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**Ginn Company**  
**Colorado Project – Battle Mountain**

**Construction Traffic Management Plan**

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## **SECTION 1      PURPOSE**

### **1.1      OVERVIEW**

This Construction Traffic Management Plan has been developed as a basis for the Construction Traffic Management in association with the Battle Mountain Project (Project) in Minturn, Colorado. The plan:

- establishes a set of objectives, and metrics and measures for construction traffic by which the effectiveness of the plan will be measured;
- provides the strategies and methods that will be used to ensure construction traffic is managed in accordance with the prescribed objectives, and metrics and measures including the proposed system controls for construction traffic and transit system for worker traffic;
- institutes a monitoring and reporting program that will serve as: (1) a self-policing program that will provide the Town of Minturn (Town) with information from which to make decisions concerning enforcement; and (2) facilitate dialogue concerning traffic issues that result from Project activities; and
- details the enforcement program and enforcement measures that may be undertaken by the Town to bring the Project construction traffic into conformance with objectives, and metrics and measures.

All aspects of this plan are based on the Battle Mountain Ski Resort Traffic Impact Analysis dated August 2006 and revised August 2007, prepared by Leftwich Consulting Engineers, Inc.

### **1.2      BACKGROUND**

The development of a detailed construction traffic management plan has been requested by the Town Council. In order to deal with the high level of complexity involved in the execution of the construction of the Project, this plan identifies a series of systems that will be integrated with the monitoring and reporting program to provide effective management of construction traffic throughout the duration of major construction activities.

### **1.3      PURPOSE**

The purpose of this plan is to:

- Establish an agreed upon set of objectives for management of Project-generated construction and worker traffic;
- Institute a set of the metrics and measures that will be used to determine whether the construction traffic is reasonably achieving the plan objectives;
- Identify certain strategies and methods that will be used to manage construction traffic along with an implementation program for instituting the strategies and methods;
- Provide a structure for policing construction and worker traffic, keeping the Town and CDOT informed about how construction traffic is being managed throughout the major periods of construction, along with a process for resolving issues and concerns; and
- Establish an enforcement program to ensure that the Town has adequate enforcement capability to bring Project-related construction traffic into conformance with the plan objectives, and metrics and measures

### **1.3.1 Town of Minturn**

The Town's primary concern involves the performance of Highway 24 particularly as it affects access to Main Street from adjacent property driveways and intersecting streets, and the safety of motorists and pedestrians utilizing the corridor to traverse Town. Other concerns include traffic noise, speeding through town, aesthetics, and impacts to businesses.

### **1.3.2 Colorado Department of Transportation (CDOT)**

The Colorado Department of Transportation (CDOT) has authority and responsibility for operation and maintenance of Highway 24, including a mandate to preserve the function of Highway 24 as a rural regional highway. While the State Highway Access Code (Vol. 2, CCR 601-1; March 2002) recognizes the differing functional objectives of the Town and CDOT in non-rural and rural settings using differing Access Code classifications for Main Street/Highway 24 through the Town, and for Highway 24 adjacent to the project site, the primary focus is on the role of the highway in carrying regional through traffic.

Within the Town of Minturn, from 3263 feet west of Williams Street to 63 feet east of CR 113, Main Street is classified as a non-rural Arterial (Category NR-B), an access classification that has flexibility to provide necessary access to/from homes and businesses within downtown Minturn. South of Town (from 63 feet east of CR 113 to the Eagle/Lake County line), the Access Code classifies Highway 24 as a rural Regional Highway (Category R-A), an access classification that places nearly exclusive emphasis on serving through regional traffic flow, with primary concerns for safety and carrying capacity versus local access.

With respect to design criteria, the CDOT Access Code criteria calls for maintenance of minimum levels of service on State facilities, a Level of Service (LOS) C under rural conditions and a LOS D under non-rural conditions. Under rural operating conditions such as those present adjacent to the Battle Mountain Resort site, application of two-lane and multi-lane highway LOS C criteria stresses priority for through traffic movement. Under non-rural conditions such as those present within downtown Minturn, the Access Code provides more flexibility than for the rural section. Two-lane and multi-lane highway level of service criteria are to be used to characterize through traffic operating conditions through Town, allowing some delay and a LOS D; while two-way stop-controlled intersection level of service are to be used to characterize cross-street traffic operating characteristics, again allowing some delay and a LOS D.

## **SECTION 2 OBJECTIVES**

### **2.1 OBJECTIVES**

The following objectives have been established as a foundation for managing construction traffic in an effort to ensure the Town and its citizens are reasonably protected from the potential impact of construction traffic and that CDOT's goals for accommodating through traffic and ensuring the safety of the traveling public on Highway 24 are achieved throughout the duration of construction. These objectives are the basis of the metrics and measures.

It is the objective of this plan to:

- Minimize construction-related traffic impacts to the Town and its residents, and to travelers on Highway 24, while allowing Project construction to occur at a pace that will ensure the economic success of the Project, limit economic disruption to the Town, and provide for a pace of construction that will expedite the availability of Project revenues to the Town.
- Provide clear and open lines of communication between the Town and Ginn throughout construction including regular reports about performance (metrics and measures) and timely communication and resolution of issues or incidents of concern to the Town and its residents, CDOT, and to travelers on Highway 24.
- Promote safety in managing construction and worker traffic including the qualifications, experience and performance of drivers, the maintenance and quality of equipment utilized, construction zone and highway maintenance, construction zone management, and the operation of Highway 24.
- Manage the schedule and volume of construction and worker traffic to limit congestion and delay in Town and along Highway 24 and minimize construction traffic conflicts with existing morning and afternoon peak volumes.

