

Boulder Valley Regional Center Transportation Connections Plan

City of Boulder Transportation Division

Boulder Valley Regional Center Transportation Connections Plan

Plan Review and Adoption Schedule

- ▶ June 19, 2002 Adopted by the Boulder Urban Renewal Authority Board and Recommended for Adoption by City Council
- ▶ July 8, 2002 Review by the Transportation Advisory Board
- ▶ July 18, 2002 Review by the Planning Board
- ▶ August 6, 2002 Review and Adoption by the City Council

Plan Development Acknowledgments

- ▶ The Arapahoe Transportation Network Plan Task Force
- ▶ City of Boulder Transportation Division Staff
- ▶ City of Boulder Planning Department Staff
- ▶ BURA Staff
- ▶ Consultants: The Osprey Group, Fox Higgins Transportation Group and Carter & Burgess

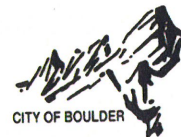


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ATTACHMENTS

- A. BVRC Transportation Connections Plan - ACTION PLAN
- B. TCP Development and Approval Process

1.0 Summary of this Boulder Valley Regional Center Transportation Connections Plan

This Boulder Valley Regional Center (BVRC) Transportation Connections Plan (TCP) addresses the multi-modal transportation system needs for moving to and through the area located between Folsom and the approximate 35th Street alignment, and from Boulder Creek to the north side of Pearl Street. This TCP also extends north of Pearl Street to Mapleton Avenue to include the Boulder Transit Village which is under development northeast of the intersection of 30th/Pearl. This TCP builds upon the original Transportation Connections Plan for the Boulder Valley Regional Center which was adopted by the Boulder Urban Renewal Authority in 1997 and revised in 1998.

The Boulder Valley Regional Center Transportation Connections Plan defines the desired future transportation network in the area for all modes of travel. The TCP will help land owners, developers, and the City plan for the connections needed in this area. Over time, the plan and the proposed improvements will be integrated into the Boulder Valley Transportation Master Plan and the Transportation Capital Improvement Programs (CIP).

The recommendations and requirements of the TCP will be implemented through:

- the adoption of appropriate ordinances
- construction of capital improvements as part of Boulder's Capital Improvement Program (CIP), including but not limited to construction of the improvements within the 28th Street right-of-way identified in the 28th Street South Segment Community and Environmental Assessment Process (CEAP)
- construction of capital improvements associated with the future Boulder Transit Village
- dedication and acquisition of right-of-way
- construction of on-site improvements by property owners as appropriate when parcels develop or redevelop, including but not limited to the redevelopment of the Crossroads Mall area
- transportation system expansions and improvements in the CU Campus east of 30th Street and south of Arapahoe Avenue.

The major components of this BVRC Transportation Connections Plan include:

- **Map Based Transportation Connections Plan**, illustrated on Figure 1 including recommended multi-modal facilities and connections. Note that this is a right-of-way plan based on Section 9-3.3-14 of the 1981 Boulder Revised Code (BRC).
- **South 28th Street Corridor CEAP Recommendations** including 28th Street cross-section improvements, multi-modal facilities in the right-of-way, improvements to enhance safety, recommended access configuration, landscape improvements and public art opportunities

- **BVRC TCP Document** (this document) including goals, objectives, policies, plan amendment procedures, standards and implementation guidance
- **BVRC TCP Action Plan** which is a “to do” list of steps necessary to implement this Transportation Connections Plan (*in this document as Attachment A*). Some action items are one time events; some have specific target dates attached; and some describe on-going activity needed. The TCP Action Plan will be updated periodically by Transportation Division and BURA staff.

Attachment B is a summary of the BVRC TCP development and public review and adoption process.

2.0 Goals and Objectives of the BVRC TCP

2.1 Goals The goals listed below represent the ultimate targets for the BVRC TCP:

- Improve access and mobility to, through, and within the BVRC area for all modes of travel by developing a multi-modal transportation grid where possible.
- Improve transportation safety for all modes and reduce traffic accidents.
- Provide visual continuity within transportation corridors.
- Reduce vehicular congestion on arterial roadways in the area and minimize the need for traffic within the area to circulate on arterial roadways.
- Provide a transportation network that improves access to businesses in the area.
- Provide a transportation network that supports and encourages land development and/or redevelopment that is consistent with the Boulder Valley Comprehensive Plan.

2.2 Objectives The objectives listed below are divided by categories relating to general issues, capital improvements, programs, regulation changes, development review guidance, and planning activities that will be used to implement the goals of the TCP:

General Objectives:

- Develop a map-based plan for a multi-modal transportation network in the area that defines the needed transportation connections (roadways, paths, routes etc.) for pedestrian, bicycle, automobile, and transit travel. This map based plan is illustrated in Figure 1.
- Develop regulations and ordinances specific to this TCP that can be used to evaluate and direct development and redevelopment applications.
- Provide efficient multi-modal connections to the future Boulder Transit Village to facilitate planned regional transit service and potential passenger rail travel in the future.

- Evaluate the potential to locate a bicycle and pedestrian trail along the railroad right-of-way where no efficient parallel trails or pathways exist

Objectives geared toward capital project construction by the City (may also have application to development review):

- Define short-term improvements and connections from the TCP map for inclusion in the Transportation CIP.
- Evaluate the potential for innovative transit improvements in the arterial roadway rights-of-way, such as bus queue jump lanes, bus-bike-right turn lanes, etc.
- Include the BVRC TCP recommendations in the Boulder Valley Transportation Master Plan update as appropriate.
- Identify and complete missing sidewalk links in the area.

Objectives geared toward development review regulations:

- Implement the map-based plan in a way that ensures the planned connections are made while maintaining as much flexibility for land development options as possible for property owners developing or redeveloping individual sites.
- Require the provision of internal pedestrian connections or removal of barriers to interior pedestrian travel between adjacent properties, in addition to public sidewalks.
- Accommodate cross-site automobile access between parking lots where practical when properties develop or redevelop to minimize travel on arterial roadways.
- When parcels develop or redevelop, require that “back door” or “cross site” automobile connections between commercial sites be provided where practical, often along the back of the property along both sides of arterial roadways to enhance access and minimize the need for automobile turns to and from the arterials.
- Where practical, require driveways on developing or redeveloping parcels to be located at the edge of the property such that they can be shared with adjacent properties (either in the near-term or when the adjacent parcel develops or redevelops).

3.0 The Map-Based Transportation Connections Plan

The Transportation Connections Plan Map for the BVRC area (see Figure 1) illustrates the following existing and proposed transportation facilities:

- roadways or automobile connections of one of the following types:
 - ✍ primary roadways
 - ✍ secondary roadways

(Note that all roadways are assumed to have sidewalks on both sides unless modified for a specific roadway segment as part of a site review process)

- on-street bike lanes
- off-street bike / pedestrian multi-use pathways
- grade separated path crossings
- transit routes
- combination bus / bike / right-turn lanes
- transit super stops (typically at places where transit routes cross)
- traffic signals
- at-grade pedestrian crossings, either at an intersection or mid-block

Existing facilities are represented by solid lines and recommended future facilities are illustrated with dashed lines. Existing facilities that are in need of upgrade are illustrated with dotted lines.

The right-of-way for all future transportation facilities should be dedicated or reserved. Existing transportation facilities that are not in the public right-of-way will need to have their right-of-way dedicated or reserved at the time of redevelopment (see Section 4.5 of this TCP).

3.1 TCP Super Block Maps

The TCP area has been divided into 10 super blocks (see Figure 2 for a superblock key) to allow a more detailed view of the recommended transportation connections. The super blocks are illustrated in Figures 3 - 14 (including alternatives for Superblock 1), which include written descriptions of the intended connections where appropriate.

The Target and Crossroads Mall areas (Superblocks 3 and 6), have an additional shading on the Comprehensive Map (Figure 1) to illustrate that additional internal vehicular connections (not specifically shown) are anticipated in these areas when redevelopment occurs. The alignments of these internal vehicular connections have not been determined in order to maximize the flexibility for redevelopment proposals (see also Section 4.3).

It should be noted that the northern portion of the BVRC TCP map overlaps with the southern portion of the North 28th Street Transportation Network Plan in the area bounded by Folsom, Mapleton, 30th, and Pearl. It is the goal that the two Plans be consistent in this area. Multi-modal connections illustrated on the TCP map that are in addition to the connections in this area of the North 28th Street TNP map should be revised in the North 28th Street TNP when that TNP is updated by staff. A detailed map of this overlapping area, and the currently recommended multi-modal facilities is attached as Figure 15.

3.2 Transit in the BVRC Area

Transit is a critical component of the multi-modal transportation system in the BVRC area, and all of the maps referenced above include corridors where transit currently exists or new transit services are proposed. The attached Future Transit Map (Figure 16) provides a more comprehensive look at transit facilities and connections in the BVRC area and includes:

- ✍ route specific information for existing and future transit on each roadway corridor
- ✍ a broader look at existing and future regional transit connections
- ✍ distinction between local and local high-frequency transit routes
- ✍ reference to a new high frequency circulator shuttle through the BVRC area.

Expanded regional transit to and through the BVRC area will include the DART to/from Longmont in the Diagonal Highway / 28th Street / Canyon Blvd. corridor, and new service to/from Denver in the US 36 / 28th Street corridor.

Additional high frequency shuttle service will include the STAMPEDE connecting CU's main campus with the east campus and the Arapahoe corridor, and the ORBIT operating in the Folsom and 28th Street corridors. The proposed new circulator shuttle connecting the various parts of the BVRC is shown with a conceptual alignment that will allow users to access multiple destinations while leaving their cars parked. This two-way circulator should have a frequency of less than 10 minutes if it is to be successful.

Figure 16 also illustrates an additional local transit route serving the Valmont corridor. The transit routes serving the Arapahoe corridor are defined in the maps discussed above. However, the actual roadway's functional utilization, its cross-section, and right-of-way, will receive additional study to determine its most appropriate configuration to support all modes. One possibility that has been discussed, and is scheduled for implementation in the North 28th Street Corridor, is the use of the outside lanes on a 6-lane roadway as bus-bike-right turning vehicle lanes.

Transit superstops are recommended at most of the major intersections in the 28th Street and Arapahoe corridors where regional and local transit routes cross, and adjacent to significant destinations such as CU or the Crossroads Mall area. The Boulder Transit Village located northeast of 30th / Pearl will serve as a major bus transit hub and may one day provide access to regional passenger rail service.

The resultant transit grid of local, regional, and high frequency shuttle services illustrated on Figure 16 will be necessary to help Boulder meet its aggressive multi-

modal goals. And the grid of bicycle and pedestrian facilities illustrated throughout this TCP will be critical to ensuring the transit system's success.

4.0 Policies Needed to Support the BVRC TCP

This section includes the policies that support the implementation of the TCP. In some cases additional rationale is provided for a topic after the policy statement to support its intent.

4.1 Connectivity to the City-wide Multi-Modal Transportation System

Policy: The multi-modal transportation facilities illustrated on Figure 1 that connect from the TCP area to the surrounding transportation network should be prioritized, programmed and implemented by the City of Boulder as part of the Boulder Valley Transportation Master Plan and CIP process.

4.2 Flexibility of Connection Location Regarding Development or Redevelopment

Policy: The multi-modal improvements illustrated on the BVRC TCP map (Figure 1 and Figures 3 - 14) are intended to define the needed connectivity in that area. The alignments of these connections are specific to the area shown but are not intended to be precise, so long as the connection illustrated is created in a manner that facilitates efficient travel. The intent of the TCP is to maintain flexibility in the implementation of these connections so as to not hinder redevelopment potential of a parcel or parcels. Development or redevelopment proposals should illustrate that the intended connectivity is achieved. If the connection illustrated on the TCP map cannot be made where shown, the alignment may be varied as follows:

- development or redevelopment parcels that are 10 acres in size or less must achieve the connection within 50 feet on either side of the alignment illustrated on the TCP map.
- development or redevelopment parcels that are more than 10 acres in size must achieve the connection within 100 feet on either side of the alignment illustrated on the TCP map.
- In the case of larger parcels or aggregations of parcels (15 acres or larger) such as the Boulder Transit Village, it is the intent of the TCP to allow flexibility in the number and type of connections made across a site, so long as the proposed connectivity goals of the TCP

are achieved. This connectivity goal can best be described as the equivalent of the street / alley / sidewalk grid found in traditional downtown areas.

To reinforce this point, alternative connections in the northeast area of the TCP map have been illustrated on Figures 3, 4, and 5 which illustrate alternative connections in the Boulder Transit Village area that could be implemented without compromising the intent of the plan, subject to the Site Review Process.

Changes in the proposed connections in development or redevelopment parcels that exceed the alignment limits described should be reviewed in the Plan Amendment Process as described in Section 6.6.

While there is flexibility in the alignment of sidewalks and multi-use pathways, serpentine routing should be avoided. Pedestrian and bicycle facilities should be as straight, level, and direct as possible to support their primary purpose as transportation connections.

4.3 Transportation Connections in the Crossroads Area

Policy: The grid of multi-modal transportation connections within the Crossroads area (bounded by Arapahoe, Pearl, 28th, and 30th Streets) should be roughly consistent with the grid illustrated in the Crossroads Mall Redevelopment Framework in terms of the spacing, frequency and connectivity of the transportation corridors. Figures 1, 7, and 10 illustrate the approximate number and alignment of most of the desired transportation facilities in the Crossroads area. However, as noted on the Figures, additional secondary roadways and vehicular connections will be required within the Crossroads area to provide an adequate level of connectivity to and through the site (as per the Crossroads Mall Redevelopment Framework). These additional roadways have not been illustrated so as to allow maximum flexibility during redevelopment site planning, but their existence is required and specific alignments should be determined as part of the site review process for the Crossroads Mall area redevelopment.

