**ATTACHMENT A**

# Citizen Street Repair Review Panel 2014 Report

## Implementation Update for Measure 20-197 Bonds to Fix Streets

GO Bonds
FIXING EUGENE'S STREETS

Eugene

# Memorandum

Date: February 4, 2015

To: Jon Ruiz, City Manager

From: Street Repair Review Panel

Subject: 2014 Report of the Street Repair Review Panel

It is our pleasure to present the 2014 annual report of the Street Repair Review Panel, focusing on the first year of implementing the 2012 bond measure to fix streets. This panel initially was formed in 2009 to review the implementation of the 2008 road bond measure. This report was written in response to the accountability provisions in Measure 20-197, the 2012 bond measure to fix streets.

The 11-member panel met three times over a three-month period in preparation of this report, which included a physical inspection of the projects completed in 2014. We reviewed and accepted the report prepared by the City's external auditor (Appendix C) with respect to the City's use of the bond proceeds through December 31, 2014.

**Based on this limited review and all materials presented to us, we unanimously conclude that the bond proceeds were used for the authorized purposes and in compliance with the limitations and restrictions outlined in Council Resolution 5063.** We are also providing a detailed report, prepared at our request and with our approval, from the Public Works staff on the bond projects constructed in 2014.

Highlights from our review of the 2014 street bond projects include the following:

- **Progress** – Building on the success of the 2008 bond measure, in which 85.4 lane miles of improved streets and five miles of off-street shared-use paths were repaired, the projects funded in 2014 by the 2012 voter-approved bond measure resulted in reconstructing or resurfacing just over 18 lane miles on 12 streets. The 2012 bond also allocated funding for bicycle and pedestrian projects guided by the Pedestrian and Bicycle Master Plan, City staff and the Bicycle and Pedestrian Advisory Committee. In 2014, the projects included significant safety improvements that added three signalized pedestrian crossings on busy streets, access ramps and sidewalk infill.
- **Acknowledging Variability in Funding Forecasts** – The challenge of comparing estimated costs to actual project expenditures is evident in the Appendix A summary for 2014 projects. The bottom line is that actual costs are expected to be approximately $567,000 (8%) more than was programmed when the list of 2012 bond measure projects was put together. One reason for this is that estimates are based on surface observations while the actual treatment is determined by rigorous project-specific scientific testing. Variances in 2014 were also due to unforeseen circumstances encountered in a challenging project with changeable soil conditions. There are also macro-economic forces such as the price of oil and competitive bidding trends that are very difficult to predict over time. We will let you know if we perceive any significant trends developing as the bond measure continues to be implemented. The portion of the bond funds used to construct improvements for bicycle and pedestrian projects in 2014 also exceeded the $516,000 annual average set in the bond measure. It's our understanding that staff intentionally "front loaded" the cost of bicycle and pedestrian projects in 2014 to accommodate the scheduling of large grant funded projects in future years, and we are assured that bond expenditures for bicycle and pedestrian projects will be adjusted in future years to achieve the $516,000 annual average.
- **Importance of Collaborating with Internal and External Partners –** Eugene's robust pavement preservation program requires strong coordination with internal and external utility stakeholders to schedule and coordinate the street work with any needed upgrades and repairs to the nearby utility

facilities. Because the street repair projects sometimes include opportunities for traffic engineering changes such as improving on-street bicycle lanes, public engagement on potential changes needs to occur well in advance of actual construction. Also added to the mix for the next couple of years is LTD's construction in the West Eugene EmX corridor. Staff has done a good job coordinating and collaborating with a variety of partners, and we encourage continued efforts in this area.

- **Continuing to Communicate with Citizens and Businesses** – As noted in previous reports, major street repair projects, by their nature, tend to be disruptive. Examples of construction-related inconveniences include street closures, detours, dust and noise. These issues can affect residents, businesses and commuters. The committee found that, in 2014, the Public Works Department successfully managed impacts on potentially disruptive projects such as the reconstruction of First Avenue and the challenging work done on a long stretch of North Shasta Loop. Again, we note the planned construction of West Eugene EmX starting in 2015, and we continue to encourage the department to coordinate projects as much as possible and to continue to look for new and better ways to proactively coordinate communications and minimize impact to the traveling public and impacted businesses and residents.
- **Achieving Sustainability Goals** – The bond projects continue to support implementation of the Community Climate and Energy Action Plan by utilizing industry leading methods and materials to reduce greenhouse gas emissions and waste from construction (as detailed in the attached report), as well as reducing delay to the traveling public.
- **Building Safe and Complete Streets** – In addition to helping achieve sustainability goals, the bond measure projects are designed to improve safety and result in complete streets that are safe for people of all ages and abilities, balance the needs of different modes, and support local land uses, economies, cultures, and natural environments. These efforts include expanding the pedestrian and bicycle network through implementation of new facilities such as bicycle boulevards and buffered bike lanes, accessible sidewalk ramps and traffic signals, enhanced street crossings and other facilities.
- **Understanding the Process for Selecting Projects** – SRRP members often are asked what process is used to select streets for repairs. The streets chosen for bond funding were selected using the criteria listed on page 3 of the attached report. Bicycle and pedestrian projects were not listed in the bond measure. Their selection is guided by the Pedestrian and Bicycle Master Plan, City staff and the Bicycle and Pedestrian Advisory Committee. The memo by Associate Transportation Planner Reed Dunbar (Appendix D) explains in more detail how these safety improvement projects are selected.
- **Recognizing the Continued Economic Value of Street Bond Projects** – Based on the Oregon Department of Transportation Highway Division jobs multiplier model, the bond measure projects completed in 2014 conservatively sustained approximately 92 full-time equivalent jobs during the period of construction. Another significant economic benefit is the avoided expense by timely repair of city streets. According to the 2015 Pavement Management Report, the current backlog of needed street repairs is $84 million. Had the community not embarked on a pavement preservation program funded in great part by voter-approved bond measures, the backlog could have been $282 million at this point – a difference of almost $200 million.
- **Bottom Line** – We believe the community is getting a good return for their investment in street repairs, and the bonds are being used wisely to meet the objectives of Ballot Measure 20-197.

We feel that Public Works Director Kurt Corey and his staff are doing an excellent job at designing and constructing bond measure projects. We appreciate the support they have given us in the course of our review. The committee also continues to express its appreciation to the voters and taxpayers of Eugene for their ongoing support of the bond measures that have made our community a better place to live and do business.

Additional information about the Street Repair Review Panel can be found at www.eugene-or.gov/gobonds. Please feel free to contact any of us for additional information.

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# *Citizen Street Repair Review Panel 2014 Report*

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Photos on cover from 2014 projects: Completed paving on 13th Avenue (top); Green Acres crossing (lower left); repaving of Goodpasture Loop (lower right)

# INTRODUCTION

## *BACKGROUND*

This report has been compiled for use by the Street Repair Review Panel (SRRP). It is intended to give background on projects included in the 2012 voter-approved Bond Measure 20-197, the schedule for construction of these projects, and details of bond projects constructed in 2014. The street repair bond is a five-year bond, with construction of bond-funded projects starting in 2014 and completing in 2018.

## *KEY TERMS*

**Bond** - Bond Measure 20-197, Bonds to Fix Streets, approved by Eugene voters in November 2012.

**In-Place Recycling** - A process in which a large piece of equipment called a reclaimer mixes the existing base rock and a portion of subgrade soils with cement and water to create a cement-treated base. This process greatly reduces the use of virgin materials and trucking that are needed using conventional remove-and-replace construction techniques.

Eugene has been using in-place recycling since 2009. While using cement to stabilize the underlying soils and gravel is not new to Eugene, in 2014, the City experimented with a method to reduce cement dust from the process. Eugene developed a design where the cement powder was pre-mixed with sand and water, creating a paste that was spread on the in-place soils and rock and then mixed in. By not using cement powder on site, there was no cement dust on the project and the treatment is expected to be more effective as the cement will be better mixed with the water, which activates the cement's strength properties.

**Inlay** – An inlay treatment consisting of removing a specified depth of the existing pavement surface and repaving that same depth with a new pavement surface. This treatment works well where the pavement distress is isolated to the removed portion of the pavement. At times, the inlay treatment needs to be supplemented with an "overlay," which is when an additional thickness of pavement is placed over the inlaid pavement. An overlay is used when engineering analysis shows that the existing structure does not have sufficient strength to accommodate the projected traffic loading. The term "overlay" is commonly used to describe both the inlay and overlay practices.

In-place recycling on North Shasta Loop

One of the benefits of performing an inlay treatment is that the new pavement surface will match existing adjacent structures and not increase the street cross grade. Another benefit of an inlay is that in the removal of the existing pavement, contractors grind up the old pavement and stockpile the material to be recycled into new pavement.

