CHAPTER 11

MOVING GOODS AND AIR TRAFFIC

Background

Improving the system linkages between freight, multimodal surface roadways, and port/railroad infrastructure is important for the vitality of the national economy. State and local transportation planning efforts are envisioned to ensure the safe, efficient, and effective movement of people and goods as part of the national transportation system.

The federal *Safe, Accountable, Flexible, and Efficient Transportation Equity Act-A Legacy for Users* (SAFETEA-LU) legislation outlined eight federal planning factors. Three of the eight planning factors include freight-related provisions that should be addressed as part of the metropolitan transportation planning process as follows and specifically calls for the need to address freight movement as part of the transportation planning process:

"…statistics will save us from doing what we do, in the wrong places. … The surplus, that which is produced in one place to be consumed in another; the capacity of each locality for producing a greater surplus; the natural means of transportation, and their susceptibility for improvement; the hindrances, delays, and losses of life and property during transportation, and the causes of each, would be among the most valuable statistics in this connection."

Internal Improvements, Speech of Mr. A. Lincoln of Illinois in the House of Representatives, June 28, 1848, *Cong. Globe*, 30th Cong., 1st Sess. 709-711 (1848)

- 23 U.S.C. §134 (a) Metropolitan transportation planning states that it is in the national interest to encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight and foster economic growth and development within and between States and urbanized areas, while minimizing transportation related fuel consumption and air pollution through metropolitan and Statewide transportation planning processes identified in this chapter; and encourage the continued improvement and evolution of the metropolitan and Statewide transportation planning processes by MPOs, State departments of transportation, and public transit operators as guided by the planning factors identified in subsection (h)(as shown below) and section 135(d).
- 23 CFR §450.306(a) The metropolitan planning process for a metropolitan planning area under this section shall provide for consideration of projects and strategies that will…

  (1) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;

  (4) Increase the accessibility and mobility of people and for freight;

  (6) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;

As part of the metropolitan planning organization (MPO) participation planning requirements under title 23 U.S.C., the SAFETEA-LU consultation requirements were expanded in order to include freight shippers, who are providers of freight transportation services, as interested parties that should be provided a reasonable opportunity to comment on programs and long range transportation plans.

- **23 CFR §450.316(a)** - Interested Parties, Participation, and Consultation—The MPO shall develop and use a documented participation plan that defines a process of providing citizens, affected public agencies, representatives of public transportation employees, FREIGHT SHIPPERS, PROVIDERS OF FREIGHT TRANSPORTATION SERVICES, private providers of transportation, representatives of users of public transport, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with reasonable opportunities to be involved in the metropolitan transportation planning process.
- **23 CFR §450.316(b) -** In developing MTPs and TIPs, the MPO should consult with agencies and officials responsible for other planning activities within the MPA that are affected by transportation (including State and local planned growth, economic development, environmental protection, airport operations, or freight movements) or coordinate its planning process (to the maximum extent practicable) with such planning activities. In addition, MTPs and TIPs shall be developed with due consideration of other related planning activities within the metropolitan area…

The Idaho Trucking Association

The Idaho Trucking Association has been serving Idaho since 1934 and currently has 225 members. Their mission is the advancement of the interests of transporters of property and passengers by motor carriers, and to promote and preserve the inherent advantages of highway transportation.

To learn more about the Idaho Trucking Association, please visit the following website:

www.idtrucking.org/mission.php

Freight Services

Freight is the transport of goods that connects businesses to suppliers and markets by truck, rail, pipeline, air, and/or water. It is vital to the existence and growth of global, national, state, and local economies. Freight in southwestern Idaho is moved by highway, rail, and air. Within Idaho the transportation system moved 96,000 tons of freight worth $78 million per day to serve 520,000 households and 40,000 establishments. Approximately 97% of weight and 96% of value were hauled by truck within Idaho. As the Treasure Valley grows, so will the demand for goods; therefore, freight must remain competitive, effective, and responsive to these growing demands.

Highway Freight

The majority of freight movement in the region occurs via the highway system. Even freight brought into or leaving the area by other means is transported by truck either to or from the other modes of transportation. Trucking companies serve the region's freight needs with widely varying travel patterns, times of operation, and specializations.

