# EASTERN COLORADO REGIONAL TRANSPORTATION PLAN UPDATE

**DECEMBER 10, 2004** 

Prepared for:
East Central Council of Governments
and
Northeast Colorado Association of Local Governments

in cooperation with Colorado Department of Transportation

Prepared By: DMJM+HARRIS, Inc.

## A RESOLUTION OF THE EASTERN TRANSPORTATION PLANNING REGION ADOPTING THE LONG RANGE TRANSPORTATION PLAN

Whereas: The State of Colorado has established procedures in Title 43-1-1103 CRS for the completion of regional transportation plan as a component of the statewide transportation planning process; and

Whereas: The Eastern Colorado Transportation Planning Region has been established pursuant to rules promulgated by the Transportation Commission at 2 CCR 604-2; and,

Whereas: The Eastern Colorado Transportation Planning Region
Has designated the East Central Council of Governments
(ECCOG) and the Northeastern Colorado Association of
Local Governments (NECALG) as the joint governing
body for the Transportation Planning Region, with authority
to complete the regional transportation plan pursuant to
Title 30-28-105 CRS; and,

Whereas: the Eastern Transportation Plan dated December 10<sup>th</sup>, 2004 has been completed under the authority of the Eastern Colorado Regional Transportation governing body pursuant to the "Regional Transportation Planning Guidebook" issued by the Colorado Department of Transportation, January 2, 2003 and meets all of the requirements therein;

Therefore: Be it resolved that the Eastern Colorado Transportation Planning Region does hereby adopt the Eastern Colorado Regional Transportation Plan dated December 10<sup>th</sup>, 2004 as it's official plan to guide transportation development; and

Therefore: Be it resolved that the Eastern Colorado Transportation Planning Region does hereby submit to the Colorado Department of Transportation said plan.

Adopted and Passed this 10th Day of December, 2004

JmWhitmore, Chair]

# EASTERN COLORADO REGIONAL TRANSPORTATION PLAN

## TABLE OF CONTENTS

ACKNOWLEDGEMENTS	5
THE EASTERN TRANSPORTATION PLANNING REGION	7
1.0 REGIONAL VISIONS	7
1.1 THE PLANNING PROCESS	10
1.4 Vision, Goals, and Strategies	
2.0 REGIONAL OUTREACH	20
2.1 LOCAL COMMUNITY OUTREACH SUMMARY  2.2 COMMON ISSUES RAISED AT PUBLIC AND LOCAL COMMUNITY MEETINGS	21
3.0 REGIONAL PROFILE	25
3.1 Inventory of Existing Transportation System 3.2 Socioeconomic Profile 3.3 Environmental Overview of TPR 3.4 Mobility Demand Analysis 3.5 Transit Demand Estimates	
4.0 REGIONAL CONNECTIVITY	80
4.1 Corridor Visions	
5.0 REGIONAL ACCOUNTABILITY	129
5.1 2030 FISCALLY CONSTRAINED PLAN	129
APPENDICES	137

#### INDEX OF TABLES

Table 1.1 Summary of Deliverable Products	
Table 1.2 Goals Development	12
Table 3.1 Airport Runway Conditions	
Table 3.2 Airport Operations and Enplanements	26
Table 3.3 Grain Production (in millions of bushels)	26
Table 3.4 Eastern TPR Transit Providers	30
Table 3.4 Eastern TPR Transit Providers	
Table 3.5 Regional Transit Stations	32
Table 3.5 State Highway Center Line Miles in TPR by Functional Classifications	33
Table 3.6 2002 Daily Vehicle Miles of Travel	
Table 3.7 2002 Daily Truck Vehicle Miles of Travel	
Table 3.8 Proportion of Trucks to Personal Vehicles	35
Table 3.9 Structurally Deficient and Functionally Obsolete Bridges	36
Table 3.10 Scenic Byways Pawnee Pioneers Byway	38
Table 3.11 Scenic Byways South Platte River Trail	39
Table 3.12 Recreational Facilities	39
Table 3.13 Population Density by County	42
Table 3.14 Eastern Colorado County Seats	42
Table 3.15 Population Projections	43
Table 3.16 Population by Age (2000)	44
Table 3.17 Eastern Colorado TPR Households	
Table 3.18 Per Capita Income	45
Table 3.19 Components of Total Personal Income (percent)	46
Table 3.20 Other Measures of Personal Income	46
Table 3.21 Housing Units by Municipality	48
Table 3.22 Employment Statistics	
Table 3.23 Employment and Income 2001 Eastern Colorado	
Table 3.24 Grain Production (in millions of bushels)	51
Table 3.25 Threatened or Endangered Species Known or Likely to Occur	53
Table 3.26 Land Ownership and Agricultural Land	56
Table 3.27 Colorado State Registered Historic Resources	59
Table 3.27 Colorado State Registered Historic Resources	60
Table 3.28 Summary of Environmental Resources in the Eastern Transportation Planning Region by Corridor	61
Table 3.29 Historic Traffic Growth Patterns on Selected State Highways	62
Table 3.30 Demand Estimate for 2000: Annual One-Way Passenger Trips	63
Table 3.31 Demand Estimate for 2010: Annual One-Way Passenger Trips	64
Table 3.32 Demand Estimate for 2030: Annual One-Way Passenger Trips	
Table 3.33 Demand Estimates and Percent Change: Annual One-Way Passenger Trips	
Table 4.1 Evaluation Criteria Weights	
Table 4.2 Eastern 2030 Preferred Plan: Representative Projects by Corridor	
Table 4.3 Eastern 2030 Preferred Plan: Statewide Programs / Local Community Issues	
Table 4.4 Eastern 2030 Preferred Plan: Intersection Pool	
Table 4.5 Eastern 2030 Aviation Projects	
Table 4.6 Eastern 2030 Rail Projects	118
Table 4.7 Eastern 2030 Transit Issues/ Projects	119

Table 4.8	Eastern 2030 Potential Enhancement Projects	120
Table 5.1	All Region 1 Projects in the 2005-2010 DRAFT STIP	131
Table 5.2	All Region 4 Projects in the Current STIP	131
Table 5.3	Eastern TPR Corridor Prioritization for Regional Priority Program Funding	135
Table 5.4	Eastern TPR Constrained Plan Funding for Regional Priority Program Funding by Corridor	136

#### INDEX OF FIGURES

Figure 1.1	Colorado Transportation Planning Regions Map	19
Figure 3.1	Daily Truck Volumes	66
Figure 3.2	Transit Systems	67
Figure 3.3	Rail Lines and Intermodal Facilities	68
Figure 3.4	Daily Traffic Volumes	69
Figure 3.5	Surface Conditions	70
Figure 3.6	Shoulder Widths	71
Figure 3.7	Accident Locations	72
Figure 3.8	Public Lands	73
Figure 3.9	Low Income Households in Colorado	74
Figure 3.10	Minority Populations Region 1	75
Figure 3.11	Minority Populaitons Region 4	76
Figure 3.12	Colorado Natural Heritage Sites	77
Figure 3.13	2030 Daily Traffic Volumes	
Figure 3.14	2030 Daily Truck Volumes	79
Figure 4.1	Corridor Visions for East Central Planning Area	122
Figure 4.2	Corridor Visions for North East Planning Area	123
Figure 4.3	Preferred Plan for the East Central Planning Area	124
Figure 4.4	Preferred Plan for the North East Planning Area	125
Figure 4.5	Intersection Pool for the East Central Planning Area	126
Figure 4.6	Intersection Pool for the North East Planning Area	127
Figure 4.7	Enhancement Projects	128
Figure 5.1	2030 Fiscally Constrained Plan for the East Central Planning Area	133
Figure 5.2	2030 Fiscally Constrained Plan for North East Planning Area	134

## **A**CKNOWLEDGEMENTS

The Eastern Transportation Planning Region (TPR) consists of nine counties in eastern Colorado: Cheyenne, Elbert, Kit Carson, Lincoln, Logan, Phillips, Sedgwick, Washington and Yuma. Figure 1.1 shows the nine-county planning area of the Eastern TPR. Since the Eastern TPR includes two councils of governments, East Central Council of Governments (ECCOG) and the Northeast Colorado Association of Local Governments (NECALG), no Regional Planning Commission (RPC) was formed. A Memorandum of Understanding was signed between the two entities to participate in the CDOT transportation planning process. Thus, local government representatives from each entity provided the oversight for development of the 2030 Plan for the Eastern TPR. Included in the Appendix is a list of the local government representatives participating in the transportation planning process.

#### THE EASTERN TRANSPORTATION PLANNING REGION

#### 1.0 REGIONAL VISIONS

### 1.1 THE PLANNING PROCESS

#### **Purpose**

The purpose of this planning document is to update the long range Transportation Plan for the Eastern Transportation Planning Region (TPR). The previous Plan, completed in June 1999, addressed the 20-year period from 2000 to 2020. This Plan Update will address the 25-year period from 2005 to 2030. The Plan will identify the vision, goals, strategies and proposed projects for moving both people and freight within the nine-county (Cheyenne, Elbert, Kit Carson, Lincoln, Logan, Phillips, Sedgwick, Yuma and Washington) area comprising the Eastern Transportation Planning Region.

This, and the other 14 regional transportation plans being developed around the state, will become the cornerstones used in the development of Colorado's 2030 Statewide Transportation Plan. The vision for transportation and the resulting transportation projects from each of the Transportation Planning Regions form the basis for Colorado's statewide transportation plan. Only projects contained in or consistent with the regional transportation plans are eligible for inclusion in the statewide plan. Consequently, only these projects are eligible for state and federal funding through the Statewide Transportation Improvement Program process. While regional transportation plans and the statewide transportation plan are required by state statute, only regional transportation plans in metropolitan areas, the statewide transportation plan and the Statewide Transportation Improvement Program are required under federal law. Colorado has designed its transportation planning process to comply with all applicable state and federal regulations.

#### **Background**

In 1991, state and federal legislation was adopted that dramatically changed transportation planning in Colorado. The first was the passage of state legislation by the Colorado General Assembly that transformed the Colorado Department of Highways into the Colorado Department of Transportation (CDOT). CDOT's Mission became "provide the best multi-modal transportation system for Colorado that most effectively moves people, goods and information." This legislation also established a (grass roots) process for defining transportation needs and required the development of a comprehensive long-range Statewide Transportation Plan based on 15 Regional Transportation Plans developed by locally elected officials representing the counties and municipalities in the 15 Transportation Planning Regions of Colorado. The second piece of legislation was the enactment by Congress of the Intermodal Surface Transportation Efficiency Act of 1991 that similarly required the states to produce Statewide Transportation Plans and a Statewide Transportation Improvement Program that identifies short-term project needs and priorities. Colorado now uses a Long-Range Transportation Plan (20 Year) and a six-year Statewide Transportation Improvement Program (STIP). In December 1994, the Eastern TPR and the other nine rural Regional Planning Commissions and the two small Metropolitan Planning Organizations completed their 1995 to 2015 Regional Transportation Plans. In January 1996, the Transportation Commission approved Colorado's first comprehensive long

range transportation planning document, entitled *Colorado's 20 Year Transportation Plan*. This document addressed transportation projects and issues covering the years 1995 to 2015.

In 1998, Congress enacted the Transportation Efficiency Act for the 21st Century, a follow up federal legislation to Intermodal Surface Transportation Efficiency Act of 1991. This legislation (TEA - 21) continued the requirement for statewide planning.

In 1999 the Eastern TPR as well as the other TPRs, updated for their original Plans to cover the period from 2001 to 2020. In November 2000 the Transportation Commission approved *Colorado's 2020 Statewide Transportation Plan: Investing in Colorado's Future.* 

The Eastern Colorado Regional Transportation Plan was undertaken as an update to the 1999 Plan. This update is part of a statewide effort to update all 15 regional transportation plans in the state in preparation for the development of the long-range statewide plan to be completed in the year 2004. The regional plan forms the basis for local input into the statewide plan. In turn, the regional plan is based on an aggressive public input process, as well as guidance from local officials and staff. This plan meets all state and federal requirements as outlined in the Colorado Regional Transportation Planning Guidebook. It was completed with the assistance of planning funds provided by the Colorado Department of Transportation and FHWA State Planning and Research (SPR) funds. The Colorado Department of Transportation's Planning Regions are shown in Figure 1.1. Long range transportation planning is a critical element in the transportation development process. This is the first step in integrating citizen goals into a comprehensive plan, protecting and enhancing our community values, and gaining access to available – or potential – funding. The plan is based on a number of steps, all designed as a thoughtful and efficient method to relate the wishes of our citizens to effective transportation programs and projects – all within a realistic financial picture. The processes undertaken in developing this plan for the Eastern Transportation Planning Region included:

- 1) Working with the East Central Council of Governments (ECCOG) and the Northeast Colorado Association of Local Governments (NECALG), as the joint governing body for the Transportation Planning Region, as well as the associated Transit Boards
- 2) Conducting a Public Participation Process and Local Government Outreach
- Developing Statements regarding the regional Values, Vision, Goals and Strategies and Identifying Corridor Vision Statements
- 4) Making an Inventory of the Existing Transportation System
- 5) Developing a Socioeconomic and Environmental Profile of the Region
- 6) Developing a Mobility Demand Analysis
- 7) Conducting an Alternatives Analysis
- 8) Selecting a Preferred Transportation Plan
- 9) Undertaking a Prioritization Process
- 10) Selecting a Financially Constrained Plan
- 11) Ensuring the Plan is Consistent with Federal and State Requirements

This plan, because it is based on the Colorado Regional Transportation Planning Guidebook, and thus on the Intermodal Surface Transportation Efficiency Act, Title 43 Colorado Revised Statutes, and Statewide Transportation Planning Process Rules and Regulations, meets the Regional Plan State and Federal Consistency Requirements. Required deliverables under these requirements are listed in Table 1.1.

	Table 1.1 Summary of Deliverable Products		
STEP	ELEMENT	CHAPTER	PAGE
I	Description of the Transportation Planning Region with Map	1	10
i	History of the planning process for the Region	1	7
I	Description of entities included on the Regional Planning Commission	Appendix A	
I	List of the Technical Advisory Committees and their roles	1	7
II	Description of the public participation process used by the RPC to prepare the Transportation Plan	2	20-24
II	Appendix to the plan documenting the public meetings including meeting minutes, sign-in sheets, and responses to significant issues raised during the process and review.	Appendix B	
Ш	TPR vision statement	1	13
III	List of Goals to address the Vision	1	13-18
III	TPR strategies to achieve the Goals	1	13-19
IV	Description of existing transportation systems and facilities including Aviation, Bicycle/Pedestrian, Highway, Intelligent Transportation (ITS), Intermodal, Rail, and Transit	3	25-48
V	Current socioeconomic data including: Population, Employment, Tourism, Agricultural, Human Environment, and Natural Environment.	1	48-62
VI	Description of Mobility Demand Analysis process	3	73-79
VI	List of needs statements for corridors	4	82-103
VII	Description of Alternatives Analysis process	4	80-81
VII	Vision statement for each of the state significant corridors in the TPR	4	82-103
VIII	Multi-Modal list Preferred Plan (including data items needed in format required)	4	109-128
IX	Description of the Prioritization process – criteria, weighting, list of prioritized list of multi-modal projects	4	106-108
Χ	Estimate of revenues available to fund the Financially Constrained Plan	5	129-132
Χ	List of projects in the Constrained Plan in database format	5	135-136
Χ	Discussion of what cannot be accomplished in the Preferred Plan with financial constraints	5	129
Х	Discussion of what environmental effects may occur due to financial constraints	3	63-73
XI	Discussion of how the RPT meets Federal and State Guidelines	1	7
XI	Resolution of adoption	Cover P	ages
XI	Statement included: "This document has been prepared using Federal funding from the United States Department of Transportation. The United States Department of Transportation assumes no responsibility for its contents or use thereof."	1	12

### 1.2 Overview

The East Central Council of Governments (ECCOG) and the Northeast Colorado Association of Local Governments (NECALG), as the joint governing body for the Eastern Transportation Planning Region determined that this plan should be consistent with the needs and desires of the residents of the region, with the intent and spirit of the Transportation Equity Act for the 21st Century (TEA – 21) and with Colorado planning statutes and regulations. TEA – 21 sets forth seven planning factors to be addressed in all statewide plans. Since Colorado develops its statewide plan based on Regional Plans such as this, Colorado's regulations reflect the same ideology and direction as TEA – 21. The seven factors identified in TEA – 21 are:

- Support economic vitality
- 2) Increase safety and security
- 3) Increase accessibility and mobility options
- 4) Protect and enhance the environment
- 5) Enhance connectivity of the transportation system
- 6) Promote efficient management and operation
- 7) Emphasize preservation of the existing system

This is a 25-year plan, encompassing the years 2005 to 2030. It does more than examine today's problems. By projecting the region's population, employment and growth scenarios 25 years into the future, the plan can estimate future travel demand and make some judgments about what the future could – and should – look like.

This plan is based on a fundamental partnership between transportation stakeholders – the public – and transportation providers – public and private. Cooperation has been important, especially during the public participation process, to leverage dollars, people, expertise, credibility, equipment, differing perspectives and viewpoints, information, authority, and resources. Cooperation has been critical in considering competing needs, complex interrelationships among social, economic, environmental, cultural and technological systems. This process has allowed existing partnerships among the governing body Eastern Transportation Planning Region, CDOT, the region's counties and cities, and the citizens of the region to be renewed and strengthened and new partnerships to be created.

In setting the goals and objectives for this plan, quality of life issues were the driving forces. These issues, which are expressed in the Region's Mission Statement, underpin the many transportation decisions made within the Region. The issues include access to jobs and communities, and the region's reliance on the effective movement of agricultural products and freight as well as safe and efficient streets and highways. The result, in general terms, is a high level of mobility and corridor connectivity for all people in Eastern Colorado. Future generations can rely on this plan to ensure that the policies and plans presented here have considered the legacy that will be left to them. The Plan emphasizes highway preservation and corridor connections with opportunities for multi-modal choices. Economic development within the context of the natural and human environments' sensitivity and quality connectivity to all towns in the region and to other regions are other important considerations of the plan.

The goals and objectives outlined by the Eastern Transportation Planning Region are the bases of the creation of balance between project funds and mobility demand in this plan. Regional dissatisfaction relative to transportation

infrastructure condition and supporting funding has been discussed among the cities and counties and in cooperation with adjacent regions. Tradeoffs have been made among regional agencies as to the projects that afford the most economical and cost effective use of available funding. Difficult choices have been made and the resulting corridors have been prioritized according to needs and benefits.

Eastern Colorado Region understands the financial realities of providing transportation facilities and services. It also understands the wide range of expectations of its residents, businesses and visitors for safety and mobility. Based on the expressed goals and objectives of the region, it has selected and prioritized the transportation improvements that will have the greatest impact on the regional transportation system over the next 25 years given the financial constraints of the region and the state.

Notice: This document has been prepared using Federal funding from the United States Department of Transportation. The United States Department of Transportation assumes no responsibility for its contents or use thereof.

### 1.3 CHARACTERISTICS OF THE EASTERN TPR

The counties and communities making up the Eastern Transportation Planning Region comprise a very unique portion of the state of Colorado. This area of the state has an economy largely based in agriculture, which requires the need to transport significant amounts of commodities to and from farms within the region. Also, this area serves as a "bridge" between points to the east and Colorado's rapidly growing Front Range. While the predominance of this movement of people and goods is east to west, the north to south movement of goods created by the recently enacted North American Free Trade Agreement (NAFTA) has created the opportunity to develop "High Priority Corridors" for the movement of freight. Two such federally designated corridors pass through the Eastern TPR; the *Ports to Plains Corridor* between Laredo, Texas and Denver, and the *Heartland Expressway* between Rapid City, South Dakota and Denver. Within the Eastern TPR, the designated Ports to Plains route is along US 287. The designated Heartland Expressway route is along US 71. The Eastern Colorado Mobility Study also identified the US 40/ US 385 corridor, from Kit Carson to Julesburg as the primary Colorado corridor connecting the federally designated Ports to Plains and Heartland Expressway Corridors.

This region of the state also benefits from significant oil and gas production, the movement of freight in and out, as well as through the state, and a significant amount of local commerce. The "bridge" role, identified above, also serves tourists with destinations in Colorado's Front Range cities, the Rocky Mountains and points west.

The atmosphere of eastern Colorado could begin to change between now and the year 2030. There will be more out-migration from the state's larger cities as residents of Colorado's rapidly growing Front Range communities seek a more rural life-style. Also, the State's efforts to diversify economic development activities beyond the Front Range are expected to produce additional jobs in Eastern Colorado communities. Finally, there may be a re-focusing of freight transportation hubs east of the Front Range that will potentially provide economic development-related growth in eastern Colorado.

Previous regional planning efforts in Colorado have focused more on the movement of people than on the transportation of various types of freight. That was the case when the first two long-range transportation plans

were developed for the Eastern TPR in 1994 and 1999. However, in 2002, CDOT completed a study that was the first of its kind in Colorado; the *Eastern Colorado Mobility Study*. The purpose of that Study was: "To evaluate the feasibility of improving existing and/or constructing future transportation corridors and intermodal facilities to enhance the mobility of freight service within and through eastern Colorado." Therefore, plans for the efficient movement of freight are combined with plans for convenient personal travel between the communities of the Region, as well as plans for improved travel options between the Region and Colorado's Front Range to form the key elements of this 2030 Update to the Eastern Colorado Transportation Plan.

## 1.4 Vision, Goals, and Strategies

#### Eastern Transportation Planning Region in the Year 2030: A Scenario

The Eastern Transportation Planning Region has created the following Vision to guide the development of the 2030 Regional Transportation Plan Update.

"Enhance the unique character and quality of life found in northeast and east central Colorado by maintaining and improving the Region's transportation network essential to dynamic local and regional economies based on agriculture, oil and gas production, recreation, and tourism."

#### **Goals and Objectives**

The Eastern Colorado Transporation Planning Region has formulated multi-modal goals and objectives in support of the 2030 Regional Transporation Plan Update Vision based on the Goals outlined in the 2025 Regional Transportation Plan that was completed in 1999. A committee reviewed each goal statement individually to either affirm the statement, modify the statement to support current issues, or delete it. In some cases, a statement generated additional discussion and a new statement was generated. The draft statements were reviewed by the TPR membership and comments were then incorporated by the committee.

Table 1.2 lists the goals of the 2025 plan and the modified or new goals of the 2030 plan for comparison.

Table 1.2 Goals Development				
2025 Goals	2030 Goals – Affirmed, Modified or New			
Develop an adequate transportation system to support the movement of goods and people to, through and from the region.	Enhance interstates and state highways for farm to market movement of goods.			
	Enhance airfreight and passenger service for the Region.			
Develop transportation to support economic vitality.	Implement strategies to improve safety for all modes of			
Provide a safe and reliable multi-modal transportation system.	transportation.			
	Provide highway facilities that can safely accommodate bike events, training, and recreational riding in the Region.			
Use alternative transportation modes to meet regional mobility needs.	Provide transit service for the transit dependent population with the Region.			
Enhance transportation for transit dependent groups.	]			

Table 1.2 Goals Development				
2025 Goals	2030 Goals – Affirmed, Modified or New			
Provide a transportation system which has adequate public and private funding.	Continue to seek increased funding for improving highway, air, rail, and transit systems and services.			
Preserve and enhance railroad right-of-way corridors	Preserve rail service and facilities to prevent economic loss to the Region.			
Develop an enhanced transportation system to provide regional accessibility for employment, tourism, and recreation.				
Provide adequate transportation access to the Denver International Airport and other regional transportation facilities.				
Maintain and enhance existing airports.	-			
Utilize existing transportation facilities to assist in the development of multi-modal transportation.				
Coordinate transportation services to provide for an efficient and improved transportation system.				
	Develop cost effective strategies to address environmental issues.			

#### AIR

GOAL: Enhance airfreight and passenger service for the Region.

#### **OBJECTIVES:**

- Ensure that facilities for air ambulance services exist at strategically located airports and medical facilities in the Region.
- Ensure that coordination exists between Denver International Airport and local air services.
- Link air transportation improvements to regional economic development.
- Take advantage of existing local air facilities potential within the Region and build them into regional
  facilities where possible. Include such assets to the Region as local airports and flight schools at local
  educational institutions.
- Link general aviation and commercial airport services to the Denver International Airport.

#### Aviation Related Issues:

- Air ambulance service to the Region
- Lack of passenger and freight service to the Region's airports
- Under utilization of Washington County Regional Airport and all other airports in the TPR
- Lack of linkages between local and regional economic development and airport facilities
- Lack of linkages to Colorado Springs, Centennial and more importantly the Front Range
- Future impacts from more DIA traffic
- Emergency Management Homeland Security
- Helicopter capacity for medical uses
- Medical Specialists fly into towns to provide medical care mostly daily trips

#### **BICYCLE / PEDESTRIAN**

GOAL: Provide highway facilities that can safely accommodate bike events, training, and recreational riding in the Region.

#### **OBJECTIVES:**

- Widen State Highway shoulders to enhance safety on the Region's State Highways.
- Use CDOT Enhancement Funds to enhance or extend existing trails.

#### Bicycle/Pedestrian Related Issues:

- Need shoulders to reduce bicycle accident potential
- Roadway/vehicle safety is the Region's first priority
- Want shoulders versus paths
- Inconsistent rumble strip installation within the Region
- Pedestrian and safety issues in Elizabeth

#### **TRANSIT**

GOAL: Provide transit service for the transit dependent population with the Region.

#### **OBJECTIVES:**

- Coordinate services between public and private sector providers to avoid duplication of service.
- Identify new possible sources for increased transit funding.
- Increase local government and public awareness of transit services.
- Investigate the need for service to major to regional employers.
- Evaluate the need for future fixed route transit service in Elbert County.

#### Transit Related Issues:

- Aging population within the Region
- Inadequate transit service to airports
- Marketing of transit programs and services
- Coordination of local/regional transit services
- Improved transit service for the transit dependent
- Education and marketing regarding transit services
- Need for transit service to regional airports
- Lack of funding for improved transit service
- Increasing traffic congestion in Elbert County

#### **RAIL**

GOAL: Preserve rail service and facilities to prevent economic loss to the Region.

#### **OBJECTIVES:**

- Support and enhance public policy to preserve abandoned railroad right-of-way corridors for future transportation, communication, recreation, and utilities corridors.
- Stop further rail service and right-of-way abandonment's.
- Promote the re-establishment of passenger rail service and Amtrak stops (e.g. Wray) in the TPR
- Investigate rail subsidies and incentives for short line railroads, such as those established by the State
  of Kansas.
- Support the relocation of Class 1 rail operations to eastern Colorado.
- Improve rail crossing safety throughout eastern Colorado

#### Rail Related Issues:

- Impacts of future Amtrak service, especially to the California Zephyr
- Lack of state funding support for short line railroad programs
- Possible relocation of Class 1 railroad lines within the Region
- Relocation of freight hubs and inter-modal facilities
- Rail crossing safety
- Future rail line and right-of-way abandonment

#### **HIGHWAYS**

*GOAL:* Enhance interstates and state highways for farm to market movement of goods.

#### **OBJECTIVES:**

- Promote the financing of the Region's Interstate needs with Transportation Commission Strategic Funds.
- Invest in eastern Colorado to accommodate future freight issues.
- Implement strategies to improve passenger mobility throughout the Eastern TPR.
- Maintain and enhance current north/south, east/west truck routes in the Eastern TPR.
- Improve the pavement and bridge condition of state highways in the Eastern TPR.
- Advocate for more timely moving of state highway right-of-ways.
- Advocate for increased weight limits on the interstate highway system.
- Eliminate Enhancement Funds as a set aside program.
- Continue support for State Patrol funding.
- Advocate for enhanced education and awareness of freight needs and its value to the economy.

#### Highway Related Issues:

- Physical condition of the State Highway System
- Funding for highway improvements

- Adequate north/south, east/west travel routes
- Enhancing farm to market routes
- Ability to promote businesses due to sign restrictions, highways running through towns

#### Truck Related Issues:

- Future impacts of increased freight movement
- Ability to fund Ports to Plains and Heartland Expressway Federal High Priority Freight Corridors
- Inconsistent weight limits between interstates and highways

#### **SAFETY**

*GOAL:* Implement strategies to improve safety for all modes of transportation.

#### **OBJECTIVES:**

- Widen highway shoulders along major truck routes.
- Provide adequate highway shoulders to separate bike traffic from other vehicle traffic.
- Support enhanced funding for inadequate bridges.
- Support enhanced funding for painting/striping and removal of trees and shrubs.
- Use variable message signs during harvest to promote roadway safety.
- Advocate for rest areas along state highways.
- Improve rail-crossing safety.
- Maintain or improve the safety of any hazardous materials routes.
- Support CDOT in advocating for the state hazardous materials program.

#### Possible Safety Related Issues:

- Inadequate shoulders
- Bridges too narrow to handle wide-loads
- Inadequate maintenance; striping, mowing, snow removal
- Improve design and safety of state highways
- Roadway safety during harvest.
- Rail crossing safety
- Safety of existing hazardous truck routes
- Continuation of State Patrol and Hazardous Materials programs

#### **FINANCING**

GOAL: Continue to seek increased funding for improving highway, air, rail, and transit systems and services.

#### **OBJECTIVES:**

- Support the research for increased funding.
- Support bicycle surcharges and licensing for funding multi-modal transportation.
- Support tolling for new capacity improvements.
- Support legislation to form Regional Transportation Authorities.
- Advocate for resource allocation that accounts for the percentage of truck traffic.
- Support CDOT resource allocation process based on lane-mile not population methodologies.
- Support the use of public private initiatives to finance larger, complex projects.

#### Possible Financing Related Issues:

- Transportation funding in Colorado for all modes
- Possible revisions to CDOT's Resource Allocation process
- Education on innovative financing

#### **ENVIRONMENTAL**

GOAL: Develop cost effective strategies to address environmental issues.

#### **OBJECTIVES:**

- Support the continued use of wetland banking.
- Support alternative fuel usage where applicable.

#### Possible Environmental Related Issues:

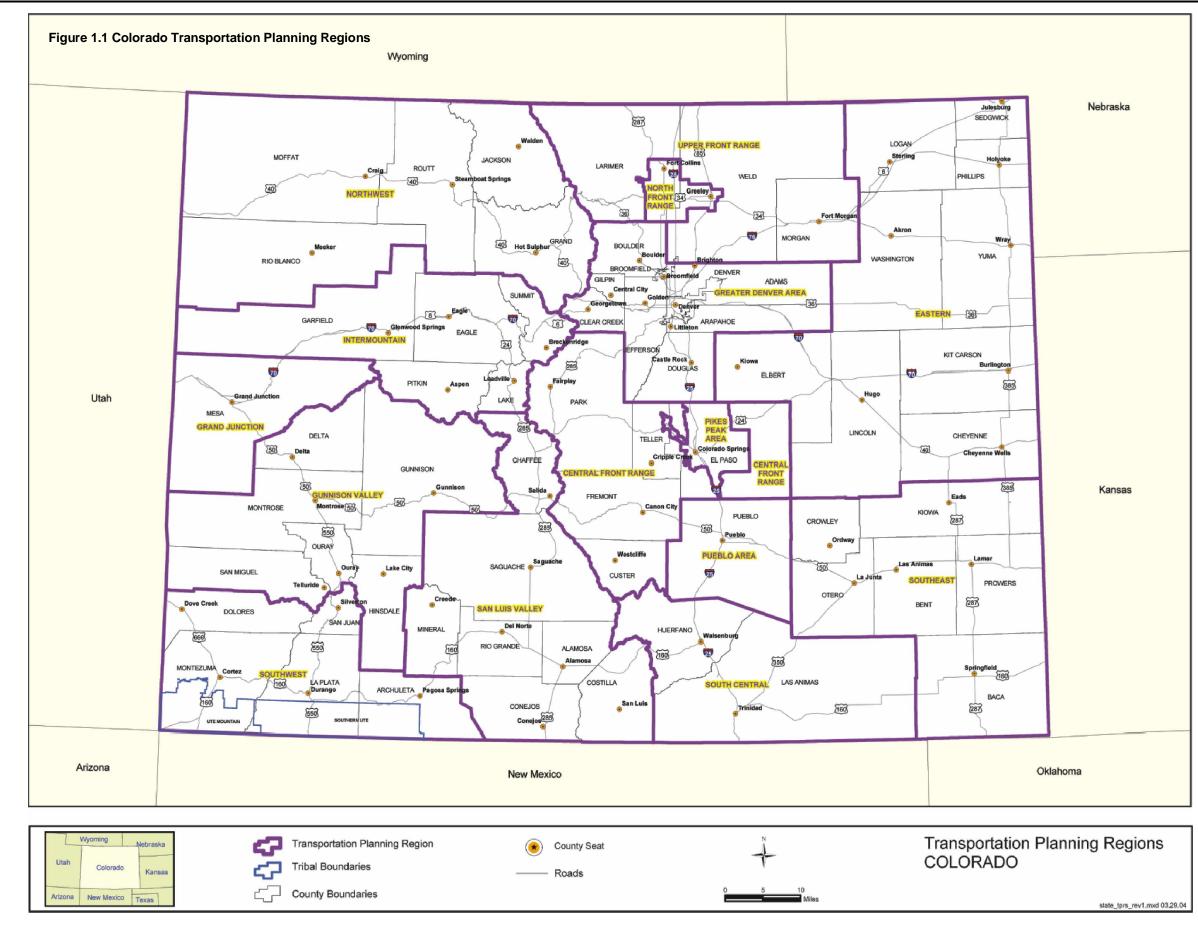
- Support use of alternative fuel usage
- Cost effectiveness of mitigation, avoidance

#### **REGION STRATEGIES**

To meet these goals, the Regional Transportation Plan provides strategies:

- Create and fund cooperative transportation partnerships among the counties, cities and towns of the region.
- Ensure that economic lifelines, transportation links, are balanced and accessible to all.
- Develop interregional corridor partnerships to cooperate on key growth areas and the quality of transportation systems.
- Increase safety considerations.
- Improve highway safety and maintenance.
  - Provide effective (upgraded and maintained) accesses along the primary routes.
  - Upgrade and maintain major/primary routes.
- Widen appropriate roadways to allow for the safe passage of both vehicles and bicycles.

- Develop realistic plans based on the ability to fund new project and maintain the existing transportation system.
- Develop a flexible prioritization system and timetable.
- Maximize funding for the region.
- Consider the effects of federal and state regulations and policies on the region.
- Develop local partnerships that target transportation enhancements.



#### 2.0 REGIONAL OUTREACH

## 2.1 Local Community Outreach Summary

The Eastern Colorado Regional Transportation Plan is based on input from many sources including the general public as well as local elected officials, city and county staff, transportation providers, interest groups and others. The East Central Council of Governments (ECCOG) and the Northeast Colorado Association of Local Governments (NECALG), as the joint governing body for the Eastern Transportation Planning Region oversaw the planning process and served as the foundation of public and local input. The Transit Boards of the ECCOG and NECALG also provided transit mode-specific input. A Transit Advisory Committee from both ECCOG and NECALG provided input to, and were involved in, the planning process.

Traditionally, it has been difficult for smaller local governments to participate in transportation planning at any level. Staff is limited, planning meetings are often during the day, and travel time to and from such meetings can total four to five hours due to the long distances. Therefore, in July of 2003, the Colorado Department of Local Affairs (DOLA) received a planning grant from the Colorado Department of Transportation to be used to "reach out" to the smaller local governments throughout the state to assure their input into the 2030 Transportation Plan. DOLA then subcontracted funds to the East Central Council of Governments, Northeast Colorado Association of Local Governments, and other COGS throughout the state to conduct outreach meetings between August and October with each local government within their region that had a population of less than 5000.

Each of the 15 incorporated municipalities within the ECCOG service area met the criteria, as did all of Cheyenne County. The meetings were held in conjunction with regularly scheduled town council or county commission meetings. A letter and questionnaire were sent to each councilperson, mayor and clerk/administrator at least one week prior to their respective community's meeting. It was not necessary that the questionnaire be completed, rather it was to serve as a catalyst for comments and concerns regarding transportation issues at the upcoming meeting.

Most meetings were attended by a representative from CDOT, the DOLA field representative and two ECCOG staff members, one of which acted as a recorder for the meeting. Detailed notes on the meeting were compiled within a week of each meeting and then sent back to the municipality (or county) for review and comment. A final draft of the comments, suggestions, and concerns from each meeting was then developed and forwarded to the Region 1 CDOT representative and to the consultant developing the Eastern TPR 2030 Regional Plan.

The local government meetings resulted in bringing forward a number of specific construction (and in some cases maintenance or safety) projects to the attention of the 2030 Working Group and CDOT. Comments and insight from the 15 municipalities (and Cheyenne County) were invaluable to developing the vision statements and local projects for the respective corridors. Total attendance at the 16 meetings by local officials and the general public exceeded 300 persons.

In the NECALG area, meetings were held in 18 incorporated municipalities with a population less than 5000. Many of the meetings were held in conjunction with regularly scheduled town council meetings. While some

Council meetings included the general public, the number of agenda items prevented a lengthy discussion of transportation issues. There were pre-meetings with the Town Board or dinner meetings prior to the Council meeting.

Most meetings were attended by one representative from CDOT Region 4, the Region Manager from DOLA, and two NECALG staff members. Questionnaires were distributed to all of the Council members to formulate discussion. All written comments were forwarded to the consultant for inclusion in the public input of the Eastern TPR 2030 Transportation Plan. Detailed notes were compiled and sent back to each municipality for their review.

NECALG presented information on the 2030 Transportation Plan to the District meeting of the Colorado Municipal League and included comments from this forum to the consultant. NECALG also coordinated a presentation by the consultant on the 2030 planning process at the Annual Progressive 15 meeting.

Notifications of meetings were distributed to a mailing list of approximately 180 individuals and agencies including the news media. The two Council of Government websites provided updated information on the regional planning process, including the dates of planning commission and public meetings and public meeting presentation materials.

At the request of CDOT, joint CDOT/TPR meetings on the 2030 Transportation Plan and the kick off of the Statewide Transportation Plan were held Monday, September 13, 2004 at the Limon Community Center, and Tuesday, September 14, 2004 at the Washington Event Center in Akron.

## 2.2 COMMON ISSUES RAISED AT PUBLIC AND LOCAL COMMUNITY MEETINGS

From comments made at the various meetings described in Section 2.1, a number of issues emerged that are common to the entire region. The issues are summarized here and are critical in forming the foundation for the region's Vision, Values, and Goals, which in turn, form the basis for the region's transportation project selection and priority setting.

#### **Transit Services**

- Continue to provide local public transit throughout the Eastern Transportation Planning Region
- Identify ways to economically provide transit for non-emergent medical trips to the Front Range
- Consider carpool/vanpool/transit opportunities for rapidly growing western Elbert County

#### Bicycles/Pedestrians

 Improved highway shoulders for safety purposes would also accommodate bicyclists along the highways

#### **Rail Transportation**

- Improve rail crossings
- Consider additional grade separation construction along high growth rail corridor

#### Safety

- Improve school crossing safety for the many Towns that are divided by state highways
- Provide turn lanes and acceleration lanes for safe access to highways
- Improve highways to include shoulders, passing lanes, and good pavement condition

#### Growth

- Traffic volumes generated from freight traffic, agriculture and tourism will continue to increase, therefore study transportation solutions within communities bisected by this increasing traffic

## 2.3 COUNTY FAIR SURVEY

#### **Background and Objectives**

In July of 2003, the Northeast Colorado Association of Local Governments, the East Central Council of Local Governments, and DMJM+HARRIS retained Corona Research to conduct intercept surveys at county fairs in nine counties: Cheyenne, Elbert, Kit Carson, Lincoln, Logan, Phillips, Sedgwick, Washington, and Yuma. The surveys were intended to evaluate the transportation options and needs in eastern and northeastern Colorado, which in turn would be used to assist in transportation planning.

#### Methodology

Residents' opinions were gathered at nine county fairs in eastern and northeastern Colorado between July 23<sup>rd</sup> and August 10<sup>th</sup> of 2003. County fairs were chosen as the survey venue because it was believed that the county fairs in this area tend to draw a representative sample of the citizenry of the county. Representatives of the Northeast Colorado Association of Local Governments and the East Central Council of Local Governments initiated contact with fair managers and/or county commissioners to obtain permission for the on-site surveys.

Once permission was obtained, Corona Research professional staff attended each fair during its peak period, and solicited responses in exchange for a \$1 honorarium. At six fairs, Corona staff set up a table and chairs with signage, and at three fairs Corona staff patrolled the fair grounds, in keeping with the fair managers' requests. Regardless of the approach, Corona staff solicited survey responses from passersby, and used a written survey instrument to collect data. In keeping with the fair atmosphere, solicitations were friendly and casual. Surveys were administered only to people of driving age (16 and up). Corona Research designed the survey instrument with input and assistance from all three sponsoring agencies.

