City of Fort Collins

LARIMER COUNTY
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DOT
DEPARTMENT OF TRANSPORTATION

U.S. 287 / S.H. 14 ACCESS MANAGEMENT REPORT

April 4, 2000

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BALLOFFET & Associates, Inc.

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ACCESS MANAGEMENT REPORT

U.S. 287 - S.H. 1 TO S.H. 14
S.H. 14 - U.S. 287 TO I-25

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EXECUTIVE SUMMARY

Background and Purpose

The City of Fort Collins, in concert with the Colorado Department of Transportation (CDOT) and Larimer County (County), is promoting the development of three Access Control Plans along two regional highways that are major arteries of the City and County street system. These two highways, United States Highway 287 (US 287) and State Highway 14 (SH 14), are two of the most important regional highways in northern Colorado, providing both north/south (US 287) and east/west (SH 14) access throughout the front range and eastern plains of Colorado. To the west of Interstate 25, and northward from the City of Fort Collins, the combination of these two routes provides an alternate for interstate traffic to the north into Wyoming. As such, these routes carry a wide range of vehicle and travel types: long-distance interstate traffic, semi-truck delivery vehicles within the Fort Collins city limits and Larimer County, tourist traffic between I-25 and Poudre Canyon, and commuter traffic to the employment bases in Fort Collins, Greeley, Loveland and the Denver metropolitan area. Development pressures within the study corridor will continue to increase the travel demand along these routes. Therefore, providing good mobility and a safe operating environment for all modes of transportation is essential.

In 1995, the DRAFT Access Control Study of the US 287 and SH 14 Corridor study was prepared to develop an Access Control Plan along the same corridors. This study recommended access control measures that would also have met the objectives of this report; however, that report was not finalized and an Access Control Plan was not formally adopted.

The purpose of the current planning effort was to work closely with residents, property and business owners and highway users to develop detailed, long-range Access Control Plans for the US 287 and SH 14 corridors. The Plan addresses how each access in each corridor should be treated, the cost for the recommended access modifications, and the relative priority of the improvements. The ultimate goal is to develop Access Control Plans which will be adopted as Intergovernmental Agreements by the City, CDOT and Larimer County.

Study Area

The study area extends along US 287 and SH 14 from SH 1 (just to the north of the Fort Collins city limit) to I-25. As such, the study area encompasses approximately 6¼ miles along these routes. The study is divided into three corridors and each corridor will have a separate Intergovernmental Agreement and Access Control Plan.

Each corridor has a distinct character and is essentially urban in character. The North College Avenue (US 287) corridor serves a myriad of light industrial, retail and residential uses with numerous undefined access points. Along Jefferson Street (SH 14) and Riverside Avenue (SH 14), the character is more dense, with narrower lanes, parking and more driveway access. Along the eastern portion of the project (Mulberry Street, SH 14), commercial and residential land uses are served by a four-lane highway with a developed frontage road system.

There are currently 331 public and private access points along these corridors. The access types have been classified as follows:

Access Types

Corridor	Public Road Intersections with Signals	Public Road Intersections without Signals	Driveway Accesses	Total Number of Accesses
North College Avenue (1.76 Miles)	7	7	116	**130**
Jefferson Street/ Riverside Avenue (0.97 Miles)	4	15 [1]	40	**59**
Mulberry Street (3.29 Miles)	6	7	129 [2]	**142**
Total Number of Accesses	**17**	**29**	**285**	**331**

[1] Includes public alley accesses.
[2] Includes accesses with the state highway and along the frontage roads.

The accident history of each corridor reveals that 414 accidents occurred during the period from January of 1996 through July of 1998. Of these, 70-87 percent (depending upon the corridor) were access related.

Development of the Plan

The physical and operational characteristics of US 287 and SH 14 are managed by the CDOT; however, these roadways also traverse the boundaries of two governmental agencies within the study limits, the City of Fort Collins and Larimer County. The City of Fort Collins, through the office of Transportation Planning, was the primary force behind the development of this project with direct input and cooperation with the CDOT. Larimer County was also involved in the Access Control Plan preparation along Mulberry Street since approximately 85 percent of the SH 14 alignment in this area is within unincorporated Larimer County, which is in the City of Fort Collins Urban Growth Area.

