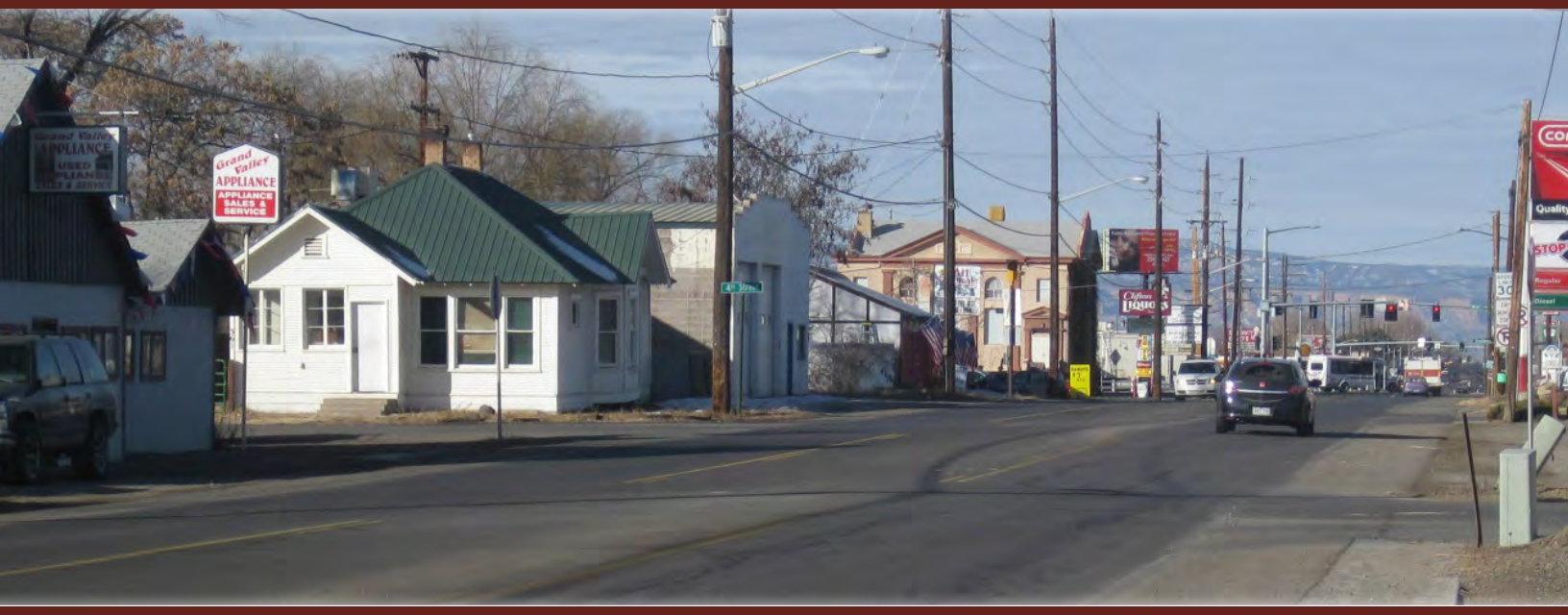
COLORADO
Department of Transportation

FINAL

ALTERNATIVES REPORT

US 6C Clifton Transportation Study



A Planning and Environmental Linkages Study

January 2016

US 6C CLIFTON TRANSPORTATION STUDY

Final Alternatives Report

January 2016

Submitted to

Colorado Department of Transportation, Region 3

Submitted by

David Evans and Associates, Inc.
1331 17th Street, Suite 900
Denver, Colorado 80202

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AASHTO	American Association of State Highway and Transportation Officials
ADA	American with Disabilities Act
CDOT	Colorado Department of Transportation
EJ	Environmental Justice
FHWA	Federal Highway Administration
GIS	Geographic Information Services
GVMPO	Grand Valley Metropolitan Planning Organization
GVT	Grand Valley Transit
HCM	Highway Capacity Manual
I-70B	Interstate 70 Business Loop
LOS	Level of Service
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
PEL	Planning and Environmental Linkages Study
ROW	Right of way
UPRR	Union Pacific Railroad
US	United States
US 6C	United States Highway 6C
v/c	Volume-to-Capacity Ratio
vpd	Vehicles per Day

INTRODUCTION

This report documents the development and analysis of alternatives for transportation improvements on the US 6C corridor in Clifton between I-70B and 33 Road utilizing a thorough and inclusive technical and public process to identify and screen a wide range of alternatives.

Project Background

This report documents the development and analysis of alternatives for transportation improvements on the United States Highway 6C (US 6C) corridor in Clifton between the intersection of Interstate 70 Business Loop (I-70B) (milepost 37.161) and 33 Road (milepost 38.272).

The Colorado Department of Transportation (CDOT) has undertaken this Planning Environmental Linkages (PEL) Study with the goal of identifying existing conditions, anticipated problem areas, and developing and screening a reasonable range of potential improvements to operations and safety of the corridor for all modes of transportation, including non-motorized travel. A thorough and inclusive technical and public process helped to identify and screen a wide range of improvement alternatives.

This study was conducted following Federal Highway Administration (FHWA) PEL guidance regarding the integration of transportation planning and the National Environmental Policy Act (NEPA) process, which encourages the use of planning studies to provide information for incorporation into future NEPA documents. The goal of these early integrated planning efforts is to streamline subsequent alternatives analysis during the NEPA process(es).

Study Area

The traffic study area and the environmental resource review study area are illustrated in **Figure 1**. The traffic study roadways include US 6C from I-70B to approximately 33½ Road, F Road from 32 Road to I-70B, and I-70B from west of Old 32 Road to the I-70 interchange. US 6C, F Road, and I-70B within the study area lie within unincorporated Mesa County.

The environmental study area is focused around the area of most likely physical impacts of corridor transportation improvements. To take into account the potential for indirect or secondary effects to community or environmental resources as a result of the recommended improvements, the area was extended to the back property line of area parcels. The environmental study area includes the area generally bounded by 32 Road to the west, I-70 to the north, 33 Road to the east, and E½ Road to the south.

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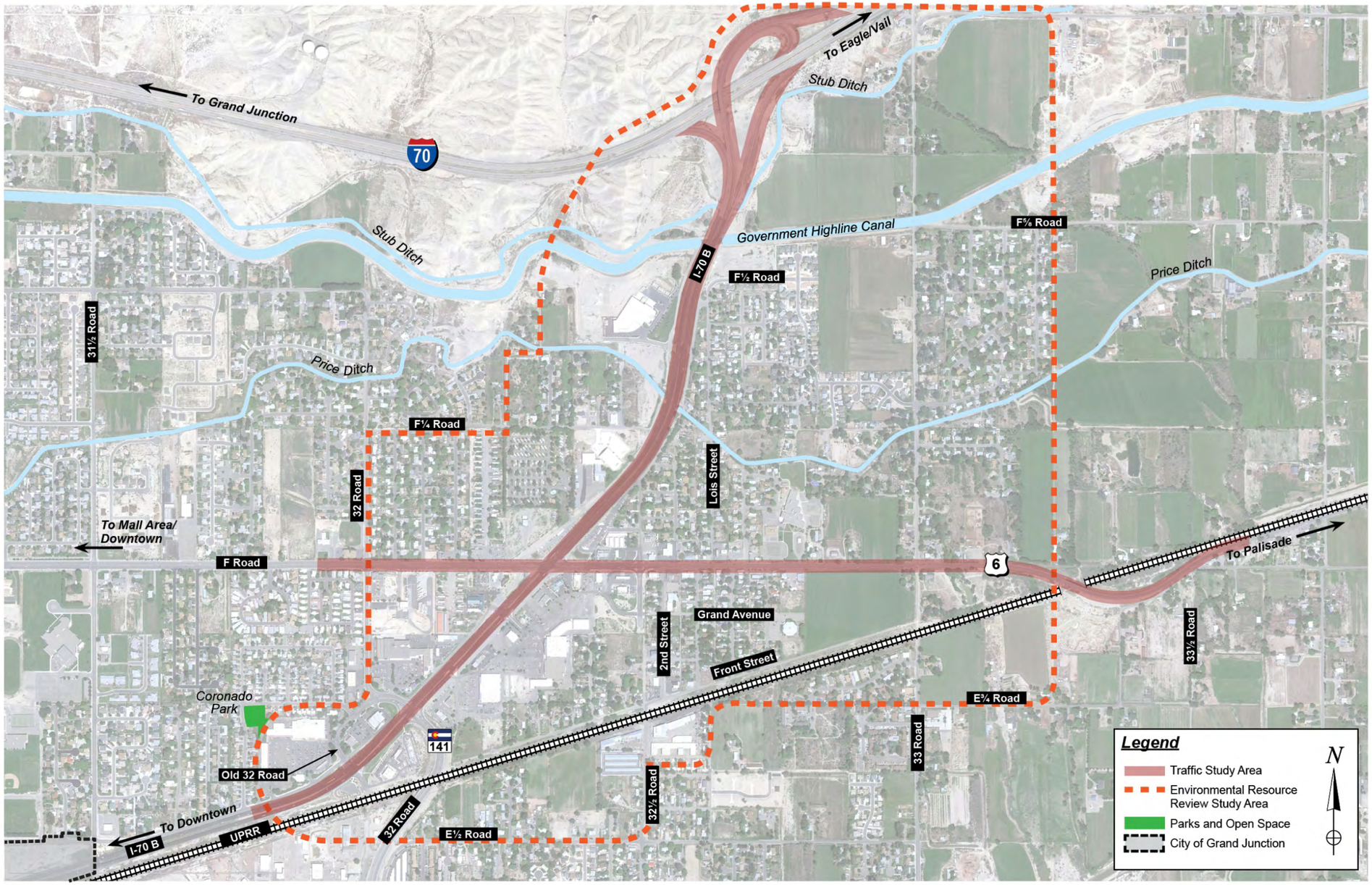
Figure 1: Study Area



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PURPOSE AND NEED

CDOT, in cooperation with local communities and other agencies, initiated this PEL study to identify and assess potential transportation improvements along the US 6C corridor through Clifton. This Purpose and Need statement was developed in coordination with agency stakeholders with review by the general public. The specific needs, summarized below, are based on the analysis and findings documented in this report and in separate documents prepared as part of this project, including the *Existing Transportation Conditions Report* (June 2015) and *Environmental Scan Report* (May 2015). Thorough documentation of the process and recommendations is a critical element of the PEL process so the decisions can be used in future NEPA process(es).

The American Association of State Highway and Transportation Officials (AASHTO) uses the term Level of Service (LOS) to describe the operational characteristics of intersections and roadways. LOS is related to control delay at intersections and speed and delay along arterial roadways as a measure of traffic flow and level of congestion, measured on a scale of A to F. LOS A describes conditions with essentially uninterrupted flow and minimal delay. LOS F describes breakdown of traffic flow with excessive congestion delay. In the study area, LOS E or better is generally considered to be acceptable for peak hour operations. These terms are used in the description of project need.

Purpose

The purpose of any transportation improvements recommended by this study are to improve existing and future corridor and intersection operations, to enhance multimodal connectivity, and to improve safety for all users along US 6C from I-70B to 33 Road.

Need

Transportation improvements are needed to address:

- **Traffic Operational Issues:** Traffic operations along the US 6C corridor are inadequate with vehicular delays and queues experienced during peak periods today. Operations along the corridor are expected to worsen with longer delays and slower speeds by 2040 as traffic volumes increase due to local and regional population and employment growth.
- **Lack of Adequate Multimodal Facilities:** Although there are various land uses within the study area that are likely to generate demand for short walking and bicycling trips, such as the Clifton Elementary School, local convenience stores, and bus stops, there are almost no sidewalks along US 6C through downtown Clifton and there are no bicycle facilities along the corridor.
- **Safety Concerns:** There are safety concerns with vehicular crashes and pedestrian conflicts along US 6C through downtown Clifton, primarily due to traffic congestion, lack of access control, and pedestrian activity.

Traffic Operations

- US 6C existing (2014) daily traffic east of I-70B: 14,150 vehicles per day

  US 6C 2040 average projected daily traffic east of I-70B: 21,000 vehicles per day (48% increase)
- Between I-70B and 2nd Street, the US 6C corridor currently experiences long delays and queues reflective of level of service (LOS) E or F during the AM and/or PM peak hours. East of 2nd Street to 33 Road, the corridor operates near posted speeds during the AM and PM peak hours.
- During the AM peak hour, US 6C congestion at the I-70B and 1st Street intersections results in the longest vehicle queues generally occurring in the westbound direction. The westbound vehicle queues at 1st Street occasionally extend beyond the 2nd Street intersection. During the PM peak hour, congestion is greatest in the eastbound direction between I-70B and 1st Street and results in vehicle queues that occasionally spill back to the I-70B intersection.
- The lane changes and merging conditions that occur between the I-70B and 1st Street signalized intersections create recurring operational issues, particularly in the eastbound direction with the additional merge from the northbound I-70B right turn acceleration lane.
- Due to the amount of through traffic on US 6C during the peak hours, drivers from the side streets and business parking areas have difficulty finding gaps in traffic and, therefore, experience delays. As traffic increases along the corridor, turning movements from unsignalized intersections and accesses onto US 6C will become increasingly more difficult.
- Without operational improvements, by 2040 the US 6C corridor is expected to operate with increased queues at the signalized intersections at I-70B and 1st Street and along the side street approaches to US 6C between 1st Street and 5th Street. During the peak hours, vehicle queues in the westbound direction may extend back from 1st Street to Lois Street. During the PM peak hour, congestion in the eastbound direction will commonly result in vehicle queues extending from 1st Street to the I-70B intersection and beyond.
- US 6C through Clifton is an important commuter route for regional east-west vehicular travel, as well as an access to the regional transportation system for local residents and businesses. Recognizing these different vehicular users, transportation improvements should provide a balance of regional mobility and local access with safe and reliable corridor and intersection operations.
- The lack of access control along US 6C east of 1st Street creates numerous unmanaged left turns and crossing movements of traffic, which contributes to congestion and reduces the capacity of the minor arterial. All of the existing access points between 1st Street and 33 Road are full movement intersections. There is a continuous two-way left-turn lane and no curb and gutter along the highway and several properties have pavement across the entire length of the property frontage, which allows unlimited maneuvers for turning traffic on and off the highway.
- Many of the local business properties along the US 6C corridor are relatively shallow and utilize the entire paved frontage for undefined parking space. This parking situation contributes to congestion and operational issues as drivers access the properties at various turning angles and speeds, sometimes backing up into the highway through traffic lane.

Multimodal Facilities

- Automobiles, trucks, pedestrians, bicyclists, and buses travel along the US 6C highway. The corridor lacks adequate facilities to accommodate effective connections with direct links, such as sidewalk and multiuse paths, and does not provide efficient connections between modes.
- US 6C through downtown Clifton is served by Grand Valley Transit (GVT) Route 4 or the "Palisade" Route. Route 4 provides connections to destinations from the Clifton Transfer Station at I-70B and 32 Road, through Clifton to Palisade. According to the *Draft GVT 2014 Onboard Survey and Counts Report*, 19% of riders on all GVT routes reported living in Clifton.
- Buses, like other vehicles, will experience increased delays traveling along the corridor as traffic volume increases.
- Continuous pedestrian facilities and local connections to these facilities are missing or deficient along the US 6C corridor. East of 2nd Street, there are almost no sidewalks along US 6C through downtown Clifton. The sections of sidewalk that do exist are attached to the roadway curb, not buffered from travel lanes, and are too narrow to accommodate both pedestrian and bicyclist use. Walking along the corridor is perceived to be uncomfortable by pedestrians because of the proximity to congested traffic lanes.
- Along the US 6C corridor, there are numerous existing curb cuts, curb ramps, and sidewalks that do not meet American with Disabilities Act (ADA) standards. This deficiency can make it difficult for people to access the bus stops or travel along the corridor.
- Various land uses within the US 6C study area are likely to generate demand for short walking and bicycling trips. Because many of the origins and destinations of these trips are on opposite sides of the highway, conflicts occur with vehicles due to limited crossing locations.
- Mesa County School District 51 does not provide bus service for students living within two miles of an elementary school. Therefore, adequate pedestrian and bicyclist access, suitable for young children, is a primary concern for Clifton residents with children attending the Clifton Elementary School, located on the US 6C highway.

  The Mesa County School District 51 bus service currently has a bus route for the middle school that stops at US 6C and Lois Street.

Safety

- Over a five-year period from 2009 to 2014, there were 84 crashes on US 6C from I-70B to 33 Road. Rear end crashes were by far the most common crash type followed by sideswipe, approach turn, and broadside crashes. These types of crashes are typically related to congestion, short intersection spacing, and weaving and lane-changing maneuvers.
- The vast majority of the crashes along US 6C within the study area occurred along the west half of the corridor, from I-70B to 5th Street.
- There are a variety of obstacles within a few feet of the through lanes on each side of US 6C through downtown Clifton, including utility poles and business signage. Many of these obstacles are within the roadway clear zone.

- Over a five-year period from 2009 to 2014, along US 6C in the study area, there were three crashes involving pedestrians. All three vehicle-pedestrian crashes were listed as injury crashes.
- The traffic congestion along the west end of the US 6C corridor and speed along the east end of the corridor combined with the proximity to deficient pedestrian and bicycle facilities create safety concerns for pedestrian and bicyclists traveling along and across the roadway.
- The lack of access control along US 6C contributes to pedestrian and bicycle safety concerns. Along US 6C, pedestrians and bicyclists must cross many driveways and unrestricted property frontage where turning drivers are focused on entering or exiting the highway and are not attentive to potential pedestrian and bicyclist conflicts. Without a defined access, it is also more difficult for pedestrians and bicyclists to anticipate driver movements to avoid conflicts.

Project Secondary Goals

Additional goals of the transportation improvements for the US 6C corridor are to:

- Provide mobility choices for people and goods
- Support previous local and regional planning efforts
- Avoid and minimize environmental impacts
- Enhance economic opportunities to support community viability
- Balance mobility and access with implementation of the *US 6 – Clifton Access Control Plan*
- Maximize cost-effectiveness of funding investment

ALTERNATIVES EVALUATION PROCESS

An objective in pursuing this study was to work with stakeholders to develop and analyze a range of improvements to operational performance and safety and potentially reduce congestion along the US 6C corridor between I-70B and 33 Road. The alternatives development and evauation process inluded developing screening criteria based on the project Purpose and Need, developing a full range of reasonable alternatives, and documenting the elimination of alternatives to limit the need for consideration during future NEPA process(es).

During the project initiation period, baseline data were collected for the physical, operational, and environmental conditions of the study area. This information led to the development of the project Purpose and Need, presented earlier in this report.

Evaluation criteria were established for the different levels of screening, prior to the development of alternatives. Initial corridor alternative concepts were developed to provide a range of reasonable options focused on addressing the project's Purpose and Need. The alternatives responded to the 2040 traffic volumes as developed in the travel demand forecasting. These Level 1 alternatives were subjected to a "fatal flaw" screening to eliminate alternatives that do not meet the project Purpose and Need. Those alternatives carried forward for further evaluation were compared to each other in a Level 2 evaluation. The alternatives remaining after the Level 2 evaluation were further refined through conceptual design for more detailed evaluation and identification of the Recommended Alternative. The final project recommendations will include short- and long-term elements.

Agency and Public Coordination

Understanding the ideas, perspectives, and needs of key stakeholders in the interchange area is critical to building broadly supported decisions and solutions. Throughout the PEL study, stakeholder involvement was emphasized and feedback was solicited from local agency and public partners at key decision points to foster acceptance of study recommendations.

The study included the formation of a Technical Team that met frequently with the project team to provide technical input. The Technical Team included staff from CDOT, Mesa County, Palisade, Grand Junction, FHWA, Grand Valley Metropolitan Planning Organization (GVMPO), and GVT. The Technical Team was heavily involved in shaping the alternatives evaluation criteria and performance measures, as well as the alternatives that were considered. Members of the Technical Team kept their respective elected officials updated and brought elected official feedback to the project team. The evaluation criteria, performance measures, alternatives development, and alternatives screening were reviewed and approved by the Technical Team throughout the study coordination process. Technical Team members also reviewed and concurred with the Purpose and Need.

The study was coordinated with local, State, and Federal resource agencies at two points during the alternatives development and evaluation process. Early in the study, a letter and study area map were mailed as an introduction to the PEL study and confirmation of the agency contact for future review. A second letter was mailed with the project Purpose and Need and a request for review of the *Draft Environmental Scan Report*. Resource agency comments are being tracked for summary in the PEL study report documentation. The Recommended Alternative will be sent for review by the resource agencies and to identify potential resource impacts and next steps required for future NEPA processes and project development.

Small group meetings were held with individuals representing stakeholders anticipated to be potentially affected by the potential corridor improvements to identify likely impacts and help shape the study recommendations. Presentations to inform stakeholders and gather feedback were made.

In an effort to gain as much community input as possible, this study held two public meetings to introduce the project and discuss corridor travel conditions and the need for improvement, and to present alternatives and preliminary recommendations. A final public notice is planned to describe the final recommended improvements.

Initial Alternatives Development

The set of reasonable alternatives were developed to address the US 6C corridor's issues identified in the Purpose and Need, including vehicular traffic congestion between I-70B and 33 Road, lack of adequate multimodal facilities along US 6C, and safety concerns related to lack of access control and pedestrian conflicts. The initial improvement alternatives were developed based on input from the Technical Team, public input, and the technical input of the project team. The alternatives included new roadway alignments as well as improvements along the US 6C corridor between I-70B and 33 Road.

No Action Alternative

The No Action Alternative does not meet the Purpose and Need. The No Action alternative is included as a means of comparison to the operational benefits that would result from potential improvements. Under the No Action alternative, only programmed projects that are planned and funded by CDOT, Mesa County, or other entities would be completed. Currently, there are no large-scale transportation projects to add vehicular capacity, multimodal facilities, or safety improvements within the study area.

The 29 Road interchange project, which will construct a new interchange along I-70 west of the study area, was included in the travel demand modeling for the No Action Alternative because it will impact regional travel through the study area.

Level 1 (Purpose and Need) Screening

Level 1 screening identified a range of interchange improvements that could meet the project Purpose and Need, while eliminating concepts from detailed consideration that had "fatal flaws" (that did not meet Purpose and Need). Level 1 screening criteria were developed to screen concepts in the following areas: traffic operations, multimodal connectivity, and safety.

Corridor alternative concepts were evaluated with a "Yes" or "No" answer to the following questions to demonstrate each alternative's ability to meet the project Purpose and Need.

- Traffic Operations
  - Does the alternative improve existing and future traffic operations along US 6C?
- Multimodal Connectivity
  - Does the alternative provide for bicycle, pedestrian, and transit travel through the US 6C corridor?
- Safety Concerns
  - Does the alternative provide safety improvements along US 6C?

An alternative that has a "No" answer to any of the above questions was considered to not meet the project Purpose and Need and was eliminated. Alternatives eliminated as a stand-alone alternative could be included as elements of other alternatives in Level 2 screening.

Level 2 Comparative Screening

The purpose of the Level 2 evaluation was to establish a means for estimating and comparing how well alternatives perform in meeting the transportation needs in a cost-effective and least environmentally harmful manner. The alternatives were evaluated to identify fatal flaws related to infeasibility, cost, or unacceptable community or environmental impacts and to compare how well each concept meets the Purpose and Need and secondary goals. The Level 2 screening expanded measures for each criterion from Level 1 screening and provided additional screening criteria based on the project secondary goals.

Alternatives carried forward from the Level 1 screening were reviewed and refined to add more detail and to provide information for further assessment in the Level 2 evaluation. More details for alternatives were added, as appropriate to understand the projected study area traffic flows.

The Level 2 screening criteria focused on seven categories responding to the project Purpose and Need and secondary goals: traffic operations, multimodal connectivity, safety, community, environmental resources, and implementability. Evaluation criteria were generally used at a qualitative level for this stage of screening, although easily quantifiable information was also utilized. The alternatives were compared to determine how well each concept meets the following evaluation criteria:

- Traffic Operations
  - Ability of the alternative to provide daily and peak hour roadway capacity to meet 2040 travel demand
  - Ability of the alternative to accommodate regional through travel
  - Ability of the alternative to provide consistency with the *US 6 – Clifton Access Control Plan*

- Multimodal Connectivity
  - Ability of the alternative to provide good pedestrian and bicyclist flow
  - Ability of the alternative to enhance bus operations
- Safety Concerns
  - Ability of the alternative to reduce unsafe physical (roadside hazards) or operational (congestion, lack of access control, and driver expectancy) conditions along US 6C
  - Ability of the alternative to reduce the number of potential multimodal conflict points
- Community
  - Relative property impacts based on number of residential and business properties impacted
  - Relative local street circulation and volume impacts
  - Ability of the alternative to support local and regional planning efforts
- Environmental Resources
  - Ability of the alternative to avoid and minimize impacts on environmental resources
- Implementability
  - Ability of the alternative to minimize cost based on relative conceptual-level probable cost
  - Ability to implement as separate fundable projects

Level 3 Detailed Screening

With the Level 3 alternatives evaluation, steps were taken to further narrow the alternatives and to refine the design elements of the remaining alternatives. Design concepts were considered with each alternative to minimize costs and environmental impacts and maximize operational and safety benefits.

The purpose of the Level 3 evaluation was to complete additional and more detailed analysis to compare how well each alternative meets the Purpose and Need and identify what impacts each alternative would have. Specific performance measures were developed to compare how well each alternative meets the criteria relative to each other. These performance measures were qualitative or quantitative, based on the criteria and the availability of data at this stage of development.

LEVEL 1 ALTERNATIVES SCREENING

The initial improvement alternatives included new roadway alignments as well as improvements along the US 6C corridor between I-70B and 33 Road. A variety of alternatives were identified for consideration, focusing on the corridor's largest issues identified in the Purpose and Need, including vehicular traffic congestion between I-70B and 33 Road, lack of adequate multimodal facilities along the US 6C corridor, and safety concerns related to lack of access control and pedestrian conflicts.

Level 1 Alternatives

Considering the study area constraints and the project Purpose and Need, the following conceptual alternatives, in addition to the No Action alternative, were considered in the Level 1 screening. Illustrations of the action alternative concepts are included in **Appendix A**.

Alternative 1 - US 6 Improved Two Through Lanes

This alternative was considered because it may address operational issues and safety concerns associated with the lack of access control and pedestrian conflicts along US 6C. The alternative consists of one eastbound through lane and one westbound through lane with roadway improvements along US 6C between 1st Street and 33 Road and modifications to driveways and public access with raised medians, left turn lanes, and two-way left-turn lanes as needed to increase access control with intersection configurations and control to optimize capacity. Between I-70B and 1st Street, US 6C would remain five lanes with potential changes to address lane balance to the east. Sidewalks along US 6C would be provided to accommodate pedestrians and bicyclists with improved crossings of US 6C.

Alternative 2 - US 6 Three Through Lanes

This alternative was considered because it may address operational issues and safety concerns associated with congestion, lack of access control, and pedestrian conflicts. The alternative consists of widening US 6C to provide two eastbound through lanes and one westbound through lane with modifications to driveways and public access with raised medians, left turn lanes, and two-way left-turn lanes as needed to increase access control with intersection configurations and control to optimize capacity. Between I-70B and 1st Street, US 6C would remain five lanes with potential changes to address lane balance to the east. Sidewalks along US 6C would be provided to accommodate pedestrians and bicyclists with improved crossings of US 6C.

Alternative 3 - US 6 Four Through Lanes

This alternative was considered because it may address operational issues and safety concerns associated with traffic congestion, lack of access control, and pedestrian conflicts. The alternative consists of widening US 6C to provide four through travel lanes with median and driveway and access modifications to increase access control and intersection configurations and control to optimize capacity. Sidewalks along US 6C would be provided to accommodate pedestrians and bicyclists with improved crossings of US 6C.

Alternative 4 - US 6 Three-Lane with Reversible Lane

This alternative was considered because it may address operational issues and safety concerns associated with traffic congestion, lack of access control, and pedestrian conflicts. The alternative consists of the existing three lanes between 1st Street and 33 Road, with the two-way left turn lane converted to a through lane in the peak direction during peak periods (westbound in the AM peak period and eastbound in the PM peak period). Left turns from US 6C would be prohibited during those peak periods. Driveways and public access would be modified to increase access control. Between I-70B and 1st Street, US 6C would remain five lanes with potential changes to address lane balance to the east and operations of the reversible center lane. In order to provide multimodal facilities and address safety concerns related to pedestrian conflicts, sidewalks along US 6C would be provided to accommodate pedestrians within right-of-way constraints.

Alternative 5 - US 6/I-70B Interchange

This alternative was considered because it may address operational issues and safety concerns associated with traffic congestion and pedestrian conflicts at the west end of the US 6C corridor. The alternative consists of a grade separation of US 6C and I-70B through traffic with ramp connections for turning traffic. In order to provide multimodal facilities and address safety concerns related to pedestrian conflicts, sidewalks along US 6C would be provided to accommodate pedestrians within right-of-way constraints.

