LOVELAND CITY COUNCIL
STUDY SESSION
TUESDAY, SEPTEMBER 25, 2012
CITY COUNCIL CHAMBERS
500 EAST THIRD STREET
LOVELAND, COLORADO

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6:30 P.M. STUDY SESSION - City Council Chambers

1. LOVELAND FIRE RESCUE AUTHORITY (60 minutes)
Fire Authority Strategic Plan Update and Presentation
This presentation will be an overview for City Council members of the 2012 Loveland Fire Rescue Authority Strategic Plan. This Plan, and its key component the Model 1 Basic Services Plan, has been reviewed and presented to all governing bodies for the Fire Authority, including City Council several times over the last two years. The plan was formally adopted by the Fire Authority Board on August 9, 2012.

2. PUBLIC WORKS (30 minutes)
2035 Transportation Plan Update
This is a discussion item with Council to review and provide feedback for the 2035 Transportation Plan prior to commencement of the public input process. The 2035 Transportation Plan includes the Capital Projects and associated costs through 2035. This includes anticipated collections and expenditures of Capital Expansion Fees, Other Funding (CDOT, FHWA and other outside sources) and the General Fund.

3. CITY MANAGER (45 minutes)
Capital Expansion Fee Proposed Fee Levels
This item is for information and discussion with Council. Throughout this year, City staff members have conducted the five year review of the Capital Expansion Fees. Public Works staff members are in the process of the update of the 2035 Transportation Plan. Prior study sessions have covered 1) the introduction of the process and a history of how the City has used Capital Expansion Fees since 1984, and 2) a step-by-step consideration of the major topics involved in the five year update. At the study sessions on July 10th and August 28th, staff provided topic by topic progress reports on the update process.

4. PUBLIC WORKS (15 minutes)
Street Capital Expansion Fees associated with the 2035 Transportation Plan Update
This is a discussion item to review the Street Capital Expansion Fees (CEFs) associated with the 2035 Transportation Plan as part of the overall CEF update.

ADJOURN

CITY OF LOVELAND
FIRE & RESCUE DEPARTMENT
Administration Offices • 410 East Fifth Street • Loveland, Colorado 80537
(970) 962-2471 • FAX (970) 962-2922 • TDD (970) 962-2620

AGENDA ITEM: **1**
MEETING DATE: 9/25/2012
TO: City Council
FROM: Randy Mirowski, Loveland Fire Rescue Authority *rm*
PRESENTER: Randy Mirowski

TITLE:
Fire Authority Strategic Plan Update and Presentation

RECOMMENDED CITY COUNCIL ACTION:
Information only is the primary focus of this study session. The development of a long-term, strategic plan has been a goal of the Fire Authority Board, Rural District Board members and City Council members.

DESCRIPTION:
This presentation will be an overview for City Council members of the 2012 Loveland Fire Rescue Authority Strategic Plan. This Plan, and its key component the Model 1 Basic Services Plan, has been reviewed and presented to all governing bodies for the Fire Authority, including City Council several times over the last two years. The plan was formally adopted by the Fire Authority Board on August 9, 2012.

BUDGET IMPACT:
There is no budgetary impact from this presentation. However, implementation of the Model 1 Basic Services Plan will have a negative budgetary impact for the city over a period of years between 2014-2020; the targeted time duration of the 2012 Strategic Plan.

SUMMARY:
The Fire Authority was researched and evaluated for Loveland for nearly three years. The result of the evaluation, and the work of three separate committees, indicated that the Fire Authority was the best model of governance, was a feasible model of governance with certain provisions related to increases in staffing and resources, and was doable within certain parameters. One of those key parameters was the development of a long-term strategic plan to function as a guide and management tool to help direct and keep the Fire Authority on target with specified organizational goals.

For over eighteen months various working groups and individuals contributed to the writing and development of the 2012 Strategic Plan. LFRA's Fire Rescue Advisory Commission (FRAC) took on the role of steering committee and assisted in the evaluation and editing of the drafts of

the text. A technical writer, Mary Sovick, of Fireline Communications served in the project as the editor and wordsmith for the final document. A local Loveland company assisted in the printing of the document. All political leaders, uniformed personnel, volunteers/ reserves and civilian personnel will receive their own copy of the plan. In addition, the plan will be posted on the department's website for public review once all presentations are made and distributions completed for LFRA.

The major focus of this evening's presentation will be an overview of the 2012 Strategic Plan. Areas of specific presentation will include:

- A very brief review of the overall plan
- Key Highlights of the Plan- Model 1 and More
- Recommendations
- Action Items….

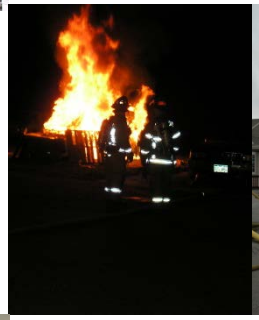
A time for questions will be provided at the end of the presentation. In addition to the presentation, a personalized copy of the 2012 Strategic Plan is being provided for each City Council member.

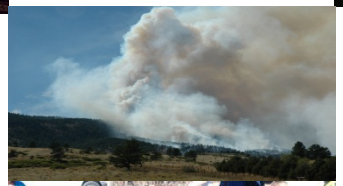
REVIEWED BY CITY MANAGER: William D. Cahill

LIST OF ATTACHMENTS:

1. PowerPoint Presentation
2. 2012 LFRA STRATEGIC PLAN: *A TIME OF CHALLENGE A TIME OF OPPORTUNITY*

2012 Strategic Plan





A TIME OF CHALLENGE

OPERATIONS
ADMINISTRATION
COMMUNITY SAFETY

A TIME OF OPPORTUNITY

Review of the 2012 Strategic Plan

Presentation for:

Loveland City Council

Study Session

September 25, 2012

Strategic Plan

During the June Fire Authority Board Meeting, a presentation for the board was made highlighting key points from the 2012 Strategic Plan for Loveland Fire Fescue Authority. The plan was approved in concept and subsequently adopted at the August 2012 meeting

Tonight's Presentation for City Council Will Include:

- ***A very brief review of the overall plan***
- ***Key Highlights of the Plan- Model 1 and More***
- ***Recommendations***
- ***Action Items….***

We will begin with a brief review-

* Brief Review of the 2012 Strategic Plan

LFRA's Strategic Plan was built on two basic organizational values and overall organizational goals:

1. Taking LFRA from "Good to Great"
2. Building the organization to last…

- The building blocks of going from Good to Great can be found in the Model 1 Basic Services Plan

- The entire strategic plan, including funding, service level indicators, performance management and ongoing analysis and review is designed to ensure LFRA is built to last…

Let's take a quick look at the overall plan…

Strategic Plan

The Strategic Plan establishes <u>three</u> primary goals and the related strategies:

- ***Deploy an effective emergency response to minimize damage and loss in the community*** *(Clausewitz)*
  - ***Deploy appropriate incident specific resources***
  - ***Implement a skilled response***
- ***Minimize and mitigate risks of an emergency occurrence in the community*** *(Sun-Tzu)*
  - ***Adopt and reinforce fire codes that enhance the safety in the built environment and assist with effective response in the case of an emergency.***
  - ***Integrate a community-wide emergency preparedness program for natural and man-made disasters.***
- ***Deliver cost effective services***
  - ***Ensure that the citizens receive a consistent value for the tax dollar invested.***

Based here are all service level indicators and PM dimensions

Strategic Plan

* Highlights of the Plan and Model 1-

There are several highlights to the 2012 LFRA Strategic Plan

We will quickly overview the Highlights and then focus on the goals and details of Model 1 Basic Services Plan

Let's look at the highlights of the plan…

Loveland Fire Rescue Authority Strategic Plan- Outline and Overview

SECTION I: Executive Summary-

SECTION II: Introduction-

SECTION III: Loveland Fire Rescue and the Fire Authority- Basic Planning Assumptions-

SECTION IV: The Fire Protection and Emergency Services Situation-

SECTION V: Staffing and Deployment-

SECTION VI: Model 1 Basic Services Expansion Plan- *****

SECTION VII: Specialized Areas-

SECTION VIII: Performance Measurements and Standards and Communications-

SECTION IX: Fire Protection & Emergency Services Goals, Objectives and Service Level Indicators-

SECTION X- Recommendations-

APPENDIX- Associated documents that are linked to the plan are contained herein.

Loveland Fire Rescue Authority Strategic Plan- Highlights

- **SECTION III: Loveland Fire Rescue and the Fire Authority- Basic Planning Assumptions-** *A brief overview of the organization, funding and future revenue allocations of the fire authority; along with the mission, vision and values, and basic planning assumptions are included.*

- **SECTION V: Staffing and Deployment-** This section highlights the basic staffing and deployment needs for LFRA and gives an overview of the Three-Tiered Staffing Model in use by the department; including benefits, cost-effectiveness and concerns.

Loveland Fire Rescue Authority Strategic Plan- Highlights

- **SECTION VI: Model 1 Basic Services Expansion Plan-** A history and the specifics of Model 1 are included in this section. Areas such as current and future staffing needs and expansion, large capital replacement and facilities expansion, along with the four phased process for implementation and estimated costs are all included.

- **SECTION IX: Fire Protection & Emergency Services Goals, Objectives and Service Level Indicators-** This section creates and establishes the organizational goals and objectives and what service level indicators will be utilized to track and measure organizational performance during the operational period of the strategic plan

- **SECTION X- Recommendations-** Recommendations and timelines are listed in this final section

Let's take a closer look at Model 1….

Strategic Plan

- **Model 1 Basic Services Plan :**
- **History of Model 1…** *(Improving staffing & service)*
- **Parts or "Phases" for Implementation , *2012-2020***
  - **Phase 1- 2012-2013**
    - add 6 firefighters for engine 6 and Truck 6
    - add Public Safety Administrative Director
    - add 1 Lieutenant to CSD (business insp. program)
    - added funding for part-time f/f program (70 k)
  - **Phase 2- 2014-2015**
    - add 6 FT positions for Heavy rescue 2 (3 Lieutenants & 3 engineers)

Capital items are also included in each phase…

- Model 1 Basic Services Plan (cont.) :

- Parts or "Phases" for Implementation , *2012-2020*
  - Phase 3- 2016 2017-2018
    - add 9 firefighters for New Station 10 (lt. Eng. f/f)
    - add 1 Administrative (Secretarial) Position
  - Phase 4- 2018-2020
    - add 3 FT firefighter positions (for coverage and rover positions)

- Model 1 has affixed a basic Revenue Allocation Formula of 82% City and 18% Rural for Full Cost Budgeting

Capital items are also included in each phase…

- Model 1 also has three distinct service improvement impacts based on district geography…

  - Phase 1 (Improved Service in East and NE)
    - Expand station 6 to handle two full companies (capital)
    - Expand Engine 6 & Truck 6 to min. staffing @ 3 f/fs
    - Auto-aid agreement with WSFPD
    - Improve EMS services in area (TVEMS move)

  - Phase 2 (Improved Service in West and NW)
    - Move Station 2 to 29th & Wilson (better resp. times)
    - Add the Heavy Rescue company (2-company house)

  - Phase 3 (Improved Service in West)
    - New Station 10 (add needed Engine Company)

Strategic Plan

* Recommendations/ Implementation – (Section X)

The Recommendations and Implementation portion of the plan is separated into 4 subcategories:

1. *High Priority*
2. *Intermediate Priority*
3. *Future Priority*
4. *Additional Priorities/ Needs*

Let's take a closer look at these four

Strategic Plan

* **Recommendations/ Implementation – (Cont. *See page 95*)**

1. *High Priority- Elements in Phase 1 or Phase 2 of the Plan (2012-2015) that relate to the addition of needed staffing or high priority capital items*

2. *Intermediate Priority- Elements in Phase 3 of the Plan (2016-2017) that relate to the addition of staffing or intermediate priority capital items*

3. *Future Priorities- Elements in Phase 4 of the Plan (2018-2020) relating to coverage personnel/ capital*

4. *Additional Priorities- Capital and personnel needs with no timeline set or funding identified*

Strategic Plan

* Recommendations/ Implementation – (Section X)

Between pages 96-103, the recommendations are further described based on the priority in each of the four subcategories. An expansion priority is listed, followed by a brief explanation for what and why the need exists…

On page 101, a final segment is listed known as: "Other Organizational Needs." This listing has several capital items (4) that are targeted needs not listed in the main body of the Strategic Plan. They Include:

1. Type 3 WUI Engine
2. *Technology Improvements and Fiber-Optic*
3. *Training Facility Enhancements and Expansion*
4. *Purchasing Land for New SE Fire Station*

Action Items

Strategic Plan

* Action Items –

The most important actions associated with the Plan will be the ongoing review and updates for the plan:

1. *Phased Implementation*
2. *Annual Review*
3. *Adjustments as Needed*
4. *Unexpected Needs*

The LFRA Strategic Plan will be an active document that will be used for organizational planning and management ownership by all LFRA personnel will be essential for the success of this plan…

Just a brief comment on ownership…

Strategic Plan

* Action Items –

Another important part of this plan will be the need to be flexible- some changes are likely to occur during the years this plan will be in operation for LFRA*

* Some changes already have occurred that has impacted the plan…

Strategic Plan

Questions???

Review of the 2012 Strategic Plan For LFRA

Loveland Fire Rescue Authority

Fire Protection/ Emergency Services

Strategic Plan

2012 Edition

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APPENDICES

FIGURES

I. EXECUTIVE SUMMARY

If a community desires to provide a fire-safe environment for its citizens and visitors, the fire protection and emergency service needs must be identified, planned for, and properly addressed in the most cost effective manner. By acting in partnership with the newly-formed Loveland Fire Rescue Authority (LFRA), the City of Loveland and the Loveland Rural Fire Protection District have recognized the importance of planning for the future around a shared vision that provides the best protection for the community. LFRA has developed the 2012 Strategic Plan to provide the Department a roadmap for the future.

The strategic plan for the Loveland Fire Rescue Authority (LFRA) will be based on an eight to ten year timeframe, with annual evaluations and progress reports being made to the various governing bodies.

It is anticipated that this strategic plan for the Loveland Community will:

- Provide an accurate description of the Loveland area's past, present, and future fire protection and emergency services situation.
- Provide an accurate description of the current fire protection and emergency services systems, its capabilities, and its limitations.
- Establish an agreed upon model of operation that can address the future fire and rescue needs.
- Establish a set of goals and objectives that will determine the desired performance level (often referred to as service levels) and establish service level indicators that provide a standardized way of measuring the effectiveness of the fire protection and emergency services system of the future.
- Establish a plan for initiatives that will help prevent harm from emergencies or limit the potential destruction.
- Provide a safe, fairly-funded, proactive, and cost effective fire protection and emergency services system.

Because of the difficulty of making accurate predictions during the current economic climate (2012), the strategic plan will be a dynamic document that will continue to evolve, adapting to the changes that unfold over the next eight to ten years. Periodic evaluations and progress reports to the Fire Authority Board of Directors will be an essential part of this planning process. These updates and progress reports will be included in an annual report made by the Fire Chief and the organization to communicate to the Fire Authority board members and the public the progress made on the stated organizational goals and objectives.

The recommendations include two segments: (1) strategic plan priorities for LFRA and (2) other organizational needs. The plan's priorities are based primarily on elements of the current staffing and deployment plan known as Model One Basic Services Expansion Plan (see Section VI). The plan is organized into four phases of implementation and four subcategories defining levels of priority for implementation: high priority, intermediate priority, future priority, and additional priorities and needs. The Model One plan offers a minimum staffing of each fire company with three firefighters and utilizes the current three-tiered workforce of reserves, part-time paid, and full-time paid firefighters. Model One is expressed on the following page with estimated costs and implementation phases.

Model One Basic Services Expansion Plan

	COST	2012/ 13	2014	2015	2016	2017	2018	2019
PHASE 1 2012-2013								
Add 6 FT firefighters for Engine 6 & Truck 6	$ 426,777*							
Add funding for part-time paid F/F program	$ 70,420*							
Add Public Safety Administrative Director position	$ 130,000*							
Add 1 Lieutenant position to CSD	$ 106,140*							
TOTAL Increase for O&M for Phase 1	**$ 733,337**							
Expand Station 6	$ 930,000							
Purchase new fire engine	$ 483,000							
TOTAL Capital $ for Phase 1	**$1,413,000**							
PHASE 2 2014-2015								
Add 6 FT positions for new Heavy Rescue Squad 2 (3 Lieutenants and 3 Engineers)	$ 694,389*							
TOTAL Increase for O&M for Phase 2	**$ 694,389**							
Construct new Station 2	$2,900,000**							
Purchase new Heavy Rescue Squad	$ 500,000							
Replace Aerial Tower	$1,200,000							
Refurbish 2000 Smeal Aerial Ladder for Reserve Truck	$ 475,000							
TOTAL Capital $ for Phase 2	**$5,075,000**							
PHASE 3 2016-2017								
Add 9 FT position for new Station 10 (3 Lt., 3 Eng., 3 FF)	$ 980,434*							
Add 1 Administrative (secretarial) position	$ 54,450*							
TOTAL Increase for O&M for Phase 3	**$ 1,034,884**							
Build new Station 10	$2,299,000**							
Replace fire engine	$ 530,000							
Refurbish Water Tender 1	$ 237,000							
TOTAL Capital $ for Phase 1	**$ 3,066,000**							
PHASE 4 2018-2020								
Add 3 FT firefighters for coverage/rover positions	$ 262,308*							
TOTAL Increase for O&M for Phase 4	**$ 262,308**							
Refurbish Water Tender 5	$ 357,000							
Replace Front Line engine (2020)	$ 597,388							
TOTAL Capital $ for Phase 4	**$ 954,388**							

*****All O & M costs include a 3.5% annual inflationary increase ** These estimates were provided by City of Loveland Facilities in early 2011; they will need to be re-evaluated in the coming years based on the construction trends and costs per square foot.

High Priority Intermediate Priority Future Priority

II. INTRODUCTION

BACKGROUND

History of the Fire Authority and the Development of Model One

The development of the Fire Authority for LFR spanned nearly two and one half years and involved three committees. The first committee set out to evaluate several different governance models, identifying which one would be the best for LFR. The conclusion of this group's research suggested that the Fire Authority would be the best model considering all of the characteristics and particulars involved within the organization. The second committee took the work of the first committee and focused on the feasibility of a Fire Authority for LFR. One of the important outcomes from this committee's work was the recognition that a Fire Authority would be feasible for LFR, but significant organizational improvements would have to be made in staffing, deployment, and planning for a Fire Authority to be feasible and successful. This group's efforts included an analysis of the community and fire-rescue needs and the gaps that existed for those services. The third committee, made up of policy and decision makers from both the City Council and the Rural Board of Directors, set to work on identifying how a Fire Authority would work for LFR. Two critical documents emerged from this committee.

The intergovernmental agreement (IGA) for how the Fire Authority would work was developed from this third committee. This document was reviewed and approved by both governing bodies for the Fire Authority. It establishes the legal parameters for how LFRA will be operated and managed. A second document also emerged from this third committee; it became known as *Model One*. During one of the committee's progress reports to the City Council and Rural Board, two models for staffing were presented. *Model One* focused more on the three-person company as the minimum-staffing model. *Model Two* had as its base the four-person company for staffing levels. After review by both governing bodies, *Model One* was chosen.

Model One is more inclusive than simply specifying the staffing levels for operational fire companies (see Section VI). However, from a planning perspective, the needs for increased staffing levels are a high priority for this plan. As the third committee continued to meet for over a year, *Model One* was refined and eventually approved by both governing bodies as the guiding document for expansion of LFRA for the next eight to ten years.

Timelines for Expansion and the Variables

Timelines for expansion for *Model One* are included as targets for this plan. Variables have been identified that will affect the Department's ability to meet these targets. One of these variables is funding. The next segment of the document focuses on long-range financial planning. However, for the purposes of planning, timelines have been identified and specified for the areas of needed expansion. Growth in the community could also impact the need and timelines for expansion. For example, a project the size of the proposed Rocky Mountain Center for Innovation and Technology (RMCIT) could impact LFRA's ability to provide the appropriate level of fire-rescue services. The arrival of additional retailers to the Loveland area or the unexpected expansion in the retail or commercial developments could have an impact on this plan as well. One final variable in the plan is the Fort Collins Loveland Airport complex and its development. An unexpected growth in the number of flights to and from the airport could impact the timelines and direction for expansion that are listed within this plan.

Long-Range Financial Planning

Uncertainty regarding the long-range financial stability for LFRA is an issue that is unique for this planning process. Most strategic plans have identified funding streams or sources that serve as the vehicle to ensure that the targeted expansion is funded. However, because LFRA is in the incipient phase of its development, certain ambiguities and uncertainties are unavoidable. Both the City and the Rural District have expanded financial obligations for ensuring that the Fire Department will be able to expand its services at the appropriate level to ensure quality service to the Loveland community. The Rural District Board has evaluated its financial obligation and is seeking a mill levy increase in property taxes to meet its financial obligations for expansion. The city has also identified expansion of the Fire Department as a high priority and has done some evaluation and reorganization for how some of these expansions can be funded. Neither governing body has procured the necessary funding streams for all of the planned-for expansion at the time of the writing of this plan.

Financial options for the Fire Authority will be an ongoing focus for the City Council, the Rural District, the City Manager, and the Fire Chief. For the city, this focus will likely transcend the needs and issues of the fire service to include the needs of the Police Department and will likely be viewed as part of an overall community safety or public safety initiative. For the fire department, the gap between community or public safety needs and the ability to fund those needs is reflected in past funding inequities. The research that has been presented to both governing bodies, the City Council and Rural Board of Directors, suggests that the Fire Department is underfunded and understaffed by nearly 30% when compared to six of the comparison departments within the Front Range Fire Consortium of which LFR is a member. Financial options for the city will be fleshed out in the near future as part of the City Council's plan to address the Fire Department's funding needs. LFRA could need new funding sources to meet its financial requirements and the community's public safety needs.

THE NEED FOR FIRE PROTECTION AND EMERGENCY SERVICES PLANNING

The primary purpose of local government is to provide protection, public safety, and support through infrastructure for its citizens. Public fire protection and emergency services, as a function of local government, has the responsibility of saving lives and property from natural or human-caused situations and preventing harm through planning and pre-incident mitigation. Local governments, through the fire protection and emergency services delivery systems, must also ensure that those persons that own or operate businesses or manage property do so without endangering those who use their services or are affected by their property.

Any fire protection and emergency services system should reflect the needs and desires of the community and be managed and operated within an affordable and efficient financial system. It has always been important for local governments to operate in a manner of good stewardship of the public funds. Today, under the constraints of diminishing revenue and shrinking budgets, good financial stewardship has become one of the prime directives for communities and their citizens. Local fire protection and emergency services operations should support the overall goals and objectives of the community. In the western part of the United States, the term "community" has been defined in a broader manner than simply meaning the defining lines of a city or borough. Often, community is more reflective of an area or region that may encompass a city and its surrounding district. Local governments and fire protection and emergency services delivery systems are challenged to be more effective and to even do more with less; they must

look beyond the simplicity of single jurisdictional boundaries and adjust operations to have more of a community approach. Such is the case with the creation of fire districts and fire authorities. These new governance models are built around concepts that encourage greater efficiency, effectiveness, and cost-savings.

Historically, in both the emergency and non-emergency setting, the fire service has waited for a problem to develop and then react to it. This operational method of being reactive rather than proactive has contributed to an unbalanced and oftentimes ineffective and inefficient service delivery model. The lack of adequate planning has also contributed to many fire service organizations being unprepared to protect their citizens adequately and unable to provide for appropriate levels of community safety from the hazards of fire and natural or human caused destruction.

If a community desires to provide a fire-safe environment for its citizens and visitors, the fire protection and emergency service needs must be identified, planned for, and properly addressed in the most cost effective manner. By acting in partnership with the creation of the Loveland Fire Rescue Authority, the City of Loveland and the Loveland Rural Fire Protection District have recognized these needs and the importance of planning for the future around a shared vision that provides the best protection for the community.

Strategies that include solid planning assumptions, the development of community goals and objectives, and recommendations for implementation have been formulated within this strategic plan for the future of the Loveland Community.

ANTICIPATED BENEFITS

It is anticipated that this strategic plan for the Loveland Community will:

- Provide an accurate description of the Loveland area's past, present, and future fire protection and emergency services situation.
- Provide an accurate description of the current fire protection and emergency services system, its capabilities, and its limitations.
- Establish a set of goals and objectives that will determine the desired performance levels (often referred to as service levels) and provide a standardized way of measuring the effectiveness of the fire protection and emergency services system of the future.
- Establish an agreed upon model of operation that can address the future needs for fire and rescue operations.
- Establish a plan for initiatives that will help prevent harm from emergencies or limit the potential destruction.
- Provide a fire protection and emergency services system whereby:
    - Deaths, injuries, and loss will be minimized.
    - The funding for fire protection and emergency services is more properly distributed between city and rural citizens.
    - A fire protection and emergency services system evolves over time and emphasizes control over the fire and rescue situation through planning rather than being simply reactive to it.
    - The fire protection and emergency services system is cost effective and efficient for the citizens, potentially saving the community money over time.

ACCURACY OF DATA

Every attempt has been made in this plan to provide the most accurate data and information possible. The data used as a basis for many of the planning assumptions and stated goals and objectives were derived from extensive studies of various local risk potential and local fire and rescue history. Comparison data was gleaned from other like departments in Northern Colorado and Southern Wyoming. Most of the data used from comparison departments was gleaned from those with like population and demographic models, similar services provided, and similar regional logistics. No attempt was made to be specifically selective or to "cherry pick" certain departments in order to make a stronger case for Loveland Fire Rescue Authority. Other data models, when used, were selected from the consortium of Colorado departments within the framework of the cohort group from the International City/County Managers Association (ICMA). Finally, any other data used within this plan, other than what has been specified, will be clearly cited for their use within the plan. The data that is listed in this plan can and does provide a good and reliable picture for fire service benchmarks and comparison data. However, it should not be viewed as all-inclusive or as absolute but should be considered as the best data and information that are available at the time.

PLANNING PROCESS OVERVIEW

The strategic planning project for Loveland Fire Rescue Authority has been conducted utilizing seven basic steps (Fig. 2-1). The first step was to establish the need for strategic planning within the organization as integral to constructing and accomplishing the organization's goals. The second step involved evaluating the current fire protection and emergency services systems and determining realistic capabilities of the Department. The third step involved evaluating the community and its threat from both natural and human-caused calamity, in effect conducting a community risk analysis. This included the areas known as the wildland urban interface. The fourth step involved the evaluation of the current fire-rescue and emergency services and capabilities, and the identification of gaps in service as compared to the overall community risk levels. Step five involved the creation of concise and accurate planning assumptions to meet service level needs of the community. Step six involved the creation of specific, measurable, and actionable goals and objectives for the plan. Finally, step seven involved developing a comprehensive set of recommendations for the strategic plan to ensure that the most efficient and cost effective methods were targeted for improvements to the fire protection and community fire related emergency services.

Seven Steps for Strategic Planning

Step 1- Establishing the Need for Strategic Planning

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Step 2 - Evaluating Current Fire Protection and Emergency Systems

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Step 3 - Evaluating the Community through a Community Risk Analysis

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Step 4 - Evaluating the Current Fire-Rescue Services and Capabilities

↓

Step 5 - Creating Accurate Planning Assumptions to Meet Service Needs

↓

Step 6 - Creating Specific, Measurable, and Actionable Goals and Objectives

↓

Step 7 - Developing Comprehensive Recommendations for Improvement of Services

Figure 2-1. Steps for Strategic Planning

The planning process has been carried out primarily by two complementary groups (Fig. 2-2). The Planning and Writing Team, which is made up of personnel from Loveland Fire and Rescue Authority, Thompson Valley EMS, City of Loveland Staff, and others has done much of the actual work for research and writing for the plan. The Community Advisory Commission was made up of members from the city's Fire Rescue Advisory Commission (FRAC), Rural District Board members, and representatives from the Loveland City Council. This group functions as the plan's steering committee and initial document review group. The group met at least monthly and kept the process moving forward and in the correct direction to meet the targeted timelines. The other entities or individuals that contributed to the planning process were the Loveland Fire Authority Review Committee and later the Fire Authority Board, which provided overall direction, set the goals, and approved the objectives set for the strategic planning process. The Fire Chief worked directly for the Committee/Authority Board to ensure that their directions and goals were carried out; the Chief also functioned as the liaison from the Committee/Authority Board to the other team and commission members to ensure consistency of mission and completion of planning processes. The Strategic Planning Commission leader worked directly with the Fire Chief to coordinate with the Community Advisory Commission; the leader also provided the link for citizen input.

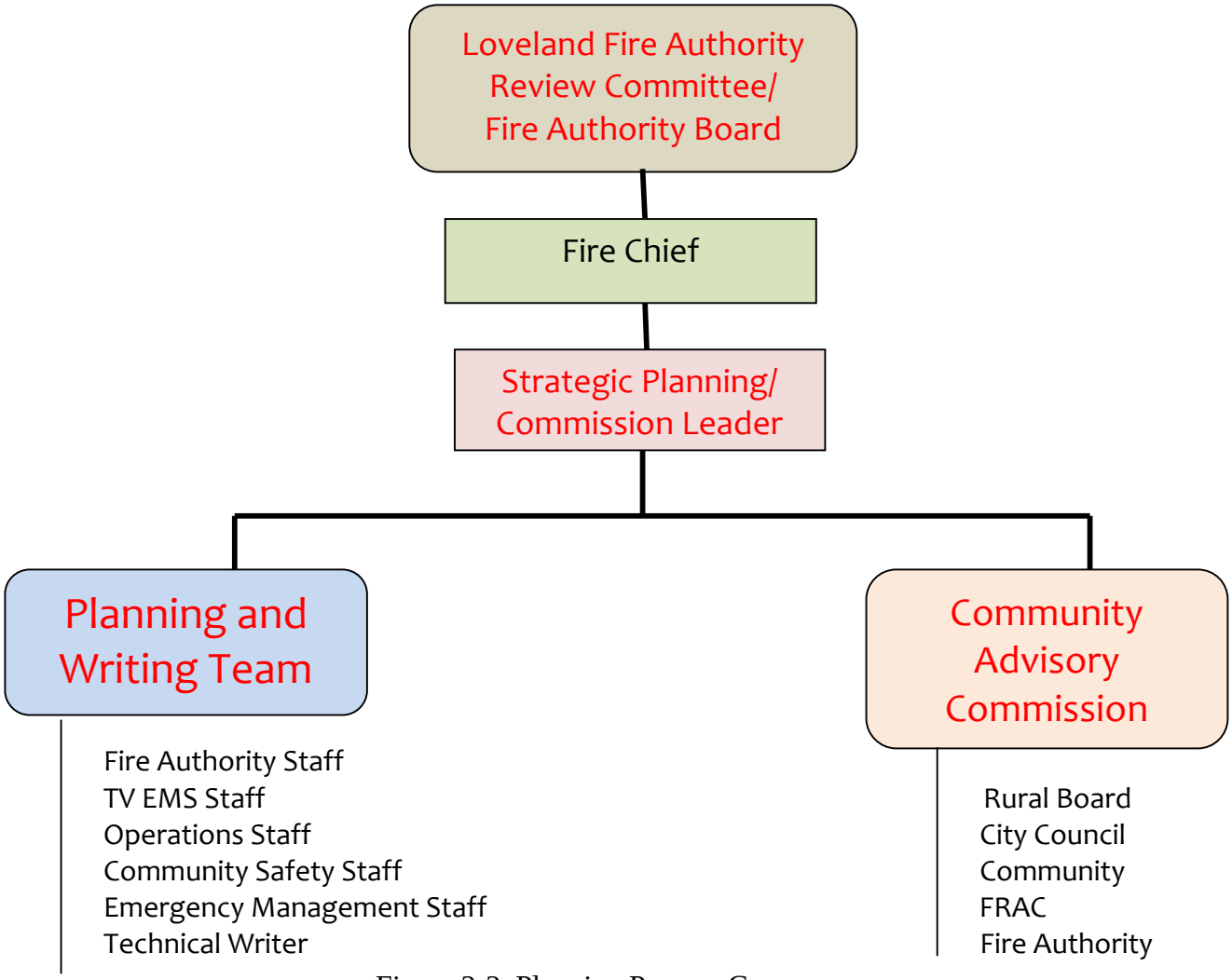


Figure 2-2. Planning Process Groups

STRATEGIC PLANNING STEERING COMMITTEE, DIRECTORS, AND LIAISONS

The strategic planning process included a combination of Department subject matter experts, experts in various fields outside of the Department, and citizen representation. Directors for the various areas within the plan were assigned to ensure that proper methodology, documentation, and accuracy of information is written for the plan. The following is a list of the members of the strategic planning process for Loveland Fire Rescue Authority (LFRA).

COMMUNITY ADVISORY COMMISSION (Steering Committee)

Janet Bailey……	Strategic Planning Commission Leader (FRAC)
Mary Moore……	FRAC Chair
Tim Hitchcock……	FRAC Vice-Chair
Paul Pfeifer……	FRAC Member
Jeff Swanty……	Fire Authority Board Member (Rural Board)
Andy Anderson……..	Rural Board Member
Randy Mirowski……	Fire Chief

STRATEGIC PLANNING DIRECTORS/LEADERS - LFRA/ Thompson Valley EMS

Randy Mirowski…….	Fire Chief
Rene Wheeler ……	Public Safety Administrative Director
Merlin Green……..	Division Chief
Ned Sparks……	Division Chief
Michael Cerovski……...	Battalion Chief
Rick Davis……..	Battalion Chief
Tim Smith……...	Battalion Chief
Greg Ward……..	Battalion Chief
Randy Lesher……..	EMS Chief

FIRE AUTHORITY BOARD - Strategic Planning Review Board

Jeff Swanty…….	Board Chairman/ Rural Board Member
Cecil Gutierrez……...	Board Vice-Chair/ Mayor City of Loveland
John Fogle……..	Board Member/ City Council Member
Dave Legits……	Board Member/ Rural Board President
Bill Cahill……...	Board Member/ City Manager of Loveland

ORGANIZATION OF THE STRATEGIC PLAN

The 2012 LFRA Strategic Plan is organized into 11 sections:

SECTION I: Executive Summary - A brief overview of the entire document with a focus on history, process, timelines, and Model One-the Basic Services Expansion Plan.

SECTION II: Introduction - Establishes the case for strategic planning and anticipated benefits; addresses the data portion, its accuracy, and the overall scope of the strategic plan.

SECTION III: Loveland Fire Rescue and the Fire Authority - Basic Planning Assumptions Includes a brief overview of the organization, funding, and future revenue allocations of the Fire Authority along with the mission, vision, values, and basic planning assumptions.

SECTION IV: The Fire Protection and Emergency Services Situation - Covers the basic demographics of the response area including population, growth, vulnerability, forecasting, and current emergency services. Includes a comparison to other regional departments.

SECTION V: Staffing and Deployment - Highlights the basic staffing and deployment needs for LFRA and gives an overview of the Three-Tiered Staffing Model in use by the Department, which includes benefits, cost-effectiveness, and concerns.

SECTION VI: Model One Basic Services Expansion Plan - Includes the history and the specifics of Model One. Includes areas such as current and future staffing needs and expansion, large capital replacement and facilities expansion, and the four-phased process for implementation and estimated costs.

SECTION VII: Specialized Areas - This section highlights future needs and the specific services provided within the specialized areas including EMS, Wildland, Specialized Operations Team, Training, and the Community Safety Division.

SECTION VIII: Performance Measurements and Standards and Communications Presents an introduction to performance measurements and history including segments about ISO and ICMA, fire department accreditation, and LFRA's current and future use of performance measurements.

SECTION IX: Fire Protection and Emergency Services Goals, Strategies, and Service Level Indicators - This section creates and establishes the organizational goals and objectives and identifies the service level indicators that will be used to track and measure organizational performance during the operational period of the strategic plan.

SECTION X: Recommendations/ Implementation - Recommendations and timelines are listed in this final section.

APPENDIX: Contains associated documents that are linked to the plan.

SCOPE OF THE STRATEGIC PLAN

The intent of this Strategic Plan is primarily to provide guidance in formulating major policy decisions and setting overall direction for the fire authority. The scope of this plan has been somewhat limited to exploring major philosophical changes for Loveland Fire Rescue Authority, both strategically and operationally, and their impacts on:

- Taxpayers in the region.
- Performance of the fire protection and emergency services systems.
- New and existing development.
- Safety of the public and emergency services personnel.
- Future expansion and needs for staffing and services.

Items such as equipment specifications, operating procedures, and resource management have, for the most part, been purposely omitted from this plan. These relate to more operational or task levels and can be best addressed in other documents and procedures within the organization.

Another area that has been purposely omitted from this plan is a detailed analysis for a funding mechanism to achieve the expansion that is listed in the Model One Basic Services Plan. Although the fire district has limited options for expansion of its funding and contribution rates (i.e., increasing the mill levy for district residents), the details for how much of an increase is needed and the manner in which it is achieved are better left to a general acknowledgement that funding increases will be needed. This issue is even more complicated on the City side as there are a myriad of ways that funding increases and contribution rates can be improved. For the purpose of this plan, it is acknowledged that in order for the needed improvements in staffing and services to occur, both the City of Loveland and the Loveland Rural Fire Protection District will need to increase their contribution to the Fire Authority.

It is extremely important to emphasize that this Strategic Plan is dynamic and may need to be adjusted over time. The most significant aspect of this plan is that it establishes a framework for formulating and addressing changes and improvements in the fire protection and emergency services situation in the future. Periodic reviews and updates will be necessary to keep up with the changing environment and the economic profile of the community.

III. LOVELAND FIRE RESCUE & THE FIRE AUTHORITY - BASIC PLANNING ASSUMPTIONS

ORGANIZATIONAL BRIEF

Loveland Fire Rescue Authority (LFRA) is a consolidated fire protection and emergency service agency specializing in fire and rescue-related services. LFRA serves the City of Loveland and the Loveland Rural Fire Protection District covering approximately 194 square miles of area. The organization's 65 full-time uniformed members, its three civilian support staff members, 12 part-time firefighters, approximately 20 firefighter reserves, and seven non-combat reserves provide the workforce for the agency. LFRA operates five fire stations staffed 24 hours, seven days per week, plus three reserve stations. The station at the Fort Collin-Loveland Airport is staffed on an as-needed basis for aircraft flight stand-by services. The Department operates six paid fire companies, including one aerial truck company and a heavy engine/squad currently doing dual duty as an engine and heavy rescue company. Within the fire district are the communities of Johnstown (I-25 & Hwy 34) and portions of Masonville and the Pinewood Reservoir area. In 2012 approximately 88,000 people live within the area served by LFRA.

LFRA was formed in January of 2012 with the consolidation of the City of Loveland fire department (Loveland Fire and Rescue) and the Loveland Rural Fire Protection District. The City and Rural District adopted an intergovernmental agreement (IGA) establishing the Fire Authority. The IGA is the basis of LFRA's existence and outlines the governance, management, funding formulas, and operation of the Fire Authority. A five-person board of directors, appointed by the City Council and Rural District Board, governs LFRA. The Board includes two City Council members, two Rural Board members, and the City Manager of Loveland. LFRA's Fire Chief is a city employee and serves the Fire Authority Board and the City Manager. All firefighters for LFRA are city employees assigned to the Fire Authority. LFRA is organized into three divisions: Suppression, Community Safety, and the Big Thompson Canyon Division. Support services are provided within the confines of these three divisions and are assigned to the Community Safety Division.

FUNDING FOR THE FIRE AUTHORITY

LFRA is funded by the City of Loveland and the Loveland Rural Fire Protection District through a combination of property taxes in the Rural District plus property and sales taxes in the city via the general fund. LFRA also generates a small amount of revenue from fire prevention-related permits and reimbursements for fire-rescue services for wildland and specialized deployments. For 2012 LFRA has a base budget of approximately $7.8 million dollars and ancillary services costing approximately $790,000 for a total full-cost budgeting amount of approximately $8.6 million dollars. Capital expenditures vary from year to year depending on equipment purchases and facility construction or improvement. Funds are received from the City's capital replacement fund, capital expansion fees (CEFs), and capital dollars from the Rural District. The current plan, Model One, calls for the involvement of both the City and Rural District's capital apparatus funds to continue independently until the year 2017 when the Fire Authority's capital for apparatus will be funded through annual contributions from the City and Rural District at an 82% (City) and 18% (Rural) ratio. Section V (page 31) contains the expanded financial plan and model for the Fire Authority.

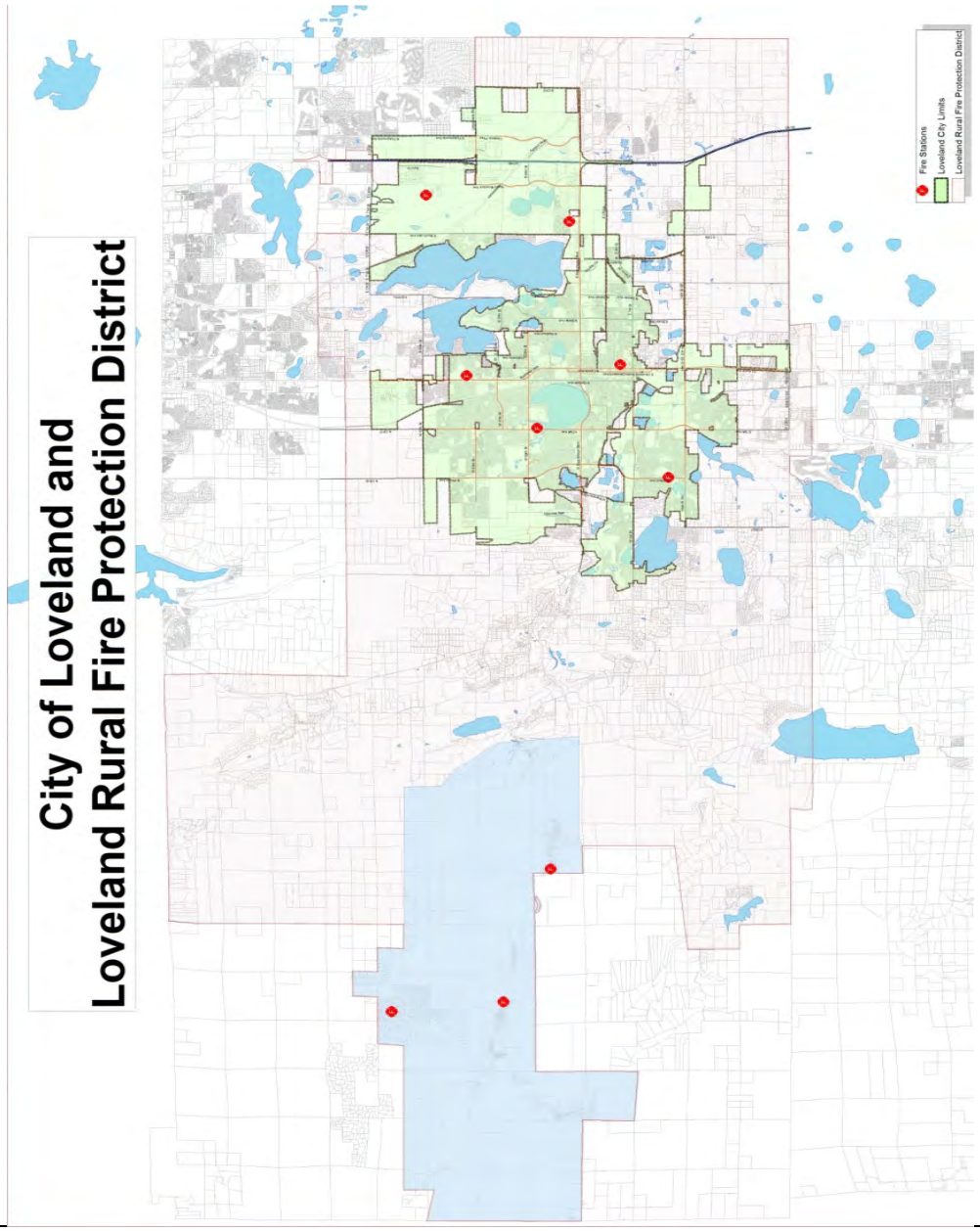


Figure 3-1. City/District Map

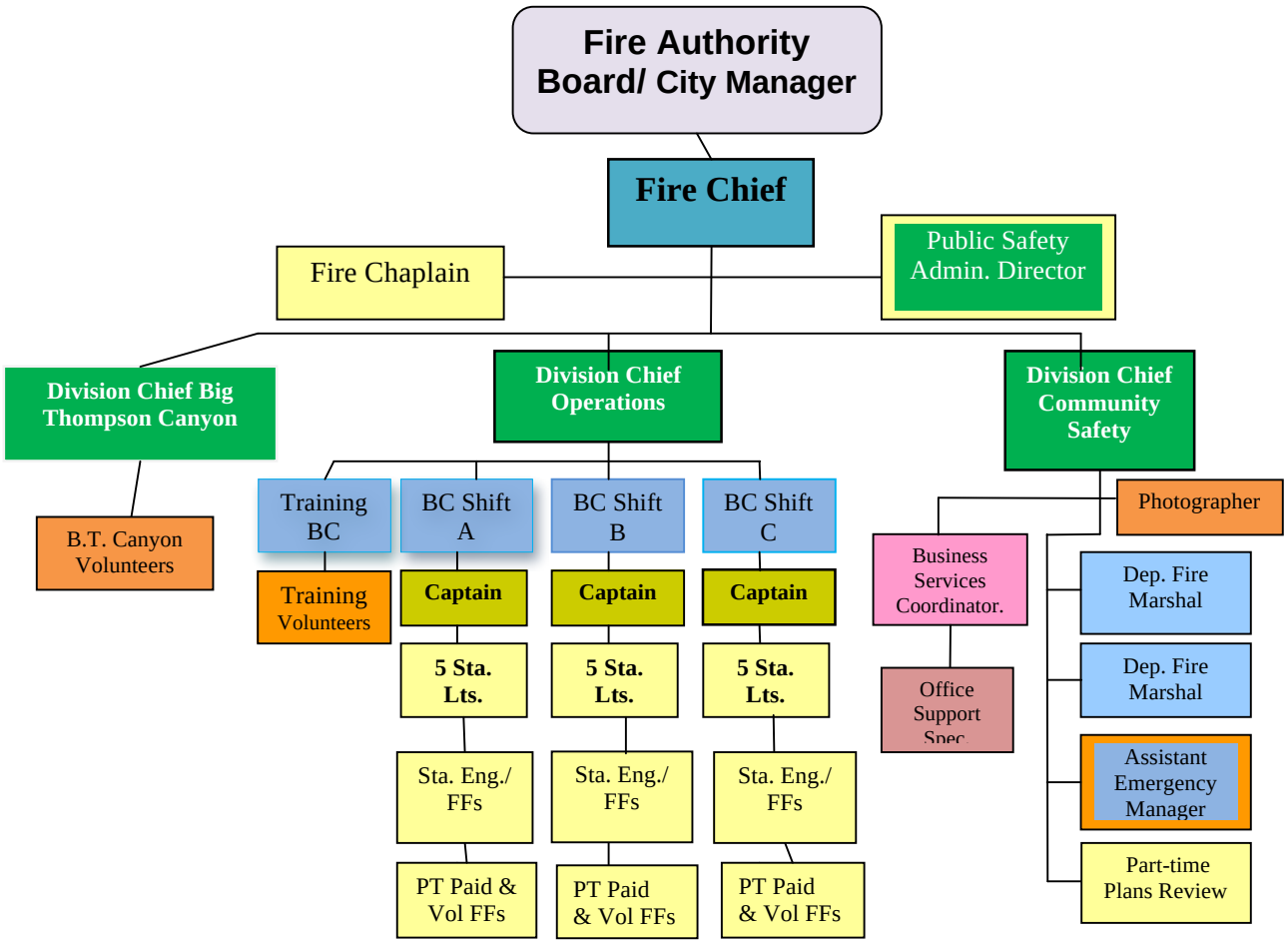


Figure 3-2. LFRA Organizational Chart

FUNDING AND THE REVENUE ALLOCATION FORMULA

The Fire Authority uses a Revenue Allocation Formula (RAF) for determining the contribution ratio for both the City of Loveland and the Loveland Rural Fire Protection District. The IGA for the Fire Authority breaks out the ratio as follows:

* City of Loveland Contribution	82%
* Loveland Rural District Contribution	18%
Total Contribution for Full Cost Budgeting	100%

The RAF is based primarily on call load, or more specifically the percentage of calls that firefighters respond to in the City and Rural District. These percentages are not intended to be exact, but rather a target representing the call volume and workload over a longer period of time. Trending to achieve these percentages for the RAF spanned more than 20 years from 1990-2010. These percentages and the entire RAF should be reviewed periodically for accuracy and continued relevancy.

MISSION, VISION, AND VALUES STATEMENTS

Loveland Fire Rescue Authority is committed to providing the highest quality services for the citizens that are served by the Department. The mission statement is:
"Through commitment, compassion, and courage, the mission of the Loveland Fire & Rescue Authority is to protect life and property."

These three values, commitment, compassion, and courage, are the hallmark and heritage of the American fire service. LFRA has adopted these timeless values as a benchmark for measuring the Department's members and the services that are provided to ensure that the desired quality is continually and consistently being provided. The vision for the organization is to embrace the concept of continuous improvement with each and every member doing all that he or she can do to help move the organization from good to great. LFRA is committed to delivering the best possible citizen service to our community with promptness and professionalism. The vision is to continually seek ways to enhance citizen services and firefighter safety within the framework of the organization's service delivery model. It is the Department's primary goal to be recognized by the community of Loveland and those in the fire service community as a model of excellence in providing fire protection and emergency services in the most cost-effective manner.

BASIC PLANNING ASSUMPTIONS

The basic planning assumptions for LFRA are broken out into two distinct areas: Phase One and Phase Two. Phase One covers seven basic planning assumptions that serve as the basis of the first strategic plan for LFRA from 2012-2020. The planning assumptions listed in Phase One have identified goals and objectives and have amortized cost estimates for each area of expansion or improvement. Phase Two is based on long-term expectations of what may occur. It is more general and contains no real goals or objectives, but rather assumptions that are likely to occur within a set timeframe for the organization after year 2020. These long-range planning assumptions should prove to be more valuable as the plan for Phase One nears the end of its cycle. Planning assumptions are the forecasting tool for staffing and large capital expenses.

Planning Assumptions for Loveland Fire Rescue Authority for Phase 1 and Phase 2

Phase 1 *(2012-2020) will include organizational strategic goals and objectives with costs identified*

Phase 1 Planning Assumptions

1. ***Service Levels Provided*** **-** The Fire Authority expects to maintain or improve current City and Rural District response service levels and those projected for future expansion, with the noted exceptions listed for new stations and service areas.
2. ***Population Expansion*** **-** Projections for expansion will assume a flat growth for the next two-three years (2011-2013) and project an approximate 2.5% growth per year from 2014-2020. This would calculate into a population of approximately 102,025 in 2020 for the Fire Authority service area or response area.
3. ***Station/Fire Company Expansion*** **-** Projections for replacement or addition of new fire stations and staffing would include:
   - *Adding 6 full-time (FT) positions for minimum staffing for Engine 6 and Truck 6.*
   - *Adding 1 Heavy Rescue Company to Station 2 (6 FT positions).*
   - *Adding 1 new Engine Company to the west area of the District (9 Positions.)*
   - *Adding 3 FT positions for coverage or fill-in.*

   These projections would include building a new fire station in the northwest portion of the district to replace the current Station 2 and building a new fire station in the west part of the district (Hwy 34 and Co Road 27 area). Projections for fire company expansion would be a target for minimum fire company staffing at three firefighters per company and a targeted goal of .94 to .95 firefighters per 1000 population.
4. ***Workforce Staffing Methods*** **-** Projections for this phase would include the use of the three-tiered system of reserves, part-time paid, and full-time paid firefighters. The expectation would include assigning of reserves on an as-needed basis for accomplishing the criteria for minimum hours worked (currently 36 hours/month). It is expected that part-time paid firefighters would be assigned shifts as part of the daily minimum staffing criteria for no more than 15% of the paid workforce or no more than three on-duty fire companies using a part-time firefighter for minimum staffing criteria.
5. ***Additional Non-Uniformed FTEs*** **-** Projections for workforce expansion should include a minimum of a public safety administrative director (to help administrate the Fire Authority and to work with Loveland PD), one additional administrative assistant, and one technical specialist or inspection services manager in the Community Safety Division.
6. ***Selection of Model One Basic Services Plan*** **-** Model One Basic Services Plan is to be the plan of choice for future planning assumptions.

Phase 2 Planning Assumptions

Phase 2 *(2021-2030) will include planning expectations without identified funding streams. These planning assumptions are expected to be very general and based on a historical and projected forecast of what the Department's needs will be during this timeframe.*

1. ***Organizational Planning Goals/Expectations*** **-** Projections for this next phase (2021-2030) should include ***consideration*** for:
   - Re-staffing of the airport station (Station 4) for area coverage and addressing expanded airport operations, and/or expansion in the commercial business park or commercial area around the airport. This will be reviewed on an "as needed basis" within the City of Loveland and the Rural District's planning process, and periodically with the Airport Director and the Director of Public Works to ensure proper service level needs are maintained.
   - Addition of one fire station to the south/southeast corridor, projected for the area of South Boise and Highway 402.
   - Expansion of an additional truck/ heavy rescue company.
   - Expansion for a paid staff position for Big Thompson Canyon station (40-hour training and response position).
   - Increase of minimum staffing from three firefighters per fire company to four.
2. ***Workforce Staffing Analysis*** **-** Projections in Phase 2 should include a comprehensive analysis of the three-tiered workforce plan with recommendations for revision or change to the most appropriate workforce/staffing system to best meet the community's fire/rescue needs. This would include a workforce staffing and needs analysis of the Big Thompson Canyon area of the district.

IV. THE FIRE PROTECTION AND EMERGENCY SERVICES SITUATION

THE PLANNING AREA PROFILE

The City of Loveland and the Loveland Rural Fire Protection District area are located 50 miles directly north of Denver, Colorado, along the eastern foothills of the Rocky Mountains and the Arapaho and Roosevelt National Forest. The planning area includes the City of Loveland, Big Thompson Canyon, Masonville, Pinewood Reservoir, and a portion of the City of Johnstown at I-25 and Highway (Hwy) 34.

The planning area encompasses 194 square miles. Within this area land uses vary from high-rise hotels and apartment buildings to agriculture and farm acreage. The present population is approximately 87,500 people, with nearly 65,000 living within the City of Loveland and an additional 22,500 living in the rural fire protection district. The population in the planning area is expected to grow to over 100,000 by the year 2020. The additional people are expected to live in higher densities and work in a variety of new industries and high tech businesses with an emphasis on clean and new or alternative energy sources. This expected growth could be dramatically influenced with the addition of and expansion of new industries such as the proposed Rocky Mountain Center for Innovation and Technology (RMCIT) project, or one like it, which is expected to start operations in 2012-2013. Upward of 5000-7000 jobs could be gleaned from a project like this; however, none of this is certain. This strategic plan's focus is on predictable business expansion and residential growth, not for high impact and growth ventures like the RMCIT project.

Loveland Fire Rescue Authority (LFRA) provides fire protection to a total area of 194 square miles, and Thompson Valley EMS responds to an even larger area beyond the scope of LFRA's responsibility. This strategic plan will take into account the entire urban and rural area in its scope; however, specific focus is placed on the urban response level-of-service area, which covers roughly 100 square miles. The wildland urban interface area (WUI) is addressed as a separate theater for operations; information about this can be found in Section VII, Specialized Areas. The topography of the WUI planning area is predominantly low, rolling hills, directly adjacent to the eastern range of the Rocky Mountains at an average elevation of over 5000 feet above sea level. There are also steep mountainous areas within the wildland urban interface zone that have elevations over 7000 feet above sea level. The Big Thompson River runs diagonally from the west through the planning region. The planning area also contains numerous streams, lakes, and ponds.

The Loveland area enjoys a moderate climate with an annual average of more than 300 days of sunshine. The relatively low humidity tends to make winters feel warmer and summers cooler than might be experienced in the midwestern part of the country. The average high and low temperatures range from 86 degrees F in July to a low average of 14 degrees F in January. The area receives approximately 13.9 inches of annual precipitation. While the area typically receives moderate amounts of snowfall, snow can and often does become extreme, particularly in the months of March and April.

Housing within the planning area ranges from high-density apartments to widely separated farm and ranch acreages. Housing surveys conducted by the census revealed approximately 20,000 units within the city.

The Loveland community is rapidly becoming a major retail and financial center serving Northern Colorado. Retail centers such as Centerra, other regional and neighborhood shopping malls, and the downtown centers make up the majority of the shopping in the planning region. Other areas of commerce include the growing Crossroads Boulevard Center, which includes The Ranch and Embassy Suites and other retail and hotel complexes. The proposed technology project housed within the old Agilent/HP site is expected to become one of the largest employers in the region. Agriculture also plays a significant role in the local economy and commerce in the planning area, although with the closure of the Great Western Sugar factory, there is no longer a major agricultural product processing facility within the planning area.

The planning area is bordered by an interstate highway to the east plus a major state highway running through the middle of the fire-rescue response boundaries. Major railroad lines used for freight transport run through the City and Rural District. In the northeast portion of the planning region resides the Fort Collins-Loveland Airport. This burgeoning air transportation center is home to several airlines, including Allegiant Air, which is the major commercial carrier offering direct flights to many cities in the west and southwestern part of the country. The industrial and commercial park adjacent to the airport continues to show growth and could be a major economic factor in the expansion of the planning area's population and development.

URBAN RESPONSE AREA

As stated earlier, LFRA provides fire protection and rescue and emergency medical services for basic life support to a large area encompassing both urban and rural environments. In this strategic plan, reference is often made to urban and rural response, including the wildland urban interface areas, related data, and the associated risks in all of these theaters of operation. Even though LFRA is a single agency and strives to maintain as much uniformity as possible in service provision, it does recognize that these theaters are distinctly different environments. It is unrealistic for citizens living in the more remote areas of the district to receive the same level of service relative to response times and deployment as those living in the City of Loveland. There are differences in fire risk, resident expectations, and different environments where fire-rescue personnel are expected to operate. With these two distinctly different environments it is also increasingly difficult, by comparison, to have effective performance measurements that can be applied universally.

In general, the Urban Response Area is defined as the City of Loveland and the adjacent surrounding urban areas of the Loveland Rural Fire Protection District. The more specific definition of this area would be described roughly as the area bordered on the north by County Road 30, to the east by County Road 3 (intersecting with Hwy 402 then to County Road 11), to the south by 42nd Street, and to the west by County Road 29. This entire area, known as the Urban Response Area, encompasses approximately 100 square miles. This area would also be very similar to what Larimer County has identified as its Growth Management Area. It is within this Urban Response Area that the performance measurements for the organization will be utilized. Data collected for such critical dimensions and benchmarks for the first unit on scene and total response times will be used. A map of these boundaries and the defined Urban Response Area are listed in Figure 4-1.

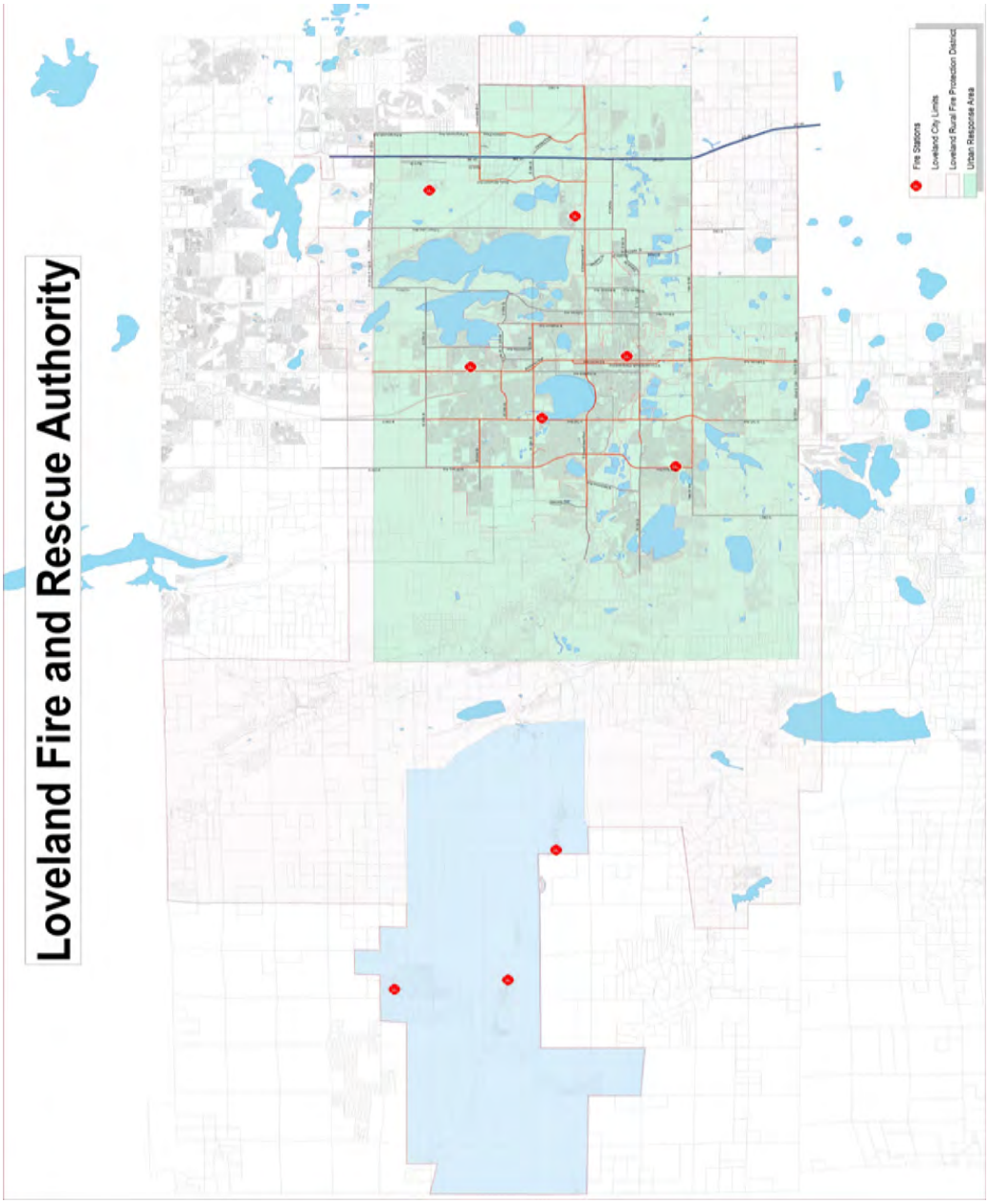


Figure 4-1. Urban Response Area

VULNERABILITY ASSESSMENT

Loveland Fire Rescue Authority's response district is situated along the eastern edge of the Rocky Mountains. The area's most prominent geological features are the Rocky Mountain Range to the west and numerous fresh water lakes, ponds, rivers, and waterways throughout the district. The elevation in the city is 4982 feet above sea level, but in other areas to the west the elevation can be over 7000 feet. There are more than 350 miles of existing streets in the City of Loveland alone and an undetermined number of county roads and unimproved travel ways within the Rural District. The transportation infrastructure consists of one major Interstate highway (I-25), which has a north-south perspective, and one U.S. highway (Hwy 34), which has an east-west perspective. These two highways, along with Highway 287, handle the bulk of traffic in the area. Connections to two other major Interstate highways are less than 60 miles in either a north or south direction. The area also has a major railway corridor, used primarily for freight transportation, and a general aviation airport shared with the City of Fort Collins that provides both private and commercial air services. Burlington Northern Santa Fe (BNSF), Great Western, and the Union Pacific railroads use the rail system. The largest commercial air carrier is Allegiant Air, which in 2011 was making 25-30 flights per month out of the airport.

Most of Colorado's population, industrial and commercial development, and the seat of state government are located along the Colorado Front Range. Tourism, one of the most vibrant industries in the state, accounts for a large portion of out-of-state visitors using the Front Range areas as part of their visitation and vacation destinations. Given the high population concentration, major industrial activities, and history of disaster events, the Front Range represents the area of greatest vulnerability for repeated occurrences of civilian death and injuries and disastrous events. The combination of high hazard areas and large numbers of out-of-state visitors who are unfamiliar with local conditions and emergency response capabilities represents a unique emergency planning and response challenge to both state and local governments and responders.

Larimer County and the entire Loveland area have experienced a multitude of natural and man-made emergency incidents and disasters; the area continues to be vulnerable to floods, wildfires, hazardous materials incidents, and a host of other weather-related incidents including tornadoes and wind-driven events. Some of these major events could simultaneously strike in a number of communities close to the Loveland community. In-depth information on these and other hazards is available in the Northern Colorado Regional Hazard Mitigation Plan 2009. This information is currently located at http://larimer.org/bcc/100518/2009HazardMitigationPlan.htm

Contained within this information are certain planning assumptions relative to the local, state, and federal response to the more routine responses to large-scale disasters. An expectation is embedded in this plan that the first response will be made by the local fire rescue services responders and that certain elements within that response will meet national standards and known good practices. It is helpful therefore to get an understanding of what the current emergency services situation is within LFRA, how the current situation measures up to comparable communities, and where gaps for service delivery exist for LFRA. The next portion of this document evaluates the expected population growth and the current emergency services situation.

POPULATION AND URBAN GROWTH

Of all of the future events that may affect local fire protection, emergency medical and rescue services situations and rapid or unanticipated growth would have the most significant impact on these services. In 2010 the population in the City of Loveland was estimated at 65,000 and the population in the Loveland Rural Fire Protection District was estimated at 22,500 for a total population estimate in the entire planning area of 87,500. Projections for expansion in the planning area assumed a flat growth rate (.5% or less) for the years 2011-2013. During the subsequent years of 2014-2020, the growth rate is expected to be between 2-3%. For the purposes of this strategic plan, an expansion rate of .5% was used for the years 2011-2013. From 2014-2020, a 2% growth rate was used. These numbers were gleaned from the City of Loveland's area population growth expansion projections. Based on these expansion rates, a projected population in the planning area of 102,025 should be expected in the year 2020 (see the chart below for an estimate of year-by-year expansion).

It should be noted that these are expectations of normal expansion and could be significantly impacted with large commercial or high tech facilities coming into the area. At the time of this writing, the impact of the proposed technology projects and the associated population growth is uncertain. It is expected that urban growth in new areas will continue to develop along the lines of employment and retail centers. However, another factor that is unclear, at least at the time of this writing, is the Loveland downtown development effort. It is unclear how successful this effort will be during the years of this plan and what population impacts will occur.

YEAR	ESTIMATED POPULATION
2010	87,500
2011	87,931
2012	88,377
2013	88,819
2014	90,595
2015	92,407
2016	94,255
2017	96,140
2018	98,063
2019	100,024
2020	102,025

The planning estimates used to derive these numbers have utilized a more conservative approach rather than a more liberal or higher forecasting of the increases in population for the planning region. A 2% growth factor beyond 2012 was used as opposed to a 3% to 4% increase that is being used by some demographers. One important use of these population estimates is in planning for the proper number of firefighters an organization should have. Historically, it has been difficult to precisely determine the number of firefighters needed within a given city or district. One common planning dimension used identifies the number of firefighters per 1000 population in a given city or district. Other dimensions and comparison data are needed for predicting the correct number of firefighters for each community. However, for planning purposes, the most important aspect in using population estimates is their accuracy. In order to ensure accuracy, these estimates must be reviewed and adjusted periodically, particularly when staffing issues are affected.

CURRENT EMERGENCY SERVICES SITUATION

Loveland Fire Rescue Authority currently operates five stations staffed by paid personnel within the planning area and one auxiliary station located outside the planning area that is staffed by reserves; this station is located in the Big Thompson Canyon area. In addition, the Department operates a fire station at the Fort Collins Loveland Airport on an as-needed basis and operates a full-service training center. Seven of these stations/areas are in good condition, while one, Fire Station 2, has been deemed to be "undesirable" for a number of reasons. The station is an asbestos-containing building, and it is too small for current staffing and deployment needs. Cost estimates for remodeling have been prohibitive for the value. In addition, the station is located in an area that places it strategically too close to other fire stations to meet the Department's targeted five-minute response model. For these and other reasons, this station is classified as "undesirable."

FACILITY	ADDRESS	CONDITION	DIVISION
Station 1	410 East 5th Street	Good	Operations/ Fire & EMS Community Safety
Station 2	2750 North Taft Ave.	Undesirable	Operations/ Fire & EMS
Station 3	900 South Wilson Ave.	Good	Operations/ Fire & EMS
Station 4	4900 Earhart Road	Good	Operations/ Fire & EMS Airport Operations
Station 5	251 Knobcone Drive	Good	Operations/ Fire & EMS
Station 6	4325 McWhinney Blvd	Good	Operations/ Fire & EMS
Station 8	Big Thompson Canyon	Good	Operations/ Fire & EMS
Training Center	100 Fire Engine Red Ave.	Good	Training Division

The Fire Authority has a current inventory of five pumping Frontline fire engines, two reserve engines, one training engine/reserve engine, one ladder truck, one reserve telesqurt, one rescue squad, one Haz-Mat/Special Operations Squad, and approximately a dozen other support vehicles.

The Fire Suppression Division represents the largest division within the Fire Authority and is directly responsible for handling emergency situations and calls for citizen service. This division responds to fire and rescue calls, emergency medical calls, specialized rescue calls, wildland fires, and a myriad of other service requests. The staffing model is built around the use of a three-tiered staffing workforce using fully-paid, part-time paid, and reserve[1] personnel. The deployment model is what would be considered a traditional model utilizing engine companies and truck or support companies to mitigate emergencies at the strategic, tactical, and task level. Staffing and deployment models are built around the structure fire model.

STRUCTURE FIRES

• First Alarm Assignment:	- 2 closest engine companies	4-6 personnel
	- 1 truck company	2-3 personnel
	- 1 squad company	3-4 personnel
	- 1 battalion chief	1 personnel
• Second Alarm Assignment	- 2 additional engine companies	4-6 personnel
	- Shift and staff recall	
	- Notification for mutual aid coverage	

SINGLE ENGINE RESPONSE

- Emergency medical calls (only life-threatening calls: Charlie, Delta, Echo)
- Rubbish fires
- Grass fires
- Automobile fires
- Any other minor outdoor fire
- Citizen assist

Loveland Fire Rescue Authority (LFRA) can be expected to extinguish a fire in a building or a fire-separated area of up to an average of 5000 square feet with a first alarm assignment. A second alarm assignment could then be expected to extinguish a fire in a building or fire separated up to 10,000 square feet. These estimates assume an average fire flow produced by the attacking companies and a building where the fire has not progressed to the flashover level. Other variables could impact these estimates, but for planning purposes these predictions have proven reliable in other departments and locales. In all of these models, interior firefighting operations are pre-supposed as the tactical norm. Historically, this model has proven to be the best and most effective firefighting model in saving lives and property. In determining the firefighting capabilities of LFRA, three sets of criteria have been used.

The first criterion used was to determine what LFRA firefighting forces could actually do on a fire scene. This includes not only water application but also other necessary firefighting functions such as forcible entry, search and rescue, ventilation, salvage and overhaul, and fireground command.

[1] LFRA now uses the term "reserve" in place of the previously-used word "volunteer."

The second criterion used was to determine how much water it takes to control and extinguish a fire in a given-sized building or fire-separated area. Many formulas have been devised to accurately predict needed fire flow (a.k.a. water flow). The formula that LFRA believes best represents the actual situation is documented by the National Fire Academy as the NFA Fire Flow Formula. This formula has been derived from numerous field tests and the experiences of many different firefighters. The formula is:

$$\text{Needed fire flow} = \frac{(\text{Length X Width})}{3} \times \%\text{ of involvement}$$

Using this formula for a 5000 square foot structure would derive a needed fire flow of approximately 400 gallons per minute in a structure with 25% involvement. The LFRA 1st alarm response could be expected to meet this flow requirement with the companies allotted.