In 2007, the Treasure Valley Truck Freight Study was conducted to collect information about truck freight moving in, out, and around the Treasure Valley. The study consisted of three data collection efforts:

To learn more about the Treasure Valley Truck Freight Study, please visit the following website:

www.compassidaho.org/prodserv/specialprojects-tvtfs.htm

- The commercial vehicle intercept study interviewed more than 2,200 truckers at the ports of entry and truck stops about commercial vehicles classification by weight, size and configuration, trip origin and destination, land use at the origin and destination, time of day of travel, cargo transfer type, and cargo and trip frequency.
- The external station data collection project captured more than 51,100 vehicles entering, leaving, or passing through the area.
- The commercial vehicle survey surveyed over 460 local establishments, which amounted to travel data on more than 6,500 commercial trips. The data contained origin and destination of local trips, time of day travel, frequency of trip, length of trip, vehicle occupancy, cargo and route.

The external station data collection project evaluated through trip traffic for commercial and non-commercial vehicles by tracking vehicles entering at specific locations. These locations, shown on Figure 11.1, were collected on October 23, 2007, from 8:00 a.m. to 6:30 p.m. On that day, over 51,100 license plates were recorded which resulted in over 64% of all traffic "captured." The results are interesting and surprising – less than 2% of the traffic on the interstate and state highways is passing through the area, and commercial vehicles contribute to half of this number. However, truck freight makes up over 16% of the traffic on the interstate and highways entering and leaving the Treasure Valley. This means freight is a large contributor to the local economy. If truck freight stops, the area has an average three day supply of food, medical supplies, cash, and auto fuel.

For total trips monitored at the external locations, the following conclusions were reached:

- 3.7% (~1,500 of 40,006) of all vehicle trips entering at one of the nine locations pass through Treasure Valley.
- 10% (~720 of 6,965) of all commercial vehicles entering at one of the nine locations pass through the Treasure Valley.
- 2.4% (~780 of 33,042) of all non-commercial vehicles entering at one of the nine locations pass through Treasure Valley.

