

## Capital Improvement Program Tour

### List of Projects – July 24, 2014

City of Boulder

The City of Boulder's Capital Improvements Program (CIP) is a six-year plan for maintaining and enhancing public infrastructure by correcting current facility deficiencies and constructing new service delivery infrastructure. The CIP provides a forecast of funds available for capital projects and identifies all planned capital improvement projects and their estimated costs over the six-year period.

This tour's focus is on providing information on impacts from the September 2013 Flood, key projects future needs and completion of Capital Bond Projects, highlighting projects in the Boulder Junction area.

### Highlighted Projects

= Capital Bond Projects

#### **1. Arapahoe Reconstruction (Tracy)**

Reconstruct Arapahoe Ave between 15<sup>th</sup> Street and Folsom to concrete pavement with utility replacements including adding storm drainage system, sidewalk, landscaping and urban design treatments where possible.

Funding - \$5.3 million of capital bond funding

#### **2. 28<sup>th</sup> Street Transit, Bicycle and Pedestrian Investments (Tracy)**

##### **28th Street Multi-Use Path Project – Arapahoe to Valmont – Capital Bond Funding:**

The project will replace existing sidewalks - where bikes and pedestrians presently conflict - with a 10' multi-use path that will allow bikes and pedestrians to better coexist and access the businesses along 28th street and elsewhere. This project will construct multi-use paths along the WEST side of 28th from Arapahoe to Valmont, and the EAST side from Pearl to Valmont.

- The total project budget is \$1.2M
- Pearl to Valmont will also be widened to provide a continuous shared bus/bike lane in each direction supporting US 36 BRT and BOLT (eventually SH 119 BRT). This work will be funded by CIP dollars.

##### **28<sup>th</sup> Street – Bus/Bike Lane and Multi-Use Project – Valmont to Iris – CIP Funding**

28th street will be widened between Valmont and (south of) Iris to complete the continuous shared bus/bike lane (BOLT/eventual SH 119 BRT/205). This project will also replace existing sidewalks with 10' concrete multi-use paths along both sides of 28th.

- Several properties' frontages to 28th Street will require acquisition of easements/property in order to construct these new facilities.
- This work is funded by the existing 28th Street CIP budget, and is planned to be will be completed in 2016 or 2017.

##### **28<sup>th</sup> St MUP: Iris to Yarmouth – Federally Funded TIP Project:**

- The project includes:

- Construction of a 10' wide concrete multi-use path on the west side of 28<sup>th</sup> St. from Iris to Fourmile Creek including a new pedestrian bridge over Fourmile and connection to the path in Elks Park.
- Widening of the 28<sup>th</sup> Street Bridge over Fourmile to accommodate bicycle crossings in both directions
- Construction is anticipated to begin in the Spring of 2015.
- Funding: FHWA Grant matched with City Transportation Funds. The Total Funding is \$2.224M. It's an 80/20 split between Federal funds and City funds.

### **28<sup>th</sup> and Violet Intersection Project – Capital Bond Funding:**

- Realign intersection to address skewed entry of Violet onto 28<sup>th</sup> street in order to help shorten bicycle crossings of the vehicular path. Violet that accesses 28<sup>th</sup> Street on the east side will be closed.
- Construction is anticipated to begin in the Fall of 2014
- Funding: City of Boulder bond, CIP and Boulder County funding and the budget is \$350k

### **3. Wonderland Greenways / Flood project (Kurt)**

The city is in the process of designing a Greenways Improvement Project along Wonderland Creek from Foothills Parkway to Winding Trail. The project will include extending the multi-use path along Wonderland Creek, providing three new pedestrian and bicycle underpasses and constructing flood mitigation along the project reach.

The September 2013 flood event resulted in substantial damages along Wonderland Creek. Future flood risks in these heavily damaged areas will be mitigated by this Greenways project (the project will eliminate 100-year floodplain impacts to approximately 130 structures housing 580 dwelling units).

Funding: \$21,230,465

- Greenways \$957,157
- Flood \$17,373,308 (\$10 million bond)
- Federal TIP \$2.9 million

The project is estimated to cost between \$21-25 million. The project has received \$2.9 million in federal grant money based on the transportation elements of this project. The Urban Drainage and Flood Control District has also assisted with \$2.1 million of funding. The project is anticipated to be advertised for construction bids in June 2015.