The third criterion considered was the emphasis on firefighter and citizen safety during firefighting operations. Beyond the expected duties of water application and support functions, consideration must also be given to firefighter and citizen safety in the form of Rapid Intervention Crews and Two-In, Two-Out Crews, which are all a part of Fed-OSHA Laws or NFPA Standards addressing firefighter safety. The criteria expressed in NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations… stipulates a minimum response of 14 personnel for a 1st alarm structure fire. LFRA agrees with these personnel minimums and has targeted such numbers into the performance measurements for initial fire attack operations.

This basic emergency response model targeted for LFRA has become known as the "Five Minute Response Model" based on the intent of NFPA 1710. This model for LFRA stipulates:

- First engine will arrive at emergencies within five minutes after dispatch 90% of the time.
- For structure fires, the balance of the response will arrive nine minutes after dispatch 90% of the time.
- A factor of 59 seconds should be added to these times as "turn-out" (dressing in protective gear and preparing) time.

The personnel criteria for this model for LFRA would be for all firefighting companies to be staffed minimally at three paid firefighting personnel with the exception of the truck company, which would be staffed minimally at four firefighting personnel. With these staffing criteria and the expansion outlined in Section VI of this document, LFRA could meet the expectations of the above-mentioned firefighting criteria. At the time of this writing, the LFRA cannot meet these targets for emergency response in the same manner in which other departments in the region can.

COMPARISON ANALYSIS FOR LFRA AND OTHER REGIONAL DEPARTMENTS

Research completed by the Fire Authority Review Committee in 2010-2011 clearly suggests that Loveland Fire and Rescue was underfunded and understaffed by nearly 30% when matched to its comparison departments in the region. These factors have a direct and negative impact on both citizen and firefighter safety. Statistical data has been compiled in this portion of the report to give a more succinct view using standard performance measurement data recognized throughout the industry. Figure 4-2 gives an overview of six important dimensions comparing seven regional departments. A more complete view of the statistical data can be found in Appendix B of this report.

Comparison data was reviewed from Loveland and six other similarly-sized departments within the region. Five of these departments are in Northern Colorado and one is in Southern Wyoming. All of these comparison departments have similar emergency response profiles with reasonably common citizen demographics. All of these departments are members and partners of the Front Range Fire Consortium (FRFC). Three of these are city fire departments with no rural area responsibilities, one is a city fire department that contracts for fire protection services with a rural area on one side of their boundary line, one is a fire protection district, and two are fire authorities (this group includes LFRA).

The list of comparison departments includes Boulder Fire Department, Cheyenne Fire Department, Greeley Fire Department, Longmont Fire Department, Loveland Fire Rescue Authority, Mountainview Fire Protection District, and Poudre Fire Authority (Fort Collins). Critical comparison dimensions in this part of the report include:

- Operating budget
- Number of uniformed personnel
- Population served
- Costs per capita for services
- Size of area in square miles
- Number of fire stations
- Number of firefighters per 1000 population

Fire Department Statistical Data Comparison
Front Range Fire Consortium Departments

City or Department	Operating Budget	Number of Uniformed Personnel	Population Served	Cost Per Capita	Size of Area by Square Miles	Number of Fire Stations	Number of Firefighters per 1000 Population
Boulder	$13,500,000	99	103,650	$130.25	28	7	0.96
Cheyenne	$8,700,000	88	58,000	$150.00	26.2	5	1.52
Longmont	$9,200,000	88	88,000	$104.55	22.4	6	1.00
Mountain View	$12,500,000	70	55,000	$227.27	185	7	1.27
Poudre Fire Authority	$23,600,000	166	175,000	$134.86	236	10	0.95
Greeley	$11,070,000	96	100,000	$110.70	64	6	0.96
Loveland Fire Rescue Authority	$ 7,800,000	64	87,500	$89.14	190	5	0.73
TOTALS	$86,370,000	672	667,150	$946.76	751.6	46	7.39
Mean/Average	**$12,338,571**	**96**	**95,307**	**$135.25**	**107.5**	**7**	**1.06**
Weighted Average	**$10,994,000**	**88**	**87,430**	**$126.07**	**98.64**	**6**	**1.03**
Source of data is FRFC							

Figure 4-2. Fire Department Statistical Comparison Data

LOVELAND FIRE RESCUE AUTHORITY PRESENT AND FUTURE COMPARISONS

The chart below shows a comparison between Loveland Fire Rescue Authority within the identified dimensions (from Fig. 4-2) and the mean/weighted averages of the other FRFC departments. It also shows a comparison between the same dimensions in the future (2016 after the proposed expansions) and the mean/weighted averages from that same year. In each dimension for comparison, the lower number between mean and weighted average was used. Expansion numbers for the mean/weighted average were calculated on a 3.5% expansion per year, except for population increases, which were increased at a rate of 2% per year. This chart will provide a view of the impact of the implementation of planned future expansion that is articulated in *Model One Basic Services Plan*, which is found in Section VI of this plan.

Present Comparisons 2011

	Operating Budget	# of Uniform Personnel	Population Served	Cost Per Capita	Size of Area	# of Fire Stations	# of FFs per 1000 pop.
Average	$10,994,000	88	87,430	$126.07	108 Sq. Miles	6	1.03
LFR	$7,800,000	64	87,500	$89.14	190	5	0.73
Difference In % + or -	(-29%)	(-27%)	Even	(-29%)	+ Nearly 2 times the size	(-17%)	(-29%)

Future Comparisons 2016 (Impacts from Implementation of Model One)

	Operating Budget	# of Uniform Personnel	Population Served	Cost Per Capita	Size of Area	# of Fire Stations	# of F/Fs per 1000 pop.
Average*	$13,057,421	104	98,000	$133.34	108 Sq. Miles	6	1.06
LFR	$10,851,468	85	94,000	$115.44	190	6	0.90
Difference In % + or -	(-17%)	(-18%)	(-4%)	(-13%)	+ Nearly 2 times size	Even	(-15%)

Figure 4-3. Present and Future Comparisons

* Note: Expansion plans for other regional comparison departments are uncertain. More conservative expansion predictions were used in calculating LFRA community growth numbers; other communities often project higher numbers than what are used herein, which could impact the data used for comparison.

V. STAFFING AND DEPLOYMENT

A critical component in carrying out the objectives of the Model One Basic Service Expansion Plan will be an appropriate and effective plan for staffing and deployment of personnel and resources. This section of the strategic plan focuses on staffing levels and a preferred deployment model to meet those objectives. The "three-tiered" staffing model for LFRA is a primary focus of this section for specific staffing practices. Other important areas in this section include the benefits derived from utilizing the three-tiered staffing model, the ancillary needs for this staffing model to be effective, and the noted concerns for using the three-tiered staffing model over the duration of the strategic plan. In addition, the need for a future staffing and workforce analysis will be reviewed. The major focus of this section is on deployment and its connection to staffing within the Operations Division. However, other areas within LFRA, such as the Community Safety Division, administration, and training need to be considered as part of the overall staffing model and are mentioned within this section and others (see Section VII).

BASIC STAFFING AND DEPLOYMENT PLAN

Established within the framework of the Model One Basic Services Expansion Plan is the directive for a three-person, minimum staffing level design for each fire company. This particular design is the most common and has become the *accepted* standard for minimum staffing levels for most fire departments in Colorado and the Rocky Mountain Region. Although this design does not meet the initial criteria for deployment as set forth in National Fire Protection Association standards (NFPA 1710 *Standard for the Organization and Deployment of Fire Suppression Operations…*), this design can, if properly applied and supported with an appropriate deployment strategy, meet the intent of NFPA 1710. It should be noted that no fire department in the entire Northern Colorado region is staffed using a four-person minimum staffing model; thus none meet the exact criteria as set forth in NFPA 1710. There are also response time criteria set within the NFPA 1710 standard; these issues are addressed elsewhere within this plan (see Section IV).

Various technical committees and research teams, both regionally and nationally, have conducted many staffing and deployment field testing experiments to arrive at a minimum staffing design model to effectively fight a structure fire (most fire departments in the nation build their staffing models on projections for needed staffing for structure fires). LFRA conducted field testing of its own and corroborated other studies that suggested the minimum number of firefighters needed to effectively engage in offensive, interior firefighting operations was 14 firefighters (this design model is nearly identical to the findings that were set forth and published in the standard for NFPA 1710). The specifics of the design model for deployment are listed below:

- Command IC 1
- Attack engine (fire attack crew) 3
- Back-up crew with group supervisor 3
- Inside truck crew 2
- Outside truck crew w/group supervisor 3
- Rapid intervention team 2

Total Staff Needed =14

The individual deployment assignments for each of these fire companies or teams can be seen visually on the next page in Figure 5-1.

Figure 5-1. Deployment Design Model

The design model for deployment that is depicted above is appropriate for minimum staffing levels for what would be considered a standard fire attack on an average-sized residential structure. Large residential or commercial buildings would normally require more resources and often extra alarms. Other factors such as access problems, delayed notification or response, exceptionally high winds, lack of adequate water supplies, etc., would also require additional

staffing and resources to address these challenges. Other resource needs that are not addressed within this model are the support personnel including EMS paramedics, law enforcement, utility personnel, fire investigators, and citizen advocates. This basic modeling design is appropriate for planning assumptions for minimum staffing and deployment options for fire departments; LFRA has adopted this staffing and deployment model as part of the targeted outcomes for the application of the Model One Basic Services Expansion Plan.

There are, of course, other staffing positions within LFRA that should be mentioned in this section of the plan. Positions within the Community Safety Division, administration, and the training division are all critical to the mission of the organization. The appropriate number of personnel in each of these divisions or areas will be a matter of ongoing analysis. Most are addressed for need and expansion in the Model One Basic Services Expansion Plan. As in other areas within this plan, the forecasted need and numbers associated with staffing are based on normal, planned expansion. Increases in population or expansion of businesses or industrial complexes within the Fire Authority's area that are beyond these norms may overtax the system, and in the future more resources and personnel could be required.

THE THREE-TIERED STAFFING MODEL

The acceptance of a minimum staffing level (at three or four personnel) per fire company represents the first step in the process of developing an overall staffing plan. The next step in the process should deal with how staffing levels will be maintained using various models. Many fire departments opt for a staffing model utilizing only full-time paid firefighters; this is the least complicated model, but also the most expensive. Other fire departments (most of them being smaller in size and scope of responsibility) opt for using only volunteer firefighters. A fairly recent occurrence for staffing has been the advent of using part-time paid firefighters for staffing needs. LFRA utilizes all three types of staffing: reserve, part-time paid, and full-time paid for firefighters within its workforce. This is known as the three-tiered staffing model.

The bulk of LFRA's staffing (nearly 70 percent) is made up of full-time paid firefighters. At the time the 2012 strategic plan was written, the approximate numbers for total staffing included the following:

• Full-time paid	65
• Part-time paid	12
• Reserve	20
Total Staffing Available	97

Part-time paid firefighters came into LFRA's workforce in 2010 as part of a Staffing for Adequate Fire and Emergency Response (SAFER) grant to improve staffing levels; the grant was for three years (2010-2013). The 12 part-time firefighters are all assigned to two specific engine companies (Engine 3 and Engine 5) and make up the third firefighter on those two engines. The part-time firefighters, just like the full-time paid firefighters, are a part of the minimum staffing levels for each shift and each fire company. Reserves are assigned to various fire companies as they are available. Reserves work a minimum of 36 hours each month and are not included as part of the daily minimal staffing levels for each shift and each fire company. The total numbers for the reserves firefighters fluctuate between 18 to 25 annually, and on average reserves only stay with the Department 2.5 years.

Within the Model One Basic Services Expansion Plan, all three tiers of the workforce are utilized throughout the years targeted in the strategic plan (2012-2020). A future workforce analysis is included within the plan and is addressed later at the close of this section. Within future staffing projections for Model One, both full-time paid and part-time paid firefighter staffing numbers are increased; the reserve firefighter program and its staffing levels remain unchanged throughout the years of the plan. The staffing numbers currently used for the reserve program are believed to be the maximum that can be effectively managed within the LFRA system and infrastructure.

ADVANTAGES OF THE THREE-TIERED STAFFING MODEL

There are numerous advantages of the three-tiered staffing model; four will be reviewed in this section. This particular system of staffing is cost-effective, provides for greater firefighter availability (particularly for multiple alarms and special calls), offers greater efficiency and effectiveness for hiring full-time paid firefighters, and provides effective developmental experiences for helping reserves and part-time paid firefighters achieve their goals for becoming full-time paid firefighters. Each of these areas will be elaborated on in the following paragraphs.

Comparison of Costs Part-Time versus Full-time Firefighters	Single FT Position	5 Full-Time Positions	Single PT Position	12 Part -Time Positions
Pay Level 7 - highest firefighter salary in 2010 (full-time)	$ 48,000	$ 240,000	$ 10,159	$ 121,910
Estimate of benefits as a percentage of salary (primarily insurance and retirement) (.030)/(.11)	$ 14,400	$ 72,600	$ 1,267	$ 15,207
Total cost of firefighter(s)- pay and benefits	$ 62,400	$ 312,000	$ 11,426	$ 137,117
Bunker gear and personal equipment for firefighter(s)	$ 4,000	$ 20,000	$ 4,000	$ 48,000
TOTAL COSTS - Gear and Personnel	**$ 66,400**	**$ 332,000**	**$ 15,426**	**$ 185,117**

Figure 5-2. Full-time paid/ part-time paid comparisons

The three-tiered staffing model is extremely cost effective when compared to a conventional staffing system that uses only full-time paid firefighters. The most significant factor causal to this outcome is the pay and benefits differential. The hourly rate for part-time paid firefighters is significantly lower than for full-time paid firefighters; the costs associated with benefits are reduced as well. Figure 5-2 illustrates the cost savings and cost effectiveness of using part-time paid firefighters as opposed to opting for all full-time paid firefighters. This chart compares the costs for the current 12 part-time paid firefighters being used for minimum staffing levels by LFRA on Engine 3 and Engine 5 to a comparable level of full-time paid firefighters working the same number of hours.

The numbers listed in the chart are based on the average of 102 monthly hours of time the part-time paid firefighters are currently working (these are actual tracked numbers and not the same as those projected from our original SAFER grant; those numbers projected the 12 part-time firefighters would equal four full-time firefighters and were based on a work schedule of 72 hours per month for the part timers). The current average for hours worked each month for full-

time paid firefighters is calculated at 240 hours (10 shifts per month @ 24 hours). Using these metrics LFRA is saving approximately $150,000 annually using the part-time paid firefighters for minimum staffing on Engine 3 and Engine 5. Another factor in the cost-effectiveness modeling is demonstrated when multiple alarms or a shift recall occurs; the overtime costs for part-time firefighters is significantly less than the overtime for full-time firefighters. When considering overtime costs for full-time firefighters, the increase in the cost-effectiveness of the Figure 5-2 model goes up by 1 ½ - 2 times the savings that is shown.

Greater firefighter availability is another advantage of this staffing model. An obvious advantage of the increased number of firefighters available for response can be seen using the above model of part-time paid and full-time paid firefighters. When a multiple alarm or shift recall is needed (currently this occurs approximately 30 times each year, or better than two times each month) 10 off duty part-time firefighters would be available to respond to the recall (two would be on duty at any given time on Engine 3 and Engine 5). Contrast this to the full-time option with two firefighters on duty at these same two engines and you would potentially have three off-duty full-time paid firefighters to respond to the recall. Thus, more than three times the staffing is potentially available to respond to the recall or multi-alarm call with part-time firefighters as opposed to the numbers available with only using a full-time staffing option.

Effectiveness and efficiency in hiring full-time firefighters is an additional advantage of the three-tiered staffing model. Traditionally, the hiring of full-time firefighters has been a mixture of both art and science; the organizations that do this effectively balance both in their hiring processes. Nevertheless, even in the best hiring process, positive outcomes are never guaranteed. LFRA's three-tiered staffing model is unique and advantageous in that the process is based on two additional tiers or levels of participation, where the organization gets the opportunity to observe and evaluate its future full-time firefighters actually working in the role as reserves and/or part-time paid firefighters before they are ever offered a position as a full-time firefighter. This system allows both the firefighter and the organization the opportunity to work together and in effect "try each other out" before the long-term commitment is made in the form of a full-time position. With very stringent and specific employment laws in place, employers need to be as sure as possible that the hiring of a full-time firefighter is a good fit for the organization. Hiring from the list of reserves and part-time paid firefighters is the most effective and efficient way to ensure that quality candidates are selected to the ranks of full-time firefighters for LFRA.

LFRA's three-tiered staffing model is also developmental and a real advantage for firefighters entering the profession. One of the most significant changes in the reserve firefighter workforce in the last 20 years has been the profile of the typical reserve. Twenty years ago it was not uncommon to have a large portion of the reserve workforce serving from a motivation of community service only, with no real interest or intention of seeking a full-time firefighter position. Today, nearly every reserve that enters the workforce for LFRA hopes to eventually be employed as a full-time paid firefighter. In the past reserves would stay with the organization and receive a pension after 10 or 20 years. Today, most reserves are staying less than five years, and their interest is in building a stronger résumé and gaining more training and certifications to enhance their chances at employment. LFRA's three-tiered staffing model is designed to assist the reserves and part-time paid firefighters by providing greater training opportunities while completing task books that address not only certifications but also qualifications of the individual firefighter. Currently, there is real competition for positions within LFRA for both reserves and part-time paid firefighters. It is understood by most firefighters that being a member of the LFRA

workforce carries a high degree of respect throughout the firefighting community in Colorado and offers an advantage for those seeking full-time employment as a firefighter. Organizationally, LFRA benefits from the program's reputation, as some of the best and brightest are working hard to become LFRA reserves. The three-tiered workforce is a benefit to LFRA as the base-level reserve comes in as a highly competent candidate, which will typically result in the best of the volunteers being selected for part-time positions. Then the next step would be the selection of the best part-time paid firefighters for full-time positions as they are available. If the model works as intended, the participants in the workforce gain from the program, and LFRA and the community benefit from the program as well. In other words, the three-tiered staffing model is a "win-win" for all involved.

ANCILLARY NEEDS FOR THE THREE-TIERED STAFFING MODEL

Although the three-tiered staffing model is one of the best for small to medium-sized fire departments, with significant advantages for both the organization and the firefighters, there are ancillary requirements for implementing and successfully managing this type of system. One of the most important ancillary needs of this model comes in the form of a solid recruiting plan. In order for the three-tiered staffing model to work most effectively, excellent recruiting for reserves is essential. Another important element for this model to work is to adequately care for the logistical needs of the reserves that are brought into the organization. The most successful departments that opt for this kind of a three-tiered model for staffing utilize a Recruitment, Retention, and Logistics (RRL) Officer. Within LFRA, staffing levels remain low within the Operations Division and Administration. Currently, there are no extra positions available to adequately perform the essential functions of recruiting and providing logistics support for LFRA's volunteers.

Presently, this system is working, and certainly has worked for two years (2010-2011), but longevity for reserves is a concern, along with adequately recruiting and appointing qualified members of protected classes. It is believed that the hiring of an RRL Officer is essential for LFRA if this three-tiered staffing model is to be effective for the duration of the years covered by this strategic plan. LFRA has applied for a SAFER Grant for this RRL Officer position and hopes to be successful in the grant application process. If this award is not forthcoming, the organization will have to pursue other means to carry out effective recruiting and retention efforts and logistical support methods for the reserves within the organization. Another need for the three-tiered staffing model will be an on-going analysis of the model to ensure that the organization's workforce needs are being met.

CONCERNS FOR THE LONG-TERM USE OF THREE-TIERED STAFFING MODEL

Much has been stated about the positive aspects of the three-tiered staffing model for LFRA; however, concerns do exist. Based on historical data and information relative to how much reserves and part-time paid firefighters can be used effectively within a workforce staffing model, there are limits for the use of part-time firefighters. For example, the fire service has a built-in need for its members in strategic, tactical, and task level positions to have Knowledge, Skills, and Abilities (KSAs) for firefighting operations. A significant portion of these KSAs can only come with experience. Typically, reserves and part-time paid firefighters are the least experienced of the crew members. Thus a real concern for this type of staffing program is in the experience level of the firefighters on duty. Because of this, LFRA has a targeted staffing criteria

maximum of no more that 15% of the daily workforce, or no more than three on-duty fire crews, utilizing part-time paid firefighters to achieve minimum staffing levels. It is believed that this targeted maximum level of use for part-time paid firefighters will ensure that on-duty paid firefighters have the needed experience level and capabilities for combat firefighting operations.

Perhaps the most significant concern about this model is its ability to be adaptable and effective in the distant future (next 10 years or more) for LFRA. The Loveland community and LFRA will grow in the future. As more people come into the area, more fire service personnel will be needed to accommodate the demands for more emergency calls. The organization should commit to regularly (annually) evaluate the three-tiered workforce-staffing model to ensure it remains effective. A comprehensive workforce analysis should also be completed during the next three to five years of the 2012 Strategic Plan. This analysis should forecast, based on research and predictions, what the best and most needed workforce will be for LFRA in the future.

The nation's and the region's economies will have an impact on LFRA's ability to continue using the three-tiered model, particularly the ability to attract and retain qualified reserves. Future strategic planning considerations and the potential for additional funding mechanisms will need to be addressed if there is a move away from the current three-tiered staffing model. Identifying potential funding streams should be a part of the analysis if there is a recommendation to move away from the current staffing model.

PLANNING ASSUMPTIONS

Staffing and Deployment Planning Assumption 1 - Fire companies (those working on engine and truck companies) for LFRA are to be staffed at three personnel minimum with a target for deployment for structure fires at 14 firefighting personnel, meeting the intent of NFPA 1710.

Staffing and Deployment Planning Assumption 2 - The three-tiered staffing model, made up of reserves, part-time paid, and full-time paid firefighters, is the workforce staffing model that will be used by LFRA throughout the years of operation of this strategic plan (2012-2020).

Staffing and Deployment Planning Assumption 3 - Numerous organizational advantages exist with the utilization of the three-tiered staffing model, including significant annual cost savings for LFRA.

Staffing and Deployment Planning Assumption 4 - A need exists for a full-time Recruitment, Retention and Logistics Officer if the three-tiered staffing model is to operate at a level of efficiency and dependability.

Staffing and Deployment Planning Assumption 5 - The three-tiered staffing model has two major concerns that can impact its future use: overuse of the part-time paid firefighters and their lack of overall firefighting experience. The feasibility for using the three-tiered staffing model in the future must be considered for future planning.

Staffing and Deployment Planning Assumption 6 - Periodic, ongoing evaluations for the efficiency and effectiveness of the three-tiered staffing model are needed. In addition, there is a need for a future, more comprehensive, workforce-staffing analysis to determine the best and most effective future-staffing model for LFRA.

Staffing and Deployment Planning Assumption 7 - All future staffing levels within every division of LFRA are based on normal forecasted expansion of population and businesses or industrial complexes within the Fire Authority's response area.

VI. MODEL ONE BASIC SERVICES EXPANSION PLAN

During the years of 2010-2011, the Fire Authority Review Committee was charged with the task of determining what it would take to be able to implement and manage a fire authority. A significant amount of time was spent evaluating the Department's resources and its ability to provide adequate staffing and equipment for the variety of emergency response calls in the City and Rural District. Three clear objectives were established for addressing the Department's current and future needs:

1. Establish an adequate initial response for staff and equipment.
2. Provide for reliability in the emergency response system beyond the 1st alarm assignment, using Department's resources and not being reliant on mutual aid response for system coverage.
3. Plan for expansion in the emergency response system to address future gaps in coverage.

Several other criteria were evaluated, including the appropriate minimum staffing model that would be utilized. The committee spent months in the evaluation of the Department's resources and compared those resources to the community risk. Other departments were also evaluated for their level of services provided and their community risk.

Other criteria that entered into the analysis included the Department's evaluation by the Insurance Services Office (ISO) in 2008. During this evaluation, the ISO noted that the Department was short on overall personnel and two fire companies, citing the need for a service or support/truck company and another engine company in the district.

At the conclusion of the analysis, two models were developed. The first model had at its core an expansion of services to include three-person fire companies as the minimum staffing model. The second model utilized a four-person crew for its minimum staffing model. In addition to the staffing component, other expansions such as the service (support) company and an additional engine company were included in both models.

Both of these models were presented to the Loveland City Council and Rural Board in the early portion of 2011. Both governing bodies chose to endorse, in concept, Model One Basic Services Plan as the model of choice for the strategic plan for the Fire Authority. The components of that model are included in the following pages.

In the early part of 2012, the Model One Basic Services Expansion Plan was presented to the new Loveland Fire Rescue Authority Board. The plan has been broken out into four phases of expansion with the years targeted for expansion and the total estimated costs listed at 2013 dollars. A partial phased-in plan is displayed in Figure 6-1 and the fully detailed phased plan is shown in Figure 6-2.

Funding sources for the Model One Basic Services Plan for Phase 1 and Phase 2 have been identified. Full funding for Phase 3 and Phase 4 has not been identified at the time of this writing.

PHASED-IN PLAN FOR MODEL ONE - BASIC SERVICES PLAN (2012-2020)

The Model One Basic Services Expansion Plan consists of four phases. The first three phases include a major construction project, a major hiring project, and other significant large capital projects. The fourth phase, by design, is the smallest expansion phase. This fourth phase will allow for any unanticipated capital or operational and maintenance (O & M) growth, or options for implementation in the event of unforeseen economic downturns that delay the expansion plan's timelines. The fourth phase by design provides for some flexibility within the plan for expansion.

Each phase will be highlighted below for its major emphasis in three categories: hiring, construction projects, and apparatus expansion. The next pages will provide a more defined expansion per phase, including cost estimates that are gleaned from best assessments possible.

The remaining pages in this section provide individual details for Model One expansion including staffing and costs for implementation, large capital replacement options, secondary apparatus replacement schedule and costs, updated Fire Rescue City of Loveland capital replacement plan, and improvement and construction costs for fire stations.

The table below shows the abbreviated summary of the phased-in plan for Model One.

NEW PHASE	TIME	HIRING FOCUS	CONSTRUCTION	APPARATUS
One	**2012-2013**	Public Safety Admin. Director Minimum Staffing: Engine 6 & Truck 6 Part-Time Paid Program Community Safety Staff	Expansion of Station 6	New engine
Two	**2014-2015**	Staffing for New Rescue 3 Lieutenants & 3 Engineers	Construction of new Station 2	New aerial
Three	**2016-2017**	Staffing for Station 10 Admin/Secretary Position	Construction of new Station 10	New engine
Four	**2018-2020**	Coverage positions/ rovers	None	New engine

Figure 6-1. Abbreviated phased-in plan

Model One Basic Services Expansion Plan

	COST	2012/ 13	2014	2015	2016	2017	2018	2019
PHASE 1 2012-2013								
Add 6 FT firefighters for Engine 6 & Truck 6	$ 426,777*							
Add funding for part-time paid F/F program	$ 70,420*							
Add Public Safety Administrative Director position	$ 130,000*							
Add 1 Lieutenant position to CSD	$ 106,140*							
TOTAL Increase for O&M for Phase 1	**$ 733,337**							
Expand Station 6	$ 930,000							
Purchase new fire engine	$ 483,000							
TOTAL Capital $ for Phase 1	**$1,413,000**							
PHASE 2 2014-2015								
Add 6 FT positions for new Heavy Rescue Squad 2 (3 Lieutenants and 3 Engineers)	$ 694,389*							
TOTAL Increase for O&M for Phase 2	**$ 694,389**							
Construct new Station 2	$2,900,000**							
Purchase new Heavy Rescue Squad	$ 500,000							
Replace Aerial Tower	$1,200,000							
Refurbish 2000 Smeal Aerial Ladder for Reserve Truck	$ 475,000							
TOTAL Capital $ for Phase 2	**$5,075,000**							
PHASE 3 2016-2017								
Add 9 FT position for new Station 10 (3 Lt., 3 Eng., 3 FF)	$ 980,434*							
Add 1 Administrative (secretarial) position	$ 54,450*							
TOTAL Increase for O&M for Phase 3	**$ 1,034,884**							
Build new Station 10	$2,299,000**							
Replace fire engine	$ 530,000							
Refurbish Water Tender 1	$ 237,000							
TOTAL Capital $ for Phase 1	**$ 3,066,000**							
PHASE 4 2018-2020								
Add 3 FT firefighters for coverage/rover positions	$ 262,308*							
TOTAL Increase for O&M for Phase 4	**$ 262,308**							
Refurbish Water Tender 5	$ 357,000							
Replace Front Line engine (2020)	$ 597,388							
TOTAL Capital $ for Phase 4	**$ 954,388**							

*****All O & M costs include a 3.5% annual inflationary increase ** These estimates were provided by City of Loveland Facilities in early 2011; they will need to be re-evaluated in the coming years based on the construction trends and costs per square foot.

High Priority Intermediate Priority Future Priority

MODEL ONE - BASIC SERVICES PLAN (2012-2020)

This Basic Service Plan offers a minimum staffing of each fire company with three firefighters and uses the current three-tiered workforce of reserves, part-time paid (PTP) and full-time (FT) firefighters. The total build out of this plan would result in the targeted numbers of .95 ffs/1000.

ADDITIONS/CHANGES TO BUILD THE PLAN:	YEAR
• Add 6 FT firefighters for Engine 6 and Truck 6 to provide for minimum staffing of three firefighters per engine or truck.	2013
• Add Public Safety Administrative Director - needed to address the department's administrative needs to manage and administrate the Fire Authority. *	2013
• Continue funding for PTP program expanding to include 18 total PTP FFs. The part-time-paid program is part of the minimum-staffing plan.	2013
• Add 1 Lieutenant (Lt) for Fire Prevention Community Safety Division - needed to address the current deficiencies in the business inspection program (down 65% since budget reductions in 2009).	2013
• Add 6 FT positions (Lts & Engineers) for Heavy Rescue company, Station 2. This Squad company helps meet minimum staffing levels and the recommendations from ISO (Insurance Services Office).	2014
• Add 9 FT positions (LTs/Engineers./FF) for new Station 10 - required staffing to open the new west side station, which is important for minimum staffing levels and district/area coverage for the 5-minute response.	2016
• Add 1 Administrative Assistant - needed to help address the increase in workload at the admin/secretarial level (currently the department has only two administrative specialist positions).	2016
• Add 3 FT positions for rover/coverage. These positions are needed to cover vacancies due to injury, sick leave, vacation, etc.	2019

* This position is on line in 2012; however, it is budgeted for LFRA as an expenditure starting in 2013.

LARGE CAPITAL REPLACEMENT OPTIONS

Fire Authority Large Capital Replacement Plan – 2010-2025

■ Apparatus Remaining from Current 2010 Capital Program

- 2010 SVI Engine Replaces 1995 General Telesqurt
- 2012 New Engine Replaces 1998 General ALF
- 2014 New Aerial Replaces 2000 Smeal HME
- 2016 New Engine Replaces 2004 General Spartan

■ Primary Apparatus Replacement Schedule 2016-2025

Vehicle name	Primary Vehicle	Year In Service	Replace (12*)	New/Old Plan	Reserve/Retire (3**)
E-1	SVI/Spartan	2011	2023	New	2026
E-2	Crimson/Spartan	2008	2020	New	2023
E-3	Crimson/International	2009	2021	New	2024
E-5	Pierce	2010	2022	New	2025
E-6	General/Spartan	2004	2016	Old	2019
Truck 6	Smeal/HME	2000	2014	Old	2020 (refurb?)
Rescue 6	SVI/Spartan	2003	---	New	2024 (refurb?)
E-Reserve	Smeal/Spartan	2003	2015	---	2020
E-Reserve	General/ALF	1998	2010	---	2016
Truck Reserve	General/Telesqurt	1995	2010	---	2014

■ Replacement Plan and Costs for New Primary Apparatus

1.	2020	Engine 2	Crimson/Spartan	$ 597,388
2.	2021	Engine 3	Crimson/International	$ 618,297
3.	2022	Engine 5	Pierce	$ 639,937
4.	2023	Engine 1	SVI/Spartan	$ 662,335
5.	2024	Rescue 6	SVI/Spartan	$ 390,000 (Refurbished)

TOTAL COSTS - PRIMARY APPARATUS REPLACEMENT **$2,907,957**

*12 = target for years of active service
**3 = anticipated years of service as a reserve unit

■ **Secondary Apparatus Replacement Schedule 2016-2025**

Vehicle Name	Secondary Vehicle	Year In Service	Replace (20)	New/Old Plan	Reserve/Retire
WT-1	General Frontline	1996	2016	New (RF)	2026
WT-8	General Frontline	1996	2017	New (RF)	2027
WT-5	General Frontline 4x4	1998	2018	New (RF)	2028
DT-2	SVI/ Frontline	2004	2024	New (RF)	2034
HR-2	Hackney	2006	2026	New (RF)	2034

* Note: All of these secondary apparatus, except DT-2, are planned for a refurbish (RF) with replacement of cab and chassis as opposed to new replacement vehicles.

■ **Refurbishment Plan and Costs for Secondary Apparatus**

1. 2016	WT-1	General Frontline	$ 237,000
2. 2017	WT-8	General Frontline	$ 245,295
3. 2018	WT-5	General Frontline 4x4	$ 357,000
4. 2024	DT-2	SVI-Freightliner	$ 304,705
4. 2026	HR-2	Hackney	$ 180,000

TOTAL COSTS - SECONDARY APPARATUS REPLACEMENT $1,324,000

■ **Total Large Capital Replacement Plan**

Available Capital Funds ($575,000 X 10 years)	2016-2025	$5,750,000
Primary Apparatus Costs	2016-2025	($2,907,957)
Secondary Apparatus Costs	2016-2025	($1,324,000)
Miscellaneous Equipment (Air-Paks, Radios TICs)	(The need for this equipment has been estimated at $150,000/ per year)	($1,518,043)
TOTAL NEEDED FOR LARGE CAPITAL REPLACEMENT (2016-2025)		**$5,750,000**

Updated Loveland Fire and Rescue 2012-2021 Capital Programs

FIRE APPARATUS *(Initial Cost Estimates)*

Current Replacement Schedule:

Year	Replaces	Cost
2012	ALF/General Engine	$ 515,000
2013	-------	$ 0
2014	Smeal Ladder Truck	$1,200,000
2015	Engine	$ 475,000
2016	2 Engines	$1,060,000
TOTAL EXPENDITURES		**$3,250,000**

Proposed Replacement Schedule*:

Year	Replaces	Cost
2012	ALF/ General Engine	**$ 515,000**
2013	----------	**$ 0**
2014	Smeal Ladder Truck	**$ 1,200,000**
2015	1995 General Telesqurt (Refurbishing Smeal Ladder Truck)	**$ 475,000**
2016	Smeal Engine	**$ 530,000**
TOTAL EXPENDITURES		**$ 2,720,000**

New Fire Apparatus: *(Funded with CEFs)*

Year	Purchase	Cost
2014	**Northwest Heavy Rescue Truck** (For new company @ Station 2)	**$ 500,000**

* Note: The current plan for the Fire Authority targets 2016 as the last year for Fire-Rescue to be involved in the City's capital replacement plan. From 2017 and beyond, a factor of $575,000 annually is needed for large capital replacement. Of that amount 82% would be the City's responsibility, which equals $471,500 annually for large capital.

IMPROVEMENT COSTS FOR FIRE STATIONS – *(INITIAL COST ESTIMATES*)*

CONSTRUCTION COSTS FOR LFRA BUILDING PROJECTS

The following are costs estimates for three building projects associated with the expansion planned for Loveland Fire and Rescue for Model One - the Basic Services Plan.

CONSTRUCTION OF NEW FIRE STATION 2

• General conditions		$ 230,000
• Site costs		$ 400,000
• Building costs (11,885 sq. ft X $191 per sq. ft.)		$2,270,000
TOTAL COSTS - Station 2		**$2,900,000***

ADDITIONS TO STATION 6

• General conditions		$ 269,150
• Site costs		$ 135,000
• Additions:		
- New community room	500 sq. feet	
- New sleeping quarters	1,200 sq. feet	
- Bathrooms	250 sq. feet	
- Office	200 sq. feet	
- Storage	200 sq. feet	
Total Space Added	2,350 sq feet (X $191)	$ 448,850
• Remodel the following:		
- Existing exercise area and community room	900 sq feet (X $ $80)	$ 72,000
TOTAL COSTS - Station 6		**$ 925,000***

NEW STATION 10

• General conditions	$ 230,000
• Site costs	$ 350,000
• Building costs (9,000 sq. feet X $191 per sq feet)	$1,719,000
TOTAL COSTS – Station 10	**$2,299,000***

* These estimates were provided by City of Loveland Facilities in late 2010 or early 2011; they will need to be reevaluated in the coming years based on the construction trends and costs per square foot.

VII. SPECIALIZED AREAS

Providing the necessary fire protection and emergency services to the public requires a multi-faceted approach for community fire protection and life safety. Section VII covers several important specialized areas that are integral to the fire department's daily operations and long-term strategy and planning for a fire and rescue-safe community. The order in which these areas are addressed is not intended to imply any rating or level of importance. All of these specialized and miscellaneous services are important to the overall mission of Loveland Fire Rescue Authority (LFRA).

This section focuses on the following six specific specialized areas of operations under the heading of fire protection and emergency services:

- Emergency Medical Services
- Wildland Urban Interface Operations
- Specialized Operations (SOT)
- Training
- Safety
- Community Safety Division

For each specialty area, this section will identify what it is, explain how it operates or is integrated into the department's mission, provide some insight into future needs or concerns, and present some planning assumptions.

EMERGENCY MEDICAL SERVICES - LOVELAND FIRE RESCUE AUTHORITY AND TVEMS

The Emergency Medical Services (EMS) delivery model is normally represented by two different levels of service: Basic Life Support (BLS) and Advanced Life Support (ALS). BLS focuses mostly on delivering the primary services of airway, breathing, and circulation to support life. ALS focuses on the more complex, advanced life support services that include more definitive airway management and intubation, and the administration of life-saving intravenous drugs for pre-hospital care and treatment. Transportation of patients is most often the responsibility of the ALS provider. Two other integral components to a successful EMS system include dispatching for EMS and public medical awareness and training. The emergency medical system in the Loveland Fire Rescue Authority response area is very much like the typical model listed above.

EMS and LFRA

LFRA supports the EMS model by providing basic life support services and working collaboratively with the paramedics of Thompson Valley EMS (TVEMS) during on scene assessment, treatment, and when needed during transportation to a local hospital or health care facility. LFRA's personnel are trained to the level of Emergency Medical Technicians (EMTs) and in the use of Automatic External Defibrillators (AEDs). The current number of EMS-related calls for LFRA is at 47% of the entire call load (in 2011 that was nearly 3000 emergency calls). LFRA normally responds only to EMS calls for life-threatening emergencies, or in field-related terminology, to Charlie, Delta, and Echo medicals. Occasionally, LFRA will respond to non-life-threatening calls such as an unknown coded "Bravo" or when TVEMS responders feel the need for a fire response.

Firefighters for LFRA are required to hold EMT-Basic certification issued by the Colorado Department of Public Health and Environment (CDPHE); LFRA is a recognized continuing education training provider for CDPHE. Certified LFRA EMS trainers provide ongoing training in EMS for required continuing education. Joint or combined EMS training is often provided in collaboration with TVEMS instructors to ensure that all phases of the local EMS model are working in concert with each other and are training to the same protocols.

LFRA strategically envisions remaining a BLS provider in the future and providing a support mechanism for the ALS and transport services being offered through TVEMS. The current operational model and business philosophy of TVEMS and its leadership is conducive to providing a quality, high level of citizen service for EMS. Periodic performance reviews of the service levels should occur regularly and be a part of this strategic planning process. Regular, ongoing meetings with TVEMS executive staff should also be conducted to ensure that both agencies are operating with a high level of performance and within the parameters of their individual portion of the shared EMS service level mission.

EMS and Thompson Valley Emergency Medical Services

Formed in 1983, the Thompson Valley Ambulance Service became Thompson Valley Emergency Medical Services (TVEMS) in 1998 under a new Health Services District agreement. Today TVEMS responds to nearly 10,000 calls per year with its fleet of 10 ambulances, 5 stations, and 55 employees. TVEMS incorporates the most advanced treatment protocols with the latest technology, modern ambulances, computer aided dispatching, medical pre-arrival instructions, and GPS mapping to provide quality services to its citizens and clients. TVEMS provides advanced life support and ambulance transport services to the 450 square miles of the Thompson Valley Health Services District including the cities of Loveland and Berthoud, with portions of Johnstown and Windsor-Severance Fire Protection District included in the service area. TVEMS serves an estimated population of over 100,000.

The mission of TVEMS is to "promote and facilitate the responsible provision of medical services within the Thompson Valley Health Services District." The organization's Vision Statement states, "The vision of Thompson Valley EMS is to provide humane, quality care to the citizens of the Thompson Valley Health Services District. We will commit ourselves to make each patient feel, no matter the intensity of the event, they are worth our time, education, and compassion. This commitment to treat our community with dignity and respect will extend to our co-workers. Our compassion to help each other within the organization is a direct reflection of how well we will care for those we are called to in their time of need. We will strive to always be on the leading edge of medicine and education while working to contain costs and maintain continuity within Thompson Valley EMS."

Successfully managing and operating an emergency medical system with two or more different agencies requires cooperation and collaboration in field operations; it also requires a compatible organizational and business philosophy. The model used by LFRA and TVEMS meets and exceeds these necessary essentials. The focus of both organizations is on providing the highest quality patient care and citizen service possible with an emphasis on collaboration in planning, training, and overall field operations.

Emergency Medical Dispatching (EMD)

The Loveland Emergency Communications Center (LECC) is the Public Safety Answering Point (PSAP) for 9-1-1, covering over 260 square miles of southern Larimer County. LECC Communications Specialists answer both emergency and non-emergency calls. The Center is dispatching for Loveland Police Department, Berthoud Police Department after hours, Loveland Fire Rescue Authority, Loveland Rural Fire Protection District, Big Thompson Canyon Fire, Thompson Valley EMS, and the Berthoud Fire Protection District.

In 2007 the Loveland Emergency Communications Center became one of 82 dispatch centers in the world to become accredited in Emergency Medical Dispatching (EMD). Communications specialists use specialized medical software to triage patients over the phone and send the appropriate medical personnel. An average of 110 calls are listened to and evaluated each month to ensure that our EMDs maintain high standards.

EMD consists of three parts. The first involves triaging the in-coming request for medical service to determine the level of response such as no response, non-emergency transport, or emergency transport. This feature depends heavily on the area's emergency medical facilities and the availability of alternate, non-emergency transport methods and treatment facilities. Many jurisdictions do not utilize EMD, but it is an important and proven component in reducing abuse or overcrowding of the local emergency medical system, reducing incidents (which helps conserve available resources for the fire department, ambulance provider, emergency rooms, etc.), and helping to reduce accidents.

The second part of EMD consists of providing pre-arrival instructions to the callers, so they can immediately help the victim. The level of telephone assistance can vary from just simple advice (call your doctor) to complete instructions for CPR. This is the most visible component of EMD, and for victims, perhaps the most valuable feature: saving lives. Pre-arrival instructions are most commonly provided on computer screens, arranged so the dispatcher can question the caller and based on the answers, quickly go the screen that contains the correct advice or instructions.

The third and most critical feature of EMD is quality assurance. Each EMD program must originate with the complete involvement and cooperation of local emergency medical officials. Each aspect of the selected EMD protocol must be reviewed, revised as needed, and approved by the local or regional EMS agency. This ensures that the information and procedures being given by the dispatchers are correct and appropriate for local conditions. In addition, there must be an on-going review of the use of the EMD protocols by the dispatchers to ensure they're following them correctly and that the protocols are having a positive impact on the victims. This review could involve the random selection of several incidents each month for analysis, grading, providing feedback to the dispatcher, and revising the protocols if necessary.

The EMD component of the EMS system operated by LECC is an integral part of the overall quality citizen service model for pre-hospital care offered in the LFRA and TVEMS districts. This third component of the system ensures a proper response from the emergency pre-hospital care providers and begins the assessment, triage, and treatment phase of the EMS with citizen assistance. The fourth component of the system is public medical awareness and training.

Public Medical Awareness and Training

The knowledge of the general public of symptoms of serious illness and of the proper method to access the EMS system has been shown in community studies to have a positive effect on the overall survival rate of patients in medical emergencies. Citizens trained in CPR are another important factor in patient survival. Approximately 92% of sudden cardiac arrest victims die before reaching a hospital facility. However, statistical data has suggested that if more citizens knew CPR, more lives could be saved. According to the American Heart Association, immediate CPR can double or even triple a cardiac arrest victim's chance of survival.

Quality EMS education is the first step to improving the standard of care. TVEMS offers a wide range of courses, both certification and refresher courses, for pre-hospital emergency health care providers (EMT-basic through paramedic), firefighters, law enforcement personnel, health care providers, and the general public. Citizen training in CPR is an important component of the programs offered by TVEMS; the continuance of this training will positively impact the region's standard of care.

Enhancing the public's knowledge about the proper way to access the EMS system is important to pre-hospital emergency care. A well-informed public can assist the emergency dispatch center in striving to initiate proper and timely notification of medical emergencies.

Response Times and EMS

Response time performance has been used as an indicator of ambulance service quality for many years. The standards are usually applied to all calls regardless of clinical urgency. However, the rationale for using response time as a performance standard is based in researched evidence on the relationship between time and patient outcome for very specific clinical conditions, predominately out-of-hospital cardiac arrest. Many of these research studies were conducted before the advent of the BLS use of AEDs, when defibrillation was an ALS procedure.

Contemporary studies in the U.S. found overall, rapid response in terms of an eight-minute target for ALS makes no discernible difference to survival of patients in cardiac arrest. Nevertheless, there are presumed benefits for the survival of many out-of-hospital cardiac arrest patients. Reducing levels of anxiety, pain, and distress in patients and family members is another benefit of rapid response. Thus for a given level of resources and specific call types, response times should be minimized.

LFRA has adopted the intent of the National Fire Protection's directives for EMS response as a target for performance measurements. These essentially stipulate the arrival of a BLS unit (engine or truck company) within five minutes of the time of dispatch 90% of the time within the urban response area (see Section IV.) LFRA uses a 5:59 target for total response time, and TVEMS uses a nine-minute response model for response with an ALS unit.

TVEMS also uses dispatch call prioritization according to the urgency and seriousness of the patient's condition on the assumption that a faster response to life-threatening emergencies could lead to an increase in the number of lives saved. Armed with accurate information, "prioritized" response times have gained acceptance and for the local jurisdiction are defined as follows:

- Category 1 - Life-threatening emergencies of which 90% should be responded to within nine minutes
- Category 2 - Serious conditions, which should be responded to within 15 minutes
- Category 3 - An unspecified but appropriate response for calls with no immediate clinical need

From the LFRA perspective, any life-threatening emergency (Charlie, Delta, or Echo medical call) is essentially handled as a "Category 1" with the abovementioned response criteria in place. The targeted performance standards of the EMS system within the LFRA response district for life-threatening medical emergencies state that a BLS unit will arrive within 5 minutes and 59 seconds from the time of dispatch, and an ALS unit will arrive within nine minutes from the time of dispatch 90% of the time within the urban response area. These performance targets should be monitored and measured annually for comparisons as to the outcomes for service delivery within the noted response areas. Long-range plans (such as those listed in the Model One Basic Services Expansion Plan) are designed to address current areas of deficiencies where these standards are not being met.

Planning Assumptions for the EMS System

Certain planning assumptions are included in this strategic plan; those for the EMS system within LFRA's response district are listed below. The recommendations that emerge from this section of the plan plus these planning assumptions can be found in "Section X - Recommendations."

EMS Planning Assumption 1 - The current model for the EMS system within the LFRA district, which includes BLS services and support functions provided by LFRA and ALS services and transport provided by TVEMS, provides high quality levels of citizen service and a high level of EMS patient care.

EMS Planning Assumption 2 - The response model that is currently in place, with the noted targets for performance of a BLS unit on scene within 5 minutes and 59 seconds from the time of dispatch and an ALS transport unit on the scene within nine minutes 90% of the time within the urban response area is appropriate as a target for performance goals.

EMS Planning Assumption 3 - Relevant performance measurements need to be monitored, measured, and reviewed at least annually for adherence to specific standards of performance.

EMS Planning Assumption 4 - A collaborative process between LFRA and TVEMS for strategic and operational planning is necessary for the continuance of high quality EMS in the LFRA district.

EMS Planning Assumption 5 - A commitment for continuous improvement in the EMS system within the LFRA district will include Basic Life Support Services, Advanced Life Support Services, Emergency Medical Dispatching, and Public Medical Awareness and Training including activation of the EMS system and citizen CPR training.

WILDLAND URBAN INTERFACE OPERATIONS

Wildland fires are those that involve natural vegetation, sometimes covering large areas and threatening dwellings, agricultural facilities, livestock, and even humans. The wildland urban interface problem has grown in recent decades as higher levels of the population migrated away from cities or urban areas to more of the rural or wildland setting. A large portion of LFRA's response district incorporates areas that are comprised of grass, brush, and timber. As a consequence of growth and development, people have moved further into the areas that are known as the wildland urban interface (WUI). Although the Larimer County Fire Plan identifies the WUI as being west of Range 69 (or west of County Road 23 for LFRA), it is important to understand that there are also WUI locations within and just outside the city limits of Loveland.

Defining the WUI and the Problem

The National Fire Protection Association (NFPA) defines the "wildland/urban intermix" as "an area where improved property and wildland fuels meet with no clearly defined boundary." Chief William Teie of the California Department of Forestry defines the WUI as an area "Where humans and their development meet or are intermixed with wildland fuels." For LFRA, the primary focus of the WUI is in the foothills, generally west of County Road 23 and the hilly areas of Pine Ridge Reservoir, Bobcat Ridge, and along Reservoir Road. Much of this area is in the Big Thompson Canyon's area of initial response. The area includes steep slopes, high concentrations of brush, and areas of relatively dense forest. In the last ten years, this segment of the fire district has had at least four very serious fires; three escalated in size and magnitude to involve both state and federal resources for management and operations. In recent years, building permits in this WUI zone have been down, but a significant portion of 22,500 residents in the Loveland Rural Fire Protection District live in the WUI area. It is likely that as the economy rebounds from the downturn in the late 2000s, the WUI area will see additional population growth and more structures built. Thus, the WUI problem for LFRA is not likely to decline during the years of this plan.

There are several important factors that impact urban interface wildland fire risk, with the most significant factor involving humans. The greater the number of people, residences, and other buildings in the wildland hazard zone, the greater the potential for fires to occur, resulting in large property loss. Building construction and site features such as combustible roofing, siding, large eaves, long narrow driveways, and trees and vegetation close to the structures have all contributed to structure loss and increased fire spread. Buildings with combustible roofing materials are particularly prone to loss and may contribute to fire spread in higher density developments. The lack of adequate water, narrow and steep roads, long dead end roads, and longer distances from fire stations and firefighting resources all hamper firefighting efforts in this theater. Weather conditions, especially high winds and low humidity that are common to Northern Colorado, greatly exacerbate the fire and life safety problem in this high-risk zone.

Addressing the Problem in the WUI

LFRA's first incident priority is the protection of life (Life Safety) followed by the preservation of property; these are the same in the urban structural theater. LFRA's primary strategy is a rapid attack on the fire when it is still small enough to contain. In cases where fires grow too quickly to control with initial attack resources, or escape initial firefighting efforts, the priority shifts to one of evacuation and protection of significant structures or resources. Large wildland fires of this magnitude are infrequent; however, LFRA has experienced several in the last ten years that have involved multiple structures, hundreds to thousands of acres, and millions of dollars in property loss or containment costs. The Reservoir Road Fire, which occurred in September of 2010, destroyed two homes, several other buildings, and more than 750 acres, with costs totaling over two million dollars for firefighting efforts. Fort Collins, Boulder, and Colorado Springs have experienced even more devastating fires in the WUI zone in the last several years.

Currently, there are few planning and regulatory tools available to guide development in wildland areas with the goal of reducing fire risk in the long term. While new public streets and private roads serving multiple homes must meet current development standards, existing roads and many private driveways are severely deficient. Water supplies are almost completely unavailable or inadequate in many areas. Finally, there are no mechanisms in place to control

combustible fuel loads around and between structures. Although there are guidelines and recommendations for home and property owners to reduce the wildland fire risk, experiences in other jurisdictions have shown that many residents are reluctant to take precautionary measures or comply with the recommendations associated with the Red Zone program currently in use by LFRA. Red Zone is an incident mapping and field survey software program designed specifically for wildland fire use. The problem in the WUI zone is difficult and will require a multi-tiered action plan to reduce risk and ultimately save property and lives.

The LFRA Model: Five Point Approach

In order to adequately address the threat of wildfires in the rural areas and the wildland urban interface, the strategic plan utilizes a five point approach focusing on community risk reduction: education, engineering, enforcement, economic incentives, and emergency response.

1. Education: As the wildfire threat continues to grow, there is more of a need to educate the public about the dangers associated with these types of fires and what measures they can take to reduce the potential impact to their property. In order to realize this goal, it is recommended that a multi-faceted approach be taken by using the Internet, social media, printed material, and community meetings. Cost estimates for this effort are unknown at the time of this writing and no funding stream has been identified.

2. Engineering: This portion will be realized through two methods: fuel mitigation near and around structures and through the use of planned "prescribed fire" on public lands. The fuel mitigation will be carried out by property owners but may be assisted through available state grants. Generally these types of grants require a 50/50 match with the requesting agency. Fuel mitigation may also be addressed through cooperative agreements with Larimer County and the State of Colorado. Cost estimates for this effort and the LFRA portion of a 50/50 grant are unknown at the time of this writing and no funding stream has been identified. In regards to prescribed fire, this is a proven method to reduce the threat of large wildfires on public lands. The City of Loveland owns over 4000 acres of open space, and much of that abuts residential areas. Furthermore, there are several thousand acres of open space in the LFRA jurisdiction that are owned by the federal government, the State of Colorado, Larimer County, and the City of Fort Collins. The very real threat of a wildfire spreading into a residential neighborhood can be greatly reduced through the implementation of a prescribed fire program. This can be conducted in cooperation with the State of Colorado, Larimer County, and The Nature Conservancy. In order to adequately perform a prescribed fire program, it will be necessary to increase the annual overtime budget for the costs of off-duty wildland firefighters. Off-duty firefighters are utilized to maintain shift strength and community service levels for other fire protection needs.

3. Enforcement: It is recommended that the Loveland Fire Rescue Authority, City of Loveland, and the Loveland Rural Fire Protection District adopt the most current edition of the *International wildland-urban interface code*™. In order to fully utilize and enforce the code, it will be necessary to hire another full time employee (FTE) that would be dedicated for the purpose of WUI code enforcement and fuel mitigation. The estimated cost for this position is $100,000 per year at full cost budgeting. Grants for this position could be an initial option, but a long-term funding stream would need to be identified in order to continue the service.

4. Economic Incentive: Although the City of Loveland and the Loveland Rural Fire Protection District are not in a position to provide direct economic incentives to the public, this portion of the plan may be realized in reduced insurance rates and a reduced wildfire threat to property. Other options in the future could include some type of incentive program that could be conjoined with a reduction or elimination in the Capital Expansion Fees for new developments.

5. Emergency Response: Eventually, the likelihood is that in spite of the best efforts, the previous four methods will have some failure and a wildfire will break out. This will happen through lightning, downed power lines, unattended campfires, intentionally lit fires, etc. When this occurs it will be necessary to respond in a timely and professional manner with an adequate level of resources, staffing, and equipment to successfully mitigate a wildland fire.

The emergency response approach is without a doubt the most costly and the most impactful of all of these five points. It will be necessary to address emergency response through training and apparatus.

Training: Currently all suppression personnel within LFR are required to maintain the S130/190/L180 Basic Wildland Firefighter certification. Officers are also required to maintain S215, Structure Protection in the Wildland Urban Interface. Beyond that level captains and chief officers must have S290, Intermediate Wildland Fire Behavior. In order to ensure that all officers of LFRA have a high level of proficiency it is recommended that every officer and acting officer obtain S290 and the appropriate classes for the engine boss qualification. It is also necessary for captains and chief officers to obtain qualification at the strike team/task force leader, group/division supervisor, and Incident Commander Type 3 levels. In order to accomplish this, cost increases for wildland firefighting operations will occur. Cost estimates for this effort are unknown at the time of this writing and no funding stream has been identified.

Apparatus: LFRA currently operates with two brush trucks, and the Big Thompson Canyon VFD has one. To adequately meet the operational needs for safe and efficient wildland firefighting, it will be necessary to purchase at least one more brush truck (a Type 6 Engine) and have a Type 3 Engine in the fleet for wildland firefighting and structural protection. Cost estimates for this equipment are unknown at the time of this writing and no funding stream has been identified; these types of apparatus are not a part of the current equipment schedule plan in the City of Loveland or the Loveland Rural Fire Protection District through the year 2020.

Future Changes in the WUI Theater

As with so many of the issues identified within this strategic plan, predicting the future is an uncertain venture; this is particularly true in the wildland urban interface theater. It is unclear what the population, structures, or building increases will be in the LFRA WUI zone in the identified years of this plan (2012-2020). It is also unclear what additional funding will be available to enhance the capabilities, both operationally and in pre-planning and pre-fire mitigation, for the Fire Authority's district. What is also uncertain is the amount of support that will continue to be provided by the federal government and state government for local wildland fire operations. Recent events suggest that federal resources and funding are likely to be reduced and that state and local authorities will probably assume more funding responsibilities.

A recent study published by the National Wildfire Coordinating Group (NWCG) titled *Evolving Incident Management: A Recommendation for the Future* suggests that a shift in responsibility for incident management will likely occur, with the state and local jurisdictions taking on more management responsibility in the form of localized Incident Management Teams. A corresponding outcome of this will also likely be a shift in the responsibility for costs of such incidents. Clearly, this theater of operation is in a state of flux, and change is to be expected. It will require due diligence on the part of LFRA staff members to anticipate, plan for, and adjust operations as necessary to adapt to future changes. One key area of focus should be on developing an even stronger relationship with regional departments and forming even stronger operational partnerships for the future.

Wildland Planning Assumptions

Wildland Planning Assumption 1- Future trends suggest that the WUI problem is likely to grow to a much higher level during the time of this plan, including more people and more structures within the WUI zone.

Wildland Planning Assumption 2 - The current model of fire protection and mitigation for wildland fire operations will likely not be adequate for the future. More resources and funding will need to be invested to keep up with the anticipated future needs.

Wildland Planning Assumption 3 - Current federal and possibly state resources, upon which we currently depend, will likely be reduced or possibly eliminated in the future.

Wildland Planning Assumption 4 - Development of even stronger operational partnerships and regional cooperative relationships will be needed to offset the loss of federal and state resources in order to maintain an adequate and reliable emergency response. Local Incident Management Teams (IMTs) should be evaluated and developed for future operations in the region of Northern Colorado, including areas within the LFRA response district.

Wildland Planning Assumption 5 - Funding streams for wildland fire apparatus such as Type 3 and Type 6 Engines need to be identified and included in long-term planning for the Fire Authority.

Wildland Planning Assumption 6 - If voluntary programs such as education and engineering in the Five Points approach above are successful, many of the problems listed in this section of the plan could be adequately addressed. Any improvements, trigger points, and tracking of data should be identified and implemented into the long-range future plans.

LOVELAND FIRE RESCUE AUTHORITY SPECIAL OPERATIONS

Special Operations for the purpose of this planning document are defined as those fire-rescue operations such as hazardous materials, specialized and technical rescue, and responses to various community disasters. It has been a long-standing tradition of the fire service to be ready to respond to virtually any emergency call that is not specific to another department or division's responsibility - for example, law enforcement. From this commitment to citizen safety and citizen service, the fire service adopted an approach of specializing its training and responses for a wide variety of emergencies, which calls for a "special operations team."

For LFRA, the Special Operations Team (SOT) was developed in late 2005 by combining long standing teams operated by LFR such as the HazMat and dive teams. The concept of SOT is to have one team cross-trained to handle all special rescue and hazardous materials incidents. The team's mission statement is as follows: "*The Special Operations Team goal is to provide coordinated and efficient specialized rescue services and hazardous materials response to the citizens of Loveland and the Loveland Rural Fire District. Maintaining a high degree of mobility with the ability to deploy a response element as requested throughout the region {sic}."*

SOT is divided into three main operational areas: Dive Rescue, Hazardous Materials Response, and Urban Search and Rescue (USAR). Several sub-rescue areas are derived from these overall categories including swift water and open water rescue, low angle and high angle rescue, trench and confined space rescue, and more.

SOT is made up of 34 LFRA members, two Berthoud Fire Department personnel, and seven Thompson Valley EMS (TVEMS) SOT paramedics. All personnel are trained to the operations level (or higher) in each discipline. Each operational area has several technician level-trained staff. SOT personnel are spread out among all three shifts providing an on-duty response to any SOT incident. Off-duty SOT Members are paged for response as needed. Fire Station 2 houses all of the SOT apparatus and equipment. This station is staffed with a minimum of three SOT personnel at all times.

LFRA SOT has developed professional relationships with several area emergency response agencies, including TVEMS, Berthoud Dive Rescue, Larimer County Search & Rescue, Northern Colorado Bomb Squad, Larimer County Dive Rescue, Colorado State Patrol HazMat Response, Poudre Fire Authority HazMat, Greeley Fire Department's HazMat, and the Longmont Fire Department's HazMat and Technical Rescue Teams.

The number of trained specialized rescuers at a technician or higher level for LFRA in the various SOT disciplines includes the following numbers:

- Collapse rescue 8
- Confined space rescue 4
- Hazardous materials technicians 12
- Large animal rescue 2
- Rope rescue 18
- Swift water 12
- Trench rescue 19

Current and Future SOT Operations

The existing model for specialized operations for SOT is adequate for the current demographics and response demands of the community. Since 2005 LFRA has developed one of the region's most capable and strongest specialized rescue teams. The team has proven its value, capabilities, and proficiency on numerous calls within the LFRA district and region, including the Windsor tornado in 2008. The team concept, as used by LFRA, is a unique approach to dealing with specialized operations and has been emulated by other departments and agencies. However, from a strategic perspective, there are both current and future needs for the LFRA SOT. In addition, there are legitimate concerns about the future availability of federal resources and support for federal rescue teams such as Colorado Task Force I, which is a deployable Urban Search and Rescue Team (USAR) located in Colorado. Many of these future concerns for a continuance of federal and/or state resources and support are driven by economic variables and are similar to the concerns outlined in the wildland urban interface portion of this plan.

The current LFRA SOT has done well with limited funding, but the team has identified future needs that must be addressed in order to be able to maintain an adequate and reliable response to future specialized emergency calls. There are some equipment and capital items that are needed for the team to operate to the desired level of proficiency. Some of those needs include the purchase of a flat bottom boat for water rescue and certain additional rigging and rescue equipment as well. An important part of the future planning is to maintain and in some cases increase the number of trained technicians on the team. The two most significant of these training needs are these: (1) to train six additional rescue divers and swift water swimmers and (2) to train six additional HazMat response technicians.

The team has an annual budget affixed to it for operations and maintenance of current standards and equipment; however, the additional equipment and training for personnel identified above is beyond the annual budget of the team.

Heavy Rescue 2

One of the more significant operational enhancements outlined within this plan is the addition of a northwest heavy rescue squad (or support unit) at the new Fire Station 2 (Heavy Rescue 2). Not only will this additional company enhance the day-to-day fire-rescue operations, it will also enhance specialized operations. Currently, a single engine company (Squad 2) conducts all operations in the northwest part of the LFRA response area. This northwest engine is actually doing dual duty as a regular engine company, and when needed, acts as the second truck company (or support unit) for the overall system. The need for a northwest truck or support company has been discussed earlier in the plan. However, with the advent of this heavy rescue company, a significant portion of the on-duty specialized operations responsibility will be assigned to this company. Operationally, this addition will significantly enhance shift resources for specialized operations by having a designated unit that will carry the needed tools and equipment for SOT operations.

From a strategic perspective, planning will need to be completed for the design of this apparatus and the type and quantity of equipment that it will carry. Also, LFRA must identify what operational changes will need to be made for the interface with the heavy rescue company and the other ladder truck company for support and specialized rescue operations. The purchase of the new heavy rescue truck is attached to Capital Expansion Fees (CEFs), and this money has already been accounted for in the City of Loveland long-range planning. Equipment for the

heavy rescue squad, beyond the normal equipment affixed to the truck, may need to be funded through additional revenue streams.

Regional Specialized Rescue Teams and USAR

One of the needs currently being evaluated for SOT is for a regional specialized rescue team in Northern Colorado. In addition to these discussions, interfacing with the state's USAR Team, Colorado Task Force I, is an important component to a regional response to community disasters. Some work has already been done, and some operational agreements are in place within the region for mutual aid and response, particularly in the area of structure fires, wildland fires, and hazardous materials calls. Much of the regional effort is currently focused around the departments within the Front Range Fire Consortium (FRFC); however, more work in developing cooperative operational agreements for specialized operations should be done. Several of the FRFC departments, including Longmont and PFA, have team members with the state's USAR team. Expansion of the concept of a regional or local specialized operations team or USAR team that can interface with the current FEMA USAR team should be evaluated further for operational effectiveness and feasibility.

SOT Planning Assumptions

Special Operations Planning Assumption 1- The current model for SOT is adequate for the current call load and community demand for services in this area.

Special Operations Planning Assumption 2 - Future growth in the community and region surrounding LFRA's response area will likely place much more demand on the services of the department's SOT.

Special Operations Planning Assumption 3 - Additional funding will likely be needed to account for additional training and equipment for SOT processes. Alternate funding streams, including grants and other more reliable streams, will need to be investigated to address the needs created by growth and expansion.

Special Operations Planning Assumption 4 - The addition of Heavy Rescue 2 in the northwest portion of the LFRA response area will greatly improve the day-to-day operations for SOT and other specialized operations.

Specialized Operations Planning Assumption 5 - A regional approach to the problem of enhanced services needed for SOT is perhaps the most viable and best option for maintaining and improving overall specialized operations service levels within the LFRA response area. The idea of developing a regional team for specialized operations should be investigated within the time parameters set forth by this plan.

Specialized Operations Planning Assumptions 6 - The linkage to the state's FEMA USAR Team, Colorado Task Force I, is a viable option and enhancement to the local and regional team approach for special operations. Work should be done within the timeframe of this plan to investigate and incorporate the best linkage to this resource. State USAR Team membership may be an option, but at the least, a seamless process for request for service, dispatch, response, and deployment should be developed for the local and/or regional specialized operations team.

LOVELAND FIRE RESCUE AUTHORITY AND TRAINING

One of the most important missions of LFRA is the effective training of its personnel to meet the challenges of emergency response, fire protection, and prevention services. The department has had a long history and commitment to training. Back in 1979 the Loveland Fire Department and the volunteer firefighters of that era began building the Department's training facility, located south and east of 1st Street and Railroad Avenue. This facility has now become one of the most versatile and state-of-the-art training centers in all of Northern Colorado. The physical aspects of nearly every fire/rescue-related training function can be carried out at this facility. There is a major emphasis on the use of props and replication to achieve the highest level of virtual reality training and reality-based training. However, LFRA training and the Department's training program are much more than just facilities, buildings, and props; training for LFRA is a core value.

Loveland's fire department has long been known for its commitment to training. The minimum hours required for certification and continuing education are routinely met by every LFRA fire company and individual firefighter. In addition, the Department does more live fire burns and training evolutions than any other department in the region. Today, LFRA continues to be committed to training and is building on the great foundation laid by the Department's firefighters from the past. The training division for LFRA is committed to continuous improvement and maintenance of the core values around a strong program.

The Training Model and Staff

The current training model and staffing supports a managed plan for both centralized (training division-sponsored) and decentralized (company-managed) training. The training staff consists of one Training Battalion Chief (BC) and three shift Training Captains; a reserve firefighter also assists with basic training functions on an ad-hoc basis. The Training BC is a full-time, 40-hour position that is devoted primarily to the training division. The three shift Captains are assigned to Ladder Truck 6 and have an array of duties and responsibilities in addition to functioning as the shift Training Officer. Training functions within the Community Safety Division are carried out within the division or via outside training classes and courses.

Regional Training Cooperative

The LFRA Training Division devotes a portion of its time to regional training in a mutually cooperative and mutually beneficial agreement. This includes academies and other ad-hoc training through the Front Range Fire Consortium (FRFC), of which Loveland has held membership for over a decade; Aims Community College and its Fire Science/ Fire Academy programs; and other regional departments. The cooperative nature of the agreements has been advantageous for LFRA over the years. The Department receives many tangible and intangible benefits from the cooperative regional relationships and agreements crafted through the training division. In recent years LFRA has taken on more of a leadership role in Northern Colorado's firefighting community; the training efforts have been one of the key reasons why. Relationships forged through training with regional departments have had a real and positive impact on LFRA through the many mutual aid and automatic aid agreements that the Department holds and with which it operates.

The Current and Future Needs for Training

The existing operational training model for LFRA is working with the Department's current call load and staffing levels. However, as the Department sees increases in call volume and the number of personnel, the demands on the training division will likely exceed the division's ability to meet those demands. Regional training responsibilities, while valuable to LFRA and its overall operations, add to the workload and demands on a minimally-staffed training division. A full-time firefighter is needed in the training division to relieve the Training BC of much of the basic labor that is required to manage and operate the training facility. The Department's training reserve firefighter has helped in this area, but the hours typically available from this position (36 hours a month) are not nearly enough for the current workload.

What is needed is the establishment of a developmental, rotational training firefighter position that can help with the current workload. Currently, no funding stream exists for this position, so grants or other alternate funding mechanisms will need to be evaluated. In addition, a long-term, strategic evaluation of the training division needs to be done to effectively assess what will be needed in the way of staffing for the future. This planning effort should be incorporated into this current strategic plan.

In addition to the staffing needs for the future, a careful analysis should also be conducted to determine how training would be managed and carried out in the future. There should be a comprehensive analysis with a resulting plan made up of three areas of responsibility: Centralized - what the training division's staff will provide; De-centralized - what the company level training management model will be; and Ad Hoc Training - what will be offered from outside sources on a one-time or specialized effort. The outcome of this analysis and planning should result in a multi-year training plan for LFRA that is in alignment with future long-range plans.

Training Planning Assumptions

Training Planning Assumption 1- The current training plan and staffing model is mostly adequate for the internal training needs of the organization, based on current staffing levels and call loads.

Training Planning Assumption 2 - There is an immediate need for an additional full-time 40-hour firefighter within the training division to help with the more basic level training work.

Training Planning Assumption 3 - Several training division assessments are needed to evaluate the division's future staffing and financial needs. This analysis and the findings, along with recommended countermeasures, should be a part of this strategic plan.

Training Planning Assumption 4 - A comprehensive long-term analysis for how the training efforts will be carried out in the future using the Centralized, Decentralized and Ad Hoc training delivery methods should be carried out and included as part of this and future strategic plans for LFRA.

LOVELAND FIRE RESCUE AUTHORITY AND SAFETY

Both firefighter and citizen safety are fundamental and primary elements of the Fire Authority's overall mission. In today's fire service, safety is one of the most focused areas of concern and one of the least thought of as part of the strategic planning process. LFRA is committed to a department that has as one of its core values *the enhancement of citizen and firefighter safety*. This one area is directed by the Fire Chief to be a part of the Department's overall commitment to quality and continuous improvement. The relationship between safety and strategic planning is not unique to the fire service, but it should be an integral part of any strategic plan if the stated commitment to safety while operating with a mindset of the enhancement of the safety culture is more than mere words.

The LFRA Safety Model

Enhancing safety in fire and rescue operations can be a very difficult task. Firefighting and rescue operations by their nature are likely to be unsafe and at times unpredictable environments. Nevertheless, at least historically, the American fire service has learned a great deal since 1985 and the advent of the first National Fire Protection Association (NFPA) standard on firefighting and safety, *NFPA 1500 Standard on Fire Department Occupational Safety and Health Program.* This landmark document set the stage for expectations for all aspects of fire-rescue operations and the needed health programs to ensure firefighter health and safety.