Alternative 6 – F½ Road to 33 Road Connection

This alternative was considered because it provides an alternate route between I-70B and 33 Road that may reduce traffic volumes along US 6C, which may address operational issues and safety concerns associated with traffic congestion. The alternative consists of a new two-lane roadway connection from I-70B at the Budweiser facility intersection, along Lois Street to approximately F½ Road, to 33 Road, with shoulder and access improvements along 33 Road to US 6C, as needed to provide adequate capacity. In order to provide multimodal facilities and address safety concerns related to pedestrian conflicts, sidewalks along US 6C would be provided to accommodate pedestrians within right-of-way constraints.

Alternative 7 – F¾ Road to G Road Connection

This alternative was considered because it provides an alternate route to Palisade with a connection between I-70B and G Road that may reduce traffic volumes along US 6C, which may address operational issues and safety concerns associated with traffic congestion. The alternative consists of a new two-lane roadway connection from I-70B at the intersection of the Budweiser facility, along Lois Street, crossing the Government Highline Canal to approximately F½ Road, to 33 Road, with shoulder and access improvements along 33 Road to G Road as needed to provide adequate capacity. In order to provide multimodal facilities and address safety concerns related to pedestrian conflicts, sidewalks along US 6C would be provided to accommodate pedestrians within right-of-way constraints.

Alternative 8 - Front Street Connection Two-Way, Old 32 Road to 33 Road

This alternative was considered because it provides an alternate route between I-70B and 33 Road that may reduce traffic volumes along US 6C, which may address operational issues and safety concerns associated with traffic congestion. The alternative consists of a new two-lane roadway connection from I-70B at the intersection of Old 32 Road (at the Clifton Transfer Facility), crossing under the 32

Road/Union Pacific Railroad (UPRR) bridge with a new span to Front Street, with shoulder and access improvements along Front Street as needed to provide adequate capacity. In order to provide multimodal facilities and address safety concerns related to pedestrian conflicts, sidewalks along US 6C would be provided to accommodate pedestrians within right-of-way constraints.

Alternative 9 - Front Street Connection One-Way Eastbound, Old 32 Road to 33 Road

This alternative was considered because it provides an alternate route for eastbound traffic between I-70B and 33 Road that may reduce traffic volumes along US 6C, which may address operational issues and safety concerns associated with traffic congestion. The alternative consists of a new two-lane roadway connection from I-70B at the intersection of Old 32 Road (at the Clifton Transfer Facility), crossing under the 32 Road/UPRR bridge with a new span to Front Street, with one-way eastbound operations along Front Street. In order to provide multimodal facilities and address safety concerns related to pedestrian conflicts, sidewalks along US 6C would be provided to accommodate pedestrians within right-of-way constraints.

Alternative 10 - Front Street/US 6 One-Way Couplet, Old 32 Road to 33 Road

This alternative was considered because it provides added vehicular capacity as well as multimodal facilities between I-70B and 33 Road with a one-way couplet along US 6C and Front Street, which may address operational issues and safety concerns associated with traffic congestion, lack of access control, and pedestrian conflicts. The alternative consists of the conversion of US 6C to one-way operations with two westbound travel lanes and driveway and access modifications to increase access control. A new two-lane roadway connection would be constructed from I-70B at the intersection of Old 32 Road (at the Clifton Transfer Facility), crossing under the 32 Road/UPRR bridge with a new span to Front Street, with one-way operations as two eastbound travel lanes along Front Street. Sidewalks along US 6C would be provided to accommodate pedestrians and bicyclists with improved crossings of US 6C.

Alternative 11 - Front Street/US 6 One-Way Couplet at Peach Tree Center

This alternative was considered because it provides added vehicular capacity as well as multimodal facilities between I-70B and 33 Road with a one-way couplet along US 6C and Front Street, which may address operational issues and safety concerns associated with traffic congestion, lack of access control, and pedestrian conflicts. The alternative consists of the conversion of US 6C to one-way operations with two westbound travel lanes and driveway and access modifications to increase access control. A new two-lane roadway connection would be constructed from I-70B at the intersection of the Peach Tree Center to Front Street, with one-way operations as two eastbound travel lanes along Front Street. Sidewalks along US 6C would be provided to accommodate pedestrians and bicyclists with improved crossings of US 6C, such as shortening crossing distance across intersection legs and mid-block crossing signage and signal enhancements.

Alternative 12 - US 6/Grand Avenue One-Way Couplet

This alternative was considered because it provides added vehicular capacity as well as multimodal facilities between I-70B and 33 Road with a one-way couplet along US 6C and Grand Avenue, which may address operational issues and safety concerns associated with traffic congestion, lack of access control, and pedestrian conflicts. The alternative consists of the conversion of US 6C to one-way operations with two westbound travel lanes and driveway and access modifications to increase access control. New

two-lane connections would be constructed to Grand Avenue with one-way operations as two eastbound travel lanes along Grand Avenue. Sidewalks along US 6C would be provided to accommodate pedestrians and bicyclists with improved crossings of US 6C, such as shortening crossing distance across intersection legs and mid-block crossing signage and signal enhancements.

Alternative 13 - Peach Tree Loop

This alternative was considered because it provides added local roadway connections between I-70B, the community commercial resources at the Peach Tree Center, and the neighborhood areas south of US 6C that may reduce traffic volumes and pedestrian/bicyclist activity along US 6C, which may address operational and safety concerns associated with traffic congestion and pedestrian conflicts. The alternative consists of a new local roadway through the Peach Tree Center with connections to Front Street and 2nd Street. In order to provide multimodal facilities and address safety concerns related to pedestrian conflicts along US 6C, sidewalks would be provided along the highway to accommodate pedestrians within right-of-way constraints.

Alternative 14 - 1st/2nd Street One-Way Couplet

This alternative was considered because it provides added vehicular capacity and improved operations for vehicular movements between US 6C and Front Street, which may address operational issues and safety concerns associated with traffic congestion at the west end of the US 6C corridor. The alternative consists of the conversion of 2nd Street to one-way operations with two northbound travel lanes and a new two-lane connection along 1st Street with one-way southbound operations. In order to provide multimodal facilities and address safety concerns related to pedestrian conflicts along US 6C, sidewalks would be provided along the highway to accommodate pedestrians within right-of-way constraints.

Alternative 15 - 1st Street Connection, Grand Avenue to Front Street

This alternative was considered because it provides a direct connection for improved operations for vehicular movements between US 6C and Front Street, which may address operational issues and safety concerns associated with traffic congestion at the west end of the US 6C corridor. The alternative consists of a new two-lane roadway connection from the traffic signal at 1st Street to the 32½ Road intersection at Front Street. In order to provide multimodal facilities and address safety concerns related to pedestrian conflicts along US 6C, sidewalks would be provided along the highway to accommodate pedestrians within right-of-way constraints.

Level 1 Screening Evaluation

The alternatives were evaluated against the Level 1 screening criteria to identify fatal flaws related to the project Purpose and Need. Alternatives that received a fatal flaw rating on any of the criteria elements (that is, one or more “No” responses) were eliminated from further consideration as a stand-alone alternative. The Level 1 Screening and Analysis Matrix is shown in **Figure 2** on the following page. The reasons for elimination related to the Purpose and Need are shown in the summary of results.

LEVEL 1 ALTERNATIVES SCREENING

Figure 2: Level 1 Screening Matrix

	N/A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Level 1 Evaluation Criteria	**No Action**	**US 6 Improved Two Through Lanes**	**US 6 Three Through Lanes**	**US 6 Four Through Lanes**	**Three-Lane with Reversible Lane**	**US 6/I-70B Interchange**	**F1/2 Road to 33 Road Connection**	**F3/4 Road to G Road Connection**	**Front Street Connection Two-Way, Old 32 Road to 33 Road**	**Front Street Connection One-Way Eastbound, Old 32 Road to 33 Road**	**Front Street/US 6 One-Way Couplet, Old 32 Road to 33 Road**	**Front Street/US 6 One-Way Couplet at Peach Tree Center**	**US 6/Grand Avenue One-Way Couplet**	**Peach Tree Loop**	**1st/2nd Street One-Way Couplet**	**1st Street Connection, Grand Avenue to Front Street**
Traffic Operations Does the alternative improve existing and future traffic operations along US 6C?	**NO** Does not meet current and future traffic demands with improved operations along US 6C	**YES**	**YES**	**YES**	**YES**	**YES**	**NO** Does not remove substantial traffic volume from US 6C corridor	**NO** Does not remove substantial traffic volume from US 6C corridor	**YES**	**YES**	**YES**	**YES**	**YES**	**NO** Does not provide added capacity between I-70B and 33 Road and does not remove substantial traffic volume from US 6C corridor	**NO** Does not provide added capacity between I-70B and 33 Road and does not remove substantial traffic volume from US 6C corridor	**NO** Does not provide added capacity between I-70B and 33 Road and does not remove substantial traffic volume from US 6C corridor
Multimodal Connectivity Does the alternative provide for bicycle, pedestrian, and transit travel through the US 6C corridor?	**NO** No change to inadequate multimodal infrastructure through the corridor	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**
Safety Concerns Does the alternative provide safety improvements along US 6C?	**NO** No safety improvements provided along US 6C	**YES**	**YES**	**YES**	**YES**	**NO** Does not provide improved safety along US 6C (no access control and no substantial roadside reconstruction)	**NO** Does not provide improved safety along US 6C (no access control and no substantial roadside reconstruction)	**NO** Does not provide improved safety along US 6C (no access control and no substantial roadside reconstruction)	**NO** Does not provide improved safety along US 6C (no access control and no substantial roadside reconstruction)	**NO** Does not provide improved safety along US 6C (no access control and no substantial roadside reconstruction)	**YES**	**YES**	**YES**	**NO** Does not provide improved safety along US 6C (no access control and no substantial roadside reconstruction)	**NO** Does not provide improved safety along US 6C (no access control and no substantial roadside reconstruction)	**NO** Does not provide improved safety along US 6C (no access control and no substantial roadside reconstruction)
SUMMARY OF RESULTS	**Carried Forward:** Baseline Comparison	**Carried Forward**	**Carried Forward**	**Carried Forward**	**Carried Forward**	**Eliminated as a Stand Alone:** Does not meet Purpose and Need because it does not address safety issues associated with lack of access control along US 6C and does not provide safety improvements of roadside reconstruction along US 6C.	**Eliminated:** Does not meet Purpose and Need because it does not address operational and safety issues associated with peak hour congestion and lack of access control along US 6C and does not provide safety improvements along US 6C.	**Eliminated:** Does not meet Purpose and Need because it does not address operational and safety issues associated with peak hour congestion and lack of access control along US 6C and does not provide safety improvements along US 6C.	**Eliminated as a Stand Alone:** Does not meet Purpose and Need because it does not address safety issues associated with lack of access control along US 6C and does not provide safety improvements of roadside reconstruction along US 6C.	**Eliminated as a Stand Alone:** Does not meet Purpose and Need because it does not address safety issues associated with lack of access control along US 6C and does not provide safety improvements of roadside reconstruction along US 6C.	**Carried Forward**	**Carried Forward**	**Carried Forward**	**Eliminated as a Stand Alone:** Does not meet Purpose and Need because it does not address operational and safety issues associated with peak hour congestion and lack of access control along US 6C and does not provide safety improvements along US 6C.	**Eliminated:** Does not meet Purpose and Need because it does not address operational and safety issues associated with peak hour congestion and lack of access control along US 6C and does not improve safety along US 6C, while introducing operational issues with intersections on US 6C.	**Eliminated as a Stand Alone:** Does not meet Purpose and Need because it does not address operational and safety issues associated with peak hour congestion and lack of access control along US 6C and does not provide safety improvements along US 6C.
Notes		Addresses operational and safety issues associated with peak hour congestion and lack of access control, provides connections to enhance multimodal travel and reduce vehicular-pedestrian conflicts, and provides safety improvements with roadway reconstruction along US 6C.	Addresses operational and safety issues associated with PM peak hour congestion and lack of access control, provides connections to enhance multimodal travel and reduce vehicular-pedestrian conflicts, and provides safety improvements with roadway reconstruction along US 6C.	Addresses operational and safety issues associated with peak hour congestion and lack of access control, provides connections to enhance multimodal travel and reduce vehicular-pedestrian conflicts, and provides safety improvements with roadway reconstruction along US 6C.	Addresses operational and safety issues associated with peak hour congestion and lack of access control, provides connections to enhance multimodal travel and reduce vehicular-pedestrian conflicts along US 6C.	May be carried forward as an element of another alternative; May address operational and queuing conditions west of 1st Street intersection.			May be carried forward as an element of another alternative; May address operational conditions along US 6C with added capacity between I-70B and 33 Road and reduction in traffic volumes along US 6C.	May be carried forward as an element of another alternative; May address operational conditions along US 6C with added capacity between I-70B and 33 Road and reduction in traffic volumes along US 6C.	Addresses operational and safety issues associated with peak hour congestion by providing added capacity with one-way couplet, provides connections to enhance multimodal travel and reduce vehicular-pedestrian conflicts, and provides safety improvements with roadway reconstruction along US 6C.	Addresses operational and safety issues associated with peak hour congestion by providing added capacity with one-way couplet, provides connections to enhance multimodal travel and reduce vehicular-pedestrian conflicts, and provides safety improvements with roadway reconstruction along US 6C.	Addresses operational and safety issues associated with peak hour congestion by providing added capacity with one-way couplet, provides connections to enhance multimodal travel and reduce vehicular-pedestrian conflicts, and provides safety improvements with roadway reconstruction along US 6C.	May be carried forward as an element of another alternative; May address operational conditions at 1st Street and 2nd Street intersections and multimodal connection enhancements.		May be carried forward as an element of another alternative; May address operational conditions at 1st Street and 2nd Street intersections and multimodal connection enhancements.

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Level 1 Screening Results

Three alternatives were eliminated from further consideration because they do not meet the project Purpose and Need. The eliminated alternatives were:

- Alternative 6 – F½ Road to 33 Road Connection
- Alternative 7 – F¾ Road to G Road Connection
- Alternative 14 - 1st/2nd Street One-Way Couplet

Five alternatives were eliminated as a stand-alone alternative, but may be included as elements of larger-scale alternatives later in the evaluation process. These alternatives were:

- Alternative 5 - US 6/I-70B Interchange
- Alternative 8 - Front Street Connection Two-Way, Old 32 Road to 33 Road
- Alternative 9 - Front Street Connection One-Way Eastbound, Old 32 Road to 33 Road
- Alternative 13 - Peach Tree Loop
- Alternative 15 - 1st Street Connection, Grand Avenue to Front Street

The following eight alternatives were carried forward for consideration in Level 2 screening:

- No Action (for baseline comparison)
- Alternative 1 – US 6 Improved Two Through Lanes
- Alternative 2 – US 6 Three Through Lanes
- Alternative 3 – US 6 Four Through Lanes
- Alternative 4 – Three-Lane with Reversible Lane
- Alternative 10 – Front Street/US 6 One-Way Couplet, Old 32 Road to 33 Road
- Alternative 11 – Front Street/US 6 One-Way Couplet at Peach Tree Center
- Alternative 12 – US 6/Grand Avenue One-Way Couplet

LEVEL 2 ALTERNATIVES SCREENING

Alternatives from the Level 1 screening that were recommended for further evaluation were refined to add more information to evaluate potential impacts. The purpose of the Level 2 Comparative Screening was to determine whether or not each alternative has any fatal flaws related to the project Purpose and Need and secondary goals and to identify those alternatives that are most practical or feasible to carry forward for further detailed analysis.

Level 2 Alternatives

In addition to the eight alternatives carried forward from Level 1 screening, the following two alternatives were added for consideration in Level 2 screening based on combining elements of alternatives that were eliminated as a stand-alone alternative. With these additional alternatives, 10 alternatives (including the No Action Alternative) were considered in the Level 2 screening.

Alternative 16 - Front Street Connection Two-Way with US 6 Improved Two Through Lanes

This alternative consists of a new two-lane roadway connection from I-70B at the intersection of Old 32 Road (at the Clifton Transfer Facility), crossing under the 32 Road/UPRR bridge with a new span to Front Street, with shoulder and access improvements along Front Street as needed to provide adequate capacity. One eastbound through lane and one westbound through lane are provided along US 6C with roadway improvements between 1st Street and 33 Road and modifications to driveways and public access with raised medians, left turn lanes, and two-way left-turn lanes as needed to increase access control with intersection configurations and control to optimize capacity. Between I-70B and 1st Street, US 6C would remain five lanes with potential changes to address lane balance to the east. Sidewalks along US 6C would be provided for pedestrians and bicyclists with improved crossings of US 6C.

Alternative 17 - Front Street Connection One-Way Eastbound with US 6 Improved Two Through Lanes

This alternative consists of a new two-lane roadway connection from I-70B at the intersection of Old 32 Road (at the Clifton Transfer Facility), crossing under the 32 Road/UPRR bridge with a new span to Front Street, with one-way eastbound operations along Front Street. One eastbound through lane and one westbound through lane are provided along US 6C with roadway improvements between 1st Street and 33 Road and modifications to driveways and public access with raised medians, left turn lanes, and two-way left-turn lanes as needed to increase access control with intersection configurations and control to optimize capacity. Between I-70B and 1st Street, US 6C would remain five lanes with potential changes to address lane balance to the east. Sidewalks along US 6C would be provided for pedestrians and bicyclists with improved crossings of US 6C.

Alternative Concepts

In order to fairly compare the impacts of alternatives through the Level 2 screening process, cross-sections with right-of-way assumptions were developed for each alternative based on appropriate standards for the assumed roadway classification and multimodal elements. The cross-sections developed for each alternative are included in **Appendix B**. The right-of-way assumed for each alternative based on those cross-sections was intended to provide width for the vehicular, pedestrian, and bicyclist traffic along the corridors, as well as utilities and roadside improvements (e.g., grading, drainage, etc.). The opportunity to modify the right-of-way width in locations to mitigate specific property impacts or optimize operations and/or safety may be considered further in the study.

Level 2 Screening Evaluation

The Level 2 Comparative Screening provided additional evaluation to confirm that each alternative meets the Purpose and Need and to identify those alternatives that are most practical or feasible to carry forward for further detailed analysis. The Level 2 Comparative Screening Matrix providing the summary of results for the alternatives is included in **Appendix C**.

The following pages describe each alternative, the results of the evaluation criteria, and a conclusion for whether or not to carry forward the alternative into the Level 3 Detailed Screening evaluation. An alternative was not carried forward if the Level 2 evaluation showed the alternative does not meet Purpose and Need or the alternative is unreasonable due to impacts and infeasibility.

Figure 3: No Action

Description

The No Action alternative is included as a baseline for comparison to the action alternatives. Under the No Action alternative, only programmed projects that are planned and funded by CDOT, Mesa County, or other entities would be completed. Currently, there are no large-scale transportation projects to add vehicular capacity, multimodal facilities, or safety improvements within the study area. The 29 Road interchange project, which will construct a new interchange along I-70 west of the study area, was included in the travel demand modeling for the No Action Alternative because it will impact regional travel through the study area.

For the remainder of the screening process, the 1st Street connection between US 6C and Front Street was added to the No Action Alternative. The connection was constructed as an unpaved roadway by Mesa County during the Level 2 alternatives evaluation. The new connection immediately shifted traffic patterns from 2nd Street to directly access the Peach Tree Center and the traffic signal on US 6C.

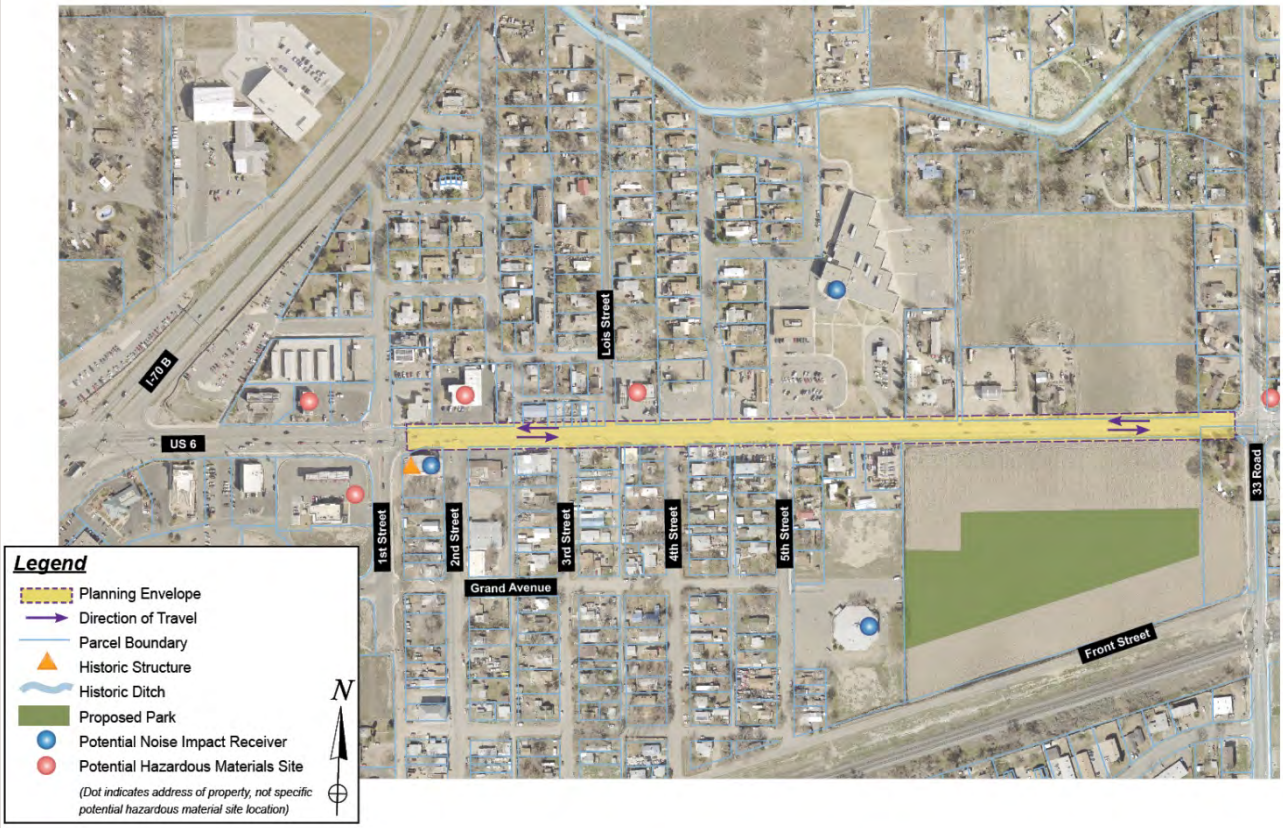
Summary of Results: CARRIED FORWARD

Further analysis required as the No Action Alternative for comparison to improvement alternatives.

Table 1: Level 2 Evaluation – No Action

LEVEL 2 EVALUATION CRITERIA		NO ACTION
Traffic Operations	Ability of the alternative to provide daily and peak hour roadway capacity to meet 2040 travel demand	Forecasted 2040 demand (22,000 vpd) exceeds capacity (16,000 vpd). No capacity improvements and poor traffic operations.
	Ability of the alternative to accommodate regional through travel	Regional traffic remains along existing US 6C alignment. No capacity improvements and poor traffic operations.
	Ability of the alternative to provide consistency with the *US 6 - Clifton Access Control Plan*	Maintaining all existing accesses is not consistent with Access Control Plan.
Multimodal Connectivity	Ability of the alternative to provide good pedestrian and bicyclist flow	Missing sidewalks and no bicycle facilities along US 6C do not accommodate pedestrian/bicyclist activity.
	Ability of the alternative to enhance bus operations	No enhancement of bus operations or facilities.
Safety Concerns	Ability of the alternative to reduce unsafe physical (roadside hazards) or operational (congestion, lack of access control, and driver expectancy) conditions along US 6	No changes to existing roadside hazards, lack of access control, and operational conditions.
	Ability of the alternative to reduce the number of potential multimodal conflict points	Missing sidewalks, no bicycle facilities, and lack of access control along US 6C force pedestrians and bicyclists close to autos.
Community	Relative property impacts based on number of residential and business properties impacted	No right-of-way impacts.
	Relative local street circulation and volume impacts	No changes in local street circulation and no increase in US 6C traffic volume traveling on local streets.
	Ability of the alternative to support local and regional plans	No improvements to US 6C corridor is not consistent with previous local and regional planning efforts.
Environmental Resources	Ability of the alternative to avoid and minimize impacts on environmental resources	No impacts to environmental and cultural resources.
Implementability	Ability of the alternative to minimize cost based on relative conceptual-level probable cost	No construction cost and no right-of-way acquisition.
	Ability to implement as separate fundable projects	N/A

Figure 4: Alternative 1 – US 6 Improved Two Through Lanes



Description

This alternative consists of one eastbound through lane and one westbound through lane with roadway improvements along US 6C between 1st Street and 33 Road and modifications to driveways and public access with raised medians, left turn lanes, and two-way left-turn lanes as needed to increase access control with intersection configurations and control to optimize capacity. Between I-70B and 1st Street, US 6C would remain five lanes with potential changes to address lane balance to the east. Sidewalks along US 6C would be provided to accommodate pedestrians and bicyclists with improved crossings of US 6C.

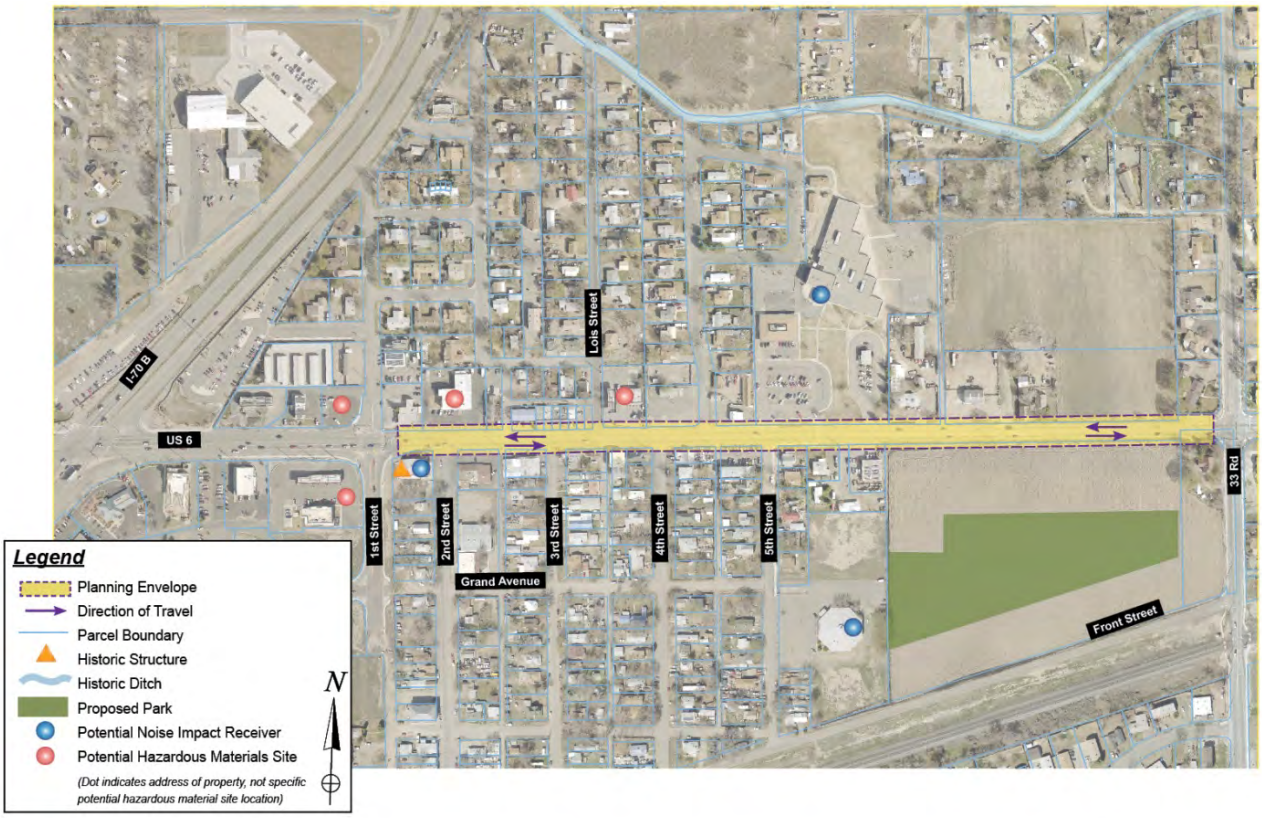
Summary of Results: CARRIED FORWARD

This alternative is carried forward for further evaluation because the improvement provides adequate capacity and reasonable safety and multimodal mobility benefits with fewer impacts on the community and environmental and cultural resources than other alternatives.