### **4. Elks Park (Jeff)**

Construction is almost complete for this neighborhood park at 28<sup>th</sup> south of Jay Road.

Funding: \$1.6M

- Fulfills Parks .25 Sales Tax requirements

### **5. Boulder Reservoir Projects (Jeff )**

Improvements from the capital bond included a new entry complex including entrance sign, roadway, parking lot, utility infrastructure, and grounds and landscaping. Flood recovery initiatives are also underway.

Funding: \$3M

## **6. Wildland Fire Facility (Frank)**

This project will consolidate all of the Fire Department Wildland crews and their support functions into one location. The City of Boulder Fire Department funds a full-time and seasonal Wildland fire crew who are an initial attack group for wildland fires occurring on or near city-owned land, including Open Space and Mountain Parks. When not involved in fire fighting, the crews perform mitigation work on city land, thinning forests and conducting prescribed burns to reduce the intensity of wild fires. The crew currently works out of several locations. Offices, vehicle storage, and tool repair and storage are each in separate buildings. Final completion is expected in January 2015. The building will be rated LEED-Silver.

Funding:

- Capital Improvements Bond Project - \$3.08M
- CIP Funds - \$919K

## **7. Coot Lake (Jeff)**

This project will provide stabilization and restoration of the north bank of Coot Lake that currently poses a critical safety issue and continued degradation of the resource values of the lake. The project will include trail restoration, bank stabilization and vegetative restoration of this important and highly used natural area within the city's system. This project will also provide updated amenities and signage to improve the visitor experience and meet current standards for park design and improvement.

Funding: \$250,000

## **8. Carter Lake Pipeline & Hydroelectric Facility (Bob)**

Boulder's municipal water from Carter Lake is presently carried to Boulder Reservoir in an open canal that is subject to contamination as well as service interruption during critical intervals as evidenced during Sept. 2013 flood and cannot be operated in winter months. Proposed pipeline will protect drinking water quality and permit year-round delivery to Boulder and other municipal water providers, such as Left Hand and Longs Peak.

The possibility of a hydroelectric facility in conjunction with the pipeline would be made available by the construction of the Carter Lake Pipeline Project as the pipeline head pressure would have to be dissipated before flowing into the Water Treatment Facility.

Funding: Pipeline: \$38.5M Hydro Facility: \$2.8M

## **9. Wastewater Sewer Interceptor Project (Douglas)**

Utilities staff has identified the need for a \$10,000,000 bond in the 2015-2020 CIP to fund improvements to the city's largest sanitary sewer interceptor. The sanitary interceptor conveys 90% of the city's flow to the Wastewater Treatment facility (WWTF). City staff completed an inspection of approximately 6 miles of the interceptor in the spring of 2014 and found significant internal corrosion in numerous pipe sections. City staff will be completing inspection of an additional 10-12 miles of concrete sewer in 2014. The bond funds will be used to rehabilitate the worst condition sewer sections utilizing a combination of open cut and lining technologies.

Funding: \$10M

## **10. Riparian Ecosystem Restoration Project (Mark)**

This project will repair the breach in the bank between Boulder Creek and Pit D to return flows to the historic channel and prevent flow from entering Pit D. Also, a stable creek channel through the project site will be built using natural channel design principles. The new channel will incorporate aquatic

habitat features to support native fish and other endemic species. Riparian and wetland habitat adjacent to the new creek channel will also be restored.

Funding: CIP funds - \$300K, Grant funds (Colorado Water Conservation Board CWCB – pending \$200K)