The current safety effort and model for the LFRA ensures health and fitness through attention to the following: firefighter staffing levels on fire companies that meet minimum requirements; proper firefighting apparatus and equipment that comply with industry standards; fitness evaluations and screening; adequate training programs and certifications for safe tactical and task level operations; command level training and certification for all officers and acting officers; training in situational awareness and tactical decision making under stress; specific training programs dedicated for firefighter safety and survival; and finally, staying active and current with city-wide safety and health policies and operational methods.

From a strategic perspective, the challenges for LFRA in this important area are really threefold: first, having a long-term financial strategy and plan that supports current efforts to enhance firefighter safety; second, having a plan in place to stay current on changing safety trends and the various laws or standards that affect operations; and third, having a strong and rational method of evaluation of the Department relative to current and future changes.

Current Safety Needs

Overall the current state of LFRA's safety program would be considered adequate by most standards. Several programs are in place and functioning to ensure that the Department continues to make progress towards enhancing citizen and firefighter safety. However, there is a lack of a specific, long-term plan and funding mechanism that deals with supporting the enhancement of safety. This should be a part of this plan and future strategic plans as well. In addition, the Department has several highly important capital projects that are directly related to firefighter and citizen safety that have no direct funding mechanism. Some of these include the current Self-Contained Breathing Apparatus program (SCBA), 800 MHz radios and communication equipment, Automatic External Defibrillators (AED), and other equipment. Most of these listed items are in need of immediate replacement with no identified funding mechanism. However,

efforts are underway with some success utilizing grant dollars (radios, SCBAs and AEDs in 2012), yet long-term replacement strategies need to be developed.

Future Safety Needs, Concerns, and Evaluation

The area of safety is a continuing and evolving process. History has proven that changes in laws and standards will likely continue and will also have a financial impact on fire departments as they work to meet new laws and standards. These changes can come in the form of changes for apparatus and equipment, which cost more to purchase and have a defined shelf life, or in new regulations that require additional staffing or positions on the fireground. Most fire departments do not plan for these kinds of changes and are caught behind the proverbial "power curve" when something like the Fed-OSHA "Two-In, Two-Out" regulation (requiring additional firefighters staged on an emergency scene for rescuer safety) is passed. As part of this strategic plan, methods of current and future operations should be evaluated based on safety regulations, and standards and methods should be developed to meet the intent of such changes so they can be incorporated into Department operations and budgets.

Evaluation

LFRA needs to develop a workable method for Department evaluation relative to safety and current standards or regulations. It is not reasonable for a department to expect to meet each and every industry standard related to safety (such as every provision stipulated in NFPA 1500). However, it is reasonable to have in place an effective and reliable system of evaluation in order to meet most safety standards and all legal requirements for safe, sane, and predictable operations. Developing short and long-range planning to address the Department's areas of deficiency when it comes to safety, and meeting the intent of all safety guidelines and standards are reasonable expectations. Without an identified and respected planning process, it is doubtful that LFRA will keep pace with the changing standards for safety, and the goal of continuous improvement in this arena will be severely hampered.

Safety Planning Assumptions

Safety Planning Assumption 1 - LFRA currently has a good safety culture and a commitment to firefighter and citizen safety.

Safety Planning Assumption 2 - Safety deficiencies do currently exist in the organization, and efforts will be required to address those deficiencies.

Safety Planning Assumption 3 - There will be a cost to staying committed to enhanced firefighter and citizen safety. Currently, several unfunded priorities that have a direct impact on firefighter and citizen safety exist within the Department. A plan to address these unfunded priorities should be developed and made a part of this strategic plan.

Safety Planning Assumption 4 - Safety planning needs to be a part of this strategic plan and other plans that follow.

COMMUNITY SAFETY DIVISION

The Loveland Fire Rescue Authority Community Safety Division (CSD) has responsibilities over Public Education, Code Enforcement, Plan Reviews and Permits, Emergency Management, Community Outreach, and Public Information. All of these programs work in concert with each

other and work in tandem with fire suppression activities to build, educate, and sustain a safe and vibrant community for the Loveland area. The CSD was one of the most affected areas within the fire department during the City of Loveland's overall effort to reduce budgets and reductions in force starting in 2009. The impact of the reductions in 2009 and 2010 has caused the CSD to reorganize and reduce many of the previously offered community outreach plus safety and prevention programs. The result of the reductions has also caused a shift in workload and in some cases an overload situation for the division.

Each of the programs listed below has a varying degree of impact on the CSD staff and the suppression staff based upon community needs and organizational needs. Annually, the division evaluates each of the programs and their effectiveness and measures their outcomes to ensure they are in alignment with the overall mission of LFRA. The order in which these six specialty areas are explained is not an indicator of importance; they are merely identified in alphabetical order.

Code Enforcement/Inspections

The inspection program and the code enforcement process are important parts of the Department's mission of ensuring a fire-safe community. Since 2009 the CSD has seen a 72% reduction in the number of annual business inspections due to a 50% reduction in staffing. While there has not been a dramatic increase in the number of fires at commercial occupancies, historical data based on national information indicates that reduced education and awareness to the business community does have negative consequences that are often not seen or realized for several years. National averages show that over 80% of all fires start in residential structures. However, approximately 20% of all fires do occur in commercial-oriented occupancies, and these by far are the most expensive fires on a per capita basis. Further, historical records suggest that the majority of businesses that have a serious fire never reopen after the fire, often creating serious economic consequences to communities and families. Thus, a more proactive approach in inspections and code enforcement is warranted, with an emphasis on community fire safety education and collaborative partnerships to address the fire and life safety issues. By taking advantage of a ”customer service" approach verses a "regulatory enforcement" approach, the desired impact for the community is greater fire safety in residential, business, and commercial occupancies. The next service deliverable, community outreach, addresses the total community safety effort further and in a much different manner.

Community Outreach

Community outreach programs are not a new concept in the fire service, although they do have varying degrees of success based on community needs and involvement. Most, if not all, outreach programs have a direct impact on those community members that do not have the resources or the knowledge to recognize their vulnerability. Two programs that are highly successful in Loveland are the Juvenile Fire Setter (JFS) program and the child car seat installation program. Both programs have a positive impact on the community by educating the parents and reducing the potential of severe injuries to children and young adults.

Juvenile fire setting has been identified as the fastest growing fire threat in the United States. Annual statistics show that fires set by children kill more than 300 people and destroy nearly $300 million dollars in property. More than 30 percent of the victims are the children themselves. Understanding what circumstances lead children to start fires and following a few

basic fire safety practices can lead to a reduction in the chances of children starting destructive fires. Curiosity about fire is part of a child's growth process, especially between the ages of two and nine. The majority of fires set by young children are set out of curiosity or experimentation. The CSD offers education, training, and counseling for the juvenile fire setters program to the individual and the entire family when appropriate.

The child car seat installation program has grown dramatically within LFRA in the last few years. The CSD is the division directly responsible for managing the program and utilizing personnel to assist families in the community to ensure that children are protected by properly-installed car seats. According to the National Highway Traffic Safety Administration (NHTSA), three out of four car seats are improperly installed. LFRA has trained car seat technicians that are available to the community to properly install car seats at no charge. Although it is difficult to track data locally for car seat installation and the numbers of infants and children saved from injury, it is certain that this program is making a difference in community safety and there is a demonstrated need. In 2011 LFRA, under the supervision of the CSD, installed over 160 car seats, mostly for mothers of infants and young children who did not feel able to do this for themselves.

Emergency Management

For many years, the responsibility for emergency management for the City of Loveland has belonged to the Fire Department although this program has operated as an independent division or area. When the fire prevention bureau reorganized in 2010, emergency management became an integral part of the CSD. This relationship makes a great deal of sense in the perspective of overall community safety and emergency management.

The CSD's Emergency Management program has made positive strides within our organization at the local, regional, and state level. Response and recovery efforts through training and planning at all levels of the organization continue to improve. As part of the planning efforts, the Office of Emergency Management (OEM) will continue to perform community risk analysis profiles that will help to identify those areas of our community that are "at risk" for natural or man-made disasters. These risk profiles will also assist with the ability to request federal assistance to support mitigation efforts for those "at risk" areas. The other area of highlighted importance is training. Through recent events and through discussion, the OEM has identified the need to increase our training program to include City staff members that have a direct influence on the community and on our ability to recover from disasters. An enhanced training effort began in 2011 and will continue throughout 2012 for improvement in the area of emergency management response, Emergency Operations Center activation, roles and responsibilities for department heads and direct reports, and disaster planning scenarios.

Plan Reviews/Permits

The CSD has an essential role in the plan review process, particularly as it relates to fixed fire protection systems and response-related codes and ordinances in development and building. The CSD has provided timely, quality plan reviews that meet the customers' expectations and follow the plan review process that has been adopted at most levels within the city, resulting in varying degrees of success. In the last two years, a significant effort on the part of CSD personnel to assist the City of Loveland with an overall improvement process for building and plans review was undertaken; a great deal of improvement in the process was realized, but more

work needs to be done. While recognizing that an expedited plan review process may potentially stimulate economic development, providing consistent quality reviews also provides for a quality, attractive, and fire-safe community. The CSD has carefully balanced the need for responsible code enforcement and compliance with providing reasonable and responsible plan reviews, while doing all within reasonable and acceptable timelines.

Ensuring quality development also leads to economic stability and vitality. By providing a consistent plan review process that is made available to the development community, timely reviews are then achievable. By removing unknowns in the review process or eliminating assumptions that were not communicated at all levels in the organization, the time to process a new review will actually decrease. LFRA, and more specifically the CSD, is in a unique position. The division reviews building plans that are processed through the Building Department, but also processes plan reviews and permits for fire alarm and sprinkler systems in the CSD. This dual role does provide an avenue to ensure that public safety concerns have been addressed with regard to applicable building codes and also allows the CSD to ensure that fire codes are being met. The building and plans review process is an ongoing, evolving process within the City of Loveland. The CSD will continue to play a major role in the effort directed at continuous improvement for economic vitality and for the maintenance of an overall fire and life safety community.

Public Education

Public fire safety education has been the responsibility of the fire service for over 100 years. In the Loveland community, that responsibility belongs primarily to the CSD. Various community safety programs fall under the umbrella of "public education." However, differing levels of success exist for these programs. One of the most successful educational programs ever implemented in the fire service is delivering the fire safety message to the students at the elementary school level. Statistically these individuals are identified in the high-risk category for potential injuries, but also the most impressionable age group to understand the risk of fires and other related safety concerns. LFRA has developed a very robust Public Education program that not only targets fire related educational messages, but also includes an emergency preparedness element that provides a more in-depth understanding of manmade or natural emergencies that could impact the citizens in our community. Our Public Education program works in unison with the Loveland Police Department, Larimer County Safe Kids Coalition, area hospitals, and other affiliated organizations to maintain a collaborative and cooperative approach in the education of our community members. This team of Safety Educators stays abreast of national trends, local trends, and statistics that have a direct impact in the development of our educational material.

Other areas of outreach within the public education field will evolve for the Loveland community in the coming years. The community will need more programs and adaptive programs as its demographics grow and change. One of those areas will likely be in the area of apartment-safe living. Loveland has experienced a tremendous growth in the number of apartment complexes within the community and a sizeable growth in the number of people living in these apartments. Most of these newer occupancies are 3-4 stories, some with garden levels, and nearly all made from Type V or combustible construction. Both national and regional trends show an abnormally high number of fires and civilian injuries and deaths occurring in these types of occupancies. A cogent public education effort within LFRA through the CSD for these types of occupancies will be necessary to reduce the numbers of fires and civilian injuries.

Public Information

Keeping the public informed from a life safety or an educational perspective is a challenging role that has been assigned to the CSD. This role has been made even more difficult in a high-technology world and time of diminishing budgets and reduced staffing.

With the advent of social media, texting, tweeting and cameras on every cell phone, along with the ability to shoot, store, and transmit videos of the latest breaking news, the expectation from the public is to deliver information as rapidly as it becomes available. This has had a dramatic effect on LFRA's ability to report accurate information in a timely and effective manner. Many times information that is being distributed to the media or distributed to other related media outlets has not been confirmed. Thus false information is being shared which then leads to additional time spent to correct or dispel inaccurate information. This can be increasingly challenging when property or lives have been lost. Public Information is a critical position that can be extremely beneficial to assist with educational information to the community. Some of those unrealized benefits include maintaining updated website information, recruiting reserves, and addressing current concerns such as burn restrictions, home safety tips, etc. Unfortunately, staffing limitations do not provide for a dedicated person to fill this role within the CSD.

CSD Planning Assumptions

CSD Planning Assumption 1- LFRA needs to develop a future inspection program based on education and collaboration, targeting small businesses and involving line or suppression personnel as well as CSD staff.

CSD Planning Assumption 2 - Specific occupancies within the community will require specialized training and knowledge, skills, and abilities (KSAs).

CSD Planning Assumption 3 - Maintenance of trained personnel for the juvenile fire setters program and car seat installation program has a direct and needed life-safety impact.

CSD Planning Assumption 4 - The enhancement of training and outreach for emergency management and EOC operations is integral to a total overall community outreach safety plan.

CSD Planning Assumption 5 - LFRA's role in plans review and building review processes is critical to ensure a strong fire-rescue perspective in the review process and a more effective community safety impact in the built environment.

CSD Planning Assumption 6 - The overall review process is an evolving process that will change, improve, and transform over time.

CSD Planning Assumption 7 - Enhancements in the area of public education will be needed in the future, targeting "at-risk" citizens or areas within the community.

CSD Planning Assumption 8 - Public information and media outreach to the community are vital parts of the emergency response protocol that, in part, belongs to LFRA through the CSD; efforts for continuous improvement are a part of future planning.

CSD Planning Assumption 9 – Other developing areas such as hydraulic fracturing will require greater involvement and resources from CSD.

VIII. PERFORMANCE MEASUREMENTS AND STANDARDS AND COMMUNICATION

Important ancillary components to providing fire protection and emergency services are performance measurements and standards of comparisons for the evaluation of the services provided to the community. This section of the strategic plan looks at the history of fire service benchmarking and performance measurements, the International City/County Managers Association (ICMA) method of measuring performance measurements, and current regional methods of measuring performance. Two other methods of measuring the performance outcomes of the fire service are also included: the Insurance Service Office (ISO) and fire service accreditation. In addition, this section focuses on the important aspect of communication, both internal and external communication, and its impact on gathering important data to accurately measure performance and communication with citizens (as customers being served) and to the employees (as the service providers).

PERFORMANCE MEASUREMENTS AND STANDARDS

History of Fire Service Benchmarking

Benchmarking is a system of measuring performance against a standard established from comparisons to other similar agencies at the local, regional, and national level. These standards and performance measurements are most often developed in conjunction with research and data collected by organizations such as the National Fire Protection Association (NFPA), ICMA, and ISO. From this collection of data, fire departments and emergency service providers, like LFRA, can measure the effectiveness and efficiency of services provided and the methods developed and being used to meet or exceed these standards. The data and the dimensions measured can provide policy makers, government leaders, citizen groups, and employees with realistic measurements of organizational performance and can identify where areas of improvement need to take place.

Most departments that operate with active strategic plans have used some form of benchmarking for many years. In the 1994 Master Plan, Loveland Fire and Rescue used performance objectives that were developed using historic local experience and comparisons with standards, such as those collected and produced by NFPA. Poudre Fire Authority (Fort Collins) has used similar performance objectives since the 1980s, but expanded them and re-classified them in their 1995 plan as "service level indicators." These are the organizational performance measures the Poudre Fire Authority Board of Directors review annually and use to make strategic and policy level decisions about the Department's operations.

Within the last decade, regional performance measurements were consolidated by a larger consortium that was connected directly to ICMA in an attempt to standardize what the comparison departments along the Front Range of Colorado were using related to performance measurements; Loveland Fire and Rescue was a part of this group. Approximately 19 other cities and agencies from Denver's north metro area, all the way up into the northern and eastern parts of the state, participated in data collection and performance measurements. This data and information has been collected and utilized for the City of Loveland in annual reports to City Council and to the community as a whole.

ICMA Performance Measurements

For more than five years, the City of Loveland has participated in a data collection consortium, the Colorado Performance Measurement Consortium (CPMC), where the ICMA data templates have been used to track specific data points and dimensions for performance management. The CPMC was made up of approximately 18 other municipalities within Colorado, including some of the comparison departments used for LFRA. Although it is not completely clear why the organization chose to be involved with this regional consortium, it is presumed that the tracking of performance data would be used to assist in plans for improving performance. Unfortunately, it does not appear that this goal has been met utilizing the CPMC as a vehicle for organizational improvement. At the time of this writing, several members of the CPMC have dropped out of the consortium, and it is unclear if the City of Loveland will continue its membership in CPMC beyond the year 2012. Regardless of history and current status within the CPMC, data gathering and performance measurements have a clear and needed place in organizational improvement.

The *CPM Survey* is completed annually by each CPMC participating organization. It has 36 questions addressing areas such as the size of department, number of responses made, and the total costs for fire and EMS protection on a per capita basis. The survey contains distinct divisions: Fire Services and Emergency Medical Services. Under the section of Fire Services, prevention-related data such as inspections and number of violations written are recorded and tracked. The data from the *CPM Survey* is submitted to a data bank and compiled into a comprehensive comparison report distributed among the reporting agencies. It is presumed that the data is intended to serve as a template for measuring existing services and performance against other reporting agencies within the region. Measured dimensions for yearly analysis for the *CPM Survey* include:

- Total population served
- Total number of calls for fire and EMS
- Percent of fires confined to room of origin
- Percent of fires confined to structure of origin
- Average total response time for fire and EMS from dispatch of call
- Total number of fire personnel injured
- Fire personnel injured per incident
- Total fire personnel casualties
- Total number of civilian injuries and casualties
- Total number of fire inspections
- Total number of violations written
- Fire inspection violations written per 100 inspections
- Total number of violations brought into compliance
- EMS and fire call percentage
- Total hours paid to personnel in a reporting year
- Total overtime hours paid in a reporting year
- Total expenditures for fire and EMS in a reporting year

Of the dimensions listed above, some reflect critical information that can and should be used for planning purposes for performance management. Other dimensions seem to have questionable value in performance management for LFRA.

What is clear, at least at this point in time, is that there has been a great deal of data collection for the organization using the ICMA system and the *CPM Survey.* What is also clear is that for

several years, at least, this information has been collected, printed, and distributed without a real cogent plan for using it in a performance management system. In 2010 the City of Loveland hired a new city manager who questioned the collection and use of this data for the City and LFRA. A decision was made by the City Manager to discontinue the use of the ICMA method for data collection and performance measurement. In 2012 the City Council for Loveland will be considering the use of performance measurements for the future for the City of Loveland and what role this current model, if any, will play in performance management systems.

For the Fire Authority and for the purpose of this strategic plan, two plans for the future will be utilized. The first is to participate in discussions at the City's management team level and City Council discussions for any new designs or programs for performance management systems. The second will be to establish a list of critical performance measurement dimensions that will be used by the Fire Authority board and the Department's staff to help measure the Department's performance and manage data and information that will be used to affect positive change and assist the organization in its efforts for continuous improvement. It is the latter portion of these two plans that the next section will focus on.

Use of Measurements & Standards (Service Level Indicators) for the 2012 Strategic Plan

The standards and performance measurements used in this 2012 Strategic Plan represent a combination of comparisons with other communities, fire districts, and fire authorities that LFRA most nearly compares with; all in this category are in the Front Range of Colorado or Wyoming. Both regional and national statistical information and data are used specifically for targeted applicable dimensions. In addition, past, present, and future targeted outcomes for performance are used within the plan. Some forecasting is used within the dimensions of the data collection and applied as future targeted outcomes. These predictions and forecasting dimensions are based on past trends and current data to make the most accurate prognostications possible.

Use of terms is important. For the purpose and use of this strategic plan, the term *service level indicators* rather than *performance measurements* is being used. Although it is certainly acceptable to use the term *performance measurement*, the *service level indicator* term is being chosen as a more accurate and compatible term for what LFRA actually does. Fire departments provide a service to their citizens and the term *fire service* is generically used to describe organizations all across the country carrying out the same mission (generally) that LFRA does. Based on this terminology, it makes more sense and seems more compatible to use *service level indicators* when measuring fire department performance. Thus the term will be used predominantly within this plan.

Any comparisons and/or standards that appear in any graphs and charts used for service level indicators will, when possible, use the data that is the most current and relevant to the specific dimension or service level indicator being measured. The purpose of all of this effort is to help LFRA track its performance in providing citizen service in one or more of the following ways:

- Comparing LFRA to the targeted Front Range Fire Consortium departments.
- Comparing LFRA to Front Range, western, or Rocky Mountain regional data.
- Comparing LFRA to national standards and/or data.
- Using a locally established standard of performance or service level when a recognized standard is unavailable.
- Tracking data over longer periods of time to establish and show trends.
- Differentiating between the quantitative (number of) versus the qualitative (character of) nature of the data provided.

The intention of this strategic plan is to consolidate or combine the targeted service level indicators and the selected strategic plan benchmarks in the form of goals and objectives (Section IX). Other service level indicators may be used, but the majority will be connected with the goals and objectives listed within the plan. The service level indicators that will be tracked and measured include (not listed in any order of priority):

- Civilian fire deaths per 100,000 population
- Civilian fire injuries per 100,000 population
- Firefighter deaths
- Firefighter injuries per 100 fires
- Number of fires per 1,000 population
- Intercession before flashover
- Response times
- Direct estimated fire loss per capita
- Direct and indirect loss to a five-year average
- Loss per fire
- Confinement of fires to building of origin and percent of time within urban response area
- Minimization of impact of wildland fires
- Control of wildland fires within two hours 95% of time
- Control of wildland fires within first 12 hours 99% of time
- Intercession with wildland fires before reaching structures 99% of time
- Maintenance of per capita costs for fire protection
- Maintenance of ISO rating
- Limiting of HazMat incidents to two per 1,000 population
- Maintenance of customer satisfaction ratio

Other service level indicators may be developed and utilized within the structure of this plan; however, the intent is primarily to connect the service level indicators to the overall goals and objectives included in the 2012 plan. Ultimately, these service level indicators will become a part of the Department's annual report provided to the various governing bodies associated with the Fire Authority. More importantly, this data and information will be used to track performance and serve as a useful tool to help in the process of making any needed changes within the organization in order to improve citizen service and enhance firefighter and citizen safety. All of this serves as a vital component for the organization's commitment to continuous improvement.

ISO and Loveland Fire Rescue Authority

The basic objective of the Insurance Service Office, based on its own corporate information (ISO Fire Suppression Rating Schedule - FSRS), is to provide a tool for the insurance industry to measure quantitatively the major elements of a city's fire suppression system. The FSRS examines the municipal fire suppression capability relative to three classifications graded according to their relative importance: fire department, water supply and fire alarm facilities.

Measurements of these three elements are then developed into a Public Protection Classification (PPC) number on a relative scale from 1 to 10 with a "10" representing less than the minimum recognized protection and a "1" being the highest or best level of protection recognized. A PPC is an important number used by the insurance industry to determine fire insurance premiums for both commercial and residential property. Generally, citizens can expect to pay lower property insurance premiums when their city or fire district achieves an improved or lower PPC. It should

be noted that not all insurance companies use the ISO information as their sole source for determining premium rates for property insurance.

The ISO rating schedule has been mistakenly used throughout the years as a device for measuring the fire department's effectiveness or a community's fire defenses. In other words, simply categorizing departments qualitatively based on a given PPC is an incorrect concept. Because a fire department receives a PPC of 1 does not imply that it is one of the best fire departments in the country. This error in categorizing was tragically proven out in 2007 after a commercial fire in Charleston, South Carolina took the lives of nine firefighters; Charleston had an ISO PPC of 1.

Confusion still exists, especially among non-fire service municipal leaders, as to the value to a modern community having an ISO rating inspection. In addition, many fire chiefs are not informed about the impact of ISO ratings and how they are grouped together in the insurance industry for insurance rate assessment. Many fire chiefs still will judge their department on the ISO scale of 1-10 and will spend significant resources and finances to lower the grade without analytically weighing the financial savings for the citizens against the cost impacts of implementation.

It is important for municipal administrators to understand the recognized limitations of the FSRS. The grading schedule is a fire insurance rating tool and is not intended to analyze all aspects of a comprehensive fire protection and emergency response operation. The grading schedule does not directly address such topics as fire prevention; education; code implementation and enforcement; fire investigation proficiency; and proficiency in strategic, tactical, and task level operations.

An important question to answer in light of this information can be, "Is there any real advantage to an ISO evaluation process for LFRA?" The evaluation process of ISO is an important element in establishing insurance rates.

The quality of a city's fire protection has a direct impact on the local economy based on the insurance rates paid by the citizens. For this reason, the ISO rating schedule should be an important consideration for fire chiefs and public leaders but not as a stand-alone dimension.

Loveland Fire and Rescue and the Loveland Rural Fire Protection District had their last ISO review in 2008. At that time the City was rated as a PPC "4" with the surrounding Loveland Rural Fire Protection District (District) rated at a "5." The District would have been rated at a PPC of "7", but there were internal rating requirements within ISO that limited the downgrade to only one PPC number. The question for the leadership and policy makers within LFRA is: "How far should we go and how much in the way of resources and finances should be invested to maintain or improve the PPC ratings given by ISO?"

Initial evaluation of the impact of maintaining the current status or dealing with a downgrade in PPC to either the City of Loveland or the District indicated that a minimum impact to the citizens would be seen unless a PPC downgrade to a level of "7" were to occur. Also, it was determined that it would be highly unlikely that the City's PPC would downgrade at all in any future evaluation by ISO, unless standards and requirements changed significantly. In addition, the entire LFRA's PPC (for the City and District) could improve if the elements of the Model One Basic Plan were implemented. The effects of the Fire Authority and the ability of the District to use areas where City of Loveland water can be accessed should also improve the District's

overall rating, particularly in the category of Water Supply, which was a significant area of concern in the last evaluation.

However, the impacts studied from the last ISO reclassification were done in 2009; situations can and probably will change with ISO's rating schedule and their methods for evaluation in the future. ISO's evaluation of the Department is important and should be given due regard, especially if the chance for a reduction in the PPC for the City or District could take place. The Department and its leadership should stay informed of the changes in the future related to ISO evaluations and requirements and stay educated on what improvements the Department can make that will help maintain or even improve the PPC given to LFRA. The Department should maintain a philosophy that embraces the current ISO PPC ratings as a measurement of quantitative assessment and do all that is reasonable to maintain the current ratings. Questions and conflicts concerning the ISO schedule's effectiveness and its impacts on communities and their fire departments are a long-standing issue; they are not likely to go away during the lifespan of this strategic plan. Fire departments all across the county, including LFRA, have inherently been influenced by ISO standards and ratings partly because of a lack of any other comparison standards. That viewpoint has recently (within the last 15 years) begun to change with the advent of fire department accreditation. This next section examines fire department accreditation and considers what benefits could be derived for LFRA by participating in an accreditation process.

Fire Department Accreditation and LFRA

Many fire departments and emergency service agencies have looked for alternatives for evaluation of performance and capabilities beyond what has been provided by ISO. One method that has emerged within the last 15 years has been fire department or fire service accreditation, offered through a national or international accrediting agency. Many departments have chosen this method of accreditation for their department's analysis for a variety of reasons; some have pursued accreditation to address the shortcomings of the ISO evaluation. This section will describe the accreditation process, how it is being used, and some of the perceived benefits and liabilities associated with accreditation.

Accreditation has been defined as a process by which an association or agency evaluates and recognizes a program of study or an institution as meeting certain predetermined standards. According to the Commission on Fire Accreditation International (CFAI), it applies only to institutions or agencies and their programs of study or their provided services.

The concept of accreditation is not unique to the fire service, nor is it a new or unique concept for evaluation purposes of emergency service operations. Police, EMS, and even dispatch centers have all used accreditation for evaluating and improving performance. Accreditation has also been an accepted practice in schools, colleges, and universities for years. Accreditation has been recognized as a useful tool in providing a means of self-evaluation and regulation, a way to promote a field or organization by raising professional and institutional standards, and an opportunity to improve public service and public safety. The City of Loveland has for many years used the accreditation process for the Police Department and for the Communication Dispatch Center. The fire department was the only emergency service provider for the City that was not connected to an accreditation process.

The CFAI program is a comprehensive self-assessment and evaluation model that enables fire and emergency service organizations to examine past, current, and future service levels and

performance and compare them to industry best practices. This process leads to improved service delivery by helping fire departments:

- Determine community risk and safety needs.
- Evaluate the performance of the department.
- Establish a method for achieving continuous organizational improvement.

The accreditation process for fire departments involves several different facets. First, an application is made to the accrediting agency. Once the applicant agency status has been verified, agreements and fees are processed; the applying agency has 18 months to complete the self-assessment phase of the process. The self-evaluation process uses a standard system that measures ten specific areas of performance or operations, such as governance and administration, goals and objectives, financial resources, programs, physical resources, human resources, training and competency, and external resources, just to name a few. Included in each of the ten categories for assessment are criteria that are a measure or an index on which a judgment or a decision related to performance can be based. The ten categories contain 46 criteria. In addition, 235 performance indicators define the desired level of ability to demonstrate performance of a particular task specified in the accreditation process.

Once the self-inspection is completed, reports from that review are sent to the accrediting agency for review. In the CFAI process for accreditation, a commission sends an assessment team made up of trained professionals for a site visit after the reports are submitted for review. The team conducts an on-site review of the agency's policies, procedures, plans, practices, and facilities; the team reviews proof of compliance for each category.

Once the self-inspection is completed and the proper reports filed, and with an acceptable review by the on-site team, accreditation is awarded to the agency. Accreditation status is granted for five years; annual reports are filed with the commission or accrediting agency that verify maintenance of the accreditation award is ongoing.

Using a recognized and certified accreditation process comes with advantages and disadvantages. One of the most important advantages is engaging in a cogent process that authentically measures an organization's abilities and performance and provides a viable means for managing information and continuous improvement. Other advantages include having current statistical information ready on demand, important knowledge gained about one's own organization, the ability to acquire a true understanding for other comparable organizations, and awareness of how one's own fire department measures up. Another advantage gleaned from an accreditation process is in the area of planning; tools are provided within the process to identify where an organization needs to improve and determine how it should be done.

Some disadvantages to the accreditation process can be found in the time involved in the self-evaluation process; it is very time consuming and labor intensive. Many departments shy away from accreditation because staffing is not available for the time needed for the various evaluations and reports that must be completed. Another disadvantage is that accreditation does not guarantee ongoing quality of performance; this depends on the individual agency's commitment for follow through. Other disadvantages for some agencies are the cost and ongoing fees associated with accreditation.

When compared with other means for assessment, the accreditation process seems to be the most comprehensive, accurate, and reliable method for evaluation for fire service agencies. More evaluation and research should be conducted by the LFRA staff to determine the feasibility and

uses for adopting accreditation. At the time of this writing, Poudre Fire Authority (PFA) the fire service agency to the north of Loveland, is in the process of preparing for an accreditation self-evaluation and review. This process should be carefully viewed by LFRA, with the intention to learn as much as possible from the PFA experience. LFRA can use that information to help determine the future use and application of an accreditation process for the organization.

Performance Measurement Planning Assumptions

Performance Measurements Planning Assumptions 1 - LFRA is committed to using a standardized measurement of performance objectives that will be referred to as *Service Level Indicators.*

Performance Measurements Planning Assumption 2 - The service level indicators will use a combination of some past ICMA/CPMC dimensions and other dimensions that are selected based on desired measurable indicators.

Performance Measurements Planning Assumption 3 - The service level indicators will be matched to specific Department goals and objectives listed within the 2012 Strategic Plan.

Performance Measurements Planning Assumption 4 - Most of the service level indicators will be charted, graphed, and used in LFRA's Annual Report and made available to the various governing bodies. These service level indictors are measurements used for organizational evaluation and continuous improvement.

Performance Measurements Planning Assumption 5 - The ISO PPC numbers and rating scale are valuable indicators for LFRA. The organization desires to maintain or improve upon the current PPC for both the City of Loveland and the Loveland Rural Fire Protection District.

Performance Measurements Planning Assumption 6 - LFRA is interested in Department accreditation and will evaluate it further during the performance period of the 2012 Strategic Plan. Cost effectiveness of accreditation and feasibility will be key areas of focus in the evaluation.

COMMUNICATION

History and Current Situation

As organizations grow, internal and external communication becomes more difficult and challenging. The fire service, and more specifically LFRA, has experienced these same challenges. The difficulties in effectively communicating have been realized by both the internal customer (LFRA employees) and the external customer (citizens in the Loveland community). LFRA has chosen to address this issue by identifying specific communication problems and presenting some viable solutions within this strategic plan.

As LFRA grows in the next 8 to 10 year-timeline covered by this strategic plan, additional challenges for effective communication will arise. Already the organization has embedded areas of concern that include:

- Employees working on three different shifts that utilize a 24-hour work cycle.
- A large response area (194 square miles) with spread-out fire stations and facilities.
- A part-time paid and reserve workforce that have varied and inconsistent work cycles.
- Three governance bodies (City Council, Rural District Board, and Fire Authority Board) that require accurate and often rapid and succinct communication.

- A varied and often difficult-to-reach customer base (the citizens that we respond to for emergency care and service).
- A culture with a history of a reluctance to talk about its accomplishments ("tooting one's own horn").

These are just some of the facts and current situation themes for the fire service and LFRA that make communication a difficult and often frustrating process. Technology, which should help resolve some of the communication issues, has also contributed to many of the communication problems. The reliance upon email and other electronic communication has helped in some areas, but has also de-personalized communication and has, in many cases, institutionalized a false sense that effective communication is taking place, when in fact it is not.

The Current LFRA Model

LFRA currently uses a number of internal and external communication strategies. The organization has invested well in information and communication technologies (ICTs) and personnel as part of the City of Loveland's organizational plan for IT and has the infrastructure in place to create an effective communication system within the organization. Yet problems do exist. The anecdotal evaluations conducted in the past suggest that the organization has placed a major emphasis on technology and systems, yet not enough emphasis on follow-up in the area of procedures and training of its personnel in how to effectively communicate, particularly when using information and communication technologies. The problems that appear within LFRA are not unique to the fire service. What is unique about LFRA is its willingness to evaluate itself and take the necessary steps for improvement; this has been a foundation for success in the most progressive fire service organizations and is part of the organizational improvement for LFRA's future.

The communication methods listed below are used by LFRA and are similar to those used by many fire service organizations:

- E-mail communication
- Phone calls and some conference calls
- Face-to face meetings, including officer's meetings
- Some written paper communication
- Utilization of the Public Information Officer position and public press releases
- Website communication
- Training
- Staff communication (in person) related to vision, mission, and future plans
- City staff and management communication as part of the entire City workforce
- After Action Reviews for emergency calls
- Surveys from citizens related to the overall service provided by the organization.

Some of these communication methods are working well; others may not be. It is unclear whether or not the Department has ever engaged in an organizational communication audit to bring more objectivity to the communications problem and to develop a systematic plan for improvement.

One area where some objective public communication has existed is within the City of Loveland's annual Quality of Life Survey, which covers a broad range of topics including public safety, utility services, leisure services, transportation, and more. The City of Loveland has

conducted a Quality of Life Survey annually since 2004. The exception to this occurred in 2007 when a more in-depth survey was administered by an independent outside agency in accordance with City Council's desire to conduct a broader and more detailed analysis of community opinion and trends. This data and information about City services is available to the public and used by City departments in more of a comparative, year-by-year analysis for how each department performed compared to previous years. While this information is good and certainly serves a purpose for LFRA, serious weaknesses in this data exist.

A major weakness in the data is that the surveyed group is comprised only of City of Loveland residents. Over 25% of LFRA's citizens live in the Rural Fire Protection District and most are not represented in these surveys. Another weakness in this information and data is that those surveyed may or may not have ever received service from LFRA. Thus their input on how the organization is doing related to citizen service could be based on something other than personal experience. As stated earlier, this information and data that is gleaned has merit and is useful to the organization. It is important to know how the community feels about the organization in general; however, more specific and relevant data is needed.

Future Needs and Trends

As LFRA grows, the need for better and more effective communication with both internal and external customers will also grow. A need for improvement can be found in LFRA's current communications model, and it should be addressed as part of the 2012 Strategic Plan. An overall goal of this portion of the plan should be to improve communication between the organization, its citizens, and the Department members by keeping them informed in a timely and effective manner.

Beyond this goal, LFRA should begin a process for a comprehensive communication audit among Department members in order to objectively assess the overall internal communication process. This audit would help identify weaknesses and areas of improvement from which a plan can be developed with specific goals, objectives, and timelines for said improvements.

From the external perspective, a review could identify what feedback is needed from our citizens and suggest methods for receiving such feedback. LFRA should observe methods used by other regional and national fire service agencies to effectively gather cogent data and feedback from citizens about their level of satisfaction with fire/rescue-related services.

Communications Planning Assumptions

Communications Planning Assumption 1 - Fire service organizations, including LFRA, have significant communication challenges for effectively communicating with their employees and with the citizens they serve.

Communications Planning Assumption 2 - Current methods for communication within the organization are working, but a comprehensive communication audit should be developed and engaged within the organization to objectively assess the current situation for what is working well, what areas need to be improved, and some ideas for making said improvements.

Communications Planning Assumption 3 - LFRA needs better, more relevant, and direct service level assessments for the external customers (citizens) it serves. It also needs to find an effective emergency services communication survey.

IX. FIRE PROTECTION AND EMERGENCY SERVICES - GOALS, STRATEGIES, & SERVICE LEVEL INDICATORS

In the previous section of the strategic plan "Performance Measurements and Standards and Communications," the focus was placed on the history and current methods of use for performance measurements. In this section, the next step in that process is reviewed, which involves establishing an overall guiding principle or "prime directive" along with three specific goals and their associated strategies. These will establish the Department's overall strategy for achieving the prime directive. This section also includes a more comprehensive list of specific measureable metrics to complement the core service level indicators that will be used. In addition, a pared down version of the service level indicators is listed as the "Significant Seven," which will be used as part of the City of Loveland's performance measurements as requested by the City Manager.

The concept of SMART objectives is also integrated into this portion of the plan. Those SMART objectives descriptors are Specific, Measurable, Achievable, Realistic, and Timely. This section of the strategic plan establishes the goals, strategies, and service level indicators for the Fire Authority for the next several years (2012-2020). The intent is that these dimensions and indicators will also serve as the framework for the annual report to the political leaders and will function as a true and accurate method of measuring the organization's overall performance.

THE ORGANIZATIONAL PRIME DIRECTIVE

Most fire service organizations have at their core a mission or vision statement that establishes, at least in concept, what the organization stands for and is committed to. Loveland Fire Rescue Authority is no exception. The organization's mission statement is:

> *Through commitment, compassion and courage, the mission of the Loveland Fire Rescue Authority (LFRA) is to protect life and property.*

From the management side of the continuum of operations, the "prime directive" adapts this mission statement so it connects to the organization's goals, strategies, and service level indicators. That prime directive is:

To protect life and property in a safe and effective manner…

This prime directive will serve as the guiding principle for the organization from a planning and management perspective and serve as a touchstone or guidepost that will serve to maintain organizational focus and direction.

GOALS AND STRATEGIES

This section of the plan contains the organization's goals, strategies, and related service level indicators. These will be used as an overall planning and measuring instrument to assist the Fire Authority board members, management team, and staff members in monitoring and measuring the organization's progress. The seven performance measurements (Significant Seven) will also be used by the City of Loveland as part of the overall performance management dimensions used by the City Manager. As with all goals, objectives, and performance measurements, these may change over time based on changes within the community, the Fire Authority, or the fire service as a whole. Periodic updates and reviews are essential.

Three goals in this portion of the plan address in detail what is established overall within the prime directive. The three goals and their primary strategies are listed below:

1. Deploy an effective emergency response to minimize damage and loss.
    a. Deploy appropriate incident-specific resources (right people with the right equipment).
    b. Execute a skilled response (being effective on the scene; doing the right things at the right time).
2. Minimize and mitigate the risks of an emergency occurrence in the community.
    a. Adopt and reinforce fire codes that enhance safety in the built environment and assist with effective response in the case of an emergency.
    b. Build and reinforce public awareness to reduce the probability of an incident.
    c. Integrate a community-wide Emergency Preparedness Program for natural or man-made disasters.
3. Deliver Cost Effective Services

These goals are mainly focused on delivering results associated with prevention, mitigation, and effective emergency response. Within each of the listed goals, specific strategies are included. The Suppression/Operations Division's primary focus is the response to emergencies to protect citizens and their property in a safe manner. The Community Safety Division (for the built environment and emergency management) focuses on preventing the need for an emergency response by ensuring that code adoption and enforcement continues. This division is also responsible for ongoing community-wide emergency preparedness. Administration is responsible for the development of strategic goals, tactical goals, and accountability for performance in alignment with those goals to achieve fiscally responsible resource allocation.

As indicated in other parts of this plan, the goals, strategies, and service level indicators should be evaluated periodically to ensure that they maintain relevancy, value, and validity throughout the duration of the plan. They should also be reviewed periodically to ensure that LFRA is measuring the correct dimensions for the performance evaluation of the organization. It is anticipated that LFRA will grow significantly in personnel, facilities, and responsibilities during the years of this plan. The community of Loveland will also grow and change in many ways during these same years. The goals, strategies, and service level indicators are all useable and useful for LFRA in 2012; periodic evaluation and assessment will ensure that they remain so in 2020.

Goals/Strategies:

1. Deploy an effective emergency response to minimize damage and loss.

Several components of the service delivery are important for ensuring that effective deployment occurs. It begins with the recruitment and retention of team members of high quality and integrity who have prepared themselves technically and tactically to meet LFRA standards, with a willingness to continue that development journey throughout their careers. Once that kind of individual has committed to the team, the organization's commitment to the individual is that we maintain a system with strategic, tactical, and task level operations for the safest conditions to protect citizen lives and property; that we train in a safe and realistic environment to enhance the transference of skills during an actual response; that we provide appropriate equipment in good operating condition to implement those tactical strategies safely; that we maintain excellent

partnerships with mutual and auto aid departments that result in consistent competencies for effective, coordinated responses to emergencies; and that we build excellent relationships with our partner response departments at the City of Loveland for excellent communication and cost effective resource dedication specific to the circumstances of each incident. A central command structure is also essential with representation from all responding organizations, where all members proficiently contribute to the appropriate support to responders in the field with effective coordination and dedication of resources specific to the needs of the incident.

a. Deploy appropriate incident specific resources (right people with the right equipment).
    - Personnel
        - Respond with three-person companies (3 person companies and 4 person Truck company 99% of the time).
        - Maintain effective recruiting through the three-tiered staffing plan (monitoring and addressing issues such as number of applicants for reserve positions; % of applicants from protected classes; % of firefighter hires from the part-time paid rank; time to fill a vacant position; hiring satisfaction survey results).
        - Maintain mutual/auto aid agreements (monitoring the effectiveness of agreements and performance - time in hours it took to backfill stations; % of calls where mutual/auto aid is called for direct incident response versus backfill, with associated number of and hours of coverage; times and hours associated LFRA responding outside service area).
        - Develop standards of performance for emergency response based on incident type (1st due with three-person company within 5 minutes 59 seconds of receiving call 90% of the time; 14 firefighters within 9 minutes on scene in an urban response area 90% of the time).
    - Equipment
        - Standardize apparatus design (percentage of fleet with standard design)
        - Establish and maintain protocols for dispatching assignment of the most effective apparatus (monitor for the percentage of calls with the right equipment dispatched, meaning the BC didn't have to call in suggested alternative).
        - Ensure equipment-replacement schedule/inventory management is followed based on capital replacement planning (% apparatus replaced according to the replacement criteria; appropriate revenue in the replacement fund for replacement; % of asset value charged for maintenance; % fleet covered by amortization in equipment replacement; average annual maintenance for apparatus compared to neighboring departments).

b. Implement a skilled response (effectiveness on scene; doing the right things at the right time).
    - Maintain appropriate fitness levels (monitor risk tiers: high, medium, low- % staff at each tier; % of staff members with improved ratings).
    - Ensure qualified personnel and promotion of skills development in the following areas:
        - Certifications
        - Demonstrated competencies—Blue Card, Quarterly CQT, evolutions, Hazmat
        - Mutual/Auto Aid Training (% of training outside the Department)
        - Regional leadership in professional development
            - Qualified instructors for fire academies
            - Strategic leadership on FRFC board
            - Truck Academy development
            - Blue Card Program development, conference host, etc.
            - Governance model/partnerships
    - Maintain and monitor service level indicators (sometimes referred to as performance measures) that the Department will use to demonstrate that the deployment has been effective, including:
        - Property value of saved/lost for residential, commercial/industrial, wildland
        - Percentage Hazmat incidents contained without injury
        - Injuries (to firefighters - frequency and severity; to citizens – frequency); injuries on emergency response; nonemergency injuries broken down between training and other)
        - Number of accidents while driving Code 3
        - % of fires that escalate to flashovers
        - % of time the fire was confined to the room of origin
        - % of wildland fires contained in the first 12 hour period; number of wildland fires where the command is transitioned to Larimer County within 12 hour period
        - Response time along four dimensions: call to tone out; turnout time (tone to time leave station); "go" time (drive time); and arrival/action.

2. Minimize and mitigate the risks of an emergency occurrence in the community.
An emergency can be very traumatic for citizens and the community. It is important that the Department implement strategies that reduce the probability that an emergency will occur both related to structures (residential, commercial, industrial, or agricultural structures) and the surrounding conditions (hazardous chemical storage, vegetation, geographic features, etc.). It is also important that as a community we are prepared should a man-made or natural emergency occur.

a. Adopt and reinforce fire codes that enhance safety in the built environment and assist with effective response in the case of an emergency.
    - Develop an inspection and fire safety program that targets small businesses (500 workers or less).
    - Ensure that all Educational ("E"), Institutional ("I") and Hazardous ("H") occupancy types are inspected as required.
    - Ensure that all "Hazard" occupancies receive and meet annual permit requirements.
    - Measure and monitor inspection data (as needed) for the following dimensions:
        - % of businesses inspected by occupancy type
        - % of inspections where a violation was identified by occupancy type
        - Average time for resolution of the violation by occupancy type
        - % of violations resolved with voluntary compliance by occupancy type
        - % of businesses with "hazard" occupancies
        - Total number of employees and total value of property businesses with hazard occupancies.
    - Ensure that all applicable fire codes are adopted and enforced in conjunction with applicable building codes, monitoring the following inspection data (as needed):
        - Fire inspections conducted
        - % re-inspected
        - Plans/hours reviewed by residential, commercial, industrial
        - % of plan reviews completed by target date as established by the City of Loveland policies.

b. Build and reinforce public awareness to reduce the probability of an incident.
    - Maintain a collaborative working relationship with the Colorado Safe Kids Coalition and area hospitals to promote child safety with the car seat installation program and bicycle safety campaign.
    - Measure and monitor the following dimensions (as needed):
        - Number of car seat installations
        - % of car seat inspections where corrections were needed
    - Maintain trained personnel to provide counseling sessions for Juvenile Fire Setters, measuring and monitoring the following dimensions (as needed):
        - Number of sessions/hours
        - Average time per session in hours
        - % of sessions reported as helpful by juvenile and juvenile's guardian
    - Conduct effective fire investigations, measuring and monitoring the following dimensions (as needed):
        - # of fire investigations conducted
        - % of cases cleared
        - Average time for investigation (start to court filing)

c. Integrate a community-wide Emergency Preparedness Program for natural or man-made disasters.
    - Ensure that all Continuity of Operations Plans (COOP) for each city department are reviewed and updated annually.
        - Measure and monitor the % of plans updated.
    - Ensure that all political leaders are trained on emergency contingency plans annually, measuring and monitoring the following dimensions (as needed):
        - % of elected officials trained
        - % that rated training needful or important
    - Ensure that the Local Emergency Operations Plan (LEOP) and the Hazard Mitigation Plan are reviewed and adopted by all appropriate governing bodies.
    - Provide annual disaster drills that include all appropriate levels of government that meet federal mandated guidelines, measuring and monitoring the following dimensions (as needed):
        - Participants and number of partner organizations involved
        - % of participants that rated the drill as effective.
    - Ensure effective Emergency Operations Center operations, measuring and monitoring the following dimensions (as needed):
        - On-going training to all senior city staff members on the operation of the Emergency Operations Center (EOC) functions (% of management team completing training)
        - Number of EOC activations at various levels (partial, full)
        - % of other city and outside organizations that participated in EOC operations and the de-brief.
        - % of participants that rated the activation as effective or excellent

3. Deliver Cost Effective Services

The goals and strategies listed above must be achieved within a fiscally responsible environment. The sources of funding from the partner organizations that contribute to the Loveland Fire Rescue Authority are property taxes and sales taxes from the citizens that we serve. The Department takes great pride in delivering services in the most cost effective manner possible and managing the organization's resources in the most frugal manner. Leveraging local dollars through the collaboration with other agencies in the area and seeking out additional funding sources is the overall intent of this third goal. It is our aim to accomplish all of this by providing focused service delivery through strategic direction and holding tactical decision-makers accountable for alignment with the goals and strategies outlined in this document. It is important that the citizens served by LFRA feel confident that their fire department responds to the emergency needs of the community in a responsible and cost effective manner. Finally, one of the identified community values of the City Manager was "fiscal conservatism"; this plan will incorporate that value.

- The measures that will help to demonstrate fiscal conservatism over time include:
  - % of cost recovery for permitting
  - Partner Contribution Assessments based on call volume, response time on calls, asset value
  - Cost recovery on deployments outside the City
  - FTEs per 1,000
  - Cost per capita
  - Citizen satisfaction.

Significant Seven Performance Measurements for LFRA - (City of Loveland)

1. **RESPONSE TIMES**: Measures made in the Urban Response Area

   - First arriving engine (fully staffed at three) for all emergencies
   - Balance of 14 firefighters arriving on scene for structure fires

2. **COSTS PER CAPITA**: Operational costs comparison

   - Costs per capita within FRFC departments and Rocky Mountain region departments

3. **FIRE LOSS PER CAPITA**: Total fire loss comparison

   - Total fire loss per capita within FRFC departments and Rocky Mountain region departments

4. **PROPERTY VALUE SAVED VS LOSS**: Saved/loss comparison relationship

   - Measured in both residential and commercial occupancies

5. **FIRES CONFINED TO ROOM OF ORIGIN**: Measuring flashover ratio

   - % of time that fire was confined to room or area of origin, interceding before flashover

6. **NUMBER OF BUSINESSES INSPECTED/ FIRE COMPANY SAFETY VISITS**: Efforts for prevention/CSD

   - % and number of businesses inspected by the Community Safety Division and % and number of business receiving a safety visit by a fire company
   - Measurement of the number of times personnel are in a business for enforcement and safety intervention within the community

7. **CUSTOMER (CITIZEN) SATISFACTION**: Public perception measurements

   - Overall community performance survey as part of the City of Loveland
   - Citizens and businesses actually receiving LFRA services.

Goal: Deploy an effective emergency response to minimize damage and loss.						
			Target	2012	2013	2014
	Strategy: Deploy Appropriate Incident-Specific Resources					
	Tactics:	*Respond with 3-person Engine Companies and 4-person Truck and Squad Companies*	99%			
		Maintain Effective Recruiting in a Three-Tiered Staffing Plan, monitoring issues such as: • Number of applicants for reserve positions • % applicants from protected classes • % firefighters hired from the part-time ranks • Average time to fill a vacant position • Hiring satisfaction survey results				
		Maintain Effective Auto and Mutual Aid Agreements • Number of times called by other organizations • Average hours per incident to backfill stations • % of calls for direct response (vs backfill stations) • Number of times LFRA called outside our area • Average hours per incident outside our area				
		Timely Incident Response • % of time the 1st due with 3-person company arrived within 5 min 59 seconds • % of time 14 people responded in the Urban Response Area within 9 minutes	90% 90%			
		Standardize Apparatus Design • % of fleet with standard design				
		Establish & Maintain Protocols for Effective Dispatch of Equipment • Monitor for % of time the BC did and did not have to change the assignment of equipment				
		Base Equipment Schedule/Inventory Management on capital replacement planning: • % of apparatus replaced consistent with replacement criteria • Appropriate revenue in replacement fund • Average % asset value spent on maintenance • % of fleet covered by amortization in equipment replacement fund • Average % difference between LFRA cost of annual fleet maintenance compared to other regional fire departments				

Gold = Significant Seven Performance Measures for LFRA

			Target	2012	2013	2014
	Strategy: Implement a Skilled Response					
	Tactics:	*Maintain Fitness of Responders & Monitor:* • % of staff at high risk • % of staff at medium risk • % of staff at low risk • % of staff with improved ratings				
		Ensure Qualified Personnel/Promotion of Skills Development in the following areas: • Certifications/demonstrated competencies • % of participants in training from auto/mutual aid organizations • Regional leadership in professional development (report initiatives)				
		Demonstrate Effective Deployment • Property value saved/lost: residential, commercial/industrial, wildland • Fire loss per capita				
		• % of hazmat incidents contained without injury • Frequency & severity of firefighter injuries (emergent & non-emergent injuries, identified as training or other. • # of accidents occurring while driving Code 3 • % of fires that escalate to flashovers				
		• % of time the fire was confined to the room of origin				
		• % of wildland fires contained in the first 12 hrs • Response time specifics: average call to tone out • Response time specifics: average turnout time (tone to leave the station) • Response time specifics: average Go time (drive time) • Response time specifics: average arrival/action time				

Goal: Minimize and Mitigate the Risks of an Emergency Occurrence in the Community.						
			Target	2012	2013	2014
	Strategy: Adopt and reinforce fire codes that enhance safety in the built environment and assist with effective response in the case of an emergency.					
	Tactics:	*Develop an inspection & fire safety program that targets small businesses (500 employees or less)*				
		• Number of businesses that received a safety inspection by a fire company • Number of small businesses inspected • % of small businesses inspected				
		Ensure that all "Educational", "Institutional," and "Hazard" occupancies receive and meet annual permit requirements.				
		Measure and monitor inspection data (as needed) for the following dimensions: • % of businesses with "Hazard" occupancies • % of businesses inspected by occupancy types				
		• Number of times fire personnel are in a business for enforcement or safety intervention				
		• % of inspections where a violation was identified by occupancy type • Average time resolution of the violation by occupancy type • % of violations resolved voluntarily • Total number of employees & total value of property in "hazard" occupancy businesses				
		Ensure that all applicable fire codes are adopted and enforced in conjunction with applicable building codes, monitoring the following inspection data (as needed): • Number of fire inspections conducted • % of re-inspections • Average hours per plan review - residential • Average hours per plan review - commercial/industrial • % of plan reviews completed by target date				
	Strategy: Build and Reinforce Public Awareness to Reduce the Probability of an Incident					
	Tactics:	*Maintain a collaborative working relationship with the Colorado Safe Kids Coalition and area hospitals to promote child safety with the Car Seat Installation program*				
		Measure & monitor the following dimensions as needed: • Number of car seat installations • % of car seat installations where corrections were needed				

			Target	2012	2013	2014
		Maintain trained personnel to provide counseling session for Juvenile Fire Setters, measuring & monitoring the following dimensions: • Number of sessions/hours • Average time per session in hours • % of sessions viewed as helpful by juvenile's guardian				
		Conduct effective fire investigations, measuring & monitoring the following dimensions as needed:				
		• Number of fire investigations conducted				
		• % of cases cleared				
		• Average time for investigations (start to court filing)				
	Strategy: Integrate a Community-wide Emergency Preparedness Program for Natural or Man-made Disasters					
	Tactics:	*Ensure that all Continuity of Operations Plans for each City department are reviewed and updated annually* • Measure & monitor % of plans updated				
		Ensure that all political leaders are trained on emergency contingency plans annually measuring by: • % of elected officials trained • % that rated the training as needful or important				
		Ensure that the Local Emergency Operations Plan and the Hazard Mitigation Plan are reviewed and adopted by all appropriate governing bodies.				
		Provide annual disaster drills that include all appropriate levels of government and meet federal mandated guidelines, measuring & monitoring the following dimensions as needed: • % of partner organizations involved in drills • % of participants that rated the drill as effective				
		Ensure effective Emergency Operations Center operations, measuring & monitoring the following dimensions as needed: • Number of senior management team trainings • % of management team completed training • Number of EOC activations at various levels • % of other city & outside organizations that participated in activation de-briefing • % of participants that rated the activation as effective or excellent				

Goal: Deliver Cost Effective Services						
			Target	2012	2013	2014
	Strategy: Ensure that the Citizens Receive Consistent Services for the Tax Dollar					
		• % of cost recovery for permitting • Annual partner contribution assessments				
		• % of cost recovery on deployments outside of services area (not mutual/auto aid) • FTEs per 1000				
		• Cost per capita • % of citizens satisfied with performance in the City of Loveland community survey • Of citizens who have received LFRA services, % satisfied with performance.				

X. RECOMMENDATIONS/IMPLEMENTATION

This section of the strategic plan focuses on recommendations for implementation. The section is broken out into two distinct segments. The first segment is identified as "Strategic Plan Priorities" for LFRA; the second segment is identified as "Other Organizational Needs." Both of these segments focus on the operational period of the plan (2012-2020) with a few exceptions. The categorization for implementation of the plan priorities is based primarily on the elements listed in the Model One Basic Services Expansion Plan (see Section VI). Within the listed plan priorities, there are four subcategories:

- High Priority
- Intermediate Priority
- Future Priority
- Additional Priorities/Needs

High Priorities: Elements in either Phase 1 or Phase 2 of the plan (2012-2015) that relate to the addition of needed personnel or high priority capital items.

Intermediate Priorities: Elements in Phase 3 of the plan (2016-2017) that relate to the addition of needed personnel or intermediate priority capital items.

Future Priorities: Elements in Phase 4 of the plan (2018-2020) that relate to the addition of needed personnel or future priority capital items.

Additional Priorities/Needs: These are additional capital and personnel priorities that have no timeline set for their completion of implementation and no funding stream identified.

In the accompanying chart (Figure 10-1) the three highest levels of priorities are color coded with each element listed in the appropriate phase of the plan. With just a few exceptions the levels of priorities are linked to the phases of implementation.

Beyond the first three levels of priorities in the first segment, several other system needs are listed. The elements continued in this next segment are listed in the proposed order of priority, with no recommended timeline for any of these elements. Another distinction for this section and the needs listed is in their funding. The first three priority levels listed in the first segment of this section have identified funding streams and are a part of the future budget for LFRA; they will be funded by the revenue allocation formula for the City of Loveland and the Loveland Rural Fire Protection District. The additional priority level and the other system needs elements could be described as "unfunded priorities" for the organization. These elements will have to be funded by alternate sources such as grants or additional funding sources.

As with each section of this strategic plan, the recommendations must always be evaluated and re-evaluated over the operational timelines for the plan. Changes could occur in the prioritization of some of the elements based on changes from the stated planning assumptions. In addition, funding streams could change over time and alternate funding such as grant money could become available favoring the funding of one departmental need over another.

Model One Basic Services Expansion Plan

	COST	2012/ 13	2014	2015	2016	2017	2018	2019
PHASE 1 2012-2013								
Add 6 FT Firefighters for Engine 6 & Truck 6	$ 426,777*							
Add funding for part-time paid F/F program	$ 70,420*							
Add Public Safety Administrative Director position	$ 130,000*							
Add 1 Lieutenant position to CSD	$ 106,140*							
TOTAL Increase for O&M for Phase 1	**$ 733,337**							
Expand Station 6	$ 930,000							
Purchase new fire engine	$ 483,000							
TOTAL Capital $ for Phase 1	**$1,413,000**							
PHASE 2 2014-2015								
Add 6 FT positions for new Heavy Rescue Squad 2 (3 Lieutenants and 3 Engineers)	$ 694,389*							
TOTAL Increase for O&M for Phase 2	**$ 694,389**							
Construct new Station 2	$2,900,000**							
Purchase new Heavy Rescue Squad	$ 500,000							
Replace Aerial Tower	$1,200,000							
Refurbish 2000 Smeal Aerial Ladder for Reserve Truck	$ 475,000							
TOTAL Capital $ for Phase 2	**$5,075,000**							
PHASE 3 2016-2017								
Add 9 FT position for new Station 10 (3 Lt., 3 Eng., 3 FF)	$ 980,434*							
Add 1 Administrative (secretarial) position	$ 54,450*							
TOTAL Increase for O&M for Phase 3	**$ 1,034,884**							
Build new Station 10	$2,299,000**							
Replace fire engine	$ 530,000							
Refurbish Water Tender 1	$ 237,000							
TOTAL Capital $ for Phase 1	**$ 3,066,000**							
PHASE 4 2018-2020								
Add 3 FT firefighters for coverage/rover positions	$ 262,308*							
TOTAL Increase for O&M for Phase 4	**$ 262,308**							
Refurbish Water Tender 5	$ 357,000							
Replace Front Line engine (2020)	$ 597,388							
TOTAL Capital $ for Phase 4	**$ 954,388**							

*All O & M costs include a 3.5% annual inflationary increase ** These estimates were provided by City of Loveland Facilities in early 2011; they will need to be re-evaluated in the coming years based on the construction trends and costs per square foot.

High Priority Intermediate Priority Future Priority

STRATEGIC PLAN PRIORITIES

High Priorities Phase 1

New Fire Engine: A new fire engine will be built and delivered in 2012 as part of the City of Loveland's Capital Expansion Plan. This engine is part of the long-term replacement plan and is scheduled to be assigned to Fire Station 6. Capital costs are estimated at $483,000.

Expansion for Fire Station 6: Expanding Fire Station 6 to accommodate two fully staffed crews (an Engine and Truck company) addresses the need to enhance fire/rescue services in the eastern portion of the LFRA's response area. Construction to expand Station 6 will begin in mid-2012. The expansion will be approximately 3000 square feet of new space with some remodeling of existing space. Total cost estimates are expected to be $930,000.

Add Six Full-Time Firefighters for Engine 6 / Truck 6: Six full-time firefighters are to be hired in 2013. These six firefighters will increase the minimum staffing levels on Engine 6 and Truck 6 to three firefighters per apparatus on both of these fire companies for all three shifts. Engine 6 and Truck 6 have been the final two pieces of apparatus that have allowed a minimum staffing level of two. Annual full-cost budgeting estimates for the additional personnel are $426,777 beginning in 2013.

Additional Funding for Part-Time Paid Firefighter Program: Additional funding for this program is expected to add six more part-time paid firefighters in 2013 to the 12 current positions. These positions will serve to address many important staffing areas including minimum shift staffing. Cost estimates are $70,420 annually, beginning in 2013.

Add Public Safety Administrative Director Position: In 2012 Loveland Fire Rescue Authority came into existence. Clear administrative and financial needs were identified in the creation of the authority. This position came on line at the end of 2011 with the Fire Authority assuming responsibility for funding beginning in 2013. Annual full-costs budgeting estimates are $130,000 beginning in 2013.

Add Lieutenant for Community Safety Division (CSD): In 2009 the Fire Prevention Bureau (now CSD) lost half of its staff due to a city-wide effort to reduce staff and spending. Several fire prevention-related services were reduced during these times of budget reduction and reorganization. This Lieutenant's position is intended to restore some of the personnel to the CSD for prevention related functions and provide the necessary staffing for improving inspection services. Estimated full-cost budgeting expenses are $106,140 annually beginning in 2013.

High Priorities Phase 2

Construction of New Fire Station 2: The construction of a new Fire Station 2 will address the service level needs for an additional fire engine company to cover the northwest area and provide an adequate facility to expand to a heavy rescue company for the northern and western parts of LFRA's response area. Both of these needs were identified as deficiencies in the Insurance Services Office (ISO) 2008 Department evaluation. The option of moving the current Station 2 by building a new facility with two fire companies was the chosen option over expanding the current station to accommodate multiple fire companies and building a single fire station in the northwest. This option (relocating Station 2) is expected to result in a savings of 1.5 million dollars in capital expenses and 1 million dollars a year in operations and maintenance expenses.

Capital costs for this expansion are estimated at $2,900,000 at 2013 dollars and will be funded by City Capital Expansion Fees (CEFs).

New Heavy Rescue Squad: The heavy rescue squad performs a number of fire-rescue services; most of these have to do with support operations for engine companies (forcible entry, search and rescue, laddering, ventilation, controlling utilities, and salvage and overhaul). In addition, these companies typically perform many of the more technical and specialized rescue functions (high angle, water rescue, trench rescue, and others). In the 2008 ISO evaluation, ISO recommended the addition of a service company (heavy rescue company) for the north and west portions of the fire response area. Currently, LFRA has one engine company operating out of Station 2 performing the functions of both an engine company and a rescue company. Capital will be required for the purchase of a heavy rescue squad vehicle for these support and technical rescue functions. The estimated capital cost for this vehicle is $500,000, not counting equipment; it will be paid for by City CEFs and will be ordered in 2013.

Add Six Full-Time Positions for New Heavy Rescue Squad 2: (3 Lieutenants and 3 Engineers) This priority addresses the personnel for staffing the new heavy rescue squad. This expenditure includes a Lieutenant and Engineer for each of the three shifts, which would account for two of the three positions needed for each shift to fully staff this additional fire company. The third firefighter for the heavy rescue squad will come from the existing shift Fire Inspection Technician (FIT) position that is currently assigned to the engine company operating out of Fire Station 2. Estimated full cost budgeting expenses for these six positions are $694,389 annually beginning in 2014.

Aerial Tower Replacement: The current aerial truck operated by LFRA is a 2000 Smeal 100 foot ladder. The target for replacement as set in the City of Loveland's Capital Plan is for 2014. History has shown that after ten years of line service, apparatus repair and maintenance costs rise significantly. A 14-year replacement plan for aerial apparatus, plus an additional 4-5 years in reserve status (20 years total service time) has been the targeted model within the Department. Replacement of the current aerial ladder with an aerial tower apparatus will provide LFRA with more tactical capability and offer greater life safety abilities to firefighters and civilians alike. Capital costs for the aerial tower replacement are estimated at 1.2 million dollars in 2014.

Medium Priorities Phase 2

Refurbish 2000' Smeal Aerial Ladder for Reserve Truck: Apparatus refurbishment can make sense in certain circumstances as a financially and operationally sound strategy. The 2000 Smeal aerial ladder seems to fit this strategy. Although the cab and chassis of the Smeal ladder truck are worn and in need of mechanical repair or replacement, the aerial ladder, outriggers, and compartments are all in good shape. The strategy of providing a new cab and chassis and reusing the other operational components makes sense for this piece of apparatus. After refurbishment, the 2000 Smeal will then become a reserve apparatus and be used as the reserve aerial truck for system recalls and for greater alarm incidents. Currently a 1995 General Telesqurt apparatus is functioning in this capacity and will have reached the end of its life span for service in 2015. This refurbishment option is a very cost-effective way to gain many more years of service from some of the more expensive pieces of fire apparatus (like aerials) and has been used successfully by many fire departments. The capital cost estimate for this refurbishment of the aerial ladder is $475,000 and will be funded from the City's capital expansion plan in 2015.

Medium Priorities Phase 3

Construction of New West Fire Station 10: Another identified area of deficiency in services is the far west side of LFRA's response area. This new fire station will significantly improve response times in the Urban Response Area (URA) and in the west area of the entire fire district. The station is proposed as a single fire company house for one engine company. Capital costs are estimated at $2,299,000 at 2013 dollars and will likely be funded jointly by City CEFs and Rural District capital dollars. Construction is expected in 2016-2017.

Add Nine Full-Time Positions for New Station 10: (3 Lieutenants, 3 Engineers, 3 Firefighters): These are the full-time positions needed to staff the new engine company for Station 10 at the minimum staffing level of three per fire company on all three shifts. Estimated full cost budgeting expenses for these nine positions are $980,434 annually beginning in 2016-2017.

Add One Administrative Support (secretarial) Position: This administrative position is intended for the Suppression Division. The Suppression Division has operated without an administrative support (secretarial) position since 2011. It is anticipated that as a result of organizational growth, this position will be needed. Annual full-cost budgeting expenses for this position, beginning in 2016, are estimated to be $54,450.

Fire Engine Replacement: A new fire engine is needed for replacement or to add to the fleet for coverage of the new station's response area. This engine will feature a standard design engine and is anticipated to cost $530,000, which is planned as part of the City's capital replacement plan in 2016.

Refurbish Water Tender 1: Water tenders are used nearly exclusively in the Rural Fire District where fire hydrants are sparse or non-existent. This piece of apparatus is another example of when refurbishment with a new cab, chassis, and reused operational components makes sense. Capital expenses for this refurbishment will be paid for by the Rural District at an estimated cost of $237,000 in 2016.

Future Priorities Phase 4

Add 3 Full-Time Firefighters for Coverage/Rover Positions: Coverage and rover positions are utilized within the three-tiered staffing model when vacancies occur due to firefighters' vacations, sick leave, administrative leave, or any other type of absenteeism. In 2012 LFRA utilized three rovers per shift. With additional staffing and a predictable increase in paid time off based on an older workforce, four rovers per shift will be needed by 2019. This priority accounts for the hiring of three firefighter-level positions to act as rovers, one per shift. Estimated full cost budgeting expenses for these three positions are $262,308 annually beginning in 2019.

Refurbish Water Tender Five: Water tenders are used nearly exclusively in the Rural Fire District where fire hydrants are sparse or non-existent. Water Tender Five is another piece of apparatus for which refurbishment with a new cab, chassis, and reused operational components makes sense. Capital expenses for this refurbishment will be paid for by the Rural District at an estimated cost of $357,000 in 2018. Costs for this water tender are somewhat higher because it is a four-wheel drive tender.

Replace Front Line Engine (2020): A new fire engine is needed for replacement or to add to the fleet for coverage of the response area. This engine is expected to be another standard design engine and is anticipated to cost $597,388. This engine is planned for at the end of this strategic

plan's operational period in 2020. Funding is anticipated to come from the joint capital replacement fund provided by the agreed-upon revenue allocation formula in the Fire Authority's Intergovernmental Agreement (IGA).

Additional Priorities/ Needs

Type 6 Wildland Engine: A Type 6 engine can also be described as a brush truck or brush patrol unit. LFRA operates four-wheel drive flat-bed Type 6 apparatus with small pump units (50 g.p.m. minimum) and a water tank (150 gallons minimum), a hose reel, extra wildland hose, and equipment storage. These units are suitable for off-road use and very effective for grass fires and use in the Wildland Urban Interface (WUI) area. Currently LFRA operates with two of these units and has an immediate need for one additional unit in the event one of the other Type 6 units is on deployment or out of service for mechanical reasons. These units have never been placed on the City's large capital apparatus replacement plan; the Rural District has purchased both Type 6 units currently in service. Capital costs for a new Type 6 engine are around $109,000.

Reserve Coordinator / Recruitment Retention Officer: With the use of the three-tiered staffing workforce program and a dependency on reserves and part-time paid firefighters for staffing, this position is critical for the success and continuance of the program. The Recruitment/Retention Officer position will ensure that high quality reserves will enter LFRA and the best of these will transition into part-time and full-time positions. This position will also ensure that logistical needs of the reserves and part-time paid firefighters are met, increasing the chance that these firefighters will stay with LFRA for longer periods of time. LFRA proposes to fill this position with an on-line officer in a developmental/rotational position with full-cost budgeting expenses estimated to be $106,140 at 2013 dollars.

ARFF Program Manager and Stand-By Coverage: LFRA is responsible for maintaining a trained cadre of firefighters for Aircraft Rescue and Firefighting services (ARFF) and stand-by coverage for certain flights in and out of the Fort Collins-Loveland Airport. Currently the program and stand-by coverage are managed by on-shift firefighters. The result is that one LFRA engine is taken out of service 25-30 times per month for two to four hours at a time. This workload and removal of an engine company commits needed fire-rescue resources and eliminates their service to the remainder of the system during stand-by coverage. One way to address this need is the addition of a certified Driver-Operator/Acting Lieutenant to manage the ARFF program and perform stand-by coverage during the week (Monday-Friday). This added position would be developmental and rotational with full-cost budgeting estimates at $80,600.

Additional Training Firefighter: Currently the training division is managed by one Battalion Chief and three on-shift training Captains. An additional firefighter is needed to assist with training exercises, building and tearing down props, and general labor at the training center. Presently these functions are done by on-shift firefighters and when possible, a reserve is assigned to the training division to assist. This added position would be developmental and rotational with full-cost budgeting estimates at $71,129 annually. An alternate means to address this position could be accomplished by using part-time firefighters.

