United States Highway 6 and River Frontage Road
Access Control Plan

January 2010

Town of Silt

PBS&J

DOT
DEPARTMENT OF TRANSPORTATION

United States Highway 6 and River Frontage Road
Access Control Plan

January 2010

United States Highway 6 (Silt)/ River Frontage Road Access Control Plan

January 2010

Prepared for:

Town of Silt
231 N. 7th Street
Silt, Colorado 81652

CDOT Region 3
222 South Sixth Street
Room 100
Grand Junction, CO 81501

Garfield County
108 Eighth Street
Suite 401
Glenwood Springs, CO 81601

Prepared by:

4601 DTC Boulevard
Suite 700
Denver, CO 80237

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

This page left blank intentionally.

1.0 INTRODUCTION

Recent and projected growth in Garfield County and specifically in and around the Town of Silt, herein referred to as the Town, has resulted in an increase in traffic on the United States (US) Highway 6, the River Frontage Road, and the portion of 9th Street between US 6 and the River Frontage Road. Traffic volumes in the area are expected to more than triple in the next 25 years. Without changes to the study roadways, this increase in traffic volumes will result in increased delay, higher levels of congestion, and a potential increase in the severity and number of accidents. The Town, Garfield County (County), and Region 3 of the Colorado Department of Transportation (CDOT) have identified the need for an access control plan (ACP) on these roadways to minimize the occurrence of these conditions.

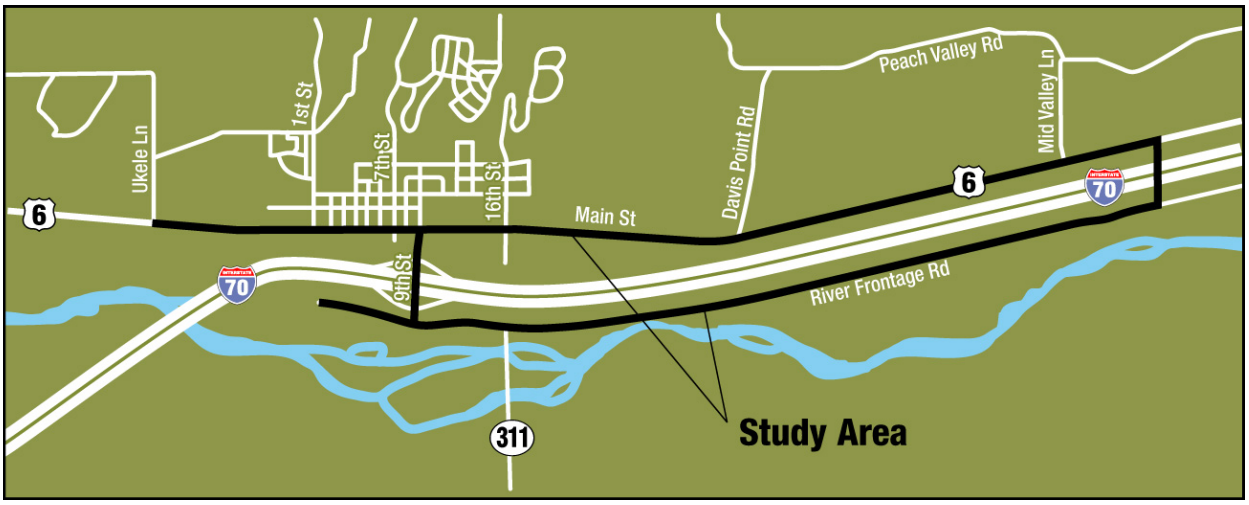
Development and implementation of the ACP will provide a binding document guiding the agencies' decisions regarding the future access conditions of US 6, the River Frontage Road, and the portion of 9th Street between US 6 and the River Frontage Road. The State Highway Access Code (2 Code of Colorado Regulations [CCR] §601-1) requirements were followed in preparing this plan. The ACP will provide the Town, County, and CDOT with roadway access plans in an effort to ensure the study roadways remains consistent with their character as indicated in the governing body's area comprehensive plan and CDOT's assigned access category. The ACP is intended to support the planning objectives for the Town, County, and CDOT. In addition, the ACP evaluates existing and proposed access points along the study roadways and makes recommendations for appropriate modifications. This report contains the purpose, objectives, and process of the ACP. Some examples of discussion topics include:

- General access requirements
- Existing conditions
- Projected conditions for the year 2035
- Access control techniques
- Public involvement process
- ACP recommendations
- Next steps

1.1 STUDY LOCATION

This ACP evaluated the portion of US 6 located from Ukele Lane to the first I-70 overpass east of the high school, as well as the portion of the River Frontage Road from its western most limit just west of 9th Street to the same I-70 overpass east of the high school. In terms of mile points the limits of the project on US 6 are between mile point 97.946 and 102.481, and on the River Frontage Road between mile point 97.275 and 101.067. Altogether, the total study area on US 6 encompasses just over four and a half miles of roadway and the River Frontage Road encompasses just under four miles. It should be noted the portion of 9th Street between US 6 and the River Frontage Road is considered to be within the study area. The study area is shown in Figure 1.

Figure 1
Study Area



1.2 PURPOSE

The purpose of the ACP is to identify the location, type, and basic design elements of future access points within the study limits in order to provide reasonable access to adjacent properties while maintaining safe and efficient movement of vehicles and pedestrians along, adjacent to, or on alternative routes for US 6, the River Frontage Road, and the portion of 9th Street between US 6 and the River Frontage Road.

According to the *State Highway Access Code*, CDOT is required to provide reasonable highway access to individual properties, when no reasonable alternative access to the general street system exists, and has the ability to modify existing access points for safety and operational reasons. In addition, recommendations may include the restriction of access to something less than existing conditions. Changes in access are covered in Section 2.6, "Changes in Land Use and Access Use" (p. 25, paragraph 7) in the *State Highway Access Code*:

> *The Department or issuing authority may, when necessary for the improved safety and operation of the roadway, rebuild, modify, remove, or relocate any access, or redesign the highway including any auxiliary lane and allowable turning movement. The permittee and or current property owner will be notified of the change. Changes in roadway median design that may affect turning movements normally will not require a license modification hearing as an access permit confers no private rights to the permittee regarding the control of highway design or traffic operation even when that design affects access turning movements.*

Furthermore, when the study roadways are in need of access control from an operational standpoint, as well as based on the standards set forth in the *State Highway Access Code*. According to Section 2.12, "Access Control Plans" (p. 30, paragraph 2) of the *State Highway Access Code*:

> *The access control plan shall indicate existing and future access locations and all access related roadway access design elements, including traffic signals, that are to be modified and reconstructed, relocated, removed, added, or remain.*

1.3 OBJECTIVES

Proper application of an ACP will allow all forms of transportation to move efficiently and safely along the study roadways by controlling the design, location, and frequency of access points and by better using the secondary or "grid" roadway network to reduce future strain on the study roadways. The specific objectives of the US 6/River Frontage Road ACP are:

- Provide appropriate level of access to properties adjacent to the study roadways.
- Provide safer circulation routes for all forms of transportation.
- Keep circulation routes consistent with the Town's goals for future development.
- Provide efficient movement of traffic and other modes of transportation within the study area.
- To provide balance between the investment in alternative transportation modes and vehicular transportation modes.
- To provide phased design flexibility to minimize inefficiencies in the construction of overdesigned roadway widths and lengths.

Traffic volume on the study roadways is projected to increase over the next several years. Projections indicate that traffic volumes will more than triple during the next 25 years. Without better access control, the number of conflicts and the amount of delay will continue to increase until severe congestion exists on the study roadways for many hours of the day. Proper control of the frequency, number, and location of access points on the study roadways can lead to a reduction in:

- The number and severity of accidents involving vehicles and/or pedestrians and bicyclists that occur.
- The delay experienced by motorists, pedestrians, and other alternative modes of transportation.
- Pollution created by congested traffic conditions.
- The level of congestion on US 6 and River Frontage Road and the strain on the surrounding roads.
- The number of consumers conducting business elsewhere.

There are a couple of ways to reduce the number and severity of accidents that occur on any roadway. First, accidents generally occur at locations where two vehicles or a vehicle and a pedestrian conflict with each other. A potential conflict occurs each time vehicles turning at an access point cross paths with other roadway users (vehicle or pedestrian). If the number of conflict points increases, which is what occurs if additional access points are allowed, then the number of accidents (vehicle-vehicle or vehicle-pedestrian) on the roadways will also increase.

Conversely, if the number of conflict points (access locations) is reduced, the number of accidents should decrease creating safer roadways.

Next, some of the most severe accidents typically involve left-turn movements by vehicles at un-signalized intersections. At these intersectionsvehicles make turns and pedestrians cross the roadway all without the safety benefits of a traffic signal. With an ACP, most of the vehicle left-turn movements and pedestrian movements can be redirected to signalized locations where, under the protection of a green phase, the vehicles can either turn left or make a u-turn to reach their desired destination and pedestrians can safely cross the roadway under the protection of the "Walk" and "Do Not Walk" phases of a traffic signal. Other options for reducing the potential for left-turn crashes are the use of roundabouts or ¾-movement intersections. All of these options have the potential to reduce the number of severe accidents involving left-turning vehicles, and thus improve the overall safety for motorists and pedestrians on the roadways..

In order to reduce vehicle congestion and delay, it is important to control the number of access points along the roadways as traffic increases. By doing this, vehicles will not have to slow or stop to turn into or to allow vehicles to enter the roadway from as many access points. This will result in a decrease in the amount of vehicle delay and congestion. By reducing the friction along the roadway, through reducing the number of access points, the roadway will not become strained by congestion and delay. Motorists will be able to experience acceptable travel times and less congestion, maintaining return-service for local businesses. Less vehicle congestion will also make the area more appealing for pedestrians to walk along and across the roadways. Another benefit to reducing congestion on the study roadways is a reduction in the level of emissions from the vehicles, which will reduce the level of air pollution in the area around the Town.

In summary, the proper application of an ACP will allow the roadways to operate more efficiently and safely for both vehicle traffic and pedestrians by controlling the design, location, and frequency of access points and by better using the secondary roadway network to reduce future strain on the roadways.

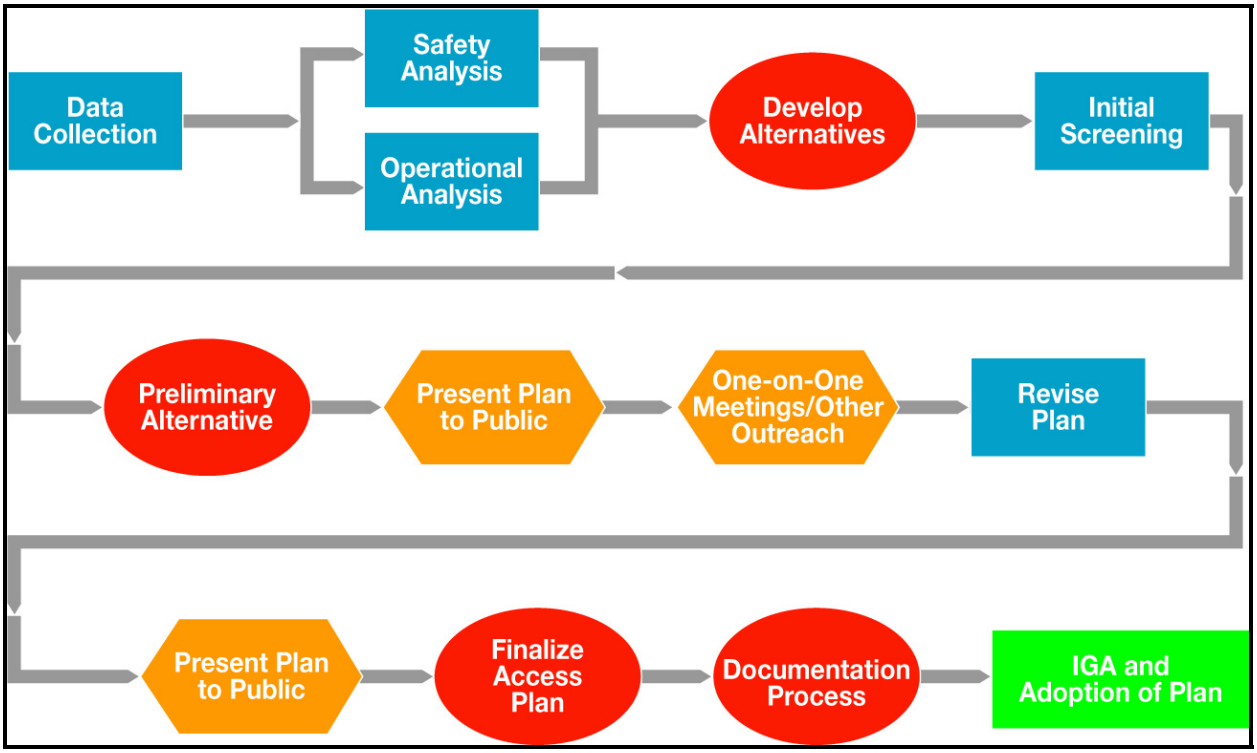
1.4 ACCESS CONTROL PLAN PROCESS

The process that was followed in developing the US 6/River Frontage Road ACP is summarized in Figure 2. The process began with the data collection phase; all access locations were identified, accident data and traffic volumes were collected, and copies of relevant traffic/planning studies for the roadways and/or the Town were gathered. Once the data was collected, safety and operational analyses were completed. ACP alternatives were created based on results of the previously completed analyses and the requirements of the *State Highway Access Code*. The project team evaluated the alternatives to create a preliminary alternative, which was then presented to the public. The initial public presentation served to introduce the project and the concept of access control to the public, as well as to present the preliminary alternative. Comments were received from the public for further consideration. After the public presentation, additional outreach was conducted in the form of one-on-one property owner workshops to identify solutions that best meet the goals of the project and addressed the needs of the public. The meetings with property owners ensured public input was received and taken under consideration in the process. Based on all of the comments received the ACP was revised

to reflect a preferred alternative. The preferred alternative was presented at a final public presentation.

Additional public outreach included presentations to elected officials for the Town and the County. Documentation of the process occurred throughout the process. The recommended US 6/River Frontage Road ACP is contained within this final report, which also signifies the start of the plan adoption process. Materials from the public outreach process including exhibits, comment forms, and summary letters from one-on-one meetings can be found in the appendices of this document.

Figure 2
US 6/River Frontage Road Access Control Plan Study Process



This page left blank intentionally.

2.0 GENERAL ACCESS REQUIREMENTS

State highways are classified in accordance with the *State Highway Access Category Assignment Schedule* (2 CCR §601-1a), which was revised on October 30, 2007. According to the schedule, US 6 west of 1st Street and east of 9th Street is classified as a Regional Highway (category R-A) and US 6 between 1st Street and 9th Street is classified as an Urban Arterial (category NR-B). The entire length of the River Frontage Road within the study limits is classified as a Frontage Road (category F-R). The portion of 9th Street between US 6 and the River Frontage Road is also known as I-70E according to CDOT and is classified as an Expressway or Major Bypass (category EX). Based on the classification for a highway, the State Highway Access Code provides information regarding:

- Functional characteristics
- Requirements for the number and spacing of access points
- Auxiliary lane requirements

A brief discussion on each of these topics as they relate to the study roadways is provided in the following sections; a complete description of these items can be found on pages 35-38, 43-44, and 45-46 of the *State Highway Access Code*.

It should be noted the existing classification of the study roadways appear to be inconsistent with the character of the area and with the Town's development plans due to design element requirements (specifically auxiliary lane requirements). The stakeholders acknowledge that the ACP process does not typically address roadway classifications. The following section is included only for discussion purposes as the ACP team engaged in lengthy dialogue regarding classifications of the roadways. This discussion should not be interpreted as recommendations.

The Town should work with CDOT and the County to investigate the possibility of changing the current roadway classifications. The process to change classifications would occur in the future and would be accomplished under a separate study. The separate study should occur prior to development occurring and ensure that changes to roadway classifications protect the long range plans of all stakeholders. Should a separate change in classification study occur, some of the sections of roadway that would be candidates for change may include:

- US 6 from Ukele Lane to 1st Street could be changed from R-A to NR-B or even NR-C.
- US 6 from 1st Street to 9th Street could be changed from NR-B to NR-C.
- US 6 from 9th Street to Overo Bolevard (new roundabout) could be changed from R-A to NR-B or even NR-C.
- US 6 from Overo Boulevard to Davis Point Road could be changed from R-A to NR-B.
- River Frontage Road from the western limits of the study area to approximately ½ mile east of CR 311 could be changed from FR to NR-C or NR-B.

The Town has also identified a concern regarding the existing posted speed limits of the roadway. Changes to the speed limit are outside the scope of an ACP. Changes to the speed limits would need to be evaluated using established CDOT procedures.

2.1 FUNCTIONAL CHARACTERISTICS OF US 6/RIVER FRONTAGE ROAD

The functional characteristics of a highway provide a basic description of the highway based upon location, travel speed, traffic volumes, and type of travel. The following are the functional characteristics for a category R-A roadway (US 6 west of 1st Street and east of 9th Street) include:

- A rural highway with the capacity to handle medium to high travel speeds and relatively medium to high traffic volumes in a safe and efficient manner;
- Provide interregional, intra-regional, and intercity travel needs; and
- Provide service to through traffic movements with a lower priority on providing direct access to adjacent properties.

The following are the functional characteristics for a category NR-B roadway (US 6 between 1st Street and 9th Street) include:

- A non-rural highway with the capacity to handle moderate travel speeds and relatively medium to high traffic volumes in a safe and efficient manner.
- Provide intercity, intra-city, and intercommunity travel needs for areas with established roadside development or short sections of regional highways passing through rural communities.
- Provide service to through traffic movements while allowing more direct access to adjacent properties.

The following are the functional characteristics for a category F-R roadway (River Frontage Road) include:

- A frontage road with the capacity to handle low to high travel speeds for short distance travel.
- Provide safe and reasonable access to adjacent properties with less importance placed on the movement of through traffic.

The access control plan does include the portion of 9th Street between US 6 and the River Frontage Road, which is also known has I-70 E. This roadway basically serves to provide access between I-70, US6, and the River Frontage Road. The main purpose for classifying this roadway as an EX road is to restrict private access within the direct vicinity of the ramps and protect the integrity of the interchange. Ultimately there will not be any private access directly from this roadway, only the ramp junctions will be allowed to access direction from this roadway. It should be noted that the interchange may be redesigned and reconstructed in the future, but the only anticipated access would be ramp junctions. The following are the functional characteristics for a category EX roadway (9th Street or I-70E between US 6 and the River Frontage Road) include:

- A rural highway with the capacity to handle high travel speeds and relatively high traffic volumes in a safe and efficient manner.
- Provide interregional, intra-regional, or intercity travel needs.
- Provide service to through traffic movements with a very low priority on providing direct access to adjacent properties.