## 11. Boulder Junction Projects (Tracy, Alex)

### Private Development Projects

- 3100 Pearl and 3151 Pearl - Depot Square

### Public Projects

- Capital Improvement Bond Projects
  - Junction Place Bridge over Goose Creek - \$3.512M City Bond Funds,
  - Pearl Multi-way Boulevard – 30<sup>th</sup> to the Railroad – south side - \$2.298M City Bond funds, \$0.267M Developer Funds
- Boulder Junction Fund Projects
  - Boulder Junction Pocket Park
  - Junction Place Enhancements (Goose Creek to Bluff - \$877k, Pearl to Goose Creek - \$1,082k)
  - Traffic Signal at Junction Place and Pearl - \$284k Total - \$120k from 3100 Pearl development, \$60K Depot Square Developer and \$104k city funds
  - Other future Traffic Signals - Junction Place at Valmont (pg. 322) \$304k, and Bluff at 30<sup>th</sup> Street \$228k
  - Overhead Electrical Utility Undergrounding - \$80k city funds – remainder Xcel 1% funds
- Federally Funded Projects
  - Pearl Parkway Multi-Use Path: 30<sup>th</sup> to Foothills – north side (pg. 334) \$6.75M total - \$4M federal and \$1M City Transportation funds, \$0.204M Developer Funds, \$1.55M Utility Funds

## 12. Relocation of Fire Station 3 (Frank)

Fire Station 3 is located within the 100 flood plain at 30<sup>th</sup> and Arapahoe Avenue.

- In 2011 potential sites were evaluated for relocation.
  - Thirteen sites were reviewed; six sites appeared to be usable.
- In September of 2013 each of the six sites were reviewed again:
  - Five of the six may still be viable.
  - The top site is 2900 Mapleton (Mapleton Ball Fields).
  - The other sites are along 30<sup>th</sup> Avenue.

The current proposal suggests incorporating office space to move the Fire Administration Offices to co-locate with the new Fire Station 3 and build a supply/truck storage building at a different location. Fire Admin offices are currently in the Public Safety Building with the Police Department.

Funding: The current cost estimate is \$12.7 million for building and up to \$8.6 million for land.

# Wonderland Creek Greenways Improvement Project





## Carter Lake to Boulder Reservoir Water Supply Pipeline

### Federal Request

The City of Boulder, in partnership with other regional municipal water providers, requests \$10,000,000 for the construction of an approximate 21-mile long municipal water supply pipeline. The project received funding authorization for this amount in the 2007 Water Resources Development Act (H.Rpt. 110-280, Section 5158, #109).

**Description of Need:** Boulder's municipal water from Carter Lake is presently carried to Boulder Reservoir in an open canal that is subject to contamination as well as service interruption during critical intervals as evidenced during the September 2013 flood event and cannot be operated in the winter months. The proposed pipeline will protect drinking water quality and permit year-round delivery of the Carter Lake water supply to the city and to other municipal water providers in the area as depicted in Figure 1. The municipal water providers serve a combined population of about 200,000 people.

**Project Summary:** Two other water districts (Left Hand and Longs Peak) in Boulder and Weld Counties are currently participating with the City of Boulder in development of this project. Other water districts have expressed interest in the past as represent in Exhibit 1. The location of these water districts is presented in Figure 2.

The Northern Colorado Water Conservancy District through its Southern Water Supply Project II Municipal Subdistrict, while not a project participant, is acting as project manager for the cities and water districts and is in support of the city's request for project funding.

In 2005, these communities completed a feasibility study and preliminary construction cost estimate for the pipeline. Work on environmental studies and permitting processes with Boulder and Weld Counties began in 2006. Field exploration, preliminary design, and limited right-of-way acquisition began in 2007 while permitting processes continued. Boulder has allocated \$1,000,000 for its share of the work to complete the permitting processes and right-of-way acquisition, and complete the portion of the final design necessary to support this project. The project cost estimate has been updated in 2014 and total costs are forecast to be approximately \$43.8 M

The pipeline will run from Carter Lake to the Boulder Reservoir Water Treatment Plant and to several smaller treatment plants. The total pipeline length is approximately 21 miles. A similar pipeline (Southern Water Supply Pipeline) was constructed in 1994-1995 to serve other communities.

Boulder depends on several different raw water sources to meet customer water demands. On average from year to year, about 65 percent of the city's water supply comes from the local Boulder Creek basin and 35 percent comes from Boulder Reservoir sources. As Boulder grows, the percentage of water delivered directly through the Boulder Reservoir Water Treatment Plant will increase to about 45 percent of the total municipal supply on average. The city owns enough additional water at Boulder Reservoir to meet all of Boulder's future needs. However, the quality of this water is likely to degrade in the future unless its delivery method is changed from an open canal to a closed pipeline.