## **SECTION 3 METRICS AND MEASURES (PLAN BASIS)**

### **3.1 METRICS AND MEASURES**

The objectives generally promote proper management of construction traffic to minimize construction traffic impacts on the lives of Town residents; limit the inconvenience suffered by Town residents and travelers on Highway 24; ensure that safety is of utmost importance to construction crews and suppliers and that risks to Town residents and travelers on Highway 24 are minimized during construction; and protect Minturn's character and economy. The following metrics and measures will be used as a plan basis to ensure the Project achieves the construction traffic management objectives. The metrics and measures are not listed in any particular order.

- Worker Trips - A maximum of 230 daily vehicle worker trips are allowed through the Town on Highway 24 north of the Project. In addition, a maximum of 350 daily worker trips are allowed on Highway 24 south of the southern boundary of the Project. Workers, for the purposes of this plan, are defined as those people contracted or employed by Ginn or by any other property owner within the Project to perform or manage any portion of overall Project construction (including subcontractors).
- Truck Trips - A maximum of 300 daily construction-related truck trips (i.e., 150 trucks trips in each direction) are allowed through the Town on Highway 24 north of the Project. In addition, a maximum of 300 daily construction-related truck trips are allowed on Highway 24 south of the southern boundary of the Project. Construction trucks, for the purposes of this plan, are defined as vehicles used to transport construction-related materials or supplies to the Project.
- Delay - Average delays for those entering Highway 24 in Town north of the Project shall not exceed 60 seconds. Maximum entering delays in the Town north of the Project shall not exceed 2 minutes when construction traffic is programmed to use Highway 24 in Town unless an incident has occurred which impacts Highway 24 (e.g., an accident) in which case delays shall not be the responsibility of the Project. However, when an

incident occurs within the Town north of the Project which results in an increase in congestion, Project construction traffic shall be held on site or outside the Project site in identified holding areas to avoid further congestion. Ginn will continuously monitor traffic conditions during hours of construction to minimize additional delays during special traffic circumstances should they arise. One example of this special traffic circumstance would be delays caused by infrastructure work within the Town proper such as paving, sidewalk construction, and other infrastructure improvements which are outside of Ginn's ultimate control. In these circumstances, Ginn will cooperate with the Town and CDOT to develop an improvement-specific management plan with the intent to handle traffic in a manner that reduces traffic congestion and impacts to local residents and businesses.

- Safe Deliveries - Trucks shall meet Federal Motor Carrier Safety Regulations (FMCSR) as adopted by the State of Colorado and enforced by the Colorado State Patrol Motor Carrier Safety Section. This includes roadworthiness of the vehicle(s), load securement, possession of safety equipment, maintenance of accurate logbooks and compliance with hours-of-service limits as well as other responsibilities.
- Safe Drivers - Persons operating a commercial motor vehicle through the Town on behalf of the Project shall be in possession of a valid CDL with the proper class endorsement and a valid medical examiner's certificate, stating that he/she is physically qualified to drive a commercial vehicle.
- Adherence to Plan - Persons operating a commercial motor vehicle on behalf of the Project (including those contractors hired directly by private homeowners) shall obey all operating requirements established in association with the Project in ensuring that roadway performance is maintained.
- Training - Persons operating a motor vehicle on behalf of the Project shall be educated on the operational objectives and undergo a training prior to operating a vehicle within the Town. Suppliers providing fewer than ten loads shall be required to read and understand the operating objectives and consent to the operational controls and other Project requirements.
- Adherence to Law - Persons operating a motor vehicle on behalf of the Project shall not exceed the posted speed limit through the Town and shall obey other applicable traffic laws.
- Responsive to Incidents - A representative of the Project working in coordination with the appropriate agency (i.e. fire district or police) will review any incident in the Town involving Project construction traffic and prepare a report to the Town describing the incident and any action taken.
- Peak Hour Operations - **Truck deliveries will not be scheduled through the Town on Highway 24 north of the Project during peak hours (seven days per week during the times of 7:30 am - 9:30 am and 4:30 pm - 6:30 pm) except when, based on monitoring, the traffic has cleared and no congestion delays are apparent within the peak period hours prescribed.** Worker traffic shall be limited to the maximum extent reasonably practical during peak periods. Infrequent time sensitive or time critical truck deliveries (e.g., critical items that have been delayed due to transportation network issues or other issues outside the Project's control) may occur during peak periods; however, these deliveries shall be routed through the Town based on the specific existing

conditions to avoid increasing congestion when delays are already present. Ginn shall work closely with the Town prior to allowing any peak hour operations.

- Respect for Lifestyle - Truck deliveries through the Town on Highway 24 north of the Project during summer evenings (seven days per week) from 4:30 pm -10 pm (June 1-September 1) shall be limited to time sensitive or time critical truck deliveries. No truck deliveries shall occur during specific special events identified by the Town and Ginn (e.g., Minturn Market or July 4<sup>th</sup> Parade). No construction traffic shall occur on Sundays except for time sensitive or time critical operations which have received prior approval from the Town. It should also be noted that CDOT will not allow construction activities to be performed within the highway right-of-way during the weekend.