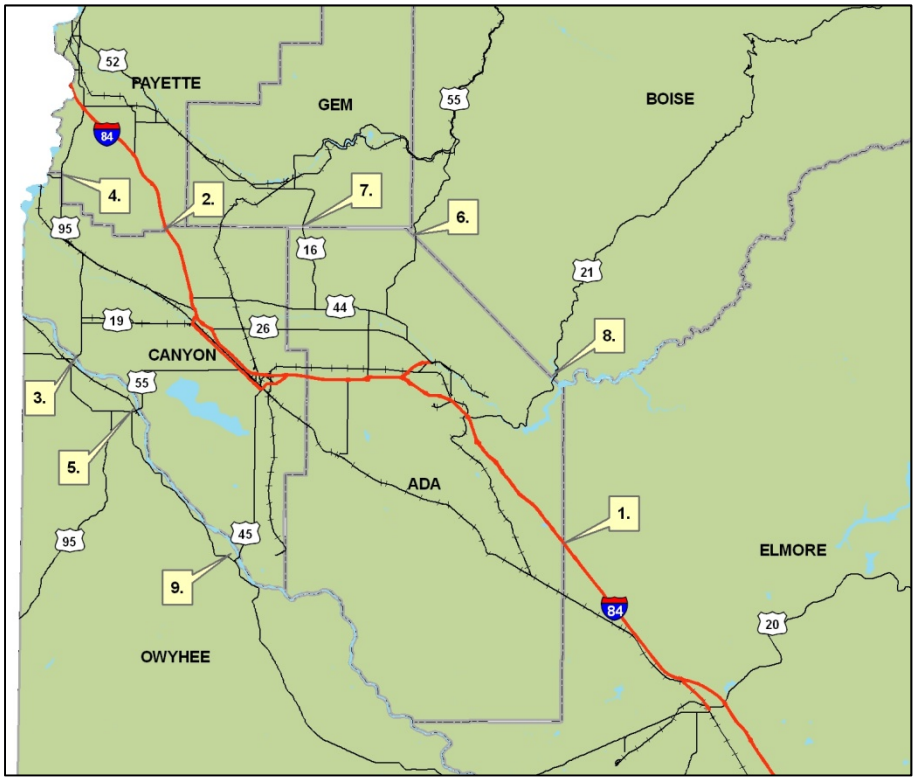

Figure 11-1: External Station Data Collection Project Tracking Locations

The two most critical locations were Stations 1 and 2, which monitored traffic entering the region via I-84. For commercial traffic entering at Station 1, at the Elmore/Ada County line, the study concluded that less than 700 trucks of the 10,100 entering also exited the region. This was about 7% of the total. For commercial traffic entering at Station 2, at the Payette/Canyon County line, the study concluded that less than 400 trucks of the 9,600 entering also exited the region. This was about 4% of the total. A majority of the through trips use I-84. The findings indicate that much of the commercial traffic has some business to conduct in the region in terms of delivering/picking up goods or simply fueling/dining. For non-commercial vehicles, the percentages were below 5%.

The conclusions indicate that provision of a "bypass" would not substantially reduce traffic on the most congested portions of I-84 between Nampa and the Wye Interchange. For example, current volumes approach 120,000 vehicles per day just west of the Wye Interchange. A bypass might reduce truck traffic by 600 vehicles per day and another 500+ non-commercial vehicles per day.

Rail Freight (with Passenger Discussion)

The railroads in Idaho operate 1,634 track miles in the state, including main lines, secondary main lines, branch lines, and short lines[1]. The state is served by two major long-haul railroads, the Union Pacific Railroad (UP) and the BNSF Railway, which provide connections to points in the United States, Canada, and Mexico. The state also has one regional railroad, as well as six short line railroads that act as feeders to the major railroads.

The railroads are an important part of Idaho's transportation system and economy. Idaho's railroads originate over 11 million tons of freight traffic annually. Farm products are the top commodity originated, accounting for approximately three million tons. Other top commodities originated by Idaho railroads are lumber and wood products, food products, chemicals, and nonmetallic minerals. Idaho railroads also terminate over nine million tons of freight annually, including farm and food products, nonmetallic minerals, and chemicals.

Rail freight in southwest Idaho focuses on farm, food, and wood products, and this focus is expected to continue. The closing of the region's Boise Cascade sawmills and the Nampa rail intermodal facility (Comptons) have resulted in a reduction in the proportion of wood products being shipped by rail in the future.

The Union Pacific Railroad main line is the primary rail system in the region that moves goods to and from the West Coast ports and Midwest markets. Amalgamated Sugar and Simplot are UP's largest customers in the region. According to UP staff, the company does not plan to change its operations in the region; however, they are concerned about the safety of rail crossings and adequate separation from populated areas.

Boise Valley Railroad (BVRR) leases the freight rights for the Boise Cutoff (the section of rail between Nampa and Boise) and serves a number of industrial customers, with a focus on forest products, agricultural products, and chemicals. In recent years, BVRR has rebuilt a declining freight market, increasing volume by one- third. This demonstrates a legitimate need for rail freight movement. While there is still some room for future expansion through existing customers, the line has a limited number of available building lots that abut the rail corridor. Some prime rail building sites are occupied by non-rail users.

[1] http://www.compassidaho.org/documents/prodserv/maps/2010/rail.pdf

The City of Boise wants to continue to preserve the rail corridor, which it owns from Hillcrest Road to Orchard Street, for industrial uses in order to encourage economic development as well as for a variety of local and regional uses including potential passenger service. Any significant increase in rail-served industrial land would likely have to come east of Boise, along a line previously used by Amtrak, to provide service to Boise off the UP main line. BVRR says clients have expressed interest in finding large industrial development parcels that could be served by rail but a limited number of sites are currently available. Existing restrictions prohibit the movement of hazardous materials along the Boise Cutoff due to its proximity to urban areas.