A target of 400 surveys was set, and a total of 426 surveys were completed, resulting in a margin of error of 4.7 percent with a 95 percent confidence level in the results. A copy of the survey instrument is presented in an appendix to the report. Survey quotas were set in each county, based on that county's proportion of the region's total population of 78,699 (based on Census 2000 data). Intercept surveys, like any other type of survey, do not precisely reflect the entire population when merely summed and totaled. To account for this factor, the study team developed a unique weighting factor for every single response that adjusted that person's representation in the survey to account for age and gender, so that the total survey responses accurately reflect the demographics of the region. The responses of some respondents who have traits that were underrepresented in the group of survey participants were therefore weighted more heavily than the responses of people whose traits were over represented among the survey participants. For this reason, the survey findings represent a much more complex, but also more accurate analysis than would a mere tabulation of the raw data.

Key findings for the report are provided below. The main report includes findings for all questions for the entire population, and also broken out by gender and age category. Due to the number of responses, the best age breakdown from a statistical standpoint was to compare those age 40 or over to those under the age of 40. Occasionally, other types of analyses beyond basic tabulations are presented as well.

#### **Key Findings**

Key findings of the intercept survey are described below.

#### Transportation is a significant part of residents' lives

Over half of the survey respondents reported that they spend more than ten hours per week traveling from one place to another. This represents 10 percent or more of the typical person's waking hours.

More than half of respondents rate the ability of existing highway system to serve travel needs positively. When asked to rate the existing highway system's ability to serve travel need in their community, 10 percent of respondent rated it "very good" and 43 percent rated it "good". In comparison, only 14 percent rated it "poor" or "very poor", indicating a nearly 4:1 positive ratio.

#### Existing public transit systems receive more negative ratings than positive ratings

In contrast to what was seen for highway systems, more respondents rated the ability of existing public transit system to serve travel needs negatively than rated it positively (33 percent vs. 25 percent). A considerable proportion of respondents (42 percent) reported either not knowing the ability of the existing public transit system or that it was neither negative nor positive.

## (If they were in charge of deciding new transportation improvements) the majority of respondents would spend the public transportation funding on widening shoulders on highways

If they were in charge of deciding new transportation improvements in their community, almost 60 percent of respondents reported would spend the public transportation funding on widening shoulders on highways, 50 percent on adding highway lanes, and 45 percent on adding passing lanes on highways, while the least favorable transportation improvements seemed to be reducing traffic volumes or traffic speeds on highways, cited only by 19 percent of respondents. Furthermore, it is indicated that, on average, respondents would spend 24 percent of public transportation funding for new projects on widening shoulders on highways.

Analysis by gender indicates that males were more likely to spend the transportation funding to widen shoulders on highways, to add highway lanes, and to add passing lanes on highways. On the other hand, females were more interested in expanding bus service if they were in charge of deciding new transportation improvements.

#### Public transit services awareness is moderately low

Respondents were nearly equally divided between those who were aware of any public transit services that are available in their county (48 percent) and those who were not (52 percent). Further analysis shows that older respondents were much more likely to be aware of public transit services that are available in their county.

A solid majority of respondents reported never using any public transit services available in their county. When asked how often they currently use the public transportation services offered in their county, 89 percent of respondents reported never using such services. This proportion was still very high (85 percent) even among those who reported knowing about public transit services available in their county. "I have my own vehicle or other transportation options that I prefer to use" was the most common reason stated to why some respondents never use public transportation services (quoted by 72 percent of respondents). This was followed by "don't know about any transit services" (22 percent), while other reasons only mentioned by small proportions of

respondents (varied from five to seven percent). It should be noted that the less mobile segments of the population may have been less likely to attend county fairs, and were thus less likely to be included in the survey.

#### Safety improvements and repaving projects are clear-cut priorities

When asked to rate the importance of selected options for improving the community's connectivity and transportation infrastructure, about half of respondents believe that providing safety improvements (e.g., wider shoulders and passing lanes) and repaving existing highways were very important. About 85 to 86 percent of respondents rated those option of improvements at least "moderately important" and about 96 to 97 percent rated those at least "somewhat important". Those two areas ranked far ahead of the other seven choices.

#### 3.0 REGIONAL PROFILE

## 3.1 Inventory of Existing Transportation System

This section describes the existing transportation system. The information that follows includes, where available, the location and description of transportation features, existing or planned projects, defined corridors, and other geographic and socioeconomic data.

#### **Aviation Facilities**

In Eastern Colorado, nine airports serve a key transportation role in the Eastern TPR. These airports are shown in Table 3.1. Important to the Eastern Transportation Planning Region is an airport's ability to meet the following criteria:

- Convenient air travel to major population centers in Colorado
- Passenger and freight service at a modest cost to the shipper, consumer or traveler
- Emergency connections/ air ambulance service to Front Range medical facilities

#### Runway pavement conditions

Table 3.1 describes the surface material of the runway and the stated condition of the runway as listed on the Airport Master Record of the Federal Aviation Administration for each facility. Most of the runways are rated good and fair. Only the public general aviation airports are listed here.

Table 3.1 Airport Runway Conditions  Source: CDOT AVIATION DIVISION DATA SET, 2004				
City	Airport and Type	Runway Identification	Surface Type	Condition
Burlington	Kit Carson County - General	15/33	Concrete	Good
Limon	Limon Municipal - General	16/34	Concrete	Fair
Sterling	Sterling Municipal - General	15/33	Concrete	Fair
Haxtun	Haxtun Municipal – General	08/26	Asphalt	Poor
Holyoke	Holyoke - General	14/32	Asphalt	Good
Julesburg	Julesburg Municipal - General	13/31	Asphalt	Fair
Akron	Colorado Plains Regional - General	11/29	Asphalt	Good
Wray	Wray Municipal - General	17/35	Asphalt	Good
Yuma	Yuma Municipal - General	16/34	Concrete	Good

#### Airport Operations/Enplanements

Two methods of tracking airport activities are "enplanements" (passenger boardings) and "operations", the number of aircraft landings and take-offs. Included in Table 3.2 are the actual total operations and the enplanements for each facility as reported by the CDOT Aviation Division.

Table 3.2 Airport Operations and Enplanements Source: CDOT Aviation Division Data SET - Calendar Year 2001				
Airport	2001 Operations / Enplanements			
Kit Carson County	7713 / 320			
Limon Municipal	7300 / 0			
Sterling Municipal	7300 / 0			
Haxtun Municipal	250 / 0			
Holyoke	6530 / 25			
Julesburg Municipal	250 / 22			
Akron-Washington County Municipal	20,360 / 143			
Wray Municipal	14,600 / 0			
Yuma Municipal	4320 / 0			

#### Freight Movement

As stated earlier, the efficient movement of freight within and through the Eastern TPR is critical to the economic vitality of the region. The freight traffic is generally composed of agricultural products grown within or being transported through the region as well as the general freight that is traveling to and from the major metropolitan areas along Colorado's Front Range.

The importance of agricultural freight within the nine-county area is highlighted by the production of two of the largest grain crops grown in Colorado, winter wheat and corn for grain. Production data is shown in Table 3.3.

Table 3.3 Grain Production (in millions of bushels)  Source: Colorado Agricultural Statistics Service				
	2001 Winter Wheat	2002 Winter Wheat	2001 Corn for Grain	2002 Corn for Grain
9 Eastern TPR Counties	40.41 M Bu.	22.27 M Bu.	98.34 M Bu.	80.62 M Bu.
Rest of State	25.59 M Bu.	14.03 M Bu.	51.46 M Bu.	31.70 M Bu.
Statewide	66.00 M Bu.	36.30 M Bu.	149.80 M Bu.	112.32 M Bu.

The data in Table 3.3 is the latest available and reflects the effects on crop production that the record-breaking drought had during 2002. For the following analysis, the data from 2001 will be utilized.

A five-axle truck carries approximately 900 bushels of grain. The new covered hopper rail cars being utilized in shipping grain carry 3,600 bushels per rail car. The state of Colorado exports (approximately 80%) most of winter wheat produced in the state. This grain is shipped from storage elevators via 50 – 100 car unit trains for export to ports in the Gulf as well as the Pacific Northwest. Therefore, it is estimated that in 2001, 32.3 M bushel of wheat was shipped by rail out of the Eastern TPR; the equivalent of 8972 rail cars; or 179 fifty-car unit trains. It is projected that the remaining 8.08 M bushel was moved to local flour mills over the course of the year by 8,977 five-axle trucks.

Colorado is an import state for corn due to the numerous cattle feeding operations within the state. Therefore, while no specific data is kept on the movement of corn, it is assumed that Colorado corn is 80% shipped by truck to cattle feeding operations and 20% shipped for export by rail. Based on those assumptions, in 2001 78.67 M

bushel of corn grown in the Eastern TPR was shipped by truck in Colorado; the equivalent of 87,411 five-axle trucks. This equates to an average of 239 loaded truck trips per day moving corn grown within the TPR.

General freight moves from and to Colorado's Front Range communities along the highways within the Eastern TPR. The Eastern Colorado Mobility Study concluded that the ten counties (Adams, Arapahoe, Denver, Douglas, El Paso, Huerfano, Jefferson, Larimer, Pueblo, Weld) comprising the Colorado Front Range originate and terminate six times more freight than do the 17 counties (Baca, Bent, Cheyenne, Crowley, Elbert, Kiowa, Kit Carson, Las Animas, Lincoln, Logan, Morgan, Otero, Phillips, Prowers, Sedgwick, Washington, Yuma) of the eastern plains of Colorado. Therefore, it is obvious that much of the interstate movement of freight supplying the Front Ranges passes through the Eastern TPR on the *Ports to Plains Corridor*, the *Heartland Expressway*, I-70, I-76, and the other state highways within the TPR. The Eastern Mobility Study also noted that the growth in freight is expected to continue. The Front Range Counties alone are expected to increase their total import and exports of freight from 180.5 million tons in 1998 to 387.4 million tons in 2025. This projected traffic will have a significant impact on the highway and rail transportation systems within the Eastern TPR.

Finally, in late 2003, CDOT initiated a Study to quantify the potential public benefits and costs associated with proposals by the Union Pacific Railroad and Burlington Northern Santa Fe Railway Company to relocate through north-south freight trains out of the Front Range. These trains would be relocated to a new rail line to be constructed in the Eastern Plains. The predominant rail traffic on this new route would be unit coal trains moving between the coal mines of the Powder River Basin in northeastern Wyoming to coal fired electric utilities in Texas. This proposed project could provide additional economic development opportunities for communities in the Eastern TPR depending on the specifics of rail infrastructure improvements that may be eventually made. Results from CDOT's Study are expected to be available by mid-2004.

Trucking is currently the most frequently used freight transportation mode because trucks provide convenient pick-up and delivery of shipments. Intermodal freight shipments become more economical when the distance traveled is greater than 500 miles. Shipments beyond that distance often mean that rail transport is an option, with goods being placed on trucks for final delivery. For distances under 500 miles, trucks usually carry the freight, although this may depend on the type and value of goods being shipped (Projects and Planning Issues (Letter Report 07/09/96 GAO/NSIAD – 96-159)) Intermodal Freight Transportation Trends).

#### **Intermodal Connections**

An intermodal connection is made whenever passengers or freight change mode of transportation. Intermodal facilities, both passenger and freight, are an integral part of the state's transportation system. In addition to the state highway and local roadway systems, the region has two primary public transportation transit providers, four freight railroad companies and Amtrak passenger service operating through the region.

The transit providers and rail lines are discussed in detail later in this chapter. Examples of the most frequent intermodal connections that are made in the Eastern Transportation Planning Region include:

- Truck to Rail
- Auto to passenger rail (Amtrak)
- Auto to Bus
- Regional Bus to Intercity Bus

#### Plane to Auto

Of course, the reverse of each of these connections shown above is also an intermodal connection. Transit Systems in the Eastern TPR are shown in Figure 3.2.

#### Rail

The Eastern Transportation Planning Region's rail lines, including those used by AMTRAK, are shown in Figure 3.3. The Eastern Transportation Planning Region is served by several railroads including the Burlington Northern & Santa Fe Railway Co., Union Pacific Railroad, Kyle Railroad Company, and Nebraska Kansas & Colorado Railnet, Inc. The National Railroad Passenger Corporation (AMTRAK) provides service over the rail lines of the BNSF with a station in Fort Morgan connecting to Denver and Chicago. A national firm, Rail America, is purchasing the locally-owned and controlled Kyle Railroad Company.

Currently, no potential rail abandonments are proposed in Eastern Colorado. The current map from the state is from 1986. CDOT is doing a rail update and a new map that would include abandoned and proposed abandonments may be available in May of 2004.

#### Transit

This section discusses existing transit providers within the 10-county area covered by this Transit Element. The Section is divided into the two sub-regions comprising the Eastern TPR: the ECCOG area (Cheyenne, Elbert, Kit Carson, and Lincoln counties) and the NECALG area (Logan, Morgan, Phillips, Sedgwick, Yuma, and Washington counties). While Morgan County is not included in the Eastern TPR, it falls within the transit planning jurisdiction of NECALG, and therefore was included in the analysis to support funding eligibility.

The ECCOG area includes Cheyenne, Elbert, Kit Carson and Lincoln counties. Transit services in this area include public, private, and non-profit providers. These are listed below:

East Central Council of Local Governments Public Transit Services
 Outback Express
 City of Burlington
 Town of Limon
 Dynamic Dimensions, Inc.

Retired and Senior Volunteer Program (RSVP)

Residential Elderly Providers
 Cheyenne Manor Nursing Care Center
 Grace Manor Care Center
 Prairie View Care Center

- Early Childhood Programs
   Limon Child Development Center
- Intercity Providers
   Dashabout Shuttle
   Greyhound Lines

The NECALG area includes Logan, Morgan, Phillips, Sedgwick, Washington, and Yuma counties. Transit services in this area include public, private, and non-profit providers. These are listed below:

- County Express
- Residential Elderly Providers
   Hillcrest and The Towers
   Sterling Living Center
   Sunset Manor
   Valley View Villa
   Yuma Life Care
- Developmentally Disabled/Early Childhood Programs

   Eastern Colorado Services
   Brush Head Start

   Iliff Community Center Head Start Program

   RE-3 School District Head Start/Colorado Preschool
- Intercity Providers
  Dashabout Shuttle
  Greyhound Lines

Table 3.4 summarizes information regarding providers, services, service areas and other operations details.

Table 3.4 Eastern TPR Transit Providers Source: ECCOG, NECALG (Eastern Colorado Regional Transportation Plan Transit Plan Element Update, 2004)								
Transit Provider	Fixed Schedule	Special Service Provider	Special Service	Service Population	Service Area	Ridership	Fleet Size	Funding Source
ECCOG's Outback Express – including City of Burlington, Town of Limon, Dynamic Dimensions, Inc., and RSVP	Yes with demand responsive and charter trips	Yes	Some discounted fares for the elderly	Older adults, persons with disabilities	Cheyenne, Elbert, Kit Carson and Lincoln counties, (and less frequent trips to Goodland, Kansas, Denver, Colorado Springs, Sterling)	11,380 (2002)	12 in the primary fleet.  (17 total full and part-time vehicles with 2 back up)	Fares, donations, FTA Section 5310, FTA Section 5311, local sources, Grants, Contracts
City of Burlington	On request Monday- Friday	Yes	On request service	Those who can't otherwise get around the city	City of Burlington	-	1	-
Town of Limon	Limited scheduled demand- responsive service twice per week	Yes	Makes necessary stops	-	Town of Limon	-	1	-
Dynamic Dimensions, Inc.	Yes, Monday- Friday	Yes	Service between group homes and sheltered workshops	Agency clients with developmental disabilities	Burlington area	-	1	-
Retired and Senior Volunteer Program (RSVP	No	Yes	Transport to RSVP activities, nursing homes, senior centers, meetings	Members of the RSVP	Lincoln and Kit Carson Counties	-	0 – uses Outback Express buses on temporary basis	-
Cheyenne Manor Nursing Care Center	No – as needed	Yes	Transport to medical appointments	Residents of care center	Cheyenne Wells, Pueblo and Colorado Springs	-	1	-
Grace Manor Care Center	No – as needed	Yes	Transport to medical appointments and recreation sites	Residents of care center	Town of Burlington city limits	-	1	-
Prairie View Care Center	No – as needed	Yes	Transport to medical appointments	Residents of care center	Limon, with trips to Denver or Colorado Springs	-	1	-
Limon Child Development Center	No	Yes	Transport to Head Start programs	Head Start participants	Arriba, Hugo, Genoa, Limon	5 children per day	2	Federal grant through Head Start Program

Table 3.4 Eastern TPR Transit Providers Source: ECCOG, NECALG (Eastern Colorado Regional Transportation Plan Transit Plan Element Update, 2004)								
Transit Provider	Fixed Schedule	Special Service Provider	Special Service	Service Population	Service Area	Ridership	Fleet Size	Funding Source
County Express	No – demand responsive, Monday- Friday		Weekends and federal holidays for non emergent medical trips	Elderly, disabled, transit dependent, general public including school children	Throughout the NECALG area with trips to Front Range cities, Lone Star and Idalia school districts	78,580 (2002)	35 vehicles and 11 back-up vehicles	Fares, donations, FTA 5309, FTA 5310, FTA 5311, Title III, Medicaid, Counties, Municipalities, TANF, United Way,
Hillcrest and The Towers	No	Yes	Transport to center activities	Center residents	Wray	-	1	-
Sterling Living Center	No	Yes	Transport for health and medical visits only	Center residents	Sterling	-	1	-
Sunset Manor	No	Yes	Transport for health, medial visits and trips for other senior services	Manor residents	Brush, with trips to Denver and Fort Morgan	-	4	-
Valley View Villa	No	Yes	Transport for medical visits and shopping	Villa residents	Fort Morgan, Greeley, Sterling	-	1	-
Yuma Life Center	No	Yes	Transport for medical visits	Center residents	Yuma	-	1	-
Eastern Colorado Services	Demand responsive	Yes	Health/medical, social services, recreation, education and training, employment, other.	Adults with developmental disabilities, physical, mental or cognitive disabilities and low income	Sterling and 10 eastern Colorado counties	-	32	Contracts
Brush Head Start	No	Yes	Transport to Head Start programs	Head Start participants	Brush	-	2	Federal subsidies
lliff Community Center Head Start Program	No	Yes	Transport to Community Center in Iliff for Head Start programs and occasionally for medical visits	Head Start participants	lliff, Sterling, Padroni, Proctor	-	3	Federal subsidies
RE-3 School District Head Start/Colorado Preschool	No	Yes	Transport to Head Start program	Head Start participants	Fort Morgan	-	6	Federal subsidies

## Intercity Transit Providers

#### Greyhound

Greyhound Lines provides two round trips daily along I-70, between Denver and Limon (depot location), as well as two round trips daily along I-76, between Denver and Sterling (depot location). The buses do not stop in each community along the I-70 or I-76, but another depot is located in Brush. Upon reaching Denver, passengers must make other travel arrangements to reach their final travel destinations.

#### Dashabout

Dashabout Roadrunner is a for-hire motor carrier operating fixed route schedule service under authority of the Colorado Public Utilities Commission. Service is provided in both the NECALG and ECCOG areas. The Roadrunner specializes in scheduled, fixed route, and intercity rural passenger service with urban and resort connections.

Dashabout provides scheduled daily trips on routes following I-76, US 34, US 36, and I-70. Destinations include Denver, Colorado Springs, Boulder, Greeley, Fort Collins, Blackhawk/Central City, Limon and the ski resorts of Vail and Summit County. The Roadrunner also connects to Nebraska cities, specifically Sidney, North Platte, Imperial, McCook, and Omaha.

The Roadrunner service links all urban bus terminals, Amtrak stations, and airports in Lincoln, Omaha, DIA, and Colorado Springs. Taxi service within the City of Sterling is provided 9:00 a.m. to 5:00 p.m. each day year round.

It is estimated that over 60 percent of the trips are for older adults. Trips are primarily for recreation, medical, business, and social purposes. Top priorities for changes to service include additional early afternoon departures, increased driver pay and training. There have been discussions concerning the possibility of coordinating Dashabout trips with regional trips made by both County Express and Outback Express in the ECCOG area. However, it is possible for the rural carriers to connect to the intercity carrier, Greyhound, at depots located in Limon and Sterling. The depot at Burlington was recently closed. Table 3.5 summarizes the fixed schedule providers' services and locations.

Table 3.5 Regional Transit Stations Source: Greyhound Bus Lines, Dashabout Shuttle					
Stop/Station	Hours/Services	Address			
Limon	Greyhound station open with ticketing 24 hours including holidays	Rip Griffin Truck Service Center, Junction of US 24/I-70, Limon			
Sterling	Greyhound station open with ticketing 24 hours including holidays	Robinson Park, Inc, 12881 Hwy 61, Sterling			
Route from Imperial, Nebraska to Denver, with passenger stops at Peetz, Sterling, Brush, Wray, Yuma, Akron	Dashabout Shuttle, daily shuttle service linking western Nebraska, eastern Kansas, northeastern Colorado with Denver International Airport and Downtown Denver	Offices in Akron			

For more information regarding transit in the Eastern TPR, please refer to the *Eastern Colorado Regional Transportation Plan Transit Element Plan Update*, May 2004, which is incorporated in this plan by reference. Note that transit issues were addressed in the community participation process.

### Roads

## Roadway Miles in TPR

There are approximately 15,758 miles of roadways in the Eastern TPR. Of these, 1,415 miles of roadways are state highways, 13,993 miles are county roads and 349 miles are city or municipal streets. Table 3.5 below, lists the roadways, together with associated total mileage.

Table 3.5 State Highway Center Line Miles in TPR by Functional Classifications  Source: CDOT TRANSPORTATION DATA SET (2002)				
Functional Classification	Miles			
Interstate	203			
Other Principal Arterials	368			
Minor Arterials	620			
Collectors and Local	224			
Total State Highway Centerline Miles	1415			
County Roads	13,993			
City Streets	349			
Total Off System Miles	14,342			

### Traffic Volume

Annual Average Daily Traffic counts for the Eastern Transportation Planning Region are shown in the Daily Traffic Volumes Figure 3.4.

## Vehicle Miles of Travel

One measure of travel demand on regional highways is Vehicle Miles of Travel (VMT). Using this measure, one vehicle traveling one mile equals 1 VMT; 10 vehicles traveling one mile equals 10 VMT. In the Eastern TPR, the daily VMT on state highways in 2002 was 3,301,026. This number includes 853,395 for trucks. See Tables 3.6 and 3.7. In addition, the proportion of trucks to personal vehicles is shown in Table 3.8.

	Table 3.6 2002 Daily Vehicle Miles of Travel  Source: CDOT Transportation Data Set									
County	Int. Rural	Other Princ. Art. Rural	Minor Art. Rural	Major Coll. Rural	Minor Coll. Rural	Local Rural	Int. Urban	Other Princ. Art. Urban	Minor Art. Urban	TOTAL
Cheyenne	-	124,167	29,013	-	-	-	-	-	-	153,180
Elbert	322,177	66,225	118,596	-	376	153	-	-	-	507,527
Kit Carson	547,520	43,374	19,807	2,667	27,136	-	-	-	-	640,504
Lincoln	303,855	86,124	92,299	-	-	2,676	-	-	-	484,954
Logan	316,731	1	162,328	59,060	-	-	12,577	51,540	9,549	611,785
Phillips	-	20,325	67,475	14,590	-	-	-	-	-	102,390
Sedgwick	177,743	9,719	19,302	15,622	-	-	-	-	-	222,386
Washington	102,959	89,227	87,104	50,402	-	-	-	-	-	329,692
Yuma	-	172,753	75,855	-	-	-	-	-	-	248,608
TOTAL	1,770,985	611,914	671,779	142,341	27,512	2,829	12,577	51,540	9,549	3,301,026

	Table 3.7 2002 Daily Truck Vehicle Miles of Travel Source: CDOT Transportation Data Set									
County	Int. Rural	Other Princ. Art. Rural	Minor Art. Rural	Major Coll. Rural	Minor Coll. Rural	Loc. Rur.	Interst. Urban	Other Princ. Art. Urban	Minor Art. Urban	TOTAL
Cheyenne	-	55,769	10,922	-	-	-	-	-	-	66,691
Elbert	101,841	9,677	8,605	-	88	17	-	-	-	120,228
Kit Carson	162,895	9,130	5,544	317	4,214	-	-	-	-	182,100
Lincoln	90,384	36,183	15,645	1	-	170	•	-	•	142,382
Logan	76,885	-	30,673	6,492	-	-	3,108	5,428	711	123,297
Phillips	-	5,451	16,583	1,597	-	-	1	-	1	23,631
Sedgwick	46,375	3,908	2,827	1,691	-	-	•	-	•	54,801
Washington	24,298	27,652	21,331	8,192	-	-	-	-	-	81,473
Yuma	-	41,057	18,275		-	-	-	-	-	59,332
TOTAL	502,678	188,827	130,405	18,289	4,302	187	3,108	5,428	711	853,935

Table 3.8 Proportion of Trucks to Personal Vehicles  Source: CDOT Transportation Data Set						
	200	01 Traffic Volum	nes	2030 Traffic Volumes		
Corridor	ADT Total	ADT Trucks	% Trucks	ADT Total	ADT Trucks	% Trucks
1 - SH 86 from the Town of Kiowa east to I-70	1050	80	7.6	1750	180	10.3
2 - SH 86 from I-25 in Castle Rock east to the Town of Kiowa	12260	510	2.4	21530	890	4.1
3 - SH 71 from US 50 at Rocky Ford to I-70 in Limon	1080	170	15.7	1830	280	15.3
4 - SH 63 from Anton north to Atwood	690	120	17.4	1290	180	13.9
5 - SH 61 from Otis north to Sterling	530	100	18.9	1850	230	12.4
6 - US 6 from I-76 north to Sterling then east to Nebraska	2930	390	13.3	3550	530	14.9
7 - SH 59 from US 40 in Kit Carson to SH 138 in Sedgwick	1290	260	20.2	1920	390	20.3
8 - US 40 from the Town of Kit Carson east to Kansas	870	160	18.4	1470	420	28.6
9 - US 385 from Cheyenne Wells north to the Nebraska border	1750	340	19.4	2640	520	19.7
10 - US 287 from Oklahoma north to US 40 in Kit Carson	3280	1760	53.7	6250	3350	53.6
11 - US 24 from Colorado Springs northeast to I-70 in Limon	3690	430	11.6	6170	730	11.8
12 - US 24 from I-70 in Seibert east to Kansas State Line	490	70	14.2	1070	150	14.0
13 - I-76 from SH 85 in Commerce City northeast to Nebraska	7670	2110	27.5	13200	3510	26.6
14 - SH 94 from the east Colorado Springs to US 40/ US 287	650	60	9.2	1320	230	17.4
15 - SH 71 from I-70, Limon north to Nebraska State Line	1660	140	8.4	2710	430	15.9
16 - SH 113A from SH 138 near Sterling to Nebraska/ I-80	1010	270	26.7	2110	530	25.1
17 - SH 138 from SH 6 to Nebraska/ I-80	930	100	10.8	2080	220	10.6
18 - SH 14 from I-25/ Ft Collins to I-76/ Sterling	4160	420	10.1	6970	1290	18.5
19 - SH 23 from Holyoke east to Nebraska	810	80	9.9	1600	160	10.0
20 - I-70 from C-470 in Denver east to Kansas	8460	2780	32.9	14900	4370	29.3
21 - US 34 from SH 71 in Brush east to Nebraska	2590	890	34.4	3470	1190	34.3
22 - US 36 from I-70 in Byers east to Kansas	830	250	30.1	1590	460	28.9

## **Surface Condition**

The most visible element of any roadway is its surface. The Colorado Department of Transportation inspects and then rates pavement conditions as Good, Fair or Poor. CDOT also uses a Pavement Management System to prioritize and schedule the resurfacing to achieve the most cost effective results. Figure 3.5 Surface Condition shows pavements CDOT has rated as Poor in the Eastern Transportation Planning Region (CDOT database).

## **Bridge Conditions**

Bridges are an important component of any roadway system. Bridges enable routes to be significantly shorter and smoother by spanning rivers, draws, gulches, canyons, railroad tracks and other road facilities and geological barriers. Each bridge is given a sufficiency rating by CDOT relevant to its structural integrity. A score less than 80 indicates either a structural deficiency (aging or engineering defects) or that the bridge is functionally obsolete (generally, substandard width). A rating of less than 50 makes the bridge eligible for replacement while bridges with a rating between 50 and 80 are suggested for rehabilitation. Structurally Deficient and Functionally Obsolete structures on the state highway system within the planning region are eligible for state and federal funds. Off-system structures, of over 20 feet in length, are also eligible for state or federal funding. Table 3.9 indicates the sufficiency rating of those bridges on the state highway system either structurally deficient or functionally obsolete.

Table 3.9 Structurally Deficient and Functionally Obsolete Bridges  Source: CDOT Transportation Data Set						
	State Owned Region 1	State Owned Region 4	City/County Owned Region 1	City/County Owned Region 4		
Structurally Deficient 0 - 49.9	3	2	5	16		
Structurally Deficient 50 - 80	7	14	8	7		
Functionally Obsolete 0 – 49.9	0	1	16	7		
Functionally Obsolete 50 – 80	19	25	10	6		
Total Deficient Bridges in Region % Deficient	29	42	39	36		
Total Bridges in Region	250	166	198	271		
Percent Deficient Bridges In Region	11.6%	25.3%	19.7%	13.3%.		

### Bicycle/Pedestrian Facilities

The Eastern TPR has a goal of providing highway facilities that can safely accommodate bike events, training, and recreational riding in the Region. However, the TPR is very clear that it does not support the construction of trails with highway funds. The TPR is supportive of shoulders along roadways for bicycle users and the use of Enhancement funds for extending existing trails (see Section 1.4). Note that bicycle/pedestrian issues were addressed in the community participation process.

### Bike Lanes

There are no trails that parallel the highways in the Eastern TPR, but each community has its own bike trails, in some cases these are frontage roads.

### Bike Routes

Burlington has a trail/bike lane along one of its roadways.

## Popular On-Street Facilities

No state highways in the Eastern TPR are designated as prohibited for cycling by CDOT (2001 Colorado Department of Transportation map, Prepared by CDOT Bicycle Pedestrian Program).

### Off-street Bike Paths

The Limon Pedestrian-Bicycle Trail is a crushed rock trail that links neighborhoods to a community fishing pond, schools, and parks. The Town of Limon and Colorado Department of Transportation (CDOT) joined in a partnership that created the state's first "wetland bank" in conjunction with a bicycle/pedestrian path. The eight-acre wetland, following more than three years of planning, provides a local educational and wildlife area designed and constructed by CDOT. The town's adjoining bike path had two phases. Approximately \$300,000 of ISTEA Enhancement funds, Great Outdoor Colorado funds through a State Trails Program grant, and local dollars were used. One phase built a concrete pedestrian/bicycle culvert under an existing railroad bed to connect Limon with a large open space area owned by the town south of the rail lines. Phase II developed a path following existing drainage, alley, and street rights-of-way from two points in the northern part of town to the Doug Kissel fishing pond south of town and, farther south, to the wetlands.

State Highways with Unpaved Shoulders or with Paved Shoulders of less than Four Feet Figure 3.6 shows the width of shoulders in the Eastern TPR. As shown, with few exceptions the north/south roadways have shoulders of 4 feet or less, while most east/west roadways have shoulders of 5 feet or greater, but they are also limited access roadways.

## Safety Concerns

The Eastern Colorado Region has many highway safety concerns. The climate and topography throughout the region plays a major role in determining the location, construction and maintenance of all roadways. Shoulder widths are a concern for safety especially where truck traffic, automobile traffic, and pedestrians or bicycles utilize the same roadway. Figure 3.6 Shoulder Widths shows the widths of highway shoulders in the Eastern Transportation Planning Region. High accident locations in the Eastern Transportation Planning Region are shown in Figure 3.7.

### **Systems and Corridors**

## National Highway System (NHS)

Interstate 70 (118 miles), Interstate 76 (92 miles), SH 287/US 40 (71 miles), and SH 71 north of Limon (54 miles) are roadways in the Eastern Transportation Planning Region that are designated as part of the National Highway System. Total NHS mileage in the TPR is 325 miles.

### Western Transportation Trade Network (WTTN) Freight Corridors

In addition to the planning efforts of states and regional planning organizations, public and private sector officials are working together to identify and address intermodal freight movement issues that cross-state boundaries. The Western Transportation Trade Network, comprised of 17 western states, is identifying high-priority freight (air, land, rail, and marine) corridors and intermodal facilities throughout the western United States. The corridors identified by WTTN in the Eastern Transportation Planning Region include the Utah-St. Louis corridor, and the

Wyoming to Galveston Corridor. In addition, the U.S. Congress identified 20 "High Priority Corridors" in the western states, including the Ports-to-Plains Corridor, which is within the WTTN Wyoming to Galveston Corridor. The Wyoming to Galveston / Ports-to-Plains Corridor is partially located in the Eastern Colorado Region, and uses US 40/287 and I-70.

### Hazardous Material Routes

Some highways in the Eastern Transportation Planning Region have been identified by the Colorado State Patrol as Hazardous Materials Routes. The Hazardous Material Routes within the Eastern Transportation Planning Region are SH 71, SH 113, SH 138 (north from Sterling to US 6), US 40, US 287, US 385, US 6, SH 14, US 24, US 34, I-70, and I-76. In addition, I-70 and I-76 through the Region are routes designated for the transportation of nuclear materials. Transporters of all hazardous materials (as identified in Table 1, Colorado Code of Regulations, Part 172) must adhere to these routes. Transporters of hazardous materials in Table 2 must adhere to the designated routes if the quantities being transported are over certain regulated amounts or in certain types of containers. Exceptions may be granted under certain conditions. Information, permits and complete regulations are available from the Colorado State Patrol.

## Scenic Byways

The Colorado Scenic and Historic Byways program is intended to provide recreational, educational, and economic benefits to Coloradoans and visitors while providing for the protection of significant corridors. The Colorado Scenic and Historic Byways Commission designate the byways for their exceptional scenic, historic, cultural, recreational, and natural features. The Eastern Colorado Transportation Region has two Byways.

Pawnee Pioneers Byway – This byway traverses the rugged Colorado Piedmont, a wide-open region anchored by the towering Pawnee Buttes. Table 3.10 describes it further.

Table 3.10 Scenic Byways Pawnee Pioneers Byway  Source: Colorado Scenic Byways				
Location	Byway route from the town of Ault east along CO 14; north along CR-77 and CR-122 to Grover; south along CR-390 and east along CO 14 to Raymer; south along CO 52 to Fort Morgan or east along CO-14 to Sterling			
Length	128 miles one way, 3 hours			
Road Conditions	CO Highways 14 and 52 are paved between Ault, Sterling, and Fort Morgan. Portions of CR-77, CR-122, and CR-390 are unpaved.			
Services	Limited visitor services, food, gas and lodging.			
Traffic generators along the Byway	Pawnee National Grasslands, Pawnee Buttes, Overland Trail Museum, and Fort Morgan Museum.			

✓ South Platte River Trail Byway – This byway traverses the South Platte River on both the north side driving westward and on the south side driving eastward. This Byway traverses parts of the old Overland/California and Pony Express trails. Details are provided in Table 3.11.

	Table 3.11 Scenic Byways South Platte River Trail  Source: Colorado Scenic Byways
Location	Beginning at the Colorado Welcome Center on I-76 at Julesburg, this byway makes a loop along SH-388 and SH-138 westward to Ovid, then eastward back to Julesburg along CR-28
Length	19 miles, 30 minutes
Road Conditions	The entire length of the byway is paved.
Services	Limited visitor services, food, gas and lodging.
Traffic generators along the Byway	Devil's Dive Stage Coach Route, Pony Express Trail, Fort Sedgwick, Overland/California Route, and DePoorter Lake.

## **Major Activity Centers**

It is important to know where major activity centers are located in the region to determine origin and destinations of traffic. Many local and regional activity centers overlap, with the local population mixing with the regional population at such locations as government centers, commercial centers, agricultural centers such as grain storage facilities, and at institutions such as colleges, recreation areas and medical facilities. For example, local city governments and county governments draw employees and the public to conduct government business, so the locations of each county and city facility are important to know. Hospitals in the Eastern Transportation Planning Region include Lincoln Community Hospital (Hugo), Haxtun Hospital, Melissa Memorial Hospital (Holyoke), and Sterling Regional MedCenter. There are also hospitals in Julesburg (Sedgwick County Health Center), Wray (Wray Community District Hospital), Yuma (Yuma District Hospital), Burlington (Kit Carson County Memorial Hospital) and Cheyenne Wells (Keefe Memorial Hospital).

Most of the region's towns have shopping areas such as the Wal-Mart Super Center (Sterling), and downtown areas such as "Old Town Burlington," but given the importance of agriculture in the Eastern Transportation Planning Region, we must also recognize businesses such as the Holyoke Co-op (Holyoke), Grainland Co-op (Haxtun), Amherst Co-op (Amherst), and the Paoli Co-op (Paoli).

One of the major activity centers in the Eastern Transportation Planning Region is Northeastern Junior College (Sterling).

The Eastern Transportation Planning Region is also rich in recreation facilities. Some of these include:

		Table 3.12 Recreational Facilities Source: Various Databases 2004
County	City	Recreational Facility
Cheyenne	Cheyenne Wells	Cheyenne County Fairgrounds
		Softball Fields
Elbert	Elizabeth	Spring Valley Golf Course
		Elizabeth Rodeo Ground
	Kiowa	Elbert County Fair Ground

		Table 3.12 Recreational Facilities Source: Various Databases 2004
County	City	Recreational Facility
Kit Carson	Regional	Bonny Reservoir and State Park
	Burlington	Kit Carson County Carousel (National Historic Site)
		Burlington Municipal Swimming Pool
		Prairie Pines Golf Course
		Kit Carson County Fairground
	Cheyenne Wells	Cheyenne Wells Pool
		Smokey River Golf Course
	Flagler	Flagler Municipal Pool
		Flagler Golf Course
		Flagler State Wildlife Area
	Stratton	Stratton Municipal Pool
		Stratton Golf Course
Lincoln	Genoa	Genoa Tower and Museum
	Hugo	Hugo Pool
		Hugo Golf Course
		Hugo State Wildlife Area/Kinney Lake
Karval	Karval	Karval Reservoir and State Wildlife Area
	Limon	Limon Heritage Museum and Railroad Park
		Limon Municipal Pool
		Doug Kissel Fishing Pond
		Limon Wetlands
		Tamarack Golf Course
Logan	Regional	Pawnee Grasslands
		Jumbo Reservoir State Wildlife Area
	Fleming	Fleming Museum
	Sterling	Overland Trail Museum
		Sterling Public Library
		Sterling Indoor Pool and Recreation Center
		Golf Course
		Private Golf Course
		North Sterling State Park
		Eastern Colorado Historical Society Museum
Phillips	Haxtun	F&H Golf Course
·		Haxtun Community Center
	Holyoke	Phillips County Historical Society and Museum
		Holyoke Golf Course
Sedgwick	Sedgwick	Fort Sedgwick Depot Museum
		· · · · · · · · · · · · · · · · · · ·

		Table 3.12 Recreational Facilities Source: Various Databases 2004
County	City	Recreational Facility
Washington	Regional	Messex State Wildlife Area
		Prewitt Reservoir and Wildlife Area
		Summit Springs Battlefield Historical Marker
Akron		Washington County Golf Club
	Otis	Haverland Pond
Yuma	Hale	Hale Ponds
	Hyde	Deering Lake
	Wray	Beecher's Island Battlefield Monument
		Wray Museum
		Wray Aquatics Center
	Yuma	HiPlare Golf Course
		Plainsmen Golf Club
		Grassroots Community

Large employers such as those listed here will "attract" traffic to towns. Limon Correctional Facility, Mountain View Electric, KC Electric, Highline Electric, Seaboard Farms (Holyoke), Sterling Correctional Facility, Sterling MedCenter, Re-1 Valley School District, Wal-Mart Super Center (Sterling), Sykes Enterprises (Sterling). Several of the county governments and school districts in the Eastern Transportation Planning Region are large employers.

In addition, connections to activity centers outside the region are important. The East Central Council of Governments participated in a plan for SH 83/86, including ROW preservation along Kiowa and Bennett Roads, to account for commuter traffic between residential areas in Elbert County and activity centers in El Paso County. The completed plan was endorsed by the Eastern TPR and is referenced in their transportation planning activities.

# 3.2 SOCIOECONOMIC PROFILE

The Eastern Colorado Planning Region, located on the eastern plains of the state, consists of Cheyenne, Elbert, Kit Carson, Lincoln, Logan, Phillips, Sedgwick, Washington, and Yuma counties. The region's 16,341 square miles make it larger than 10 states in the country (including the District of Columbia). The unpopulated publicly owned land shown on the Public Lands Figure 3.8 highlights the low population density of this region.

As shown in Table 3.13, the average population density of the region is 4.9 persons per square mile. This density figure is somewhat misleading given all the public lands in the region. Various land limitations or uses render many other lands as non-developable as well.