Additional Plans Review Inspector for Community Safety Division: In 2009 the Fire Prevention Bureau (now CSD) for LFR had five full-time inspectors including two Plans Review Specialists. In 2012 the numbers have been reduced to three full-time Inspectors and one part-time Plans Review Specialist. An additional Inspector and Plans Review Specialist will be

needed. This position would likely be a civilian position with full-cost budgeting estimates at $62,400 annually.

OTHER ORGANIZATIONAL NEEDS

Type 3 Wildland Urban Interface (WUI) Engine: A Type 3 wildland engine is larger in size and capacity than a Type 6, yet it has similar off-road capacities and is expected to be able to traverse nearly the same type of terrain. A Type 3 is usually equipped to pump two or three 1½-inch handlines in order to perform structure protection as well as wildfire attack. Minimum capacities for water flow are 150 gpm, and water tank size is 500 gallons minimum. The need for a Type 3 in the LFRA system has been demonstrated by past experience from fires in the WUI area (Reservoir Road Fire for example) and for predictions and planning assumptions for additional structures in Loveland's WUI. Estimated capital costs for a Type 3 WUI engine run from $275,000 - $300,000, not including equipment. It is expected that grant funding will be the primary means for financing the costs of this apparatus.

Purchasing Land for Future SE Fire Station: As indicated earlier in the plan (see Section III Basic Planning Assumptions), there will likely be a need for an additional fire station in the southeast area of LFRA's district. This expansion is currently listed as part of the "Phase 2 Planning" (2021-2030). However, a more rapid expansion of the Hwy 402 corridor, a large increase in commercial development in that area, or an overall increase in the Loveland Community population beyond the expectation of normal expansion could expedite the need for this station. Purchasing the land for this station in the operational period of this strategic plan (2012-2020) makes sense from several perspectives: land availability and costs are two of the primary reasons. Land acquisition for this station, based on response profile and need, appears to be in the area of Hwy 402 and South Boise Avenue and should be 2-3 acres in size. Capital cost estimates are difficult to predict at this time, but should be expected to range from $50,000-$75,000 per acre.

Training Facility Enhancements and Expansion: The current training facility is adequate for the size of the organization and use of the facility. Wear and tear on some of the more utilized props (the burn building being the most notable) will need to be factored in for major repair and replacement. Other large capital needs should include an expansion of or new apparatus and equipment storage areas and the development of a new garden apartment training prop. The garden apartment prop will allow firefighters to train in more realistic circumstances (reality-based training) and practice firefighting operations in one of the most common buildings found in the Loveland community. Capital cost estimates for these enhancements and expansions are very difficult to estimate; however, a target should be set for a minimum amount to be set aside annually for these capital improvements.

Technology Improvements and Fiber Optic: Only a portion of the LFRA network of stations and facilities are served by high-speed Internet and fiber optic services. The infrastructure needs for these types of improvements are cost prohibitive for a fire department-only solution. Cost sharing and problem solving for enhanced technology is an over-arching City need, and technology operation and maintenance should be developed over the course of this plan. In addition a long-range capital plan should be developed for LFRA's technology needs. A clear cost for these needs and services is unavailable at the time of this writing.

Appendix A: PLANNING ASSUMPTIONS

Planning assumptions have been used throughout the strategic plan. Basic Planning Assumptions were a part of Section III, and more specific areas for planning assumptions were included in several other areas. In this portion of the appendix, a complete list of all of the planning assumptions has been listed for the convenience of the reader and plan managers.

Basic Planning Assumptions for Loveland Fire Rescue Authority for Phase 1 and Phase 2

Phase 1 *will include organizational strategic goals and objectives with costs identified*

Phase 1 Planning Assumptions

1. ***Service Levels Provided -*** Current and future service levels are expected to be maintained or improved, with the noted exceptions listed for new stations and service areas.
2. ***Population Expansion -*** Projections for expansion will assume a flat growth rate for the years 2011-2013 and project an approximate 2.5% growth per year from 2014-2020. This would calculate into a population of approximately 99,936 in 2020 for the Fire Authority service area or response area.
3. ***Station/Fire Company Expansion -*** Projections for replacement or addition of new service fire stations and staffing would include:

    a. *Adding 6 FT positions for minimum staffing for Engine 6 & Truck 6*
    b. *Adding 1 heavy rescue company to Station 2 – (6 FT positions)*
    c. *Adding 1 new engine company to the west area of District (9 Positions)*
    d. *Adding 3 FT positions for coverage or fill-in positions*

    These projections would include building a new fire station in the northwest portion of the district to replace the current Station 2 and building a new fire station in the west part of the district (Hwy 34 and County Road 27 area). Projections for fire company expansion would be a target for minimum fire company staffing at three firefighters per company and a targeted goal of .94 to .95 firefighters per 1000 population.
4. ***Workforce Staffing Methods -*** Projections for this phase would include the utilization of the three-tiered system of reserves, part-time paid, and full-time paid firefighters. The expectation would include assigning of reserves on an as-needed basis for accomplishing the criteria for minimum hours worked (currently 36 hours/month). It is expected that part-time paid firefighters would be assigned shifts as part of the daily minimum staffing criteria for no more than 15% of the paid workforce or no more than three on-duty fire companies utilizing a part-time firefighter for minimum staffing criteria.
5. ***Additional Non-Uniformed FTEs -*** Projections for workforce expansion should include a minimum of a Public Safety Administrative Director (to help administrate the Fire Authority and work with Loveland PD), one additional Administrative Assistant, and one Technical Specialist or Inspection Services Manager in the Community Safety Division.
6. ***Selection of Model One Basic Services Plan -*** Model One Basic Services Plan is to be the plan of choice for future planning assumptions.

Phase 2 *(2021-2030) will include planning expectations without identified funding streams. These planning assumptions are expected to be very general and based on a historical and projected forecast of anticipated Authority needs during this timeframe.*

Phase 2 Planning Assumptions

1. ***Organizational Planning Goals/Expectations*** **-** Projections for this next phase (2021-2030) should include ***consideration*** for:
    a. *Re-staffing of the airport station (Station 4) for area coverage and addressing expanded airport operations and/or expansion in the commercial business park or commercial area around the airport. This will be reviewed on an "as needed basis" within the City of Loveland and the Rural District's planning, and periodically with the Airport Director and the Director of Public Works to ensure proper service level needs are maintained.*
    b. *Adding one fire station to the south/southeast corridor, projected in the area of South St. Louis and Hwy 402*
    c. *Expanding for an additional truck/ heavy rescue company*
    d. *Expanding for a paid staff position for Big Thompson Canyon station (40 hour training and response position)*
    e. *Increasing minimum staffing from three firefighters per fire company to four.*
2. ***Workforce Staffing Analysis*** **-** Projections in Phase 2 should include a comprehensive analysis of the three-tiered workforce plan with recommendations for revisions or changes. This would include a workforce staffing and needs analysis of the Big Thompson Canyon area of the district.

Specific Planning Assumptions from Applicable Sections - Listed by Subject

Planning Assumptions for Staffing and Deployment

Staffing and Deployment Planning Assumption 1 - Fire companies (those working on engine and truck companies) for LFRA are to be staffed at three personnel minimum with a target for deployment for structure fires at 14 firefighting personnel, meeting the intent of NFPA 1710.

Staffing and Deployment Planning Assumption 2 - The three-tiered staffing model, made up of reserves, part-time paid, and full-time paid firefighters, is the workforce staffing model that will be used by LFRA throughout the years of operation of this strategic plan (2012-2020).

Staffing and Deployment Planning Assumption 3 - Numerous organizational advantages exist with the utilization of the three-tiered staffing model, including significant annual cost savings for LFRA.

Staffing and Deployment Planning Assumption 4 - A need exists for a full-time Recruitment, Retention, and Logistics Officer if the three-tiered staffing model is to be operated at a level of efficiency and dependability.

Staffing and Deployment Planning Assumption 5 - The three-tiered staffing model has two major concerns that can impact its future use: overuse of the part-time paid firefighters and their lack of

overall firefighting experience. The feasibility for using the three-tiered staffing model in the future must be considered for future planning.

Staffing and Deployment Planning Assumption 6 - Periodic, ongoing evaluations for the efficiency and effectiveness of the three-tiered staffing model are needed. In addition, there is a need for a future, more comprehensive, workforce-staffing analysis to determine the best and most effective future staffing model for LFRA.

Staffing and Deployment Planning Assumption 7 - All future staffing levels within every division of LFRA are based on normal forecasted expansion of population and businesses or industrial complexes within the Fire Authority's response area.

Planning Assumptions for the EMS System

EMS Planning Assumption 1 - The current model for the EMS system within the LFRA district, which includes BLS services and support functions provided by LFRA and ALS services and transport provided by TVEMS, provides high quality levels of citizen service and a high level of EMS patient care.

EMS Planning Assumption 2 - The response model that is currently in place, with the noted targets for performance of a BLS unit on scene within 5 minutes and 59 seconds from the time of dispatch and an ALS transport unit on the scene within 9 minutes, 90% of the time within the urban response area is appropriate as a target for performance goals.

EMS Planning Assumption 3 - Relevant performance measurements need to be monitored, measured, and reviewed at least annually for adherence to specific standards of performance.

EMS Planning Assumption 4 - A collaborative process between LFRA and TVEMS for strategic and operational planning is necessary for the continuance of high quality EMS in the LFRA district.

EMS Planning Assumption 5- A commitment for continuous improvement in the EMS system within the LFRA district will include Basic Life Support Services, Advanced Life Support Services, Emergency Medical Dispatching, and Public Medical Awareness and Training including activation of the EMS system and citizen CPR training.

Planning Assumptions for Wildland

Wildland Planning Assumption 1- Future trends suggest that the WUI problem is likely to grow to a much higher level during the time of this plan, including more people and more structures within the WUI zone.

Wildland Planning Assumption 2 - The current model of fire protection and mitigation for wildland fire operations will likely not be adequate for the future. More resources and funding will need to be invested to keep up with the anticipated future needs.

Wildland Planning Assumption 3- Current federal and possibly state resources, upon which we currently depend, will likely be reduced, and in some cases eliminated in the future.

Wildland Planning Assumption 4 - Development of even stronger operational partnerships and regional cooperative relationships will be needed to offset the loss of federal and state resources in order to maintain an adequate and reliable emergency response. Local Incident Management

Teams (IMTs) should be evaluated and developed for future operations in the region of Northern Colorado, including areas within the LFRA response district.

Wildland Planning Assumption 5 - Funding streams for wildland fire apparatus such as Type 3 and Type 6 Engines need to be identified and included in long-term planning for the Fire Authority.

Wildland Planning Assumption 6 - If voluntary programs such as those outlined in points 1 and 2 (above) are successful, many of the problems listed in this section of the plan could be adequately addressed. Actions' trigger points and tracking of data should be identified and implemented into the long-range future plans.

Planning Assumptions for Special Operations

Special Operations Planning Assumption 1 - The current model for SOT is adequate for the current call load and community demand for services in this area.

Special Operations Planning Assumption 2 - Future growth in the community and region surrounding LFRA's response area will likely place much more demand on the services of the Department's SOT.

Special Operations Planning Assumption 3 - Additional funding will likely be needed to account for additional training and equipment for SOT processes. Alternate funding streams, including grants and other more reliable streams, will need to be investigated to address the needs created by growth and expansion.

Special Operations Planning Assumption 4 - The addition of Heavy Rescue 2 in the northwest portion of the LFRA response area will greatly improve the day-to-day operations for SOT and other specialized operations.

Special Operations Planning Assumption 5 - A regional approach to the problem of enhanced services needed for SOT is perhaps the most viable and best option for maintaining and improving overall specialized operations service levels within the LFRA response area. More concentration for the development of a regional team for specialized operations should be investigated within the time parameters set forth by this plan.

Special Operations Planning Assumptions 6 - The linkage to the state's FEMA USAR Team, Colorado Task Force I, is a viable option and enhancement to the local and regional team approach for special operations. Work should be done within the timeframe of this plan to investigate and incorporate the best linkage to this resource. State USAR Team membership may be an option, but at the least, a seamless process for request for service, dispatch, response, and deployment should be developed for the local and/or regional specialized operations team.

Planning Assumptions for Training

Training Planning Assumption 1- The current training plan and staffing model is mostly adequate for the internal training needs of the organization, based on current staffing levels and call loads.

Training Planning Assumption 2 - There is an immediate need for an additional full-time 40-hour firefighter within the training division to help with the more basic level training work.

Training Planning Assumption 3 - Several training division assessments are needed to evaluate the division's future staffing and financial needs. This analysis and the findings, along with recommended countermeasures, should be a part of this strategic plan.

Training Planning Assumption 4 - A comprehensive long-term analysis for how the training efforts will be carried out in the future using the Centralized, Decentralized and Ad-Hoc training delivery methods should be carried out and included in this and future strategic plans for LFRA.

Planning Assumptions for Safety

Safety Planning Assumption 1 - LFRA currently has a good safety culture and a commitment to firefighter and citizen safety.

Safety Planning Assumption 2 - Current safety deficiencies do exist in the organization and efforts will be required to address those deficiencies.

Safety Planning Assumption 3 - There will be a cost to staying committed to enhanced firefighter and citizen safety. Currently, several unfunded priorities that have a direct impact on firefighter and citizen safety exist within the Department. A plan to address these unfunded priorities should be developed and made a part of this strategic plan.

Safety Planning Assumption 4 - Safety planning needs to be a part of this strategic plan and other plans that follow.

Planning Assumptions for the Community Safety Division (CSD)

CSD Planning Assumption 1- LFRA needs to develop a future inspection program based on education and collaboration, targeting small businesses and involving line or suppression personnel as well as CSD staff.

CSD Planning Assumption 2 - Specific occupancies within the community will require specialized training and knowledge, skills, and abilities (KSAs).

CSD Planning Assumption 3 - Maintenance of trained personnel for the juvenile fire setters program and car seat installation program has a direct and needed life-safety impact.

CSD Planning Assumption 4 - The enhancement of training and outreach for emergency management and EOC operations is integral to a total overall community outreach safety plan.

CSD Planning Assumption 5 - LFRA's role in plans review and building review processes are critical to ensure a strong fire-rescue perspective in the review process and a more effective community safety impact in the built environment.

CSD Planning Assumption 6 - The overall review process is an evolving process that will change, improve, and transform over time.

CSD Planning Assumption 7 - Enhancements in the area of public education will be needed in the future, targeting "at-risk" citizens or areas within the community.

CSD Planning Assumption 8 - Public information and media outreach to the community are vital parts of the emergency response protocol that, in part, belongs to LFRA through the CSD; efforts for continuous improvement are a part of future planning.

CSD Planning Assumption 9 – Other developing areas such as hydraulic fracturing will require greater involvement and resources from CSD.

Planning Assumptions for Performance Measurements

Performance Measurements Planning Assumptions 1 - LFRA is committed to using a standardized measurement of performance objectives that will be referred to as *Service Level Indicators.*

Performance Measurements Planning Assumption 2 - The service level indicators used will use a combination of some past ICMA/CPMC dimensions and other dimensions that are selected based on desired measurable indicators.

Performance Measurements Planning Assumption 3 - The service level indicators will be matched to specific Authority goals and objectives listed within the 2012 Strategic Plan.

Performance Measurements Planning Assumption 4 - Most of the service level indicators will be charted, graphed, and used in LFRA's Annual Report, made available to the various governing bodies. These service level indictors are measurements used for organizational evaluation and continuous improvement.

Performance Measurements Planning Assumption 5 - The ISO PPC numbers and rating scale are valuable indicators for LFRA. The organization desires to maintain or improve upon the current PPC for both the City of Loveland and the Loveland Rural Fire Protection District.

Performance Measurements Planning Assumption 6 - Department accreditation is of interest to LFRA and will be evaluated further during the performance period of the 2012 Strategic Plan. Cost effectiveness of accreditation and feasibility will be key areas of focus in the evaluation.

Planning Assumptions for Communications

Communications Planning Assumption 1- Fire service organizations, including LFRA, have significant communication challenges for effectively communicating with their employees and with the citizens they serve.

Communications Planning Assumption 2 - Current methods for communication within the organization are working, but a comprehensive communication audit should be developed and engaged within the organization to objectively assess the current situation for what is working well, what areas need to be improved, and some ideas for making said improvements.

Communications Planning Assumption 3 - LFRA needs better, more relevant, and direct service level assessments for the external customers (citizens) it serves. It also needs to find an effective emergency services communication survey.

Appendix B: STATISTICAL DATA

Loveland Fire and Rescue
Statistical Data for
Northern Colorado/Southern Wyoming
Comparison Departments

2011 Data

Executive Summary

Research completed by the Fire Authority Review Committee clearly suggests that Loveland Fire and Rescue is underfunded and understaffed by nearly 30% when matched to its comparison departments in the region. Statistical data has been compiled in this brief report to give a more detailed view utilizing standard performance measurement data recognized throughout the industry.

Comparison data was reviewed from six other similar sized departments within the region*. Five of these departments are in Northern Colorado and one is in Southern Wyoming. All of these comparison departments provide similar emergency response profiles with relatively common citizen demographics. All of these departments are joint members and partners within the Front Range Fire Consortium (FRFC). Three of these departments are city fire departments with no rural responsibilities, one is a city department that contracts with a rural area on one side of their boundary line, one is a fire protection district, one is a fire authority, and one (LFR) is a city fire department contracting to the rural fire district that surrounds the entire city.

The list of the comparison departments include (in alphabetical order):

- Boulder Fire Department
- Cheyenne Fire Department
- Greeley Fire Department
- Longmont Fire Department
- Loveland Fire and Rescue
- Mountain View Fire Protection District
- Poudre Fire Authority (Fort Collins)

Critical comparison dimensions in this report include:

- Operating Budget
- Number of Uniformed Personnel
- Population Served
- Costs Per Capita for Services
- Size of Area in Square Miles
- Number of Fire Stations
- Number of Firefighters per 1000 Population

*** Note:** Additional lists of fire protection districts in Northern Colorado are compared for differing variables and the current mill levy rate.

2011 Financial Comparisons for Northern Colorado Fire Departments*

This comparison will look at three critical factors within each department:

1. Assessed valuation (which shows the ability of the area/district to pay)
2. The current mill levy (which shows what citizens in the area/district are actually paying)
3. A comparison using the mean (average) calculations and utilizing the weighted average.

Department	Assessed Value	Mill Levy
Loveland RFPD	$232,073,285	5.808
Poudre Valley RFPD	$412,624,503	10.500
Windsor-Severance FPD	$385,880,370	7.194
Johnstown FPD	$152,995,990	9.524
Berthoud FPD	$128,603,054	15.274
Mountain View FPD	$363,146,835	11.747
Boulder Rural FPD	$204,526,050	11.747
Fredrick-Firestone FPD	$291,445,680	12.526
Fort Lupton FPD	$226,838,180	8.465

*Latest data indicates Windsor-Severance at 7.19 going to approx 8 mils in 2011 (source Windsor Now- On Line)

Mill Levy Data:	Average/Mean	92.785/9	=	10.309 average mill levy
	Weighted Average*	71.703/7	=	10.243 weighted average

*Weighted average drops the low (5.808) and the high (15.274) and averages the remaining seven numbers

*Source: Colorado Department of Local Affairs (DOLA) On Line: Property Tax Entities by County, Nov. 17, 2009

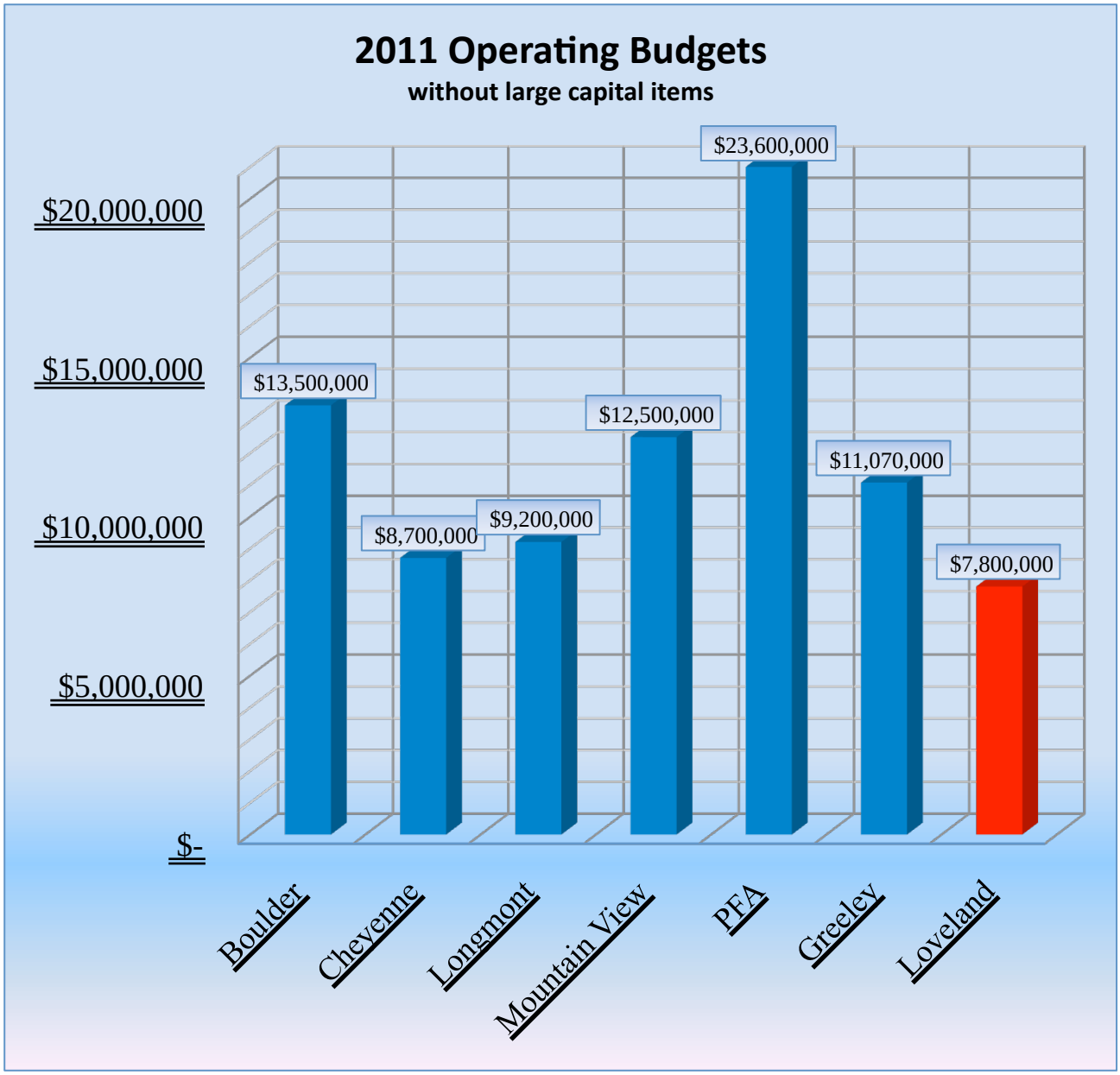
Mill Levy Rates for Northern Colorado Fire Departments

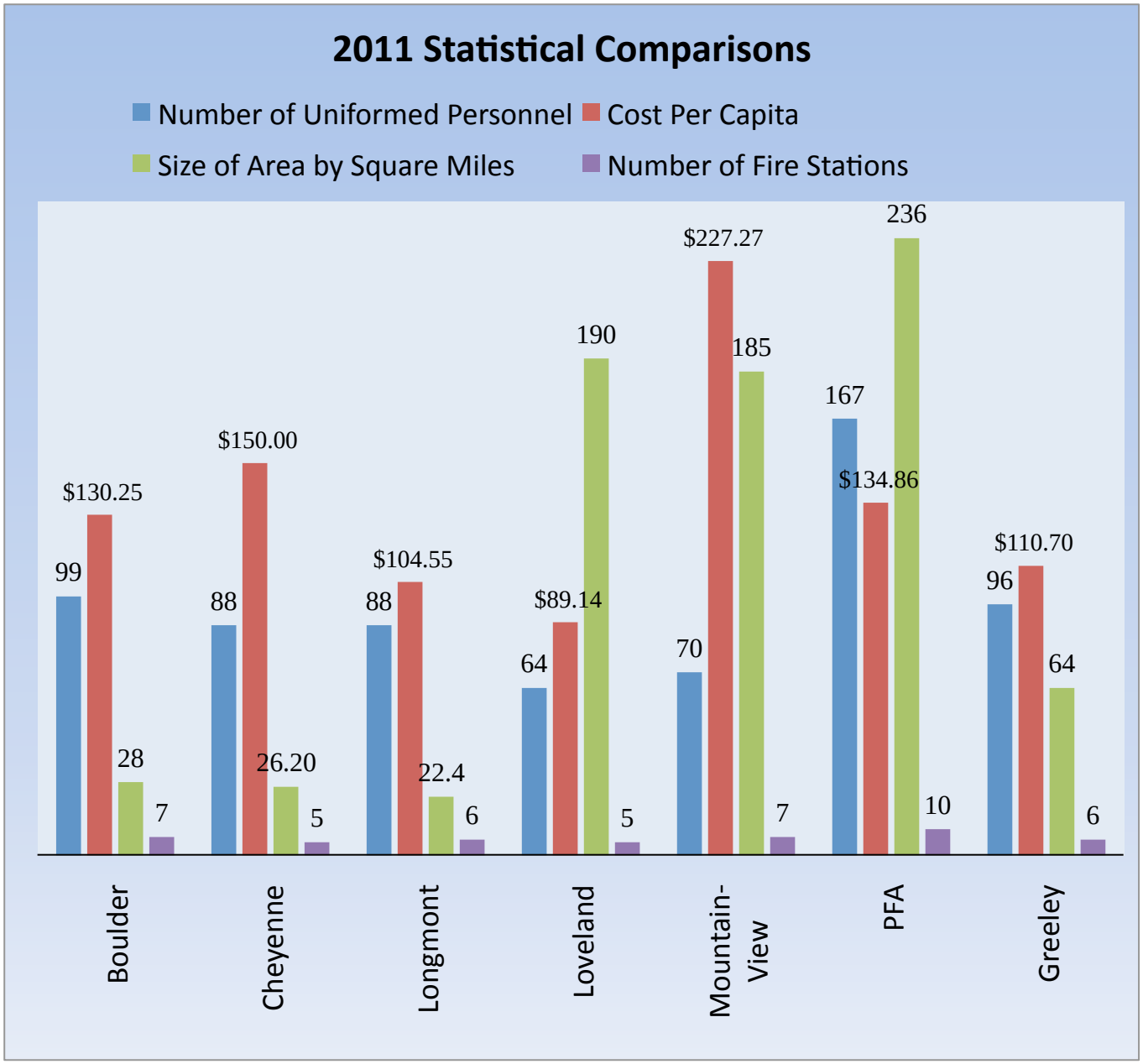
The list below is a sampling of the mill levy collected by departments in the Northern Colorado area, and where available, the approximate size of the population served. The source for this data, unless otherwise specified, is from a public Internet site listing mill levy rates for special districts, including fire protection districts. An effort was made to highlight the departments surrounding Loveland Rural Fire Protection District (LRFPD) and those in close proximity. All of the departments surrounding LRFPD to the north, east, and south are fire protection districts and they are italicized in the list below.

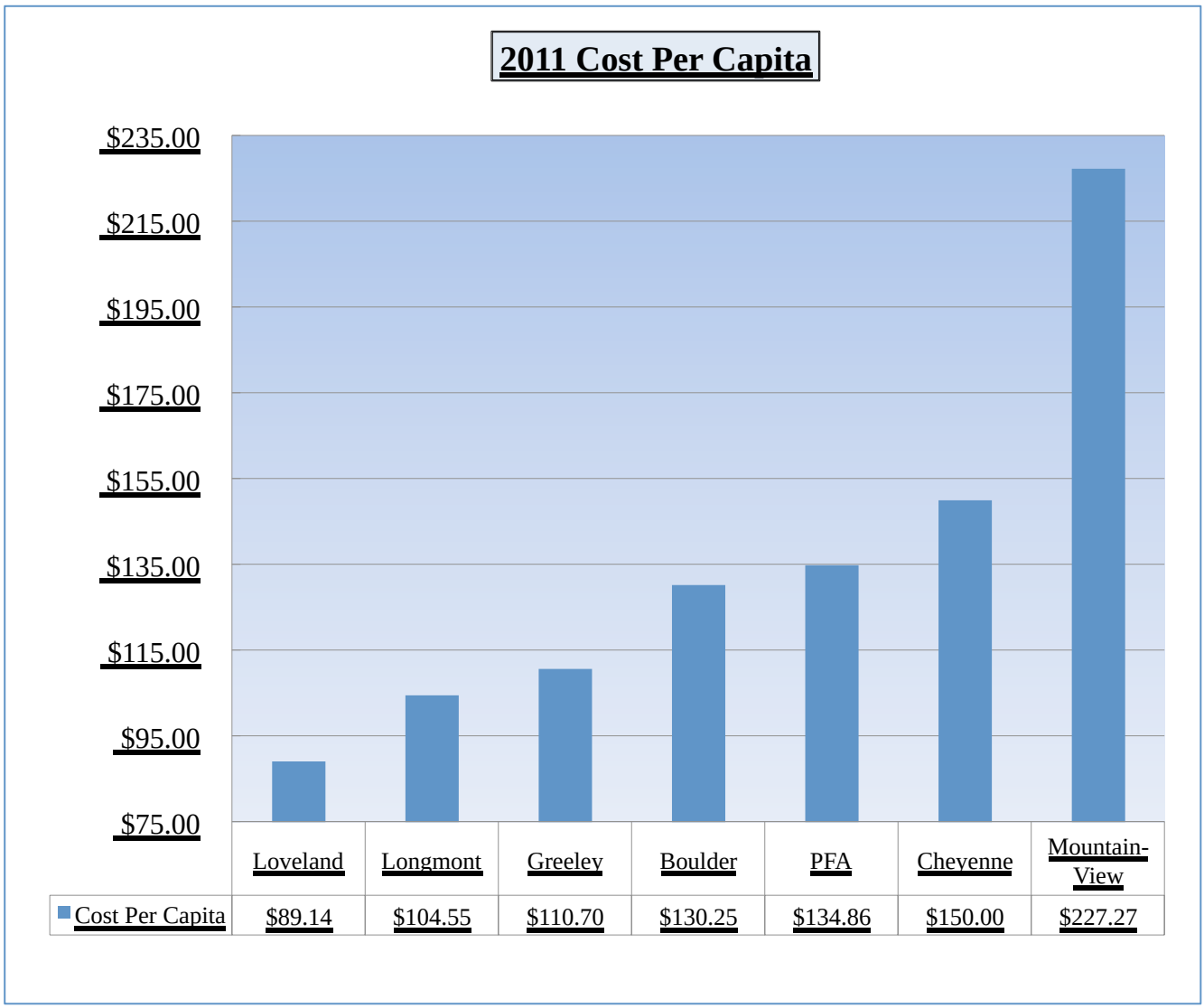
DEPARTMENT	MILL LEVY	POPULATION
Berthoud Fire Protection District	**15.274**	**17,500**
Boulder Rural Fire Protection District	**11.747**	**18,000**
Brighton Fire Protection District	**11.795**	**N/A**
Fredrick-Firestone Fire District	**13.36**	**18,500**
Johnstown Fire Protection District	**9.486**	**8,500**
Mountainview Fire Protection District	**11.747**	**50,000**
Poudre Valley Rural Fire Protection District	**10.50**	**55,000**
Wellington Fire Protection District	**12.222**	**15,000**
Windsor-Severance Fire Protection District	**7.904**	**28,000**
TOTAL NINE COMPARISON DISTRICTS	**11.559** (AVG. MILL LEVY)	**26,312** (AVG. POPULATION)
Loveland Rural Fire Protection District	**5.808**	**23,000**

Front Range Fire Consortium (FRFC) Comparison Department Data

City or Department	Operating Budget	Number of Uniformed Personnel	Population Served	Cost Per Capita	Size of Area by Square Miles	Number of Fire Stations	Number of Firefighters per 1,000 Population
Boulder	$13,500,000	99	103,650	$130.25	28	7	0.96
Cheyenne	$8,700,000	88	58,000	$150.00	26.2	5	1.52
Longmont	$9,200,000	88	88,000	$104.55	22.4	6	1.00
Mountain View	$12,500,000	70	55,000	$227.27	185	7	1.27
Poudre Fire Authority	$23,600,000	166	175,000	$134.86	236	10	0.95
Greeley	$11,070,000	96	100,000	$110.70	64	6	0.96
Loveland	$ 7,800,000	64	87,500	$89.14	190	5	0.73
TOTALS	$86,370,000	672	667,150	$946.76	751.6	46	7.39
Mean/Average	**$12,338,571**	**96**	**95,307**	**$135.25**	**107.5**	**7**	**1.06**
Weighted Average	**$10,994,000**	**88**	**87,430**	**$126.07**	**98.64**	**6**	**1.03**
Source of data is FRFC							


2011 Operating Budgets
without large capital items
$20,000,000
$15,000,000
$10,000,000
$5,000,000
$-
$13,500,000
$8,700,000
$9,200,000
$12,500,000
$23,600,000
$11,070,000
$7,800,000
Boulder
Chevenne
Longmont
Mountain View
PFA
Greeley
Loveland


2011 Statistical Comparisons
Number of Uniformed Personnel
Cost Per Capita
Size of Area by Square Miles
Number of Fire Stations
99
$130.25
28
7
88
$150.00
26.20
5
88
$104.55
22.4
6
64
$89.14
190
5
70
$227.27
185
7
167
$134.86
236
10
96
$110.70
64
6
Boulder
Cheyenne
Longmont
Loveland
Mountain-View
PFA
Greeley


2011 Cost Per Capita
$235.00
$215.00
$195.00
$175.00
$155.00
$135.00
$115.00
$95.00
$75.00
Loveland
Longmont
Greeley
Boulder
PFA
Cheyenne
Mountain-View
Cost Per Capita
$89.14
$104.55
$110.70
$130.25
$134.86
$150.00
$227.27

Present Comparisons 2011

	Operating Budget	# of Uniform Personnel	Population Served	Cost Per Capita	Size of Area	# of Fire Stations	# of F/Fs per 1000 pop.
Average	$10,994,000	88	87,430	$126.07	108 Sq. Miles	6	1.03
LFR	$7,800,000	64	87,500	$89.14	190	5	0.73
Difference In % + or -	(-29%)	(-27%)	Even	(-29%)	+ Nearly 2 times the size	(-17%)	(-29%)

Future Comparisons 2016 (Impacts from Implementation of Model One)

	Operating Budget	# of Uniform Personnel	Population Served	Cost Per Capita	Size of Area	# of Fire Stations	# of F/Fs per 1000 pop.
Average	$13,057,421	104	98,000	$133.34	108 Sq. Miles	6	1.06
LFR	$10,851,468	85	94,000	$115.44	190	6	0.90
Difference In % + or -	(-17%)	(-18%)	(-4%)	(-13%)	+ Nearly 2 times size	Even	(-15%)

This chart shows a comparison between Loveland Fire and Rescue within the identified dimensions (from page B-5) and the mean/weighted averages. It also shows a comparison between the same dimensions in the future (2016 after the proposed expansions) and the mean/weighted averages from that same year. In each dimension for comparison, the lower number between mean and weighted average was utilized. Expansion numbers for the mean/weighted average was calculated on a 3.5% expansion per year, except for population increases, which were increased at a rate of 2% per year. This chart will provide a view of the impact of the implementation of Model One Basic Services Plan.

Appendix C: Big Thompson Canyon and LFRA

With the establishment of Loveland Rescue Fire Authority (LFRA), the decision for inclusion of the Big Thompson Canyon Volunteer Fire Department (BTCVFD) as part of LFRA was processed. This appendix item addresses the issues surrounding the history, process for inclusion, and the present and future status of the BTCVFD.

History
The BTCVFD was a separate fire department from the Loveland Fire and Rescue Department prior to the creation of the Fire Authority. BTCVFD had its own Fire Department ID number (FDID), had its own staff and chain of command, and managed its own training and operations. The Department was a part of the Loveland Rural Fire Protection District and was funded separately from the contributions made from the Rural District to the City of Loveland for the contract for fire protection services.

Process
When the decision was made to move forward with the establishment of the Fire Authority, discussions were also taking place within the Rural District Board and the Fire Chief about the inclusion of the BTCVFD as part of the Fire Authority. The decision was made to have the Fire Chief and his staff provide as much information as possible to the BTCVFD members related to the Fire Authority, advantages and disadvantages for inclusion, and other information. Once the members of the BTCVFD felt that they had enough information to proceed, their fire chief would make a recommendation to the Rural District Board representing the desire of the Canyon Department on the issues of inclusion. During the latter part of 2011, the BTCVFD Chief recommended to the Rural District Board the Department's desire to be a part of the newly created LFRA.

Present and Future Status
With the inclusion of the BTCVFD into LFRA very few changes, organizationally or operationally, are being made. Perhaps the biggest change is that some of the autonomy for the Canyon Department has been removed by adding the BTCFVD chief's position into the Fire Authority organizational chart at the division chief level. This places the Canyon Chief under the authority of the Fire Chief for LFRA. However, BTCVFD will still maintain a great deal of its autonomy for the present and near future. The Canyon Department will continue with the Department's own standards and certification requirements, funding for the BTCVFD will continue to be provided separately by the Rural District, and BTCVFD will continue to have its own officers and chain of command. As with all of the many changes and provisions outlined in the LFRA 2012 Strategic Plan, inclusion of BTCVFD as part of the Fire Authority will be a work in progress and will require periodic evaluation for operational success. It is also possible that the staff and firefighters within the BTCVFD will change in the future and they themselves may want to review the provisions within the IGA that establish the inclusions of the BTCVFD as part of LFRA. Any decision to change the status of the BTCVFD within the Fire Authority will ultimately be made by the Loveland Rural Fire Protection District Board of Directors.

Appendix D: INTERGOVERNMENTAL AGREEMENT (IGA) ESTABLISHING THE FIRE AUTHORITY

INTERGOVERNMENTAL AGREEMENT FOR THE ESTABLISHMENT AND OPERATION OF THE LOVELAND FIRE RESCUE AUTHORITY AS A SEPARATE GOVERNMENTAL ENTITY

THIS INTERGOVERNMENTAL AGREEMENT is entered into this _____ day of _____, 2011, by and between the **CITY OF LOVELAND**, a Colorado home rule municipality, ("City") and the **LOVELAND RURAL FIRE PROTECTION DISTRICT**, a Colorado Special District, ("District"). The City and the District shall be jointly referred to as the "Parties" and individually as "Party."

WITNESSETH

WHEREAS, the District was formed in 1950; and

WHEREAS, since 1950, the District and the City, through the Loveland Fire and Rescue Department, have provided fire and emergency services to the District through a series of agreements between the Parties, the last being the Parties' Intergovernmental Agreement dated December 6, 2006 (the "2006 IGA"); and

WHEREAS, under the 2006 IGA and previous agreements between the Parties, the District has provided fire apparatus, equipment and supplies to the City for use by the Loveland Fire and Rescue Department to provide fire and emergency services both within the boundaries of the District and the City; and

WHEREAS, this relationship between the Parties has been mutually beneficial in providing quality fire and emergency services to persons and property within the Parties' respective jurisdictions; and

WHEREAS, the Parties have determined that it is in their best interests and that of their respective citizens, property owners, and visitors to form a separate governmental entity to be known as the Loveland Fire Rescue Authority to provide fire and emergency services within the Parties' respective jurisdictional limits beginning on January 1, 2012, as provided in this Agreement; and

WHEREAS, the City and the District each have the legal authority to enter into this Agreement pursuant to C.R.S. § 29-1-203(1) since each is lawfully authorized to provide fire and emergency services within their respective jurisdictions and, therefore, the Parties have the legal authority under C.R.S. § 29-1-203(4) to establish in this Agreement the Loveland Fire Rescue Authority as a separate governmental entity.

NOW, THEREFORE, IN CONSIDERATION OF THE MUTUAL COVENANTS CONTAINED HEREIN, AND OTHER GOOD AND VALUABLE CONSIDERATION,

THE RECEIPT AND SUFFICIENCY OF WHICH ARE HEREBY ACKNOWLEDGED, THE PARTIES AGREE AS FOLLOWS:

ARTICLE I: CREATION AND GOVERNANCE OF THE AUTHORITY

Section 1.1 Creation of the Authority and Termination of the 2006 IGA

(a) The City and the District by this Agreement and pursuant to C.R.S. § 29-1-203(4) hereby establish as a separate governmental entity the Loveland Fire Rescue Authority (the "Authority"). The Authority shall be a legal entity separate and distinct from the City and the District.

(b) The City and the District agree that effective at 12:01 a.m. on January 1, 2012, the 2006 IGA shall terminate and this Agreement shall replace and supersede the 2006 IGA in all respects.

Section 1.2 Governing Board

The governing body of the Authority shall be a board of directors consisting of five (5) members (the "Board"). All of the legislative and administrative powers of the Authority shall be vested in the Board except as otherwise provided in this Agreement. The Loveland City Council (the "City Council") shall appoint three (3) members and the District's board shall appoint two (2) members to the Board. The City Council shall appoint two (2) members of the City Council and the City Manager. In lieu of the City Manager, the City Council may appoint another City employee. The District's board shall appoint two (2) members of the District's board. In the event that any member is no longer an elected or appointed official of either of the Parties, that appointed member shall no longer be a member of the Board, and the member's seat on the Board shall be vacant. All vacancies on the Board shall be filled by the governing body of the appointing Party.

Section 1.3 Quorum

A quorum for the transaction of business at all meetings of the Board shall be three (3) members provided that one of the members is a District member.

Section 1.4 Meetings of the Board

(a) Regular meetings. The Board shall hold regular monthly meetings at a time and place fixed by resolution of the Board.

(b) Special meetings. The Board may conduct special meetings when necessary. Special meetings shall be called as provided in the By-laws adopted by the Board. At a minimum, special meetings shall be preceded by twenty-four (24) hours prior written notice to all members of the Board. A special meeting of the Board may be called by the chairperson of the Board or upon the request of two Board members.

(c) Colorado Open Meetings Law and Open Records Act. The Board shall be subject to the terms and provisions of the Colorado Open Meetings Law, C.R.S. Section 24-6-401 et seq., and of the Colorado Open Records Act, C.R.S. Section 24-72-200.1 et seq.

Section 1.5 By-laws and Policies

The Board shall adopt By-laws and/or any necessary policies governing the responsibilities and duties of the Board consistent with the terms and conditions of the Agreement. The By-laws and any amendments thereto shall be approved by the City Council and the District's board before going into effect.

Section 1.6 Voting

Each member of the Board shall have one vote. The affirmative vote of a majority of the Board members present and constituting a quorum shall be required for any action of the Board.

Section 1.7 Actions Requiring a Vote of More Than a Majority of the Board

The following actions shall require an affirmative vote of at least four members of the Board:

(a) The location of any new fire station; and

(b) The approval of the Authority's annual budget.

Section 1.8 Officers

The Board shall elect a chairperson and vice chairperson from its members, and shall appoint a secretary who may, but need not, be a member of the Board. Said officers shall perform the duties customary for said offices including the following:

(a) the chairperson shall sign all contracts on behalf of the Authority, except contracts or agreements that may be signed by the Fire Chief as authorized by the Board and shall perform such other duties as may be imposed by the Board;

(b) the vice chairperson shall perform all of the chairperson's duties in the absence of the chairperson;

(c) the secretary shall attest to all contracts signed on behalf of the Authority and perform such other duties as may be imposed by the Board.

Section 1.9 Powers of the Authority

The Authority shall have and may exercise all the powers of the City and/or the District regarding fire and emergency services to the full extent permitted by law. The Authority shall also have the following specific powers:

(a) To make and enter into contracts;

(b) To employ agents and employees;

(c) To acquire, construct, manage, maintain, fund, plan and operate fire and emergency facilities, works, or improvements, or any interest therein;

(d) To acquire, hold, lease (as lessor or lessee), sell, or otherwise dispose of any real or personal property utilized for the purposes of providing fire and emergency services or for related or accessory purposes;

(e) To sue and be sued in its own name;

(f) To fix, maintain, and revise fees, rates, and charges for functions, services or facilities provided by the Authority to the full extent permitted by law. All such fees, rates and charges shall be approved by the City Council and the District board prior to becoming effective;

(g) To adopt policies respecting the exercise of its powers and the carrying out of its purpose consistent with the terms of this Agreement and the By-laws of the Authority;

(h) To enter into mutual and automatic aid agreements with other fire and/or emergency service organizations including other special districts, municipalities, counties, and sheriff offices, which agreements must be first approved by the Parties' governing bodies;

(i) To enter into lease purchase agreements for the acquisition of real and personal property;

(j) To incur debts, liabilities or obligations provided that no such debts, liabilities or obligations shall constitute a debt, liability or obligation of either the City or the District;

(k) To apply for, accept, receive and disburse gifts, grants, loans and any other aid from any governmental entity, political subdivision, other entity, or any person;

(l) To invest any unexpended funds that are not required for the immediate operation of the Authority, as the Authority determines is advisable, in accordance with state law;

(m) To administer and enforce the fire codes adopted by the City and the District;

(n) To have and use a corporate seal; and

(o) To exercise any and all other powers which are essential to the provisions of functions, services, or facilities by the Authority under this Agreement, any other Authority contract, or any applicable law.

The Authority shall not have the power of taxation or the power of eminent domain.

ARTICLE II: SERVICE AREA

The "Service Area" of the Authority shall be all lands and property within the jurisdictional boundaries of the City and the District.

ARTICLE III: ORGANIZATIONAL PROCEDURE

Section 3.1 Organization of the Authority

As soon as practicable after the date of this Agreement, the City and the District shall appoint the members of the Board as provided herein. As soon as practicable after appointment, the Board members shall schedule, notice and conduct an organizational meeting at which time the Board shall provide for its regular meetings, adopt By-laws, necessary policies, and elect officers.

Section 3.2 Delegation of Powers

The Parties each delegate to the Authority the power, duty and responsibility to provide fire and emergency services to each of the respective entities within the Service Area of the Authority including, without limitation, all fire suppression, prevention, emergency and rescue services, and related emergency management services. The Parties each agree, as more fully set forth in Article VI and VII of this Agreement, to provide personnel, fire stations, apparatus and equipment to the Authority. The Parties each agree to cooperate with the Authority in order to assist the Authority in carrying out its duties and responsibilities pursuant to the terms and conditions of this Agreement. The powers delegated to the Authority pursuant to this Agreement include any and all of the powers necessary or desirable to provided continued, efficient and economical fire protection, suppression, and emergency services to all persons and property within the Service Area.

Section 3.3 Personnel

The Authority may employ personnel necessary to carry out its powers, duties and responsibilities. Said employment shall be on the terms and conditions established by the Board.

ARTICLE IV: BUDGET AND AUDIT

Section 4.1 Annual Budget

The Board shall adopt an annual budget for maintenance and operation costs, capital costs, costs of services, and personnel costs, which shall include the costs related to the City's employees assigned under this Agreement. The Board shall submit the budget to the Parties' respective governing bodies for their approval . The Authority's proposed budget shall become effective only after approval by the Parties' respective governing bodies. Any supplemental appropriation by the Authority shall also be approved by the Parties' respective governing bodies before becoming effective. The Authority shall also comply with all applicable requirements of the Local Government Budget Law of Colorado.

Section 4.2 Accounts and Audits

The Authority shall provide for the keeping of accurate and correct books of account, showing in detail the capital costs, cost of services, and maintenance and operation costs of the Authority's facilities in accordance with all applicable laws and generally accepted accounting principles. Said books and records shall be open to inspection at all times during normal business hours by any authorized representative of the Parties. The Board shall provide for the auditing of all the Authority's books and accounts and other financial records pursuant to the applicable requirements of the Colorado Local Government Audit Law and the Colorado Local Government Uniform Accounting Law. The results of said audit shall be presented to the City and the District not later than thirty (30) days after acceptance by the Board.

ARTICLE V: FUNDING OF THE AUTHORITY

Section 5.1 Payment of Costs

Beginning on January 1, 2012, and monthly in advance thereafter for each calendar year during the term of this Agreement, the City and the District shall each pay to the Authority its respective allocated monthly share of all of the total estimated monthly costs and expenses of the Authority as set forth in its annual budget. The allocation is set forth on **Exhibit A** attached hereto and incorporated by reference.

Section 5.2 Budgeted Expenditures

The requirement for funding either the City's or the District's obligation pursuant to this Agreement is subject to each of the Parties' annual budgeting process. Nothing herein shall constitute a multiple fiscal year obligation pursuant to Article X, Section 20 of the Colorado Constitution, or any other constitutional or statutory requirement of the State of Colorado. Notwithstanding any other provisions of this Agreement, the City and/or the District's obligations under this Agreement are subject to annual appropriation by the Parties' respective governing bodies. The Parties shall each give prompt written notice to the other Party and the

Authority of an individual Party's failure to appropriate adequate monies to meet its annual obligations pursuant to the terms and conditions of this Agreement.

Section 5.3 Authority Revenues

The Authority shall be entitled to keep all revenues of the Authority derived from fees, gifts, grants, interest on invested funds, sale of assets of the Authority, and other miscellaneous revenues. All anticipated Authority revenues for each fiscal year shall be reflected in the Authority's annual budget. The Authority shall be entitled to use all of its revenues in furtherance of its responsibilities set forth herein in accordance with the Authority's approved budget and any approved supplementals to that budget.

Section 5.4 Authority Fund

The Parties agree that there shall be established an Authority Fund with the City to account for all financial transactions of the Authority in accordance with generally accepted accounting principles and any applicable state law.

ARTICLE VI: CITY'S RESPONSIBILITIES

Section 6.1 Lease of Real Property

The City hereby leases all of its existing fire stations and all of the portions of any City building and/or real property directly and currently used for fire and emergency services (collectively the "Real Property") to the Authority at no cost to the Authority. This lease of the Real Property shall be for an initial one-year period with automatic renewals for additional successive one-year periods subject to termination upon the termination of this Agreement. The District agrees that in the event this Agreement is terminated as provided in this Agreement, that this lease of the Real Property shall automatically terminate and the City shall be entitled to retake and retain sole and exclusive possession and control of all of the Real Property without the need for any judicial process to evict the Authority or the District from the Real Property or in any other manner to take exclusive possession and control of the Real Property from the Authority or the District.

Section 6.2 Lease of Personal Property

The City hereby leases all of its existing fire equipment and apparatus and other existing personal property directly used by it for fire and emergency services (collectively the "Personal Property") to the Authority at no cost to the Authority. This lease of the Personal Property shall be for an initial one-year period with automatic renewals for additional successive one-year periods subject to termination upon the termination of this Agreement. The District agrees that in the event this Agreement is terminated as provided in this Agreement, this lease of Personal Property shall automatically terminate and the City shall be entitled to retake and retain sole and exclusive possession and control of all of the Personal Property without the need for any judicial process to replevin the Personal Property from the Authority or the District or in any other

manner to take exclusive possession and control of the Personal Property from the Authority or the District.

Section 6.3 Fire Department Personnel

(a) The City agrees to assign all personnel of the Loveland Fire and Rescue Department, including the Fire Chief, to the Authority for use by the Authority in the provisions of fire and emergency services within the Service Area under this Agreement. Said personnel shall remain employees of the City and shall remain subject to all of the City's and the Fire and Rescue Department's personnel policies, rules and regulations, now existing and as hereinafter amended or added, including but not limited to, job positions/descriptions, promotion and ranking systems; pay and benefits; employment status; and all other City personnel policies, rules and regulations.

(b) The Parties agree that notwithstanding the assignment of the City's Loveland Fire and Rescue Department personnel to the Authority under this Agreement and notwithstanding any state law providing otherwise including, without limitation, C.R.S. § 29-5-108, any liability accruing to such personnel for their negligent or other tortious conduct occurring while assigned to the Authority under this Agreement shall continue to be the City's responsibility and obligation for providing a defense and indemnification in accordance with the Colorado Governmental Immunity Act, C.R.S. §24-10-101, *et seq.*

(c) The Parties also agree that notwithstanding any state law to the contrary, and consistent with the provisions of C.R.S. §§ 29-5-109 and 29-5-110, if any City employee is injured, disabled, suffers an occupational disease, or dies while providing services to the Authority under this Agreement, that employee shall remain covered by and eligible for the workers' compensation and firefighters' pension benefits that the City employee would have otherwise been entitled to receive from the City if the injury, disability, occupational disease or death occurred without any assignment of that employee to the Authority under this Agreement.

Section 6.4 City Provision of Services

(a) The City shall provide the services set forth on **Exhibit B** attached hereto and incorporated by reference to the Authority. These services shall be provided by the City for the cost as set forth on **Exhibit B**.

(b) The Authority shall have the authority to obtain the services provided by the City to the Authority as listed in **Exhibit B** from third parties. The Authority shall give the City prior written notice of its intention to provide individual areas of service by third parties and not use City services. The notice shall be given before June 1 of any calendar year for any service to be terminated during the next calendar year.

ARTICLE VII: DISTRICT'S RESPONSIBILITIES

Section 7.1 Existing Equipment and Apparatus

The District hereby leases all of its fire equipment and apparatus (collectively the "Equipment") to the Authority at no cost to the Authority except the Equipment leased shall not include the fire equipment and apparatus now used by the Big Thompson Canyon Volunteer Fire Department (the "Canyon Department") which is described on **Exhibit C** attached hereto and incorporated by reference. This lease of the Equipment shall be for an initial one-year period with automatic renewals for additional successive one-year periods subject to termination upon the termination of this Agreement. The City agrees that in the event this Agreement is terminated as provided under this Agreement, that this lease of the Equipment shall automatically terminate and the District shall be entitled to retake and retain sole and exclusive possession and control of all of the Equipment without the need for any judicial process to replevin the Equipment from the Authority or the City or in any other manner to take exclusive possession and control of the Equipment from the Authority or the City.

Section 7.2 Mill Levy Election

The District shall seek voter approval in May of 2012 for a mill levy increase sufficient to fund the District's obligations pursuant to this Agreement.

ARTICLE VIII: BIG THOMPSON CANYON VOLUNTEER FIRE DEPARTMENT

The District shall continue to maintain and fund the Canyon Department. Set forth on **Exhibit C** attached hereto and incorporated by reference, is the organizational chart for the Authority which shows the Canyon Department Chief under the operational control of the City's Fire Chief. As provided in Section 7.1 above, **Exhibit C** also contains a list of the Canyon Department's apparatus and equipment that shall not be leased by the District to the Authority and shall be maintained by the District for use by the Canyon Department. The District shall continue to maintain the Big Thompson Canyon Volunteer Firefighters Pension Fund as a separate pension fund. The Authority and the City shall have no responsibility for funding of this pension fund or for funding any other costs related to the Canyon Department.

ARTICLE IX: TERMINATION

Section 9.1 Termination

Each of the Parties may terminate this Agreement by giving written notice to the other Party. Such notice shall be delivered to the other Party on or before January 1 of any year with the effective date of the termination of this Agreement being December 31 of said calendar year. Notwithstanding the foregoing, in the event the governing body of either of the Parties fails to appropriate in any year during the term of the Agreement its allocation payment required to be paid to the Authority under this Agreement, this Agreement shall terminate as of the date such

allocation payment not appropriated was due and payable. As provided in Section 5.2, the Party that has failed to appropriate the needed allocation payment shall give the other Party prompt written notice of such failure to appropriate.

Section 9.2 Disposition of Assets

Upon termination of this Agreement, the Real Property, the Personal Property and the Equipment shall be disposed of as provided above in Sections 6.1, 6.2 and 7.1. All other assets subsequently acquired by the Authority under this Agreement as the result of a special monetary contribution or direct conveyance received from one of the Parties, shall be returned to that contributing Party if said assets are still owned by the Authority. All remaining assets of the Authority, including any funds, shall be distributed to the Parties in proportion to the percent of allocation of funding of the Parties set forth on **Exhibit A**. The Parties understand and agree that said distribution shall be accomplished in a manner taking into consideration the service requirements for fire and emergency services within the respective jurisdictions of the individual Parties following termination of this Agreement.

ARTICLE X: CONSOLIDATED PENSION

The City and the District formed the Consolidated Firemen's Pension Fund of Loveland and Rural District (the "Consolidated Pension Fund") to meet the City's and the District's pension obligations to reserve firefighters. After January 1, 2012, the Authority shall be responsible for funding the City's and District's shares of the Consolidated Pension Fund. The Parties agree to consider appropriate amendments to the Consolidated Pension Fund Agreement to reflect the Authority's responsibility under this Article X.

ARTICLE XI: ANNEXATIONS OR EXCLUSIONS FROM THE DISTRICT

The District agrees not to annex property into the District without prior written approval of the City. The District shall not exclude property from the District without prior written approval of the City except for property located east of I-25 and south of County Road 18E which is annexed to the Town of Johnstown and included within the Johnstown Fire Protection District and properties located south of County Road 14 which are annexed to the Town of Berthoud and included within the Berthoud Fire Protection District.

ARTICLE XII: PINEWOOD LAKE FIRE PROTECTION DISTRICT

The District currently is a party to an intergovernmental agreement with the Pinewood Lake Fire Protection District. That agreement provides for certain fire and emergency services to be provided by the District to the Pinewood Lake Fire Protection District for payment as set forth in said agreement. The Parties agree that the Authority shall be responsible for providing those services required under the intergovernmental agreement between the District and

Pinewood Lake Fire Protection District. However, the District shall continue to receive the payments it is paid under the said intergovernmental agreement.

ARTICLE XIII: INSURANCE

The Authority, the District, and the City shall each maintain the insurance coverages as set forth on **Exhibit D** attached hereto and incorporated by reference.

ARTICLE XIV: TRANSITION

The Parties understand and agree that this Agreement is for a transitional period of five (5) years during which the Parties shall continue to evaluate the benefits, effectiveness, governance and operational efficiency of the Authority (the "Transition Period"). During its first six (6) months of its existence, the Authority shall develop a strategic plan for the Transition Period, but the plan may extend beyond the Transition Period, which addresses the provision of services by the Authority to the Service Area. The strategic plan shall be reviewed and updated yearly so that the Authority shall have in place at a minimum a continual five (5) year planning period. The strategic plan shall be submitted to the governing bodies of the District and the City for their approval.

ARTICLE XV: TERM

The term of this Agreement shall be for a period of five (5) years beginning on January 1, 2012, through December 31, 2016, and thereafter shall automatically renew on January 1 of the following year unless terminated as provided in this Agreement.

ARTICLE XVI: APPROPRIATION

To the extent this Agreement constitutes a multiple fiscal year debt or financial obligation of the City and/or of the District, it shall be subject to annual appropriation pursuant to the City Charter Section 11-6, any applicable District rule or regulation, and Article X, Section 20 of the Colorado Constitution. Neither Party shall have any obligation to continue this Agreement in any fiscal year in which no such appropriation is made.

ARTICLE XVII: ANNUAL REPORT

The Authority shall provide an Annual Report to the District and the City on or before May 1 of each year reporting financial and operational activities of the Authority during the previous year. The Authority shall also provide any periodic reports to the District and the City which the Authority deems necessary and provide any information or reports requested by either or both of the Parties.

ARTICLE XVIII: MISCELLANEOUS PROVISIONS

Section 18.1 Notices

Any notice required hereunder shall be in writing and shall be deemed sufficient and properly given if delivered in person or sent by United States certified mail, postage prepaid and return receipt requested, to:

CITY: City of Loveland
Attention: City Manager
500 East 3rd Street
Loveland, CO 80537

DISTRICT: Loveland Rural Fire Protection District
Attention: President
1423 West 29th Street
Loveland, CO 80538

Section 18.2 Consent

Whenever any provision of this Agreement requires consent or approval of the Parties, the same shall not be unreasonably withheld.

Section 18.3 Construction

This Agreement shall be construed according to its fair meaning and as if it was prepared by both Parties and shall be deemed to be and contain the entire agreement between the Parties. There shall be deemed to be no other terms, conditions, promises, understandings, statements or representations, expressed or implied, concerning this Agreement, unless set forth in writing and signed by both of the Parties. Paragraph headings in this Agreement are for convenience of reference only and shall in no way define, limit or prescribe the scope or intent of any provision of this Agreement.

Section 18.4 Severability

In the event any provision of this Agreement is determined to be illegal or invalid for any reason, all other provisions of this Agreement shall remain in full force and effect unless and until otherwise determined. The illegality of any provision of this Agreement shall in no way affect the legality and enforceability of any other provision of this Agreement.

Section 18.5 Time of the Essence

Time shall be of the essence for each and every term and condition of this Agreement.

Section 18.6 Assignment and Delegation

The Parties shall neither assign any of their respective rights created nor delegate any of their respective duties imposed by this Agreement without the prior written consent of the other Party. Any such assignment of rights or delegation of duties without such prior written consent shall be deemed null and void.

Section 18.7 Governmental Immunity

Notwithstanding any other provision of this Agreement to the contrary, the Parties agree that no term or condition of this Agreement shall be construed or interpreted as a waiver, expressed or implied, of any of the Parties' immunities, rights, benefits, protections, limitations of liability, or any other provisions under the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, *et seq.* or under any other law.

Section 18.8 Indemnification

The Parties agree that the Authority shall indemnify and hold harmless the City and/or the District, and its officers, insurers, volunteers, representatives, agents, employees, and other assigns from and against all claims, liability, damages, losses, expenses, and demands, including attorney's fees on account of injury, loss, or damage, including, without limitation, claims arising from bodily injury, personal injury, sickness, disease, death, property loss or damage, which arise out of the negligent act, omission, error, professional error, mistake, negligence, or other negligent fault of Authority, any subcontractor of Authority, or any officer, employee, representative, or agent of Authority, or which arise out of any workmen's compensation claim of any employee of Authority or of any employee of any subcontractor of Authority. In any and all claims against the City and/or the District or any of its officers, insurers, volunteers, representatives, agents, employees or assigns, by any employee for whose act any of them may be liable, the indemnification obligation under this Section shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Authority or any subcontractor under worker's compensation actions, disability benefit acts or other employee benefit acts. In the event it becomes necessary for the City and/or the District to bring any action to enforce any provision of this Indemnity or to recover any damages the City and/or District may incur as a result of the breach of this Indemnity, and the City and/or District prevails in such litigation, the Authority shall pay the City and/or District its reasonable attorney's fees as determined by the court.

Section 18.9 Third Party Beneficiary

This Agreement is made for the sole and exclusive benefit of the City, the District and the Authority, and is not made for the benefit of any third party.

Section 18.10 Governing Law and Venue

This Agreement shall be governed by the laws of the State of Colorado, and venue shall be in the District Court for the County of Larimer, State of Colorado. In addition, the Parties recognize the legal constraints imposed upon them by the constitutions, statutes, and regulations of the State of Colorado and of the United States, imposed upon the City by its Charter and Municipal Code, and imposed upon the District by its rules and regulations, and subject to such constraints, the Parties intend to carry out the terms and conditions of this Agreement. Notwithstanding any other provision of this Agreement to the contrary, in no event shall either of the Parties exercise any power or take any action which shall be prohibited by applicable law.

Section 18.11 Waiver

No waiver by either of the Parties of any of the terms and conditions of this Agreement shall be deemed to be or shall be construed as a waiver of any other term or condition, nor shall such a waiver of any breach of this Agreement be deemed to constitute a waiver of any subsequent breach of the same provision of this Agreement.

Section 18.12 Default and Remedy

Each and every term and condition of this Agreement shall be deemed to be a material element of the Agreement. In the event that either of the Parties shall fail to perform according to any term or condition of this Agreement, such Party may be declared in default by the other Party. In the event that a Party has been declared in default hereof, such defaulting Party shall be given written notice by the non-defaulting Party specifying such default and shall be allowed a period of ten (10) days in which to cure said default. In the event the default remains uncorrected within such notice period, the Party declaring the default's sole remedy shall be to terminate this Agreement and seek damages. The non-defaulting Party shall not be entitled to any right of specific performance or any other remedy at law or in equity.

Section 18.13 Successors

This Agreement shall be binding upon and shall inure to the benefit of the successors of the Parties.

This Agreement is entered into as of the date and year first above written.

CITY OF LOVELAND

By: _____
William D. Cahill, City Manager

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
City Attorney

LOVELAND RURAL FIRE PROTECTION DISTRICT

By: _____

ATTEST:

_____

EXHIBIT A

The allocation of payment of the cost and expenses of the Authority are as follows:

City of Loveland	82%
Loveland Rural Fire Protection District	18%

EXHIBIT B

2011 Indirect Costs for Fire Authority Model

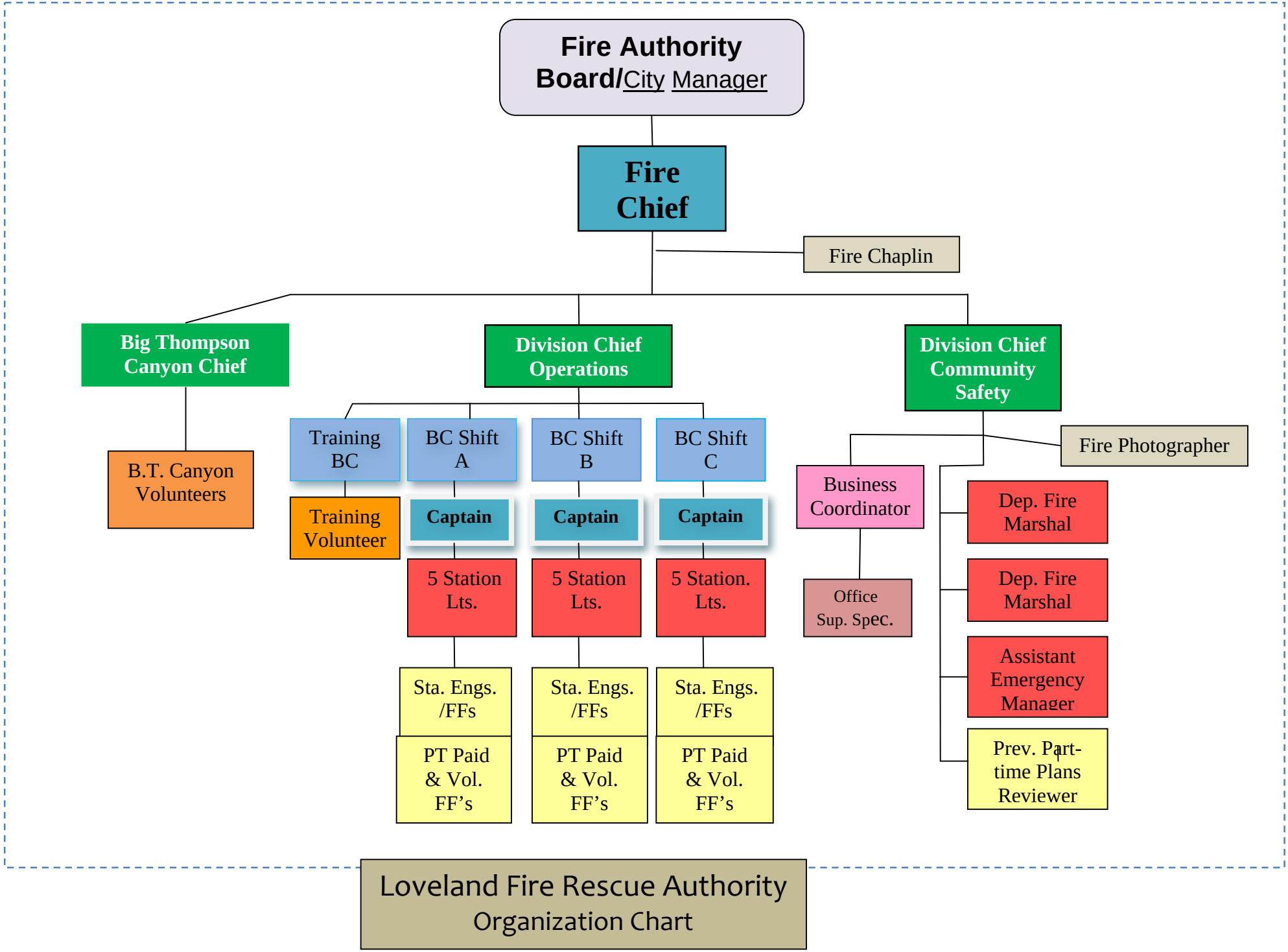
Cost to be Allocated	2011 Original Adopted Budget	Basis of Allocation		Calculation
City Manager's Office	448,680	30% addressing council other 70% split evenly between 14 departments (70/14 depts.=5)	5% of 70%	15,704
City Attorney	848,010	Estimated % of Time	14 hours a month M.G. & J. D. or 168 hrs./4160=4%	33,920
Budget	148,000	% Fire of Total Budget excluding transfers	4%	5,920
Accounting/Purchasing	807,810	% Fire of Total Budget excluding transfers	4%	32,312
Human Resources	1,004,320	Number of benefited full and part-time fire department employees to total employees (does not include benefits allocation because that is directly charged to the depts..)	61 of 692 or 8.8%	88,380
IT Programming & Networks	1,151,630	Estimated Time for Programmer (could be an unusual occurrence since there was a software installation in 2007)	40% of K.S.	36,493
IT Support Services	1,487,500	Number of peripherals (laptops, printers, PCs)	14 printers and 44 PCs out of total 915 in the city for 6%	89,250
Facilities		Total square feet for all stations (includes cap replacement)	59,710 sq. ft. at 5.45/sq. ft.	325,420
Dispatch	1,612,270	Call volume	10%	161,227
		Total Cost of Administrative Services to the Fire Department		788,626

$7,837,730 *Total 2011 Fire Department Budget including Capital indirect costs as a percentage of total Fire Department Budget w/Capital* *10.1%*

$7,590,470 *Total 2011 Fire Department Budget w/o Capital indirect costs As a percentage of total Fire Department Budget w/o Capital* *10.4%*

EXHIBIT C

(see following page)



Loveland Fire Rescue Authority
Organization Chart

EXHIBIT D

The Authority, the District and the City (collectively the "Insureds" and individually "Insured") shall each provide and maintain the following insurance coverages during the term of this Agreement:

a. Comprehensive General Liability Insurance. Each Insured shall procure and keep in force during the duration of this Agreement a policy of comprehensive general liability insurance insuring the Insured and naming the other two Insureds as additional insureds against any liability for personal injury, bodily injury, or death with at least Two Million Dollars ($2,000,000) each occurrence.

b. Comprehensive Automobile Liability Insurance. Each Insured shall procure and keep in force during the duration of this Agreement a policy of comprehensive automobile liability insurance insuring the Insured and naming the other two Insureds as additional insureds against any liability for personal injury, bodily injury, or death arising out of the use of motor vehicles and covering operations on or off the site of all motor vehicles controlled by the Insured which are used in connection with its operations under this Agreement, whether the motor vehicles are owned, non-owned, or hired, with a combined single limit of at least Two Million Dollars ($2,000,000).

c. Terms of Insurance.

(i) Insurance required by this Agreement shall be with companies qualified to do business in the State of Colorado with a general policyholder's financial rating of not less than A+3A as set forth in the most current edition of "Best's Insurance Reports" and may provide for deductible amounts as the Insureds deem reasonable. No such policies shall be cancelable or subject to reduction in coverage limits or other modification except after thirty (30) days prior written notice to the other Insureds named as additional insureds. Each Insured shall identify whether the type of its coverage is "occurrence" or "claims made." If the type of coverage is "claims made," which at renewal changes to "occurrence," the Insured shall carry a six (6)-month tail. Each Insured shall not do or permit to be done anything that would invalidate their respective policies.

(ii) The policies described in subparagraphs a. and b. above shall be for the mutual and joint benefit and protection of the Insureds. Each of the Insured's policies shall provide that the other two Insureds named as additional insureds shall be entitled to recovery under said policies for any loss occasioned to it, its officers, employees, and agents by reason of negligence of the Insured, its officers, employees, agents, subcontractors, or business invitees. Such policies shall be written as primary policies not contributing to and not in excess of coverage each of the Insureds may carry.