4.4 Coordination of Access to Arterial Roadways with Arterial Roadway Frontage

Policy: Coordination and sharing of driveways between adjacent parcels along arterial roadways and consolidation of driveway access to roadways within a single parcel should be achieved as parcels redevelop along arterial roadways in the BVRC area.

Driveways accessing arterial roadways in a developing or redeveloping parcel should be located as close as possible to an edge of the property so as to be shared with an adjacent property when the adjacent property develops or redevelops. If the adjacent property already has a driveway located at the common property line, a shared driveway should be created to serve both parcels.

No more than one driveway should be provided onto any roadway frontage when a parcel of 5 acres or less develops or redevelops, except that two driveways could be considered to serve a parcel only if both of the two driveways are located on the edges of the parcel such that they serve (or can in the future serve) the adjacent parcels on either side as well.

Consolidating driveway access onto arterial roadways will enhance safety and operational efficiency in the BVRC area. Sharing driveways between adjacent parcels, coupled with the provision of secondary "back door" roadways at or near the rear property lines (as illustrated on Figures 1 and 3 - 14) can improve the access to any given parcel. Figure 17 illustrates this concept, comparing existing parcel access for a generic block of Arapahoe Avenue to an enhanced access pattern achieved through redevelopment and implementation of the TCP.

4.5 Right-Of-Way Dedication and Acquisition

Policy: Necessary rights-of-way or easements for the transportation facility improvements identified on the TCP map will be reserved, dedicated to, or acquired by the City as a condition of approval for applicants applying for development or redevelopment of a parcel. The City of Boulder may need to acquire the necessary right-of-way or easement for projects to be constructed by the City.

4.6 Pedestrian Connections Between Buildings

Policy: Development or redevelopment of commercial properties in the BVRC area should be designed to allow pedestrian travel between buildings. Physical barriers such as walls, fences, hedges, berms, or significant grade changes between parcels will be discouraged in order to allow for convenient pedestrian travel between buildings and thus avoid short vehicle trips between adjacent parking areas and additional circulating traffic on the arterial roadway system. If barriers can not be avoided, or cannot be removed where they already exist, they shall have breaks where needed for pedestrian cross-access. At least one pedestrian link shall be provided to each abutting property (in addition to the public sidewalk).

These pedestrian connections between building fronts are illustrated conceptually on Figure 17.

4.7 Coordination with the Boulder Valley Transportation Master Plan

Policy: The goals, objectives, and multi-modal connections identified in this BVRC TCP should be incorporated into future updates of the Transportation Master Plan to facilitate their prioritization and implementation.

4.8 Coordination with Boulder's Greenways Program

Policy: Implementation of transportation connections in and connecting to the tributary greenways within the TCP area (as illustrated on the TCP maps) should be pursued in concert with Boulder's Greenways Master Plan and programmed into the City's CIP.

4.9 Consistency with the Boulder Valley Comprehensive Plan

Policy: The transportation system anticipated by the TCP in the BVRC area is intended to be consistent with and facilitate the potential future land uses in the area as envisioned in the Boulder Valley Comprehensive Plan (BVCP). The TCP action items serve to implement BVCP transportation policies regarding multi-modal strategies and investments, accessibility, reduction of single occupancy auto trips, and transportation impacts.

4.10 Coordination of the TCP area improvements with the South 28th Street CEAP

Policy: The development of the 28th Street South Segment Corridor improvements and the TCP area improvements shall be coordinated to facilitate safe and efficient multi-modal mobility within and around the area.

4.11 Consistency and Coordination with the North 28th Street Transportation Network Plan

Policy: The transportation system anticipated by the BVRC TCP is intended to be consistent with and connect to the transportation system at the south end of the North 28th Street corridor as detailed in the North 28th Street TNP and as modified in this document. Multi-modal transportation facilities along and across Pearl Street and to/from the Boulder Transit Village should facilitate this connectivity.

4.12 Incorporation of the BVRC TCP into the Arapahoe Transportation Network Plan

Policy: The Arapahoe Transportation Network Plan (currently scheduled for completion in late 2002) addresses the multi-modal transportation needs for an area along both sides of Arapahoe Avenue from Folsom Street to Westview Drive on the eastern edge of Boulder. When complete, this TNP will include the BVRC area at its western boundary. It is the intent of the Arapahoe TNP that it include this BVRC TCP in its entirety and add a broader more regional transportation focus in the entire Arapahoe corridor.

4.13 Development or Redevelopment Compliance with Boulder's City-wide Transportation Demand Management (TDM) Program

Policy: The City of Boulder is in the process of developing a Transportation Demand Management Program (TDM Program) for implementation throughout the city. This TDM Program will offer various transportation alternatives to the single occupancy vehicle (SOV). It will give people the flexibility to find a transportation option that works for them - part of the time or all of the time. The program will attempt to reduce single occupancy vehicle trips and the resulting congestion, pollution, increased parking and reduced open space. The city-wide TDM Program, when finalized, will have application in the BVRC TCP area, and may be incorporated specifically into this TCP when it is updated in the future.

5.0 TCP Design Parameters

5.1 Minimum Cross-Sections for Roadways, Sidewalks, Multi-use Pathways, and Bicycle Lanes

This section of the Plan defines minimum cross-sections for roadways, sidewalks, bikeways, and multi-use pathways on the TCP map.

Collector and Arterial Roadways

All collector, minor arterial, and principal arterial roadways within the TCP area (as defined on Boulder's Roadway Functional Classification Map in the Boulder Valley Transportation Master Plan) are intended to have minimum City of Boulder cross-sections (including landscaping buffers and sidewalks) as defined in the City's Design and Construction Standards (DCS). In addition, the requirements of the BVRC Streetscape Guidelines in the BVRC Design Guidelines shall apply as appropriate.

Local Access Roadways

This map-based TCP includes three types of local access standards as follows:

- ✍ *Primary Roadway* - the major local access routes in the area. The minimum standard in nonresidential areas is the Base Street standard in the DCS, including sidewalks and landscaping. The minimum standard in residential areas is the Residential Street standard in the DCS, including sidewalks and landscaping. In addition, the requirements of the BVRC Streetscape Guidelines in the BVRC Design Guidelines shall apply as appropriate.
- ✍ *Secondary Roadways or Vehicular Connections* - typically providing access to and through the larger parcels, cross-site access between parcels, or connecting the back side of properties which front on an arterial roadway. The minimum standard in nonresidential areas is the Base Street standard in the DCS, including sidewalks and landscaping. The minimum standard in residential areas is the Residential Street standard in the DCS, including sidewalks and landscaping. In addition, the requirements of the BVRC Streetscape Guidelines in the BVRC Design Guidelines shall apply as appropriate. Modifications to these minimum standards on Secondary Roadways may be considered on a case by case basis during the site review process.
- ✍ *Regulatory Roadway Connections* - vehicular connections to and/or through a parcel, that are required to be maintained as a condition of development approval, but no formal easement or right-of-way is required by the City.

The property owner may elect to provide a cross-section with elements in excess of these minimum requirements so long as the cross-section of a facility that connects between properties has consistency necessary for safe and efficient travel. The property owner must follow the BVRC Streetscape Guidelines for sidewalk and landscaping specifications as appropriate.

Multi-use Pathways

Off-street bike/pedestrian pathways illustrated on the TCP map shall have a minimum width of 12 feet and be paved in concrete, unless it can be shown in the site review process that a typical sidewalk cross-section is more appropriate in selected areas. Pathways that are not within a roadway right-of-way should be placed in a pathway easement.

On-Street Bicycle Lanes

Bike lanes shall be designed and installed consistent with the City's bike lane standards.

6.0 Implementation of the BVRC Transportation Connections Plan

6.1 Ordinances to Support TCP Implementation

Implementation of the TCP will, in part, require the City to adopt necessary ordinances so that portions of the Plan may be implemented as development and redevelopment occurs. These ordinances will allow development to occur in a manner that is consistent with the connections illustrated on the TCP map.

6.2 Development or Redevelopment Triggers for TCP Compliance

The City should review and implement development and redevelopment thresholds to determine when compliance with the TCP will be required. Development or redevelopment thresholds that could be considered are detailed in City Code Section 9-3.3-14 (Reservation, Dedication and Improvement of Rights of Way) and include:

- building expansions (based on size of the expansion)
- a change of use
- the addition of more dwelling units
- any project that requires a Site Review

6.3 Near Term Projects by the City of Boulder

The future connections illustrated on the Plan in Figures 1 and 3 - 14 include a wide range of transportation system enhancements. Some of the connections may be implemented in the near term (1-5 years) by the City as part of currently planned projects. Examples may include:

- multi-use path connections to the Goose Creek Path
- improvements in the South 28th Street corridor as identified in the CEAP for that project
- bus queue jump lanes at selected intersections
- the addition of bicycle lanes on 30th between Pearl and Arapahoe
- the addition of a multi-use path on the east side of 30th between Arapahoe and Goose Creek
- TDM Program implementation.

Other projects, such as additional transit routes, transit super stops, and development of the Boulder Transit Village may be implemented over time as part of Boulder's transit system enhancement.

6.4 Projects that will be Implemented with Development or Redevelopment

Many of the connections illustrated on Figures 1 and 3 - 14 can only be implemented with the development or redevelopment of one or more of the commercial parcels in the BVRC area. These connections are shown so that they will be included as part of a development or redevelopment proposal. Redevelopment of the Crossroads Mall area will trigger the implementation of many of the multi-modal connections shown for that area.

6.5 The Boulder Valley Regional Center TCP Action Plan

The Action Plan for the BVRC TCP is a detailed listing of steps necessary to implement the TCP. The tasks are divided into groups as follows:

- TCP Finalization and Adoption

- Network Component Implementation - City Initiative
- Network Component Implementation - Local Development Initiative
- TDM Component Implementation

The Action Plan is included in this document as Attachment A.

6.6 Transportation Connections Plan Amendment Process

The BVRC TCP is intended to be specific and yet flexible enough to have application for the foreseeable future in this portion of Boulder. However, if the need arises, this section describes a two tiered approach to modify the TCP.

Administrative Adjustments to the implementation of the TCP can be completed at the staff level after review and agreement by BURA, Planning, Transportation, and Development Review staffs as appropriate. For example, staff may authorize the administrative adjustment to the alignment of a connection illustrated on Figures 1 and 3 - 14 when the requested adjustment meets all of the following criteria:

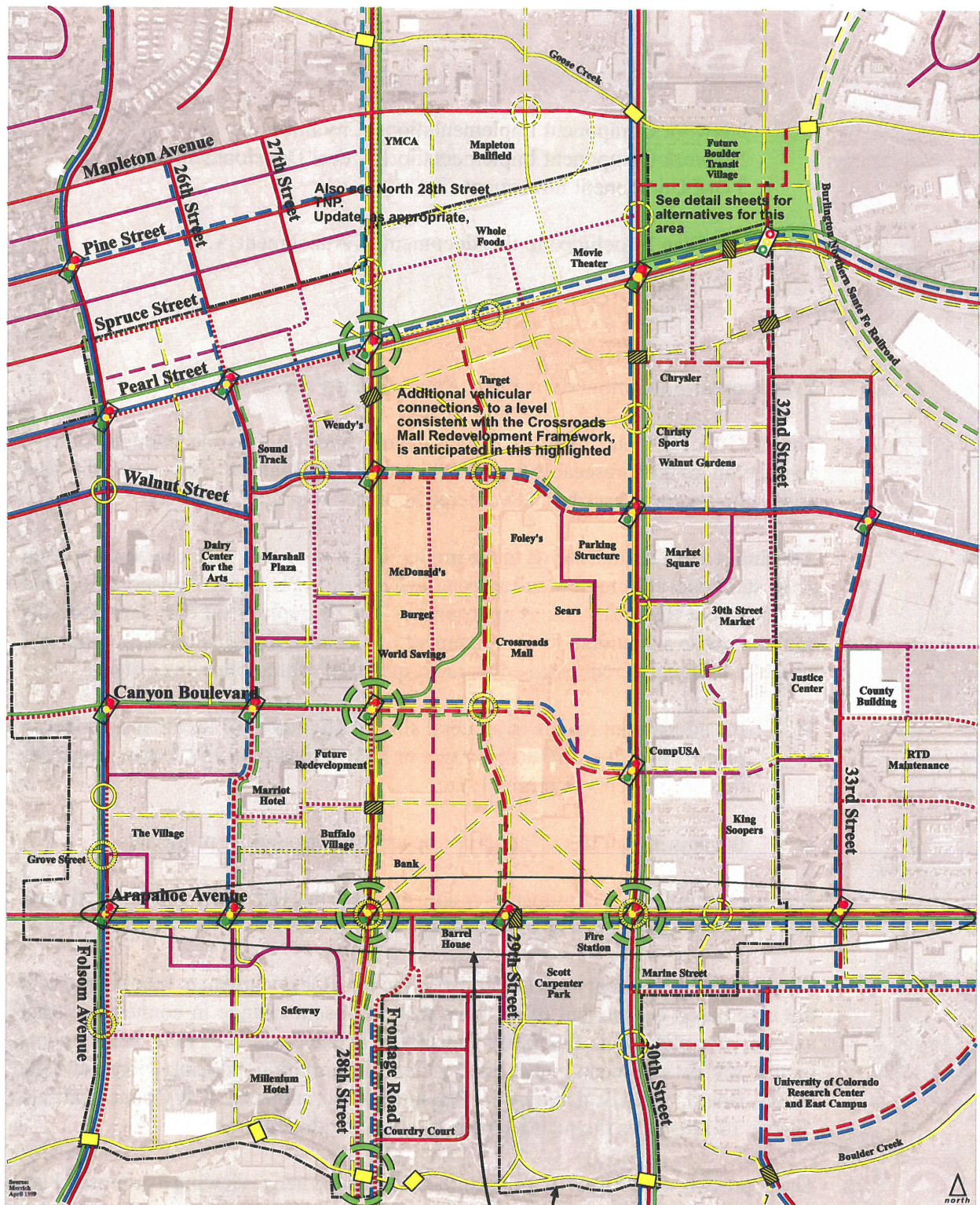
- ✍ the adjustment results in a lateral shift in alignment of less than 100 feet in properties that are 10 acres in size or less, or less than 150 feet in properties that are 10 acres or more in size
- ✍ the adjustment has no adverse impacts on surrounding properties

Another example of an administrative adjustment to the TCP is the periodic update of the TCP action Plan by Transportation and BURA staff.