2.2 SPECIFIC ACCESS REQUIREMENTS FOR US 6/RIVER FRONTAGE ROAD

The number, location, and type of access to adjacent properties are also controlled by the access code depending on the type of highway. The access requirements for a category R-A roadway (US 6 west of 1st Street and east of 9th Street) include:

- One access shall be granted to each parcel if reasonable access cannot be obtained from the local streets or road system.
- Direct access should not be denied if the alternative local access would create a significant operational or safety problem and the direct access to the highway would not be a significant problem.
- Spacing for full-movement signalized intersections should be at ½ mile intervals, and exceptions shall not be permitted unless there are no other reasonable alternatives to achieve this.
- If a restrictive median exists, left-turns at un-signalized intersections should be restricted unless this would cause a safety problem or degrade operation, or cause an out-of-direction movement greater than one mile.

The access requirements for a category NR-B roadway (US 6 between 1st Street and 9th Street) include:

- One access shall be granted to each parcel if it does not create a significant safety problem or degrade operation.
- Primary access should be right-in, right-out, or ¾-movement, with full-movement signalized intersections at ½ mile spacing.
- Additional right-in, right-out access may be granted where required auxiliary lanes can be provided, where the access will relieve a congested condition, and where the access would not cause hardship to adjacent property or interfere with the operations of the general street system.
- An existing access that warrants a traffic signal, but does not meet the spacing requirements may result in the need to reconstruct the access, add a median to eliminate or restrict access, or the access may be closed if reasonable alternative access if available.

The access requirements for a category F-R roadway (River Frontage Road) include:

- One access shall be granted to each parcel if it does not create a significant safety problem or degrade operation.
- The access may be a full-movement un-signalized access unless there is an established restrictive median, a safety problem is identified, or if there is degradation to operations.
- Additional access may be granted if there is indication of a significant trip generation potential and that there are no identified hardships to adjacent properties or to the general street system.

The access requirements for a category EX roadway (9th Street or I-70E between US 6 and the River Frontage Road) include:

- No access to private property may be permitted unless reasonable access cannot be obtained from the general street system.
- Spacing for full-movement signalized intersections should be at one-mile intervals, and exceptions shall be permitted at ½ mile intervals only when no other reasonable alternative access to the general street system exists.
- When permitted the direct access to private property may allow left-turns if the highway is not divided and the left-turns can be reasonably accomplished.
- The direct access to private property should be closed when reasonable access to a lower function street can be obtained.
- Private direct access should be prohibited from all vehicular overpasses, underpasses, bridges, structures, and ramps that are on or connected to any state highway.

2.3 AUXILIARY LANE REQUIREMENTS FOR US 6/RIVER FRONTAGE ROAD

Depending upon the volume of turning vehicles at each access location, the access code defines the thresholds for deceleration and acceleration auxiliary lanes. The auxiliary lane requirements for a category R-A roadway (US 6 west of 1st Street and east of 9th Street) include:

- A left-turn deceleration lane is required for any access with a projected peak hour left ingress turning volume greater than 10 vehicles per hour (vph).
- A right-turn deceleration lane is required for any access with a projected peak hour right ingress turning volume greater than 25 vph.
- A right-turn acceleration lane is required for any access with a projected peak hour right-turning volume greater than 50 vph when the speed limit is greater than 50 miles-per-hour (mph). A right-turn acceleration lane may also be required if a free-right-turn is needed at a signalized intersection.
- A left-turn acceleration lane may be required if it would be a benefit to the safety and operation of the roadway. They are generally not required if the posted speed limit is less than 45 mph, the intersection is signalized, or if the acceleration lane would interfere with the left-turn ingress movements to any other access.

The auxiliary lane requirements for a category NR-B roadway (US 6 between 1st Street and 9th Street) include:

- A left-turn lane is required for any access with a projected peak hour left-turn ingress volume greater than 25 vph. If the posted speed is greater than 40 miles per hour (mph), a deceleration lane is required with a projected peak hour left ingress turning volume greater than 10 vph.
- A right-turn lane is required for any access with a projected peak hour right-turning volume greater than 50 vph. If the posted speed is greater than 40 mph, a deceleration lane is required with a projected peak-hour right ingress turning volume greater than 25 vph.
- Right and left-turn acceleration lanes are generally not required for category NR-B roadways unless one of the subsections of *Section 3.5 Auxiliary Turn Lanes*, page 34 of the *State Highway Access Code* apply.

The auxiliary lane requirements for a category F-R roadway (River Frontage Road) include:

- A left-turn lane is required for any access with a projected peak hour left-turn ingress volume greater than 25 vph. If the posted speed is greater than 40 miles per hour (mph), a deceleration lane is required with a projected peak hour left ingress turning volume greater than 10 vph.
- A right-turn lane is required for any access with a projected peak hour right-turning volume greater than 50 vph. If the posted speed is greater than 40 mph, a deceleration lane is required with a projected peak-hour right ingress turning volume greater than 25 vph.
- A right-turn acceleration lane is required for any access with a projected peak hour right-turning volume greater than 50 vph when the posted speed is greater than 40 mph and there is only one through lane in the direction of the right-turn.
- A left-turn acceleration lane may be required if it would be a benefit to the safety and operation of the roadway. They are generally not required if the posted speed limit is less than 45 mph, the intersection is signalized, or if the acceleration lane would interfere with the left-turn ingress movements to any other access.

The auxiliary lane requirements for a category EX roadway (9th Street or I-70E between US 6 and the River Frontage Road) include:

- A left-turn deceleration lane is required for any access with a projected average daily left-turn ingress volume greater than 10 vehicles. If the peak hour left ingress turning volume is greater than 10 vph then a left-turn lane with deceleration, storage, and transition taper is required.
- A right-turn deceleration lane and taper is required for any access with a projected peak hour right ingress turning volume greater than 10 vph.
- A right-turn acceleration lane and taper is required for any access with a projected peak hour right-turning volume greater than 10 vph.
- A left-turn acceleration lane may be required if it would be a benefit to the safety and operation of the roadway. They are generally not required if the posted speed limit is less than 45 mph, the intersection is signalized, or if the acceleration lane would interfere with the left-turn ingress movements to any other access.

This page left blank intentionally.

3.0 EXISTING (2009) CONDITIONS

The study area on US 6 is just over four and a half miles in length and stretches from Ukele Lane, through Silt, to the first I-70 overpass east of the high school. The study area on River Frontage Road is just under four miles in length and stretches from west of 9th Street to the same I-70 overpass east of the high school. The study area on 9th Street (I-70E) is just under two tenths of a mile in length. The first step in developing an ACP is defining the existing conditions of the study roadways. This is done by collecting the following data:

- Properties adjacent to the roadways and those potentially impacted by the ACP.
- Location and type of each access point.
- Average daily traffic (ADT) volumes.
- Intersection turning movement volumes.
- Accident data.

From this data, the study roadways can be analyzed to determine if any safety and operational issues exist. The following sections provide a discussion on the data collection and existing conditions analysis procedures.

3.1 EXISTING (2009) PROPERTY OWNER INFORMATION

The data regarding property ownership was obtained from the Garfield County assessors' on-line database and Geographic Information System (GIS) data files. A mailing list for the public involvement (see Section 6.0) process was provided by the Town. This was done in an effort to ensure accurate and up to date information was used for the study, to ensure all parties received equal information, and to allow the property owners to determine whether or not they had an interest in the ACP. Appendix E contains the mailing list used for the public involvement portion of this study.

3.2 EXISTING (2009) INTERSECTION TYPE AND SPACING

Within the study limits, there are currently no signalized intersections, but there is one roundabout at the intersection of US 6 and 9th Street. The study area contains a total of 99 individual access points along the four and a half mile stretch of US 6 and a total of 27 access points along the four mile stretch of the River Frontage Road. There are 4 individual access points on the portion of 9th Street between US 6 and the River Frontage Road (two I-70 exit ramps and two I-70 entrance ramps). The total number of access points within the study area is 125. All access points can be separated into two categories: public ways or private driveways. Definitions relating to types of access are covered in Section 1.5, "Definitions and Abbreviations" (pp 2-8), in the *State Highway Access Code*:

> *"Public Way" means a highway, street, or road, open for use by the general public and under the control or jurisdiction of the appropriate local authority of Department and includes private roads open to the public.*
>
> *"Driveway" means an access that is not a public street, road, or highway.*

Based on these definitions, the access points within the study include 35 public ways and 95 driveways. All access points can be signalized or un-signalized and may be a full-movement intersection or may have movements restricted, such is the case with a right-in, right-out or ¾-movement intersection. All of the existing access points within the study limits are full-movement with no turn restrictions.

The following is a list of some of the public ways that intersect US 6 within the project area:

- Ukele Lane
- 1st Street
- 2nd Street
- 3rd Street
- 4th Street
- 5th Street
- 6th Street
- 7th Street
- 8th Street
- 9th Street
- Domelby Drive
- 16th Street
- Pioneer Drive
- Davis Point Road
- Mid Valley Lane
- Bridge over I-70

The following is a partial list of the public ways that intersect River Frontage Road within the project area:

- 9th Street
- CR 311
- Bridge over I-70

All of the access points on 9th Street (I-70E) are public ways. The remaining access points are considered driveways or private access locations. Again, all existing access points within the study area are full-movement. Several of the private access points are undefined with access stretching the entire length of the property. A few of the major private access locations include Country Feed, CES Concrete Equipment and Supply, Red River Inn, Coal Ridge High School, and numerous businesses. Table 1 summarizes the total existing access points within the study limits based upon the different highway category segments.

Table 1
Summary of Existing Access Locations

Section	Category	Un-signalized Public Ways	Driveways	Total
US 6 (Ukele Lane to 1st Street)	R-A (Regional Highway)	1	21	22
US 6 (1st Street to 9th Street)	NR-B (Non-Rural Arterial)	15	18	33
US 6 (east of 9th Street)	R-A (Regional Highway)	11	33	44
River Frontage Road	F-A (Frontage Road)	4	23	27
9th Street or I-70E (US 6 to the River Frontage Road)	EX (Expressway)	4	0	4
	Totals	**35**	**95**	**130**

For US 6 from Ukele Lane to 1st Street (category R-A, 0.78 miles in length), the existing average spacing between full-movement public ways is 0.78 miles (0.04 miles for all access points). For US 6 from 1st Street to 9th Street (category NR-B, 0.5 miles in length), the existing average spacing between public ways is 0.06 miles (0.02 miles for all access points). For US 6 from 9th Street to the I-70 overpass just east of the High School (category R-A, 3.24 miles in length), the existing average spacing between public ways is 0.54 miles (0.07 miles for all access points). For the River Frontage Road (category F-R, 3.79 miles in length), the existing average spacing between public ways is 1.26 miles (0.14 of a mile for all access points). For 9th Street (I-70E, category EX, 0.25 miles in length), the existing average spacing between full-movement public ways (same as all access points) is 0.13 miles. Each public access location has the potential to become signalized in the future. However, it is unlikely that every full movement location would become signalized in the future due to spacing requirements in the *State Highway Access Code*. Another benefit of implementing an ACP is the identification of the intersections that could be signalized to maintain appropriate spacing between signals. Without the proper planning, such as the development of an ACP, signals may end up being placed at inappropriate spacing intervals, which may preclude the ability to provide appropriate traffic control at needed intersections in the future to benefit the system as a whole.

According to the *State Highway Access Code*, the preferred spacing between signalized intersections is ½ mile for highways of categories R-A and NR-B. Clearly not all of the public roadways that currently access US 6 from 1st Street to 9th Street are appropriate locations for traffic signals if the roadway is to remain in compliance with the *State Highway Access Code*. While there is no preferred spacing for category F-R roads, the spacing for signalized intersections should be sufficient to not impact operations, but still provide adequate access to the adjacent properties. The preferred spacing between potential signalized intersections is one-mile, while ½-mile is acceptable, on EX roadways. The addition of traffic signals to all of the existing full-movement intersections on 9th Street (I-70E) would not be in compliance with the *State Highway Access Code*.

3.3 EXISTING (2009) ROADWAY SECTIONS AND ACCESS DESCRIPTIONS

Figure 3 through Figure 8 show the location of all existing direct access points to the US 6, River Frontage Road, and 9th Street (I-70E) roadways within the study limits of this project.

The following sections contain a brief description of the existing roadway configuration and access locations within the study area of the ACP. The descriptions are arranged from west to east on US 6, then west to east on the River Frontage Road, and finally from south to north on 9th Street (I-70E).

This page left blank intentionally.

Figure 3
Existing Access Points (Sheet 1 of 6)

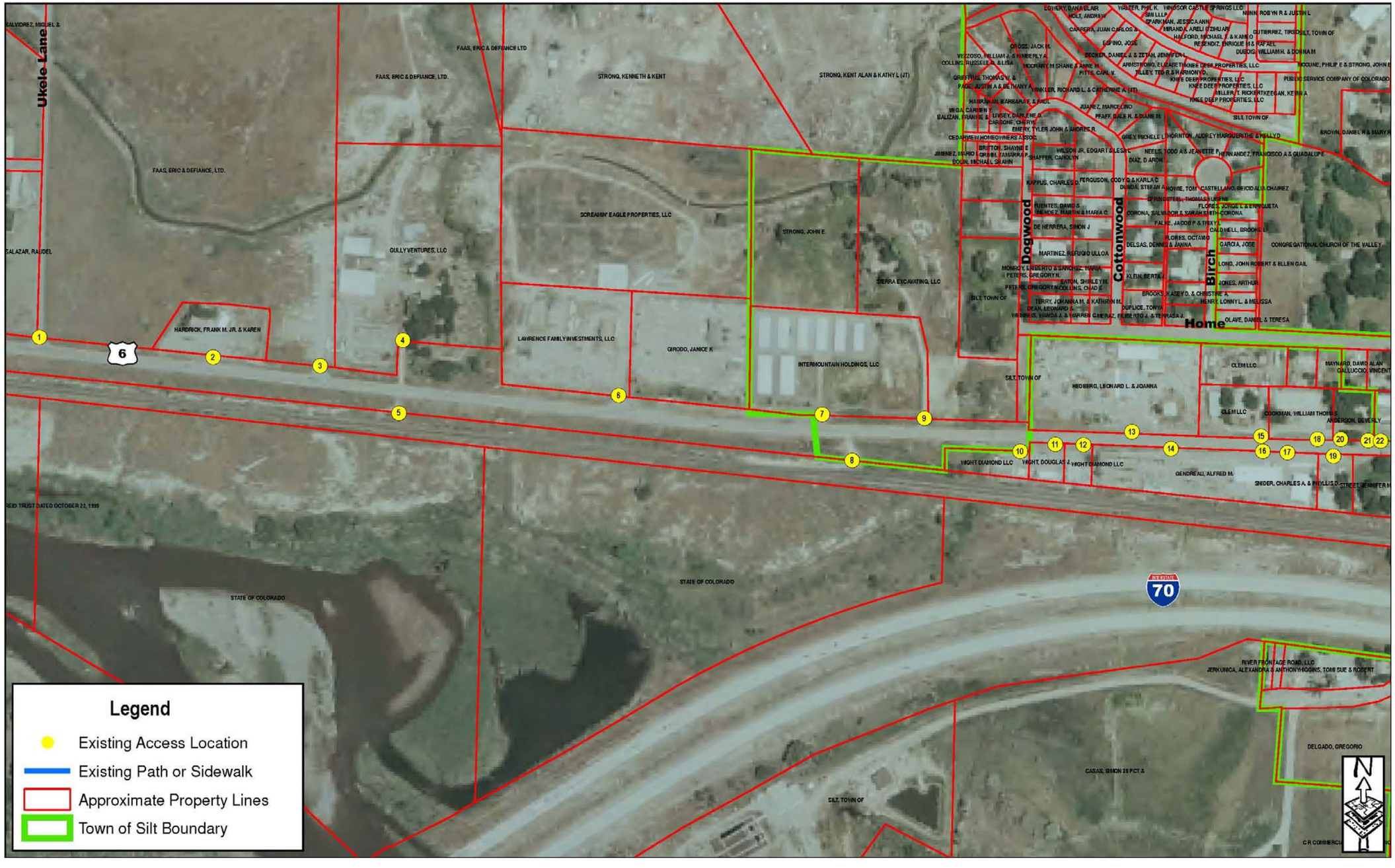


Figure 4
Existing Access Points (Sheet 2 of 6)

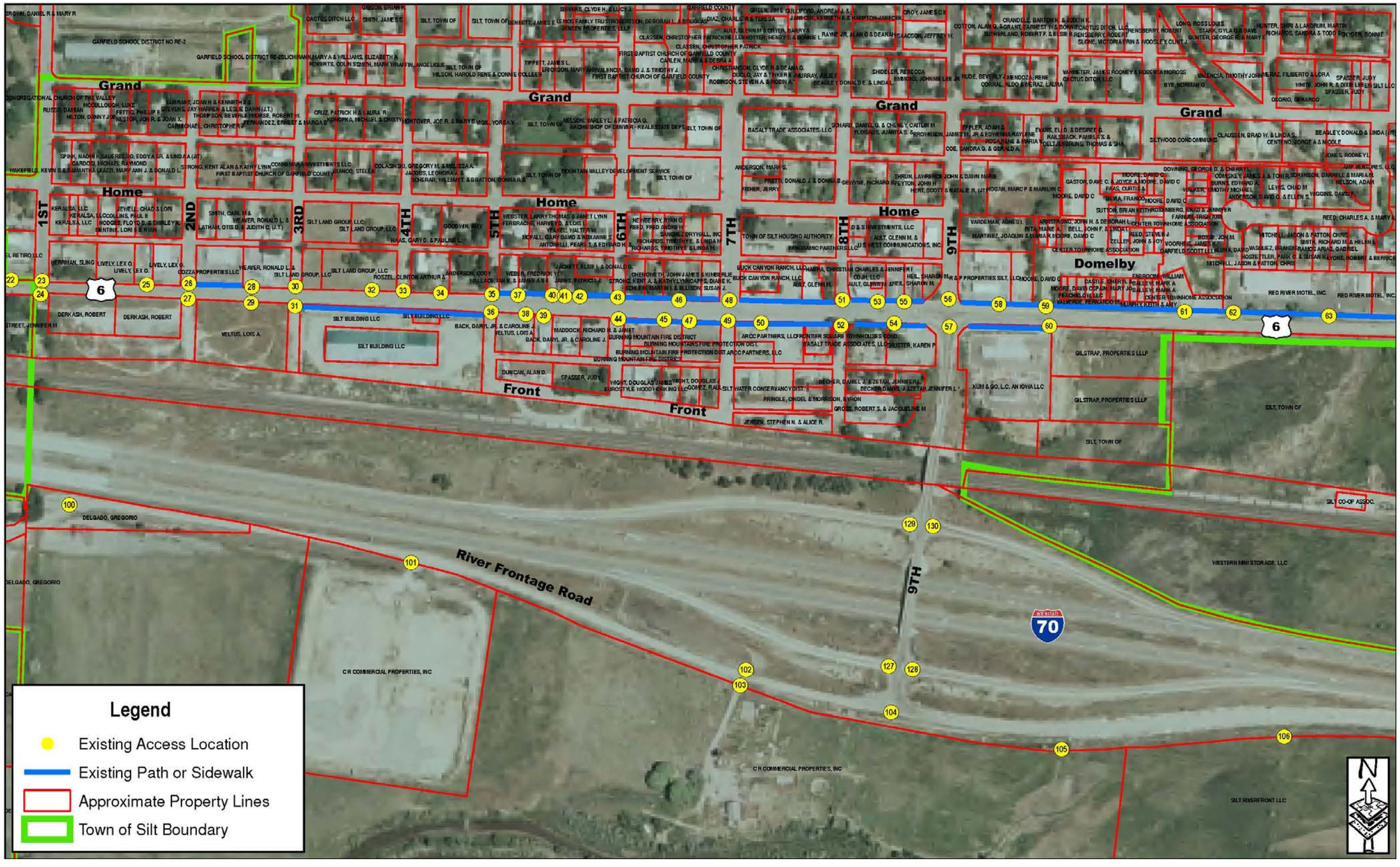


Figure 5
Existing Access Points (Sheet 3 of 6)