(iii) The Insureds may each provide for the insurance coverages partially or wholly by means of a self-insurance pool.

d. Workers' Compensation and Other Insurance. During the term of this Agreement, each Insured shall procure and keep in force workers' compensation insurance and all other insurance required by any applicable law.

e. Evidence of Coverage. Each Insured shall furnish to the other two Insureds certificates of insurance policies evidencing the insurance coverage required by this Agreement.

CITY OF LOVELAND
PUBLIC WORKS DEPARTMENT
Administration Offices • 410 East Fifth Street • Loveland, Colorado 80537
(970) 962-2555 • FAX (970) 962-2908 • TDD (970) 962-2620

AGENDA ITEM: **2**
MEETING DATE: 9/25/2012
TO: City Council
FROM: Keith Reester, Public Works Department
PRESENTER: David Klockeman, PE, City Engineer

TITLE:
2035 Transportation Plan Update

RECOMMENDED CITY COUNCIL ACTION:
This item is for information and discussion with Council.

DESCRIPTION:
This is a discussion item with Council to review and provide feedback for the 2035 Transportation Plan prior to commencement of the public input process. The 2035 Transportation Plan includes the Capital Projects and associated costs through 2035. This includes anticipated collections and expenditures of Capital Expansion Fees, Other Funding (CDOT, FHWA and other outside sources) and the General Fund.

SUMMARY:
Discuss status of 2035 Transportation Plan (see attachments for additional information).

The primary topics are:
- Draft 2035 Transportation Plan
- Model development, including land use and regional impacts
- Draft project cost estimates
- Draft 2035 Capital Program
- Action Plan Forward – from today through plan adoption.

REVIEWED BY CITY MANAGER: William D Cahill

LIST OF ATTACHMENTS:
1. Staff Memo concerning status of 2035 Transportation Plan
2. Draft 2035 Transportation Plan Document
3. Draft Map of proposed projects include in 2035 Plan
4. 2035 Transportation Plan Update PowerPoint Presentation

CITY OF LOVELAND

PUBLIC WORKS ENGINEERING

410 E. 5th Street • Loveland, Colorado 80537
(970) 962-2627 • Fax (970) 962-2908 • TDD (970)-962-2620
www.ci.loveland.co.us

M E M O R A N D U M

To: City Council

Thru: Keith Reester, Public Works Director

From: David Klockeman, City Engineer

Re: Study Session for September 25, 2012 – 2035 Transportation Plan / Street Capital Expansion Fees (CEFs) Update

Date: September 18, 2012

Over the past months, Public Works Staff has been working in conjunction with the Community and Strategic Planning Division, our Consultant, and the North Front Range Metropolitan Planning Organization to update the existing 2030 Transportation Plan to the 2035 Transportation Plan. At this time, a draft of the 2035 Transportation Plan has been developed, including recommendations for the Capital Improvement Projects anticipated for completion between now and 2035. Prior to commencement of the public input process, this information is being presented to City Council at a Study Session for discussion.

Building the Plan:

Updating from 2030: The 2030 Transportation Plan provided a solid starting point with specific areas identified for detailed review. These specific review items were based on input received over the last several years as well as Public Works thorough review of the entire document. The 2035 Transportation Plan builds on this information.

Land Use Component: Probably the most critical component of the development of the plan is to not only look at the anticipated traffic generated within Loveland but the surrounding area as well in order to model the overall proposed traffic, separating out existing traffic, additional traffic from anticipated growth over the next 25 years, and pass through traffic (traffic that drives through Loveland – otherwise referred to as External to External or "E to E" traffic). In order to accomplish this, Public Works Staff worked closely with Karl Barton of the City's Community and Strategic Planning Division, who in turn worked closely with the NFRMPO, in order to develop anticipated growth in and around Loveland for input into the model. This "Trends Likely" approach of growth for the City of Loveland is consistent with the approach studied and

agreed to as part of the development and adoption of the 2020 and 2030 Transportation Plans. Through close coordination, this iterative process has resulted in a solid foundation for the overall plan used in the development of the 2035 Transportation Plan..

Project Cost Estimates: The next critical item was the review and recalculation of project cost estimates included in the 2030 Transportation Plan. As part of the adoption of the 2030 Transportation Plan, Council concurred with the Staff recommendation that the cost estimates would be re-done with a major update. Therefore, all roadway, intersection, traffic signal and other projects cost estimates were fully updated as part of the 2035 Transportation Plan process..

Key Elements:

The key elements of the 2035 Transportation plan are as follows:

- The proposed Plan is based on anticipated growth within Loveland ("Trends Likely Development").
- The proposed Plan is intended to continue to provide Level of Service C or better for City roadways consistent with current policies and a proposed change to Level of Service D for the sections of CDOT roadways within Loveland (US 287, US 34 and SH 402). The proposed change to Level of Service D for the CDOT roadways is due to providing consistency with CDOT and other entities policies on these corridors, and reflective of a number of exemptions previously granted by City Council.
- Identification of projects anticipated through 2035 to provide an adequate transportation system to meet the projected growth for Loveland and the adjacent area.
- Prioritization of projects within the Plan would be based on a project ranking process developed by Public Works Staff.
- The proposed Plan consists of funding from the following sources:
  - Capital Expansion Fees (CEF's) – fees paid at Building Permit.
  - Collector Street Equivalent (CSE's) – the portion of the street frontage of an arterial street equal to a collector street portion, paid for by the adjacent land owner. (Note: Currently, development is responsible for the full cost of constructing local streets and collectors related to their projects with no reimbursement for Oversizing. If a developer is required to construct an arterial street, then Oversizing picks up the difference between the cost of the arterial and a "collector street equivalent".
  - Other – funds that come from outside sources, such as the Colorado Department of Transportation and the Federal Highway Administration
  - General Fund – the portion of the project costs that come from the City's general fund best described as the remaining portion needed to fund a project after all of the other sources are considered (CEF, CSE and Other).
  - Centerra Metro District – projects included as part of the Master Finance Agreement that are anticipated to be constructed within the timeframe of the 2035 Transportation Plan. These projects include those on Loveland's street system as well as Regional Improvements.

The following table reflects the preliminary breakdown of the funding sources:

	Proposed 2035 Plan	**2030 Plan**
City Share	$33,964,009	$47,272,272
CEF Share	$129,226,011	$123,038,745
Street Equivalent	$44,009,280	$27,959,800
CDOT Share	$37,784,700	$51,305,150
Subtotal	**$244,954,000**	**$249,575,967**
Centerra – Local	$117,144,630*	$100,853,500
Centerra - Regional	$101,500,000*	$100,000,000
Subtotal	**$218,644,630***	**$200,853,500**
TOTAL	**$463,598,630**	**$450,429,467**

*Remaining Costs (Adjusted to 2012 dollars)

Summary:

The attached information represents a proposed 2035 Transportation Plan that:

- Reflects the growth for Loveland based on information from the City's Community and Strategic Planning Division and the NFRMPO;
- Reflects improvements that would allow for transportation infrastructure to support the anticipated City-wide growth;
- Reflects updated cost estimates;
- Reflects the projects included in the Centerra Master Finance Agreement;
- Includes the "ultimate improvements" for all projects so that, if needed, proposed roadway improvements can reduced to interim sections to allow for additional projects without compromising the entire plan;
- Addresses key corridors in the City;
- Includes updated Transit system information;
- Includes projects identified in the City's Bicycle and Pedestrian Plan not included in specific 2035 Capital Projects; and
- Includes provisions for Street Maintenance needs for existing and proposed street system.

Going Forward:

- September 25th – Council Study Session
- October 1st – TAB Discussion (Draft Document)
- Staff Adjustments based on Council / TAB input
- October 17th – Open House
- October 22nd – Planning Commission Study Session
- October 24th – Construction Advisory Board Study Session
- November 5th – TAB – Report on other meetings
- Additional Plan Revisions by Staff
- November 26th – Planning Commission Public Hearing and Recommendation to Council
- November 27th – Council Study Session
- December 3rd – TAB – Final Document / Recommendation to Council
- December 18th - Council Public Hearing and Adoption

Staff looks forward to discussing the proposed 2035 Transportation Plan in detail at the Study Session.

If you have any questions or comments, or need additional information, please do not hesitate to contact Keith Reester at (970) 962-2520 or by email at keith.reester@cityofloveland.org or David Klockeman at (970) 962-2514 or by email at dave.klockeman@cityofloveland.org.

2035 Transportation Plan

City of Loveland

LSA
LSA ASSOCIATES, INC.

FOX TUTTLE
TRANSPORTATION GROUP

Draft

September 2012

City of Loveland

2035 Transportation Plan

Draft

September 2012

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MAPS

Section 1: Purpose & Process

Introduction

Located along the eastern base of the Rocky Mountains, the City of Loveland enjoys a spectacular natural setting, serving as a gateway to Rocky Mountain National Park and the mountain communities to the west. Its residents enjoy a high quality of life and have expressed a desire to preserve it. The City has a diverse employment base, attracting clean, high tech industry. There are many other public and private amenities, including recreation and cultural facilities, as well as natural amenities such as the Big Thompson River, the Hogback areas, and many lakes that make Loveland an attractive place to live.

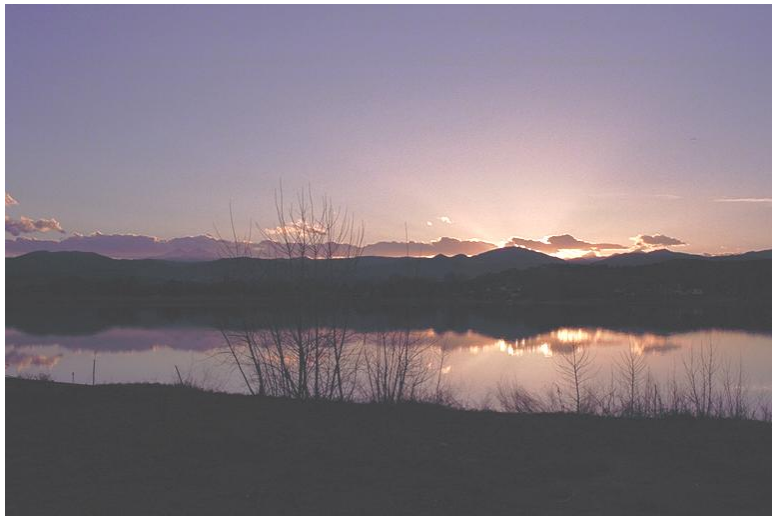
With a population around 69,000 in 2012, Loveland is typical of many of the communities along the Front Range. It continues to experience above average population growth and the corresponding traffic congestion concerns. Loveland's land use plan anticipates substantial new commercial and employment development along east Eisenhower Boulevard and the I-25 corridor. New residential development will likely be predominantly single family in the northwestern and southeastern sectors of the City. Additional industrial development is forecast near and east of the Fort Collins-Loveland Airport. New schools will also be required to serve the growing population.

These factors continue to have a dramatic effect both today and on the future of Loveland's transportation system. Mobility in the community plays a large role in the standard of living for residents. A well-balanced, well-maintained transportation system is critical for sustaining Loveland's high quality of life.

The 2035 Transportation Plan is an update to the 2030 Transportation Plan, prepared in 2007. The 2035 Transportation Plan addresses these trends through the year 2035 and provides a summary of the changes between 2007 and 2012. Considerable research and analysis contributed to the preparation of the 2035 Plan. This 2035 update reflects the changes that have occurred over the last several years. As part of this document, summary maps have been prepared to convey the essential information in a concise, graphical format that is easy for the average reader to understand.

Purpose

The primary purpose of the Transportation Plan is to provide a thorough yet easily understandable document that guides transportation decision making toward a future desirable to the community of Loveland. The last major transportation plan was completed in 2007. An update of this plan was needed to address the changes the community has experienced in recent years. The 2035 Transportation Plan is an update of the 2030 Transportation Plan's look at all modes of transportation—bike, pedestrian, transit, and automobile – and is an update to the long-term plan for improving Loveland's transportation systems. The plan includes updated recommendations, policies, and strategies to ensure that a high quality of life is preserved over the next 23 years.



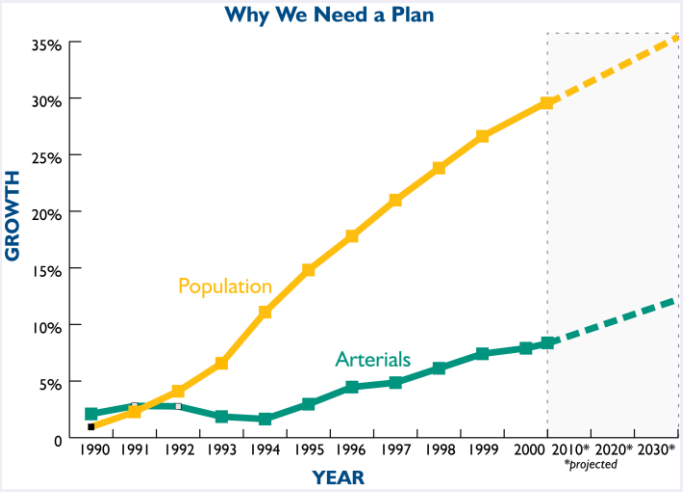
Sunset over the Rocky Mountains west of Loveland

Why do we need a Plan?

While there are many benefits associated with Loveland's population growth and development, the transportation system is not growing fast enough to accommodate the new demand. Each year, new streets are constructed and widened, but arterial street construction has not kept pace with growth in recent years.

If trends continue, Loveland will need to provide new transportation facilities and make difficult decisions about where, when, and how to accommodate traffic. The 2035 Transportation Plan updates the analysis of these trends and provides direction and guidance for Loveland's transportation future.

Graph of Population Growth from 1990 through 2035



The 2035 Transportation Plan is not a detail-oriented document. It is intended to establish transportation policies and to identify future improvement projects without determining the actual design. The plan lists the policies and goals City staff and elected officials will use for transportation decision-making over the next 23 years.

What are the important transportation planning issues?

The transportation planning process defined specific issues that were deemed necessary to address to ensure a strong and comprehensive transportation plan. The following issues, included in the development of the 2020 Transportation Plan, were identified through the public participation process:

Interdependent relationship of land use and transportation. Each has a major effect on the other and can create a negative "cycle of impacts" that is difficult to break.

Modes of surface transportation. The primary issues, costs, and impacts associated with each.

Levels of service for each transportation mode. The purpose, time, destinations, physical improvements, and policies needed to achieve a given service level and the associated costs and implications.

Growth patterns and design horizons. Need for consistency with the adopted Loveland Comprehensive Plan and the utility master plans. Must deal with the questions of where growth will occur, what type is needed, and how much should be allowed. Important to include the "build-out" scenario to address long-term needs.

Capital versus operating costs. Investigate the impacts building new infrastructure has on maintenance and operations activities and cost.

Financing options. Leave no stone unturned. Investigate all reasonable options for financing capital, operations, and maintenance costs for transportation.

Ongoing Transportation Advisory Board Involvement. The creation of the a citizen advisory board for City transportation policy, proposed in the 2020 Transportation Plan, came to realization in 2002, and has functioned as a sounding board and review group throughout the development of the 2030 Transportation Plan.

Transportation Goals and Objectives

As stated in the 2020 Transportation Plan, the City developed the Transportation Plan with citizen input on specific goals. Developing a shared vision for the future and the transportation system necessary to support that vision was an essential step in the planning process. The goal statements are a verbal expression of each aspect of the vision for the future. The following goals were identified in 2000 as priorities for meeting Loveland's future transportation needs and are still accurate today.

Transportation Plan Goals

- Recognize the important relationship between land use and transportation and develop appropriate policies that promote a long-term sustainable transportation system.
- Plan a safe, efficient, continuous, coordinated and convenient multi-modal transportation system that serves the needs of the community now and establishes the foundation for a transportation system that is sustainable for future generations.
- Develop transportation plans and policies that recognize the importance and value of the physical environment.
- Develop transportation plans that sustain the economic vitality of the community consistent with the Loveland Comprehensive Master Plan.
- Develop street access policies that balance the needs of property access with safety, community mobility, and street capacity.
- Develop long-term travel demand management policies that will allow the street system to maintain acceptable service levels far into the future.
- Investigate all reasonable funding strategies and develop a plan and an implementation strategy that recognizes current funding realities and limitations.
- Recommend a process for future review and amendment of this document, including the possible creation of a Transportation Policy Advisory Committee.

Planning Process

The process of updating the 2030 Transportation Plan involved a number of discrete steps as well as ongoing tasks and coordinating efforts. The public input component, for example, was active throughout the project, both directing and responding to the various stages of plan development. The first step in the planning process was to reaffirm the goals and objectives for the future of Loveland's transportation system. Second, each transportation system —bike, pedestrian, transit, and automobile— was reassessed to determine existing capacities and deficiencies. Third, using growth projections from the City's Community and Strategic Planning Division and neighboring areas through the North Front Range Metropolitan Planning Organization, combined with travel demand forecasts, development over the past 12 years, and current development trends, a long-range transportation model was developed to address the future travel needs of the community.

In reality, these steps were iterative and repeated a number of times throughout the process. Each of the above steps depends on future land use development scenarios, funding options, system improvements, and travel behavior choices. In order to examine a number of alternatives, this process was repeated, until an acceptable, affordable, and achievable plan for Loveland's transportation system emerged.

Public Participation

Transportation Advisory Board

The Transportation Advisory Board (TAB) was formed in 2002 to respond to a growing need for community participation in the evolving transportation issues facing Loveland. The purpose of the TAB is to serve in an advisory capacity to the City Council and City Staff on transportation issues. Their directive is to assist in the planning and development of multi-modal transportation systems, other than those considered solely recreational, by providing the Council and Staff with advice and recommendations related to the following:

- Local and regional transportation and transit matters, including those matters related to local and regional transportation projects and organizations.

- Policies, standards and code amendments concerning transportation and transit
- The City's ten-year capital improvements plan as it relates to transportation, transit revenues, and expenditures.
- Proposed amendments to the City's transportation master plan.
- Transportation and transit fees, rates and other charges to be approved by the Council.

Current Members of the TAB are: Bruce Croissant, Irene Fortune, Daniel Hill, David Martinez, Robert Massaro, Gary Thomas (Chair), Joan Shaffer (City Council Liaison).

Public Input

The 2035 Transportation Plan was developed with input from citizens, through public meetings and membership on the Transportation Advisory Board. Some of the purposes of the Transportation Advisory Board are to:

- **Guide the development** of the Loveland Transportation Plan,
- **Inform the community** of transportation issues being addressed and propose options,
- **Build community consensus** for the Transportation Plan,
- **Provide citizen input** to Staff, consultants, the Planning Commission, and the City Council regarding transportation policies and goals for the City of Loveland, and
- **Develop specific recommendations** for use by the Planning Commission and the City Council in approving a Transportation Plan for the City of Loveland.

In addition to the Transportation Advisory Board, there were several options for general public participation in the Transportation Plan's development. Three public meetings will be held at strategic points in the process to elicit public comment, in addition to two City Council Study Sessions, a Planning Commission and Construction Advisory Board Study Sessions.

Planning Context

Comprehensive Master Plan Overview

Within the City's Comprehensive Master Plan, there are many specific and general references to the Transportation Plan. This is desirable and necessary due to the fact that they are based on common elements (steps) identified in the Comprehensive Master Plan:

Step 1: The Community Profile: Where are we now?
Step 2: The Trend Statement: Where are we going?
Step 3: The Vision Statement: Where do we want to be?
Step 4: The Action Plan: How do we get there?

In addition, the development of future traffic projections is directly related to future development within Loveland, as identified in the City's Land Use Plan.

Related Plans & Studies

In order to compile relevant data and ensure coordination with concurrent transportation and land use planning efforts, a number of recent and ongoing transportation and land use studies and plans in the region were examined.

- **City of Loveland 2030 Transportation Plan.** The Loveland City Council adopted the current Transportation Plan in 2007. The Transportation Plan addresses growth trends, identifies changes in travel patterns, and establishes transportation policies to guide transportation decision-making into 2030. The 2030 Transportation Plan was developed with extensive input from citizens, Planning Commission, Transportation Advisory Board and City Council. This document proved to be an accurate representation of the long-term transportation needs for Loveland. However, it compressed road system needs into a 20-year period when 30 years has turned out to be a more realistic timeframe.

- **Loveland Comprehensive Master Plan Update.** The Loveland City Council adopted the current comprehensive master plan in September 2005. This plan was updated through extensive citizen, Planning Commission, and City Council involvement and addressed the major issues within the Loveland community since 1994. The plan's elements focus on the physical development of the community as well as the cultural, social, and educational aspects of Loveland. The Loveland Comprehensive Master Plan Update resulted in a revised community vision and short-term action plan based on the current state of the community.

- **East-West Mobility Study (EWMS).** In March of 1997, the City Council reviewed the recommendations of a citizen advisory group that studied, over the course of a year, the probable impacts of future growth on east-west mobility within the greater Loveland community. The study grew out of concern for plans to widen portions of Eisenhower Boulevard to six through lanes of traffic. The recommendations were summarized in a 24-page final report and included revisions to the street plan for Loveland. The street plan revisions were adopted by a City Council resolution.

- **Transit Development Plan (TDP).** The City of Loveland prepared a TDP to "identify needs and options and to develop a realistic, effective plan for community transit and ridesharing for the residents of Loveland and the surrounding area." The plan was completed in 2005 and evaluated existing services, growth, and development trends in order to develop transit options. As a result of this plan, service and route revisions occurred in 2006 and early 2007 to address the growing demand for the service. Additional future changes have not been approved by City Council.

- **North Front Range Metropolitan Planning Organization (MPO) 2035 Regional Transportation Plan (2035 RTP).** The NFR MPO's 2030 RTP includes consideration of planning factors {(A) support the economic vitality of the metropolitan area; (B) increase the safety and security of the transportation system for motorized and non-motorized users; (C) increase the accessibility and mobility options available to people and for freight; (D) protect and enhance the environment, promote energy conservation, and improve quality of life; (E) enhance the integration and connectivity of the transportation system, across and between modes, for people and freight; (F) promote efficient system management and operation; and (G) emphasize the preservation of the existing transportation system.}, to create a fiscally constrained plan as well as a vision plan between through the year 2035. This regional plan was adopted in late 2011.

- **North I-25 Environmental Impact Statement.** The Federal Highway Administration, Federal Transit Administration and the Colorado Department of Transportation commissioned an Environmental Impact Statement (EIS) to determine the effect that adding various transportation improvements along I-25 will have on the lives of residents and commuters in the area. This EIS helps plan for transportation improvements along the I-25 corridor. The EIS was completed in 2011.

- **North Front Range Transportation Alternatives Feasibility Study.** The North Front Range Transportation Alternatives Feasibility Study (NFRTAFS) was a major investment study sponsored by CDOT, the North Front Range Transportation and Air Quality Planning Council, the Upper Front Range Regional Planning Commission, and Denver Regional Council of Governments (DRCOG). The study's purpose was to develop regional solutions to safety problems, traffic congestion, air quality issues, and mobility problems between the northern Colorado population centers and the Denver metropolitan area. The study recommended: commuter rail along the I-25 corridor between the Denver Union Terminal to US-34 with branches to Greeley and Fort Collins; and widening of I-25 between SH-7 and SH-66 for general purpose and HOV/bus. This study is a key part of the above referenced North I-25 Environmental Impact Statement currently underway.

- **City of Loveland Bicycle and Pedestrian Plan.** The City of Loveland prepared a bicycle and pedestrian study to document the existing bicycle and pedestrian network and to identify gaps in the system, estimate future bicycle and pedestrian demand based on evaluation of key destinations and developed a long term plan which prioritized projects over time. The plan also provided best practices in bicycle and pedestrian planning as a

resource for future planning. The plan was based on extensive public outreach that included workshops where stakeholders identified areas of need. The City of Loveland Bicycle and Pedestrian Plan was adopted May 1, 2012.

- **Transit Strategic Plan (TSP).** The Transit Strategic Plan (TSP) process was a collaborative partnership among the City of Loveland-COLT, the City of Fort Collins-Transfort, and the Poudre School District (PSD). The purpose of the TSP was to provide a coordinated effort in updating the 2004 COLT Transit Plan and the 2002 Transfort Strategic Operating Plan (TSOP). The plan also identified funding mechanisms and practical phasing options, and addresses financial solutions required to create and sustain a high-performing transit system. The 2009 TSP was an update to the 2004 COLT Transit Plan adopted by Loveland City Council and the 2002 Transfort Strategic Operating Plan (TSOP) adopted by the Fort Collins City Council. Separate documents were created for COLT and Transfort in order to simplify the plan adoption process. The TSP identifies needs and options to develop a realistic, effective plan for community transit and ridesharing for the residents of Loveland and the surrounding area." The plan was completed in 2009 and approved by City Council.

Add City of Loveland ITS Progress Report / 5 Year Plan

- **Colorado Department of Transportation 2035 Statewide Transportation Plan:** Published in March 2008, the "2035 Statewide Transportation Plan represents the vision that the people of Colorado would like to see for their transportation system. The corridor visions identified in this Plan integrate local land use decisions, community values and environmental considerations with local and statewide transportation needs. Within each corridor vision, specific improvement strategies are identified that will help achieve that vision. These visions represent an ultimate goal to work toward and are not time-specific. The corridor visions and strategies developed by the public and identified in the Plan provide a context within which to include and prioritize projects in the six-year capital programming document called the Statewide Transportation Improvement Program (STIP). Projects included in the STIP must be consistent with the corridor visions identified in the Plan. The rate of population and employment growth, travel patterns and local land-use decisions all will influence the prioritizing and timing of transportation improvements, but these improvements must all help achieve the corridor vision. These corridor visions will help CDOT coordinate with local governments to prioritize the investment of available dollars into projects that best meet the visions expressed by the public." (Note: Excerpt from "2035 Statewide Transportation Plan" Introduction.)

- **North Front Range Metropolitan Planning Organization Long range Transportation Demand management Plan (December 2010):** In 2010, the North Front Range Metropolitan Planning Organization (MPO) prepared the Long Range Transportation Management Plan. The plan serves as long-term guidance for Transportation Efficiency Programs in NFRMPO region, including the City of Loveland. This guidance includes unique strategies for the region and the City of Loveland to: 1) assist businesses to identify efficient and affordable transportation options for their employees, and 2) assist governments in increasing the ridership of their existing transit systems, bicycle/pedestrian programs, and ridesharing efforts.

Regional & State Context

The City of Loveland 2035 Transportation Plan fits within the context of other transportation planning efforts as described above. All of these plans are necessary and must be well coordinated to ensure transportation systems work effectively and efficiently. The City of Loveland must integrate local (Loveland) planning efforts with those of the region (North Front Range Metropolitan Planning Organization) and the State (CDOT Region 4, as well as the entire state) as transportation within the region as well as future plans for the State Highway System will affect traffic demand estimates within Loveland.

Development of the 2035 Transportation Plan considered the existence of common design elements and requirements. Loveland, Fort Collins, and Larimer County all utilize the Larimer County Urban Area Street Standards. The Plan will also need to consider whether or not surrounding municipalities have designated Impact Fees (called Capital Expansion Fees or CEFs in Loveland) and/or Adequate Community

Facilities Criteria, similar to Loveland. Adequate Community Facilities Criteria are policies that impose minimum infrastructure requirements related to new development.

Local Geographic Context

Smaller scale coordination is also necessary between Loveland and its neighbors. As part of preparation of the Long Term Land Use Plan, the Growth Management Area (GMA) was determined. The GMA represents Loveland's ultimate limits. Loveland's GMA borders Larimer County on the west; Fort Collins, Larimer County, and Windsor on the north; Windsor, Weld County, and Johnstown on the east; and Berthoud and Larimer County on the south. In some cases, Loveland's limits overlap with those of neighboring municipalities. In order to compensate for this, a significant amount of coordination and communication is required.

Intergovernmental Agreements Affecting Transportation

In order to address the situation of Loveland being surrounded on all sides by different government entities, several Intergovernmental Agreements or IGAs have been developed. These are formal agreements adopted by City Councils, Boards of Trustees and/or Boards of Commissioners to address items that overlap. Specific examples of IGAs include:

- Larimer County requires that projects outside Loveland City Limits but within Loveland's GMS be referred to the City of Loveland for review and comment;
- Numerous government entities regulate Access Control on US 34 from I-25 to Kersey;
- An agreement between Loveland and Windsor that the roadways at their common boundaries will be adopted by either Loveland or Windsor (not both) so that criteria will be consistent; and
- An IGA that provides for Access Spacing on US 287 from 29th Street in Loveland north through Larimer County ending at Harmony Road in Fort Collins.

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Section 2: Draft Community Sustainability Plan

Introduction

In 2008, the City of Loveland began a staff-initiated effort to define and establish sustainability efforts for the City. The City of Loveland Draft Community Sustainability Plan (August 2012) reflects the work of that effort and identifies what steps the City has already taken to guide and improve sustainability in the Loveland community. The focus of the Draft Community Sustainability Plan is about defining smart business initiatives and community policies targeting the continued preservation, enhancement, and economic development of Loveland. Its objectives are to facilitate decision-making to support good return on investment, community engagement, and attracting jobs to the region.

The Draft Community Sustainability Plan seeks to provide a high-level document to clarify the city's position and role in the goals of creating a sustainable community. The Draft Plan is a first step in beginning the community discussion necessary to identify, clarify, and provide definition to the goals and action plans for the community and City government. Once adopted, these goals will inform all Citywide planning efforts, including the Transportation Master Plan.

This section provides an overview of the Draft Community Sustainability Plan prepared by the City of Loveland. As described above, the Draft Plan identifies Guiding Principles for improving sustainability in the community and establishes goals and sub-goals for seven key goal areas, including Transportation.

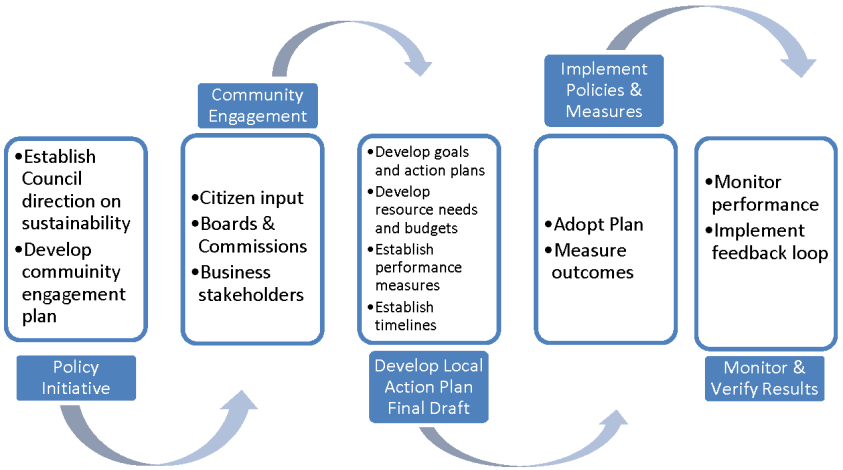
Process

To assist the City of Loveland and community leaders in working to support and drive a sustainable Loveland, eight Guiding Principles have been developed. These guiding principles have been further enunciated into seven specific goal areas, with parallels to the Comprehensive Plan. These seven goal areas are: 1) Resource Conservation; 2) Transportation; 3) Environmental, Open Space, and Community Health; 4) Economic Development; 5) Land Use and the Built Environment; 6) Buildings and Energy; and 7) Community Education and Civic Participation. The City of Loveland will establish performance measures, both quantitative and qualitative, assessing the impacts of the Community Sustainability Plan. The performance measures will be centered on the seven goal areas described above.

The City will undertake a three-step approach to addressing sustainability. The first priority will be taking business steps to move the City organization to more sustainable practices. Priority 2 will be a larger community discussion on sustainability and how it relates to governmental policy, community action, and funding. Following the community discussion, the third priority will be to integrate the community goals on sustainability into the existing City of Loveland Plan structure, interweaving the consideration of sustainability into key community planning documents, including the Loveland Comprehensive Plan, Transportation Master Plan, Parks and Recreation Master Plan, Open Space Plan, Title 18, Water Master Plan, Power Master Plan, and other key community planning documents.

The City of Loveland has not officially adopted a sustainability policy or set of goals. In order to more fully develop a Community Sustainability Plan, and the ensuing action plans and policies associated with the adopted plan, the City will seek community input into the Draft Community Sustainability Plan.

Process Map



Defining Sustainability

The City of Loveland has defined Sustainability as "Efforts at reducing the impact community and business operations have on the environment, this includes life-cycle planning, preservation and resource conservation efforts, and policies that support a long term vision for the community and citizens."

Guiding Principals

1. The concept of sustainability is interwoven into City policy; programs and projects will consider sustainability in addition to other project factors.
2. Balancing the needs of economic vitality, environmental health, and the community fabric is essential to long term community sustainability. Community resiliency for emergency management is an essential component of sustainability.
3. Public participation and community awareness are essential to building a sustainable city.
4. Sustainability priorities will be developed through a process of community input, led by City Council, with an emphasis on economically viable programs and policies.
5. Partnerships among government, business, non-profits, and the community-at-large are essential to achievement of community goals.
6. The City of Loveland government organization, in our business operations, will strive to lead by example in sustainable business practices.
7. Protecting, preserving, and restoring the community and regions natural environment is a priority for the City of Loveland.
8. The City of Loveland recognizes its role as a community, regional, and national partner in making sustainable decisions.

How Does Loveland Compare

City staff reviewed actions taken in Colorado and across the Rocky Mountain West on the topic of sustainability to determine how Loveland compares to those other communities. For comparison, the table below shows similar communities and how they fare on five key milestones for sustainability.

City	Pop.	Set Sustainability Goals	Develop a Sustainability Plan	Conduct Sustainability Assessment	Implement the Plan	Monitor Evaluate Progress
Loveland, CO	67,000	D	D			
Carbondale, CO	6,600	X	X			
Aspen, CO	6,700			X		
Golden, CO	17,800	D	D			
Flagstaff, AZ	53,000	D		D		
Santa Fe, NM	62,200	X	X	X		
4Core * (CO)	70,800	X	X	X		
Longmont, CO	86,100	X	X	X	X	X
Greeley, CO	93,700	D	D			
Boulder, CO	100,400	X	X	X	X	X
Pueblo, CO	106,800	X				
Arvada, CO	107,700	D		D		
Westminster, CO	109,300	D				
Fort Collins, CO	136,400	X	X	X	X	X
Albuquerque, NM	522,000	X		X		
Denver, CO	611,500	X	X	X	X	X

X – Completed/D – In development
*4 Corners Region: La Plata County, Durango, Ignacio, Bayfield

Five Milestones for Sustainability

1. Set Sustainability Goals – The sustainability goals define the overarching objectives and scope of the sustainability plan. The type and number of goals can vary by jurisdiction, but likely will include an emissions reduction target along with other goals addressing issues such as workforce housing, natural resources conservation, and/or public transportation.

2. Develop a Sustainability Plan - The local government develops a sustainability plan, ideally with robust public input from stakeholders. The plan details the policies and measures that the local government will take to improve local sustainability and achieve the goals defined in the community and region. Most plans include a timeline, a description of financing mechanisms, and an assignment of responsibility to departments, the community, and stakeholders. This step should involve a public participation component to solicit ideas from the public and to receive feedback on measures being considered for inclusion in the plan.

3. Conduct a Sustainability Assessment - To begin the assessment process, a local government needs to first research and assess environmental, economic, and social equity challenges within the jurisdiction, and the programs in place to address these issues. The sustainability assessment typically includes a greenhouse gas emissions inventory and forecast for local government operations and the community as a whole and takes into account other key sustainability indicators.

4. Implement the Sustainability Plan - The local government implements the policies and measures in the sustainability plan.

5. Monitor and Evaluate Progress - Monitoring and verifying implementation progress is an ongoing process. Achieving this step involves annually reporting on implementation progress and monitoring the overall sustainability of the jurisdiction using the sustainability indicators identified.

Current Efforts

In 2008 and 2009, City staff began the task of developing an inventory of all activities, policies, and processes that support moving to a more sustainable business operation. This task compiled a significant snapshot of the city's current efforts based on the seven goal areas described above. The list represents Loveland's sustainability success as of 2010. Current sustainability efforts related to transportation include:

- **Catch the Bus**: 2009 saw the expansion of local bus service in the downtown corridor, seeing ridership jump from zero to 19 passengers an hour. The city also received $776,000 in ARRA Federal Stimulus funds to purchase buses to support expansion of the regional Fox Trot bus route in June 2010. This first north-south regional route provides riders a connection from RTD in Longmont, through Berthoud, Loveland, and ending in Fort Collins. The new regional route is a partnership among seven regional governments. The buses on this route operate as alternative fuel, hybrid vehicles. Total ridership is averaging over 17 riders per hour and carrying over 154,100 passengers in the first 12 months.
- **Pedestrian Friendly**: Through the work of City Council, city staff, and the Loveland Downtown Team, a downtown Strategic Master Plan for both business and streetscaping was completed. The new plan identifies a framework to reignite historic downtown Loveland and lay a foundation for Living Streets that enhance and support pedestrian, bicycle, and alternative travel.
- **Roll with It**: Bike to work day was the biggest in years and laid the foundation for the 2010 and 2011 development of a new community-wide Bicycle and Pedestrian Master Plan. In 2010, the city was named "Honorable Mention" as a bike friendly community.
- **T-n-T:** The city collaborated with Thompson R-2J School District to rollout an improved and growing Safe Routes to Schools program. The goals included upgraded pedestrian and bike friendly improvements around schools, and programs to encourage walking and biking for students. The hallmark of the program T-n-T Tuesdays (Tennies and Tires) was able to document a 70 percent increase in biking and walking to school and over 12,700 reduced vehicle trips at several elementary schools in the District.
- **Turn off the Engine**: In 2010, City of Loveland began a fleet-wide anti-idling education program in partnership with Fort Collins, Larimer County, and Poudre Schools. The goal is to improve both winter and summer air quality and improve fleet gas mileage.
- **Reduce the Footprint**: Between 2000 and 2010, the City of Loveland fleet has reduced greenhouse gas emissions (GHG) by an average of 10.52% per vehicle.

Sustainability Goals

In an effort to enhance discussion and provide a platform for community policies and plans around sustainability efforts, the City of Loveland has developed a series of potential goals in each of the key goal areas. The draft goals were developed based on past community planning efforts, such as the Comprehensive Master Plan and a review of sustainability plans from like-sized communities in the United States. These goals are a starting point to develop broad overarching goals that will then be used to create specific action plans, schedules, and funding and resources plans.

Transportation Goals

The goal and sub-goals for Transportation, as outlined in the Draft Community Sustainability Plan, are as follows:

Transportation Goal - While transportation is essential to the economic vitality of both the community and individuals, impacts created by transportation are far reaching and contribute significantly to sustainability. The City's transportation planning must embrace multi-modal solutions, regional mobility, and efforts to reduce vehicle miles traveled.

Transportation Sub-Goal 1 - Establish parameters for "Living Street" in the City's Transportation Master Plan.

Transportation Sub-Goal 2 - Grow transit opportunities both locally and regionally.

Section 3: Overview of Existing System

A clear understanding of the existing transportation facilities and how well they are serving the needs of Loveland's residents is an essential first step toward a relevant and useful planning document. This chapter summarizes the inventory of street, transit, bicycle, and pedestrian facilities as well as the various Transportation Demand Management programs that are currently in place.

Existing Street Network

The street network in Loveland has approximately 330 miles of arterial, collector and local streets. Its historic core is roughly bounded by 1st Street, Madison Avenue, Eisenhower Boulevard, and Taft Avenue. The core was fully developed in Loveland's early history and is mostly laid out in a tight grid system of tree-lined streets that provide many routing options for motorists seeking either local or through travel to their destinations.

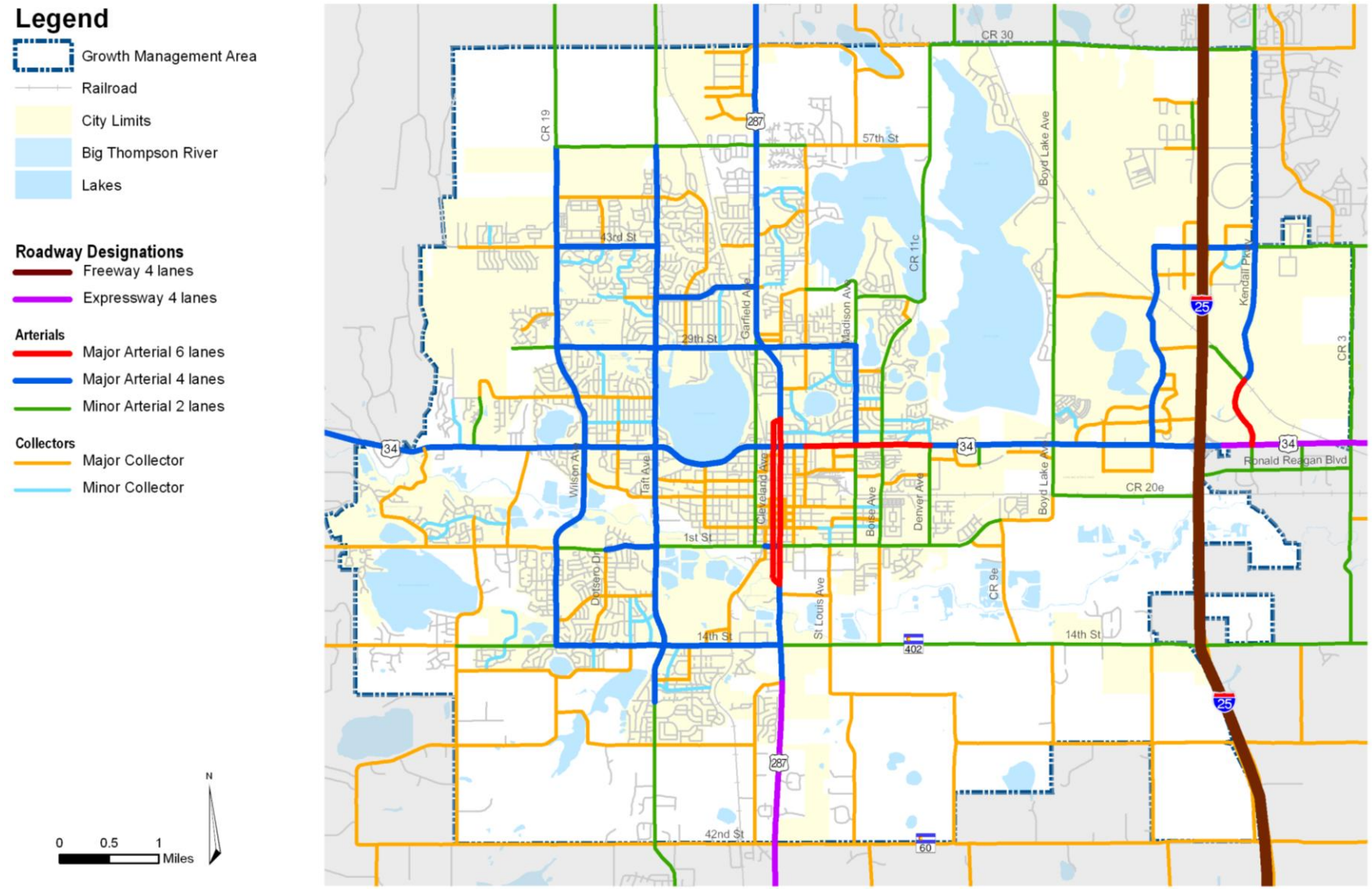
The recent growth areas have both suburban and rural characteristics, reflecting the development patterns of the 1970s and beyond, including fewer through streets, more curving roads and cul-de-sacs. The outer area also contains over 35 lakes of varying size and shape, which, when combined with the relative lack of through streets, present many manmade and natural barriers to through travel. These barriers contribute to a lack of continuous arterial streets and limit both north-south and east-west travel in and through the City.

Streets in Loveland are classified using the typical hierarchy of arterial, collector and local streets. The functional classification of streets is related to the degree of mobility or access they provide. Arterial streets function primarily to provide mobility through the community. They typically are two, four or six lanes wide, carry traffic volumes in excess of 7,000 vehicles per day, provide limited access and accommodate higher travel speeds. Collector streets have less restricted access points, "collecting" traffic from local areas by providing mobility through connections to the arterial network. Collectors typically consist of two lanes and carry 1,000 to 7,000 vehicles per day.

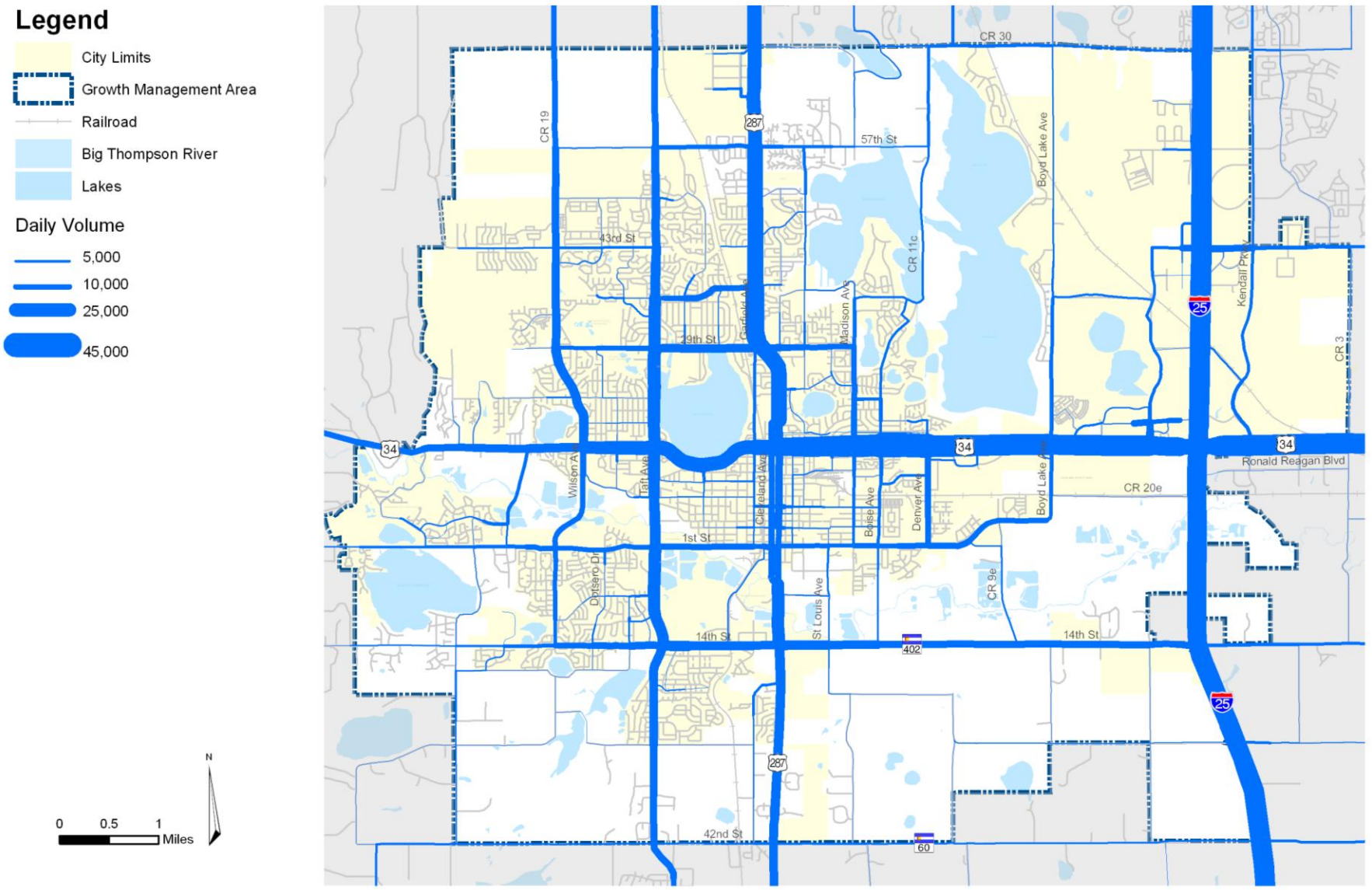
Local streets have the most access points to adjacent land uses and are typically low-speed, two lane streets with traffic volumes less than 1,000 vehicles per day.

Existing Traffic Volumes and Patterns

Construction and widening of the existing freeway and arterial street systems has not kept pace with the growth in traffic. While Loveland has made significant expenditures to maintain, widen, and extend the street network, the increase in local and regional travel is pushing many of the facilities beyond the adopted acceptable level of service.



EXISTING STREET NETWORK



EXISTING TRAFFIC VOLUMES

A number of streets are currently experiencing significant congestion problems:

- US 287 from the end of one way couplet to 71st Street
- SH 402 from US 287 to LCR 9E
- Numerous sections of Eisenhower Boulevard

East-west mobility, addressed in the aforementioned East-West Mobility Study, continues to present challenges to the continuous flow of traffic in Loveland. Since the network is physically constrained by the lakes in the City, US-34 (Eisenhower) and SH-402 (14th Street) are forced to carry the majority of east-west traffic. North-south mobility in the City is also limited to a few key streets (US 287 and Taft Avenue) that provide a continuous route through the entire City, and these routes are also constrained by the geography around Loveland.

Level of Service

Congestion problems in the City are directly related to the amount of traffic the street network can carry. Accurate measurement of the capacity of a given street in the network is essential to develop a clear picture of when and where improvements will be necessary.

Accordingly, one measure used to evaluate levels of service is the volume to capacity, or V/C ratio. On a level of service (LOS) scale of "A" to "F," streets capable of carrying more traffic than they currently have receive higher grades, and those with little or no excess capacity are referred to as failing. Currently, a number of streets in Loveland are experiencing LOS D, E, and F. Sections of Eisenhower and US-287, , are congested and approaching or exceeding their estimated capacity.

During the development of the 2020 Transportation Plan, a new, more refined methodology to measure street capacity was developed. Under the traditional LOS capacity measures, streets with similar functional classification and number of lanes are assigned the same estimate of capacity. The actual capacity of the street, however, is affected by a number of additional variables and can vary dramatically between arterials, collectors, and local streets with the same number of lanes.

Twenty-three of the most significant factors affecting street capacity are included in the "Adequate Community Facilities (ACF) Volume" methodology developed by Loveland's transportation engineering staff. Among these 23 variables are measurements of both engineering factors and human factors, which are then assigned an adjustment value to increase or decrease the effective number of vehicles per lane per hour that can be accommodated by the facility. The inclusion of these additional factors provides a more comprehensive view of actual street capacity. In general the allowable traffic has increased on state highways and newly reconstructed City arterials that have been built to higher standards. The ACF methodology is still in use today.

What is Level of Service (LOS)?

In 1965, the Transportation Research Board released the Highway Capacity Manual with the objective of defining a uniform measurement for determining how well a transportation system operates. The product of this work effort was the development of a grading system from A to F, where A is defined as excellent levels of service and F is failure.

Although there have been a number of updates to the Highway Capacity Manual since its first release in 1965, the measurement of level of service is typically defined by travel time and delay. This travel time and delay is calculated for intersections through delay equations which examine factors such as peak hour intersection turn volumes, lane configurations and signal timing. Levels of service for arterials are typically based on a volume/capacity ratio where the existing or projected volume of a roadway is divided by the roadway's capacity.

Whereas the methodology for determining level of service is relatively consistent between various communities and states, the threshold of what is determined as acceptable varies. The City of Loveland has established high standards for its street network. In 1996, the City Council adopted a LOS C standard for arterial streets, LOS B for collectors, and LOS A for local streets.

Existing External to External (E to E) Traffic

One significant impact on existing routes through the City is the external to external traffic that uses US 34, US 287, Taft Avenue, SH 402 and other streets to pass through on the way to and from other locations. As the region continues to

grow and the number of visitors to Rocky Mountain National Park and Estes Park increases, this problem will continue to add to existing traffic volumes created by Loveland itself.

Existing Intelligent Transportation System (ITS)

Currently, approximately one-third of the over 80 traffic signals within the City are connected through fiber optic cable into the City's Traffic Operations Center. As a result, many of the corridors are timed so that they act independently. Therefore, a problem at one location can create problems at one or more other locations as the system is not linked to make adjustments based on real-time conditions. In addition, the City currently has no variable message boards such as those on I-25 to advise motorists of local or regional conditions that may affect their ability to travel through the area.

Key Street Issues

Street Network

- East-West and North-South Mobility. Improvements to the street network are limited by Loveland's geography and the arterials that are in place will need to be improved and new arterials constructed to complete gaps in the system and provide relief to existing streets.

- Capacity Assessment. In order to meet level of service standards and prioritize funding of improvements, a baseline assessment of ACF volumes for all major streets has been determined and needs to be updated on a regular basis.

- Traffic Volumes and Patterns. In order to maintain appropriate level of service standards, analysis of development activity and phasing of improvements for both roads and intersections should continue.

- E to E Traffic. External to External traffic (traffic that moves through Loveland without stopping) will continue to impact Loveland's traffic volumes.

- ITS Improvements. Completion of interconnection of all traffic signals to centralized computer so that real-time adjustments can be coordinated to improve flow of continuously changing traffic.

- Variable Message Boards. Construction of new variable message boards at strategic locations to advising motorists of traffic related items with link to CDOT system on I-25.

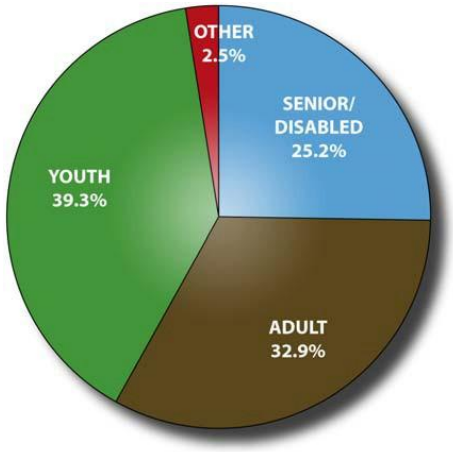
Existing Transit System

The City of Loveland Transit (COLT) provides local and paratransit service in the City of Loveland. The Flex provides a connection to Fort Collins. COLT operates three routes, the Blue, Green, and Orange routes. Fixed-route service is provided Monday through Saturday and generally begins between 6:30 and 6:40 AM, with the last trip scheduled to depart between 5:30 and 6:00 PM. Service frequencies are generally 60 minutes door-to-door. Paratransit service currently operates

between the hours of 6:38 AM and 6:15 PM Monday through Saturday within the Loveland city limits. COLT operates under an informal service philosophy that intends to provide as much service as possible throughout the community within existing resources in a safe and efficient manner.

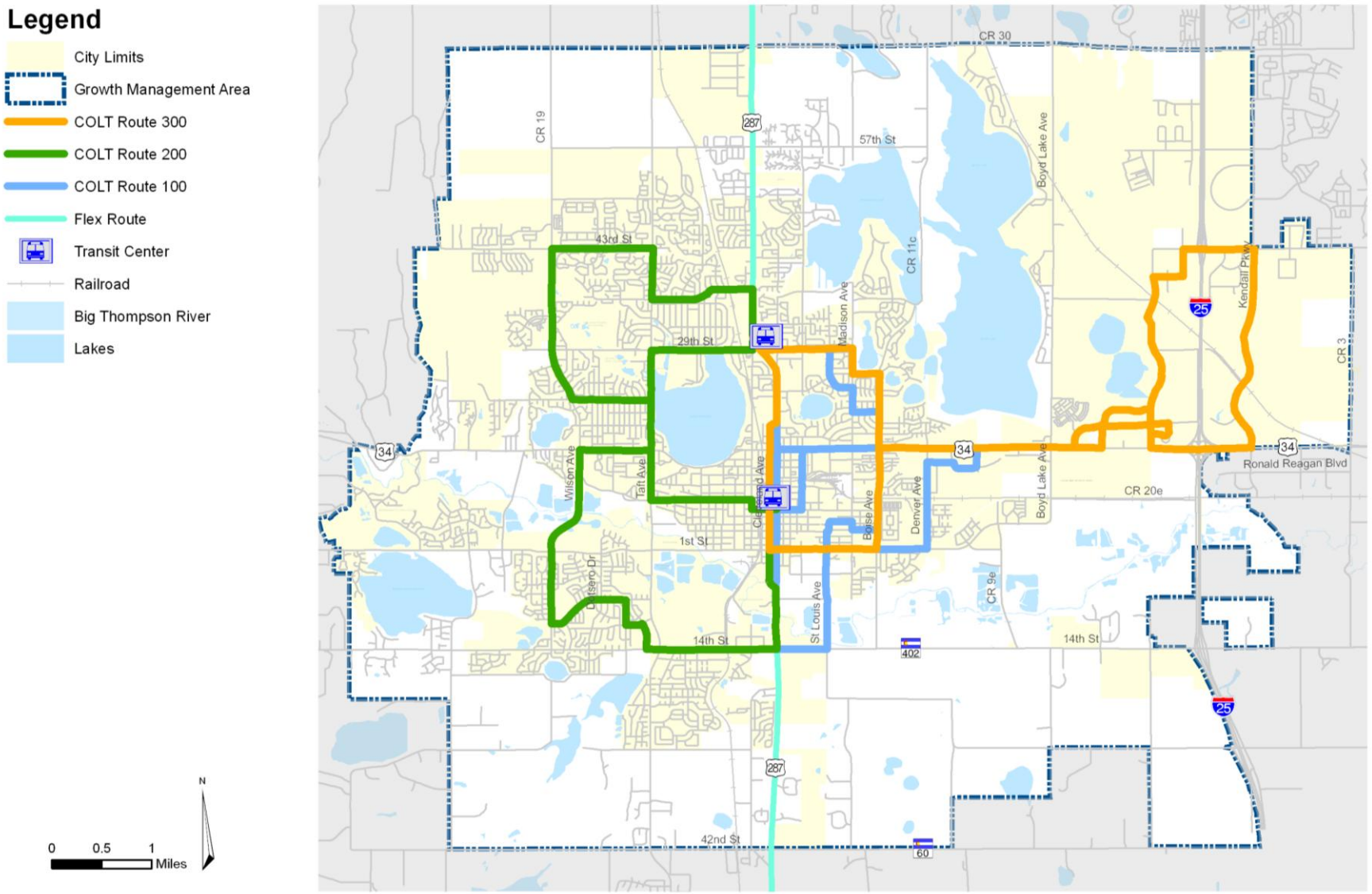
COLT serves a variety of transit users including adults, seniors and persons with disabilities, youth, and Paratransit users. Ridership composition for the existing transit service by fare category is shown in Figure ES-1. As shown, the majority of riders are either youth or adults.

Percentage of Ridership by Fare Category



Source: Loveland-COLT

COLT owns and maintains 11 vehicles as part of its fleet and services and currently utilizes three designated transit facilities: the North Transfer Station (located at approximately US 287 and 29th Street at the Orchards Shopping Center), the South Transfer Station (located near Lincoln and 8th Street), and the East Transfer Station (located near I-25 and US 34 in Centerra). An existing East Park and Ride facility near I-25 and US 34 is not directly served by transit, but does serve as a location for carpools to meet. An assessment of existing transit system performance was conducted in order to identify the productivity and effectiveness of the existing COLT system. System-wide, COLT reported approximately 136,000 passenger trips in 2008, the largest number to date and a 17% increase over 2007. Key productivity measures were evaluated for each route in order to identify those routes which are more efficient, those that are underperforming, and routes which are not able to accommodate high demand. This analysis contributed to the development of service concept improvements.



EXISTING TRANSIT SYSTEM

Existing Bicycle Facilities

Bicycle mobility in Loveland is supported by facilities in new developments, the existing on-street bicycle system, and highly utilized off-street paths. The street grid of Loveland's core area lends itself well to the needs of bicyclists.

The City of Loveland's existing bicycle system is presented in the Existing Bicycle Facilities map. The bicycle system includes recreational trails, shared use paths, bike lanes, and bike routes. These facilities are defined as follows.

In review of the Existing Bicycle Facilities map, a number of observations can be made, summarized as follows:

1. The system of bicycle trails, lanes and routes provides the framework for a good bicycle system to serve the City of Loveland.

2. Many existing bicycle facilities have missing segments that impact the continuity of the system and can impede bicycle mobility and travel.

3. Some bicycle facilities begin and end erratically, often associated with new development improvements adjacent to land areas that have not been developed with an unknown timeframe for completion.

4. Many of the bicycle facilities have obstacles, such as missing bike lanes along roadways with high traffic volumes or difficult to cross streets.

5. Many of the City's bicycle facilities are in need of repair and require basic maintenance such as sweeping or removing tree overhangs.

6. Bike lanes are often depositories for snow, making them unavailable to bicyclists during winter conditions.

In reviewing the bicycle system, it is also important to consider the types of bicycle travel, the experience of the bicycle rider, and the type of facilities riders may use.

BIKE ROUTES, LANES, AND PATHS - HOW ARE THEY DIFFERENT?

Bikeway - A general term for any street or trail which in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designed with bike lanes for the exclusive use of bicycles or are to be shared with other transportation modes.

Trails/Paths - This is a shared use bicycle and pedestrian facility that is physically separated from motor vehicle traffic by open space or a barrier and is either within the road right-of-way or within an independent right-of-way. These are also referred to as a shared-use or multi-use paths or recreation trails.

Bicycle Lane - This is a bikeway on a portion of a street that has been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicycles.

Bicycle Route - A segment of a system of roadways signed for the shared use of automobiles and bicyclists without striping or pavement markings.

Striped Shoulder – A shoulder on rural road that provides *an* edge line that separates the vehicle from the bicyclist.

Rural Road Shoulder – A shoulder on a rural road that is at least four feet wide from edge line to pavement edge that provides a separation between the vehicle and bicyclist.

In general, there are three types of bicycle travel: commuting, adult recreation, and children. The design of bikeways differs considerably for each of these purposes. Commuter bicyclists are typically advanced riders and use their bicycles as they would a motor vehicle. They want direct access to destinations with minimal detour or delay and are typically comfortable riding besides motor vehicle traffic. However, they need sufficient operating space in a bicycle lane or shoulder to eliminate the need for either themselves or a passing motor vehicle to shift position. Commuting bicyclists often want to ride the most direct route from their origin to their destination. Normally, extensive development along such routes limits the

construction of detached bicycle/multi-purpose paths. However, prevalence of heavy traffic along such routes is only a minor hindrance to commuting bicyclists. Recreational adult riders may also use their bicycles for transportation purposes (e.g., to get to the store or to visit friends), but prefer to avoid roads with fast and busy motor vehicle traffic unless there is ample roadway width to allow easy overtaking by faster motor vehicles. Thus, recreational riders are comfortable riding on recreational trails, shared use paths, and neighborhood streets. They may also consider bicycle lanes or wide shoulder lanes on busier streets. Recreational riders may also use their bicycles for pleasure and exercise without a specific destination in mind. Such riders may prefer recreational trails along open spaces instead of traveling adjacent to or with motor vehicle traffic.

Children under 12, riding on their own or with their parents, may not travel as fast as their adult counterparts, but still require access to key destinations in their community, such as schools, convenience stores, and recreational facilities. Residential streets with low motor vehicle speeds linked with recreational trails or shared use paths are the preferred bicycle routes for children.

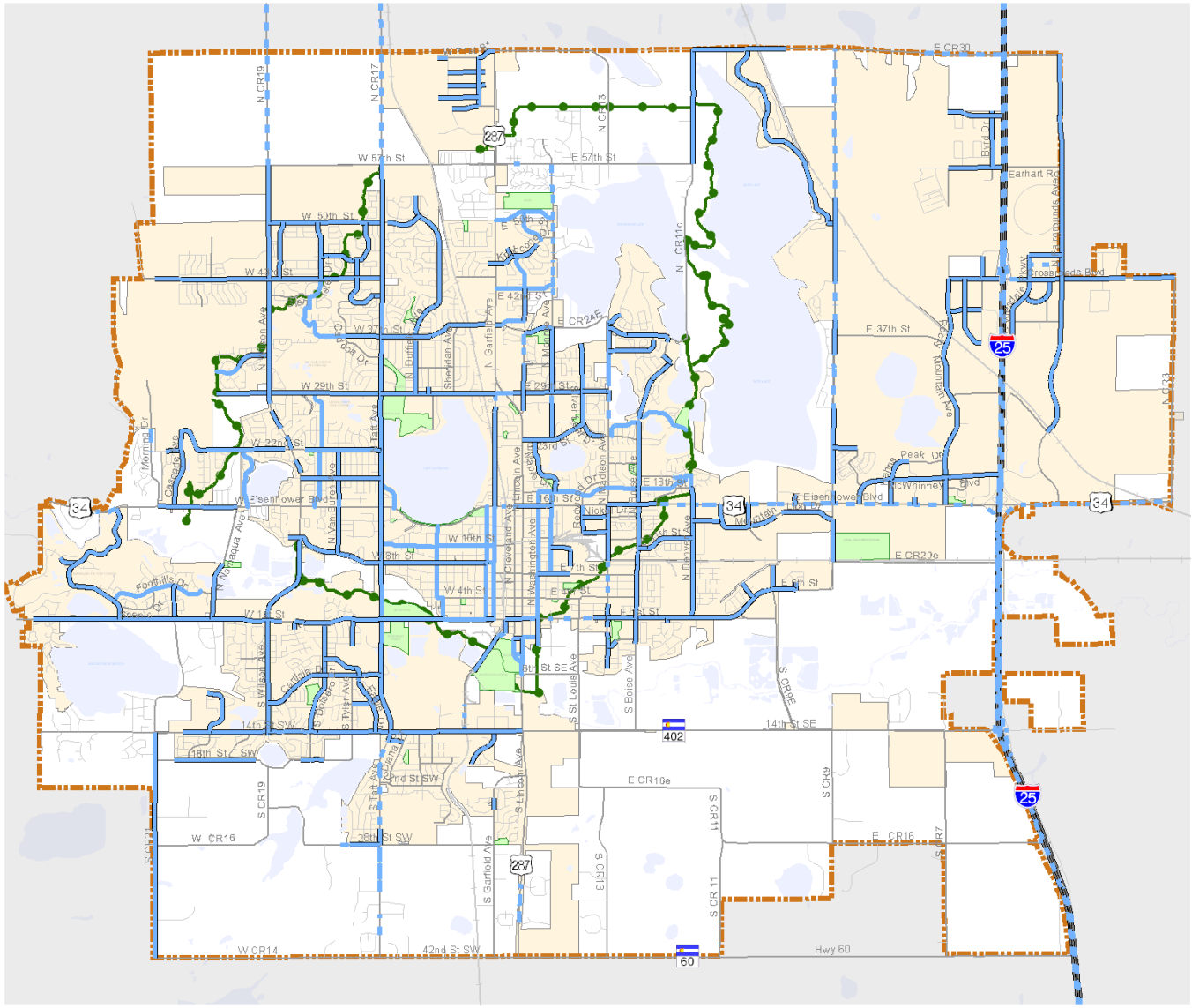
In review of the existing bicycle system from the perspective of the types of riders, the existing bicycle system primarily serves the experienced commuter and to a lesser extent, the children recreation riders.

Legend

- City Limits
- Growth Management Area
- Parks

Bicycle Facilities

- Existing Bike Lanes
- Existing Bike Routes
- Existing Striped Shoulders (4 Ft. in Width or Greater)
- Existing Recreation Trails



EXISTING BICYCLE NETWORK

Existing Pedestrian Facilities

Pedestrian mobility is the most fundamental transportation mode, yet is often overlooked in transportation planning. Transit trips require pedestrian connections at both ends of the trip. Pedestrian connections to and between activity centers help minimize automobile impacts to the arterial street system.

The City of Loveland's existing pedestrian facilities is presented below. The pedestrian system includes the sidewalks along our streets, recreational trails, and shared use paths. The pedestrian system also includes street crossings.

The ideal pedestrian system is best described as a grid system of streets with sidewalks on both sides that provide easy and direct connections between the trip origin and destination. The ideal pedestrian system should also provide for convenient and safe street crossings and include some basic amenities, such as sidewalks separated from streets and shade from trees.

In general, the City of Loveland has good sidewalk coverage. Most neighborhood streets have sidewalks along both sides, although some neighborhood streets have sidewalks along one side or no sidewalks at all.

Although most arterials also have sidewalks along both sides of the street, there are some arterials that have no sidewalks or only on one side. This lack of sidewalks requires a pedestrian to make additional street crossings in their pedestrian trip or walk in the street.

Some of these arterials are major facilities such as east Eisenhower, which supports major commercial centers that generate pedestrian trips. Eisenhower also has transit; in which both ends of a transit trip is a pedestrian trip.

Garfield north of 29th Street is another retail, service, and transit corridor that does not have sidewalks.

Along our older commercial corridors, particularly US 287 and US 34, that while there are sidewalks present, the condition and design of these sidewalks and surrounding areas does not create an environment that is conducive to people walking. Pedestrians feel exposed to the speeding traffic because the sidewalks are too narrow and they are attached to the curb.

The presence of frequent curb cuts inhibits pedestrian activity by creating more points for pedestrian and vehicle conflict and because the sidewalk is attached, the sidewalk must slope to allow for vehicle access. In many cases, there is no separation between the sidewalk and adjacent parking lots, which can lead to vehicles intruding into the pedestrian realm sidewalk area.

The general lack of trees and landscaping create an uncomfortable microclimate for pedestrians because there is no shade and the pavement creates an urban heat island effect. Also, the traffic passing at high speed creates a wind that affects pedestrians.

The ability of pedestrians to safely cross US 34 and US 287 is also an issue. The controlled crossings are infrequent and the pedestrian is exposed to multiple lanes of high speed traffic. This impedes the ability of residents in the surrounding neighborhoods to access businesses along these corridors by foot or bike.

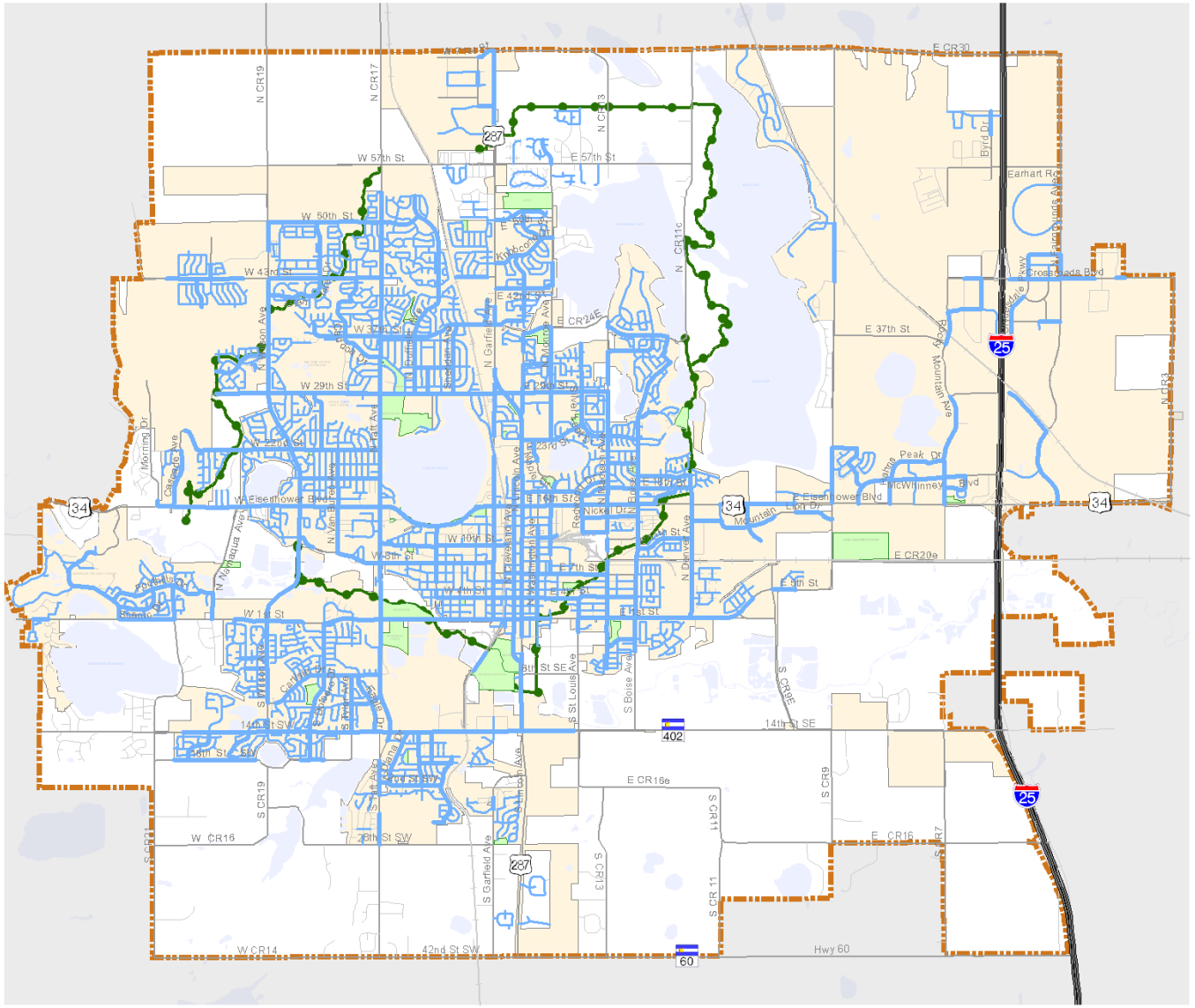
On a positive note, it should be noted that the City of Loveland's downtown area has a very strong grid system with short blocks and sidewalks on all facilities. The narrow streets in the downtown area increase the safety of travel for the pedestrian because traffic travels slower and the pedestrian has reduced exposure to the automobile crossing a narrow street.