Plan Amendments represent modifications to the TCP document or modifications to the map based component of the plan that propose a change in connectivity that exceeds the alignment flexibility thresholds detailed above. Plan amendments require review and recommendation by the Transportation Advisory Board and the BURA Board, and a decision by the Planning Board, subject to City Council call-up. Figure 18 illustrates the plan adjustment and amendment process.

The approving authority will consider the following when reviewing a proposed Plan Amendment:

- change of circumstance
- physical hardship
- practical hardship
- equivalency



Source: Metrick, April 1999

Boulder Valley Regional Center Boundary

Legend			
Existing	Upgrade	Proposed	Facility
			Grade Separated Pedestrian Crossing
			At Grade Pedestrian Crossing
			Primary Roadway
			Secondary Vehicular Connection
			Multi-Use Path (Conceptual Alignment)
			On-Street Bike Facility
			Bus / Bike Lane
			Transit Route (see Future Transit Map, p. 29)
			Transit Super Stop
			Traffic Signal

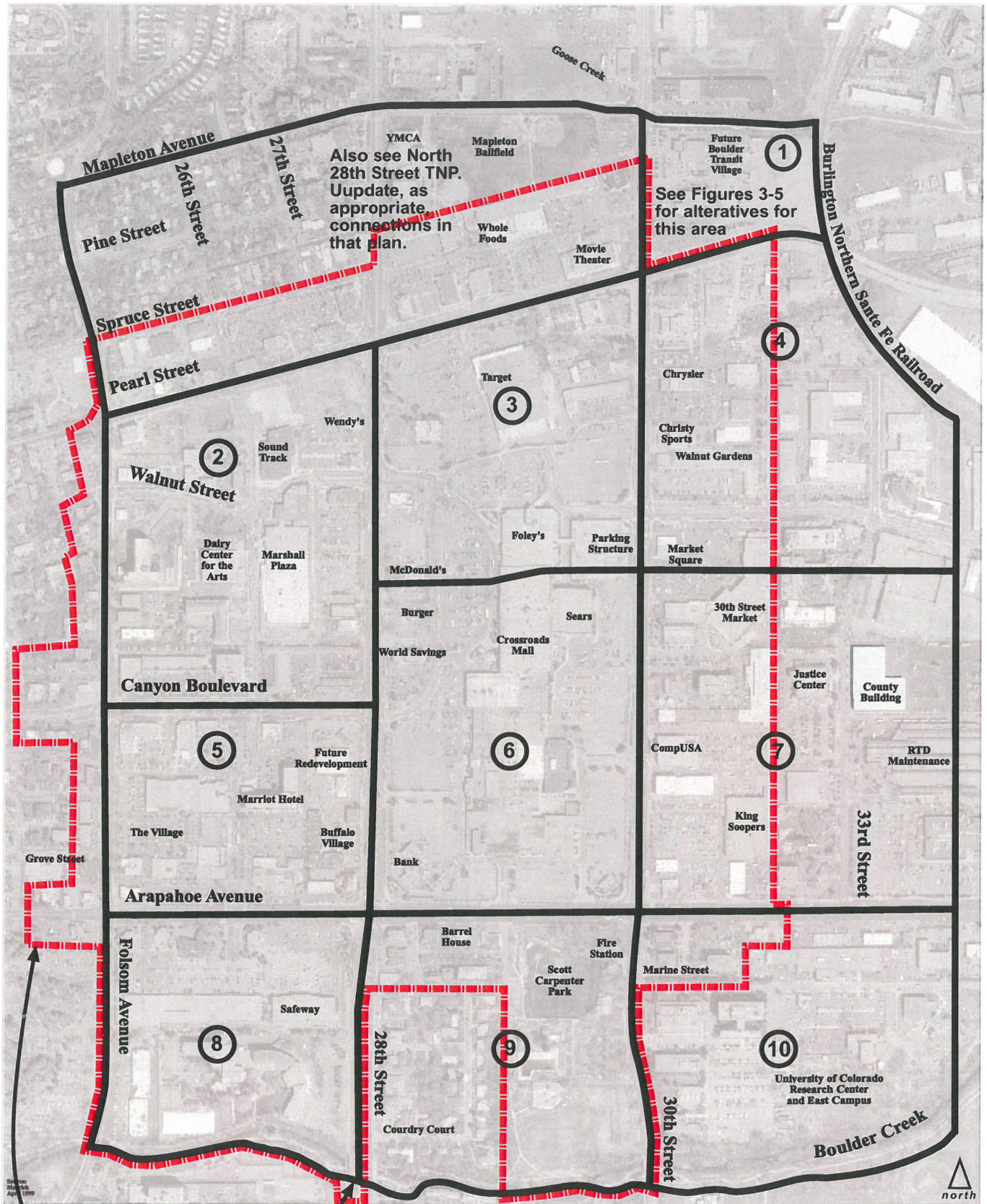
The following options will be further studied in context of the entire Arapahoe corridor in the study area, from Folsom to Westview.

1. Existing roadway with multi-use paths on the north and south sides of the street
2. Continuous, six travel lanes with bicycle lanes.
3. Option two, plus queue jumps at all or certain intersections.

Boulder Valley Regional Center
 Transportation Connections Plan
 October 24, 2002

Comprehensive Map Figure 1

Scale 1" = 475'



Also see North 28th Street TNP. Update, as appropriate, connections in that plan.

See Figures 3-5 for alternatives for this area

Boulder Valley Regional Center Boundary

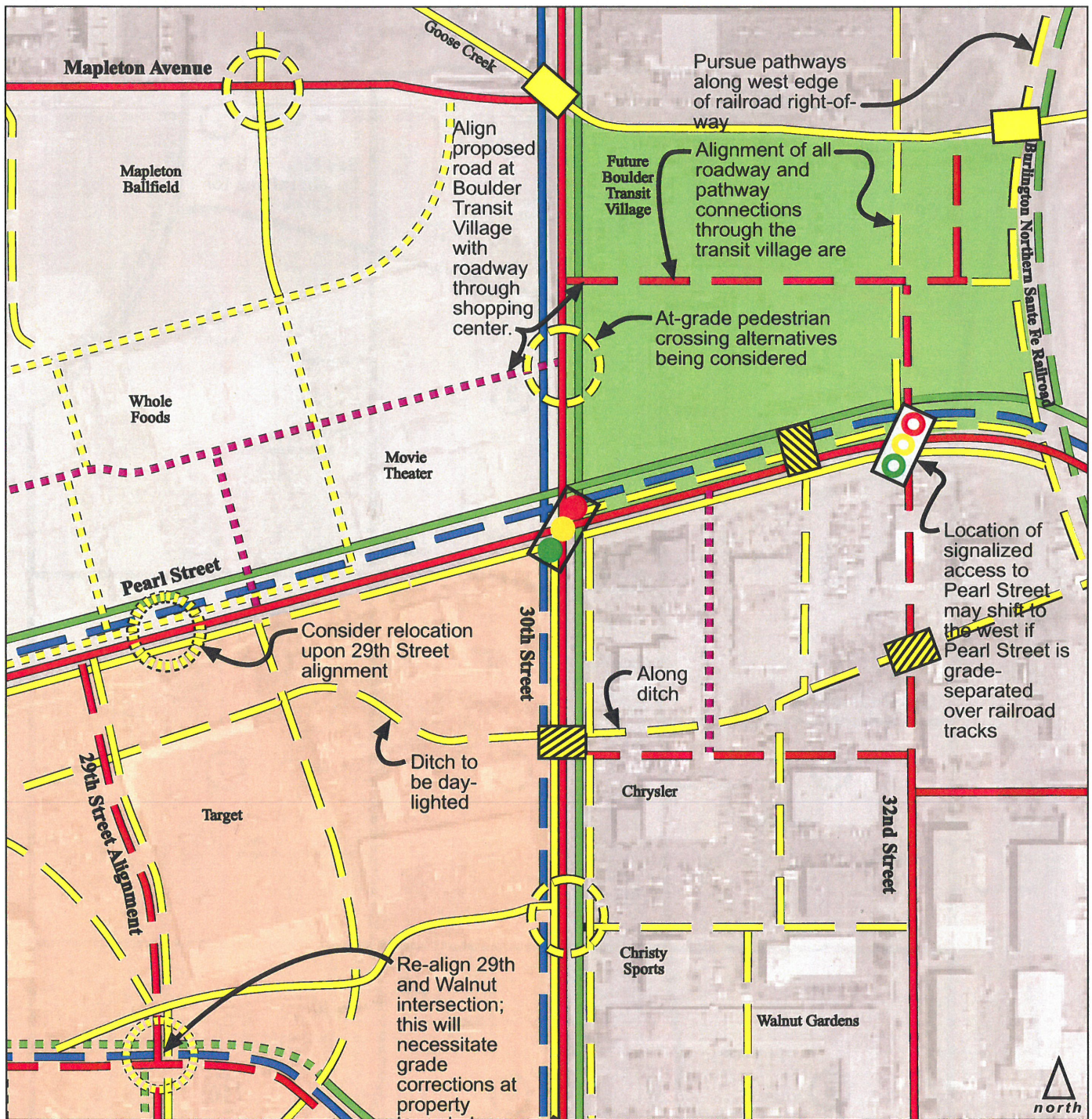
Superblock Delineation
See Figures 3 to 15, pages 15 to 28, for detailed views of each superblock.

Boulder Valley Regional Center
Transportation Connections Plan
October 24, 2002

Superblock Key and BVRC Boundary, Figure 2

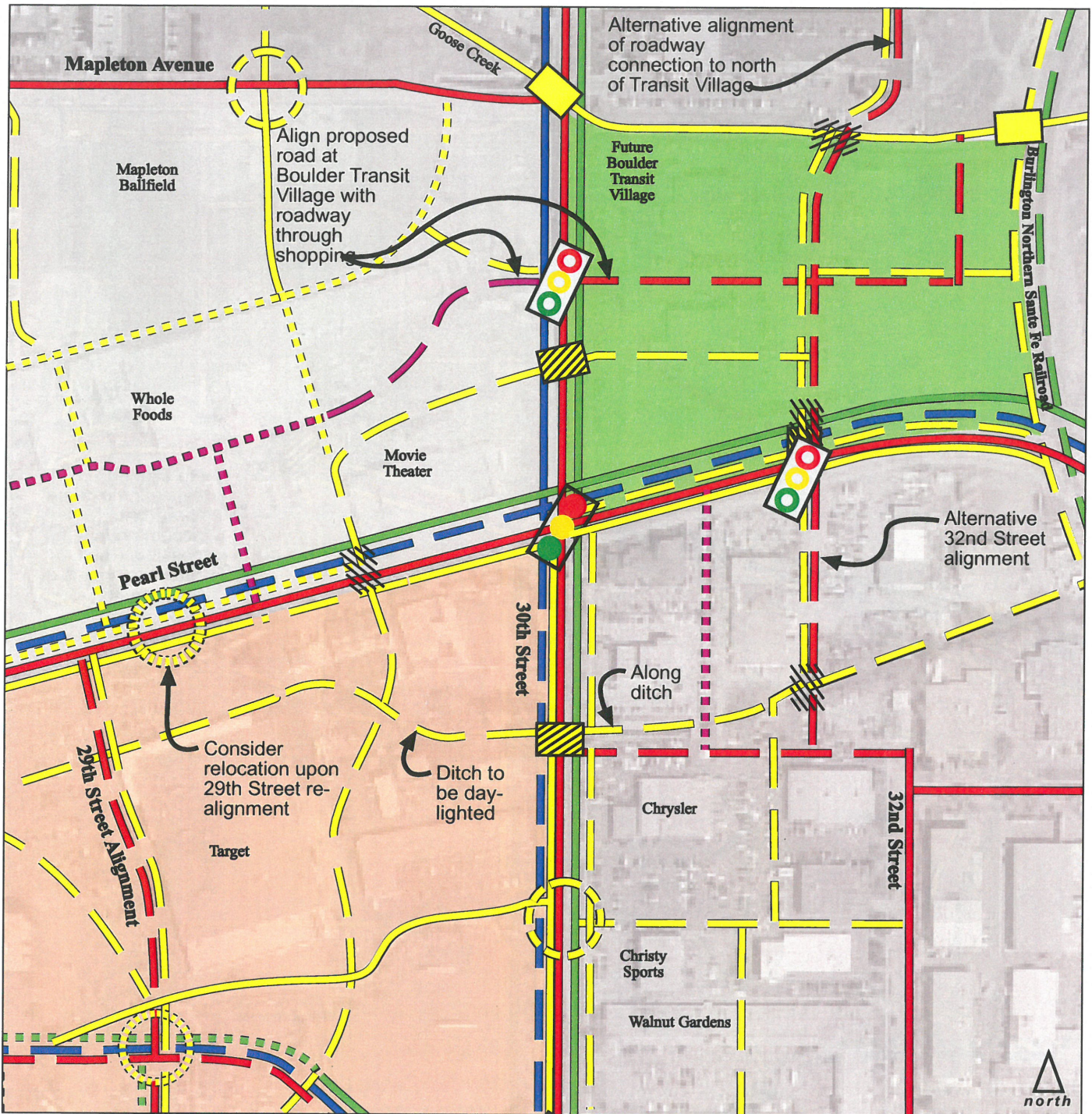
Not to Scale





Legend			
Existing	Upgrade	Proposed	Facility
			Grade Separated Pedestrian Crossing
			At Grade Pedestrian Crossing
			Primary Roadway
			Secondary Vehicular Connection
			Multi-Use Path (Conceptual Alignment)
			On-Street Bike Facility
			Bus / Bike Lane
			Transit Route (see Future Transit Map, p. 29)
			Transit Super Stop
			Traffic Signal



