximize adequate services including transportation, water, sewer, fire suppression, and utilities.

Policy: Encourage new developments to locate where amenities and infrastructure already exist, are planned, or will be provided.

Pinal County, Arizona (Comp Plan Draft – October 2008)

Transportation Goal: Ensure that transportation decisions, strategies, and investments are coordinated with land use goals that support the urban village strategy.

Policy: Design transportation infrastructure in urban villages to support land use goals for compact, accessible, walkable neighborhoods.

Policy: Make the design and scale of transportation facilities compatible with planned land uses and with consideration for the character anticipated by this Plan for the surrounding neighborhood.

(Seattle, Washington (Comp Plan Updated 2007))

6.4.3 Transit-Oriented Development Policies and Strategies

This section provides a greater number of policy examples for land use and transportation strategies that municipal and county governments are currently using. The example policies are intended to give the reader an understanding of the types of policies other jurisdictions have developed through their local planning processes for mixed-use development or enhanced mobility within a community.

Land Use Policies

Some examples of policies that support transit-oriented land uses are as follows:

- Review and modify the zoning code to allow higher densities and viable transit-oriented development at appropriate locations to foster increased transit ridership and reduce automobile trips. Provide appropriate land use and pedestrian routes for the areas near future rapid transit stations to better promote public transit usage and reduce the need for single occupancy vehicle travel. (Aurora 2003)
- Encourage more mixed-use (residential with commercial) along or near Main Street and Summit Boulevard. (Frisco 2004)
- Prepare language to create transit and pedestrian overlay districts in the zoning code. Recommendations to apply the city-wide overlays will come through small area plans or as the zoning code is revised. (Denver 2002)
- Evaluate the need for amendments to Zoning Regulations and master plans to incorporate TOD and more mixed-use. (Vail 2007)



- Continue to improve land use practice by concentrating jobs, housing and retail uses in close proximity allowing people the opportunity to reduce their travel distance between work, home, and shopping. (Aurora 2003)
- King County and local cities should adopt transit supportive road design standards, site access guidelines and land use regulations to promote transit use, high density development, mixed uses and reduced parking in the Urban Growth Area. Site design should stress connectivity with adjacent neighborhoods and other land uses via transit, pedestrian and other non-motorized facilities. (King County 2008)

Policies Directing Development Toward Transit

Some examples of policies that direct development toward transit systems are as follows:

- Encourage mixed, TOD that makes effective use of existing transportation infrastructure, supports transit stations, increases transit patronage, reduces impact on the environment, and encourages vibrant urban centers and neighborhoods. (Denver 2000)
- Support changes in the east end business district through redevelopment of commercial properties and the conversion of residential areas to commercial and mixed-use development as appropriate. (Idaho Springs 2008)
- Continue current efforts to study and design a mixed-use structured parking facility that is readily accessible from Hwy 9, offers commercial and retail space at street level to enhance the pedestrian experience and minimizes its visual impact on the downtown core. Ensure an efficient use of land by encouraging mixed-use projects that incorporate publicly accessible civic space that benefits local residents and visitors. New parking facilities and gondola terminals should be constructed as conduits to Main Street and should include pedestrian friendly elements that encourage residents and visitors to walk between transit centers and the downtown core. (Breckenridge 2002)
- Support infrastructure investments, zoning changes, development incentives, and other transit-supportive strategies to achieve a Transit-Oriented Development (TOD) in rail station areas and at other key transit locations. Develop small area bus circulators to provide non-auto access to transit stations. (Denver 2002)
- The City should encourage TOD at its urban transportation nodes. The City can encourage relatively dense, mixed-use, TOD at four nodes within the urban area: West Glenwood at Mel Ray and Hwy 6, Downtown, along 27th Street, and near the proposed southern Roaring Fork River bridge. (Glenwood 1998).
- Promote TOD as an urban design framework for urban centers and development areas. Development at transit stations should provide both higher ridership to the transit system and viability and walkability in the area. (Denver 2000)
- King County supports TOD in transit corridors. King County shall encourage public/private partnerships to propose opportunities for joint TOD that includes multifamily housing and promotes the pedestrian-friendly character of adjacent properties. Such developments should provide priority access for transit, pedestrians, bicycles, car and van pools and other alternatives to single-occupant vehicles. (King County 2008)



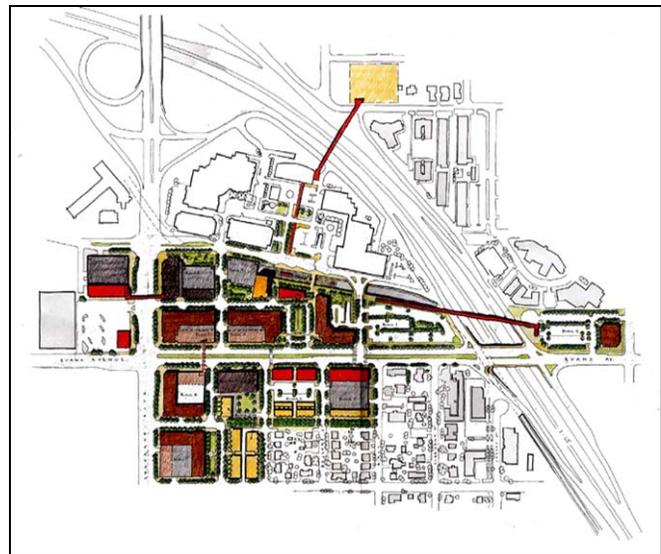
Mobility-Related Policies

Some examples of policies that support enhanced mobility and multimodalism as a key aspect of development around transit stations include:

- Transit centers and park-and-ride lots should include safe and convenient access for buses, high-occupancy vehicles, pedestrians and bicycles to minimize conflicts with other traffic. Mixed land uses should be encouraged at transit centers and park-and-ride lots to meet passenger and commuter needs and reduce vehicle trips. Park-and-ride facilities should be designed with consideration of the most efficient use of the land. (King County 2008)
- Provide safe and convenient pedestrian and bicycle facilities within urban centers and new development areas. (Denver 2000)
- Work with private developers to ensure all arterials in Vail have bikeways along them and that there are connections between them. (Vail 2007)
- The City should develop a set of rules defining “walkability” and apply them to all proposed centers, to verify that a mix of uses is accessible to within a 5 to 10 minute walking time. (Aurora 2003)
- Ensure that all pedestrians have a maximum of a quarter mile or less to walk from transit stops to major destinations. (Vail 2007)
- Prioritize investment in pedestrian infrastructure to support transit ridership for light rail and enhanced bus corridors and to improve safety. (Denver 2002)
- Ensure that transit and pedestrian connections are integrated in the design of development projects. (Vail 2007)

6.4.4 Station Area Sub-Plans

As the AGS planning process moves forward, communities will begin to examine the land use opportunities associated with this service. For each I-70 community this will mean something different. It may mean strengthening land use development patterns that increase residential connectivity to the local transit center. It may mean planning for a station location and integrating future land use development at that site. The principles described through the station area planning process will be an applicable framework for community planning whether the station is a bus transit center or a mainline AGS station. Recognizing the importance of supportive land use planning will help ridership at either type of station.