While BVRR leases the freight rights on the Boise Cutoff, it does not own the rails nor have the rights to operate passenger service. After the end of Amtrak service on the Cutoff in 1997, the City of Boise acquired the rail section connecting Boise to the main line near the Orchard town site, southeast of Boise, through a purchase and donation to preserve that corridor.

In 2003, Valley Regional Transit took an initial step to evaluate the possibility of regional passenger rail service from Boise to Nampa. This technical study, called the Rail Corridor Evaluation,[2] determined the track is still in good condition, but requires upgrades if used for passenger service. This upgrade is estimated to cost between $40 and $50 million, with at least that much more for the purchase of the rail cars and construction of stations, park and ride lots, a dispatch/control center, and a maintenance facility. Funding to support the costs to operate the system would have to be secured.

The introduction of passenger service on the Boise Cutoff will affect BVRR's business along the single branch line. However, because the Boise-Nampa rail line handles only a moderate to light level of local freight traffic, it may be possible to shift rail freight service to nighttime hours only. While there are some areas where freight trains could pull aside to allow passenger trains to pass, it would most likely require BVRR to service customers at off-peak hours. Assuming possible future public ownership of the Boise Cutoff, commuter passenger service would still require an agreement with BVRR.

[2] "Rail Corridor Evaluation," Valley Regional Transit, URL: http://site303.webhost4life.com/vrtransit/PROJECTSSTUDIES/RAILCORRIDOREVALUATION/tabid/109/Default.aspx

The feasibility of passenger commuter rail service along that corridor will depend upon the development of an integrated land use and urban design pattern and identification of a local, on-going funding stream. The rail system also depends on an extensive complementary bus system to link other parts of the region to the rail corridor. Treasure Valley High Capacity Transit Study, complete in 2009, evaluated a range of options to serve the area between downtown Boise and the City of Caldwell. The study found that evaluating four arterial alignments -Fairview Avenue/Cherry Lane, Franklin Road, Overland Road and the Boise Cutoff rail best addressed the purpose of the study. Three transit modes, bus rapid transit-exclusive lane, bus rapid transit-mixed traffic, and light rail were evaluated on each alignment. Please refer to Chapter 6, Expanding Transportation Choices, for more in-depth discussion of transit.

To learn more about the Treasure Valley High Capacity Transit Study, please visit the website:

www.compassidaho.org/prodserv/specialprojects-tvhcts.htm

Air Travel and Freight

The largest air facility in the region is the Boise Airport (BOI), also known as Gowen Field or the Boise Air Terminal. In the mid-1990s, the Boise Airport began expansion to accommodate more passengers and freight. A master plan evaluated the community's recent and future growth and suggested that the airport grow in phases. The plan predicts an increase from the current three million annual total passengers to approximately six million by 2020[3]. A new terminal was opened in 2003; a year later, the airport unveiled a new food court, ground-loading concourse, and a security checkpoint. In 2005, Concourse B was refurbished. Future additional improvements include:

- New taxiway exit for the runway
- Full-length, parallel taxiway on the south side of the runway
- New, longer parallel runway
- Relocation of the traffic control tower
- Larger spaces for general aviation, air cargo, and the National Interagency Fire Center
- Additional parking.

These improvements are paid for using federal grant funds, direct funding from the Federal Aviation Administration, use fees, and terminal rent.

[3] "Boise Airport Year in Review," 2003, Page B.

Table 11-1 shows general statistics and projections for the Boise Airport from 1995 through 2035, which illustrate the growth the airport has experienced and expects to experience in the next 25 years. End of year 2006 and 2007 experienced the highest volume of freight and enplaned passengers at 94,874 tons and 1,679,427, respectively.

Table 11-1: Boise Airport Statistics[3]

	End of Year 1995	End of Year 2009	Change 1995-2009	Projected 2035	Change 2009-2035
Enplaned Passengers	1,107,571	1,397,772	26%	1,918,200	37%
Total Freight	57,386	73,528	28%	121,600	65%

The above figures do not show the effects of the recent economic downturn on passenger volumes from 2008 to today. The forecasts do not assume this downturn will continue for an extended period of time although, included in the forecast calculation.