### **3.2 ACCOUNTABILITY**

Success of the construction traffic effort not only depends on the systems and controls instituted by this plan, but on the leadership and commitment of workers, constructors, and suppliers. The goal of the Project is to institute a program that promotes the desired behavior by all workers, contractors, and suppliers. In a "behavior-based" program, workers, contractors, and suppliers are rewarded for being proactive and accountable to ensure each of these metrics and measures is achieved and that new ideas and modifications to the traffic management plan are promoted in an effort to resolve potential issues prior to an issue becoming a problem. This plan is premised on the idea that it is better to support correct behavior than to focus on correcting improper behavior.

## **SECTION 4 MONITORING AND REPORTING**

### **4.1 INTRODUCTION**

The monitoring and reporting system is designed to ensure compliance with the metrics and measures identified in Section 3 of this plan. All monitoring will be done on a continuous basis and reported weekly or monthly depending on the availability of data throughout the construction period or until otherwise determined unnecessary by the Town, or on such a less frequent reporting basis as may be agreed to by the Town Council.

### **4.2 TRAFFIC COMMITTEE ESTABLISHED AND RESPONSIBILITIES**

The Town may establish a Battle Mountain Traffic Committee to monitor and enforce the provisions of this management plan. The management plan should be self enforcing by Ginn based upon the continuous reporting of traffic information to the Town, however, the Town may decide it would like more oversight and therefore the establishment of a committee may be desirable. The membership of the committee shall be determined by the Town. It is suggested that the committee include one Town Council representative, two Town staff members, two at-large citizens, one Town of Red Cliff representative and a CDOT representative. A representative of Ginn will attend each committee meeting, as required, to provide information regarding Project-related construction traffic.

### 4.3 MONITORING SYSTEM

The following represent the monitoring systems that will be used to track Project construction traffic for reporting purposes. Some of the systems described will also be used to manage construction traffic. In addition, some monitoring systems are integrated with specific management incentive and disincentive strategies where, in some cases, examples of this integration are provided.

#### 4.3.1 Continuous Traffic Counts

Ginn will implement a monitoring system to track Project-related construction trips by vehicle type. Ginn will require the placement of Gen 2 Smart Tags or other similar technology on all worker and transit vehicles, and on all construction equipment and delivery vehicles (including those vehicles used by contractors hired directly by private homeowners). Gen 2 Smart Tags embed a radio frequency identification (RFID) chip and antenna within the label substrate material. Data is written to and read from the chip by radio waves using non-contact RFID technology. A unique identification number is preprogrammed into the tag when it is manufactured. Additional data may be encoded on the fly as the label is being printed. Because RFID is not an optical technology, Gen 2 Smart Tags can be read from more than 30 feet away, without respect to environmental conditions. For more information concerning the system, see Section 6 Implementation.

Continuous reading Pass Point Readers shall be placed by Ginn at each active construction entry to the Project; above and below each construction entry point on Highway 24; and at both the north and south ends of the Town prior to beginning construction. The locations of the Pass Point Readers shall be adjusted as construction entries are opened and closed. No construction entry will be opened until the Pass Point Readers are in place at the access point and above and below the access along Highway 24. 24-hour counts will be taken on a continuous basis throughout construction and reported to the Town on a weekly or monthly basis depending on data availability.. All counts shall be averaged weekly and monthly and reported based on the metrics and measures in Section 3 and shall identify vehicles by type as shown below.

The following vehicles shall be separately identified for each hour of counting:

- Cars
- Buses
- Light vans
- Rigid 2-axle goods vehicles
- Rigid 3-axle goods vehicles
- Rigid 4-axle goods vehicles
- 3 or 4-axle goods vehicles (articulated or with trailer)
- 5-axle goods vehicles (articulated or with trailer)
- 6 or more axle goods vehicles (articulated or with trailer)

The definitions for the above vehicle types are given below:

- Cars: Includes cars, small pickup trucks, all light vans with windows to the rear of the driver's seat and vehicles which can accommodate not more than 9 seats.

Land Rovers, Range Rovers and Jeeps are included. Cars towing trailers are counted as one vehicle.

- Buses: Includes all public service vehicles and work buses other than vehicles with less than 10 seats.
- Light vans: Includes all goods vehicles up to 7,700 lbs gross vehicle weight. This includes all car delivery vans and those of the next larger carrying capacity such as transit vans. Included here are small pickup vans and three-wheeled goods vehicles. Most of this group is delivery vans of one type or another.
- Rigid with two axles: Includes all rigid vehicles over 7,700 lbs gross vehicle weight with two axles. Includes ambulances, tractors (without trailers), road rollers, box vans and similar large vans.
- Rigid with three axles: Includes all non-articulated goods vehicles with three axles irrespective of the position of the axles. Excludes two axle rigid vehicles towing a single axle trailer.
- Rigid with four or more axles: Includes all non-articulated goods vehicles with four axles, regardless of the position of the axles. Excludes two or three axle rigid vehicles towing a trailer.
- Articulated with three axles (or with trailer): Includes all articulated vehicles with three axles. The motor unit will have two axles and the trailer one. Also included in this class are two axle rigid goods vehicles towing a single axle trailer.
- Articulated with four axles (or with trailer): Includes all articulated vehicles with a total of four axles regardless of the position of the axles, i.e. two on the motor unit with two on the trailer, or three on the motor unit with one on the trailer. Also includes two axle rigid goods vehicles towing two axle close coupled or drawbar trailers.
- Articulated with five or more axles (or with trailer): This includes all articulated vehicles with a total of five axles regardless of the position of the axles. Also includes rigid vehicles drawing close coupled or drawbar trailers where the total axle number equals five and articulated vehicles where the motor unit has more than one trailer and the total axle number equals five.
- Articulated with six or more axles (or with trailer): This includes all articulated vehicles with a total of six or more axles regardless of the position of the axles. Also includes rigid vehicles drawing close coupled or drawbar trailers where the total axle number equals six or more and articulated vehicles where the motor unit has more than one trailer and the total axle number equals six or more.