Example Colorado & I-25 Station Area Sub-Plan

The station area planning process should be conducted by the local jurisdiction in close coordination with the transit agency and its station planning process. While the transit authority



is responsible for the layout and design of the station platform and service operations, the local jurisdiction is assumed to take the lead on the land use planning effort surrounding the station. It is important that these planning efforts are closely coordinated since they can build off of each other.

In today's urban cities, the "TOD pattern" encourages a land use mix that allows people to live, work, and play without having to use their car. Its intent is to promote high-quality transit, bike, and pedestrian connections while encouraging a compact, higher density mixed-use development pattern. In the mountain and resort settings along the I-70 corridor, the development pattern at a station may be smaller in scale, have a lower density, promote recreational or entertainment opportunities, or may include park or civic uses that showcase the unique mountain character and natural setting. Achieving a balance between community context and economic viability of the development is the responsibility of the local jurisdiction to determine during the planning process. The development potential and land use configuration at every station is unique to each community and needs to be tailored to fit the needs and goals of the municipality, the residents, and the businesses in the area.

Typically, a station area plan focuses on a ½-mile radius around the station, which is considered a reasonable walking distance. The following planning elements are typically addressed in a station area sub-plan, although they may vary by location and the desires of the jurisdiction:

Public Involvement

Every station area planning effort should include an active and informative public involvement element from day one. Community input to the station site promotes buy-in and support that the station and surrounding uses are truly part of the community. In some areas this involvement effort has culminated in a public art project that is created by a local school or community center and integrated into the station area.

Land Use

Managing the appropriate mix of land uses and densities, with buy-in from the community, is the job of the local jurisdiction. Typically, transit-supportive uses are high pedestrian generators that directly promote greater transit ridership and opportunities for multipurpose trips. The local jurisdiction will need to work with a market strategist and the public so that the determination of land use mix and density is at a scale that economically works, represents the community, and encourages ridership to and from the location.

Transit-supportive uses may include higher-density residential, office, retail, storage, education, or civic spaces. In the case of I-70 communities, appropriate uses may also include support services for mountain recreation, such as sports equipment rentals, tours or guide services, and storage facilities for visitors. Whatever the use, the highest densities are ideally located closest to the station to optimize transit rider convenience. The intensity of development tapers off away from the station to create an appropriate transition to the surrounding community. Adjacent vacant lots or low-intensity uses can present opportunities for future infill development and should be part of the long-range elements of the station area planning exercise.



Urban Form-Design Guidelines

Urban design addresses the various ways that buildings and development interact with the public and the natural environment. Urban design should create a pedestrian-friendly environment that connects a mix of land use types to each other and to the local station. This design consideration should also be specific enough to reflect the style or character of the local setting. Often design guidelines are applied to the block around a station to require developers to integrate design treatments that create an interface with pedestrians, relate uses to each other and the station, and enhance a local character or style. Design guidelines may include specific direction on:

- Building placement and setbacks within the station core or surrounding sub-areas.
- Build-to lines.
- Building step-backs.
- Building entrance orientation and treatment.
- Parking lot locations, screening techniques, and site integration requirements.
- Landscape buffers between uses.
- Pedestrian-scale landscape amenities.

The architecture of the buildings should assist the intent of the design guidelines in creating pedestrian-friendly locations that complement the natural mountain landscape.

- The first floor façade should draw a strong pedestrian interaction.
- Building materials should accommodate winter conditions and represent community character, i.e. historic, modern, and rugged.
- Building heights and rooflines should be in keeping with community scale and style.

Public Amenities

Station or transit center locations are often a site for increased public amenities that make the station useable and appealing. Sidewalks, public open spaces, or plazas are key features in a pedestrian-friendly location. Consideration should be given to the specific sidewalk design into and out of the station area, public land dedication if required, the design of waiting spaces, and the materials used for paving or plaza treatments. Pedestrian lighting needs to be provided throughout all circulation areas to promote safety and walkability. Signage within the area needs to be clear, informative, and scaled to the pedestrian-oriented nature of the area.

Circulation and Connectivity

The station area needs to be integrated with the surrounding community, easily accessible and have a coherent, well-designed circulation system that provides ingress and egress from the site. Vehicular access and roadway capacity must accommodate the projected demand for parking or drop-off activities, including bus transit. Bike and pedestrian connectivity should be considered early in the planning process as key elements of overall mobility and access.



Pedestrian access through the parking lots, around the site, and to external sidewalks/trails and open space are also important to mountain communities.

Parking Management

Parking is always a necessary consideration in the development of a station and the areas surrounding the station. Parking should serve both development and transit by placing a priority on the development of shared parking solutions that minimize impacts on the surrounding neighborhoods. If there are adjacent residential areas, a parking pass program needs to be evaluated to prevent AGS commuters from parking in the surrounding neighborhoods. Depending on the projected ridership and travel patterns associated with the station, the demand for parking may be significant. Along the I-70 corridor, parking demand in the Golden-Jefferson County area is anticipated to be significant to accommodate Denver metro riders. Parking demand in the Summit County area may be reduced because of the destination orientation of the area. In addition to vehicular parking, bicycle parking must be accommodated and prioritized at all stations.

Market Analysis

An assessment of market and economic conditions provides guidance of what type and where developments could occur in the short and long term. By having a market analysis, the land use plan is better grounded in market and economic reality.

Zoning Recommendations

The underlying zoning is a key ingredient to the implementation of the desired land use outcome. This element is discussed in this document in Section 6.0.

Implementation Strategies

Interdepartmental and agency coordination is a significant part to achieving successful planning. Guiding principles are developed to provide municipal staff with a clear direction of the desired development. This provides the staff with an understanding of the steps that are required to set the stage for development. This could include infrastructure improvements, revisions to zoning code, and financial tools. Guiding principles provide municipal staff, property owners, and developers with clear guidelines to develop and/or evaluate specific development proposals for the area around a station. The guiding principles address issues critical to development, including the type and intensity of land use desired, transportation connectivity, parking, and urban design. The guiding principles help to inform the implementation strategy. Key elements to the success of the development are identified and assigned a time frame and organizations responsible for achieving these goals. All players must maintain a certain level of flexibility so that specific development proposals can respond to changing market conditions and still achieve the basic goal of having development that supports transit.

Financial Strategies

Financial strategies are addressed in Section 7.0.



6.4.5 Zoning Strategies

As the jurisdiction works through the station area sub-plan or land use plans in support of local transit, it is important to examine whether the existing zoning in and around the site is conducive to achieving the land use pattern desired. This section examines traditional zoning, overlay zoning, form-based code zoning, and specific transit zone districts; and it provides examples of when and how these applications have been used in other communities. The I-70 corridor communities will want to consider these zoning options and evaluate whether adopting new zoning strategies is a piece of their planning process.

Traditional Zoning

Traditional zoning designates specific geographic areas of a community as one of several zone districts identified by the zoning code. Restrictions and regulations in a particular district apply to all areas of the community that are similarly zoned. Rezoning from one category to another can be accomplished by means of the procedures set forth in the local zoning ordinance. Historically, accomplishing a change in zoning required proof that either the original zoning was incorrect or surrounding conditions had changed to the point where the rezoning was justified.