Table 3.13 Population Density by County Source: Colorado State Demographer, October 2003						
County	2000 Population	Land Area (Sq. miles)	Density Per/sq. mile			
Cheyenne	2,231	1,781	1.3			
Elbert	19,872	1,851	10.7			
Kit Carson	8,011	2,161	3.7			
Lincoln	6,087	2,586	2.4			
Logan	20,504	1,839	11.2			
Phillips	4,480	688	6.5			
Sedgwick	2,747	548	5.0			
Washington	4,926	2,521	2.0			
Yuma	9,841	2,366	4.2			
Total	80,699	16,341	4.9			
State	4,301,261	103,718	41.5			

The significant portion of land in the region's counties that is devoted to agriculture accounts for the region's strong tie to the land. In eight of the nine counties of the region, 80 to 90 percent of the land is in the farming or ranching sector. The transportation aspects of this economic sector include trucks, a heavy reliance on rail, and agriculturally oriented vehicles. Agriculture has long been a part of Eastern Colorado's culture and economy and is a sector of the economy that the residents value and wish to preserve. Because of the distances between farms and ranches, and the service centers such as Limon, Sterling, Burlington, the single occupant vehicle is essential to the agricultural industry.

The towns of the region with the largest populations are Sterling, Burlington, and Yuma. Scattered throughout the region are incorporated and unincorporated towns with smaller populations. In Elbert, Washington, and Yuma counties the unincorporated areas have higher populations than the largest towns in each county. Table 3.14 shows the towns that serve as County seats. However, in addition to these towns, other Eastern Colorado towns are important service providers to this rural region.

Table 3.14 Eastern Colorado County Seats Source: Colorado Department of Public Health and Environment, October 2003				
County	County Seat			
Cheyenne County	Cheyenne Wells			
Elbert County	Kiowa			
Kit Carson County	Burlington			
Lincoln County	Hugo			
Logan County	Sterling			
Phillips County	Holyoke			
Sedgwick County	Julesburg			
Washington County	Akron			
Yuma County	Wray			

## **Population**

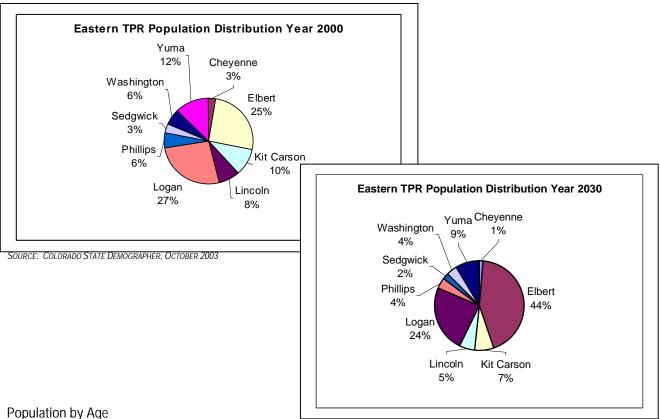
## **Distribution and Density**

The Eastern Colorado Planning Region is located in the sparsely populated eastern plains of Colorado. The region has slightly less than 2 percent of the state's total population but 15.75 percent of the total land area in the state. Low densities in rural regions tend to promote a continued reliance on single occupancy vehicles for transportation.

According to the State Demographer, the population of Eastern Colorado is anticipated to reach 135,540 residents by the year 2030 (Table 3.15). This figure represents a 70 percent change in population from the year 2000. Population growth in Elbert and Logan Counties will outpace the rest of the region (by absolute number and by percentage growth) from 2000 to the year 2030, increasing the need for roadway capacity and mobility improvements, safety improvements, and maintenance of the facilities, especially in major corridors such as I-76, I-70, US 40-287, and US 385. The Visions chapter of this plan (Chapter 4) discusses the goals and strategies for meeting these emerging needs in the Eastern Transportation Planning Region.

	Table 3.15 Population Projections Source: Colorado State Demographer, October 2003								
County	1990	2000	2010	2020	2030	Absolute Change 2000-2030	% Change 2000- 2030		
Cheyenne	2,397	2,230	2,064	1,969	1,881	-349	-19%		
Elbert	9,646	20,188	28,333	42,589	58,759	38,571	191%		
Kit Carson	7,140	8,012	8,387	8,980	9,417	1,405	18%		
Lincoln	4,529	6,170	6,352	6,829	7,324	1,154	19%		
Logan	17,567	20,862	24,246	28,979	32,895	12,033	58%		
Phillips	4,189	4,486	4,720	4,994	5,167	681	15%		
Sedgwick	2,690	2,742	2,873	3,084	3,247	505	18%		
Washington	4,812	4,920	4,929	5,056	5,176	256	5%		
Yuma	8,954	9,853	10,380	11,120	11,674	1821	18%		
Total	61,924	79,463	92,284	113,600	135,540	56,077	71%		

As demonstrated in the charts below, Elbert will experience the most dramatic growth in the next 25 years and take a 44% share of the regional population. While all the counties except Cheyenne County gain population, Yuma, Logan, and Kit Carson lose up to 3 percent of their regional share to Elbert County.



## Regional Share of Population Growth 2000 and 2030

Population data by age, from the 2000 census, is information that is the best available. The population has been divided into four age groupings: 0-15 years, 16-44 years, 45-64 years and 65 years and older (Table 3.16). The 0-15 year age group represents those persons who are not currently calculated into the labor force. The 16-44 years age group represents those persons who are currently in the work force and who are likely to be in the work force in the year 2030. The age group of persons 45-64 years represents those persons who are currently in the workforce but will most likely be retired by the year 2020. The age category 65 years and above generally represents those who are currently retired.

	Table 3.16 Population by Age (2000) Source: Colorado State Demographer, October 2003										
County	Cheyenne	Elbert	Kit Carson	Lincoln	Logan	Phillips	Sedgwick	Washington	Yuma	Total	% of Total
0-15 years	509	4,883	1,725	1,166	4,127	993	502	1,040	2,245	17,190	22%
16-44 years	877	8,737	3,336	2,729	8,959	1,626	950	1,797	3,798	32,809	42%
45-64 years	475	5,060	1,779	1,324	4,453	994	688	1,191	2,191	18,155	23%
65 years +	370	1,192	1,171	868	2,965	867	607	898	1,607	10,545	13%
Total	2,231	19,872	8,011	6,087	20,504	4,480	2,747	4,926	9,841	78,699	100%

The population group over age 65 years is traditionally considered to have greater demand for public transportation, both because of physical limitations and because of economic needs that may prohibit some from having access to private automobiles. The year 2000 state average of population over age 65 is 9.7%. Eastern Colorado, at 13 percent, exceeds the state average. For planning purposes, the age category 45-64 years (23% in 1990) is of particular importance. This age group represents those persons who may be in need of alternative modes of transportation in the next 20 or more years. As the population ages, the need for alternative modes of transportation will increase proportionately. Counties experiencing a high demand, such as Elbert County, must pay particular attention to the age 45 to 64 group.

### Household Size

Table 3.17 lists the average household size for each Eastern Transportation Planning Region county in comparison to U.S. and Colorado household sizes. The difference between household size (the total number of people in any given household) and family size (related people in a household) averages less than one half person per household across the counties, and is very close to the averages of both the state and the nation. The highest average is in Elbert County where the household size approaches three persons and the family size is just over three. The lowest averages are in Sedgwick County with 2.31 persons per household and 2.83 persons per family.

	Table 3.17 Eastern Colorado TPR Households  Source: U.S. Census 2000, March 2004								
County	Cheyenne	Elbert	Kit Carson	Lincoln	Logan	Phillips	Sedgwick	Washington	Yuma
Average Household Size 2000	2.50	2.93	2.50	2.44	2.45	2.47	2.31	2.46	2.55
Average Family Size 2000	3.12	3.19	3.07	3.04	3.02	3.01	2.83	2.97	3.13
Average Household S	ize State: 2000	)			2.50				
Average Household S	ize U.S.: 2000				2.50				
Average Family Size State: 2000					3.1				
Average Family Size U	J.S.: 2000				3.1				

### Income

Table 3.18 lists personal per capita income for the region for the years 1990 and 2000. Per capita income serves as a proxy for a measure of an area's economic well-being.

	Table 3.18 Per Capita Income Source: U.S. Census 2000, October 2003								
County	Cheyenne	Elbert	Kit Carson	Lincoln	Logan	Phillips	Sedgwick	Washington	Yuma
1990	\$11,382	\$13,664	\$11,385	\$10,052	\$10,899	\$10,444	\$9,901	\$10,473	\$10,713
2000	\$17,850	\$24,960	\$16,964	\$15,510	\$16,721	\$16,394	\$16,125	\$17,788	\$16,005
Absolute Change	\$6,468	\$11,296	\$5,579	\$5,458	\$5,822	\$5,950	\$6,224	\$7,315	\$5,292
% Growth	57%	83%	49%	54%	53%	57%	63%	70%	49%
State: 1990			\$14,821		Absolute Change		% Growth		
	State: 2000			\$ 24	,049	\$9,228		62%	

Per capita income reveals that the region as a whole has not been experiencing the economic prosperity that the rest of the state has enjoyed since 1990. Elbert County has the highest per capita income of the region, and its 83 percent growth in income since 1990 far exceeds that of the state (62%). Yuma County has the lowest per capita income in 2000 of the region and one of the lower ones in the state. The detailed components of total personal income for 2000 are shown in Table 3.19. Earnings include wages and salaries, other labor income, and proprietors' income.

Table 3.19 Components of Total Personal Income (percent)  Source: Colorado State Demographer, October 2003									
Components of Personal Income	Cheyenne	Elbert	Kit Carson	Lincoln	Logan	Phillips	Sedgwick	Washington	Yuma
Net Earnings By Place of Work	66.8	74.6	68.4	63.5	66.9	66.9	59.2	64.2	66.3
Dividends, Interest and Rent	7.3	3.9	5.9	6.4	5.9	7.1	4.5	6.7	5.6
Transfer Payments	25.9	21.5	25.7	30.2	27.1	25.9	36.3	23.1	28.1

## **Transit Dependency**

Poverty status is another way of looking at travel demand. While the number of daily trips derives largely from income (higher income equals more trips per day), those in the lowest income groups, especially those below the poverty line, may not have access to private transportation. According to a recent CDOT survey, those in households with less than \$20,000 in annual income are more than twice as likely to depend on the bus to get to work as any other income group. Among households that do not own a vehicle, 34 percent have incomes less than \$20,000 (Access to Transportation Outside the Mainstream, CDOT 1998).

The average poverty level for counties in Colorado is 12.5 percent. In Eastern Colorado, all the counties fall below that amount (source: US Census 2000). It can be assumed that for at least some people below the poverty line, lack of access to transportation is a significant factor. More revealing are the census data for households without access to a vehicle. These data show that, on the high side, up to 7.2 percent of households in Cheyenne County are without vehicles, and on the low side, up to 2.1 percent of households in Elbert County lack access to a vehicle. True dependency on transit must be assumed for these households.

Table 3.20 shows the percent of households without a vehicle and the percent of families in poverty for each county.

Table 3.20 Other Measures of Personal Income Source: U.S. Census 2000, October 2003									
Other Measures of Personal Income	Cheyenne	Elbert	Kit Carson	Lincoln	Logan	Phillips	Sedgwick	Washington	Yuma
Households with no vehicle (percent)	7.2	2.1	6.8	4.4	5.7	5.2	4.5	3.0	4.6
Families in Poverty (percent)	8.7	2.5	9.4	8.1	9.0	8.8	7.8	8.6	8.8

In addition, Figure 3.9 illustrates areas of minority populations in Colorado, and Figures 3.10 and 3.11 illustrate areas of low-income households in CDOT Regions 1 and 4. These figures allow a comparison of the Eastern TPR to other areas of the state.

## **Housing Units**

The number of housing units by the municipalities in the region is listed in Table 3.21. Elbert and Logan Counties are experiencing the bulk of the increase in the housing stock for the region. The majority of the homes in these counties are being built in the unincorporated areas of the county. The transportation implications of this are that there will be more traffic traveling to and from communities and towns. The commuting traffic, specifically along SH 86 and US 24 creates an additional strain on the transportation network. Transit opportunities are becoming a particular concern in Elbert County, where employees may live in one area of the county and work in the Front Range. The interrelated elements of employee housing and employee transportation are becoming an important issue in the region.

Table 3.21 Housing Units by Municipality Source: Colorado State Demographer, October 2003							
Location	2000	2001	2002	Absolute Increase 2000- 2002			
Cheyenne County							
Cheyenne Wells/CWM	505	508	512	7			
Kit Carson	158	158	158	0			
Unincorp. Area	442	442	442	0			
Total	1,105	1,108	1,112	7			
Elbert County							
Elizabeth/ElizPark	513	525	537	24			
Kiowa	243	254	254	11			
Simla	261	273	275	14			
Unincorp. Area	6,096	6,380	6,669	573			
Total	7,113	7,432	7,735	622			
Kit Carson County							
Bethune	81	82	82	1			
Burlington	1,430	1,443	1,454	24			
Flager	319	332	332	13			
Seibert	106	110	110	4			
Stratton	359	360	363	4			
Vona	53	53	53	0			
Unincorp. Area	1,082	1,082	1,082	0			
Total	3,430	3,462	3,476	46			
Lincoln County							
Arriba	127	127	127	0			
Genoa	84	85	85	1			
Hugo	440	441	442	2			
Limon	934	935	936	2			
Unincorp. Area	821	827	832	9			
Total	2,406	2,415	2,422	14			
Logan County							
Crook	80	81	82	2			
Fleming	198	202	206				
Iliff	112	114	116	4			
Merino	110	117	124	14			
Peetz	99	101	103	4			
Sterling	5,171	5,210	5,217	46			
Unincorp. Area	2,654	2,702	2,743	89			
Total	8,424	8,527	8,591	167			
Phillips County							
Haxtun	490	492	498	8			

Table 3.21 Housing Units by Municipality  Source: Colorado State Demographer, October 2003								
Location	2000	2001	2002	Absolute Increase 2000- 2002				
Holyoke	980	983	986	6				
Paoli	24	24	24	0				
Unincorp. Area	520	524	528	8				
Total	2,014	2,023	2,036	22				
Sedgwick County								
Julesburg	699	700	700	1				
Ovid	178	179	180	2				
Sedgwick	111	111	111	0				
Unincorp. Area	399	401	402	3				
Total	1,387	1,391	1,393	6				
Washington County								
Akron	835	839	840	5				
Otis	248	250	252	4				
Unincorp. Area	1,224	1,234	1,241	17				
Total	2,307	2,323	2,333	26				
Yuma County								
Eckley	120	120	120	0				
Wray	968	976	978	10				
Yuma	1,393	1,402	1,411	18				
Unincorp. Area	1,814	1,814	1,814	0				
Total	4,295	4,312	4,323	28				

## **Employment**

Employment in Eastern Colorado, as shown in Table 3.22, has been fairly steady since 1990 with low unemployment rates. The number of jobs has exceeded the number of employed persons in the region by a substantial amount (5,176 in 2000). The discrepancy can be explained by either multiple jobholders or by jobholders who reside in another county.

Table 3.22 Employment Statistics Source: Colorado State Demographer, October 2003							
Employment Statistics	1990	1998	1999	2000			
Total Labor Force	30,343	38,639	40,238	39,890			
Employed Persons	29,535	37,194	39,179	38,902			
Estimated Total Jobs	35,563	41,779	42,885	44,078			
Unemployed Persons	808	1,445	1,059	988			
Unemployment Rate	2.66%	3.74%	2.63	2.48%			

The majority of the employment in the county is based in the agriculture sector, as evidenced by Table 3.23 below. A total of 41.4 percent of the employment in the nine-county region is in direct support of the agricultural

industry, and 41 percent of the income. The bulk of the remaining income is generated from sources other than wages and salaries. This could include dividends, interest, rents, Medicare payments, savings, etc.

	Table 3.23 Employment and Income 2001 Eastern Colorado  Source: Colorado State Demographer, October 2003							
Economic Sector	Direct Basic Employment % of Total	Direct Basic Income % of Total						
Agricultural Prod. & Service	41.4%	41.0%						
Regional Center/National Services	3.4%	1.4%						
Government	2.3%	7.9%						
Manufacturing	1.5%	4.6%						
Mining	0.8%	2.3%						
Tourism	1.8%	3.6%						
Indirect: unassigned	5.8%	14.2%						
Households	15.2%	8.0%						
Retirees	8.3%	2.1%						
Commuters	1.1%	13.7%						
Households with public assistance income (excluding retirees)	12.2%	1.0%						
Households with dividends, interest and rental income (excluding retirees)	6.1%	0.2%						
TOTAL	100%	100%						

The population of the Eastern Transportation Planning Region is forecasted to 135,540 in the year 2030. While, it will remain a relatively sparsely populated region of the state, the added population will exert tremendous transportation related challenges to the region. The challenges will be to:

- Provide affordable and accessible transportation for all segments of the population
- Provide a transportation system that will meet the demands of the agricultural sector
- Provide a transportation network for employees who will be commuting great distance to work
- Provide a transportation system that will be consistent with the values of the region

## **Manufacturing and Distribution**

As shown in Table 3.22, employment and income from manufacturing and services not related to agriculture are very low in comparison to other sectors – 1.5 percent for employment, and 4.6 percent for income. Manufacturing, machining operations, and distribution operations, not including those related to agriculture, are located in the following areas:

- § Julesburg
- § Sterling
- § Haxtun
- § Fleming
- § Holyoke
- § Akron
- § Yuma
- § Limon
- § Flagler

- § Elbert
- § Elizabeth
- § Burlington
- § Hugo
- § Cheyenne Wells

However, it is important to note that the counties in the Eastern TPR are actively recruiting targeted businesses and industries using Colorado's Urban and Rural Enterprise Zone Act of 1986 business development incentives.

The five counties of Northeastern Colorado are targeting job growth in the following industries:

- § Dairy and food processing
- § Small manufacturing
- § Entrepreneurs
- § Telecommunications
- § Transportation
- § Warehousing and distribution centers

The enterprise zone program provides the following incentives for private enterprise to expand and for new businesses to locate in economically distressed areas of the state. The Economic Development Commission (EDC) designates certain economically distressed areas of the state as Enterprise Zones. There are currently 16 local Enterprise Zones in Colorado. Businesses located in a zone may qualify for ten different Enterprise Zone Tax Credits and Incentives to encourage job creation and investment in these zones. The Northeast Enterprise Zone includes Sedgwick, Logan, Phillips, Washington and Yuma counties. The East-central Enterprise Zone includes Kit Carson, Lincoln, Cheyenne, and the eastern portion of Elbert counties.

### Agricultural Data

The importance of agriculture within the nine-county area is highlighted by the production of two of the largest grain crops grown in Colorado, winter wheat and corn for grain. Table 3.24 shows the latest data available and reflects the effects on crop production that the record-breaking drought had during 2002.

Table 3.24 Grain Production (in millions of bushels)  Source: Colorado Agricultural Statistics Service, March 2004  ——————————————————————————————————							
	2001 Winter Wheat	2002 Winter Wheat	2001 Corn for Grain	2002 Corn for Grain			
9 Eastern TPR Counties	40.41 M Bu.	22.27 M Bu.	98.34 M Bu.	80.62 M Bu.			
Rest of State	25.59 M Bu.	14.03 M Bu.	51.46 M Bu.	31.70 M Bu.			
Statewide	66.00 M Bu.	36.30 M Bu.	149.80 M Bu.	112.32 M Bu.			

The state of Colorado exports approximately 80% of the winter wheat produced in the state. Furthermore, according to *Colorado Agricultural Statistics 2003*, of the top ranked counties by inventory of cattle and calves, Logan County ranked third (with Morgan County), Yuma County ranked second, and Kit Carson County ranked fifth. In beef cows, Lincoln and Kit Carson counties tie for fourth place. These rankings alone underscore the importance of agriculture and its related needs for appropriate transportation facilities to support it.

## 3.3 ENVIRONMENTAL OVERVIEW OF TPR

## Introduction

The Eastern TPR consists of Logan, Sedgwick, Phillips, Washington, Yuma, Elbert, Lincoln, Kit Carson, and Cheyenne counties. It is largely rural with crop and rangeland in the shortgrass ecosystem. It lies within the South Platte River drainage basin. As transportation projects are identified within the Eastern Transportation Planning Region, detailed environmental analyses will be important to ensure that quality of life factors (mobility, access, environment and social equity) are addressed. As a means to providing a general understanding of the region's environment, information on potential areas of concern is included here. Environmental information and resource mapping is available from local, state and federal organizations and agencies, and is often detailed in documents such as city and county comprehensive plans. An overview of major environmental concerns related to the Eastern Colorado Region is included here as a means of initiating documentation and discussions on these important issues.

## **Geology and Soils**

The Eastern TPR may contain lands that qualify as prime farm or ranch lands. The Denver-Julesburg Basin A Soil Conservation Service database is available for identifying map units where Prime Farmland is located in the state, but actual detailed maps that show changes and specific sites are located in Field Offices. Important Farmland Maps for each area have not been designed but may be available in the Field Offices.

Soil surveys are available from National Resource Conservation Service (NRCS) for Elbert, Kit Carson, Logan, and Sedgwick Counties. While maps are not available for all Eastern Transportation Planning Region Counties, it appears that all of them have some prime farmland identified by the Colorado State Office Soil Survey Program.

## **Mineral Resources**

The Denver-Julesburg Basin, a rich oil and gas deposit, underlies much of the Eastern TPR. Industries based on extraction of these deposits are important to the economy of the region. However, their development also has direct impacts on local communities. The state's Energy and Mineral Impact Assistance program, administered by the Colorado Department of Local Affairs, helps fund projects in affected communities related to energy production impacts.

## Vegetation, Wildlife, Threatened or Endangered Species

The Eastern TPR lies within the area of the state covered by the Shortgrass Prairie Initiative, a project registered with the AASHTO Environmental Stewardship Demonstration Program. This a cooperative effort between CDOT, FHWA, US Fish and Wildlife Service, The Nature Conservancy, the Colorado Department of Natural Resources, and the Colorado Division of Wildlife. This memorandum commits these agencies to identify mitigation opportunities in the Colorado shortgrass prairie ecosystem, to work with local communities and landowners to preserve thousands of acres of shortgrass prairie in eastern Colorado.

Table 3.25, contains animals and plants that are listed as Threatened or Endangered Species on Federal and State lists. The table was compiled from several sources including: the Colorado Division of Wildlife Listing of

Endangered and Threatened Wildlife Species and Species of Special Concern, Colorado Natural Heritage Program Species Tracking (Imperiled species by county), and the Federally Listed Animals and Plants in Colorado web page provided by the U.S. Fish and Wildlife Service Region 6. The counties where the species are listed are included to demonstrate the range of the species in the Eastern Transportation Planning Region.

The Fish and Wildlife Service keeps a list of animals and plants that are protected by the Endangered Species Act and reviews Federal projects that may affect federally listed species. The Service's endangered species activities are conducted in close cooperation with state fish and wildlife agencies. The Colorado Natural Heritage Program is based at Colorado State University. This award-winning program is a member of the Natural Heritage network, which collects and distributes information on rare and imperiled plants, animals and natural communities in Colorado.

Portions of Elbert County may require a survey for Preble's Meadow Jumping Mouse.

Table 3.29 Source: U. S. Fish an	5 Threatened or Endangel and Wildlife Service, Colorado Divisio	red Species Known or Likely N OF WILDLIFE, COLORADO NATURAL HERIT.	y to Occur age Program (CNHP),
Common Name	Scientific Name	Status	Counties
	Amp	hibians	
Northern Cricket Frog	Acris crepitans	State Special Concern	Yuma
Plains Leopard Frog	Rana blairi	State Special Concern	Elbert
	В	irds	
Ferruginous Hawk	Buteo regalis	State Special Concern	Elbert, Kit Carson, Lincoln, Logan, Washington, Yuma
Mountain Plover	Charadrius montana	State Special Concern	Cheyenne, Elbert, Kit Carson, Logan, Washington, Yuma
Whooping Crane OR Wildlife in Danger Profile	Grus americana	Federal and State Endangered	Cheyenne
Bald Eagle OR Wildlife in Danger Profile	Haliaeetus leucocephalus	Federal and State Threatened	Logan, Sedgwick, Washington, Yuma
Long-billed Curlew	Numenius americanus	State Special Concern	Cheyenne, Washington, Yuma
Plains Sharp-Tailed Grouse	Tympanuchus phasianellus jamesi	State Endangered	Elbert
	F	ish	
Arkansas Darter	Etheostoma cragini	State Threatened	Elbert, Lincoln
	Mai	mmals	
Black-Footed Ferret OR Wildlife in Danger Profile	Mustela nigripes	Federal and State Endangered	Lincoln, Logan, Yuma
Swift Fox	Vulpes velox	State Special Concern	Elbert, Lincoln
Preble's Meadow Jumping Mouse – Wildlife in Danger Profile	Zapus hudsonius preblei	Federal and State Threatened	Elbert
	Re	ptiles	
Yellow mud turtle	Kinosternon flavescens	State Special Concern	Yuma
Massasauga	Sistrurus catenatus	State Special Concern	Cheyenne, Lincoln
	Mo	llusks	
Cylindrical papershell	Anodontoides ferussacianus	State Special Concern	Sedgwick

#### **Hazardous Materials**

This nine-county Eastern Transportation Planning Region encompasses in excess of 16,340 square miles of land and within that large area, there is potential for finding hazardous materials during the construction of transportation facilities. While no Superfund sites are known to exist in the Eastern Transportation Planning Region, some former or existing sites are listed in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). Until specific transportation projects are identified, no data collection on hazardous materials is recommended, however, the region's transportation planners should be aware of potential hazardous materials sites. Certain existing land uses frequently result in a higher potential for location of hazardous waste or materials. Examples of land uses often associated with hazardous materials include industrial and commercial activities such as existing and former mining sites; active and capped oil and gas drilling operations and pipelines; agricultural areas using chemical fertilizers, insecticides, and pesticides; and railroad crossings which have experienced accidental cargo spills. Active, closed and abandoned landfill sites are also potential problem areas for transportation facility construction as are gasoline stations that potentially have leaking underground storage tanks.

## **Water Quality**

In 1972, under the Federal Water Pollution Control Act, EPA created the National Pollution Discharge Elimination System (NPDES), which was later amended to become the Clean Water Act (CWA) and provided broad authority for EPA or states to issue NPDES permits. In 1987 the law was expanded to include storm water discharges associated with industrial activities (Section 405 of the Water Quality Act of 1987). Since the implementation of the CWA requirements, EPA has begun to address nontraditional sources of pollution, such as those that result from wastewater facilities (WWFs).

The primary objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters (lakes, wetlands, streams, and other aquatic habitats). The Eastern Transportation Planning Region includes numerous hydrological features including lakes, rivers, and creeks, together with associated floodplains and wetland resources. To ensure that quality of life in these areas is sustained; several types of permits are commonly required with transportation projects.

No towns in the Eastern Transportation Planning Region currently fall within the population requirements of NPDES for Stormwater Discharges. However, other related federal (or state) permits are usually processed in conjunction with NPDES permits. Each is described below and applicability to the region will depend on the project under consideration.

- Any project that uses a "dewatering" element during construction or which will disturb five acres or more during construction will need a 402 Permit.
- If the project involves the discharges of dredged or fill material into waters of the United States; the Corps of Engineers will need to evaluate the proposed activity under <u>Section 404(b) (1)</u> of the Clean Water Act of 1977.
- The discharge of pollutants into navigable waters and adjacent wetlands requires a Section 401 clearance.

The eastern portion of the TPR lies within the South Platte River drainage basin. There are water usage restrictions to impacts to the South Platte River and to all its tributaries because of impacts to endangered species found downstream in Nebraska. There are threatened or impaired waters within the TPR boundaries and many of the corridors cross rivers and riparian zones.

The United States Geological Survey is conducting several water quality studies in Colorado, two of which include portions of the Eastern TPR: the South Platte River Basin Study and the High Plains Aquifer Study.

The South Platte River Basin Study is part of the U.S. Geological Survey's National Water-Quality Assessment Program and involves many aspects and issues of both surface and ground waters of the South Platte River Basin (http://co.water.usgs.gov/nawqa/splt/). The results are expected to contribute to informed decisions that result in practical and effective water-resource management and strategies that protect and restore water quality. So far, the study, which includes areas of Sedgwick, Logan and Washington counties, has found the following general information:

- Water quality in surface and ground water in the forested mountain region of the basin generally was of good quality and was relatively unaffected by humans.
- In contrast, water quality in the agricultural areas of the basin was the most degraded, primarily from nitrate and salinity in ground water and salinity and suspended sediment in surface water.
- Water quality in the ground water beneath urban areas was degraded as indicated by a high concentration of volatile organic compounds (VOCs) and surface water within mixed land-use areas was degraded, as indicated by organochlorines and polychlorinated biphenyls (PCBs) in fish within the basin.

The second USGS study is the High Plains Regional Ground Water (HPGW) Study, which is also part of the U.S. Geological Survey's National Water-Quality Assessment Program. The goal of the study is to "characterize, in a nationally consistent manner, the broad-scale geographic variations of ground-water quality related to major contaminant sources and background conditions." Eastern Transportation Planning Region counties that are at least partially included in the study area include Logan, Sedgwick, Phillips, Washington, Yuma, Kit Carson, and Cheyenne. The USGS has reported that the quality of water in the High Plains aquifer generally is suitable for irrigation use but, in many places, the water does not meet U.S. Environmental Protection Agency drinking-water standards with respect to several dissolved constituents. The study started in 1999 and will continue through 2005 (source: http://co.water.usgs.gov/nawqa/hpgw/).

## Air Quality

The Air Pollution Control Division of the Colorado Department of Public Health and Environment is the lead agency for implementing the state's air quality management program. Colorado is divided into six regions specific to air quality conditions and activities, with the counties of the Eastern Transportation Planning Region falling under the Eastern High Plains Region. Because of the region's semiarid nature, fugitive dust from agricultural operations dominates air pollution in the nine Eastern TPR counties. Residential burning is a minor contributor to air pollution in this region.

The urban centers of the Eastern Transportation Planning Region primarily support the agricultural industry and the people who practice it. Thus, Sterling and Limon are not known as sources of industrial air pollutants.

None of the Eastern TPR's counties or cities is a Non-attainment area, and no NAAQS violations have been recorded. No communities in this TPR have been identified as "At Risk" for poor air quality. It is unlikely that the agricultural segment of the economy will create more traffic, but freight traffic in general will grow as discussed in Section 3.1. General freight moves from and to Colorado's Front Range communities along the highways within the Eastern TPR, with much of the interstate movement of freight supplying the Front Range passing through the Eastern TPR on the *Ports to Plains Corridor*, the *Heartland Expressway*, I-70, I-76, and the other state highways within the TPR. The *Eastern Mobility Study* noted that the growth in freight is expected to continue. The Front Range Counties alone are expected to increase their total import and exports of freight from 180.5 million tons in 1998 to 387.4 million tons in 2025. This projected traffic will have a significant impact on the highway and rail transportation systems within the Eastern TPR, but are expected to have only a modest impact on air quality

### **Land Use Profile**

Land use in the Eastern Transportation Planning Region is overwhelmingly devoted to agriculture. Several of the nine counties have more than 90% of their land in farming or ranching.

To understand the extent of the effect, Table 3.26 illustrates the percentage of public lands found in each of the nine counties in the region. Also see Figure 3.8, which shows the distribution of public lands within the Eastern Transportation Planning Region.

Table 3.26 Land Ownership and Agricultural Land Source: University of Colorado at Boulder Government Publications Library, Colorado by the Numbers						
County	Total Acres	Percent State	Percent Federal	Percent Private	Percent Agricultural Land	
Cheyenne	1,140,149	4%	0%	96%	70%	
Elbert	1,183,409	7%	0%	93%	92%	
Kit Carson	1,383,813	4%	0%	96%	97%	
Lincoln	1,654,534	8%	Less than 1%	92%	99%	
Logan	1,180,971	13%	Less than 1%	87%	95%	
Phillips	440,510	4%	0%	96%	95%	
Sedgwick	351,068	7%	0%	93%	83%	
Washington	1,618,827	7%	Less than 1%	93%	86%	
Yuma	1,512,351	4%	Less than 1%	96%	90%	

Population centers for each county are described in the Socioeconomic Chapter. Some of the Eastern TPR communities and the counties have comprehensive planning and transportation planning programs. It is important that inconsistencies among the plans of the communities and the public land management agencies be noted and that the entities work together to plan for cooperative efforts in transportation impacts.

### U.S. Forest Service

A large portion of the Pawnee National Grassland, administered by the U.S. Forest Service, is located in the Eastern Transportation Planning Region along the western edge of Logan County. Arapaho and Roosevelt National Forests and Pawnee National Grasslands completed its 1997 Revision of the Land and Resource

Management Plan and a Record of Decision was issued in November 1998. The revised plan is available and emphasizes the importance of partnerships and collaboration with local communities. The revised plan contains broad travel management strategies for each mode of travel for management areas within a geographic area to assure that a quality and balanced approach to travel is being taken. In this revision, the diverse ecosystems of the Forests and Grasslands are balanced with other resource objectives including a sustained supply of products. Some of these sites are shown in Figure 3.11.

## **Bureau of Land Management**

The Bureau of Land Management (BLM), Royal Gorge Field Office in Cañon City, administers 1.2 million surface acres of public land from the Continental Divide to the border of Wyoming, Nebraska, Kansas, Oklahoma and New Mexico. This office covers all of the Eastern Transportation Planning Region. Very little BLM land, however, is located within the Eastern Transportation Planning Region; however the Royal Gorge Field Office also manages cultural resources on BLM-administered land. Resource issues include oil and gas, coal, minerals, lands, forestry, range, land-use planning, wild horses, wildlife, recreation, cultural resources, wilderness, and soils and water. Some of these sites are shown in Figure 3.12.

### National Park Service

No National Park lands exist in the Eastern TPR.

## Other Government Lands

Colorado State Parks in the Eastern Transportation Planning Region are Bonny Lake State Park in Kit Carson County and North Sterling State Park in Logan County (http://parks.state.co.us). These areas are very popular for fishing, boating and other water sports. Bonny Lake has 1,900 surface-acres and North Sterling has 3,000 acres.

The Colorado Division of Wildlife has many Wildlife Refuges and Wildlife Viewing Areas in the nine-county region. These include, naming a few, the Red Lion/Jumbo Reservoir State Wildlife Area, the Simla Pronghorn Loop, the Limon Wetland, Karval Lake Recreation Area, Lincoln/Hugo State Wildlife Area, Flagler Reservoir and State Wildlife Area, Republican State Wildlife Area, and many more. Figure 3.13, Colorado Natural Heritage Conservation sites, shows the locations of many of the parks, refuges and other natural resources of the Eastern Transportation Planning Region described above. Smaller county and municipal holdings are found throughout the region and are usually associated with population centers.

### Noise

Residential land users together with other sensitive uses such as hospitals, schools or churches are potential noise receptors. Generally, sensitive areas should not be subject to exterior noise or more than 67 decibels, which is the sound of average highway traffic 100 feet away from the roadway. As existing transportation corridors are widened or new ones planned, receptors can be identified. The necessity for feasibility or mitigation must be determined on a project-by-project basis.

Noise is an issue in Elbert County where concern has been expressed about noise generated from aircraft departing and arriving at Denver International Airport. Each military or joint use airfield is required by military regulations to have an Air Installation Compatibility Use Zone study, which shows the noise footprint associated with the operations at the airfield. Airports with regularly scheduled commercial airline service have a similar

study required by the Federal Aviation Administration. These studies may be used by planners to assess airport-associated noise impacts to surrounding communities.

All federal aid projects must assess highway-generated noise in compliance with Federal Highway Administration (FWHA) noise abatement criteria. In most cases, the noise from vehicles will not be an issue if the speed limits are less than 30 mph or less, unless the large truck traffic is extremely heavy or steep grades are associated with the roadway. Rural highways, roads, non-urban and small urban municipal streets usually have a maximum noise influence area that does not exceed 200 feet either side of the roadway centerline. Rural Interstate highways usually have a noise influence limit of 300 feet or less on either side of the centerline.

CDOT normally complies with the FWHA Noise Abatement Criteria regardless of the funding source for state highway projects that add through traffic lanes or that significantly change the vertical or horizontal alignment. Vertical alignment shifts of five feet or more are normally considered as significant. Horizontal alignment shifts, which halve or double the distance between the roadway and the receptor, are normally considered significant.

## **Cultural Resource Profile**

There are known historically eligible properties or districts and known archaeological resources within the Eastern TPR, and there are likely to be paleontological resources. Table 3.27 shows the known resources in the nine-county Eastern Transportation Planning Region.

	Table 3.27 Colorado State Registered Historio Source: Colorado Office of Archaeology and Historic Pr	C Resources	
Location	Historic Site	Register	Registration Date
	Cheyenne		
Cheyenne Wells	Cheyenne County Courthouse	National	07/27/1989
	Cheyenne County Jail	National	06/16/1988
	Mountain States Telephone & Telegraph Building	State	03/12/1997
Kit Carson	Kit Carson Pool Hall	State	12/08/1993
	Kit Carson Union Pacific Railroad Depot (Kit Carson Museum)	State	08/14/2002
	Union Pacific Pumphouse	State	06/14/1995
Wild Horse	Wild Horse Mercantile	State	06/14/1995
	Wild Horse School	State	12/11/1996
	Elbert	I	
Elbert	Denver & New Orleans Railroad Segment	State	12/13/1995
	Sacred Heart Church	State	03/08/1995
	St. Mark United Presbyterian Church	National	09/18/1980
Elizabeth	Huber Building (Carlson Building)	State	03/08/1995
Fondis	Fondis Store	State	03/13/2002
	Lincoln		
Genoa	Martin Homestead	State	03/12/1997
	World's Wonder View Tower	State	12/13/1996
Hugo	Hedlund House	State	03/12/1997
	Hugo Union Pacific Railroad Roundhouse	State	05/14/1997
Limon	Limon Railroad Depot (Limon Heritage Museum)	State	12/12/2001
	Walks Camp Park	State	03/11/1998
	Logan	<u>.</u>	
Merino	Davis Barn	State	09/09/1998
Sterling	All Saints Episcopal Church	State	03/08/200
	Der Deutschen Congregational Zion Gemeinde du Sterling	State	08/08/2001
	First United Presbyterian Church	State	06/03/1982
	Harris, W.C., House	National	05/17/1984
	I & M Building	National	06/03/1982
	Logan County Courthouse	National	02/22/1979
	Luft, Conrad Sr., House	National	05/17/1984
	St. Anthony Roman Catholic Church	National	06/03/1982
	Sterling Main Post Office, Federal Building, & Courthouse	National	01/22/1986
	Sterling Public Library  Sterling Union Pacific Railroad Depot	State National	08/08/2001 02/06/1986

	Table 3.27 Colorado State Registered His Source: Colorado Office of Archaeology and Histo	toric Resources RIC PRESERVATION	
Location	Historic Site	Register	Registration Date
Burlington	Burlington State Armory	National	09/20/1984
-	Elitch Gardens Carousel/Kit Carson County Carousel	National	12/19/1978
	Winegar Building	National	05/22/1986
Flagler	Flagler Hospital (Municipal Building)	National	01/30/1991
-	Second Central School	State	06/12/1996
Vona	Spring Creek Bridge	National	10/15/2002
	Phillips	<b>I</b>	
Amherst	St. Paul's Lutheran Church	State	12/12/2001
Haxtun	First National Bank of Huxtun (Haxtun Town Hall)	National	07/01/1986
	Shirley Hotel (Haxtun Inn)	State	08/08/2001
Holyoke	Heginbotham, W.E., House (Holyoke Public Library)	National	03/08/1988
	Reimer-Smith Oil Station	National	04/21/2000
	Sawyer House-Sears Hotel (Burge Hotel)	State	06/14/1995
	Sedgwick		
Julesburg	Hippodrome Theatre	State	12/08/1999
	Julesburg Public Library	State	08/08/2001
Ovid	Ovid High School	State	08/09/2000
	Washington	<u>.</u>	
Akron	Akron Public Library	State	02/14/2001
	Washington County Courthouse	State	03/11/1998
Last Chance	Plum Brush Creek Bridge	National	10/15/2002
	West Plum Creek Bridge	National	10/15/2002
Otis	Hoopes Drug Store	State	11/09/1994
	Otis Commercial District	State	11/09/1994
	Otis Municipal Waterworks System	State	08/11/1993
	Schliesfsky's Dime Store	State	11/09/1994
	Yuma	•	
Eckley	Boggs Lumber & Hardware Building	National	01/18/1985
Vernon	Vernon School	State	08/09/2000
Yuma	Lett Hotel	National	01/25/1990
	Yuma Public Library	State	09/13/1995
Wray	Beecher Island Battleground	National	10/29/1976

Table 3.28 presents a summary inventory of environmental resources that are present in the Eastern TPR.