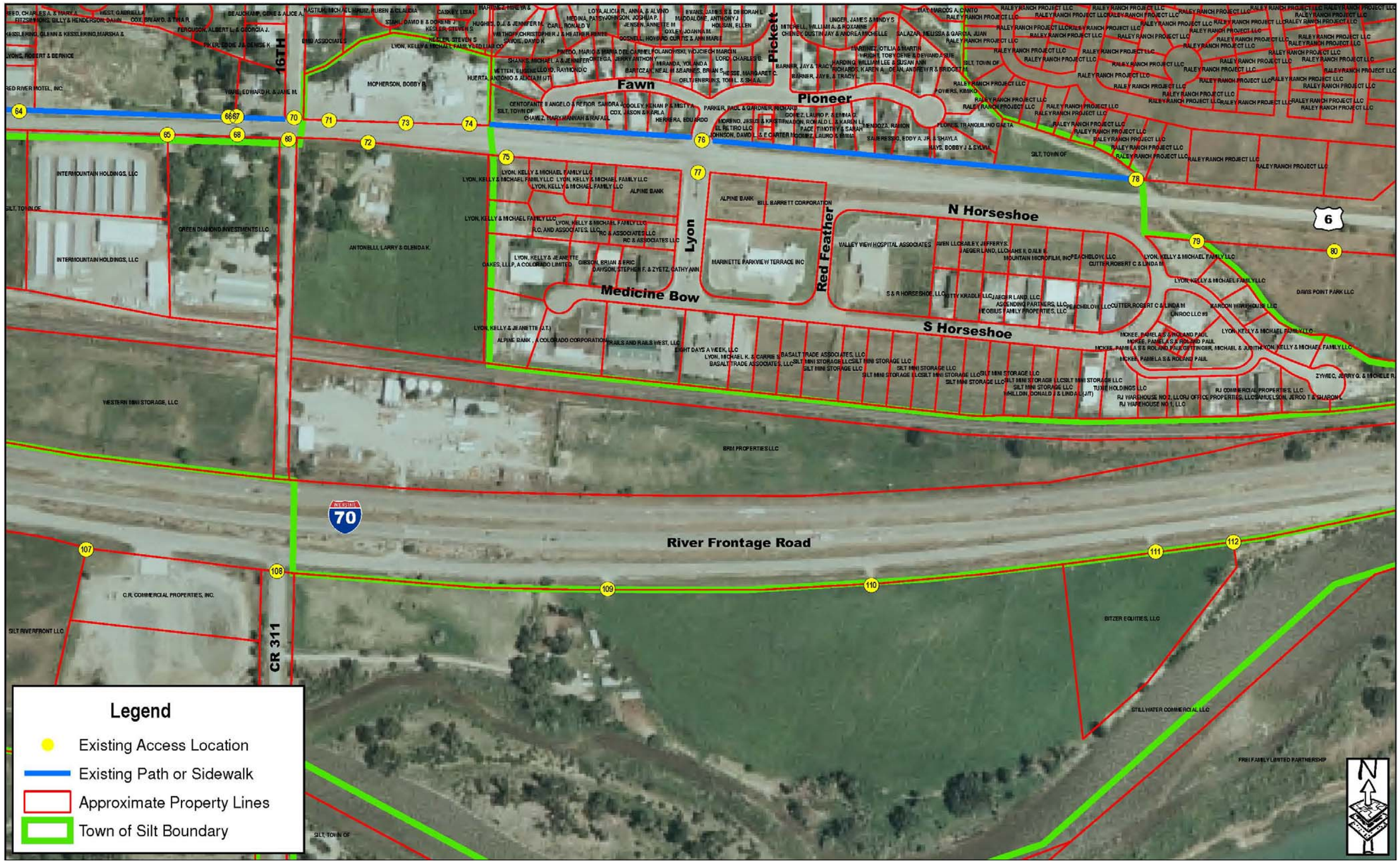


Figure 6
Existing Access Points (Sheet 4 of 6)

Figure 7
Existing Access Points (Sheet 5 of 6)

Figure 8
Existing Access Points (Sheet 6 of 6)

3.3.1 Existing (2009) Access on US 6 from Ukele Lane to 1st Street

This section of the US 6 roadway has one through lane in each direction with no turn lanes at any of the access points. The eastbound direction has a speed limit of 55 mph and steps down to 45 mph and then eventually 35 mph as it approaches 1st Street. The westbound direction starts at a speed limit of 35 mph at 1st Street, but quickly increases to 55 mph for the majority of this section. This section has the following 22 access points.

- *Access 1 (Ukele Lane):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 2:* This full-movement driveway provides access to the property (32235 Highway 6) located to the north and is uncontrolled.
- *Access 3:* This full-movement driveway provides access to the property (32239 Highway 6) located to the north and is uncontrolled.
- *Access 4:* This full-movement driveway provides access to the property (32369 Highway 6) located to the north and is uncontrolled.
- *Access 5:* This full-movement driveway provides access to the railroad property located to the south and is uncontrolled.
- *Access 6:* This full-movement driveway provides access to the properties (including Cowboy Auctions) located to the north and is stop controlled.
- *Access 7:* This full-movement driveway provides access to the property (570 West Main, Intermountain Storage) located to the north and is uncontrolled.
- *Access 8:* This full-movement driveway provides access to the railroad property located to the south and is uncontrolled.
- *Access 9:* This full-movement driveway provides access to the property (510 West Main) located to the north and it is uncontrolled.
- *Access 10:* This full-movement driveway provides access to the property (445 West Main) located to the south and is uncontrolled.
- *Access 11:* This full-movement driveway provides access to the property (445 West Main) located to the south and is uncontrolled.
- *Access 12:* This full-movement driveway provides access to the property located to the south and is uncontrolled.
- *Access 13:* This full-movement driveway provides access to property (240 West Main, Highway Feed & Ranch Supply) located to the north and is uncontrolled.
- *Access 14:* This full-movement driveway provides access to the property (145 West Main, CES Concrete Equipment and Supply) located to the south and is uncontrolled.
- *Access 15:* This full-movement driveway provides access to the property (160 West Main, Charlie's Truck Service) located to the north and is uncontrolled.
- *Access 16:* This full-movement driveway provides access to the property (145 West Main, CES Concrete Equipment and Supply) located to the south and is uncontrolled.
- *Access 17:* This full-movement driveway provides access to the property (145 West Main, CES Concrete Equipment and Supply) located to the south and is uncontrolled.
- *Access 18:* This full-movement driveway provides access to the property (150 West Main) located to the north and is uncontrolled.
- *Access 19:* This full-movement driveway provides access to the property (171 West Main) located to the south and is uncontrolled.

- *Access 20:* This full-movement driveway provides access to the property (112 West Main) located to the north and is uncontrolled.
- *Access 21:* This full-movement driveway provides access to the property (112 West Main) located to the north and is uncontrolled.
- *Access 22:* This full-movement driveway provides access to the property (110 West Main) located to the north and is uncontrolled.

3.3.2 Existing (2009) Access on US 6 from 1st Street to 9th Street

This section of the US 6 roadway passes through the core developed portion of Silt with a mix of commercial and residential properties. The highway has one through lane in each direction from 1st Street to 5th Street and has two through lanes in each direction from 6th Street to 9th Street. There are no turn lanes through this section. Curbside parallel parking is permitted on both sides of the roadway between 6th Street and 9th Street. The eastbound and westbound directions have a speed limit of 35 mph. This section has the following 33 access points.

- *Access 23 (Southbound approach of 1st Street):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 24 (Northbound approach of 1st Street):* This public roadway approaches US 6 from the south, is full-movement, and is stop controlled.
- *Access 25:* This full-movement driveway provides access to the property (190 East Main) located to the north and is uncontrolled.
- *Access 26 (Southbound approach of 2nd Street):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 27 (Northbound approach of 2nd Street):* This public roadway approaches US 6 from the south, is full-movement, and is stop controlled.
- *Access 28:* This full-movement driveway provides access to the property (including The Mechanic's Shop) located to the north and is uncontrolled.
- *Access 29:* This full-movement driveway provides field access to the undeveloped property located to the south and is uncontrolled.
- *Access 30 (Southbound approach of 3rd Street):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 31 (Northbound approach of 3rd Street):* This public roadway approaches US 6 from the south, is full-movement, and is stop controlled.
- *Access 32:* This full-movement driveway provides field access to the undeveloped property located to the north and is uncontrolled.
- *Access 33 (4th Street):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 34:* This full-movement driveway provides access to the property (130 4th Street) located to the north and is uncontrolled.
- *Access 35 (Southbound approach of 5th Street):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 36 (Northbound approach of 5th Street):* This public roadway approaches US 6 from the south, is full-movement, and is stop controlled.
- *Access 37:* This full-movement driveway provides access to the properties (including 110 5th Street, RBW Auto) located to the north and is uncontrolled.

- *Access 38:* This full-movement driveway provides access to the undeveloped property located to the south and is uncontrolled.
- *Access 39:* This full-movement driveway provides access to the property (521 East Main, The Whimsical Wagon) located to the south and is uncontrolled.
- *Access 40:* This full-movement driveway provides access to the properties (including 101 6th Street) located to the north and is uncontrolled.
- *Access 41:* This full-movement driveway provides access to the property (101 6th Street) located to the north and is uncontrolled.
- *Access 42:* This full-movement driveway provides access to the property (101 6th Street) located to the north and is uncontrolled.
- *Access 43 (Southbound approach of 6th Street):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 44 (Northbound approach of 6th Street):* This public roadway approaches US 6 from the south, is full-movement, and is stop controlled.
- *Access 45:* This full-movement driveway provides access to the fire station (611 East Main) located to the south and is uncontrolled.
- *Access 46:* This full-movement driveway provides access to the property (632 East Main) located to the north and is uncontrolled.
- *Access 47:* This full-movement driveway provides access to the fire station parking area located to the south and is uncontrolled.
- *Access 48 (Southbound approach of 7th Street):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 49 (Northbound approach of 7th Street):* This public roadway approaches US 6 from the south, is full-movement, and is stop controlled.
- *Access 50:* This full-movement driveway provides access to the property (701 East Main, The Country Florist) located to the south and is uncontrolled.
- *Access 51 (Southbound approach of 8th Street):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 52 (Northbound approach of 8th Street):* This public roadway approaches US 6 from the south, is full-movement, and is stop controlled.
- *Access 53:* This full-movement driveway provides access to the property (810 East Main, Tim's Tools/Phillips 66) located to the north and is uncontrolled.
- *Access 54:* This full-movement driveway provides access to the property (831 East Main, Silt Bar & Café) located to the south and is uncontrolled.
- *Access 55:* This full-movement driveway provides access to the properties (including 820 East Main/840 East Main, Columbine Liquors) located to the north and is uncontrolled.

3.3.3 Existing (2009) Access on US 6 from 9th Street to 16th Street

This section of the US 6 roadway passes through a mix of developed and undeveloped properties that is located east of the core downtown area. The highway has one through lane in each direction and has turn lanes at some of the access locations. The eastbound and westbound directions both have speed limits of 35 mph. This section has the following 13 access points.

- *Access 56 (Southbound approach of 9th Street):* This public roadway approaches US 6 from the north, is full-movement, and is yield controlled.

- *Access 57 (Northbound approach of 9th Street):* This public roadway approaches US 6 from the south, is full-movement, and is stop controlled.
- *Access 58:* This full-movement driveway provides access to the properties including (902 East Main, Gofer Foods) located to the north and is uncontrolled.
- *Access 59 (Domelby Drive):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 60:* This full-movement driveway provides access to the property (905 East Main, Kum and Go) located to the south and is stop controlled.
- *Access 61:* This full-movement driveway provides access to the property (1013 Domelby Court, Center Townhomes) located to the north and is uncontrolled.
- *Access 62:* This full-movement driveway provides access to the property (1200 East Main, Red River Inn) located to the north and is uncontrolled.
- *Access 63:* This full-movement driveway provides access to the property (1200 East Main, Red River Inn) located to the north and is uncontrolled.
- *Access 64:* This full-movement driveway provides access to the property (1290 East Main, Steffie's Place) located to the north and is uncontrolled.
- *Access 65:* This full-movement driveway provides access to the properties (including 1535 East Main, Silt Mini-Storage) located to the south and is uncontrolled.
- *Access 66:* This full-movement driveway provides access to the property located to the north and is uncontrolled.
- *Access 67:* This full-movement driveway provides access to the properties (including 1560 East Main) located to the north and is uncontrolled.
- *Access 68:* This full-movement driveway provides access to the property (Green Diamond RV Park) located to the south and is uncontrolled.

3.3.4 Existing (2009) Access on US 6 from 16th Street to Davis Point Road

This section of the US 6 roadway passes through a mix of developed and undeveloped properties located east of the core downtown Silt area. The highway has one through lane in each direction and only has left-turn lanes at the access into Pioneer Drive. The eastbound and westbound directions both increase in speed from 35 mph at 16th Street up to 55 mph at Davis Point Road. This section has the following 19 access points.

- *Access 69 (Southbound approach of 16th Street):* This public roadway approaches US 6 from the south, is full-movement, and is stop controlled.
- *Access 70 (Northbound approach of 16th Street):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 71:* This full-movement driveway provides access to the property (1750 East Main, Sinclair/CO-OP Country) located to the north and is uncontrolled.
- *Access 72:* This full-movement driveway provides access to the property (Kurr Welding) located to the south and is uncontrolled.
- *Access 73:* This full-movement driveway provides access to the property (1750 East Main, Sinclair/CO-OP Country) located to the north and is uncontrolled.
- *Access 74:* This full-movement driveway provides access to the property (1750 East Main, Sinclair/CO-OP Country) located to the north and is uncontrolled.
- *Access 75:* This full-movement driveway provides access to the properties (including 1805 Silver Spur) located to the south and is uncontrolled.

- *Access 76 (Southbound approach of Pioneer Drive):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 77 (Northbound approach of Pioneer Drive):* This public roadway approaches US 6 from the south, is full-movement, and is stop controlled.
- *Access 78:* This full-movement driveway provides ditch access to the north and is uncontrolled.
- *Access 79:* This full-movement driveway provides ditch access to the south and is uncontrolled.
- *Access 80:* This full-movement driveway provides field access to the property (34488 Highway 6, Davis Point Park) located to the south and is uncontrolled.
- *Access 81:* This full-movement driveway provides access to the property (Painted Pastures) located to the north and is uncontrolled.
- *Access 82:* This full-movement driveway provides field access to the property (34488 Highway 6, Davis Point Park) located to the south and is uncontrolled.
- *Access 83:* This full-movement driveway provides field access to the property (34488 Highway 6, Davis Point Park) located to the south and is uncontrolled.
- *Access 84:* This full-movement driveway provides access to the properties (including 34671 Highway 6) located to the north and is uncontrolled.
- *Access 85:* This full-movement driveway provides field access to the property (34671 Highway 6) located to the north and is uncontrolled.
- *Access 86:* This full-movement driveway provides field access to the property located to the south and is uncontrolled.
- *Access 87:* This full-movement driveway provides access to the property (34475 Highway 6) located to the north and is uncontrolled.

3.3.5 Existing (2009) Access on US 6 from east of Davis Point Road

This section of US 6 passes through mostly undeveloped properties. The highway has one through lane in each direction and has turn lanes at the access into Coal Ridge High School. The eastbound and westbound directions have speed limits of 55 mph. This section has the following 12 access points.

- *Access 88 (Southbound approach of Davis Point Road):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 89:* This full-movement driveway provides field access to the north and is uncontrolled.
- *Access 90:* This full-movement driveway provides ditch access to the north and is uncontrolled.
- *Access 91:* This full-movement driveway provides access to the property (35445 Highway 6) located to the north and is uncontrolled.
- *Access 92:* This full-movement driveway provides access to the properties (including 35797 Highway 6, Rising Hearts Ranch) located to the north and is uncontrolled.
- *Access 93:* This full-movement driveway provides access to the property (35947 Highway 6, Coal Ridge High School) located to the north and is stop controlled.
- *Access 94:* This full-movement driveway provides access to the property (4354 County Road 214) located to the north and is uncontrolled.

- *Access 95 (Southbound approach of Mid Valley Lane/County Road 262):* This public roadway approaches US 6 from the north, is full-movement, and is stop controlled.
- *Access 96:* This full-movement driveway provides field access to the railroad property located to the south and is uncontrolled.
- *Access 97:* This full-movement driveway provides field access to the property (68 Mid Valley Lane/County Road 262) located to the north and is uncontrolled.
- *Access 98:* This full-movement driveway provides field access to the property (4954 County Road 214) located to the north and is uncontrolled.
- *Access 99 (I-70 Overpass):* This public roadway approaches US 6 from the south, is full-movement, and is stop controlled.

