C I T Y O F B O U L D E R
TRANSPORTATION ADVISORY BOARD
AGENDA ITEM

MEETING DATE: April 14, 2014

AGENDA TITLE: Staff briefing and TAB input regarding the Baseline Road Underpass Project and Community and Environmental Assessment Process (CEAP)

PRESENTER/S: Tracy Winfree, Director of Public Works for Transportation
Stephany Westhusin, Principal Transportation Project Engineer
Bryant Gonsalves, Project Manager
Noreen Walsh, Senior Transportation Planner

EXECUTIVE SUMMARY:

This Baseline Underpass project was included as a part of the Transportation Master Plan (TMP) project list, recommended by the Board and approved by council for both grant funding and inclusion in the Transportation Capital Improvement Program (CIP). Planning and design of the Baseline Road Underpass Project began in 2012. The scope of work includes a new bicycle and pedestrian underpass replacing the pedestrian crossing signal on Baseline Road, connections to adjacent bicycle and pedestrian facilities, multi-use path connection on east side of Broadway south of Baseline Road, median reconstruction, street resurfacing, bicycle parking and landscaping, urban design and public art.

Three design options are being evaluated through the Community and Environmental Assessment Process (CEAP). The CEAP assesses potential impacts of a public development project to inform the selection and refinement of a preferred project alternative. The Board's role in this process is to provide a recommendation on the project CEAP which will then be forwarded to City Council for potential call-up. In preparation for the May 12 TAB public hearing and consideration of a recommendation on the CEAP, staff is providing this project introduction and conceptual design options.

COMMUNITY SUSTAINABILITY ASSESSMENTS AND IMPACTS:

- Economic: The project helps the city achieve its economic goals by improving walking, bicycling, driving and transit access from this location to the commercial center on the south, the university on the north side and for travelers, employees, students and residents traveling through the area.

- Environmental: This project helps the city achieve its environmental goals by providing a safer crossing and connections to the bicycle and pedestrian facilities and the adjacent transit stops. In addition to addressing current needs at this crossing location, this project is anticipated to decrease single-occupant vehicle use which would reduce and minimize the use of non-renewable energy resources and greenhouse gas emissions. In the DRCOG TIP applications it was estimated

that there would be an annual emissions reduction of 239,238 lbs of CO2 from this project.

- Social: This project helps the city achieve its social sustainability goals by improving the transportation options for all members of the community to use and improving public safety with a grade separated crossing of Baseline Road.

OTHER IMPACTS:

- Fiscal: The project budget is $5.4 million with $4 million in federal funds and $1.4 million in city transportation funds. Additional funding is not required.
- Staff time: Staff time is included in the project budget and part of the normal work plan.

BACKGROUND:

Baseline Road between Broadway and 27th Way has high travel activity composed of pedestrians, bicyclists, drivers and transit riders. The University of Colorado-Boulder campus borders Baseline Road on the north side and Basemar Shopping Center is along the south side. Over 27,500 vehicles travel through here each day and transit service includes the 225 and BOUND routes.

There are over 800 bicycle and pedestrians crossings of Baseline Road each day in the location of the project. This location has received a number of crossing treatments over the past 14 years due to its high crossing activity, adjacent land uses and to encourage walking and bicycling travel. In October 2000, pedestrian crossing signs were installed. In December 2006, a Pedestrian Actuated Flashing Signs (PAFs) treatment was installed which consisted of the State law flashing sign and Yield line signing and markings. Staff monitored the user effectiveness and safety of the PAFs and found that the rate of crossing accidents involving a pedestrian increased at this location from the 'before' conditions to the 'after' conditions. In July 2010 a pedestrian signal was installed at the project location to further improve safety at this location as an interim solution until an underpass could be funded and constructed as identified in the TMP. Also in 2010, the City of Boulder applied for a federal Transportation Improvements Program (TIP) grant to design and construct an underpass at this location. Following community process, TAB recommendation and council endorsement a grant was submitted and approved in 2011 with construction funds available in Fiscal Year 2015.

The project objective is to improve safety for bicyclists, pedestrians and drivers in this location by providing a grade separated bicycle/pedestrian crossing of Baseline Road. This underpass project is expected to greatly reduce the conflicts between vehicles and bicyclists and pedestrians. A secondary benefit that is anticipated with the removal of the pedestrian signal is a simplification of traffic flow in an area that has multiple access points between Broadway and US 36, reducing overall travel congestion and delay at this location.