Table 2: Level 2 Evaluation – Alternative 1

LEVEL 2 EVALUATION CRITERIA		ALTERNATIVE 1 – US 6 IMPROVED TWO THROUGH LANES
Traffic Operations	Ability of the alternative to provide daily and peak hour roadway capacity to meet 2040 travel demand	Forecasted 2040 demand (22,000 vpd) on US 6C reaches capacity of 22,000 vpd with operational benefits from intersection improvements and increased access control.
	Ability of the alternative to accommodate regional through travel	Regional traffic remains along existing US 6C alignment with some operational benefits.
	Ability of the alternative to provide consistency with the *US 6 - Clifton Access Control Plan*	Increased access control and turn restrictions consistent with Access Control Plan.
Multimodal Connectivity	Ability of the alternative to provide good pedestrian and bicyclist flow	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian/bicyclist activity along US 6C.
	Ability of the alternative to enhance bus operations	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times.
Safety Concerns	Ability of the alternative to reduce unsafe physical (roadside hazards) or operational (congestion, lack of access control, and driver expectancy) conditions along US 6	Improvements address operational and safety issues associated with peak hour congestion and lack of access control. Roadway reconstruction provides safety improvements.
	Ability of the alternative to reduce the number of potential multimodal conflict points	Designated space for pedestrians and bicyclists along with crossing treatments of two vehicular lanes and increased access control substantially reduces conflict points.
Community	Relative property impacts based on number of residential and business properties impacted	Right-of-way would be acquired from approx. 10 residential and 22 business/non-residential properties with no assumed total property acquisitions or buildings impacted.
	Relative local street circulation and volume impacts	No changes in local street circulation and no increase in US 6C traffic volume traveling on local streets.
	Ability of the alternative to support local and regional plans	Pedestrian and bicyclist facilities, access control, and improved traffic operations along US 6C generally support local and regional transportation and community plans.
Environmental Resources	Ability of the alternative to avoid and minimize impacts on environmental resources	POTENTIAL MINOR IMPACTS Potential impacts to listed NRHP site (church). Potential noise impacts to church and Clifton Elementary.
Implementability	Ability of the alternative to minimize cost based on relative conceptual-level probable cost	Relatively moderate cost due to potential for right-of-way acquisition.
	Ability to implement as separate fundable projects	Opportunity for improvements to be constructed and opened separately as fundable projects as sections along US 6C. Projects located along existing state highway system.

Figure 5: Alternative 2 – US 6 Three Through Lanes



Description

This alternative consists of widening US 6C to provide two eastbound through lanes and one westbound through lane with modifications to driveways and public access with raised medians, left turn lanes, and two-way left-turn lanes as needed to increase access control with intersection configurations and control to optimize capacity. Between I-70B and 1st Street, US 6C would remain five lanes with potential changes to address lane balance to the east. Sidewalks along US 6C would be provided to accommodate pedestrians and bicyclists with improved crossings of US 6C.

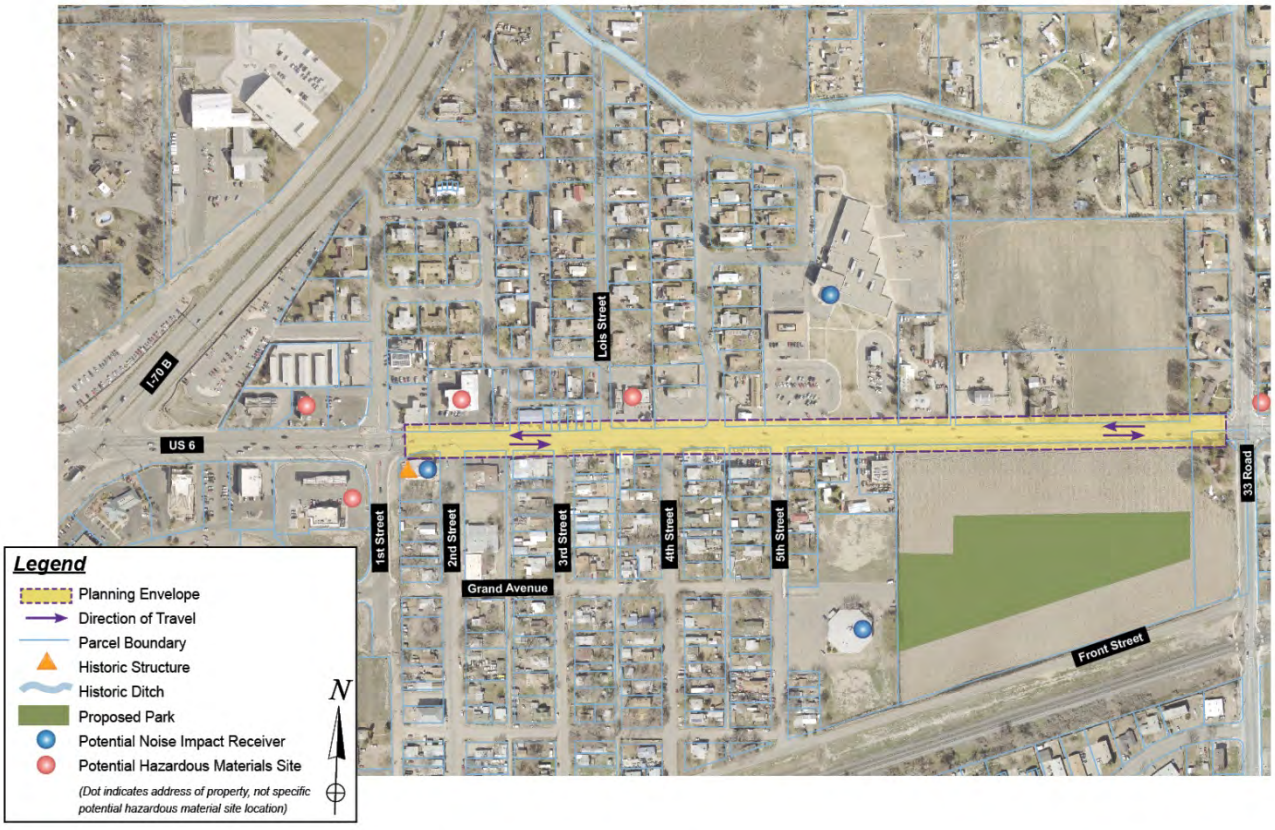
Summary of Results: NOT RECOMMENDED

This alternative is not recommended for further consideration because the improvement would result in comparably higher property impacts with full property acquisitions without substantially better traffic operations, safety, and multimodal mobility benefits than Alternative 1.

Table 3: Level 2 Evaluation – Alternative 2

LEVEL 2 EVALUATION CRITERIA		ALTERNATIVE 2 – US 6 THREE THROUGH LANES
Traffic Operations	Ability of the alternative to provide daily and peak hour roadway capacity to meet 2040 travel demand	Forecasted 2040 demand (24,300 vpd) on US 6C less than capacity of 28,000 vpd, but WB demand (11,100 vpd) reaches WB capacity of 11,000 vpd.
	Ability of the alternative to accommodate regional through travel	Regional traffic remains along existing US 6C alignment with some operational benefits.
	Ability of the alternative to provide consistency with the *US 6 - Clifton Access Control Plan*	Increased access control and turn restrictions consistent with Access Control Plan.
Multimodal Connectivity	Ability of the alternative to provide good pedestrian and bicyclist flow	Pedestrian and bicyclist facilities with crossing treatments of three vehicular lanes would accommodate pedestrians/bicyclists, but may not encourage pedestrian/bicyclist activity along US 6C.
	Ability of the alternative to enhance bus operations	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times.
Safety Concerns	Ability of the alternative to reduce unsafe physical (roadside hazards) or operational (congestion, lack of access control, and driver expectancy) conditions along US 6	Improvements address operational and safety issues associated with peak hour congestion and lack of access control. Roadway reconstruction provides safety improvements.
	Ability of the alternative to reduce the number of potential multimodal conflict points	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points, but pedestrians/bicyclists must cross three vehicular lanes.
Community	Relative property impacts based on number of residential and business properties impacted	Right-of-way would be acquired from approx. 10 residential and 22 business/non-residential properties with 4 assumed total property acquisitions (1 residential and 3 business) and 2 assumed buildings impacted (1 business and 1 residential).
	Relative local street circulation and volume impacts	No changes in local street circulation and no increase in US 6C traffic volume traveling on local streets.
	Ability of the alternative to support local and regional plans	Pedestrian and bicyclist facilities, access control, and improved traffic operations along US 6C generally support local and regional transportation and community plans.
Environmental Resources	Ability of the alternative to avoid and minimize impacts on environmental resources	POTENTIAL MINOR IMPACTS Potential impacts to listed NRHP site (church). Potential noise impacts to church and Clifton Elementary.
Implementability	Ability of the alternative to minimize cost based on relative conceptual-level probable cost	Relatively high cost due to potential for right-of-way acquisition with full property acquisitions.
	Ability to implement as separate fundable projects	Opportunity for improvements to be constructed and opened separately as fundable projects as sections along US 6C. Projects located along existing state highway system.

Figure 6: Alternative 3 – US 6 Four Through Lanes



Description

This alternative consists of widening US 6C to provide four through travel lanes with median and driveway and access modifications to increase access control and intersection configurations and control to optimize capacity. Sidewalks along US 6C would be provided to accommodate pedestrians and bicyclists with improved crossings of US 6C.

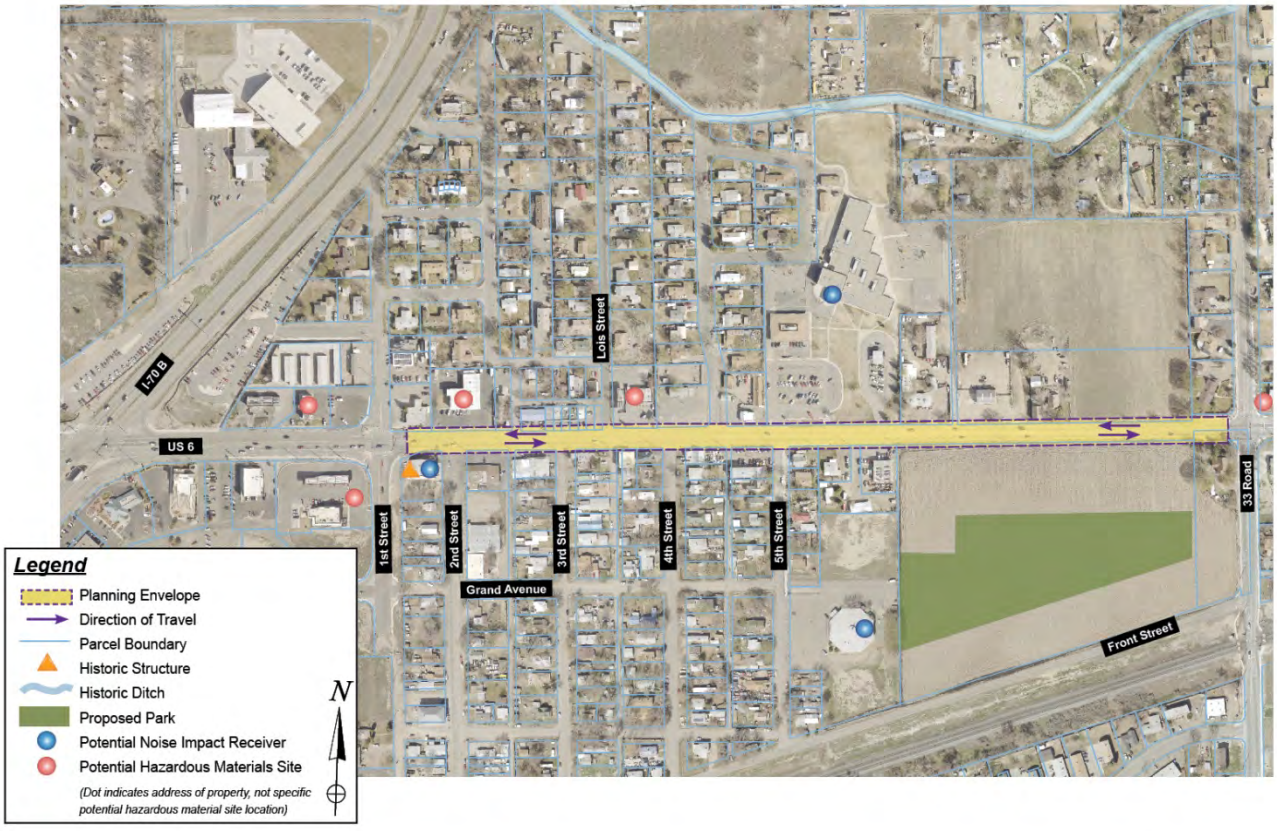
Summary of Results: CARRIED FORWARD

This alternative is carried forward for further evaluation because the improvement provides substantially more vehicular capacity along US 6C and would provide traffic operational and safety benefits related to congestion and lack of access control, as well as multimodal mobility benefits with some impacts to the community and environmental and cultural resources.

Table 4: Level 2 Evaluation – Alternative 3

LEVEL 2 EVALUATION CRITERIA		ALTERNATIVE 3 – US 6 FOUR THROUGH LANES
Traffic Operations	Ability of the alternative to provide daily and peak hour roadway capacity to meet 2040 travel demand	Forecasted 2040 demand (27,800 vpd) on US 6C substantially less than capacity of 35,000 vpd.
	Ability of the alternative to accommodate regional through travel	Regional traffic remains along existing US 6C alignment with substantial operational benefits from additional capacity.
	Ability of the alternative to provide consistency with the *US 6 - Clifton Access Control Plan*	Four lanes, median treatments, and increased access control as assumed in Access Control Plan.
Multimodal Connectivity	Ability of the alternative to provide good pedestrian and bicyclist flow	Pedestrian and bicyclist facilities with crossing treatments of four vehicular lanes would accommodate pedestrians/bicyclists, but may not encourage pedestrian/bicyclist activity along US 6C.
	Ability of the alternative to enhance bus operations	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times. Traffic could pass buses stopped in right lane.
Safety Concerns	Ability of the alternative to reduce unsafe physical (roadside hazards) or operational (congestion, lack of access control, and driver expectancy) conditions along US 6	Improvements address operational and safety issues associated with peak hour congestion and lack of access control. Roadway reconstruction provides safety improvements.
	Ability of the alternative to reduce the number of potential multimodal conflict points	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points, but pedestrians/bicyclists must cross four vehicular lanes.
Community	Relative property impacts based on number of residential and business properties impacted	Right-of-way would be acquired from approx. 10 residential and 22 business/non-residential properties with 14 assumed total property acquisitions (2 residential and 12 business) and 3 assumed buildings impacted (2 business and 1 residential).
	Relative local street circulation and volume impacts	No changes in local street circulation and no increase in US 6C traffic volume traveling on local streets.
	Ability of the alternative to support local and regional plans	Pedestrian and bicyclist facilities, access control, and improved traffic operations along US 6C generally support local and regional transportation and community plans.
Environmental Resources	Ability of the alternative to avoid and minimize impacts on environmental resources	POTENTIAL MINOR IMPACTS Potential impacts to listed NRHP site (church). Potential noise impacts to church and Clifton Elementary.
Implementability	Ability of the alternative to minimize cost based on relative conceptual-level probable cost	Relatively high cost due to potential for right-of-way acquisition with full property acquisitions.
	Ability to implement as separate fundable projects	Opportunity for improvements to be constructed and opened separately as fundable projects as sections along US 6C. Projects located along existing state highway system.

Figure 7: Alternative 4 – Three-Lane with Reversible Lane



Description

This alternative consists of the existing three lanes between 1st Street and 33 Road, with the two-way left turn lane converted to a through lane in the peak direction during peak periods (westbound in the AM peak period and eastbound in the PM peak period). Left turns from US 6C would be prohibited during those peak periods. Driveways and public access would be modified to increase access control. Between I-70B and 1st Street, US 6C would remain five lanes with potential changes to address lane balance to the east and operations of the reversible center lane. In order to provide multimodal facilities and address safety concerns related to pedestrian conflicts, sidewalks along US 6C would be provided to accommodate pedestrians within right-of-way constraints.

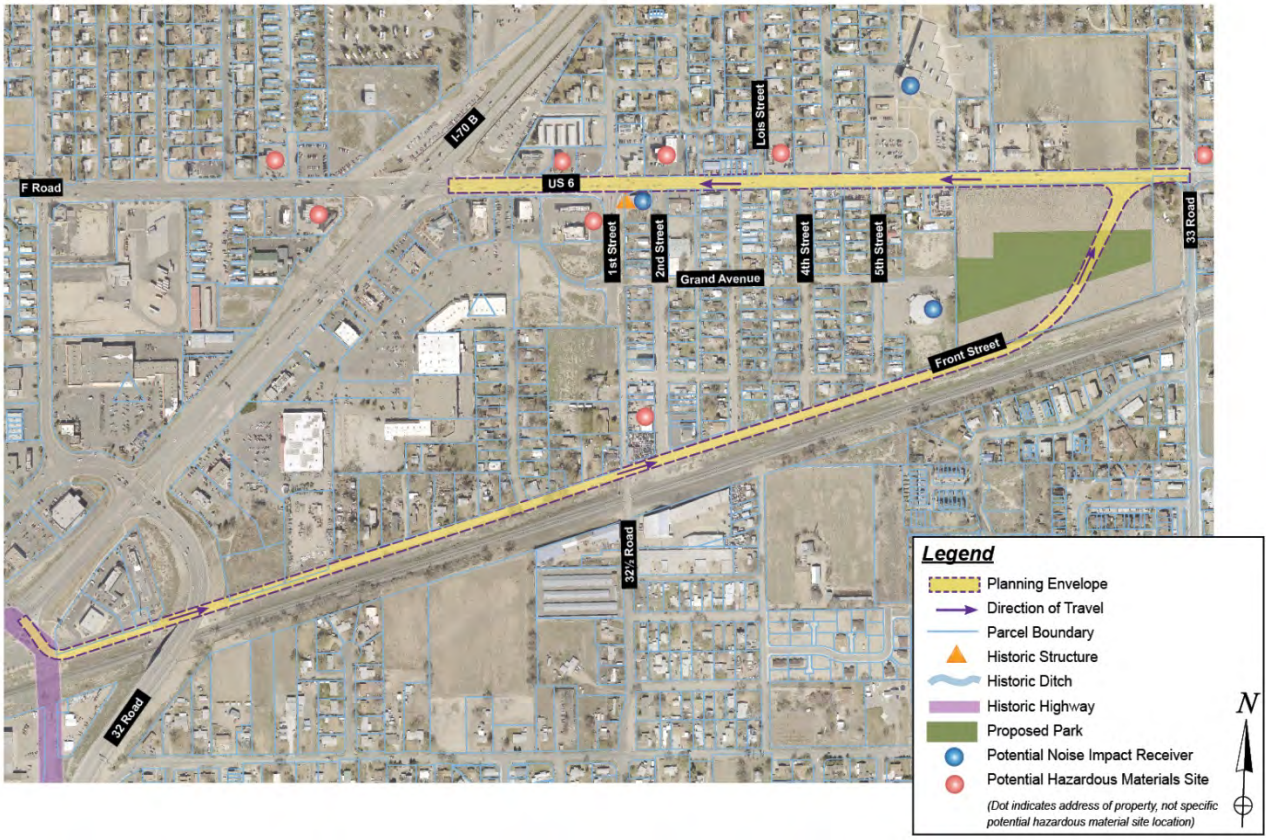
Summary of Results: ELIMINATED

This alternative is eliminated from further consideration because the alternative would not address the Purpose and Need to improve safety along the corridor due to the new safety concerns introduced with driver expectancy issues related to reversible lane operations with relatively short section, lack of barrier/median separation, pedestrian crossing activity, and intersection operations at corridor entry points, as well as additional conflicts with pedestrian and bicyclists due to lack of median refuge area and confusion with change in vehicular direction during peak hours. This alternative would not provide substantially better traffic operations than other alternatives.

Table 5: Level 2 Evaluation – Alternative 4

LEVEL 2 EVALUATION CRITERIA		ALTERNATIVE 4 – THREE-LANE WITH REVERSIBLE LANE
Traffic Operations	Ability of the alternative to provide daily and peak hour roadway capacity to meet 2040 travel demand	Forecasted 2040 demand (22,000 vpd) reaches capacity of 22,000 vpd with operational benefits from additional peak hour capacity, intersection improvements, and increased access control.
	Ability of the alternative to accommodate regional through travel	Regional traffic remains along existing US 6C alignment with some operational benefits.
	Ability of the alternative to provide consistency with the *US 6 - Clifton Access Control Plan*	Increased access control and turn restrictions consistent with Access Control Plan.
Multimodal Connectivity	Ability of the alternative to provide good pedestrian and bicyclist flow	Pedestrian and bicyclist facilities with crossing treatments of three vehicular lanes would accommodate pedestrians/bicyclists, but may not encourage pedestrian/bicyclist activity along US 6C.
	Ability of the alternative to enhance bus operations	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times during peak hours.
Safety Concerns	Ability of the alternative to reduce unsafe physical (roadside hazards) or operational (congestion, lack of access control, and driver expectancy) conditions along US 6	Increased access control provides safety improvements, but congestion benefits limited to peak hours. New safety concerns introduced with driver expectancy issues related to reversible operations with relatively short section, lack of barrier/median separation, pedestrian crossing activity, and intersection operations at corridor entry points.
	Ability of the alternative to reduce the number of potential multimodal conflict points	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points, but reversible lane operations during peak hours introduces additional conflicts with lack of median refuge area and pedestrian confusion with change in vehicular direction during peak hours.
Community	Relative property impacts based on number of residential and business properties impacted	Right-of-way would be acquired from approx. 10 residential and 22 business/non-residential properties with no assumed total property acquisitions or buildings impacted.
	Relative local street circulation and volume impacts	No changes in local street circulation and no increase in US 6C traffic volume traveling on local streets.
	Ability of the alternative to support local and regional plans	Pedestrian and bicyclist facilities, access control, and improved traffic operations along US 6C generally support local and regional transportation and community plans.
Environmental Resources	Ability of the alternative to avoid and minimize impacts on environmental resources	POTENTIAL MINOR IMPACTS Potential impacts to listed NRHP site (church). Potential noise impacts to church and Clifton Elementary.
Implementability	Ability of the alternative to minimize cost based on relative conceptual-level probable cost	Relatively moderate cost due to infrastructure for reversible lane operations and potential for right-of-way acquisition.
	Ability to implement as separate fundable projects	Reconstruction of US 6C can be constructed as separate projects, but infrastructure and operations for reversible lane must be implemented as one project. Projects located along existing state highway system.

Figure 8: Alternative 10 – Front Street/US 6 One-Way Couplet, Old 32 Road to 33 Road



Description

The alternative consists of the conversion of US 6C to one-way operations with two westbound travel lanes and driveway and access modifications to increase access control. A new two-lane roadway connection would be constructed from I-70B at the intersection of Old 32 Road (at the Clifton Transfer Facility), crossing under the 32 Road/UPRR bridge with a new span to Front Street, with one-way operations as two eastbound travel lanes along Front Street. Sidewalks along US 6C would be provided to accommodate pedestrians and bicyclists with improved crossings of US 6C.

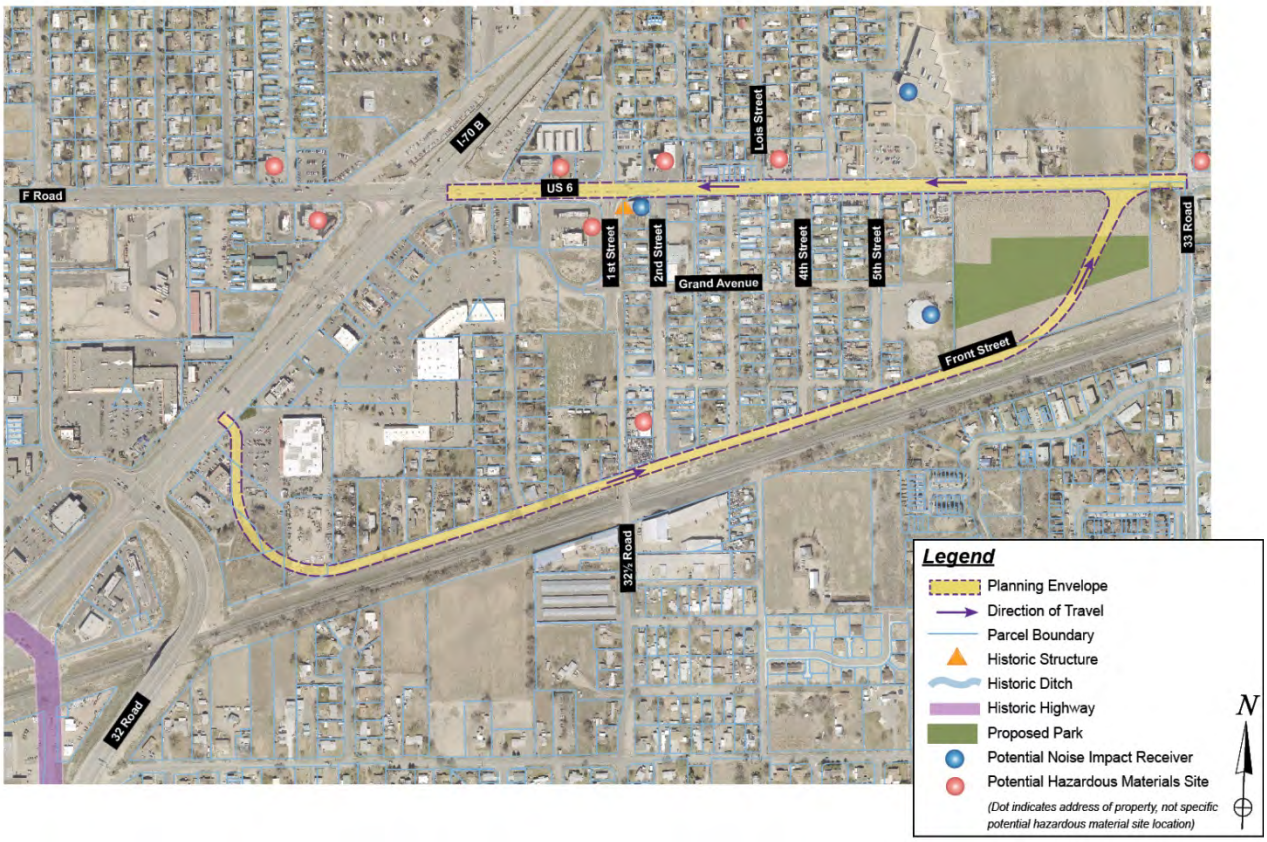
Summary of Results: NOT RECOMMENDED

This alternative is not recommended for further consideration because the improvements create additional congestion along Old 32 Road and I-70B and impact driver expectancy related to eastbound traffic traveling out-of-direction to Front Street. Although the improvements would accommodate and may encourage additional pedestrian/bicyclist flows, overall multimodal conflicts are increased with additional traffic along Front Street. The one-way operations would affect circulation to/from properties along and south of US 6C, impacting local streets with increased US 6C traffic.

Table 6: Level 2 Evaluation – Alternative 10

LEVEL 2 EVALUATION CRITERIA		ALTERNATIVE 10 – FRONT STREET/US 6 ONE-WAY COUPLET, OLD 32 ROAD TO 33 ROAD
Traffic Operations	Ability of the alternative to provide daily and peak hour roadway capacity to meet 2040 travel demand	Forecasted 2040 demand (15,400 vpd) on US 6C less than capacity of 19,000 vpd and forecasted 2040 demand (11,600 vpd) on Front St less than capacity of 16,000 vpd. Additional volume impacts on Old 32 Rd and I-70B.
	Ability of the alternative to accommodate regional through travel	EB through traffic required to travel out-of-direction with multiple turn movements to Front St, adding volume and creating additional congestion along Old 32 Rd and I-70B.
	Ability of the alternative to provide consistency with the *US 6 - Clifton Access Control Plan*	One-way operations along US 6C not consistent with Access Control Plan and Front St accesses remain.
Multimodal Connectivity	Ability of the alternative to provide good pedestrian and bicyclist flow	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian/bicyclist activity along US 6C and along Front St.
	Ability of the alternative to enhance bus operations	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times along US 6C and Front St. Traffic could pass buses stopped in right lane.
Safety Concerns	Ability of the alternative to reduce unsafe physical (roadside hazards) or operational (congestion, lack of access control, and driver expectancy) conditions along US 6	Increased capacity provides safety improvements related to congestion, but new safety concerns introduced with accesses along Front St, driver expectancy issues related to EB traffic traveling out-of-direction, and additional congestion along Old 32 Rd and I-70B.
	Ability of the alternative to reduce the number of potential multimodal conflict points	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points along existing US 6C alignment, but overall conflicts are increased with additional traffic along Front St.
Community	Relative property impacts based on number of residential and business properties impacted	Right-of-way would be acquired from approx. 20 residential and 28 business/non-residential properties with no assumed total property acquisitions. Right-of-way may be required from UPRR.
	Relative local street circulation and volume impacts	Circulation to/from properties along US 6C and between US 6C and Front Street substantially impacted by one-way operations, resulting in increased US 6C traffic volumes on local streets.
	Ability of the alternative to support local and regional plans	Pedestrian and bicyclist facilities and access control along US 6C support local and regional transportation and community plans, but one-way operations and Front St as a regional arterial are not consistent with previous planning efforts.
Environmental Resources	Ability of the alternative to avoid and minimize impacts on environmental resources	POTENTIAL HIGH IMPACTS Same potential impacts as Alts 1-4. Additional hazmat site - medium potential. Additional impacts to eligible historic property. Disproportionately higher Environmental Justice (EJ) impacts than Alts 1-4. Additional potential noise impacts to residences and church. Prime Farmland impacts.
Implementability	Ability of the alternative to minimize cost based on relative conceptual-level probable cost	Relatively high cost due to new underpass under 32 Road and potential for right-of-way acquisition.
	Ability to implement as separate fundable projects	Opportunity for US 6C and Front St reconstruction and Front St bridge to be constructed in sections as separate projects, but full implementation of one-way couplet must occur together. Front St would be converted to state highway, increasing highway system cost.