Once considered novel, but now fairly standard in most jurisdictions, is the planned unit development (PUD) zone district. This generally gives the landowner the opportunity to create a unique, site-specific zone district; in exchange, the local community can request certain guarantees not required by the other categorical zone districts. One disadvantage to the traditional zoning and rezoning is that they can be done on the sporadic, piecemeal basis—one landowner at a time. To provide a more unified and consistent built environment, the overlay zoning approach is recommended.

Overlay Zoning

Overlay zoning is a technique to manage land use specific to a designated area by creating additional regulatory standards and incentives, and to guide development with specific criteria onto an underlying zoning condition. Some examples of how communities can use overlay zoning districts are to:

- Protect cultural and natural resource areas.
- Guide development in existing neighborhoods.
- Encourage mixed-use or higher-density development served by transit.
- Encourage affordable housing.

Communities should clearly define the purpose and the geographic limits of the overlay district when identifying overlay zone; for example, to preserve historical character or to allow higher density residential development at a transit stop. Overlay zoning districts need to be clearly defined and mapped, and do not have to follow the boundaries of the underlying zoning.

Public involvement is very important in the creation of overlay zoning to explain the reasons for the change, to clarify issues, and to educate property owners for compliance with the new regulations. The advantage of overlay zoning is that regulations and design criteria can be applied to specific or isolated areas and are not restricted by the underlying base zoning.



Form-Based Code

A “newer” method of land use planning is form-based code, which regulates development to achieve a specific urban form. Form-based codes create predictable public realm, primarily by controlling physical form with a lesser focus on land use, through city or county regulations. Form-based codes consists of a regulating plan that designates where different building forms apply; standards for elements, such as building form and massing; street width and character; and public spaces. Form-based code regulating plans also contain the administrative process and the definitions that alleviate the misinterpretation of technical terms.

Form-based codes are created with the physical end result in mind because it has clear controls on the building form - its relationship to the street and the adjacent properties. Form-based codes allow for the public to understand how a building or use will look and affect the physical build-out of a development - because residents can see gradually and individually how each lot will be developed.

Form-based codes allow for a variety of uses in one area because they are not based on land use or uses within an area, rather they are based on the physical form and the relationship to the surrounding properties. How the building looks and the lots are developed are driven by the jurisdiction, while the land uses are driven by the market. If desired, the form-based code can restrict undesired land uses. Form-based codes work as the code and as the design guidelines, which allows for more consistency between projects. Design guidelines leave room for interpretation, whereas form-based code is easier to enforce as it plays both the role of the code and of the design guidelines.

Transit-Oriented or Transit Supportive Zone District

There is currently much interest in TOD. TOD is compact, mixed-use development near new or existing public transportation infrastructure that serves housing, transportation, and neighborhood goals. Its pedestrian-oriented design encourages residents and workers to drive their cars less and ride mass transit more. Some agencies have developed, adopted, and applied a particular zone district to areas surrounding rail stations, hoping to encourage this pattern of development and pedestrian walkability.

TOD districts are typically found in urban areas and feature high commercial intensities, job clusters, and higher residential densities. There are some neighborhood TOD districts that support bus transit lines and typically include neighborhood shopping centers or multifamily housing units. However, in the case of the I-70 corridor, neither of these particular applications may be appropriate. A Mountain and Resort-Oriented Development code may need to be considered that centers on the recreation-destination attractions, the unique context and character of the mountain communities, and the setting and scale that brings travelers to the area. The combination of land uses, the intensity or density of those uses, and the design of the area would need to be uniquely developed for each mountain community that hosts an AGS station. A Mountain and Resort-Oriented Development zoning district would address the specifics desired within that community and the development levels sustainable in the mountain corridor.

A transit-supportive zone district typically addresses the following elements, each individualized to the setting and location:



- Intent of the district.
- Areas of application.
- Organization of uses or sub-area applications.
- Permitted uses.
- Dimensional requirements.
- Design requirements and setbacks.
- Open space requirements.
- Circulation and connectivity.
- Parking ratios.

6.4.6 Financial Strategies

Because of the complexities associated with transit station developments, public sector financial participation may be necessary to create an environment conducive for private sector interest and participation. The public sector does have some land use and financial tools that can be made available to assist with a variety of different types of development or redevelopment efforts at the local, state, and federal levels.

Local

Jurisdictions may want to make sure the type of development identified by their community is appropriate for the station area. There are several methods of making a site more enticing for developers, and yet directing that development in context with the community setting. As discussed earlier, the underlying zoning is the first step in establishing the development pattern and land use mix identified in the station area sub-plan. Another land use tool available to local jurisdictions is the concept of transferable development rights (TDR).

In this scenario, the right to develop a certain parcel is given up, with the entitled rights “transferred” to another parcel. Often the area from which the rights are transferred is an area the community desires to leave undeveloped; similarly, the areas to which the rights are transferred are often areas where the local jurisdiction wants to encourage growth. The “net” effect of transferable development rights is often “neutral,” with no more growth allowed communitywide than would be allowed without the transfer. One benefit is the preservation of open space or historic structures and the channeling of density and growth into areas the jurisdiction has designated for growth, redevelopment, etc. Obviously, the receiving parcel will be allowed to develop at a greater density than allowed under existing zoning.

To accomplish the transfer, a value must be placed on the rights if they are being transferred from one landowner to another. Compensation for the rights can be by means of traditional purchase, or more by more innovative means, such as tax relief. Documentation of the transfer usually requires a legal agreement between the selling landowner, the receiving landowner, and the local jurisdiction.

Additional actions that would support “jurisdictional - developer cooperation” in ensuring the outcome envisioned by the community could include the following:



- Reductions in development fees and expedited development review processes for areas adjacent to stations, if developers are proposing plans in keeping with the community's vision for the area.
- Parking requirement reduction would reduce the number of spaces required per development and can be implemented through a PUD process or designated in an zoning overlay district or new transit supportive zone district.
- Formation of a parking district would integrate area parking needs with local development. A management entity is established and new developments have the option of paying into a parking fund rather than constructing parking within a given area. The management company then constructs and operates the pooled parking for the entire district.
- Public-private partnerships are becoming an increasingly popular tool to encourage private development, particularly in areas where there is a public policy goal and the public can play a role in helping to mitigate infrastructure or cleanup costs.
- Public infrastructure improvements through increased sales tax revenues allocated to public improvements around station areas, through fee programs such as public improvement fees (PIF), or through Enhanced Sales Tax Incentive Programs (ESTIP). These funds are typically used to pay back designated public infrastructure improvements.
- Commercial linkage ordinances are a method of financing affordable/workforce housing that recognizes the link between job creation and the need for new housing. These programs require developers to pay into a workforce housing trust fund, typically assessed on a per square foot basis. These monies go toward the development of affordable housing by the jurisdiction.

There are several financing or funding mechanisms that should be explored to generate dollars that support transit. On a local basis these include:

- Tax increment financing (TIF) – is an often-used method of financing redevelopment (specifically improvements offering a public benefits, such as site acquisition and/or clearance; hazardous materials removal; infrastructure such as streets, utilities, parks, and parking). The tax increment can be placed on both property and retail sales taxes, although it generally works best on projects with a large retail component. It is usually administered through an Urban Renewal Authority.
- Bond Financing – can be used to fund public improvements and are paid back through property tax revenues, tools, charges, and special assessments.
- Special Tax Assessment Districts – districts that are governed by a local jurisdiction and fund infrastructure improvements associated with development in that district. These districts fund infrastructure improvements associated with development and are paid back through special assessments on property owners.
- Business Improvements Districts – created to construct public improvements and support economic and business development through planning, marketing, and management. They can also issue bonds and levy and collect taxes.