Planning and design of this project began in 2012. The scope of work includes:

- New grade separated bicycle and pedestrian underpass replacing the pedestrian crossing signal on Baseline Road;
- Connections to sidewalks, multi-use paths and bicycle lanes;

- Multi-use path connection on east side of Broadway from Baseline Road south along the western side of Basemar Shopping Center;
- Median reconstruction;
- Street resurfacing;
- Bicycle parking; and
- Landscaping, urban design and public art.

Three design options have been created and will be evaluated through the city's CEAP which is a formal review process to consider the impacts of public development projects. The purpose of the CEAP is to assess potential impacts of conceptual project alternatives to inform the selection and refinement of a preferred alternative. The CEAP provides the opportunity to balance multiple community goals in the design of a capital project by assessing a project against the policies outlined in the Boulder Valley Comprehensive Plan and departmental master plans. Project staff is coordinating the project design with the University of Colorado.

For each of the options the width of the underpass is 24 feet and the entrance and path connections on the north side of Baseline Road are the same (from the west and east sides). For all options there will be a curb extension/bump-out at the southeast corner of Broadway and Baseline Road with a right turn only lane into the Einstein/Starbucks retail property shortening the crossing distance of Baseline Road. The design options differ with regards to the access to the underpass on the south side of Baseline road and related features. An illustration of each option is included in **Attachment A**. Further description of each option is included in **Attachment B**.

Public outreach and feedback:
Information on the project and the public meeting was distributed to 400 residents, property owners, businesses and other interested parties through a direct mailing. The University of Colorado also distributed this information through their system's email groups and social media. The City of Boulder distributed this information through their city email groups, the Martin Acres Neighborhood Association (MANA) listserv and social media.

Information on the project is available on the project webpage and a public meeting will be held on April 8, 2014 and staff will update the Board on the feedback received at the meeting during the April 14 TAB meeting. The meeting graphics will also be available at the Main Boulder Library 2nd Floor Reference Desk.

Action Requested of Board:
At the May 12 TAB meeting, the Board will hold a public hearing and consider a recommendation on the Baseline Road Underpass Project CEAP. In preparation for that meeting, staff is providing this introduction to the project and the conceptual design options being evaluated in the CEAP to gather input and follow-up questions from the Board prior to the May 12 meeting. In previous project CEAPs, staff has provided an on-site tour of the project area and can schedule this if the Board indicates an interest.

Approved By:

Tracy Winfree,
Director of Public Works for Transportation

Atttachments:
Attachment A – Illustrations of the conceptual design options for the Baseline Road Underpass Project
Attachment B – Description of characteristics for each design option

Baseline Road
Underpass Project
Broadway to 27th Way

Baseline Underpass Project
Conceptual Plan – Option A (Access Ramp on West Side)