#### **4.3.2 Origin and Destination Studies**

Contractors shall be responsible for reporting to Ginn upon their employment where workers live and shall establish a transit pick-up and drop-off location for each worker. While Ginn is ultimately responsible for ensuring transit for workers is available, contractors may operate their own transit systems provided the system is operated in accordance with this plan and integrated with other Project transit systems as well as the data collection and management systems.

Ginn shall quarterly review (or more frequently if necessary based on conditions and Project phasing) worker origins and destinations to identify how the transit system may

need to be modified in order to operate efficiently for workers and ensure maximum utilization. Contractors operating their own transit systems will be responsible for making changes to their operations identified by Ginn.

Ginn shall document, in the required report, worker trip totals by pick up location (origin) and identify the number and type of workers that have been authorized to commute in single occupant vehicles. Ginn shall also identify any changes in the transit system that has been made as a result of the origin of workers and changes in contractors working on the site.

#### **4.3.3 Seek Public Comment Concerning Performance**

Ginn shall operate a hotline and internet portal for the public to report issues and comments concerning Project construction traffic. Comments and concerns submitted shall be summarized along with any action taken, resolution proposed or response to the issue or comment by Ginn. Ginn shall summarize these comments and provide them to the Town. Ginn will review these comments and working directly with the Town to propose necessary changes to the traffic management system. The Town may hold periodic meetings with the community and Ginn to review issues and concerns that may need to be addressed.

#### **4.3.4 Incident Management and Performance Monitoring**

Ginn shall establish a radio frequency/cellular call system for providing enhanced construction response to incidents on the State Highway system that could impact congestion or safety along Highway 24 within Eagle County.

A radio/cell call system shall be established for use by workers including all trucking companies serving the project; the Town Police Department, Eagle and Lake County sheriff's departments, State Police, and CDOT to allow the communication of incidents involving Project construction vehicles or other incidents that could impact traffic performance within the network and ultimately impact the flow of traffic through the Town and along Highway 24 in Eagle County.

In addition, surveillance cameras will be strategically located along Highway 24 between Dowd Junction and Leadville to monitor performance and incidents. The systems will be integrated with the GPS/SmartTag/GIS construction vehicle management system described in Section 6 Implementation. Using this system, trucks and other construction-related traffic will be reprogrammed (held/delayed, rerouted, or released) to ensure that Town metrics and measures are met and that conditions on Highway 24 are not worsened by the addition of Project construction traffic when conditions warrant.

Where an incident involves a Project-related construction vehicle, Ginn shall review the incident and conduct an analysis to determine if any changes in construction traffic management are appropriate. This information shall be reported to the Town as part of the required quarterly report.

#### **4.3.5 Driver Performance**

Ginn shall locate photo surveillance radars along Highway 24 to track performance of Project construction, transit and worker vehicles. Speed violations by Project Construction traffic shall be reported to the Town. Ginn shall enforce penalties against contractors, suppliers and worker for speed infractions identified within the Town north of

the Project. These penalties may include termination for repeat offenders or extreme violations or for violations of Project construction protocols that are identified by such surveillance.

#### **4.3.6 Random Check by Colorado State Patrol Motor Carrier Safety Section**

Ginn shall coordinate and provide for random checks (i.e., truck inspections) by the Colorado State Patrol Motor Carrier Safety Section (CSP) on a quarterly basis or as often as may otherwise be approved by the CSP, throughout the period of construction. Ginn shall report the results of the inspections on a quarterly basis to the Town within the quarterly report including a description of all actions taken by Ginn against any contractors or operators for any violations.

### **4.4 REPORTING**

Ginn shall produce a weekly or monthly report, or at a frequency required by the Town, of construction activities and submit it to the Town for its review. The Town may make the report available to the public. The report shall summarize the construction traffic by month at each construction entry and along Highway 24 averaged weekly or monthly for Monday through Sunday. Sundays shall be reported independently in accordance with the metrics and measures in Section 3. The report shall include the last four quarters and shall present the data as both monthly averages and annual averages for the preceding months and years as well as provide a projection for the next 12-month period. The report shall include a summary of worker transit ridership over the quarter and annually (presented on a monthly basis) and other transit information required to be reported by this section. The report shall summarize all activities undertaken by Ginn to enhance construction traffic operations in relationship to previous requests by the Town; identify any operational changes concerning construction traffic made during the last quarter that were initiated by Ginn; summarize the public input received during the quarter concerning construction traffic and the response or proposed action by Ginn; identify any construction traffic problems, issues, or incidents that occurred over the last quarter and how those were addressed, the effectiveness of the response, how the response will help the Project avoid such an incident in the future; and how the response will be modified in the future, if appropriate; and summarize Ginn's actions with respect to any enforcement action by the Town.