- Title 32 Metropolitan Districts – popularly used tool by developers to finance roads, water, sewer, and other public improvements. Methods of repayment include property taxes, fees, etc.

State

State departments of transportation can play an important role in facilitating transit station development. In some circumstances, transit station development can be facilitated through disposition and redevelopment of underutilized state-owned land near transit stations. The Colorado Department of Transportation has programs oriented towards transit station planning and development. They include the:

- Surface Transportation Program (STP – Enhancement) – enhancement funds can be directed towards pedestrian/ bicycle enhancements, parking facilities, and even housing developments.
- Congestion Mitigation Air Quality (CMAQ) – CMAQ funds are available for station area planning for portions of the project area within the Denver Regional Council of Governments region.
- State Infrastructure Bank (SIB) – The SIB can make low interest loans or provide credit enhancement to local and private entities for public transportation improvements.
- Other Fees (including Rental Car / Recreation Usage) - the State of Colorado is currently examining ways to bolster funding for transportation improvements. A rental car fee is a method that has been suggested as a way of raising funds. Recreation usage is another area impacted by transportation and a potential source of funding.

Federal

Federal funding is directed to the development of transit through existing programs, such as the New Starts and Small Starts program at the Federal Transit Administration, which currently funds most of the nation's transit improvements. One of the criteria in receiving federal funding is support for transit station developments that would support ridership. Other agencies' programs can be accessed to support transit station developments, including:

- Department of Agriculture – the construction of community facilities (bus or transit buildings) may be eligible for grants and low interest loan programs in rural areas.
- Housing and Urban Development – housing development funds and programs can be accessed to help provide workforce or affordable housing at transit stations.
- Environmental Protection Agency (EPA) – the EPA provides funds and technical assistance to states and local communities to clean up and redevelop potentially contaminated lands.
- Economic Development Administration (EDA) – there are grants available for planning that support communities' economic development needs.



7.0 Path Forward

The Coalition's Land Use Planning Study for Rail Transit Alignment throughout the I-70 Corridor established a framework for cooperation and coordination among all corridor jurisdictions. It is essential groundwork for future system planning, station sub-area planning, and community education and involvement. Through this planning process, corridor jurisdictions have initiated conversations about transit networks and AGS integration, broadened community understanding of transit and land use decision-making parameters, and strengthened each community's ability to navigate its own future for transit mobility. After this study concludes, it will be the role of the I-70 Coalition and each municipal or county agency to pass on the information discussed through this process and to educate the public within its community.

The I-70 Coalition and member agencies in the I-70 corridor should follow closely the Final I-70 Mountain Corridor PEIS that will document the Preferred Alternative for the I-70 corridor; a multimodal solution with non-infrastructure components, a commitment to evaluation and implementation of an AGS, and highway improvements. This PEIS is scheduled for release and public hearings in late 2009 and early 2010, with a Record of Decision to be issued by the Federal Highway Administration shortly thereafter.

The CSS process being developed through CDOT and eventually implemented on I-70 corridor projects will provide effective guidance, integration, and coordination for interrelated CDOT studies both through its decision-making process and its Guidance Manual. The principles contained in this process will help to ensure local agency participation in I-70 corridor projects, and public input to project outcomes. This education and participation element will take place project by project along the I-70 corridor.

It is also important that over the next eight months or more, that the I-70 Coalition and its participating agencies continue to coordinate with the RMRA study, examining whether inter-city high-speed rail is technically, financially, and economically feasible for I-70. The outcome of this study will help determine whether high-speed rail is feasible, whether the I-70 corridor is eligible for potential designation as a national High-Speed Rail Corridor with specially targeted federal funding, and where station locations may make sense based on technical considerations. The RMRA study is to give strong consideration to the community interests for station locations identified during the I-70 Coalition's Land Use Planning Study; however, the technical considerations for alignment may need to be reconciled with the results of this study. It will be important to clarify the components of each study for the public and the resulting outcomes. It will also be critical to identify a path for decision-making and information going forward.

Finally, CDOT will be responsible for keeping elected officials engaged and opinion leaders up to date through the development of the FEIS. CDOT's government relations staff, through its I-70 Mountain Corridor Coordinated Public Relations Plan, will provide updates on the I-70 corridor throughout the state. But most importantly, elected officials will play a significant role in passing information on to constituents and stakeholders. Municipal and agency staff will, in turn, want to keep local community members updated on these I-70 corridor issues and projects. The I-70 Mountain Corridor website will be essential to the dissemination of new and updated information to jurisdiction staff and the public.

It will be important to continue the momentum established during this planning process and to maintain an increased communication level with local agency staff and their communities over the next several years. The continuation of the County Working Group structure organized in

I-70 Coalition

Land Use Planning Study for Rail Transit Alignment throughout the I-70 Corridor



this study process may prove to be an appropriate vehicle for open and collaborative dialogue and ongoing planning cooperation for the corridor. CDOT's Public Information team for the I-70 corridor and the CSS I-70 Project Leadership Teams will be future forums for collaboration and information, as well. The ability of the multitude of agencies to stay informed and involved rests in identifying central location for that activity. The I-70 Coalition represents the broadest participation of agencies in or adjacent to the I-70 corridor and is a good conduit for this ongoing coordination.



Appendix A: Comments and Correspondence

The project team received a number of comments from jurisdictions on the Draft Report dated January 2009. Most of these comments requested changes to the report and these changes were made as suggested. Some comments were statements about the process or outcome and these comments did not result in changes to the document, but are included herein for completeness.