Gowen Field, located within the Boise Airport, is home to the Idaho National Guard, which includes the 124th Wing of the Air National Guard and two aviation battalions of the Army National Guard. With Mountain Home Air Force Base located approximately 50 miles east of Boise, U.S. Air Force aircraft use the Boise Airport on a regular basis. All counties within the study area rely on the Boise Airport for commercial passenger air travel. Two airports in Canyon County serve general aviation: Caldwell Industrial Airport and Nampa Municipal Airport.

> Boise constructed its first municipal airport in 1926 along the Boise River, where Boise State University is located today…. By 1938, Boise purchased land and relocated the airport to its current location. At the time the 8,800-foot runway was the longest in the nation.
>
> *- Boise Airport Year in Review 2003*

The Caldwell Industrial Airport sits alongside I-84 on 154 acres of land. A total of 460 acres was purchased in 1971 for the airport to ensure an adequate amount of land for future growth. Over 400 aircrafts are housed at the airport with enough room for 1,000 more. The airport's master plan calls for an extension to the runway (from 5,500 feet to 7,140 feet) and installation of a precision approach. A new 9,000 square foot terminal building is under construction and completion is expected fall 2010. The new terminal will include a state of the art pilots' lounge, car rental booths, insurance and freight offices, and a 100-seat café.[4]

> To see the locations of these airports, please visit the following website:
>
> http://www.compassidaho.org/documents/prodserv/maps/2010/airports.pdf

[4] City of Caldwell website: http://city.cityofcaldwell.com/index.v3page?p=32336, August 1, 2005.

The Nampa Municipal Airport was built in 1929 and is located on 242 acres in northeast Nampa; it has an additional twenty acres for future development. The city owns the airport. A single runway, 4,050 feet by seventy-five feet accommodates an estimated 118,100 annual operations (August 2005) and 315 based aircraft. Nampa airport staff estimate the facility could accommodate another 71 aircraft hangers plus 12 business lots for additional aircraft. Future plans integrate airport development and surrounding uses to achieve long-term compatibility. The airport has a master plan that will guide phased development through 2012.

Other airports exist in the six-county area, but the majority are private use facilities. Table 11-2 shows a listing of public use airports in the planning area.

Although Mountain Home Air Force Base in Elmore County is not used publicly, the base is important to the region. Mountain Home Air Force Base and the 366th Fighter Wing have a rich history that stretches back more than 50 years to the United States' entry into World War II. Although the wing itself was not activated until after World War II, it shares the World War II heritage of the 366th Operations Group, whose precursor organization, the 366th Fighter Group, was established about the same time the base was being built.

MOUNTAIN HOME AIR FORCE BASE, Idaho (AFPN) -- A crew chief uses hand signals to communicate with an aircrew before they take off to perform an evening training sortie over central Idaho. (U.S. Air Force photo by Master Sgt. Scott Wagers)

Table 11-2: Public Use Airports in the Six-County Area

County	Airport	Acreage	Comments
Ada	Boise Airport	5,000	Operated by the City of Boise
Boise	Garden Valley Airport	25	Operated by the Idaho Transportation Department, Division of Aeronautics
	Idaho City USFS Airport	12	Operated by the U.S. Forest Service
	Warm Springs Creek (Lowman)	19	Operated by the Idaho Transportation Department, Division of Aeronautics
Canyon	Caldwell Industrial Airport	154	Operated by the City of Caldwell
	Nampa Municipal Airport	191	Operated by the City of Nampa
	Parma Airport	44	Operated by the City of Parma
Elmore	Atlanta Airport	14	Operated by the Idaho Transportation Department, Division of Aeronautics
	Graham USFS Airport	11	Operated by the U.S. Forest Service
	Weatherby USFS Airport	15	Operated by the U.S. Forest Service
	Glenns Ferry Municipal Airport	85	Operated by the City of Glenns Ferry
	Mountain Home Municipal Airport	443	Operated by the City of Mountain Home
	Pine Airport	16	Operated by the Idaho Transportation Department, Division of Aeronautics
	Smith Prairie Airport (Prairie)	39	Operated by the Idaho Transportation Department, Division of Aeronautics
Gem	Emmett Municipal Airport	80	Operated by the City of Emmett
Payette	Payette Municipal Airport	260	Operated by the City of Payette