## **SECTION 5 STRATEGIES AND METHODS**

### **5.1 STRATEGIES AND METHODS**

This section identifies the major strategies and methods that will be used to manage construction traffic. Section 6 Implementation describes how the strategies and methods will be implemented.

The strategies and methods used to manage construction traffic through Town are organized into two main categories:

- Worker Management
- Delivery Management

Both categories include: (1) management systems design to manage the timing and volume of traffic; and (2) policies designed to promote correct behavior by workers that enhance safety and operations.

### 5.1.1 Worker Management

Workers are defined as those people contracted, subcontracted, or employed by Ginn or by other property owners within the Project to perform or manage any portion of overall Project construction.

#### A. Temporary Workers

Temporary workers are those workers who do not currently live in the three County areas (i.e., Eagle, Lake, and Summit) and who will move to the area on a temporary basis to support the construction.

##### 1. Management Strategies

- Location and housing of temporary workers. Require that contractors provide housing for temporary workers south of the Project or specific locations that can be served efficiently by transit. Ginn will assist the selected contractor(s) with locating temporary housing.
- Transit. Ginn or contractors will provide transit for temporary workers as an independent system that will integrate with regional transit systems, where appropriate. Temporary workers performing work on the site will be mandated to use shuttles from remote parking areas located to the south and north of Town as close to each worker's place of residence as possible.
- Off-peak shift changes. Ginn, in coordination with contractors, will schedule all shift changes to occur during off-peak periods. Peak periods currently include the hours of 7:30 am - 9:30 am and 4:30 pm - 6:30 pm.
- Parking availability. Ginn will specifically limit the available parking on-site to specific workers who may need access to their auto as part of their work efforts. Any other employees who commute in a single occupant vehicle when not authorized will be charged and disciplined as identified in the policies section.
- Workers daily needs: Ginn will contract for catering and other services for workers to eliminate the need for off-site trips for meals or other personal needs demands during shift.

##### 2. Policy Strategies

- Incentives: Ginn will provide incentives to encourage correct behaviors and performance. This may include cash bonuses to workers and contractors for meeting all performance objectives.
- Disincentives: Ginn will provide disincentives to discourage wrong actions and encourage right behaviors and performance. This may include penalizing workers financially for not taking transit, charging excessive parking fees for workers that drive and who are not authorized, and disciplinary action.
- Contractual obligations: Ginn will institute contractor and supplier obligations via all contracts that will provide incentives and

disincentives for performance and require contractors to meet certain operational and performance requirements (e.g., require contractors to locate worker housing south of the site or in areas easily served by transit)

- Training: All workers and contractors will be required by Ginn to attend training concerning operational and performance objectives.

**B. Local Workers**

Local workers live within the three county areas (i.e., Eagle, Lake, and Summit) and are not likely to relocate as a result of employment with a contractor or Ginn.

**1. Management Strategies**

- Off-peak shift changes. Ginn, in coordination with contractors, will schedule all shift changes to occur during off-peak periods. Peak periods currently include the hours of 7:30 am - 9:30 am and 4:30 pm - 6:30 pm.
- Parking availability. Ginn will specifically limit the available parking on-site to specific workers who may need access to their auto as part of their work efforts. Any other employees who commute in a single occupant vehicle when not authorized will be charged and disciplined as identified in the policies section.
- Workers daily needs. Ginn or contractors will contract for catering and other services for workers to eliminate the need for off-site trips for meals or other personal needs demands during shift.
- Transit. Ginn or contractors will provide transit for workers as an independent system that will integrate with regional transit systems where appropriate. Workers, unless specifically authorized by Ginn will be required to use transit. Workers performing work on the site will be shuttled from remote parking areas located to the south and north of Town as close to each worker's place of residence as possible.
- Vehicle share. Ginn will provide a number of fleet vehicles to accommodate workers who have off-site emergencies and must leave the site in order to respond (e.g., ill school children). These vehicles may be operated by Ginn or contractor as shuttle vehicles or as loaner vehicles for workers.

## **2. Policy Strategies**

- Incentives. Ginn will provide incentives to encourage correct behaviors and performance. This may include cash bonuses to workers and contractors for meeting all performance objectives.
- Disincentives. Ginn will provide disincentives to discourage nonconforming actions and encourage correct behaviors and performance. This may include penalizing workers financially for not taking transit; charging excessive parking fees for workers that drive and who are not authorized, and disciplinary action.
- Contractual obligations. Ginn will institute contractor and supplier obligations via all contracts that will provide incentives and disincentives for performance and require contractors to meet certain operational and performance requirements (e.g., require contractors to locate worker housing south of the site or in areas easily served by transit). Workers may also be required to execute agreements concerning operational and performance requirements.
- Training. All workers and contractors will be required by Ginn to attend training concerning operational and performance objectives.