Legend

- City Limits
- Growth Management Area
- Parks

Pedestrian Facilities

- Existing Sidewalks
- Existing Recreation Trails



EXISTING PEDESTRIAN SYSTEM

Existing Transportation Demand Management (TDM)

Like its Northern Colorado neighbors, Loveland is experiencing significant growth outside the established City center, placing greater and greater dependency on the automobile to access downtown, centers of work and business, and shopping destinations. Communities in Colorado are also generally experiencing a greater number of trips per household, as there are more multi-worker households and more trip activities. Residents of Loveland are also driving further from outlying subdivisions to downtown and widely dispersed regional work locations.

The City is working with SMART*Trips*™, the regional organization that promotes and coordinates TDM activities. The SMART*Trips*™ program focuses on the following methods to promote alternate modes of transportation: Business Outreach, Special Events & Promotions, Community Education & Advertising, and Infrastructure improvements (sidewalks, bike lanes, Intelligent Transportation Systems, etc.): Bike Month; Drive-Less Loveland; Loveland Bike Month; Loveland Earn-A-Shirt ; VanGo™ Vanpooling; Carpool Matching; C.O.L.T. (City of Loveland Transit); CDOT Bicycle and Pedestrian Program; Loveland Bikeway Map; Loveland Recreation Bike Trails; Peloton Cycles; Guaranteed Ride Home; Services For Businesses; Bike Rodeo; and Larimer County SAFE KIDS Coalition.

Key TDM Issues

- **Shifting the public's attitudes and behaviors**. For most, the choice of alternate modes of travel is a gradual shift, be it walking to the video store, bicycling to work or carpooling to Denver.

- **Cost-effectiveness of the program**. Behavior changes take time. Due to the time and cost involved to market these choices, TDM programs may appear to have a low return on investment. TDM choices need to be as common and easy as recycling.

- **Staff coordination and entering prime markets**. SMART*Trips* ™ finds most success in the business market. Challenges include getting an audience with the right business customers, creating a seamless approach, and brokering resources from SMART*Trips* ™ specialists, transit providers and other services.

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Section 4: Change - 2000 to 2012

Overview

Since the 2020 Transportation Plan was adopted in 2000, Loveland and Northern Colorado have undergone tremendous change. Loveland's population has grown from 50,600 to a count of 66,859 in 2010, according to the US Census and an estimate of 68,825 in 2012. This growth has translated to growth in households, employment, shopping, and many other associated areas as well. From 2000 to 2011, Loveland grew from 28.58 to 35.21 square miles and the overall street system grew from 255 to 330 total centerline miles.

Growth

Population/Residential

As stated above, the population of Loveland has grown from 50,600 in 2000 to an estimated 68,825 in 2012. . The number of housing units has correspondingly grown has well. The 2010 Census found 28,557 units in Loveland, up from 20,300 in 2000. In 2012, there are estimated to be 29,178 housing units. The average Persons per Household continues to decline slightly from 2.49 (2000) to 2.43 (2007) and to 2.35, according to the 2010 Census. In 2010, the housing stock of Loveland was 68% single family detached. The recent recession caused the development of new housing units in Loveland to slow radically form its peak in 2006-2007. Also, due to the resulting change in the nature of housing demand, multi-family and attached single family units have increased as a percentage of new residential construction. (Source: "City of Loveland Annual Data and Assumptions Report, February 22, 2012.")

Commercial/Industrial

Since 2000, a number of new Commercial/Industrial facilities have been constructed or expanded including Medical Center of the Rockies, McKee Medical Center, Heska, and Big Thompson Medical Group Facility. The nationwide recession caused a slowdown in the development of commercial projects in Loveland. The redevelopment of the former Agilent / HP facility as the Rocky Mountain Center for Innovation and Technology, although only in its first stages, appears to have the potential to lead to significant growth in industrial employment in Loveland.

Retail

The recession caused retail sales tax receipts in Loveland to decline considerably. Recently, sales tax collection has begun to grow again. The opening of the Super Wal-Mart on North Hwy 287 has been one of the largest recent additions to Loveland's retail base, to go along with the opening of the Promenade Shops at Centerra in October 2005 and new retail at Taft Avenue and 14th Street SW, and along Eisenhower Boulevard (US 34). east of Madison Avenue (Lowes, Target, Super WalMart, Sportsmen's Warehouse, Home Depot, numerous restaurants and other retail shops of varying sizes), and throughout the City (CO's BMW, Thunder Mountain Harley Davidson, etc).

Financial Considerations

Local Funding

Over the past twelve years, local funding has increased in two areas. Starting in 2003, the City Council has allocated $2,000,000 in General Fund Sales and Use Tax revenues for transportation projects, a significant increase from previous years. Due to the amount of growth occurring in the City, additional Capital Expansion Fees

(Impact Fees required for new development) have been collected and utilized to fund various projects as well as to reimburse development for oversizing portions of projects.

Federal/State Funding

During this same five year period in which local funding has increased, State and Federal Funding has sharply declined. Based on forecasts, this trend is likely to continue for the foreseeable future.

Transportation Projects Completed

These changes bring both opportunities and challenges, particularly related to transportation. In Loveland, a large number of transportation projects were completed between 2000 and 2012. These include:

- Taft Avenue
  - Big Thompson River to old Arkins Branch Railroad, including intersection of Taft and 8th Street – Widening of through lanes, sidewalks and bike lanes and adding turn lanes
  - 43rd Street to 50th Street – widened to 4 lanes with additional turn lanes
  - Taft and 14th Street SW - Additional turn lanes
  - Taft and 43rd & 50th Intersection Improvements and Traffic Signals
  - Taft and 57th Intersection Improvements
  - Taft and Eisenhower Intersection Improvements
  - Taft and 23rd Street SW – Intersection Improvements and Traffic Signal
- Wilson Avenue
  - 29th to 50th – Reconstruction and widening to 4 lanes including turn lanes and bike lanes
  - West 18th Street to West 23rd Street - Median Replacement
  - Wilson and 37th – Intersection Improvements and Traffic Signal
  - Wilson and 43rd – Intersection Improvements and Traffic Signal
  - Wilson and Eisenhower - New right-turn lane, median and Traffic Signal Improvements
  - 14th St SW to 6th St SW – widened to 4 lanes with sidewalk improvements.
- 43rd Street
  - Completion of connection between Wilson and Taft
  - Cascade Avenue to Wilson – Constructed ultimate improvements
- Boise
  - Connection from 1st Street to Eisenhower
  - Connection from Park Drive to 37th Street
  - Boise and 1st Street – Intersection Improvements and Traffic Signal
  - Boise at Eisenhower – Intersection Improvements
- Denver Avenue
  - Connection from 1st Street to Eisenhower
  - Denver and Eisenhower – Intersection Improvements
- 1st Street
  - Boise to Boyd Lake Avenue – Widening and additional turn lanes
  - Washington Avenue to Boise – Additional turn lanes
  - 1st Street and St. Louis Avenue - New Traffic Signal
  - 1st Street and Denver Avenue – New Traffic Signal
- Rocky Mountain Avenue
  - McWhinney Boulevard to Crossroads – completion of connection, widening to 4 lanes, additional turn lanes, new intersections, and landscaped medians
- Crossroads Boulevard
  - Rocky Mountain Avenue to I-25 - widen to 4 lanes, additional turn lanes, new intersection at Byrd Drive with Traffic Signal, and landscaped medians
  - New roundabouts at I-25 Ramp intersections
  - I-25 to LCR 5 – Widened to 4 lanes with additional turn lanes and new signal at Clydesdale Parkway
  - Crossroads at LCR 5 – Ultimate Intersection Improvements and Traffic Signal
- LCR 5 (Fairground Boulevard)
  - Construction to complete connection to SH 392
- Centerra Parkway
  - Construction north of Eisenhower to Crossroads Boulevard including ultimate improvements to Draft Horse Drive

- Eisenhower (US 34)
  - East of Wilson – New Median
  - Lincoln to Monroe – widening and addition of bike lanes
  - Madison to Greeley-Loveland Irrigation Canal – new storm sewer and roadway widening
  - Eisenhower at Mountain Lion Drive – New Intersection
  - Eisenhower at Sculptor Drive – New Intersection and Traffic Signal
  - Eisenhower at Hahn's Peak Drive – New Intersection and Traffic Signal
  - Eisenhower at Centerra Parkway - New intersection, turn lanes, and Traffic Signal
  - Eisenhower at Madison Avenue – New continuous flow intersection
  - Monroe Avenue to Denver – Widened to 6 lanes by restriping
  - US 34 and I-25 Interim Interchange
- 14th Street SE (SH 402)
  - 14th Street SE at Lincoln - Additional turn lanes and new Traffic Signal
  - Lincoln to St. Louis - Widening, additional turn lanes, and new median
- Lincoln (US 287)
  - Lincoln Avenue at 19th Street SE – New signal
- Hahn's Peak Drive - US 34 to Rocky Mountain Ave - New 2 lane arterial

Planning for Development

One of the key components in the oversight of the transportation system in Loveland is the review and approval of new development. The Transportation Development Review Division of the Public Works Department is responsible for analyzing and evaluating information regarding transportation needs and improvements associated with new land developments proposed within and near the City's municipal boundaries. The division works very closely with both the Current Planning Division of the Development Services Department and the Project Engineering and Traffic Engineering Divisions of the Public Works Department. These departments collaborate closely with one another and with all other City departments involved in the review of new development projects.

The primary objectives of the Transportation Development Review Division are to:

- Identify facilities necessary to serve transportation needs in the community, and
- Ensure that these facilities are designed and constructed for the safety and convenience of the traveling public.

Other Considerations

Other items affecting change from 2000 to today include:

- Environmental Requirements – Focus has increased in this area with respect to discharge of stormwater from construction sites, impacts on historical structures, and items related to Environmental Justice.

- Americans with Disabilities Act (ADA) Needs – In the time since the ADA was originally passed, increased emphasis on mobility for a broader cross range of the population has changed the way transportation projects are designed and constructed, in many cases adding to the complexity of projects.

- Demographics of Loveland Population – As the Baby-Boomers age, this shift in the population will affect the shape of the community today and going forward.

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Section 5: 2035 Analysis and Projections

Introduction

To develop a successful transportation plan for the City of Loveland, a careful balance was sought between three critical, interrelated elements: land use, level of service expectations, and transportation improvements. Accordingly, a significant portion of the previous Transportation Plan planning process was spent evaluating a number of possible future scenarios with different assumptions in each of these areas. The previous findings have been brought forward into the 2035 Transportation Plan.

Land use is difficult to directly relate to traffic congestion on a particular street. However, the type, intensity, and location of growth directly affect travel patterns within Loveland and the region. Land use can be influenced by local policy documents such as the Comprehensive Land Use Plan and the Zoning Code, but it is also affected by the land use and transportation choices made by Loveland's regional neighbors.

Loveland's **level of service** expectations for the transportation system in 2035 continues to be LOS C on all City owned arterials. This desire, expressed as a policy statement, reflects the importance of mobility to Loveland's residents and the strong concern about street congestion and its negative impacts on quality of life. On major state highways through town (most significantly US 34 and US 287), the LOS goal has been reduced to LOS D operations for the following reasons:

- Regional highways that double as commercial corridors through town tend to attract higher levels of traffic. Motorists expect to encounter slower traffic with a bit more congestion in these mixed use areas as these roadways provide both mobility and a high level of local access.
- CDOT has adopted a LOS D goal for these state highways.
- Adjacent communities, such as Fort Collins to the north and Longmont to the south along US 287, have adopted LOS D as an operational goal.
- At signalized intersections, LOS D means that the average motorist is delayed between 35 and 55 seconds while passing through the intersection.
- Many Front Range communities routinely experience LOS D or E operations during peak periods on this type of corridor, and typically consider that level of congestion acceptable. This is particularly true when the impact of widening a roadway to add capacity and improve LOS has a very high price tag and a negative impact on community character.
- Allowing LOS D on these state highway corridors will minimize the need to widen roadways, and in this context is consistent with the City's new sustainability plan.
- It is important to note that reducing the LOS goal to D on state highways in Loveland should not have a negative traffic impact on the surrounding roadway network in the community. The increase in delay associated with LOS D should not be high enough to cause motorists to divert onto other roadways with a lower classification in an attempt to bypass congestion.
- This City has a policy that it does not want to see major arterials widened beyond 6 through lanes. Allowing LOS D operations is an important consideration in minimizing the need to widen major arterial roadways.

The last element, **transportation system improvements**, has been discussed in some detail throughout Section 2.0. Capacity can be expanded by constructing additional streets, by widening existing streets, and to some extent, by increasing transit service, alternative mode facilities, and TDM programs like telework and vanpooling. The relationship between capacity expansion and improved level of service is direct, but is limited by funding constraints.

The following plans for Loveland's transportation system reflect the outcome of extensive analysis and numerous discussions about the complex relationships between these three elements.

Street Plan

Alternatives Analysis

The transportation committee associated with development of the 2020 Transportation Plan considered began by considering both potential land use alternatives and possible street improvement scenarios for both 20 year and buildout (beyond 2050) planning horizons to ensure the long term success of transportation system investments. In the last Transportation Plan update, the recommendations were reevaluated and refined for the 2030 planning horizon.

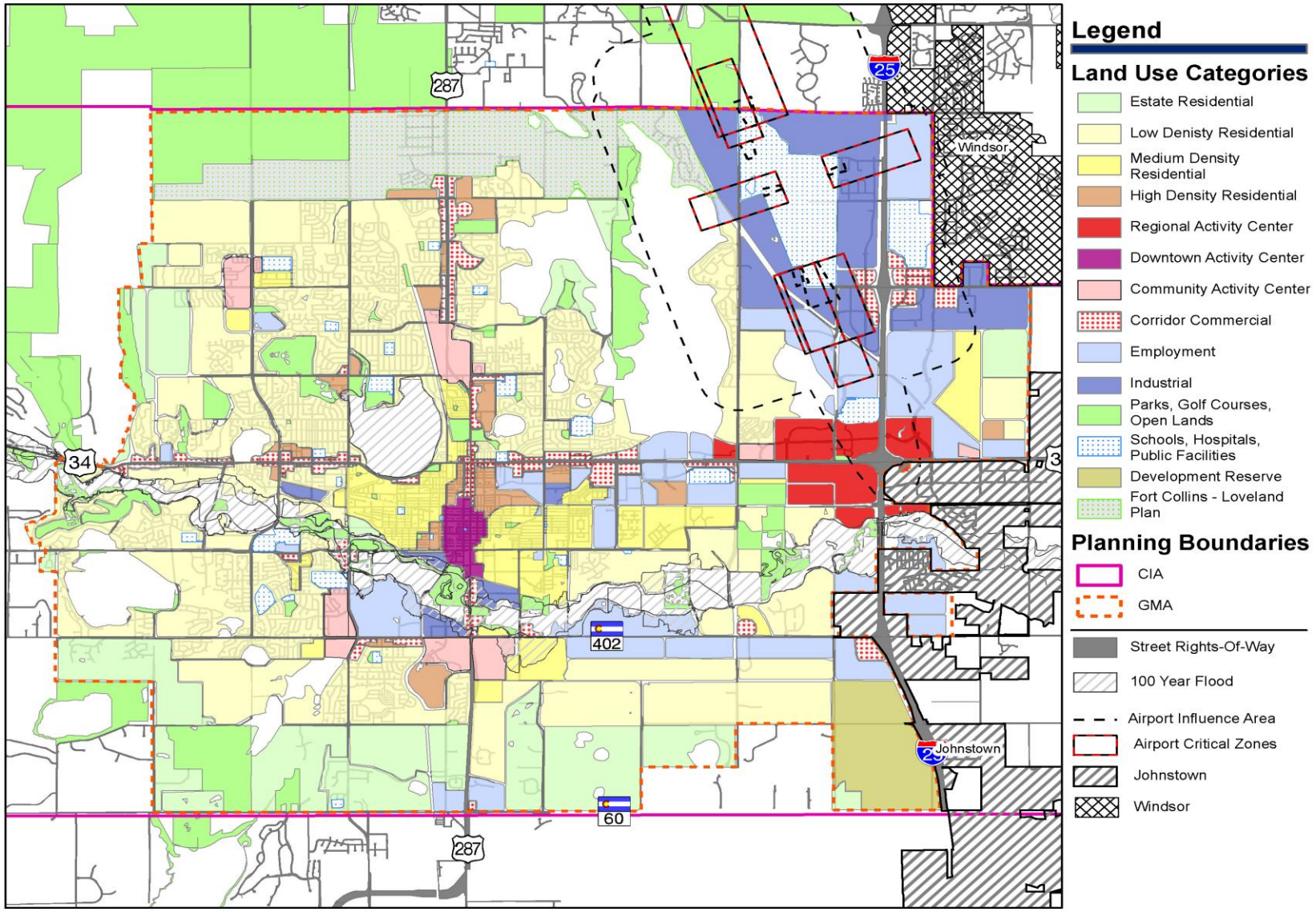
For this 2035 Transportation Plan update, staff has incorporated the most current land use projections for the year 2035, and once again has developed regional land use projections for the longer term buildout planning horizon. .

To analyze these various future alternatives, a traffic model was developed and served as the primary tool to project the effects of widening existing streets, adding new roadway connections bypasses, and changing the land use assumptions. The travel model was developed by starting with the current MPO regional model and then adding detail and refinement in the Loveland area. In this way a solid foundation was constructed for the 2035 Transportation Plan. The effort put into this critical piece of the data gathering process will ensure that this foundation will be utilized going forward for future updates to the Transportation Plan.

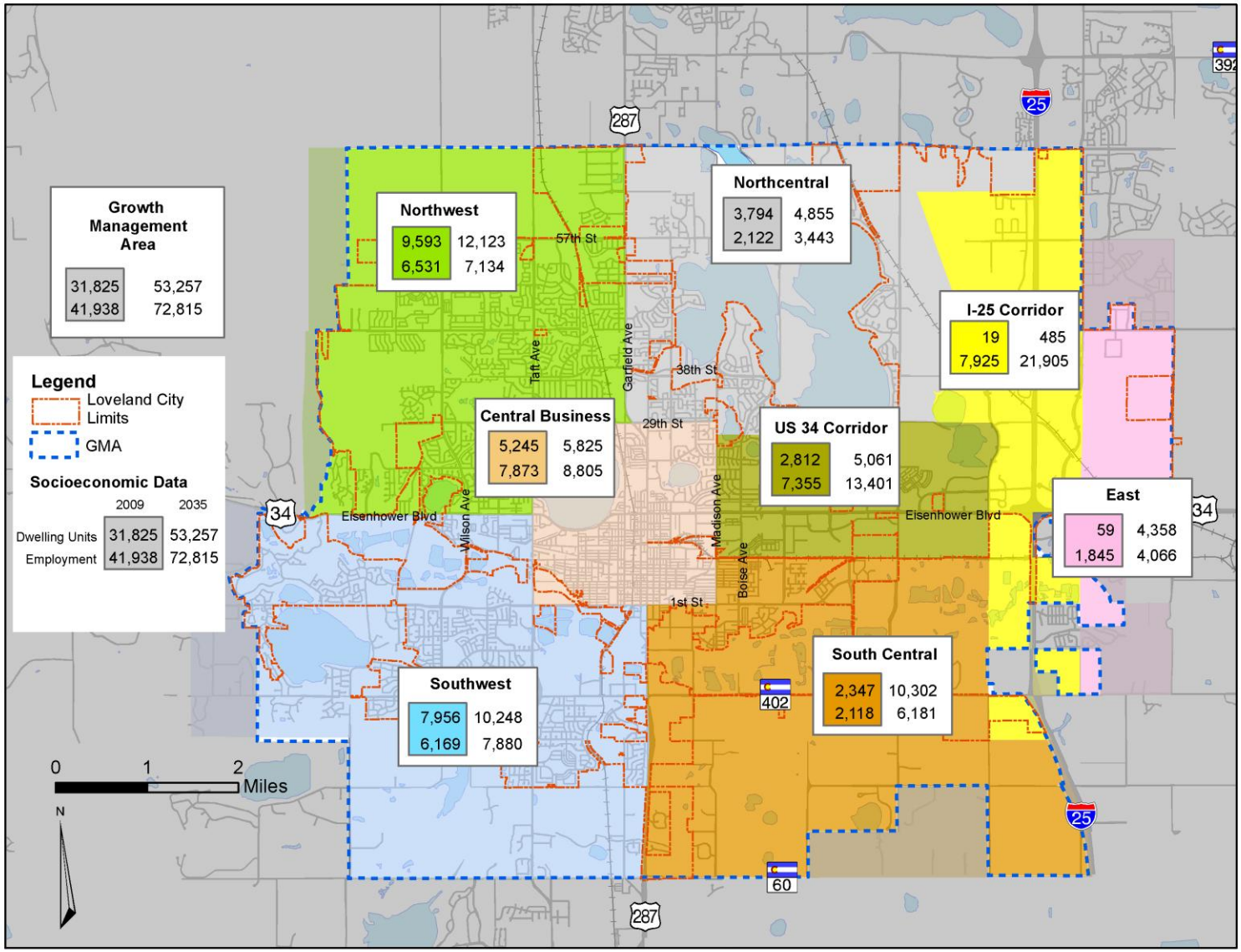
As the alternatives and projections were analyzed, it once again became clear that even with substantial widening and expansion of Loveland's street network, Loveland could not provide the level of service desired by the community on all streets. This is due, in large part, to regional land use and travel patterns that Loveland has little control over. In other words, even if the City of Loveland built an extremely expensive combination of bypasses and widening, regionally generated traffic could still cause some streets to operate below desirable LOS standards.

In close cooperation with the City's Community and Strategic Planning Division, the Land Use Plan was the basis for updating information from the 2030 Transportation Plan to be utilized in the 2035 Plan.

The Land Use Projections map represents anticipated growth over the next 23 years in the greater Loveland area. It divides Loveland into eight logical sub-areas. Within each sub-area, the projected growth in residential housing (dwelling units) and employment is shown. Although residential growth is spread out over the entire City, the vast majority of employment growth is projected to occur in the I-25 and US-34 corridors.



LAND USE PLAN



LAND USE PROJECTIONS

Street Network Alternatives

The 2030 Transportation Plan was the starting point for the future street network of the 2035 Transportation Plan. From there, modifications were made to reflect changes that occurred between 2007 and 2012, including: new developments; land use changes due to rezoning (including property being designated as conservation easements); updated road layouts due to proposed development and the impact on natural areas, other physical constraints, and in the economy in recent years. This plan update process has also revisited and tested some of the street improvements that were included in the 2030 plan, and in at least a few instances, has downsized some of the existing plan's recommendations for roadway widening.

Alternative Analysis Conclusions Identified in past Transportation Plans is still Accurate

- **Traffic conditions depend in part on Loveland's neighbors.** Loveland's traffic is determined by the growth in the entire Front Range community, not just by the size of Loveland. Loveland is part of a regional community with people traveling into, out of, and through Loveland for work, recreation, shopping, social events, and more. Accordingly, the growth of Loveland itself has less influence on traffic congestion than was initially assumed.

- **Building more roads or widening existing roads will reduce congestion.** While building bypasses to route traffic away from the City's core area was considered, widening existing roads helps reduce congestion in a cost effective manner, with fewer negative impacts. This approach puts the dollars into the most effective plan that will have the least negative impact.

- **The North Front Range cities are growing toward I-25.** The cities on the west side of I-25 are growing toward the east. With I-25 as the primary north-south corridor, it makes sense to pursue improvements on I-25 and regional transit alternatives in this corridor.

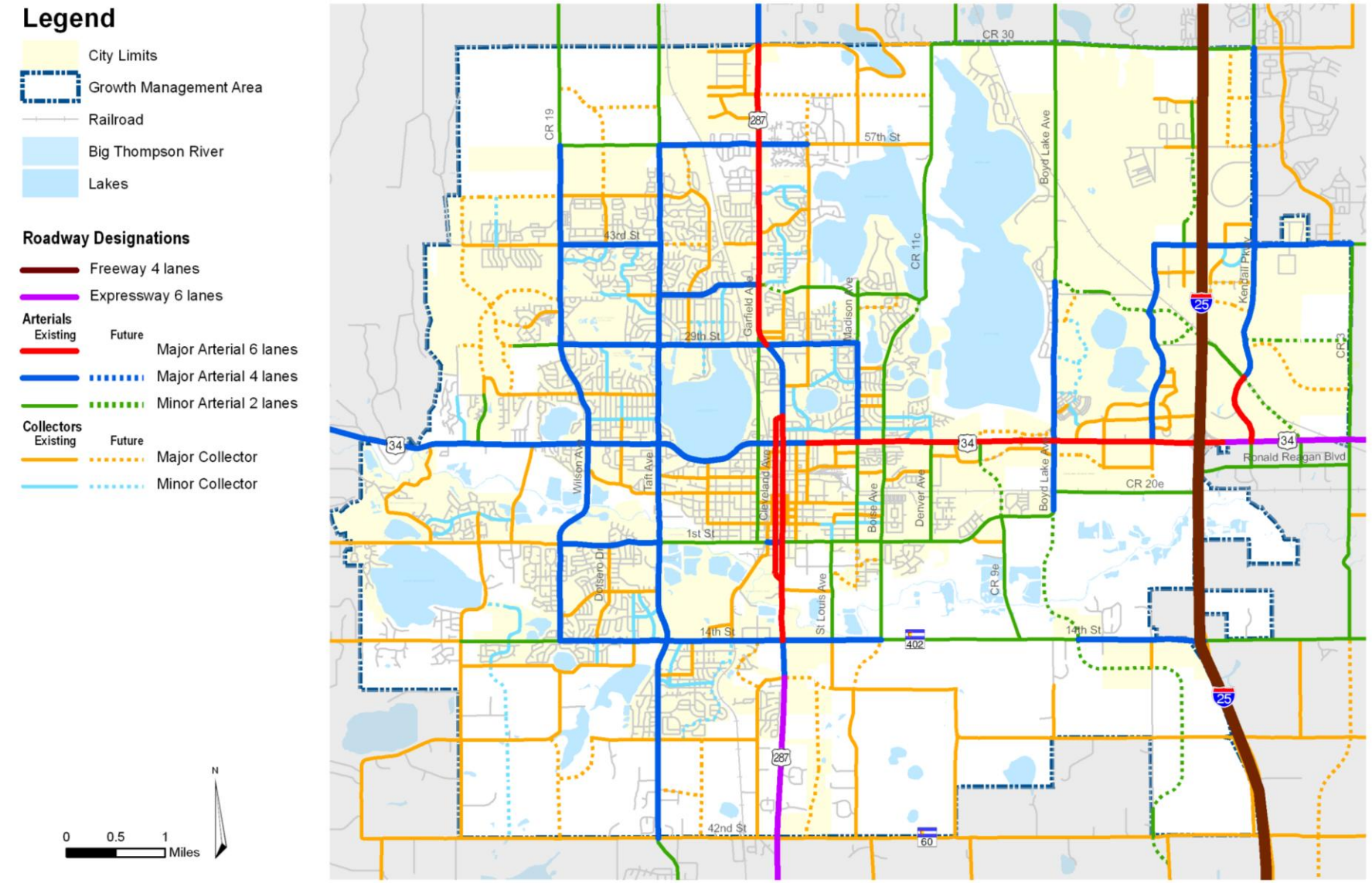
- **Bypasses are not the answer for the entire City.** Analysis of the bypass options revealed that they are not the best way to control traffic in the northwest, northeast, and southeast parts of town. In these areas, it makes more sense to widen current streets and extend others. The best opportunity to adopt this principle is the development of parallel north-south arterials adjacent to I-25 (i.e. Boyd Lake Avenue and LCR 5 (Centerra Parkway/Fairgrounds Boulevard)) in order to provide relief for short trips from I-25.

- **Transportation alternatives only reduce traffic slightly.** Public transit systems and pedestrian and bicycle routes are important mobility components of Loveland's Transportation Plan. However, even with aggressive TDM measures, these transportation alternatives would only reduce traffic congestion 10-15% at most. With this in mind, the plan is more focused on improving the street system.

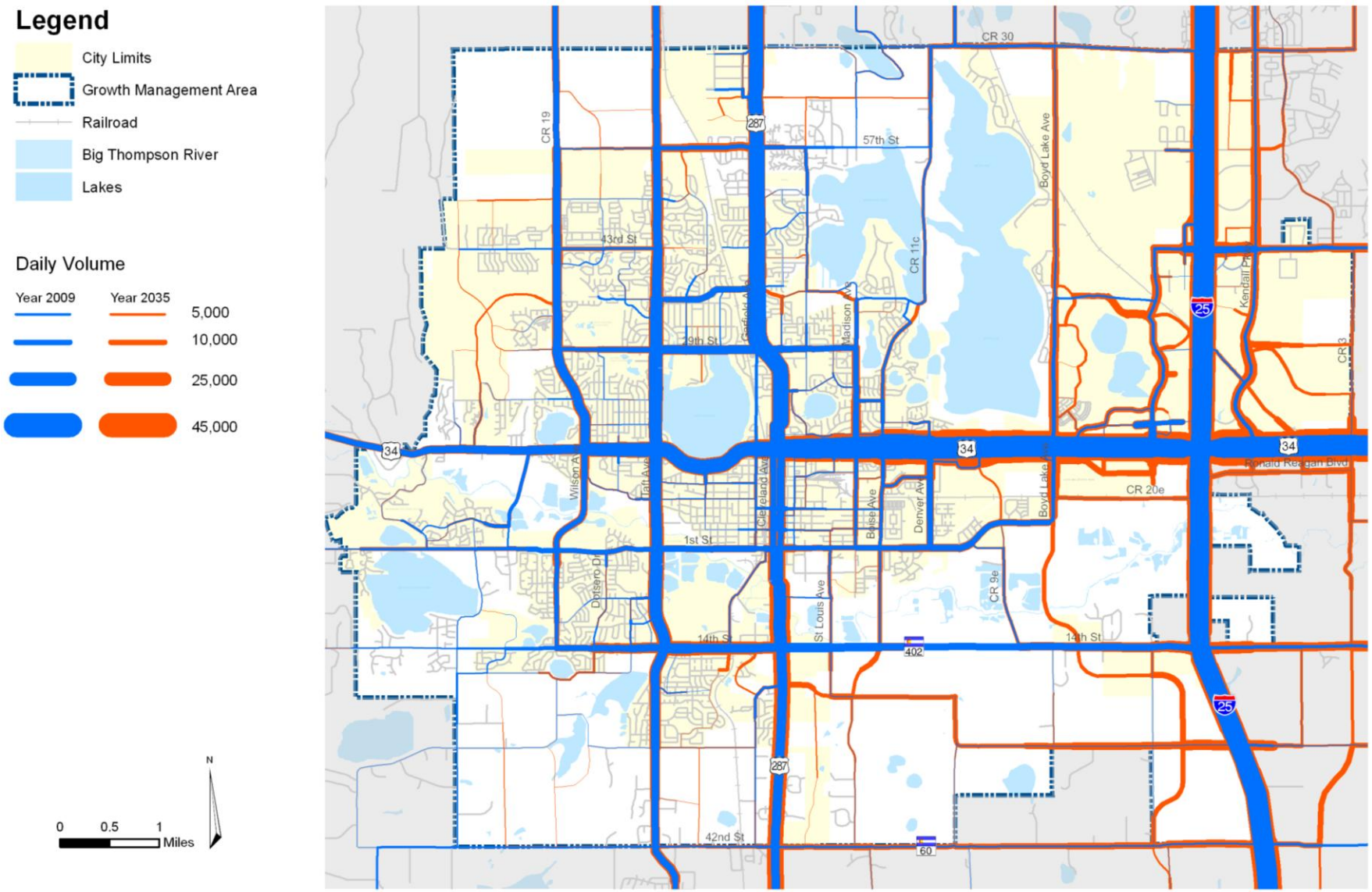
2035 Street Plan

The proposed street improvements for 2035 are illustrated on the proposed street network map. The primary goal of the recommended improvements is to maintain the overall ease of travel as the City grows while meeting or exceeding the City's level of service C threshold (LOS D on State Highways). In all cases, facilities should not exceed six lanes regardless of LOS.

To accomplish these goals, the plan proposes constructing new streets based on current street standards, widening existing streets and adding through lanes, adding center turn lanes, adding turn lanes at intersections, and improving signalization throughout the City.



2035 Street Plan



2035 Street Volumes

Forecast Year (Buildout) Street Plan

The ultimate buildout improvements map is also illustrated on the proposed Forecast Year (Buildout) Street Plan. This map is based on buildout of the proposed land use and illustrates the roadway network that will be necessary in the long term planning horizon that is beyond the year 2035. This map can be used to help the City of Loveland reserve future right-of-way in key transportation corridors.

ITS

Intelligent Transportation Systems (ITS) improves transportation safety and mobility and enhances productivity through the use of advanced communications technologies.

ITS encompass a broad range of wireless and wire line communications-based information and electronics technologies. When integrated into the transportation system's infrastructure, and in vehicles themselves, these technologies relieve congestion, improve safety and enhance American productivity.

ITS is made up of 16 types of technology based systems. These systems are divided into intelligent infrastructure systems and intelligent vehicle systems.

Intelligent Infrastructure Systems

- Arterial Management
- Freeway Management
- Transit Management
- Incident Management
- Emergency Management
- Electronic Payment
- Traveler Information
- Information Management
- Crash Prevention and Safety
- Roadway Operations and Maintenance
- Road Weather Management
- Commercial Vehicle Operations
- Inter-modal Freight

Intelligent Vehicle Systems

- Collision Avoidance Systems
- Collision Notification Systems
- Driver Assistance Systems

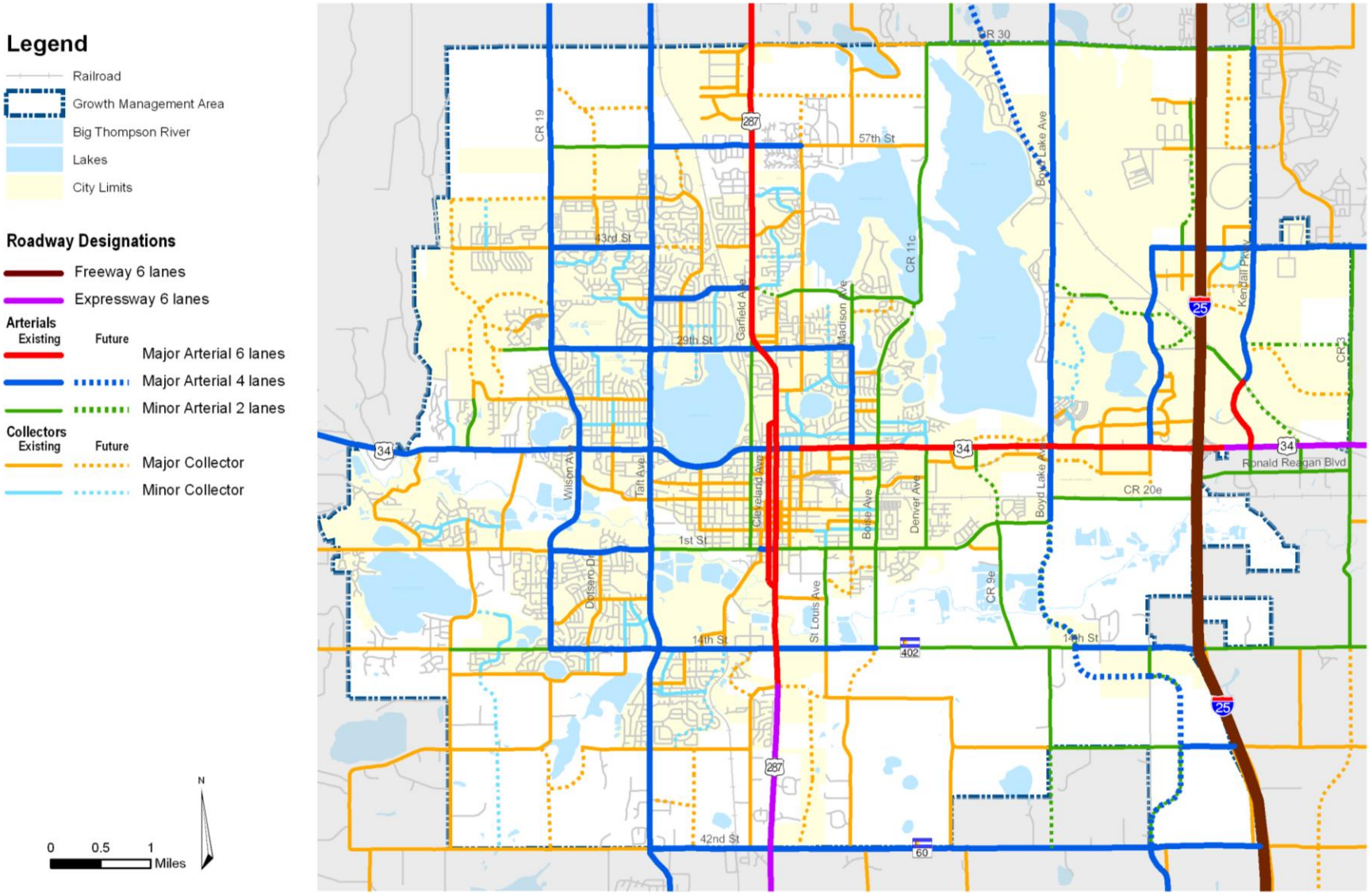
Definitions, Existing, and Future Systems

The City of Loveland currently has "intelligent infrastructure" in several of these areas and will be working on enhancing and expanding them in the future.

Arterial Management Systems

Arterial management systems manage traffic along arterial roadways, employing traffic detectors, traffic signals, and various means of communicating information to travelers. These systems make use of information collected by traffic surveillance devices to smooth the flow of traffic along travel corridors. They also disseminate important information about travel conditions to travelers via technologies such as dynamic message signs (DMS) or highway advisory radio (HAR).

In this area, the City of Loveland currently has over 80 traffic signals. Current efforts are underway to link each of these signals to the Traffic Operations Center and provide for the addition of future signals. Additional anticipated improvements include the installation of cameras (for traffic only, not photo radar or red light cameras) at all signalized intersections to provide real time pictures of intersections. The Traffic Operations Center will include upgraded Traffic Signal System Software housed in a centralized computer that will allow for system adjustments related to traffic volumes and flow. In addition, the real time pictures will allow for further adjustments of signal timings and synchronization.



FORECAST YEAR (BUILDOUT) STREET PLAN

Freeway Management Systems

There are six major ITS functions that make up freeway management systems: Traffic surveillance systems use detectors and video equipment to support the most advanced freeway management applications. Traffic control measures on freeway entrance ramps, such as ramp meters, can use sensor data to optimize freeway travel speeds and ramp meter wait times. Lane management applications can address the effective capacity of freeways and promote the use of high-occupancy commute modes. Special event transportation management systems can help control the impact of congestion at stadiums or convention centers. In areas with frequent events, large changeable destination signs or other lane control equipment can be installed. In areas with occasional or one-time events, portable equipment can help smooth traffic flow. Advanced communications have improved the dissemination of information to the traveling public. Motorists are now able to receive relevant information on location specific traffic conditions in a number of ways, including dynamic message signs, highway advisory radio, in-vehicle signing, or specialized information transmitted only to a specific set of vehicles.

Although Loveland has no freeways within the actual City, linking the City's system into the I-25 corridor will allow for traveler coordination and information transfer for vehicles entering and exiting at Loveland.

Transit Management Systems

Transit ITS services include surveillance and communications, such as automated vehicle location (AVL) systems, computer-aided dispatch (CAD) systems, and remote vehicle and facility surveillance cameras, which enable transit agencies to improve the operational efficiency, safety, and security of the nation's public transportation systems.

This area is still being developed for the City's Transit System.

Incident Management Systems

Incident management systems can reduce the effects of incident-related congestion by decreasing the time to detect incidents, the time for responding vehicles to arrive, and the time required for traffic to return to normal conditions.

Incident management systems make use of a variety of surveillance technologies, often shared with freeway and arterial management systems, as well as enhanced communications and other technologies that facilitate coordinated response to incidents.

Through the implementation of items listed above, incident management will be improved greatly through the centralized ability to manage signal systems through localized sensors and real time pictures.

Emergency Management Systems

ITS applications in emergency management include hazardous materials management, the deployment of emergency medical services, and large and small-scale emergency response and evacuation operations.

Having just commemorated the 36th anniversary of the Big Thompson Flood, enhancements and growth in this area are critical in order to provide information to the traveling public related to emergencies. Currently, only the Loveland Police Department vehicles have computers. The Loveland Fire Department and Thompson Valley EMS (ambulance) are anticipated to add this in the future.

Traveler Information

Traveler information applications use a variety of technologies, including Internet websites, telephone hotlines, as well as television and radio, to allow users to make more informed decisions regarding trip departures, routes, and mode of travel. Ongoing implementation of the designated 511 telephone number will improve access to traveler information across the country.

As vehicles travel within and through Loveland, the future ability to provide them with information about US 34 in Estes Park, Loveland or Greeley, or I-25 will help provide real-time data and information for better decision making and route choosing and adjusting. This area is developing and some progress is expected over the next few years with major progress anticipated within the life of the 2035 Transportation Plan.

Crash Prevention & Safety

Crash prevention and safety systems detect unsafe conditions and provide warnings to travelers to take action to avoid crashes. These systems provide alerts for traffic approaching at dangerous curves, off ramps, restricted overpasses, highway-rail crossings, high-volume intersections, and also provide warnings of the presence of pedestrians, and bicyclists, and even animals on the roadway. Crash prevention and safety systems typically employ sensors to monitor the speed and characteristics of approaching vehicles and frequently also include environmental sensors to monitor roadway conditions and visibility. These systems may be either permanent or temporary. Some systems provide a general warning of the recommended speed for prevailing roadway conditions. Other systems provide a specific warning by taking into account the particular vehicle's characteristics (truck or car) and a calculation of the recommended speed for the particular vehicle based on conditions. In some cases, manual systems are employed, for example where pedestrians or bicyclists manually set the system to provide warnings of their presence to travelers.

This area is developing quickly and will be coming into the City of Loveland in the near future. It is expected that this area will see significant technological improvements over the next 5 to 10 years.

Roadway Operations & Maintenance

ITS applications in operations and maintenance focus on integrated management of maintenance fleets, specialized service vehicles, hazardous road conditions remediation, and work zone mobility and safety. These applications monitor, analyze, and disseminate roadway and infrastructure data for operational, maintenance, and managerial uses. ITS can help secure the safety of workers and travelers in a work zone while facilitating traffic flow through and around the construction area. This is often achieved through the temporary deployment of other ITS services, such as elements of traffic management and incident management programs.

As Loveland continues to grow and the existing roadway system expanded, updated and improved, real-time data and information about work zones and alternate routes will become more critical in easing congestion for the traveling public.

Road Weather Management

Road weather management activities include road weather information systems (RWIS), winter maintenance technologies, and coordination of operations within and between state DOTs. ITS applications assist with the monitoring and forecasting of roadway and atmospheric conditions, dissemination of weather-related information to travelers, weather-related traffic control measures such as variable speed limits, and both fixed and mobile winter maintenance activities.

Road Weather Management is currently being utilized to provide road condition reports to drainage and snow removal crews, not only in the area of precipitation measuring but also in pavement temperature and overall weather conditions that can lead to unsafe conditions. Enhancement in this area is expected over the next few years through more coverage of the City as well as in the areas of the information provided.

In many of these areas, the rate of technological improvements will dictate the speed and path of ITS. What may not even be imagined today can easily exist tomorrow in this area, keeping ITS on the forefront as the most exciting part of part of transportation planning and management.

Street Maintenance

Background

The City of Loveland currently maintains 330 miles of public streets, not including the State Highways or private roads within the City. This equates to over 7.1 million square yards of pavement that must be maintained in at an acceptable level to the citizens of Loveland. This street system carries an average of over one million vehicle miles traveled each day. This transportation network forms the basis for almost all travel within and through the City, and is essential to many aspects of daily life within our community. The replacement cost of the roads including curb, gutter and sidewalk is over $360 Million in 2012 dollars.

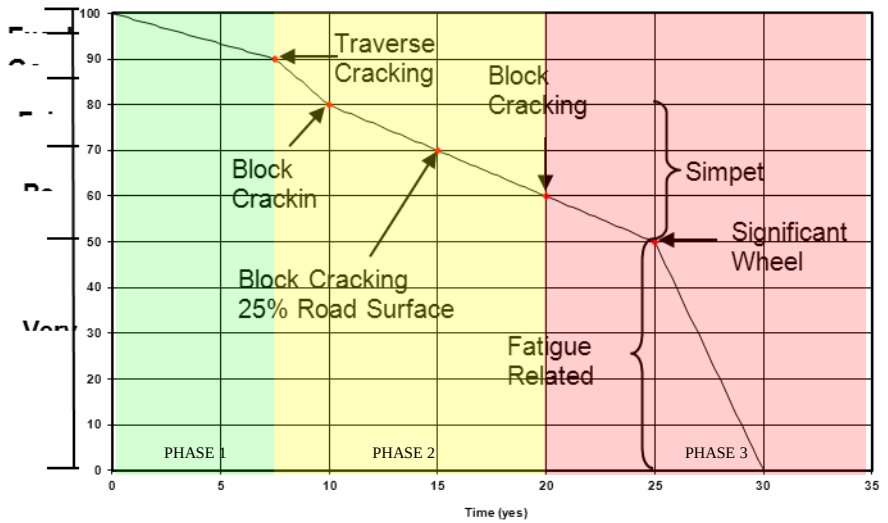
To more effectively manage the long term maintenance and rehabilitation of this street system, the City implemented a computer based pavement management program (PMP) in 1986. The premise upon which the PMP operates is straightforward:

- As pavement ages its deterioration usually follows a curve similar to the one on the following page.
- As the pavement deteriorates it becomes more expensive to rehabilitate.
- After a pavement deteriorates beyond a certain point the repair costs increase dramatically.

Based on these principles, it is more cost effective to apply less expensive treatments early in the pavement's life cycle rather than allowing the pavement to deteriorate to the point of reconstruction and significant cost.

During the first stage of the pavement life cycle, a road can be restored to nearly new condition with the application of relatively inexpensive crack seal and chip sealing the surface or with thin overlays. During the second and third stages the pavement has lost some structural strength, especially where water intrudes at cracks, softening the foundation soils and increasing freeze-thaw deterioration of the asphalt itself, requiring patching. If allowed to deteriorate further, the pavement has lost so much structural integrity that it usually needs to be reconstructed. The goal of the PMP is to use low cost, but socially acceptable maintenance techniques at the appropriate time to keep pavement on the "high end" of the curve to minimize long term costs. This translates into a goal of keeping 75 percent of the City's inventory in the good to excellent category of our rating system.

GENERAL PAVEMENT DETERIORATION CURVE



Current funding levels have allowed the City to meet this goal. The ability of the City to continue to meet this goal in the future depends on providing additional funding to cover additional roadway area generated by new development and increased cost of maintenance activities due to inflation of labor and materials.

Past and Current PMP Strategy

In 1996, the City Engineer developed a strategy to keep costs as low as possible and to develop a program that can be funded every year. This program emphasized preventative maintenance and asphalt overlays rather than roadway reconstruction. Placing the emphasis on treating streets in relatively good condition is somewhat counterintuitive, in that work on roadways in poor condition is postponed to allow dollars for maintenance of roads in good condition.

The City's current strategy focuses on crack and chip sealing street surfaces that are in good condition to prevent moisture penetration and asphalt degradation caused by oxidation and sunlight (UV) exposure. The asphalt membrane placed with a chip seal is analogous to painting a wood sided house to prevent the wood from rotting. The chip layer is necessary to provide for a friction surface that provides adequate

skid resistance for safety. This process is then rotated on a seven to 10-year cycle with an asphalt overlay which adds structure to the roadway to replace that lost due to freeze thaw.

From 2000 through 2003 the PMP focused on the rehabilitation of major streets in Loveland. These streets carry the greatest volume of traffic and, therefore, yield the highest return on investment (benefit to cost ratio). By 2004, many of the serious maintenance problems on the major streets had been addressed so the focus shifted to resurfacing operations on local streets.

Local streets comprise nearly sixty percent of the street network and most carry less than 300 vehicles per day, with very few trucks, (mainly trash trucks). Because local streets have light traffic both in terms of volume and weight, they are prime candidates for low cost seal-coating techniques if the ride is good and the surface stable.

Newly constructed streets provide a challenge for pavement maintenance in that they are not always stable due to the changing nature of the soils below the new street. These changes include heavy construction traffic, trench settlement in newly constructed utilities, and changes in moisture due content as new home owners irrigate new lawns.

Generally the maintenance strategy for a newly constructed street consists of:

- A leveling course and overlay around year 7 to 10 in order to smooth ride issues related to trench settlement of the utilities trenches located under the road.
- Crack sealing is typically done in year 10 to 14 to prevent moisture intrusion as cracks form in the asphalt surface due to water and oxidation aging.
- Chip seal of the surface is typically done in year 12 to 14. This procedure reinforces the crack sealing efforts by placing a membrane of polymer modified asphalt across the surface of the road and covering the road with a new surface of chip.
- This cycle is then repeated as needed. Typically a chip seal on a stable road can last 10 to 12 years. Stable roads are dependent on the initial pavement design and construction quality, utility trench construction quality, presence of swelling soils, water intrusion at concrete joints and back of walk, traffic levels, utility repairs/ patching and watering practices of the adjacent parcels.

This typical 25-year pavement strategy generally preserves the road in the good category (PCI of 80 or better). Additional maintenance beyond this time line can sustain a pavement for longer periods without reconstruction. The condition of a similar road with no maintenance during this period would generally drop below a PCI of 50 which is the point where the road must be reconstructed at roughly twice the cost of routine maintenance.

The ability to utilize seal coats is a critical element to the success of a PMP that focuses on low cost sealing techniques. According to our modeling, if chip sealing were to be eliminated from the strategy pool, the City would need to budget an additional $500,000 per year in today's dollars to maintain the inventory at the current average network PCI level of 80. ***It must be clearly understood that this PMP is not a one-time project but instead a perpetual maintenance program.*** The long term savings of this program will only be realized if there is a commitment to on-going funding and use of the most appropriate treatment.

Success Areas

The following is a list of successes with the street maintenance program to date:

- Slowly reduced City's inventory of streets that have significant problems.
- Coordinated with CDOT to overlay US 287 through City.
- Changed to overlays over using chip seals in the bulb of cul-de-sacs in an effort to reduce chip seal complaints. This combined with efforts to sweep up loose chip within a month of the initial treatment has allowed for a significant reduction in complaints.
- Successfully utilized a paving train treatment to rehabilitate older, thin asphalt pavements that have stable base layers but the asphalt is oxidized to the point of reconstruction.
- Consistently able to cover ten percent of our inventory each year which keeps us on a 10-year treatment cycle.
- Incorporated ADA ramps at most of the street intersections throughout the City.

- Successfully worked with local railway companies to share cost in the reconstruction of six at grade crossings located at 1st Street, 37th Street, 14th Street SW, Monroe Ave, 10th Street, Garfield, and Boyd Lake Avenue, with additional crossings planned for future.

Areas for Improvement or Change

Significant challenges both for design, execution and for budgeting include:

- Concrete curb, gutter and sidewalk conditions in the old town area are in poor to very poor condition.
- No specific budget exists to maintain City bridges. A list of needed repairs has been prepared by a consultant and the repair cost is estimated to be $55,000 per year over a ten year period. These maintenance needs are currently going unaddressed and funds for emergency repairs are taken from the resurfacing program.
- No inventory system for curb, gutter and sidewalk to allow maintenance budget projections.
- Significant issue with manhole and valve box ride issues. These features have to be raised during an overlay. This issue is being addressed with better riser ring materials that seat better and money to reconstruct the areas around these features.
- Significant problems with utility trench settlement in new roads. Depressions appear in the roads where backfill material was not placed to required density. This issue requires that the depressions must be repaired prior to treatment with a chip seal. Extensive trench settlement requires an overlay to address the problem areas thus forcing the City to use a more expensive initial treatment.
- Significant issues with over watering of lawns in new subdivisions. With the advent of underground sprinkler systems, homeowners have opted to over water their lawns leading to extensive runoff. This runoff softens the road along the curb and gutter where home owners abut to the roadway. The water enters the clay soil from the back of the curb and through the many joints in the gutter. A number of roadway failures have occurred due to moisture sensitive clays and heavy construction traffic.

Summary

The Pavement Management Program currently used is a least cost approach to pavement management City-wide. The purpose of the program extends beyond just pavement, and it attempts to keep the infrastructure for all travel modes in good condition. It also incorporates safety improvements to some streets as part of the rehabilitation effort. A variety of resurfacing and rehabilitation techniques are employed, and each street receives the most cost effective maintenance strategy needed to keep the street in good condition, within the constraints of the budget. It is essential to continue to provide consistent funding at a level sufficient to reach streets early in the deterioration cycle so costs can be kept as low as possible. The high level of safe mobility that is part of our enviable quality of life in Loveland relies on the well-being of this system.

Recommendations

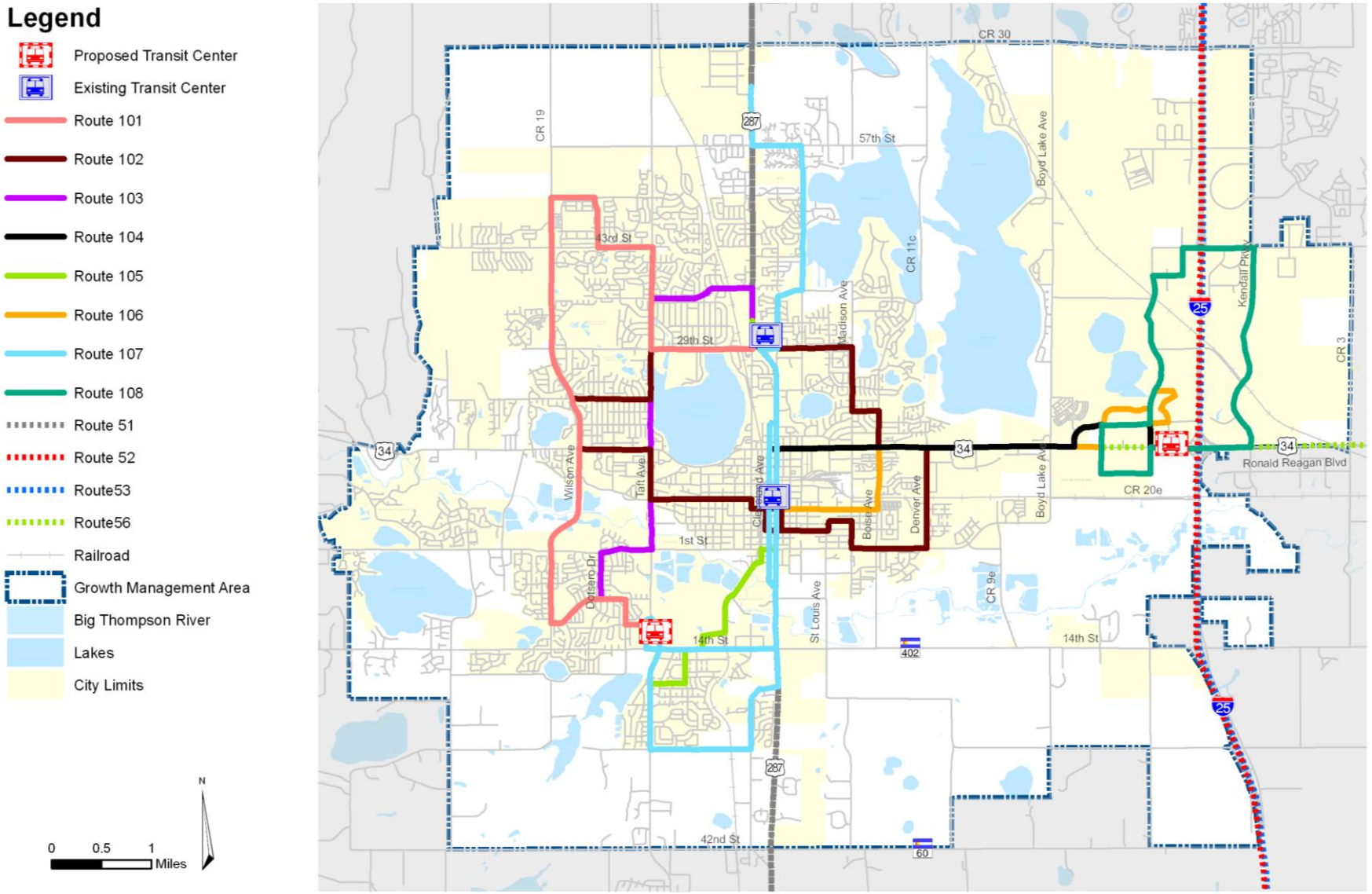
- Increase funding for street rehabilitation and maintenance to $0.58/SY with increases for annual inflation and increases in inventory.
- Continue chip seal program and increase crack sealing efforts.
- Increase concrete repair efforts in the older areas of town where stable roadways do not require overlays.
- Complete curb, gutter and sidewalk inventory.
- Revise specifications for utility trench construction and review existing roadway construction warranty policies.
- Develop a comprehensive bridge maintenance, repair and replacement program to assist with budget development for these activities.
- Develop a program to work with local railroads to maintain at-grade crossings.

Transit Plan

A public transit system of a size and quality commensurate with the needs of future Loveland residents and businesses is an important element of the Transportation Plan.

The City already operates a small fixed-route bus system for the general public, as well as complimentary paratransit service for persons with disabilities, and seniors. These services provide the basis for a system that will integrate local and intercity bus routes into a seamless regional transit network that also may include a commuter rail corridor along the Front Range. The need for such a system will become increasingly great as the distribution, variety, and density of land uses expand, and as neighboring cities in the North Front Range extend to the borders of Loveland.

The primary customer base for COLT will remain "transit dependent" riders such as seniors, disabled, students, and those of limited financial means. Due to financial constraints such as limited federal funding, decreasing general fund dollars, and no Regional Transit Authority (RTA), growth in the transit system will be stagnant. Loveland will adopt a status quo approach to transit growth for the future. Limited improvements for potentially reducing headways on existing routes and controlling operating costs and inflationary adjustments will be considered. Periodic review and update of the COLT Transit Plan, as required by the federal government, will ensure that Loveland's transit system can adapt to the changing needs of the City.



PROPOSED TRANSIT PLAN

The City of Loveland's transit plan was a framework for implementation of future transit improvements in three phases. Phase 1 recommends substantial transit growth over existing service in Loveland. It also recommends bi-directional service and a new regional connection to Longmont. Partnering strategies would likely be considered for the implementation of regional services.

The Future Transit Map identifies service improvements recommended for Loveland. An overview of these recommendations follows.

Phase 1

Local Services

- Proposes redesigned routes to provide Loveland with bi-directional loop service instead of one-way loops

Regional Services

- Proposes a new regional route between Loveland and Longmont with weekday and Saturday service

Phase 2

Phase 2 recommends further expansion of transit service in Loveland, as well as expansion of regional connections. Partnering strategies would likely be considered for implementation of regional services. This phase provides greater route coverage, higher service frequencies, and longer span of service in Loveland. An overview of these recommendations follows.

Local Services

- Recommends facility improvements at two existing transfer stations: the North
- Transfer Station at Orchards Shopping Center and the South Transit Center at
- 8th Street/US 287
- Recommends a new shared park-and-ride and transfer facility adjacent to
- Centerra near I-25 and US 34
- Proposes two new routes providing enhanced connections between south Loveland and Centerra, and expansion of north/south service to the south Loveland area
- Proposes early evening service (until 8:30 PM) on weekdays and Saturdays for two routes

Regional Services

- Recommends a new regional route connecting Fort Collins, Loveland (Centerra), and Denver
- Proposes a more direct connection between central Loveland and Greeley
- Proposes early evening service (until 8:30 PM) on the route to Longmont and late evening service (until midnight) for the route replacing the FoxTrot to Fort Collins
- Proposes Saturday service for three regional routes

Phase 3

Phase 3 recommends additional transit growth in Loveland including longer service hours and limited Sunday service. An overview of these recommendations follows.

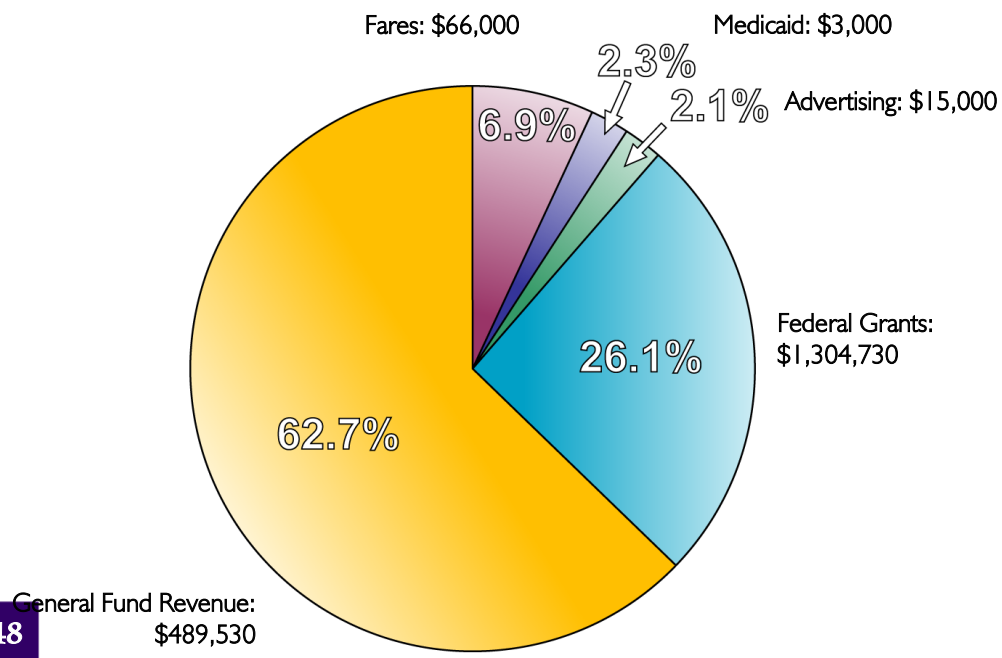
Local Services

- Proposes a new South Transfer Station at Thompson Valley Towne Centre (14th
- SW and Taft)
- Recommends two new routes expanding service to the west Loveland area along
- Wilson and Taft
- Proposes improvements to service frequency on the primary central loop route
- Proposes early evening service (until 8:30 PM) for four routes and late evening service (until midnight) for two routes on weekdays and Saturdays
- Proposes Saturday service for all eight routes
- Proposes Sunday service for four routes

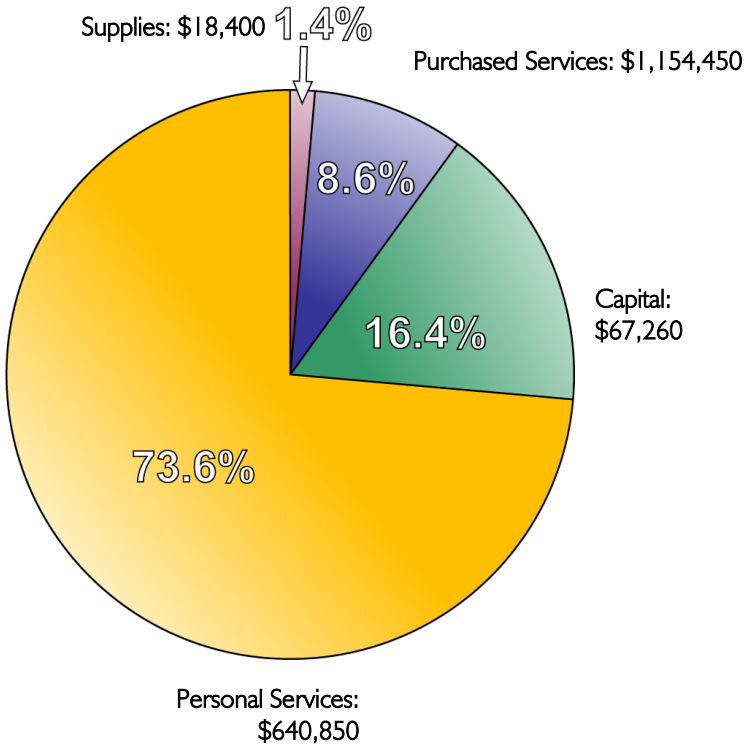
Regional Services

- Proposes a new highway route providing connections between South Fort
- Collins, Loveland (Centerra), Longmont, and Boulder
- Recommends reconfiguration of a regional route to provide service between Fort
- Collins, Loveland, Berthoud, and Longmont, with Saturday and Sunday service
- Recommends additional late evening service (until midnight) for the route between Fort Collins and Longmont (via Loveland)

Transit Revenues: $1,880,960



Transit Expenditures: $1,880,960



2012 Transit Revenues			**$ 1,880,960**
	General Fund Revenue		$ 489,530
	Federal Grants		$ 1,304,730
	Fares		$ 42,000
	Medicaid		$ 3,000
	Advertising		$ 15,000
	Pass Sails		$ 24,000
	Other?		$ 2,700
2012 Transit Expenditures			**$ 1,880,960**
	Personal Services		$ 640,850
	Supplies		$ 18,400
	Purchased Services (Including Fixed Charges)		$ 1,154,450
	Capital		$ 67,260
	Other		$ -

Transit Oriented Development Concept

Transit Oriented Development is the exciting new fast growing trend in creating vibrant, livable communities, and is an item that will be considered for the future in Loveland. Also known as Transit Oriented Design, or TOD, it is the creation of compact, walkable communities centered around high-quality transit systems (bus and/or rail). This makes it possible to live a higher quality life without complete dependence on a car for mobility and survival.

Factors Driving the Trend Toward TOD

- Rapidly growing, traffic congestion nation-wide
- Growing distaste for suburbia and strip development
- Growing desire for quality urban lifestyle
- Growing desire for more walkable lifestyles away from traffic
- Changes in family structures: more singles, empty-nesters, etc
- New focus of Federal policy

What is a Transit Center?

Transit centers are significant components of most successful transit systems. Such facilities serve multiple functions as safe and convenient transfer points between local routes, as park-n-ride access points for regional and commuter express services, and as transportation focal points for commercial and high-density residential districts. The 2030 transit plan proposes that off-street transit centers be preserved at possibly four key transfer points:

Downtown Loveland will be an important destination for local and regional transit riders. Regional service between Fort Collins and Boulder will almost certainly exist in one form or another and will traverse downtown Loveland. Local routes will focus on the redeveloped central business district and the Civic Center complex. Under most development scenarios, the preferred location for a downtown transit center is along US-287 between 2nd and 5th Streets.

US-287/29th Street will be an increasingly important destination for transit trips, as well as a logical transfer point for bus travel between Fort Collins and points in Loveland north of downtown. The transit center at this location should provide effective pedestrian access to adjacent commercial destinations.

The I-25 interchange at US-34 will be both an important local destination and access point for transit services to other parts of the region. The City's land use plan will focus additional retail development around the Factory Outlet Stores and on the four sides of the interstate highway cloverleaf. Regional connections to Greeley, the Denver metro area, and DIA will be available at this location. The optimal transit center design will provide expedited access and egress for express buses using I-25 and local buses approaching from Loveland via Eisenhower Boulevard. Park-ride capacity should be provided adjacent to the transit center.

I-25 at the County Road 402 interchange will be an important feeder point for south Loveland residents using regional transit in the I-25 corridor and seeking access to planned commercial and employment facilities to be developed in the vicinity of the interchange. Park-ride capacity should be provided adjacent to the transit center.

Components of Transit-Oriented Design

- Walkable design with pedestrian as the highest priority
- Train station as prominent feature of town center
- A regional node containing a mixture of uses in close proximity including office, residential, retail, and civic uses
- High density, high-quality development within 10-minute walk circle surrounding train station
- Collector support transit systems including trolleys, streetcars, light rail, and buses, etc.
- Designed to include the easy use of bicycles, scooters, and rollerblades as daily support transportation systems
- Reduced and managed parking inside 10-minute walk circle around town center/train station

Benefits

- Higher quality of life
- Better places to live, work, and play
- Greater mobility with ease of moving around
- Increased transit ridership
- Reduced traffic congestion and driving
- Reduced car accidents and injuries
- Reduced household spending on transportation, resulting in more affordable housing
- Healthier lifestyle with more walking, and less stress
- Higher, more stable property values
- Increased foot traffic and customers for area businesses
- Greatly reduced dependence on foreign oil
- Greatly reduced pollution and environmental destruction
- Reduced incentive to sprawl, increased incentive for compact development
- Less expensive than building roads and sprawl
- Enhanced ability to maintain economic competitiveness

Source: TransitOrientedDevelopment.org, Alexandria, VA

How is increased transit service planned?

To ensure that Loveland will have a transit system with appropriate service levels as it grows, *transit development thresholds* are used as a planning tool. These thresholds are used as guidelines for the level of transit service in the corridors exhibiting certain land use and demographic characteristics. As the level of development increases, the ability to provide well used transit service increases. Five levels of development are considered:

Level 0—No fixed route transit service is generally required in corridors that are in the early stages of development. This would include corridors that have a population density of under 1,000 persons per square mile, limited commercial or employment-related development, large tracts of undeveloped property, and no special generators that would justify regular bus service.

Level 1—At least 50% of the land in the corridor is developed. Residential density is in the range of 1,000 to 2,000 persons per square mile. One or more small retail clusters (over 25,000 sq. ft.), small office centers, or other employment sites (over 250 jobs) are present or planned for the near-term future.

Level 2—At least 75% of the land in the corridor is developed. Residential density is in the range of 1,500 to 2,500 persons per square mile. Multiple small retail clusters or a shopping center (over 100,000 sq. ft.), office buildings, or other employment sites (over 500 jobs) are present or planned for the near-term future.

Level 3—At least 90% of the land in the corridor is developed. Residential density is in the range of 2,000 to 3,000 persons per square mile. Multiple retail clusters or shopping centers (over 250,000 sq. ft.), office buildings, or other employment sites (over 1,000 jobs) are present. Community facilities (e.g., library, post office) are located in the corridor.

Level 4—Virtually all land in the corridor is developed. Residential density exceeds 3,000 persons per square mile. Multifamily housing clusters are located in the corridor. Multiple retail clusters or shopping centers (over 500,000 sq. ft.), office buildings, or other employment sites (over 2,500 jobs) are present. Community facilities (e.g., library, post office) are located in the corridor. A continuous street and sidewalk network links adjacent neighborhoods to the corridor.