**PPP** - Pavement Preservation Program. This is the current capital project program to preserve Eugene's improved street system. A priority for this program is to preserve streets that have not yet degraded to a point where reconstruction is required. Preserving a street through overlay or similar treatment is four to five times more cost effective than waiting to repair a street until after it requires reconstruction. This program was initiated in 2003 and, until passage of the 2008 and 2012 street repair bonds, was predominately funded with local fuel tax revenue and the reimbursement fee component of transportation system development charges.


Paving on Monroe Street

**Reconstruction** – Once the street has deteriorated to the point that it can no longer be repaired with an inlay or overlay, it is repaired by reconstructing the pavement. Traditional reconstruction involves digging up the existing pavement, any existing base rock, and subsurface soils to the depth that will accommodate a new pavement structure. As discussed above, in-place recycling may sometimes be used as an alternative to traditional reconstruction. Reconstruction is the most expensive of the repair options, which is why the City prioritizes preserving streets before they reach the point of needing reconstruction. Reconstruction may be four to five times more expensive than an inlay treatment.

**Warm Mix Asphalt** - Warm mix asphalt pavement is identical to conventional hot mix asphalt pavement, except that through a special mixing process it is produced at a temperature approximately 50 to 100 degrees cooler than conventional hot mix asphalt. In Eugene, all asphalt concrete producers have retrofitted their plants to produce warm mix asphalt using a water-foaming process. The foaming process allows temperature reductions of approximately 50 degrees. This reduction in temperature has several advantages:

1. Reduces energy consumption to produce asphalt concrete, lowering costs and greenhouse gas emissions.
2. Reduces off-gassing (smoke) of asphalt concrete by keeping temperature under the boiling point of "light oils" in the liquid asphalt, benefiting construction workers and the public.
3. Because the light oils are not boiled off, the liquid asphalt coating the rock particles is slightly thicker, which slows the aging process of the asphalt.
4. Reduces the oxidation caused during high temperature production that causes premature aging of the asphalt, which should provide a longer life product.

The use of warm mix asphalt pavement is specified for all City of Eugene paving projects.

### *SRRP MISSION*

Per Resolution No. 5063 the SRRP "will prepare an annual report, separate and distinct from the report prepared by the outside auditor, documenting the City's use of the bond proceeds and noting whether the bond proceeds were used in compliance with the terms of this Resolution."

## CRITERIA FOR PROJECT SELECTION AND SCHEDULING

### *STREET PROJECTS*

Street projects to be included in the bond were specifically listed (see Appendix A). All street projects were identified by the Public Works Maintenance Pavement Management System as priorities for repair. In addition, the following criteria were used to select streets for the bond measure:

1. Citizen input with respect to prioritizing major streets in need of reconstruction.
2. Scientific information about needed street rehabilitation and reconstruction from the pavement management system.
3. Geographic distribution throughout the community to ensure all areas of the City receive a benefit from the bond proceeds.

The list of the street bond projects, their estimated repair cost from the Pavement Management System in 2012 dollars, and the year constructed or planned year of construction is included in Appendix A. In scheduling the street repair projects, the priorities were preserving streets prior to their needing reconstruction, grouping projects by location for cost savings, and coordinating with utility work. The list includes a comparison of programmed costs to actual costs with any difference noted. Differences in total project costs on individual projects may affect the funding available for future projects.

### *BICYCLE AND PEDESTRIAN IMPROVEMENT PROJECTS*

The 2012 bond measure stated that the City will allocate an annual average of $516,000 to support bicycle and pedestrian projects. These projects were not named in the bond measure; rather, the selection of the projects would be guided by the Pedestrian and Bicycle Master Plan, City staff and the Bicycle and Pedestrian Advisory Committee. In 2014, pedestrian and bicycle improvements were added to several paving projects and as a stand-alone project. These improvements are further described in the project details, below.

New bike lane and bike box on 13th Avenue

## *USE OF OTHER FUNDS IN CONJUNCTION WITH STREET BOND FUNDS*

The use of street-repair bond funds is limited to the overlay or reconstruction of the driving surface of streets as well as to preserve existing integral elements of the street such as curbs, gutters, sidewalks, on-street bike lanes, traffic signals, street lights, medians, traffic calming devices, and other integral parts of a street preservation project. In addition, the City will allocate an annual average of $516,000 of the bond proceeds over a period of five years to fund bicycle and pedestrian projects. (Resolution 5063, Section D).

However, there is often a need or an opportunity to complete additional work as part of the construction contracts for street preservation. The additional work may be funded by wastewater and stormwater utility funds, local gas taxes, transportation system development charges, or state and federal grants.

Wastewater and stormwater utility funds are typically used to repair and rehabilitate the existing wastewater and stormwater systems, respectively, that underlie much of the city's street system. Making these repairs in coordination with the street bond projects is a cost-effective way to accomplish the work and precludes emergency repairs in the future that would require cutting new pavement.

Local gas taxes have been used to include adjacent streets in the street bond project contracts.

Transportation system development charges (SDCs) are often used to upgrade existing signal systems during pavement preservation projects. The work typically includes installing new conduit under the pavement to connect the traffic detection loops to the signal controllers and installing audible pedestrian devices for pedestrian crossing signals.

## *SUSTAINABILITY AND GAINS THROUGH TECHNICAL DEVELOPMENTS*


The City of Eugene continually strives to improve the quality, environmental footprint, and cost efficiency of its projects. In 2014, Eugene continued to use warm mix asphalt pavement, in-place recycling and increased use of reclaimed binder to meet these sustainability criteria. Because of these considerations, the City's Pavement Preservation Program was recognized by the Oregon Chapter of the American Public Works Association with the 2014 Sustainable Practices Award for the state.

Warm mix asphalt continued to be specified for all the paving projects in 2014 in place of conventional hot mix asphalt; over 34,000 tons of warm mix asphalt pavement was placed on bond-funded streets in 2014. As explained in the Key Terms section of this report warm mix asphalt provides environmental and human health benefits as well as a potentially longer lasting product. The National Cooperative Highway Research Program (NCHRP) estimates that there is a $CO_2$ savings of 12 pounds per ton of pavement using warm mix as compared to hot mix asphalt. The NCHRP also estimates that the use of warm mix asphalt reduces the energy used in the asphalt batch plant by about 30% compared to hot mix asphalt.

The City continued the practice of in-place recycling of existing roadbed and subgrade soils in 2014, maximizing the use of existing materials and reducing the production and hauling of virgin construction materials. In-place recycling (see Key Terms) was used on the street bond projects on North Shasta Loop and Firland Blvd. It is estimated that using the in-place recycling process for these streets eliminated the need to excavate and haul away 2,000 cubic yards of material and eliminated hauling 3,500 tons of new base rock to the site, saving over 270 truck trips for the two streets. We have also estimated that in-place recycling is approximately 30% less expensive than traditional full depth reconstruction.

The City of Eugene started using the in-place recycling process to realize the environmental, economic and social benefits to the community that can come from this type of process. The reduction in land filling, material mining, and truck hauling all have direct environmental benefits; the reduction in excavating existing roadway materials and importing virgin construction materials have direct economic benefits; and the reduction in construction time has a direct social benefit.

The use of reclaimed asphalt pavement (RAP) has been used in Eugene for more than 20 years. The current standard specification allows up to 30% RAP, by weight, to be used in new asphalt pavement mixes. For several years, local asphalt producers have been supplying mixes that maximize the allowed RAP content. Increasing the amount of reclaimed asphalt binder in pavement mixes potentially impacts the quality and longevity of the asphalt pavement, so increasing the allowed reclaimed asphalt binder in mixes needs to be done with consideration as RAP contents above 20-30% is an emerging technology without much research conducted on long-term impacts to the pavement quality. Nationally, multiple organizations are experimenting with increasing the reclaimed asphalt binder content and Eugene provided pavement samples for research by the Asphalt Pavement Association of Oregon in 2013.

The standard specification for Eugene projects calls for 30% RAP. This specification results in a one-to-one replacement of the virgin asphalt cement needed for a typical Level 2, ½" dense graded asphalt pavement used on residential and collector streets in Eugene. Since the asphalt cement generally makes up about a quarter of the cost of asphalt pavement, reducing the amount of virgin asphalt cement used has the potential to decrease materials costs as well as conserving virgin resources.

Based on positive test results on projects constructed in 2013, Eugene continued the practice of increasing the reclaimed binder in asphalt pavements in 2014 using the 35% binder replacement asphalt pavement on the Madison and Monroe Streets projects. The specification allows flexibility for the contractors to meet the 35% binder replacement value using RAP or a combination of RAP and reclaimed asphalt shingles (RAS) depending on materials availability and plant capabilities. In addition to the bond funded projects, this specification was also used on two local gas tax funded projects.