### **5.1.2 Delivery Management**

#### **A. Management Strategies**

- Balancing materials. While there are specific site design goals, Ginn will make every effort to make use of on-site materials as efficiently as possible to reduce the quantity of imported bulk materials. Examples of this could be using remediation-generated materials for below grade fill on the Consolidated Tailings Pile (CTP), temporarily constructing an on-site batch plant, constructing an on-site compost system to produce top soil or preparing (crushing) site generated materials for use in development-related activities. On-site batch plants will be used to minimize the number of hauls required to obtain concrete and asphalt.
- Alternative delivery systems. Use of alternative delivery systems for construction materials and products shall be considered by Ginn and, where economically and technically feasible and consistent with Project goals; may be utilized. Ginn is continuing to work with representatives of the Union Pacific Railroad (UPRR) to determine the possible usage of the existing rail line as a means of delivering materials and construction products to the site. In the event Ginn reaches agreement with UPRR to use the rail line, Applicant will keep the Town apprised of UPRR's anticipated operating schedule. In addition, Ginn is reviewing the feasibility of moving bulk materials between the Mountain, Gilman, and Bolts Lake without accessing Highway 24 using various motorized transport systems.

**B. Policy Strategies**

- Incentives. Ginn will provide incentives to encourage correct behaviors and performance by suppliers. This may include cash bonuses to drivers or suppliers who meet all performance requirements.
- Disincentives. Ginn will provide disincentives to discourage nonconforming actions and encourage correct behaviors and performance by suppliers. This may include penalizing workers financially failing to perform in accordance with requirements including qualifications of drivers, abeyance of laws, equipment failures, etc.
- Contractual obligations. Ginn will institute contractor and supplier obligations via all contracts that will provide incentives and disincentives for performance and require contractors to meet certain operational and performance requirements.
- Training. All suppliers delivering more than ten truckloads of materials will be required by Ginn to attend training concerning operational and performance objectives.

## **SECTION 6 IMPLEMENTATION**

### **6.1 WORKER TRANSIT**

Ginn or their contractors will provide home-based fixed route/schedule worker shuttle service and will mandate its use by off-site workers with a commitment of greater than 75% utilization during peak construction periods. The route and schedule will be fine-tuned to worker residence locations so additional stops will be added as appropriate, but the shuttle system is expected to include stops at: Minturn, Frisco, Wolcott, Eagle, Gypsum, Red Cliff and Leadville, as shown in Figure 1 and 2. Public park and ride lots are available in many of these communities for the worker shuttles. Where parking facilities are not available, Ginn will develop needed parking lots or contract for additional parking on as needed basis, consistent with ultimate employee residence locations.

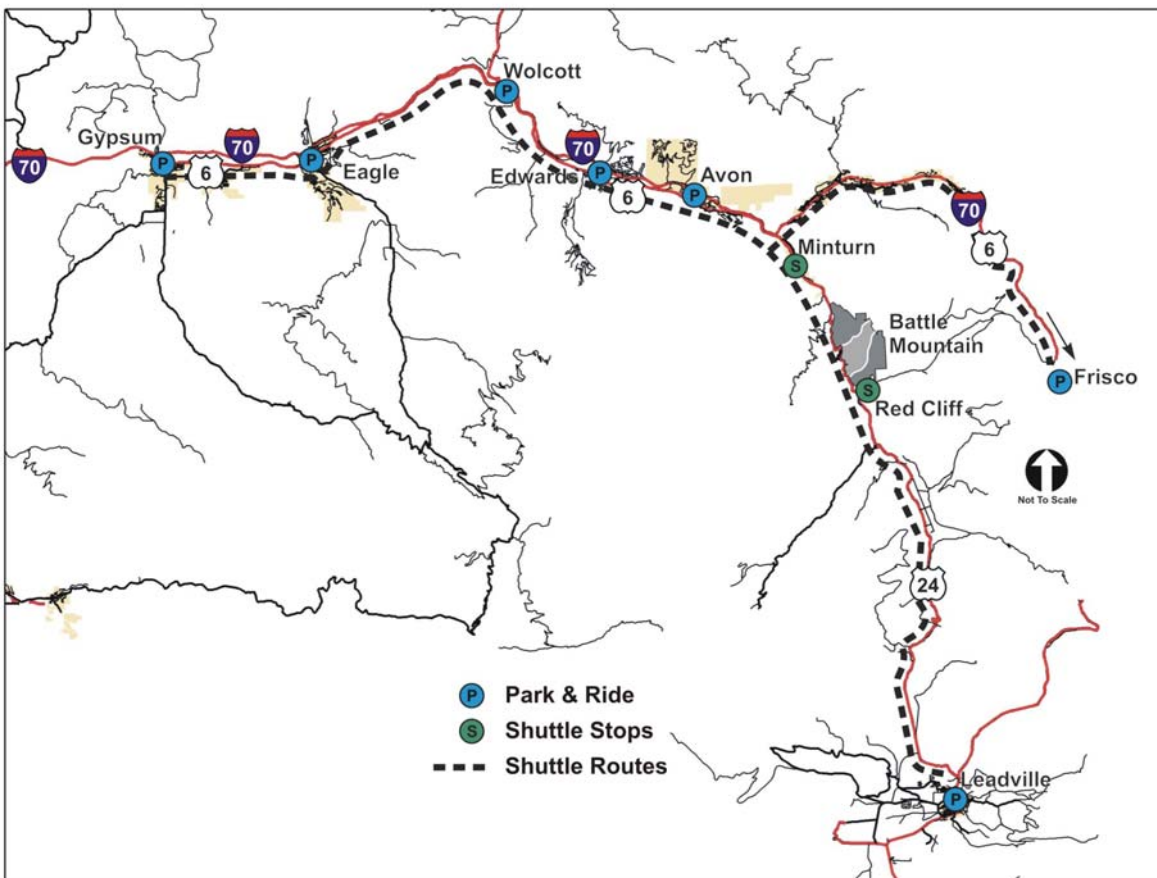
Based on the worker trip-reduction goals, it is anticipated that up to twenty passenger vehicles will be operated. The exact number will vary based on the number of workers engaged at any time and the commute time goals for workers. Shuttles will be scheduled based on shift changes and routes will be designed to minimize transit times. It is the goal to limit the additional commuting time for workers using transit to approximately 20%. For most potential route legs, the system can be expected to operate on 15-minute headways (i.e. separation between bus arrivals at any one stop) during peak usage hours (i.e. around shift changes).