The primary project team for development of the Access Control Plans was comprised of City and County staff, the access manager for the CDOT - Region 4, and representatives of three consultants. Plan progress was coordinated with other departments within the City, and with County and CDOT organizations. Public open house events and meetings with local business owners, property owners and residents were also conducted.

Public Involvement

One of the most critical elements of this project was involvement with the public at open houses that were held at key stages of the study. For each corridor, a series of four open houses were conducted. The first meeting included a formal presentation that addressed the objectives of the access management efforts and provided information as to the plan process, access management principles and techniques, and how the project may be implemented. The second open house provided exhibits on the draft conceptual plans to obtain public input, while the third presented the revised plan. Comment sheets were used to record property and business owner concerns. Final plan revisions were presented at the last open house, organized for all of the corridors.

Visual aids were used that included a video on access management prepared by the Federal Highway Administration. Exhibits showing historic accident data, existing and proposed traffic volumes, and existing and proposed access locations were available, with City, County, CDOT and consultant representatives in attendance to answer questions and to receive comments, concerns, and input. Mailing lists of adjacent property owners within 500 feet of each highway were maintained for the study, with each property owner and business being notified of each public meeting. Press releases were also used to inform the general public.

City, County and CDOT staff also visited numerous sites along each corridor to talk individually with property owners, business owners and residents. These meetings were very informative since issues related to a specific access or property owner need could be addressed on a one-to-one basis.

In addition to the public open houses and individual meetings, agency staff met with the North College Business Owners Association a total of four times during the study, while meetings with the Old Town (formerly East Side) Neighborhood Association and the Northeast Business Association were also conducted. These meetings provided good feedback from organized groups within the study corridors.

Public involvement for this project resulted in business and property owners being actively involved in developing access solutions. This involvement represents a valuable piece of the project and has led to the development of Access Control Plans that are supported by the majority of business and property owners within each corridor with a high potential for success.

Access Control Plans

Figures ES-1 through ES-4 provide overviews of the major access improvements included in the Access Control Plans. Since implementation of the improvements will take many years, and since funding will likely come from a variety of different sources, a priority of Long-Range improvements was assigned to each plan within each corridor. Since it is difficult to define funding levels within specific time periods, the priorities were established on the basis of the greatest need as opposed to a likely time-frame for implementation. Further, for the Short-Term North College Avenue plan, a phasing scheme was used to prioritize improvements since the sequence of the improvements are more clearly defined at this time.

A few of the major projects along each corridor are listed below. Access management recommendations on Mulberry Street between Timberline Road and I-25 are from the I-25/SH 14 Interchange Area Study. An immediate need for access improvements was identified for North College Avenue and, therefore, both Short-Term and Long-Range Access Control Plans were developed for this corridor. Only long-range plans were developed by the project team for the Jefferson Street/Riverside Avenue and Mulberry Street corridors.

Short-Term Access Management Plan - North College Avenue

- Improved definition of driveway access along the corridor by constructing frontage improvements.
- Raised median along a few segments of North College Avenue that is anticipated to reduce the accident potential in those areas. These locations include: 1) north of Willox Lane, 2) north of Cherry Street/Willow Street.
- Construct a second southbound left turn lane at Jefferson Street to increase vehicle storage capacity. As part of this improvement, modify the existing traffic signal to signalize the right turn movement from Jefferson Street onto northbound North College Avenue to eliminate weaving for northbound left turn movements at Cherry Street.
- Paving of a public alley to the east of North College Avenue between Bristlecone Drive and Conifer Street. This improvement will provide an alternative access for the businesses along North College Avenue from the "back" of their parcels .