Bicycle Plan

The bicycle is a healthy alternative to the automobile for many trips. It can also play an important role in helping the City to improve its air quality and to develop a more balanced transportation system. This element of the Transportation Plan proposes improvements to existing street and trail facilities that are presently suitable for bicycles and development of an expanded system of bicycle-friendly roads and trails for Loveland's future. The plan has been developed on the basis of the analysis of existing conditions as well as input from Loveland's Bicycle and Pedestrian Committee. The following mission statement was developed by the committee and guides this plan:

> *"To make the City of Loveland a place where walking and bicycling are safe, accessible and convenient modes of transportation and recreation. It is the objective of this plan to improve bicycle ... and intermodal safety and mobility because the increased use of these modes of travel will have significant benefits for the community's quality of life, environment and economy. Implementation of the plan will make it possible for Loveland residents of all ages, abilities, and income to have the choice to bicycle...to work, educational facilities, shopping centers and other destinations as an integrated component of the City's Transportation Master Plan."*

The proposed 2035 Bicycle Plan recommends significant improvements to the existing bicycle system, including new roads with added bike lanes, improvements to existing roads without bike lanes, and a comprehensive commuter trail system to compliment the City's recreational trails system and accommodate all modes of travel. With these improvements, the future City of Loveland bike system will be of the highest quality, providing safe convenient bicycle facilities to go from virtually any place to anywhere on bicycle within the City.

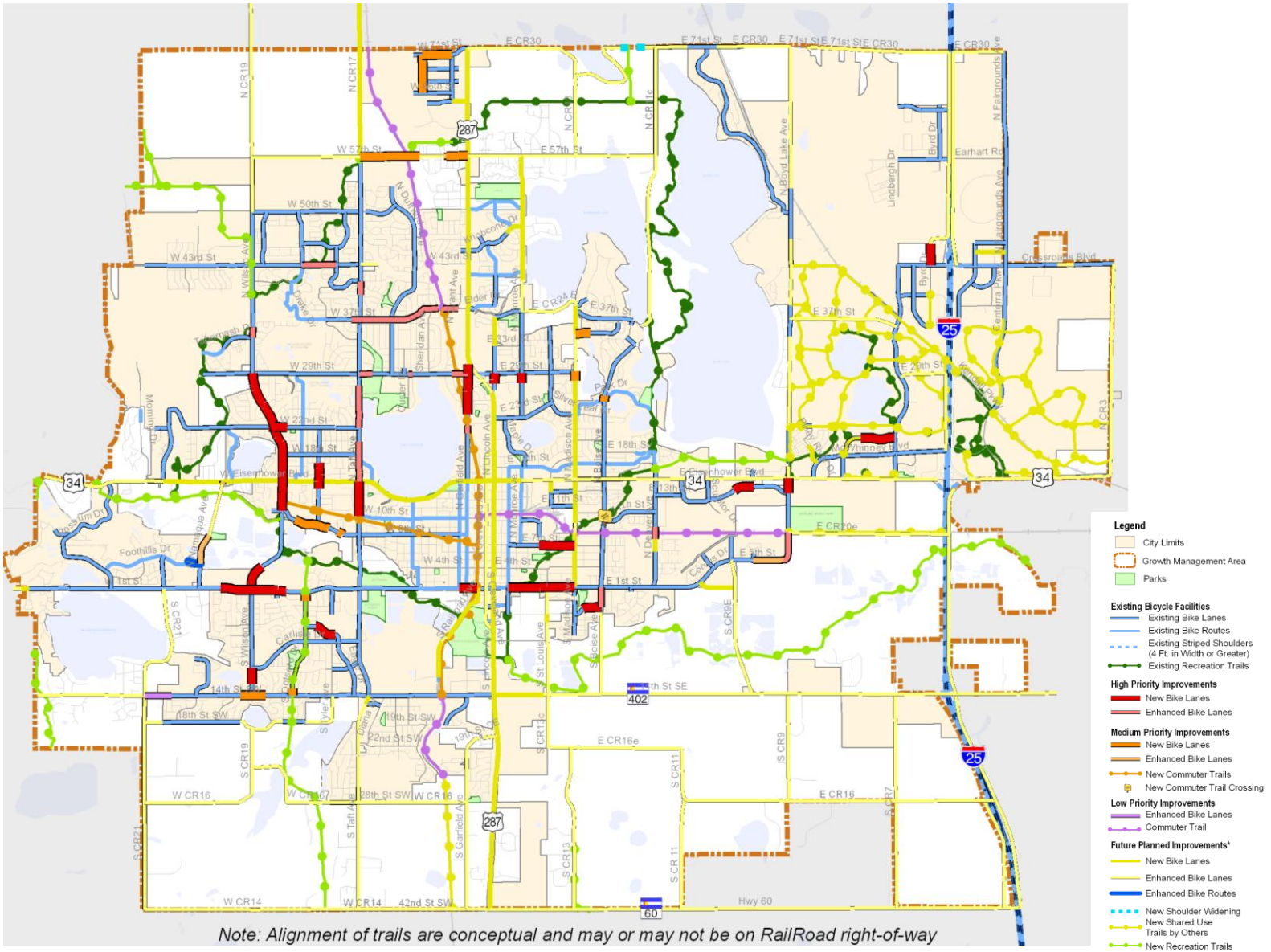
The City of Loveland Bicycle Plan includes both new bicycle lanes and enhancements to existing bicycle lanes, such as bike lane widening, stripping, and signage. These improvements are also presented for high, medium, and low priority projects.

The Bicycle Plan also makes reference to facilities that are controlled and planned by other entities that are part of the comprehensive Bicycle system. Many planned improvements are from the Colorado Department of Transportation (CDOT); Larimer County; the Centerra master planned community; as well as many regional recreational and commuter trail plans.

Also included in the plan are existing and future Recreational (Multi-Use) Trails. Although these Recreational Trails are constructed and maintained by the City of Loveland's Park and Recreation Department, they were included in the map to illustrate the system of bicycle connections that would be available with the completion of both on-street bicycle facilities and the recreational trails. The phasing of these trails is the responsibility of the Parks and Recreation Department.

Although the Recreation Trail is primarily for recreation use and this plan deals mainly with transportation use, there is a lot of synergy between the two. Some people use the Recreation Trail for commuting while others use the bicycle and pedestrian facilities along certain streets for recreational use. Coordination is critical where the Recreational Trail connects or crosses with the bike and pedestrian facilities.

Because a lot of these planned facilities by other agencies have a lot of cross-over benefits, there may be opportunities to share in the cost and also receive bonus consideration when being evaluated for grant funding.



Note: Alignment of trails are conceptual and may or may not be on RailRoad right-of-way

PROPOSED BICYCLE NETWORK

Pedestrian Plan

The Pedestrian Plan began with a long list of potential improvements based on a comprehensive field survey of missing links to address connectivity, continuity, safety problems, and provided access to schools. The pedestrian plan includes construction of new sidewalks, filling in missing segments, intersection improvements and widening of existing sidewalks.

The pedestrian projects are divided into high, medium, and low priority improvements based on the evaluation of each project based on the evaluation criteria. In addition, a fourth category was added, projects required of future developers. These projects are not priorities, but would be developed as part of future development.

What's important to a pedestrian?

Most people know a comfortable walking environment when they see one, but not many can say what exactly determines how enjoyable a pedestrian area feels. For the pedestrian plan, a number of pedestrian elements were defined, which begin to address the various factors that are important to pedestrians.

1. **Directness**—Walking distance to destinations like transit stops, schools, parks, and commercial or activity areas should be direct.

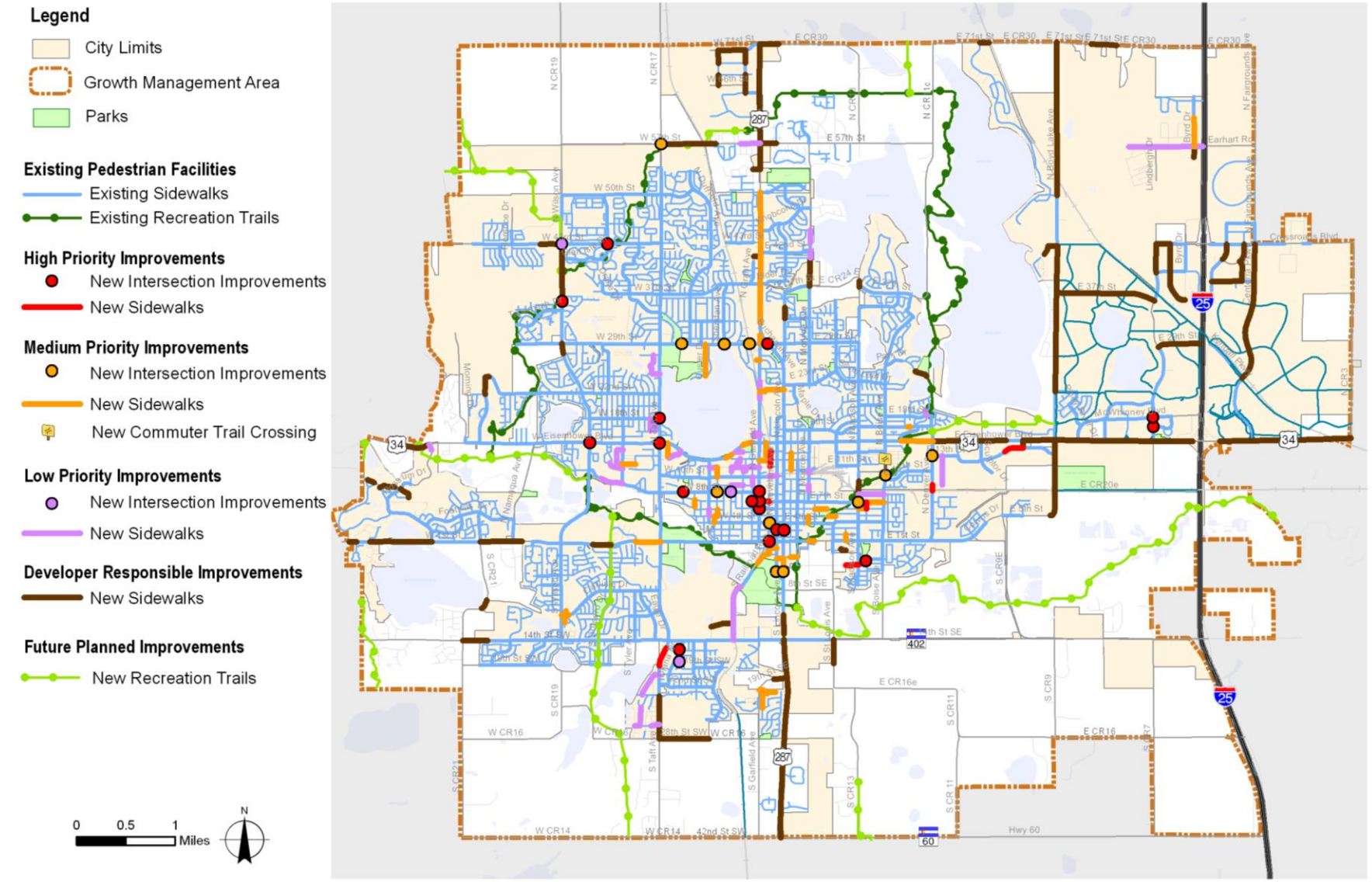
2. **Continuity**—The sidewalk/walkway system should be complete, without gaps. The pedestrian corridor should be integrated with the activities along the corridor and should provide continuous access to destinations.

3. **Street Crossings**—Safety and comfort is essential while crossing streets, intersections and mid-block crossings. Factors that affect street crossing; number of lanes to cross, signal indication, crosswalks, lighting, raised medians, visibility, curb ramps, pedestrian buttons, convenience, comfort and security.

4. **Visual Interest and Amenity**—Pedestrians enjoy visually appealing environments that are compatible with local architecture and include street lighting, fountains, and benches.

5. **Security**—Pedestrians should be visible to motorists, separated from motor vehicles and bicycles, and under adequate street lighting.

6. **Surface Condition**—Pedestrian facilities should be free from obstructions, cracks, and interruptions.

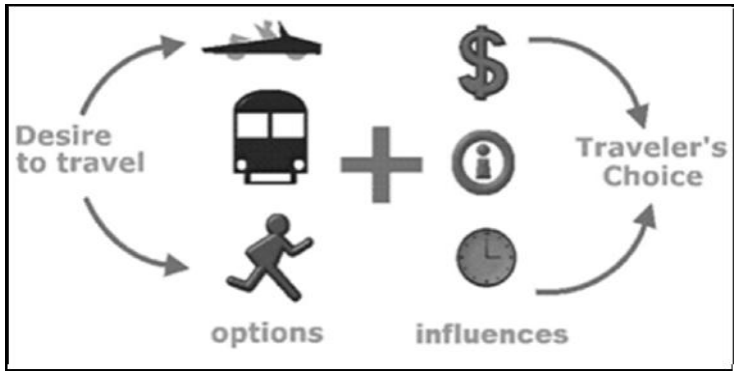


PROPOSED PEDESTRIAN PLAN

Transportation Demand Management

Transportation Demand Management includes actions that improve the efficiency of the transportation system by altering transportation system demand rather than embarking on roadway capital expansion.

TDM is a broad spectrum of strategies that involve business owners, employees, non-profit organization, transportation and land use planning, and non-work commuters of the transportation system. TDM programs are tailored to the unique travel needs of a community or region. Like roadway expansion, transportation efficiency programs are measurable for their ability to reduce congestion, reduce commute costs, and improve air quality and livability.



The primary methods for achieving a higher efficiency of the transportation system include:

- Reducing Single Occupancy Vehicle Trips
  - Ridesharing (carpooling, vanpooling)
  - Transit
  - Telecommuting (working from home)
- Encourage Off-Peak Travel
  - Alternative Work Schedules
  - Congestion Pricing
- Shrink Trip Time or Length
  - Intelligent Transportation Systems (traffic routing, trip times, weather conditions)
  - Commuter-oriented Development (striving for a jobs / housing balance)

Transportation Demand Management for Northern Colorado and the City of Loveland is operated by the North Front Range Metropolitan Planning Organization (NFRMPO). Today, NFRMPO provides several TDM strategies in the form of the VanGo™ vanpooling program (about 85 vans), ridematching through the smarttrips.org web site, and business outreach services and events. In 1996, the NFRMPO began implementation of the SmartTrips program as part of a package of strategies developed to reach the goals established in the Long Range Regional Transportation Plan (RTP), of reducing by 10 percent the number of trips made in single occupant vehicles (SOVs).

What is an SOV trip?

SOV stands for Single Occupant Vehicle and reducing the number of trips made by people driving alone (SOV trips) is a major goal of transportation demand management programs across the county. Along with Fort Collins and Greeley, the City of Loveland is working to reduce SOV trips by providing a number of transportation alternatives. Some of the strategies include employer-based programs to encourage use of transportation alternatives, regional education efforts, facility enhancements and land use policies, and transit and ridesharing subsidies.

Mode specific travel markets throughout the region are summarized below.

- **Bicycling: Expand the** bicycling infrastructure in the City of Loveland and regional connections through TDM programs and services.
- **Transit:** Targeting TDM services to increase the use of transit between within the City and to other cities within the region.

- **Carpooling:** Carpooling services targeted to areas that do not have transit services.

- **Vanpooling: T**he VanGo™ program is very strong in the region for the long-distance commute market from Fort Collins, Loveland, and Greeley/Evans to points south including Denver, Boulder, and Longmont. The long distance nature of these trips makes them economical for vanpooling and the NFRMPO continues to target this market for vanpooling.

- **Telework:** The use of telework is already a part of many large employers. These employers implement telework options to telework one or more days per week which increases employee retention. A strong telework program that offers educational assistance, best practices from the region, and sample telework program policies will help facilitate telework program implementation at the local level and reduce congestion on the regional transportation network. Telework assistance should be targeted to employers throughout the region, including rural areas as well as cities.

- **Carsharing**: Carsharing is a model of car rental where people can rent cars for a short period of time, usually only a few hours. Typically carsharing works best initially in downtown areas, dense neighborhoods, and university settings.

- **Intelligent Transportation Systems (ITS): Implement** ITS infrastructure as recommended in the *CDOT Region 4 Regional ITS Architecture and use* ITS to provide travelers with better information to make decisions about when and how to travel throughout the region.

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Section 6: Financial Plan

This section describes both Loveland's current transportation expenditures and revenues, and the 2035 Transportation Plan costs and funding sources. The finance plan described here addresses both the estimated transportation impacts associated with Loveland's land use plan and the costs related to maintaining and rehabilitating the existing transportation system.

Current Transportation Expenditures

The City of Loveland currently spends approximately $11.1 million a year on transportation. This is broken down into three main categories:

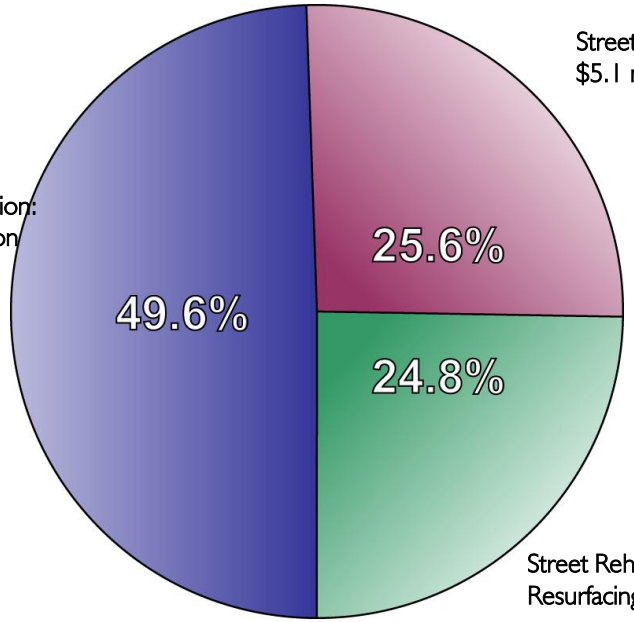
- **Capital Construction.** This is the construction of new facilities or reconstruction and expansion of existing facilities. The reconstruction of the Wilson Avenue bridge over the Big Thompson River and the widening of Eisenhower Boulevard from Lincoln Avenue to Jefferson are two recent examples of this type of activity. $2.4 million a year is currently available for this work through Capital Expansion Fees, the fees assessed to all new development in the City, and the General Fund from Sales and Use Taxes. The City periodically receives federal and state grants for specific projects, but this source of revenue is highly variable and generally not available for building City streets.

- **Street Rehabilitation and Resurfacing.** This program was established fifteen years ago to keep the 330 miles of City streets in good repair. The annual budget is now $3.6 million, which is about one percent of the replacement cost of the streets. This program focuses on major street rehabilitation, such as overlaying an entire street with asphalt, rather than minor repairs, like filling potholes.

2012 Transportation Revenues			**$ 14,474,140**
	General City Taxes		$ 3,253,270
	General Fund Reserves		$ 1,240,000
	Capital Expansion Fees		$ 831,570
	Special Fees & Taxes (See below)		$ 7,500,000
	Highway User Tax & FASTER	$ 2,500,000	
	Road and Bridge Tax	$ 295,250	
	Motor Vehicle Fees	$ 244,310	
	State Signal & Street Maintenance Contracts	$ 437,140	
	Transportation Maintenance Fee	$ 1,900,000	
	Other Special Fee & Taxes?	$ 2,123,300	
	Other Transportation Revenue?		$ 1,649,300
2012 Transportation Expenditures			**$ 14,474,140**
	Capital Construction		$ 5,725,290
	Street Rehabilitation & Resurfacing		$ 3,644,900
	Operations & Maintenance		$ 5,103,950
	Other		$ -

- **Operations and Maintenance.** This is the bulk of the daily activities associated with the transportation department. It includes everything from plowing snow, changing the light bulbs in traffic signals, and patching potholes, answering phone calls and doing engineering design work. Approximately $5.1 million is spent on these activities.

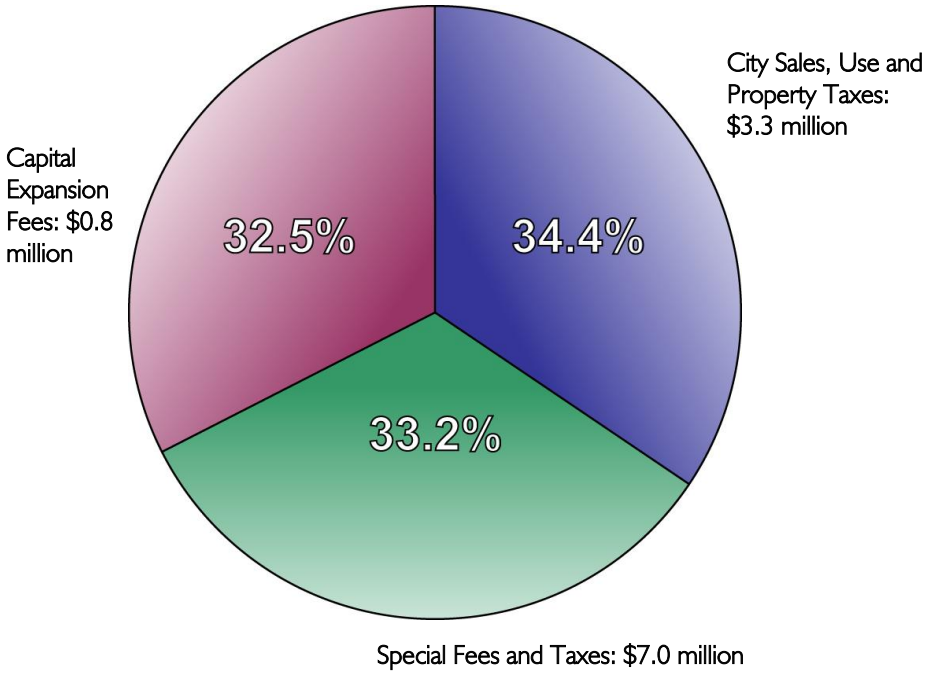
Total 2012 Expenditures: $11.1 million



Current Transportation Revenue

Revenues for transportation activities come in three (3) main categories.

Total 2012 Revenue: $11.1 million



- General City Taxes, including sales tax, use tax and property tax. $3.3 million in 2012. These taxes are not limited in their use to specific types of activity.

- Capital Expansion Fees. $0.8 million estimated in 2012. These fees are specifically charged on building permits for the construction of specific street improvements and cannot be used for other work, such as plowing snow or fixing potholes.

- Special Fees and Taxes. Estimated at $7.0 million in 2012, there are about a dozen such sources of revenue, the main ones include the following. Some must be used specifically for certain activities, like street maintenance; others are more general in nature.

    - Highway Users Tax from the state. $2,500,000
    - State Road and Bridge Tax. $295,250
    - Motor Vehicle Fees. $244,310
    - State signal and street maintenance contracts. $437,140
    - Transportation Maintenance Fee. $1,900,000

2035 Transportation Plan Costs

The proposed 2035 Transportation Plan is an ambitious endeavor that was developed to adequately accommodate the existing traffic as well as mitigate the estimated traffic impacts for the estimated growth between today and 2035. The key points of the transportation plan and the associated costs (in current year 2012 dollars) are listed below.

- Roughly 19 miles of road widening or new road construction on City streets, not including Centerra. Total estimated cost of $106.9 million.

- Centerra related improvements, including $117.1 million for roadway and intersection improvements and $101.5 million for Regional Improvements (on I-25 and US 34) for a total of $218.6 million.

- Widening of 10.2 miles of state highways at an estimated cost of $63.7 million.

- $8.7 million of sidewalk and on-street bike facilities improvements to provide safe and convenient travel for those not traveling in motor vehicles to encourage a reduction in driving. This is exclusive of the off-street recreational trail system that is built and managed by the Parks and Recreation Department.

- Transit service is largely dependent on funding from the Federal Transit Administration as the City becomes eligible for urban system programs as Loveland exceeds a population of 50,000 in the 2000 census.

- Signal and intersection improvement projects. It is estimated that new traffic signals will be needed in the next 23 years, as well as improved communication links between the signals. In addition, existing signalized intersections will need major improvements, primarily adding more turning lanes. These improvements are estimated to cost $49.1 million.

- The final element is $6.5 million for bridge replacements and $1.0 million for professional services to support the 2035 Capital Improvement Program.

Why not just charge new development all the street improvement costs?

There are legal restrictions on how street improvement costs are assessed as a fee against new development. It is not legal to charge new developments in Loveland for the traffic that passes through town from other cities. So when the fees are calculated, it is necessary to reduce the impact fees for street construction by the percentage of pass through trips that are on the streets being improved. It is also not legal to force new development to pay fees to fix existing problems that are not a result of the new development. In the proposed transportation plan, the impact fees for new development will cover update% of the cost of the City streets. The other update% will need to come from other sources.

Including the above elements, the capital costs of the proposed Plan improvements total $463,598,630 in constant 2012 dollars. The associated operations and maintenance costs deficit over 23 years' totals $11.5 million, also in constant, year 2012 dollars.

Why doesn't the Colorado Department of Transportation pay for the new streets?

The State is facing the same situation as Loveland and most other cities: The cost of needed road construction and repairs exceeds the money available. The state has taken the official position that federal and state funds under their control will be used only on federal and state highways.

2035 Transportation Plan Capital Cost Funding

Proposed funding for capital costs associated with the 2035 Transportation Capital Improvement Plan projects are presented in four components, based on the revenue source.

1. Collector Street Equivalent Improvement Costs
2. Capital Expansion Fees - New Development's Share of Regional Transportation Improvements
3. Colorado Department of Transportation or Federal Funding
4. General City Funds (including sales and use taxes)
5. Centerra portion (from Master Finance Agreement and Centerra Metro District)

Collector Street Equivalent Improvement Costs

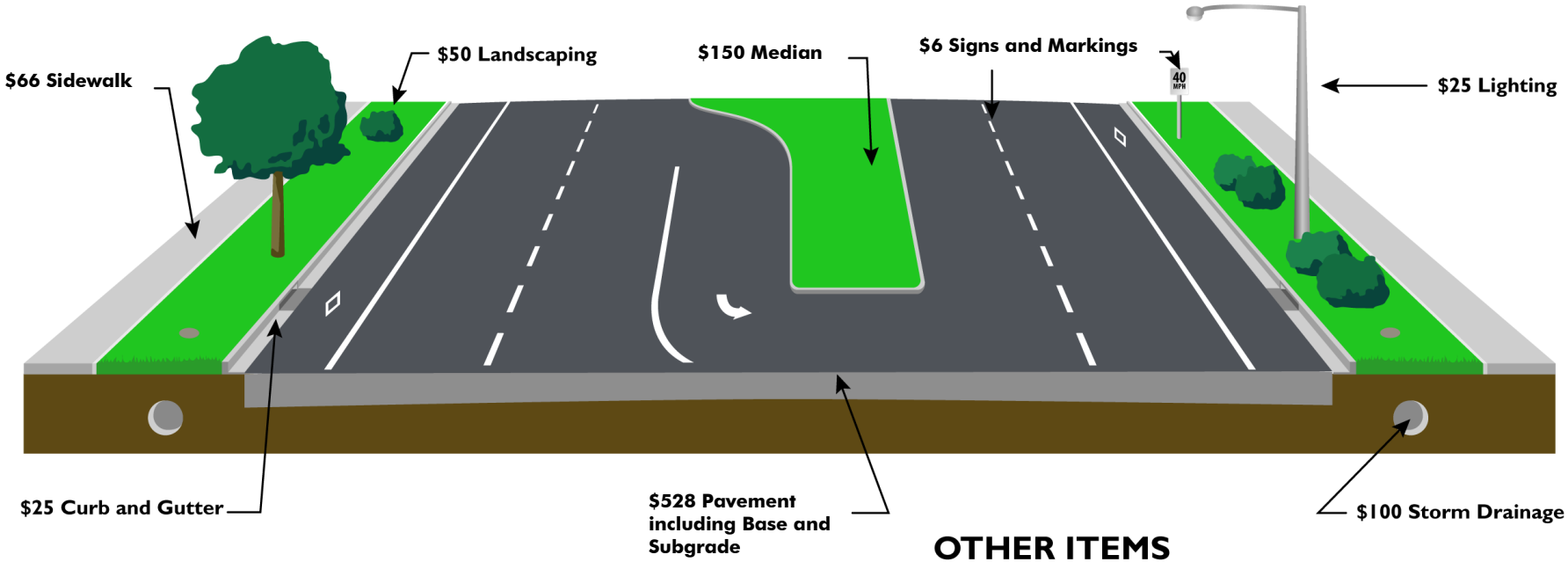
Developers are required to construct or pay for the costs of all local and collector streets. On larger streets, such as those included in the 2035 Transportation Capital Improvement Plan, developers are still required to pay for the portion of the street that would be equivalent in cost to a collector street. This typically includes two travel lanes, bike and parking lanes, and the curb, gutter and sidewalk on both sides of the street. Along vacant land, this cost is assigned to the land and is due when the property develops.

The collector street cost equivalent in the 2035 Transportation Plan is $44,009,280 in current (year 2012) dollars.

How much do new road improvements cost?

It varies dramatically from one situation to another but in most cases new roads and road widening projects cost a lot more than you might imagine. It becomes very expensive to widen a road in an area that is already fully developed and does not have a wide enough right-of-way for the proposed road. Not only must the City pay for the land, but also sometimes many utilities must be relocated. In a situation like this, the total cost for widening a two -lane road to four lanes can easily exceed $15 million a mile. Even in the best situations, it is very difficult to build a new arterial street for less than $7update million a mile.

TYPICAL COST PER RUNNING FOOT FOR A FIVE LANE ARTERIAL STREET



$1,310 Total Cost Without Land Purchases

OTHER ITEMS

$100 Underground Utilities
$100 Construction Contingencies
$80 Design
$80 Construction Management

Capital Expansion Fees (New Development's Share of Improvements)

New development's share of 2035 Transportation Plan improvements, will continue to be financed with the Streets Capital Expansion Fee (CEF). Regional improvements include medians, the third through sixth lane, left turn lanes, bridges and signals. New development's share includes the portion of improvements attributable to vehicle trips generated by new development.

The City of Loveland first adopted the Streets CEF in 1983. The CEF fee schedule was updated in 1994, 2007 and in 2009. This Plan updates and revises the CEF calculations so that they are consistent with the 2035 Transportation **Capital Improvement Plan.** The background, methodology and calculations are presented in the Appendix.

The Capital Expansion Fee in the 2035 Transportation Plan is $129,226,011 in current (year 2012) dollars.

Colorado Department of Transportation (CDOT) Share

The City anticipates that the Colorado Department of Transportation will provide partial funding for improvements to portions of US 34, US 287, and SH 402. The CDOT share is estimated to be $37,784,700, which comprises about 50 percent of the total costs of these improvements.

City Share

Approximately $33,934,009 in transportation improvements are attributable to the "City's Share." These include improvements that correct existing deficiencies, upgrade the quality of existing improvements, and accommodate through trips (external to external or E-E trips discussed in other parts of this document).

Centerra Metro District

As part of the Master Finance Agreement and Centerra Metro District Agreement, the City required that the Developers are responsible for not only City-related road infrastructure improvements but regional improvements (large scale improvements to I-25 and US 34) in which the City would not typically participate. These improvements comprise the final $218,644,630 included in the 2035 Transportation Plan.

Other Financing Considerations

State and Federal Funding

This analysis assumes that the City will be successful in securing $37.8 million in State and Federal funding for eligible projects within the 2035 Transportation Capital Improvement Plan over the next 23 years. If the City is more successful than this target, then the need to earmark sales and use tax revenues will decline.

2035 Transportation Plan Note: While State and Federal dollars are shrinking, the projects included in the 2020 and now 2035 Transportation Plans have been identified by CDOT and the North Front Range Metropolitan Planning Organization as priorities and are still priorities. As before, the 2035 Transportation Plan conservatively estimated State and Federal Funding.

Annual Cash Flow Requirements

The need to construct some road improvements will proceed the time when all of the necessary funding is in place. In these circumstances, the City will be required to (a) fund the needed projects with future reimbursement from the CEF and new development excise tax revenues, (b) create districts to fund the improvements with future reimbursement, (c) require developers to fund the improvements with future reimbursement or (d) not construct the improvement when needed. This Plan anticipates that these types of circumstances will be resolved on a case-by-case basis.

Section 7: 2035 Fiscally Constrained Plan

Definition

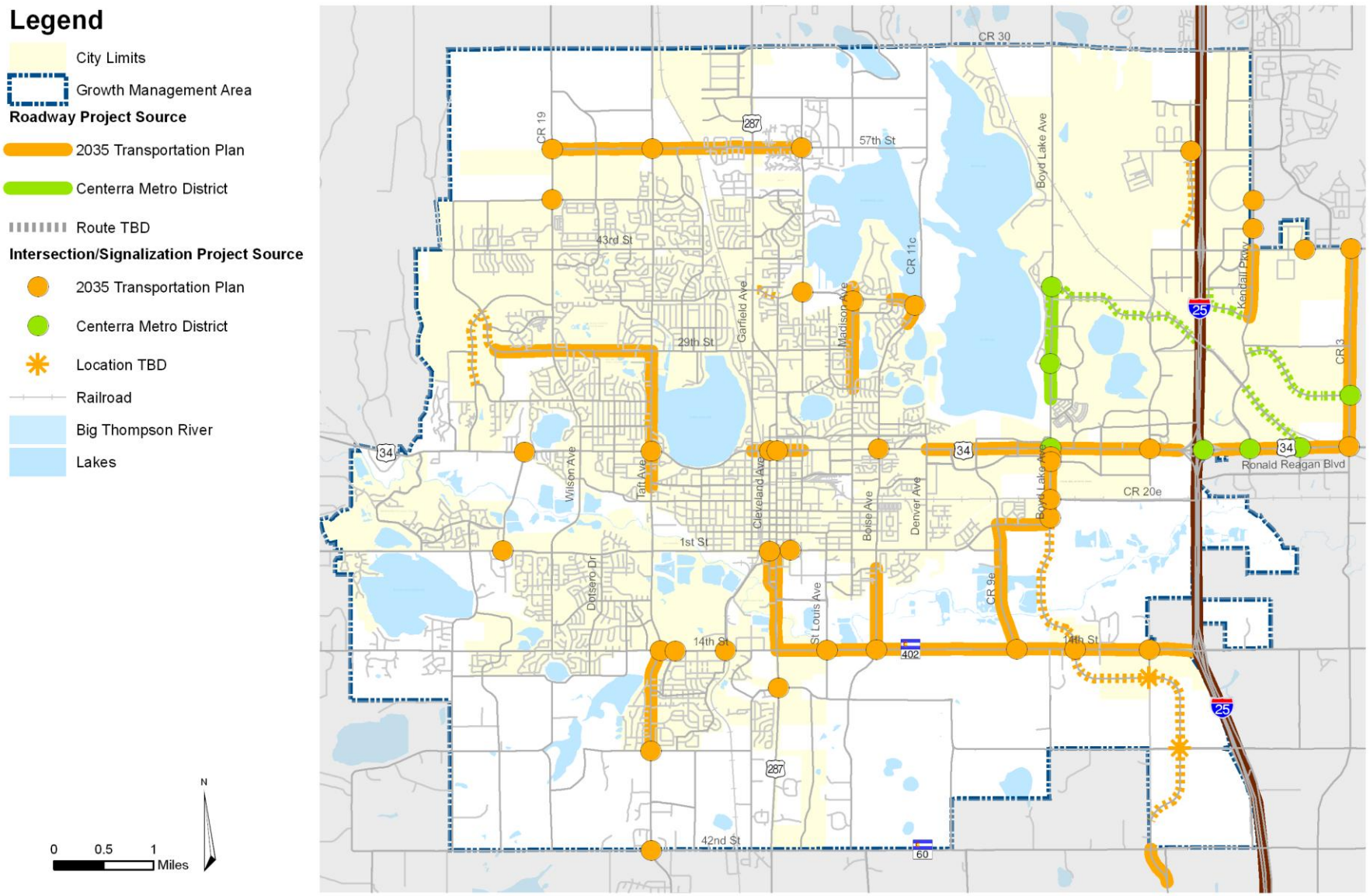
The Fiscally Constrained Plan portion of the 2035 Transportation Plan was prepared by reducing the anticipated long-term overall plan for Loveland's transportation system to the highest priority projects that can be accommodated with future expected revenues. Those projects and expenditures retained in the Fiscally Constrained Plan provide the greatest transportation benefit to the Loveland and fit within the context of the projects identified regionally.

2035 Capital Improvements

The 2035 Capital Improvements Plan consists of projects identified as necessary to be completed by 2035, based on the anticipated growth within the City of Loveland. The plan includes specific roadway sections and intersections with cost estimates based on 2012 dollars. It also breaks out sections of the CDOT road system within Loveland that will be expanded with outside dollars as well as the area within the Centerra Metro District with projects that are eligible to be constructed if growth and development happens as expected.

The projects identified in the plan are eligible for reimbursement through the City's Street Oversizing policies, subject to annual appropriation through the City's Budget Process. Projects not included on the plan are not eligible for reimbursement as they were not included in the calculation of Capital Expansion Fees imposed on new development.

CIP Summary	
City	$33,934,009
CEF	$129,226,011
Col St Equiv	$44,009,280
CDOT	$37,784,700
Centerra	$218,644,630
TOTAL	$463,598,630



2035 Capital Improvements Plan

Street Name	From	To	Length (Ft)	Classification	2035 ADT Volume	2035 Total V/C ADT Ratio	CIP Priority	Total Project Cost	% Growth Related	% Local Traffic	Collector Street Equivalent Length (ft)	Reduction for Cost Equivalent of Collector Street	Maximum CEF Cost	City Financing After CEFs & Collector Street Equivalent	Description of Improvement
29th St.	Cascade Ave.	Wilson Ave.	4,700	Arterial Minor	2,400	0.15		$ 3,975,000	100%	100%	7,000	$ 1,554,000	$ 2,421,000	$ -	New 2_ lane arterial
37th St.	US 287	Lincoln Ave.	1,400	Arterial Minor	9,600	0.60		$ 2,384,000	100%	100%	2,100	$ 466,200	$ 1,917,800	$ -	New 2_ lane Arterial / upgrade collector
37th St.	Seven Lakes Drive	LCR 11 C	650	Arterial Minor	3,900	0.24		$ 506,000	100%	92%	-	$ -	$ 465,520	$ 40,480	New 2_ lane arterial
57th St.	Wilson Ave.	Taft Ave.	5,280	Arterial Minor	5,400	0.34		$ 4,098,000	100%	98%	10,560	$ 2,344,320	$ 1,718,606	$ 35,074	Reconstruct 2-lane County Road to 2-lane Arterial
57th St.	Taft Ave.	US 287	5,280	Arterial Major	16,300	0.45		$ 8,215,000	100%	89%	4,300	$ 954,600	$ 6,461,756	$ 798,644	Reconstruct 2_ lane county road to 4_ lane arterial
57th St.	US 287	Monroe	2,650	Arterial Major	9,700	0.27		$ 4,397,000	100%	98%	1,000	$ 222,000	$ 4,091,500	$ 83,500	Reconstruct 2_ lane county road to 4_ lane arterial
Boise Ave.	SH 402	4th St SE	4,280	Arterial Minor	8,800	0.55		$ 6,849,000	50%	98%	3,800	$ 843,600	$ 2,942,646	$ 3,062,754	Widen 2_ lane county road to 2_ lane arterial
Boise Ave.	Mount Columbia Ave	E 37th St	1,050	Arterial Minor	6,600	0.41		$ 2,558,000	50%	88%	1,000	$ 222,000	$ 1,027,840	$ 1,308,160	New 2 lane Arterial
Boyd Lake Ave.	Hwy 60	E County Rd 16	6,000	Arterial Minor	9,100	0.57		$ 2,664,000	100%	74%	12,000	$ 2,664,000	$ -	$ -	Interim 2 lane Collector
Boyd Lake Ave.	E County Rd 16	Big Thompson Bridge	12,000	Arterial Minor	11,300	0.71		$ 7,157,000	100%	94%	19,000	$ 4,218,000	$ 2,762,660	$ 176,340	New 2 lane Minor Arterial
Boyd Lake Ave.	Big Thompson Bridge	LCR 20C	4,000	Arterial Minor	8,000	0.50		$ 1,776,000	100%	97%	-	$ -	$ 1,722,720	$ 53,280	Interim 2 lane Collector
Boyd Lake Ave.	LCR 20C	LCR 20E	1,350	Arterial Major	23,400	0.65		$ 1,452,000	100%	98%	2,700	$ 599,400	$ 835,548	$ 17,052	Widen 2_ lane county road to 4_ lane arterial
Boyd Lake Ave.	LCR 20E	US 34	2,700	Arterial Major	19,000	0.53		$ 3,474,000	100%	96%	3,550	$ 788,100	$ 2,578,464	$ 107,436	Widen 2_ lane county road to 4_ lane arterial
Byrd Dr.	Crossroads Blvd.	Earhart Rd.	3,650	Arterial Minor	10,700	0.67		$ 3,553,000	100%	82%	7,300	$ 1,620,600	$ 1,584,568	$ 347,832	Widen to 2-lane arterial
Cascade Ave.	22nd St	W 35th St	5,280	Arterial Minor	3,200	0.27		$ 3,941,000	100%	81%	10,560	$ 2,344,320	$ 1,293,311	$ 303,369	New 2 lane Arterial
Centerra Pkwy.	Cross Roads Blvd	0.5 miles south	2,600	Arterial Major	13,700	0.76		$ 2,648,000	75%	72%	4,540	$ 1,007,880	$ 885,665	$ 754,455	Widen 2 to 4 lane Arterial
LCR 20C (5th St)	Callisto Dr.	Boyd Lake Ave.	1,350	Arterial Minor	13,300	0.83		$ 983,000	50%	98%	2,700	$ 599,400	$ 187,964	$ 195,636	Widen 2_ lane county road to 2_ lane arterial
LCR 3	US 34	Crossroads Blvd.	10,500	Arterial Minor	16,900	1.06		$ 8,230,000	50%	57%	21,000	$ 4,662,000	$ 1,016,880	$ 2,551,120	Upgrade to 2_ lane arterial
LCR 9E	SH 402	Corvus Dr.	6,800	Arterial Minor	6,400	0.40		$ 5,997,000	100%	98%	13,450	$ 2,985,900	$ 2,950,878	$ 60,222	Widen 2_ lane county road to 2_ lane arterial
Madison Ave.	Silverleaf Dr.	29th St.	2,200	Arterial Major	14,400	0.40		$ 3,520,000	100%	98%	1,320	$ 293,040	$ 3,162,421	$ 64,539	Widen 3_ lane arterial to 4_ lane arterial
Madison Ave.	29th St.	37th St.	3,000	Arterial Minor	8,900	0.56		$ 2,019,000	50%	97%	6,000	$ 1,332,000	$ 333,195	$ 353,805	Widen 2_ lane county road to 2_ lane arterial
Taft Ave.	28th St. SW	14th St. SW	5,380	Arterial Major	20,100	0.56		$ 9,053,000	100%	88%	4,400	$ 976,800	$ 7,107,056	$ 969,144	Widen 4-lane road with no center turn lane or bike lanes to 4-lane arterials
Taft Ave.	Arkins Branch	US 34	1,900	Arterial Major	25,700	0.71		$ 10,104,000	75%	90%	-	$ -	$ 6,820,200	$ 3,283,800	Widen 4_ lane street with no center turn lane or bike lanes to 4_ lane arterial
Taft Ave.	US 34	29th St.	4,700	Arterial Major	25,400	0.71		$ 7,340,000	75%	91%	-	$ -	$ 5,009,550	$ 2,330,450	Widen 4-lane street with no center turn lane or bike lanes to 4-lane arterial
	City Projects	**Totals:**	**18.69**	**miles**				**$ 106,893,000**			**138,280**	**$ 30,698,160**	**$ 59,297,748**	**$ 16,897,092**	

25 Year CIP With Cost Allocations: City Streets

Street Name	From	To	Length (Ft)	Classification	2035 ADT Volume	2035 Total V/C ADT Ratio	CIP Priority	Total Project Cost	% Growth Related	% Local Traffic	Anticipated CDOT Funding	Local Share	Collector Street Equivalent Length (ft)	Collector Street Equivalent Responsibility	Maximum CEF Share	City Financed Share	Description of Improvement
SH 402	US 287	St. Louis Ave.	2,650	Arterial Major	15,900	0.44		$ 3,363,000	100%	96%	$ 1,681,500	$ 1,681,500	3,580	$ 794,760	$ 851,270	$ 35,470	Widen 2-lane County Road to 4-lane arterial
SH 402	St. Louis Ave.	Boise Ave.	2,620	Arterial Major	14,500	0.40		$ 4,603,000	100%	97%	$ 2,301,500	$ 2,301,500	5,240	$ 1,163,280	$ 1,104,073	$ 34,147	Widen 2 to 4-lanes
SH 402	Boise Ave.	Boyd Lake Ave.	10,460	Arterial Minor	13,700	0.86		$ 3,000,000	100%	91%	$ -	$ 3,000,000	-	$ -	$ 2,730,000	$ 270,000	Spot Improvements and Bike Lanes
SH 402	Boyd Lake Ave.	I-25 Ramps	6,230	Arterial Major	24,500	0.68		$ 6,870,000	100%	84%	$ 3,435,000	$ 3,435,000	12,460	$ 2,766,120	$ 561,859	$ 107,021	Widen 2-lane County Road to 4-lane arterial
US 287	SH 402	One Way Split	3,300	Arterial Major	37,600	0.70		$ 7,165,000	100%	89%	$ 3,582,500	$ 3,582,500	-	$ -	$ 3,188,425	$ 394,075	Widen 4 to 6 lane Arterial
US 287	One Way Split (NB Lincoln)	1st St	2,100	Arterial Major	18,800	0.70		$ 2,748,000	100%	88%	$ 1,374,000	$ 1,374,000	-	$ -	$ 1,209,120	$ 164,880	Widen 4 to 6 lane Arterial
US 287	One Way Split (SB Cleveland)	2nd St	2,900	Arterial Major	19,700	0.73		$ 3,522,000	100%	89%	$ 1,761,000	$ 1,761,000	-	$ -	$ 1,567,290	$ 193,710	Widen 4 to 6 lane Arterial
US 34	Garfield Ave	Monroe Ave	2,650	Arterial Major	45,300	0.84		$ 2,020,000	100%	93%	$ 1,010,000	$ 1,010,000	-	$ -	$ 939,300	$ 70,700	Widen 4-lane arterial to 6-lane arterial
US 34	Denver Ave.	Boyd Lake Ave.	6,500	Arterial Major	56,800	1.05		$ 9,480,000	100%	94%	$ 4,740,000	$ 4,740,000	10,280	$ 2,282,160	$ 2,310,370	$ 147,470	Widen 4_ lane arterial to 6_ lane arterial
US 34	Boyd Lake Ave.	Rocky Mountain Ave.	5,300	Arterial Major	50,500	0.94		$ 7,770,000	100%	93%	$ 3,885,000	$ 3,885,000	10,600	$ 2,353,200	$ 1,424,574	$ 107,226	Widen 4_ lane arterial to 6_ lane arterial
US 34	Rocky Mountain Ave.	I-25 Ramps	1,600	Arterial Major	59,600	1.10		$ 2,334,000	100%	94%	$ 1,167,000	$ 1,167,000	3,200	$ 710,400	$ 429,204	$ 27,396	Widen 4_ lane arterial to 6_ lane arterial
US 34	I-25 Ramps	Centerra Pkwy.	2,000	Arterial Major	68,400	0.95		$ 3,114,000	100%	71%	$ 1,557,000	$ 1,557,000	4,000	$ 888,000	$ 474,990	$ 194,010	Widen 4_ lane arterial to 6_ lane arterial
US 34	Centerra Pkwy.	LCR 3	5,300	Arterial Major	54,400	0.76		$ 7,730,000	100%	66%	$ 3,865,000	$ 3,865,000	10,600	$ 2,353,200	$ 997,788	$ 514,012	Widen 4_ lane arterial to 6_ lane arterial
	CDOT Projects	**Totals:**	**10.15**	**miles**				**$ 63,719,000**			**$ 30,359,500**	**$ 33,359,500**	**59,960**	**$ 13,311,120**	**$ 17,788,264**	**$ 2,260,116**	

25 Year CIP With Cost Allocations: State Highways

Other Projects	Total Project Cost	CEF Split %	CEF	Other (CDOT or Federal)	City	Notes
Pedestrian and Bicycle	$ 8,700,000	80%	$ 6,960,000	$ -	$ 1,740,000	Pedestrian and Bicycle Plan costs not in Transportation Plan. Took average of high and low cost after subtracting out streets that are in Transportation Plan.
Signal System Connect	$ 2,000,000	80%	$ 1,600,000	$ -	$ 400,000	$2.9 million from 2030 Plan Inflated ($3.5 million minus $1.5 million built since 2030 Plan)
Intersection & Signal Improvements	$ 49,100,000	80%	$ 39,280,000	$ -	$ 9,820,000	
Eisenhower @ Lincoln & Cleveland intersection rebuild	$ 7,000,000	100%	$ 3,500,000	$ 3,500,000	$ -	Intersection or roundabouts ($7.0 Million = $5.8 million from 2030 Plan x 1.207 for inflation)
Bridge replacements due to structural deficiency	$ 6,542,000	0%	$ -	$ 3,925,200	$ 2,616,800	These bridges typcially have sufficient width for the future street traffic volumes and are not eligible for Capital Expansion Fee funding. Replacement is necessary due to structural deficiency, NOT a need for additional width to serve additional traffic lanes.
Professional Services for Transportation Planning	$ 1,000,000	80%	$ 800,000	$ -	$ 200,000	
Total Other Projects	**$ 74,342,000**		**$ 52,140,000**	**$ 7,425,200**	**$ 14,776,800**	

25 Year CIP With Cost Allocations: Other Priorities

Location		Project Cost	District	CDOT	City	Notes
East of I-25						
Centerra Parkway	US34 to 37th St	$ 9,478,900	$ -	$ -	$ -	Done
Clydesdale Parkway	37th St to LCR 3	$ 7,169,600	$ 7,169,600	$ -	$ -	
Sky Pond Drive	Centerra Pkwy to W End	$ 1,354,000	$ -	$ -	$ -	Done
Cordova Pass Drive	US34 to I-25	$ 6,435,400	$ 6,435,400	$ -	$ -	Change Cordova Pass Dr to Kendall Pkwy
US34	I-25 to Cordova Pass Dr	$ 4,454,400	$ 4,454,400	$ -	$ -	Change Cordova Pass Dr to Kendall Pkwy
Interior Arterial Streets	Additional Streets	$ 9,694,100	$ 9,694,100	$ -	$ -	
6 Major Intersections		$ 5,306,400	$ 5,306,400	$ -	$ -	
Centerra Parkway	Railroad Underpass	$ 3,120,500	$ -	$ -	$ -	Done
Cordova Pass Drive	Interim I-25 Underpass	$ 1,584,000	$ 1,584,000	$ -	$ -	Change Cordova Pass Dr to Kendall Pkwy
Cordova Pass Drive	Ultimate I-25 Underpass	$ 6,336,000	$ 6,336,000	$ -	$ -	Change Cordova Pass Dr to Kendall Pkwy
Sky Pond Drive	Bridge over Drainage Way	$ 3,168,000	$ 3,168,000	$ -	$ -	
LCR 3E RR Underpass	UPRR Additional Crossing	$ 3,001,700	$ 3,001,700	$ -	$ -	
Subtotal		**$ 61,103,000**	**$ 47,149,600**	**$ -**	**$ -**	
West of I-25						
Boyd Lake Avenue	US34 to Canal	$ 2,185,900	$ 2,185,900	$ -	$ -	
Boyd Lake Avenue	Plum Ck Dr to 37th St	$ 6,328,600	$ 6,328,600	$ -	$ -	
29th Street	Rocky Mtn Ave to I-25	$ 2,233,900	$ 2,233,900	$ -	$ -	
37th Street	Boyd Lake Dr to Rky Mtn	$ 5,119,200	$ 5,119,200	$ -	$ -	Change 37th St to Kendall Pkwy
Hahn's Peak Drive	US34 to Rocky Mtn Ave	$ 2,285,400	$ -	$ -	$ -	Done
US34	Boyd Lake to I-25	$ 812,600	$ 812,600	$ -	$ -	
McWhinney Blvd	Misc. Improvements	$ 2,528,000	$ -	$ -	$ -	Done
Fall River Drive	US34 to	$ 1,059,700	$ -	$ -	$ -	Done
Interior Col. Streets	Additional Streets	$ 7,606,100	$ 7,606,100	$ -	$ -	
9 Major Intersections		$ 6,098,400	$ 6,098,400	$ -	$ -	
Boyd Lake Ave Culvert	Greelet-Loveland Canal	$ 2,692,800	$ 2,692,800	$ -	$ -	
US34 Culvert	Farmer's Ditch	$ 562,300	$ 562,300	$ -	$ -	
Fall River Dr Culvert	Rehab at Farmer's Ditch	$ 237,600	$ -	$ -	$ -	Done
Subtotal		**$ 39,750,500**	**$ 33,639,800**	**$ -**	**$ -**	
Regional Improvements						
Crossroads and I-25 Interchange		$ 20,000,000	$ -	$ -	$ -	Done
US34 and I-25 Interim Interchange		$ 10,000,000	$ -	$ -	$ -	Done
US34 and Centerra Parkway Interchange		$ 15,000,000	$ 15,000,000	$ -	$ -	
US34 and Cordova Pass Dr (LCR 3E) Interchange		$ 15,000,000	$ 15,000,000	$ -	$ -	
US34 and I-25 Ultimate Interchange		$ 40,000,000	$ 40,000,000	$ -	$ -	
Subtotal		**$ 100,000,000**	**$ 70,000,000**	**$ -**	**$ -**	
Total - Centerra Metro District Projects (2004 Dollars)		**$ 200,853,500**	**$ 150,789,400**	**$ -**	**$ -**	
2004 CCI	4742.55					
2012 CCI	6889.53					
% Inflation 2012 to 2012	45%	1.45	1.45	1.45	1.45	
Total - Centerra Metro District Projects (2012 Dollars)		**$ 291,237,575**	**$ 218,644,630**	**$ -**	**$ -**	
	Local (2004 dollars)	$ 100,853,500	$ 80,789,400			
	Regional (2004 dollars)	$ 100,000,000	$ 70,000,000			
	Total (2004 dollars)	**$ 200,853,500**	**$ 150,789,400**			
	Regional (2012 dollars)	$ 146,237,575	$ 117,144,630			
	Local (2012 dollars)	$ 145,000,000	$ 101,500,000			
	Total (2012 dollars)	**$ 291,237,575**	**$ 218,644,630**			

25 Year CIP With Cost Allocations: Centerra Metro District Projects

Location	LCUASS Intersection Type	Category	Estimated Signal/Roundabout Cost (x000)	Estimated Aux Lane Cost (x000)	OTHER	TOTAL
Wilson Ave/57th St	Major	Minor intersection rebuild	$175	$650	$0	$825
Taft Ave/57th St	Major	Major intersection rebuild	$175	$1,300	$0	$1,475
57th St/Monroe Ave	Major	Minor intersection rebuild	$175	$650	$0	$825
Byrd Dr/Earhart Rd	Major	Minor intersection rebuild	$175	$650	$0	$825
Wilson Ave/50th St	Major	Upgrade Signal	$75	$0	$0	$75
Fairgrounds Ave/Arena Cir (S)	Minor	Minor intersection rebuild	$175	$650	$0	$825
Fairgrounds Ave/Rodeo Dr	Major	New Signal	$175	$0	$0	$175
Crossroads Blvd/Ward Ave	Major	Minor intersection rebuild	$175	$650	$0	$825
Crossroads Blvd/LCR 3 (High Plains Blvd)	Major	Minor intersection rebuild	$175	$650	$0	$825
37th St/Monroe Ave	Major	Minor intersection rebuild	$175	$650	$0	$825
37th St/Madison Ave	Major	Minor intersection rebuild	$175	$650	$0	$825
37th St/Boise Ave	Major	Major intersection rebuild	$175	$1,300	$0	$1,475
US 34/Namaqua Ave	Major	Minor intersection rebuild	$350	$650	$0	$1,000
US 34/Taft Ave	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
US 34/US 287 SB (Cleveland Ave)	Major	Major intersection rebuild	$3,500	$0	$0	$3,500
US 34/US 287 NB (Lincoln Ave)	Major	Major intersection rebuild	$3,500	$0	$0	$3,500
US 34/Boise Ave	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
US 34/Boyd Lake Ave	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
US 34/Rocky Mountain Ave	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
US 34/LCR 3 (High Plains Blvd)	Major	Major intersection rebuild	$350	$1,300	$400	$2,050
Boyd Lake Ave/Mountain Lion Dr	Major	Major intersection rebuild	$175	$1,300	$0	$1,475
Boyd Lake Ave/LCR 20E	Major	Major intersection rebuild	$175	$1,300	$300	$1,775
Boyd Lake Ave/LCR 20C (5th St)	Major	Major intersection rebuild	$175	$1,300		$1,475
1st St/Namaqua Ave	Major	Minor intersection rebuild	$175	$650	$0	$825
1st St/Railroad Ave	Major	Minor intersection rebuild	$175	$650	$300	$1,125
1st St/Washinton Ave	Major	Minor intersection rebuild	$175	$650	$0	$825
14th St SW/Taft Ave	Major	Reconfigure Signal	$175	$0	$0	$175
14th St SW/Douglas Ave	Minor	Minor intersection rebuild	$175	$650	$0	$825
14th St SW/Roosevelt Ave	Major	Minor intersection rebuild	$175	$650	$300	$1,125
SH 402 (14th St SE)/St Louis Ave	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
SH 402 (14th St SE)/Boise Ave	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
SH 402 (14th St SE)/LCR 9E	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
SH 402 (14th St SE)/Boyd Lake Ave ext	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
SH 402 (14th St SE)/LCR 7	Major	Major intersection rebuild	$350	$1,300	$0	$1,650
US 287/19th St SE	Major	Minor intersection rebuild	$0	$650	$0	$650
Boyd Lake Ave/LCR 7	Major	Major intersection	$350	$1,300	$0	$1,650
Taft Ave/28th St SW (LCR 16)	Major	Minor intersection rebuild	$175	$650	$0	$825
Boyd Lake Ave/LCR LCR 16	Minor	Minor intersection	$175	$650	$0	$825
Taft Ave (LCR 17)/42nd St SW (LCR 14)	Major	Minor intersection rebuild	$175	$650	$0	$825
		Totals	**$15,300**	**$32,500**	**$1,300**	**$49,100**

25 Year CIP With Cost Allocations: Intersections

Weight	Factors
20	**1. System Continuity / Congestion Mitigation**
	● Capacity
	○ Existing
	○ Future
	● Growth Factor
	● Development
	● Constriction
	● Air Quality
25	**2. Safety Enhancements**
5	**3. Multi-Modal Enhancement**
	● Alternate Modes
10	**4. Environmental**
	● Growth Factor
	● Development
15	**5. Implementability**
	● Political Sensitivity
	● Community Sensitivity
	● Opportunities for Interim Solutions
20	**6. Economic Impact**
	● Ability for Outside Funding
	● Maintenance History
	● Related Utilities
	● Indirect Infrastructure Costs
	● Opportunities for Interim Solutions
	● Need for Additional Right-of-Way
	● Arts Contribution
5	**7. Regionally Significant Corridor**
100	**SUBTOTAL**

Multipliers

4 Major Factor / Minimal Economic or Environmental Impact
3 Factor / Minor Economic or Environmental Impact
2 Minor Factor / Economic or Environmental Impact
1 Not a Factor / Major Economic or Environmental Impact

Equation

For each factor, the score equals the Weight X Multiplier with the Total Score equaling the sum of all these values.
Minimum Possible Score = 100
Maximum Possible Score = 400

TRANSPORTATION CIP PRIORITIZATION PROCESS

Section 8: Performance Measures for Plan Success

Defining success and measuring performance is essential to execution of any plan, both in the short and long term. In the 2020 Transportation Plan, no clear performance measures were defined and enunciated to assess Loveland's progress in meeting the criteria defined in the Transportation Plan. The 2035 Transportation Plan is a dramatic step forward in this direction.

The measurement of the plan is tied directly into the City of Loveland and Public Works Performance Measurement system. Annually, the Department of Public Works will publish Transportation Plan Performance Results in the Public Works Department Annual Report beginning in 2012.

Performance Measures that will be included the annual report:

Overall Statistics

- Total lane miles
- Total estimated square yardage of roadway
- Total vehicle miles traveled
- Total traffic signals
- Estimated annual trip totals
- Total population
- Total change in lane miles
- Projected build out of road classification types
- Average travel times in critical corridors

Intelligent Transportation Measures

- Total signals
- Total signals with central command and communications
- Total signals served with fiber
- Accident data as tabulated by Loveland Police Department
- Visual camera data stations

Travel Demand Management Measures

- Total SmartTrips Participation
- Vehicle miles avoided
- Participating statistics

Transit Measures

- Passenger ridership
- Disabled ridership
- Senior ridership
- Federal funding/Local funding share
- Cost per trip
- Total miles of system services
- Total operating hours
- Fare revenue
- Advertising revenue
- Paratransit rides not accommodated

Bike/Pedestrian Measures

- Total bike facilities
- Percent change in bike facilities
- Gaps in system percentage
- Total pedestrian facilities
- Total bike facilities
- Percent change in bike facilities
- Gaps in system percentage
- Percent pedestrian facilities ADA-compliant

Street Maintenance Measures

- Annual reconstruction/maintenance data
- Cost per mile to maintain (all factors/specific factors)
- Cost per mile to construct
- Annual cost per citizen of maintenance program

These data points represent a sampling of measures that will be included in the annual transportation report. Each factor will be tracked for the current year as well as past years with applicable data. Recommended annual performance goals in each area will define progress toward the key achievements defined in the 2035 Transportation Plan.

Section 9: Recommendations for Change

The 2020 Transportation Plan was the City of Loveland's first major transportation planning effort aimed at identifying the City's needs from 2000 through the City's projected build out. The 2035 Transportation Plan represents a further update to that plan building on the 2030 Transportation Plan, and as such, additional opportunities for continuing improvement have been identified. This section outlines those forthcoming plan improvements, as well as the newly defined public participation program.

Short-Term Strategic Plans

Several critical areas require sub-level strategic plans for defining and improving plan conditions in both the short and long term. The following plans will be developed with public participation

Intelligent Transportation System (ITS) Strategic Plan

Currently the City of Loveland has a limited capacity related to ITS improvements. With the continued project growth of both, population and vehicle miles traveled, this Plan will focus on the mitigation and improvement of congestion management. The Plan will also define the current state of affairs and what technology, infrastructure, and personnel expenditures will be necessary to address current deficiencies and planned improvements.

Vibrant Corridors Strategic Plan

The tone of a community for both visitors and residents is often defined by the most highly traveled corridors in a City. Based on this premise, and working with the City's Community Development and Cultural Services arms, the most prominent corridors in the City will be evaluated for aesthetic issues and plans will be defined for the enhancement of these corridors. The goal of this planning will be to define a vision for the vibrancy of these areas, including landscaping, visual art, welcoming character, and consistency with the City's personality. These efforts will be based upon the visions defined in the community's Comprehensive Master Plan. Based upon this evaluation and plan, programming will begin to develop initiatives aimed at aiding existing property owners and new development in contributing to the vibrancy of these corridors.

Street/Pavement Maintenance Strategic Plan

The City of Loveland tracks all pavement surfaces in the City for level of performance. This plan will define the steps necessary, expenditures required, and financing options for maintaining and upgrading existing roadways. This plan will further build on the outstanding program already in place at the City.

Bicycle & Pedestrian Plan

Defining the City of the future for multi-modal transportation is essential to building an interconnected network for bicycle and pedestrian transportation. This plan was developed and adopted on May 1, 2012

Railroad Crossings Strategic Plan

Loveland has 24 railroad crossings, only 76% of which are currently either grade separated or protected with gates and/or signals. Investments in crossing infrastructure are shared between rail companies and the City of Loveland. With increasing frequency nationwide of railroad and pedestrian or vehicle interactions, the necessity to define the rail crossing issues and build a strategic plan for improvements with our rail partners is essential. No such plan has been previously developed in Loveland.

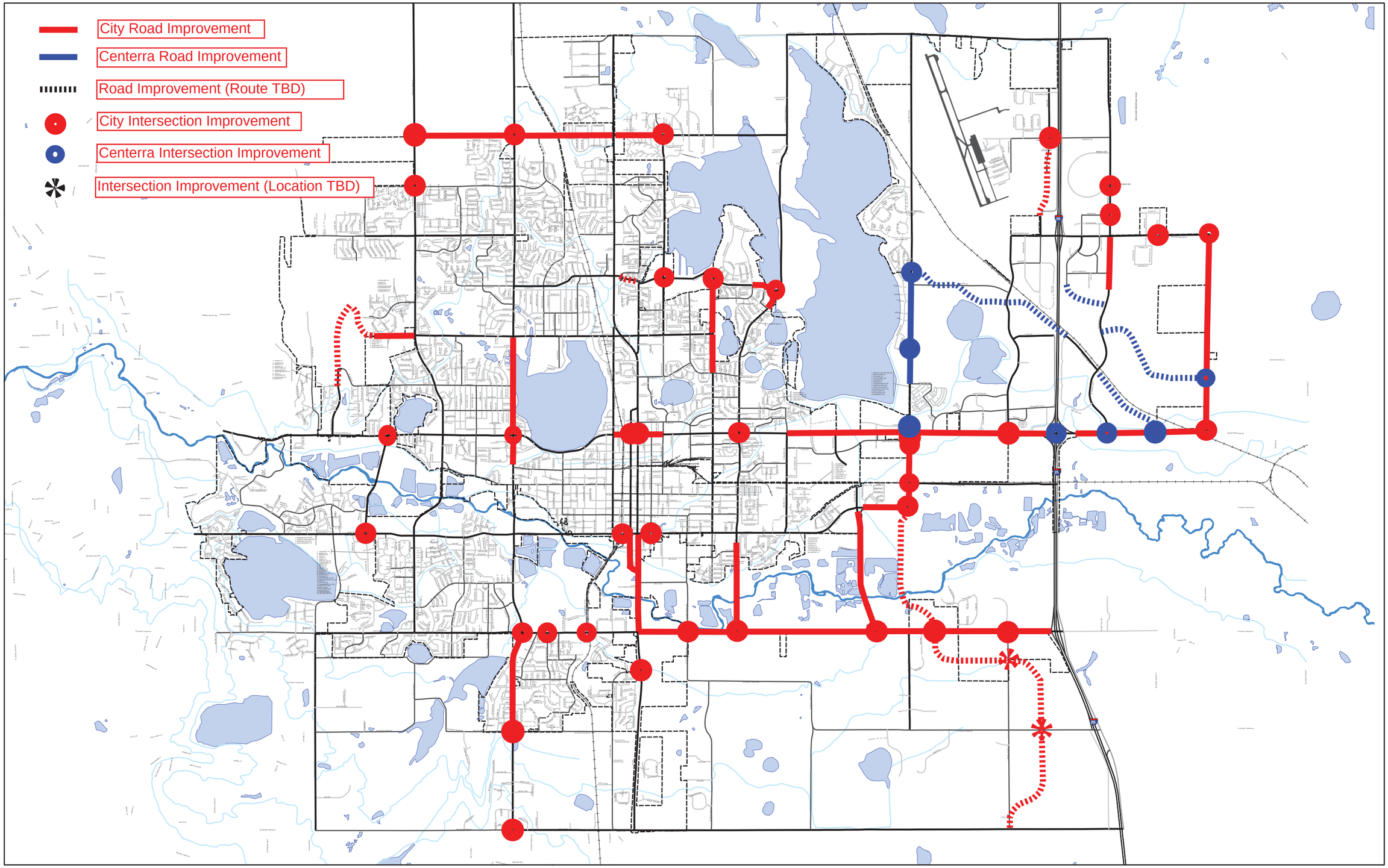
Public Participation Program

Since 2000 the City of Loveland has significantly redefined public participation in the transportation planning process including not just macro planning at the City-wide level but also neighborhood planning at the project level. These efforts include traffic calming, route planning, transit planning, and the City's Comprehensive Master Plan. The City of Loveland has also added a citizen Transportation Advisory Board (TAB) to guide the public input process.

Using this model, the City will seek input on the individual strategic plans to be defined in the next steps of the transportation master planning process, transit related system changes and improvements, neighborhood issues associated with projects, and general feedback and input on transportation efforts. The City will also continue to be a supporting player in public participation programs by the Colorado Department of Transportation (CDOT) and the North Front Range Metropolitan Planning Organization (NFR MPO), as well as our neighboring communities and Larimer County.

City of Loveland

9/18/2012


City Road Improvement
Centerra Road Improvement
Road Improvement (Route TBD)
City Intersection Improvement
Centerra Intersection Improvement
Intersection Improvement (Location TBD)

2035 Transportation Plan – Status Update

City Council Study Session
September 25, 2012

David Klockeman, PE, City Engineer
Justin Stone, PE, Civil Engineer
Keith Reester, Public Works Director
Alan Krcmarik, Executive Fiscal Advisor
Bill Fox, PE, Fox – Tuttle Transportation Group

Tonight's Discussion

- Updating the 2030 Plan
- Model Development
- Draft Project Cost Estimates
- Draft 2035 Capital Program
- Outline for 2035 Transportation Plan
- Action Plan Forward

Updating from 2030 Plan

- 2030 Plan is basis for update
  - Data
  - Process
  - Results
- 2035 Plan is a comprehensive update
  - Additional Plans adopted since 2030 Plan:
    - Bike and Pedestrian Plan
    - Transit Plan
  - Growth projections revised
  - Cost estimates redone

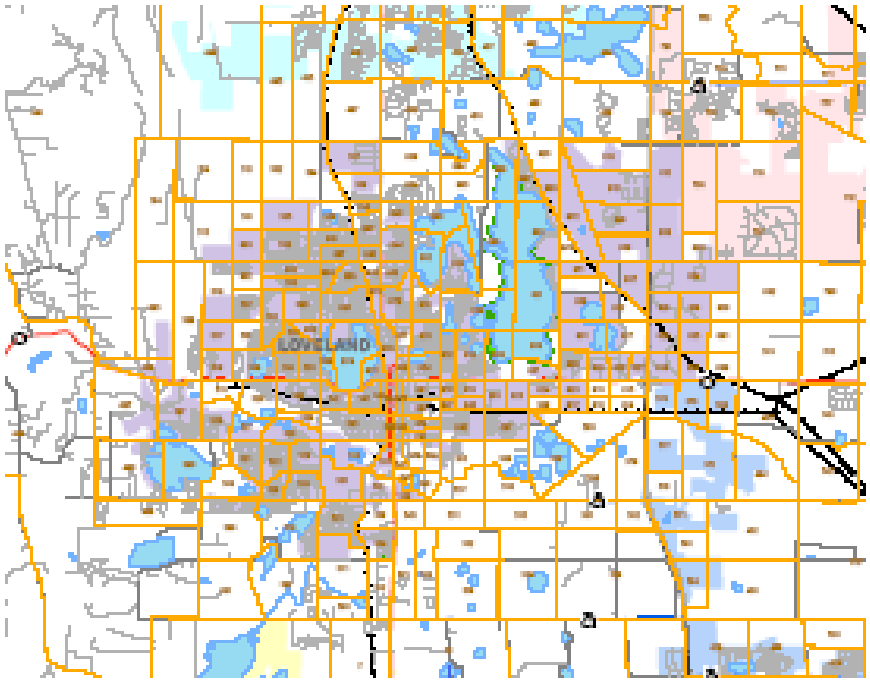
Model Development

- Foundation is critical
- Local and Regional
- Coordination with:
  - Community and Strategic Planning
    - Karl Barton– Key Player
  - North Front Range MPO Staff
    - Balanced local growth with respect for regional projections
      - Control totals

Traffic Analysis Zones (TAZ's)

- Develop Traffic Analysis Zones (TAZ's)
  - Region divided into logical sections in order to input land use information
    - Households
    - Non-Residential Uses
      - Retail/Commercial
      - Office
      - Industrial
    - Current Information
    - Build-out Information
    - Projection made for 2035
      - Trends Likely Development is plan basis

TAZ's (cont.)