Table 3	Table 3.28 Summary of Environmental Resources in the Eastern Transportation Planning Region by Corridor						
Highway	Corridor Name	Beginning MP	Ending MP	Potential Environmental Concerns			
SH 36D	SH 36 from I-70 in Byers east to Kansas	101	224	Prime farmland, Mountain Plover, Prairie dog, wetlands and other clean water issues, history, archaeology, paleontology.			
SH 36B	SH 34 from SH 71 in Brush east to Nebraska	172	259	Prime farmland, Mountain Plover, Prairie dog, wetlands and other clean water issues, history, archaeology, paleontology.			
I-70A	I-70 from C-470 in Denver east to Kansas – part of the Ports to Plains route	289.18	449.51	Prime farmland, Mountain Plover, Prairie dog, wetlands and other clean water issues, history, archaeology, paleontology.			
SH 23	SH 23 east from Holyoke east to Nebraska	0	17.83	Prime farmland, Mountain Plover, Prairie dog, wetlands			
SH 14C	SH 14 from I-25 in Ft. Collins to I-76 in Sterling	142.18	236.72	Prime farmland, Mountain Plover, Prairie dog, wetland, history, Pawnee Grasslands			
SH 138A	SH 138 from SH 6 in Sterling northeast to I-80 in Nebraska	0	59.82	Prime farmland, Mountain Plover, Prairie dog, history, archaeology, paleontology. Wetlands and other clean water issues especially concerning the South Platte River and the whooping crane(in Nebraska), water quality issues and depletion issues,			
SH 113A	SH 113 near Sterling to Nebraska	0	18.83	Prime farmland, Mountain Plover, Prairie dog			
SH 71A	SH 71 from I-70 to Nebraska	102.03	232.82	Prime farmland, Mountain Plover, Prairie dog, wetlands, clean water issues, water depletion in the south Platte River, history, Pawnee Grasslands			
SH 94A	SH 94 from the east side of Colorado Springs to US 40	0	85.99	Prime farmland, Mountain Plover, Prairie dog, wetlands, history, archaeology, paleontology, Preble's mouse			
SH 76A	I-76 from SH 85 in Commerce city northeast to Nebraska	12.5	189.99	Prime farmland, Mountain Plover, Prairie dog, wetlands, South Platte River, Barr Lake, eagles.			
SH 24	SH 24 from Siebert to Burlington	419.31	457.29	Prime farmland, Mountain Plover, Prairie dog			

# 3.4 Mobility Demand Analysis

## Overview

The mobility demand analysis for the Eastern Transportation Planning Region was developed to address the future demand for transportation services within the Eastern Transportation Planning Region. The analysis included assessment of future demand for all transportation modes relevant to the region. Data utilized to assess travel demand was, in large part, provided by the Colorado Department of Transportation (CDOT Transportation Planning Data Set, March 21, 2003). Travel modes evaluated included highway travel via private vehicles, air travel, transit, pedestrian, bicycling, and freight.

The movement of freight within and through the Eastern TPR is critical to the economic vitality of the region. For this reason, freight movement represented a focus of mobility demand analysis. Other data sources consulted included travel forecasts prepared for the Eastern Transportation Planning Region 2020 Regional Transportation Plan (Eastern TPR, 1998), the Eastern Colorado Mobility Study (CDOT, 2002), the Ports to Plains Corridor Development Study (CDOT, website/ currently underway), and the Public Benefits & Costs Study (Front Range Rail Corridor Relocation Proposal -CDOT, website/ currently underway).

### **Historic Traffic Growth Patterns**

The historic growth trends from 1980 to 2001 on selected state highways in the region are shown in Table 3.29. Average annual growth rates are shown for the 20-year period, as well as for the most recent five years. Based on this data, several corridors emerge as high-growth corridors. The US 40/287 and the northern SH 71 corridor have experienced the highest annual growth rates in the region over the past 5 years, and also rank among the highest growth corridors over the past 20 years. Other state highways that have experienced significant growth include I-76, I-70, SH 14, SH 86, US 24, and US 34. Both the SH 71 and US 287 corridors have been designated as federal strategic corridor segments. Several of the historic growth corridors, together with the Colorado-designated US 385 High Plains Highway, will have increased future growth pressures as a result of their roles in major freight corridors.

Table 3.29 Historic Traffic Growth Patterns on Selected State Highways  Source: CDOT DATA SETS (1980, 1996, 2003)							
Roadway Segment	1980 ADT	1996 ADT	2001 ADT	Avg. Annual Growth Rate 1980-2001	Avg. Annual Growth Rate 1996-2001		
1 - SH 86 from the Town of Kiowa east to I-70	380	1,000	1,050	8.4 %	1.0 %		
2 - SH 86 from I-25 in Castle Rock east to the Town of Kiowa	4,250	10,800	12,260	9.0 %	2.7 %		
3 - SH 71 from US 50 at Rocky Ford to I-70 in Limon	440	980	1,080	6.9 %	2.0 %		
4 - SH 63 from Anton north to Atwood	540	620	690	1.3 %	2.3 %		
5 - SH 61 from Otis north to Sterling	340	490	530	2.7 %	1.6 %		
6 - US 6 from I-76 north to Sterling then east to Nebraska	1,950	2,450	2,930	2.4 %	3.9 %		
7 - SH 59 from US 40 in Kit Carson to SH 138 in Sedgwick	860	1,200	1,290	2.4 %	1.5 %		
8 - US 40 from the Town of Kit Carson east to Kansas	610	720	870	2.0 %	4.2 %		
9 - US 385 from Cheyenne Wells north to the Nebraska border	1,400	1,650	1,750	1.2 %	1.2 %		
10 - US 287 from Oklahoma north to US 40 in Kit Carson	2,100	2,300	3,280	2.7 %	8.5 %		
11 - US 24 from Colorado Springs northeast to I-70 in Limon	1,800	3,150	3,690	5.0 %	3.4 %		
12 - US 24 from I-70 in Seibert east to Kansas State Line	390	450	494	1.3 %	2.0 %		
13 - I-76 from SH 85 in Commerce City northeast to Nebraska	4,400	7,000	7,670	3.5 %	1.9 %		
14 - SH 94 from the east Colorado Springs to US 40/ US 287	460	600	650	2.0 %	1.7 %		
15 - SH 71 from I-70, Limon north to Nebraska State Line	900	1,100	1,660	4.0 %	10.2 %		
16 - SH 113A from SH 138 near Sterling to Nebraska/ I-80	700	940	1,010	2.1 %	1.5 %		
17 - SH 138 from SH 6 to Nebraska/ I-80	580	750	930	2.9 %	4.8 %		
18 - SH 14 from I-25/ Ft Collins to I-76/ Sterling	1,450	3,900	4,160	8.9 %	1.3 %		
19 - SH 23 from Holyoke east to Nebraska	540	720	810	2.4 %	2.5 %		
20 - I-70 from C-470 in Denver east to Kansas	4,800	7,600	8,460	3.6 %	2.3 %		
21 - US 34 from SH 71 in Brush east to Nebraska	2,050	2,200	2,590	1.3 %	3.5 %		
22 - US 36 from I-70 in Byers east to Kansas	710	760	830	0.8 %	1.8 %		

## **Projected Travel Demand**

Year 2030 travel projections for the Eastern TPR were prepared using the CDOT Transportation Planning Data Set (March 2003). Figure 3.13 depicts the projected 2030 average annual daily traffic volumes on state highways in the region. Figure 3.14 similarly depicts projected 2030 average annual daily truck traffic volumes on state highways in the region.

## 3.5 Transit Demand Estimates

Detailed information, including formula, and calculations used to calculate the transit demand for the study area is found in Appendix C of the *Eastern Colorado Regional Transportation Plan Transit Plan Element Update, May 17, 2004.* Data is included in Appendix D of the same document. The latest detailed information available from the U.S. Census Bureau is from the 2000 census. Current and reliable estimates and projections of the data from other sources, including the Colorado Department of Local Affairs, were used in the model calculations. Tables 3.29, 3.30, and 3.31 are the summaries, by year, of the various methods used to calculate demand estimates for the general public, elderly, employment trips and those individuals with disabilities that limit their ability to "go outside the home", a term utilized in the 2000 census. Note that transit plans and discussions include Morgan County.

## **Demand Estimates for the Year 2000**

A quick review of Table 3.30, Demand Estimate for 2000, shows that, for the region, there is demand for approximately 249,000 annual one-way passenger trips. The county with the most one-way passenger trips is Morgan County with 61,918. Logan and Elbert Counties follow closely with 48,619 and 42,861 respectively. The fewest number of trips is in Cheyenne County with 5,462 one-way passenger trips in 2000. This estimated demand is distributed throughout the two transit service areas as follows: for NECALG the total one-way passenger trips demand is projected to be approximately 167,000 and for ECCOG the projected demand is approximately 82,000.

Table 3.30 Demand Estimate for 2000: Annual One-Way Passenger Trips SOURCE: DEMAND ESTIMATE TABLES IN APPENDIX A & BTRANSIT PLAN ELEMENT UPDATE, MAY 2004						
County	Survey Research Method	Employee Transit Use Method	Total Transit Demand			
Logan	38,756	9,863	48,619			
Morgan	49,436	12,482	61,918			
Phillips	9,156	2,080	11,236			
Sedgwick	6,334	1,387	7,721			
Washington	10,262	2,479	12,741			
Yuma	19,998	5,043	25,041			
NECALG	133,942	33,334	167,276			
Cheyenne	4,355	1,107	5,462			
Elbert	31,545	11,316	42,861			
Kit Carson	16,486	3,848	20,334			
Lincoln	10,702	2,600	13,302			
ECCOG	63,088	18,871	81,959			
Regional Total	197,030	52,205	249,235			

### **Demand Estimates for the Year 2010**

A review of Table 3.31, Demand Estimate for 2010, shows that, for the region, there is demand for approximately 307,000 annual one-way passenger trips. The county with the most one-way passenger trips continues to be Morgan County with 76,918. The high amount of future growth in Elbert County moves Elbert County to the second most one-way passenger trips with 64,289 followed by Logan County with 60,970. The fewest number of

trips is in Cheyenne County, with 5,668 one-way passenger trips in 2010. This estimated demand is distributed throughout the two transit service areas as follows: for NECALG the total one-way passenger trips demand is projected to be approximately 199,000 and for ECCOG the projected demand is approximately 108,000.

Table 3.31 Demand Estimate for 2010: Annual One-Way Passenger Trips Source: Demand Estimate Tables in Appendix A & B Transit Plan Element Update, May 2004						
County	Survey Research Method	Employee Transit Use Method	Total Transit Demand			
Logan	46,406	14,564	60,970			
Morgan	59,495	17,423	76,918			
Phillips	9,673	2,813	12,486			
Sedgwick	6,744	1,600	8,344			
Washington	10,612	2,535	13,147			
Yuma	21,561	6,099	27,660			
NECALG	154,491	45,034	199,525			
Cheyenne	4,102	1,566	5,668			
Elbert	46,440	17,849	64,289			
Kit Carson	17,787	5,017	22,804			
Lincoln	11,274	3,577	14,851			
ECCOG	79,603	28,009	107,612			
Regional Total	234,094	73,043	307,137			

## **Demand Estimates for the Year 2030**

Table 3.32, Demand Estimate for 2030 shows that, for the region, there is demand for approximately 457,000 annual one-way passenger trips. The county with the most one-way passenger trips becomes Elbert County with 126,859. Morgan County is second with 118,995 followed by Logan County with 90,542. The fewest trips are in Cheyenne County with 5,398 one-way passenger trips in 2030. This estimated demand is distributed throughout the two transit service areas as follows: for NECALG the total one-way passenger trips demand is projected to be approximately 280,000 and for ECCOG the projected demand is approximately 176,000.

Table 3.32 Demand Estimate for 2030: Annual One-Way Passenger Trips Source: Demand Estimate Tables in Appendix A & B Transit Plan Element Update, May 2004						
County	Survey Research Method	Employee Transit Use Method	Total Transit Demand			
Logan	64,231	26,311	90,542			
Morgan	89,250	29,745	118,995			
Phillips	10,785	3,505	14,290			
Sedgwick	7,618	2,101	9,719			
Washington	11,342	3,177	14,519			
Yuma	24,726	7,749	32,205			
NECALG	207,952	72,318	280,270			
Cheyenne	3,972	1,426	5,398			
Elbert	100,028	26,831	126,859			
Kit Carson	20,455	5,919	26,374			
Lincoln	12,983	4,761	17,744			
ECCOG	137,438	38,937	176,375			
Regional Total	345,390	111,255	456,645			

## **Projected Percent Transit Demand Increase**

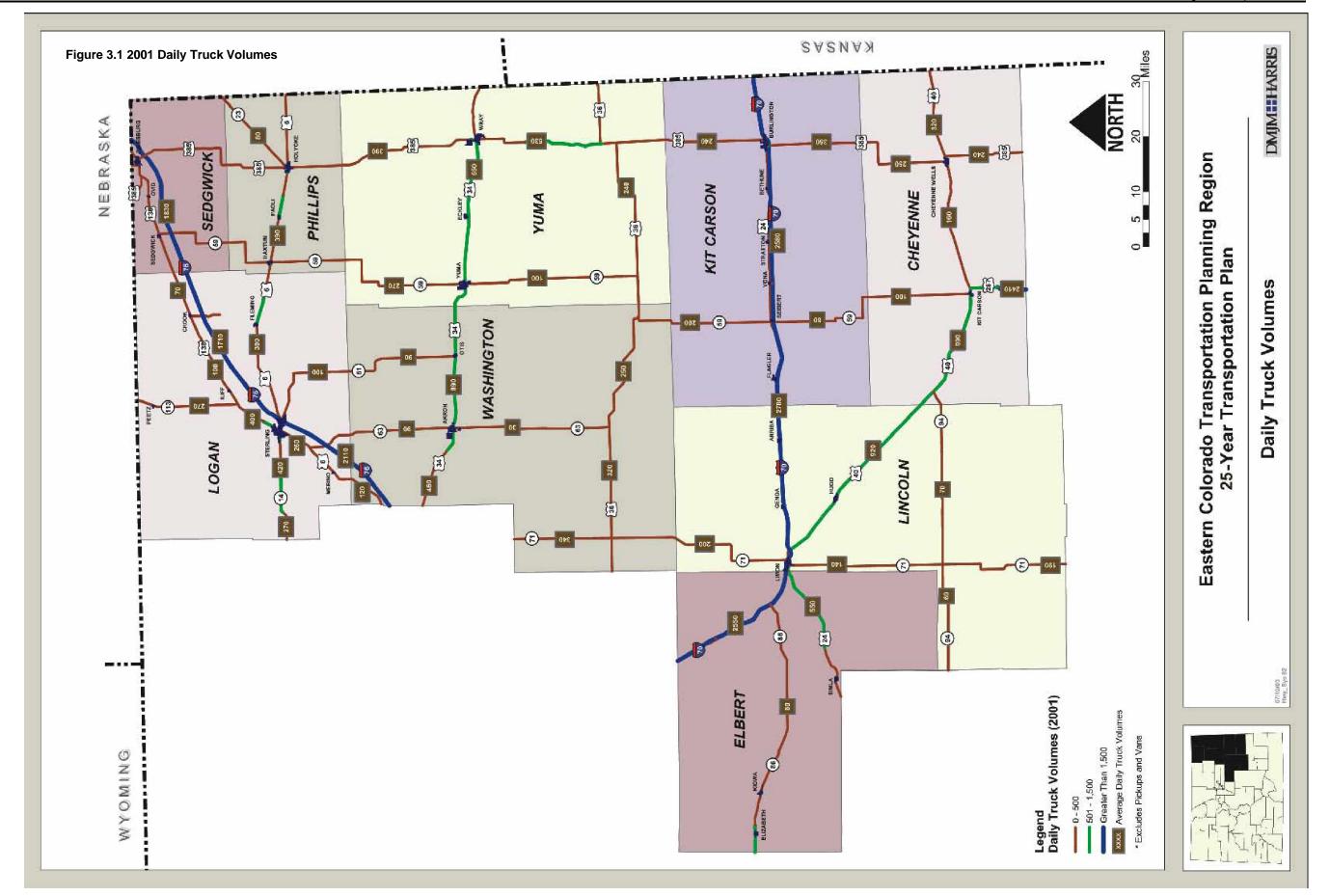
Table 3.33 compares the increase in public transit demand for each of the counties, NECALG, ECCOG, and the entire region. The projected increase for the entire region between 2000 and 2010 is 23.2% or 57,902 one-way passenger trips. Of those trips, 48,779 trips (over 84% of the increase) are estimated to occur in Logan, Morgan and Elbert counties. This indicates that these counties are projected to grow significantly more rapidly than the other counties in the study area. Removing these three counties from the calculations, the number of one-way passenger trips in the region increases only 9.5%, with NECALG (less Logan and Morgan counties) increasing 8.6% and ECCOG (less Elbert County) increasing 10.8%.

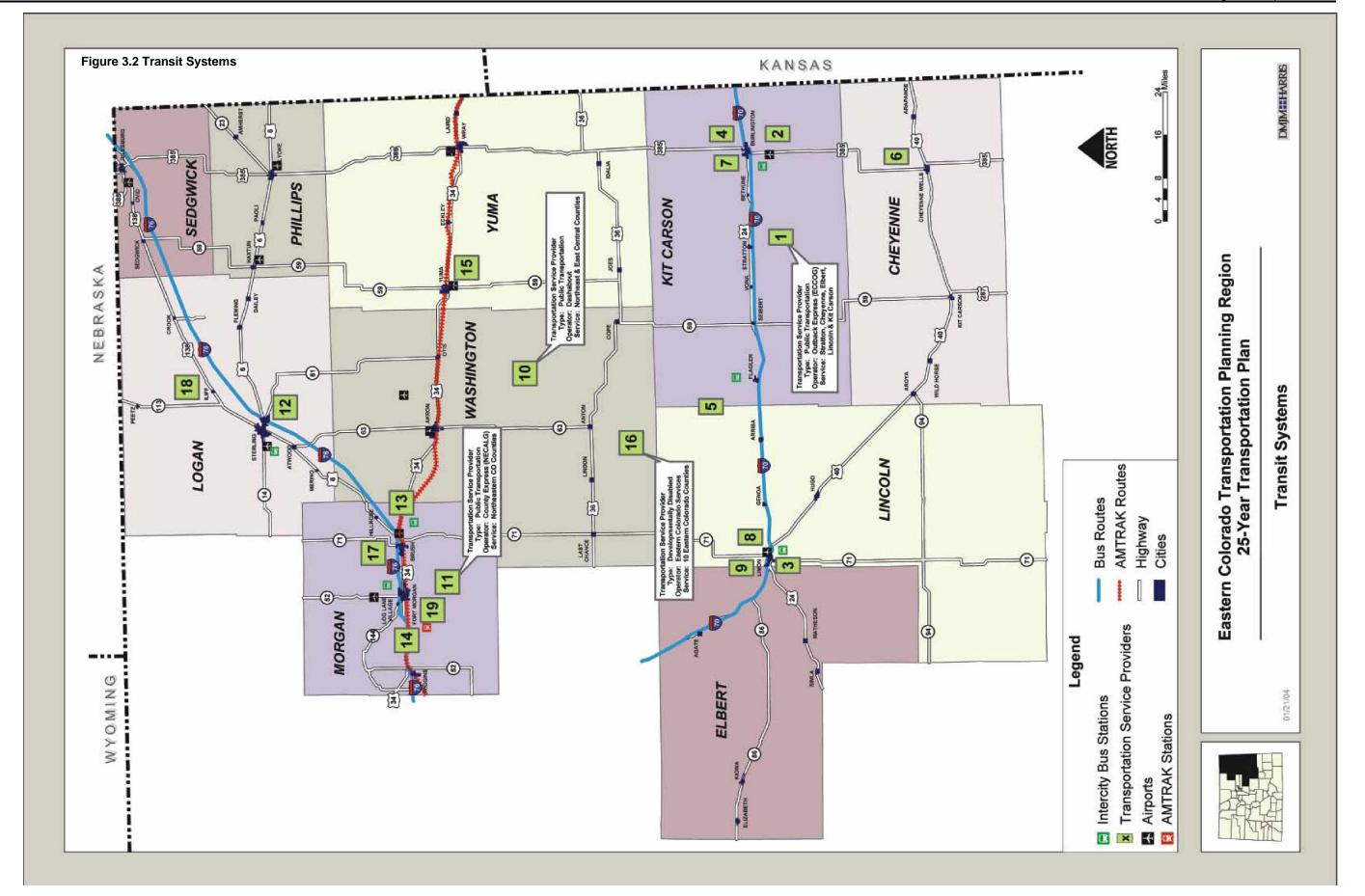
The change from 2000 to 2030 shows that, for the entire region, there is a projected increase of 83.2% or 207,410 one-way passenger trips. Removing Elbert County (due to its urban character projected to occur well before 2030) changes the projected increase for the region to be 59.8%. The county with the most increase continues to be Elbert County with 196.0%. Morgan and Logan counties have an increase of 92.2% and 86.2% respectively. Phillips and Sedgwick counties have increases of 27.2% and 25.9% respectively, while Washington, Yuma, Cheyenne, Kit Carson and Lincoln counties have increases in the range of 8.7 to 14.0%.

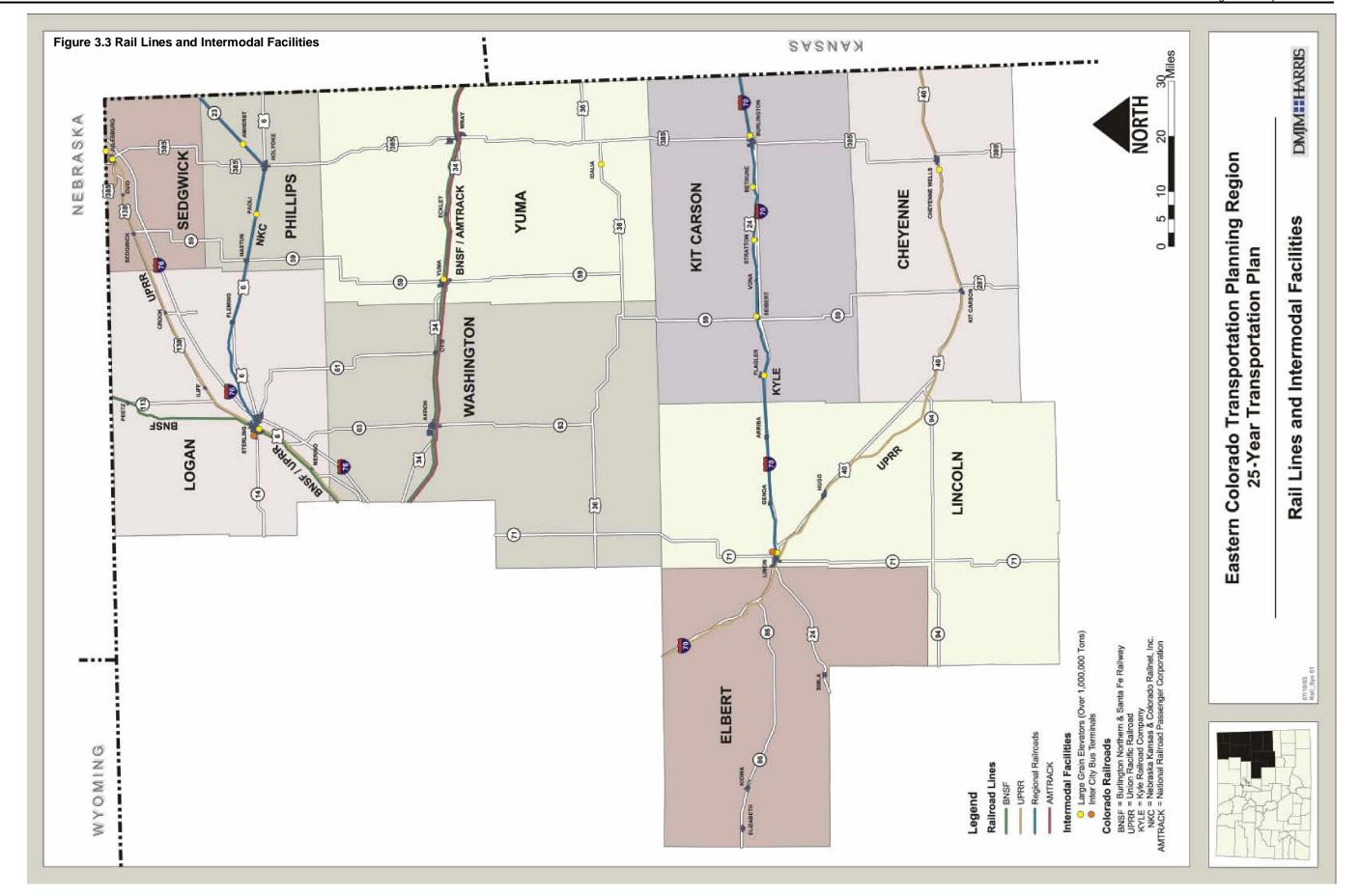
For NECALG, the projected increase in total one-way passenger trips from 2000 to 2010 is 19.3%, with Logan and Morgan counties the highest with 25.4 and 24.2 respectively. Washington County is the smallest at 3.2%. From 2000 to 2030, Morgan County is shown with the largest percent increase in demand with 92.2%, while Logan County is next with an increase of 86.2%. Sedgwick County shows the smallest net increase in actual trips with approximately 2,000 over the 30-year period while Yuma County shows the smallest percentage increase of 12.9%.

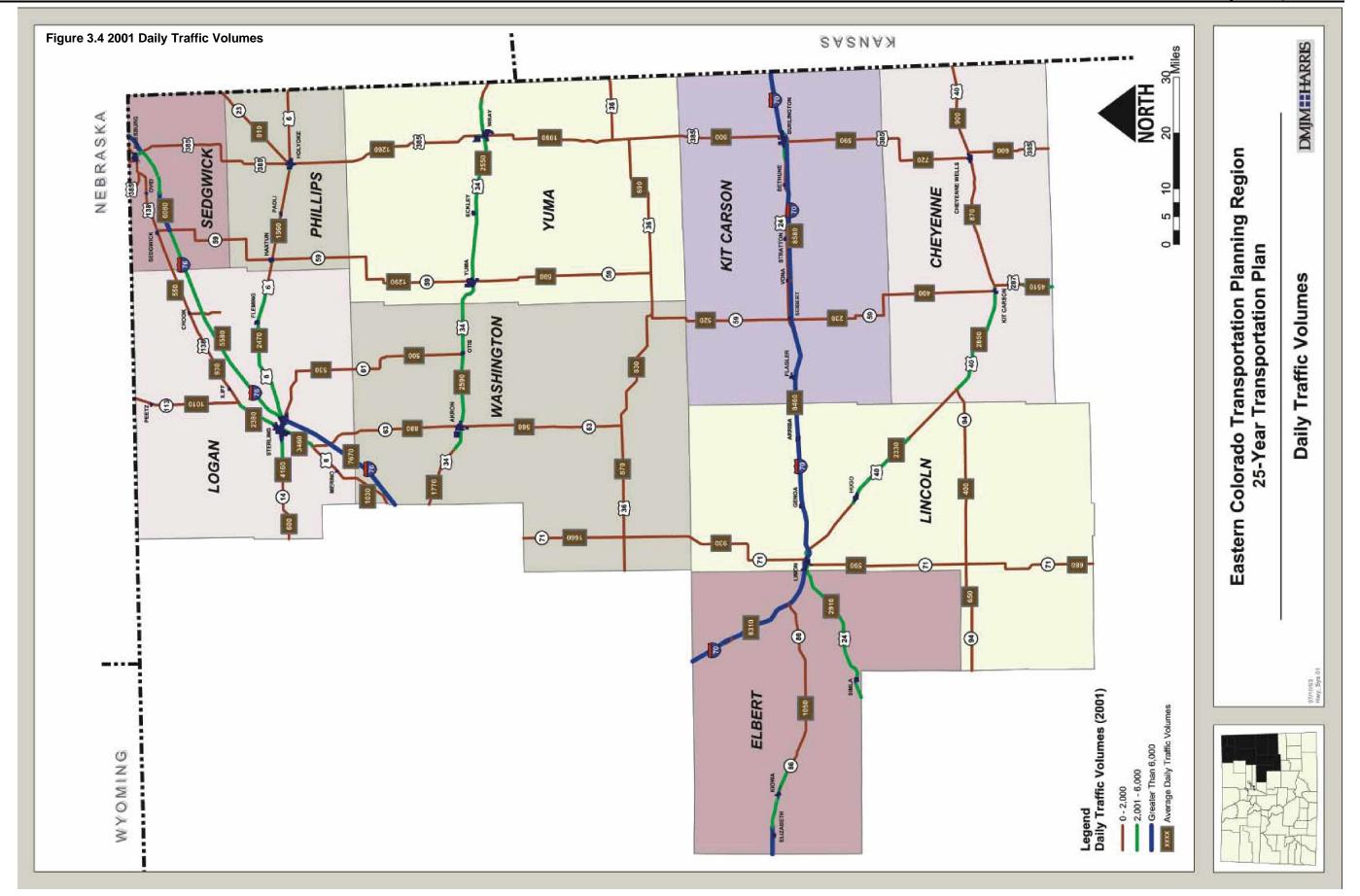
For ECCOG, the projected increase in total one-way passenger trips from 2000 to 2010 is 31.3%, with Elbert County the highest with 50.0% increase. Cheyenne County is the smallest at 3.8%. From 2000 to 2030, Elbert County is shown with the largest percent increase in demand with 196%, while Lincoln and Kit Carson show 13.1% and 13.0% increases respectively. Cheyenne County actually shows a projected decrease of 1.1 % due to the County have a projected small decrease in population from 2000 to 2030.

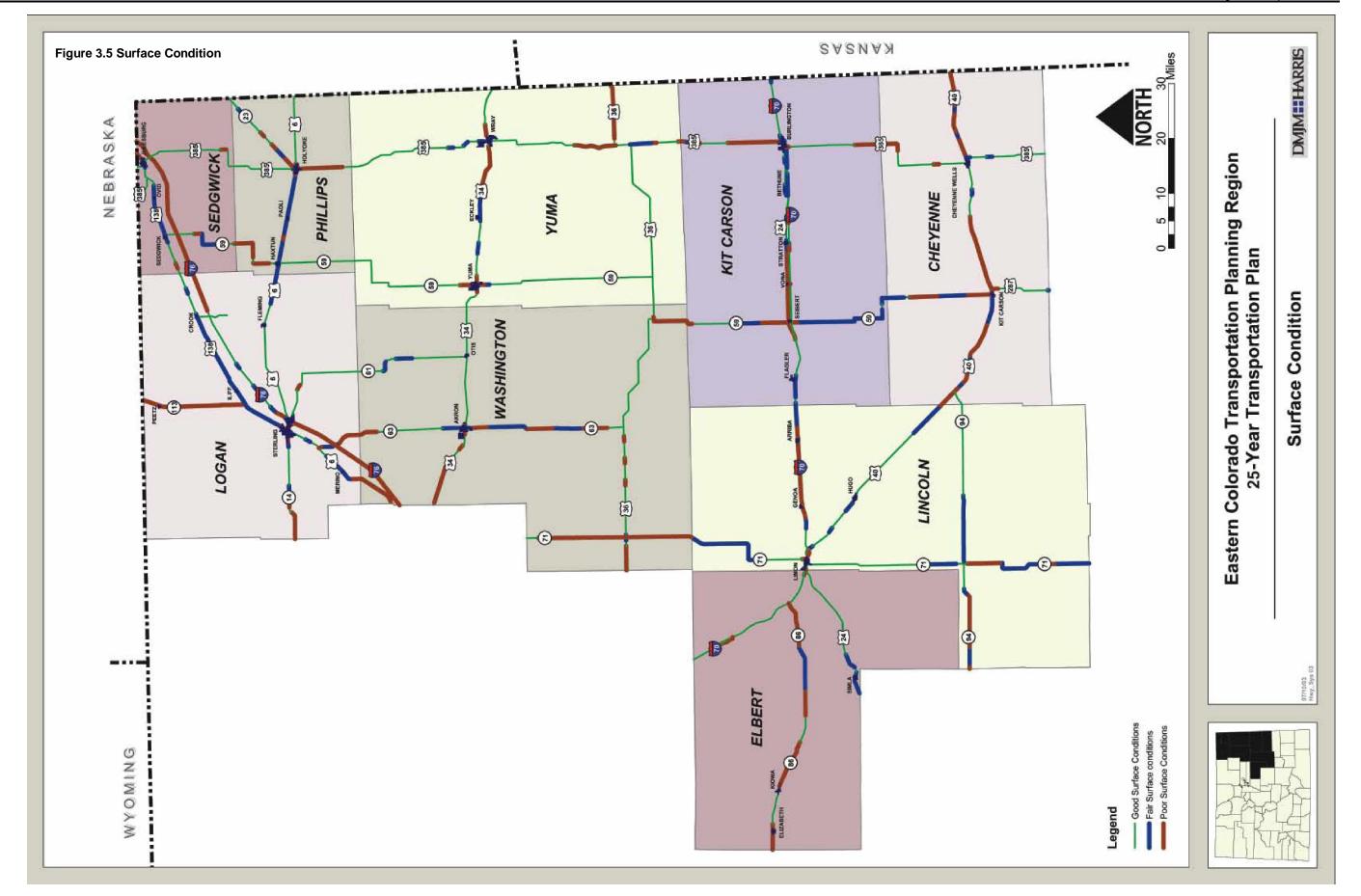
Table 3.33 Demand Estimates and Percent Change: Annual One-Way Passenger Trips  Source: Table 3.29, Table 3.30, Table 3.31						
County	2000	2010	2030	% Change 2000 - 2010	% Change 2000 - 2030	
Logan	48,619	60,970	90,542	25.4 %	86.2 %	
Morgan	61,918	76,918	118,995	24.2 %	92.2%	
Phillips	11,236	12,486	14,290	11.1 %	27.2 %	
Sedgwick	7,721	8,344	9,719	8.1 %	25.9 %	
Washington	12,741	13,147	14,519	3.2 %	14.0 %	
Yuma	25,041	27,660	32,205	10.5 %	12.9 %	
NECALG	167,276	199,525	280,270	19.3 %	67.5 %	
Cheyenne	5,462	5,668	5,398	3.8 %	-1.1 %	
Elbert	42,861	64,289	126,859	50.0 %	196.0%	
Kit Carson	20,334	22,804	26,374	12.1 %	13.0 %	
Lincoln	13,302	14,851	17,744	11.6 %	13.1 %	
ECCOG	81,959	107,612	176,375	31.3 %	115.2%	
Regional Totals	249,235	307,137	456,645	23.2 %	83.2 %	