Long-Range Access Management Plan - North College Avenue

- Construct the City of Fort Collins Arterial Street section along the entire length of North College Avenue.
- Develop a parallel street system on both the east and west sides of North College Avenue.
- The construction of raised median along North College Avenue should coincide with the opening of parallel street segments.
- Re-construct the offset "T" intersections of Hickory and Conifer Streets to create one four-legged, signalized intersection.
- Extend the southbound dual left turn lanes at Jefferson Street northward to the Cherry Street/Willow Street intersection. This improvement is necessary to service the anticipated increase in southbound left turn vehicles at Jefferson Street. As a result of this improvement, however, the northbound left turn lane at Cherry Street would be removed.

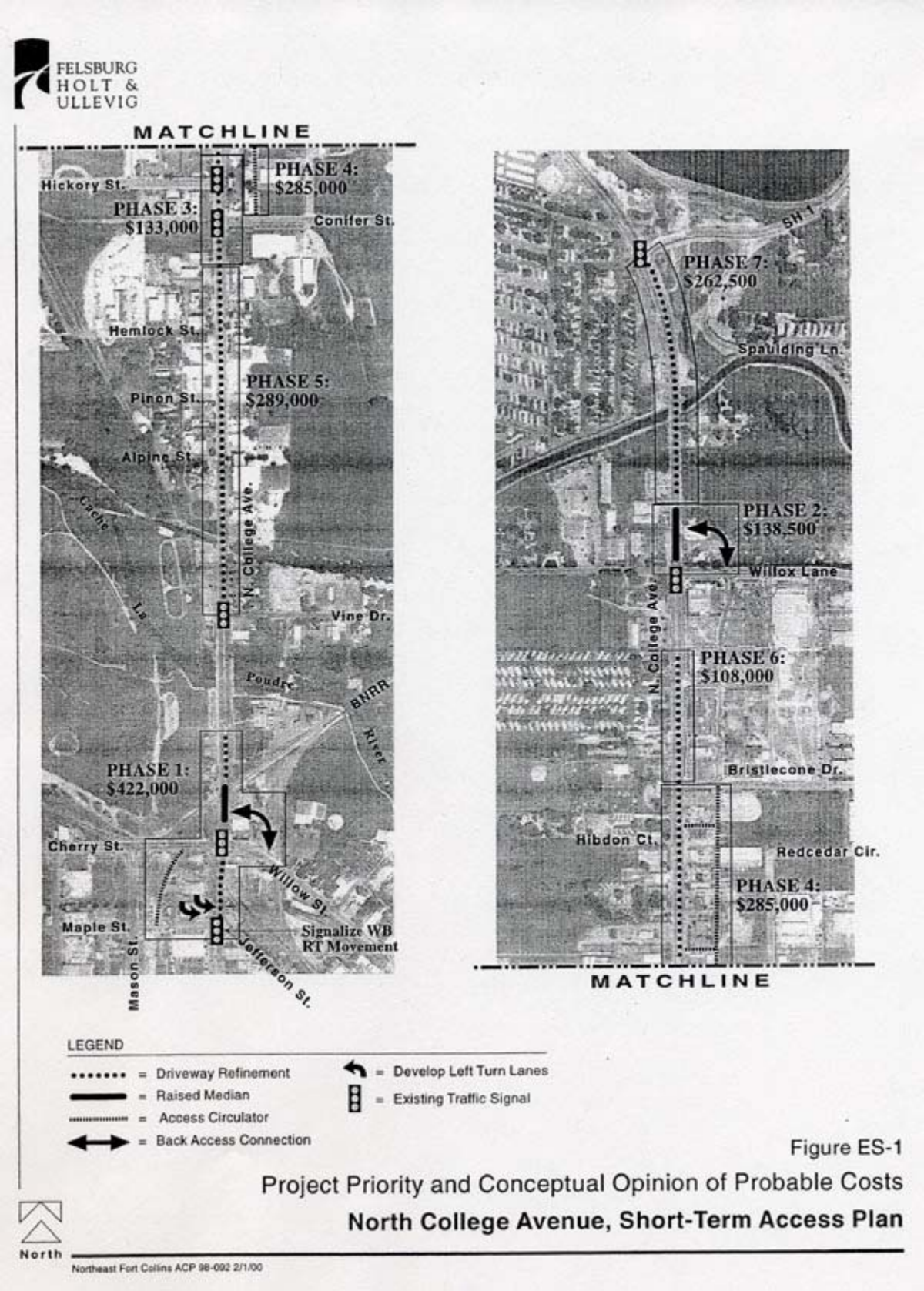

Figure ES-1

Project Priority and Conceptual Opinion of Probable Costs

North College Avenue, Short-Term Access Plan

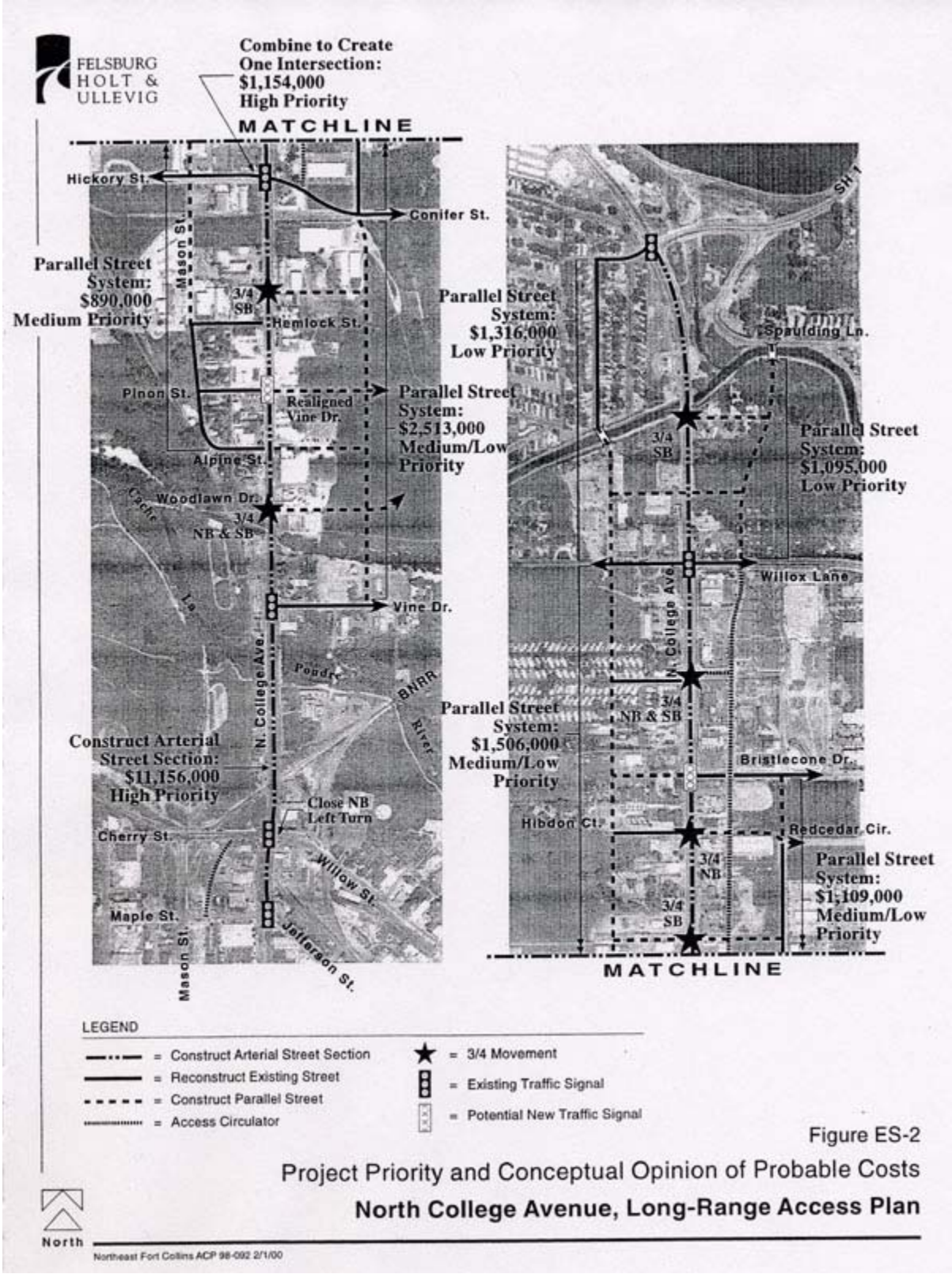

Figure ES-2

Project Priority and Conceptual Opinion of Probable Costs