Figure 9: Alternative 11 – Front Street/US 6 One-Way Couplet at Peach Tree Center



Description

This alternative consists of the conversion of US 6C to one-way operations with two westbound travel lanes and driveway and access modifications to increase access control. A new two-lane roadway connection would be constructed from I-70B at the intersection of the Peach Tree Center to Front Street, with one-way operations as two eastbound travel lanes along Front Street. Sidewalks along US 6C would be provided to accommodate pedestrians and bicyclists with improved crossings of US 6C, such as shortening crossing distance across intersection legs and mid-block crossing signage and signal enhancements.

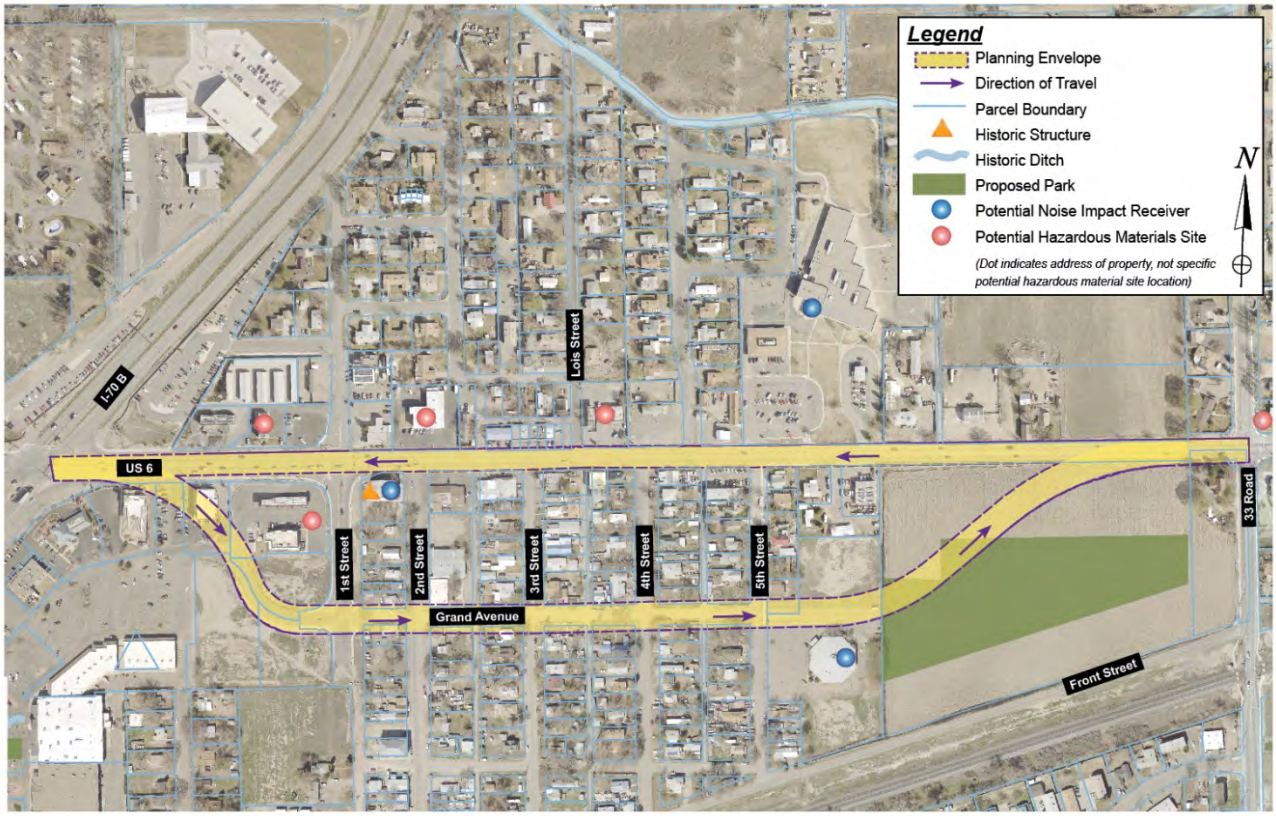
Summary of Results: NOT RECOMMENDED

This alternative is not recommended for further consideration because the improvements create additional congestion along Old 32 Road and I-70B and impact driver expectancy related to eastbound traffic traveling out-of-direction to Front Street. Although the improvements would accommodate and may encourage additional pedestrian/bicyclist flows, overall multimodal conflicts are increased with additional traffic along Front Street. The one-way operations would affect circulation to/from properties along and south of US 6C, impacting local streets with increased US 6C traffic.

Table 7: Level 2 Evaluation – Alternative 11

LEVEL 2 EVALUATION CRITERIA		ALTERNATIVE 11 – FRONT STREET/US 6 ONE-WAY COUPLET AT PEACH TREE CENTER
Traffic Operations	Ability of the alternative to provide daily and peak hour roadway capacity to meet 2040 travel demand	Forecasted 2040 demand (15,400 vpd) on US 6C less than capacity of 19,000 vpd and forecasted 2040 demand (11,600 vpd) on Front St less than capacity of 16,000 vpd. Additional volume impacts on Old 32 Rd and I-70B.
	Ability of the alternative to accommodate regional through travel	EB through traffic required to travel out-of-direction with multiple turn movements to Front Street, adding volume and creating additional congestion along Old 32 Rd and I-70B.
	Ability of the alternative to provide consistency with the *US 6 - Clifton Access Control Plan*	One-way operations along US 6C not consistent with Access Control Plan and Front St accesses remain.
Multimodal Connectivity	Ability of the alternative to provide good pedestrian and bicyclist flow	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian/bicyclist activity along US 6C and along Front St.
	Ability of the alternative to enhance bus operations	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times along US 6C and Front St. Traffic could pass buses stopped in right lane.
Safety Concerns	Ability of the alternative to reduce unsafe physical (roadside hazards) or operational (congestion, lack of access control, and driver expectancy) conditions along US 6	Increased capacity provides safety improvements related to congestion, but new safety concerns introduced with accesses along Front St, driver expectancy issues related to EB traffic traveling out-of-direction, and additional congestion along Old 32 Rd and I-70B.
	Ability of the alternative to reduce the number of potential multimodal conflict points	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points along existing US 6C alignment, but overall conflicts are increased with additional traffic along Front St and within Peach Tree Center.
Community	Relative property impacts based on number of residential and business properties impacted	Right-of-way would be acquired from approx. 20 residential and 28 business/non-residential properties with no assumed total property acquisitions. Right-of-way may be required from UPRR.
	Relative local street circulation and volume impacts	Circulation to/from properties along US 6C and between US 6C and Front Street substantially impacted by one-way operations, resulting in increased US 6C traffic volumes on local streets.
	Ability of the alternative to support local and regional plans	Pedestrian and bicyclist facilities and access control along US 6C support local and regional transportation and community plans, but one-way operations and Front St as a regional arterial are not consistent with previous planning efforts.
Environmental Resources	Ability of the alternative to avoid and minimize impacts on environmental resources	POTENTIAL HIGH IMPACTS Same potential impacts as Alts 1-4. Additional hazmat sites - high and medium potential. Additional impacts to eligible historic property. Disproportionately higher EJ impacts than Alts 1-4. Additional potential noise impacts to residences and church. Prime Farmland Impacts.
Implementability	Ability of the alternative to minimize cost based on relative conceptual-level probable cost	Relatively high cost due to access and traffic signal changes at Peach Tree Center and potential for right-of-way acquisition through the Peach Tree Center.
	Ability to implement as separate fundable projects	Opportunity for US 6C and Front St reconstruction and Peach Tree Center connection to be constructed in sections as separate projects, but full implementation of one-way couplet must occur together. Front St would be converted to state highway, increasing highway system cost.

Figure 10: Alternative 12 – US 6/Grand Avenue One-Way Couplet



Description

This alternative consists of the conversion of US 6C to one-way operations with two westbound travel lanes and driveway and access modifications to increase access control. New two-lane connections would be constructed to Grand Avenue with one-way operations as two eastbound travel lanes along Grand Avenue. Sidewalks along US 6C would be provided to accommodate pedestrians and bicyclists with improved crossings of US 6C, such as shortening crossing distance across intersection legs and mid-block crossing signage and signal enhancements.

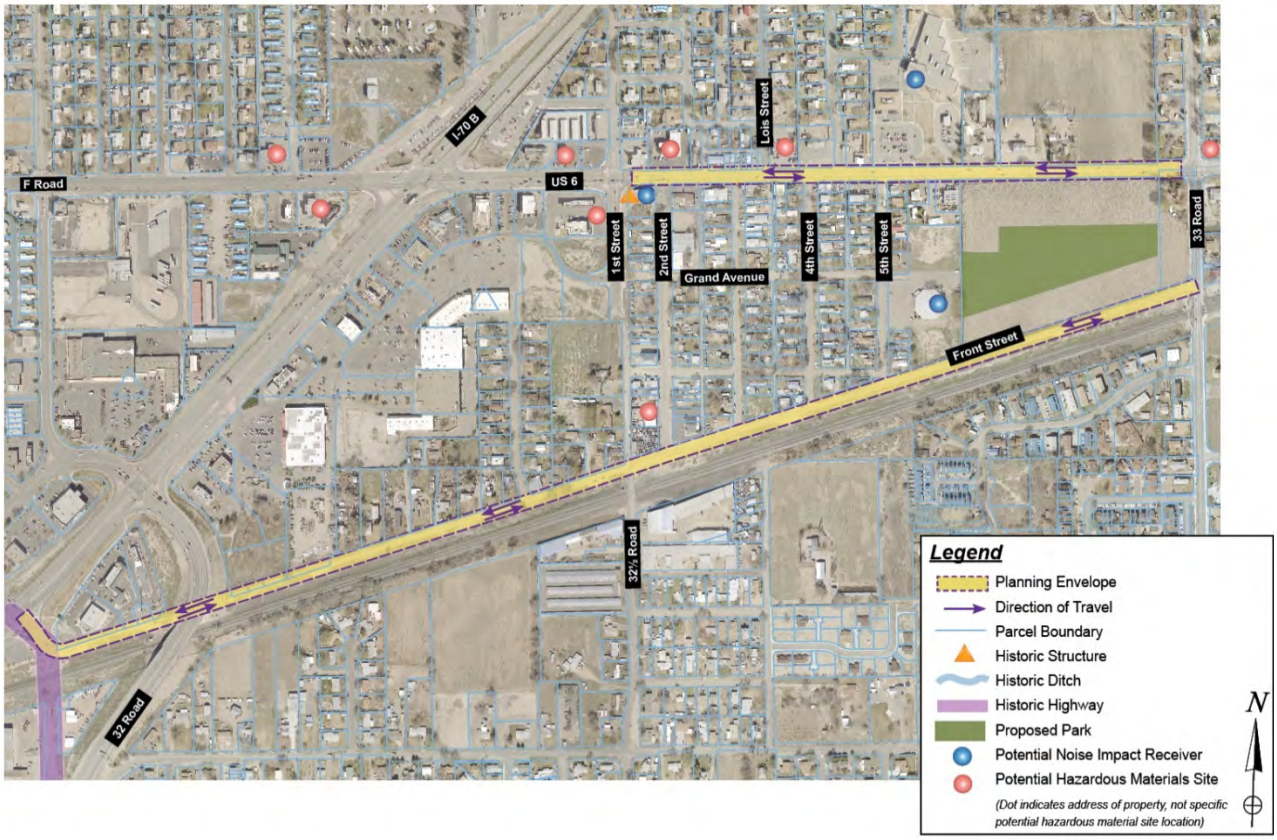
Summary of Results: ELIMINATED

This alternative is eliminated from further consideration because the alternative does not meet the Purpose and Need to improve traffic operations and safety along the corridor due to the limited capacity of Grand Avenue for eastbound US 6C traffic and new safety concerns introduced with residential accesses and pedestrian flows along and across Grand Avenue. This alternative also has a combination of negative impacts on the community and environmental and cultural resources, requiring acquisition from 25 residential properties and 31 business/non-residential properties and having disproportionately higher environmental justice impacts than other alternatives, as well as impacts to prime farmland.

Table 8: Level 2 Evaluation – Alternative 12

LEVEL 2 EVALUATION CRITERIA		ALTERNATIVE 12 – US 6/GRAND AVENUE ONE-WAY COUPLET
Traffic Operations	Ability of the alternative to provide daily and peak hour roadway capacity to meet 2040 travel demand	Forecasted 2040 demand (14,200 vpd) on US 6C less than capacity of 19,000 vpd, but forecasted 2040 demand (13,600 vpd) on Grand Ave exceeds capacity of 12,000 vpd.
	Ability of the alternative to accommodate regional through travel	WB traffic remains along existing US 6C alignment with some operational benefits, but EB regional traffic travels on Grand Ave with residential properties and parking.
	Ability of the alternative to provide consistency with the *US 6 - Clifton Access Control Plan*	One-way operations along US 6C not consistent with Access Control Plan and Grand Ave residential accesses remain.
Multimodal Connectivity	Ability of the alternative to provide good pedestrian and bicyclist flow	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian/bicyclist activity along US 6C and along Grand Ave.
	Ability of the alternative to enhance bus operations	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times along US 6C and Grand Ave. Traffic could pass buses stopped in right lane.
Safety Concerns	Ability of the alternative to reduce unsafe physical (roadside hazards) or operational (congestion, lack of access control, and driver expectancy) conditions along US 6	Increased capacity for WB traffic along US 6C provides safety improvements related to congestion, but new safety concerns introduced with residential accesses and pedestrian flows along and across Grand Ave.
	Ability of the alternative to reduce the number of potential multimodal conflict points	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points along existing US 6C alignment, but overall conflicts are increased with additional traffic along residential area of Grand Ave.
Community	Relative property impacts based on number of residential and business properties impacted	Right-of-way would be acquired from approx. 25 residential and 31 business/non-residential properties with 6 assumed total property acquisitions (1 business on US 6C and 5 residential along Grand Ave).
	Relative local street circulation and volume impacts	Circulation to/from properties along US 6C and Grand Ave substantially impacted with one-way operations, resulting in increased US 6C traffic volumes on local streets.
	Ability of the alternative to support local and regional plans	Pedestrian and bicyclist facilities and access control along US 6C support local and regional transportation and community plans, but one-way operations and Grand Ave as a regional arterial are not consistent with previous planning efforts.
Environmental Resources	Ability of the alternative to avoid and minimize impacts on environmental resources	POTENTIAL HIGH IMPACTS Same potential impacts as Alts 1-4. Additional impacts to eligible historic property. Disproportionately higher EJ impacts than Alts 1-4. Additional potential noise impacts to residences and church. Prime Farmland impacts.
Implementability	Ability of the alternative to minimize cost based on relative conceptual-level probable cost	Relatively high cost due to potential for right-of-way acquisition with full property acquisitions.
	Ability to implement as separate fundable projects	Opportunity for US 6C and Grand Ave reconstruction to be constructed in sections as separate projects, but connections and full implementation of one-way couplet must occur together. Grand Ave would be converted to state highway, increasing highway system cost.

Figure 11: Alternative 16 – Front Street Connection Two-Way with US 6 Improved Two Through Lanes



Description

This alternative consists of a new two-lane roadway connection from I-70B at the intersection of Old 32 Road (at the Clifton Transfer Facility), crossing under the 32 Road/UPRR bridge with a new span to Front Street, with shoulder and access improvements along Front Street as needed to provide adequate capacity. One eastbound through lane and one westbound through lane are provided along US 6C with roadway improvements between 1st Street and 33 Road and modifications to driveways and public access with raised medians, left turn lanes, and two-way left-turn lanes as needed to increase access control with intersection configurations and control to optimize capacity. Between I-70B and 1st Street, US 6C would remain five lanes with potential changes to address lane balance to the east. Sidewalks along US 6C would be provided for pedestrians and bicyclists with improved crossings of US 6C.

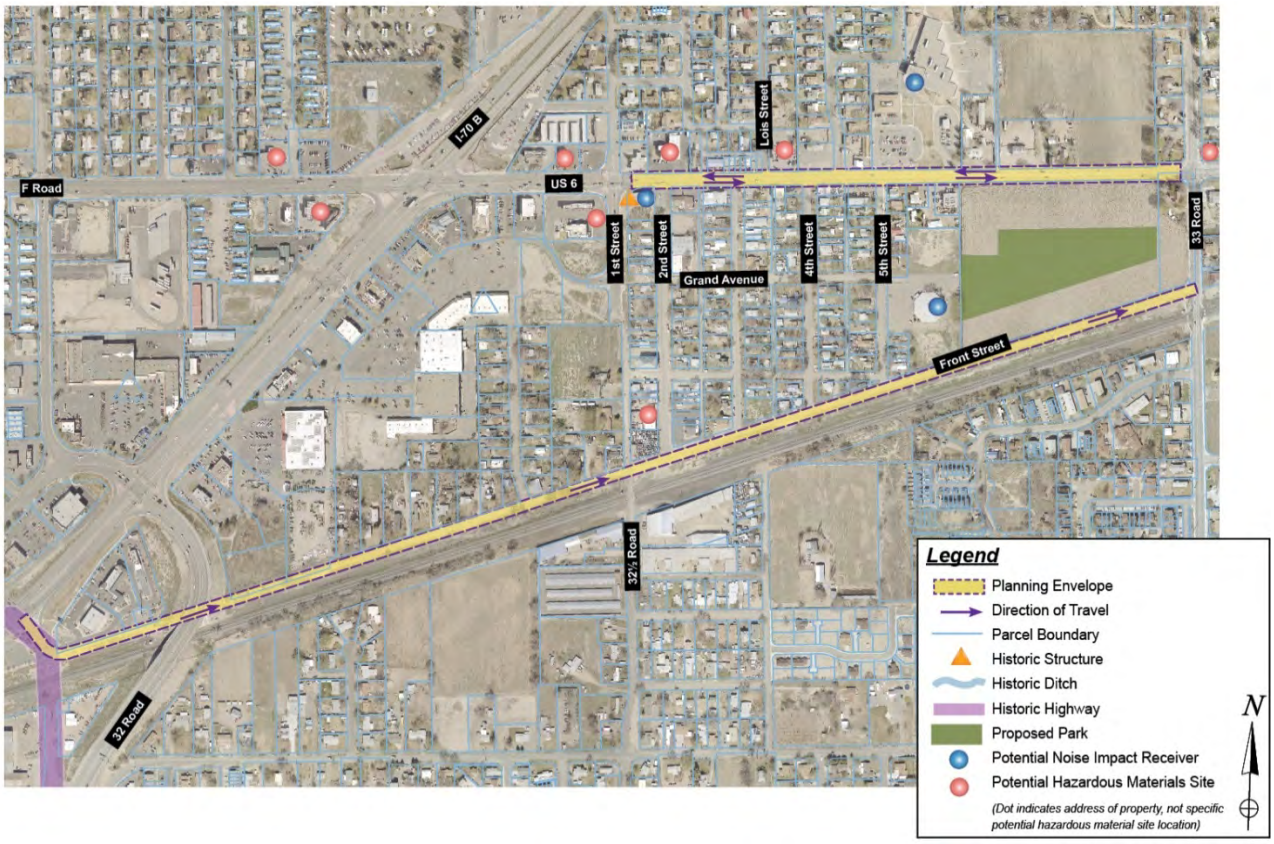
Summary of Results: CARRIED FORWARD

This alternative is carried forward for further evaluation because the improvement provides more east-west vehicular capacity along US 6C and Front Street and would provide traffic operational and safety benefits related to congestion and lack of access control, as well as multimodal mobility benefits with some impacts to the community and environmental and cultural resources.

Table 9: Level 2 Evaluation – Alternative 16

LEVEL 2 EVALUATION CRITERIA		ALTERNATIVE 16 – FRONT STREET CONNECTION TWO-WAY WITH US 6 IMPROVED TWO THROUGH LANES
Traffic Operations	Ability of the alternative to provide daily and peak hour roadway capacity to meet 2040 travel demand	Forecasted 2040 demand (20,000 vpd) on US 6C less than capacity of 22,000 vpd and forecasted 2040 demand (6,000 vpd) on Front St less than capacity of 16,000 vpd.
	Ability of the alternative to accommodate regional through travel	Regional traffic can remain along existing US 6C alignment with additional capacity provided along Front St for both EB and WB traffic.
	Ability of the alternative to provide consistency with the *US 6 - Clifton Access Control Plan*	Increased access control and turn restrictions consistent with Access Control Plan.
Multimodal Connectivity	Ability of the alternative to provide good pedestrian and bicyclist flow	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian / bicyclist activity along US 6C and along Front St.
	Ability of the alternative to enhance bus operations	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times along US 6C and Front St.
Safety Concerns	Ability of the alternative to reduce unsafe physical (roadside hazards) or operational (congestion, lack of access control, and driver expectancy) conditions along US 6	Improvements along US 6C address operational and safety issues associated with peak hour congestion and lack of access control. Roadway reconstruction provides safety improvements, but new safety concerns introduced with accesses along Front St.
	Ability of the alternative to reduce the number of potential multimodal conflict points	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points along existing US 6C alignment, but some additional conflicts with added traffic along Front St.
Community	Relative property impacts based on number of residential and business properties impacted	Right-of-way would be acquired from approx. 22 residential and 28 business/non-residential properties with 1 assumed total property acquisitions (1 business on Front St). Right-of-way may be required from UPRR.
	Relative local street circulation and volume impacts	No changes in local street circulation, but potential for some increase in traffic volume on local streets south of US 6C with new Front St connection.
	Ability of the alternative to support local and regional plans	Pedestrian and bicyclist facilities and access control along US 6C support local and regional transportation and community plans, but traffic volumes along Front St are not consistent with previous planning efforts.
Environmental Resources	Ability of the alternative to avoid and minimize impacts on environmental resources	POTENTIAL MODERATE IMPACTS Same potential impacts as Alts 1-4. Additional hazmat site - medium potential. Additional impacts to eligible historic property. Disproportionately higher EJ impacts than Alts 1-4. Additional potential noise impacts to residences and church.
Implementability	Ability of the alternative to minimize cost based on relative conceptual-level probable cost	Relatively high cost due to new underpass under 32 Road and potential for right-of-way acquisition with full property acquisitions.
	Ability to implement as separate fundable projects	Opportunity for US 6C and Front St reconstruction and Front St bridge to be constructed and opened separately in sections as fundable projects. Front St would remain local roadway and Front St improvements would be implemented by Mesa County.

Figure 12: Alternative 17 – Front Street Connection One-Way Eastbound with US 6 Improved Two Through Lanes



Description

This alternative consists of a new two-lane roadway connection from I-70B at the intersection of Old 32 Road (at the Clifton Transfer Facility), crossing under the 32 Road/UPRR bridge with a new span to Front Street, with one-way eastbound operations along Front Street. One eastbound through lane and one westbound through lane are provided along US 6C with roadway improvements between 1st Street and 33 Road and modifications to driveways and public access with raised medians, left turn lanes, and two-way left-turn lanes as needed to increase access control with intersection configurations and control to optimize capacity. Between I-70B and 1st Street, US 6C would remain five lanes with potential changes to address lane balance to the east. Sidewalks along US 6C would be provided for pedestrians and bicyclists with improved crossings of US 6C.

Summary of Results: NOT RECOMMENDED

This alternative is not recommended for further consideration because the improvements would result in comparably higher local circulation and street impacts due to one-way operations along Front Street without notably better traffic operations, safety, and multimodal benefits or reduced community impacts than Alternative 16.

Table 10: Level 2 Evaluation – Alternative 17

LEVEL 2 EVALUATION CRITERIA		ALTERNATIVE 17 – FRONT STREET CONNECTION ONE-WAY EASTBOUND WITH US 6 IMPROVED TWO THROUGH LANES
Traffic Operations	Ability of the alternative to provide daily and peak hour roadway capacity to meet 2040 travel demand	Forecasted 2040 demand (20,500 vpd) on US 6C less than capacity of 22,000 vpd and forecasted 2040 demand (3,500 vpd) on Front St less than capacity of 16,000 vpd.
	Ability of the alternative to accommodate regional through travel	Regional traffic can remain along existing US 6C alignment with additional EB capacity provided along Front St.
	Ability of the alternative to provide consistency with the *US 6 - Clifton Access Control Plan*	Increased access control and turn restrictions consistent with Access Control Plan.
Multimodal Connectivity	Ability of the alternative to provide good pedestrian and bicyclist flow	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian/bicyclist activity along US 6C and along Front St.
	Ability of the alternative to enhance bus operations	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times along US 6C and Front St.
Safety Concerns	Ability of the alternative to reduce unsafe physical (roadside hazards) or operational (congestion, lack of access control, and driver expectancy) conditions along US 6	Improvements along US 6C address operational and safety issues associated with peak hour congestion and lack of access control. Roadway reconstruction provides safety improvements, but new safety concerns introduced with accesses along Front St.
	Ability of the alternative to reduce the number of potential multimodal conflict points	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points along existing US 6C alignment, but some additional conflicts with added traffic along Front St.
Community	Relative property impacts based on number of residential and business properties impacted	Right-of-way would be acquired from approx. 21 residential and 28 business/non-residential properties with no assumed total property acquisitions or buildings impacted. Right-of-way may be required from UPRR.
	Relative local street circulation and volume impacts	Circulation to/from properties along Front Street substantially impacted with one-way operation, resulting in potential for increased traffic volumes on local streets south of US 6C.
	Ability of the alternative to support local and regional plans	Pedestrian and bicyclist facilities and access control along US 6C support local and regional transportation and community plans, but one-way operations on Front St are not consistent with previous planning efforts.
Environmental Resources	Ability of the alternative to avoid and minimize impacts on environmental resources	POTENTIAL MODERATE IMPACTS Same potential impacts as Alts 1-4. Additional hazmat site - medium potential. Additional impacts to eligible historic property. Disproportionately higher EJ impacts than Alts 1-4. Additional potential noise impacts to residences and church.
Implementability	Ability of the alternative to minimize cost based on relative conceptual-level probable cost	Relatively high cost due to new underpass under 32 Road and potential for right-of-way acquisition.
	Ability to implement as separate fundable projects	Opportunity for US 6C and Front St reconstruction and Front St bridge to be constructed and opened separately in sections as fundable projects, but implementation of one-way Front Street must occur as one project. Front St would remain local roadway and Front St improvements would be implemented by Mesa County.

Level 2 Screening Results

In the Level 2 screening, the following two alternatives were eliminated from further consideration because they do not meet the project Purpose and Need:

- Alternative 4 – Three-Lane with Reversible Lane
- Alternative 12 – US 6/Grand Avenue One-Way Couplet

The following four alternatives are not recommended for further consideration due to unreasonable impacts when compared to other reasonable alternatives:

- Alternative 2 – US 6 Three Through Lanes
- Alternative 10 – Front Street/US 6 One-Way Couplet, Old 32 Road to 33 Road
- Alternative 11 – Front Street/US 6 One-Way Couplet at Peach Tree Center
- Alternative 17 - Front Street Connection One-Way Eastbound with US 6 Improved Two Through Lanes

The following four alternatives were carried forward for further consideration in the Level 3 Detailed Screening:

- No Action (for baseline comparison)
- Alternative 1 – US 6 Improved Two Through Lanes
- Alternative 3 – US 6 Four Through Lanes
- Alternative 16 – Front Street Connection Two-Way with US 6 Improved Two Through Lanes

LEVEL 3 ALTERNATIVES SCREENING

Alternatives from the Level 2 comparative screening that were recommended for further evaluation were refined to add more definition of the proposed improvements, to better understand the operations and costs of the alternatives, and to provide information for further assessment in the Level 3 Detailed Screening. The purpose of the Level 3 evaluation was to complete additional and more detailed analysis to compare how well each alternative meets the Purpose and Need, compare how well each alternative would perform, and identify what impacts each alternative would have. The results of the Level 3 screening identified the Recommended Alternative to carry forward into future NEPA process(es).