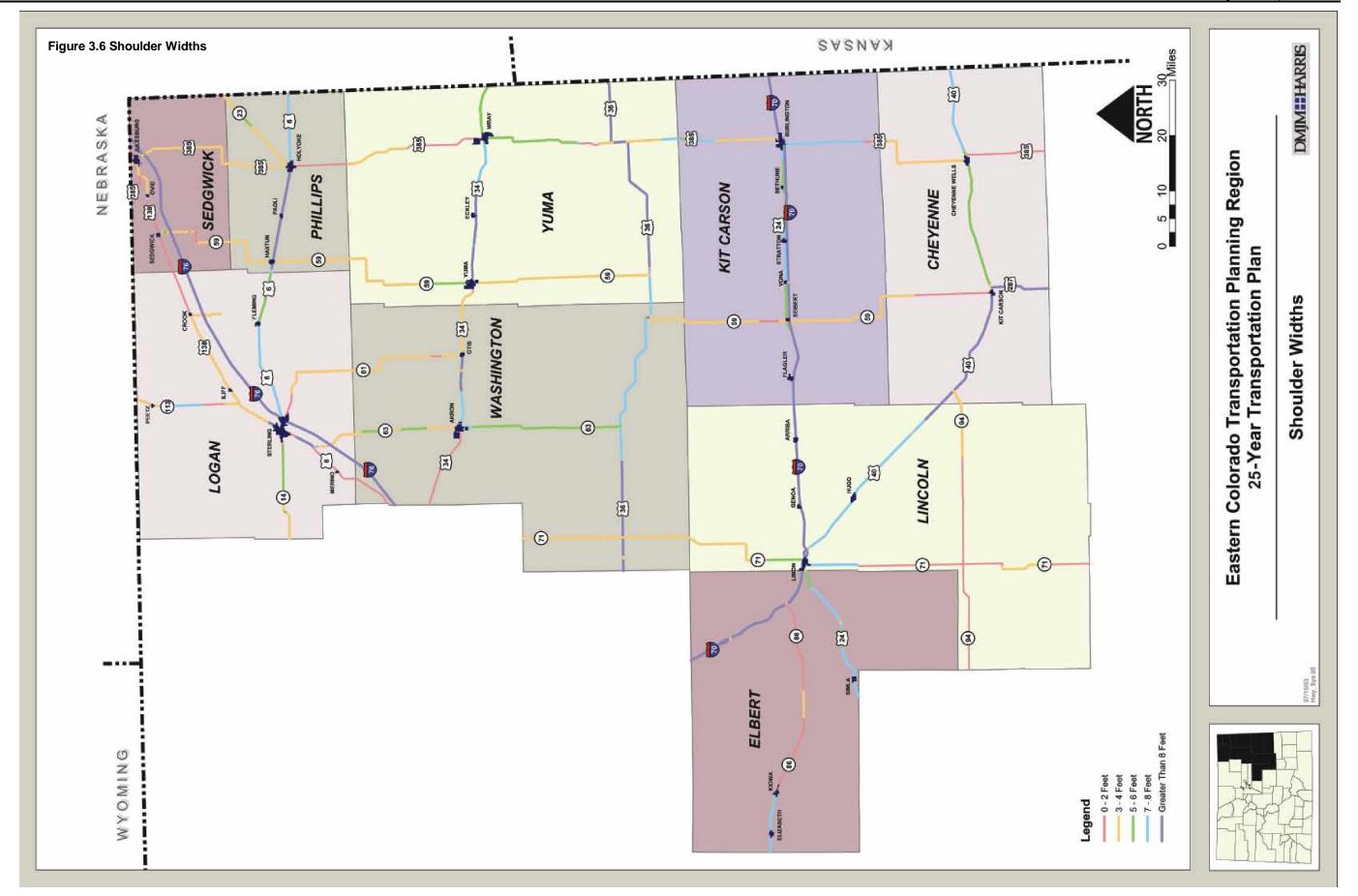


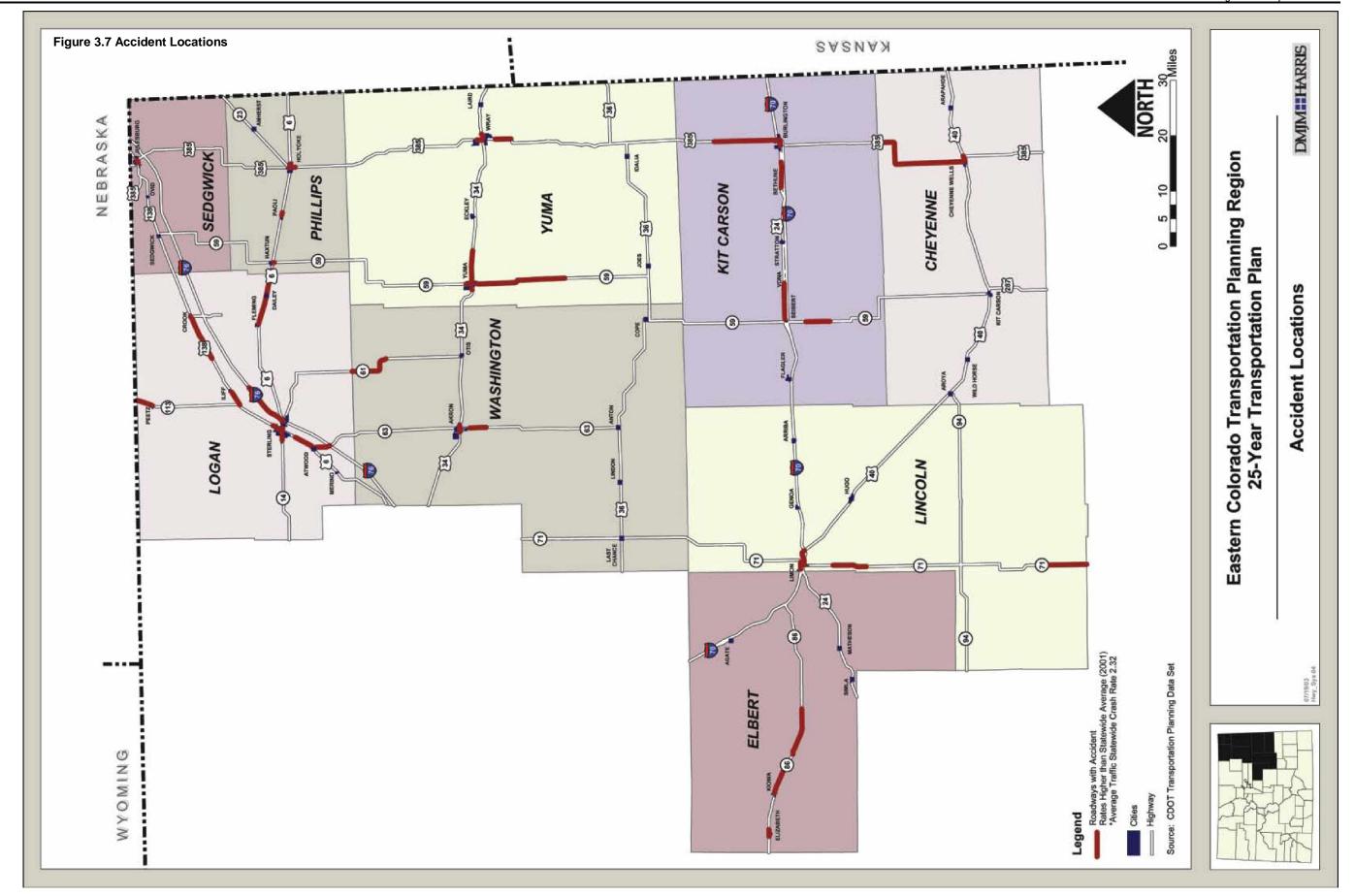


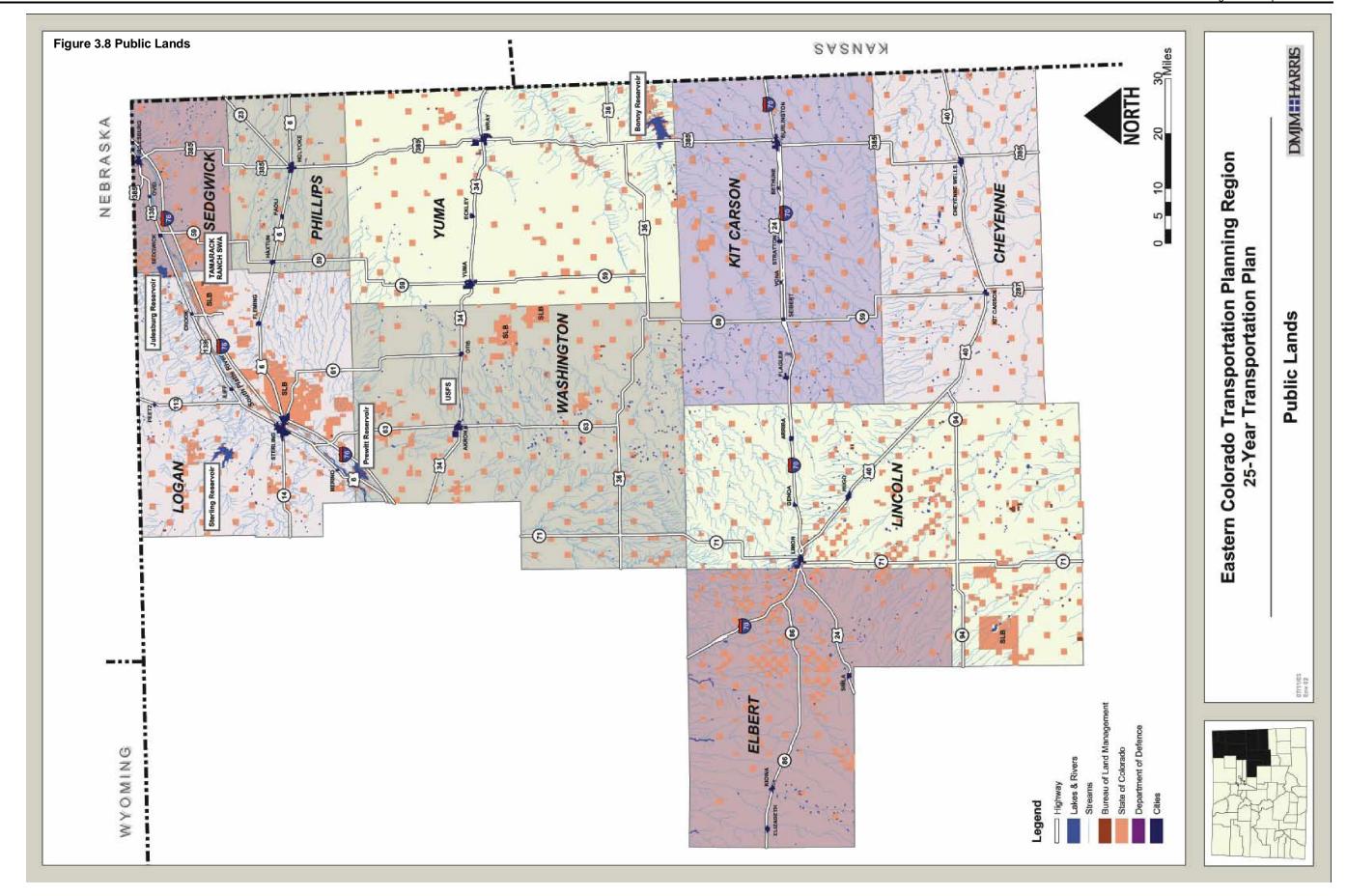


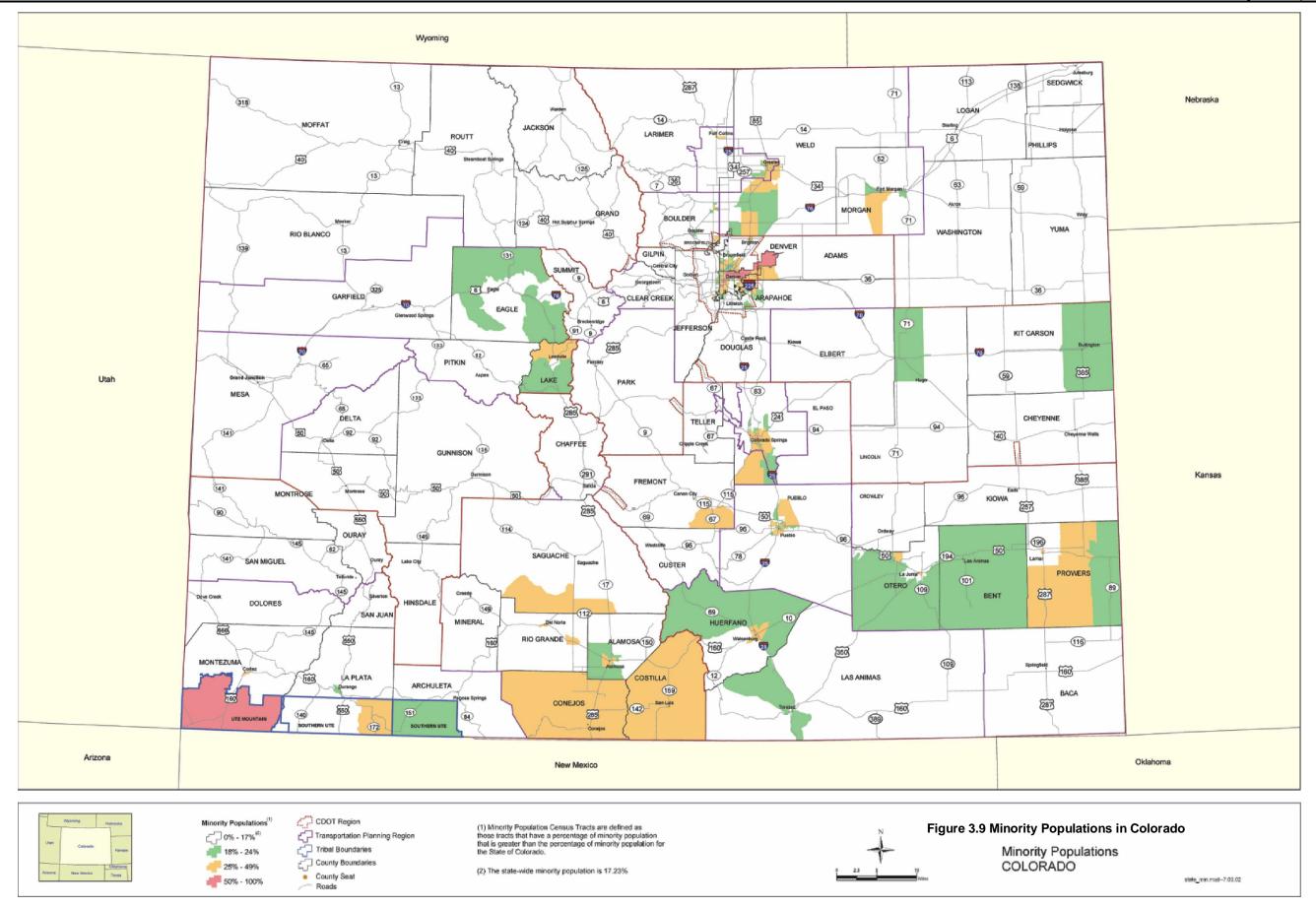


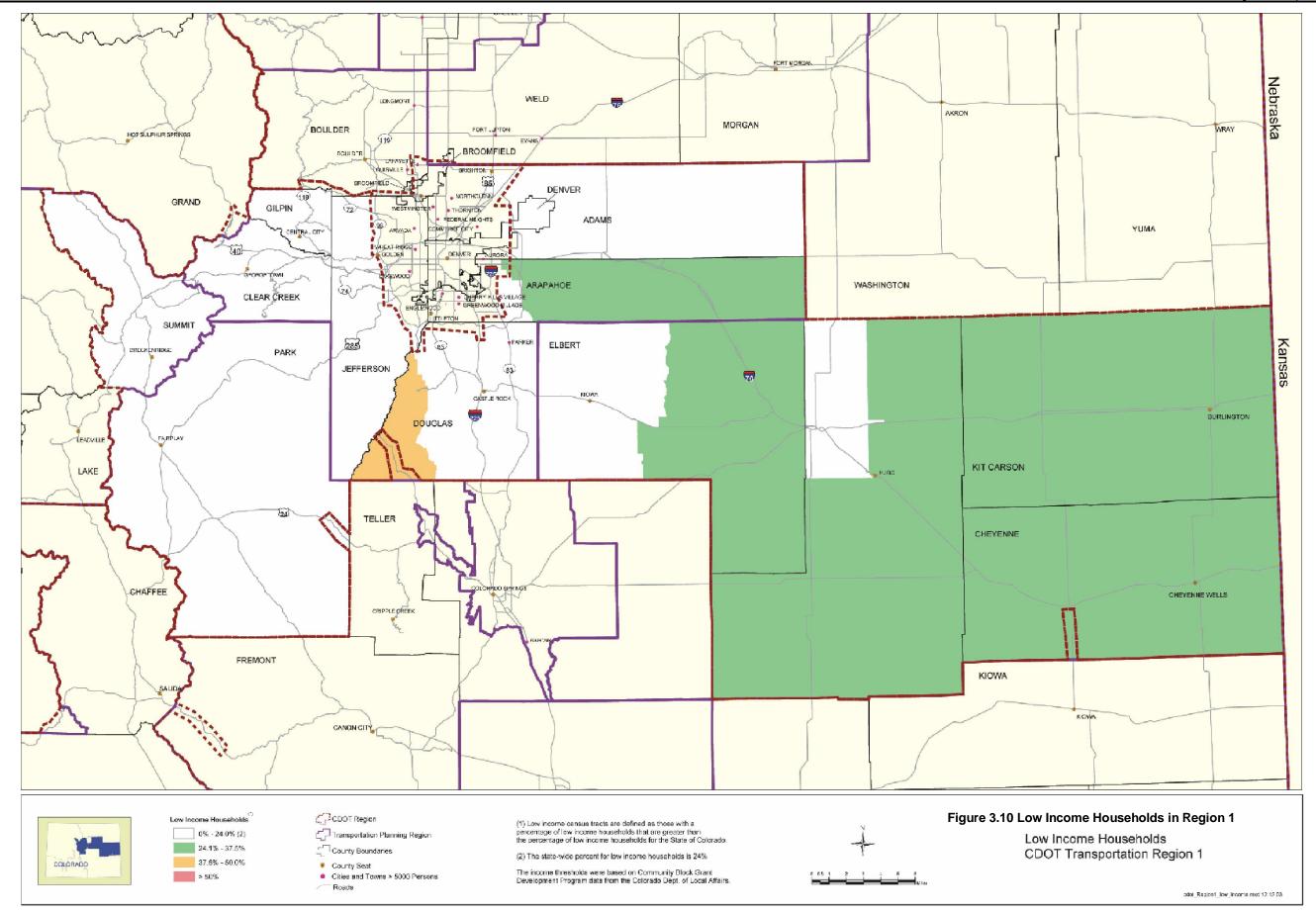


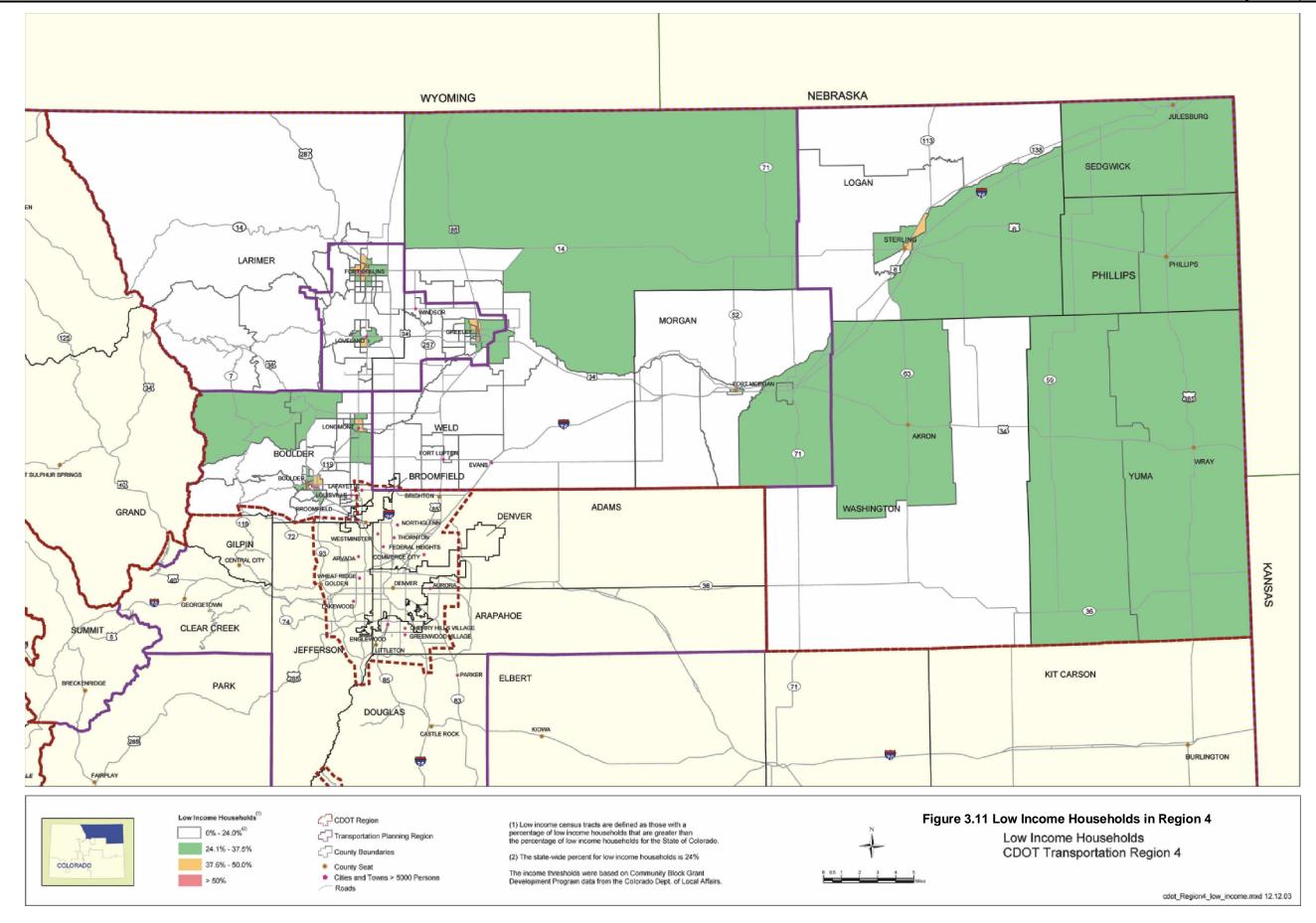


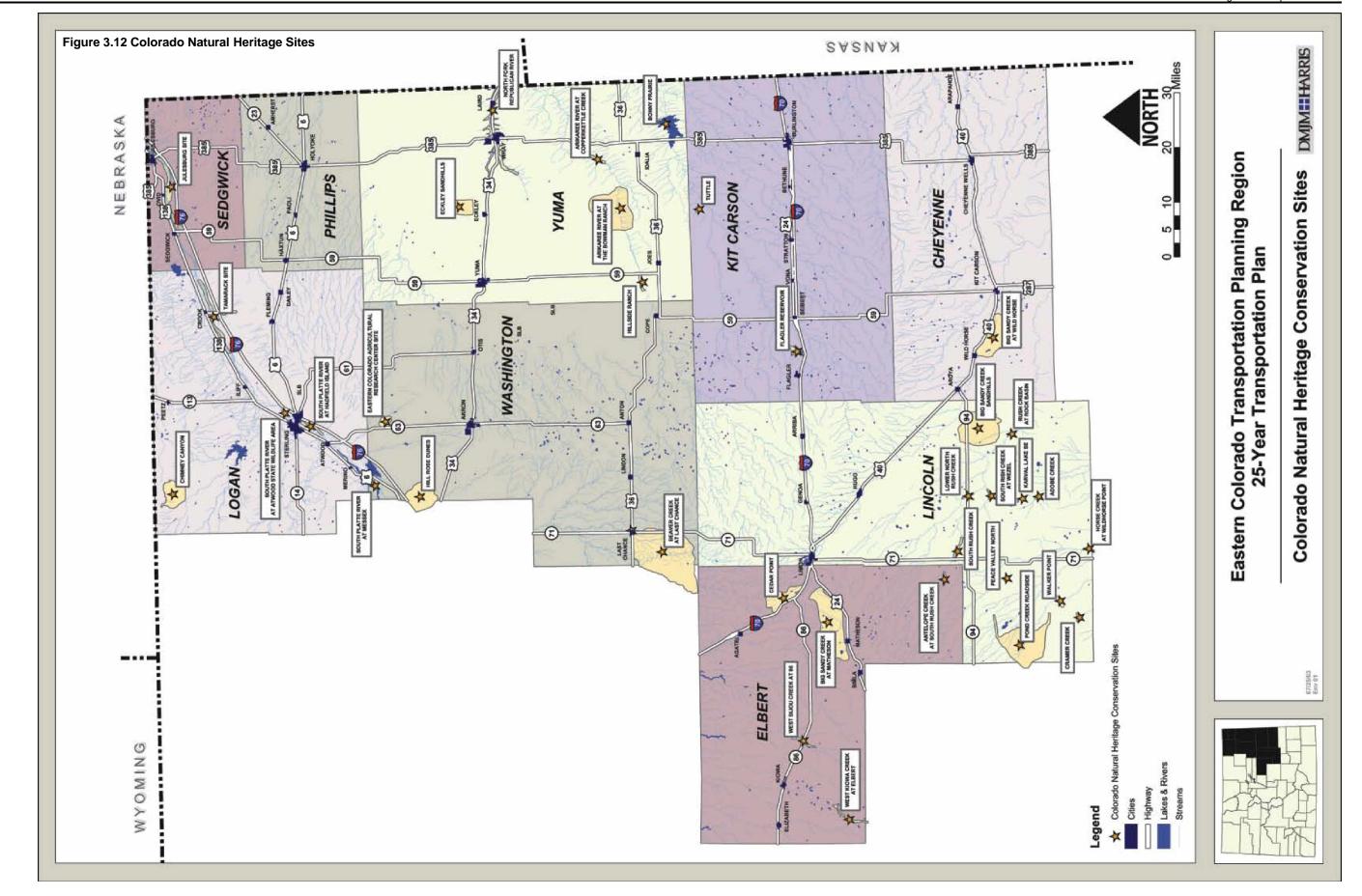


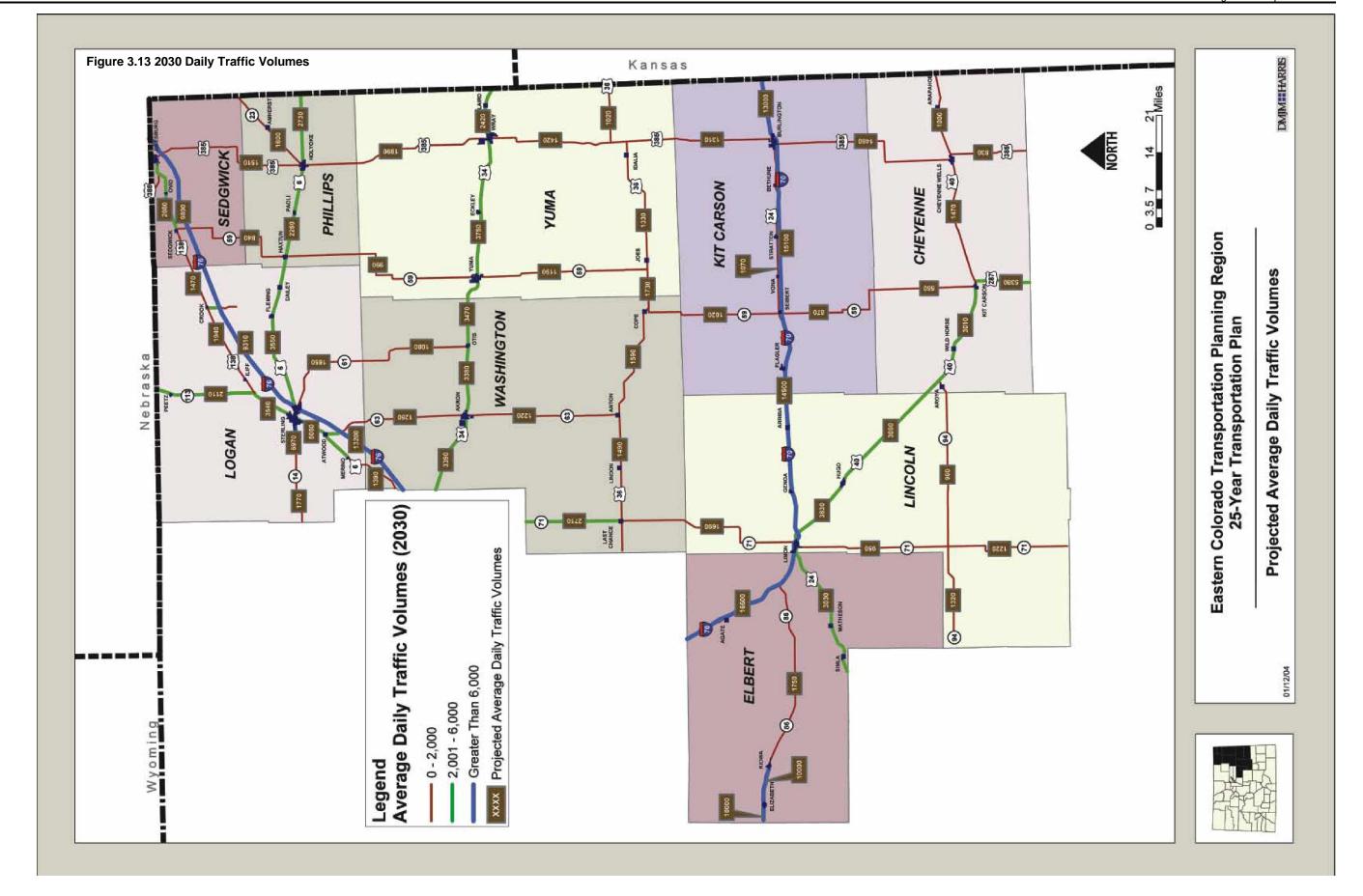


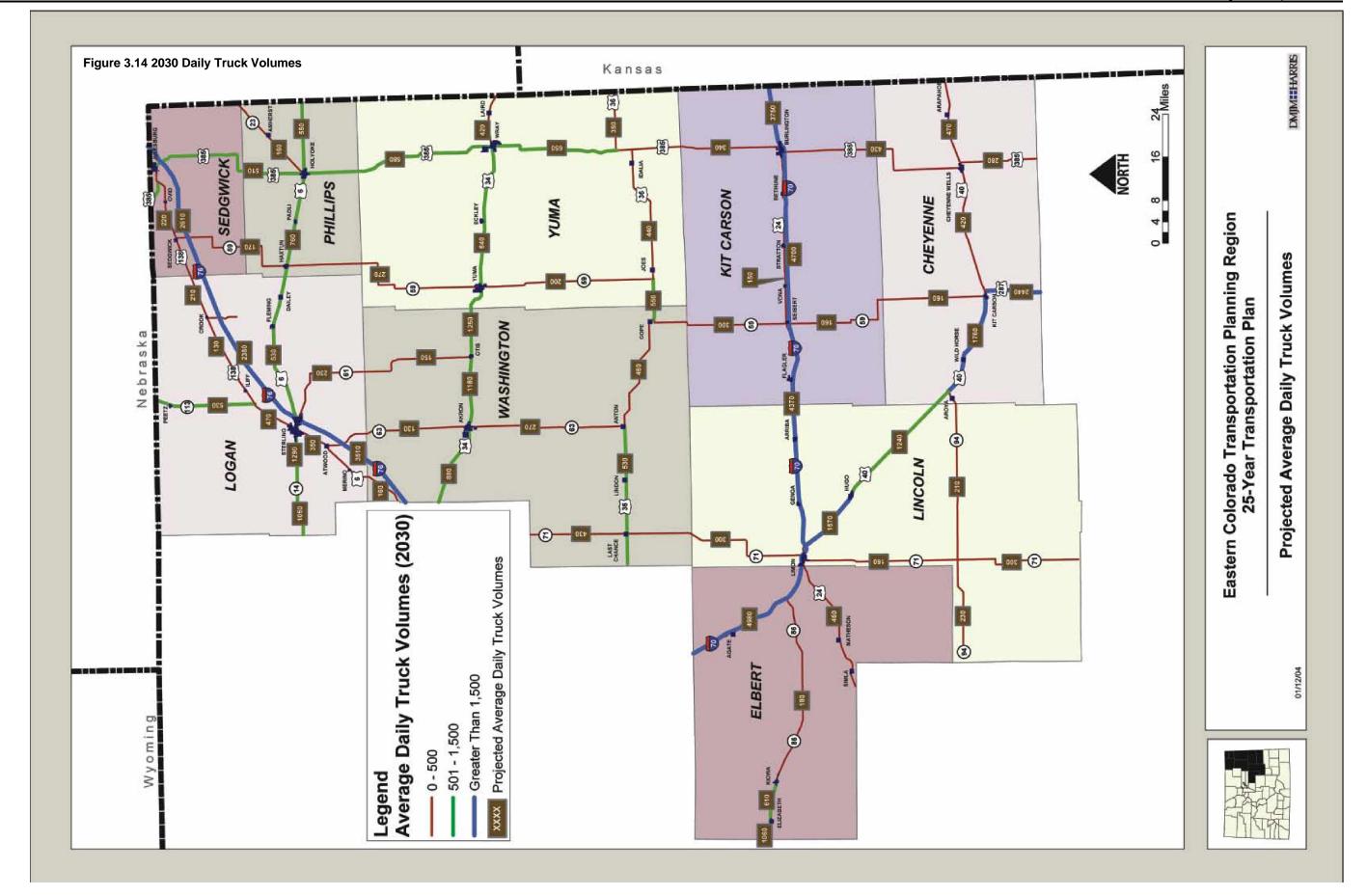












#### 4.0 REGIONAL CONNECTIVITY

# 4.1 CORRIDOR VISIONS

Following the analysis of future mobility demand, potential solutions for identified issues were examined and a recommended alternative was suggested. The analysis addressed twenty-two (22) corridors that are significant to regional mobility. The range of potential modal solutions considered included highway capacity or other improvements, intercity bus, travel demand management, ITS and passenger rail. While certain other modes, specifically freight and passenger rail, aviation and bicycle/pedestrian facilities, have been considered throughout the planning process, and are important in the overall regional transportation system, their potential to reduce congestion in these corridors was considered limited at this time.

A new concept that CDOT is pursuing in this long-range planning cycle is the need to look comprehensively at the nature of transportation corridors. The goal is to identify corridor visions that can help to aid statewide, regional and local planning processes.

CDOT has identified the purpose of corridor visions to be as follows:

- § Integrates community values with multi-modal transportation needs
- § Provides a corridor approach for a transportation system framework
- § Strengthens partnerships to cooperatively develop a multi-modal system
- § Provides administrative and financial flexibility in the Regional and Statewide Plans
- § Links investment decisions to transportation needs
- § Promotes consistency and connectivity through a system-wide approach
- § Creates a transportation vision for Colorado and surrounding states.

Vision statements were created for each of the 22 corridors referencing major activity centers within the Eastern TPR and linkages outside the TPR. See Figures 4.1 and 4.2. The vision statements identify a primary transportation focus (mobility, safety or system preservation), identify community values that affect quality of life, and list the primary type of travel. The vision statement also includes corridor goals, implementation strategies that fit the conditions within each corridor, and the long-range Corridor Vision Cost to improve the transportation system. The Corridor Vision Cost is developed using a highway per/mile estimate over the entire length of the corridor. A consulting firm under contract to CDOT examined the records of past CDOT projects from 1997 through 2003. They grouped the projects into Project Categories by the type of improvements and determined an average dollar per/mile cost for each category. A review of the corridor vision and strategies help determine the type of improvement needed, and the project category, for each corridor. By matching the corridor to a project category, a value can be assigned on a dollar per/mile basis. It is important to state that this cost method does not include every possible improvement in a corridor, but does provide a sound basis for long-range highway planning estimates

During Plan review, CDOT identified the following apparent discrepancies in Primary Investment Category selected by adjacent TPRs, and brought this to the attention of the STAC at its July 16, 2004 meeting. Representatives of the involved TPRs came to the following resolutions:

SH 385 – The Eastern Transportation Planning Region selected "Mobility" as the Primary Investment Category for the section between Cheyenne Wells and Granada. The Eastern Transportation Planning Region's neighbor to the south, Southeast Colorado TPR, selected "Safety" as its Primary Investment Category for SH 385. CDOT representatives working with both TPRs note that the strategies and intention for SH 385 between Cheyenne Wells and Granada are the same for both TPRs, and the section of 385 located south of Cheyenne Wells is not part of the High Plains Highway. It was decided that it was more appropriate to designate the primary investment category as safety with system quality as a close second to be consistent with the Southeast Colorado TPR.

SH 40/287 – The Eastern Transportation Planning Region selected "System Quality" as the primary Investment Category for this highway. However, the Southeast Colorado TPR selected "Mobility". The Eastern TPR selected "System Quality" with consideration that the existing surface is new concrete construction, and, therefore, only maintenance is required. The long-term vision for the SH 40/287 corridor addresses the need for increasing capacity, widening the highway to a four-lane facility. After discussions at the July16, 2004 meeting of the STAC, Eastern TPR representatives changed the Primary Investment Category to "Mobility", as more consistent with the long-term corridor vision.

SH 14 – The Eastern Transportation Planning Region and the North Front Range Transportation Planning Region have agreed to designate the Primary Investment Category for SH 14, west of SH 71 as "System Quality", and to designate the Primary Investment Category for SH 14, east of SH 71 as "Mobility."

The Eastern TPR has the following projects identified in the 2003 Strategic program:

- § 1-76
- § SH 385 from US 40, north to Nebraska
- § SH 71 from Limon to I-76
- § Parts of I-70 including:
  - Bethune to Burlington
  - Genoa to Flagler

It is the TPR's desire that these projects be included in future strategic program efforts.

SH 86, Rural Section Planning Region Eastern TPR - 6

State Highway SH 86A Beginning Mile Post 23.36 Ending Mile Post 58.99

SH 86 from the Town of Kiowa east to I-70

## Vision Statement

The Vision for the SH 86 Rural Section corridor is primarily to improve safety as well as to improve system quality and to increase mobility. This corridor serves as local facility, connects to places outside the region, and makes east-west connections east to I-70 in Eastern Colorado. Travel modes now and in the future include passenger vehicle, truck freight, and local public transit. The transportation system in the area primarily serves destinations outside of the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by moderate levels. The communities along the corridor value connections to other areas, safety, and system preservation. They depend on agriculture for economic activity in the area. Users of this corridor want to preserve the rural and transitioning character of the area while supporting the movement of tourists, freight, commuters and farm-to-market products in and through the corridor.

#### Goals / Objectives

Improve shoulder widths

Maintain or improve pavement to optimal condition
Increase travel reliability and improve mobility
Reduce fatalities, injuries and property damage crash rate
Support economic development
Implement SH 83-86 Corridor Study recommendations
Add and maintain roadway bypasses

## Strategies

Mobility Safety

Add and maintain accel/decel lanes Improve geometrics including shoulders and lane

Construct, improve and maintain the system of local width

roads Add passing lanes
Add and maintain roadway bypasses Add turn lanes

Improve visibility/sight lines

System Quality Flatten slopes

Add surface treatment/overlays Flatten curves

Bridge repairs/replacement Add guardrails

Program Delivery Corridor studies

SH 86, Urban Section Planning Region Eastern TPR, Greater Denver TPR

State Highway SH 86A Beginning Mile Post 0.56 Ending Mile Post 23.336

SH 86 from I-25 in Castle Rock east to the Town of Kiowa

### Vision Statement

The Vision for the SH 86 Urban Section corridor is primarily to increase mobility as well as to improve safety and to maintain system quality. This corridor serves as a multi-modal local facility, connects to places outside the region, serves as a Main Street and makes east-west connections within the South Metro Denver area. This portion of the corridor is transitioning from a rural to urban land use pattern. Travel modes now and in the future include passenger vehicle, local public transit service, truck freight, and Transportation Demand Management (telecommuting and carpooling). The transportation system in the area primarily serves towns, cities, and destinations within the corridor as well as destinations outside of the corridor. Based on the urbanization of western Elbert County, passenger traffic volumes are expected to increase by very significant levels. Freight traffic volumes are expected to increase by moderate levels. Overall, these traffic increases will cause significant capacity issues. The communities along the corridor value high levels of mobility, transportation choices, connection to other areas, safety, and system preservation. They depend on agriculture, local commerce and commercial activity for economic activity in the area and want to create a diverse economic base for future job creation. Users of this corridor want to preserve the rural, agricultural, and transitioning residential development character of the area while supporting the movement of tourists, commuters, and agriculture in and through the corridor.

## Goals / Objectives

Increase travel reliability and improve mobility
Support commuter travel
Reduce fatalities, injuries and property damage crash rate
Maintain or improve pavement to optimal condition
Support economic development
Accommodate increasing freight traffic

#### Strategies

Mobility

Implement 83/86 Corridor Optimization Study Improve visibility/sight lines
Preserve right of way Flatten slopes, flatten curves

Add travel lanes Add guardrails

Add and maintain accel/decel lanes Develop and implement access control measures

Construct, improve, maintain system of local roads

Implement access control measures System Quality

Add Surface treatment/overlays

Safety Bridge repairs/replacement Improve geometrics, including shoulders

Add passing lanes and turn lanes Program Delivery
Improve intersections with highway Corridor Study

SH 71 Southern Section Planning Region Eastern TPR, Southeast TPR

State Highway SH 71C Beginning Mile Post 0 Ending Mile Post 100.99

SH 71 from US 50 at Rocky Ford to I-70 in Limon

## Vision Statement

The Vision for the SH 71 Southern Section corridor is primarily to maintain system quality as well as to improve safety and increase mobility. This corridor serves as a multi-modal local facility, connects to places outside the region, and makes north-south connections within the Arkansas Valley area. Travel modes now and in the future include passenger vehicle, local public transit and truck freight. The transportation system in the area primarily serves towns and destinations within the corridor as well as destinations outside of the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by significant levels. The communities along the corridor value safety and system preservation. They depend on agriculture, grain storage and commercial activity for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the area while supporting the movement of freight, farm-to-market products, and connections to the state prison in Limon in and through the corridor.

## Goals / Objectives

Reduce fatalities, injuries and property damage crash rate Improve shoulder widths Preserve the existing transportation system Rehabilitate/replace deficient bridges Maintain statewide transportation connections

## **Strategies**

Mobility
Add and maintain accel/decel lanes
Construct, improve and maintain the system of local roads
Maintain statewide transportation connections

System Quality
Add Surface treatment/overlays
Bridge repairs/replacement
Add drainage improvements
Reconstruction of roadway

Safety
Improve geometrics
Add passing lanes
Improve visibility/ sight lines
Flatten slopes, flatten curves
Add turn lanes
Add/improve shoulders
Add quardrails

SH 63 Planning Region Eastern TPR

State Highway SH 63A Beginning Mile Post 0 Ending Mile Post 56.41

SH 63 from Anton north to Atwood

## Vision Statement

The Vision for the SH 63 corridor is primarily to maintain system quality as well as to improve safety and provide mobility. This corridor serves as a multi-modal local facility and makes north-south connections within the central Washington and southeastern Logan counties area. Travel modes now and in the future include passenger vehicle, truck freight, and local public transit. The transportation system in the area primarily serves towns and destinations within the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by significant levels. The communities along the corridor value connections to other areas, safety, and system preservation. They depend on agriculture, local commerce and commercial activity for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the area while supporting the movement of freight and farm-to-market products in and through the corridor.

## Goals / Objectives

Reduce fatalities, injuries and property damage crash rate Eliminate shoulder deficiencies Maintain or improve pavement to optimal condition Maintain statewide transportation connections

## **Strategies**

Mobility

Add and maintain roadway pullouts for breakdowns, buses and slow vehicles

System Quality Add surface treatment/overlays Add drainage improvements

Safety Improve Geometrics Flatten slopes Add/improve shoulders

SH 61 Planning Region Eastern TPR

State Highway SH 61A Beginning Mile Post 0 Ending Mile Post 40.99

SH 61 from Otis north to Sterling

## Vision Statement

The Vision for the SH 61 corridor is primarily to maintain system quality as well as to improve safety and provide mobility. This corridor serves as a multi-modal local facility, connects to places within the region, and makes north-south connections within the northeastern Washington and southeastern Logan counties area. Travel modes now and in the future include passenger vehicle, truck freight, and local public transit. The transportation system in the area primarily serves destinations inside the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by moderate levels. The communities along the corridor value connections to other areas, safety, and system preservation. They depend on agriculture, the state prison near Sterling and local commerce for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the area while supporting the movement of freight and farm-to-market products in and through the corridor.

## Goals / Objectives

Reduce fatalities, injuries and property damage crash rate Improve shoulder widths Maintain or improve pavement to optimal condition Provide and maintain statewide transportation connections Support economic development

## **Strategies**

Safety
Improve Geometrics
Flatten slopes
Add/improve shoulders
Add and maintain roadway pullouts for breakdowns,
buses and slow vehicles

Mobility
Construct new segment
Designate as a State Highway

System Quality
Add surface treatment/overlays
Add drainage improvements

US 6 Eastern Plains Planning Region Eastern TPR, Upper Front Range TPR

State Highway US 6J Beginning Mile Post 371.69 Ending Mile Post 467.28

US 6 from I-76 in Brush north of I-76 to Sterling then east to Nebraska

## Vision Statement

The Vision for the US 6 Plains corridor is primarily to maintain system quality as well as to improve safety. This corridor serves as a multi-modal local facility, connects to places outside the region, serves as a Main Street, and makes east-west connections within the Northeast Colorado to Nebraska area. Travel modes now and in the future include passenger vehicle, freight rail, truck freight, aviation, local public transit, oil and gas production and aviation. The transportation system in the area primarily serves destinations outside and inside of the corridor. Based on historic and projected population and employment levels, passenger and truck traffic volumes are expected to increase by moderate levels. Recreational reservoir traffic is a key element of the western portion of the corridor. The communities along the corridor value connections to other areas, safety, and system preservation. They depend on agriculture, local commerce, commercial activity and grain storage for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the area while supporting the movement of tourists, farm-to-market products, and recreational users in and through the corridor.

## Goals / Objectives

Accommodate growth in freight transport Improve shoulder widths Maintain or improve pavement to optimal condition

## **Strategies**

Safety Improve Geometrics Flatten slopes Add/improve shoulders System Quality
Add drainage improvements
Reconstruction roadways
Add turn lanes
Address speed issues in towns, signage issues
Provide and maintain statewide transportation
connections

SH 59 Planning Region Eastern TPR

State Highway SH 59A Beginning Mile Post 0 Ending Mile Post 173.3

SH 59 from US 40 in Kit Carson to Cope and then Joes to SH 138 in Sedgwick

## Vision Statement

The Vision for the SH 59 corridor is primarily to maintain system quality as well as to improve safety and provide mobility. This corridor serves as a multi-modal local facility, acts as Main Street, and makes north-south connections within central Cheyenne County to western Sedgwick County area. Travel modes now and in the future include passenger vehicle, truck freight, aviation, local public transit, and oil and gas production. The transportation system in the area primarily serves towns and destinations within the corridor as well as destinations outside of the corridor. Based on historic and projected population and employment levels, passenger traffic and freight volumes on this type of facility should increase by moderate levels. The communities along the corridor value connections to other areas, safety, and system preservation. They depend on agriculture, local commerce, grain storage and commercial activity for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the area while supporting the movement of freight and farm-to-market products in and through the corridor.