Between the bond and local gas tax funded projects, over 13,700 tons of RAP was used on 2014 projects, reducing the need for nearly 800 tons of asphalt cement and 12,900 tons of aggregate to be mined, refined, processed and subsequently shipped to the pavement producers.

By its nature, reclaimed asphalt binders are stiffer and pavements that contain higher contents of reclaimed asphalt binders are more susceptible to cracking. To compensate for this potential, the grade of virgin asphalt binder typically used for Eugene paving was replaced with a "softer" binder that should better resist cracking.

In the use of increased reclaimed binder content, Eugene is on the forefront of this technology and while we are being leaders, we are also proceeding with caution and choosing projects on a case by case basis. Typically, we are choosing streets with lower traffic volumes in order to minimize the chances of unintended consequences.

## Funding Status and Forecast

In 2012 project costs were estimated for each street for the purpose of selecting streets to be included in the bond measure. These cost estimates were based on the overall surface condition of each street as described in the City's Pavement Management System. A unit cost was assigned to each street based on whether the street rehabilitation treatment was assumed to be a reconstruct or an overlay. Approximately 18 months prior to construction, more detailed pavement testing is conducted to determine specific treatments to each street based on the existing pavement structure, subgrade soil conditions and traffic loading. Actual rehabilitation treatments may be different than the original assumptions, requiring more, less or a combination of rehabilitation techniques.

For the streets scheduled for 2014 construction, the 2012 estimated cost with inflation was $7,115,000. As of January 1, although not all project contracts have been closed out, the projected actual cost for the 2014 bond projects is $7,682,000; a net difference of $567,000 above the costs projected in 2012. Details on a project by project basis are provided in the following pages and summarized in Appendix A. As construction is completed each year,

Appendix A will be updated and included in future reports to track the funding status of the overall bond funds.

The 2012 bond measure also allocated an average of $516,000 for pedestrian and bicycle improvements each year. In its first year of construction, the project and expenditures on all pedestrian and bicycle improvements funded by the bond totaled $739,000 which exceeds the average allocation. Pedestrian and bicycle improvements planned in the City over the next five years prompted front loading projects in the early bond years to accommodate large projects funded from other sources scheduled for the later years of the bond. Future year allocations of bond-funded improvements will be adjusted to maintain an annual average of $516,000.

# *2014 Bond Construction Projects*

The following pages are reports on individual projects. The total costs for each project listed are estimated as not all of the 2014 construction-related costs have been finalized as of January 1, 2015.


Portland cement concrete overlay paving on Coburg Road
between the viaduct and Ferry Street Bridge

## 1st Avenue, Madison Street, Monroe Street

**Project Description:** This project consisted of rehabilitation of three streets in downtown Eugene:

- 1st Avenue from Van Buren Street to Washington Street
- Madison Street from 1st Avenue to 8th Avenue
- Monroe Street from 1st Avenue to Blair Boulevard

This project also included pedestrian and bicycle improvements that were funded by the pedestrian and bicycle component of the bond, such as a rectangular rapid flashing beacon and median island at 1st and Monroe, restriping 1st Avenue to include a buffered bike lane on the south side of the street and adding bicycle shared lane markings to Monroe.

**Treatment Methodology:**

- First Avenue was rehabilitated by removing the top three inches of existing pavement and strengthening it by repaving with four inches of asphalt pavement. The additional one inch of pavement strengthening added to the overall project cost.
- Madison Street was severely deteriorated and required full depth reconstruction.
- Monroe Street was primarily a Portland cement concrete street and was able to be rehabilitated by targeted reconstruction and replacement of the failed concrete panels.

**Costs:** Total project costs, from all funding sources, are estimated at $2,367,000.

| | |
|---|---|
| Preliminary Estimate based on Pavement Management System (PMS) Surface Evaluation | $2,059,000 |
| Total Projected/Actual Paving Bond Funds Used = | $2,201,000 |
| Difference = | $(142,000) |

Bond funds used for pedestrian and bicycle improvements used on this project are estimated at $74,000.

**Additional Sources of Funding:** Stormwater and wastewater utility funds paid for minor utility work. A short section of Van Buren Street was also repaved as part of this project using local gas taxes. Transportation System Development Charges (SDC) paid for some short sections of sidewalk.

**Project Photos:**

1st Avenue post-project

Madison Street post-project

Monroe Street post-project

## 13th Avenue from Garfield Street to Washington Street

**Project Description:** This project consisted of rehabilitation and reconstruction of 13th Avenue from Garfield Street to Washington Street in downtown Eugene. This project also included pedestrian and bicycle improvements that were funded by the pedestrian and bicycle component of the bond, such new bike lane and buffered bike lane on the south side of the street and audible pedestrian signals.

One of the challenges on this project was working around the Lane County Fair. 13th Avenue runs along the frontage of the county fairgrounds, which frequently hosts activities during the summer, including the Lane County Fair in mid-July. Because of the magnitude of this project, it wasn't feasible to entirely complete the project before or after the Fair, so the project was conducted in two phases. The first phase was between Chambers and Washington and was completed prior to the Fair in July. The second phase from Garfield to Chambers was started and completed after the Fair.

**Treatment Methodology:** The pavement design report recommended a combination of rehabilitation and full or partial-depth reconstruction. The final design consisted of full depth reconstruction where transit loading occurs and inlay/overlay asphalt pavement rehabilitation in the sections that did not need to be reconstructed.

**Costs:** Total project costs, from all funding sources, are estimated at $2,173,000.

| | |
|---|---|
| Preliminary Estimate based on Pavement Management System (PMS) Surface Evaluation = | $2,392,000 |
| Total Projected/Actual Paving Bond Funds Used = | $2,071,000 |
| Difference = | $ 321,000 |

Bond funds used for pedestrian and bicycle improvements on this project totaled $25,000.

**Additional Sources of Funding:** Stormwater and wastewater utility funds paid for minor utility work. Transportation System Development Charges (SDC) funds paid for traffic signal upgrades.

**Project Photos:**

13th Avenue pre-construction

13th Avenue post-construction

## 13th Avenue and Interior Street

**Project Description:** This project consisted of rehabilitation of two streets in west Eugene:

- 13th Avenue from Commerce Street to Bertelsen Road
- Interior Street

**Treatment Methodology:** The pavement testing and design indicated an inlay rehabilitation treatment by removing the top layer of existing asphalt pavement and repaving the street. During construction, the subgrade soils were not able to support the construction activities and significant portions of the project required full depth reconstruction.

**Costs:** Total project costs, from all funding sources, are estimated at $392,000.

| | |
|---|---|
| Preliminary Estimate based on Pavement Management System (PMS) Surface Evaluation = | $488,000 |
| Total Projected/Actual Paving Bond Funds Used = | $391,000 |
| Difference = | $ 97,000 |

**Additional Sources of Funding:** Stormwater and wastewater utility funds were used for minor system repairs.

**Project Photos:**

Intersection of 13th and Interior pre-construction

13th Avenue post-construction

## 43rd Avenue, North Shasta Loop and Firland Boulevard

**Project Description:** This project consisted of rehabilitation and reconstruction of three streets in southeast Eugene:

- 43rd Avenue from Dillard to North Shasta Loop
- North Shasta Loop from 43rd Avenue to Firland Blvd
- Firland Blvd from North Shasta Loop to Spring Blvd

**Treatment Methodology:** Based on the surface condition, the preliminary analysis estimated that most of these roadways would be able to be rehabilitated with an inlay/overlay treatment with small sections of full depth reconstruction.

After testing the existing pavement, street base and subgrade soils for these streets, it was determined that there was no salvageable pavement on 60% of the project to rehabilitate. Approximately 27% of the project length required full depth reconstruction; and 33% of the project required full depth removal of the existing pavement. Only about 40% of the project met the conditions for an inlay/overlay.

- 43rd Avenue required partial depth reconstruction which is the full depth removal and replacement of the existing pavement surface.
- On North Shasta Loop, approximately 60% of the street length was able to be rehabilitated with a 3" thick overlay; 15% of the street length required partial depth reconstruction; and the remaining 25% of the street length required full depth reconstruction.
- Firland Blvd required full depth reconstruction.

In order to reduce project costs, in-place reclamation was used to salvage some of the existing material in lieu of traditional full depth reconstruction.

**Costs:** Total project costs, from all funding sources, are estimated at $1,326,000.

| | |
|---|---|
| Preliminary Estimate based on Pavement Management System (PMS) Surface Evaluation | $ 701,000 |
| Total Projected/Actual Paving Bond Funds Used = | $1,319,000 |
| Difference = | $(618,000) |

Most of this project needed partial or full depth reconstruction, resulting in significant cost increase from the Pavement Management System estimate.