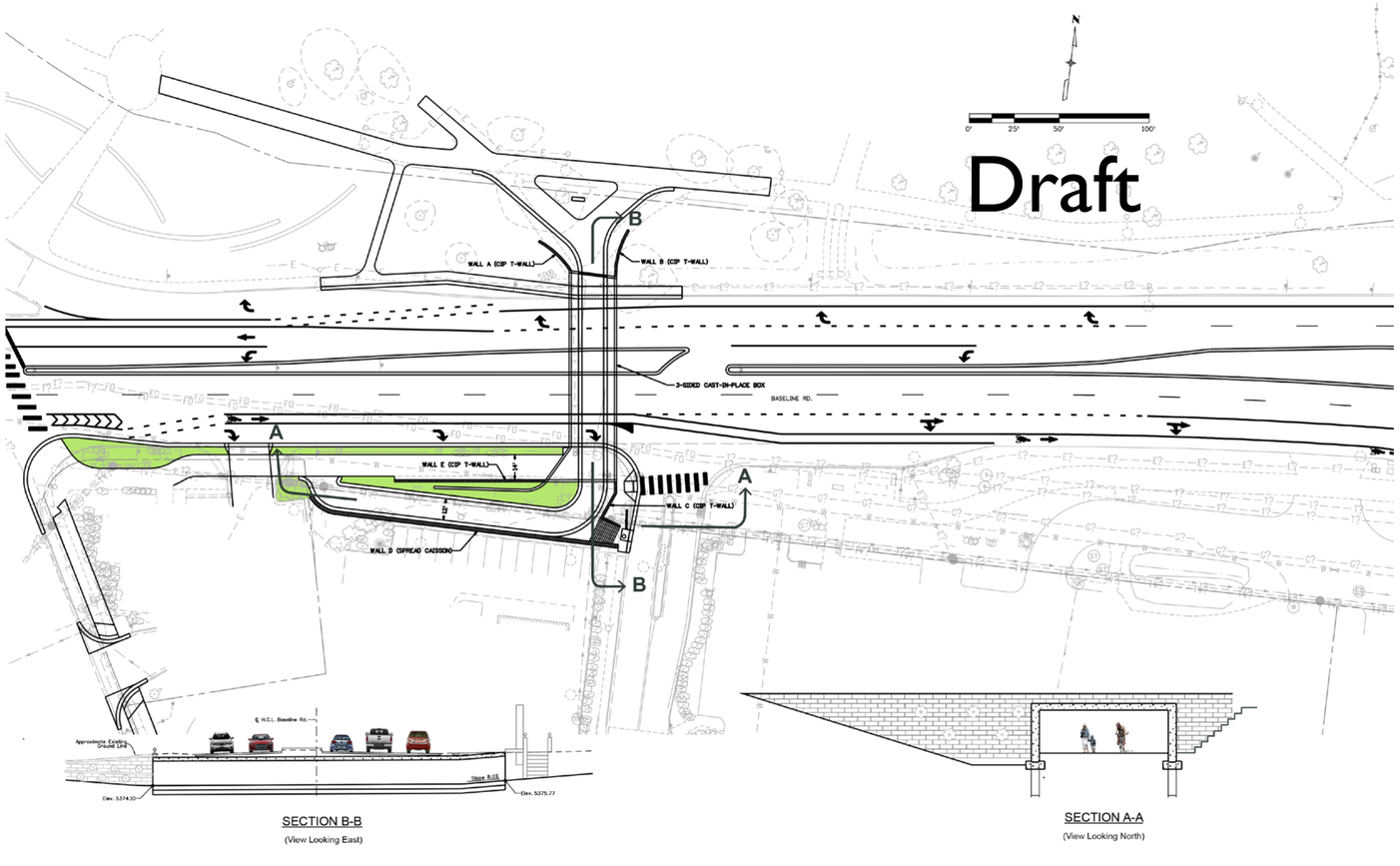
View on South side underpass entrance.

View on North side underpass entrance.

Baseline Road Underpass South Side Entrance
Design Option Characteristics

√ = Has This Characteristic

Characteristic	OPTION A (Access ramp on west side)
PEDESTRIANS and BICYCLISTS	
Provides stair access for pedestrians	√
Provides ramp access from west	√
Provides ramp access from east	
Provides ramp access from east and west	
User perception of safety is enhanced due to sightlines and open views on the south side underpass entrance	
Underpass access ramps on south side entrance have wide turning radii, decreasing potential user conflicts	
Reduced user conflicts at south side entrance due to less crossing patterns and sight distance issues	√
VEHICULAR	
Reduces conflicts between vehicles and path users at Basemar Shopping Center driveway	
Removes pedestrian crossing signal on Baseline	√
Reduces eastbound through lanes between Broadway and 27th Way from three to two lanes	
TRANSIT	
Allows for bus recovery/layover area at eastbound transit stop	√
Allows space for expanded regional transit service operations and future transit stop amenities	√
Underpass access ramp is adjacent to transit stop	
LANDSCAPING AND PROPERTY	
Reduces landscaping/green space	√
Retains a high-value tree on the south side of Baseline Road	√
Requires permanent easements on Baseline Road	√



View of North side underpass entrance.

SEH

Baseline Road
Underpass Project
Broadway to 27th Way

Baseline Underpass Project
Conceptual Plan – Option B (Access Ramp on East Side)