Page Number	Comment	Commentor
48	- Under Eagle Airport - Opportunities: "Central to Vail and Gypsum..." What exactly does this mean? If it is to indicate that the airport site is more centrally located within the county, perhaps then this should be the wording. Or, something like "locate	Greg Schroeder (Eagle County Engr)
Page 93 - Section 6.3.5, second paragraph:	"...along with pedestrian bicycle and multi-modal transportation..." - missing commas, should be "pedestrian, bicycle, and multi..."	Greg Schroeder (Eagle County)
97	Page 97 - Town of Gypsum: This starts off saying that Gypsum is home to the Airport. While this is true, this may generate some confusion as to why they (Airport and Gypsum) are not one in the same. Perhaps this should say "The airport is located on the east side within Gypsum's municipal boundaries..." or something of the like.	Greg Schroeder (Eagle County)
17	"The I-70 Coalition's Preferred Alternative for the I-70 PEIS is a long-range, multimodal, sequenced alternative that addresses the transportation concerns of the I-70 corridor for at least the next 50 years.	David Johnson (ECO Transit)
20-21	The rail corridor should be more clearly specified as the Union Pacific rail corridor; rely on a high level of bus connectivity should be expanded to "bus, rail, bicycle, pedestrian and other intermodal connectivity."	David Johnson (ECO Transit)
General	Many of the guiding principles in Garfield County resonate with me, such as "work seamlessly with future BRT"-in our case, potential rail. Also "contribute to the redevelopment of...areas in and around stations, but preserve local small-town character and maintain open space" and "protect air quality, river corridor and environmental conditions unique to..." Did anyone else voice these comments?	David Johnson (ECO Transit)
22	In the short-term, I believe providing mobility to workers is highest-priority; however, given the potential headways, I think the AGS alone will not suffice to provide proper mobility for workers. We will need inter-regional (AGS) and regional and local service to provide the headways and O-Ds to make mass transit work for workers. In addition, similar to my comment above for p17, right now we're thinking of needs primarily for workers, but in ten years, 15 years, 20..., transit mobility may be an increasing need and priority for all sorts of aspects of daily life. I think general mobility needs to be considered if we're looking at a 50-year vision.	David Johnson (ECO Transit)
General	Freight needs are also important. Ever gone to City Market when the pass has closed? It does not take long for those shelves to clear. It is foreboding. We need an alternative to trucks.	David Johnson (ECO Transit)
26-28	Another consideration for station locations and for guideway is ability to accommodate/intergrate regional or local trains, which may encompass a different technology.	David Johnson (ECO Transit)
46-49	Creation of an AGS transit station would generate the need for more parking and for more regional and local transit connections, especially in Vail and Avon. ECO Transit serves these locations, but buses are at capacity today. The towns have their own local buses systems, they will also require expansion.	David Johnson (ECO Transit)
General	ECO Transit serves the airport, but the connection is problematic because Cooley Mesa Road is sort of off-route. An AGS station would be best located at the north side of the airport, with a cut-and-cover tunnel to the terminal. Or the terminal should re-locate to the north side. Expensive, but necessary.	David Johnson (ECO Transit)
75	"The communities on the I-70 corridor are not urban and do not intend to rely on increased density to support transit, but instead will rely on tourism and employment." - This is a generalization. We are rapidly achieving or exceeding the densities of urban areas (cases in point: Vail, Avon, Edwards), and we WILL rely on increased density to support transit.	David Johnson (ECO Transit)
83	"The Town (Leadville) may want to consider a community visioning effort to better identify the role of local and regional transit for Leadville in the future." Yes!	David Johnson (ECO Transit)
88	When you say commuter rail, do you mean rail for commuters? This should be rail for everyone, running at frequent, consistent intervals throughout the day, just like the regional bus service is doing today. See my comments on the airport above too.	David Johnson (ECO Transit)
3 and 20	And using the UP line for regional rail. Any acknowledgement of the 2030 Transit Vision? visitors to our world-class resort recreation destinations. Visitors to Eagle County arriving primarily from the Front Range/DJA or the Eagle County Airport should be provided with fast, convenient, efficient and reliable transportation to Vail and Beaver Creek resorts. The AGS or high speed rail should smoothly interface with the Summit Stage, ECO and RFTA services."	David Johnson (ECO Transit) David Johnson (ECO Transit) Bob Narracci (Eagle County Planner) & Eagle County Transportation Collaborative
	Draft tech memo #10 discusses primary and secondary station locations for Eagle County. Changes to this memo are necessary to list Avon as a primary station and Vail as a secondary station. (This comment has been consistently provided and supported by others at several I70 Coalition Meetings). Avon is located on both alignments being contemplated. Avon has already adopted a land use & zoning plan that includes 2 possible train station locations. Avon has sufficient undeveloped land located around the possible station sites to provide sufficient parking, freight transfer, transit, pedestrian trails, and shuttle service. The survey scores and comments all rank Avon station location better suited and more convenient than Vail. An Avon station location is in close proximity to both Vail and Beaver Creek resorts.	Jenny Strehler (Avon/PW director)



I-70 Coalition

Land Use Planning Study for Rail Transit Alignment throughout the I-70 Corridor

170 Coalition Land Use Planning Study For Rail Transit Alignment

Page Number/Comment	Commentor
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<p>Vail vs. Avon Station Location a. Vail is a logical, complimentary choice due to existing multi-modal transit facilities operating out of the town's transit center as well as the residential, commercial, civic and recreational uses and densities within walking distance. b. Vail is accessible by vehicles; direct access to I-70 and frontage road systems serves the proposed station location. c. Vail is challenged due to limited space (land area) for additional parking and/or transit oriented development and services needed to serve the station location and the larger population of the Eagle River Valley. d. Avon may also be challenged due to limited space (land area) for additional parking and/or transit oriented development and services needed to serve the station and the larger population of the Eagle Valley. e. Avon may be a preferred location – more central – to serve the larger (permanent) population of the County while providing more centralized access (via AGS) to Vail, Avon/Beaver Creek and Edwards for visitors and second home-owners.</p> <p>General vision/policy statement to serve as the "backbone to interconnectivity" and to place a priority on local commuter service in the corridor (east/west) is good.</p> <p>Question: why is the southern portion of Eagle County and Lake County (Hwy. 24) not included in this guiding policy statement?</p> <p>A significant number of employees who work in Eagle County commute from Lake County and the southern portion of Eagle County (Tennessee Pass) Eagle County – (local), parking facilities and the like may also serve that portion of employees commuting from the south.</p> <p>Section 3.3.4 - along State Highway 24. While not a direct point of connection to any AGS, interconnectivity that is facilitated or accommodated by future transit lines Eagle County – (local), parking facilities and the like may also serve that portion of employees commuting from the south.</p> <p>Guiding Policies</p> <p>Goals: "Help to maximize opportunities for growth in residential, retail and airport related uses in the County." This goal reflects a general need and desire (reflected in applicable master plans) to balance development and land uses along the corridor. If interpreted correctly, and taken in context with subsequent sections/statements regarding design and development criteria, it seems to encourage further growth along the corridor to facilitate efficient use of land, mixed uses and transit-oriented development. However, this statement alone leaves open to interpretation what "maximize" means, and then how, why and where growth should occur. Suggestion: revise this statement to include words like "responsible", "sustainable", "smart", "balanced", "transit-oriented", or "context sensitive" when describing growth (as being maximized), and/or remove "maximize" and replace with "optimize". This would tie this section of the study/report to Section 6.2 – Best Practices, and give a nod to existing, applicable master plans within Eagle County which direct growth to community centers (compact patterns) and to support preservation of opens space, agricultural heritage and culture as a primary means of protecting the lasting (natural resource) values of Eagle County.</p> <p>Section 3.3.4 - Eagle County – Guiding Policies Section 3.3.4 - Eagle County – Guiding Policies that horizon should be extended? Category: "Healthy Environment: Noise should be less than highway noise."</p> <p>Again, great goal or policy; what about other environmental factors or values such as air quality, (ground and surface) water quality, soils and wildlife (biodiversity) considerations? Why are these not considerations at the regional level (but listed, in part, under site specific criteria)?</p> <p>4.1.2 Regional Criteria (County Level)/ Table 2: Category: "Communities: Allows for growth potential" Regional Criteria for Potential Station Again, what kind of growth (residential, commercial, mixed use), how, why and where? Understanding the necessity for the broad context of this plan, Locations this criteria could be revised with a word clarify the intent of "growth" as it relates transit-oriented development and design principles. First bullet point: "Does the location serve a population center?"</p> <p>What is the working group's definition of a "population center"? Does this mean resort (seasonal) populations? When considering Vail as a preferred (most viable according to the working group) location to serve as the eastern Eagle County station location, what population groups are best served by such location? Who choosing between Vail or Avon, which town will be most central to the highest concentration of existing and future permanent and part-time residents, businesses and services serving the local populous?</p> <p>Section 4.3.2 - Focused Siting Criteria and If, in Eagle County's case, the guiding policy for development of an AGS along the I-70 corridor is to serve local commuters, serve employment centers Screening and (secondarily) move visitors and freight, the definition of "population center" in context to this report becomes critical.</p>	<p>Scot Hunn (Eagle County Planner)</p>
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170 Coalition Land Use Planning Study For Rail Transit Alignment

Page Number/Comment

Commentor

*Wolcott

Opportunities • Compatible with land use plans – greenfield development possible. Building 500 to 1,000 new residential units.”