**Additional Sources of Funding:** Stormwater and wastewater utility funds paid for minor utility work. This project also included rehabilitation of Dillard Road from East Amazon Drive to 43rd Avenue funded by the local gas tax.

**Project Photos:**

43rd Avenue post-project

Firland Boulevard post-project

North Shasta Loop post-project

## Broadway and Coburg Road

**Project Description:** This project included the rehabilitation of Broadway from Mill Street to Pearl Street and the repaving of Coburg Road between the viaduct and Ferry Street Bridge.

**Treatment Methodology:** The Broadway rehabilitation consisted of a cold plane removal of the top layer of asphalt pavement followed by a pavement inlay.

Prior to the rehabilitation, Coburg Road had a short asphalt pavement section between the concrete surface of the viaduct and the concrete surface of the Ferry Street Bridge that was deteriorating under the heavy arterial traffic. The existing asphalt pavement surface was removed to a depth of 6 inches and the roadway was repaved with a reinforced concrete surface. While more expensive, this new surfacing will be easier to maintain as it will have the same maintenance requirements as the bridge and viaduct surface. The concrete surface will also be able to better handle the heavy truck and bus traffic that travels on this section; requiring less maintenance which is challenging under these traffic conditions.

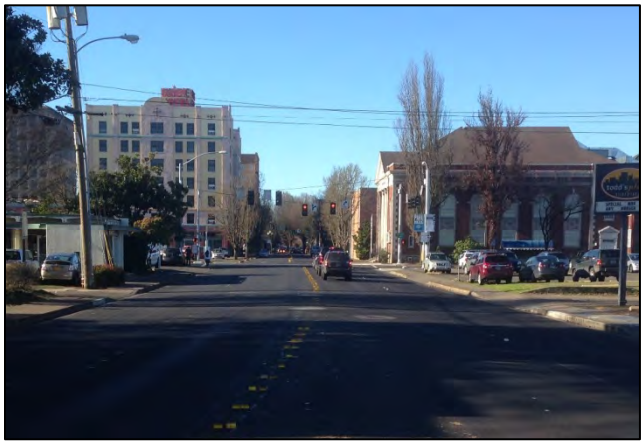
**Costs:** Total project costs, from all funding sources, are estimated at $903,000.

| | |
|---|---|
| Preliminary Estimate based on Pavement Management System (PMS) Surface Evaluation | $ 372,000 |
| Total Projected/Actual Paving Bond Funds Used = | $ 757,000 |
| Difference = | $(385,000) |

As noted above, the concrete surface on Coburg Road was significantly more expensive than asphalt pavement inlay, but is intended to have lower life cycle costs.

**Additional Sources of Funding:** Stormwater and wastewater utility funds and Transportation SDCs for traffic signal upgrades.

**Project Photos:**



Broadway post-construction

Coburg Road post-construction

## Goodpasture Loop

**Project Description:** This project consisted of the rehabilitation of Goodpasture Loop on the north side of Goodpasture Island Road.

**Treatment Methodology:** Surface condition and pavement testing indicated this pavement needed to be rehabilitated by cold plane removal of the top layer of asphalt pavement and inlay paving; full depth asphalt pavement removal and repaving was necessary on the east end of the project subject to heavier traffic.

**Costs:** Total project costs, from all funding sources, are estimated at $982,000.

| | |
|---|---|
| Preliminary Estimate based on Pavement Management System (PMS) Surface Evaluation = | $1,103,000 |
| Total Projected/Actual Bond Funds Used = | $ 943,000 |
| Difference = | $ 160,000 |

Bond funds used for pedestrian signal improvements on this project totaled $29,000.

**Additional Sources of Funding:** Stormwater and wastewater utility funds.

**Project Photo:**

Goodpasture Loop post-construction

## 2014 Pedestrian and Bicycle Improvement Projects

**Project Description:** In addition to the pedestrian and bicycle improvements incorporated into the paving projects described above, there were constructed pedestrian and bicycle improvements at five locations for $428,000:

- Construction of bicycle and pedestrian improvements between the north side of the Lane County Fairgrounds and the Fern Ridge Path.
- Installation of sidewalk ramps, median and rectangular rapid flashing beacon on Green Acres Road east of Applewood Lane.
- Installation of a sidewalk access ramp on Hilyard Street at 28th Avenue at the Amazon Community Center.
- Installation of sidewalk access ramp on Amazon Parkway at 24th Place.
- Installation of sidewalk access ramps and pedestrian hybrid signal on 30th Avenue at University Street.

One item of note is the pedestrian hybrid beacon (shown in the photo below). These types of signals are also known as High Intensity Activated Crosswalk beacons, or “HAWK” signals. These types of signals were first installed in the US in 2000, but this is the first installation in Eugene. The Federal Highway Administration reports that after a HAWK signal is installed, vehicle/pedestrian crashes can be expected to be reduced by 69% and all crashes by 29%.

Bond funds also paid $93,000 for pedestrian signal improvements and sidewalk infill on Roosevelt Boulevard between Terry and Danebo streets, completing the connection from the Roosevelt Path to the Fern Ridge Path. Bond funds of $90,000 were also used for sidewalk infill at Acorn Park completing the sidewalk network from 11$^{th}$ Avenue to Acorn Park.

**Pedestrian and Bicycle Improvements Funded in 2014:** The 2012 bond measure allocated an average of $516,000 for pedestrian and bicycle improvements each year. In its first year of construction, this project and expenditures on all pedestrian and bicycle improvements funded by the bond totaled $739,000 which exceeds the average allocation.