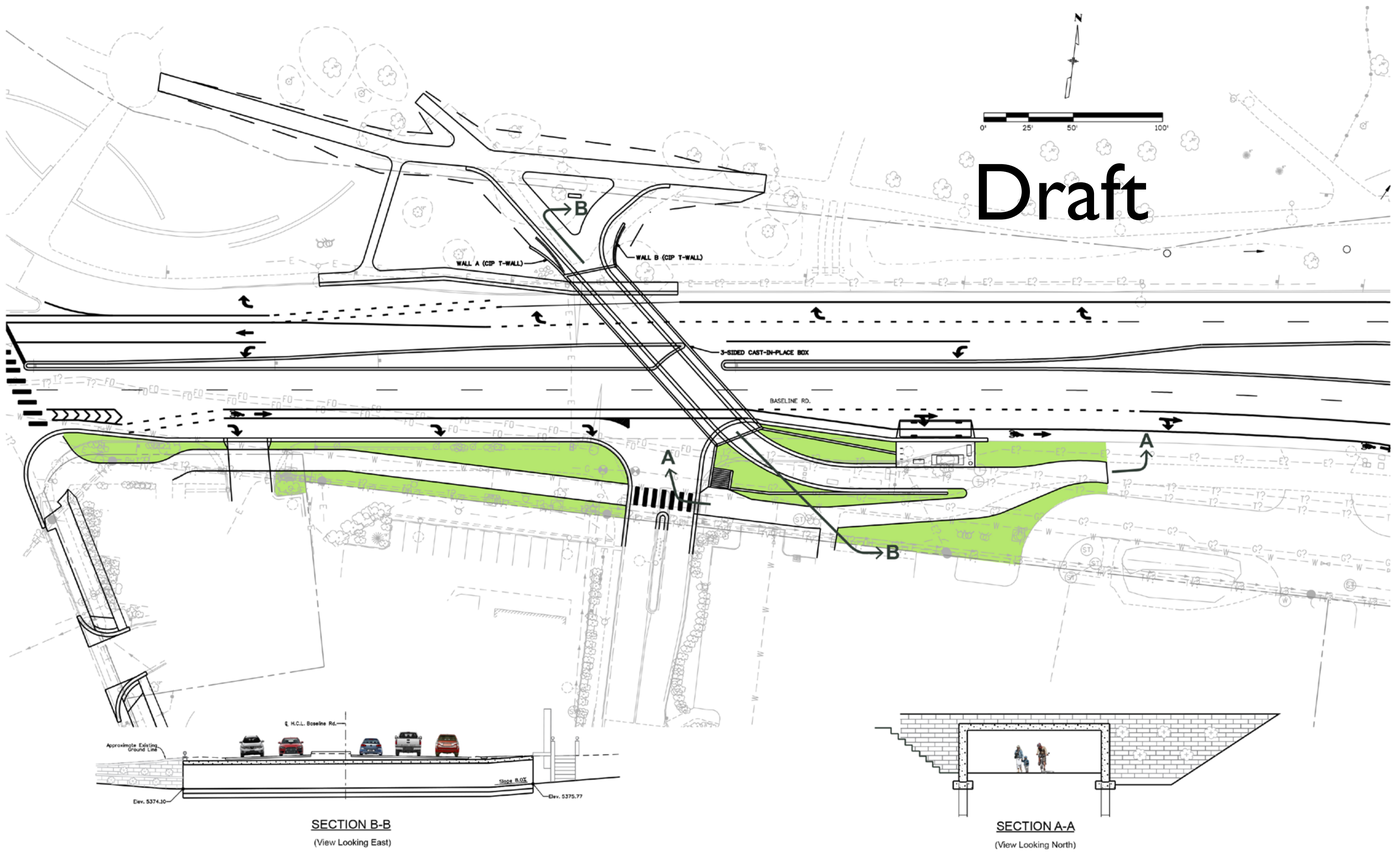
View on South side underpass entrance.

View on North side underpass entrance.

Baseline Road Underpass South Side Entrance
Design Option Characteristics

√ = Has This Characteristic

Characteristic	OPTION B (Access ramp on east side)
PEDESTRIANS and BICYCLISTS	
Provides stair access for pedestrians	√
Provides ramp access from west	
Provides ramp access from east	√
Provides ramp access from east and west	
User perception of safety is enhanced due to sightlines and open views on the south side underpass entrance	√
Underpass access ramps on south side entrance have wide turning radii, decreasing potential user conflicts	√
Reduced user conflicts at south side entrance due to less crossing patterns and sight distance issues	√
VEHICULAR	
Reduces conflicts between vehicles and path users at Basemar Shopping Center driveway	√
Removes pedestrian crossing signal on Baseline	√
Reduces eastbound through lanes between Broadway and 27th Way from three to two lanes	√
TRANSIT	
Allows for bus recovery/layover area at eastbound transit stop	√
Allows space for expanded regional transit service operations and future transit stop amenities	
Underpass access ramp is adjacent to transit stop	√
LANDSCAPING AND PROPERTY	
Reduces landscaping/green space	√
Retains a high-value tree on the south side of Baseline Road	
Requires permanent easements on Baseline Road	



View of North side underpass entrance.