Section 4.3.6 - The master planning effort for Wolcott area is concluding; the current draft of this plan may not support green-field development “500 to 1,000 new Eagle County residential units”.

5.2.1 Platform “Trash receptacles” – can this be revised to read “Trash and recycling receptacles”?

Scot Humm (Eagle County Planner)
Scot Humm (Eagle County Planner)

Sections 6.2, 6.3 Good narratives and explanation of opportunities and challenges related to station siting, design, construction and financing, as well as the next probable and 6.4 steps necessary for local governments to take (to set the table) in anticipation of a rather long time horizon for implantation of AGS in Eagle County. AGS a reality along the I-70 corridor will have significant and lasting impacts and influences on land use patterns, local economies, the environment and the ways in which future populations work, live, play and travel in our mountain communities, the study and any subsequent, related planning processes must be disseminated to general public and integrated with local master planning efforts, capital improvements strategic planning and any broader

Scot Humm (Eagle County Planner)

General regional planning initiatives in the future to ensure the successful implementation of the AGS.

4 For Eagle County, we would like to rank Avon as a Tier 1 location as a stand alone not as an alternate; we'll let the RMRA tell us if it is feasible

21 “Rely on a high level on bus con....to “Rely on a high lever of bus con...”

21 Add “ The system should: help reduce local vehicle congestion and promote mass transit use

Working Group Recommendation is for Avon (Beaver Creek) to a Tier 1 in addition to Vail. If there were to be only one location, Vail would be the one with the destination stop. Although as previously identified by Avon has sufficient undeveloped land located around the possible station sites to provide

Scot Humm (Eagle County Planner)
Eva Wilson (Eagle County Engr)
Eva Wilson (Eagle County Engr)
Eva Wilson (Eagle County Engr)

Eva Wilson (Eagle County Engr)

46 sufficient parking, freight transfer, transit, pedestrian trails, and shuttle service.

49 Eagle Airport ...Working group recommendation...Add multimodal...This is a potential *multimodal* / hub location....”

52 Eagle County...Add Avon

Eva Wilson (Eagle County Engr)
Eva Wilson (Eagle County Engr)



December 18, 2008

Beth Vogelsang, AICP
OV Consulting
1701 Wynkoop Street, Suite 127
Denver, CO 80202

Re: Response to Action Plan for County Group

Dear Beth:

Thank you for providing an early draft of comments and summary of initial steps related to multiple discussions on a future Automated Guideway System (AGS) or high speed rail system running through Jefferson County. After review of the draft, we would like to clarify and add some additional points.

- The proposed station preferred by Jefferson County and of interest to Golden, located approximately at I-70/6th – we would like to clarify the county's role in discussions and evaluation of planning, layout and activities. This could be close to the West Corridor RTD Light Rail Line and have implications to the Jefferson County Government Center. We see a mutually beneficial opportunity to work collaboratively with Golden on future land planning for the area.
 - PLEASE ADD LANGUAGE TO THE ACTION PLAN THAT REFLECTS THIS INTEREST AND APPROACH.
- Under "Transit" references occur to *Mountain Community Plan* (which should really be the *Evergreen Area Community Plan*) supports transit out of El Rancho. Referencing the *Central Mountain Community Plan* as part of the assessment for support and sensitivity of rail activities misses the mark.
 - WHILE SOME IDENTIFICATION OF RAIL THROUGH GENESEE AND LOOKOUT MOUNTAIN MAKES SENSE, ULTIMATELY WE (THE COUNTY) WILL NEED TO LOOK AT IMPLICATIONS TO THE EL RANCHO AREA, ESPECIALLY IF IT BECOMES A TRANSIT STOP. THE MOST APPLICABLE PLAN CURRENTLY WOULD BE THE EVERGREEN AREA COMMUNITY PLAN.
 - PLEASE REVISE THE ACTION PLAN TO BE MORE SPECIFIC TO THIS POINT.
- Under Recommendations for Future Action, we want to respect the focus and direction that the City of Golden has and not suggest that collectively we share identical views on how future rail might impact our communities. Meeting and discussing collaborative ideas about how to locate hypothetical stations and coordinate land use activities makes sense.
 - WE WOULD ASK THAT YOU MAKE IT CLEAR THAT THAT GOLDEN IS A SEPARATE COMMUNITY AND THEIR VIEWS MIGHT NOT BE THE SAME AS OURS.



- Near Term - Time Frame: We have already started this effort, but it should be clear that Golden has separate long-range planning activities and that these events do not rely on each other.
- On the first page under County-identified goals:
 - A GOAL SHOULD BE ADDED THAT READS:
 - *Determine the infrastructure needed to support a station(s) and identify whose responsibility it is to provide those improvements.*
 - IT SHOULD BE CLEAR THAT THE GOALS ARE WHAT THE COUNTY ENVISIONS THE AGS OR HIGH SPEED RAIL PROJECT TO FULFILL, NOT NECESSARILY THINGS THAT THE COUNTY WILL PROVIDE.
- It was discussed in the last meeting (and included in the minutes) that the County does not think it is a good idea for the high speed rail to use the alignment up the canyon to Black Hawk.
 - We did not see this in the draft Jefferson County Action Plan; perhaps this statement would be appropriate under goals.

We would encourage you to add these additional points and clarifications to the Action Plan. This would reflect the multiple meetings and discussions we had on this concept and we would like to see this conveyed to any committees, action groups and/or organizations that will continue to be involved in this process. I am available to discuss this further; you can reach me at 303-271-8510.

Sincerely,

Timothy W. Carl, AICP
Development & Transportation Director

cc: Board of County Commissioners
Jim Moore, County Administrator
John Wolforth, Planning Director
Valdis Zebauers, Highways & Transportation Director
Jeanie Rossillon, Highways & Transportation Deputy Director
Steve Glueck, Planning Director, City of Golden



FW: Silverthorne's Comments on I-70 Land Use Transit Plans

Subject: FW: Eagle County Comments on I-70 Land Use Transit Plans

Attachments: I-70 Feb 12, 2009.pdf; Jeffco's input.doc; I-70 Land Use Planning draft study - TOF comments 2-09.doc; 20090206 Eagle County Land Use Study Comments.xls; AGS_Action_Plan_Draft.doc

comment from Larry Brooks at Avon -

Avon should be primary stop

I don't care if Vail is a primary stop but don't understand how it gets that designation if one of the routes (the preferred one at this point) doesn't even go through Vail. I have been reasonably polite about this subject matter to date. It does not have to stay that way unless the Town's comments are taken seriously. One of my staff has noted this as well, but I think is overstating the case regarding Vail. It is not our intent to fight Vail's designation, but rather have people understand our position. We do not require that Vail be a secondary stop. We just require that it be acknowledged that Avon deserves more than a declaratory secondary designation at this time. Hope that is clear enough that further discussions in this regard do not need to be acrimonious, but I am capable and ready to escalate the dialog if needed.