**Project Photo:**

Pedestrian Hybrid Beacon on 30th Avenue

# 5-Year Street Bond Project List - Costs and Forecast

| Project Map # | Street name | From | To | Ward(s) | Proposed Treatment | Programmed Cost (2012) plus inflation | Actual Cost | Difference |
|---|---|---|---|---|---|---|---|---|
| **Construction Year 2014** | | | | | | | | |
| 1 | 1st Avenue | Washington St | Van Buren St | 7 | Overlay | $ 544,000 | | |
| 55 | Madison Street | 1st Ave | 8th Ave | 1, 7 | Reconstruction | $ 969,000 | $ 2,201,000 | $ (142,000) |
| 58 | Monroe Street | 1st Ave | Blair Blvd | 1, 7 | PCC panel replacement | $ 546,000 | | |
| 8 | 13th Avenue | Washington St | Garfield St | 1 | Reconstruction/Overlay | $ 2,392,000 | $ 2,071,000 | $ 321,000 |
| 9 | 13th Avenue | Bertelsen Rd | Commerce St | 8 | Reconstruction/Overlay | $ 169,000 | | |
| 44 | Interior Street | north end | south end | 8 | Reconstruction/Overlay | $ 319,000 | $ 391,000 | $ 97,000 |
| 21 | 43rd Avenue | North Shasta Lp | Dillard Rd | 2 | Pavement Removal and Replacement | $ 165,000 | | |
| 40 | Firland Blvd | Spring Blvd | Agate St | 2 | Reconstruction | $ 97,000 | $ 1,319,000 | $ (618,000) |
| 59 | North Shasta Loop | Firland Blvd | North Shasta Lp | 2 | Reconstruction/Overlay | $ 439,000 | | |
| 25 | Broadway | Mill St | Pearl St | 1, 3 | Overlay | $ 184,000 | | |
| 33 | Coburg Road | south end of Ferry Street Bridge | north end of viaduct | 3, 7 | Pavement Removal and Replacement | $ 188,000 | $ 757,000 | $ (385,000) |
| 43 | Goodpasture Loop | Goodpasture Island Road | | 5 | Overlay | $ 1,103,000 | $ 943,000 | $ 160,000 |
| | | | | | **Construction Year 2014 Totals =** | **$ 7,115,000** | **$ 7,682,000** | **$ (567,000)** |
| **Construction Year 2015** | | | | | | | | |
| 10 | 15th Avenue | Fairmount Blvd | Agate St | 3 | Reconstruct | $ 1,020,000 | | $ - |
| 11 | 17th Avenue | Fairmount Blvd | Agate St | 3 | Reconstruct | $ 653,000 | | $ - |
| 12 | 19th Avenue | Fillmore St | Chambers St | 1 | Pavement Rem/Overlay | $ 85,000 | | $ - |
| 13 | 22nd Avenue | Friendly St | Polk St | 1 | Pavement Rem/Overlay | $ 181,000 | | $ - |
| 14 | 25th Avenue | Hawkins Ln | Brittany St | 8 | Overlay | $ 231,000 | | $ - |
| 19 | 39th Avenue | Willamette St | 100' East of Densmore | 2 | Overlay | $ 215,000 | | $ - |
| 20 | 40th Avenue | Hilyard St | Donald St | 2 | Overlay | $ 169,000 | | $ - |
| 22 | Avalon Street | Echo Hollow Rd | Juhl St | 6 | Reconstruct | $ 298,000 | | $ - |
| 24 | Brae Burn Drive | 39th Ave | Willamette St | 2 | Overlay | $ 515,000 | | $ - |
| 30 | Cascade Drive | Avalon St | Juhl St | 6 | Reconstruct | $ 170,000 | | $ - |
| 32 | City View Street | 28th Ave | 29th Ave | 8 | Reconstruct | $ 278,000 | | $ - |
| 37 | Elizabeth Street | Knoop Ave | Royal Ave | 6 | Overlay | $ 120,000 | | $ - |
| 39 | Fillmore Street | 19th Ave | 24th Ave | 1 | Pavement Rem/Overlay | $ 597,000 | | $ - |
| 48 | Juhl Street | north side of address 1424 | south end | 6 | Reconstruct | $ 160,000 | | $ - |
| 49 | Knoop Avenue | Echo Hollow Rd | Elizabeth St | 6 | Overlay | $ 78,000 | | $ - |
| 56 | Mahlon Avenue | Garden Way | Honeysuckle Ln | 4 | Pavement Rem/Overlay | $ 232,000 | | $ - |
| 67 | Timberline Drive | Warren St | Wintercreek Dr | 8 | Reconstruction/Overlay | $ 426,000 | | $ - |
| | | | | | **Construction Year 2015 Totals =** | **$ 5,428,000** | **$ -** | **$ -** |
| **Construction Year 2016** | | | | | | | | |
| 4 | 5th Avenue | Bertelsen Rd | west end | 8 | Reconstruct | $ 664,000 | | $ - |
| 5 | 6th Avenue | Bertelsen Rd | Commercial St | 8 | Overlay | $ 166,000 | | $ - |
| 6 | 7th Avenue | Bertelsen Rd | Oscar St | 8 | Reconstruct | $ 863,000 | | $ - |
| 15 | 27th Avenue | Columbia St | south end | 3 | Overlay | $ 117,000 | | $ - |
| 28 | Capital Drive | Spring Blvd | 50' north of Crest De Ruta | 3 | Reconstruct | $ 418,000 | | $ - |
| 31 | Centennial Loop | MLK Jr Blvd | | 4 | Reconstruct | $ 678,000 | | $ - |
| 34 | Commercial Street | 5th Ave | south end | 8 | Overlay | $ 230,000 | | $ - |
| 38 | Fairfield Avenue | Hwy 99 | Royal Ave | 7 | Reconstruct | $ 701,000 | | $ - |
| 46 | Jacobs Drive | Hwy 99 | Fairfield Ave | 6, 7 | Reconstruct | $ 840,000 | | $ - |
| 53 | Lincoln Street | 5th Ave | 13th Ave | 7 | Overlay | $ 392,000 | | $ - |
| 62 | Potter Street | 24th Ave | 29th Ave | 3 | Reconstruct | $ 847,000 | | $ - |
| 66 | Spring Boulevard | Fairmount Blvd | Capital Dr | 3 | Overlay | $ 150,000 | | $ - |
| 70 | Van Ness Street | 23rd Ave | 27th Ave | 3 | Overlay | $ 134,000 | | $ - |
| 71 | Washington Street | 8th Ave | 13th Ave | 1 | Reconstruct | $ 751,000 | | $ - |
| 75 | Willamette Street | 10th Ave | 13th Ave | 1 | Reconstruct | $ 613,000 | | $ - |
| | | | | | **Construction Year 2016 Totals =** | **$ 7,564,000** | ***$ -*** | ***$ -*** |
| **Construction Year 2017** | | | | | | | | |
| 2 | 1st Avenue | west end | Blair Blvd | 7 | Reconstruct | $ 548,000 | | $ - |
| 3 | 2nd Avenue | Garfield St | Blair Blvd | 7 | Reconstruct | $ 1,255,000 | | $ - |
| 16 | 30th Avenue | Spring Blvd overpass | Agate St | 2, 3 | Reconstruct | $ 2,871,000 | | $ - |
| 23 | Best Lane | Willakenzie Rd | Kentwood Dr | 4 | Overlay | $ 157,000 | | $ - |
| 27 | Calvin Street | Western Dr | Harlow Rd | 4 | Reconstruct | $ 273,000 | | $ - |

## 5-Year Street Bond Project List - Costs and Forecast

| Project Map # | Street name | From | To | Ward(s) | Proposed Treatment | Programmed Cost (2012) plus inflation | Actual Cost | Difference |
|---|---|---|---|---|---|---|---|---|
| 36 | East Amazon Drive | Hilyard St | Dillard Rd | 2 | Reconstruct | $ 1,322,000 | | $ - |
| 42 | Garfield Street | Roosevelt Blvd | 6th Ave | 7 | Reconstruct | $ 1,891,000 | | $ - |
| 45 | Ione Avenue | Best Ln | Adkins St | 4 | Overlay | $ 77,000 | | $ - |
| 47 | Jefferson Street | 8th Ave | 18th Ave | 1 | Reconstruct | $ 1,237,000 | | $ - |
| 52 | Leigh Street | Western Dr | north end | 4 | Reconstruct | $ 184,000 | | $ - |
| 54 | Lydick Way | Tomahawk Ln | Harlow Rd | 4 | Overlay | $ 87,000 | | $ - |
| 60 | Pioneer Court | Pioneer Pike | north end | 4 | Reconstruct | $ 112,000 | | $ - |
| 64 | Satre Street | Bailey Ln | Western Dr | 4 | Overlay | $ 714,000 | | $ - |
| 68 | Tomahawk Lane | Harlow Rd | 580' north of Harlow | 4 | Overlay | $ 92,000 | | $ - |
| 73 | Western Drive | Calvin St | west end | 4 | Reconstruct | $ 454,000 | | $ - |
| | | | | | **Construction Year 2017 Totals =** | **$ 11,274,000** | ***$ -*** | ***$ -*** |
| **Construction Year 2018** | | | | | | | | |
| 7 | 7th Place | Hwy 99 (7th Ave) | Bailey Hill Rd | 1, 7, 8 | Reconstruct | $ 3,417,000 | | $ - |
| 17/18 | 30th Avenue | Willamette Street | Ferry Street | 2 | Reconstruct | $ 437,000 | | $ - |
| 26 | Buff Way | Woodside Dr | Forrester Wy | 4 | Reconstruct | $ 179,000 | | $ - |
| 29 | Carmel Avenue | Minda Dr | 400' south | 5 | Reconstruct | $ 132,000 | | $ - |
| 35 | Corydon Street | Forrester Wy | Tandy Turn | 4 | Reconstruct | $ 41,000 | | $ - |
| 41 | Forrester Way | Coburg Rd | west side of driveway 1033 | 4 | Reconstruct | $ 248,000 | | $ - |
| 50 | Larkspur Avenue | Norkenzie Rd | 604' west | 5 | Reconstruct | $ 211,000 | | $ - |
| 51 | Larkspur Loop | Norkenzie Rd | | 5 | Reconstruct | $ 171,000 | | $ - |
| 57 | Mill Street | 30th Avenue | | 2 | Reconstruct | $ 49,000 | | $ - |
| 61 | Piper Lane | Chasa St | Fir Acres Dr | 5 | Reconstruct | $ 196,000 | | $ - |
| 63 | Roland Way | Oakway Rd | Cal Young Rd | 5 | Reconstruct | $ 216,000 | | $ - |
| 65 | Sharon Way | Coburg Rd | east side of driveway 1023 | 4 | Reconstruct | $ 376,000 | | $ - |
| 69 | Tulip Street | Crescent Ave | Holly Ave | 5 | Reconstruct | $ 118,000 | | $ - |
| 72 | West Amazon Drive | Hilyard St | Fox Hollow Rd | 2 | Reconstruct | $ 1,463,000 | | $ - |
| 74 | Willamette Street | 24th Ave | 29th Ave | 1, 2 | Reconstruct | $ 1,232,000 | | $ - |
| 76 | Woodside Drive | Cal Young Rd | Sharon Wy | 4 | Reconstruct | $ 423,000 | | $ - |
| | | | | | **Construction Year 2018 Totals =** | **$ 8,909,000** | **$ -** | **$ -** |
| | | | | | **Total Programmed Costs =** | ***$ 40,290,000*** | ***$ 7,682,000*** | ***$ 32,608,000*** |