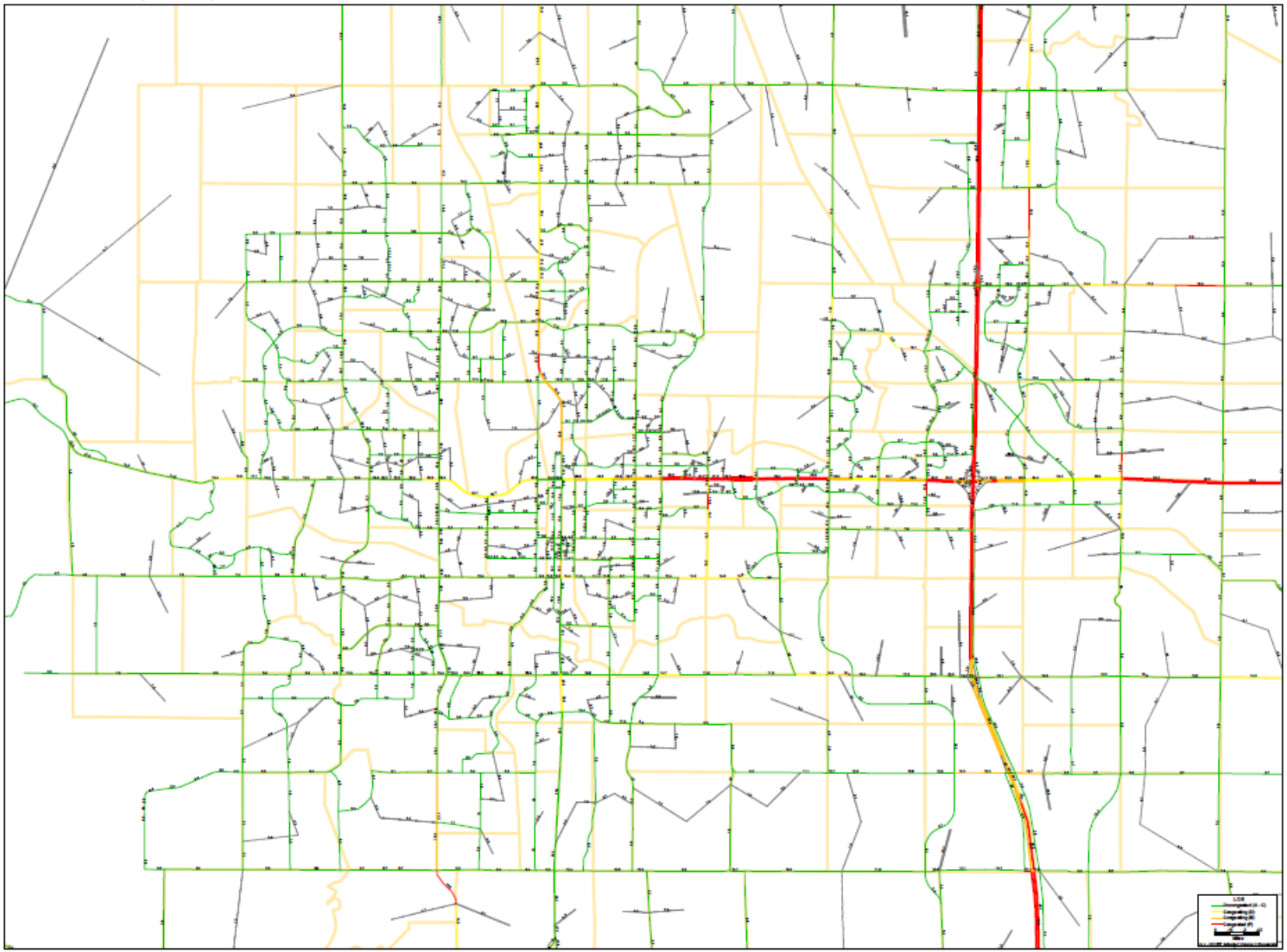
The "Model"

- Information entered
  - Roadway Network
  - Classification
    - Arterials (Major and Minor)
    - Collectors
    - Number of Lanes
  - Area Type (Urban, Suburban, Rural)
- Calibration using existing road system and land use information
  - Compared to existing traffic counts

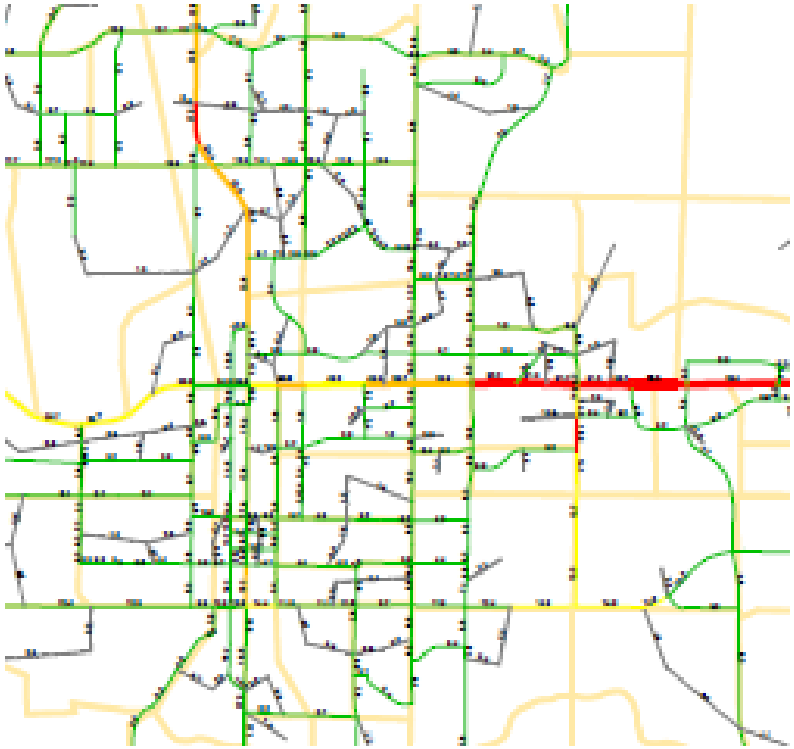
Model (cont.)

- Anticipated future road network is entered
- TAZ land use information is entered
- Model Runs
  - Gravity Model
    - Productions and Attractions (Origins and Destinations)
  - Iterative model
    - Runs through processes until all trips are accounted for

Loveland (2035) Alternative 2 Level of Service



Model Output – Zoomed In



Completing the Model

- Model is revised
  - Network, Classification, Lanes
  - TAZ Information
    - reviewed to look for inconsistencies or data entry errors
    - TAZ's may be split (to provide localized sensitivity)
  - Model is re-run
  - Results are reviewed
  - Recommendations are developed

Model Findings

- Started with 2030 Transportation Plan improvements
  - Not all were required based on revised land use
    - Extend life of existing County road sections at perimeter of City
    - Delay widening of existing roads
      - Examples
        - US 287 from 4 to 6 lanes north of 29th Street
        - SH 402
          - 4 lanes still necessary from US 287 to St. Louis and LCR 9 to I-25
          - 2 lanes with turn lanes and intersection improvements acceptable from St. Louis to LCR 9

Model Findings (cont.)

- Results were tested (sensitivity analysis)
  - Some critical questions:
    - Were we on the edge of needing more improvements?
    - What about longer term?
  - Looked at additional scenarios:
    - With support from Community and Strategic Planning and our regional partners
    - Added 10% growth to entire region
      - Proposed network still worked
    - Looked at “build-out” (City and region fully developed per plans and long term growth projections)
      - Ultimate street network was adequate

Level of Service (LOS)

- Level of Service (LOS) is basically a letter grade for getting from Point A to Point B
  - Really Short Time (Free Traffic Flow) – LOS A
  - Busy, but moves well (Stable Flow) – LOS C
  - Driver comfort and convenience low but tolerable – LOS D (common standard)
  - Long Time (Very busy with noticeable delays – travel speeds are low) – LOS E
  - Wish I would have taken a different route (Breakdown of flow) – LOS F
- City Standards for LOS
  - Arterial – LOS C
  - Collector – LOS B
  - Local – LOS A

Causes for Low LOS

- Examples
  - Too much traffic in lanes (Link Volume – widening to add through lanes needed)
  - Too many options for entering or exiting a street section (need improved access control)
  - Lack of Turn Lanes (need auxiliary lanes)
  - Intersection Control needs to be upgraded (No Control, Stop Sign Control, Roundabouts, Signals)

LOS for 2035

- Recommended approach to LOS in 2035 Transportation Plan
  - Continue to look at link volume LOS
    - Intersection level of service looked at with specific developments
    - Increase number of intersections improved
  - Maintain LOS standards for City Streets
  - Reduce LOS for State Highways (US 287, US 34 and SH 402) to LOS D
    - Consistent with CDOT standards
    - Consistent with our neighbors – Regional corridors
    - A number of exemptions have already granted
    - LOS D congestion will not divert traffic onto lower level roadways
    - Mainly US 287 north of 29th Street and US 34 east of Madison

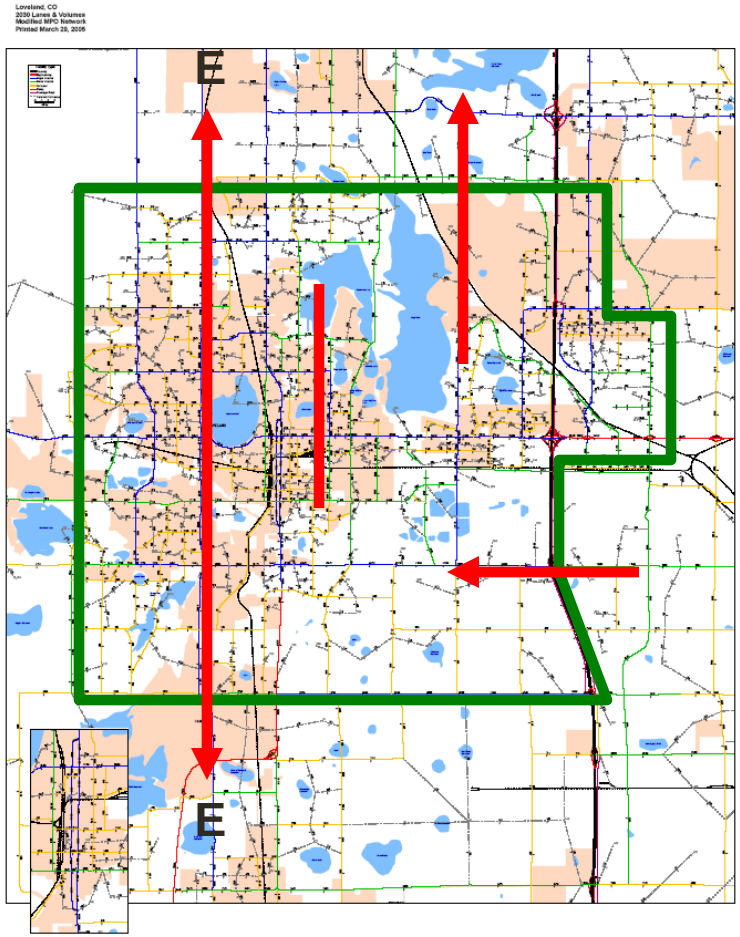
Project Cost Estimates

- 2035 Plan Cost Estimates
  - From 2030 Plan – recalculate with future plan updates
    - Interim years – adjust per Colorado Construction Cost Index
  - Roadway Sections
    - Recalculated
  - Intersections
    - Recalculated
  - Signals
    - Updated to reflect current costs

Funding Sources

- Capital Expansion Fees
  - Cost of Trips anticipated due to new growth
- Street Equivalent
  - Collector
    - Developer responsible for up to collector width for interior streets and ½ Collector width for adjacent perimeter streets
- Other
  - Funds from Outside Sources (CDOT, Federal Government)
- General Fund
  - City's Share for existing traffic, Street Equivalent for land already developed, and Pass Through or External to External Traffic (E-E)
- Centerra Metro District
  - Per Master Finance Agreement (MFA)

E–E Explanation

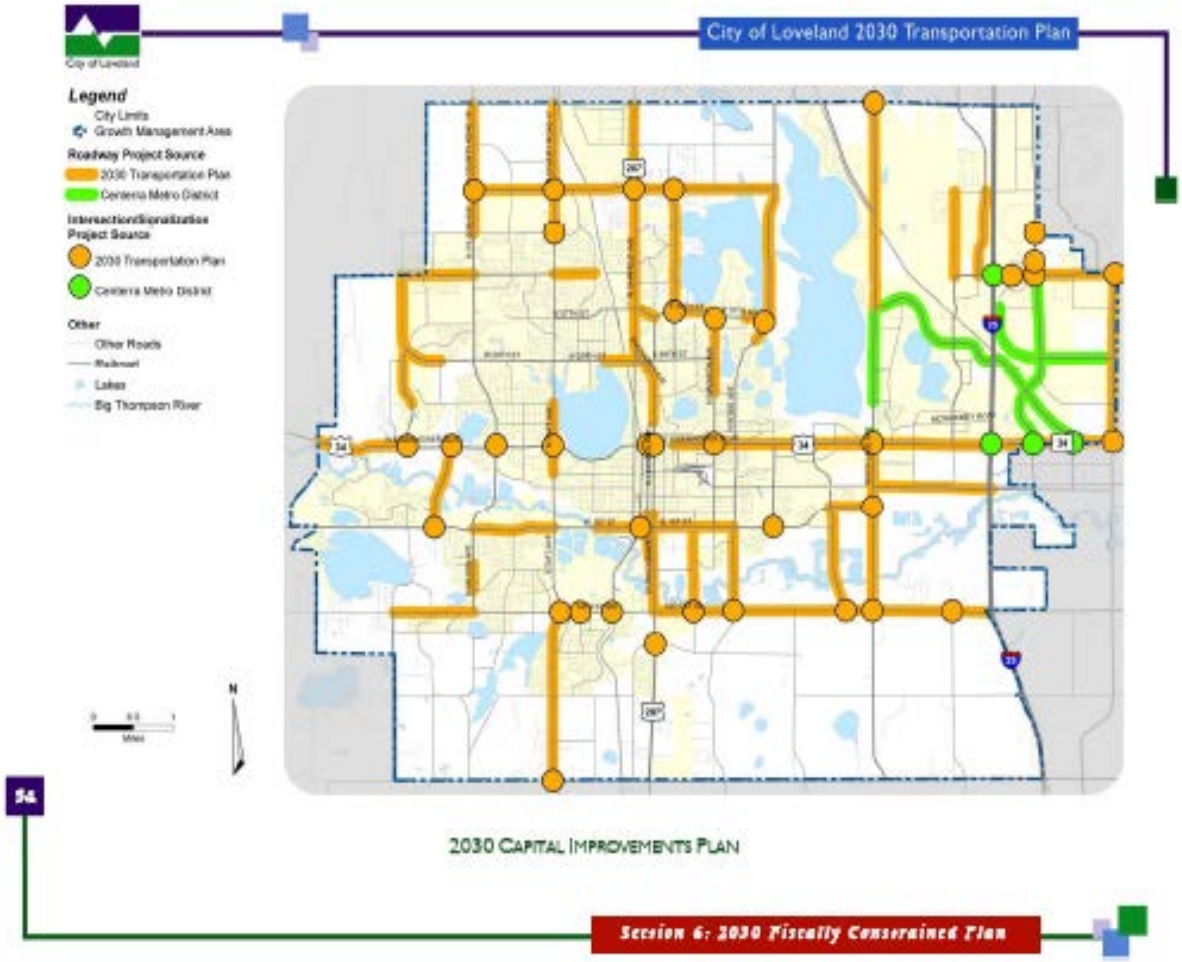


Review

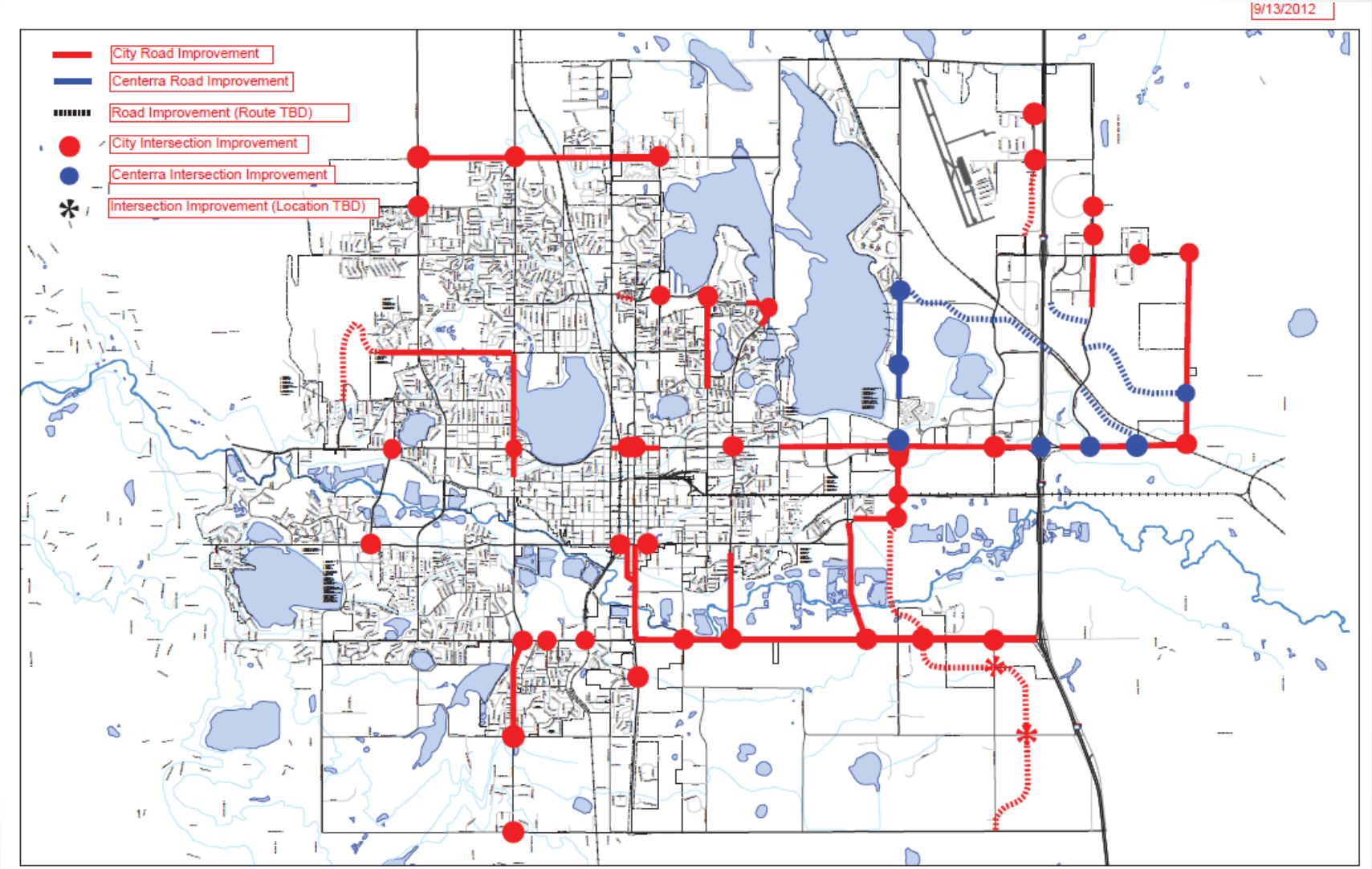
- Land Use Component
- Model Run
- LOS
- Cost Estimates
- Funding Sources

Based on the information, so what should we build by 2035?

2030 Capital Improvements



Draft 2035 Capital Improvements



Draft 2035 Capital Improvements (cont.)

	2035 Plan		2030 Plan
City Share	$33,934,009		$47,272,272
CEF Share	$129,226,011		$123,038,745
Street Equivalent Share	$44,009,280		$27,959,800
Other (CDOT, Federal, Grants) Share	$37,784,700		$51,305,150
Subtotal	**$244,954,000**		**$249,575,967**
Centerra – Internal	$117,144,630*		$100,853,500
Centerra – Regional	$101,500,000*		$100,000,000
Subtotal	**$218,644,630***		**$200,853,500**
TOTAL	**$463,598,630**		**$450,429,467**

*Remaining Costs (Adjusted to 2012 dollars)

Draft 2035 Capital Improvements (cont.)

2030 - 25 YEAR CIP WITH COST ALLOCATIONS (04-12-05 - LSE)

Roadway Section Name	Beginning	Ending	Length	Classification	2030 ADT Traffic Volume	2030 Total ADT V/C Ratio	CIP Priority	Total Project Cost	Percent Growth Related	Percent Local City Traffic	Reduction for Cost Equivalent of Local Street	Maximum CEF Cost	City Financing After CEFs and Local Street Equivalent
CITY	STREETS												
57th St	Wilson Ave	Taft Ave	5,280	Arterial Major	17,000	0.48	3	**2,200,000**	100	81	**694,140**	**1,219,747**	$286,113
57th St	Taft Ave	US 287	5,280	Arterial Major	30,800	0.87	2	**4,730,000**	100	92	**296,700**	**4,078,636**	$354,664
57th St	US 287	Monroe Ave	2,640	Arterial Major	14,200	0.40	2	**1,650,000**	100	89	**20,700**	**1,450,077**	$179,223
57th St	Monroe Ave	LCR 11C	6,600	Arterial Minor	9,400	0.82	3	**3,520,000**	100	83	**103,500**	**2,835,695**	$580,805
43rd St	Cascade Ave	Wilson Ave	5,280	Arterial Minor	4,350	0.38	2	**1,980,000**	100	100	**303,600**	**1,676,400**	$0
43rd St	Taft Ave	Duffield Ave	2,650	Arterial Minor	2,850	0.25	3	**1,210,000**	100	100	**82,800**	**1,127,200**	$0
37th St	Garfield Ave (US 287)	Lincoln Ave	1,300	Arterial Minor	12,000	1.05	1	**1,650,000**	100	92	**0**	**1,518,000**	$132,000
37th St	Monroe Ave	Madison Ave	2,600	Arterial Minor	6,900	0.61	1	**1,210,000**	50	92	**358,800**	**391,552**	$459,648
37th St	Seven Lakes Drive	LCR 11C (Boise)	1,300	Arterial Minor	6,800	0.60	1	**600,000**	100	86	**0**	**516,000**	$84,000
Crossroads Blvd	I 25 Ramps	Centerra Pkwy	2,400	Arterial Major	22,000	0.62	2	**660,000**	100	89	**172,500**	**433,875**	$53,625
Crossroads Blvd	Centerra Parkway	LCR 3	5,300	Arterial Major	9,500	0.27	3	**2,365,000**	100	66	**262,200**	**1,387,848**	$714,952
29th St	Cascade Ave	Wilson Ave	4,300	Arterial Minor	5,300	0.46	3	**1,870,000**	100	99	**572,700**	**1,284,327**	$12,973
29th St	Custer	Garfield Ave	2,700	Arterial Major	16,200	0.46	3	**1,540,000**	50	100	**0**	**770,000**	$770,000
1st St	Wilson Ave	Taft Ave	4,000	Arterial Major	11,200	0.32	2	**1,760,000**	100	99	**69,000**	**1,674,090**	$16,910
1st St	Franklin Ave	Railroad	2,800	Arterial Minor	11,100	0.97	2	**1,870,000**	50	99	**0**	**925,650**	$944,350
1st St	Lincoln Ave	Boise Ave	5,200	Arterial Minor	11,600	1.02	2	**3,520,000**	50	99	**0**	**1,742,400**	$1,777,600
LCR 20C	LCR 9E	Boyd Lake Ave	2,700	Arterial Minor	9,600	0.84	1	**1,210,000**	50	99	**462,300**	**370,112**	$377,589
LCR 20E	Boyd Lake Ave	I-25	7,600	Arterial Minor	5,800	0.51	3	**3,320,000**	50	95	**524,400**	**1,327,910**	$1,467,690
14th St SW	LCR 21 (Cummings)	Wilson Ave	4,800	Arterial Minor	7,800	0.68	3	**1,980,000**	50	84	**386,400**	**669,312**	$924,288
Cascade Ave	19th St	29th St	6,200	Arterial Minor	2,400	0.21	3	**2,750,000**	100	98	**552,000**	**2,154,040**	$43,960
Cascade Ave	29th St	43rd St	4,000	Arterial Minor	1,000	0.09	3	**1,760,000**	100	100	**728,640**	**1,031,360**	$0
Namaqua Ave	Crestone Drive	US 34	4,100	Arterial Minor	10,000	0.88	3	**1,760,000**	50	85	**276,000**	**630,700**	$853,300
Wilson Ave	Carlisle Dr	5th St SW	1,700	Arterial Major	11,500	0.32	2	**330,000**	100	96	**103,500**	**217,440**	$9,060
Wilson Ave	50th St	57th St	2,640	Arterial Major	22,000	0.62	2	**1,700,000**	100	96	**364,320**	**1,282,253**	$53,427
Wilson Ave	57th St	GMA limits	5,280	Arterial Major	22,000	0.62	3	**2,310,000**	100	96	**728,640**	**1,518,106**	$63,254
Taft Ave	50th St	57th St	2,640	Arterial Major	30,600	0.86	1	**1,270,000**	100	85	**273,240**	**847,246**	$149,514
Taft Ave	57th St	LCR 30	5,280	Arterial Major	29,200	0.82	3	**2,310,000**	100	79	**618,240**	**1,336,490**	$355,270
Taft Ave	Arkins Branch	US 34	1,900	Arterial Major	22,600	0.64	3	**8,000,000**	75	69	**0**	**4,140,000**	$3,860,000
Taft Ave	US 34	22nd Street	2,600	Arterial Major	24,100	0.68	3	**1,980,000**	75	77	**0**	**1,143,450**	$836,550
Taft Ave	SH 60	28th St SW	5,280	Arterial Major	15,000	0.42	3	**3,410,000**	100	66	**69,000**	**2,205,060**	$1,135,940
Taft Ave	28th St SW	14th St SW	4,000	Arterial Major	16,600	0.47	1	**1,320,000**	100	62	**220,800**	**681,504**	$417,696
Monroe Ave	33rd St	57th St	8,900	Arterial Minor	7,500	0.66	3	**3,960,000**	50	100	**276,000**	**1,842,000**	$1,842,000
St Louis Ave	SH 402	1st St	5,280	Arterial Minor	2,500	0.29	3	**2,420,000**	50	100	**69,000**	**1,175,500**	$1,175,500
Madison Ave	Silverleaf Dr	29th St	1,600	Arterial Major	18,000	0.51	2	**440,000**	100	100	**48,300**	**391,700**	$0
Madison Ave	29th St	37th St	3,200	Arterial Minor	6,700	0.59	2	**1,430,000**	50	100	**69,000**	**680,500**	$680,500
Boise Ave	SH 402	1st St	5,280	Arterial Minor	14,800	1.30	2	**2,640,000**	50	81	**262,200**	**963,009**	$1,414,791
Boise Ave	Mt. Columbia Dr	37th Street	1,000	Arterial Minor	13,200	1.16	3	**1,100,000**	50	68	**0**	**374,000**	$726,000
LCR 11C (Boise)	37th St	57th St	8,200	Arterial Minor	10,000	0.88	3	**3,630,000**	100	65	**400,200**	**2,099,370**	$1,130,430
LCR 9E	SH 402	LCR 9C	6,800	Arterial Minor	4,900	0.43	3	**2,970,000**	100	95	**510,600**	**2,336,430**	$122,970
Boyd Lake Ave	LCR 20C	LCR 20E	1,300	Arterial Major	24,500	0.69	1	**660,000**	100	98	**165,600**	**484,512**	$9,888
Boyd Lake Ave	LCR 20E	US 34	2,600	Arterial Major	27,300	0.77	1	**1,430,000**	100	98	**276,000**	**1,130,920**	$23,080
Boyd Lake Ave	37th St	LCR 30	10,600	Arterial Major	22,800	0.64	3	**4,620,000**	50	85	**1,131,600**	**1,482,570**	$2,005,830
Boyd Lake Ave	SH 402	LCR 20E	6,500	Arterial Major	12,000	0.34	3	**6,820,000**	100	95	**883,200**	**5,639,960**	$296,840
Centerra Parkway	37th St	Crossroads Blvd	2,600	Arterial Major	16,400	0.46	3	**1,400,000**	100	76	**0**	**1,064,000**	$336,000
LCR 3	US 34	Crossroads Blvd	10,600	Arterial Minor	9,600	0.84	3	**4,620,000**	50	97	**1,462,800**	**1,531,242**	$1,625,958
	City Street Project	**Totals:**	**36.90**					**$ 105,885,000**			**$ 13,798,620**	**$ 63,782,192**	**$ 28,304,188**

STATE HIGHWAYS									Anticipated CDOT Funding	Local Share	Local Street Equivalent Responsib.	Percent Local Traffic	Maximum CEF Share	City Financed Share
State Highways														
US 34	City Limits	Morning Dr	3,500	Arterial Major	15,300	0.43	2	1,980,000	$1,980,000	$0	$0	27	$0	$ -
US 34	Madison Ave	Boise Ave	1,400	Arterial Major	48,300	0.91	1	1,650,000	$825,000	$825,000	$0	84	$695,487	$ 129,513
US 34	Boise Ave	Denver Ave	2,550	Arterial Major	56,300	1.06	1	1,870,000	$935,000	$935,000	$138,000	85	$673,562	$ 123,438
US 34	Denver Ave	Boyd Lake Ave	6,500	Arterial Major	64,100	1.21	1	3,630,000	$1,815,000	$1,815,000	$621,000	85	$1,009,075	$ 184,925
US 34	Boyd Lake Ave	Rocky Mountain Ave	5,300	Arterial Major	69,500	1.31	1	2,970,000	$1,485,000	$1,485,000	$517,500	84	$809,262	$ 158,238
US 34	Rocky Mountain Ave	I 25 Ramps	1,600	Arterial Major	62,100	1.17	1	1,430,000	$715,000	$715,000	$82,800	77	$486,794	$ 145,406
US 34	I 25 Ramps	Centerra Pkwy	2,000	Arterial Major	56,200	1.06	2	1,760,000	$880,000	$880,000	$172,500	69	$488,175	$ 219,325
US 34	Centerra Pkwy	LCR 3	5,300	Arterial Major	55,000	1.04	2	3,520,000	$1,760,000	$1,760,000	$621,000	61	$694,790	$ 444,210
US 287	SH 402	One way split	3,300	Arterial Major	25,000	0.24	3	1,100,000	$550,000	$550,000	$138,000	75	$309,000	$ 103,000
US 287(Lincoln)	One way split	5th St	4,000	Arterial Major	14,000	0.13	3	1,650,000	$825,000	$825,000	$0	75	$618,750	$ 206,250
US 287(Cleveland)	One way split	3rd St	2,800	Arterial Major	12,000	0.11	3	880,000	$440,000	$440,000	$0	75	$330,000	$ 110,000
US 287	One way split @ cemetary	29th St	3,100	Arterial Major	27,200	0.51	2	2,750,000	$1,375,000	$1,375,000	$0	75	$1,036,239	$ 338,761
US 287	29th St	57th St	10,600	Arterial Major	37,500	0.71	1	3,300,000	$1,650,000	$1,650,000	$69,000	75	$1,185,750	$ 395,250
US 287	57th St	LCR 30	5,280	Arterial Major	46,200	0.87	2	1,650,000	$825,000	$825,000	$345,000	74	$355,200	$ 124,800
SH 402	US 287	I 25 Ramps	22,000	Arterial Major	48,800	1.38	2	23,100,000	$20,790,000	$2,310,000	$1,035,000	84	$1,074,865	$ 200,135
	State Highway	**Totals:**	**10.84**					**$53,240,000**	**$36,850,000**	**$16,390,000**	**$3,739,800**		**$9,766,948**	**$ 2,883,252**

OTHER PRIORITIES

		Project Cost	CEF	City	CDOT
Pedestrian and Bicycle	3% of City Street CIP	$3,176,550	$3,176,550	$0	
Signal System Connect	System	$2,200,000	$1,760,000	$440,000	
35 CityTraffic Signals	@ $175,000 each	$6,125,000	$4,900,000	$1,225,000	
6 CDOT Traffic Signals	@ $350,000 each	$2,100,000	$1,680,000	$420,000	
8 minor intersection	rebuilds at $750,000 ea	$6,000,000	$4,800,000	$1,200,000	
6 major intersection	rebuilds at $1,500,000 ea	$9,000,000	$7,200,000	$1,800,000	
Eisenhower@Lincoln & Cleveland		$4,400,000	$2,200,000	$0	$2,200,000
Bridge replacements		$2,500,000	$0	$2,500,000	
Professional Services to Support CEFs		$275,000	$275,000	$0	
Total	**Other projects:**	**$35,776,550**	**$25,991,550**	**$7,585,000**	**$ 2,200,000**

CIP SUMMARY	
Updated 04-12-05	
CITY	$38,772,440
CEF	$99,540,690
LOCAL ST	$17,538,420
CDOT	$39,050,000
CENTERRA	$200,853,500
TOTAL	$395,755,050

CENTERRA METRO DISTRICT PROJECTS

		Project Cost	District	City	CDOT
East of I-25					
Centerra Parkway	US 34 to 37th Street	$9,478,900	$9,478,900	$0	$0
Clydesdale Parkway	37th St to LCR 3	$7,169,600	$7,169,600	$0	$0
Sky Pond Drive	Centerra Pkwy to W End	$1,354,000	$1,354,000	$0	$0
Cordova Pass Drive	US 34 to I-25	$6,435,400	$6,435,400	$0	$0
US 34	I-25 to Cordova Pass Dr	$4,454,400	$4,454,400	$0	$0
Interior Arterial Streets	Additional Streets	$9,694,100	$9,694,100	$0	$0
6 Major Intersections		$5,306,400	$5,306,400	$0	$0
Centerra Parkway	Railroad Underpass	$3,120,500	$3,120,500	$0	$0
Cordova Pass Dr	Interim I-25 Underpass	$1,584,000	$1,584,000	$0	$0
Cordova Pass Dr	Ultimate I-25 Underpass	$6,336,000	$6,336,000	$0	$0
Sky Pond Drive	Bridge over Drainage Way	$3,168,000	$3,168,000	$0	$0
LCR 3E RR Underpass	UPRR Additional Crossing	$3,001,700	$3,001,700	$0	$0
Subtotal		**$61,103,000**	**$61,103,000**	**$0**	**$0**
West of I-25					
Boyd Lake Avenue	US 34 to Canal	$2,185,900	$2,185,900	$0	$0
Boyd Lake Avenue	Plum Ck Dr to 37th St	$6,328,600	$6,328,600	$0	$0
29th Street	Rocky Mtn Ave to I-25	$2,233,900	$2,233,900	$0	$0
37th Street	Boyd Lake Dr to Rky Mtn	$5,119,200	$5,119,200	$0	$0
Hahn's Peak Drive	US 34 to Rocky Mtn Ave	$2,285,400	$2,285,400	$0	$0
US 34	Boyd Lake to I-25	$812,600	$812,600	$0	$0
McWhinney Blvd	Misc. Improvements	$2,528,000	$2,528,000	$0	$0
Fall River Drive	US 34 to	$1,059,700	$1,059,700	$0	$0
Interior Col. Streets	Additional Streets	$7,606,100	$7,606,100	$0	$0
9 Major Intersections		$6,098,400	$6,098,400	$0	$0
Boyd Lake Ave Culvert	Greeley-Loveland Canal	$2,692,800	$2,692,800	$0	$0
US 34 Culvert	Farmer's Ditch	$562,300	$562,300	$0	$0
Fall River Dr Culvert	Rehab at Farmer's Ditch	$237,600	$237,600	$0	$0
Subtotal		**$39,750,500**	**$39,750,500**	**$0**	**$0**
Regional Improvements					
Crossroads and I-25 Interchange		$20,000,000	$20,000,000	$0	$0
US 34 and I-25 Interim Interchange		$10,000,000	$10,000,000	$0	$0
US 34 and Centerra Parkway Interchange		$15,000,000	$15,000,000	$0	$0
US 34 and Cordova Pass Dr (LCR 3E) Interchange		$15,000,000	$15,000,000	$0	$0
US 34 and I-25 Ultimate Interchange		$40,000,000	$40,000,000	$0	$0
Subtotal		**$100,000,000**	**$100,000,000**	**$0**	**$0**
Total - Centerra Metro District Projects		**$200,853,500**	**$200,853,500**	**$0**	**0**

Draft Outline of 2035 Plan

- Major Components
  - Executive Summary
  - Purpose and Process
  - Sustainability
  - Existing System
  - Change: 2007 - 2012
  - 2035 Analysis and Projections
  - Fiscally Constrained Plan / Plan Implementation
  - Performance Measurement for Plan Success
  - Recommendations for Change
  - Technical Appendices

Action Plan Forward

- Today - September 25th – Council Study Session
- October 1st – TAB Discussion (Draft Document)
- Staff Adjustments based on Council / TAB input
- October 17th – Open House
- October 22nd – Planning Commission Study Session
- October 24th – Construction Advisory Board Study Session
- November 5th – TAB – Report on other meetings
- Additional Plan Revisions by Staff
- November 26th – Planning Commission Public Hearing and Recommendation to Council
- November 27th – Council Study Session
- December 3rd – TAB – Final Document / Recommendation to Council
- December 18th - Council Public Hearing and Adoption

Questions?

CITY OF LOVELAND
CITY MANAGER'S OFFICE
Civic Center • 500 East Third • Loveland, Colorado 80537
(970) 962-2303 • FAX (970) 962-2900 • TDD (970) 962-2620

AGENDA ITEM: **3**
MEETING DATE: 9/25/2012
TO: City Council
FROM: Alan Krcmarik, Executive Fiscal Advisor
PRESENTER: Alan Krcmarik

TITLE: Capital Expansion Fee Proposed Fee Levels

RECOMMENDED CITY COUNCIL ACTION: This is an information only item. Staff will be asking for Council direction in order to prepare the capital expansion fees for 2013.

DESCRIPTION: This item is for information and discussion with Council. Throughout this year, City staff members have conducted the five year review of the Capital Expansion Fees. Public Works staff members are in the process of the update of the 2035 Transportation Plan. Prior study sessions have covered 1) the introduction of the process and a history of how the City has used Capital Expansion Fees since 1984, and 2) a step-by-step consideration of the major topics involved in the five year update. At the study sessions on July 10th and August 28th, staff provided topic by topic progress reports on the update process.

BUDGET IMPACT:
Proceeds from the Capital Expansion Fees fund capital improvements. For purposes of preparing the 2013 Budget, the Budget Office staff is assuming that the Fees will be continued into the future. The update process indicates that CEF should be increased to meet the policy of growth paying for its share of capital costs.

SUMMARY: During the study sessions regarding Capital Expansion Fees held on March 27, July 10, and August 28, 2012, Council was provided with information about; (1) the history and methods of the program, (2) fee history, (3) comparison with other jurisdictions, (4) levels of service, (5) the updated calculation of fees, (6) some options to adjust Multi-family CEFs, (7) discussion of the annual adjustment for inflation, and finally (8) some methods to meet the operating and maintenance costs of growth. In the briefing memorandum, staff reiterates the fee levels derived from the fee update process and provides answers to some of the remaining questions that Council asked at the prior meetings. The update shows increases in the commercial and industrial fees, due to growth in these sectors since the last five-year update, an increase in the single family fees, and a decrease in the multi-family fees.

REVIEWED BY CITY MANAGER: William D. Cahill

LIST OF ATTACHMENTS:
Briefing Memorandum
Capital Expansion Fee Five Year Update - PowerPoint Presentation

CITY OF LOVELAND
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CAPITAL EXPANSION FEE BRIEFING MEMORANDUM

TO:	City Council
MEETING DATE	September 25, 2012
FROM:	Alan Krcmarik, Executive Fiscal Advisor
SUBJECT:	**Capital Expansion Fee Proposed Levels and Responses to Questions**

ISSUE FOR COUNCIL DISCUSSION

Throughout the year, staff has been working on the five year update of the Capital Expansion Fees. In the intervening years, the municipal code provides for annual inflationary increases. The update has been reviewed by Council at three study sessions. Presentations have also been made to the Construction Advisory Board and the Planning Commission. Additional input will be sought at two scheduled open meetings on September 21 and 24. At the September 25 study session, Council will be able to review the proposed fees and discuss any remaining issues. Staff intends to provide a resolution to set the Capital Expansion Fees on November 6th have the fee adjustments go into effect on January 1, 2013.

Comparisons to other Cities

During the course of the five year update, Council has requested a great deal of information regarding fees in other communities. There are many inherent difficulties in making such comparisons. Each city has its own traditions, values, revenue sources, and varying service levels. Staff has attempted in the PowerPoint presentation to provide some additional information on this topic.

Loveland's approach, since 1984, is to try to keep property and sales taxes low and rely upon fees related to the impacts of growth to, in effect, have "growth pay for growth" or to have growth pay for its proportionate share of the impacts of growth. Most people would agree that this approach has provided a steady revenue source for a portion of the capital projects that the City has built in the last 25 years. The residents and customers of Loveland have seen tremendous growth and also received the benefits and services that have been supported by the capital projects built with capital expansions fees combined with other revenue from taxes and fees. The system has delivered many projects that support essential services, educational facilities like the library and museum, and parks, recreational facilities, trails, and open lands preservation. All of these fit into the City's vision and comprehensive plan.

Proposed Fees

Based on the fee setting process, the fees in the following tables represent staff's proposal for the capital expansions fees. Street capital expansion fees are only estimates based on preliminary information. The Public Works Department will have a separate presentation regarding the Street CEFs at the September 25 study session.

Residential	Single Family 2012 Fee Amount	Proposed 2013	Multi-family 2012 Fee Amount	Proposed 2013
Fire and Rescue	$ 736	$ 888	$ 736	$ 617
Law Enforcement	957	874	957	608
General Government	1,052	1,083	1,052	753
Library	681	722	681	502
Cultural Services / Museum	549	602	549	419
Parks	3,351	3,528	3,351	2,452
Recreation	1,679	1,572	1,679	1,092
Trails	532	527	532	366
Open Lands	824	884	824	614
Streets	2,170	2,279	1,508	1,583
Total	**$ 12,531**	**$12,959**	**$ 11,869**	**$ 9,006**

Commercial (charged per sq. ft.)	2012 Fee Level	2013 Proposed
Fire and Rescue	$ 0.31	$ 0.61
Law Enforcement	0.40	0.60
General Government	0.44	0.74
Total	$ 1.15	$ 1.95
Streets are based on the use in the Structure being built. For 2013, the estimate is for a 5% increase.		

Industrial (charged per sq. ft.)	2012 Fee Level	2013 Proposed
Fire and Rescue	$ 0.03	$ 0.08
Law Enforcement	0.05	0.08
General Government	0.06	0.10
Total	$ 0.14	$ 0.26
Streets are based on the use in the Structure being built. For 2013, the estimate is for a 5% increase.		

Questions from Prior Meetings with Answers

1. **How does the cost of developing/living in Loveland compare to other cities when you take into account the higher mill levies for library, fire, metro districts and higher sales tax? Is it possible that the final consumer, the home owner or business owner is paying more in other cities that have lower impact fees on construction projects than Loveland?** Mayor Gutierrez

   As staff has responded in the past, each city or town has its own system of fees and taxes and matches its revenue to a different bundle of services. Loveland is a full service city and does not use special financing districts as much as others in the region.

   Staff will present data from other communities to answer this question using the single family comparison. The answer depends on where the project is located. Special financing districts make a big difference; especially some recently formed metropolitan districts.

2. **Would like to see the rankings presented on August 28 adjusted for the proposed increases, and the adjustment for multi-family.** Council member Fogle

   We have updated the rankings: Please refer to the PowerPoint slides.

   Single family increased by $428 per unit. This did not affect the Loveland ranking.

   Multi-family decreased by $3,137 per unit. This lowered Loveland in the rankings from second highest to third highest.

   Retail increased by $96,231 (96.2 cents per square foot). This moved Loveland up one place, from fourth to third in the rankings.

Office increased by $86,230 (86.2 cents per square foot). This moved Loveland to 6th place out of 13. It was ranked at 9th.

Industrial increased by $14,636 (14.6 cents per square foot). This moved Loveland to tenth place in the rankings, up from 12th.

3. **The CEFs, according to current municipal code, are to be adjusted each year according to changes in the Engineering News Record (ENR) Construction Cost Index (CCI) using the September reading of the index. Over the years, this method has resulted in some volatility in the annual adjustments. Council would like to see what would happen in the index were smoothed by using a moving average.**

For the Denver region, the ENR September CCI reported value was 1.68%. If this were an inflationary increase year, this is the number that would be used to adjust the fees for 2013. 2012 is the five year update, so the fees are adjusted for the shifts in the land use categories and the updated replacement values of buildings, vehicles, fixtures, etc.

Since January of 2000, the average of the monthly observations is 3.70%

Smoothing the CCI index over the last 12 months provides an inflation adjustment of 4.53%.
Smoothing the CCI index over the last 24 months provides an inflation adjustment of 6.64%.
Smoothing the CCI index over the last 30 months provides an inflation adjustment of 5.59%.
Smoothing the CCI index over the last 36 months provides an inflation adjustment of 5.62%.
Smoothing the CCI index over the last 48 months provides an inflation adjustment of 4.69%.
Smoothing the CCI index over the last 60 months provides an inflation adjustment of 4.01%.

Many other jurisdictions use the 24 month term for smoothing out volatility. The City of Loveland has used the two-year smoothing for CCI for street construction projects. If a smoothing factor were to be the interest of a majority of Council, the factor would be inserted into to municipal code and applied to the Loveland fees at budget adoption.

Consultants in the impact fee field suggest than the term should not be longer than three years because significant turns in market prices are missed and fees should be updated periodically.

4. **What are the components that make up the RSMeans inflation index?** Council member McKean

The RSMeans Construction Cost Index is a proprietary system of project cost information and periodic adjustments. Their system relies on subcomponents for Materials, Installation/Labor, and Hourly Labor Rates. The sales representative and the technical services section would not provide additional detail.

The web-site claims that they update their data base on recently completed projects in Canada and across the United States. The firm tracks data in over 300 markets. In Colorado, they track Denver, Colorado Springs, Grand Junction, Pueblo, Greeley, and Fort Collins. Based on a subscription, they provide data to their customers and can help develop special cost estimates for specific types of projects.

5. **Would like to see the fee levels for each fee category year to year.** Council member Fogle

In the table below, residential fees are tracked back to 2007.

Fee Category	2007	2007 May 1	2008	2009	2010	2011 1st Half	2011 2nd Half	2012 Current
Fire	$ 502	$ 641	$ 666	$ 696	$ 678	$ 678	$ 736	$ 736
Law	590	833	865	904	881	881	957	957
General Govt	679	916	952	995	968	968	1,052	1,052
Library	539	593	497	519	505	505	681	681
Cultural	359	478	952	995	968	968	549	549
Parks	2,454	2,918	3,032	3,168	3,085	3,085	3,351	3,351
Recreation	1,128	1,462	1,519	1,587	1,546	1,546	1,679	1,679
Trails	406	463	481	503	489	489	532	532
Open Lands	662	736	765	799	778	778	824	824
Streets SF	2,984	2,045	2,045	2,170	2,170	2,170	2,170	2,170
Streets MF	1,940	1,436	1,436	1,508	1,508	1,508	1,508	1,508
Total using SF	$10,303	$11,085	$11,438	$11,985	$11,727	$11,727	$12,531	$12,531

From this data, current fees are 21.6% higher than the levels at the beginning of 2007.
The annualized growth rate would be just under 3.0% for the period.

6. **Would like to compare the actual annual fee increase for the past five or so years and the inflation ENR Denver CCI index.** Council member Fogle

Construction Cost Index

September Year to Year	Percent Change	Effective Date of Fee Change	Percentage Fee Change	Comment
2006/2005	3.41%	May 1, 2007	7.57%	5 year update
2007/2006	1.39%	Jan. 1, 2008	3.90%	Partial Increase Adjustment for Partial increase in 2007
2008/2007	4.50%	Jan. 1, 2009	4.50%	
2009/2008	-2.63%	Jan. 1, 2010	-2.63%	
2010/2009	8.62%	July 1, 2011	8.62%	Delay of 6 months
2011/2010	7.79%	Jan. 1, 2012	No change	Suspend increase

7. **How much in CEF revenue collections did the City forego or lose by not increasing for inflation in the first 10 years and other years in which the adjustment was not made?** Council member Klassen

In the first ten years of the Capital Expansion Fee program, annual adjustments for inflation were not made. In six of the remaining 19, years since 1994, an annual adjustment was not made or was delayed.

After adjusting the CEF revenue collections for each of the years and adding in interest on the revenue not collected, it was determined that $5,405,600 was not received by the CEF program. In 2012, this amount would earn (at 1.3%) about another $70,270 of interest. The CEF collections year-to-date in 2012 would have been about $271,000 higher (from the CCI adjustment of 7.79%).

Summing all of these together provides a total of $5,746,870 of fees and interest.

City of Loveland

CAPITAL EXPANSION FEE FIVE YEAR UPDATE

SEPTEMBER 25, 2012

Prepared by: Alan Krcmarik, Executive Fiscal Advisor

City of Loveland

Capital Expansion Fee Update Process to Date

March 27: History and Basic Direction from Council

- Background and Scope for Review
- No outright elimination of fees

July 10: First Four Topics

- History of Fee Revenues/Spending (July Topic 1)
- Comparisons to other jurisdictions (July Topic 2 and updated in August)
- How fees relate to community standards and quality of life indicators (July Topic 3)
- How the fees are determined (July Topic 4)

August 28: Three More Topics

- Adjustment for Multi-family (August Topic 5)
- Increasing cost of projects (August Topic 6)
- Cover the O&M Cost of Growth (August Topic 7)

Sept 25: Council Review

- Research redevelopment issues and fee credits . Council to review on September 18.

November 6: Adoption of Fees

City of Loveland

Study Session Outline

- **Primary focus**
  - Direction for Fee Adjustment Resolution based on the 5 year update information provided
- Answer Prior Questions
  - Compare to Other Cities
    - Update Fees and Compare Proposed 2013 levels
  - Construction Cost Index
    - Revenue not received due to not adjusting for CCI

Current Fees and Proposed Update

City of Loveland

March 27: History and Basic Direction from Council

- Background and Scope for Review
- No outright elimination of fees

July 10: First Four Topics

- History of Fee Revenues/Spending (July Topic 1)
- Comparisons to other jurisdictions (July Topic 2 and updated in August)
- How fees relate to community standards and quality of life indicators (July Topic 3)
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August 28: Three More Topics

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- Increasing cost of projects (August Topic 6)
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Sept 25: Council Review

- Research redevelopment issues and fee credits . Council to review on September 18.

October 2/16: Adoption of Fees

Capital Expansion Fee Proposal

City of Loveland

Residential	Single Family 2012 Fee Amount	Proposed 2013	Multi-family 2012 Fee Amount	Proposed 2013
Fire and Rescue	$ 736	$ 888	$ 736	$ 617
Law Enforcement	957	874	957	608
General Government	1,052	1,083	1,052	753
Library	681	722	681	502
Cultural Services / Museum	549	602	549	419
Parks	3,351	3,528	3,351	2,452
Recreation	1,679	1,572	1,679	1,092
Trails	532	527	532	366
Open Lands	824	884	824	614
Streets	2,170	2,279	1,508	1,583
Total	**$ 12,531**	**$12,959**	**$ 11,869**	**$ 9,006**

Capital Expansion Fee Proposal

City of Loveland

Commercial (charged per sq. ft.)	2012 Fee Level	2013 Proposed
Fire and Rescue	$ 0.31	$ 0.61
Law Enforcement	0.40	0.60
General Government	0.44	0.74
Total	$ 1.15	$ 1.95
Streets are based on the use in the Structure being built. For 2013, the estimate is for a 5% increase.		

Capital Expansion Fee Proposal

City of Loveland

Industrial (charged per sq. ft.)	2012 Fee Level	2013 Proposed
Fire and Rescue	$ 0.03	$ 0.08
Law Enforcement	0.05	0.08
General Government	0.06	0.10
Total	$ 0.14	$ 0.26
Streets are based on the use in the Structure being built. For 2013, the estimate is for a 5% increase.		

City of Loveland

The "Apples to Apples" Question

- Next Few Slides show the closest neighbor cities
  - **Loveland**
  - Fort Collins
  - Longmont
  - Greely
  - Windsor
  - Johnstown
- Major Taxes
  - Property Tax
    - School District
    - County
    - City
      - Fire
      - Library
      - Metro Districts
  - Sales Tax
  - Relate to Fee Difference

City of Loveland

Comparing Typical "Costs" with other cities

Loveland Single family fee is **$32,026**

Typical Property tax is **77.2**

School	42.310
County	22.472
City	9.564

Typical Sales tax rate is 3% / 6.5%

In 13.7 years the tax savings would make up for the higher fees at the construction phase

Loveland utility costs are near the lowest in the region.

Loveland has six metro districts.

Fort Collins Single family fee is **$26,320**

Typical Property Tax is **90.8**

School	48.991
County	22.472
City	9.797
Library	3.000

Typical Sales tax rate is 3.85% / 7.35%

Fort Collins has tiered utility rates. If a customer can stay at the lowest tier, then the cost is similar to Loveland. If a customer consumes enough to get to the next tier, costs for utility services in Fort Collins would be higher.

City of Loveland

Comparing "Typical Costs" with other cities

Loveland Single family fee is **$32,026**

Typical Property tax is **77.2**

School	42.310
County	22.472
City	9.564

Typical Sales tax rate is 3% / 6.5%

Loveland utility costs are near the lowest in the region.

Loveland uses some metro districts.

Longmont Single family fee is **$34,829**

Typical Property Tax is **86.8**

School	47.614
County	24.645
City	13.420

Typical Sales tax rate is 3.85% / **8.075%**

Longmont's tax structure is higher.
Average resident would pay $5,308 more in sales and property tax over 10 years.
Longmont utility costs are near the lowest in the region.
Limited use of metro districts.

City of Loveland

Comparing Typical "Costs" with other cities

Loveland Single family fee is **$32,026**

Typical Property tax is **77.2**

School	42.310
County	22.472
City	9.564

Typical Sales tax rate is 3% / 6.5%

Savings in Loveland would take over 50 years to offset the fee difference.

Loveland utility costs are near the lowest in the region.

Loveland uses some metro districts.

Greeley Single family fee is **$12,063**

Typical Property Tax varies **80 to 99**

School varies	37.9 to 48.991	
County	16.804	
City	11.274	
Library	3.615	some lower
Fire District	10.804	some areas 0
Aims	6.355	

Typical Sales tax rate is 3.46% / 6.36%

Utility rates are higher in Greeley.

Metro districts very limited.

City of Loveland

Comparing Typical "Costs" with other cities

Loveland Single family fee is **$32,026**

Typical Property tax is 77.2

School	42.310
County	22.472
City	9.564

Typical Sales tax rate is 3% / 6.5%

Breakeven at typical mill levy is 35 years.
For popular metro district it is 14.4 years.
For highest mill levy, it would be 8.1 years.

Loveland utility costs are near the lowest in the region.

Loveland uses some metro districts.

Windsor Single family fee is **$21,494**

Typical Property Tax is 96.7

School	48.991
County	16.804 / 22.472
City	12.030
Library	3.615
Fire	8.100
Aims	6.355

Typical Sales tax rate is 3.2% / 6.5%

Utility rates higher than Loveland.

Extensive use of metro districts. Mill levy up to 169.9.

City of Loveland

Comparing Typical "Costs" with other cities

13

Loveland Single family fee is **$32,026**

Typical Property tax is 77.2

School	42.310
County	22.472
City	9.564

Typical Sales tax rate is 3% / 6.5%

At typical mill levy, breakeven is 34.7 years. For the highest metro district, breakeven is about 5.1 years to have the tax savings make up for the higher fees at the construction phase.

Loveland utility costs are near the lowest in the region.

Loveland uses some metro districts.

Johnstown Single family fee is **$24,517**

Typical Property Tax is 90.8

School	27.010 / 42.610
County	16.804 / 22.472
City	23.947
Library	3.271
Fire	5.800 / 9.486
Aims	6.355

Typical Sales tax rate is 3% / 5.9%-6.5%

Utilities provided by several districts. Utility costs higher.

Extensive use of metro districts. Highest mill levy of 169.87.

Comparing Typical "Costs" with other cities

Loveland Single family fee is $32,026

Typical Property tax is **77.2**

School	42.310
County	22.472
City	9.564

Typical Sales tax rate is 3%

In 13.7 years the tax savings would make up for the higher fees at the construction phase

Loveland utility costs are near the lowest in the region.

Fort Collins Single family fee is **$26,320**

Typical Property Tax is **90.8**

School	48.991
County	22.472
City	9.797
Library	3.000

Typical Sales tax rate is 3.85%

Fort Collins has tiered utility rates. If a customer can stay at the lowest tier, then the cost is similar to Loveland. If a customer consumes enough to get to the next tier, costs for utility services in Fort Collins would be higher.

City of Loveland

Next Section is the Updated Comparisons

- Residential
  - Single Family
  - Multi-family
- Non-Residential
  - Retail
  - Office
  - Industrial

Single Family

16

Louisville	$40,936		
Erie	$37,855		
Brighton	$34,986		
Longmont	$34,829		
Thornton	$32,481		
Loveland	$31,598	$32,026	NO CHANGE in Loveland's position
Westminster	$28,759		
Fort Collins	$26,320		
Johnstown	$24,517		Boulder not in this list due to incomplete data.
Windsor	$21,494		
Greeley	$12,063		
Arvada	$ 7,627		

Multi-family – 48 unit apartment building

17

□ Brighton	$1,142,776		
□ Louisville	$962,640		
□ Loveland	$986,134	$835,576	Based on multi-family reduction of 31%, Loveland moves down one notch.
□ Thornton	$833,947		
□ Longmont	$633,098		
□ Fort Collins	$593,666		
□ Windsor	$547,230		
□ Westminster	$472,824		
□ Johnstown	$401,007		Boulder not in this list due to incomplete data.
□ Greeley	$308,650		
□ Erie	$199,815		
□ Arvada	$123,508		

Retail Commercial

Fort Collins	$1,619,579	
Greeley	$1,130,656	
Loveland	$1,029,923	$1,126,154
Louisville	$1,091,233	
Longmont	$1,004,146	
Erie	$987,719	
Brighton	$981,877	
Westminster	$903,538	
Windsor	$892,336	
Thornton	$811,303	
Boulder	$745,658	
Johnstown	$734,547	
Arvada	$389,922	

- With proposed fee increases for CEFs and 5% for Streets Loveland would moves up into third highest from fourth

City of Loveland

Office Commercial

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Fort Collins	$1,164,563	
Brighton	$1,087,436	
Louisville	$962,113	
Erie	$903,063	
Thornton	$895,559	
Loveland	$759,221	$845,451
Boulder	$835,579	
Longmont	$787,298	
Windsor	$775,268	
Westminster	$687,730	
Greeley	$658,095	
Johnstown	$545,967	
Arvada	$285,879	

- With proposed CEF increase and 5% for Streets, Loveland would be 6th, up three notches

City of Loveland

Industrial

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Brighton	$929,045	
Louisville	$865,396	
Fort Collins	$808,105	
Thornton	$751,256	
Longmont	$749,696	
Westminster	$627,604	
Boulder	$608,998	
Windsor	$604,914	
Erie	$589,931	
Loveland	$393,792	$408,428
Johnstown	$402,459	
Greeley	$397,929	
Arvada	$231,373	

With proposed CEF increase and 5% for Streets, Loveland would move 10th from 12th

City of Loveland

Recent History and Volatility

September Year to Year	Percent Change	Effective Date of Fee Change	Percentage Fee Change	Comment
2006/2005	3.41%	May 1, 2007	7.57%	5 year update, a partial increase
2007/2006	1.39%	Jan. 1, 2008	3.90%	Adjustment for the partial increase
2008/2007	4.50%	Jan. 1, 2009	4.50%	
2009/2008	-2.63%	Jan. 1, 2010	-2.63%	
2010/2009	8.62%	July 1, 2011	8.62%	Delay of 6 months
2011/2010	7.79%	Jan. 1, 2012	No change	Suspend increase
2012/2011	1.68%	Jan. 1, 2013	?	

From one year to the next, the CCI can swings to the negative and can rise quickly.

Questions relating to Construction Cost Index and CEF History

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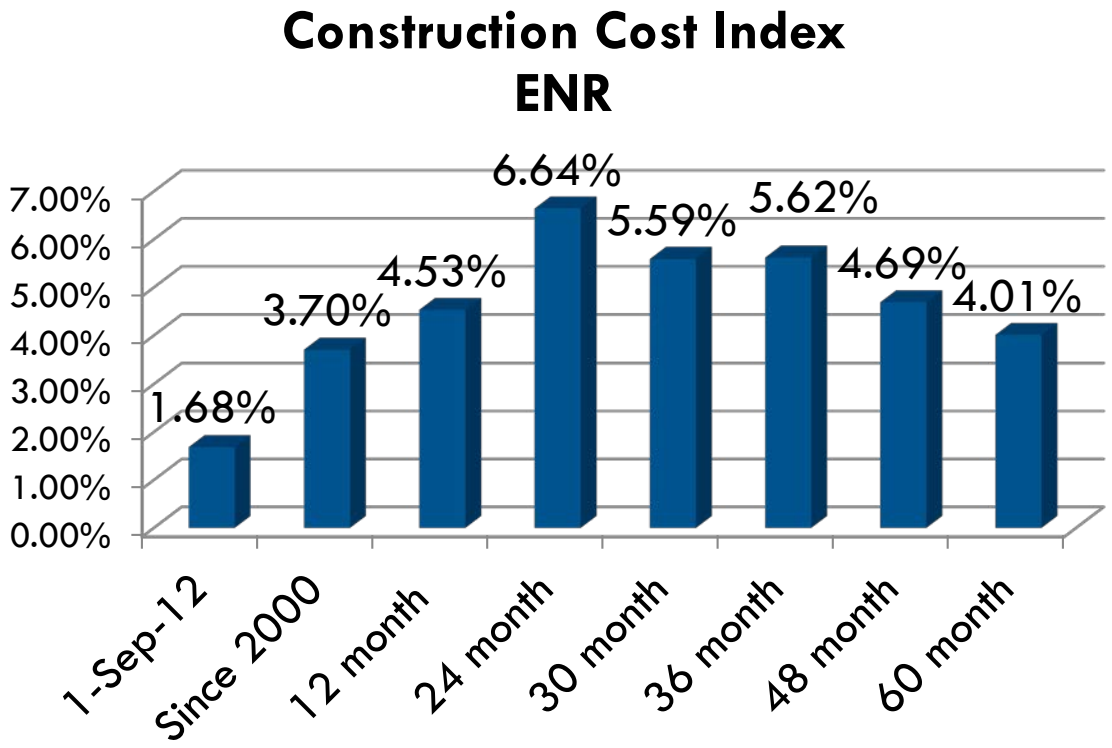
There are some choices in terms of the length of a moving average to try to smooth out the volatility



Time for Questions and Discussion

- Staff would like to develop the fee setting resolution as part of the budget process
- Are there additional questions or guidance from Council?
- Thanks to the people that worked on this project so far, including staff from other communities.

CITY OF LOVELAND
PUBLIC WORKS DEPARTMENT
Administration Offices · 410 East Fifth Street · Loveland, Colorado 80537
(970) 962-2555 · FAX (970) 962-2908 · TDD (970) 962-2620

AGENDA ITEM: **4**
MEETING DATE: 9/25/2012
TO: City Council
FROM: Keith Reester, Public Works Department
PRESENTER: David Klockeman, PE, City Engineer

TITLE:
Street Capital Expansion Fees associated with the 2035 Transportation Plan Update

RECOMMENDED CITY COUNCIL ACTION:
This item is for information and discussion with Council.

DESCRIPTION:
This is a discussion item to review and provide feedback on the Street Capital Expansion Fees (CEFs) associated with the 2035 Transportation Plan as part of the overall CEF update. The 2035 Transportation Plan includes the Capital Projects and associated costs through 2035. This includes anticipated collections and expenditures of Capital Expansion Fees, Other Funding (CDOT, FHWA and other outside sources) and the General Fund.

SUMMARY:
Discuss status of anticipated Street Capital Expansion Fees (CEFs) associated with the 2035 Transportation Plan (see attachments for additional information).

REVIEWED BY CITY MANAGER: William D. Cahill

LIST OF ATTACHMENTS:
1. Street Capital Expansion Fees (CEFs) PowerPoint Presentation

City of Loveland

Proposed Street Capital Expansion Fees (CEFs) – 2035 Transportation Plan

City Council Study Session
September 25, 2012

David Klockeman, PE, City Engineer
Keith Reester, Public Works Director
Justin Stone, PE, Civil Engineer
Alan Krcmarik, Executive Fiscal Advisor

City of Loveland

2035 Transportation Plan Costs

- $463,598,630 Total
  - $129,226,011 Capital Expansion Fees
  - $ 37,784,700 General Fund
  - $ 44,009,280 Collector Street Equivalent
  - $ 37,784,700 Other (CDOT, FHWA, outside sources)
  - $244,954,000 Sub-Total

  - $218,644,630 Centerra MFA
    - Remaining Costs of Transportation Infrastructure to be Constructed by Centerra per MFA (no part of City funding)
      - $117,144,630 Local Improvements (adjusted to 2012)
      - $101,500,000 Remaining Regional Improvements (adjusted to 2012)
- Projects include:
  - Roadway Sections
  - Intersections

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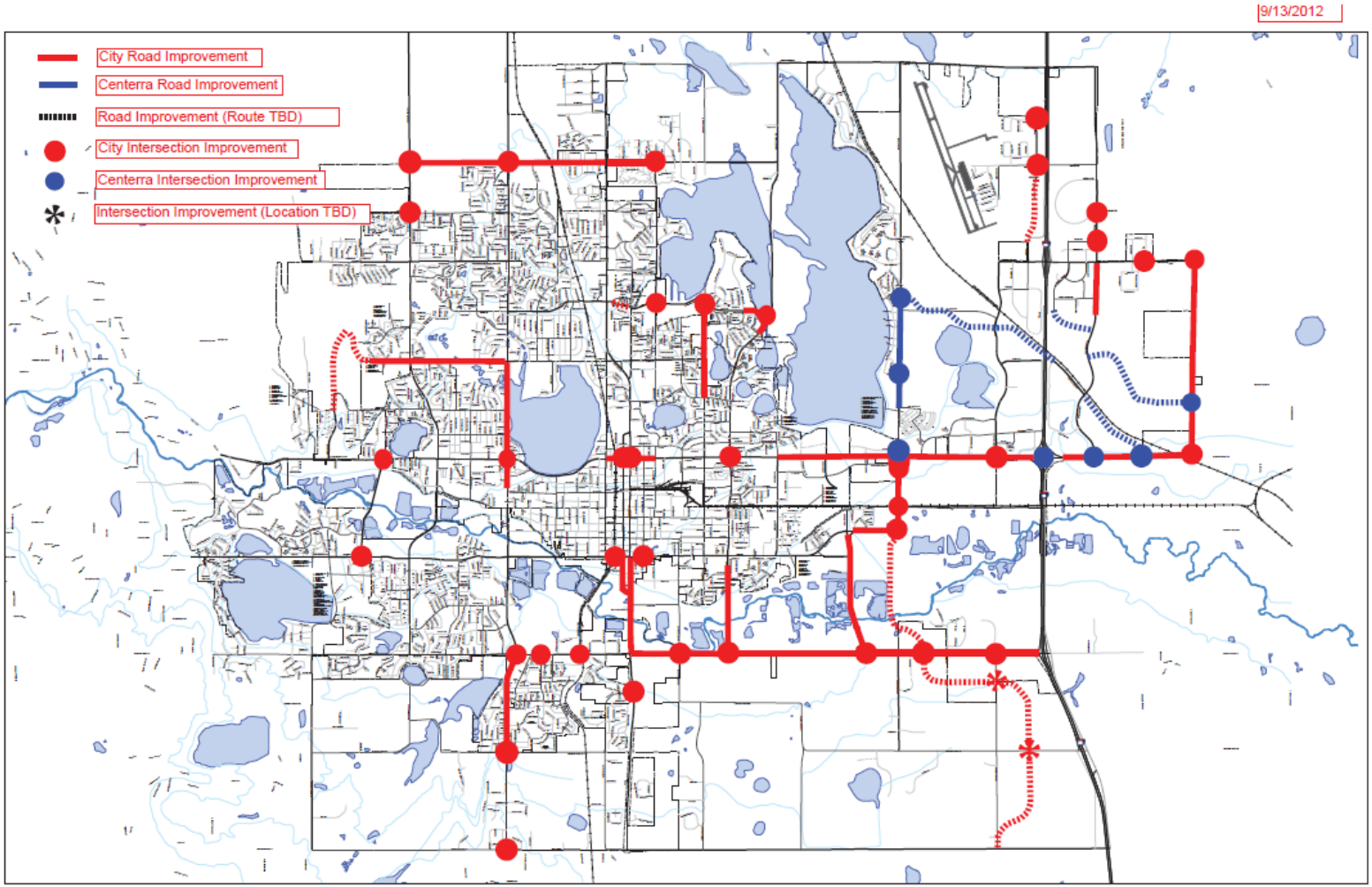
2035 Transportation Projects



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2035 Transportation CIP Areas

City Streets	$106,893,000
CDOT Roadways	$ 63,719,000
Other Projects	$ 74,342,000
Pedestrian and Bicycle Improvements	$ 8,700,000
Signal System Inter-Connects	$ 2,000,000
Intersection and Traffic Signal Improvements	$ 49,100,000
Eisenhower @ Lincoln and Cleveland	$ 7,000,000
Bridge replacements due to structural deficiency	$ 6,542,000
Professional Services for Transportation Planning	$ 1,000,000
Centerra Metro District Projects	$218,644,630

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Adopted Impact Fee Approach

- "Proportionate Share" – based on Traffic Added By Individual Project
  - Fee for each use based on anticipated Average Daily Traffic (portion of anticipated new Daily Trips added between today and 2035)
  - Rationale
    - What part of 545,248 new daily trips will your project use?
      - If growth happens as predicted, estimated funds will be collected and anticipated road improvements will be completed
      - If less growth happens, less roads will be necessary to coincide with less funding
      - If more growth happens, more roads will be necessary to coincide with more funding

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Basis for Fees

- Total Capital Expansion Fees estimated to construct necessary road infrastructure in 2035: $128,521,426
- Total New Daily Trip Ends estimated due to new growth in 2035: 545,248
- Cost Per Trip = CEF Fees / Trip Ends = $128,521,426 / 545,248 = $237.00 per trip end (4.54% increase – Current: $226.71)
- "Proportionate Share" Impact Fee
  = ADT x % Primary Trips x $237.00 per Trip End
  - ADT from ITE – 9th Edition
  - % Primary Trips from ITE – 9th Edition
- Project must be included in 2035 costs to be eligible for reimbursement

City of Loveland

Proposed Street CEF Examples

Category	Unit or 1000 Sq. Feet	ITE ADT	Primary Trip %	Adjusted Trips	Fee Per Unit or SF
Single Family Detached	Unit	9.57	100%	9.57	$2,268.11
Multi-Family	Unit	6.65	100%	6.72	$1,592.65
Free Standing Discount Store	Square Foot	57.24	48%	27.47	$6.52
Fast Food with Drive In	Square Foot	496.12	30%	148.84	$35.27
Bank with Drive In	Square Foot	148.15	27%	40.00	$9.48
50,000 Square Foot Office Building	Square Foot	15.65	100%	15.65	$3.71
Medical / Dental Office	Square Foot	36.13	100%	36.13	$8.57
Warehouse	Square Foot	3.56	100%	3.56	$0.84
General Light Industrial	Square Foot	6.97	100%	6.97	$1.65

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Questions?