Linking Project Prioritization and Freight Corridors

National and Regional Freight Corridors

Emphasis on freight planning and ways to fund freight projects is increasing, especially in freight-hubs like Chicago. However, smaller areas must also engage in freight planning due to federal regulations. Current federal guidance requires each state to develop a freight plan – much like a long range transportation plan. This would roll up into a national freight plan to create a more holistic merit based approach. However, competition for federal funding is fierce so new revenue sources are necessary just to maintain the existing program. One of the first steps to integrate freight into planning is to identify freight corridors – these are NOT truck routes nor should be interpreted as such. Figure 11-2 highlights Interstate 84 – national and regional corridor; and the Union Pacific main rail line – regional corridor.

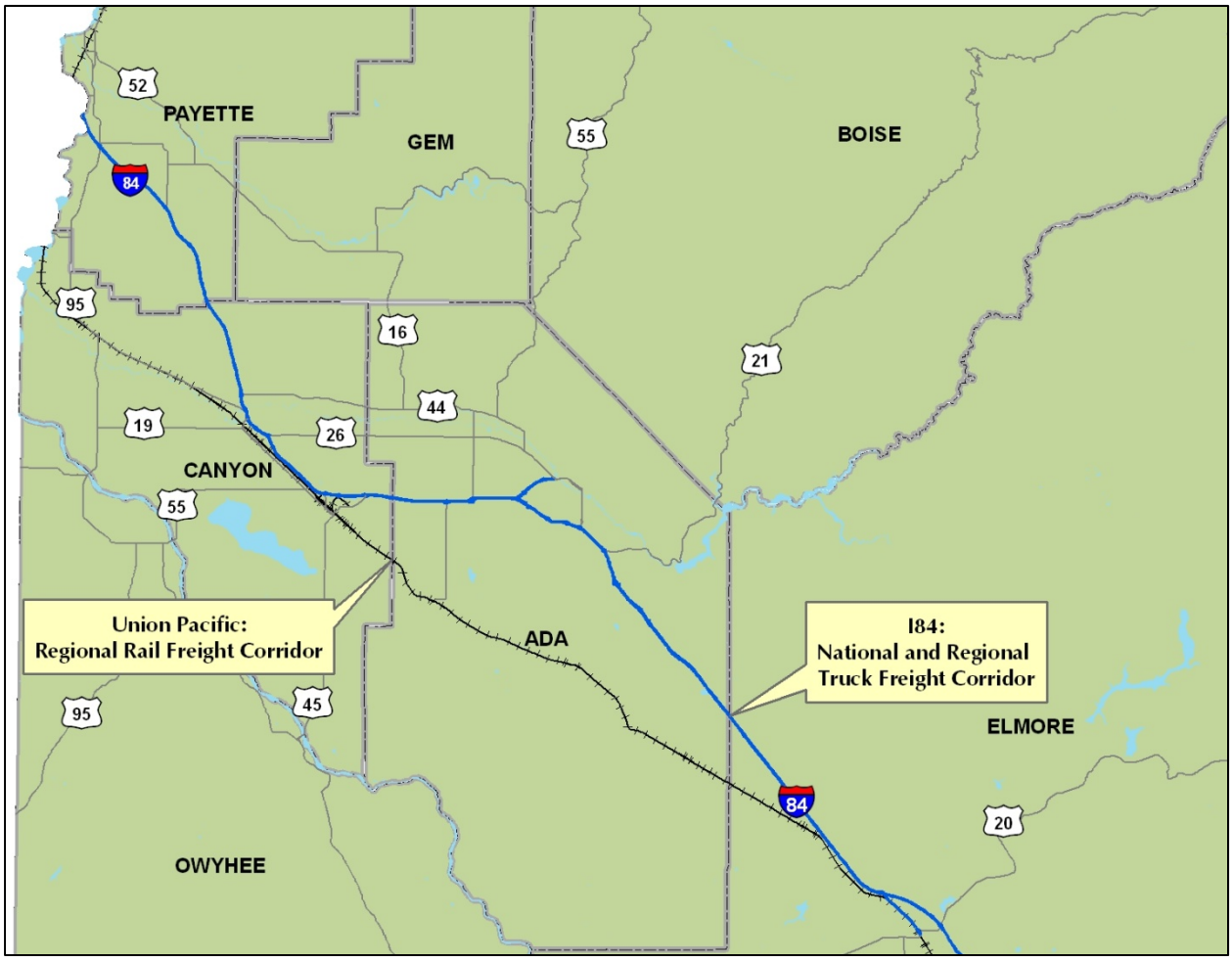

Figure 11-2: National and Regional Freight Corridors

Local Freight Corridors

Based on results from the commercial vehicle survey the corridors listed below and shown in Figure 11-3 are used most for local freight and directly influence the points received during prioritization. Over 75% of the local truck freight is by light truck, van, and passenger car or sport utility vehicle. Heavy two-axle trucks make up only 11.6%. Over 88% of the destinations are to the cities of Boise, Nampa and Meridian.

1. I-84 - 12.1%
2. US 20/26 (Chinden Boulevard) - 3.3%
3. SH 44 (State Street) - 3.3%
4. Franklin Road/Franklin Boulevard[5] - 3.2%)
5. Eagle Road (SH 55) - 2.7%
6. Overland Road – 2.0%
7. Cole Road - 1.5%
8. Cloverdale Road - 1.1%
9. Emerald Street- 1.1%
10. Fairview Avenue - 2.5%