## Goals/ Objectives

Reduce fatalities, injuries and property damage crash rate Improve shoulder widths Maintain or improve pavement to optimal condition Maintain statewide transportation connections Preserve the existing transportation system Designate SH 59 north to I-80

#### Strategies

Mobility
Construct, improve and maintain the system of local roads
Maintain statewide transportation connections

Safety
Improve Geometrics, including shoulders
Add passing lanes, turn lanes
Flatten slopes
Flatten curves
Add Guardrails

System Quality
Add Surface treatment/overlays
Bridge repairs/replacement
Add drainage improvements
Improve visibility/sight lines

US 40 Planning Region Eastern TPR

State Highway SH 40H Beginning Mile Post 446.05 Ending Mile Post 486.87

US 40 from the Town of Kit Carson east to Kansas.

## Vision Statement

The Vision for the US 40 corridor is primarily to maintain system quality as well as to improve safety and to increase mobility. This corridor serves as a multi-modal facility, connects to places outside the region, and makes east-west connections within the area from Kit Carson to Kansas. The corridor also serves wide-load truck traffic. Travel modes now and in the future include passenger vehicle, freight rail, truck freight, aviation, oil and gas production, and local public transit. The transportation system in the area primarily serves towns, cities, and destinations within the corridor as well as destinations outside of the corridor. Based on historic and projected population and employment levels, passenger and truck traffic volumes are expected to increase by significant levels. The communities along the corridor value connections to other areas, safety, and system preservation. They depend on agriculture, grain storage, local commerce and commercial activity for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the area while supporting the movement of freight and farm-to-market products in and through the corridor.

## Goals / Objectives

Accommodate growth in freight transport
Reduce fatalities, injuries and property damage crash rate
Improve shoulder widths
Preserve the existing transportation system
Maintain statewide transportation connections

## Strategies

Mobility
Add and maintain accel/decel lanes
Construct, improve and maintain the system of local roads

System Quality
Bridge repairs/replacement
Add surface treatment/ overlays

Safety
Add turn lanes
Flatten slopes
Add/improve shoulders
Add guardrails

US 385, High Plains Highway Planning Region Eastern TPR, Southeast TPR

State Highway SH 385A,B Beginning Mile Post 95.05 Ending Mile Post 317.63

US 385 from Cheyenne Wells north to the Nebraska border and US 40 from Kit Carson to Cheyenne Wells (see US 40 Cheyenne Wells to Kansas) is the High Plains Highway. Also includes US 385 from US 50 in Granada to Cheyenne Wells and is not part of the designation.

#### Vision Statement

The Vision for the US 385 High Plains Highway, except for the segment from Grenada to Cheyenne Wells, is primarily to improve mobility. The primary investment category for the segment from Granada to Cheyenne Wells is safety. This corridor serves as a multi-modal regional facility, connects to places outside the region, serves as a Main Street and makes north-south connections within the eastern plains of Colorado from Oklahoma to Nebraska area. Travel modes now and in the future include passenger vehicle, local public transit, aviation, oil and gas production, and truck freight. The transportation system in the area primarily serves destinations within and outside of the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by moderate levels. Recreational reservoir traffic and oversized loads are key elements of the corridor. The communities along the corridor value safety, high levels of mobility, transportation choices, connections to other areas, system preservation, and economic development. They depend on tourism, agriculture, grain storage, local commerce and commercial activity for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the area while supporting the movement of tourists, commuters, freight, farm-to-market products and recreational users in and through the corridor. This project was identified in the 2003 Strategic Program. The TPR desires its inclusion in future strategic program efforts.

## Goals / Objectives

Reduce fatalities, injuries and property damage crash rate Eliminate shoulder deficiencies Maintain or improve pavement to optimal condition Support economic development Accommodate growth in freight transport Maintain airport facilities in good condition Increase air service availability

## <u>Strategies</u>

Mobility Safety

Add and maintain accel/decel lanes Improve Geometrics, including shoulders

Add and maintain roadway bypasses Construct Intersection/Interchange improvements

Construct improve/maintain system of local roads Add passing lanes
Consolidate/ develop access management plans Add turn lanes

Expand air service Improve visibility/sight lines

Provide inter-modal connections Flatten slopes
Maintain statewide transportation connections Flatten curves
Add Guardrails

System Quality

Add Surface treatment/overlays

Bridge repairs/replacement

Add drainage improvements

Reconstruction roadways

Program Delivery
Develop airport master plans
Conduct corridor study

## **Corridor Vision 10**

US 287 Ports to Plains Planning Region Eastern, Greater Denver, & Southeast TPRs
State Highway US 287 Beginning Mile Post 0 Ending Mile Post 132.99

US 287 from Oklahoma north to US 40 in Kit Carson. US 287 joins US 40 as a dual designation for the next 60 miles to I-70 in Limon. In Limon, US 287 joins I-70 as a dual designation west towards Denver. This entire corridor is a portion of the National Ports to Plains Corridor connecting Denver and Laredo, Texas and is part of CDOT's Strategic Investment Program (7th Pot). The portion of 287 in the Region/Eastern TPR area is from Mile Post 122.77 to 133.00 (Cheyenne County Line to Kit Carson County Line. That portion of 287 is newly reconstructed as part of a 7th pot project, and needs system quality. SH 40 (Mile post 385.94 to 446.051), which combines with 287 in Kit Carson still has some work to be completed for the 7th pot concrete reconstruction (Wild Horse to Kit Carson, in the Town of Kit Carson, and Hugo East for a total of \$42 million).

## Vision Statement

The Vision for the US 287 Port to Plains corridor is primarily to increase mobility, as well as to maintain system quality and to improve safety. This corridor serves as a multi-modal National Highway System facility, connects to places outside the region, and makes north-south connections south into Oklahoma. Travel modes now and in the future include passenger vehicle, freight rail, local public transit, and truck freight. The transportation system in the area primarily serves destinations inside and outside of the corridor. Based on historic and projected population and employment levels, passenger traffic volumes are expected to increase significantly. The significant increase in freight traffic on US 287 / US 40 can be attributed to the highway's designation as the Ports to Plains Freight Corridor. The communities along the corridor value connections to other areas, safety, and system preservation. They depend on agriculture, tourism travel, grain storage and freight/commercial activity for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the area while supporting the movement of freight, tourists and farm-to-market products in and through the corridor.

#### Goals / Objectives

Maintain statewide transportation connections
Preserve the existing transportation system
Provide information to traveling public
Accommodate growth in freight transport
Reduce fatalities, injuries and property damage crash rate
Support economic development
Rehabilitate/replace deficient bridges

## **Strategies**

Mobility Safety

Add and maintain general purpose lanesImprove GeometricsAdd and maintain new Interchanges/IntersectionsAdd passing lanesConstruct/improve/maintain system of local roadsAdd turn lanes

Add rail sidings Improve visibility/sight lines

Promote use and maintenance of variable Improve intersections within towns

message signs Flatten slopes
Improve ITS Incident Response, Traveler Flatten curves
Information and Traffic Management Add Guardrails

Information and Traffic Management Add Guardrails

Complete 7th pot concrete reconstruction

Program Delivery System Quality
Reconstruction roadways

Town reliever route study Bridge repairs/replacement, including overpass

Add rest areas

#### **Corridor Vision 11**

US 24, Colorado Springs to Limon Planning Region Eastern TPR, Pikes Peak TPR State Highway US 24 Beginning Mile Post 311.07 Ending Mile Post 380.46 US 24 from Colorado Springs northeast to I-70 in Limon

## Vision Statement

The Vision for the US 24, Colorado Springs to Limon corridor is primarily to increase mobility as well as to improve safety and to maintain system quality. This corridor serves as a multi-modal regional facility, provides commuter access, acts as a Main Street and makes east-west connections within the NE El Paso, SE Elbert, and Lincoln Counties. The western portion of the corridor is transitioning from a rural to urban land use pattern. Significant facilities located in the Colorado Springs area affect transportation in the corridor, including the Colorado Springs Airport, the various military installations and numerous tourist attractions. Travel modes now and in the future include passenger vehicle, local public transit, aviation, truck freight, and Transportation Demand Management (telecommuting and carpooling). The transportation system in the area primarily serves towns, cities, and destinations within the corridor as well as destinations outside of the corridor. Based on historic and projected population and employment levels, passenger and freight traffic volumes are expected to increase by moderate levels. The communities along the corridor value high levels of mobility, transportation choices, safety, and system preservation. They depend on tourist travel, commercial activity, grain storage and local commerce for economic activity in the area. Users of this corridor want to preserve the rural, agricultural, and transitioning character of the area while supporting the movement of commuters, tourists, and local traffic in and through the corridor.

Increase travel reliability and improve mobility

Support commuter travel

Reduce fatalities, injuries and property damage crash rate

Maintain or improve pavement to optimal condition

Support economic development

Accommodate increasing freight traffic

## **Strategies**

Mobility System Quality

Add and maintain accel/decel lanes Add Surface treatment/overlays

Construct, improve and maintain the system of local Bridge repairs/replacement

roads

Preserve right of way Program Delivery
Implement access control measures Corridor Study

Safety

Improve Geometrics, including shouldersFlatten slopesAdd passing lanes, turn lanesFlatten curvesImprove intersections with highwayAdd Guardrails

Improve visibility/sight lines Develop and implement access control measures

## **Corridor Vision 12**

US 24, Siebert to Kansas Planning Region Eastern TPR

State Highway US 24 Beginning Mile Post 419.31 Ending Mile Post 457.2

US 24 from I-70 in Seibert east to Kansas State Line.

## Vision Statement

The Vision for the US 24, Siebert to Burlington corridor is primarily to maintain system quality as well as to improve safety. This corridor serves as a multi-modal local facility including local bicycle traffic, acts as Main Street, serves as a parallel facility to the interstate facility for local traffic and makes east-west connections within the central Kit Carson County area. Travel modes now and in the future include passenger vehicle, truck freight, local public transit, and rail freight. The transportation system in the area primarily serves towns and destinations within and outside the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by moderate levels. The communities along the corridor value safety and system preservation. They depend on agriculture, I-70 tourism, grain storage and local commerce for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the area while supporting the movement of farm-to-market products and local traffic in and through the corridor.

Reduce fatalities, injuries and property damage crash rate Provide for safe movement of bicycles and pedestrians Improve shoulder widths Preserve the existing transportation system Support economic development

## **Strategies**

Safety
Improve geometrics, accel/decel lanes
Add passing lanes
Add turn lanes
Add Guardrails
Add drainage improvements
Improve visibility/sight lines
Flatten curves, flatten curves
Add/ improve shoulders

System Quality
Add Surface treatment/overlays
Bridge repairs/ replacement

#### **Corridor Vision 13**

I-76, Northeast Colorado Planning Region Eastern TPR, Greater Denver TPR

State Highway I-76A Beginning Mile Post 12.5 Ending Mile Post 183.99

I-76 from SH 85 in Commerce City northeast to Nebraska. I-76 from Denver to Brush is part of the Heartland Express designation in Colorado. This corridor is part of the 2003 Strategic Investment Plan (8th Pot).

#### Vision Statement

The Vision for the I-76, Northeast Colorado corridor is primarily to maintain system quality as well as to improve safety and to increase mobility. This corridor serves as a multi-modal Interstate facility, connects to places outside the region, serves as an important freight connection to Chicago and areas east, and makes east-west connections within the northeast Colorado area. The western portion of the corridor is transitioning from a rural to urban land use pattern. Travel modes now and in the future include passenger vehicle, local public transit, intercity bus service, passenger rail, truck freight, rail freight, and aviation. The transportation system in the area primarily serves towns, cities, and destinations within the corridor as well as destinations outside of the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by significant levels. The communities along the corridor value high levels of mobility, transportation choices, connections to other areas, safety, and system preservation. They depend on manufacturing, tourism, high-tech, agriculture, commercial activity, and the state prison at Sterling for economic activity in the area. Users of this corridor want to preserve the rural, agricultural and transitioning residential development character while supporting the movement of tourists, urban commuters, freight, farm-to-market products, recreational users, long distance travel and connections to the state prison in Sterling in and along the corridor. This corridor is part of the 2003 Strategic Investment Plan (8th Pot).

Secure Strategic Investment Program funding for interstate improvements

Provide tourist-friendly travel

Accommodate growth in freight transport

Maintain statewide transportation connections

Provide information to traveling public

Maintain or improve pavement to optimal condition

Support Economic Development

## **Strategies**

Mobility System Quality

Maintain statewide transportation connections

Add Surface treatment/overlays

Add drainage improvements

Safety Reconstruction roadways

Flatten slopes Add and maintain new interchanges (Brush)

Add signage

#### **Corridor Vision 14**

SH 94 Planning Region Eastern TPR, Pikes Peak TPR

State Highway SH 94A Beginning Mile Post 0 Ending Mile Post 85.99

SH 94 from the East side of Colorado Springs to US 40/ US 287

#### Vision Statement

The Vision for the SH 94 corridor is primarily to maintain system quality as well as to improve safety and to increase mobility. This corridor serves as a multi-modal local facility, connects to places outside the region, and makes east-west connections within the urban edge of Colorado Springs area. The western portion of the corridor is transitioning from a rural to urban land use pattern. Significant facilities located in the Colorado Springs area affect transportation in the corridor, including the Colorado Springs Airport, the various military installations and numerous tourist attractions. Travel modes now and in the future include passenger vehicle, truck freight and local public transit. The transportation system in the area primarily serves destinations outside of the corridor. Based on historic and projected population and employment levels, passenger traffic volumes are expected to increase by significant levels. The communities along the corridor value connections to other areas, safety, and system preservation. They depend on tourist travel and agriculture for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the transitioning area while supporting the movement of tourists, commuters, freight, and farm-to-market products.

## Goals / Objectives

Increase travel reliability and improve mobility
Reduce fatalities, injuries and property damage crash rate
Improve shoulder widths
Maintain or improve pavement to optimal condition
Coordinate transportation and land use decisions
Support a diverse economic base

## Strategies

Mobility

Construct, improve and maintain the system of local

roads

Preserve right of way

System Quality Add Surface treatment/overlays Bridge repairs/replacement

Safety

Improve Geometrics, including shoulders
Add passing lanes, turn lanes
Improve visibility/ sight lines
Flatten slopes, curves
Address speed limit/ stoplight issues
Add Guardrails
Develop and implement access control measures

#### **Corridor Vision 15**

SH 71, The Heartland Expressway

Upper Front Range TPR

State Highway SH71A Begi

Beginning Mile Post 102.03

Ending Mile Post 232.82

Eastern TPR,

Planning Region

SH 71 from I-70, Limon north to Nebraska State Line. SH 71 from Limon to the Nebraska State Line has been designated as part of the Heartland Express route in Colorado. The route also includes I-76 from Denver to Brush and the 2003 Strategic Program (8th Pot).

## Vision Statement

The Vision for the SH 71 Heartland Express corridor is primarily to improve mobility, as well as to maintain system quality and safety. This corridor serves as a multi-modal National Highway System facility, provides local access, and makes north-south connections to the Ports to Plains Corridor. Travel modes now and in the future include passenger vehicle, truck freight, rail freight, local public transit and aviation. The transportation system in the area primarily serves towns, and destinations within the corridor as well as destinations outside of the corridor. Based on historic and projected population and employment levels, both passenger traffic volumes are expected to increase by moderate levels. However, due to the designation of SH 71 as the Heartland Express Corridor, freight traffic volumes are expected to increase significantly. The communities along the corridor value high levels of mobility, transportation choices, connections to other areas, safety, and system preservation. They depend on manufacturing, tourist travel, agriculture, commercial activity and the state prison in Limon for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the area while supporting the movement of tourists, freight, and farm-to-market products in and through the corridor. This project was identified in the 2003 Strategic Program. The TPR desires its inclusion in future strategic program efforts.

Provide improved freight linkages
Maintain statewide transportation connections
Provide for tourist-friendly travel
Accommodate growth in freight transport
Support economic development

## **Strategies**

Mobility

Add and maintain accel/decel lanes

Construct/Improve/Maintain system of local roads

Consolidate access, Develop access management

plans

Improve traffic flow

Preserve adequate "rights-of-way" for potential

SH 71 Brush Bypass

Maintain statewide transportation connections

Safety

Improve Geometrics, including shoulders

Add passing lanes/ turn lanes Improve visibility/ sight lines Flatten slopes, Flatten curves

Add Guardrails

System Quality

Add Surface treatment/ overlays Bridge repairs/ replacement Add drainage improvements Reconstruct roadways

### **Corridor Vision 16**

SH 113 Planning Region Eastern TPR

State Highway SH 113A Beginning Mile Post 0 Ending Mile Post 18.83

North south route connecting SH 138 near Sterling, Colorado with Sidney Nebraska and I-80

## Vision Statement

The Vision for the SH 113 corridor is to maintain system quality as well as to improve safety and to increase mobility. This corridor serves as a multi-modal local facility, connects to places outside the region, and makes north-south connections within the Northeast Colorado Plains and connections to Nebraska. Travel modes now and in the future include passenger vehicle, truck and rail freight, and local public transit. The transportation system in the area primarily serves destinations outside of the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by moderate levels. Tourist traffic to the Cabela's retail store in Nebraska is a key element of the traffic along this corridor. The communities along the corridor value connections to other areas, safety, and system preservation. They depend on tourist traffic, agriculture, grain storage and local commerce for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the area while supporting the movement of tourists and farm-to-market products in and through the corridor.

## Goals / Objectives

Reduce fatalities, injuries and property damage crash rate Improve shoulder widths Improve signing/striping Maintain or improve pavement to optimal condition Rehabilitate/replace deficient bridges **Strategies** 

Mobility

Maintain statewide transportation connections

System Quality

Add Surface treatment/overlays

Bridge repairs/replacement

Add drainage improvements

Safety

Improve Geometrics, including shoulders Install rumble strips in high accident areas Add turn lanes Flatten slopes

#### **Corridor Vision 17**

SH 138 Planning Region Eastern TPR

State Highway SH 138A Beginning Mile Post 0 Ending Mile Post 59.82

SH 138 from SH 6 in Sterling northeast to Interstate 80 in Nebraska

## Vision Statement

The Vision for the SH 138 corridor is primarily to improve safety as well as to maintain system quality and to increase mobility. This corridor serves as a multi-modal local facility, serves as a Main Street, provides local access, serves as a parallel facility to the interstate for local traffic and makes east-west connections within the Northeast Colorado and Nebraska area. Travel modes now and in the future include passenger vehicle, local public transit, rail freight, aviation and truck freight. The transportation system in the area primarily serves towns, cities, and destinations within and outside the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by moderate levels. Recreational users and seasonal agriculture traffic is an important element of this corridor. The communities along the corridor value system preservation. They depend on agriculture, local commerce, and I-76 tourism for economic activity in the area. Users of this corridor want to preserve the rural character of the area while supporting the movement of tourism and farm-to-market products in and through the corridor.

## Goals / Objectives

Increase travel reliability and improve mobility
Improve shoulder widths
Maintain or improve pavement to optimal condition
Rehabilitate/replace deficient bridges
Support economic development

Strategies Mobility

Maintain statewide transportation connections

Safety
Improve Geometrics, including shoulders
Flatten slopes
Improve intersections

System Quality

Add drainage improvements

Improve pavement condition

Program Delivery Study corridors

#### **Corridor Vision 18**

SH 14, Fort Collins to Sterling Planning Region Eastern TPR, Upper Front Range TPR

State Highway SH 14C Beginning Mile Post 142.18 Ending Mile Post 236.72

SH 14 from I-25 in Ft Collins east to I-76 in Sterling. Between the towns of Sterling, Fort Morgan, Grover, and Ault, a route has been designated as a Pawnee Pioneer Trails Scenic Byway.

#### Vision Statement

The Vision for the SH 14, Fort Collins to Sterling corridor is primarily to increase mobility, as well as maintain system quality and to improve safety. The primary Investment category is System Quality west of the SH 14 intersection with SH 71, and Mobility east of that intersection. This corridor serves as a multi-modal local facility, acts as Main Street, connects to places outside the region, and makes east-west connections from NE Colorado to the Fort Collins/Front Range area. Travel modes now and in the future include passenger vehicle, local public transit, aviation and truck freight. The transportation system in the area primarily serves destinations outside of the corridor. Based on historic and projected population and employment levels, passenger traffic volumes are expected to increase by moderate levels. Recreational user traffic is an important element of this corridor. The communities along the corridor value connections to other areas and system preservation. They depend on agriculture, local commerce and commercial activity for economic activity in the area. Users of this corridor want to preserve the rural, agricultural, and transitioning residential development character of the area while supporting the movement of tourists, commuters, freight and farm-to-market products in and through the corridor.

## Goals / Objectives

Accommodate growth in freight transport
Reduce fatalities, injuries and property damage crash rate
Maintain or improve pavement to optimal condition
Maintain statewide transportation connections

Strategies

Mobility
Maintain statewide transportation connections
Add and maintain roadway bypasses

Safety

Improve Geometrics, including shoulders
Flatten slopes
Improve intersections
Straighten curves, roadway

System Quality

Add Surface treatment/overlays
Add drainage improvements
Reconstruction roadways

Develop and implement access control measures

Program Delivery Reliever Study Traffic Study

SH 23 Planning Region Eastern TPR

State Highway SH 23 Beginning Mile Post 0 Ending Mile Post 17.83

SH 23 from Holyoke east to Nebraska

## Vision Statement

The Vision for the SH 23 corridor is primarily to maintain system quality as well as to improve safety. This corridor serves as a multi-modal local facility, provides local access, and makes east-west connections within the Northeast Plains of Colorado to Nebraska area. Travel modes now and in the future include passenger vehicle, local public transit, aviation, freight rail and truck freight. The transportation system in the area primarily serves towns and destinations within and outside the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by moderate levels. The communities along the corridor value system preservation. They depend on agriculture, grain storage, tourism and local commence for economic activity in the area. Users of this corridor want to preserve the agricultural character of the area while supporting the movement of tourists, farm-to-market products in and through the corridor.

## Goals / Objectives

Reduce fatalities, injuries and property damage crash rate Maintain or improve pavement to optimal condition Preserve the existing transportation system Maintain statewide transportation connections

## **Strategies**

Mobility System Quality

Maintain statewide transportation connections

Add drainage improvements

Maintain pavement condition

Safety Improve bridge conditions

Improve Geometrics
Flatten slopes
Add/improve shoulders

## **Corridor Vision 20**

I-70 Plains Planning Region Eastern TPR, Greater Denver PR

State Highway I-70A Beginning Mile Post 289.18 Ending Mile Post 449.51

I-70 from E-470 in Denver east to Kansas. The Ports to Plains route connecting Denver to Laredo, Texas utilizes I-70 between Denver and Limon. The I-70 Corridor was originally part of the Strategic Investment Program but due to budget constraints, not all segments of the corridor could be funded.

## Vision Statement

The Vision for the I-70 Plains corridor is primarily to maintain system quality as well as to improve safety and to increase mobility. This corridor serves as a multi-modal Interstate facility, connects to the Front Range and places outside the region, and makes east-west connections within the Eastern Colorado Plains to points west in Colorado and east of Colorado. Travel modes now and in the future include passenger vehicle, intercity bus service, local public transit service, intercity bus service, truck freight, rail freight, and aviation. Significant facilities affecting transportation in the corridor are Denver International Airport, Front Range Airport, the military armory in Watkins, the proposed TransPort intermodal facility and connections with E-470. The transportation system in the area primarily serves towns, cities, and destinations within the corridor as well as destinations outside of the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by significant levels. The communities along the corridor value high levels of mobility, transportation choices, connections to other areas, safety, and system preservation. They depend on tourist travel, agriculture, commercial activity, freight distribution, and residential development for economic activity in the area. Users of this corridor want to preserve the rural, agricultural and the transitioning residential area while supporting the movement of tourists, commuters, freight, military, and farm-to-market in and through the corridor. This project was identified in the 2003 Strategic Program. The TPR desires its inclusion in future strategic program efforts.

## Goals / Objectives

Maintain statewide transportation connections
Accommodate growth in freight transport
Maintain or improve pavement to optimal condition
Support commuter travel
Provide for tourist-friendly travel
Maintain airport facilities in good condition
Accommodate and maintain freight rail transport
Secure Strategic Investment Program funding

## **Strategies**

Mobility

Add and maintain new Interchanges/Intersections

Construct rail lines

Add rail sidings

Promote use and maintenance of variable message

signs

Maintain statewide transportation connections

Construct new north-south rail lines

Safety

Create ITS Traveler Information, Traffic

Management and Incident Management

Improve Geometrics

Construct Intersection/Interchange improvements

System Quality

Bridge repairs/replacement

Add truck-parking areas

Add rest areas

Reconstruct roadways

US 34 Eastern Plains Planning Region Eastern TPR, Upper Front Range TPR

State Highway US 34B Beginning Mile Post 181 Ending Mile Post 259.51

US 34 from SH 71 in Brush east to Nebraska

## Vision Statement

The Vision for the US 34 Eastern Plains corridor is primarily to maintain system quality as well as to improve safety and to increase mobility. This corridor serves as a multi-modal facility, acts as Main Street, and makes east-west connections within the Northeast Colorado area. Future travel modes now and in the future include passenger vehicle, passenger rail, local public transit, aviation, truck freight, and rail freight. The transportation system in the area primarily serves towns, cities, and destinations within the corridor as well as destinations outside of the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by moderate levels. The communities along the corridor value high levels of mobility and safety. They depend on agriculture, grain storage, tourism, local commerce, tourists, oil and gas production and commercial activity for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the area while supporting the movement of freight, tourists and farm-to-market products in and through the corridor.

#### Goals / Objectives

Maintain or improve pavement to optimal condition Improve shoulder widths Accommodate growth in freight transport Increase air travel availability Reduce fatalities, injuries and property damage crash rates

## **Strategies**

Mobility

Maintain statewide transportation connections

Safety
Improve Geometrics
Flatten slopes
Add/improve shoulders
Add intersection improvements and turn lanes

System Quality
Add Surface treatment/overlays
Add drainage improvements
Reconstruction roadways
Improve deficient bridges

US 36 Eastern Plains Planning Region Eastern TPR, Greater Denver TPR

State Highway US 36D Beginning Mile Post 101 Ending Mile Post 224

US 36 from I-70 in Byers east to Kansas

#### Vision Statement

The Vision for the US 36 Eastern Plains corridor is primarily to maintain system quality as well as to improve safety. This corridor serves as a multi-modal facility, acts as Main Street, and makes east-west connections within the Northeast Colorado area. Future travel modes now and in the future include passenger vehicle, local public transit, and truck freight. The transportation system in the area primarily serves towns and destinations within the corridor as well as destinations outside of the corridor. Based on historic and projected population and employment levels, both passenger and freight traffic volumes are expected to increase by significant levels. Seasonal agriculture traffic is an important element of this corridor. The communities along the corridor value high levels of system preservation and safety. They depend on agriculture, grain storage, local commerce, and commercial activity for economic activity in the area. Users of this corridor want to preserve the rural and agricultural character of the area while supporting the movement of freight and farm-to-market products in and through the corridor.

## Goals / Objectives

Maintain or improve pavement to optimal condition Improve shoulder widths Accommodate growth in freight transport Reduce fatalities, injuries and property damage crash rates

#### Strategies

Mobility
Add and maintain accel/decel lanes
Add and maintain turn lanes

Safety
Improve Geometrics
Add turn lanes
Improve visibility/sight lines
Flatten slopes
Add/improve shoulders
Add Guardrails

System Quality
Add Surface treatment/overlays
Bridge repairs/replacement
Maintain optimal pavement condition

# 4.2 Preferred Plan

The Preferred Plan includes all of the transportation improvements identified as being needed in the region by the year 2030. All corridor vision costs have been supported by representative projects identified through local community outreach meetings, TPR representatives and the public. Projects have been categorized by mode. In the case of the highway projects, they have been grouped by highway corridor.

#### **Corridor Prioritization Process**

During the Eastern TPR planning process, TPR representatives worked with local communities and the public to identify transportation projects. Projects were grouped into seven project categories as defined below:

- Aviation This category includes projects that improve on-site airport activity (including equipment purchase, runway and terminal improvements, etc) and access to/from airport facilities.
- Highway This category includes all projects, on the State Highway corridors, which have a primary objective of improving the infrastructure for safe and efficient vehicular movement. Such projects could include new roadways, roadway widening, intersection improvements, shoulder widening, passing lanes.
- System Preservation Projects in this category include projects, which preserve, through reconstruction, the existing State Highway corridors without significantly changing the current geometrics of the roadway.
- Rail Projects in this category include any projects, which would enhance service or supporting facilities/infrastructure for passenger rail, would maintain and improve the rail system for freight haul, and would improve rail/highway grade crossing.
- Transit These projects include vehicle purchase, service expansion and operations, and supporting facilities/infrastructure, regional bus service, and paratransit services.
- Transportation Support Systems These projects include those less traditional improvements, which provide support to the infrastructure system. This category shall remain flexible and could include projects and studies such as telecommuting, ITS, access management, traffic signal systems, travel demand management (TDM), carpools and vanpools, ride-sharing park-and-ride lots, intermodal facilities, and feasibility studies.
- Bicycle/Pedestrian This category includes all projects with a primary purpose of providing for safe and
  efficient bicycle or pedestrian movement. They could include improvements to existing highways or separate
  travelways.

The projects were then grouped by highway corridor to show representative needs for the twenty-two corridors in the Eastern TPR over the 25-year planning horizon. Each corridor was then prioritized using evaluation criteria specifically developed by the Eastern TPR. The purpose of prioritizing corridors versus projects was to make the process consistent with CDOT's overall use of Corridor Visioning in the development of the Regional and Statewide 2030 Transportation Plans.

Transit and Aviation categories are typically identified through other sources and receive funding through the Federal Transit Authority and the Federal Aviation Administration, respectively. Transit projects are addressed through the Transit Element of the RTP or through local Transit Development Plans, or other transit studies. Aviation projects are identified and prioritized by CDOT in association with a subcommittee comprised of airport managers in the region.

In addition to identified corridors and projects in the RTP, local communities are encouraged to compete for the funding of Transportation Enhancement projects. This process, which occurs every two or three years, is conducted outside of the process for the development of the Regional Transportation Plan. Thus, individual lists of modal projects are included in the RTP

#### **Evaluation Criteria**

After all of the 22 corridors were identified, the Eastern Working Group identified a process to identify evaluation criteria that could then be used to score each corridor. The draft evaluation criteria were then reviewed and discussed with the Working Group and then the Eastern TPR to finalize the criteria. The corridors were then scored based on how well they met the selected evaluation criteria, each of which relates to goals established for the Eastern RTP. The evaluation criteria and their definitions are listed in the following section.

- Mobility The corridor is evaluated based on current and projected Average Annual Daily Traffic Volumes
  (AADT), the levels of truck traffic within the corridor and the corridor's utilization as a significant interregional
  or interstate corridor.
- Safety The corridor is evaluated based on the accident rates within the corridor being compared to the statewide accident rates; comparing shoulder widths, curves, and intersections to design standards; and, an evaluation of whether signalization or other Transportation System Management tools, including lighting and revised speed limits, would be expected to reduce crashes.
- System Quality The corridor is evaluated on amount of roadway with poor surface condition; the amount
  of transportation infrastructure that fails to function effectively; and, the corridor's contribution to system
  continuity (does not have gaps or incomplete sections).
- Ability to Implement/Public Support The corridor is evaluated on the amount of public support shown for corridor improvements; the current Corridor contains projects that are committed or planned; and, the Corridor contains projects that do not impact environmentally sensitive areas.
- Economic Impact The corridor is evaluated on its use by tourists or as a recreational route; use as a high
  volume interstate or interregional facility; and, its critical importance to the regional economy.

### **Corridor Scoring**

The criteria have been developed to compare corridors against other corridors within the TPR. Because the evaluation was of corridors instead of projects, the ability to use specific assessment measures for each criterion becomes more difficult. For instance, if evaluating projects, you could easily identify a specific level of roadway roughness to "System Quality" for a section of State Highway "X" between mile marker 5 and 14. However, in evaluating an entire corridor that contains numerous different roadway segments all with differing levels of roadway roughness, the evaluation could only determine subjective levels of high, medium and low. If the evaluation determines the corridor was predominantly poor condition, it was rated High or "3"; a moderate amount of poor condition was rated Medium or "2". If very little mileage in the corridor is in poor condition, it was given a rating of "1" or predominately good condition.

This subjective use of High, Medium and Low was applied to all sub-elements of the five evaluation criteria (Mobility, Safety, System Quality, Ability to Implement/Public Support, and Economic Impact). In many cases these scores were based on specific mapped data or ranges of data; i.e., statewide average accident rates, AADT and Truck Volumes, roadway shoulder widths, and environmentally sensitive areas. These scores are then multiplied by the assigned weight for each criterion and summed to obtain total weighted points for a corridor.

### Weighing of Evaluation Criteria by Project Category

Table 4.1 summarizes the weights assigned by the TPR to each evaluation criterion for the five evaluation criteria used to evaluate investments in primary corridors.

Table 4.1 Evaluation Criteria Weights  Source: EASTERN TPR					
Evaluation Criteria	Assigned Weight by Category				
Mobility	25				
Safety	20				
System Quality	25				
Ability to Implement/Public Support	15				
Economic Impact	15				
	100				

Tables 4.2, 4.3, and 4.4 show the lists of representative projects by corridor.

	Table	e 4.2 Eastern 2030	Preferred Plan: Source: EA	: Representative Projects by STERN TPR	Corridor	
	(ir	ncludes Local Community C	utreach comments, Pro	ogrammed Projects, and 2020 Transportati	on Plan)	
Project ID	Commenting Agency	Representative Project Location	Project Type	Representative Project Description	Primary Corridor Vision Investment Category	Vision Cost
		US	S 40 - Kit Carson ea	st to Kansas		\$24,083,000
		US 38	5 - High Plains Cor	ridor Connector		\$344,146,000
PD - 1	CDOT, Holyoke, 2020 Plan	Cheyenne Wells to Nebraska	Corridor Study	Corridor Study to identify transportation improvements including Reliever Route studies	Program	Delivery
H - 3	Crook, Haxtun, Eckley, Cheyenne County, Burlington, Stratton	Cheyenne Wells to Nebraska	Reconstruction	Implementation of above study - geometric improvements, passing lanes, shoulders, widen lanes	Mobility	
H - 4	Cheyenne County	US 385	Bridge	Bridge widening	Safety	
H - 5	Burlington	US 385 South Lincoln Street	Roadway widening	Roadway widening with center turn lane	Safety	
H - 7	Cheyenne Wells	Town of Cheyenne Wells	Reconstruction	Straighten highway through town, provide additional signage, coordinate with R-1	Safety	
H - 57	Julesburg	US 385 Town of Julesburg	Intersection Improvement	Overpass improvements, roadway improvements	System Quality	
H - 59	Holyoke	US 385 south of Holyoke	Geometrics	Safety improvements - extend accel/decel lanes, reduce speed limit, turn lanes, sight distance improvements	Safety	
H - 60	Wray	US 385 and US 34	Bridge	Bridge improvements, widen and include sidewalks	Safety	
H - 61	Yuma	N/O US 34 in Wray	Reconstruction		Mobility	
			US 287/US 40, Port	s to Plains		\$64,490,000
H - 8	CDOT, Cheyenne County, Kit Carson, Lincoln, 2020 Plan	Town of Kit Carson, Kit Carson to Wild Horse, Hugo east, including bridges	Major Reconstruction	Completion of committed Strategic Program (7th Pot) improvements	Mobility	
H - 79	Cheyenne County, Hugo	US 287/US 40	Rest Area	Rest Stop	Safety	
PD - 4	Hugo	Town of Hugo	Corridor Study	Reliever Route Study including, rail crossing overpass	Program	Delivery
		SH 86 Urban	Section, Elbert Co.	unty Line east to Kiowa		\$94,571,000
H - 11	Kiowa, 2020 Plan	Elbert County Line to Kiowa	Reconstruction	Implementation of SH 83/86 Study- 4-lane widening, shoulders, turn lanes, pavement condition	Mobility	
PD - 5	Kiowa	SH 86 Town of Kiowa	Corridor Study	Reliever Route Study	Program	Delivery
H - 12	Kiowa	SH 86 Elbert County Line east to Kiowa	ROW Preservation	Right-of-way preservation	System Quality	
H - 13	Kiowa	SH 86 Elbert County Line to Kiowa	Reconstruction	Shoulder improvements, turn lanes, widening, pavement improvements	Safety	
H - 14	Kiowa	SH 86 Town of Kiowa	New construction	Reliever Route construction	Mobility	
PD - 6	Elizabeth	SH 86 Town of Elizabeth	Corridor Study	Reliever Route study, including alternate routes for enhancing	Program	Delivery

	Table	4.2 Eastern 2030	Preferred Plan: Source: EA	Representative Projects by STERN TPR	Corridor		
	(in	cludes Local Community C	Outreach comments, Pro	ogrammed Projects, and 2020 Transportation	on Plan)		
Project ID	Commenting Agency	Representative Project Location	Project Type	Representative Project Description	Primary Corridor Vision Investment Category	Vision Cost	
				downtown area, one-way pairs			
H - 16	Elizabeth	SH 86 Town of Elizabeth	ROW Preservation	Right-of-way preservation	System Quality		
H - 19	Elizabeth*	East-west highway north of SH 86	New construction	New reliever east-west highway, includes bridges over Running Creek	Mobility		
		SH 8	6 Rural Section, Kid	owa east to I-70		\$42,305,000	
H - 20	Kiowa	SH 86 Kiowa east to I-70	Minor Widening	Roadway improvements - widening, passing lanes	Mobility		
		US	24 - Seibert to Kans	sas State Line		\$29,599,000	
H - 21	Siebert	US 24/SH 59 junction west of Seibert	Geometrics	Accel/decel lanes	Safety		
H - 23	Genoa, 2020 Plan	US 24 west end of Limon	Reconstruction	Straighten curve, redesign turn lane	Safety		
BP - 1	Bethune	US 24 Town of Bethune	Geometrics/ Enhancements	Roadway improvements or separate trail for walkers and bicyclists	System Quality		
L - 24	Vona	US 24 between Vona and Stratton	Bridge Improvements	Bridge widening - 2 structures	System Quality		
		SH 59, US 40 in Tow	n of Kit Carson to S	SH 138 in the City of Sedgewick		\$186,269,000	
BP - 2	Siebert	SH 59	Enhancement	Sidewalk improvements	Safety		
H - 75	Cheyenne County	SH 59 south of I-70	Reconstruction	Straighten "S" curve in highway	Safety		
PD - 10	Sedgwick	County Road 59, SH 138 north to Nebraska*	Corridor Study	Study highway designation	Program	Delivery	
H - 41	2020 Plan	SH 59 Yuma CR 47 to Phillips County Line	Geometrics		Safety		
H - 42	Washington County	SH 59	Geometrics	Shoulder improvements	Safety		
H - 43	2020 Plan	SH 59 north edge of Yuma to CR 47	Geometrics		Safety		
		I-70 Pla	ains, C-470 in Denve	er east to Kansas		\$163,720,000	
H - 25	CDOT, Cheyenne	Genoa to Flagler,	Reconstruction	Completion of committed Strategic	Mobility	, .,,	
	County, Arriba, Flagler, Stratton, Vona, Genoa, Bethune, 2020 Plan	Bethune to Burlington		Program improvements			
PD - 7	Genoa	I-70 Genoa to east of Arriba	Safety	Safety study - high accident rate near Arriba, Genoa, high wind hazard in winter	Program	L Delivery	
	SH 71 Southern Section, US 50 in Rocky Ford to I-70 in Limon						