3.3.6 Existing (2009) Access on the River Frontage Road

This section of River Frontage Road has one through lane in each direction with no turn lanes at any of the access points. The eastbound and westbound directions have varied speed limits ranging from 30 mph to 45 mph. This section has the following 27 access points.

- *Access 100 (Scott Boulevard):* Scott Boulevard intersections with the southern edge of the roadway at a 45-degree angle. Scott Boulevard continues to the west and provides access to properties along the north and south sides of the roadway. The intersection is uncontrolled.
- *Access 101:* This full-movement driveway provides access to the property (520 River Frontage Road) located to the south and is uncontrolled.
- *Access 102:* This full-movement driveway provides access to the Park n' Ride lot located to the north and is uncontrolled.
- *Access 103:* This full-movement driveway provides access to the property located to the south and is uncontrolled.
- *Access 104 (9th Street):* This public roadway approaches the River Frontage Road from the north, is full-movement, and the two approaches of the River Frontage Road are stop controlled.
- *Access 105:* This full-movement driveway provides field access to the property located to the south and is uncontrolled.
- *Access 106:* This full-movement driveway provides field access to the property located to the south and is uncontrolled.
- *Access 107:* This full-movement driveway provides access to the properties (including 1535 River Frontage Road and the Holiday Inn Express) located to the south and is stop controlled.
- *Access 108 (Divide Creek Road/CR 311):* This public roadway approaches the River Frontage Road from the south, is full-movement, and is stop controlled.
- *Access 109:* This full-movement driveway provides field access to the property (54 County Road 311) located to the south and is uncontrolled.
- *Access 110:* This full-movement driveway provides field access to the property (54 County Road 311) located to the south and is uncontrolled.
- *Access 111:* This full-movement driveway provides field access to the property (2300 River Frontage Road) located to the south and it is uncontrolled.
- *Access 112:* This full-movement driveway provides access to the property located to the south and is uncontrolled.

- *Access 113:* This full-movement driveway provides access to the property located to the south and is uncontrolled.
- *Access 114:* This full-movement driveway provides access to the property located to the south and is uncontrolled.
- *Access 115:* This full-movement driveway provides field access to the property located to the south and is uncontrolled.
- *Access 116:* This full-movement driveway provides field access to the south and is uncontrolled.
- *Access 117:* This full-movement driveway provides ditch access to the property located to the south and is uncontrolled.
- *Access 118:* This full-movement driveway provides access to the property (35960 River Frontage Road) located to the south and is uncontrolled.
- *Access 119:* This full-movement driveway provides access to the property (35960 River Frontage Road) located to the south and is uncontrolled.
- *Access 120:* This full-movement driveway provides access to the property (36200 River Frontage Road) located to the south and is uncontrolled.
- *Access 121:* This full-movement driveway provides access to the property (36590 River Frontage Road) located to the south and is uncontrolled.
- *Access 122:* This full-movement driveway provides access to the property (36590 River Frontage Road) located to the south and is uncontrolled.
- *Access 123:* This full-movement driveway provides access to the property (36610 River Frontage Road) located to the south and is uncontrolled.
- *Access 124:* This full-movement driveway provides access to the property (36730 River Frontage Road) located to the south and is uncontrolled.
- *Access 125:* This full-movement driveway provides access to the property (36900 River Frontage Road) located to the south and is uncontrolled.
- *Access 126 (I-70 Overpass):* This public roadway approaches US 6 from the south, is full-movement, and is stop controlled.

3.3.7 Existing (2009) Access on 9th Street from US 6 to the River Frontage Road

This section of 9th Street has one through lane in each direction with no turn lanes at any of the access points. The northbound and southbound directions have a speed limit of 35 mph. This section of roadway has the following four access points.

- *Access 127:* This one-way eastbound public roadway (eastbound I-70 exit ramp) approaches 9th Street from the west, is full-movement, and is stop controlled.
- *Access 128:* This one-way eastbound public roadway (eastbound I-70 entrance ramp) departs 9th Street from to the east, is full-movement, and is uncontrolled.
- *Access 129:* This one-way westbound public roadway (westbound I-70 entrance ramp) departs 9th Street from to the west, is full-movement, and is uncontrolled.
- *Access 130:* This one-way westbound public roadway (westbound I-70 exit ramp) approaches 9th Street from the east, is full-movement, and is stop controlled.

3.4 EXISTING (2009) TRAFFIC VOLUMES

An analysis of the existing traffic conditions was performed during the early stages in the development of the ACP. In order to conduct the analysis, existing traffic volume data was collected. The Town collected intersection turning movement counts (TMC) at most major intersections within the study area and ADT data at several locations along the study roadways. The traffic counts were collected in December of 2008 and January of 2009. ADT counts identify the amount of through traffic traveling along a roadway for an entire day. Additional traffic data was obtained from recently completed traffic studies of development projects within the study area. The directional ADTs are shown in Table 2 and detailed data is available in Appendix D.

Table 2 shows the bi-directional (eastbound plus westbound rounded to the nearest 50 vehicles) traffic at four locations along US 6 and three location along the River Frontage Road. These values represent a typical weekday traffic level for US 6 and River Frontage Road. The volumes are highest near 9th Street and then gradually decrease toward either end of the study area. Higher volumes are observed west of 9th Street along US 6. On the River Frontage Road the volumes are very low west of 9th Street and east of CR 311 and reach a maximum of about 3,700 vehicles per day between 9th Street and CR 311. The TMC data provides distribution information for vehicles entering and exiting the study roadways at key intersections. This traffic data was input into the Synchro traffic model prepared for this study to determine levels of service (LOS) during the peak periods (AM/PM). The TMCs are presented in Appendix E.

Table 2
Existing (2009) ADT on US 6/River Frontage Road

Roadway	Location	Vehicle per day (vpd)
US 6	West of 1st Street	4,450
US 6	West of 9th Street	6,750
US 6	West of 16th Street	5,900
US 6	West of Davis Point	2,800
River Frontage Road	West of 9th Street	400
River Frontage Road	West of CR 311	3,700
River Frontage Road	East of CR 311	500

3.5 EXISTING (2009) INTERSECTION LEVEL OF SERVICE ANALYSIS

Traffic operations for each of the signalized and key un-signalized access points were analyzed using the methods described in the *2000 Highway Capacity Manual* (2000 HCM) (Transportation Research Board, 2000). Table 3 shows the criteria for establishing the LOS for the signalized and two-way stop controlled intersections within the study area.

Table 3
Intersection LOS Criteria

LOS	Control Delay per Vehicle (sec/veh)	
	Un-signalized Intersection	Signalized Intersection
A	0-10	≤ 10
B	>10-15	>10-20
C	>15-25	>20-35
D	>25-35	>35-55
E	>35-50	>55-80
F	>50	>80

According to the 2000 HCM, the overall performance of an intersection is determined based on the level of control delay experienced by motorists at the intersection. Depending on the level of delay that is experienced, each intersection can be scored on an LOS scale and given a letter grade from 'A' to 'F', with 'A' being the best possible grade for the intersection. For signalized intersections, the delay for each individual turning movement is evaluated, then entire approaches are graded, and finally the intersection as a whole can be given a single LOS. For two-way stop controlled intersections, each minor approach is given a separate LOS and the worst LOS is reported as a single rating for the intersection. For analysis purposes all uncontrolled intersections/driveways were treated as stop controlled access points. The results of the LOS analysis for the existing conditions are presented in Table 4, with detailed analysis sheets provided in Appendix F.

Based on the results of the analysis, the majority of the intersections operate at LOS C or better (shown with green or yellow backgrounds in the table) during the peak hours of the day. The only significant exception is the intersection of the I-70 Eastbound Ramps and 9th Street during the AM peak, which operates at LOS F. The poor performance of this location is due to the inability of vehicles to find acceptable gaps in the traffic stream to turn left or right from the ramp onto 9th Street.

Table 4
Existing (2009) Intersection LOS for Peak Periods

Intersection	LOS	
US 6	**AM**	**PM**
Ukele Street	B	B
1st Street	B	B
2nd Street	B	B
3rd Street	B	B
4th Street	B	B
5th Street	B	B
6th Street	B	B
7th Street	B	B
8th Street	B	B
9th Street*	A	A
Domelby Court	B	B
16th Street	B	B
Lyon Drive	B	B
Davis Point	B	A
Mid Valley Road	A	A
River Frontage Road	**AM**	**PM**
9th Street	C	B
CR 311	B	A
9th Street	**AM**	**PM**
I-70 Eastbound Ramps	F	C
I-70 Westbound Ramps	B	C

**Existing control is a roundabout*
Green is for intersections with LOS A or B
Yellow is for intersections with LOS C or D
Red are for intersections with LOS E or F

3.6 EXISTING (2009) ACCIDENT ANALYSIS

A five-year accident analysis (January 1, 2000 to December 31, 2004) was conducted by the Headquarters Safety and Traffic Engineering Branch of CDOT. Accidents were classified in ten categories:

- *Rear End* – This accident occurs when one vehicle strikes the rear of the vehicle in front of it because that vehicle is stopped or slowing down.
- *Broadside* – This type of accident occurs when a vehicle traveling through an intersection in the opposite direction strikes a left-turning vehicle at a 90-degree angle.
- *Sideswipe* – This type of accident typically involves the side of one vehicle making contact with the side of another vehicle that is traveling in the same or opposite direction.
- *Fixed Object* – This type of accident occurs when a vehicle travels off the roadway and strikes an object along the roadside.

- *Wild Animal* – This type of accident occurs when a vehicle strikes a wild animal in the roadway.
- *Overtaking Turn* – This type of accident occurs when two adjacent approach vehicles, whose paths are unintended to come in conflict, collide as a result of one or both vehicles over- or under-turning. This type would also include a vehicle initially going straight, but leaving its proper lane of travel and colliding with a stopped or moving vehicle on an adjacent approach road or driveway.
- *Pedestrian* – This type of accident occurs when a vehicle and pedestrian collide in which the collision between the two is the first event and also took place within the roadway.
- *Overturning* – This type of accident occurs when a vehicle overturns on or off the roadway without first having been involved in some other type of crash.
- *Head*-on – This type of accident occurs when two vehicles, traveling in opposite directions, strike one another front first.
- *Approach Turn* – This type of accident occurs when a vehicle traveling through an intersection in the opposite direction strikes a left-turning vehicle.

As part of the accident study, a weighted hazard index was computed for the study roadways. The weighted hazard index determines if the frequency/severity of accidents on a roadway is higher than the statewide average for similar highways. The analysis of US 6 indicated that the frequency/severity of accidents is lower than the statewide average for similar highways. An increase in the number of access points along with an increase in traffic volumes will result in a deterioration of safety on US 6 and the River Frontage Road for vehicle drivers, pedestrians, and bicyclists.

The study concluded that broadside was the category with the highest number of accidents on this roadway, which could be related to several factors including the number of turning vehicles, poor roadway signing, and geometric factors at intersections. The next highest accident type was wild animal accidents, followed by rear end accidents. There was only one accident reported on River Frontage Road in the five-year study, a non-intersection related accident involving wildlife. Of all the accidents identified along US 6, the majority occurred at intersection or driveway access locations. In the five-year study period, 19 accidents occurred at the intersection of US 6 and 9th Street. In 2008, a roundabout was constructed at this intersection to minimize these accidents. Table 5 displays the total number and percentage of intersection and non-intersection related accidents for each type of accident that occurred along the study roadways between 2000 and 2004. For US 6 there were a total of 68 accidents during the five-year analysis period. The CDOT accident analysis report and data is in Appendix G.

Table 5
Summary of Existing (2009) Accident Data

Category	Type	Total Number of Accidents*	Percent of Total
Location	At Intersection/Intersection Related	34	50%
	Non-Intersection Related	27	40%
	Driveway Access	7	10%
	Total	**68**	**100%**
Type	Rear End	8	12%
	Fixed Object	7	10%
	Broadside	18	26%
	Pedestrian	2	3%
	Overtaking Turn	2	3%
	Sideswipe	5	8%
	Approach Turn	3	4%
	Wild Animal	14	20%
	Head-on	0	0%
	Other	9	14%
	Total	**68**	**100%**

**For the period of January 1, 2000 to December 31, 2004.*

3.7 EXISTING (2009) ALTERNATIVE TRANSPORATION MODES

Although an ACP deals primarily with vehicle access to and from highways, the Town has the goal of promoting safe and efficient movement of all modes of transportation. This includes pedestrians, transit users, and bicyclists moving in and through the study area. CDOT has also recently adopted a new policy towards non-vehicular use of highways as follows:

> *"It is the policy of the Colorado Transportation Commission to provide transportation infrastructure that accommodates bicycle and pedestrian use of the highways in a manner that is safe and reliable for all highway users. The needs of bicyclists and pedestrians shall be included in the planning, design, and operation of transportation facilities, as a matter of routine."*

The accident analysis indicates two accidents involving pedestrians occurred between 2000 and 2004. In order to help the Town achieve their goal, the ACP will identify existing access conditions, identify opportunities to improve the facilities, and ensure the recommendations of the plan do not prohibit the Town from achieving its ultimate goal for non-vehicle users.

US 6 through Silt currently has two transit stops. One stop is on US 6 just to the east of 16th Street and the other stop is on US 6 at 7th Street and is one-block from the park-n-ride location at the corner of 7th Street and Home Avenue adjacent to the Town Hall. The current bus stop east of 16th Street does not provide shelter or a bus pad for transit users, but the stop at US 6 and 7th Street does provide a small shelter for the eastbound riders. The Town is in support an additional stop in the vicinity of 1st Street and US 6.

The Town would like to see future transit riders continue to have safe locations to board and depart the buses and to safely walk about Town once they depart the buses. The best way to provide for this safety is to provide transit riders with sidewalks or pathways. The Town does have some sidewalks or multi-use pathways (pedestrian/bicyclists) sporadically along one or both sides of US 6, mainly between 1st Street and 16th Street, as shown and identified in Figure 3, Figure 4, and Figure 5. As development continues, the conditions for bicycle and pedestrian travel will become safer if the sidewalk/pathway system is constructed to be continuous along this roadway. This includes completing the pathway between the Town and the High School to provide school children with a continuous path and the option to safely walk or bike to school, which will help reduce vehicle traffic on US 6 during the school year.

River Frontage Road does not currently have any transit stops and does not have any pedestrian/bicycle facilities in place. Future development along the River Frontage Road will create the need for the community to provide pedestrian/bicyclist connectivity across I-70. 9th Street which is currently the only direct vehicle connection over I-70 does not have pedestrian/bicyclist facilities and the existing structure does not have adequate space to accommodate sidewalks or pathways. The Town does have access to an agricultural I-70 underpass (animals only) located just to the east of 16th Street/CR 311. Potential use of this facility for pedestrian/bicyclist use in the future would help the Town achieve its goals and would require improvements such as bicycle lanes, sidewalks, paths, or mid-block crossings along the River Frontage Road and 16th Street to complete a safe north-south connection.

This page left blank intentionally.

4.0 NO-ACTION (2035) CONDITIONS

In addition to analyzing the existing traffic conditions, it is important to understand future planning horizons in developing recommendations for the ACP. The year 2035 was selected as the long-range planning horizon for this project. Before the future intersection and roadway operational analyses could be performed, future traffic volumes for the year 2035 were developed.

4.1 NO-ACTION (2035) TRAFFIC VOLUMES

Future background volumes were projected by first applying a 3.4% annual growth rate to the existing volumes. The 3.4% annual growth rate used coincides with state census data for future projected growth in the County and growth rates used for other transportation studies (including several traffic impact studies) conducted in the area. An annual growth rate of 3.4% is considered high; however, the Town is located in an area that is primarily undeveloped both along US 6 and the River Frontage Road. In addition, there are large undeveloped areas south of the River Frontage Road along CR 311 with the potential for significant development to occur. The availability of undeveloped land and the number of planned developments within the and around the Town may result in significant population growth, which will result in increased traffic volumes using the study roadways in the area including US 6 and the River Frontage Road. Although growth may not reach the projected 3.4% annual rate, use of this value for analysis purposes will produce conservative results and recommendations for access changes.

The 3.4% annual growth was applied over a 26 year time period to grow the 2009 traffic volumes to projected 2035 levels by a factor of approximately 3.2. It was assumed that all movements would experience the same 3.4% annual growth rate. In addition, after developing the background traffic volumes by applying the 3.4% annual growth rate, site generated traffic from approved future developments in the area were added to the background volumes to formulate the total projected 2035 traffic volumes used for the future conditions analysis in the ACP study. For the purposes of this study, traffic volumes from the Stillwater development plan were not included in the analysis. Table 6 shows a comparison between existing and 2035 bi-directional (eastbound plus westbound) traffic along US 6 and the River Frontage Road at similar locations as was discussed for existing conditions.

Table 6
Comparison of No-Action (2035) to Existing (2009) ADT Volumes

Roadway	Location	VPD*		
		2009	Projected 2035	Percent Increase
US 6	West of 1st Street	4,450	10,550	137%
US 6	West of 9th Street	6,750	19,200	184%
US 6	West of 16th Street	5,900	21,100	258%
US 6	West of Davis Point	2,800	15,200	442%
River Frontage Road	West of 9th Street	400	3,100	655%
River Frontage Road	West of CR 311	3,700	14,400	290%
River Frontage Road	East of CR 311	500	7,300	1,366%

**Bidirectional volumes (eastbound plus westbound).*

The 2035 volumes range from a high of more than 21,000 vpd between 9th Street and 16th Street on US 6 to approximately 10,600 vpd west of 1st Street on US 6. River Frontage Road has a high of more than 14,000 vpd between 9th Street to CR 311 and a low of approximately 3,000 vpd west of 9th Street. This pattern varies slightly compared to existing ADT volumes. Table 6 also shows the percent change in traffic volumes expected to occur between 2009 and 2035. Based on the 2035 volume projections, traffic volumes on US 6 and the River Frontage Road are expected to more than double along the entire length of the study roadways, with significantly greater growth on other portions of the study roadways.

4.2 NO-ACTION (2035) INTERSECTION LOS ANALYSIS

The future traffic volumes were input into the traffic analysis model so intersection LOS could be determined. For comparative purposes, no changes to the existing roadway network were assumed (including no changes in traffic control at any intersection/access point) for the No-Action condition analysis. Table 7 summarizes the results of the intersection levels of service for the No-Action analysis compared to the existing conditions. Detailed analysis of the LOS, with no changes to the existing access configuration and laneage of the roadways, is provided in Appendix H.