Level 3 Alternatives

The following four alternatives were carried forward from the Level 2 screening:

- No Action (for baseline comparison)
- Alternative 1 – US 6 Improved Two Through Lanes
- Alternative 3 – US 6 Four Through Lanes
- Alternative 16 – Front Street Connection Two-Way with US 6 Improved Two Through Lanes

The following two intersection traffic control options were considered for Alternative 1 in the Level 3 screening. With these options, a total of five action alternatives were considered in the Level 3 screening.

- Alternative 1 Option A – US 6 Improved Two Through Lanes with Traffic Signals
- Alternative 1 Option B – US 6 Improved Two Through Lanes with Roundabouts

The design concepts for the three action alternatives are shown in **Figures 13 through 16**.

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Figure 13: Alternative 1 – US 6 Improved Two Through Lanes. Option A - Traffic Signals

Figure 14: Alternative 1 – US 6 Improved Two Through Lanes, Option B - Roundabouts

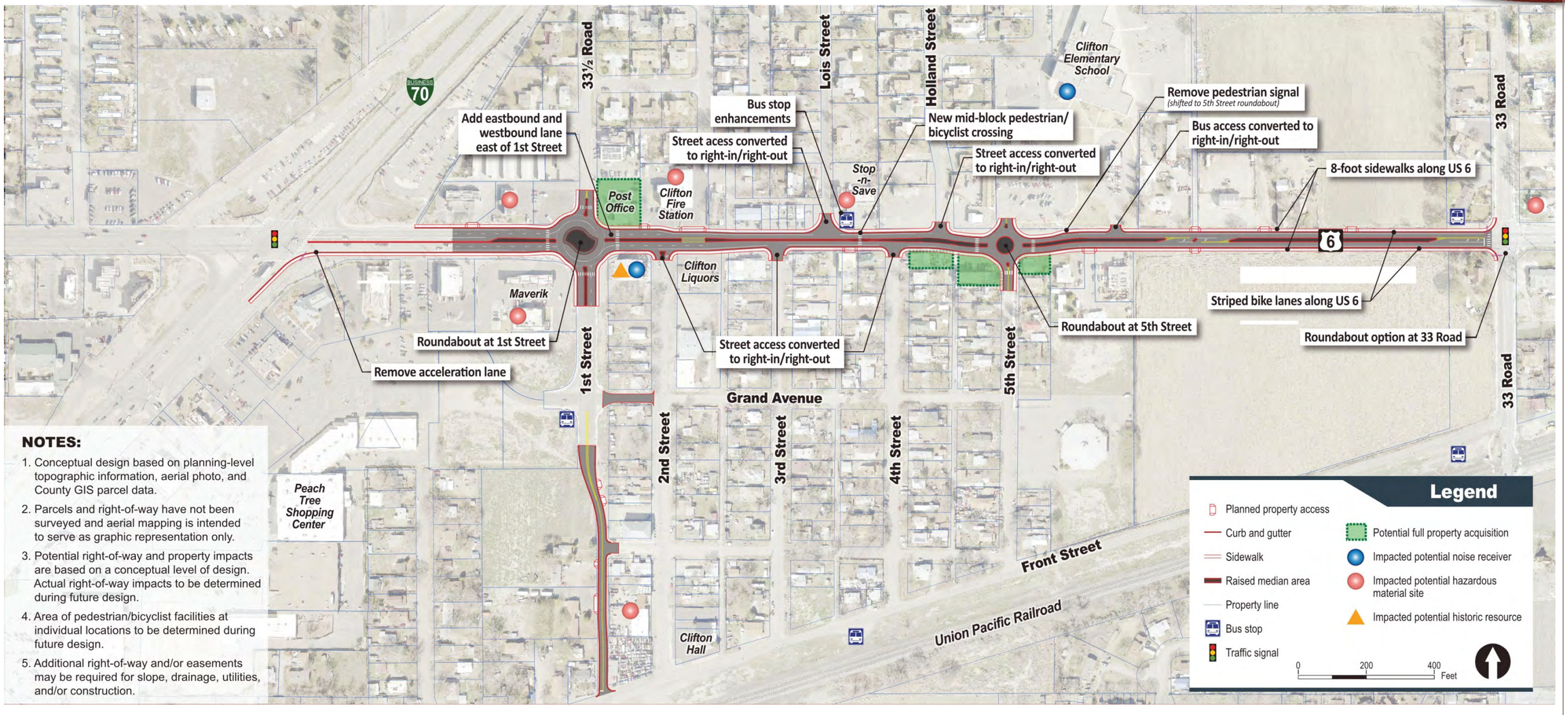
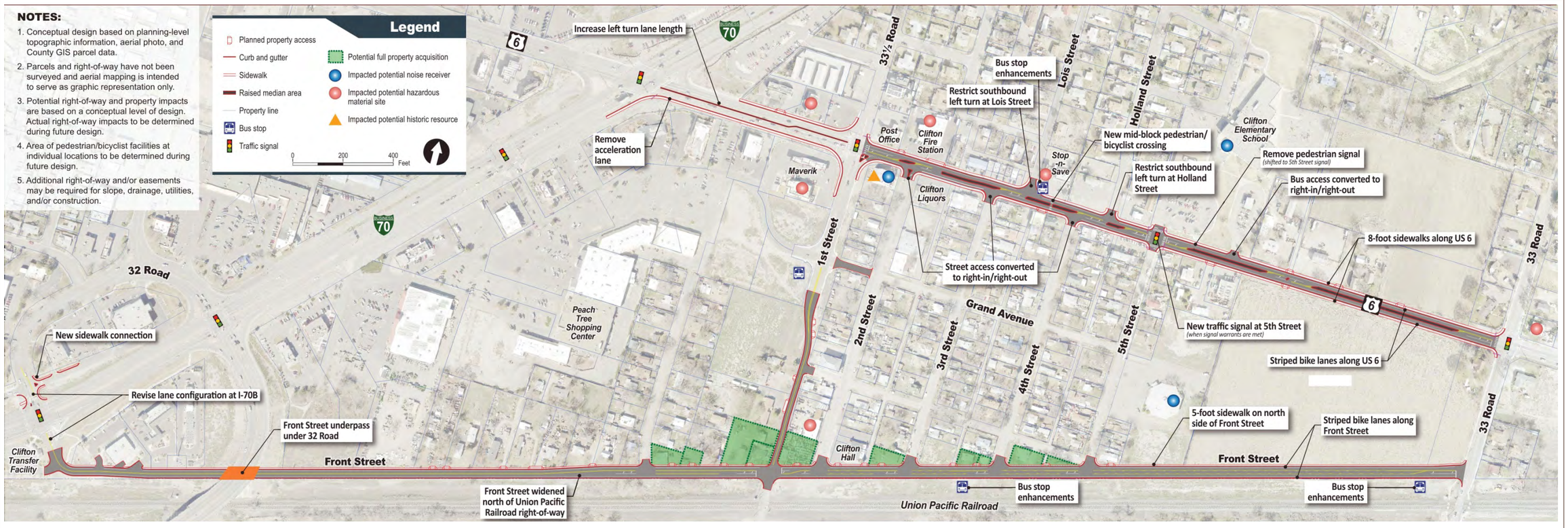


Figure 15: Alternative 3 – US 6 Four Through Lanes

NOTES:

1. Conceptual design based on planning-level topographic information, aerial photo, and County GIS parcel data.
2. Parcels and right-of-way have not been surveyed and aerial mapping is intended to serve as graphic representation only.
3. Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design.
4. Area of pedestrian/bicyclist facilities at individual locations to be determined during future design.
5. Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.

Figure 16: Alternative 16 – Front Street Connection with US 6 Improved Two Through Lanes



Level 3 Evaluation Criteria and Performance Measures

The Level 3 evaluation criteria and performance measures were further developed with performance measures to compare how well each alternative meets the Purpose and Need and secondary goals of the project. The alternatives were compared using the performance measures described in this section.

The color ratings shown with the performance measures are related to the colors provided in the Level 3 Detailed Screening Matrix. The ratings were used as a visual indication of the comparative characteristics of a criterion between alternatives, but not used as an indication of a decision (i.e., an alternative with many "red" ratings was not automatically rendered unreasonable). The colors are a general indication of whether the alternative had comparative beneficial and/or minor impacts related to the established criteria (green), had comparatively neutral and/or moderate impacts to the criteria (black), or had no benefits and/or major impacts to the criteria (red).

Improve Corridor and Intersection Operations

Intersection 2040 Peak Hour Level of Service and Delay

- Overall intersection Level of Service (LOS) and delay (seconds/vehicle) for the key intersections along US 6C and I-70B for the AM and PM peak hour.
- Analyzed with Synchro 9 (Build 902, Revision 153) and reported as Highway Capacity Manual (HCM) 2010 results.
- Rating:
  - Black = LOS E or better during the AM and PM peak hour
  - Red = LOS F during the AM and/or PM peak hour

Peak Hour Queue Lengths

- Queue lengths (feet) approaching signalized intersections for westbound US 6C at 1st Street and at I-70B, eastbound US 6C at 1st Street, eastbound I-70B at US 6C, and westbound I-70B at US 6C for the AM and PM peak hour.
- Analyzed with SimTraffic 9 (Build 902, Revision 153).
- Rating:
  - Red = Queue length backing up through adjacent signalized intersection during the AM and/or PM peak hour

Corridor Travel Time

- Travel time (minutes) for the following routes:
  - Eastbound US 6C from I-70B to 33 Road
  - Westbound US 6C from 33 Road to I-70B
  - Eastbound I-70B from Old 32 Road to Budweiser Access
  - Westbound I-70B from Budweiser Access to Old 32 Road
- Analyzed with SimTraffic 9 (Build 902, Revision 153).

- Rating:
  - Green = Travel time reduced by more than 20 percent compared to the No Action during the AM and/or PM peak hour
  - Black = Travel time within 20 percent of the No Action during the AM and PM peak hour
  - Red = Travel time increased by more than 20 percent compared to the No Action during the AM and/or PM peak hour

Daily 2040 Traffic Volumes and Volume-to-Capacity Ratio

- Daily traffic volumes and volume-to-capacity ratio (v/c) on the following roadways within the study area:
  - US 6C (east of 1st Street)
  - Front Street
  - I-70
  - I-70B (south of US 6C)
  - E ½ Road (east of 32 Road)
  - 32 Road (south of I-70B)
- Daily capacity was established for each roadway based on CDOT highway data and guidelines for similar types of roadways.
- Changes in daily traffic volumes indicating a potential shift in traffic due to changes in operations and capacity along US 6C.
- Rating:
  - Green: v/c = 0.79 and lower`
  - Black: v/c = 0.80 – 0.99
  - Red: v/c = 1.0 and higher

Consistency with the US 6 – Clifton Access Control Plan

- The *US 6 – Clifton Access Control Plan* (completed in November 2008) includes closure of some public road and driveway intersections and turn restrictions along US 6C between I-70B and 33 Road.
- The plan assumed four lanes and median treatments along US 6C.
- Intersections remaining open in the plan include:
  - 1st Street (traffic signal)
  - Lois Street (3/4-movement unsignalized)
  - Holland Street (3/4-movement unsignalized)
  - 5th Street (traffic signal, when warranted)
- Rating:
  - Green = Consistent with Access Control Plan
  - Red = Not consistent with Access Control Plan

Enhance Multimodal Connectivity

Missing Sidewalk/Path Links and Out-of-Direction Travel

- Out-of-direction travel (i.e., must cross street or turn to go straight) for pedestrians and/or bicycles due to missing sidewalk/path links based on alternative conceptual layout.
- Pedestrian/bicyclist crossing treatments along US 6C to accommodate and encourage pedestrian and bicyclist activity.
- Rating:
  - Green = Little or no out-of-direction travel for pedestrian and bicyclists through the US 6C corridor and facilities encouraging pedestrian/bicyclist activity
  - Black = Some out-of-direction travel for pedestrians/bicyclists and/or facilities may not encourage pedestrian/bicyclist activity
  - Red = Substantial out-of-direction travel for pedestrians and/or bicycles; No bike facilities along US 6C

Accommodation of Travel Mode Interconnectivity

- General evaluation of impacts and benefits to transit facilities and connections, such as locations of bus stops, bus travel time, and connections and direct links between modes (pedestrian, bicycle, automobile, transit) meeting ADA standards.
- Rating:
  - Green = Substantial improvements to connections between modes and opportunities for bus stop enhancements and improved transit travel times
  - Black = Some improvements to connections between modes and opportunities for bus stop enhancements and improved transit travel times
  - Red = Minimal to no changes in existing conditions with limited connections between modes and deficiencies that make it difficult for people to access bus stops and increased transit delays with congestion

Improve Traveler Safety

Reduction in Unsafe Physical and Operational Conditions along US 6C

Evaluation of user safety impacts and benefits compared to existing safety concerns related to roadside hazards, traffic congestion, lack of access control, and lack of adequate pedestrian and bicyclist facilities.

- Rating:
  - Green = Substantial improvements in unsafe physical and operational conditions expected to provide notable reduction in vehicular crashes and multimodal conflicts
  - Black = Some improvements in unsafe physical and operational conditions expected to provide minor reduction in vehicular crashes and multimodal conflicts
  - Red = Minimal to no changes in existing conditions with negligible reduction in safety concerns

User Perception of Comfort and Safety of Pedestrian and Bicycle Movements

- General evaluation of user perception based on crossing distance and refuge areas at roadway crossings and characteristics of pedestrian and bicycle facilities.
- Configurations that meet drivers' expectations for encountering pedestrians or bicyclists (e.g., roadside area for pedestrians, striped bike lanes) feel safer to negotiate and shorter crossing paths (fewer lanes, smaller corner radii) are more comfortable for pedestrians and bicyclists to cross.
- Rating:
  - Green = Alternative generally feels comfortable for pedestrians and bicycle movements
  - Black = One key characteristic makes the alternative feel uncomfortable or intimidating
  - Red = Several characteristics make the alternative feel uncomfortable or intimidating

Reduction in Multimodal Conflicts

- Vehicular conflict points evaluated qualitatively for public road intersections and driveways based on number of driveways, intersection control, and turn restrictions.
- Pedestrian and bicyclist conflict points evaluated qualitatively based on intersection control and driveway crossings.
- Rating:
  - Green = Moderate reduction in multimodal conflict points
  - Black = Minor reduction in multimodal conflict points
  - Red = Minimal to no changes in multimodal conflict points

Avoid and Minimize Environmental Impacts

Potentially Impacted Cultural Resources

- Potential historic and cultural resources that may be impacted with partial or full acquisitions from the alternative conceptual layout.
- Potential historic and cultural resources included in the impact evaluation as identified in the *Environmental Scan Report*, including a church along US 6C and the Old 32 Road alignment (historic highway).
- Rating:
  - Green = No discernible impacts to sites based on alternative conceptual layout
  - Black = Potential for minor impacts to sites based on alternative conceptual layout
  - Red = Potential for moderate or major impacts to sites based on alternative conceptual layout

Potentially Impacted Noise Receivers

- Noise receivers that may be impacted from the alternative conceptual layout based on the roadway footprint moving closer to the noise receiver or increases in traffic are identified.

- Potential noise receivers included in the impact evaluation include Noise Abatement Criteria (NAC) C receivers identified in the *Environmental Scan Report*, including schools and churches.
- Rating:
  - Green = No discernible change in footprint based on alternative conceptual layout
  - Black = Minor increase or reduction from change in footprint based on alternative conceptual layout
  - Red = Moderate or major increase from change in footprint based on alternative conceptual layout

Potentially Impacted Hazardous Material Sites

- Properties with potential hazardous material sites impacted with partial or full acquisitions from the alternative conceptual layout.
- Potential hazardous material sites included in the impact evaluation identified in the *Environmental Scan Report*.
- Rating:
  - Green = No discernible impacts to sites based on alternative conceptual layout
  - Black = Potential for minor impacts to sites based on alternative conceptual layout
  - Red = Potential for moderate or major impacts to sites based on alternative conceptual layout

Avoid and Minimize Community Impacts

Right-of-Way Required (acres)

- Number and acres of properties with full and partial acquisition of property expected to be required based on alternative conceptual layout and the anticipated right-of-way (ROW) requirements.
- Rating:
  - Green = No full property acquisitions anticipated
  - Black = Less than 10 full property acquisitions anticipated
  - Red = 10 or more full property acquisitions anticipated

Right-of-Way Required (properties)

- The number of impacted properties calculated for each alternative based on the conceptual roadway design layout and the anticipated ROW requirements.
- The number of impacted properties categorized as residential, business, or public/community.
- Rating:
  - Green = Less than 25 properties impacted
  - Black = Between 25 and 50 properties impacted
  - Red = More than 50 properties impacted

Property Impacts for Partial Acquisitions

- Noted type and level of impact for properties expected to be partial acquisitions based on alternative conceptual layout.
- Type of impacts considered potential changes to parking, landscaping, and internal site circulation.
- Rating:
  - Green = No impacts to properties
  - Black = Moderate and minor impacts to properties
  - Red = Major impacts to properties or moderate impacts to properties along multiple corridors

Increase in Traffic Traveling through Clifton Neighborhood

- Traffic that may travel along neighborhood streets due to changes in local area circulation, access, or capacity along US 6C.
- The potential traffic diversion is based on the alternative conceptual layout.
- Rating:
  - Green = No increase expected in traffic volumes on local streets
  - Black = Potential for minor increase in traffic volumes on local streets
  - Red = Potential for moderate increase in traffic volumes on local streets

Consistency with Established Local and Regional Plans

- Local plans include pedestrian and bicyclist facilities and access control along US 6C.
- Improved traffic operations along US 6C are consistent with local and regional planning efforts.
- Rating:
  - Green = Consistent with established local and regional plans
  - Red = Not consistent with established local and regional plans

Maximize Implementability

Use of Existing Infrastructure

- General evaluation of ability to maximize the use of existing infrastructure (including transportation infrastructure and utilities) and minimize the addition of lane miles to the State Highway System.
- Increased maintenance needs for aging and/or new infrastructure also considered.
- Rating:
  - Green = Substantial use of existing infrastructure and no increase in maintenance needs
  - Black = Moderate use of existing infrastructure and consistent maintenance needs
  - Red = Major increase in infrastructure and maintenance needs

Conceptual-Level Probable Construction Costs

- Evaluation of costs (in 2015 dollars) based on amount of new or reconstructed roadway, size of required structures, major cut/fill variances, and overall footprint of alternative conceptual layout.
- ROW costs are not included in estimate of construction cost.
- Rating:
  - Low (Green) = Relative low costs
  - Moderate (Black) = Relative moderate costs
  - High (Red) = Relative high costs

Ease and Cost of Maintenance

- Evaluation based on amount of infrastructure to maintain (including structures, traffic signals, and increased lane-miles) and accessibility to perform maintenance.
- Rating:
  - Low (Green) = Reduced and/or typical infrastructure with relatively easy maintenance access
  - Moderate (Black) = Typical infrastructure with some increase in maintenance
  - High (Red) = Major increase in infrastructure and/or potential for maintenance access constraints

Ability to Fund/Implement with Separate Projects

- The ability to construct useful portions of the improvements as separate projects over a phased implementation period.
- Rating:
  - Easy (Green) = Opportunities for useful portions to be implemented separately
  - Moderate (Black) = Opportunities for implementation of useful portions as separate projects, but with limited sequence to provide benefits or potential issues with costs/processes
  - Difficult (Red) = Useful portions difficult to implement in pieces due to large costs/processes

Level 3 Screening Evaluation

The four remaining alternatives were evaluated in more detail with additional conceptual design and traffic operations analysis to further define the alternative performance related to the Level 3 criteria. The evaluation is summarized in **Figure 17**.

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Figure 17: Level 3 Detailed Screening Matrix

Level 3 Evaluation Criteria		N/A	1		3	16
		No Action	US 6 Improved Two Through Lanes Option A - Traffic Signals	Option B - Roundabouts	US 6 Four Through Lanes	Front Street Connection Two-Way with US 6 Improved Two Through Lanes
Improve Corridor and Intersection Operations	Intersection 2040 Peak Hour Level of Service (LOS) and Delay (sec/veh) (AM / PM)	US 6C/I-70B: E (69) / E (59) US 6C/1st St: E (59) / F (86) US 6C/5th St: F (65) / F (92) US 6C/33 Rd: B (15) / B (18) I-70B/32 Rd: D (45) / E (59) I-70B/Old 32 Rd: A (8) / B (17)	US 6C/I-70B: D (44) / D (45) US 6C/1st St: B (18) / B (16) US 6C/5th St: A (6) / A (10) US 6C/33 Rd: B (17) / B (13) I-70B/32 Rd: D (39) / D (44) I-70B/Old 32 Rd: C (21) / B (11)	US 6C/I-70B: D (43) / D (48) US 6C/1st St: C (17) / C (19) US 6C/5th St: E (42) / F (63) US 6C/33 Rd: B (15) / B (19) I-70B/32 Rd: D (35) / D (45) I-70B/Old 32 Rd: C (23) / B (11)	US 6C/I-70B: D (37) / D (44) US 6C/1st St: B (15) / B (16) US 6C/5th St: B (14) / A (4) US 6C/33 Rd: B (13) / C (23) I-70B/32 Rd: D (41) / D (51) I-70B/Old 32 Rd: A (7) / B (11)	US 6C/I-70B: D (47) / D (52) US 6C/1st St: C (28) / D (44) US 6C/5th St: A (6) / A (8) US 6C/33 Rd: B (17) / C (21) I-70B/32 Rd: D (49) / D (43) I-70B/Old 32 Rd: B (15) / C (29)
	Peak Hour Queue Lengths (ft) (AM / PM)	WB US 6C at I-70B: 415 / 410 WB US 6C at 1st St: 540 / 470 EB US 6C at 1st St: 255 / 830 EB I-70B at US 6C: 520 / 260 WB I-70B at US 6C: 215 / 1250	WB US 6C at I-70B: 340 / 300 WB US 6C at 1st St: 150 / 145 EB US 6C at 1st St: 175 / 315 EB I-70B at US 6C: 465 / 240 WB I-70B at US 6C: 300 / 730	WB US 6C at I-70B: 295 / 305 WB US 6C at 1st St: 120 / 125 EB US 6C at 1st St: 205 / 505 EB I-70B at US 6C: 445 / 370 WB I-70B at US 6C: 250 / 980	WB US 6C at I-70B: 325 / 215 WB US 6C at 1st St: 205 / 155 EB US 6C at 1st St: 250 / 380 EB I-70B at US 6C: 375 / 360 WB I-70B at US 6C: 255 / 1340	WB US 6C at I-70B: 275 / 260 WB US 6C at 1st St: 500 / 605 EB US 6C at 1st St: 360 / 745 EB I-70B at US 6C: 385 / 440 WB I-70B at US 6C: 285 / 970
	Corridor Travel Time (AM / PM)	EB US 6C: 1.6 min / 2.6 min WB US 6C: 1.5 min / 2.2 min EB I-70B: 3.2 min / 3.3 min WB I-70B: 2.6 min / 4.1 min	EB US 6C: 1.6 min / 3.1 min WB US 6C: 1.4 min / 2.1 min EB I-70B: 2.9 min / 2.9 min WB I-70B: 2.6 min / 3.1 min	EB US 6C: 1.6 min / 2.5 min WB US 6C: 1.5 min / 1.4 min EB I-70B: 3.6 min / 3.1 min WB I-70B: 2.8 min / 3.5 min	EB US 6C: 1.6 min / 2.1 min WB US 6C: 1.3 min / 1.3 min EB I-70B: 2.7 min / 3.3 min WB I-70B: 2.5 min / 4.0 min	EB US 6C: 1.7 min / 2.2 min WB US 6C: 1.6 min / 1.5 min EB I-70B: 2.6 min / 3.0 min WB I-70B: 2.5 min / 3.3 min
	Daily 2040 Traffic Volumes (veh/day) and Volume-to-Capacity Ratio (v/c)	US 6C (east of 1st St): 22,000 veh/day (1.38) Front St: 500 veh/day (0.03) I-70: 45,500 veh/day (0.70) I-70B (south of US 6C): 34,000 veh/day (0.80) E 1/2 Rd (east of 32 Rd): 5,200 veh/day (0.33) 32 Rd (south of I-70B): 25,000 veh/day (0.71)	US 6C (east of 1st St): 22,000 veh/day (1.00) Front St: 500 veh/day (0.03) I-70: 45,500 veh/day (0.70) I-70B (south of US 6C): 34,000 veh/day (0.80) E 1/2 Rd (east of 32 Rd): 5,200 veh/day (0.33) 32 Rd (south of I-70B): 25,000 veh/day (0.71)		US 6C (east of 1st St): 27,800 veh/day (0.79) Front St: 400 veh/day (0.03) I-70: 44,400 veh/day (0.68) I-70B (south of US 6C): 36,500 veh/day (0.86) E 1/2 Rd (east of 32 Rd): 2,400 veh/day (0.15) 32 Rd (south of I-70B): 26,600 veh/day (0.76)	US 6C (east of 1st St): 20,000 veh/day (0.91) Front St: 6,000 veh/day (0.38) I-70: 45,100 veh/day (0.69) I-70B (south of US 6C): 31,500 veh/day (0.74) E 1/2 Rd (east of 32 Rd): 3,100 veh/day (0.19) 32 Rd (south of I-70B): 24,400 veh/day (0.70)
	Consistency with the US 6 - Clifton Access Control Plan	Maintaining all existing accesses is not consistent with Access Control Plan.	Increased access control and turn restrictions consistent with Access Control Plan.	Increased access control and turn restrictions, but reduced access for Lois and Holland Street is not consistent with Access Control Plan.	Four lanes, median treatments, and increased access control as assumed in Access Control Plan.	Increased access control and turn restrictions consistent with Access Control Plan.
Enhance Multimodal Connectivity	Missing Sidewalk/Path Links & Out-of-Direction Travel	Missing sidewalks, narrow sidewalks, and lack of bicycle facilities along US 6C do not accommodate pedestrian/bicyclist activity. Pedestrian/bicyclist crossings in downtown over 1/4 mile apart.	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian/bicyclist activity along US 6C.		Pedestrian and bicyclist facilities with crossing treatments of four vehicular lanes would accommodate pedestrians/bicyclists, but may not encourage pedestrian/bicyclist activity along US 6C.	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian/bicyclist activity along US 6C and along Front St.
	Accommodation of Travel Mode Interconnectivity (Pedestrian, Bicycle, Automobile, Transit)	Existing sidewalk facilities do not meet ADA standards, making it difficult to access bus stops. Lack of sidewalk and bicycle facilities does not provide adequate connections between modes.	Sidewalk and bicycle facilities provide connections between modes. Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times.		Sidewalk and bicycle facilities provide connections between modes. Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times. Traffic could pass buses stopped in right lane.	Sidewalk and bicycle facilities provide connections between modes and bus stop amenities may help attract transit ridership, including along Front St. Bus stop amenities along Front St would require UPRR coordination. Front St connection may allow for faster transit travel times.
Improve Traveler Safety	Reduction in Unsafe Physical and Operational Conditions along US 6C	No changes to existing roadside hazards, lack of access control, and operational conditions.	Improvements address operational and safety issues associated with congestion and lack of access control. Roadway reconstruction provides safety improvements with improved roadside clearance and delineation of pedestrian/bicyclist movements.	Improvements address operational and safety issues associated with congestion and lack of access control. Roadway reconstruction provides safety improvements and roundabouts would reduce corridor speeds and may reduce injury crashes.	Improvements address operational and safety issues associated with congestion and lack of access control. Roadway reconstruction provides safety improvements with improved roadside clearance and delineation of pedestrian/bicyclist movements.	Improvements along US 6C address operational and safety issues associated with congestion and lack of access control. Roadway reconstruction provides safety improvements, but new safety concerns introduced with added volume along Front St.
	User Perception of Comfort and Safety of Pedestrian and Bicycle Movements	Increasingly uncomfortable for pedestrians and bicyclists with increased congestion, lack of sidewalk or bicycle facilities, numerous open driveway crossings, and proximity to congested travel lanes.	Pedestrian and bicyclist facilities with crossing treatments and access control increases pedestrian and bicyclist comfort and improves driver expectancy for crossing movements.		Pedestrian and bicyclist facilities with crossing treatments and access control increases pedestrian and bicyclist comfort, but crossing distance of US 6C increased with four vehicular lanes.	Pedestrian and bicyclist facilities with crossing treatments and access control increases pedestrian and bicyclist comfort and improves driver expectancy for crossing movements.
	Reduction in Multimodal Conflict Points	Missing sidewalks, no bicycle facilities, and lack of access control along US 6C force pedestrians and bicyclists close to traffic.	Designated space for pedestrians/bicyclists along with crossing treatments and increased access control substantially reduces conflict points.	Designated space for pedestrians/bicyclists along with crossing treatments and increased access control substantially reduces conflict points. Roundabouts would reduce vehicular turning conflicts.	Designated space for pedestrians/bicyclists along with crossing treatments and increased access control reduces conflict points, but pedestrians/bicyclists must cross four vehicular lanes.	Designated space for pedestrians/bicyclists along with crossing treatments and increased access control reduces conflict points along existing US 6C alignment, but some additional conflicts with added traffic along Front St.