	Table	4.2 Eastern 2030	Preferred Plan:	Representative Projects by	Corridor	
	(in	cludes Local Community O	utreach comments, Pro	ogrammed Projects, and 2020 Transportation	on Plan)	
Project ID	Commenting Agency	Representative Project Location	Project Type	Representative Project Description	Primary Corridor Vision Investment Category	Vision Cost
H - 27	Genoa	SH 94	Geometrics	Roadway improvements - pavement condition, lane widening, shoulders	System Quality	
H - 28	CDOT, Limon, 2020 Plan	SH 71 Town of Limon	Reconstruction		Mobility	
H - 29	Simla	SH 71 south of Limon	Geometrics		System Quality	
H - 30	CDOT, 2020 Plan	SH 71 at Punkin Center	Geometrics		System Quality	
H - 34	Limon	SH 71 south of Limon	Geometrics	Turn lanes at the ballpark	Safety	
		US 24, EI Pa	so/Elbert County Li	ine northeast to Limon		\$44,104,000
PD - 2	CDOT, Seibert, Vona, Genoa, Limon, Bethune, Hugo, Simla	Limon to El Paso county line	Corridor Study	Joint project with Region 2 to identify transportation improvements including Reliever Route studies	Program	Delivery
H - 31	CDOT, Seibert, Vona, Genoa, Limon, Bethune, Hugo, 2020 Plan	Limon to El Paso county line	Reconstruction	Implementation of Corridor Study - intersection and safety improvements, widening, passing lanes	Mobility	
PD - 8	Limon	US 24 and SH 94	Corridor Study	Access Control Plan	Program	Delivery
H - 32	CDOT, 2020 Plan	US 24 SW of Limon	Reconstruction Mobility			
			SH 71 Heartland Ex	rpressway		\$87,888,000
H - 33	Vona, Genoa, Limon	Limon north to Morgan County Line	Reconstruction	Roadway improvements - pavement condition, shoulders, lane widening, passing lanes	Mobility	
PD - 9	Limon	SH 71/US 24 Town of Limon	Access Study	Access study between Ports of Entry and SH 71	Program	Delivery
H - 35	Limon	Port of Entry	New construction/ Access	Port of Entry / SH 71 improvements	Mobility	
	SH 94,	East side of Colorado	Springs to US 40/L	JS 287 (Comments for CDOT Regio	n 2)	\$68,356,000
PPACG	Hugo	SH 94 - Rush west to Colorado Springs	Geometrics	Roadway improvements - passing lanes, accel/decel lanes	Safety	
PPACG	Hugo	SH 94 at Curtis Road	Intersection Improvement	Safety issues at stoplight, speed limit, sight distance	Safety	
		SH 138,	US 6 in Sterling nor	theast to Nebraska		\$67,688,000
H - 36	lliff	SH 138	Geometrics	Roadway improvements - pavement condition, shoulder improvements	System Quality	
H - 37	2020 Plan	SH 113 to Proctor	Geometrics		Safety	
H - 38	2020 Plan	US 385 and SH 138	Intersection Improvement	Roadway improvements - pavement condition	System Quality	
H - 40	2020 Plan	SH 138 Sterling City Limits to Cedar Creek	Geometrics		Safety	
		US 6, I-76 ir	Brush to Sterling	then east to Nebraska		\$32,734,000
H - 44	Merino	US 6 Town of Merino	Intersection Drainage	Drainage at US 6 in town, Bore new sewer line	System Quality	
H - 45	Merino	US 6 Town of Merino to I-76*	New construction	New roadway segment, includes bridge over South Platte River	Mobility	

	Table	4.2 Eastern 2030	Preferred Plan: Source: EA	Representative Projects by	Corridor	
	(inc	cludes Local Community O	utreach comments Pro	ogrammed Projects, and 2020 Transportatic	n Plan)	
Project ID	Commenting Agency	Representative Project Location	Project Type	Representative Project Description	Primary Corridor Vision Investment Category	Vision Cost
H - 46	Holyoke	US 6 at County Road 41	Traffic Study	Safety improvements, traffic control needs - center turn lane or outside accel/decel lanes, speed control, signage	Safety	
H - 47	Paoli	US 6 west of Paoli	Bridge/Drainage	Complete railroad/highway drainage project	System Quality	
H - 48	2020 Plan	US 6 Morgan/Washington County Line to Atwood	Geometrics		Safety	
		SH 113, S	SH 138 near Sterling	g north to Nebraska		\$13,136,000
H - 49	Peetz	SH 113, SH 138 to I- 76*	New construction	Roadway extension since SH 113 is used a northbound spur for trucks	Mobility	
		US 34 Eastern I	Plains, Morgan Cou	inty Line east to Nebraska		\$57,388,000
H - 50	Eckley, Wray, Yuma, Otis	US 34 Morgan County line east to Nebraska	Reconstruction	Turn lanes, shoulders, passing lanes, bus pullouts, pavement condition, geometric improvements	System Quality	
H - 51	2020 Plan	Yuma County Road M Intersection	Improve Intersection		System Quality	
PD - 11	Akron	US 34 Town of Akron	Traffic Study	Study intersection improvement, stoplight, speed limit issues within town	Safety	
H - 52	Wray	US 34 near the Nebraska/ Colorado state line	Bridge	Bridge improvements, widen	System Quality	
H - 53	Wray	US 34 within Town of Wray	Mobility	Roadway widening	Mobility	
L - 79	2020 Plan	US 34 Akron to Washington County Road GG at Surveyor Creek	Reconstruction	Bridge/ highway improvements, repave	System Quality	
H - 55	2020 Plan	US 34 City Limits of Yuma to City Limits of Yuma	Reconstruction		Mobility	
			SH 61, Otis north t	o Sterling		\$42,023,000
H - 56	Otis	SH 61 from US 34 south to US 36* (CR RR)	New construction	Construct new segment and designate as state highway	Mobility	
	I-	76 Northeast Colorado	o, Morgan/Washing	ton County northeast to Nebraska		\$356,412,000
H - 62	Sterling	I-76 / US 6 interchange	Interchange Improv	ements	System Quality	
H - 63	CDOT, Iliff, Julesburg, Ovid, Julesburg, Sedgwick	Morgan/ Washington County Line northeast to Nebraska	Major Reconstruction	2003 Strategic Project	Mobility	
H - 64	CDOT, Iliff, Julesburg, Ovid, Julesburg, Sedgwick	Segdwick to Julesburg	Major Reconstruction	2003 Strategic Project	Mobility	

	Table	4.2 Eastern 2030	Preferred Plan: Source: EA	Representative Projects by STERN TPR	Corridor	
	(in	cludes Local Community O	utreach comments, Pro	ogrammed Projects, and 2020 Transportation	n Plan)	
Project ID	Commenting Agency	Representative Project Location	Project Type	Representative Project Description	Primary Corridor Vision Investment Category	Vision Cost
		SH 14,	Weld/Logan Count	y Line to Sterling		\$18,156,000
PD - 12	Sterling	SH 138/SH 14/US 6 Town of Sterling	Traffic Study	Traffic circulation study	Program Delivery	
H - 65	Sterling	Town of Sterling	Reconstruction	Implement traffic circulation recommendations	System Quality	
PD - 13	Sterling	SH 138 to SH 14	Study	Reliever Route study	Program Delivery	
H - 67	Sterling	SH 138 to SH 14	New construction	Implement Reliever Study East - west reliever routes around north edge of city	Mobility	
H - 68	2020 Plan	SH 14 Logan County line to CR 9	Geometrics	Safety Related Geometrics	Safety	
H - 69	Sterling	SH 14 at US 6	Reconstruction	Roadway improvement for "S" curve - reconstruction, straighten roadway	Safety	
H - 70	2020 Plan	SH 14 CR 25 to CR 33.6 Logan County	Reconstruction		Mobility	
		US 36, Ada	ams/Lincoln County	y Line east to Kansas		\$62,758,000
H - 71	Washington County	US 36	Geometrics	Improve roadway shoulders	Safety	
H - 72	2020 Plan	US 36 Washington County Road L Woodlin	Geometrics		Safety	
			SH 63, Anton nor	th to US 6		\$47,543,000
H - 73	2020 Plan	SH 63 - US 36 to Wash. Co. Rd. 17	Reconstruction		System Quality	
H - 74	2020 Plan	SH 63 - Wash Co. Rd 42 to Co. Rd. 46	Reconstruction		System Quality	

\* Note: It is important to note that new construction projects aimed at enhancing regional travel in eastern Colorado communities are shown in the Preferred Plan. CDOT and the Colorado Transportation Commission have specific policy related to the addition of new highway centerline mileage to the State Highway system. Therefore, additional CDOT/Local Government discussions will need to occur before projects such as these can be prioritized.

	Table 4.3 Easteri		tewide Programs / Local Commu	nity Issues						
	(includes Local Community Outreach comments, Programmed Projects, and 2020 Transportation Plan)									
Project ID	Commenting Agency	Representative Project Location	Representative Project Description	Primary Corridor Visior Investment Category						
L - 1	Cheyenne County	US 40 Near First View	Ability to access to existing ITS Weather/ traveler information sight	System Quality						
L - 3	Burlington	Welcome Center	Access to Welcome Center	Mobility						
L - 4	Hugo	US 287/ US 40 Town of Hugo	Trash/maintenance issues in town	System Quality						
L - 6	Stratton, Vona	US 24 Vona to Burlington	Roadway surface improvements, shoulders	Safety						
L - 7	Arriba	Old US 24	Historic Highway designation	Program Delivery						
L - 8	Flagler	I -70/Flagler	Joint highway reconstruction with water main replacement	System Quality						
L - 9	Stratton, Vona	US 24 Vona to Burlington	Roadway surface improvements, shoulders	Safety						
L - 11	Siebert	SH 59	Pavement condition improvements	System Quality						
L - 12	Stratton	I-70, Limon to the Kansas state line	ITS Weather/traveler information sight	Safety						
L - 13	Siebert	I-70/Siebert	Joint highway reconstruction with water main replacement, Preliminary Engineering	Program Delivery						
L - 14	Genoa	I-70 / Genoa	Interchange street light operation improvements	System Quality						
L - 16	Kit Carson	Statewide	Education statewide on goods, freight movement	Program Delivery						
L - 17	Kit Carson	SH 287/US 40	20-year preventative maintenance	System Quality						
L - 18	Hugo	Statewide	Safety education for emergency vehicles on 2-lane roads	Program Delivery						
L - 19	Genoa	1-70	More weed control, mowing fence to fence	System Quality						
L - 20	Cheyenne Wells	SH 385 Cheyenne Wells north to county line	Geometrics improvements, 20 -year maintenance	System Quality						
L - 21	Simla	SH 24 near Calhan	Bridge improvements	System Quality						
L - 22	Kiowa	SH 86 west of Kiowa	Bridge improvements, widen	Safety						
L - 23	CDOT, Elbert, Kiowa, 2020 Plan	SH 86 Kiowa/ Bennett Road	Local Corridor Study for off-system roadway	Program Delivery						
L - 26	Crook	SH 138 Town of Crook	Pavement condition improvements	System Quality						
L - 27	Sedgwick	SH 138 near Julesburg	Roadway pavement improvements	System Quality						
L - 28	Crook, Haxtun, Yuma	SH 59	Pavement condition, shoulder improvements	System Quality						
L - 29	Merino	I-76	Provide additional signage for Prewitt Reservoir	System Quality						
L - 30	Haxtun	US 6	Maintain and improve pavement condition	System Quality						
L - 31	Otis	US 34 between Akron and Otis	Bridge improvements	System Quality						
L - 32	Wray, Yuma	US 34	Increase mowing of right-of-way	System Quality						
L - 34	Holyoke, Wray	US 385	Study speed limit issues within towns along US 385	Safety						
L - 35	Julesburg	I-76 Sedgwick interchange	Interchange pavement improvements	System Quality						
L - 36	Julesburg	Statewide, including I-76, SH 59	More mowing of highways	System Quality						
L - 37	Washington County	SH 59 north end	Pave remaining 1 1/2 miles	System Quality						
L - 39	CDOT Region 4	N/A	Region 4 Bridge Rehab Pool	System Quality						
L - 42	Peetz	SH 113	Safety improvements	Safety						

Note: These community issues may be funded through CDOT Statewide Programs (such as maintenance activities, Hazard Elimination Safety Program or education related initiatives). These issues will be further discussed on a case-by-case basis with CDOT Regional staff and the local communities.

## Intersection Improvement Pool

A list of intersection improvements has emerged from local community outreach meetings throughout the TPR as shown in Table 3.28. During these meetings, the local communities identified safety type projects (such as, turn lanes, acceleration lanes, signal lights) that could improve the safety of the highways that in many cases bisect their towns and communities. Both CDOT Region 1 and 4 have heard similar discussions within other TPRs and are supportive of a list of intersection improvements that might compete for funds within an intersection type program. Thus, a new list of proposed intersection improvements has been added to the 2030 Plan. When the CDOT Regions solicit intersection projects, the TPR can then use this list to select projects, prepare detailed project descriptions, and identify estimated costs.

		Table 4.4 Eastern 2030 Prefe								
(includes Local Community Outreach comments, Programmed Projects, and 2020 Transportation Plan)										
Project ID	Commenting Agency	Representative Project Location	Representative Project Description	Primary CDOT Investment Category						
L - 2	Cheyenne Wells	US 385 Town of Cheyenne Wells	Add flashing lights at intersection of firehouse/Hwy, signage, turn lanes	Safety						
L - 5	Elizabeth	SH 86 / County Road 17	Intersection improvement - stoplight	Safety						
L - 6	Stratton, Vona	US 24 Vona to Burlington	Roadway surface improvements, shoulders	Safety						
L - 10	Stratton	US 24 west of Stratton	Bus pullout	Safety						
L - 15	Genoa	SH 71 and US 287/US 40	Intersection improvement - stoplight	Safety						
L - 34	Holyoke, Wray	US 385	Study speed limit issues within towns along US 385	Safety						
L - 38	Washington County	SH 59 and US 36	Provide turn lanes at the intersections, grading	Safety						
L - 40	Crook	SH 138 Town of Crook	Safety issues - vehicles passing on right, extend decel lanes at the end of town	Safety						
L - 41	Iliff	SH 138 Town of Iliff	Roadway safety improvements - accel/decel lanes, maintain pavement condition	Safety						
L - 43	Holyoke	US 6 east edge of Holyoke	Safety improvements near businesses - accel/decel lanes, reduce speed limit	Safety						
L - 44	Holyoke	US 385 at County Road 20	Safety improvements, turn lanes, reduce 45 MPH speed limit	Safety						
L - 45	Paoli	US 6 Town of Paoli	Safety improvements - study speed limit issues in town, consider future turn lanes, sidewalks and crosswalks	Safety						

		Table 4.4 Eastern 2030 Prefer	STERM TPR							
(includes Local Community Outreach comments, Programmed Projects, and 2020 Transportation Plan)										
Project ID	Commenting Agency	Representative Project Location	Representative Project Description	Primary CDOT Investment Category						
L - 46	Wray	US 34 and Main Street	Safety improvements - signal upgrades, crosswalks	Safety						
L - 47	Wray	US 385 and 7th Street	School zone improvements - crosswalks, pedestrian signal, flashing lights	Safety						
L - 48	Sterling	SH 14 (West Main Street)	Turn signals	Safety						
L - 49	Public Meeting	US 6 at Haxtun	Add proper turn lanes and resurface street	Safety						
L - 50	Public Meeting	SH 71 north of Last Chance at CR 19	Needs bus pullout and turn lane	Safety						
L - 51	Public Meeting	US 34 at County Road Q	Turn lanes at feedlot	Safety						
L - 52	Public Meeting	US 34 east of Akron at CR DD	Provide turn lanes at new Washington County Justice Center and USDA-FSA Bldg	Safety						
L - 53	Public Meeting	SH 71 and US 36 at Last Chance	Intersection improvements, some accidents	Safety						
H - 1	Cheyenne County	US 40 West of Cheyenne Wells at the Helium plant	Intersection improvements, accel/decel lanes	Safety						
H - 2	Cheyenne County	US 40 East of Arapahoe	Intersection improvements, accel/decel lanes	Safety						
H - 9	Cheyenne County, Kit Carson	US 287/ US 40 Kit Carson	Intersection improvements, safety improvements (speed issues)	Safety						
H - 10	Hugo	US 287/ US 40 Town of Hugo	Safety improvement - stop light, crosswalk, over or underpass	System Quality						
H - 15	Kiowa	SH 86 Town of Kiowa	School zone improvements - crosswalks, overpass or traffic signal	Safety						
H - 18	Elizabeth	SH 86 / County Road 13	School zone improvements - stop light, crosswalk, over or underpass	Safety						
H - 22	Stratton	US 24/Colorado Avenue	Drainage issue, geometrics issues	System Quality						
H - 24	Kit Carson*	SH 59 at SH 287/US 40 intersection	Speed bumps to reduce accidents near school and intersection	Safety						
H - 39	Haxtun	US 6	Safety issues - vehicles passing on right, sight distance problems, extend decel lanes	Safety						
H - 66	Sterling	SH 14 at 10th Avenue	Intersection improvements - traffic light	Safety						
H - 78	CDOT, Cheyenne County, Kit Carson	US 287/US 40 Kit Carson	Intersection improvements, safety improvements (speed issues)	Safety						

Note: These community issues may also be funded through CDOT Statewide Programs (such as maintenance activities, Hazard Elimination Safety Program). These issues will be further discussed on a case-by-case basis with CDOT Regional staff and the local communities.

### **Modal Prioritization**

A list of representative projects is included below for each transportation mode (aviation, transit, rail, and enhancement). See Tables 4.5, 4.6, 4.7, and 4.8. Due to this plan's focus on corridors, individual project cost estimates have not been provided.

- National Plan of Integrated Airport Systems (NPIAS) The NPIAS identifies more than 3,000 airports nationwide that are significant to the national air transportation system and thus are *eligible* to receive Federal grants under the Airport Improvement Program (AIP). The projects listed in the NPIAS include

those that have been identified in the near term and have been programmed into individual airport CIP's as well as long term projects that have only been identified as a need but not programmed into the Federal grant process. The plan also includes cost estimates for the proposed future projects.

- Colorado Statewide Airport Inventory and Implementation Plan 2000 (State Airport System Plan) The Statewide Airport Inventory and Implementation Plan, completed for CDOT-Aeronautics in 2000, was designed to assist in developing a Colorado Airport System that best meets the needs of Colorado's residents, economy and visitors. The State of Colorado is served by a system of 78 public-use airports, divided into two general categories, commercial service and general aviation. The study was designed to provide the Division of Aeronautics with information that enables them to identify projects that are most beneficial to the system, helping to direct limited funding to those airports and those projects that are of the highest priority to Colorado's airport system.
- Airport Survey Information As a part of the CDOT 2030 Statewide Transportation Update process, a combination of written and verbal correspondences as well as actual site visits occurred requesting updated CIP information. The CIP list includes those projects that are anticipated to occur throughout the 2030 planning period. Letters were mailed out to each airport manager or representative that explained the CDOT plan update process. Included with each letter was a Capital Improvement Project Worksheet whereby airports could list their anticipated projects through the year 2030
- Joint Planning Conferences A Joint Planning Conference (JPC) is a process whereby an airport invites tenants, users, elected officials, local citizens, special interests groups, and all other related groups to meet and discuss the future of the airport. CDOT-Aeronautic and FAA staff attends these meetings. The JPC allows an opportunity for all of the aviation community to contribute into the planning process of the airport.

### **Corridor Vision Cost Estimates**

Since the Eastern TPR Plan is now a corridor-based plan, individual cost estimates have not been provided for highway corridor type projects. For aviation projects, the Division of Aeronautics has provided cost estimates since their funding is provided through separate Aviation Board from Federal Aviation Administration funding. For transit, a yearly cost estimate for a service expansion, such as "add regularly scheduled service to the Front Range" has been made and then that figure is multiplied by 25 years and included in the Preferred Plan.

For highway projects, the Corridor Vision Cost is developed using a per mile estimate over the entire length of the corridor. The records of past CDOT projects from 1997 through 2003 have been examined (by a consultant) and grouped into Project Categories by the type of improvements. The average dollar per/mile was determined for each category. For the Eastern TPR, review of the Corridor Vision and Strategies determined the type of improvement needed and the Project Category for each corridor. By matching the Corridor to a Project Category, a value was assigned on a dollar per/mile basis. This method does not include every possible improvement in a corridor, but does provide a reasonable basis for the estimates.

The preferred list of airport projects and their associated cost estimates were developed utilizing the following sources of information for short-term capital improvement program (CIP) and long-term twenty-five year needs:

			Table 4.5 Eastern 2030 Av			
			Preferred Aviation Pr	rojects		
Project ID	Airport	Location	Projects	Primary CDOT Investment Category	Cost Estimate	Fiscally Constrained***
			Construct Partial parallel taxiway	Safety	\$1,420,000	Х
			Acquire land for crosswind runway	Safety	\$200,000	Х
A - 1	Akron - Colorado	US 63	Construct crosswind runway	Safety	\$11,000,000	
A - 1	Plains Regional	US 03	4. Upgrade to Airport Reference Code D-III	Mobility	\$8,000,000	
			5. Apron Expansion	Mobility	\$1,050,000	
			6. Runway end identifier lights**	Safety	\$12,000	
			7. PAP/VASI system**	Safety	\$30,000	
			Rotating beacon***	Safety	\$15,000	
4 0	Alman Cabbian	CILOA	2. Low intensity runway lights/ reflectors**	Safety	\$3,600	
A - 2	Akron - Gabbier	SH 34	3. Public telephone and restrooms**	System Quality	\$6,000	
			Aircraft apron and vehicle parking***	Mobility	\$50,000	
			Increase runway length 800'	Safety	\$2,200,000	X
	Burlington - Kit Carson County		Extend Parallel Taxiway to south	Safety	\$555,554	X
A - 3			Construct Paved Crosswind RW	Safety	\$1,440,000	
			Construct new primary hangar	Mobility	\$600,000	
			5. Increase runway 15-33 (with connectors) to 30,000#	Mobility	\$2,160,000	
			1. Dunway and parking overlay	System Quality	\$400,000	
			<ol> <li>Runway and parking overlay</li> <li>Increase runway width from 40' to 60'**</li> </ol>	System Quality Safety	\$269,000	
A - 4	Haxtun	US 6	Rotating beacon**	Safety	\$15,000	
,, ,	Taxaii	000	Public telephone and restrooms**	System Quality	\$6,000	
			Vehicle parking***	Mobility	\$10,000	
			Rehab Apron	System Quality	\$1,200,000	X
			Expand Apron	Mobility	\$1,820,000	^
A - 5	Holyoke	US 6	Construct partial parallel taxiway	Safety	\$450,000	
•	,		Runway Rehab	System Quality	\$1,500,000	
			Public telephone and restrooms**	System Quality	\$6,000	
			1. Rehab Runway	System Quality	\$250,000	
A - 6	Julesburg	SH 138	2. Med. Int. Runway Lights	Safety	\$75,000	
7. 0	Jaiosbarg		Rehab Apron	System Quality	\$100,000	
A - 7	Limon	I-70	Construct conventional hangers	Mobility	\$300,000	

	Table 4.5 Eastern 2030 Aviation Projects  Source: Colorado Division of Aeronautics								
			Preferred Aviation Pr	rojects					
Project ID	Airport	Location	Projects	Primary CDOT Investment Category	Cost Estimate	Fiscally Constrained***			
			2. Repair Runway - culvert	Safety	\$715,000	Χ			
			Airfield expansion to B-I standards	Safety	\$1,149,500				
			Airfield expansion to B-II standards	Safety	\$2,639,206				
			5. Taxiway expansion Phase 1	Mobility	\$1,080,000				
			6. Taxiway expansion Phase 2	Mobility	\$900,000				
			7. Provide a non-precision instrument approach**	Safety	\$50,000				
					*******				
			Extend Runway and Taxiway to the South	Mobility	\$2,966,666	Х			
			Acquire land for Runway     Protection Zone	Safety	\$44,445	X			
A - 8	Sterling	SH 14	2. Rehab Apron	System Quality	\$333,332	Х			
			Reconstruct Runway	System Quality	\$1,900,000				
			5. Install Runway end identifier lights**	Safety	\$12,000				
			6. Construct conventional hangers	Mobility	\$450,000				
			Construct Parallel taxiway to north	Safety	\$690,000	X			
			Construct crosswind taxiway	Safety	\$1,186,250				
A - 9	Wray	US 385	3. Install Runway end identifier lights**	Safety	\$12,000				
			4. Weather reporting (AWOS/ASOS)**	Safety	\$130,000				
			Construct taxi lanes near hangers	System Quality	\$461,000	Х			
			2. Provide a non-precision instrument approach**	Safety	\$50,000				
			Runway extension	Mobility	\$1,000,000				
A - 10	Yuma	SH 34	4. Construct remaining parallel TW	Safety	\$1,500,000				
			5. Install runway end identifier lights**	Safety	\$12,000				
			6. Weather reporting (AWOS/ASOS)**	Safety	\$130,000				
			7. Public telephone and restrooms	System Quality	\$6,000				
Total Co	Total Costs - All Eastern Aviation Preferred Projects				52,560,553				

<sup>\*</sup> Note: In many cases the projects identified above and below are local community generated and are not necessarily endorsed or supported by either CDOT or the FAA

<sup>\*\*</sup> Note: Projects that have been identified in the 2000 Colorado Statewide Airport System Plan (The projects are not necessarily endorsed or supported by either CDOT or the FAA)

<sup>\*\*\*</sup> Note: Fiscally constrained considers only projects that are currently programmed within the airport's Capital Improvement Program through 2009. Refer to the State Plan for additional information

	Table 4.5 Eastern 2030 Aviation Projects Source: Colorado Division of Aeronautics										
			Preferred Aviation P	rojects							
Project ID	Airport	Location	Projects	Primary CDOT Investment Category	Cost Estimate	Fiscally Constrained***					
			Local Community Outreac	h Comments							
LA - 11	Akron-Colorado Pl Airport	ains Regional	Upgrade airport to handle additional aviation needs	Mobility							
LA - 12	A - 12 Burlington Airport		Upgrade airport to become regional airport	Mobility							
LA - 13	A - 13 Cheyenne Wells		Reopen airport landing strip	System Quality							
LA - 14	14 Sterling - Crossen Airfield		Upgrade to handle corporate jet aircraft and freight carriers	Mobility							

	Table 4.6 Eastern 2030 Rail Projects         Source: Eastern TPR				
	(inc	cludes Local Community Outreach comm	nents, Programmed Projects, and 2020 Transportation Plar	1)	
Project ID	Commenting Agency	Primary CDOT Investment Category			
		Statewide Progra	ams / Local Community Issues		
	Cheyenne Wells	US 385 Town of Cheyenne Wells	Study on-system rail crossing and emergency service issues, overpass, coordinate with H-7	Safety	
R - 2	Flagler	Old US 24	Off-system rail crossing improvement - widen and smooth	Safety	
R - 3	Vona	US 24 Town of Vona	Off-system rail crossing improvements	Safety	
R - 4	Bethune	US 24 Town of Bethune	New second rail crossing in town	Safety	
R - 5	Siebert	SH 59	Off-system rail crossing improvements - roadway damage	System Quality	
R - 6	CDOT, Limon	US 24, Kyle RR (East of Limon)	On-system Bridge Replacement	System Quality	
R - 7	Crook	SH 55 Town of Crook	On-system rail crossing improvements	Safety	
R - 8	Sterling, Peetz	SH 138 north of Sterling	Study on-system rail crossing grade separation	Program Delivery	
R - 9	Haxtun	SH 59	Reopen off-system rail crossing, repair crossing damage from derailment	System Quality	
R - 10	Peetz	SH 113 Town of Peetz	Study off-system rail crossing and emergency service issues	Safety	
R - 11	Wray	US 385 north of Wray	On-system rail crossing improvements	System Quality	
R - 12	Sterling	SH 138 north of Sterling	Off-system rail crossing grade separation	Program Delivery	
R -13	Logan, Morgan County	Eastern Colorado	Addition Amtrak stop between Fort Morgan and McCook Nebraska	Mobility	
R - 14	Public Meeting	SH 63	On-system crossing improvements	System Quality	
R - 15	Public Meeting	South of US 34 in Otis	Off-system rail crossing improvements	System Quality	
R - 16	Public Meeting, Limon	SH 71 south of Limon	Study emergency response access in lieu of rail road grade separation on SH 71	Safety	

	Table 4.6 Eastern 2030 Rail Projects         Source: Eastern TPR				
	(inc	cludes Local Community Outreach comm	nents, Programmed Projects, and 2020 Transportation Plan	n)	
Project ID					
R - 17		Burlington US 385, 15th Street and Lincoln Street	On and off-system rail crossing improvements	System Quality	
R - 18	Public Meeting	US 385 in Holyoke	On-system rail crossing improvements,	System Quality	
R - 19	Public Meeting		On-system rail crossing improvements, needs to be smoothed	System Quality	
PD - 3	CDOT Regions 4,6,1,2	Eastern Colorado	Public Benefits Rail Relocation Study	Mobility	

Table 4.7 Eastern 2030 Transit Issues/ Projects  Source: Eastern TPR							
		(includes Local Community O	utreach comments, Programmed Projects)				
Project ID	Commenting Agency	Representative Project Location	Project Type	Primary CDOT Investment Category			
	•	East (	Central Plan Area	-			
T - 1	Hugo	Outback Express Transit Service	Continue transit service	System Quality			
T - 2	Elbert, Kiowa, Elizabeth	SH 86 Elbert County Line to Kiowa	Park-n-rides	Mobility			
T - 3	Elizabeth		Restore regularly scheduled transit service between communities	Mobility			
T - 4	Arriba, Flagler	Outback Express transit service	Continue local community transit service	Mobility			
T - 5	Stratton	Local public transit service	Continue transit service	System Quality			
T - 6	Vona	Local public transit service	Continue transit service	System Quality			
T - 7	Bethune	Outback Express transit service	Continue transit service	System Quality			
T - 8	Simla	SH 24 Limon to Colorado Springs	Study the ability to provide scheduled bus service	Mobility			
T - 9	ECCOG	Kiowa	Replace mini-bus	Mobility			
T - 10	ECCOG	East Central Service area	Replace fleet vehicles	Mobility			
T - 11	ECCOG, Elbert County	East Central Service area	Develop Carpool/Vanpool program for west Elbert County	Mobility			
T - 12	ECCOG	East Central Service area	Replacement for transit services	Mobility			
T - 13	ECCOG	East Central Service area	Transition Elbert County transit into RTD	Mobility			
	Northeast Plan Area including Morgan County						
T - 14	Peetz	Town of Peetz	Restore public transit service	Mobility			
T - 15	Holyoke	Northeast Service area	Conduct more detailed public transit needs assessment	Program Delivery			
T - 16	NECALG	Northeast Service area	Rehab 2 buses with wheelchair lifts	System Quality			

	Table 4.7 Eastern 2030 Transit Issues/ Projects  Source: Eastern TPR					
		(includes Local Community Ou	utreach comments, Programmed Projects)			
Project ID	Commenting Agency	Primary CDOT Investment Category				
T - 17	NECALG	Northeast Service area	Upgrade communication system	System Quality		
T - 18	NECALG	Northeast Service area	Develop interactive website w/ centralized scheduling for out of town appointments	System Quality		
T - 19	NECALG	Northeast Service area	Replace transit vehicles	Mobility		
T - 20	NECALG	Northeast Service area	Replace transit fleet vehicles	Mobility		
T - 21	NECALG	Northeast Service area	Replacement for transit services	Mobility		
T - 22	NECALG	Northeast Service area	Study opportunities to restore non-emergent medical transportation between Sterling and Greeley	Mobility		
T - 23	NECALG	Sterling and Ft Morgan, Ft Morgan and Morgan County	Study fixed route service	Mobility		
T - 24	NECALG	Northeast Service area to Denver and Greeley	Improve transit service, add regularly scheduled services	System Quality		

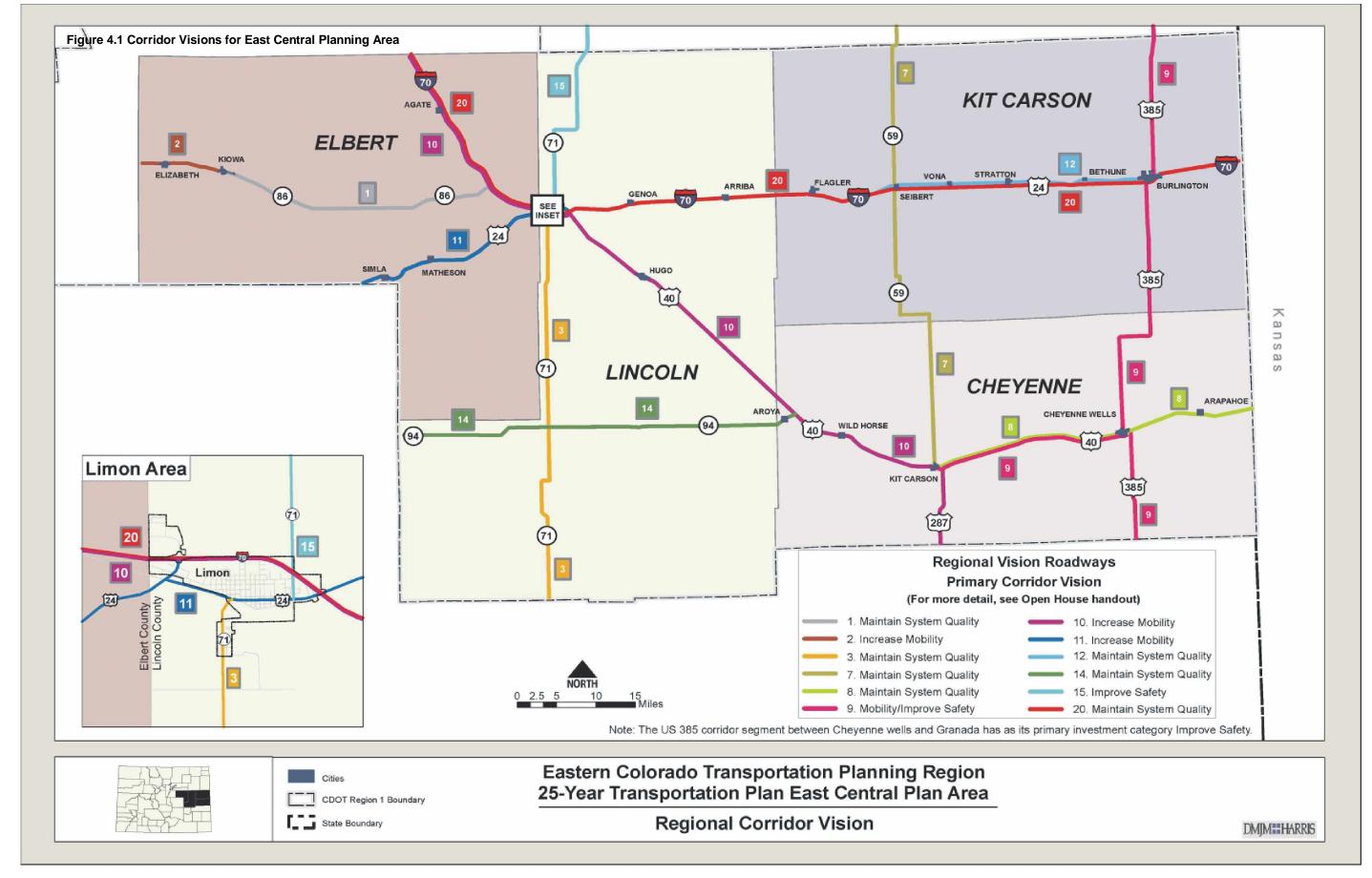
For bicycle/pedestrian projects, the Eastern TPR is considering sidewalk and trail type projects as enhancement projects. Other bicycle related improvements might be accomplished in highway projects that include shoulder widening. However, they will not be listed in this section.

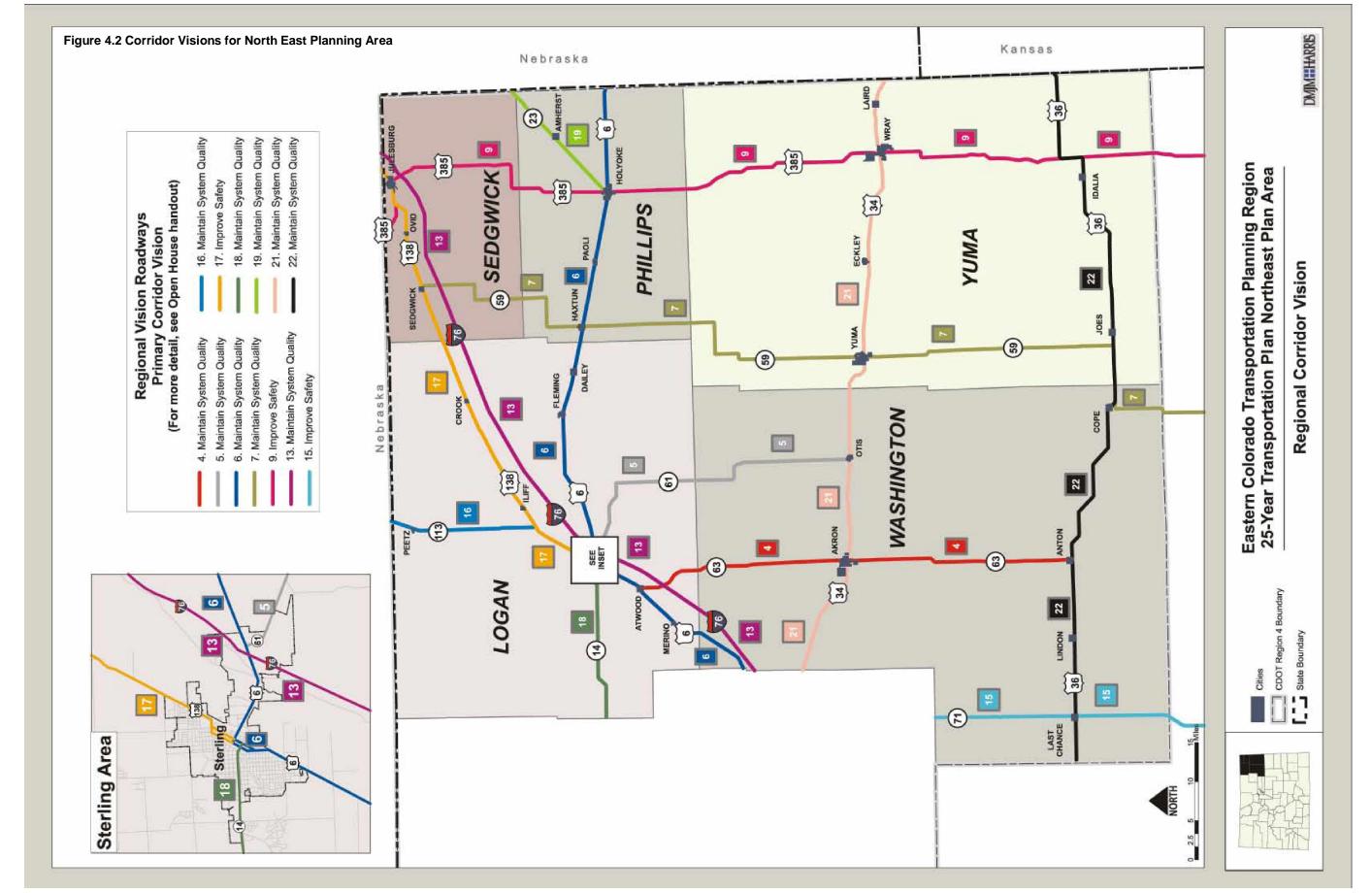
	Table 4.8 Eastern 2030 Potential Enhancement Projects  Source: EASTERN TPR				
		(in	cludes Local Community Outreach comments)		
Project ID	Commenting Agency	Representative Project Location	Project Description	Primary CDOT Investment Category	
			Local Community Comments		
E - 1	Burlington	Town of Burlington	Enhancement project extension along Rose Avenue	Mobility	
E - 2	Kiowa	SH 86 Town of Kiowa	Enhancement walking/bicycle paths	Mobility	
E - 3	Elizabeth	Town of Elizabeth	Enhancement Project construction	Mobility	
E -4	Limon	US 24/US 40/SH 287	Enhancement Main street improvements	Mobility	
E - 5	Limon	US 24/US 40/SH 287 Town of Limon	Enhancement Project construction	Mobility	
E - 6	Limon	Town of Limon	Enhancement Projects along high traffic areas	Mobility	
E - 7	Simla	SH 24 Limon to Falcon	Enhancement trail project	Mobility	
E - 8	Crook	SH 138 Town of Crook	Enhancement Project to enhance park, add sidewalks	Mobility	
E - 9	Peetz	SH 113	Possible Enhancement Project	Mobility	
E - 10	Sterling	Town of Sterling	Enhancement Projects for walking and bicycle improvements	Mobility	
E - 11	Public Meeting	US 40 Limon	Historic Designation for Ocean to Ocean Highway	Mobility	
E - 12	Public Meeting	US 40 Hugo	Hugo Roundhouse, including restoration and bicycle/pedestrian trail	Mobility	
E - 13	Public Meeting	US 40 Cheyenne Wells	bicycle/pedestrian Trail	Mobility	
Note: Specific Enhancement Projects are submitted through CDOT's Enhancement Grant Program every two years. Potential Enhancement Projects listed in the 2030 Regional Transportation Plan are those discussed during the local Community Outreach meetings and do not necessary represent commitments from CDOT or the Local Communities.					