Other comment from Avon:

Hi Bob,

Thank you for your presentation on Wednesday 2/4/2009 updating the Intermountain towns about the status of the land use planning information that is incorporated into the I70 PEIS and subsequent work on the I70 project. I represent the Town of Avon in providing you with these comments:

- Draft tech memo #10 discusses primary and secondary station locations for Eagle County. Changes to this memo are necessary to list Avon as a primary station and Vail as a secondary station. (This comment has been consistently provided and supported by others at several I70 Coalition Meetings). Supporting reasons for this change are as follows:
 - Avon is located on both alignments being contemplated; Vail is only located on one alignment and this alignment is problematic (too steep for most available train technologies)
 - Avon has already adopted a land use & zoning plan that includes 2 possible train station locations; Vail has not.
 - Avon has sufficient undeveloped land located around the possible station sites to provide sufficient parking, freight transfer, transit, pedestrian trails, and shuttle service; Vail does not.
 - The survey scores and comments all rank Avon station location better suited and more convenient than Vail.
 - An Avon station location is in close proximity to both Vail and Beaver Creek resorts.
- Avon supports the change in the mission statement for Eagle County to more closely resemble that put forth for Summit County (which identifies both local commuter needs, tourism, and preservation of our natural mountain character).

These are Avon's key comments. I tried to go back to this link: <http://ftp.c-b.com/public/20090206/729c813f-b7d5-411c-a18e-7cf2ef3a8b0b.zip> today and see if there were any other important items I should make note about but the document would not open. Please let me know if there is another way to access this file and if the deadline for commenting is extended.

Thank you!

Jenny

Jennifer L. Strehler, P.E., M.B.A.
Director of Public Works and Transportation
Town of Avon
P.O. Box 975
400 Benchmark Road
Avon, CO 81620
TEL: 970.748.4100
FAX: 970.748.1958
www.avon.org <<http://www.avon.org/>>



FW: from Mary Jane

Page 1 of 1

Subject: FW: from Mary Jane

----- Forwarded Message

From: <mloevlie@aol.com>

Date: Fri, 20 Feb 2009 10:54:27 -0500

To: Beth Vogelsang <beth@ovllc.com>, <mbowes@i70solutions.org>, <ctols@yahoo.com>

Hi All,

Cindy and I were planning to work through a couple of items on the draft report that are not deal killers. However, we didn't get to it.. so, the one small correction we do have is change TOWN of Idaho Springs to CITY of Idaho Springs..on page 84..and anywhere else that occurs. Thanks and I think it's a great working document!

MJ



FW: Transit Land Use Project-Last Call

Page 1 of 2

Subject: FW: Transit Land Use Project-Last Call

----- Forwarded Message

From: Brendan McGuire <BMcguire@vailresorts.com>

Date: Thu, 19 Feb 2009 18:14:32 -0700

To: Margaret Bowes <mbowes@i70solutions.org>

Cc: Beth Vogelsang <beth@ovllc.com>

Subject: RE: Transit Land Use Project-Last Call

My comments are as follows:

In Section 4.3 in the Keystone, Breckenridge, Vail and Avon portions I'd like to add some context to the "opportunities" portion.

Keystone is the third most visited resort in the United States and currently ranked sixteenth best resort in North America by *SKI* magazine.

Breckenridge is the single most visited resort in the United States and currently ranked ninth best resort in North America by *SKI* magazine.

Vail is the second most visited resort in the United States and currently ranked second best resort in North America by *SKI* magazine, receiving the top honor in 14 of the past 21 years.

Beaver Creek (above Avon) is the 9th most visited resort in the United States and currently ranked sixth best resort in North America by *SKI* magazine.

Thank you,
Brendan

From: Margaret Bowes [<mailto:mbowes@i70solutions.org>]

Sent: Thursday, February 19, 2009 2:18 PM

To: Brendan McGuire; charlotte.anderson@co.pitkin.co.us; Bob Narracci; Amy Stoehrmann; 'Barbara Davis'; 'Bill Linfield'; 'Bill Pelham'; 'Bob French'; Bruce Butler; Bud Elliot ; CA Lane; Caldwell970@aol.com; 'Catherine Trotter'; Chris Cerimele ; Chris H. Mootz; Chuck Swanson; Cindy Olson; 'Cynthia Neely'; Dan Blankenship; Dan Burroughs ; Dave Ferrill ; Dave Sturges; David Johnson; Devin; 'Dirk Ramsey '; 'Duane Nelson '; Engineer Eva Wilson; 'Eric Turner '; Florine P. Raitano; Fran Cook ; 'Gary Rodgers'; 'Gary Severson'; gbumgarner@co.grand.co.us; 'Greg Hall '; 'Harry Dale'; 'Jacob Smith'; 'James Shockey '; Jamie Gunion ; Jeff Durbin; 'Jeff Nelson '; 'Jeff Shroll '; 'Jennifer Schaufele '; Jim Peterson; JoAnne Sorenson; Joe Behm; 'John Gart '; John Jones; John Kelley ; Joyce Burford; 'Kathy Hartman'; 'Kevin Batchelder'; 'Kevin O'Malley'; Kozinski, Peter; Kris Manguso ; 'Larry Brooks '; Lauren Pelletreau; Margaret Bowes ; Marge McDonnell; Mary Jane Lovelie; 'Medil Barnes'; 'Michael Penny '; 'Mike Bestor'; Mike Periolat; 'Mike Spies '; Nancy Stuart ; 'Peter Runyon '; Philo Shelton; 'Rachel Richards '; Ron Slinger; Sabrina Harris; 'Stan Zemler'; Steve Cook ; 'Steve Hornback'; 'Susan '; 'Thad Noll '; Tim Gagen ; tkline@i70solutions.org; 'Tom Baker'; Tom Clark ; 'Tom Daugherty'; Tom Fisher; Tom Gosiorowski ; Tony Petersen ; 'Towny Anderson'; 'Tresi Houpt '; 'Valdis Zebauers'; 'Will Kerns'; William "Willy" Powell

Subject: Transit Land Use Project-Last Call

I-70 Coalition Members,

The consultants are ready to finalize the report and would like any last comments by Noon tomorrow (Friday.) Please send any additional comments to me and copy beth@ovllc.com.

FYI, I will be out of town all next week. The presentation on the Draft Final Report is on the website under the Members Area. User: i70 Pass: solutions



FW: Transit Land Use Project-Last Call

Page 2 of 2

The MagLev presentation from last week is there also. The file is huge so be patient.