Figure 17: Level 3 Detailed Screening Matrix (continued)

Level 3 Evaluation Criteria		N/A	1		3	16
		No Action	US 6 Improved Two Through Lanes Option A - Traffic Signals	US 6 Improved Two Through Lanes Option B - Roundabouts	US 6 Four Through Lanes	Front Street Connection Two-Way with US 6 Improved Two Through Lanes
Avoid and Minimize Environmental Impacts	Potentially Impacted Cultural Resources	No impacts	Potential minor impact to NRHP site (church) along US 6C.		Potential minor impact to NRHP site (church) along US 6C.	Potential minor impact to NRHP site (church) along US 6C and Old 32 Road alignment (historic highway).
	Potentially Impacted Noise Receivers	No impacts	Potential for minor impacts to church along US 6C.	Potential for minor impacts to church along US 6C and moderate impacts to Clifton Elementary School.	Potential for minor impacts to church along US 6C and moderate impacts to Clifton Elementary School.	Potential for minor impacts to church along US 6C and Clifton Elementary School and minor impacts to church along 5th Street with additional traffic and widening along Front Street.
	Potentially Impacted Hazardous Material Sites	No impacts	Potential for minor impacts to hazardous material sites.		Potential for moderate impacts to hazardous material site.	Potential for minor impacts to hazardous material sites.
Avoid and Minimize Community Impacts	Right-of-Way Required (acres)	None	Full = None Partial = 1.2 ac	Full = 1.0 ac (1 res; 2 bus; 1 comm) Partial = 1.0 ac	Full = 2.9 ac (2 res; 14 bus; 1 comm) Partial = 1.7 ac	Full = 2.2 ac (8 res; 2 bus) Partial = 3.0 ac
	Right-of-Way Required (properties)	None	Residential = 8 Business = 24 Public/Community = 5	Residential = 8 Business = 24 Public/Community = 5	Residential = 8 Business = 21 Public/Community = 4	Residential = 26 Business = 32 Public/Community = 8
	Property Impacts for Partial Acquisitions	No impacts	Moderate parking and circulation impacts for properties along US 6C.		Major parking and circulation impacts for properties along US 6C.	Moderate parking and circulation impacts for properties along US 6C and Front St.
	Increase in Traffic Traveling through Clifton Neighborhood	No changes in local street circulation and no expected increase in US 6C traffic volume traveling on local streets.	Some changes in local street circulation with turn restrictions at some accesses along US 6C.		Some changes in local street circulation with turn restrictions at some accesses along US 6C.	Some changes in circulation with US 6C turn restrictions, as well as potential for moderate increase in traffic volume on local streets south of US 6C with new Front St connection.
	Consistency with Established Local and Regional Plans	No improvements to US 6C corridor is not consistent with previous local and regional planning efforts.	Pedestrian and bicyclist facilities, access control, and improved traffic operations along US 6C generally support local and regional transportation and community plans.		Pedestrian and bicyclist facilities, access control, and improved traffic operations along US 6C generally support local and regional transportation and community plans.	Pedestrian and bicyclist facilities and access control along US 6C support local and regional transportation and community plans, but traffic volumes along Front St are not consistent with previous planning efforts.
Maximize Implementability	Use of Existing Infrastructure	Aging roadway infrastructure utilized without reconstruction, but increasing maintenance needs.	Roadway and multimodal improvements accomplished largely within existing roadway envelope with utilities and pavement reconstruction.	Roadway and multimodal improvements accomplished largely within existing roadway envelope, except at roundabouts and removal of traffic signal at 1st St	Roadway and multimodal improvements require substantial widening and utilities reconstruction.	Roadway and multimodal improvements along US 6C accomplished largely within existing roadway envelope with utilities and pavement reconstruction. Improvements along Front St require substantial widening. New 32 Rd underpass adds major infrastructure.
	Conceptual-level Probable Construction Costs (does not include ROW cost) (low, moderate, high)	**Low** No construction cost	**Moderate** $6 - 8 Million	**Moderate** $8 - 10 Million	**Moderate** $8 - 10 Million	**High** US 6: $6 - 8 Million Front St: $10 - 12 Million Total: $16 - 20 Million
	Ease and Cost of Maintenance (low, moderate, high)	**Moderate** Aging roadway infrastructure with congestion creating access constraints.	**Low** Typical roadway maintenance with new reconstruction.	**Low** Typical roadway maintenance and removal of signal.	**Moderate** Typical roadway maintenance with increased lane-miles for added lanes.	**High** Increase in maintenance with additional structure maintenance for 32 Rd underpass.
	Ability to Fund/Implement with Separate Projects	N/A	Opportunity for improvements to be constructed and opened separately as fundable projects as sections along US 6C. Projects located along existing state highway system.		Opportunity for improvements to be constructed and opened separately as fundable projects as sections along US 6C. Projects located along existing state highway system.	Opportunity for US 6C and Front St reconstruction and bridge to be constructed and opened separately in sections as fundable projects. Front St would remain local roadway and Front St improvements would be implemented by Mesa County.
DRAFT RECOMMENDATION		CARRIED FORWARD	RECOMMENDED	NOT RECOMMENDED	NOT RECOMMENDED	NOT RECOMMENDED
NOTES		Further analysis required as the No Action Alternative in NEPA process for comparison to improvement alternatives.	This alternative is recommended for consideration as the Recommended Alternative in NEPA process because the alternative provides reasonable safety and multimodal mobility benefits related to congestion and lack of access control, while minimizing impacts to the community and environmental and cultural resources.	This alternative is not recommended for further consideration because the alternative would result in substantially more full property acquisitions, higher cost, and worse intersection levels of service than Alternative 1 Option A.	This alternative is not recommended for further consideration because the alternative would result in comparably higher property impacts without better safety and multimodal mobility benefits for the US 6C corridor than other alternatives. This alternative does provide additional capacity for higher future traffic volume forecasts, but with more property impacts than Alternative 1 Option A.	This alternative is not recommended for further consideration because the alternative would result in comparably higher property impacts and cost without better traffic operations, safety, and multimodal mobility benefits for the US 6C corridor than other alternatives.

GREEN = Comparatively beneficial and/or minor impacts
BLACK = Comparatively neutral benefits and/or moderate impacts
RED = Comparatively minor or no benefits and/or major impacts

Corridor and Intersection Operations

The study area roadways and key intersections were evaluated for operations, travel time, and volume through the study area. The key intersections within the study area are expected to operate at acceptable levels of service with all alternatives, with the exception of the US 6C and 5th Street intersection, which would operate at LOS F during the afternoon peak hour in the Alternative 1 Option B (US 6 Improved Two Through Lanes - Roundabouts) configuration. The poor traffic operations at the 5th Street roundabout are due to the high volume of eastbound US 6C traffic and the additional volume traveling through the roundabout to turn around and access Lois Street and Holland Street (because eastbound left turns from US 6C would be prohibited at those streets consistent with the *US 6 – Clifton Access Control Plan*).

More traffic is expected to travel along US 6C between I-70B and 33 Road with the additional lanes on US 6C of Alternative 3 (US 6 Four Through Lanes). The four through lanes would provide more than enough capacity to carry the additional traffic and the volume-to-capacity (v/c) ratio for the highway would be substantially lower than with the other alternatives. The travel demand modeling completed for the study shows that the additional traffic expected to travel along this section of US 6C with Alternative 3 would be pulled from I-70 to the north and E ½ Road to the south.

With the Front Street connection in Alternative 16 (Front Street Connection Two-Way with US 6 Improved Two Through Lanes), the traffic traveling along US 6C between I-70B and 33 Road is expected to be reduced by 2,000 vpd. Front Street is expected to carry substantially more traffic, pulling traffic from E ½ Road as well as US 6C.

Changes in the assumptions regarding the future land use surrounding the study area and/or regional economic conditions could substantially increase traffic volume forecasts for the US 6C corridor between I-70B and Palisade. Therefore, the travel demand model assumptions and traffic forecasts used for this alternatives evaluation should be reviewed and possibly updated with future project development to verify the amount of additional capacity (i.e., widening) needed for acceptable traffic operations along US 6C through Clifton.

Multimodal Connectivity

All of the alternatives are expected to enhance multimodal connectivity compared to the No Action Alternative. The sidewalk and bicycle facilities included with all of the alternatives provide connections between modes and bus stop enhancements may attract transit ridership.

Traveler Safety

Alternative 3 (US 6 Four Through Lanes) and Alternative 16 (Front Street Connection Two-Way with US 6 Improved Two Through Lanes) operate worse than the US 6 Improved Two Through Lanes alternatives. With four lanes along US 6, Alternative 3 is worse for the comfort and safety of pedestrians and bicyclists and has a higher number multimodal conflict points. The Front Street connection in Alternative 16 results in substantially higher vehicular volumes along Front Street, which introduces new safety concerns and multimodal conflicts.

Environmental Impacts

Alternative 1 Option A (US 6 Improved Two Through Lanes – Traffic Signals) is expected to have minor impacts to the corridor cultural resources, noise receivers, and potential hazardous materials sites. Alternative 1 Option B (US 6 Improved Two Through Lanes – Roundabouts) may have additional moderate noise impacts to the Clifton Elementary School. Alternative 3 (US 6 Four Through Lanes) would have additional moderate impacts to a potential hazardous material site (the Stop-n-Save gas station). The Front Street connection in Alternative 16 (Front Street Connection Two-Way with US 6 Improved Two Through Lanes) results in more potential noise impacts along Front Street.

Community Impacts

Alternative 1 Option A (US 6 Improved Two Through Lanes – Traffic Signals) has the least area of property impacted, with a total of 1.2 acres of partial property acquisition anticipated with no full property acquisition required. Alternative 3 (US 6 Four Through Lanes) requires almost four times more ROW area than Alternative 1 Option A, and full acquisition of 17 residential, commercial, and public/community properties. Alternative 16 (Front Street Connection Two-Way with US 6 Improved Two Through Lanes) requires the most ROW area and the highest number of properties impacted, with a total of 66 properties being impacted to varying degrees.

Implementability

Alternative 1 Option A (US 6 Improved Two Through Lanes – Traffic Signals) has the lowest construction cost, estimated at $6 – 8 Million. The new 32 Road underpass for the Front Street connection in Alternative 16 (Front Street Connection Two-Way with US 6 Improved Two Through Lanes) substantially increases the construction costs and maintenance of new major infrastructure compared to the other alternatives. While the Front Street connection could be constructed and opened to traffic separately, it would need to be implemented as a local roadway project by Mesa County, adding coordination and timing requirements to provide benefits to the US 6C corridor.

Level 3 Screening Results

After a comparison of the four action alternatives against the Level 3 criteria and performance measures, Alternative 1 Option A (US 6 Improved Two Through Lane with Traffic Signals) was determined to meet the project Purpose and Need and secondary goals to the highest degree while minimizing environmental and community impacts. Therefore, Alternative 1 Option A, as shown in **Figure 18**, is the Recommended Alternative to carry forward into future NEPA process(es) and project development.

Recommended Alternative

The cross-section for the Recommended Alternative was primarily based on the cross-section illustrated for Alternative 1 in **Appendix B**. However, in order to potentially narrow the right-of-way to mitigate property impacts, the sidewalk was assumed to be attached through the corridor. The right-of-way width required for the US 6 corridor, and the associated property impacts, will be explored in more detail during future design efforts with the identification of specific needs for utilities and roadside improvements (e.g., grading, drainage, etc.).

The extent of the widening of US 6C shown in the Recommended Alternative is based on traffic operational analysis with forecasts developed for this study from the GVMPO travel demand model created for the *2040 Grand Valley Regional Transportation Plan*. Changes in the assumptions for the land use surrounding the study area and/or regional economic conditions in the regional model should be evaluated with future project development for the potential to increase the traffic volume forecasts for the US 6C corridor. If needed for acceptable traffic operations, the Recommended Alternative may include additional widening of US 6C further east of 1st Street.

The Recommended Alternative includes the removal of the acceleration lane for the right turn lane from eastbound I-70B to eastbound US 6C. Although the traffic analysis completed for this PEL study shows that the intersection operates acceptably with removal of the acceleration lane, further analysis will be completed during future project development to determine if an acceleration/deceleration lane along eastbound US 6C between I-70B and 1st Street would provide better traffic operations and if it can be added within the available right-of-way.

The Recommended Alternative also includes an option for a roundabout at the US 6C and 33 Road intersection. The traffic analysis shows acceptable operations with a traffic signal or a roundabout at this intersection. Community development and safety benefits may be explored for the future project development of a roundabout, not precluded by the other corridor recommendations.

Technical Team members agreed to the identification of Alternative 1 Option A as the Recommended Alternative from this PEL study, with the options for an acceleration/deceleration lane between I-70B and 1st Street and a roundabout at 33 Road. This recommendation was presented at the second public meeting for the PEL study to solicit feedback with the alternatives evaluation process and the preliminary recommendations. Comments received from the public indicate general concurrence with the identification of Alternative 1 Option A as the Recommended Alternative.

Further definition of the Recommended Alternative will be described in the PEL Study Report, along with details of the next steps for NEPA documentation, required clearances, and preliminary and final design.

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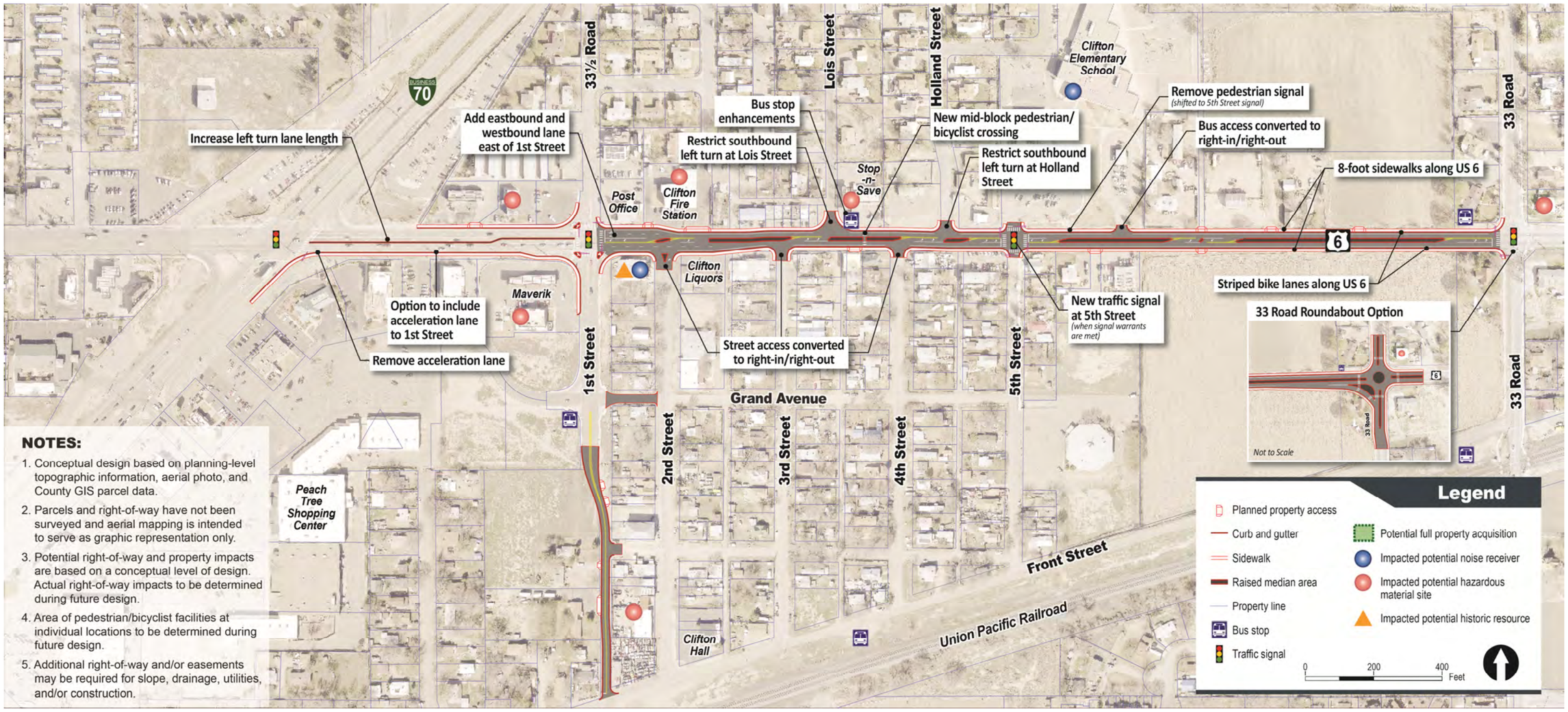
Figure 18: Recommended Alternative



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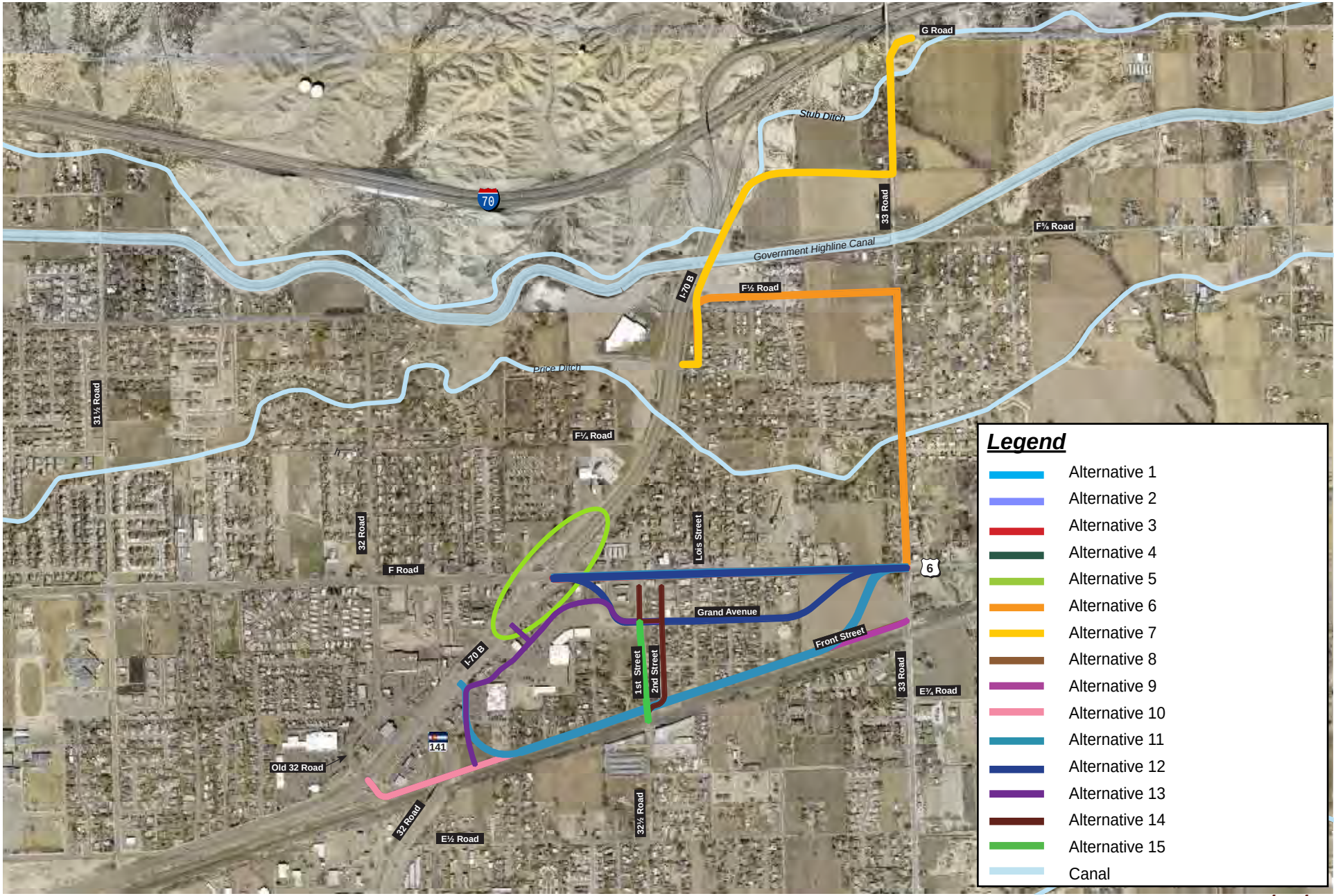
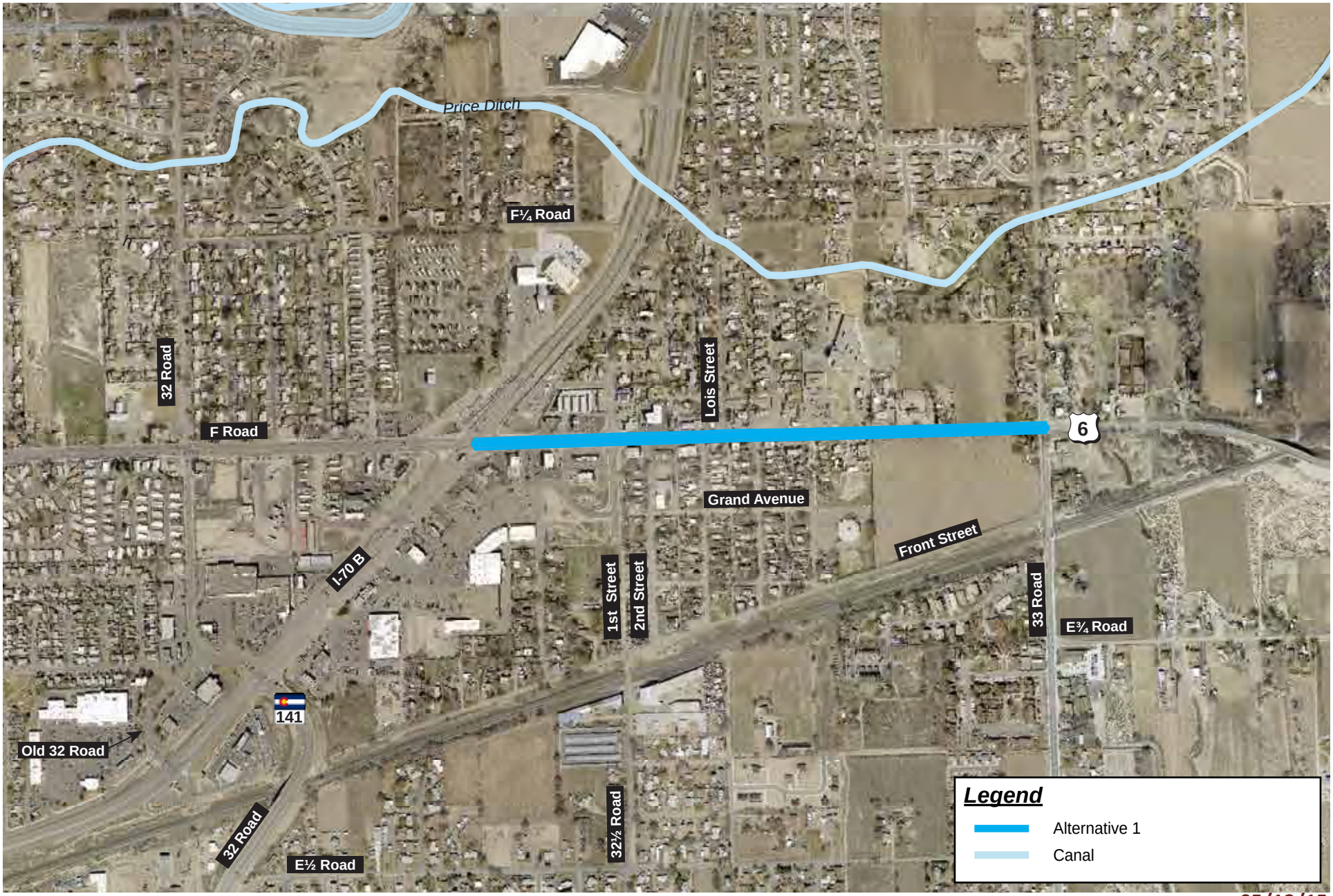
Appendix A

Level 1 Alternatives

Level 1 - All Alternatives



Alternative 1 - US 6 Improved Two Through Lanes



05/12/15

Alternative 2 - US 6 Three Through Lanes

05/12/15

Alternative 3 - US 6 Four Through Lanes

05/12/15

Alternative 4 - Three-Lane with Reversible Lane

05/12/15

Alternative 5 - US 6/I-70B Interchange

05/12/15

Alternative 6 - F1/2 Road to 33 Road Connection

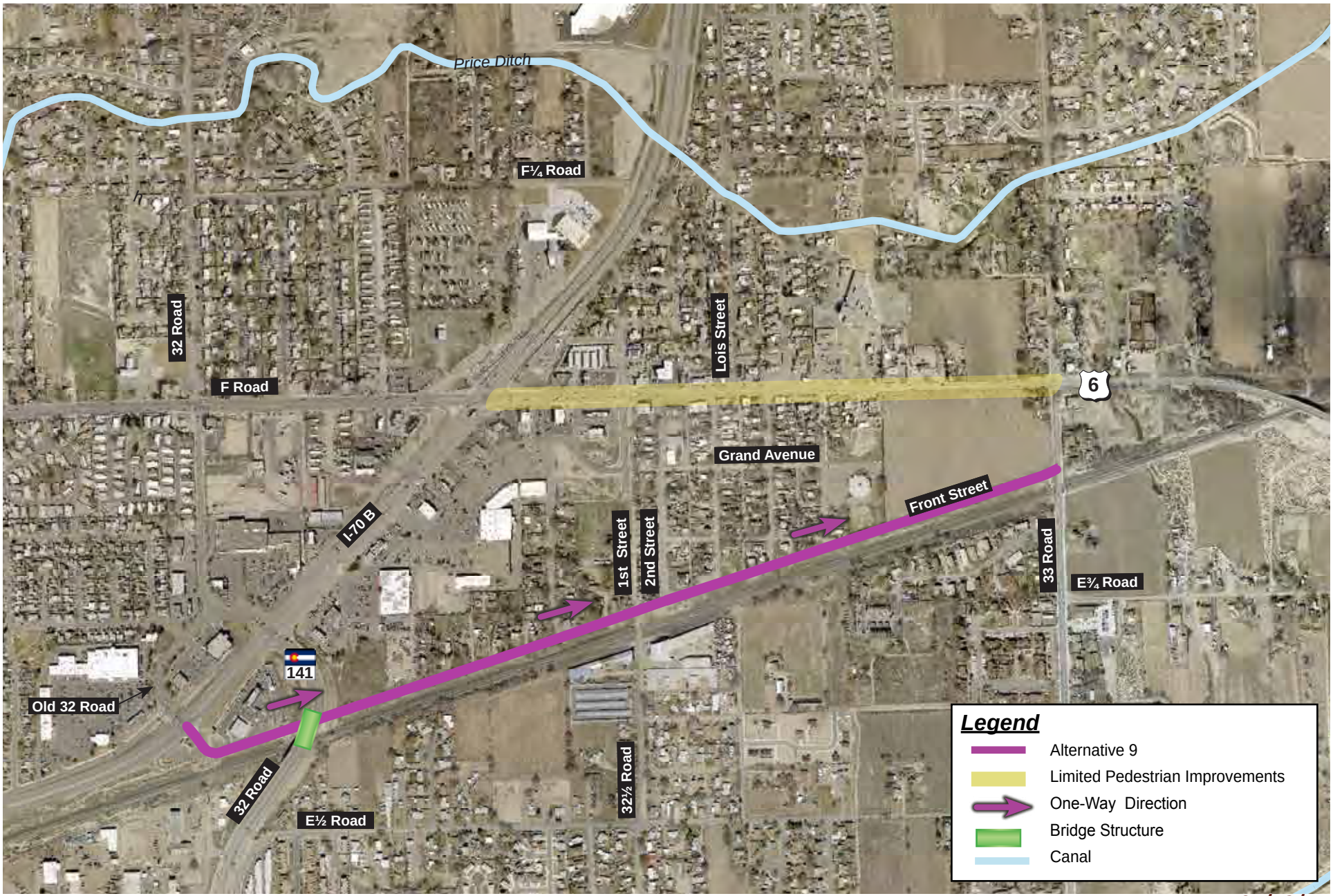
05/12/15

Alternative 7 - F3/4 Road to G Road Connection

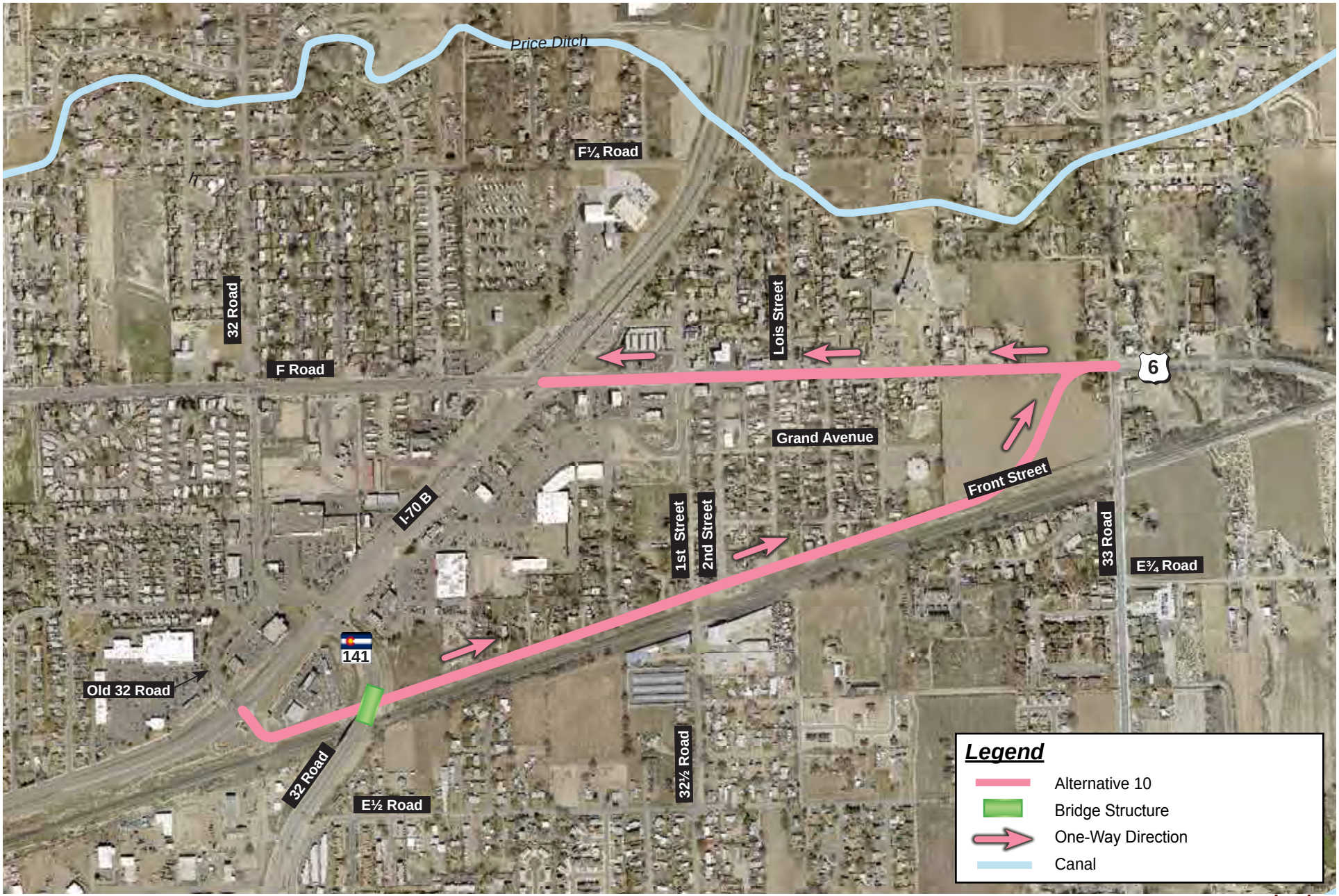
Alternative 8 - Front Street Connection Two-Way, Old 32 Road to 33 Road