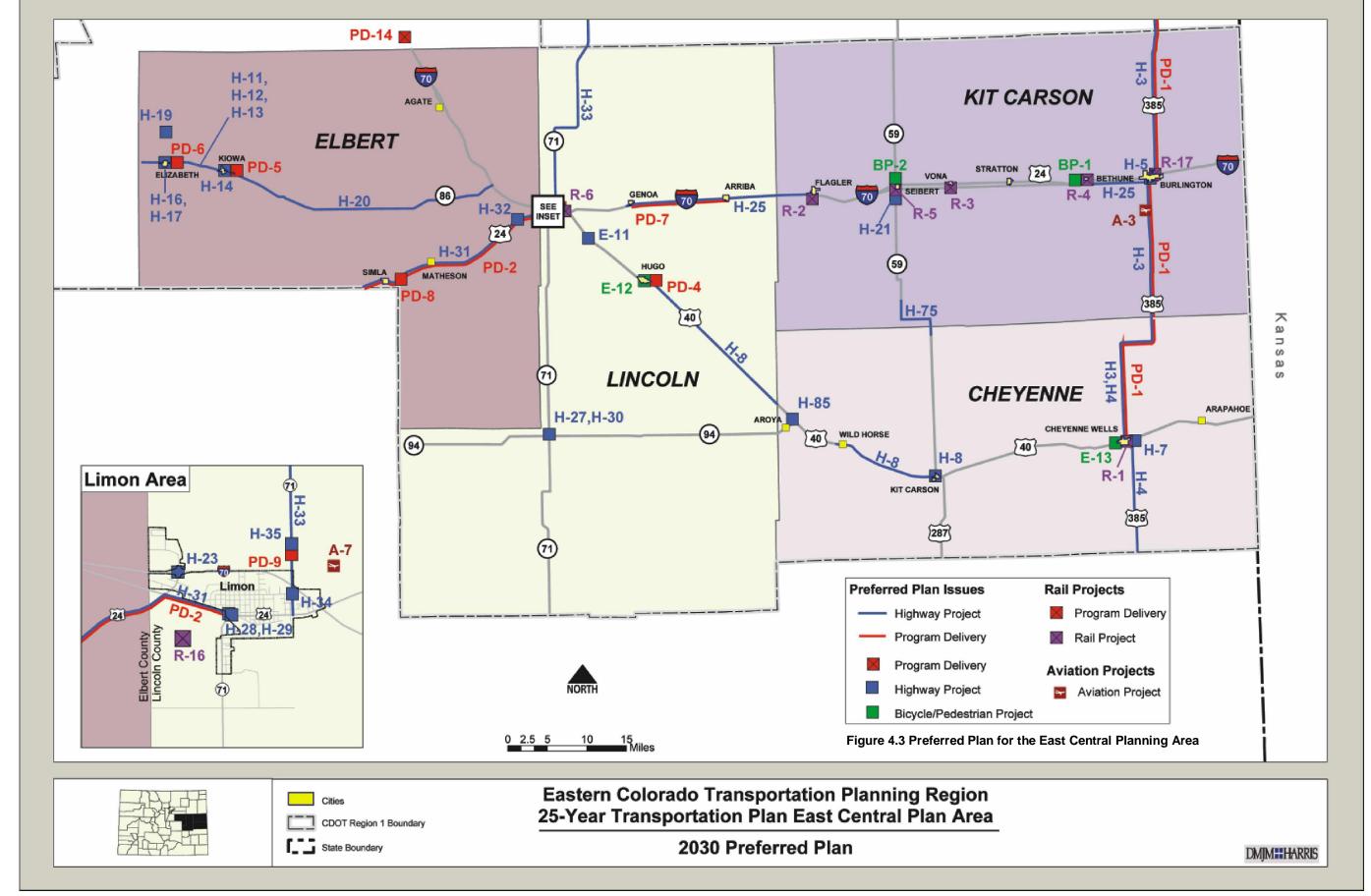
from CDOT or the Local Communities.

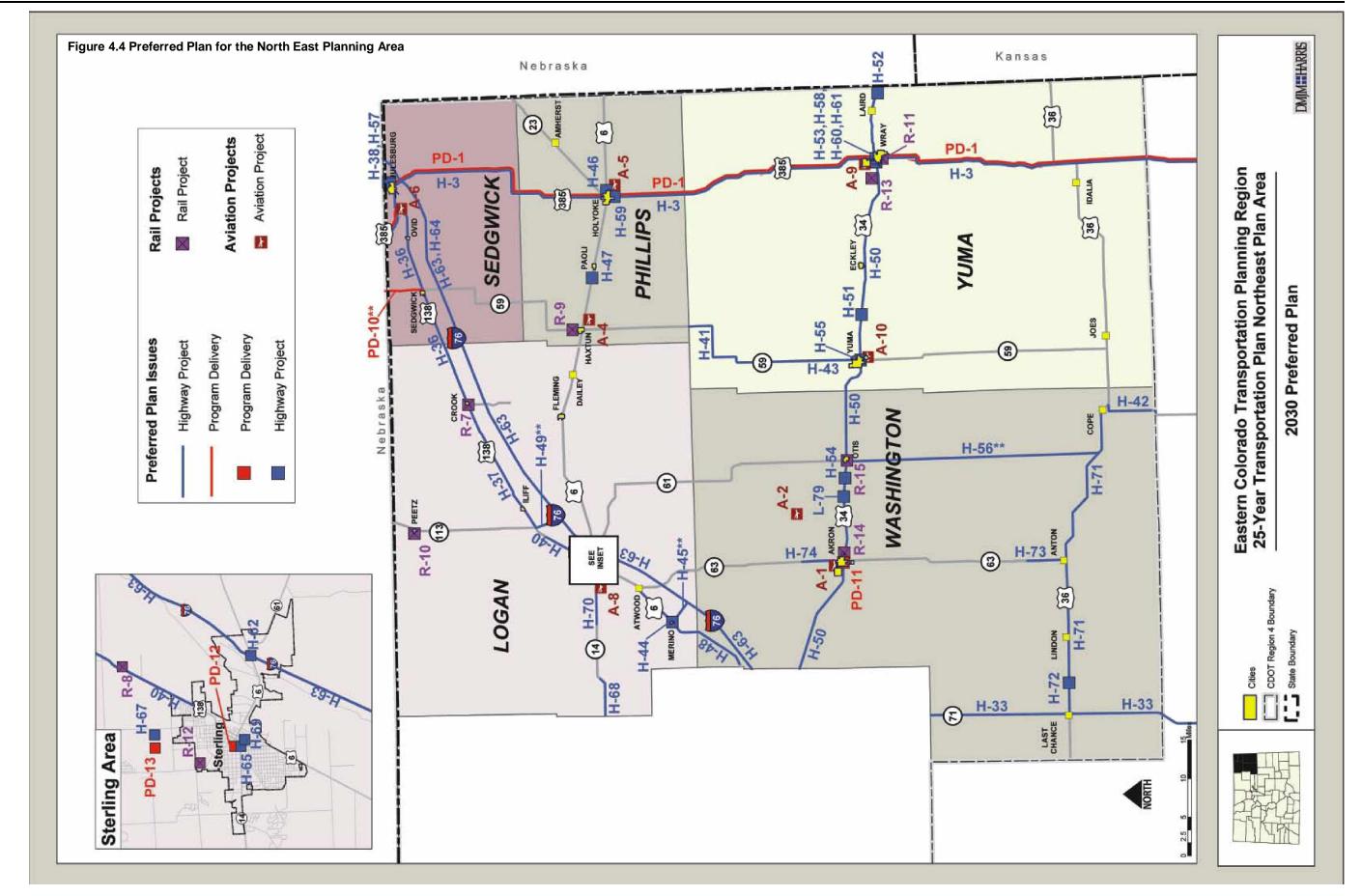
### **Corridor Mapping**

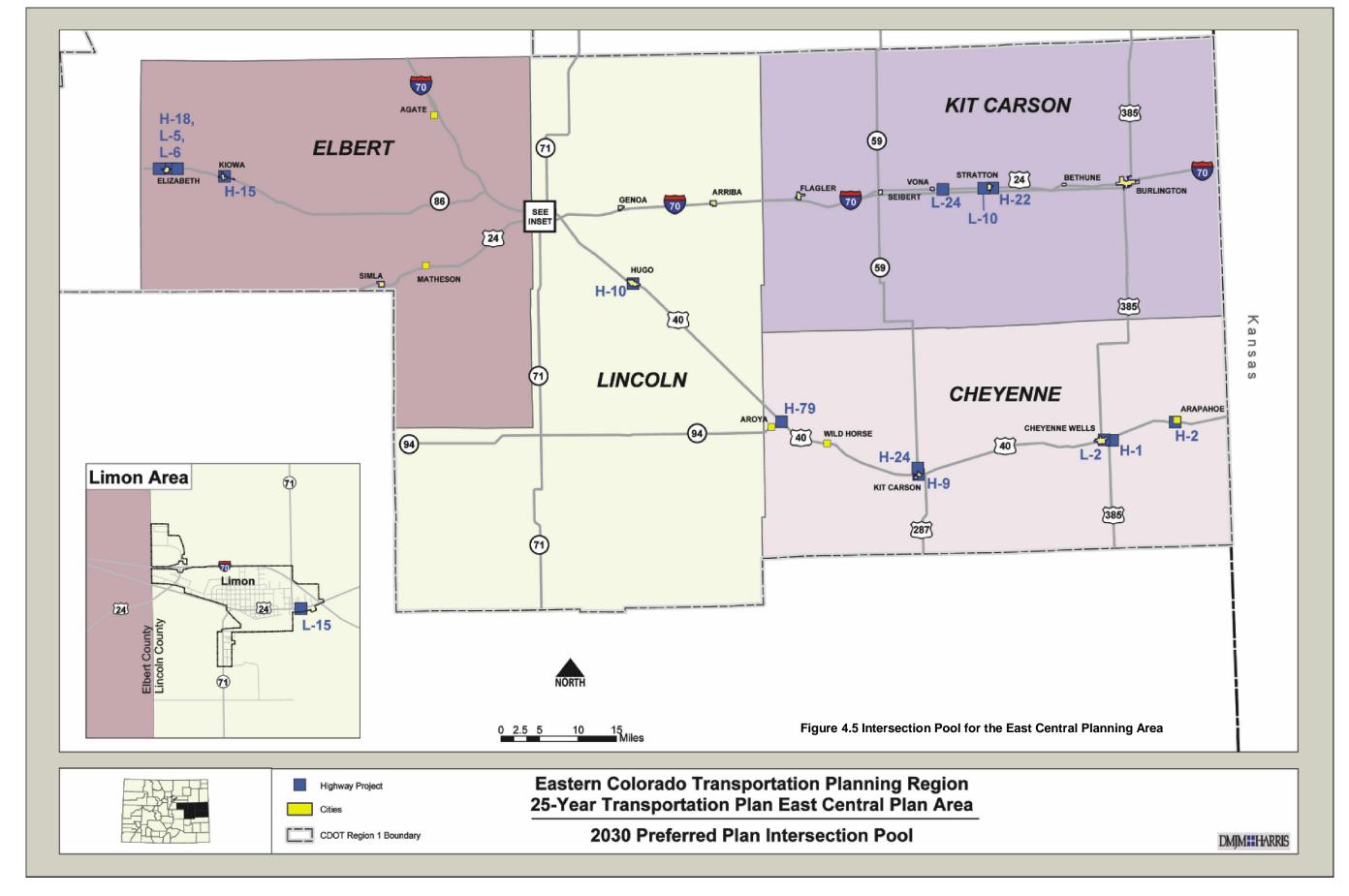
Figures 4.1 through 4.7 illustrate the location of representative projects within each Eastern TPR corridor. Since most of the Statewide Program issues and comments do not lend themselves to project specific locations, no mapping has been provided for Statewide Programs.

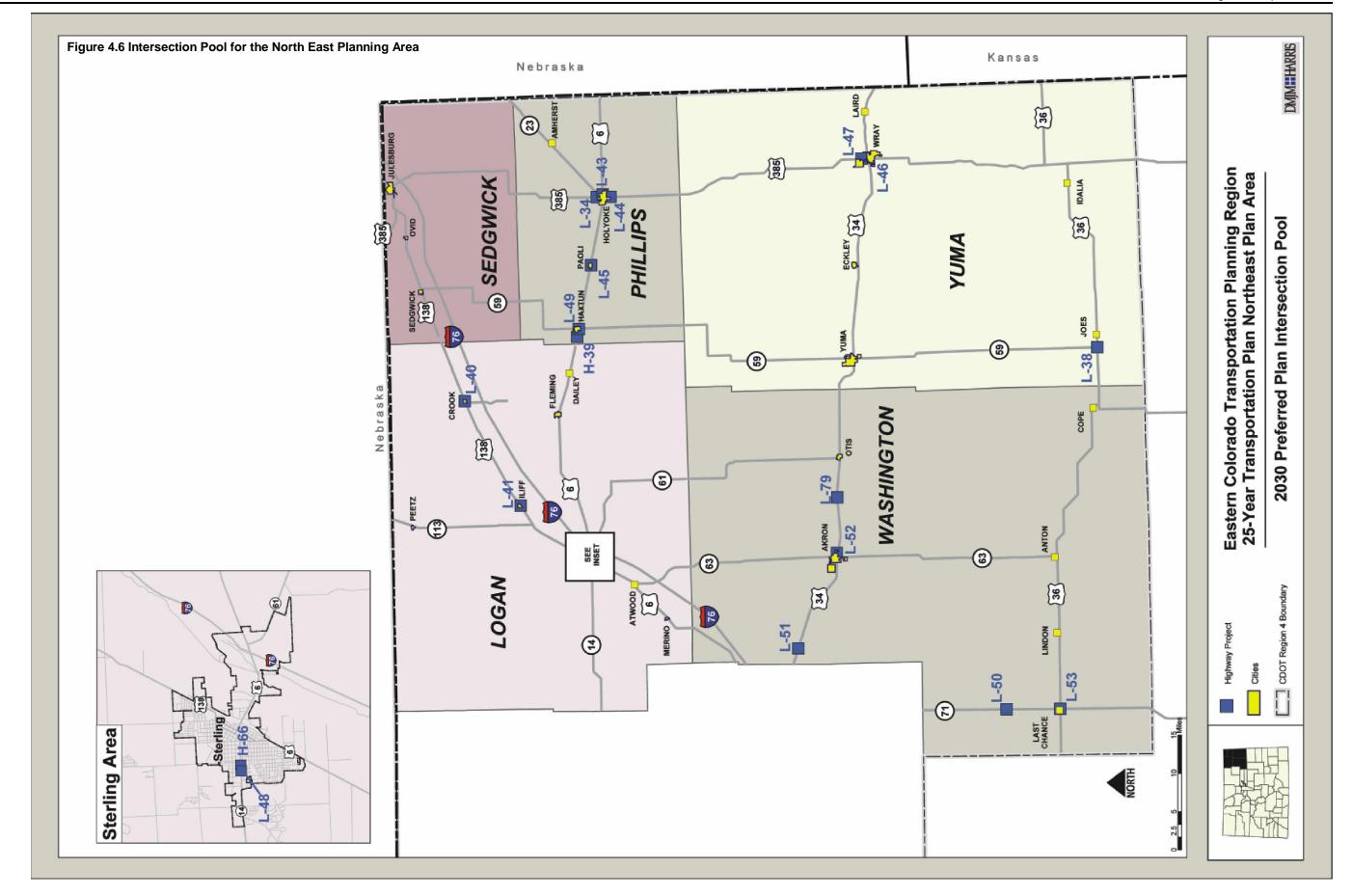


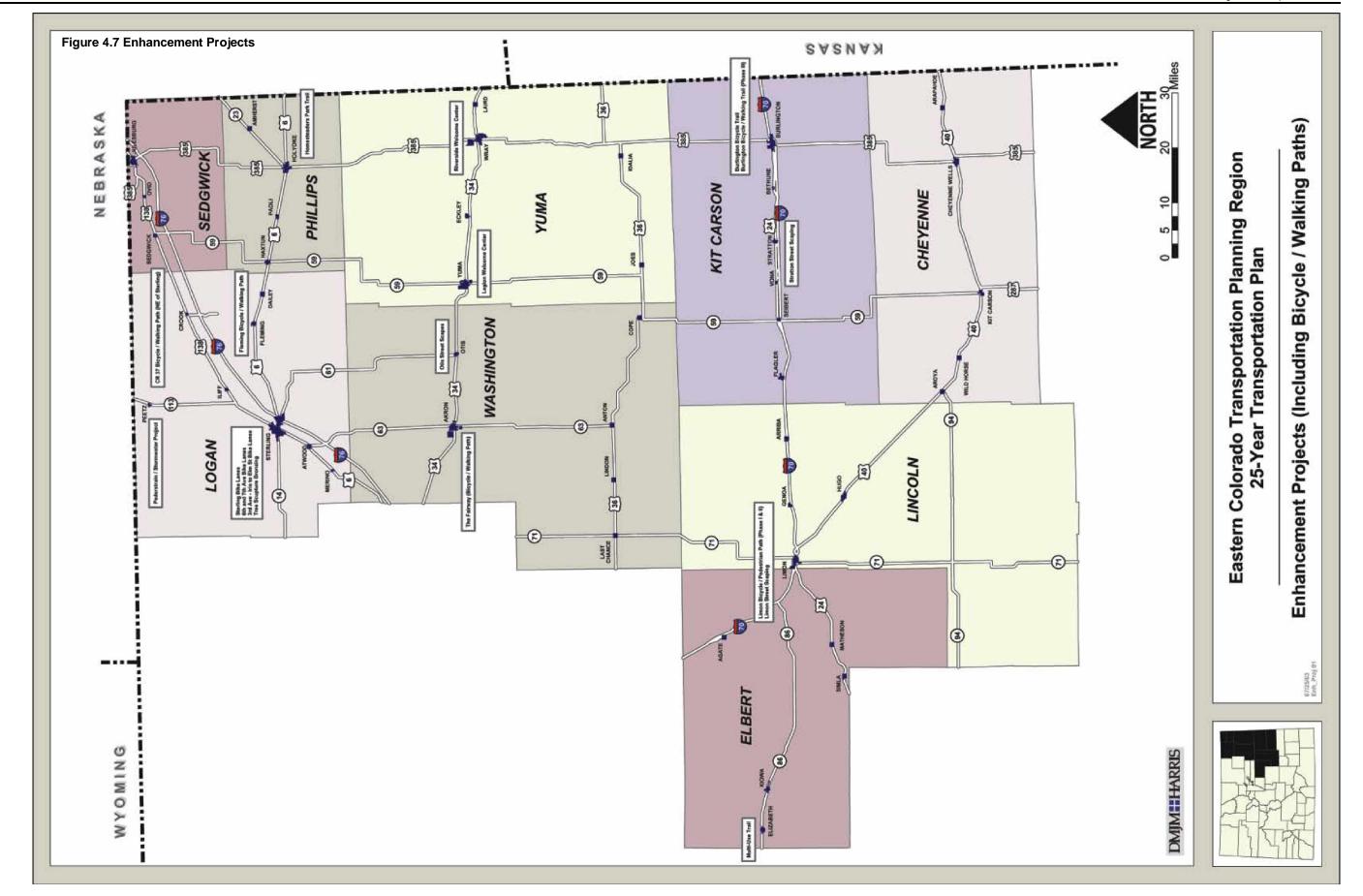












#### 5.0 REGIONAL ACCOUNTABILITY

# 5.1 2030 FISCALLY CONSTRAINED PLAN

The Eastern Transportation Planning Region's 2030 Fiscally Constrained Plan is based on funds projected to be available to the counties within the Eastern TPR through the year 2030.

The Eastern TPR has acknowledged the existing critical shortfalls of transportation funding available to CDOT and the Eastern TPR and have made the decision to focus these limited resources on the TPR's number one priority; the state highway network within the Region. The Fiscally Constrained Plan for the Eastern TPR will be a "highway based plan". At this time, the TPR is not expected to "flex" any funds eligible for highways to other modes of transportation. If at some point in the future significant additional funding becomes available, the TPR will re-evaluate the lists of modal projects to see what might be prioritized for possible "flexing" of highway funds.

### **Funding Categories**

The following is a brief description of the key funding categories for the Eastern TPR Constrained Plan:

### Strategic Projects

The Strategic Project Program, commonly referred to as the "7th Pot", is a funding program created by the Colorado Transportation Commission to invest is strategic corridors throughout the state. I-70 and US 287 / US 40 (Ports to Plains) corridors have been funded through this program. Therefore, while I-70 is ranked 3<sup>rd</sup> and US 287 is ranked 5<sup>th</sup> in the Constrained Plan (described in detail below), no funding is allocated to US 287, since it is part of the Strategic Investment Program.

### Regional Priority Program (RPP)

The federal/state part of these funds is largely the portion of federal Surface Transportation Program (STP) funds and State Highway Users Tax Fund dollars that are made available by CDOT to each CDOT Transportation Region. Federal guidelines on use of these funds are relatively flexible in terms of project categories. The Colorado Transportation Commission has historically limited use of these funds on projects on the State Highway System.

#### Aviation

Airports throughout Colorado are owned and operated by local governments. Grant funding assistance for these airports comes from the Colorado Aeronautical Board and the Federal Aviation Administration (FAA), which provides up to 95% of eligible airport improvements and development costs. The National Plan of Integrated Airport System (NPIAS) has identified 48 airports within Colorado as being eligible for grant funding under the FAA Airport Improvement Program (AIP).

The FAA provides three funding categories for airports in Colorado. The first category, Primary Commercial Service Entitlement Funds, does not apply to the Eastern TPR because these are granted to commercial service airports that enplane over 10,000 passengers annually. The second category is Entitlement Funds for general aviation Non-Primary Commercial Service airports. Thirty-eight general aviation airports in Colorado are eligible to receive \$ 150,000 each on an annual basis from this fund of money. Annual entitlement funds can be accrued

for up to four years resulting in more significant capital improvement projects. The third category of FAA funding, State Apportionment funds, are used for general aviation and commercial service airports enplaning less than 10,000 passengers annually. Annually Colorado receives approximately \$ 7,000,000 to funds projects at those 38 airports eligible to compete for state apportionment funding. Discretionary funding is also available for projects with the highest priority within the state apportionment category throughout the FAA Northwest Mountain Region. Airports typically apply for FAA grants "as needed".

State funding for the aviation system comes through discretionary grants from the Colorado Aeronautical Board (CAB). The Colorado Aviation Fund is comprised of a portion of state sales and excise taxes on aviation fuel and distributed annually through local grants from the CAB. State funding averages \$ 3 Million annually and may be used for any airport that is publicly owned and open for public use. Airports make application for State Discretionary funds on an annual basis.

#### Six-Year Capital Improvement Program

Every airport in the State of Colorado that receives either Federal Aviation Administration (FAA) or Colorado Division of Aeronautics grant funds must develop and maintain a current six-year capital improvement program (CIP) list. That list contains major capital projects that the airport anticipates could take place over the six-year planning period.

FAA staff and CDOT - Aeronautics and work very closely with those airports that anticipate funding eligible projects with grant funds from the FAA. Since the FAA and CDOT - Aeronautics are concerned with the Statewide system of airports, it is very important that individual airport projects be properly planned and timed to fit within the anticipated annual Federal funding allocation. The costs of the projects are estimates and are typically provided to airports through either their own city staff, consulting firms, engineering firms, planning documents, FAA, CDOT-Aeronautics or other similar sources.

### **Transit**

The federal/state portion of Transit funds consists of Federal Transit Administration (FTA) funding in various capital, operational, and maintenance funding programs, all of which are specifically targeted at transit service. Local funds in the transit category represent local matches of these federal funds. Transit operators apply for FTA funding each year through a competitive grant process administered by CDOT.

#### Enhancement

Starting with ISTEA federal legislation and continuing with the TEA-21, 10% of Surface Transportation Program funds are currently set aside for transportation enhancements. Transportation enhancements include facilities for bicycle and pedestrians, scenic or historic highway programs, landscaping, historic transportation building preservation, preservation of abandoned railway corridors, mitigation of water pollution due to highway runoff, and others. The CDOT Regions are responsible for the administration of this program. Local governments apply for this funding through a grant process administered by each CDOT Region.

#### **Committed Resources**

### State Transportation Improvement Program (STIP)

A portion of the total resources described in the section above has been previously committed to projects and programs and is therefore not eligible to be allocated to new projects in the 2030 Plan. The largest amount of the total is for reconstruction of I-70 between Genoa and Burlington. Other projects include bridge improvements, surface treatment, and safety related projects. Projects in the 2005-2010 Draft STIP are listed below in Tables 5.1. The 2005-2010 Draft STIP is anticipated to be adopted July 1, 2004. These projects are NOT listed in order of priority to the Eastern TPR.

Table 5.1 All Region 1 Projects in the 2005-2010 DRAFT STIP  SOURCE: CDOT REGION 1, FEBRUARY 2004 (\$ X 1,000)					
County	Route	Location	Description	Estimated Cost	
Elbert	86	Elbert/Douglas County Line east	Safety Related Geometrics	'05 \$1,000 '06 \$1,000	
Lincoln	70	Genoa to Flagler, Bethune to Burlington	Concrete Reconstruction	'06 \$600 '07 \$8,000	
Elbert	NA Off-system	Off system bridge over West Bijou Creek	Bridge	′05 \$39	
Elbert	NA Off-system	Off system bridge over East Bijou Creek	Bridge	′05 \$54	
Elbert	NA Off-system	Off system bridge over East Bijou Creek	Bridge	′05 \$59	
Cheyenne	NA Off-system	Off system bridge over Big Timber Creek	Bridge	′08 \$164	
Lincoln	71	Punkin Center @ Middle and Rush Creeks	Bridge	'06 \$108 '07 \$1,850	

Table 5.2 All Region 4 Projects in the Current STIP  Source: CDOT REGION 4, FEBRUARY 2004 (\$ X 1,000)					
County	Route	Location	Description	Estimated Cost	
Sedgwick	76	Sedgwick to Julesburg		′06 \$700	
Yuma	59	Yuma CR 47 to Phillips Co. Line		′08 \$250	

#### Strategic Projects

The Colorado Transportation Commission has committed to complete those Strategic Projects originally identified for this program. The future funding committed for US 287 / US 40 totals \$44,104,776 in 2000 dollars. The Commission is currently identifying a plan to complete the remaining projects. Once this plan has been identified, funding can then be programmed into future STIP documents as appropriate.

### **Eastern TPR Resource Allocation**

In order to provide more flexibility to the STIP process, CDOT is now asking TPRs to join CDOT in the effort to prioritize transportation Corridors that would contain "representative projects" for major funding categories such as the RPP.

All RPP funding in the Eastern TPR has been first allocated to prioritized Corridors, which can then be used to complete representative highway projects located within the Corridors. This is a change in the process from previous statewide and regional transportation planning efforts of the past. In the original Statewide Transportation Plan as well as the Year 2000 Update, specific projects were prioritized and identified in the Long Range Plan and then placed in the STIP.

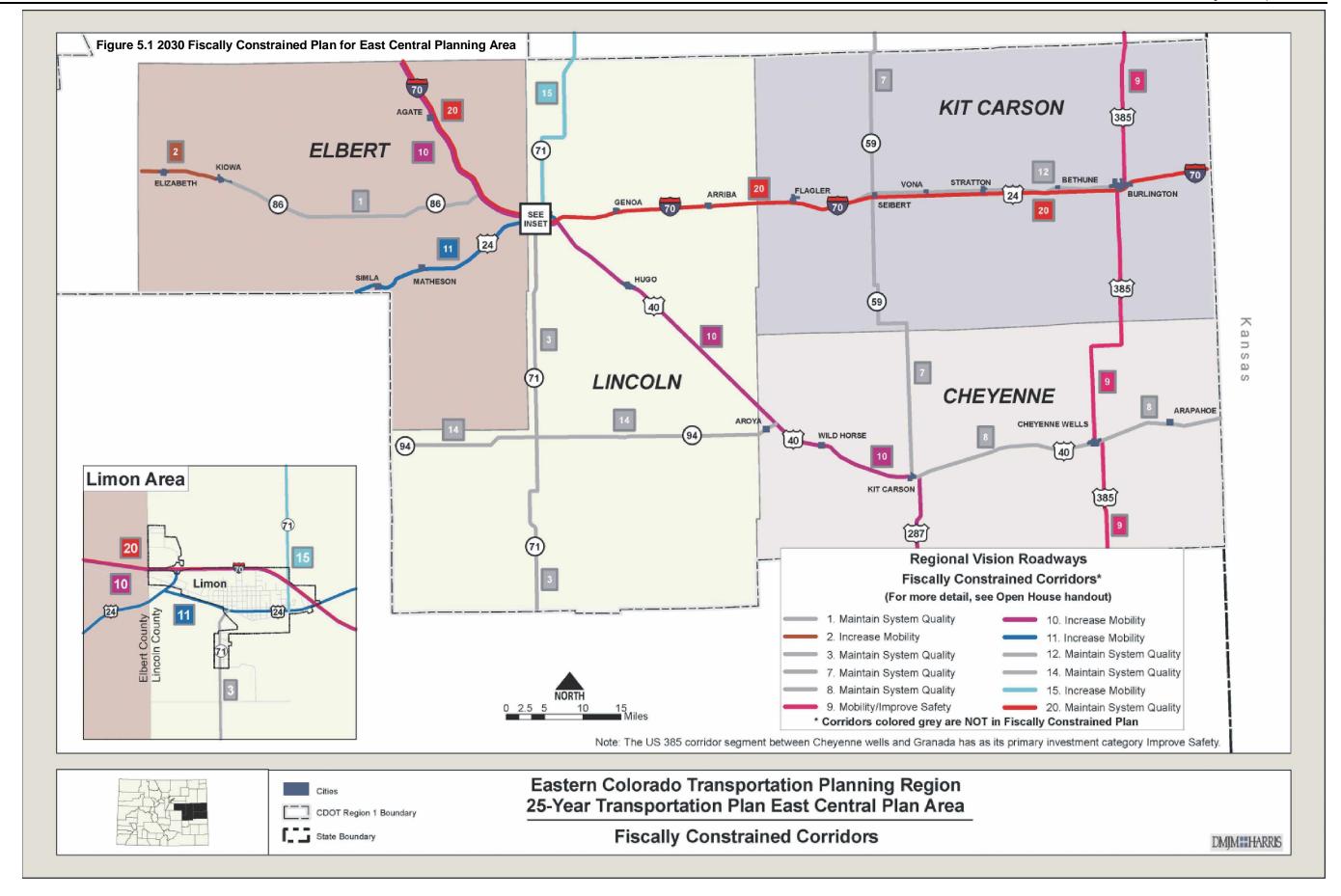
Funds available for bridge replacement and rehabilitation, rail/highway crossing hazard elimination, airport improvement, transit programs, etc., are expected to be allocated to high priorities within those programs; however, no RPP funds are proposed by the TPR for these purposes.

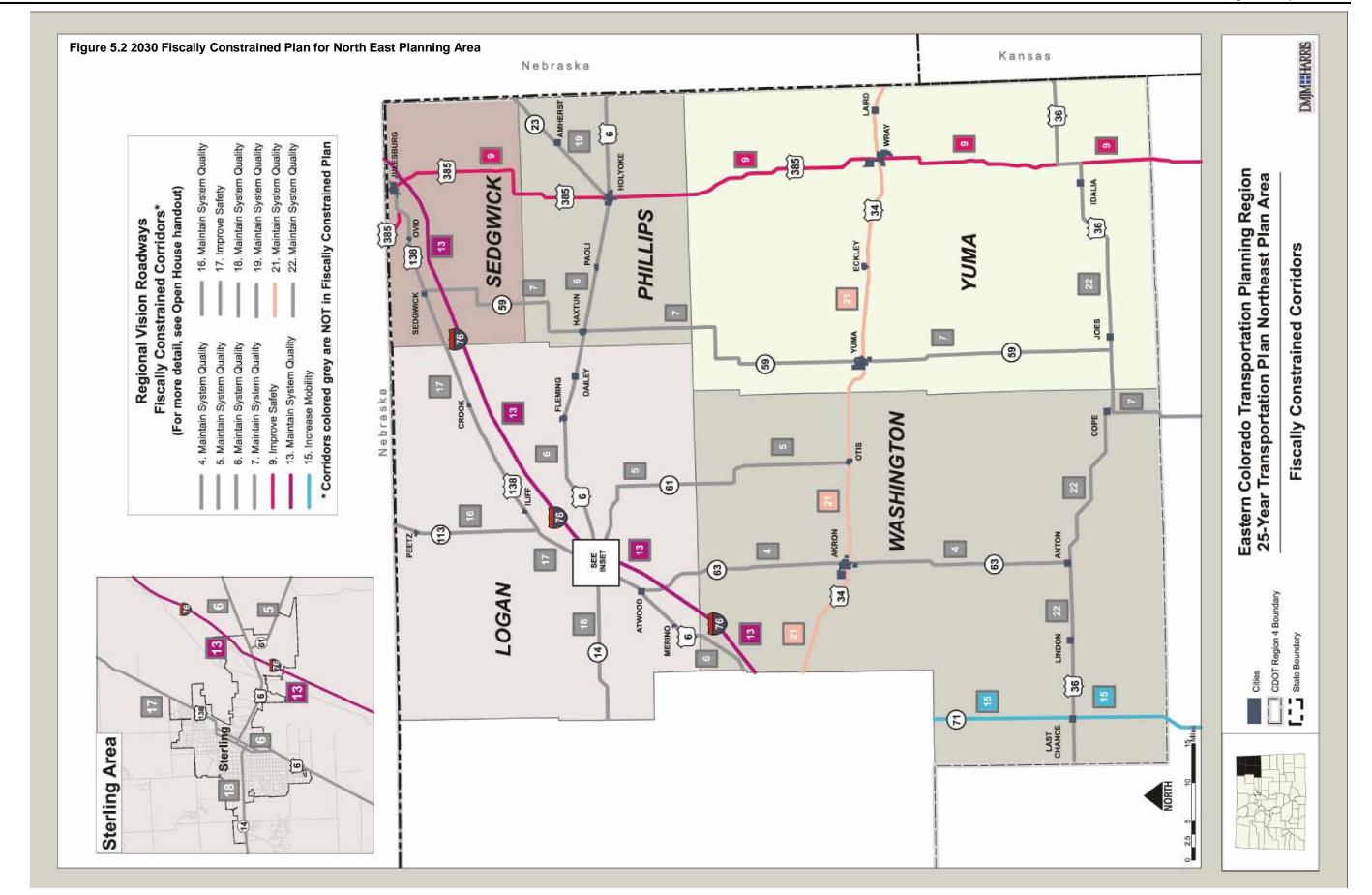
Within the planning process statewide, the approaches for identifying fiscally constrained plans are varied. In some cases, such as in Region 4, control totals are provided to the TPRs. In other CDOT regions, such as Region 1, the TPRs within the CDOT Region jointly prioritize all projects within the CDOT Region and the resulting prioritized projects represent the control total for that TPR. However, since the Eastern TPR needed to prepare for the Region 1 process, Region 1 estimated that \$15 million would be available to the Eastern TPR over the course of this planning period. Region 4 allocated \$28.75 million to the Eastern TPR over the course of the 2030 Plan. An additional amount of funding (20%) is added to each of the region totals as suggested by CDOT's Regional Planning Guidebook to account for some amount of additional funding that may come available over time. This additional 20% made the final amounts of funding available for the 2030 Fiscally Constrained Plan to be \$18 million for projects in Region 1 and \$34.5 million for projects in Region 4. See Table 5.3, which identifies the 25-Year RPP Corridor Allocations.

Since this discussion, the Region 1 joint prioritization process occurred resulting in an allocation of \$20.6 million to the Eastern TPR. A significant amount of the funding for the 2030 Plan has already been committed to projects in the 2005 – 2010 STIP. \$10.6 million of the \$20.6 million from Region 1 have been committed to I-70 (\$8.6 million) and SH 86 (\$2.0 million). In Region 4, \$950,000 of the \$29.0 million has been committed (\$250,000 to SH 59 and \$700,000 to I-76). This previous commitment makes the funding outlook over the 25 year planning horizon look even that much worse. Only \$10 million (\$480,000 per year) is available for new Eastern TPR Projects in Region 1. In Region 4, there are projected to be \$28.05 million (\$1.12 million per year) available for new projects.

This is a corridor based, not a project based plan. Environmental issues must be addressed on a project-by-project basis. It is, therefore, not possible to determine what environmental effects may occur due to financial constraints.

Figures 5.1 and 5.2 illustrate the locations of those prioritized corridors, which have been allocated funding in the 2030 Fiscally Constrained Plan for the Eastern TPR.





### Twenty Five - Year Fiscally Constrained Project List

The final fiscally constrained project list, in priority order, is shown in Table 5.3. It will be integrated into the statewide transportation plan. This list contains projects eligible to move into the STIP using those funds identified as "Regional Priority Program." Modifications, through an amendment process, may be made periodically by the Eastern Transportation Planning Region, following appropriate public notification and review, to allow for changes in priorities due to emerging or unforeseen issues. Such amendments must be forwarded to CDOT, so that the state plan can be amended prior to new or substantially changed projects being added to the STIP.

Table 5.3 Eastern TPR Corridor Prioritization for Regional Priority Program Funding

(Corridor Scoring assigned using Mobility, Safety, System Quality, Ability to Implement/Public Support, Economic Impact Criteria)

, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,	11 . 7	
Eastern Corridors	Corridor Vision Cost	Priority	Assigned Percentages
Intersection Pool			5
I-76, Northeast Colorado	\$356,412,000	1	20
I-70, Plains	\$163,720,000	2	20
US 385, High Plains Corridor Highway	\$344,146,000	3	15
US 287 Ports to Plains	\$64,490,000	4	5
SH 71, Heartland Expressway	\$87,888,000	5	15
US 34, Eastern Plains	\$57,388,000	6	10
SH 86 Urban Section	\$94,571,000	7	7
US 24, Elbert County Line to Limon	\$44,104,000	8	3
US 6, Eastern Plains	\$32,734,000	9	
SH 86, Rural Section	\$42,305,000	10	
SH 59	\$186,269,000	11t	
SH 14, Logan County Line to Sterling	\$18,156,000	11t	
SH 138	\$67,688,000	13	
US 24, Siebert to Kansas	\$29,599,000	14	
SH 71, Southern Section	\$47,019,000	15	
SH 113	\$13,136,000	16	
SH 63	\$47,543,000	17	
SH 61	\$42,023,000	18	
US 40, Town of Kit Carson east to Kansas	\$24,083,000	19	
SH 94, El Paso/Lincoln County Line east to US 40/US 287	\$68,356,000	20	
US 36, Eastern Plains	\$62,758,000	21	
SH 23	\$16,375,000	22	
Total	\$1,910,763,000		
-			L

Note: All corridors within the Eastern TPR are also eligible for other CDOT funding such as: Resurfacing, Bridge rehabilitation/replacement, and safety funding

The appendices contain the various resource allocation scenarios considered jointly by the Eastern TPR and CDOT Regions 1 and 4 in the development of the constrained plan. Because the Eastern TPR is contained within two CDOT Engineering Regions, each having a separate funding pot, resource allocation formulas needed to be adjusted to match available Engineering Region funds. The constraint totals and scenarios were discussed during an Eastern TPR meeting, with the figures in Table 5.4 representing the consensus vote of the Eastern TPR.

Table 5.4 Eastern TPR Constrained Plan Funding for Regional Priority Program Funding by Corridor

Source: 1	

25-Year Corridor RPP Allocations (\$ = millions)				
Corridor / Program	CDOT Region 1	CDOT Region 4		
	\$20.6 million available for 25 years	\$28.75 million available for 25 years		
	RPP Allocation	RPP Allocation	Regional Plan**	
Intersection Pool	\$0.5	\$1.419	\$1.72	
13. I-76, Northeast Colorado		\$11.334	\$13.80	
20. I-70, Plains	\$13.6			
9. US 385, High Plains Highway	\$2.0	\$5.667	\$6.90	
10. US 287 Ports to Plains*	\$0.0			
15. SH 71, Heartland	\$2.0	\$5.667	\$6.90	
Expressway				
21. US 34, Eastern Plains		\$4.348	\$5.18	
2. SH 86 Urban Section	\$2.5			
11. US 24, Elbert County Line	\$0.0			
to Limon				
Total***	\$20.60	\$28.335	\$34.50	

<sup>\*</sup> US 287 is part of the Strategic Investment Program and has been allocated \$44,104,776 to complete the specific Strategic Investment Project.

Note: These and the other corridors within the Eastern TPR are also eligible for other CDOT funding such as: Resurfacing, Bridge rehabilitation/replacement, and safety funds

Subsequent to allocation of available funding to projects by the Eastern TPR, CDOT Region 4 completed detailed analysis of the Transportation Commission Control Totals adopted 7/15/04. As a result of the analysis, the anticipated RPP allocation to ETPR in CDOT Region 4 is now expected to be \$28.335 M. The allocations in Table 5.4, above, were uniformly reduced to conform to the new ETPR CDOT Region 4 Control Total.

<sup>\*\*</sup> An additional amount of funding (20%) is added to the Region 4 totals to account for additional funding that may become available over time.

<sup>\*\*\*</sup> Of the \$20.6M for Region 1, \$10.6M is in the STIP (\$8.6M for I-76 and \$2.0M for SH 86). Of the \$28.335 M for Region 4, \$.95 M is in the STIP (\$.7 M for I-76 and \$.25 M for SH 59).

# **APPENDICES**

APPENDIX A Planning Participants and Agency Representatives	138
Talling Fallopants and Agency Representatives	130
APPENDIX B	
Meeting Minutes, Sign-in Sheets & Review of Draft Plan at Open House Meetings	143
APPENDIX C	
Constrained Plan Assumptions	166
APPENDIX D	
Statewide Planning Open Houses	174