In the year 2035, the majority of driveways and intersections within the study limits will operate at LOS E or F during both AM and PM peak hours. These results indicate congestion levels on US 6 will continue to increase in the future and will result in poor operations, long delays, and an increase in the number of accidents. As traffic volumes increase, these conditions will only be worse if the number, design, and location of access locations along the study roadways are not controlled through the development of an ACP. These results also suggest US 6, the River Frontage Road, and 9th Street (I-70E) have insufficient capacity to service the projected future traffic volumes. It is likely the overall capacity of US 6, the River Frontage Road, and the I-70E/I-70 interchange will need to be increased in order to avoid extreme congested conditions in the future. The addition of a third lane (a two-way-left-turn-lane (TWLTL)) to be used for left turns in both directions may resolve some of the operational issues on US 6 and significantly delay in the need to widen US 6 with additional through lanes.

4.3 NO-ACTION (2035) ACCIDENT ANALYSIS

Although the exact number and frequency of accidents on the study roadways cannot be determined for the year 2035, the results of the future traffic analysis can be used to draw conclusions regarding the overall expected safety of the study roadways. With traffic volumes predicted to grow by significant amounts in the future, combined with a lack of sufficient capacity, the expected result will be an increase in the number and frequency of accidents along the roadways. This will result in a decrease in the safety for all users (motorists and pedestrians/bicyclists). Although the highway currently operates at a level that is above average for safety, the overall safety of the highway is expected to decrease for the No-Action (2035) conditions without the development and implementation of an ACP.

4.4 NO-ACTION (2035) ALTERNATIVE TRANSPORATION MODES

For the purposes of the No-Action analysis no significant changes were assumed to the pedestrian and transit facilities within the study area. Pedestrians would continue to use existing

facilities to move about the Town, but there would still be gaps in the system that would result in pedestrians having to walk or ride on the roadway to complete some trips. Transit facilities would remain in place and transit vehicles would be able to complete trips to and from the stops similar to existing conditions.

Table 7
Comparison of Existing (2009) to No-Action (2035) Intersection LOS

Intersection	Existing (2009)		No-Action (2035)	
	LOS		LOS	
US 6	**AM**	**PM**	**AM**	**PM**
Ukele Street	B	B	D	D
1st Street	B	B	F	F
2nd Street	B	B	D	E
3rd Street	B	B	F	F
4th Street	B	B	E	E
5th Street	B	B	D	F
6th Street	B	B	E	E
7th Street	B	B	F	F
8th Street	B	B	E	F
9th Street*	A	A	C	C
Domelby Court	B	B	F	F
16th Street	B	B	F	F
Lyon Drive	B	B	F	F
Davis Point	B	A	E	F
Mid Valley Road	A	A	C	C
River Frontage Road	**AM**	**PM**	**AM**	**PM**
9th Street	C	B	F	F
CR 311	B	A	D	F
9th Street	**AM**	**PM**	**AM**	**PM**
Eastbound Ramps	F	C	F	F
Westbound Ramps	B	C	F	F

**Existing control is a roundabout.*
Green is for intersections with LOS A or B
Yellow is for intersections with LOS C or D
Red are for intersections with LOS E or F

This page left blank intentionally.

5.0 ACCESS CONTROL TECHNIQUES

Several options exist that allow changes to the existing roadway configuration or geometry to assist in the management of the number, frequency, and location of intersections/driveways along a roadway. Each option provides a different means through which access can be managed along a roadway. In addition, each option has unique benefits and can be used in conjunction with other options to help improve traffic flow, operations, and safety while maintaining adequate access to the adjacent land uses. Figure 9 provides a schematic depicting some of the options for access control, which include:

- Elimination
- Conversion with median treatment
- Relocation
- Consolidation

5.1 APPLICATIONS OF ACCESS CONTROL TECHNIQUES ON US 6/RIVER FRONTAGE ROAD

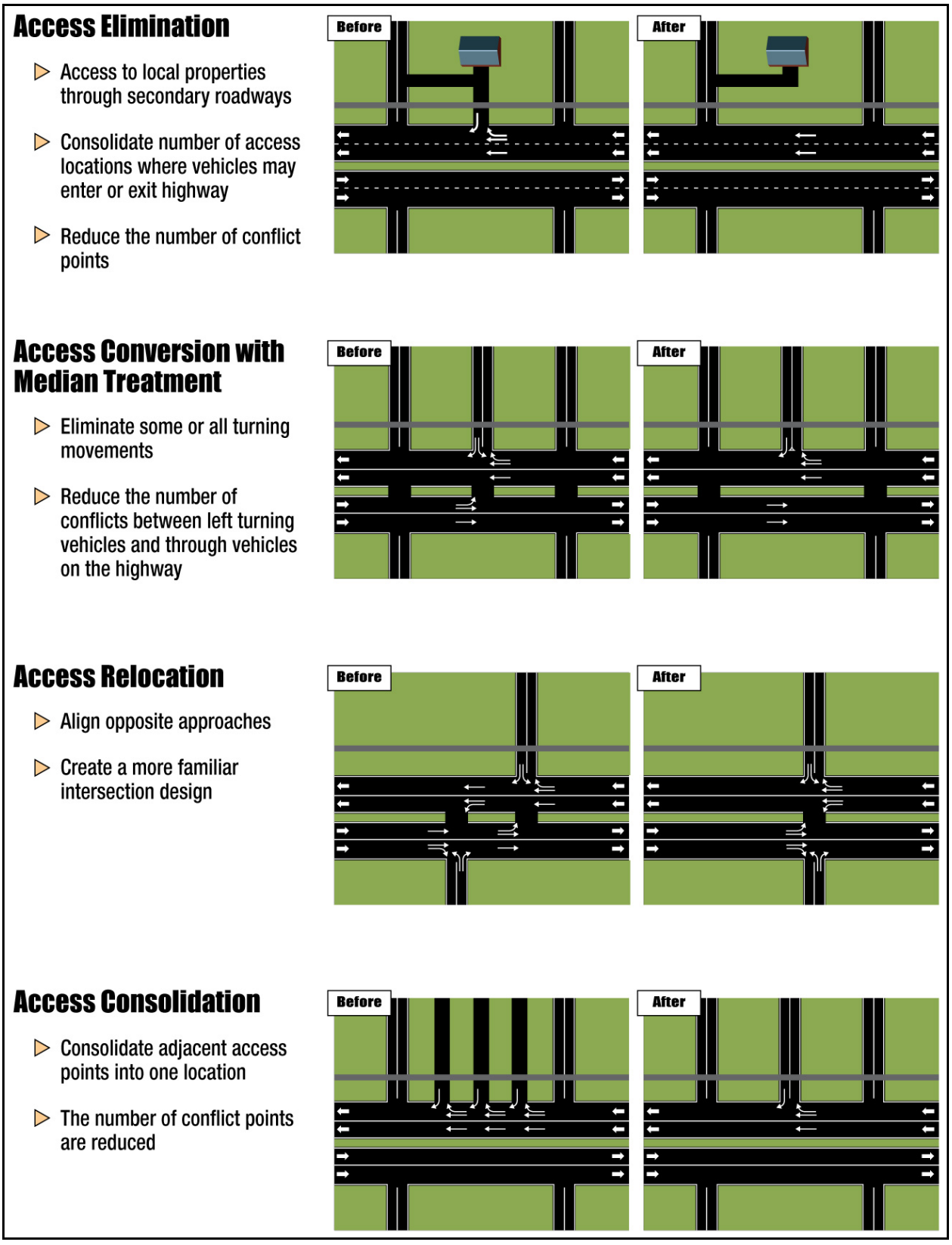
There are several areas along US 6 and the River Frontage Road where each of the access control methods can be applied. Access elimination is typically used at locations where a property has more than one access point. In order to meet the objectives of an ACP, to reduce the number of access points for safety and operational reasons, all properties adjacent to US 6 and the River Frontage Road should be limited to a single access in all locations where reasonable access to secondary roads is not possible.

The purpose of access conversion through the use of median treatments is to eliminate some or all turning movements in order to reduce the number of conflicts between left-turning vehicles and through vehicles on the highway. By creating ¾-movement accesses (left-turns are allowed into the driveways, but not out), the number of conflicts will be reduced. The drivers wanting to turn left from these locations can use secondary roads to travel to adjacent improved intersections where left-turns can be made, which are much safer than at un-improved locations. At other locations the drivers can make right-turns out of the approach roadways/driveways, travel to nearby improved intersections, and make a safe movement (u-turn or left turn) as provided for by the improved intersection.

Access relocation is an access control method that would either align opposite approaches to create a more familiar intersection design or move an existing access point to a new location. For example, some properties are situated close to existing or planned future roads and many of these properties currently have driveways with direct access to US 6 and the River Frontage Road. As development occurs or as new roads are constructed, many of these direct connection driveways can be closed and moved to align with the new roads. This will create better spacing of intersections and reduce the number of conflict points.

Finally, access consolidation is used to reduce the number of access points along the roadway. This approach to access control is typically used at locations along highways where adjacent property owners have individual driveways fairly close together (less than 50 feet apart). In these situations, the multiple driveways could be consolidated into a single point that is shared by adjacent properties to reduce conflicts, improve operations, and maintain adequate access to all properties. This approach is especially favorable for bicyclists traveling along the corridor on a bike path.

Figure 9
Access Control Methods



6.0 PUBLIC INVOLVEMENT PROCESS

The *State Highway Access Code* requires at least one advertised public meeting be held during the development of an ACP. For this particular ACP, a five-step public involvement process was followed:

1. Initial Public Open House
2. One-on-One Property Owner/Representatives Workshops
3. Second Public Open House
4. Website Postings
5. Presentations to Elected Officials

6.1 INITIAL PUBLIC OPEN HOUSE

The initial ACP public open house was held on July 23, 2009, at the Fire House in Silt. The open house was advertised via mailed postcards to property owners, business owners, and residents, as well as on the project website. The purpose of the open house was to introduce the study team, identify the study's purpose, process, and schedule, provide information about the methods and benefits of access management, present the draft ACP, and receive comments from stakeholders and the public. Representatives from the Town, County, CDOT, and the consulting team were on hand to answer questions from those in attendance. A copy of the meeting materials and received comments are contained in Appendix I of this report. The received comments were taken into consideration during the development of the recommended ACP.

In addition, this open house was used to identify individual property owners with the potential for the most significant impact caused by the proposed changes to access. Such property owners were provided the opportunity to meet one-on-one with the project team to discuss their access issues in more detail and to determine the final preferred access alternatives.

6.2 ONE-ON-ONE PROPERTY OWNER/REPRESENTATIVES WORKSHOPS

Several property owners/representatives were identified as needing additional time to discuss their specific access issues with the project team. To accommodate these individuals, one-on-one workshops were scheduled for August 19, 2009, at the Town Hall in Silt. Appendix J contains copies of letters sent to the participants of the one-on-one workshops, which summarize the discussion topics and agreements made during the meetings.

Staff from the Town, County, CDOT, and the consulting team was on hand at the meetings to present the draft ACP, listen to comments from the property owners, and when necessary to identify additional access alternatives to address the concerns of the property owners and ensure the goals of the project were met. The comments from the meetings were used to refine the draft ACP and develop a final proposed ACP. The following property owners/representatives took part in the workshops:

- Larry Antonelli
- Yancy Nichol
- Rick Ortega
- Robert Sjorgmen
- Douglas Wight

6.3 SECOND PUBLIC OPEN HOUSE

A second public open house was held on December 2, 2009**,** at the Fire House in Silt. The open house was advertised via mailed postcard invitation and on the project website. The purpose of the open house was to present basic information about what access control is, present the recommended access configuration for the study roadways, provide a project schedule, discuss how the plan would be implemented, and to gather comments and feedback from the public. Representatives from the Town, County, CDOT, and the consulting team were on hand to answer questions from the attendees. A copy of the meeting materials and received comments is in Appendix K of this report.

6.4 WEBSITE POSTINGS

A project website was developed for posting information regarding the status of the project, open house materials, and advertisements for upcoming open house meetings. The information was posted at http://www.dot.state.co.us/us6silt/index.cfm.

6.5 PRESENTATIONS TO ELECTED OFFICIALS

As part of the public involvement for this study, presentations to elected officials were completed. The purpose of the presentations was to provide information to the elected officials and to keep them informed about the progress of the project. Two different groups of elected officials were identified at the beginning of the project for these presentations; Town of Silt Board of Trustees (Board) and the Garfield County Board of County Commissioners (BOCC). Presentations to these groups were completed at the beginning and end of the project.

The first presentation was in July of 2009. This presentation focused on providing basic information about the purpose of the project, description of access control, possible recommendations, type of issues may be encountered, schedule for completing the project, and expectations of the Board and BOCC during the process. Members of the Board and BOCC were invited to attend the open houses for the project, as well as to visit the project web site to keep informed about decisions and other information that would be posted in the future.

The second presentation was completed in January 2010. This presentation focused on summarizing the study processes and recommendations prior to going to the public for the final open house. The Board and BOCC members were presented with a summary of the traffic analysis, recommended changes in access, possible future changes to the roadways in the area, and the public involvement elements of the project. Again, the elected officials were invited to attend the final open house or visit the project web site in an effort to remain informed regarding the project. In addition, the elected officials were presented with the next steps in the process to get the ACP adopted, and what their roles would be in the process.

7.0 ACCESS CONTROL PLAN RECOMMENDATIONS

The following sections present the recommended ACP based upon the results of the operational analysis, safety study, guidelines from the *State Highway Access Code*, and input from the public involvement process. The US 6/River Frontage Road ACP presented in this section contains the recommendations for the location of future access points as well as the type of traffic control at each intersection. In addition, no new access locations will be allowed along these sections of US 6, the River Frontage Road, or 9th Street (I-70E) without modification to the ACP.

7.1 ROADWAY SECTIONS AND ACCESS DESCRIPTIONS WITH ACP

The recommended access points are shown conceptually in Figure 10 through Figure 15. Appendix A contains a table with the actual ACP legal description for each access point including their location by mile point and the proposed ultimate access configuration.

The intent of this study was not to identify design elements of each access location, such as number, length, and types of auxiliary lanes, but rather to focus on where each access should be located and what type of turns should be allowed at each location. The exact design elements for each access would be completed through a study conducted at the time of the final design for any access or roadway improvement project. Based on the results of the future operational analysis and discussion with the Town, County, and CDOT staff, no additional capacity was added to US 6 or the River Frontage Road other than appropriate auxiliary lanes when necessary. 9th Street, or I-70E, was assumed to be expanded to a minimum of two lanes in each direction plus auxiliary lanes as necessary. For analysis purposes, the existing interchange configuration was analyzed and was found to be insufficient to accommodate future traffic volumes. This is a clear indication that the existing interchange will be in need of improvements before 2035. In fact, with the interchange already experiencing some operation issues under existing traffic volumes (2009, LOS F in the PM peak) it is very likely the existing interchange will be in need of improvements in the near future and especially as new development begins to occur. The Town, County and CDOT will need to undertake an interchange feasibility study and possibly an environmental study to identify alternatives, evaluate impacts, select a preferred alternative, design the improvements, identify funding, and construct the improvements. In order to evaluate the interchange, it was assumed that the interchange would be improved by 2030 and in order to keep traffic flowing in the traffic analysis model, a single-point-urban-interchange concept was used for evaluation purposes only in order to evaluate future conditions on the roadways in the study area. The exact interchange study and design of the improvements is beyond the scope of this ACP and no specific concept has been identified at this time.

It is important to keep in mind that the changes recommended in this study and the legal ACP documents in the appendix will only occur when a project is identified, when the need is identified based on a safety issue, when funding becomes available, or as redevelopment occurs. At the current time there are no identified state/federal projects or funds for the changes identified within this document. Development is on-going along the study roadways and may result in changes contained within this document occurring at any time in the future. The implementation of the plan is discussed in more detail in *Section 8.2 Plan Implementation*.

The figures presented in this document are simply for illustrative purposes only and are not to scale. The recommendations in this ACP are based on an ultimate configuration of the study roadways, which may include the need to install median treatments. The following sections provide a brief discussion on the ultimate recommended changes to access along the study roadways. For more details regarding the conditions for changes in access along with a description of the existing, interim, and recommended access conditions refer to the ACP table contained in Appendix A of this document.