The main source of supply for Boulder Reservoir is the Colorado/ Big Thompson (CBT) Project. This raw water supply was developed by the Bureau of Reclamation in the 1950s and is presently operated by the Northern Colorado Water Conservancy District (NCWCD). The CBT Project diverts and stores water from the Colorado River on the west side of the Rocky Mountains. The water is then delivered through a series of tunnels, canals and reservoirs to northern Colorado Front Range communities, including Boulder. The other major source of supply for Boulder Reservoir is the Windy Gap Project which was jointly developed by northern Colorado municipalities to carry newly-developed water supplies through the CBT Project facilities as an alternative to the conversion of agricultural CBT water to municipal ownership and use.

Carter Lake, a large reservoir near Loveland, Colorado, is a component of the CBT Project. An open canal known as the Saint Vrain Supply/Boulder Feeder Canal begins at Carter Lake and runs south to Boulder Reservoir. Boulder withdraws water either from Boulder Reservoir or directly from the canal and treats the water at the Boulder Reservoir Water Treatment Plant. The canal is in operation for approximately seven months each year, but is shut down during the winter due to freezing.

The seasonal operation of the Boulder Feeder Canal limits flexibility of the city's operations and may limit the city's drought-year water yield. The ability to access West Slope source water during the winter would maximize use of this source and may be necessary to fully utilize the city's Windy Gap water. The city's use of West Slope water during the winter is currently limited by the amount of storage space available to the city in Boulder Reservoir under the contracts with NCWCD. The ability to store water in Boulder Reservoir during the winter is further limited by the need to maintain winter water levels below the point where high winter winds can damage the rip-rap on the dam and cause erosion. While improvements to the Boulder Reservoir Water Treatment Facility have been discussed as an alternative to the proposed Carter Lake Pipeline, an expansion of the water treatment facility capacity would not eliminate Boulder Reservoir's storage limitation. Full winter use of the currently planned 16 MGD capacity at the Boulder Reservoir Water Treatment Facility would require more water than can be stored in the city's Boulder Reservoir accounts during the winter. Without the ability to access West Slope water directly from Carter Lake during the winter to supplement what can be stored in Boulder Reservoir, the city will be unable to fully use the 16 MGD capacity of the Boulder Reservoir Water Treatment Facility on a year-round basis and may be unable to fully use its allocation of West Slope water in drought years.

Although water released from Carter Lake is of high quality, the water quality at Boulder Reservoir is degraded. This is due to pollutants from point and non-point sources entering the open canal as it carries the water for 20 miles between the two reservoirs. Land use changes near the canal in the future are expected to increase water quality degradation. The open canal was also ranked as one of the most vulnerable components of the city's water system in a federally-required vulnerability assessment. During the September 2013 flood event the canal was breached in numerous places and flood debris entered the canal system as well as plugging the City of Boulder WTP Influent pipeline and Left Hand's WTP influent pipeline. The sediment entered the Boulder Reservoir as well as plugging the WTP influent pipeline and the WTP was forced to shut down during this critical time frame.

**Goal:** The City of Boulder is responsible for providing a safe and reliable municipal water supply to its citizens both now and in the future. Boulder desires to protect its existing water supplies from degradation and to improve the ability to reliably use each of its water sources at all times. The city believes that it owns sufficient water supply to meet future needs if the quality can be sufficiently protected to meet changing drinking water standards and it can be delivered for treatment during all months of the year through construction of the Carter Lake Pipeline. If climate change causes a decrease in Boulder's water supplies, the flexibility of operations provided by the Carter Lake Pipeline would allow the greatest possible efficiency of use for existing water supplies and minimize or eliminate conversion of agricultural water to municipal use.

**Public Benefit:** The combination of degradation of water quality, more restrictive future drinking water standards, and the need for a secure water supply has resulted in the city's study of several alternatives to protect Boulder Reservoir water sources. The construction of a pipeline from Carter Lake to carry drinking water presently carried in an open canal has been shown to be the best long term means of providing a reliable, safe drinking water supply for Boulder residents. Construction of this pipeline in conjunction with other area water providers will assure a cost-effective solution to water supply needs for a broad community. In addition, availability of this pipeline would increase the ability to fully use water supplies that are already owned by municipal water providers and decrease the need to convert agricultural water to municipal use.