Boulder Valley Regional Center
 Transportation Connections Plan
 October 24, 2002
Superblock 1 Detail
Alternative 1 - Figure 3
 Scale 1" = 270'

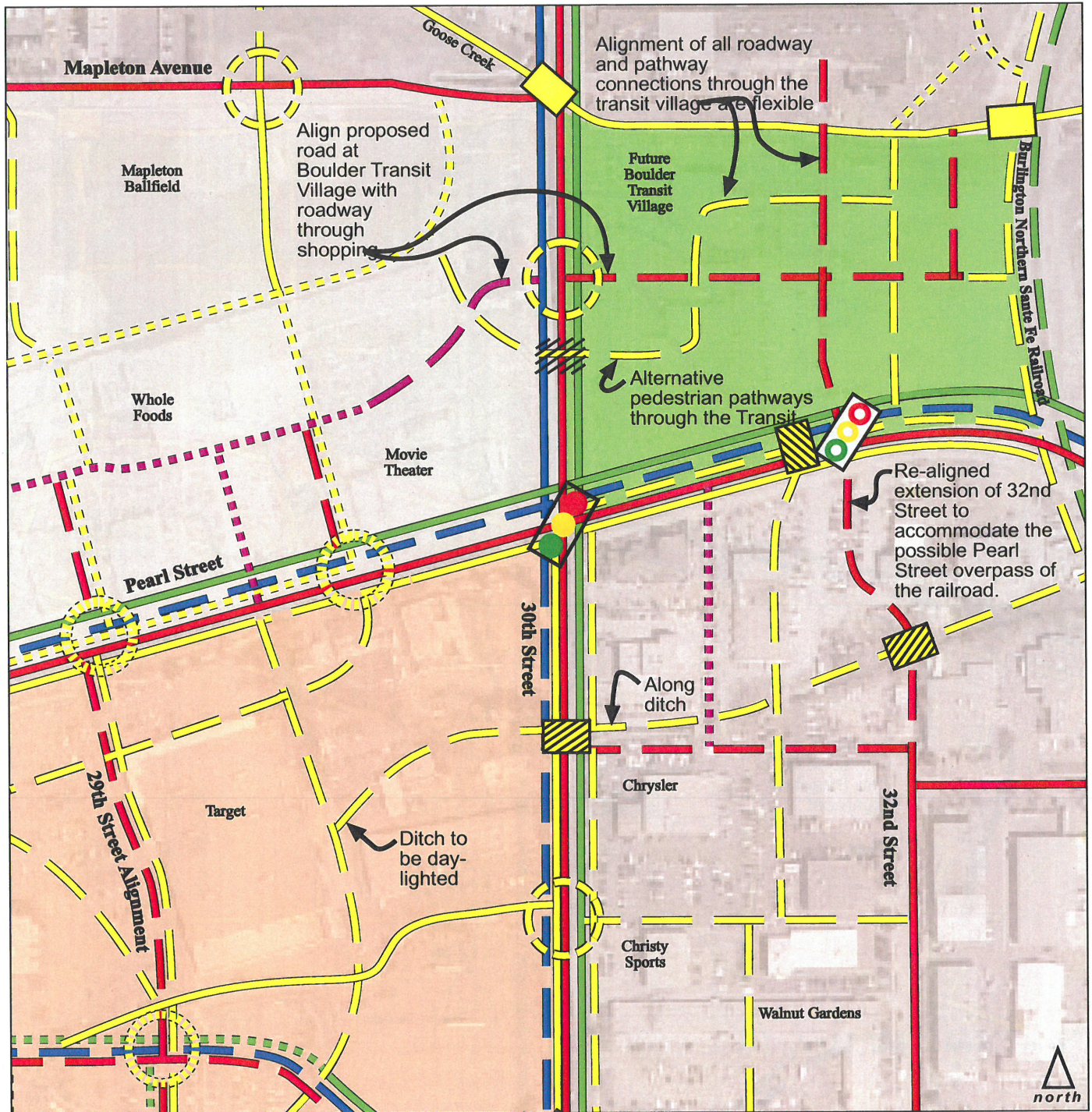


See Superblock 4- Figure 8

Existing	Upgrade	Proposed	Facility
			Grade Separated Pedestrian Crossing
			At Grade Pedestrian Crossing
			Primary Roadway
			Secondary Vehicular Connection
			Multi-Use Path (Conceptual Alignment)
			On-Street Bike Facility
			Bus / Bike Lane
			Transit Route (see Future Transit Map, p. 29)
			Transit Super Stop
			Traffic Signal

Boulder Valley Regional Center
 Transportation Connections Plan
 October 24, 2002
Superblock 1 Detail
Alternative 2 - Figure 4
 Scale 1" = 270'

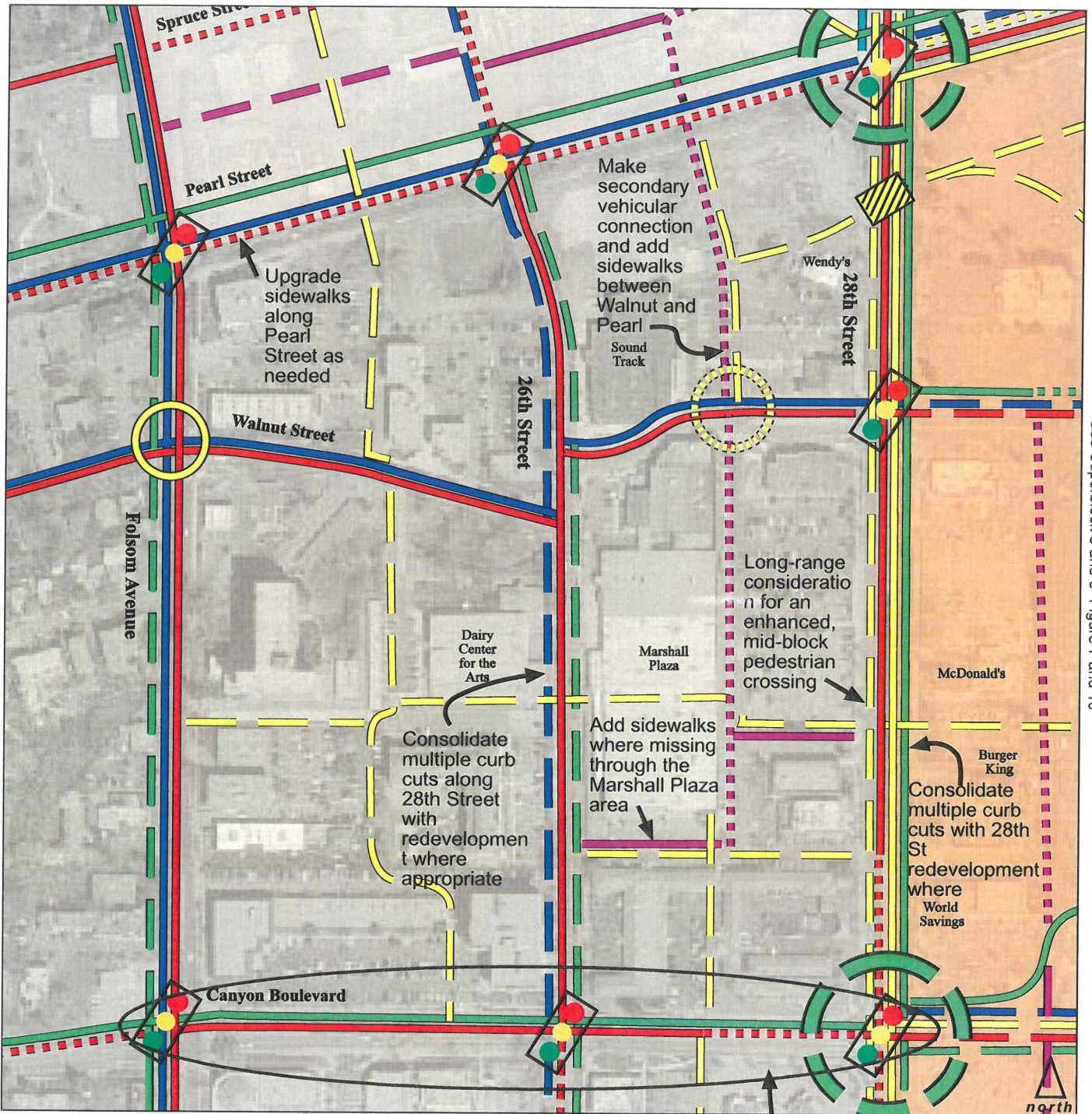





See Superblock 4- Figure 8

Legend			Facility
Existing	Upgrade	Proposed	
			Grade Separated Pedestrian Crossing
			At Grade Pedestrian Crossing
			Primary Roadway
			Secondary Vehicular Connection
			Multi-Use Path (Conceptual Alignment)
			On-Street Bike Facility
			Bus / Bike Lane
			Transit Route (see Future Transit Map, p. 29)
			Transit Super Stop
			Traffic Signal

Boulder Valley Regional Center
 Transportation Connections Plan
 October 24, 2002
Superblock 1 Detail
Alternative 3 - Figure 5
 Scale 1" = 270'




See Superblock 3 and 6- Figure 7 and 10

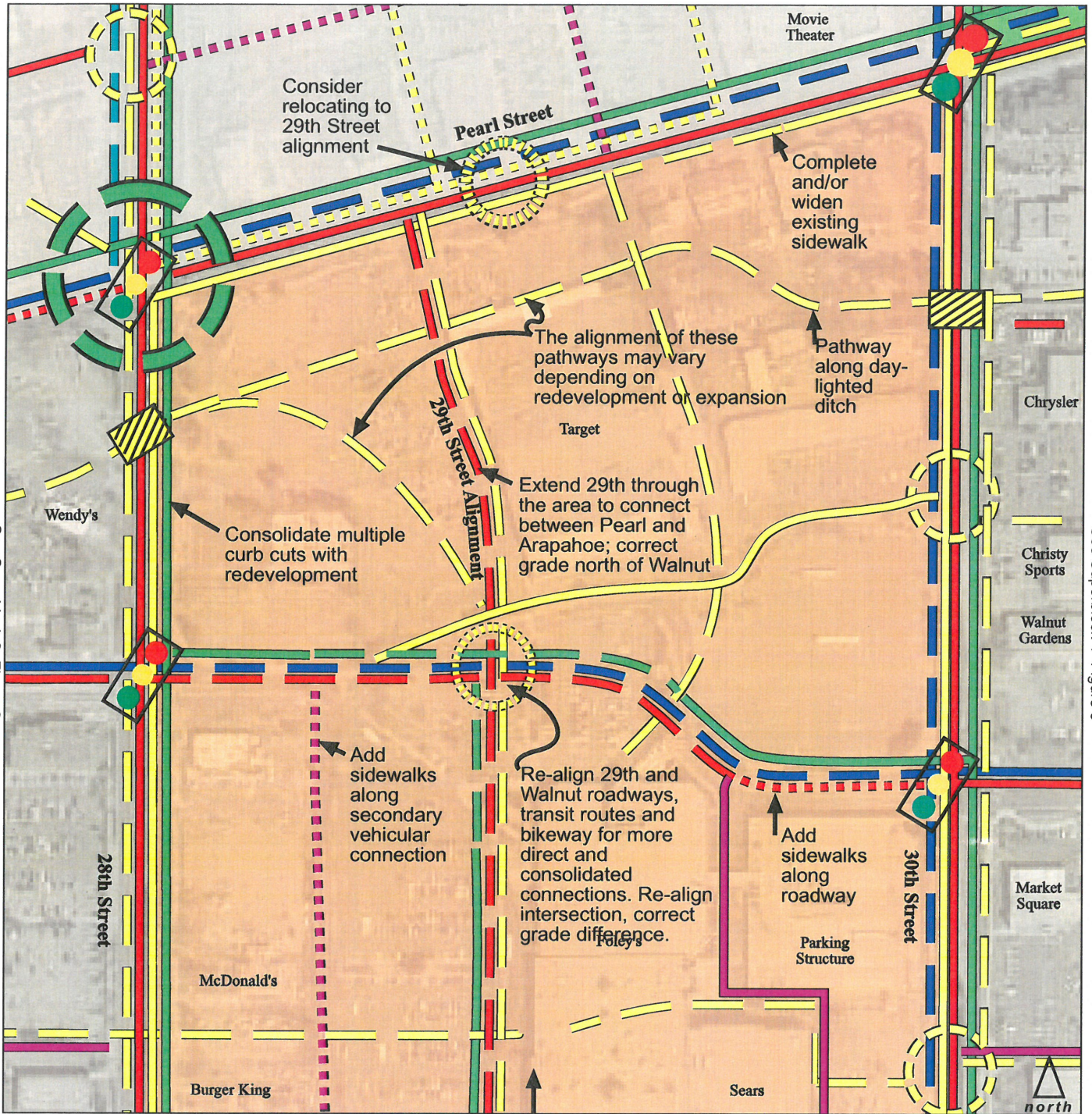
See Superblock 5- Figure 9

Legend			
Existing	Upgrade	Proposed	Facility
			Grade Separated Pedestrian Crossing
			At Grade Pedestrian Crossing
			Primary Roadway
			Secondary Vehicular Connection
			Multi-Use Path (Conceptual Alignment)
			On-Street Bike Facility
			Bus / Bike Lane
			Transit Route (see Future Transit Map, p. 29)
			Transit Super Stop
			Traffic Signal