## Pedestrian and Bicycle Improvements Project List

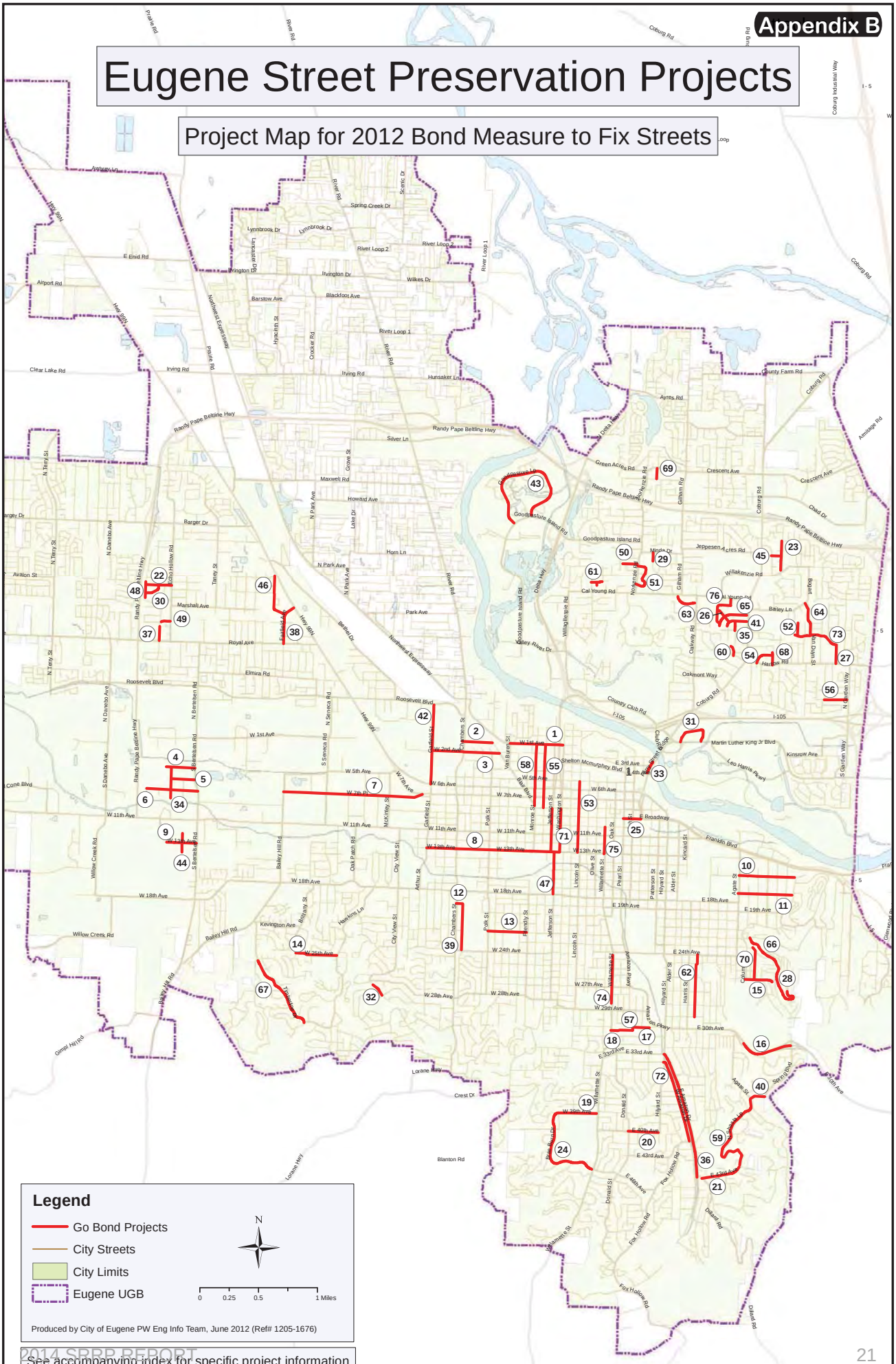
| Projects | | | Average Annual Allocation $516,000 | *Projected /* Actual Cost | Difference |
|---|---|---|---|---|---|
| **Construction Year 2014** | | | | | |
| 2014 Pedestrian & Bicycle Repairs | | | | $ 428,000 | |
| Acorn Park Sidewalks | | | | $ 90,000 | |
| 1st, Madison, Monroe | | | | $ 74,000 | |
| 13th Avenue (Washington to Garfield) | | | | $ 25,000 | |
| Goodpasture Island Loop Pedestrian Signals | | | | $ 29,000 | |
| Roosevelt Blvd Pedestrian Signals and Sidewalk Infill | | | | $ 93,000 | |
| | | | **Construction Year 2014 Pedestrian & Bicycle Repairs Total =** | $ 739,000 | **$ (223,000)** |
| **Construction Years 2015 - 2018** | | | $ 1,841,000 | | |
| | | | **Total Pedestrian and Bicycle Improvement Project Costs =** | **$ 2,580,000** | **$ 739,000** | **$ 1,841,000** |

***Summary of Bond Costs***

| | |
|---|---|
| **Total Street Projects in 2012 Dollars with inflation =** | **$ 40,290,000** |
| **Total Pedestrian & Bicyclist Improvements =** | **$ 2,580,000** |
| **Bond Issuance Costs =** | **$ 130,000** |
| **Total Bond Costs =** | **$ 43,000,000** |

# Eugene Street Preservation Projects

## Project Map for 2012 Bond Measure to Fix Streets




See accompanying index for specific project information

# Project List for 2012 Bond Measure to Fix Streets

| Map # | Street Name | Limits |
|---|---|---|
| 1 | 01ST AVE | WASHINGTON ST - VAN BUREN ST |
| 2 | 01ST AVE | BLAIR BLVD - WEST END |
| 3 | 02ND AVE | BLAIR BLVD - GARFIELD ST |
| 4 | 05TH AVE | BERTELSEN RD - WEST END |
| 5 | 06TH AVE | BERTELSEN RD - COMMERCIAL ST |
| 6 | 07TH AVE | BERTELSEN RD - OSCAR ST |
| 7 | 07TH PL | 7TH AVE/HWY 99 - BAILEY HILL RD |
| 8 | 13TH AVE | WASHINGTON ST - GARFIELD ST |
| 9 | 13TH AVE | BERTELSEN RD - COMMERCE ST |
| 10 | 15TH AVE | FAIRMOUNT BLVD - AGATE ST |
| 11 | 17TH AVE | FAIRMOUNT BLVD - AGATE ST |
| 12 | 19TH AVE | FILLMORE ST - CHAMBERS ST |
| 13 | 22ND AVE | FRIENDLY ST - POLK ST |
| 14 | 25TH AVE | HAWKINS LN - BRITTANY ST |
| 15 | 27TH AVE | COLUMBIA ST - SPRING BLVD |
| 16 | 30TH AVE | SPRING OVERPASS - AGATE ST |
| 17 | 30TH AVE | MILL ST (WEST) - FERRY ST (EAST) |
| 18 | 30TH AVE | MILL ST - WILLAMETTE ST |
| 19 | 39TH AVE | WILLAMETTE ST - 100' EAST OF DENSMORE RD |
| 20 | 40TH AVE | HILYARD ST - DONALD ST |
| 21 | 43RD AVE | N SHASTA - DILLARD RD |
| 22 | AVALON ST | ECHO HOLLOW RD - JUHL ST |
| 23 | BEST LN | WILLAKENZIE RD - KENTWOOD DR |
| 24 | BRAE BURN DR | 39TH AVE - WILLAMETTE ST |
| 25 | BROADWAY | MILL ST - PEARL ST |
| 26 | BUFF WAY | WOODSIDE DR - FORRESTER WAY |
| 27 | CALVIN ST | WESTERN DR - HARLOW RD |
| 28 | CAPITAL DR | SPRING BLVD - 50' N OF CRESTA DE RUTA ST |
| 29 | CARMEL AVE | MINDA DR - 400' SOUTH OF MINDA DR |
| 30 | CASCADE DR | AVALON ST - JUHL ST |
| 31 | CENTENNIAL LP | MLK, JR BLVD (EAST) - MLK, JR BLVD/CLUB RD |
| 32 | CITY VIEW ST | 28TH AVE - 29TH AVE |
| 33 | COBURG RD | SS FERRY ST BRIDGE - 50' S OF EWEB ON/OFF RAMP |
| 34 | COMMERCIAL ST | 5TH AVE - SOUTH END |
| 35 | CORYDON ST | FORRESTER WAY - TANDY TURN |
| 36 | EAST AMAZON DR | HILYARD ST - DILLARD RD |
| 37 | ELIZABETH ST | KNOOP AVE - ROYAL AVE |
| 38 | FAIRFIELD AVE | WS HWY 99 - ROYAL AVE |
| 39 | FILLMORE ST | 19TH AVE - 24TH AVE |
| 40 | FIRLAND BLVD | SPRING BLVD - AGATE ST |
| 41 | FORRESTER WAY | COBURG RD - WS DRWY 1033 |
| 42 | GARFIELD ST | ROOSEVELT - 6TH AVE |
| 43 | GOODPASTURE LOOP | GOODPASTURE IS RD (EAST INTERSECTION) - GOODPASTURE IS RD (WEST INTERSECTION) |
| 44 | INTERIOR ST | NORTH END OF CUL DE SAC - SOUTH END OF IMPROVED SECTION |