**Estimated Project Cost:** The City of Boulder has paid more than \$1,000,000 to date for planning, feasibility studies, environmental studies, permitting processes and easement acquisition. The estimated construction cost is expected to be about \$43.8 million, of which \$30,900,000 is attributable to Boulder's portion of the project. Construction is expected to occur over a two-year period.

**Local Match:** Assuming \$10,000,000 of federal funding is available, the City of Boulder will provide no less than \$20,900,000 in local matching funds for final project design, right-of-way acquisition and construction. Other area water providers will provide \$12,900,000 in local matching funds.

For questions, please contact the city's Policy Advisor,  
Carl Castillo at (303) 441-3009 or [castilloc@bouldercolorado.gov](mailto:castilloc@bouldercolorado.gov)

For more information, please visit Boulder's website at [www.bouldercolorado.gov/water/carter-lake-pipeline](http://www.bouldercolorado.gov/water/carter-lake-pipeline)

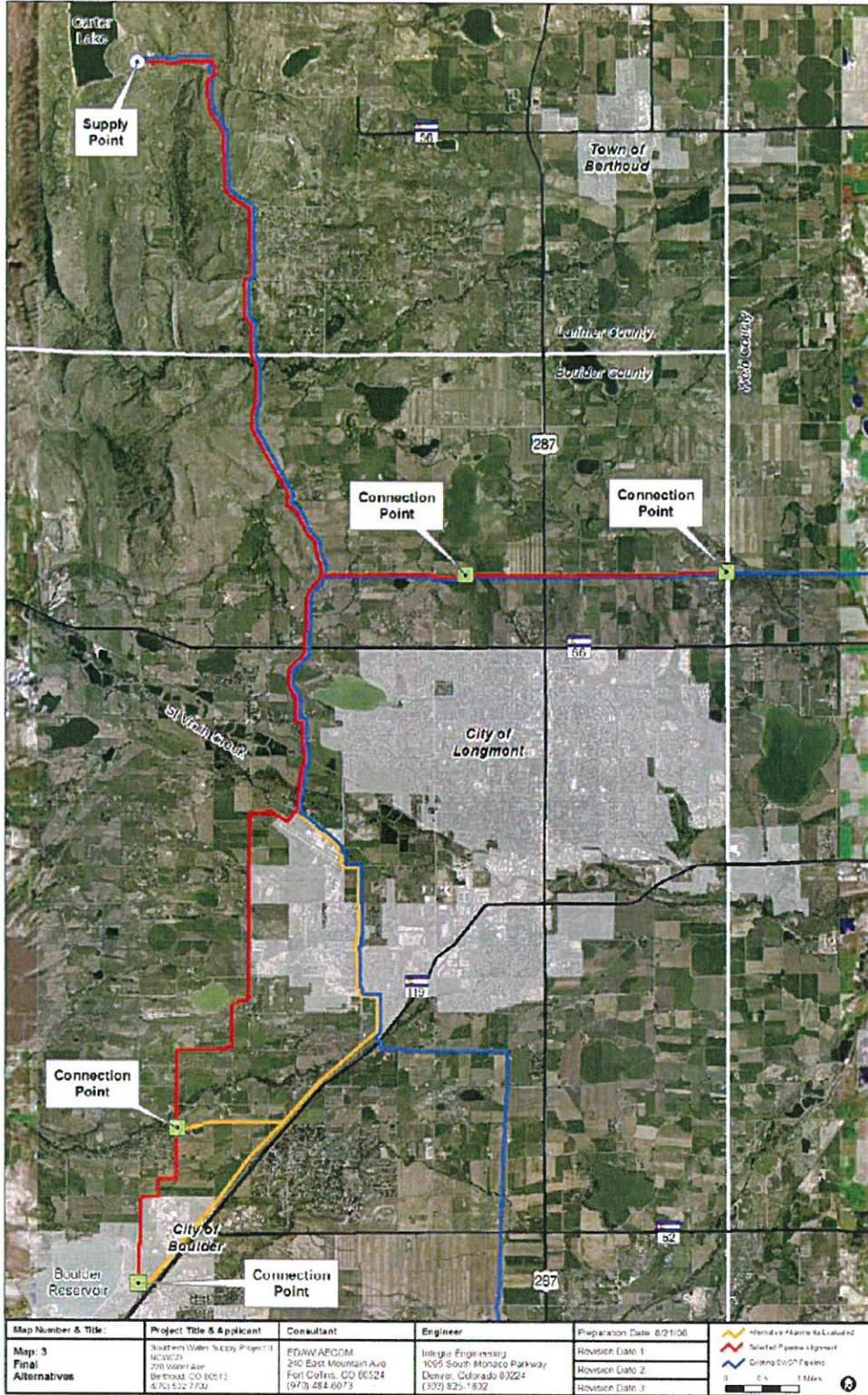
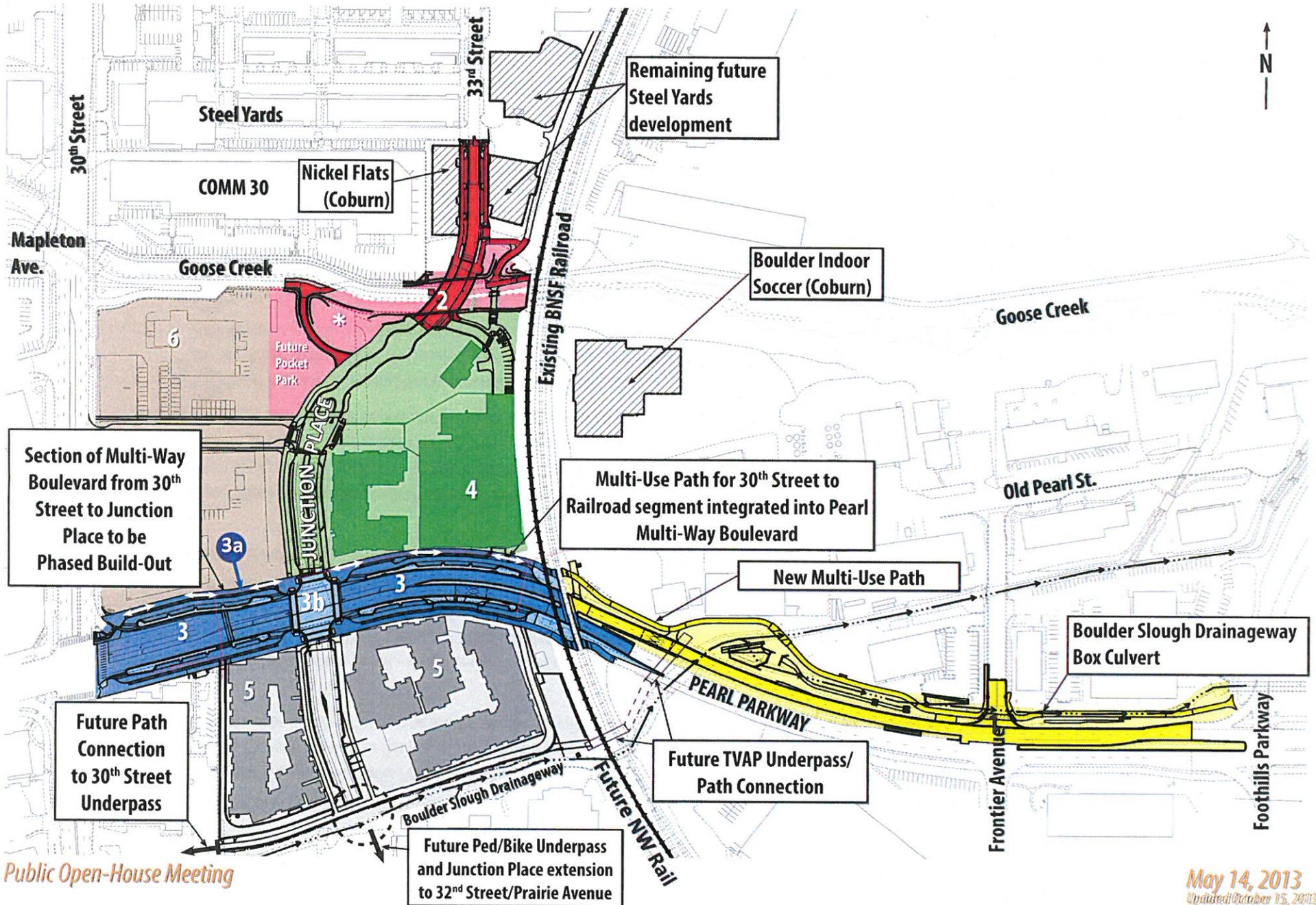