Bike facilities along this segment of Canyon to be further evaluated

Boulder Valley Regional Center
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 October 24, 2002
Superblock 2
Detail
 Scale 1" = 260'





See Superblock 2- Figure 6

See Superblock 4- Figure 8

See Superblock 6- Figure 10

Legend			Facility
Existing	Upgrade	Proposed	
			Grade Separated Pedestrian Crossing
			At Grade Pedestrian Crossing
			Primary Roadway
			Secondary Vehicular Connection
			Multi-Use Path (Conceptual Alignment)
			On-Street Bike Facility
			Bus / Bike Lane
			Transit Route (see Future Transit Map, p. 29)
			Transit Super Stop
			Traffic Signal

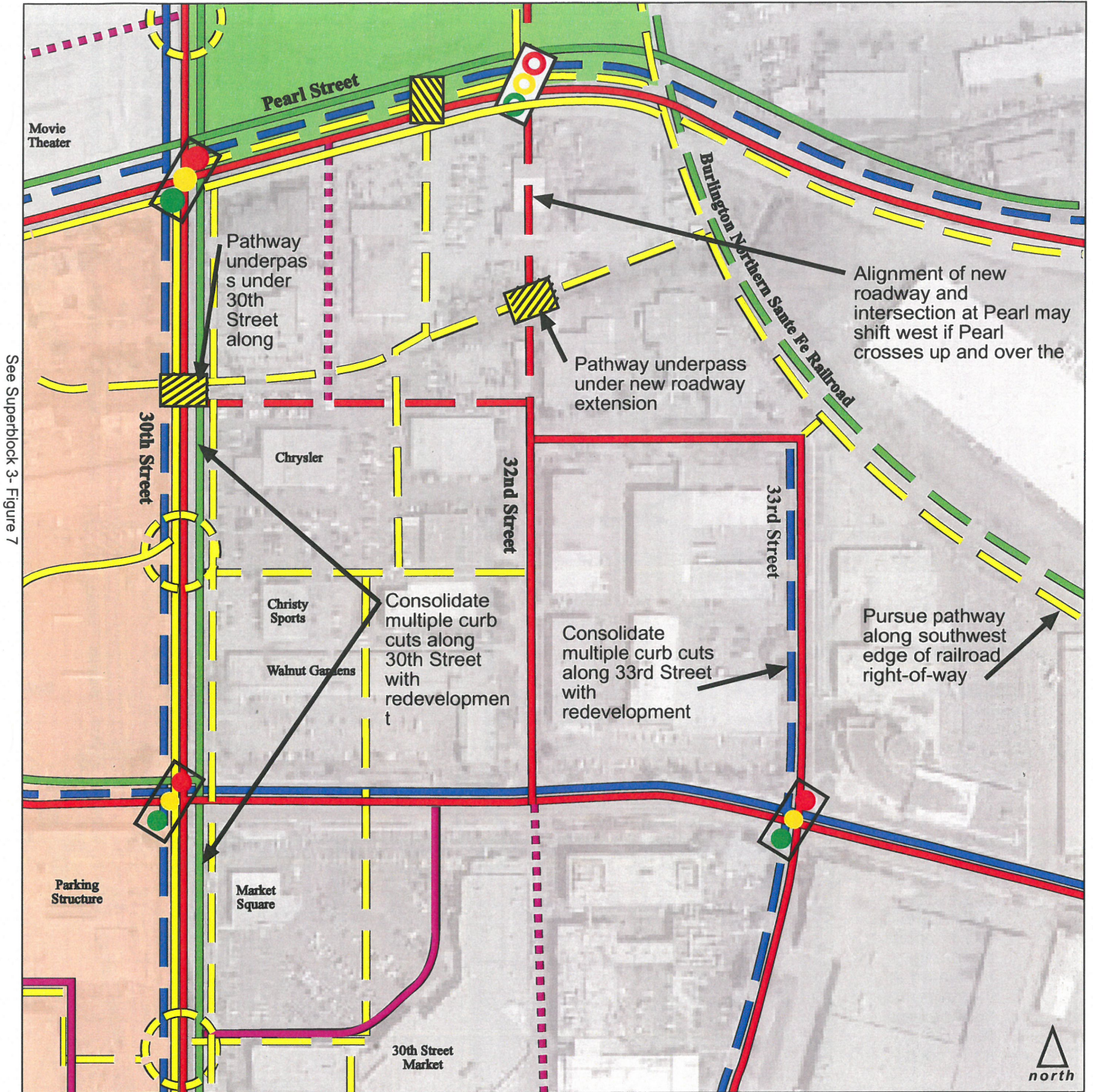
Notes for the Crossroads Redevelopment area, highlighted in red:
 1. If the Crossroads area redevelops very differently than as is defined in the Crossroads Framework, as a mixed-use urban village, the BVRC TCP will be amended to accommodate the land use change.
 2. Additional vehicular connections anticipated in this highlighted redevelopment area

Boulder Valley Regional Center
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 October 24, 2002

Superblock 3 Detail

Scale 1" = 235'





See Superblock 3- Figure 7

See Superblock 7- Figure 11

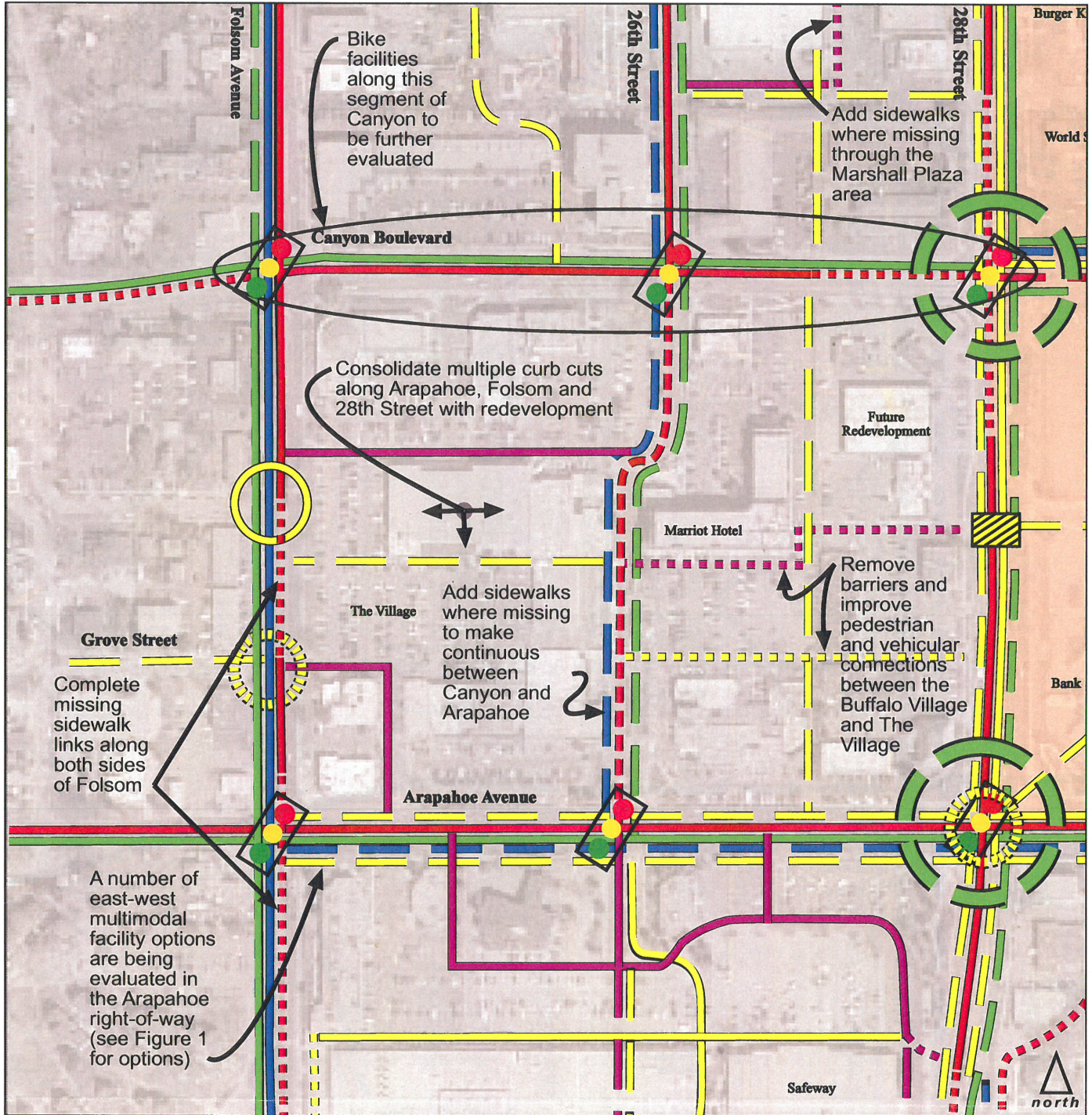
Legend			Facility
Existing	Upgrade	Proposed	
			Grade Separated Pedestrian Crossing
			At Grade Pedestrian Crossing
			Primary Roadway
			Secondary Vehicular Connection
			Multi-Use Path (Conceptual Alignment)
			On-Street Bike Facility
			Bus / Bike Lane
			Transit Route (see Future Transit Map, p. 29)
			Transit Super Stop
			Traffic Signal

Boulder Valley Regional Center
 Transportation Connections Plan
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Superblock 4 Detail

Scale 1" = 270'



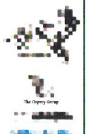


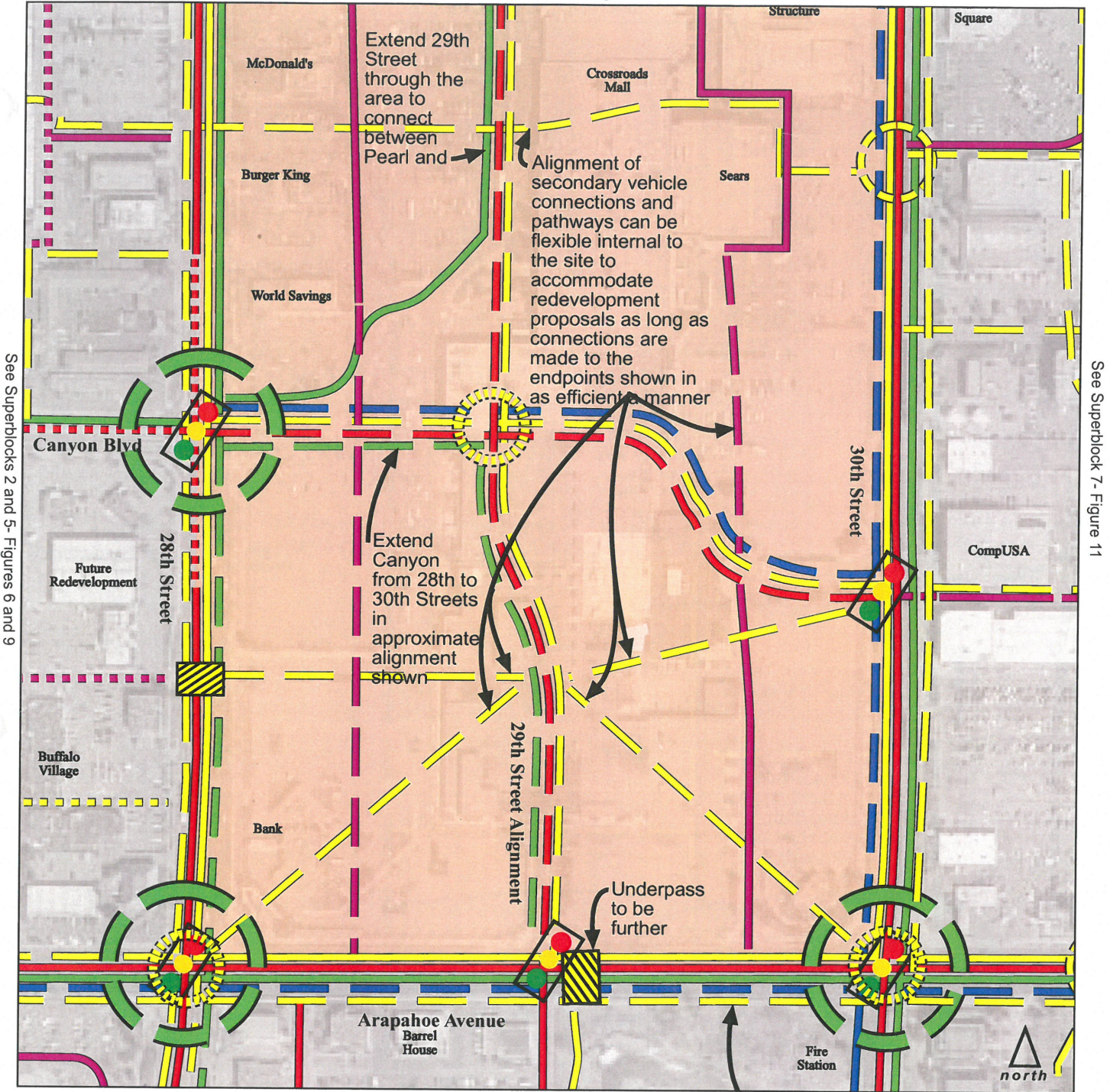
See Superblock 6- Figure 10

See Superblock 8- Figures 12

Legend			
Existing	Upgrade	Proposed	Facility
			Grade Separated Pedestrian Crossing
			At Grade Pedestrian Crossing
			Primary Roadway
			Secondary Vehicular Connection
			Multi-Use Path (Conceptual Alignment)
			On-Street Bike Facility
			Bus / Bike Lane
			Transit Route (see Future Transit Map, p. 29)
			Transit Super Stop
			Traffic Signal