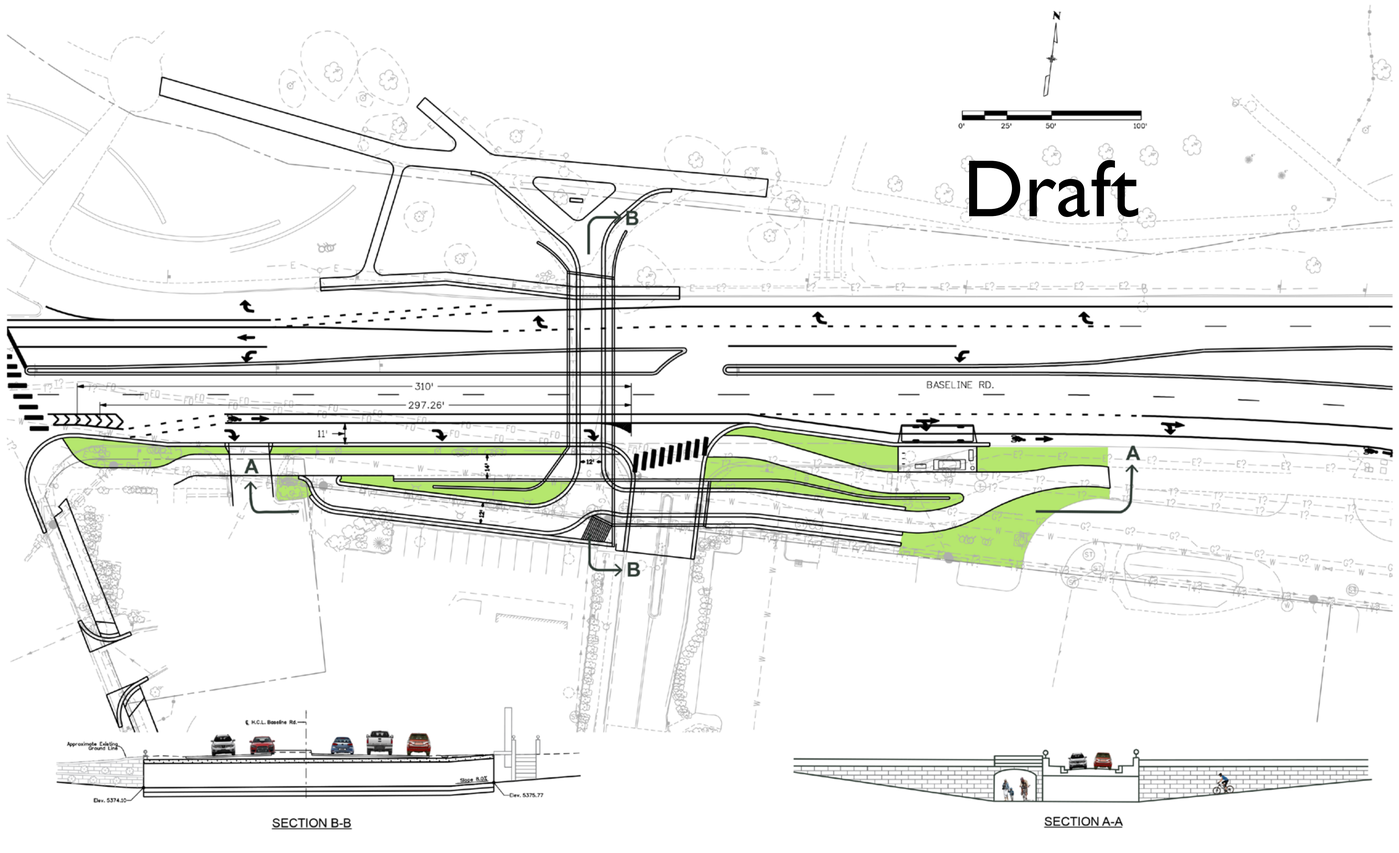
SEH

Baseline Road
Underpass Project
Broadway to 27th Way

Baseline Underpass Project
Conceptual Plan – Option C (Access Ramps on East and West)

View on South side underpass entrance.

View on North side underpass entrance.