Once onsite, workers will be transferred to their work location utilizing smaller passenger shuttles capable of handling the site terrain. These shuttles will be operated between the Bolts Lake, Gilman, and Mountain sites as fixed route/schedule during shift changes to move workers between the transit center at Bolts Lake and their work location on the property. At other times during the work period, the on-site shuttle systems will be operated as a demand response system to shuttle worker between work locations. The entire transit system will be integrated into the truck control system described in Section 6.2.

Figure 1. Worker Transit System



Figure 2. Worker Off-Site Shuttle System Routes



## 6.2 TRUCK CONTROL SYSTEM

### 6.2.1 System Description

Ginn will establish a traffic control center to manage all project-related construction traffic. The center will utilize several radio frequency-based technologies and text/voice communications including GPS, RFID (Gen 2 Smart Tags), Bluetooth, and PDAs. The system will be completely automated and provide interactive read/write tagging of materials, trucks and people in a wide area from storage/holding site (supplier and staging locations) to construction site and between work locations onsite. The operating software will fully integrate with project construction management and scheduling tools and provide for real time operations and communication with contractors/foreman, temporary signals, flaggers, all construction vehicles, and transit system.

The delivery scheduling and time of arrival of materials in and out of supplier's yards, and the holding/storage areas which will be established within concentric zones around the site along the major transportation corridors to the site involves a large logistics operation. A hierarchy of command, control and communication programs will increase the real time management capabilities by matching operations with project construction

schedules and delivery and traffic protocols including certification of delivery and time stamping. The system has an operations center with real time supervision and traffic management with event detection on the highways utilized or impacted. Visual inspection with surveillance cameras located along the highways of interest and automated data gathering via the tags are shown in multiple Internet-based screens showing diverse information such as routing, events, materials certification against need and ordered logs, diverted routes and or re-scheduling.

Through the constant communication with vehicles, monitoring of the transportation system operations, contractor demands, and onsite material supplies, delivery trucks and construction vehicles are released, held and rerouted and reprioritized both leaving and approaching the site. In addition, temporary construction signals will be controlled through the center to allow traffic to be released on Highway 24 to avoid delay and the formation of significant cues that could impact Highway 24 entry delays in Town. All flaggers will be managed by the system to ensure Highway operations are given adequate priority.

The control systems will be specifically designed in coordination with the prime contractors and suppliers, the Town, and CDOT. No construction-related site activities will be initiated until the control system is implemented by Ginn and approved for operation by the Town and CDOT.

#### **6.2.2 How Does This System Work?**

The following outlines the basic framework associated with system operations:

- Every truck is tagged with a sticker, which has a smart card chip that is interrogated by an antenna as the truck drives by. The tag has no batteries but it has a chip that powers up when it sees the radio waves of the antenna and transmits the information contained in the chip.
- Each antenna on each side of the road reads and writes information into the memory of that chip.
- The driver has a PDA that reads his ID card (a smart card with also a RF chip inside containing his credentials). The PDA is also tagged and verifies that the right driver is in the truck and sends all this via the road antenna in real time to the command center via an Internet link.
- Communication with the driver is via emails to the PDA and/ or phone link in the PDA.
- Position of the truck via GPS is accomplished by the sensor/antenna in the road, but also via the PDA.
- Materials are tracked also via tagging the manifests, dispatch log or on site inventory. This information is a materials protocol that provides also for tracking wrongful acts.
- Anomalous events in the critical highways are tracked via cameras and fed into the operation center web sites for evasive or remedial maneuvers.
- Hierarchical organization of information to check real versus planned operations is integrated into programs such as excel and Microsoft project or other construction management and scheduling software. Operations summaries can be generated in a daily basis with event logs and placed in secured Internet files.

- Vehicles arriving at a project gate without a tag or unannounced may be recorded either manually by persons overseeing the Project gates or via cameras linked to the overall system.

### 6.3 DRIVER PERFORMANCE MONITORING

On and off site surveillance will be conducted by Ginn to monitor construction related vehicular driver performance. This monitoring will include speed, driving behaviors, and general maintenance of vehicle. This monitoring will include visual observations, camera monitoring linked with the truck tagging system described above and information gathered from off site law enforcement agencies. While off site, Ginn will work with local and regional law enforcement agencies to ensure coordination and collaboration on observed behaviors and general driving practices. The basis and expectations of this program will be discussed as part of the training program discussed in the next section.

### 6.4 POLICY PROGRAM

Prior to mobilizing equipment for development of the site in association with the Project, Ginn will develop operation and performance manuals for workers, contractors, and suppliers that outline the detailed operating standards with respect to all travel on Highway 24. The manuals and training program will be provided to the Town and approved prior to Ginn initiating development of the site.