Figure 10
Recommended Access Points (Sheet 1 of 6)

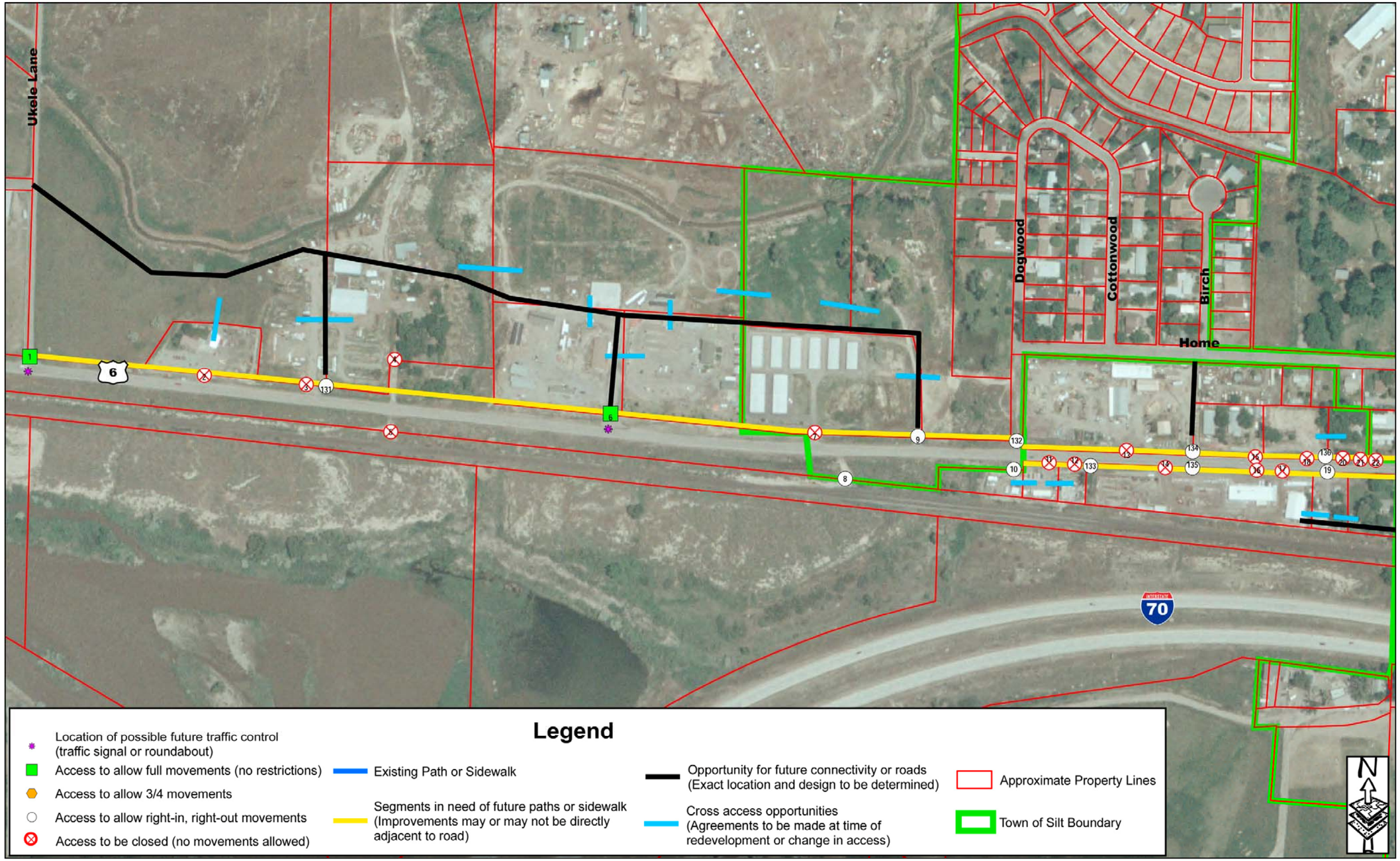


Figure 11
Recommended Access Points (Sheet 2 of 6)

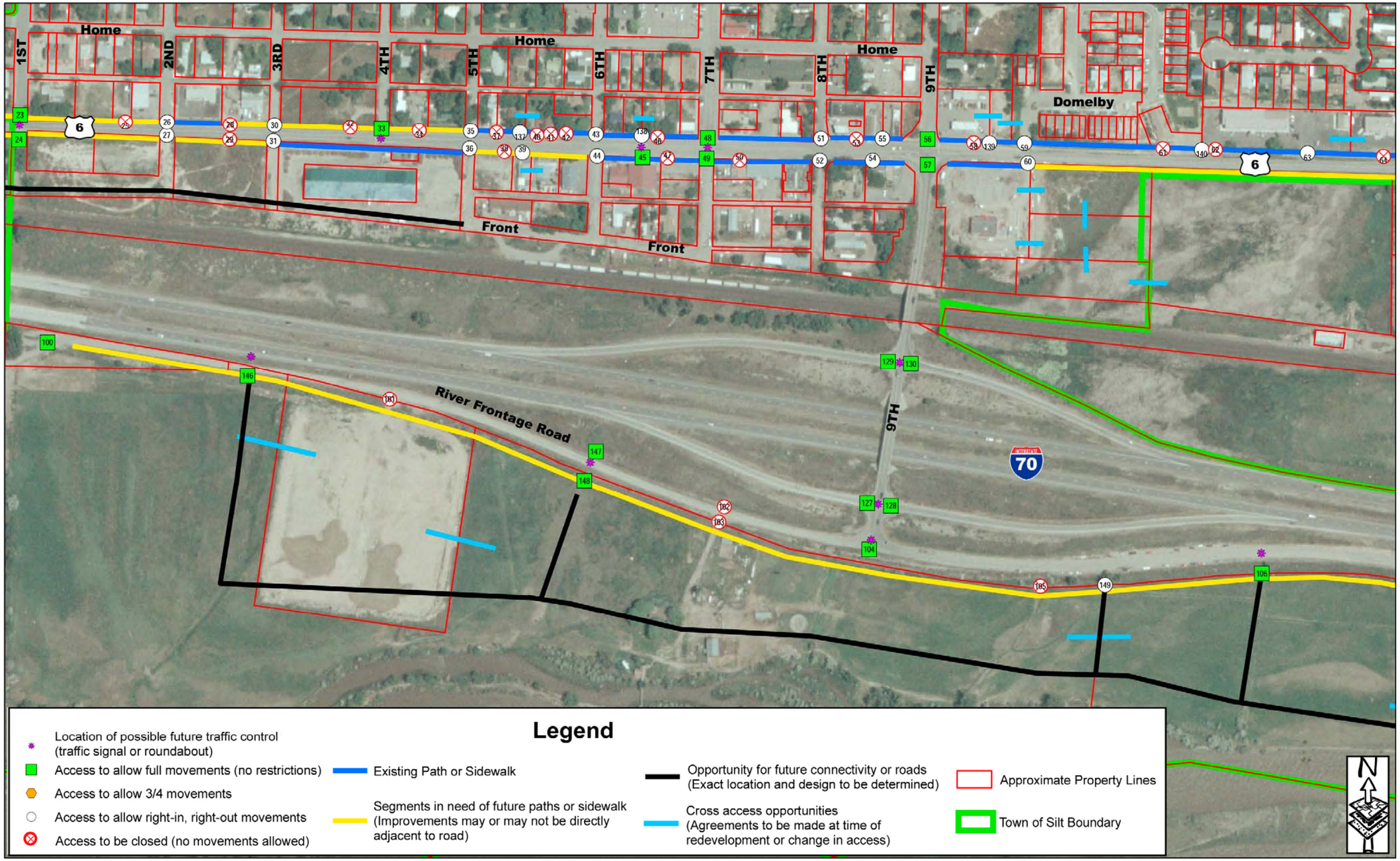


Figure 12
Recommended Access Points (Sheet 3 of 6)

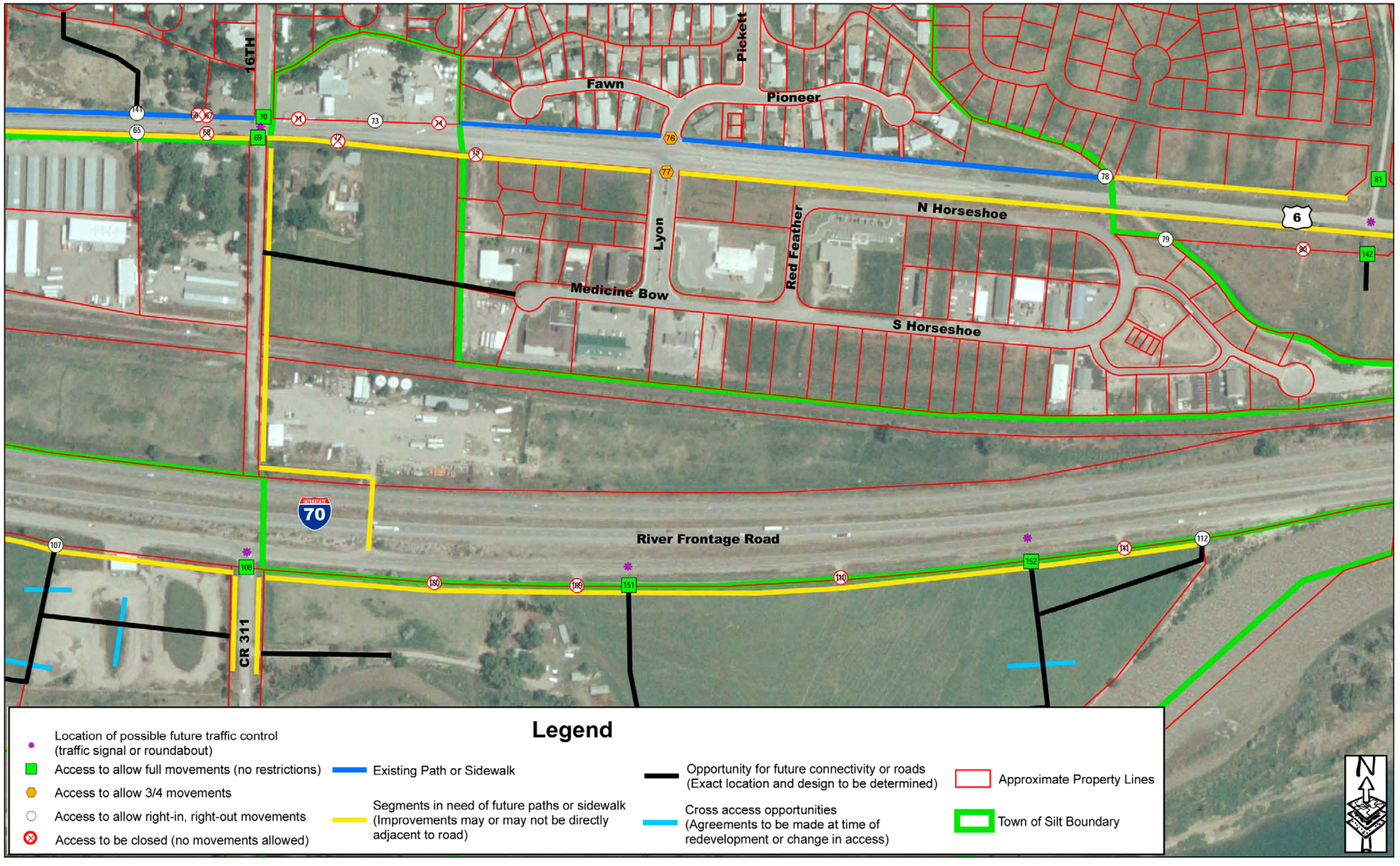


Figure 13
Recommended Access Points (Sheet 4 of 6)

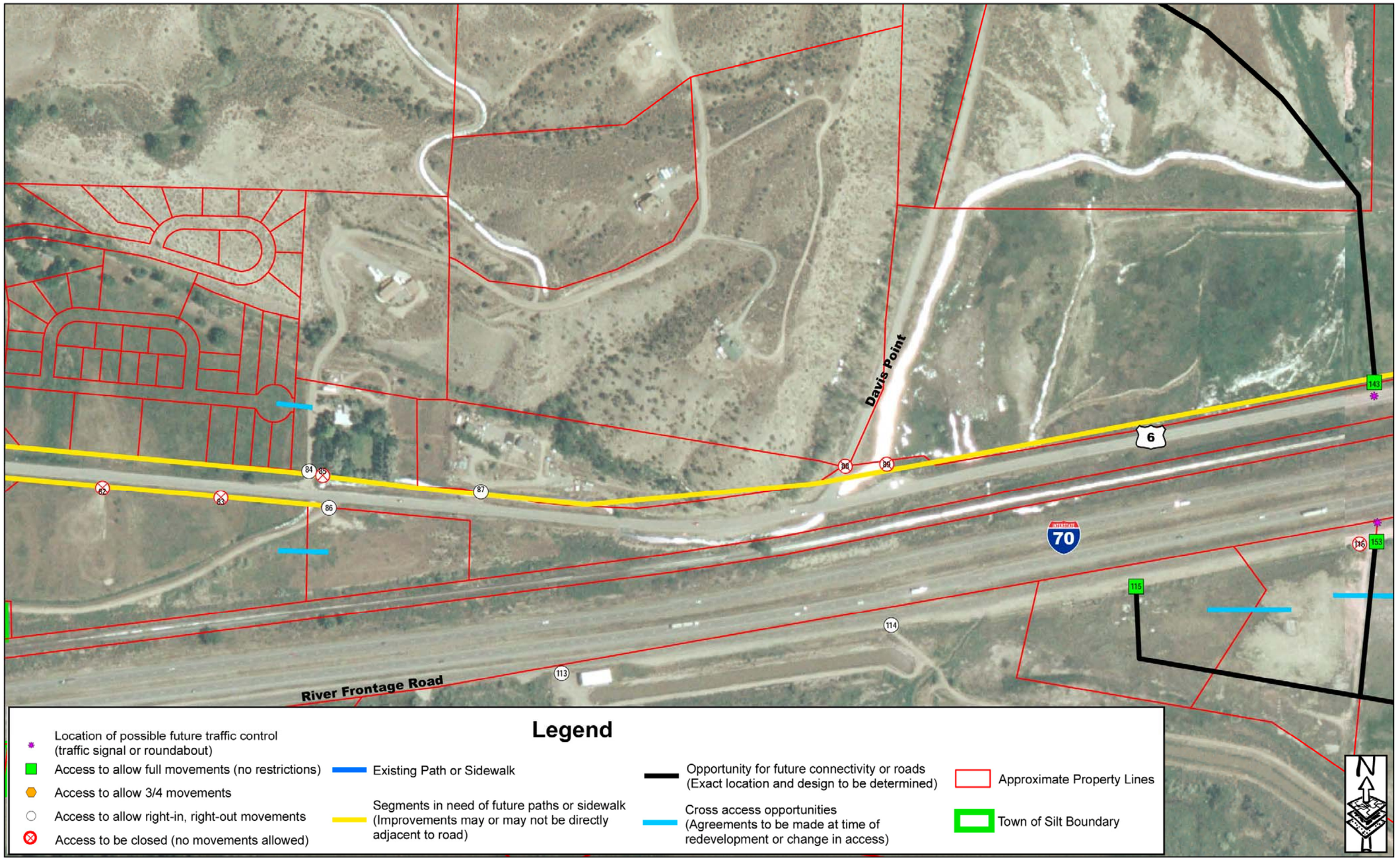


Figure 14
Recommended Access Points (Sheet 5 of 6)

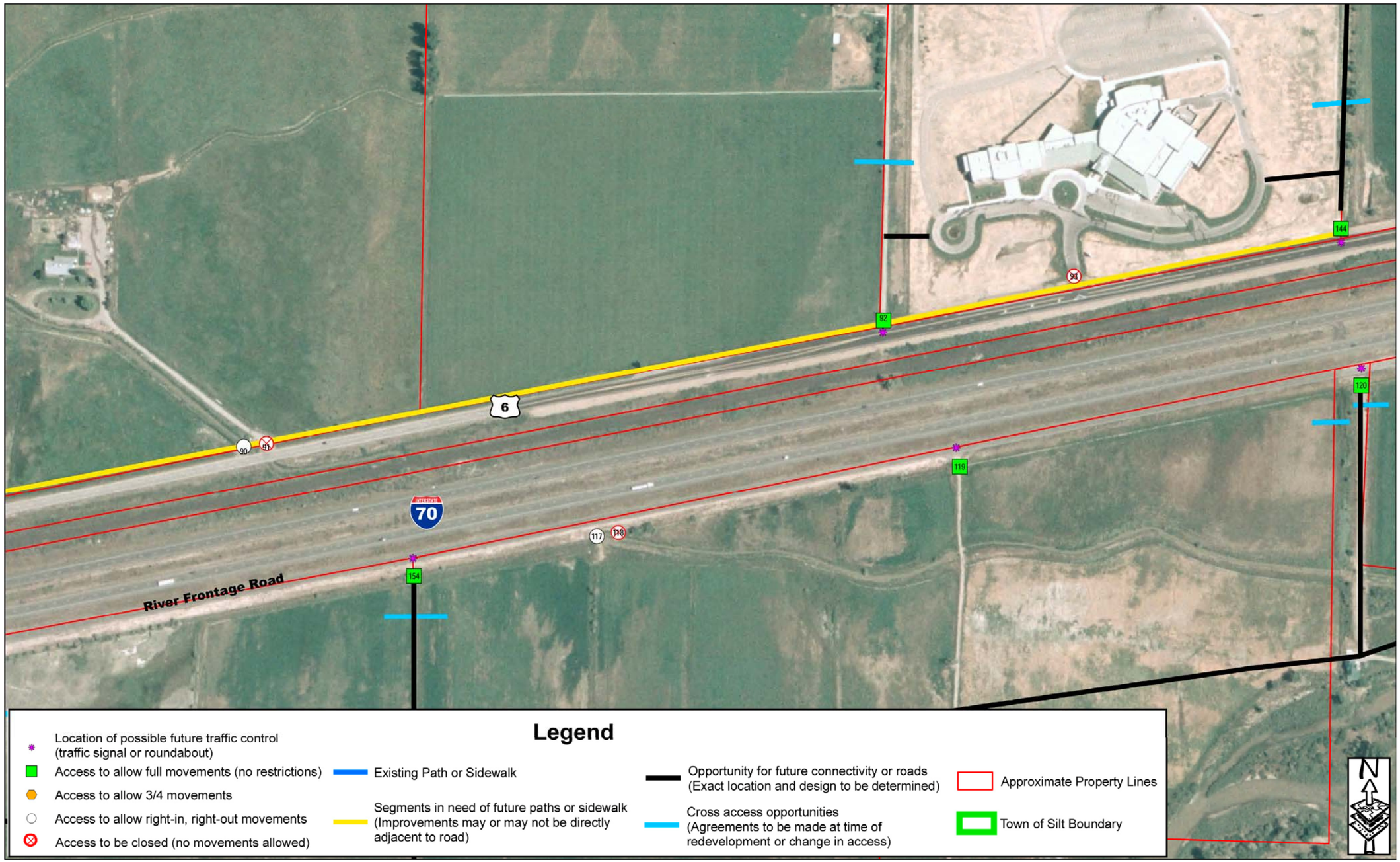
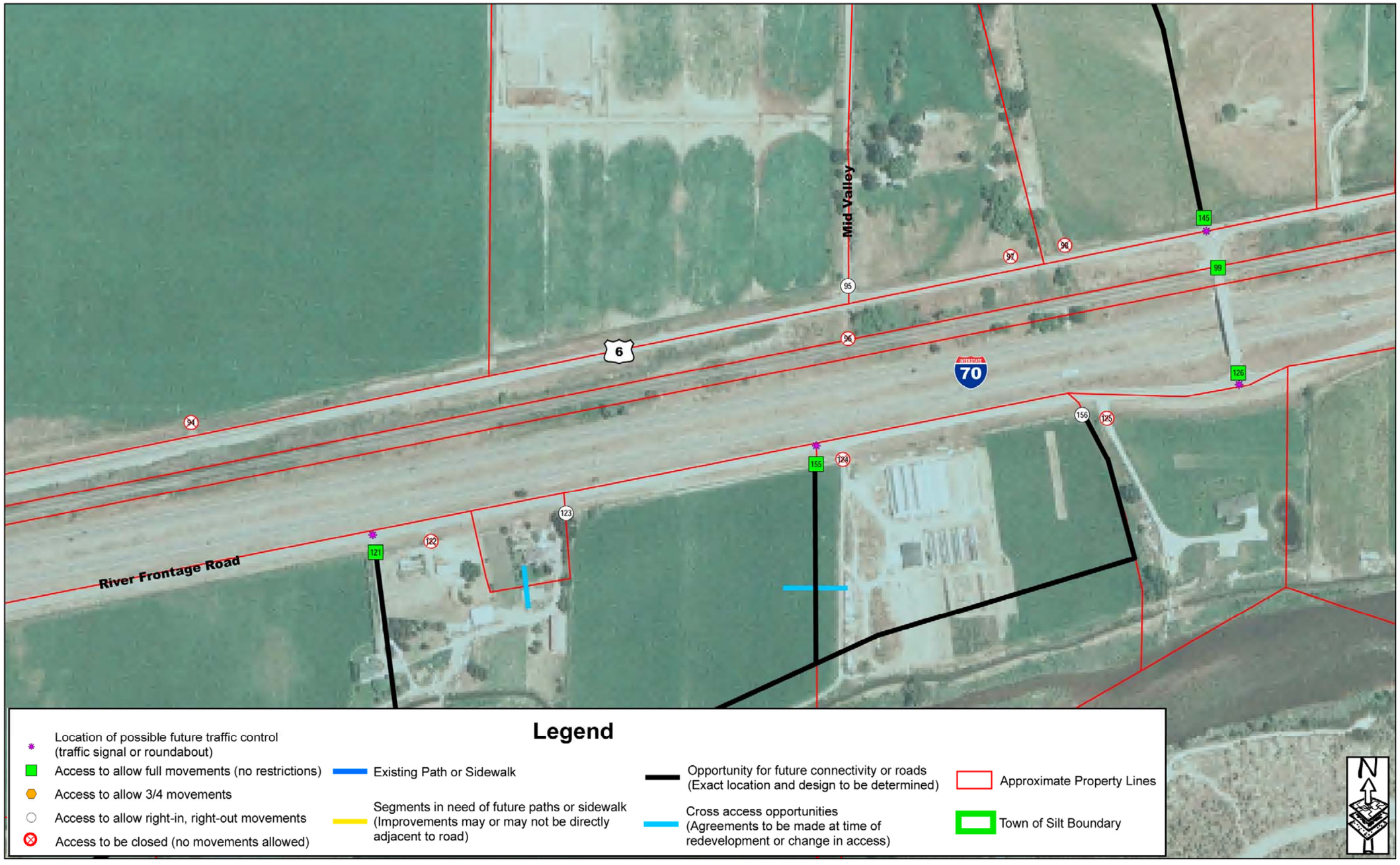


Figure 15
Recommended Access Points (Sheet 6 of 6)



7.1.1 Access for US 6 from Ukele Lane to 1st Street with ACP

This portion of US 6 will most likely remain one lane in each direction, but auxiliary lanes may need to be added at the critical access points, including Ukele Lane, new roads to be constructed in the future, Birch Street, and 1st Street. Depending on traffic volumes, this section of roadway may be a candidate for construction of a center shared two-way left-turn lane (TWLTL), in the interim, and eventually raised medians to prohibit left-turn movements as shown in the plan. The TWLTL would be eliminated as medians are constructed, but the pavement for the TWLTL could be utilized to construct the medians, add curbside parking, or converted to one direction left turn lanes.