| Map # | Street Name | Limits |
|---|---|---|
| 45 | IONE AVE | BEST LN - ADKINS ST |
| 46 | JACOBS DR | HWY 99N - FAIRFIELD AVE |
| 47 | JEFFERSON ST | 8TH AVE - 18TH AVE |
| 48 | JUHL ST | NS ADDR 1424 - SOUTH END |
| 49 | KNOOP AVE | ECHO HOLLOW RD - ELIZABETH ST |
| 50 | LARKSPUR AVE | NORKENZIE RD - 640 FEET WEST OF NORKENZIE RD |
| 51 | LARKSPUR LOOP | NORKENZIE RD (N) - NORKENZIE RD (S) |
| 52 | LEIGH ST | NORTH END - WESTERN DR |
| 53 | LINCOLN ST | 5TH AVE - 13TH AVE |
| 54 | LYDICK WAY | TOMAHAWK LN - HARLOW RD |
| 55 | MADISON ST | 1ST AVE - 8TH AVE |
| 56 | MAHLON AVE | GARDEN WAY - HONEYSUCKLE LN |
| 57 | MILL ST | 30TH AVE (NORTH) - 30TH AVE (SOUTH) |
| 58 | MONROE ST | 1ST AVE - BLAIR BLVD |
| 59 | NORTH SHASTA LOOP | FIRLAND - 43RD AVE |
| 60 | PIONEER CT | PIONEER PIKE - NORTH END |
| 61 | PIPER LN | CHASA ST - FIR ACRES DR (INCL CUL-DE-SAC) |
| 62 | POTTER ST | 24TH AVE - 29TH AVE |
| 63 | ROLAND WAY | OAKWAY RD - CAL YOUNG RD |
| 64 | SATRE ST | BAILEY LN - WESTERN DR |
| 65 | SHARON WAY | COBURG RD - ES DRWY 1023 |
| 66 | SPRING BLVD | FAIRMOUNT BLVD - CAPITAL DR |
| 67 | TIMBERLINE DR | WARREN ST - WINTERCREEK DR |
| 68 | TOMAHAWK LN | HARLOW RD - 580' NORTH OF HARLOW RD |
| 69 | TULIP ST | CRESCENT AVE - HOLLY AVE |
| 70 | VAN NESS ST | 23RD AVE - 27TH AVE |
| 71 | WASHINGTON ST | 8TH AVE - 13TH AVE |
| 72 | WEST AMAZON DR | ES HILYARD - SS FOX HOLLOW |
| 73 | WESTERN DR | CALVIN ST - WEST END/MONROE MIDDLE SCHOOL |
| 74 | WILLAMETTE ST | 24TH AVE - 29TH AVE |
| 75 | WILLAMETTE ST | 10TH AVE - 13TH AVE |
| 76 | WOODSIDE DR | CAL YOUNG RD - SHARON WAY |

# INDEPENDENT ACCOUNTANT'S REPORT ON APPLYING AGREED-UPON PROCEDURES

To Jon Ruiz, City Manager
City of Eugene
Eugene, Oregon

We have performed the procedures enumerated below, which were agreed to by the City of Eugene ("City"), solely to assist you in connection with the determination of whether the expenditure of the 2012 general obligation bond funds approved for issuance through voter's approval of Ballot Measure 20-197 were expended in accordance with the purposes and limitations outlined in City Council Resolution No. 5063; namely that such expenditures were: a) used only for costs related to street preservation projects, fund bicycle and pedestrian projects and payment of bond issuance costs and not to expand the motor vehicle capacity of the street system; and, b) limited to projects included in Exhibit A to the Resolution unless upon completion of all of the projects listed in Exhibit A the Council adds other street preservation projects to the list in order to utilize unspent bond proceeds. Management is responsible for the accounting records pertaining to the use of the bond proceeds. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of those parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

All procedures were performed for expenditures incurred from inception (beginning Feb 2013) through December 31, 2014. All procedures we performed were limited to documentation and information supplied to us by the City, as follows:

- An Excel spreadsheet detailing all payments made, charges allocated and/or invoices received by the City for expenditures related to the use of the bond proceeds
- Copies of Resolution No. 5063 and Ballot Measure 20-197
- Copies of bids and contracts issued by the City for any projects to be completed using the bond proceeds
- Copies of supporting documentation including, but not limited to, invoices, cancelled checks, payroll records, certifications of payments and bank statements; and
- Copies of the City's general ledger detail for the bond fund accounts, as needed

The procedures we performed and the associated findings are as follows:

(1) *Expenditure testing*. From inception (beginning Feb 2013) through December 31, 2014, total expenditures for the projects funded by the 2012 bond proceeds were $8,445,638 per the City's general ledger. We tested $5,717,963, or 68%, of those expenditures. All tested expenditures were supported by appropriate documentation such as invoices from vendors, certifications of payment, payroll records, signed contracts, and photographs of the work in progress. All tested expenditures were recorded in the proper account, fund and period and were spent on street projects included in Exhibit A of City Council Resolution No. 5063 or other street preservation projects approved by City Council, as permitted under Resolution 5063. No exceptions were noted.

(2) We reviewed bids and contracts related to 3 of 20 new construction projects between inception to December 31, 2014. The bidding and contracting process for the three projects complied with the City's procurement policies and procedures.

(3) We recalculated the amount of unspent bond proceeds and compared that amount to the actual amount of bond proceeds remaining. The following is a summary of the 2012 bond proceeds and project expenditures from inception of the Street Bond project to December 31, 2014:

| | From Issuance to 12/31/2014 |
|---|---|
| Bond proceeds | $ 8,500,000 |
| Project expenditues | 8,445,638 |

As of December 31, 2014, the City had $3,500,000 outstanding on the line of credit facility. From inception (beginning Feb 2013) through December 31, 2014, the City received $8,500,000 in bond proceeds and was charged interest of $21,425; the City repaid $5,021,425 during the same period. At December 31, 2014, the City had $34,500,000 in authorized borrowing remaining on the bonds ($43,000,000 authorized less $8,500,000 in proceeds received to date).

Based on our limited testing, we noted that the City followed the purpose and limitation of the City Council Resolution 5063.

We were not engaged to and did not conduct an audit, the objective of which would be the expression of an opinion on the financial records. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the City Manager of the City of Eugene, and is not intended to be and should not be used by anyone other than this specified party.

**Isler CPA**

Isler CPA

Eugene, Oregon
January 26, 2015

# INDEPENDENT ACCOUNTANT'S REPORT ON APPLYING AGREED-UPON PROCEDURES

To Jon Ruiz, City Manager
City of Eugene
Eugene, Oregon

We have performed the procedures enumerated below, which were agreed to by the City of Eugene ("City"), solely to assist you in connection with the determination of whether the expenditure of the 2008 general obligation bond funds approved for issuance through voter's approval of Ballot Measure 20-145 were expended in accordance with the purposes and limitations outlined in City Council Resolution No. 4953; namely that such expenditures were: a) used only for costs related to street preservation projects, off-street bicycle and pedestrian path preservation projects and payment of bond issuance costs and not to expand the capacity of the street system; and, b) limited to projects included in Exhibit A to the Resolution unless upon completion of all of the projects listed in Exhibit A the Council adds other street preservation projects to the list in order to utilize unspent bond proceeds. Management is responsible for the accounting records pertaining to the use of the bond proceeds. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of those parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

All procedures were performed for expenditures incurred between December 1, 2013 and December 31, 2014. All procedures we performed were limited to documentation and information supplied to us by the City, as follows:

- An Excel spreadsheet detailing all payments made, charges allocated and/or invoices received by the City for expenditures related to the use of the bond proceeds
- Copies of Resolution No. 4953 and Ballot Measure 20-145
- Copies of bids and contracts issued by the City for any projects to be completed using the bond proceeds
- Copies of supporting documentation including, but not limited to, invoices, cancelled checks, payroll records, certifications of payments and bank statements; and
- Copies of the City's general ledger detail for the bond fund accounts, as needed

The procedures we performed and the associated findings are as follows:

(1) *Expenditure testing*. From December 1, 2013 through December 31, 2014, total expenditures for the projects funded by the 2008 bond proceeds were $1,089,512 per the City's general ledger detail. We tested $546,996, or 50%, of those expenditures. All tested expenditures were supported by appropriate documentation such as invoices from vendors, certifications of payment, payroll records, signed contracts, and photographs of the work in progress. All tested expenditures were recorded in the proper account, fund and period and were spent on street projects included in Exhibit A of City Council Resolution No. 4953 or other street preservation projects approved by City Council, as permitted under Resolution 4953. No exceptions were noted.