Thank you,

Margaret Bowes, Program Manager

I-70 Coalition

PO Box 4528

Dillon CO 80435

970-389-4347

Fax: 970-797-1522

mbowes@i70solutions.org

www.i70solutions.org <<file:///\\www.i70solutions.org>>

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Garfield County comments

Page 1 of 1

From: Beth Vogelsang [beth@ovllc.com]
Sent: Tuesday, February 24, 2009 9:50 AM
To: Werle, Brian H.
Cc: Gaskill, Craig R.
Subject: Garfield County comments

Follow Up Flag: Follow up
Flag Status: Completed
Brian

Garfield County would like to present both Glenwood and Mid-valley as equal options. They do not want the document to imply that they only want a canyon alignment - Cottonwood would be equally valid - basically.

I went through the document to determine where Garfield county comments would apply:

1 – Exec Summary – pag 4 (station locations)

Glenwood Springs – Downtown Wye

Mid-valley/Carbondale if alignment follows Cottonwood Pass

2 – Document – page 20 3.3.5 Garfield County (vision)

Last sentence should drop reference to Glenwood Canyon and read:

AGS service should be environmentally sensitive and be an element of sustainability in the County.

3. same section – under goals

Be designed to protect air quality, river corridor and environmental conditions unique to the County, Glenwood Canyon, Cottonwood Pass and the Roaring Fork Valley areas.

4. page 22 Garfield County – middle of first paragraph remove: The transit system should consider how it serves both east and west directions. Sentence should read: The transit system should accommodate both east-west and north-south travel demand.

5. page 49 – List of station locations should reflect same wording as in Exec Summary shown above.

6. Page 50 – the base map should be the same one shown on page 2 of the Executive Summary with the additional towns.

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Beth Vogelsang, AICP
OV Consulting
1701 Wynkoop St
Suite 127
Denver, CO 80202
303-589-5651
beth@ovllc.com
www.ovllc.com



601 Center Circle • P.O. Box 1309 • Silverthorne, Colorado 80498

February 12, 2009

Ms. Margaret Bowes, Program Manager
I-70 Corridor Coalition

Re: Comments on Draft I-70 Coalition Land Use Planning Study

Dear Margaret:

The Town of Silverthorne appreciates the opportunity to review the Draft I-70 Coalition Land Use Planning Study and has the following comments to offer. The Land Use Planning Study was a participatory process that involved each of the concerned I-70 Coalition members in Summit County and conclusions arrived at in the study reflect this participation.

The draft does a good job of capturing Summit County's preference for the alignment to be community based and to serve the communities along the existing I-70 corridor. The Town of Silverthorne feels strongly that the existing corridor communities be served by any transit alignment. Approximately 12 million people using I-70 are going through our community each year and if the transit alignment and stations are intended to alleviate congestion in the corridor, the alignment must serve the communities experiencing this congestion.

The Draft Study recognizes Silverthorne as the best location for forward travel to other parts of the County and recognizes the compatibility of Silverthorne's land use planning efforts to accommodate a future transit station. While each of the eight criteria for analyzing potential stations lists Silverthorne as "good", and while the study lists Silverthorne as the optimal location for forward travel to other parts of the County, and while we are listed as the best location for freight service, the study only identified Silverthorne as a potential *alternative* Tier 1 regional station. The Town of Silverthorne feels that, given our high ranking in every criterion, we should be listed as a Tier 1 Regional Priority station location.

The Town of Silverthorne has the largest base of permanent residential population in Summit County with the largest potential for residential growth. If the I-70 transit alignment and stations are to serve in a capacity as a commuter rail, then a station location must be considered for Silverthorne.

General Government (970) 262-7300
Community Development (970) 262-7360

Fax (970) 262-7312
Public Works (970) 262-7340

Public Safety (970) 262-7320
Recreation & Culture (970) 262-7370



Finally, the Draft Study includes a Planning Outline and a Land Use Toolbox that provides a road map for future planning actions necessary in the short term, the mid-term and the long term to make transit station locations a reality. These sections will prove useful to the Town of Silverthorne as we continue to plan and address land use issues necessary to make transit a reality for our community.

Sincerely,

TOWN OF SILVERTHORNE

A handwritten signature in black ink that reads "Kevin Batchelder".

Kevin Batchelder
Town Manager

Cc: Silverthorne Town Council
Bill Linfield, Public Works Director
Mark Leidal, Community Development Director



Frisco comments* on the draft Final Report of the I-70 Coalition Land Use Planning Study

February 9, 2009

(*comments focused on the Summit County and Frisco sections of the draft report)

Page 3: Eagle County paragraph – Take the Summit Stage reference out and include it as a sentence to that affect in the Summit County paragraph – AGS should interface with the Summit Stage, etc.

Page 12: bulleted section – the downtown zoning bullet – specify or delete “stuff” in the parenthesis

Page 20: Section 33.3 – Consider adding a goal of ensuring interconnectivity to other local mass transit, etc. Section 3.3.4. – delete reference to the Summit Stage

Page 33: Regional priorities – Lake Hill is called out as the first priority for the Summit Working Group, with Frisco second and Silverthorne third. This is confusing when you get to page 43, where the Working Group recommendation for Lake Hill is not either for tier one or tier two.

Page 42: Silverthorne section, Working Group Recommendation – verbiage says “potential alternative tier 1” - suggest using similar language as used in the other sections of “Recommended as an alternative tier 1...”

Page 43: Lake Hill section under challenges – bullet 3 – how do you define proximity? Bullet 4 revise to “Not compatible with existing land use plans – currently managed by USFS as developed/dispersed recreation in order to maintain a buffer and separation between communities.”

Page 44: Frisco section under opportunities – bullet 3 revise to add “... close proximity to I-70 interchange, includes two vehicle access points off of I-70, local residential base...” The challenge section sentence – use “will” instead of “may”

Page 55: Last paragraph about the footprint of a tier 1 station – what is the total land area needed? Include that information in this paragraph.

Page 90: Town of Frisco section – Frisco does not revise its zoning code as developments come in... revise the following for this section:

- Second paragraph – rewrite to: The Town of Frisco relies on its existing underlying zoning to direct land use. The Town’s zoning districts along Main Street and Summit Boulevard include mixed use, central core, commercial oriented and accommodations. Frisco does not typically use a PUD development process, although this process may be employed for larger developments.
- Third paragraph – delete “and re-zoning” and “and WalMart” in the first sentence.

Fourth paragraph – second sentence - delete “since Frisco typically amends the zoning by development” and begin sentence from there. Last sentence – delete “the ability to zone for appropriate use and density, combined with” and begin sentence from there as follows: “Community interests and context should be part of the evaluation process for a Frisco station location.”



Hi Margaret,

I have a couple of comments;

Page 19 of the Executive Summary I'd like the second bullet point to read:

"Preserve the **environment and the** I-70 scenic corridor through Mount Vernon Canyon and Genesee areas."

I didn't understand the second bullet point under Challenges.

It reads "Would not maximize connections to transit - there are no other transit connections in this area."

My comment is "What about the RTD Park n Ride and the transit route that serves Evergreen from there?"

On page 70 under Stormwater

I'd like there to be mention of infiltration and rainwater capture and reuse.

Will Kerns, AICP

Transportation Planner

Jefferson County Division of Highways and Transportation

100 Jefferson County Pkwy. Suite 3500

Golden, CO 80419

Office 303-271-8497

Cell 303-478-6135

Fax 303-271-8490