- *Access 1 (Ukele Lane)* Intersection to remain a full-movement intersection. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 2:* Driveway to be closed.
- *Access 3:* Driveway to be closed.
- *Access 131:* A new shared public roadway to the north of US 6 is to be restricted to right-in, right-out movements.
- *Access 4:* Driveway to be closed.
- *Access 5:* Field access to be to be restricted to right-in, right-out movements and be restricted to railroad access only.
- *Access 6:* Driveway to remain a full-movement and become a public roadway. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 7:* Driveway to be closed.
- *Access 8:* Field access to be restricted from a full-movement intersection to right-in, right-out movements.
- *Access 9:* Full-movement driveway to become a public roadway and to be restricted to right-in, right-out movements.
- *Access 132 (Dogwood Street):* A new access on the north side of US 6 and it is to be restricted to right-in, right-out movements.
- *Access 10:* Full-movement driveway to be restricted to right-in, right-out movements.
- *Access 11:* Driveway to be closed.
- *Access 12:* Driveway to be closed.
- *Access 133:* A new shared access to the south of US 6 is to be restricted to right-in, right-out movements.
- *Access 13:* Driveway to be closed.
- *Access 14:* Driveway to be closed.
- *Access 134: (Birch Street):* This new public roadway to the north of US 6 and it is to be restricted to right-in, right-out movements.
- *Access 135:* A new driveway to the south of US 6 is to be restricted to right-in, right-out movements.
- *Access 15:* Driveway to be closed.
- *Access 16:* Driveway to be closed.
- *Access 17:* Driveway to be closed.
- *Access 18:* Driveway to be closed.

- *Access 136:* A new shared access to the north of US 6 is to be restricted to right-in, right-out movements.
- *Access 19:* Full-movement driveway to be restricted to right-in, right-out movements.
- *Access 20:* Driveway to be closed.
- *Access 21:* Driveway to be closed.
- *Access 22:* Driveway to be closed.

7.1.2 Access for US 6 from 1st Street to 9th Street with ACP

This portion of US 6 between 1st Street and 5th Street may remain one lane in each direction, but auxiliary lanes may need to be added at the critical access points, including 1st Street and 4th Street. Depending on traffic volumes, this section of roadway may be a candidate for construction of a center TWLTL, in the interim, and eventually raised medians to prohibit left-turn movements as shown in the plan. The section of roadway between 5th Street and 7th Street is a candidate for one lane in each direction plus a center TWLTL, in the interim, with auxiliary lanes at 7th Street. Medians may need to be constructed in the future to prohibit left-turns as shown in the plan. The portion between 7th Street and 9th Street will need to remain a four lane cross section (two lanes in each direction). Again, the TWLTL would be eliminated as medians are constructed, but the pavement for the TWLTL could be utilized to construct the medians, add curbside parking, or converted to one direction left turn lanes.

- *Access 23 (Southbound approach of 1st Street):* Public roadway to remain a full-movement intersection. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 24 (Northbound approach of 1st Street):* Public roadway to remain a full-movement intersection. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 25:* Driveway to be closed.
- *Access 26 (Southbound approach of 2nd Street):* Full-movement public roadway to be restricted to right-in, right-out movements.
- *Access 27 (Northbound approach of 2nd Street):* Full-movement public roadway to be restricted to right-in, right-out movements.
- *Access 28:* Driveway to be closed.
- *Access 29:* Driveway to be closed.
- *Access 30 (Southbound approach of 3rd Street):* Full-movement public roadway to be restricted to right-in, right-out movements.
- *Access 31 (Northbound approach of 3rd Street):* Full-movement public roadway to be restricted to right-in, right-out movements.
- *Access 32:* Driveway to be closed.
- *Access 33 (4th Street):* Full-movement public roadway to remain a full-movement intersection. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 34:* Driveway to be closed.
- *Access 35 (Southbound approach of 5th Street):* Full-movement public roadway to be restricted to right-in, right-out movements.

- *Access 36 (Northbound approach of 5th Street):* Full-movement public roadway to be restricted to right-in, right-out movements.
- *Access 37:* Driveway to be closed.
- *Access 38:* Driveway to be closed.
- *Access 39:* Driveway to be restricted to right-in, right-out movements.
- *Access 137:* A new shared access to the north of US 6 is to be restricted to right-in, right-out movements.
- *Access 40:* Driveway to be closed.
- *Access 41:* Driveway to be closed.
- *Access 42:* Driveway to be closed.
- *Access 43 (Southbound approach of 6th Street):* Full-movement public roadway to be restricted to right-in, right-out movements.
- *Access 44 (Northbound approach of 6th Street):* Full-movement public roadway to be restricted to right-in, right-out movements.
- *Access 138:* A new shared driveway to the north of US 6 is to be restricted to right-in, right-out movements.
- *Access 45:* Emergency services access to remain full-movement with the possibility of an emergency vehicle traffic signal in the future.
- *Access 46:* Driveway to be closed.
- *Access 47:* Driveway to be closed.
- *Access 48 (Southbound approach of 7th Street):* Full-movement public roadway to remain a full-movement intersection. A traffic signal or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 49 (Northbound approach of 7th Street):* Full-movement public roadway to remain a full-movement intersection. A traffic signal or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 50:* Driveway to be closed.
- *Access 51 (Southbound approach of 8th Street):* Full-movement public roadway to be restricted to right-in, right-out movements.
- *Access 52 (Northbound approach of 8th Street):* Full-movement public roadway to be restricted to right-in, right-out movements.
- *Access 53:* Driveway to be closed.
- *Access 54:* Driveway to be restricted to right-in, right-out movements.
- *Access 55:* Driveway to be restricted to right-in, right-out movements.

7.1.3 Access for US 6 from 9th Street to 16th Street with ACP

The portion of US 6 between 9th Street and Domelby Court will require two lanes in each direction to accomodate future traffic volumes. From Domelby Court to 16th Street, US 6 may be one lane in each direction with auxiliary turn lanes at Domelby Court and 16th Street as necessary in the future. This section is a candidate for construction of a center TWLTL, in the interim, and eventually raised medians to prohibit left-turn movements as shown in the plan. Again, the TWLTL would be eliminated as medians are constructed, but the pavement for the TWLTL could be utilized to construct the medians, add curbside parking, or converted to one direction left turn lanes.

- *Access 56 (Southbound approach of 9th Street):* Full-movement public roadway to remain a full-movement intersection. A traffic signal or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 57 (Northbound approach of 9th Street):* Full-movement public roadway to remain a full-movement intersection. A traffic signal or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 58:* Driveway to be closed.
- *Access 139:* A new shared driveway to the north of US 6 is to be restricted to right-in, right-out movements.
- *Access 59 (Domelby Drive):* Full-movement public roadway to be restricted to right-in, right-out movements.
- *Access 60:* Driveway to be restricted to right-in, right-out movements.
- *Access 61:* Driveway to be closed.
- *Access 140:* A new shared driveway to the north of US 6 is to be restricted to right-in, right-out movements.
- *Access 62:* Driveway to be closed.
- *Access 63:* Driveway to be restricted to right-in, right-out movements.
- *Access 64:* Driveway to be closed.
- *Access 141: (Autumn Lane):* A new public roadway to the north of US 6 is to be restricted to right-in, right-out movements.
- *Access 65:* Full-movement driveway to be restricted to right-in, right-out movements.
- *Access 66:* Driveway to be closed.
- *Access 67:* Driveway to be closed.
- *Access 68:* Driveway to be closed.

7.1.4 Access for US 6 from 16th Street to Davis Point Road with ACP

This section of US 6 may remain with its current configuration with the exception of adding auxiliary lanes at 16th Street. This section is a candidate for construction of a center TWLTL, in the interim, and eventually raised medians to prohibit left-turn movements, as shown in the plan. Again, the TWLTL would be eliminated as medians are constructed, but the pavement for the TWLTL could be utilized to construct the medians, add curbside parking, or converted to one direction left turn lanes.

- *Access 69 (Southbound approach of 16th Street):* Public roadway to remain a full-movement intersection. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 70 (Northbound approach of 16th Street):* Public roadway to remain a full-movement intersection. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 71:* Driveway to be closed.
- *Access 720:* Driveway to be closed.
- *Access 73:* Full-movement driveway to be restricted to right-in, right-out movements.
- *Access 74:* Driveway to be closed.
- *Access 75:* Field access to be closed.

- *Access 76 (Southbound approach of Pioneer Drive):* Full-movement public roadway may be restricted to three-quarter or right-in, right-out movements.
- *Access 77 (Northbound approach of Lyon Boulevard):* Full-movement public roadway may be restricted to three-quarter or right-in, right-out movements.
- *Access 78:* Ditch access to be restricted to right-in, right-out movements and be restricted to ditch access only.
- *Access 79:* Ditch access to be restricted to right-in, right-out movements and be restricted to ditch access only.
- *Access 80:* Field access to be closed.
- *Access 81 (Overo Boulevard):* Full-movement public roadway to remain a full-movement intersection. A traffic signal or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 142:* A new public roadway to remain a full-movement intersection. A traffic signal or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 82:* Field access to be closed.
- *Access 83:* Field access to be closed.
- *Access 84:* Driveway to be restricted to right-in, right-out movements and to be closed when access is obtained through Painted Pastures to Overo Boulevard.
- *Access 85:* Field access to be closed.
- *Access 86:* Driveway to be restricted to right-in, right-out movements.
- *Access 87:* Driveway to be restricted to right-in, right-out movements.

7.1.5 Access for US 6 east of Davis Point Road with ACP

This portion of US 6 may remain one lane in each direction with auxiliary lanes constructed when necessary at locations such as Davis Point Road, Mid-Valley Road, or the bridge over I-70. This section is a candidate for construction of a center TWLTL, in the interim, and eventually raised medians to prohibit left-turn movements as shown in the plan. Again, the TWLTL would be eliminated as medians are constructed, but the pavement for the TWLTL could be utilized to construct the medians, add curbside parking, or converted to one direction left turn lanes.

- *Access 88 (Davis Point Road):* Full-movement public roadway to be closed when roadway is realigned to access location #143.
- *Access 89:* Ditch access to be restricted to right-in, right-out movements and be restricted to ditch access only.
- *Access 143 (Davis Point Road):* The new alignment for Davis Point Road to allow full-movements. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 90:* Field access to be restricted to right-in, right-out movements and closed if and when access to ditch is no longer necessary.
- *Access 91:* Driveway to be closed.
- *Access 92:* Driveway to be converted to a full-movement public roadway. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 93 (Coal Ridge High School):* Driveway to be closed.

- *Access 144:* One new full-movement public roadway access to the north of US 6 to be permitted at access location #144 or access location #94. A traffic signal, roundabout, or other traffic control is possible at the full movement access location if need is shown based on operational and/or safety issues.
- *Access 94:* One new full-movement public roadway access to the north of US 6 to be permitted at access location #144 or access location #94. A traffic signal, roundabout, or other traffic control is possible at the full movement access location if need is shown based on operational and/or safety issues. *Access 95(Southbound approach of Mid Valley Lane):* Full-movement public roadway to be restricted to right-in, right-out movements when #145 occurs. If access location #145 does not occur then this location may remain full movement and a traffic signal, roundabout, or other traffic control is possible at the full movement access location if need is shown based on operational or safety issues.
- *Access 96:* Field access to be closed.
- *Access 97:* Field access to be closed.
- *Access 98:* Field access to be closed.
- *Access 145:* A new full-movement public roadway to the north of US 6. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 99(Northbound approach of I-70 Overpass):* Full-movement public roadway to remain and a traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.

7.1.6 Access for River Frontage Road with ACP

The portion of the River Frontage Road from the western project limits to just east of CR 311 (location where the Colorado River abuts the roadway) may remain one lane in each direction with appropriate auxiliary lanes at all access points including 9th Street and CR 311. Medians may need to be constructed to prevent left-turns in this section. There is insufficient information at the time of this study to determine appropriate laneage for the remaining portions of the River Frontage Road. Due to potential development this roadway may require improvements including auxiliary turn lanes at access points, a TWLTL, and medians to restrict left-turns as shown in the plan. Again, the TWLTL would be eliminated as medians are constructed, but the pavement for the TWLTL could be utilized to construct the medians, add curbside parking, or converted to one direction left turn lanes.

- *Access 100:* This is the location where CDOT right-of-way ends and ther roadway continues under local jurisdictional control. No change to access is anticipated to occur at this location, but the roadway may require redesign to improve operations based on operational and/or safety issues.
- *Access 146:* A new public roadway to the south of the River Frontage Road to allow full-movements. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 101:* Field access to be closed.
- *Access 147:* A new full-movement driveway to the north the River Frontage Road. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.

- *Access 148:* A new full-movement public roadway to the south of the River Frontage Road. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 102:* Driveway to be closed.
- *Access 103:* Driveway to be closed.
- *Access 104 (9th Street):* Full-movement public roadway to remain. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 105:* Field access to be closed.
- *Access 149:* A new public roadway to the south of the River Frontage Road is to be restricted to right-in, right-out movements.
- *Access 106:* A new full-movement public roadway to the south of the River Frontage Road. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 107:* Full-movement driveway to be restricted to right-in, right-out movements.
- *Access 108 (CR 311):* Full-movement intersection to remain. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 150:* Permitted driveway to be closed.
- *Access 109:* Driveway to be closed.
- *Access 151:* A new full-movement driveway to the south of the River Frontage Road. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 110:* Field access to be closed.
- *Access 152:* A new full-movement driveway to the south of the River Frontage Road. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 111:* Driveway to be closed.
- *Access 112:* Full-movement driveway to remain until operational, safety issues, or operational issues are identified at which time the driveway will be restricted to right-in, right-out movements.
- *Access 113:* Driveway to be restricted to right-in, right-out movements.
- *Access 114:* Driveway to be restricted to right-in, right-out movements.
- *Access 115:* Full-movement driveway to remain.
- *Access 116:* Field access to be closed.
- *Access 153:* A new full-movement access to the south of the River Frontage Road. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 154:* A new full-movement access to the south of the River Frontage Road will allow full-movements. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 117:* Ditch access to be restricted to right-in, right-out movements and be restricted to ditch access only.
- *Access 118:* Field access to be closed.

- *Access 119:* Full-movement driveway to remain. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 120:* Full-movement driveway to remain. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 121:* Full-movement driveway to remain. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 122:* Driveway to be closed.
- *Access 123:* Full-movement driveway to be restricted to right-in, right-out movements.
- *Access 155:* A new full-movement access to the south of the River Frontage Road. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.
- *Access 124:* Driveway to be closed.
- *Access 156:* A new shared access on the property lines will be restricted to right-in, right-out movements to the south of the River Frontage Road.
- *Access 125:* Driveway to be closed when access #156 occurs and access to be gained from shared access #156.
- *Access 126(Southbound approach of I-70 Overpass):* Full-movement intersection to remain. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.

7.1.7 Access for 9th Street from US 6 to the River Frontage Road with ACP

The section of 9th Street (I-70E) between US 6 and the River Frontage Road basically provides access between I-70 and the other roadways. This segment of roadway may require significant improvements based on future traffic volumes. A separate traffic study will be required to identify proper changes to the roadway laneage and ramp intersections that will best meet the needs of the Town, County, and CDOT.

- *Access 127 to 130:* Full-movement for all ramp intersections to remain, but design of interchange may change. A traffic signal, roundabout, or other traffic control is possible at this location if need is shown based on operational and/or safety issues.

7.2 INTERSECTION LOS ANALYSIS WITH ACP

Once the final configuration for each access point was identified, another LOS analysis was conducted. This LOS analysis reflects the proposed access changes to the study roadways. The Synchro model was updated to reflect the final ACP configuration. For the intersections being converted to roundabouts, the roundabouts were designed for LOS C. Table 8 contains the intersection LOS and detailed analysis of the future LOS with the recommended access changes is provided in AppendixL.

The results of the analysis of future traffic volumes with the recommended ACP show the majority of intersections and arterials are projected to operate at better LOS than if no ACP is implemented.