Boulder Valley Regional Center
 Transportation Connections Plan
 October 24, 2002
Superblock 5
Detail
 Scale 1" = 260'





See Superblocks 2 and 5- Figures 6 and 9

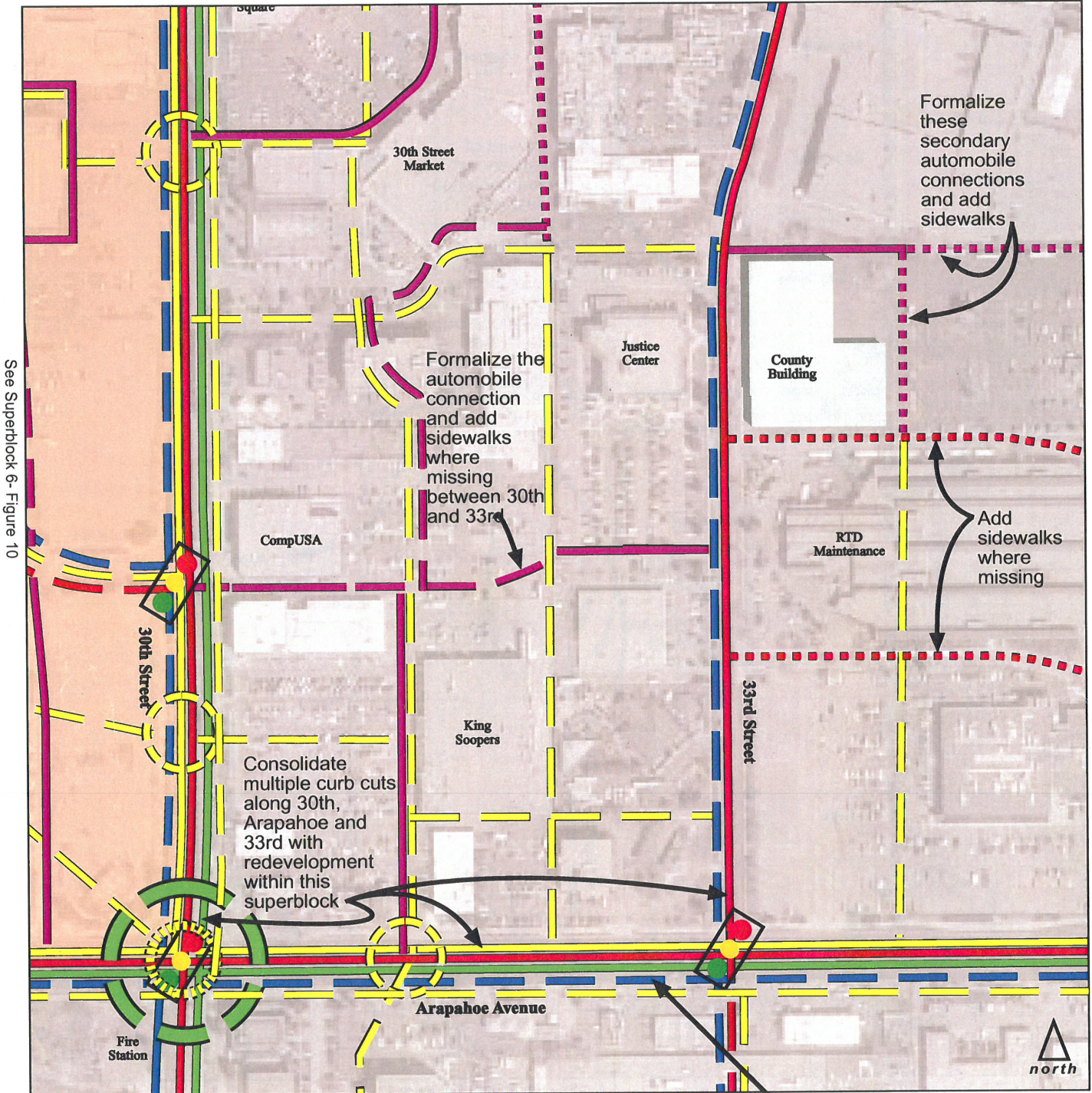
See Superblock 7- Figure 11

See Superblock 9- Figure 13

A number of east-west multi-modal facility options are being evaluated in the Arapahoe right-of-way (see Figure 1 for

Existing	Upgrade	Proposed	Facility
			Grade Separated Pedestrian Crossing
			At Grade Pedestrian Crossing
			Primary Roadway Secondary Vehicular Connection
			Multi-Use Path (Conceptual Alignment) On-Street Bike Facility
			Bus / Bike Lane Transit Route (see Future Transit Map, p. 29)
			Transit Super Stop Traffic Signal

Boulder Valley Regional Center
 Transportation Connections Plan
 October 24, 2002
**Superblock 6
 Detail**
 Scale 1" = 260'



See Superblock 6- Figure 10

See Superblock 10- Figure 14

Legend			Facility
Existing	Upgrade	Proposed	
			Grade Separated Pedestrian Crossing
			At Grade Pedestrian Crossing
			Primary Roadway
			Secondary Vehicular Connection
			Multi-Use Path (Conceptual Alignment)
			On-Street Bike Facility
			Bus / Bike Lane
			Transit Route (see Future Transit Map, p. 29)
			Transit Super Stop
			Traffic Signal

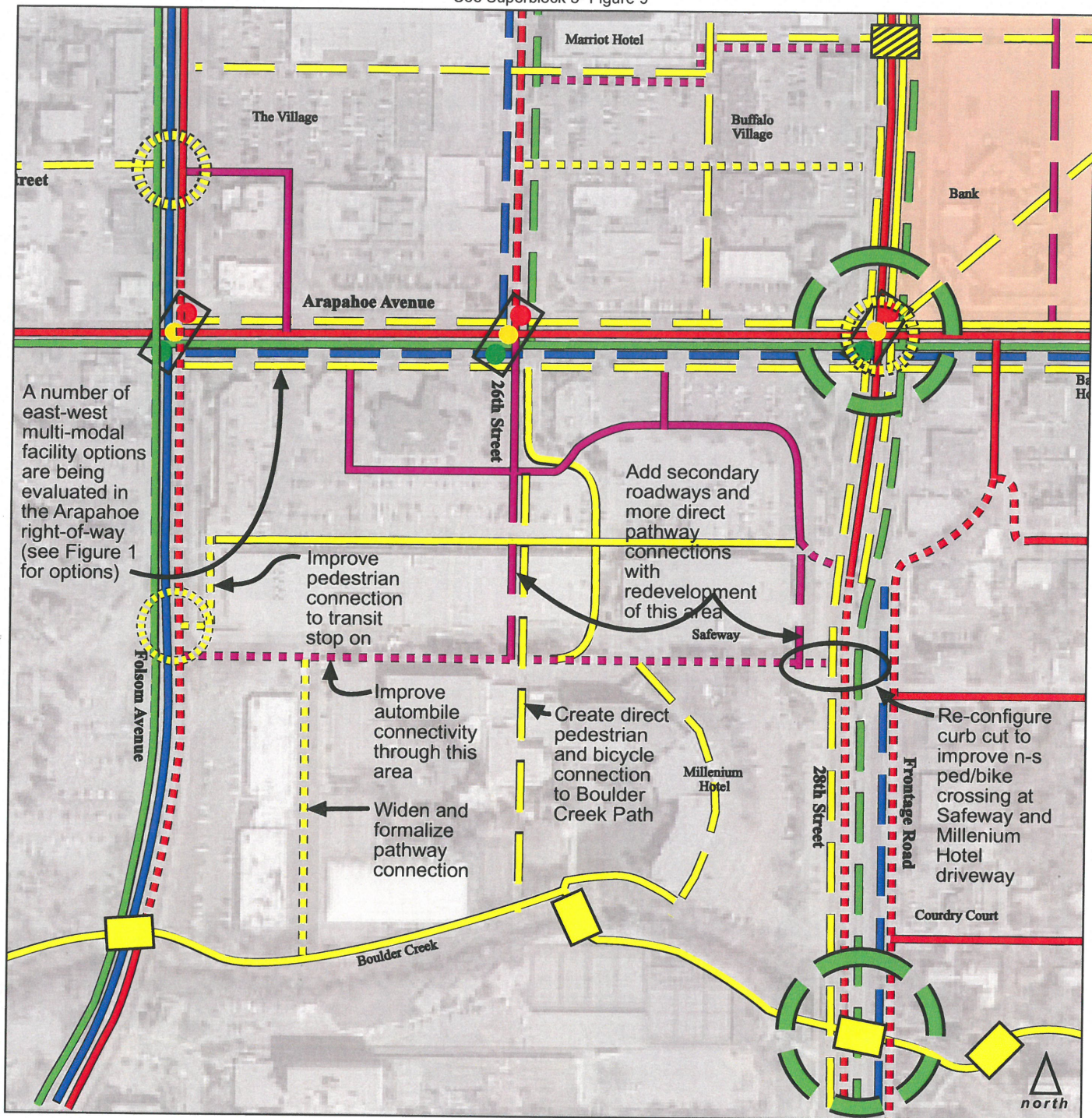
A number of east-west multi-modal facility options are being evaluated in the Arapahoe right-of-way (see Figure 1 for...)

Boulder Valley Regional Center
Transportation Connections Plan
October 24, 2002

Superblock 7 Detail

Scale 1" = 260'





See Superblock 9- Figure 13

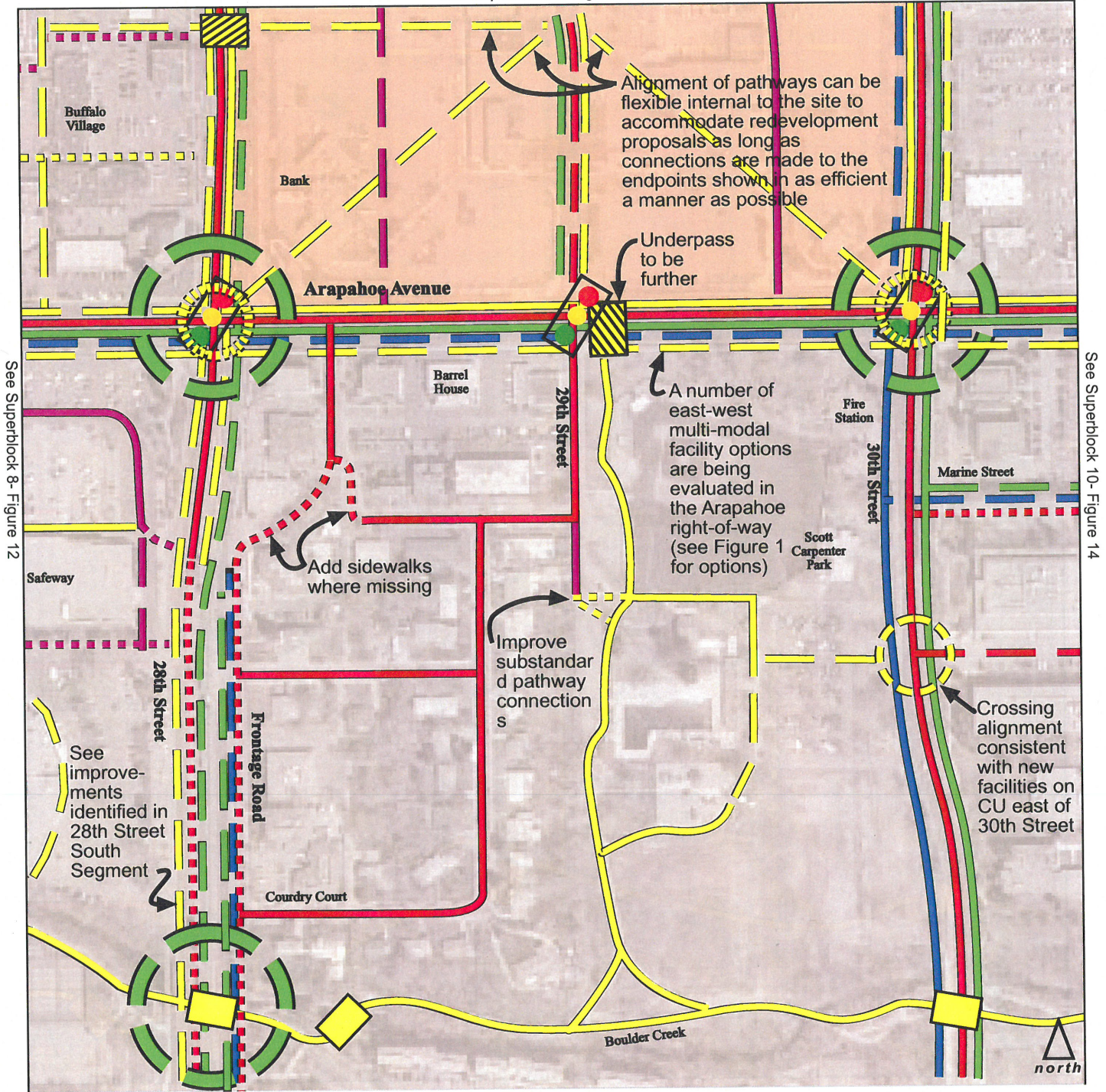
Existing	Upgrade	Proposed	Facility
			Grade Separated Pedestrian Crossing
			At Grade Pedestrian Crossing
			Primary Roadway
			Secondary Vehicular Connection
			Multi-Use Path (Conceptual Alignment)
			On-Street Bike Facility
			Bus / Bike Lane
			Transit Route (see Future Transit Map, p. 29)
			Transit Super Stop
			Traffic Signal