North College Avenue, Long-Range Access Plan

- Install new traffic signals at the Bristlecone Drive and Pinon Street intersections when appropriate Manual On Uniform Traffic Control Devices traffic signalization warrants are met.

- The Long-Range Access Control Plan improvements result in a reduction of approximately 100 access points along North College Avenue.

Access Management Plan - Jefferson Street/Riverside Avenue

- Develop left turn lanes at existing public street intersections (Pine Street, Linden Street and Chestnut Street) along Jefferson Street by eliminating parking and re-striping the existing pavement. As additional off-street parking is provided, remove the existing on-street parking and replace with bike lanes.

- Upgrade Willow and Linden Streets to Collector Street standards, and Lincoln Avenue to Arterial Street standards as indicated in the City's Master Street Plan to provide a more attractive alternate local route to using Jefferson Street.

- Construct a second left turn lane for the southeast-bound and northwest-bound directions of travel along Riverside Avenue at Mulberry Street.

- Construct a modified Arterial Street section along the entire length of Riverside Avenue with landscaped medians and openings for inbound left turns at some public streets.

- Restrict access with Riverside Avenue to ¾ movements (right-in, right-out, left-in) at Oak and Magnolia Streets. Full vehicle movements would remain at Olive Street.

- Eliminate access with Riverside Avenue via a cul-de-sac at Smith Street.

- Restrict access with Riverside Avenue to only inbound right turns at Whedbee and Stover Streets.

- Restrict access with Riverside Avenue to right-in, right-out (RIRO) movements at Cowan Street.

- Public alleys and commercial properties would be restricted to RIRO movements except at R&B Food and Gas, where only right-in movements would be permitted.

Access Management Plan - Mulberry Street

- Construct dual left turn lanes for both directions of travel on Mulberry Street at the Lemay Avenue and Timberline Road intersections.

- Relocate the frontage road intersections along both the north and south sides of Mulberry Street to a minimum of 150 feet from the state highway.