Table 8
Comparison of No-Action (2035) and With ACP (2035) Intersection LOS

Intersection	No-Action (2035)		With ACP (2035)	
	LOS		LOS	
US 6	**AM**	**PM**	**AM**	**PM**
Ukele Street	D	D	A**	A**
1st Street	F	F	C**	B**
2nd Street	D	E	B	C
3rd Street	F	F	C	C
4th Street	E	E	A**	A**
5th Street	D	F	B	C
6th Street	E	E	C	C
7th Street	F	F	C**	B**
8th Street	E	F	C	B
9th Street*	C	C	C	C
Domelby Court	F	F	D	E
16th Street	F	F	C	C
Lyon Drive	F	F	B**	C**
Davis Point	E	F	C***	C***
Mid Valley Road	C	C	C	C
River Frontage Road	**AM**	**PM**	**AM**	**PM**
9th Street	F	F	B**	C**
CR 311	D	F	B**	A**
9th Street	**AM**	**PM**	**AM**	**PM**
I-70 Eastbound Ramps	F	F	C****	C****
I-70 Westbound Ramps	F	F		

**Existing control is a roundabout.*
***Addition of a traffic signal and auxiliary lanes.*
****Future roundabout for traffic control.*
*****A single point urban interchange concept was assumed for analysis purposes only.*
Green is for intersections with LOS A or B
Yellow is for intersections with LOS C or D
Red are for intersections with LOS E or F

7.3 ACCIDENT ANALYSIS WITH ACP

Although future accidents cannot be accurately predicted, the recommendations of the ACP will have an impact on the overall safety of the study roadways by reducing the number of conflict points and providing better traffic control at intersections.

The ACP will have an impact on safety because the recommendations result in a reduction in the number of conflict points along the study roadways. A conflict point is the location where the

paths of two roadway users (vehicles, pedestrians, or bicyclists) cross each other. The ACP makes recommendations that reduce the number of locations where paths of the different users cross each other. Examples of conflict point reductions include:

- Conversion of access from full-movement to right-in, right-out
- Restriction of access from full-movement to ¾-movement
- Combining multiple access driveways into a single shared driveway

All of these eliminate conflict points along the roadways. By reducing the number of possible conflict points along a roadway, fewer accidents are expected to occur resulting in a safer roadway. Pedestrians and bicyclists will have fewer intersections to cross and locations where they will not have to worry about left-turning vehicles.

The ACP also identifies several intersections that may require a change in traffic control such as the installation of a traffic signal or roundabout in the future. The changes in traffic control can have a positive impact on the overall safety of a roadway. While traffic signals may result in a higher number of rear-end accidents, they also provide an opportunity to reduce the number of more severe accidents by providing protection for left-turning movements. Traffic signals also provide a safer crossing opportunity for pedestrians/bicyclists as they will be able to cross the roadway with the protection of the signal. Roundabouts also provide a much safer intersection experience for vehicle operations as they reduce the severity of crashes while providing a safe location for drivers to make left-turns or u-turns to reach their destinations. Roundabouts reduce vehicle speeds and reduce the overall width of the roadway (no auxiliary lanes are required) that the pedestrian/bicyclists must cross, they do provide some safety benefits for pedestrians and bicyclists as well.

The recommendations for changes to access along US 6 and the River Frontage Road should have an overall benefit to the safety of the study roadways in the future. Even as traffic volumes continue to increase, the reduction in conflict points and the introduction of better traffic control along the study roadways will have a positive impact on the overall safety for the different modes of transportation.

7.4 ALTERNATIVE TRANSPORTATION MODES WITH ACP

The recommendations and conclusions contained in the US 6/River Frontage Road ACP do not prohibit future improvements to the transit, bicycle, and pedestrian facilities in and around the Town.

Although not specifically addressed in the ACP, Figure 10 through Figure 15 shows areas where the Town should attempt to improve the pedestrian/bicyclist facilities along US 6 and the River Frontage Road. Due to the significant increase in traffic projected for these roads, the current sidewalk/pathway system is inadequate with many deficiencies. The current deficiencies include gaps in connectivity, a lack of clearly marked crosswalks, a lack of ADA compliant ramps, and a lack of marked or designated bike ways. If the deficiencies in the facilities are not addressed, the overall safety for bicycle and pedestrian use will decrease. The ACP does identify areas where new sidewalks/pathways should be added to the system to eliminate gaps and improve safety. In the area where new facilities are needed, it is not necessary that the facilities be constructed directly adjacent to the roadway, but that as development occurs the Town should work with the

property owner to ensure that the final design does provide for pedestrian facilities to be constructed. The facilities may be along the back of the property or through the middle of the property, as long as the gaps are eliminated. In addition, the Town should look for ways to provide north-south connectivity across I-70. One option is to make use of the existing agriculture crossing that currently exists just the east of 16th Street/CR 311. Construction of sidewalks/pathways to get users to this crossing could result in pedestrians walking/riding back and forth between the existing developed areas of Town north of I-70 to future planned development south of I-70.

Improvements to the pedestrian/bicycle path system should be accomplished through the development/redevelopment process and should be a requirement for inclusion before projects are accepted or notice to occupy is issued. The Town, County, and CDOT should work together to make sure that roadway improvements within the study area include improvements to existing facilities or addition of new facilities in an effort to:

- Meet the Town's goals
- Complete connectivity in and through the area
- Encourage alternative modes of transporation
- Provide safe and efficient movements of non-motorized movements in the area

The Roaring Fork Transit Authority (RFTA) participated in the project during the early development phase of the project and provided thoughts regarding possible impacts to transit service in the area. Some of the critical comments provided by RFTA included:

- Better connectivity of pedestrian/bicycle facilities to stops
- Bus pull out areas to be constructed at stops
- Roadway improvements should not hinder bus operations

Although these issues are not specifically addressed in an ACP, they are important issues that should be planned for as this area continues to grow and develop. The recommendations contained in the ACP would not prohibit the improvements that would address RFTA's concerns. As previously discussed, improvements to the sidewalks/pathways to eliminate gaps and provide better connectivity would not only improve safety, but could promote the use of transit services and help reduce the volume of traffic on the study roadways. Future improvements to the study roadways could be designed to provide bus pull outs, which would improve safety for the buses and the transit riders as they enter and exit the bus. Finally, transit vehicles are on schedules and with the introduction of traffic control devices such as traffic signals and/or roundabouts, there is the potential to introduce delay for the transit vehicles. However, proper design of roadway laneage, roundabout sizing, and signal timing could be accomplished in a manner to minimize possible delay to transit vehicles and thus not hinder operations or scheduling of services.

It should be noted the Town of Silt desires to maintain a friendly environment for alternative modes of transportation, especially pedestrians and bicyclists. While the development of an ACP is anticipated to have many benefits for automobile traffic, the Town gives equal importance to the circulation of alternative modes. Implementation of the ACP should consider methods such as colored crosswalks, safe crossings at signalized intersections, separated/protected areas for crossing over/under busy roadways or waterways, signage to encourage roadway sharing, and

implementation of bicycle lanes all have the potential to assist the Town in achieving the goals as set forth in the Town's Comprehensive Plan.

7.5 FUTURE ROADWAY CONNECTIVITY

Figure 10 through Figure 15 include opportunities for roadways that would help improve the overall connectivity of the transportation system. These new roads were identified based on future developments, input from stakeholders, and in an effort to provide drivers with choices on how to get to their final destinations so that traffic loads can be spread out over more roads in an effort to extend the life span of the existing system. The future roadways displayed in the figures are simply concepts of where more connectivity could occur in the future. The exact location and design of these roadways would need to be determined by completion of a more detailed traffic analysis at the time of the improvements. It should be noted the potential future roadways shown on the ACP should be included in the on-going Master Transportation Plan being completed by the Town at the time of this report.

8.0 NEXT STEPS

This document describes the process of developing the US 6/River Frontage Road ACP. There are several important steps that need to occur in the short term and long range to ensure the study roadways realizes the maximum benefit of the recommended ACP. These next steps start with the approval process.

8.1 APPROVAL PROCESS

Before the study roadways can begin to benefit from the recommendations of the ACP, a few important events must occur.

1. Inter-governmental Agreement (IGA) – All parties must develop and agree to an IGA. (See Appendix B for a copy of the draft IGA)
2. Plan Approval – The ACP must be approved by each entity and adopted by resolution. This includes the Town of Silt Board of Trustees and the Garfield County Commissioners..
3. Plan Adoption - Town of Silt and Garfield County must sign the IGA.
4. Plan briefing to the State Transportation Commission.
5. Approval by the Chief Engineer of the Department of Transportation, which puts the plan into law.

Once the ACP is officially adopted by the Town, County, and CDOT, the adopted ACP becomes the basis for future decisions on site access. The current US 6/River Frontage Road ACP, as identified in this document, does not have any implementation timing or schedule.

8.2 PLAN IMPLEMENTATION

It is important to remember that the ACP is intended to represent a long range plan for the study roadways. Implementation of the full plan can occur as a single project, or over the long term in smaller increments as a phased approach. Refer to Figure 16 for a flow chart that provides details about how the ACP may be implemented over time as a phased approach.

Implementation of the full plan at a single time is unlikely to be feasible and would only occur as part of a transportation improvement project that included all of the study roadways. This would be a publicly funded project by any combination of Town, County, and CDOT. A future public project would include the access changes described in the ACP, which could be implemented at the time. There are currently no projects planned for the portions of US 6, the River Frontage Road, or 9th Street (I-70E) contained within the study area. This means there is not a project on the Long Range Transportation Plan, the Fiscally Constrained Plan, or the currently funded Statewide Transportation Improvement Plan. The Town of Silt and Garfield County do not have any projects budgeted at this time either, which makes a corridor wide project in the near future unlikely. Highway projects take many years to identify, fund, and construct. Under this scenario, it would be the government's responsibility to make the access changes to the highway. Even with a public corridor project, it would be unlikely that the entire plan could be implemented at one time because access must still be provided to each property on the corridor. For example, if a property has not redeveloped, it might not be feasible to relocate the driveway; or if the Town street network has not been completed, alternative access may not be available. In cases like this,

an interim access to the property would be maintained until such time as the ultimate access configuration could be achieved.

As traffic grows along the study roadways, the Town, County, and CDOT will be faced with deciding how to implement the ACP. One approach may be to implement interim roadway improvements that would delay the need to implement the ultimate recommendations of the ACP. Implementing a two-way-left-turn-lane (TWLTL) for portions of the study roadways, primarily US 6 between Ukele Lane and the Overo Boulevard, is one way that the Town could prolong the life of the existing roadway. The addition of a TWLTL would allow many of the existing access locations to remain as full-movement further into the future until traffic volumes or safety issues indicate additional turn restrictions should to be considered.

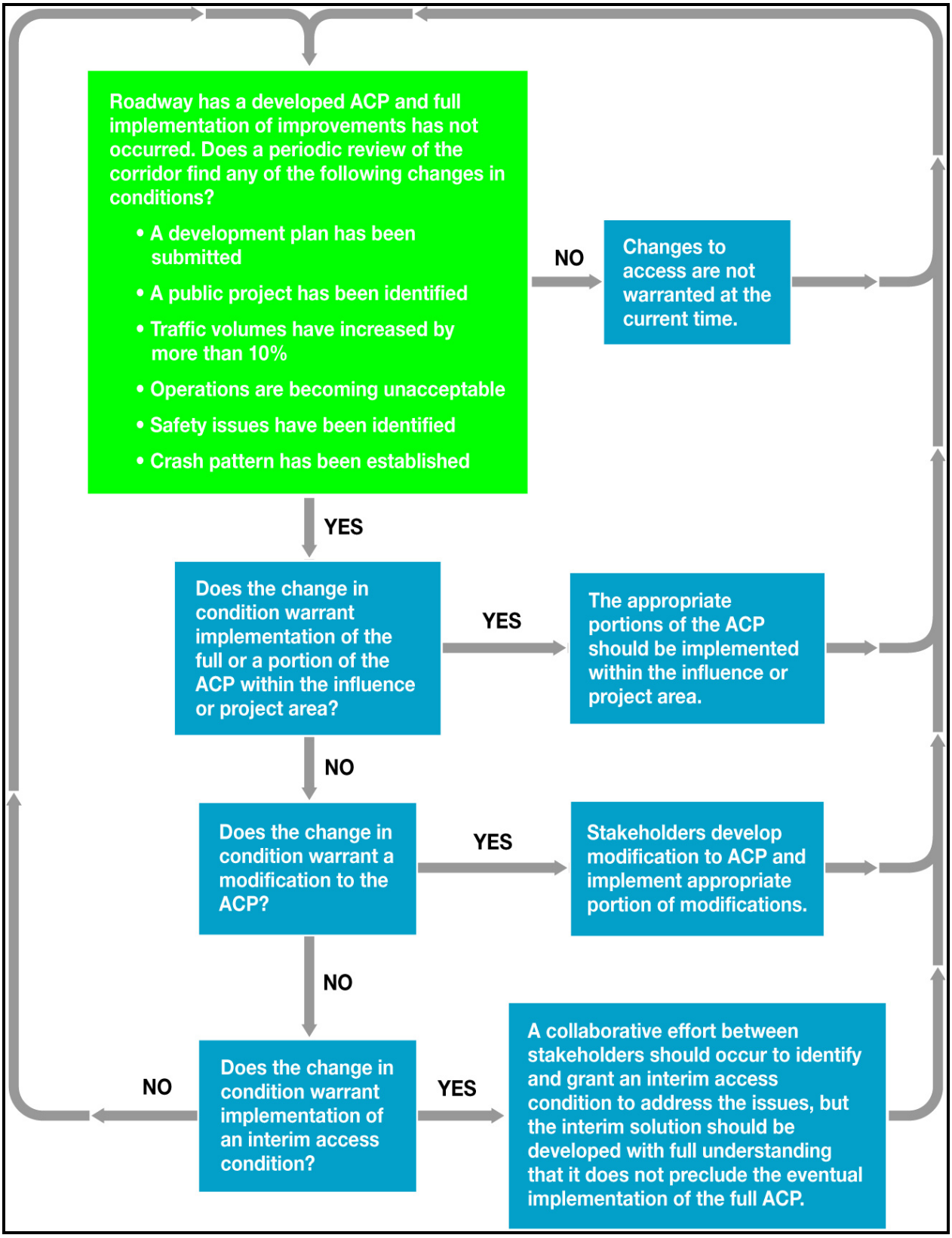
With or without a TWLTL, once traffic volumes and/or safety issues indicate changes to access conditions are needed, the next phase of the implementation would be to identify locations where raised medians, traffic signals, roundabouts, or other forms of traffic control are warranted. The presence of a TWLTL would make it easier to construct raised medians (pavement area would already exist) to create three-quarter or right-in, right-out access driveways. Furthermore, should traffic volumes or accident history warrant the need to install a traffic signal, the TWLTL would easily be converted to left-turn lanes at the signalized intersection.

When intersections or access points have operational or safety concerns, the Town, County, and CDOT will look for ways to address these issues. These projects would most likely incorporate portions of the ACP, such as implementing turn restrictions or improving intersections in order to improve operations or increase safety along the corridor.

The most common trigger for the phased approach relates to when a property along US 6 or the River Frontage Road develops, redevelops, or if a driveway experiences a traffic volume increase of 20 percent or more (per the *State Highway Access Code*). Under this scenario, a new CDOT access permit is required and the Town, County, and CDOT would work with the property owner or the developer to make the access changes and highway improvements in the area directly impacted by the development/redevelopment. Coordination through the development process is critical to the ultimate success of the plan. If the ultimate ACP cannot be implemented when a property redevelops, the property should develop in such a way as to not prohibit the plan implementation. For example, buildings should be constructed in such a manner as to utilize a future access location shown on the plan.

Even if project related traffic volumes do not warrant the full implementation of the plan, the Town should develop a method to collect funds from the owner/developer with the understanding that the changes will be necessary in the future. This may encourage some development to occur now, but the Town will have collected funds to help offset the cost of the future improvements. This is especially important in the case where a property simply redevelops, but does not increase the traffic generated by 20% or more. If the Town does not implement the plan at the same time or collect funds for future implementation, it is unlikely the same property would redevelop again before the changes are necessary, creating a missed opportunity to implement the plan or collect contributions toward the improvements.

Figure 16
ACP Implementation Process



Another important aspect of the implementation process is how access is granted to new developments. Each property along the study roadways must be provided with reasonable access. The Town, County, and CDOT should work with the owner/developer to ensure projects are designed with consideration to where access will be permitted in the ultimate ACP. Access will be provided to the property as shown on the ACP unless it is not feasible to implement at the time of the development. Then, an interim access will be permitted, which will change once the ultimate access conditions can be achieved. Coordinating with the owner/developer throughout the project development process will ensure the final design of the property does not preclude the implementation of the final ACP configuration on the study roadways.

8.3 PLAN MODIFICATION

The outcome of this study is the US 6/River Frontage Road ACP, which identifies the number, location, and type of access points that will be allowed on the study roadways within the study limits. However, future changes to the plan are allowed based upon the guidelines of the *State Highway Access Code*, according to Section 2.12, "Access Control Plans" (p. 30, paragraph 3):

> *The plan must receive the approval of both the Department and the appropriate local authority to become effective. This approval shall be in the form of a formal written agreement signed by the local authority and the Chief Engineer of the Department. After an access control plan is in effect, modifications to the plan must receive the approval of the local authority and the Department. Where an access control plan is in effect, all action taken in regard to access shall be in conformance with the plan and current Code design standards unless both the Department and the local authority approve a geometric design waiver under the waiver subsection of the Code.*

9.0 REFERENCES

State Highway Access Category Assignment Schedule. 2003. 2 CCR §601-1a. 30 October 2007.

State Highway Access Code. 1998. 2 CCR §601-1. March 2002.

Transportation Research Board. (2000). *Highway Capacity Manual*. Washington, D.C.: National Academy of Sciences.

This page left blank intentionally.

Appendix A
Access Control Plan (ACP)

Appendix B
Draft Inter-Governmental Agreement

Appendix C
Property Owner/Mailing Information

Appendix D
Average Daily Traffic (ADT) Data

Appendix E
Turning Movement Counts (TMC) Data

Appendix F
Existing Level of Service (LOS)

Appendix G
Existing Safety Study

Appendix H
2035 No-Action Level of Service (LOS)
Existing Roadway Laneage

Appendix I
Initial Public Open House Materials

Appendix J
One-on-one Property Owner Meeting Letters

Appendix K
Second Public Open House Materials

Appendix L
2035 Level of Service with Recommended Changes to Access