Boulder Valley Regional Center
 Transportation Connections Plan
 October 24, 2002

Superblock 8 Detail

Scale 1" = 260'





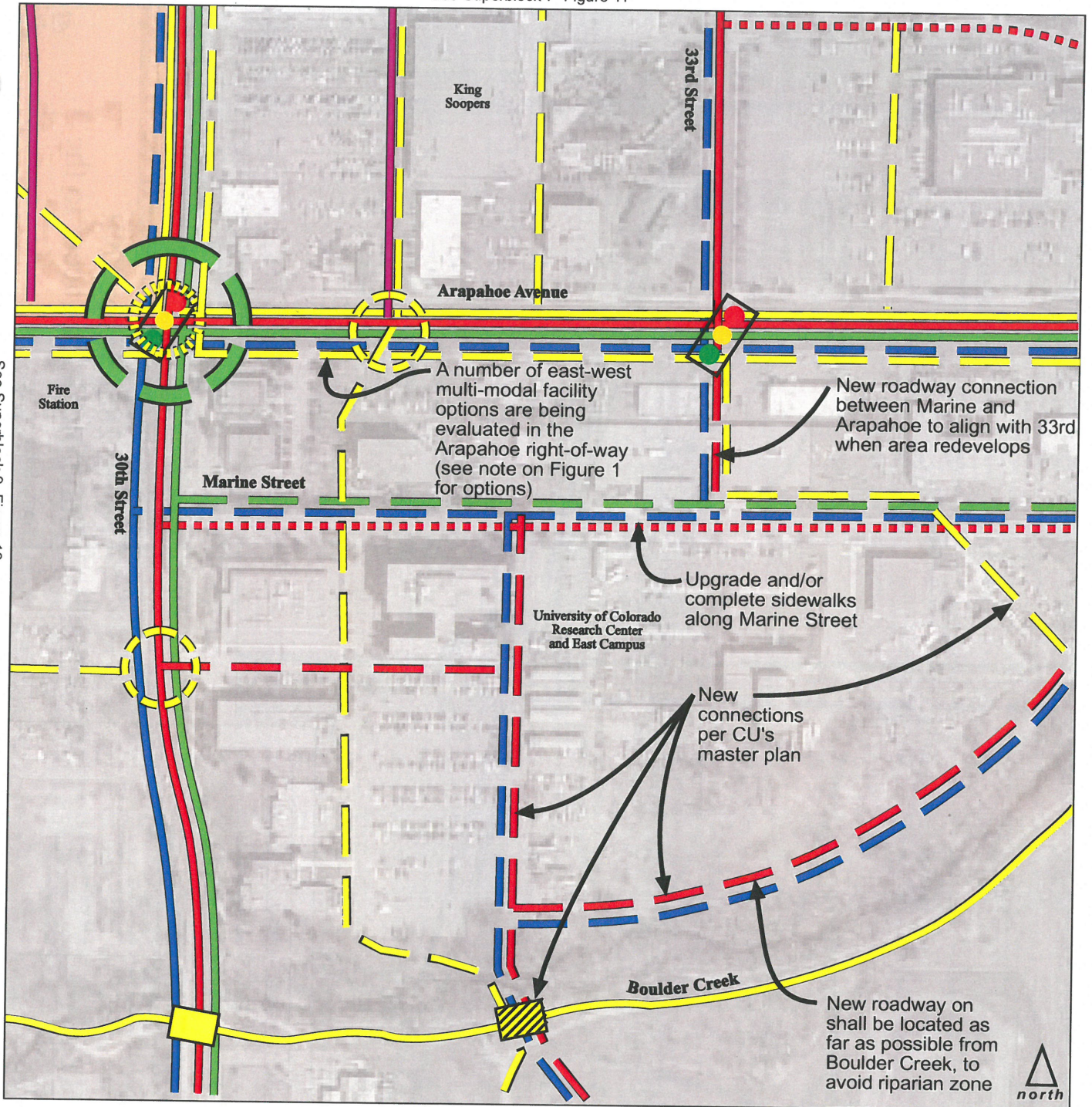
See Superblock 8- Figure 12

See Superblock 10- Figure 14

Legend			Facility
Existing	Upgrade	Proposed	
			Grade Separated Pedestrian Crossing
			At Grade Pedestrian Crossing
			Primary Roadway
			Secondary Vehicular Connection
			Multi-Use Path (Conceptual Alignment)
			On-Street Bike Facility
			Bus / Bike Lane
			Transit Route (see Future Transit Map, p. 29)
			Transit Super Stop
			Traffic Signal

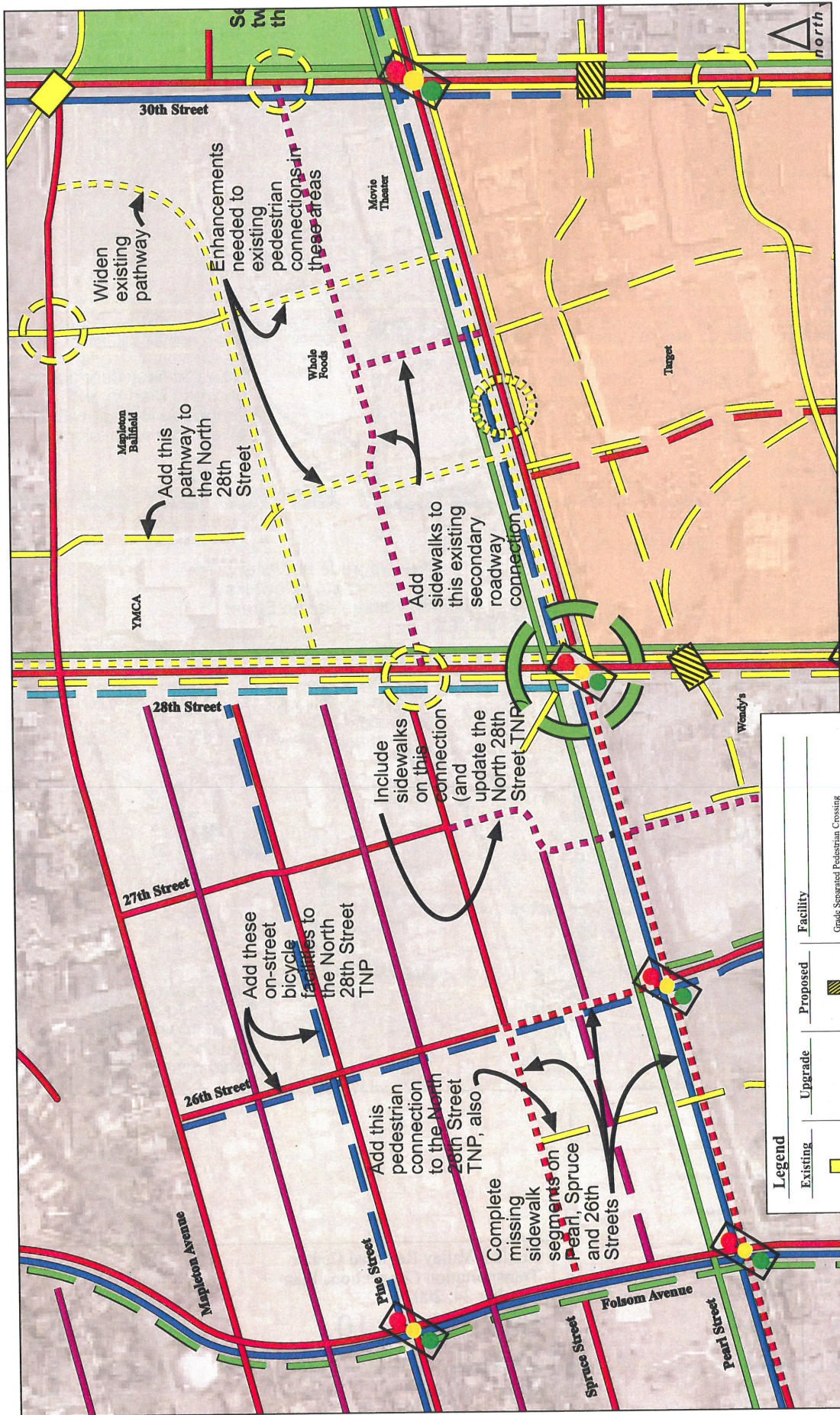
Boulder Valley Regional Center
 Transportation Connections Plan
 October 24, 2002
Superblock 9
Detail
 Scale 1" = 260'

See Superblock 9- Figure 13



Legend			
Existing	Upgrade	Proposed	Facility
			Grade Separated Pedestrian Crossing
			At Grade Pedestrian Crossing
			Primary Roadway
			Secondary Vehicular Connection
			Multi-Use Path (Conceptual Alignment)
			On-Street Bike Facility
			Bus / Bike Lane
			Transit Route (see Future Transit Map, p. 29)
			Transit Super Stop
			Traffic Signal

Boulder Valley Regional Center
 Transportation Connections Plan
 October 24, 2002
Superblock 10
Detail
 Scale 1" = 260'



Boulder Valley Regional Center
 Transportation Connections Plan, October 24, 2002

North 28th Street TNP Superblocks Adjacent to the

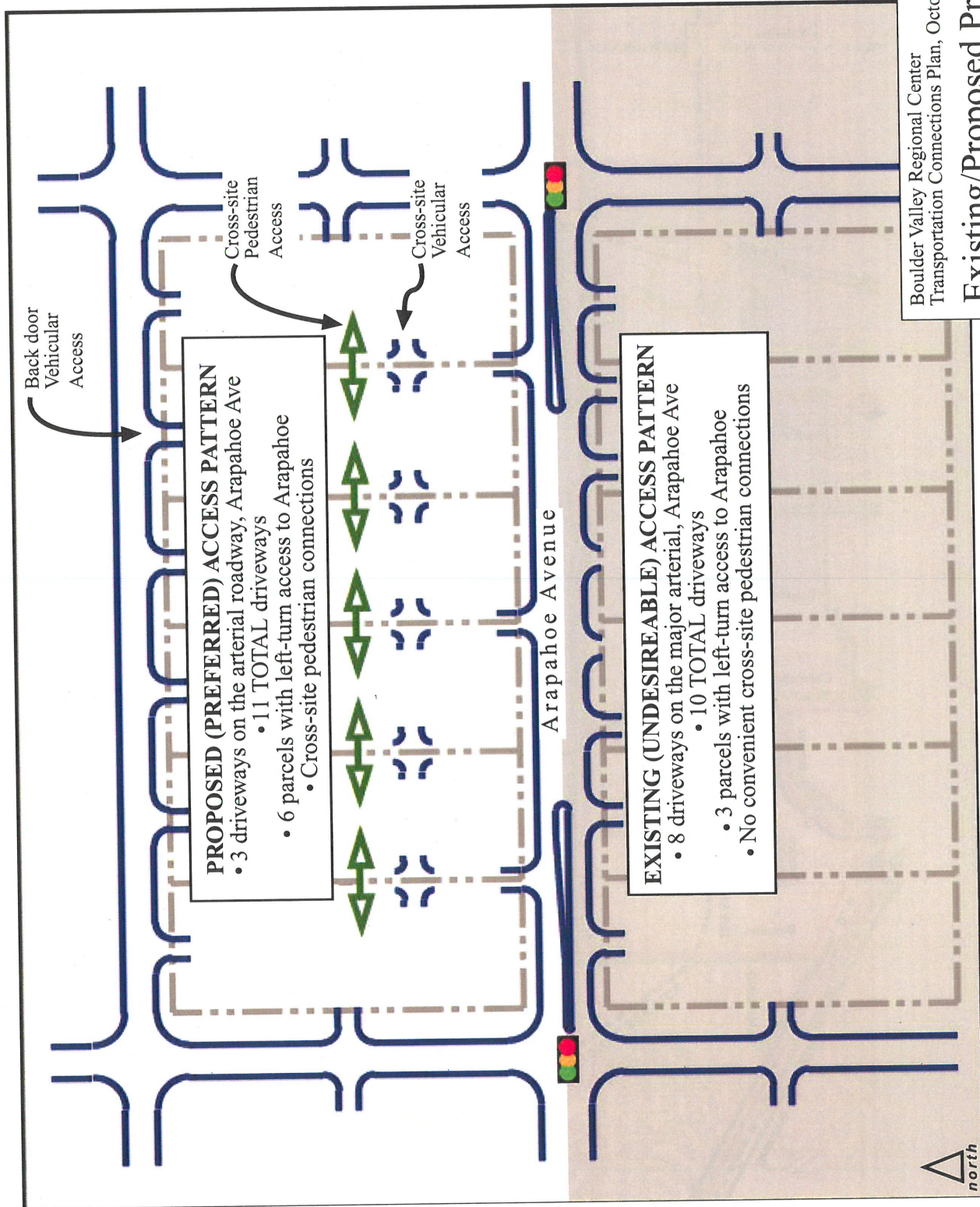
Not to Scale

Legend	Upgrade	Proposed	Facility
Existing	Upgrade	Proposed	Facility
<ul style="list-style-type: none"> Yellow square Yellow circle Red line Blue line Green line 	<ul style="list-style-type: none"> Yellow dashed circle Red dashed line Blue dashed line Green dashed line 	<ul style="list-style-type: none"> Yellow hatched square Yellow dashed circle Red dashed line Blue dashed line Green dashed line Green dashed circle 	<ul style="list-style-type: none"> Grade Separated Pedestrian Crossing At Grade Pedestrian Crossing Primary Roadway Secondary Vehicular Connection Multi-Use Path (Conceptual Alignment) On-Street Bike Facility Bus / Bike Lane Transit Route (see Future Transit Map, p. 29) Transit Super Stop Traffic Signal