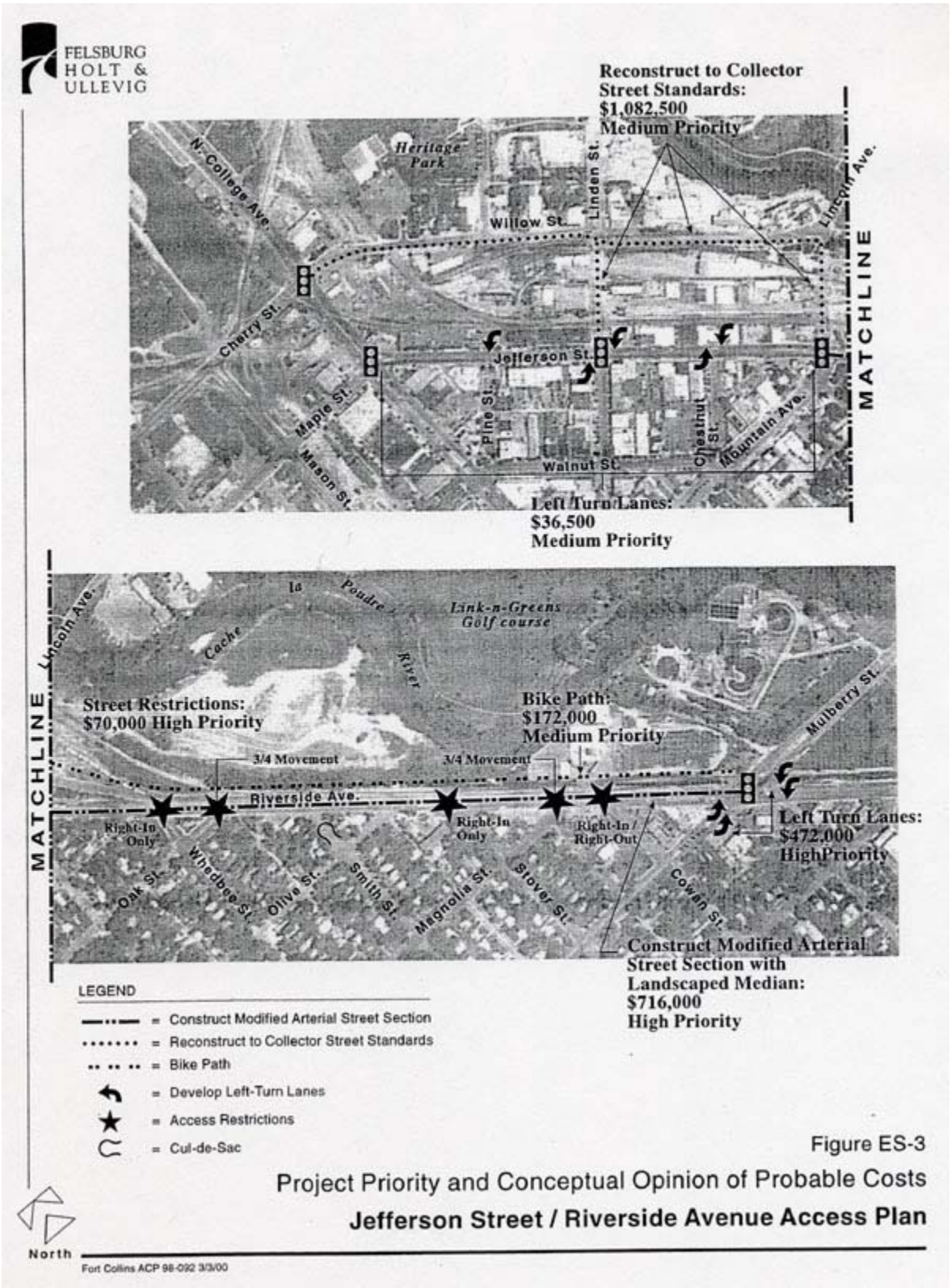

Figure ES-3

Project Priority and Conceptual Opinion of Probable Costs

Jefferson Street / Riverside Avenue Access Plan

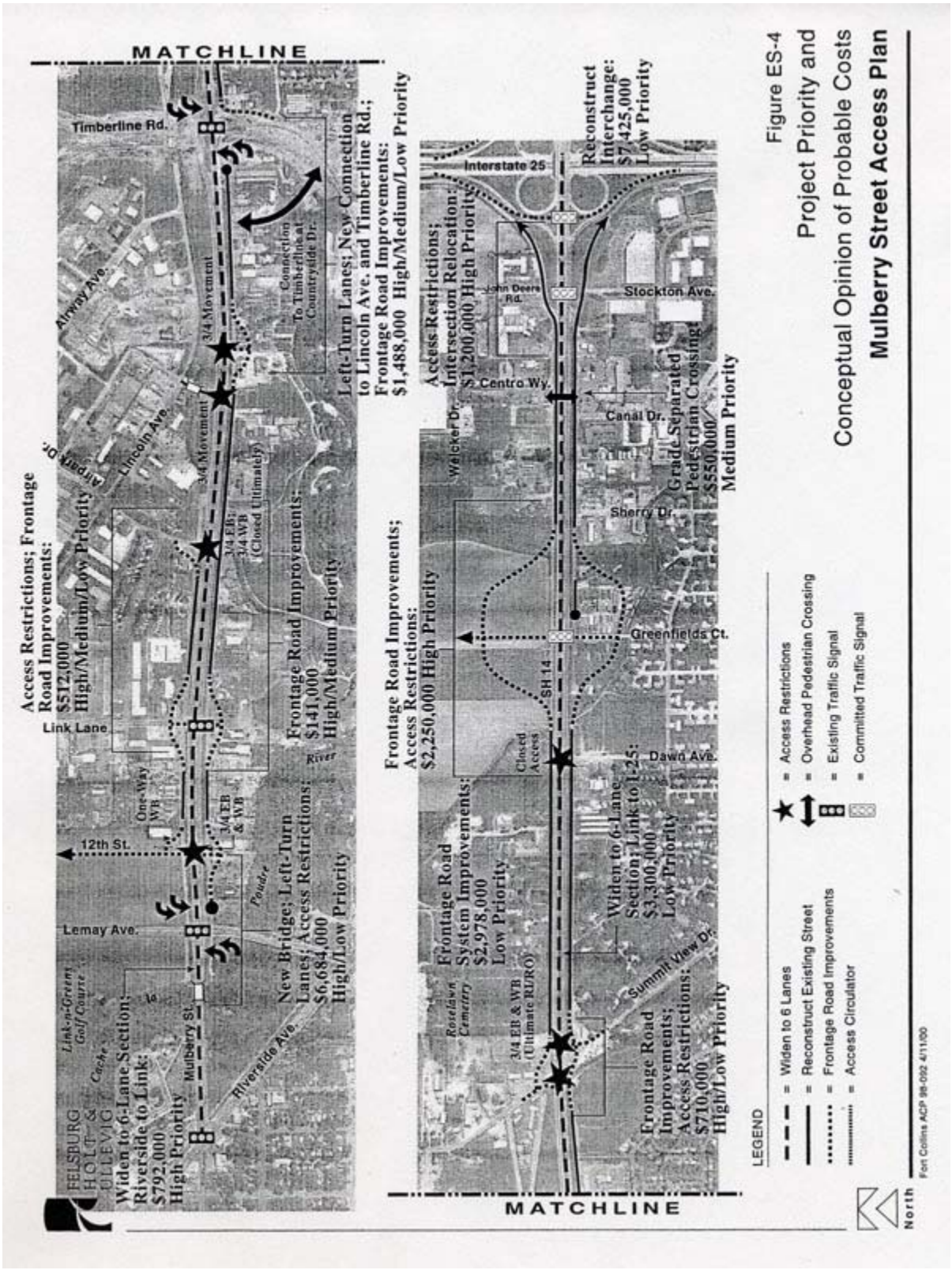
MATCHLINE
Timberline Rd.
Airway Ave.
Airpark Dr.
Lincoln Ave.
Link Lane
12th St.
Lemay Ave.
Mulberry St.
Riverside Ave.
Link-n-Green Golf Course
Cache
Poudre
River
One-Way WB
3/4 EB & WB
3/4 Movement
3/4 EB; 3/4 WB (Closed Ultimately)
Connection To Timberline at Countryside Dr.
Access Restrictions; Frontage Road Improvements: $512,000 High/Medium/Low Priority
Widen to 6-Lane Section: Riverside to Link: $792,000 High Priority
New Bridge; Left-Turn Lanes; Access Restrictions: $6,684,000 High/Low Priority
Frontage Road Improvements: $141,000 High/Medium Priority
Left-Turn Lanes; New Connection to Lincoln Ave. and Timberline Rd.; Frontage Road Improvements: $1,488,000 High/Medium/Low Priority
Frontage Road Improvements; Access Restrictions: $2,250,000 High Priority
Interstate 25
Welker Dr.
John Deers Rd.
Centro Wy.
Canal Dr.
Sherry Dr.
Stockton Ave.
Access Restrictions; Intersection Relocation: $1,200,000 High Priority
Reconstruct Interchange: $7,425,000 Low Priority
Grade Separated Pedestrian Crossing: $550,000 Medium Priority
Frontage Road System Improvements: $2,978,000 Low Priority
Roselawn Cemetery
3/4 EB & WB (Ultimate RI/RO)
Closed Access
SH 14
Greenfields Ct.
Dawn Ave.
Summit View Dr.
Widen to 6-Lane Section; Link to I-25: $3,300,000 Low Priority
Frontage Road Improvements; Access Restrictions: $710,000 High/Low Priority
MATCHLINE
LEGEND
= Widen to 6 Lanes
= Reconstruct Existing Street
= Frontage Road Improvements
= Access Circulator
= Access Restrictions
= Overhead Pedestrian Crossing
= Existing Traffic Signal
= Committed Traffic Signal
North
Fort Collins ACP 98-092 4/11/00
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Figure ES-4
Project Priority and
Conceptual Opinion of Probable Costs
Mulberry Street Access Plan