Baseline Road Underpass South Side Entrance
Design Option Characteristics

√ = Has This Characteristic

Characteristic	**OPTION C** (Access ramps on east and west sides)
PEDESTRIANS and BICYCLISTS	
Provides stair access for pedestrians	√
Provides ramp access from west	
Provides ramp access from east	
Provides ramp access from east and west	√
User perception of safety is enhanced due to sightlines and open views on the south side underpass entrance	
Underpass access ramps on south side entrance have wide turning radii, decreasing potential user conflicts	
Reduced user conflicts at south side entrance due to less crossing patterns and sight distance issues	
VEHICULAR	
Reduces conflicts between vehicles and path users at Basemar Shopping Center driveway	√
Removes pedestrian crossing signal on Baseline	√
Reduces eastbound through lanes between Broadway and 27th Way from three to two lanes	√
TRANSIT	
Allows for bus recovery/layover area at eastbound transit stop	√
Allows space for expanded regional transit service operations and future transit stop amenities	
Underpass access ramp is adjacent to transit stop	√
LANDSCAPING AND PROPERTY	
Reduces landscaping/green space	√
Retains a high-value tree on the south side of Baseline Road	
Requires permanent easements on Baseline Road	√

View of North side underpass entrance.

SEH

Baseline Road Underpass Project Options Description*

	Option A-Access ramp on west side	Option B-Access ramp on east side	Option C-Access ramps on east and west
Description	This underpass is perpendicular to Baseline Road. The entrance ramp and path connections on the south side of Baseline Road come from the west.	The underpass is at a skewed angle and the entrance ramp and path connections on the south side of Baseline Road come from the east.	This option has the underpass perpendicular to Baseline Road. The entrance ramps and path connections on the south side of Baseline Road come from the east and west.
Pedestrian	Pedestrians access the underpass from the south side by a ramp from the west. If coming from the east, pedestrian must cross Basemar Shopping Center driveway at grade before using ramp or stairs.	Pedestrians access the underpass from the south side by a ramp from the east. If coming from the west, pedestrian must cross Basemar Shopping Center driveway at grade before using ramp or stairs.	Pedestrians access the south side underpass entrance from either direction and do not need to cross the Basemar Shopping Center driveway.
Bicycle	Bicyclists access the underpass from the south side by a ramp from the west or use stairs. If coming from the east, bicyclists must cross Basemar Shopping Center driveway at grade before using ramp or stairs.	Bicyclists access the underpass from the south side by a ramp from the east or use stairs. If coming from the west, bicyclist must cross Basemar Shopping Center driveway at grade before using ramp or stairs. Boulder B-Cycle station will be relocated.	Bicyclist access the south side underpass entrance from either direction and do not cross the Basemar Shopping Center driveway. There is an additional cost to provide a second underpass structure for the Basemar Shopping Center driveway. Underpass ramps from the east and west in this space have low sight distance increases the potential for user conflicts for those entering and exiting the underpass for left turning movements. Boulder B-Cycle station will be relocated.
Transit	The current eastbound transit stop and bus layover remains in place. There is space for expanded regional service opterations and future transit stop amenities.	The eastbound transit stop is relocated and reconstructed and layover space is provided but has less capacity than previous one. Underpass access ramp is adjacent to transit shelter.	The eastbound transit stop is relocated and reconstructed and layover space is provided but has less capacity than previous one. Underpass access ramp is adjacent to transit shelter.
Vehicular	Same as today. (2)	A curb bumpout will be constructed on the south side of Baseline on the east side of the shopping center driveway. The number of eastbound through travel lanes from Broadway to 27th Way will be reduced from three to two lanes. An access lane into the Basemar Shopping Center driveway will be retained.	A curb bumpout will be constructed on the south side of Baseline on the east side of the shopping center driveway. The number of eastbound through travel lanes from Broadway to 27th Way will be reduced from three to two lanes. An access lane into the Basemar Shopping Center driveway will be retained.
Property	A permanent easement along the south side of Baseline Road will be needed which is an additional cost.	All on city owned property on Baseline Road.	A permanent easement along the south side of Baseline Road will be needed which is an additional cost.
Landscaping and Trees	On the south side, there will be a a reduction in the landscaping area and one tree will be removed. The area will be restored. (1)	On the south side, there will be a a reduction in the landscaping area and two trees will be removed. The area will be restored. (1)	On the south side, there will be a a reduction in the landscaping area and two trees will be removed. The area will be restored. (1)

* (1) All options have the same north side underpass access and the removal of five trees. (2) For all options a curb extension will be constructed at the southeast corner of Broadway and Baseline Road and an access lane into Starbucks/Einsteins property.