Figure 1

# What's Happening at Boulder Junction?



May 14, 2013  
Updated October 15, 2013  
Updated July 24, 2014

# What's Happening at Boulder Junction?

There are many upcoming public and private development and improvement projects in the area— see below for details and contact information:

- 1 Pearl Parkway (30<sup>th</sup> Street to Foothills Parkway) Multi-Use Path Improvement Project** – A multi-use path on the north side of Pearl Parkway will be installed from 30<sup>th</sup> Street to Foothills Parkway. Funding for this project comes from a Federal Transportation Improvement Project (TIP) grant and City Transportation funds. Construction began in late Fall 2013 and will be completed at the end of 2014. For further information please contact Boulder Transportation at 303-441-3266.
- 2 Junction Place Bridge at Goose Creek** – A new bridge crossing over Goose Creek and connecting Junction Place roadway into 33<sup>rd</sup> Street in the Steel Yards began construction in late Fall 2013. This project is being completed in coordination with Depot Square at 3151 Pearl Street. Funding for this project comes from the Boulder Capital Improvements Bond and private development funds. Construction will be completed by the end of 2014 (landscaping in Spring 2015). For more information please contact Boulder Transportation at 303-441-3266.  
  
**\* Future Pocket Park** - For more information please contact Jeff Haley at Boulder Parks and Recreation at 303.413.7233.
- 3 Pearl Parkway Multi-Way Boulevard (30<sup>th</sup> Street to BNSF Railroad) Project** - A new street design has been developed for the section of Pearl Parkway from 30<sup>th</sup> Street to the railroad. Funding is a combination of Boulder Capital Improvements Bond, City Transportation funds, private development funds and Federal TIP funds. Construction of the south side of Pearl began in early 2012 and was completed in spring 2014. The north side improvements are being constructed with the Multi-Use Path Improvements Project which began in late Fall 2013. For more information please contact Boulder Transportation at 303-441-3266.  
  
**3a Pearl Parkway Electrical Undergrounding** – The overhead utility lines on the south side of Pearl were placed underground on the north side of Pearl from 30<sup>th</sup> Street east to the railroad. This project was funded with the 1% Xcel Underground Fund and City Transportation funds. Construction was completed in August 2012. For more information please contact Boulder Transportation at 303-441-3266.  
**3b Traffic Signal at Pearl Parkway and Junction Place** – A new traffic signal has been installed and put into operation in June 2014. This project is jointly funded by city funds and adjoining development funds. For more information please contact Boulder Transportation at 303-441-3266.
- 4 Depot Square, 3151 Pearl Parkway** - Pedersen Development Company (PDC) and Adolphson & Peterson Construction (A&P) were selected by RTD to develop an underground bus facility, hotel, structured parking and affordable housing project. Milander White is constructing the Hyatt Place hotel. The Depot Square development will also rehabilitate the historic Depot as an active use facility incorporated into the development. Construction began in late Summer 2013. The parking garage and hotel are planned to be in operation in January 2015. The RTD bus facility and affordable housing are anticipated to be complete in May 2015. Funding for this project comes from a federal TIP grant, City Affordable Housing Funds, RTD funds, and private financing. For more information please call the Boulder Department of Community Planning and Sustainability at 303-441-4130.
- 5 Solana 3100 Pearl Apartments** – In April 2012 construction began on a 319-unit apartment complex project with some supporting retail space. Initial project occupation began in December 2013 and is currently half leased. Remaining units completion and leasing by mid-September 2014. For more information please call the Boulder Department of Community Planning and Sustainability at 303-441-4130.
- 6 City-Owned Site** - The NE corner of 30<sup>th</sup> and Pearl will be redeveloped to further the City's goals. City Council will provide direction in the next two years. It is anticipated that Pollard Motors will relocate from the site by Winter 2015. For more information contact Michelle Allen at allenm@bouldercolorado.gov or 303-441-4076.