- Restrict access to ¾ movements at approximately 375 feet to the east of Lemay Avenue (12th Street), approximately midpoint between Airpark Drive and Timberline Road (includes a new access to Lincoln Avenue), and Summit View Drive (ultimately a RIRO).

- Restrict access at Airpark Drive to ¾ movements on the north side of the state highway mainline and close access to the frontage road on the south side of the state highway mainline.

- Close the Dawn Drive access with the state highway mainline.

- Install new traffic signals at Greenfields Court (expected completion date: Spring, 2000) and at the re-constructed Stockton Avenue/John Deere Road intersection when appropriate MUTCD traffic signalization warrants are met.

- Replace the existing bridge over the Cache La Poudre River between Riverside and Lemay Avenues to accommodate additional lanes on SH 14 (when necessary).

- Provide a public street connection to the west side of Timberline Road approximately 475 feet to the south of Mulberry Street, thereby converting the existing "T" intersection to a four-legged intersection and providing rear access to the properties along the south side of Mulberry Street.

- Provide a grade-separated pedestrian crossing near the Canal Drive and Centro Way intersections.

- Ultimately reconstruct the I-25 interchange area to convert the interchange from a cloverleaf design to a diamond interchange.

- Develop a six-lane roadway along Mulberry Street to meet the City's Master Street Plan recommendation, including bike lanes and sidewalk along the frontage roads.

Cost Estimates

It has been estimated that all of the improvements recommended in the Access Control Plan could be implemented for approximately $53,091,000 (in Year 2000 dollars). This estimate is for construction costs only and does not include right-of-way acquisition or displacement/ relocation costs.

The cost estimates for each of the corridors are more clearly defined as follows:

- North College Avenue:

- Short-Term =	$ 1,638,000
- Long-Range =	$20,739,000
Jefferson Street/Riverside Avenue =	$ 2,549,000
Mulberry Street =	$28,165,000
	$53,091,000

Implementation

The improvements recommended in the Access Control Plans represent both Short-Term and Long-Range plans and, as such, will be implemented over time as traffic and safety needs arise and as funding allows. Future funding for implementation will require participation from both public and private sources. The designs shown in these plans are schematic concept alignments. Detailed engineering drawings of exact roadway alignments and other access related improvements will be conducted as project funding is identified and will consider constraints due to natural area features, storm drainage, flood plain issues and other topographic features.

In order to ensure that these improvements can be implemented in the future, it is important that the Access Control Plans be adopted by each of the governing entities in the corridor and that they be used in all transportation and land use planning which could affect either US 287 or SH 14. Therefore, it is recommended that the US 287 and SH 14 Access Control Plans be adopted through Intergovernmental Agreements (IGA) between CDOT, Larimer County and the City of Fort Collins.

Since conditions may change over time, a key element of the IGA's is a specified process for modifying the plan in the future. This process calls for the creation of an Advisory Committee comprised of one representative from each of the signatories of the IGA. Amendment requests would be reviewed by the Committee and changes could be made only with the affirmative vote of all signatories. The Advisory Committee will review the Access Control Plans and IGA's at least every three years for needed updates and will adjust project cost estimates annually to reflect inflation. This process should ensure continuing coordination between the agencies in each corridor.