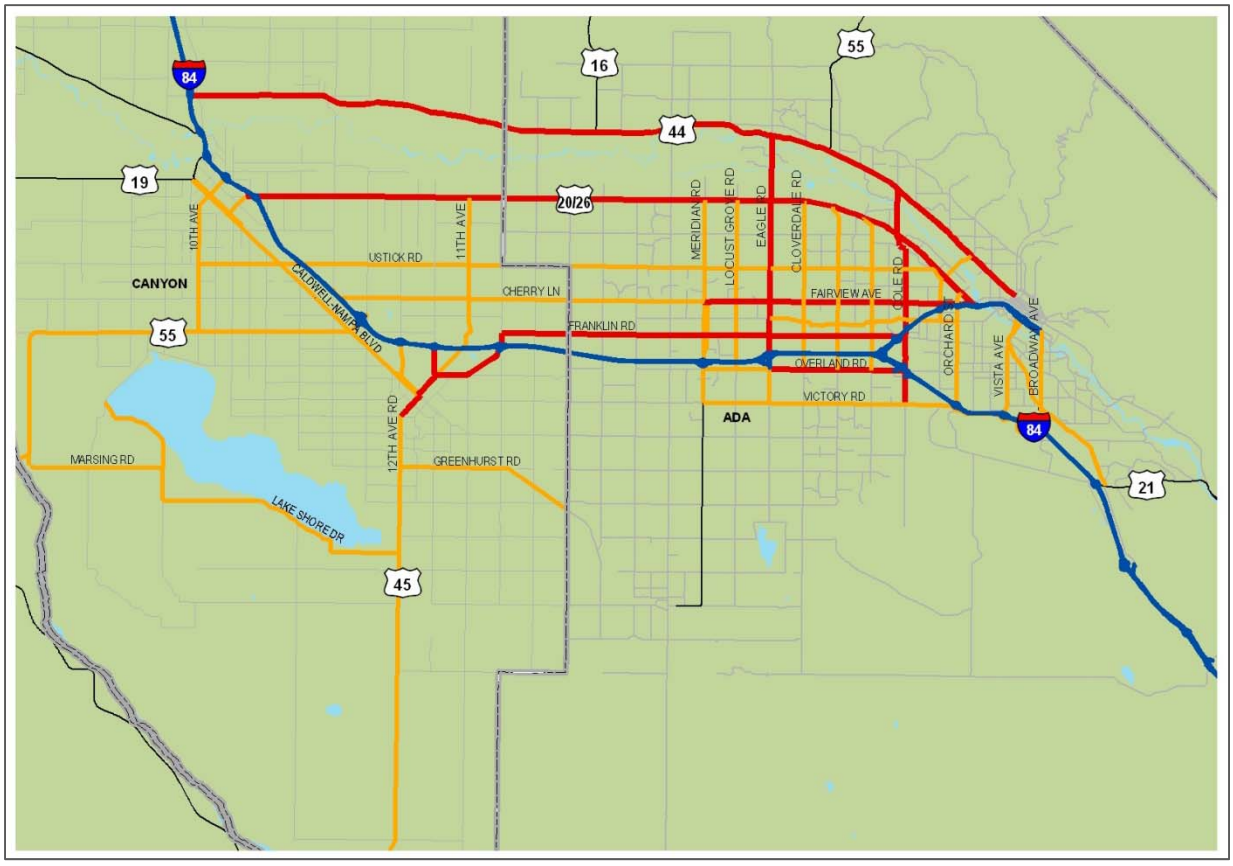

Figure 11-3: Local Freight Corridors

[5] Total for both routes - most drivers did not distinguish between Franklin Road and Franklin Boulevard.

Project Prioritization

Transportation projects that improve safety and/or the mobility of goods for the above identified freight corridors will receive points during the annual transportation improvement program (TIP) prioritization process (Table 11-3), once approved by the COMPASS Board. These projects would consist of but are not limited to: intersection improvements, railroad crossing upgrades, new railroad overpasses, new or improved interstate overpasses, roadway widening, access control, intelligent transportation systems and/or maintenance.

To learn more about the TIP Project Prioritization Process, please visit the following website:

http://www.compassidaho.org/prodserv/transimprovement.htm

Table 11-3: TIP Project Prioritization, Potential Points (as of June 17, 2010)

Primary Freight Routes (10 points)	• 1-84 • US 20/26 (Chinden Blvd) • SH 44 and State St Franklin Road/Boulevard[6]	• Garrity Boulevard Eagle Road (SH 55) Fairview Avenue Overland Road • Cole Road
Secondary Freight Routes (7 points)	• 10th Avenue (Caldwell) • 11th Avenue (Nampa) • Broadway Avenue • Caldwell-Nampa Boulevard • Cherry Lane • Cloverdale Road • Curtis Road / Veteran's Memorial Parkway[7] • Emerald Street • Federal Way Vista Avenue • Five Mile Road	• Greenhurst Road • Lake Shore Drive • Locust Grove Road • Maple Grove Road • Marsing Road • Meridian Road • Orchard Street • SH 45 and 12th Avenue Road • SH 55 (Karcher Road) • Ustick Road • Victory Road