05/12/15

Alternative 9 - Front Street Connection One-Way Eastbound, Old 32 Road to 33 Road

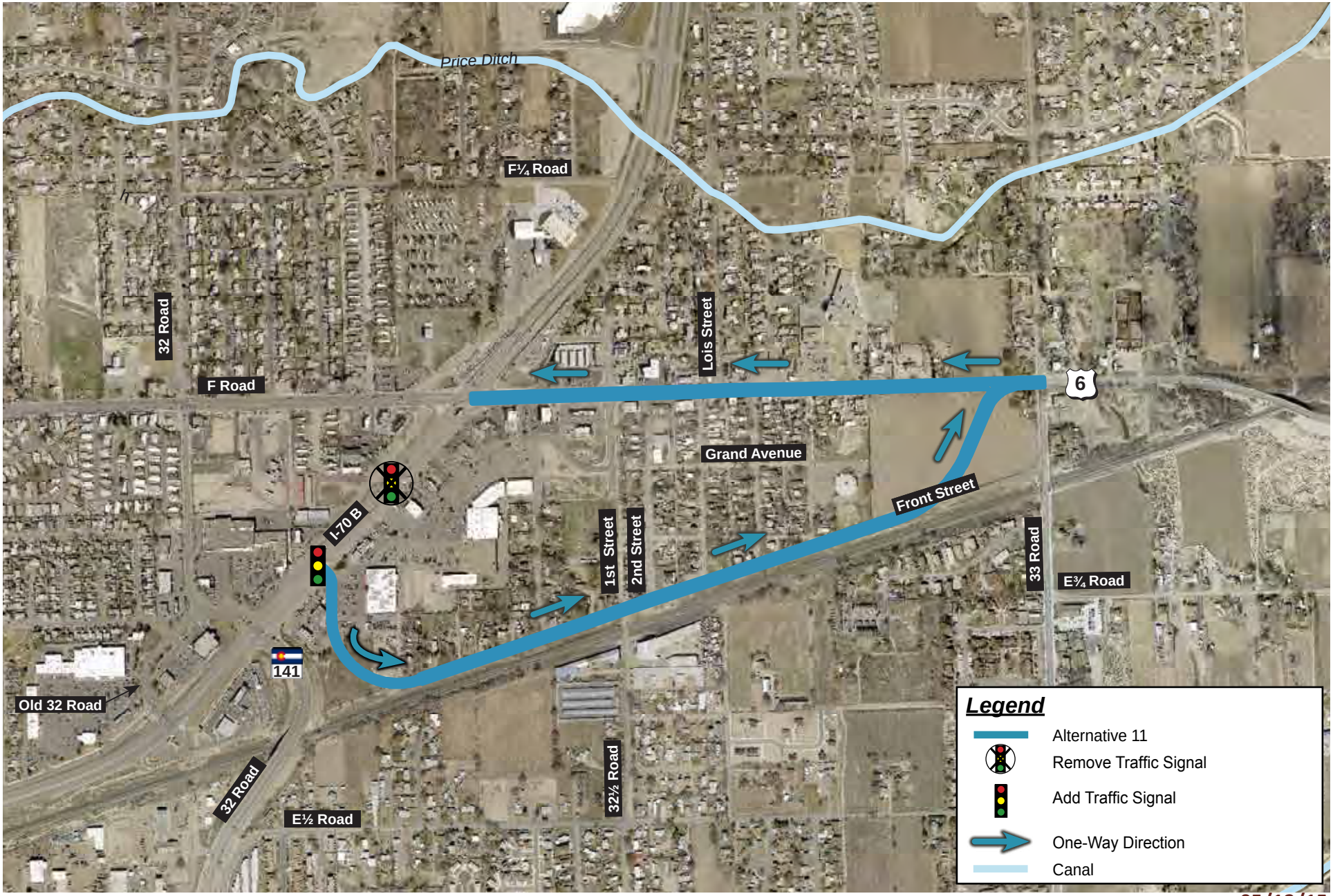


Alternative 10- Front Street/US 6 One-Way Couplet, Old 32 Road to 33 Road



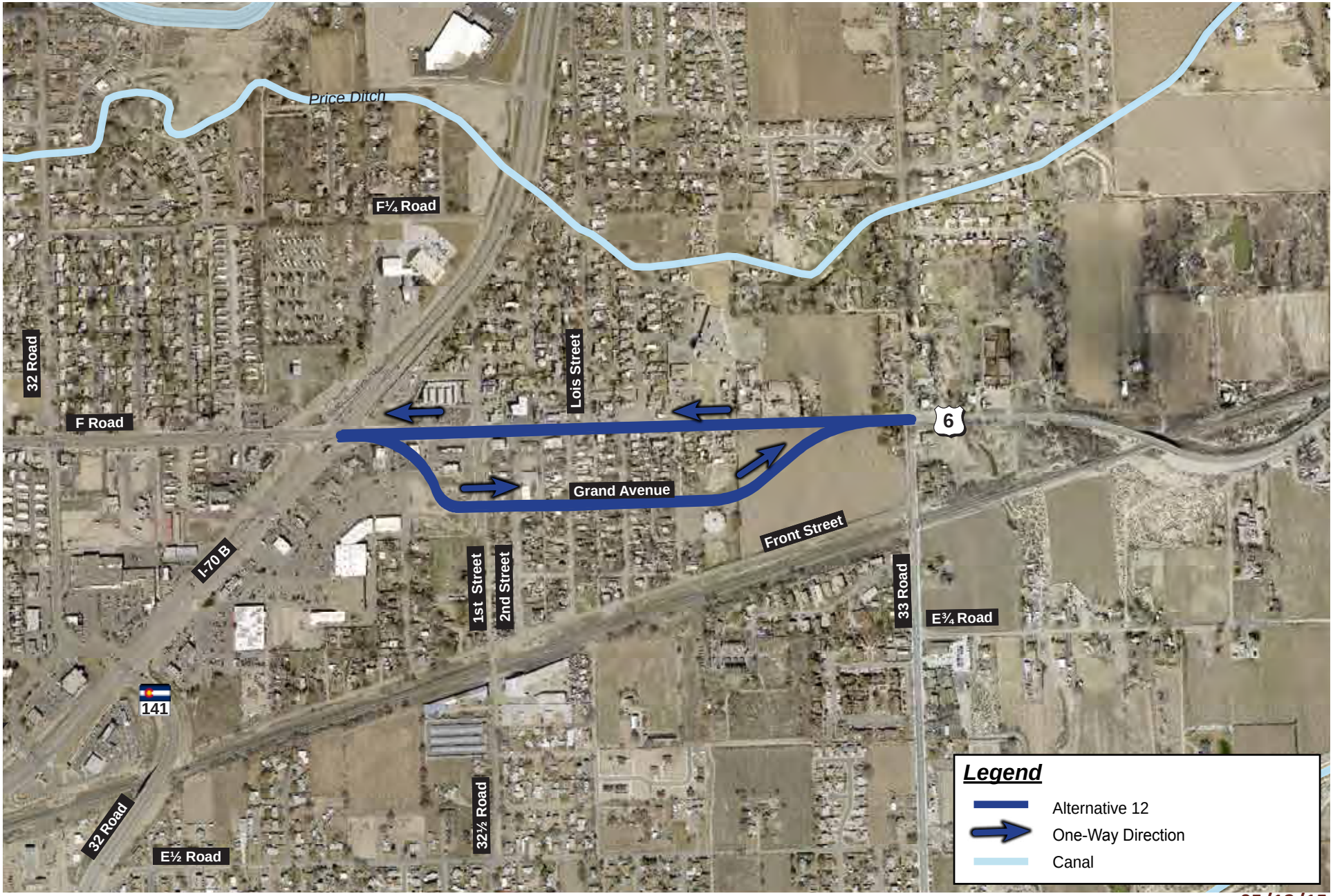
05/12/15

Alternative 11 - Front Street/US 6 One-Way Couplet at Peach Tree Center



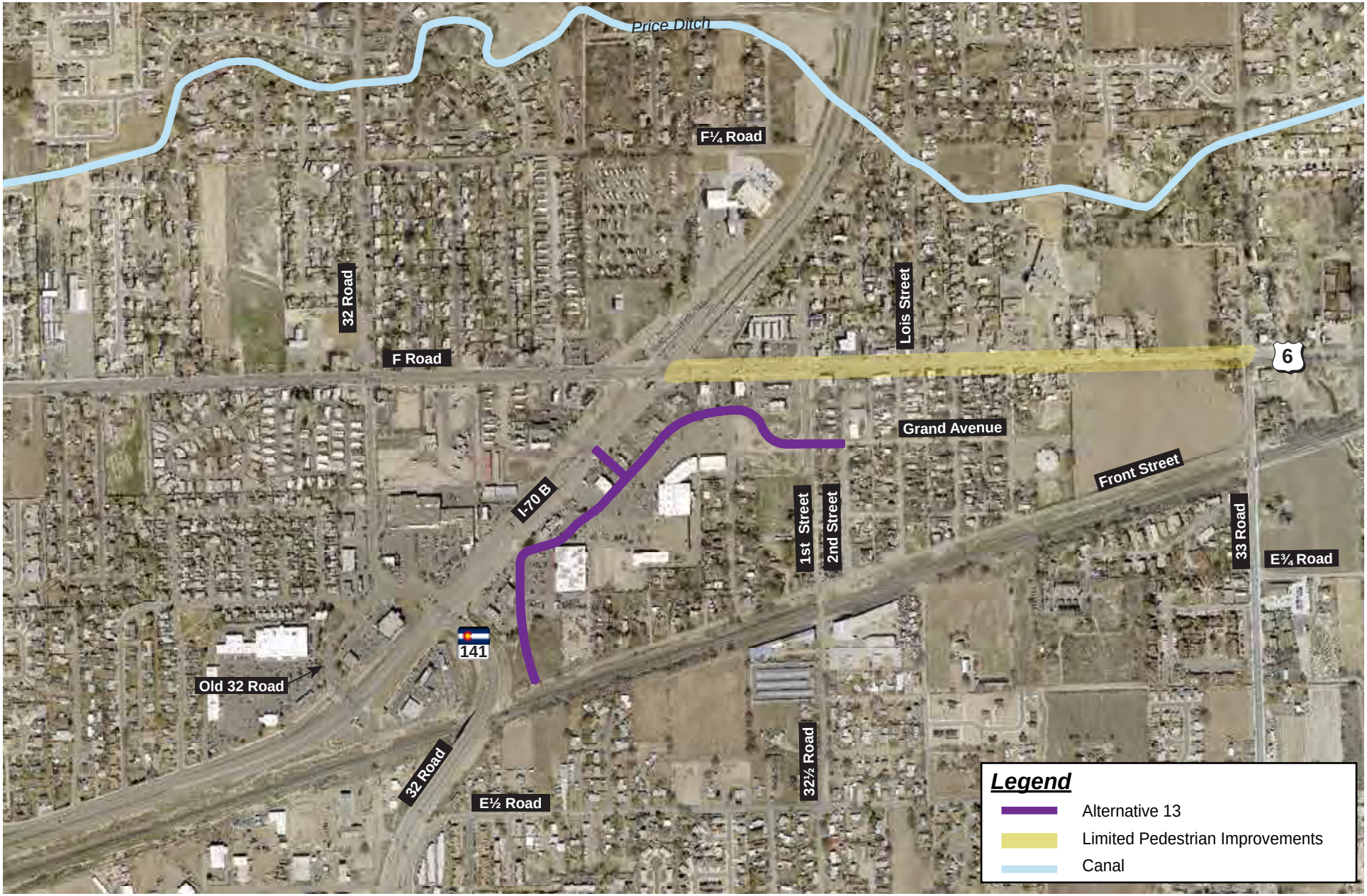
05/12/15

Alternative 12 - US 6/Grand Avenue One-Way Couplet



05/12/15

Alternative 13 - Peach Tree Loop



Alternative 14 - 1st/2nd Street One-Way Couplet

05/12/15

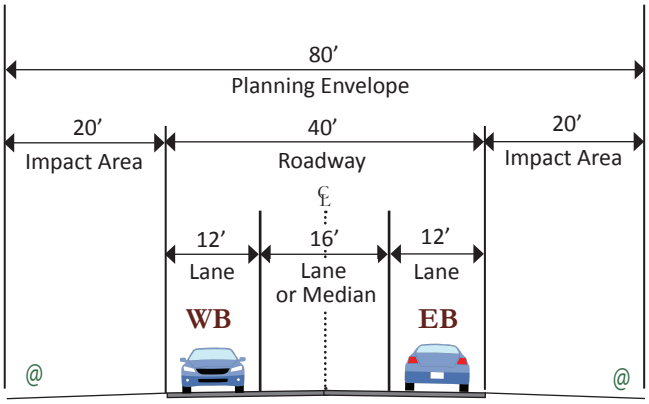
Alternative 15 - 1st Street Connection, Grand Avenue to Front Street

05/12/15

APPENDIX B

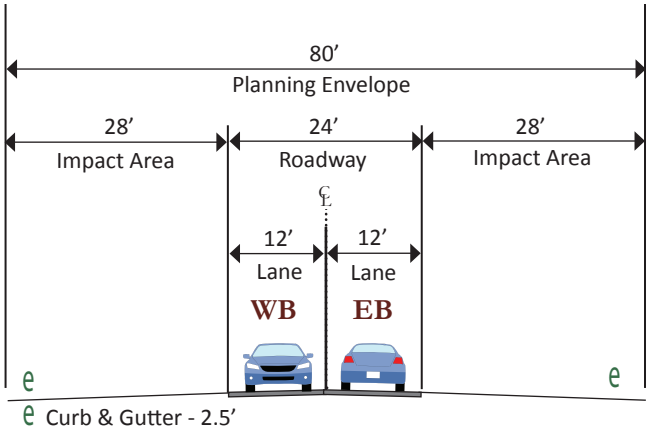
LEVEL 2 ALTERNATIVE CROSS-SECTIONS

Alternative 1 - US 6 Improved Two Through Lanes



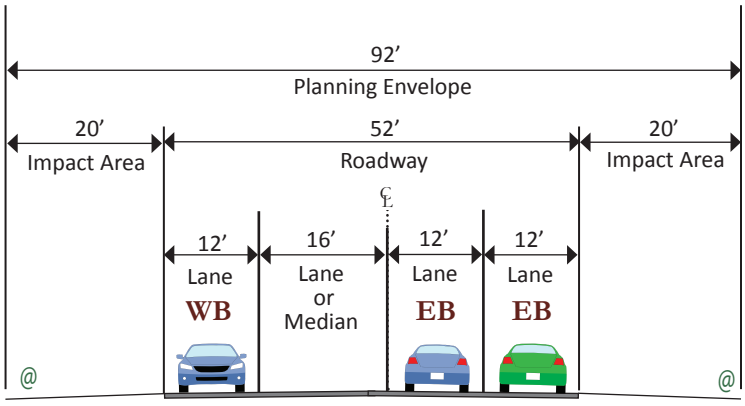
@Curb & Gutter - 2.5’
Pedestrian Facility - 5’
Bicycle Facility - 5’
Utilities/Landscaping/Grading - Varies

or



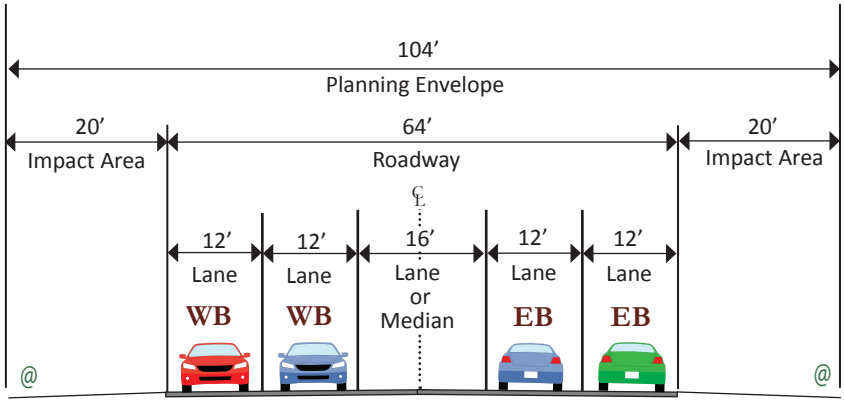
e Curb & Gutter - 2.5’
Pedestrian Facility - 5’
Bicycle Facility - 5’
Utilities/Landscaping/Grading - Varies
Optional - Turn Lane - 6’ (half lane each side)

Alternative 2 - US 6 Three Through Lanes



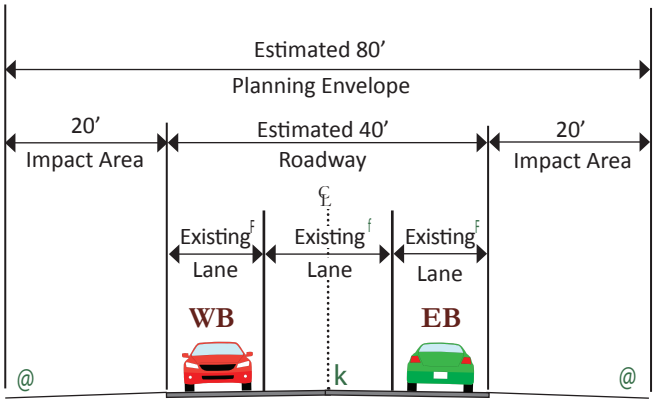
@Curb & Gutter - 2.5'
Pedestrian Facility - 5'
Bicycle Facility - 5'
Utilities/Landscaping/Grading - Varies

Alternative 3 - US 6 Four Through Lanes



@Curb & Gutter - 2.5'
Pedestrian Facility - 5'
Bicycle Facility - 5'
Utilities/Landscaping/Grading - Varies

Alternative 4 - US 6 Three Lane with Reversible Lane



@Curb & Gutter - 2.5'
Pedestrian Facility - 5'
Bicycle Facility - 5'
Utilities/Landscaping/Grading/Reversible Lane Signing & Signalization - Varies

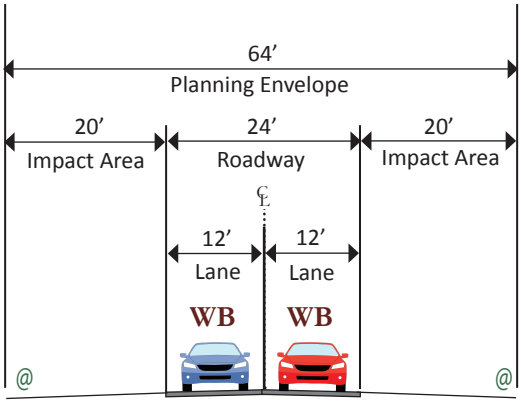
kTurning lane will convert to through lane during peak periods

ℓ Assume 12' lane width

f Assume 16' lane width

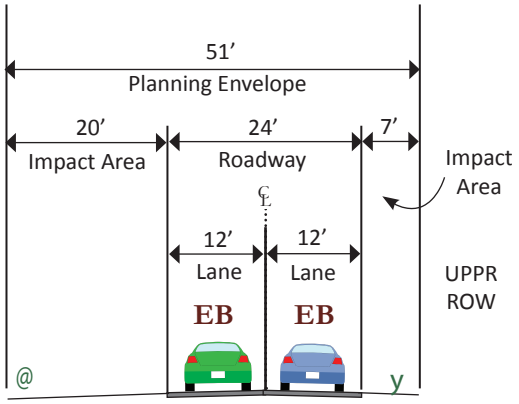
Alternative 10 - Front Street/US 6 One-Way Couplet, Old 32 Road to 33 Road

US 6



@Curb & Gutter - 2.5'
Pedestrian Facility - 5'
Bicycle Facility - 5'
Utilities/Landscaping/Grading - Varies

Front Street S



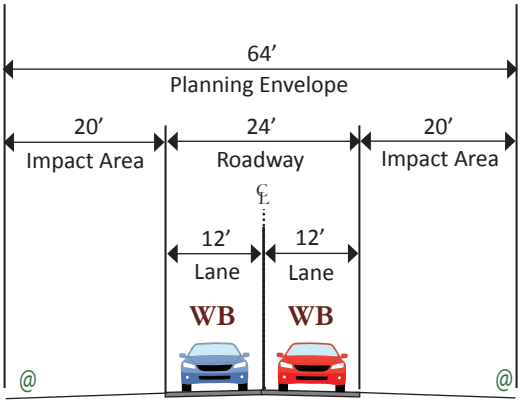
@Curb & Gutter - 2.5'
Pedestrian Facility - 5'
Bicycle Facility - 5'
Utilities/Landscaping/Grading - Varies

y Curb & Gutter - 2.5'
Grading - Varies

S Note: Front Street section may include an eastbound right-turn lane at 1st Street.

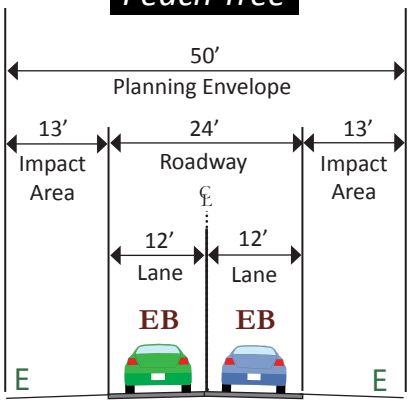
Alternative 11 - Front Street/US 6 One-Way Couplet at Peach Tree Center

US 6



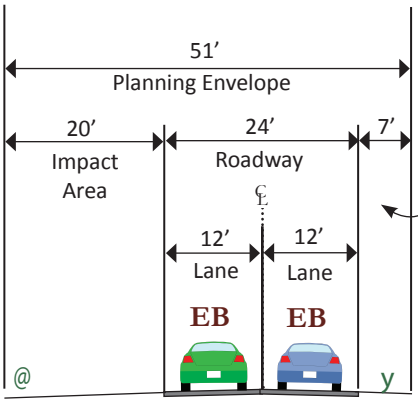
@Curb & Gutter - 2.5'
Pedestrian Facility - 5'
Bicycle Facility - 5'
Utilities/Landscaping/Grading - Varies

Peach Tree



E Curb & Gutter - 2.5'
Pedestrian Facility - 5'
Bicycle Facility - 5'

Front Street S



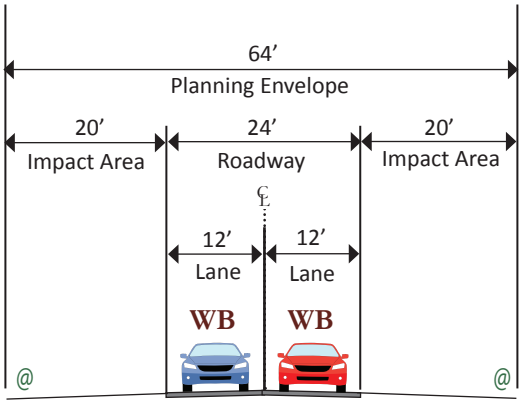
S Note: Front Street section may include an eastbound right-turn lane at 1st Street.