(2) There were no new construction contracts for the 2008 bond between December 1, 2013 and December 31, 2014. The 2008 bond was completed in 2014.

(3) We recalculated the amount of unspent bond proceeds and compared that amount to the actual amount of bond proceeds remaining. The following is a summary of the 2008 bond proceeds and project expenditures from inception of the Street Bond project to December 31, 2014:

| | From Issuance to 11/30/2010 | From 12/1/2010 to 11/30/2011 | From 12/1/2011 to 11/30/2012 | From 12/1/2012 to 11/30/2013 | From 12/1/2013 to 12/31/2014 | Total |
|---|---|---|---|---|---|---|
| Bond proceeds | $ 8,350,000 | $ 9,690,000 | $ 7,460,000 | $ 8,620,000 | $ 1,780,000 | $ 35,900,000 |
| Project expenditures | 8,419,985 | 9,631,111 | 7,492,730 | 9,390,483 | 1,089,512 | 36,023,821 |

As of December 31, 2014, the City had zero outstanding balance on the line of credit facility. The outstanding balance at December 1, 2013 was $4,000,000 and during the 13 months ended December 31, 2014 the City received $1,780,000 in proceeds and was charged interest of $15,892; the City repaid $5,795,892 during the same period. At December 31, 2014, the City had issued all of $35,900,000 authorized debt.

Based on our limited testing, we noted that the City followed the purpose and limitation of the City Council Resolution 4953.

We were not engaged to and did not conduct an audit, the objective of which would be the expression of an opinion on the financial records. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the City Manager of the City of Eugene, and is not intended to be and should not be used by anyone other than this specified party.

**Isler CPA**

Isler CPA

Eugene, Oregon
January 26, 2015

# Memorandum

Date: December 29, 2014

To: Street Repair Review Panel

From: Reed Dunbar, AICP, Associate Transportation Planner (Bicycle and Pedestrian Planner)

Subject: Selection of Bond Measure Projects for People to Walk and Bike

This memo identifies the process for determining street characteristics for people who walk and bike and how the Pavement Bond Measure (PBM) is used to enhance the environment for active transportation modes. In addition, resources to educate roadway users about pavement markings and other improvements installed during PBM projects are also provided.

**Pedestrian and Bicycle Master Plan (PBMP)**
In 2012, City Council accepted the PBMP as a resource for network improvements related to walking and bicycling. The document contains one overarching goal to double the percentage of people who walk and bike for regular transportation trips over the next twenty years. The document outlines strategies for funding, identifies policy and code updates, and proposes a future network of walking and bicycling facilities. A summary of the public process used to determine the projects and plan components are available at this website: www.eugene-or.gov/pedbikeplan

For pavement preservation projects city staff consult the PBMP to determine what, if any, changes should be explored during project planning. Pavement projects present an opportunity to implement some improvements, such as bike lane striping, because striping will be entirely replaced as part of the project. Crosswalks and other pavement markings are included opportunistically to respond to community concerns and take advantage of potentially lower pricing because it is spread out over a larger project.

In 2015, the PBMP will be assimilated into the city's Transportation System Plan (TSP). The TSP, currently in process, is the city's transportation policy document and long-term vision for transportation resources. Policies, project tables, and maps for improving the walking and bicycling environment will be included in TSP and adopted by City Council.

**Processes to Test the Master Plan**
Pavement projects are reviewed against the PBMP to determine if there are projects that could be built at the same time the pavement is replaced. City staff will evaluate the project to see if there is enough right-of-way, determine budget needs, and perform any traffic studies required to implement the proposed PBMP project. For example, the addition of the bike lane on W 13th Avenue in 2014 required a parking utilization study and traffic analysis because the bike lane would require the allocation of travel lanes and on-street parking to be changed. In this instance, a travel lane was removed between Garfield and Chambers, and a parking lane was removed from Chambers to Van Buren but due to congestion, the bike lane was ended at Jefferson (and not extended to the existing bike lane at Lincoln).

Cost is also a component of the decision to include projects proposed in the PBMP. For example, the PBMP identifies 39 miles of new sidewalks, but due to limitations of the pavement funding, a different funding source is generally required for implementation. Enhanced pedestrian crossings, such as islands or flashing beacons, are also expenses that require a separate funding source. Sometimes, the cost is too high or a funding source cannot be located which results in projects being set aside for development at a later date or removed from the PBMP altogether if they are determined to be infeasible.

All significant changes to the roadway undergo a public process. Generally speaking, there are at least two public meetings that occur when planning staff investigate a PBMP project. The first meeting is used to introduce the pavement preservation program and any projects identified in transportation plans. The meeting is also used to test some ideas and record additional improvements the public would like to see implemented as part of the pavement project. Subsequent meetings are used introduce alternatives (such as bike lanes or shared lane markings) and the city's recommendation for implementation. All meetings are publicly noticed and postcards are generally sent to adjacent or affected properties (owners and occupants) along the project corridor. Neighborhood associations are also involved in the meeting preparation and notification process.

Some of the decisions that result from the analysis and recommendation can be challenged by the public. For instance, the removal of parking can be challenged by affected parties through an appeal process. An appellant submits an appeal to the City Traffic Engineer and an Appeal's Hearing is held to determine if the procedures for parking removal were met. Similar processes exist to appeal other traffic decisions such as traffic diversion. Final installation of traffic improvements occur after the appeal decision has been made.

**Coordination with the Bicycle and Pedestrian Advisory Committee (BPAC)**

The 2012 Pavement Bond Measure includes the following language, "…Council determined that an annual average of $516,000 should be allocated over a period of five years to support bicycle and pedestrian projects guided by the Pedestrian and Bicycle Master Plan, City staff, and the Bicycle and Pedestrian Advisory Committee." Transportation Planning works with BPAC to develop a list of bicycle and pedestrian projects for review. The projects include additions to pavement projects and stand-alone improvements for people who walk and bike.

In 2014, there were some bicycle and pedestrian projects that occurred in tandem with a pavement project. An example is W 13th Avenue where a bike lane was added when the pavement was replaced and new striping was installed. There are also discretionary projects that occur throughout the city that are not related to a pavement project. In 2014, the 30th Avenue Pedestrian Red Light (www.eugene-or.gov/30thcrossing) is an example. This project was brought to the city by the Southeast Neighbors, 4j School District, and parents of Camas Ridge Elementary School students. Discretionary projects are generally small projects (less than $50,000) though it has become standard practice to include one "large" project like the 30th Avenue Pedestrian Red Light that cost about $150,000.

BPAC has developed a guiding philosophy document to identify the types of projects that are appropriate for the discretionary list. Prioritization criteria emphasize safety, comfort, and utility. There is also an effort to prioritize projects that can leverage another funding source, or that are unlikely to secure funding from another financial resource.

**Public Education**
Once a walking or bicycling project has been completed, there is a need to monitor compliance and functionality. Generally speaking, there are education, encouragement, and enforcement strategies that can be used to ensure the improvement performs as designed. Education is a primary focus when a street has been changed or a new device has been installed.

For the 30th Avenue Pedestrian Red Light, city staff worked with Camas Ridge Elementary to disseminate information about the device. Backpack flyers went home with students, a parent email blast was sent by the school principal, and on the day the device was switched on there was an in-class announcement to alert students that there had been a traffic change. City staff were available at school dismissal to educate students and parents about how the device functions and to hand out education pamphlets. Eugene Police Department was alerted to the device activation and monitored compliance during the first week. A media announcement was also distributed and it was picked up by two television stations and the Register Guard. The Register Guard made the improvement a front-page story on October 1st, 2014.

Pavement markings including shared lane markings, bike boxes, buffered bike lanes, and green bike lanes have education pamphlets printed for distribution at community events. There are also pamphlets for stutter flash beacons, bike traffic signals, and pedestrian red lights. Educational videos are also posted to the city's website: www.eugene-or.gov/trafficsafety to educate transportation users about each pavement marking or traffic control device.

In conclusion, the city has developed plans and processes for the development of walking and bicycling facilities. Each project is vetted by staff and the community to ensure an equitable transportation system is maintained to enable viable transportation choices for all city residents. The 2012 Pavement Bond Measure is helping to improve conditions for people who drive, take the bus, walk, and bicycle. It is also implementing complementary plans, such as Envision Eugene (20 Minute Neighborhoods) and the Climate and Energy Action Plan (Climate Recovery Ordinance) by reducing the reliance on private automobiles for people who want, or need, a variety of transportation options.

If you have any questions about transportation planning or transportation options programming, please contact me: reed.c.dunbar@ci.eugene.or.us, (541) 682-5727.