Ginn shall be responsible for tracking and reporting all actions taken under the program and for providing the Town certification on a quarterly basis that all workers, contractors, and suppliers contracted or employed by Ginn for more than 60 days prior to the date of the report have undergone training. Once the initial training has been completed and Ginn has provided verification of the training, construction-related site activities may proceed in accordance with the land use approvals.

## SECTION 7 ENFORCEMENT

### 7.1 INTRODUCTION

Ginn is committed to meeting the construction trip budgets and all other metrics and measures established in Section 3, and has established, through the monitoring and reporting, a management and **self-policing program that will ensure that Project construction traffic does not exceed the metrics and measures established in Section 3.** However, the Town needs to be able to enforce the metrics and measures established in Section 3 to ensure that the impacts of the Project to the Town and its citizens are limited to those represented.

This section outlines the enforcement measures available to the Town with respect to construction.

### 7.2 TRAFFIC COMMITTEE AND REPORTING

As part of the monitoring and reporting program outlined in this plan, Ginn has suggested that the Town establish a Battle Mountain Traffic Committee to oversee the metrics and measures, review reports, analyze construction traffic issues arising from the Project, make recommendations to Ginn and Town Council concerning any enhancements to the construction traffic management

program, and make recommendations to Town Council to initiate enforcement actions. However, the plan ensures that the enforcement of the plan ultimately lies with the Town.

### **7.3 ENFORCEMENT PROCESS**

The Town may initiate enforcement against Ginn for failure to meet the metrics and measures established in Section 3 of this plan in the manner the Town would initiate any other enforcement action pursuant to the Town Charter or Municipal Code. The Town's action may be based on the monitoring and reporting conducted by Ginn or by independent monitoring and reporting conducted by the Town.

Enforcement against Ginn for failure to conform to the metrics and measures established in Section 3 of this plan may be initiated at any time. Since Ginn and the Town will be receiving real time data on a weekly or monthly basis, each party will recognize any failure in the system almost immediately. Once a failure or problem is recognized by Ginn or the Town, Ginn shall take immediate steps to remedy the failure even without any formal notice from the Town.

### **7.4 ENFORCEMENT THRESHOLDS, ACTION AND PENALTIES**

The primary purpose of the enforcement thresholds, actions, and penalties is to resolve construction traffic issues that result from exceeding the metrics or measures established by Section 3 of this plan. This list of enforcement actions represents the actions that may be taken by the Town to enforce this plan. Any violation of the metrics and measures presented in Section 3 is grounds for the Town to initiate an enforcement action.

The Town may decide on the level of enforcement or penalties it wants to establish for documented violations of the plan. These may include any of the following or combination of the following:

- Withholding building or other construction permits on any Ginn developed or constructed improvement including; Ginn developed single-family homes, condominium units, project amenities (i.e., ski facilities, golf course improvements, resort improvements, etc.), and infrastructure. The approximately 450 homes of the 1,700 total units that may be developed by individual property owners are not subject to this provision.
- Withholding certificates of occupancy, including temporary certificates of occupancy, on any Ginn developed or constructed improvement including; Ginn developed single-family homes, condominium units, and project amenities (i.e., ski facilities, golf course improvements, resort improvements, etc.). The approximately 450 homes of the 1,700 total units that may be developed by individual property owners are not subject to this provision.
- Issuing stop work orders or "red tags" on any Ginn developed or constructed improvement including; Ginn developed single-family homes, condominium units, and project amenities (i.e., ski facilities, golf course improvements, resort improvements, etc.) and infrastructure. The approximately 450 homes of the 1,700 total units that may be developed by individual property owners are not subject to this provision.
- Application of a fine of up to \$3,000 per day (adjusted annually for inflation) for each day of a violation to be paid to the Town. The Town shall determine how it wishes to use funds collected from fines.
- Taking no action.

No enforcement action or penalty shall be taken without there first being an opportunity for Ginn to respond directly to the issues with the Minturn Town Council at a public hearing.

Though the single family home construction actives are not subject to the provisions listed above, their worker and truck trips for these activities are included within the metrics and measures presented in Section 3 of this plan. In addition, these activities will be managed overall by Ginn through their preferred contractor program and not be allowed to exceed the listed "trip budgets" even if portions or all of the Ginn related construction activities have been slowed through an enforcement action or red tagged. It should also be noted that even if an enforcement action is taken by the Town, travel demand systems (i.e. transit and shuttles) will remain operational to ensure activities unaffected by an enforcement action remain controlled and within metrics and measures presented in Section 3 of this plan.

At any point during a project phase, Ginn may choose to invest in reducing background trips on Highway 24 through the Town (i.e., cooperation with regional transit providers or other employers). Any documented reductions in background traffic created by Ginn's investment (i.e., non-project related) shall count the same as a reduction in project-related trips. This investment option was seen as another means to not only mitigate for project related traffic impacts, but also a way to further assist in managing the overall growth in regional background trips on the highway. With the intent being for Ginn to continue as a partner to proactively seek opportunities to keep the overall volume of traffic on the highway within LOS requirements established by CDOT.

## **SECTION 8      SUMMARY/CONCLUSIONS**

This plan will be used as the basis for implementing the requirements of this construction traffic management plan. The objectives serve as the basis for all actions while the metrics and measures will be used as appropriate to determine when performance is meeting or not meeting Town and CDOT expectations and when additional strategies or modifications in existing strategies and methods need to be employed to bring performance into conformance with the metrics and measures, and associated objectives.