@Curb & Gutter - 2.5'
Pedestrian Facility - 5'
Bicycle Facility - 5'
Utilities/Landscaping/Grading - Varies

y Curb & Gutter - 2.5'
Grading - Varies

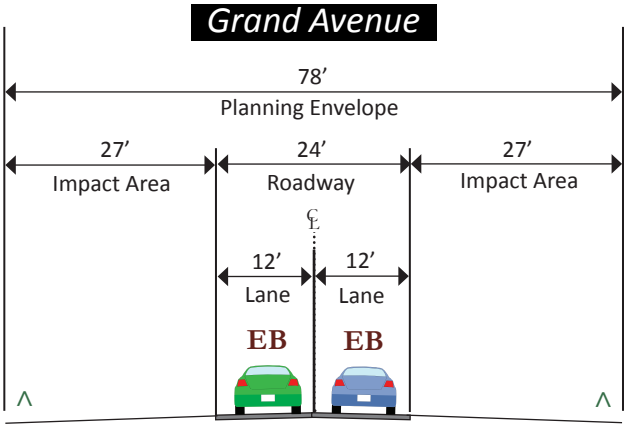
Alternative 12 - US 6/Grand Avenue One-Way Couplet

US 6



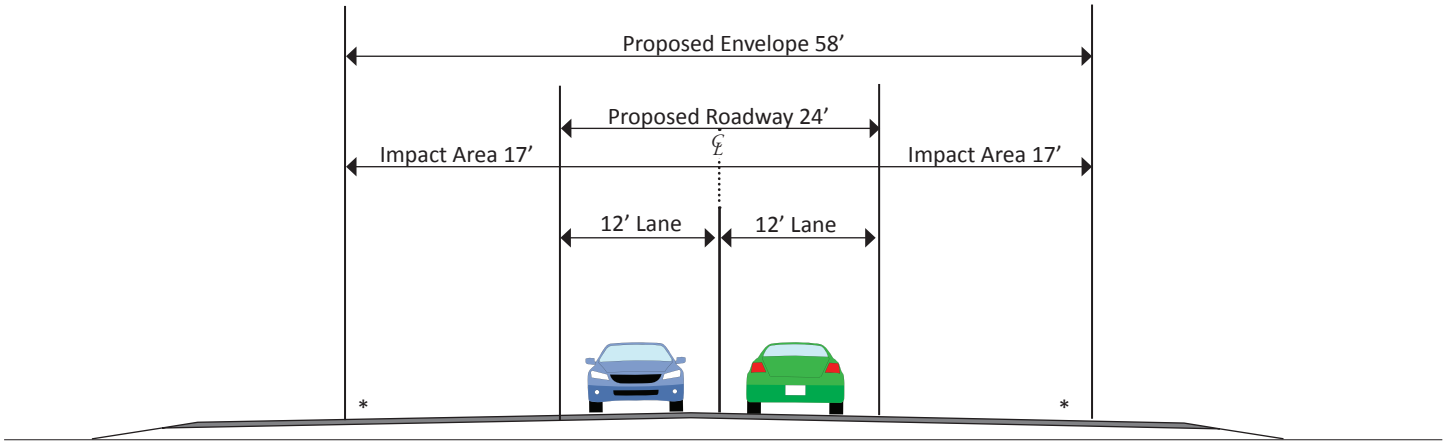
@Curb & Gutter - 2.5'
Pedestrian Facility - 5'
Bicycle Facility - 5'
Utilities/Landscaping/Grading- Varies

Grand Avenue



^Curb & Gutter - 2.5'
Pedestrian Facility - 5'
Bicycle Facility - 5'
Parking - 7'
Utilities/Landscaping/Grading - Varies

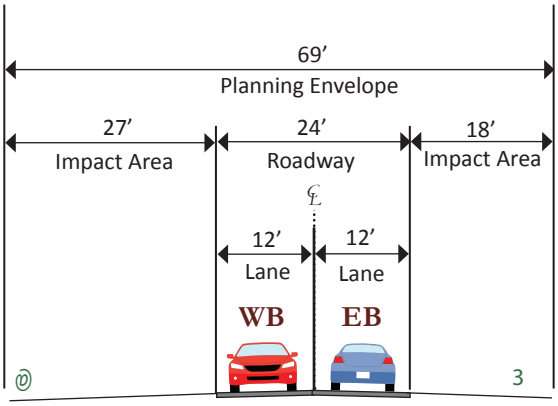
Level 2 - Alternative 15 1st Street Connection



*Bike Facility
C&G
Ped Facility
Slope Grading

Alternative 16 - Front Street Connection Two-Way with US 6 Improved Two Through Lanes

Front Street



UPPR ROW

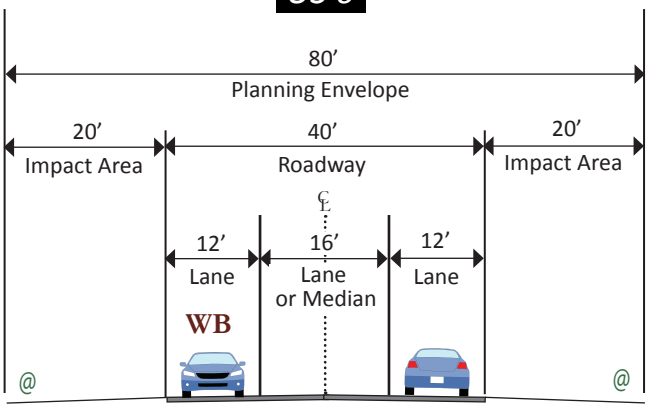
@ Curb & Gutter - 2.5’
Pedestrian Facility - 5’
Bicycle Facility - 5’
Utilities/Landscaping/Grading - Varies

Optional — [Turn Lane - 6’ (half lane each side); Parking Space - 7’ (one side)]

3 Curb & Gutter - 2.5’
Bicycle Facility - 5’
Grading - Varies
Optional - Turn Lane 6’ (half lane each side)

S Note: Front Street section may include an eastbound right-turn lane and westbound left turn-lane at 1st Street.

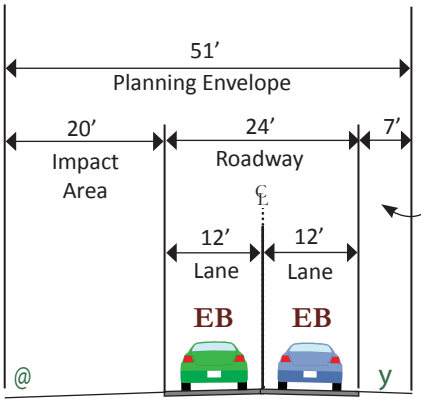
US 6



@ Curb & Gutter - 2.5’
Pedestrian Facility - 5’
Bicycle Facility - 5’
Utilities/Landscaping/Grading - Varies

Alternative 17 - Front Street Connection One-Way Eastbound with US 6 Improved Two Through Lanes

Front Street ς

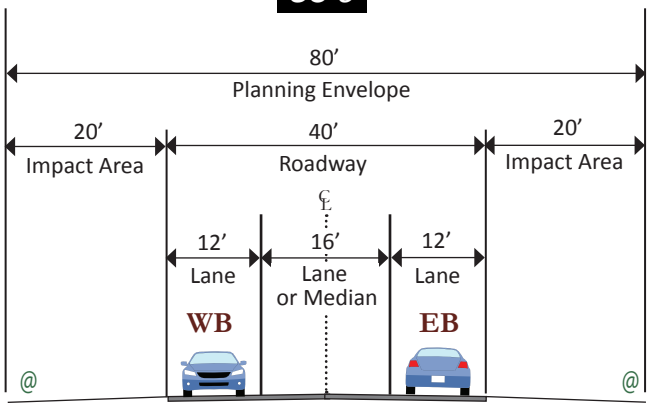


@Curb & Gutter - 2.5'
Pedestrian Facility - 5'
Bicycle Facility - 5'
Utilities/Landscaping/Grading - Varies

y Curb & Gutter - 2.5'
Grading - Varies

ς Note: Front Street section may include an eastbound right-turn lane at 1st Street.

US 6



@Curb & Gutter - 2.5'
Pedestrian Facility - 5'
Bicycle Facility - 5'
Utilities/Landscaping/Grading - Varies

APPENDIX C

LEVEL 2 COMPARATIVE SCREENING MATRIX

US 6 Clifton Transportation Study

Level 2 Screening Matrix

6/15/15

Level 2 Evaluation Criteria		N/A No Action	1 US 6 Improved Two Through Lanes	2 US 6 Three Through Lanes	3 US 6 Four Through Lanes	4 Three-Lane with Reversible Lane
Traffic Operations	Ability of the alternative to provide daily and peak hour roadway capacity to meet 2040 travel demand	Forecasted 2040 demand (22,000 vpd) exceeds capacity (16,000 vpd). No capacity improvements and poor traffic operations.	Forecasted 2040 demand (22,000 vpd) on US 6C reaches capacity of 22,000 vpd with operational benefits from intersection improvements and increased access control.	Forecasted 2040 demand (24,300 vpd) on US 6C less than capacity of 28,000 vpd, but WB demand (11,100 vpd) reaches WB capacity of 11,000 vpd.	Forecasted 2040 demand (27,800 vpd) on US 6C less than capacity of 34,000 vpd.	Forecasted 2040 demand (22,000 vpd) reaches capacity of 22,000 vpd with operational benefits from additional peak hour capacity, intersection improvements, and increased access control.
	Ability of the alternative to accommodate regional through travel	Regional traffic remains along existing US 6C alignment. No capacity improvements and poor traffic operations.	Regional traffic remains along existing US 6C alignment with some operational benefits.	Regional traffic remains along existing US 6C alignment with some operational benefits.	Regional traffic remains along existing US 6C alignment with operational benefits of additional capacity.	Regional traffic remains along existing US 6C alignment with some operational benefits.
	Ability of the alternative to provide consistency with the US 6 - Clifton Access Control Plan	Maintaining all existing accesses is not consistent with Access Control Plan.	Increased access control and turn restrictions consistent with Access Control Plan.	Increased access control and turn restrictions consistent with Access Control Plan.	Four lanes, median treatments, and increased access control as assumed in Access Control Plan.	Increased access control and turn restrictions consistent with Access Control Plan.
Multimodal Connectivity	Ability of the alternative to provide good pedestrian and bicyclist flow	Missing sidewalks and no bicycle facilities along US 6C do not accommodate pedestrian/bicyclist activity.	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian/bicyclist activity along US 6C.	Pedestrian and bicyclist facilities with crossing treatments of three vehicular lanes would accommodate pedestrians/bicyclists, but may not encourage pedestrian/bicyclist activity along US 6C.	Pedestrian and bicyclist facilities with crossing treatments of four vehicular lanes would accommodate pedestrians/bicyclists, but may not encourage pedestrian/bicyclist activity along US 6C.	Pedestrian and bicyclist facilities with crossing treatments of three vehicular lanes would accommodate pedestrians/bicyclists, but may not encourage pedestrian/bicyclist activity along US 6C.
	Ability of the alternative to enhance bus operations	No enhancement of bus operations or facilities.	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times.	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times.	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times. Traffic could pass buses stopped in right lane.	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times during peak hours.
Safety Concerns	Ability of the alternative to reduce unsafe physical (roadside hazards) or operational (congestion, lack of access control, and driver expectancy) conditions along US 6	No changes to existing roadside hazards, lack of access control, and operational conditions.	Improvements address operational and safety issues associated with peak hour congestion and lack of access control. Roadway reconstruction provides safety improvements.	Improvements address operational and safety issues associated with peak hour congestion and lack of access control. Roadway reconstruction provides safety improvements.	Improvements address operational and safety issues associated with peak hour congestion and lack of access control. Roadway reconstruction provides safety improvements.	Increased access control provides safety improvements, but congestion benefits limited to peak hours. New safety concerns introduced with driver expectancy issues related to reversible operations with relatively short section, lack of barrier/median separation, pedestrian crossing activity, and intersection operations at corridor entry points.
	Ability of the alternative to reduce the number of potential multimodal conflict points	Missing sidewalks, no bicycle facilities, and lack of access control along US 6C force pedestrians and bicyclists close to autos.	Designated space for pedestrians and bicyclists along with crossing treatments of two vehicular lanes and increased access control substantially reduces conflict points.	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points, but pedestrians/bicyclists must cross three vehicular lanes.	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points, but pedestrians/bicyclists must cross four vehicular lanes.	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points, but reversible lane operations during peak hours introduces additional conflicts with lack of median refuge area and pedestrian confusion with change in vehicular direction during peak hours.
Community	Relative property impacts based on number of residential and business properties impacted	No right-of-way impacts.	Right-of-way would be acquired from approx. 10 residential and 22 business/non-residential properties with no assumed total property acquisitions or buildings impacted.	Right-of-way would be acquired from approx. 10 residential and 22 business/non-residential properties with 4 assumed total property acquisitions (1 residential and 3 business) and 2 assumed buildings impacted (1 business and 1 residential).	Right-of-way would be acquired from approx. 10 residential and 22 business/non-residential properties with 14 assumed total property acquisitions (2 residential and 12 business) and 3 assumed buildings impacted (2 business and 1 residential).	Right-of-way would be acquired from approx. 10 residential and 22 business/non-residential properties with no assumed total property acquisitions or buildings impacted.
	Relative local street circulation and volume impacts	No changes in local street circulation and no increase in US 6C traffic volume traveling on local streets.	No changes in local street circulation and no increase in US 6C traffic volume traveling on local streets.	No changes in local street circulation and no increase in US 6C traffic volume traveling on local streets.	No changes in local street circulation and no increase in US 6C traffic volume traveling on local streets.	No changes in local street circulation and no increase in US 6C traffic volume traveling on local streets.
	Ability of the alternative to support local and regional plans	No improvements to US 6C corridor is not consistent with previous local and regional planning efforts.	Pedestrian and bicyclist facilities, access control, and improved traffic operations along US 6C generally support local and regional transportation and community plans.	Pedestrian and bicyclist facilities, access control, and improved traffic operations along US 6C generally support local and regional transportation and community plans.	Pedestrian and bicyclist facilities, access control, and improved traffic operations along US 6C generally support local and regional transportation and community plans.	Pedestrian and bicyclist facilities, access control, and improved traffic operations along US 6C generally support local and regional transportation and community plans.
Environmental Resources	Ability of the alternative to avoid and minimize impacts on environmental resources	No impacts to environmental and cultural resources.	POTENTIAL MINOR IMPACTS Potential impacts to listed NRHP site (church). Potential noise impacts to church and Clifton Elementary.	POTENTIAL MINOR IMPACTS Potential impacts to listed NRHP site (church). Potential noise impacts to church and Clifton Elementary.	POTENTIAL MINOR IMPACTS Potential impacts to listed NRHP site (church). Potential noise impacts to church and Clifton Elementary.	POTENTIAL MINOR IMPACTS Potential impacts to listed NRHP site (church). Potential noise impacts to church and Clifton Elementary.
Implementability	Ability of the alternative to minimize cost based on relative conceptual-level probable cost	No construction cost and no right-of-way acquisition.	Relatively moderate cost due to potential for right-of-way acquisition.	Relatively high cost due to potential for right-of-way acquisition with full property acquisitions.	Relatively high cost due to potential for right-of-way acquisition with full property acquisitions.	Relatively moderate cost due to infrastructure for reversible lane operations and potential for right-of-way acquisition.
	Ability to implement as separate fundable projects	N/A	Opportunity for improvements to be constructed and opened separately as fundable projects as sections along US 6C. Projects located along existing state highway system.	Opportunity for improvements to be constructed and opened separately as fundable projects as sections along US 6C. Projects located along existing state highway system.	Opportunity for improvements to be constructed and opened separately as fundable projects as sections along US 6C. Projects located along existing state highway system.	Reconstruction of US 6C can be constructed as separate projects, but infrastructure and operations for reversible lane must be implemented as one project. Projects located along existing state highway system.
SUMMARY OF RESULTS		**CARRIED FORWARD**	**CARRIED FORWARD**	**NOT RECOMMENDED**	**CARRIED FORWARD**	**ELIMINATED**
Notes		Further analysis required as the No Action Alternative for comparison to improvement alternatives.	This alternative is carried forward for further evaluation because the improvement provides adequate capacity and reasonable safety and multimodal mobility benefits with fewer impacts on the community and environmental and cultural resources than other alternatives.	This alternative is not recommended for further consideration because the improvement would result in comparably higher property impacts with full property acquisitions without substantially better traffic operations, safety, and multimodal mobility benefits than Alternative 1.	This alternative is carried forward for further evaluation because the improvement provides substantially more vehicular capacity along US 6C and would provide traffic operational and safety benefits related to congestion and lack of access control, as well as multimodal mobility benefits with some impacts to the community and environmental and cultural resources.	This alternative is eliminated from further consideration because the alternative would not address the Purpose and Need to improve safety along the corridor due to the new safety concerns introduced with driver expectancy issues related to reversible lane operations with relatively short section, lack of barrier/median separation, pedestrian crossing activity, and intersection operations at corridor entry points, as well as additional conflicts with pedestrian and bicyclists due to lack of median refuge area and confusion with change in vehicular direction during peak hours. This alternative would not provide substantially better traffic operations than other alternatives.

GREEN = Comparatively beneficial and/or minor impacts
BLACK = Comparatively neutral benefits and/or moderate impacts
RED = Comparatively minor or no benefits and/or major impacts

CARRIED FORWARD = Alternative will be evaluated further in the PEL study as a potential improvement project
NOT RECOMMENDED = Alternative will not be evaluated further in the PEL study due to comparatively negligible benefits and major impacts, but it may be considered during future NEPA process(es)
ELIMINATED = Alternative will not be evaluated further because it does not meet the project Purpose and Need and it will not be considered during future NEPA process(es) unless there are changes in relevant area conditions

US 6 Clifton Transportation Study

Level 2 Screening Matrix

6/15/15

Level 2 Evaluation Criteria		10 Front Street/US 6 One-Way Couplet, Old 32 Road to 33 Road	11 Front Street/US 6 One-Way Couplet at Peach Tree Center	12 US 6/Grand Avenue One-Way Couplet	16 Front Street Connection Two-Way with US 6 Improved Two Through Lanes	17 Front Street Connection One-Way Eastbound with US 6 Improved Two Through Lanes
Traffic Operations	Ability of the alternative to provide daily and peak hour roadway capacity to meet 2040 travel demand	Forecasted 2040 demand (15,400 vpd) on US 6C less than capacity of 19,000 vpd and forecasted 2040 demand (11,600 vpd) on Front St less than capacity of 16,000 vpd. Additional volume impacts on Old 32 Rd and I-70B.	Forecasted 2040 demand (15,400 vpd) on US 6C less than capacity of 19,000 vpd and forecasted 2040 demand (11,600 vpd) on Front St less than capacity of 16,000 vpd. Additional volume impacts on Old 32 Rd and I-70B.	Forecasted 2040 demand (14,200 vpd) on US 6C less than capacity of 19,000 vpd, but forecasted 2040 demand (13,600 vpd) on Grand Ave exceeds capacity of 12,000 vpd.	Forecasted 2040 demand (20,000 vpd) on US 6C less than capacity of 22,000 vpd and forecasted 2040 demand (6,000 vpd) on Front St less than capacity of 16,000 vpd.	Forecasted 2040 demand (20,500 vpd) on US 6C less than capacity of 22,000 vpd and forecasted 2040 demand (3,500 vpd) on Front St less than capacity of 16,000 vpd.
	Ability of the alternative to accommodate regional through travel	EB through traffic required to travel out-of-direction with multiple turn movements to Front St, adding volume and creating additional congestion along Old 32 Rd and I-70B.	EB through traffic required to travel out-of-direction with multiple turn movements to Front Street, adding volume and creating additional congestion along Old 32 Rd and I-70B.	WB traffic remains along existing US 6C alignment with some operational benefits, but EB regional traffic travels on Grand Ave with residential properties and parking.	Regional traffic can remain along existing US 6C alignment with additional capacity provided along Front St for both EB and WB traffic.	Regional traffic can remain along existing US 6C alignment with additional EB capacity provided along Front St.
	Ability of the alternative to provide consistency with the US 6 - Clifton Access Control Plan	One-way operations along US 6C not consistent with Access Control Plan and Front St accesses remain.	One-way operations along US 6C not consistent with Access Control Plan and Front St accesses remain.	One-way operations along US 6C not consistent with Access Control Plan and Grand Ave residential accesses remain.	Increased access control and turn restrictions consistent with Access Control Plan.	Increased access control and turn restrictions consistent with Access Control Plan.
Multimodal Connectivity	Ability of the alternative to provide good pedestrian and bicyclist flow	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian/bicyclist activity along US 6C and along Front St.	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian/bicyclist activity along US 6C and along Front St.	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian/bicyclist activity along US 6C and along Grand Ave.	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian/bicyclist activity along US 6C and along Front St.	Pedestrian and bicyclist facilities with crossing treatments of two vehicular lanes would accommodate and may encourage pedestrian/bicyclist activity along US 6C and along Front St.
	Ability of the alternative to enhance bus operations	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times along US 6C and Front St. Traffic could pass buses stopped in right lane.	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times along US 6C and Front St. Traffic could pass buses stopped in right lane.	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times along US 6C and Grand Ave. Traffic could pass buses stopped in right lane.	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times along US 6C and Front St.	Bus stop amenities may help attract transit ridership. Vehicular operational benefits would allow for faster transit travel times along US 6C and Front St.
Safety Concerns	Ability of the alternative to reduce unsafe physical (roadside hazards) or operational (congestion, lack of access control, and driver expectancy) conditions along US 6	Increased capacity provides safety improvements related to congestion, but new safety concerns introduced with accesses along Front St, driver expectancy issues related to EB traffic traveling out-of-direction, and additional congestion along Old 32 Rd and I-70B.	Increased capacity provides safety improvements related to congestion, but new safety concerns introduced with accesses along Front St, driver expectancy issues related to EB traffic traveling out-of-direction, and additional congestion along Old 32 Rd and I-70B.	Increased capacity for WB traffic along US 6C provides safety improvements related to congestion, but new safety concerns introduced with residential accesses and pedestrian flows along and across Grand Ave.	Improvements along US 6C address operational and safety issues associated with peak hour congestion and lack of access control. Roadway reconstruction provides safety improvements, but new safety concerns introduced with accesses along Front St.	Improvements along US 6C address operational and safety issues associated with peak hour congestion and lack of access control. Roadway reconstruction provides safety improvements, but new safety concerns introduced with accesses along Front St.
	Ability of the alternative to reduce the number of potential multimodal conflict points	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points along existing US 6C alignment, but overall conflicts are increased with additional traffic along Front St.	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points along existing US 6C alignment, but overall conflicts are increased with additional traffic along Front St and within Peach Tree Center.	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points along existing US 6C alignment, but overall conflicts are increased with additional traffic along residential area of Grand Ave.	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points along existing US 6C alignment, but some additional conflicts with added traffic along Front St.	Designated space for pedestrians and bicyclists along with crossing treatments and increased access control reduces conflict points along existing US 6C alignment, but some additional conflicts with added traffic along Front St.
Community	Relative property impacts based on number of residential and business properties impacted	Right-of-way would be acquired from approx. 20 residential and 28 business/non-residential properties with no assumed total property acquisitions. Right-of-way may be required from UPRR.	Right-of-way would be acquired from approx. 20 residential and 28 business/non-residential properties with no assumed total property acquisitions. Right-of-way may be required from UPRR.	Right-of-way would be acquired from approx. 25 residential and 31 business/non-residential properties with 6 assumed total property acquisitions (1 business on US 6C and 5 residential along Grand Ave).	Right-of-way would be acquired from approx. 22 residential and 28 business/non-residential properties with 1 assumed total property acquisitions (1 business on Front St). Right-of-way may be required from UPRR.	Right-of-way would be acquired from approx. 21 residential and 28 business/non-residential properties with no assumed total property acquisitions or buildings impacted. Right-of-way may be required from UPRR.
	Relative local street circulation and volume impacts	Circulation to/from properties along US 6C and between US 6C and Front Street substantially impacted by one-way operations, resulting in increased US 6C traffic volumes on local streets.	Circulation to/from properties along US 6C and between US 6C and Front Street substantially impacted by one-way operations, resulting in increased US 6C traffic volumes on local streets.	Circulation to/from properties along US 6C and Grand Ave substantially impacted with one-way operations, resulting in increased US 6C traffic volumes on local streets.	No changes in local street circulation, but potential for some increase in traffic volume on local streets south of US 6C with new Front St connection.	Circulation to/from properties along Front Street substantially impacted with one-way operation, resulting in potential for increased traffic volumes on local streets south of US 6C.
	Ability of the alternative to support local and regional plans	Pedestrian and bicyclist facilities and access control along US 6C support local and regional transportation and community plans, but one-way operations and Front St as a regional arterial are not consistent with previous planning efforts.	Pedestrian and bicyclist facilities and access control along US 6C support local and regional transportation and community plans, but one-way operations and Front St as a regional arterial are not consistent with previous planning efforts.	Pedestrian and bicyclist facilities and access control along US 6C support local and regional transportation and community plans, but one-way operations and Grand Ave as a regional arterial are not consistent with previous planning efforts.	Pedestrian and bicyclist facilities and access control along US 6C support local and regional transportation and community plans, but traffic volumes along Front St are not consistent with previous planning efforts.	Pedestrian and bicyclist facilities and access control along US 6C support local and regional transportation and community plans, but one-way operations on Front St are not consistent with previous planning efforts.
Environmental Resources	Ability of the alternative to avoid and minimize impacts on environmental resources	POTENTIAL HIGH IMPACTS Same potential impacts as Alts 1-4. Additional hazmat site - medium potential. Additional impacts to eligible historic property. Disproportionately higher EJ impacts than Alts 1-4. Additional potential noise impacts to residences and church. Prime Farmland impacts.	POTENTIAL HIGH IMPACTS Same potential impacts as Alts 1-4. Additional hazmat sites - high and medium potential. Additional impacts to eligible historic property. Disproportionately higher EJ impacts than Alts 1-4. Additional potential noise impacts to residences and church. Prime Farmland Impacts.	POTENTIAL HIGH IMPACTS Same potential impacts as Alts 1-4. Additional impacts to eligible historic property. Disproportionately higher EJ impacts than Alts 1-4. Additional potential noise impacts to residences and church. Prime Farmland impacts.	POTENTIAL MODERATE IMPACTS Same potential impacts as Alts 1-4. Additional hazmat site - medium potential. Additional impacts to eligible historic property. Disproportionately higher EJ impacts than Alts 1-4. Additional potential noise impacts to residences and church.	POTENTIAL MODERATE IMPACTS Same potential impacts as Alts 1-4. Additional hazmat site - medium potential. Additional impacts to eligible historic property. Disproportionately higher EJ impacts than Alts 1-4. Additional potential noise impacts to residences and church.
Implementability	Ability of the alternative to minimize cost based on relative conceptual-level probable cost	Relatively high cost due to new underpass under 32 Road and potential for right-of-way acquisition.	Relatively high cost due to access and traffic signal changes at Peach Tree Center and potential for right-of-way acquisition through the Peach Tree Center.	Relatively high cost due to potential for right-of-way acquisition with full property acquisitions.	Relatively high cost due to new underpass under 32 Road and potential for right-of-way acquisition with full property acquisitions.	Relatively high cost due to new underpass under 32 Road and potential for right-of-way acquisition.
	Ability to implement as separate fundable projects	Opportunity for US 6C and Front St reconstruction and Front St bridge to be constructed in sections as separate projects, but full implementation of one-way couplet must occur together. Front St would be converted to state highway, increasing highway system cost.	Opportunity for US 6C and Front St reconstruction and Peach Tree Center connection to be constructed in sections as separate projects, but full implementation of one-way couplet must occur together. Front St would be converted to state highway, increasing highway system cost.	Opportunity for US 6C and Grand Ave reconstruction to be constructed in sections as separate projects, but connections and full implementation of one-way couplet must occur together. Grand Ave would be converted to state highway, increasing highway system cost.	Opportunity for US 6C and Front St reconstruction and Front St bridge to be constructed and opened separately in sections as fundable projects. Front St would remain local roadway and Front St improvements would be implemented by Mesa County.	Opportunity for US 6C and Front St reconstruction and Front St bridge to be constructed and opened separately in sections as fundable projects, but implementation of one-way Front Street must occur as one project. Front St would remain local roadway and Front St improvements would be implemented by Mesa County.
SUMMARY OF RESULTS		**NOT RECOMMENDED**	**NOT RECOMMENDED**	**ELIMINATED**	**CARRIED FORWARD**	**NOT RECOMMENDED**
Notes		This alternative is not recommended for further consideration because the improvements create additional congestion along Old 32 Rd and I-70B and impact driver expectancy related to EB traffic traveling out-of-direction to Front St. Although the improvements would accommodate and may encourage additional pedestrian/bicyclist flows, overall multimodal conflicts are increased with additional traffic along Front St. The one-way operations would affect circulation to/from properties along and south of US 6C, impacting local streets with increased US 6C traffic.	This alternative is not recommended for further consideration because the improvements create additional congestion along Old 32 Rd and I-70B and impact driver expectancy related to EB traffic traveling out-of-direction to Front Street. Although the improvements would accommodate and may encourage additional pedestrian/bicyclist flows, overall multimodal conflicts are increased with additional traffic along Front St. The one-way operations would affect circulation to/from properties along and south of US 6C, impacting local streets with increased US 6C traffic.	This alternative is eliminated from further consideration because the alternative does not meet the Purpose and Need to improve traffic operations and safety along the corridor due to the limited capacity of Grand Ave for EB US 6C traffic and new safety concerns introduced with residential accesses and pedestrian flows along and across Grand Ave. This alternative also has a combination of negative impacts on the community and environmental and cultural resources, requiring acquisition from 25 residential properties and 31 business/non-residential properties and having disproportionately higher EJ impacts than other alternatives, as well as impacts to Prime Farmland.	This alternative is carried forward for further evaluation because the improvement provides more east-west vehicular capacity along US 6C and Front St and would provide traffic operational and safety benefits related to congestion and lack of access control, as well as multimodal mobility benefits with some impacts to the community and environmental and cultural resources.	This alternative is not recommended for further consideration because the improvements would result in comparably higher local circulation and street impacts due to one-way operations along Front Street without notably better traffic operations, safety, and multimodal benefits or reduced community impacts than Alternative 16.

GREEN = Comparatively beneficial and/or minor impacts
BLACK = Comparatively neutral benefits and/or moderate impacts
RED = Comparatively minor or no benefits and/or major impacts

CARRIED FORWARD = Alternative will be evaluated further in the PEL study as a potential improvement project
NOT RECOMMENDED = Alternative will not be evaluated further in the PEL study due to comparatively negligible benefits and major impacts, but it may be considered during future NEPA process(es)
ELIMINATED = Alternative will not be evaluated further because it does not meet the project Purpose and Need and it will not be considered during future NEPA process(es) unless there are changes in relevant area conditions