- Legend**
- Future regional " Super Stop"
 - Future regional terminus: The Boulder Transit Village
 - existing
 - proposed
 - Local transit service
 - Local, high-frequency transit service
 - Regional transit service

F:\Landscape Architecture\graphics\BVRCC\final\Future_Transit_Map\Future_Transit_Map_v2.dwg



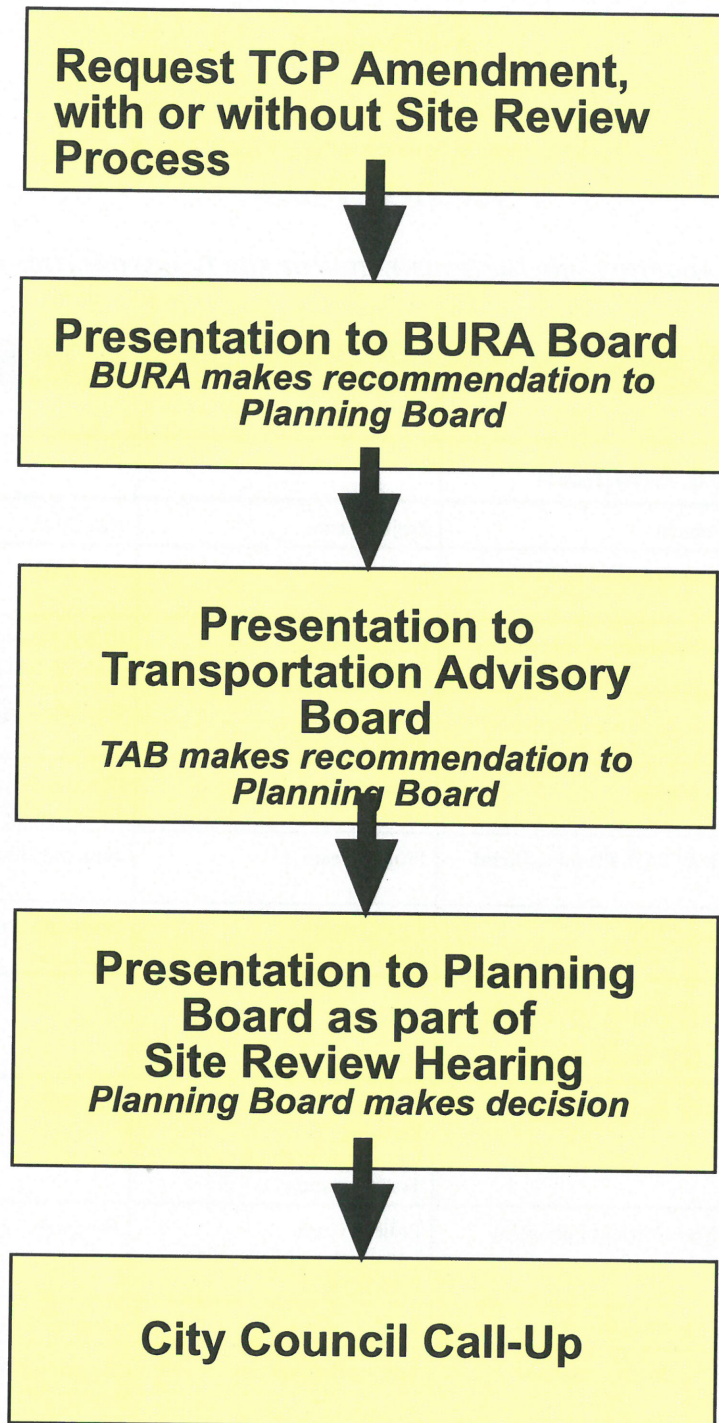
Note: The combination of the consolidation of driveways on the arterial roadway and the addition of vehicular and pedestrian "cross-site" and "back door" vehicular access will maintain or improve multi-modal access to all parcels while improving traffic safety along the arterial roadway.

Boulder Valley Regional Center
 Transportation Connections Plan, October 24, 2002

Existing/Proposed Property Access Pattern, Figure 17

Scale 1" = 250'

Amendments to the BVRC Transportation Connections Plan (TCP) may be considered when the requested change does not meet the criteria for an Administrative



Boulder Valley Regional Center
Transportation Connections Plan
October 24, 2002

Plan Amendment Process
Figure 18



Attachment A

**BOULDER VALLEY REGIONAL CENTER
TRANSPORTATION CONNECTIONS PLAN
ACTION PLAN**

STEPS FOR FINALIZATION, ADOPTION, AND IMPLEMENTATION OF THE TRANSPORTATION CONNECTIONS PLAN (TCP)

ACTION	RESPONSIBILITY	TIMING
TCP Finalization and Adoption		
Project Team review of TCP document	Project Team	June 2002
Staff (Planning, Legal, Transportation) review of TCP document	Staff	June 2002
BURA Board Review of TCP and recommendation to City Council for adoption	BURA Board Staff	BURA Board Meeting June 19, 2002
TAB review of TCP document	TAB Staff	TAB Meeting July 8, 2002
Planning Board review of TCP document	Planning Board Staff	Planning Board Meeting July 18, 2002
Incorporate comments from BURA, TAB, Planning Board prior to City Council submittal	Project Team	June and July, 2002
City Council review and adoption of TCP	City Council Staff	Adoption anticipated – October 15, 2002
Coordination and Follow-Up With Related Projects - City Initiative		
Develop Ordinances to support TCP implementation if needed	Attorneys Planning Development Review Transportation	Fall 2002
Coordinate TCP with the 28 th Street Corridor Public Art Master Plan	Project Team Local Artists Master Plan consultant	On-going
Coordinate TCP with the City-wide TDM Plan Development	Staff	Summer / Fall 2002
Incorporate TCP recommendations into the city-wide Transportation Master Plan Update	Transportation Staff	As part of Transportation Master Plan update 2002

Incorporate the BVRC TCP into the Arapahoe Transportation Network Plan	ATNP Task Force Project Team	Fall 2002
Coordinate with CU on the implementation of the STAMPEDE Shuttle, and on any modifications to the public R.O.W. as detailed in CU's Master Plan	Transportation in association with CU staff	As needed
Network Component Implementation - City Initiative		
Continue to support redevelopment efforts in the Crossroads area	Various City Departments	On-going
Evaluate travel lane utilization in the Arapahoe R.O.W. through the BVRC area to determine appropriate transit treatments	Transportation Arapahoe TNP Task Force	Summer / Fall 2002
Finalize the recommendation for appropriate bicycle facilities along 30 th between Arapahoe and Pearl (bike lanes anticipated) - coordinate with Master Plan update	Transportation	Fall 2002
Complete multi-use path on south side of Pearl east of Target	Transportation	In association with 30 th / Pearl project
Complete missing sidewalk links of Folsom and Spruce	Transportation	Coordinate with sidewalk improvement program
Complete planned functional efficiency and transit improvements in the 30 th / Pearl intersection	Transportation	2002 through 2004
Evaluate transit system priority treatments in the 30 th / Arapahoe intersection	Transportation	Completed, April 2002
Implement transit system priority treatments in the 30 th / Arapahoe intersection	Transportation	
Evaluate enhanced pedestrian crossing alternatives for challenging areas such as Arapahoe/28th, Arapahoe/29th, Arapahoe/30th etc.	Transportation	Fall 2002 in association with the Arapahoe TNP
Evaluate bicycle facility upgrade for Canyon between Folsom and 28th	Transportation	Fall 2002
Pursue specific transit superstop conceptual designs and then coordinate with redevelopment as appropriate	Transportation	
Pursue implementation of the Boulder Transit Village and the transportation connections linking the Transit Village with the Crossroads area.	Transportation	On-going
Identify distinct projects within the TCP area that will be implemented by the City regardless of site-specific development or redevelopment.	Transportation	Fall / Winter 2002
Prioritize City transportation projects within the TCP area and prepare cost estimates - coordinate with Master Plan update	Transportation	Winter 2002/2003
Incorporate prioritized projects into the ongoing city-wide budget and CIP process	Transportation	Spring 2003, and ongoing
Coordinate transportation project implementation with the implementation of Greenways projects within the TCP area (example, path extensions to Goose Creek)	Transportation Greenways	On-going
Implement the recommendations of the South 28 th Street CEAP	Transportation	Beginning in 2002, and as Fed. funds available

Implement the recommendations of the North 28 th Street CEAP	Transportation	As Federal funds become available, begin with 28 th / Iris improvements in 2003, and additional Federal funding in 2004 - 2007
Implement transit route additions (Orbit etc.) that will serve the BVRC area	Transportation RTD	As prioritized and funded.
Coordinate transit stop improvements and possible relocations adjacent to the Crossroads site with redevelopment	Transportation RTD	In concert with redevelopment of the Crossroads site
Evaluate the utility of a BVRC circulator shuttle	BURA Transportation	
Evaluate the potential to add on-street bicycle facilities between Arapahoe and Pearl	Transportation	In concert with final design of 28 th Street corridor
Network Component Implementation - Local Development Initiative		
All applications for development or redevelopment reviewed for compliance with the TCP	Development Review Transportation	On-going, with development / redevelopment
Standard review meeting for each application between Development Review and Transportation Staff	Development Review Transportation	On-going, with development / redevelopment
Identification of possible City projects to support, enhance, or make viable the developer initiated TCP improvement	Transportation Development Review	On-going, with development / redevelopment
Insure that redevelopment proposals address: ? consolidate multiple curb cuts ? remove travel barriers to pedestrians and autos ? add pedestrian connectivity ? improves bicycle parking facilities	Transportation Development Review	On-going, with development / redevelopment
TDM Component Implementation		
TDM Program Development –complete city-wide TDM program	Planning, Transportation	On-going
Identify potential for TDM Program implementation in the BVRC TCP area with a focus on new development or redevelopment projects	Planning, Transportation	Pending completion of City-wide TDM program and development applications

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Attachment B

Development, Review and Approval of the Boulder Valley Regional Center Transportation Connections Plan

Coordination with the Arapahoe Transportation Network Plan Development

The development of the BVRC TCP began as the first phase in the development of a Transportation Network Plan (TNP) for the Arapahoe corridor that extends from Folsom on the west to Boulder's eastern city limits. The BVRC area forms the western third of this Arapahoe multi-modal corridor. The BVRC TCP (intended as an eventual subset of the Arapahoe TNP) was completed ahead of the rest of the Arapahoe TNP due to the near term potential for redevelopment in the Crossroads Mall area.

The Arapahoe TNP Task Force

The Arapahoe TNP Task Force was created at the beginning of the TNP development process, and was modeled after the successful work of the North 28th Street TNP Task Force that helped shape the North 28th Street TNP (adopted by the Boulder City Council on December 4, 2001). The Task Force of business owners, property owners, residents, representatives from the Boulder Bicycle Commuters, Boulder County staff, CDoT, and CU staff, consultants and City staff totaled over 25 members. At their first meeting in February, 2002, Task Force members focused on the BVRC Transportation Connections Plan map. Staff incorporated the Task Force's comments into the TCP map and the Task Force reviewed the results at their second meeting in April, 2002.

Staff and Public Review

The BVRC TCP has undergone a series of staff reviews by members of Transportation, Planning and Legal staffs with a focus on developing a plan that can be implemented. The TCP also received input at a public open house held in April, 2002.

Approval Process with TAB, Planning Board, BURA Board and City Council

The approval process for the TCP included formal review by the Transportation Advisory Board (TAB), Planning Board, the BURA Board, and City Council. Staff also provided the TAB and BURA Boards with a number of informational updates at regularly scheduled meetings during the TCP development process.

- ✍ On June 19, 2002, the BURA Board unanimously adopted the BVRC TCP subject to a few recommended changes to the maps in the Plan. These changes have since been incorporated into this revised draft. The BURA Board also unanimously

recommended that City Council adopt this BVRC TCP.

- ✍ On July 8, 2002, the TAB unanimously voted to approve a motion recommending to the City Council the adoption of the BVRC TCP, subject to the addition of a few clarifying notes on the graphics, a few policy text revisions, and the addition of an action item in the Action Plan, all of which have since been incorporated into this revised draft.

- ✍ On July 18, 2002, the Planning Board unanimously recommended the BVRC Transportation Connections Plan to City Council for adoption. The Planning Board made a few comments to improve the indexing of the superbloc maps and added a City Code reference to the section dealing with compliance triggers. These improvements have been incorporated in this final document.

- ✍ The BVRC Transportation Connections Plan was adopted by City Council on October 15, 2002 by a unanimous vote.