Support Facilities (4 points)	As described by project sponsor and accepted by RTAC Scoring Committee	

[6] Respondents did not distinguish between Franklin Road and Franklin Boulevard therefore, given total points for both routes.
[7] Routes added for connectivity between primary routes indicated in the survey results.

Freight movement in Idaho is an important element of Idaho's transportation future. Whether used to transport agricultural products, high tech components, or numerous commodities, transportation is the thread that binds our state's economy together. Freight growth across the nation is expected to nearly double by 2035 with 61% of all commerce in commodities involving truck transportation on our nation's roads and highways (Freight Facts and Figures, 2009). Investing in freight infrastructures and networking the various modes will facilitate the movement of vital commodities.

More information about freight is located on the following websites:

Freight Analysis Framework: www.ops.fhwa.dot.gov/freight/freight_analysis/faf

Economic Census: http://www.census.gov/econ/census07/

FHWA Freight Involved in Highway Bottlenecks Report: http://www.fhwa.dot.gov/policy/otps/freight.cfm

Treasure Valley Truck Freight Study: http://www.compassidaho.org/prodserv/specialprojects-tvtfs.htm

Freight Shipments to, from, and within Idaho: http://www.ops.fhwa.dot.gov/freight/freight_analysis/faf/state_info/faf2/pdfs/id.pdf

Coalition for America's Gateways and Trade Corridors: www.tradecorridors.org