



# ENGINEERING

Monthly Report

June 2016

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## FROM THE DIRECTOR

June is a typically a busy construction month with road closures and detours commonplace. The City currently has six CIP projects with active construction sites. Some, like the Colorado Lift Station and Pump Main and the Southeast Interceptor, have multiple locations under construction simultaneously. To say the least, it can be difficult navigating around town during construction season.

In an effort to get the most up to date road information out to the public, the Engineering Department’s City Quest at the Fest project boards will highlight projects with road closures and detours. EIPD staff will be on hand to answer questions between 11 AM and 5 PM on Saturday, July 9<sup>th</sup>. The tent will be located on the located on the corner of Oregon and Irving. Please be sure to come visit us.

Next month marks the beginning of the new fiscal year and provides an opportunity to broaden the reporting and information included in the report. With the approval of the updated 2017-2021 CIP this report will contain new graphics and expanded information.

**Tom Hickmann PE**  
**EIPD Director**  
**541 317-3029**

**Financial Impact Review:** Review by Finance Director, Sharon Wojda, determined no significant change to previously published financial information at this time. Future budget adjustments may be needed for projects with significant changes in scope and schedule, but estimates are unknown at this time.

**Operational Impact Review:** Review by Utility Director, Paul Rheault, determined operational impacts are in line with achieving greater efficiency in our systems.

# Executive Summary

## CIP Numbers Snapshot

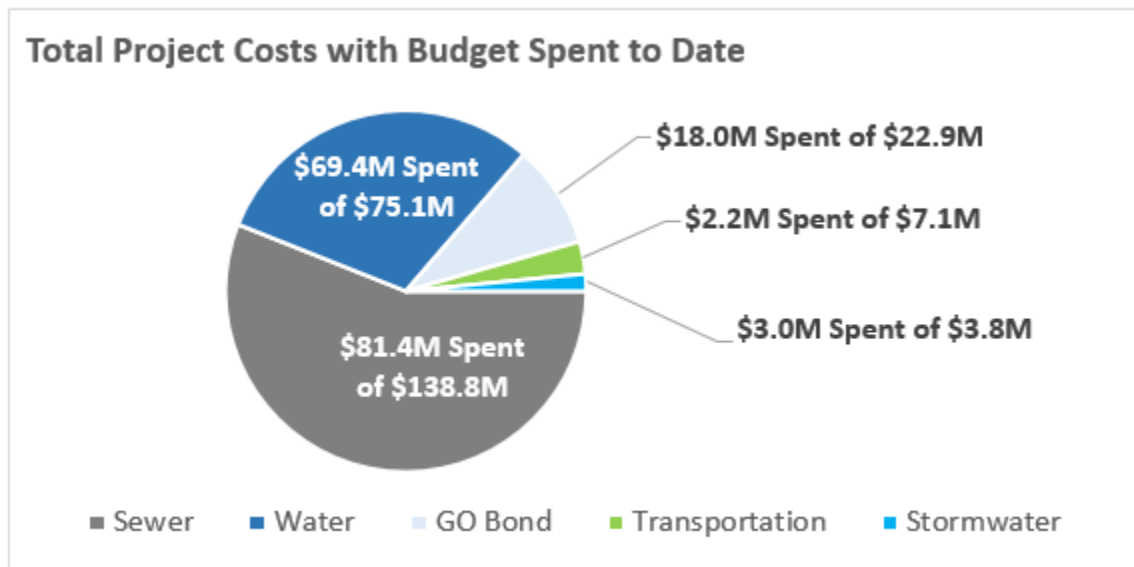
During the month of May no new projects were started and no projects were completed.

This is the final month that the Bridge Creek Intake and Pipeline and the Secondary Expansion will be detailed in the report.

The table below shows the status of projects in the current CIP Plan as of May 31, 2015.

Status	CIP	R&R
<b>Open (Active):</b> In planning, design or construction phase	21	1
<b>Substantially Complete (Active):</b> Asset transferred to Operations and City has beneficial use	7	0
<b>Closed (Not Active):</b> Completed 1-2 yr. warranty; Cancelled; Transferred project to Ops	8	3
<b>Pending (Not Active):</b> Scheduled to start within 5-Year CIP Plan	26	41
<b>Total</b>	<b>62</b>	<b>45</b>

The graph below shows the total value of the active projects in the 5-year CIP Plan and total budgets spent to date. Repair and Replacement projects are not included.



## EIPD Procurement Timeline



**City of Bend 2016 - 2020 Capital Improvement Program Project List**

Project Name & Number	Project Start	Estimated Substantial Completion	Project Stage	Cost Estimate Classification	Total Project Budgeted	Total Project Spent to Date	2015-16 Adopted Budget	2016-17 Adopted Budget	2017-18 Proposed Budget	2018-19 Proposed Budget	2019-20 Proposed Budget	Current 5-Year CIP Planned Budgets	Budget Revisions	Percent Budget Spent
<b>ADA Construction</b>														
AA11FA South 3rd Street Pedestrian Improvements	2011	3/31/17	Design	2	435,309	157,953	355,000	-	-	-	-	355,000		36%
AA14DA Summit Drive Curb Ramps	2015	10/9/15	Sub.Complete	1	910,000	900,320	393,000	-	-	-	-	393,000	1	99%
AA16AA Citywide Accessibility Improvements	2016	2017	Pending	4	350,000	2,768	100,000	250,000	-	-	-	350,000	4	1%
<b>Total ADA Construction Projects</b>					<b>1,695,309</b>	<b>1,061,040</b>	<b>848,000</b>	<b>250,000</b>	-	-	-	<b>1,098,000</b>		
<b>BURA - Murphy Crossing Construction</b>														
ST15MA Murphy & Parrell Roundabout	2015	7/29/16	Construction	1	1,800,038	702,663	1,755,022	-	-	-	-	1,755,022	2	39%
<b>Total BURA Projects</b>					<b>1,800,038</b>	<b>702,663</b>	<b>1,755,022</b>	-	-	-	-	<b>1,755,022</b>		
<b>Transportation Construction</b>														
ST11GA Galveston Corridor Improvements	2011	2017	Design	5	626,099	239,932	250,000	50,000	-	-	-	300,000		38%
ST14CA Sidewalk Design and Projects	2014	2018	Pending	5	1,396,097	32,306	350,000	970,000	20,000	-	-	1,340,000		2%
ST14DA Neff and Purcell Sidewalks	2016	2017	Pending	5	800,000	-	300,000	500,000	-	-	-	800,000		0%
ST14EA Citywide Safety Improvements	2016	9/30/18	Design	4	3,344,000	175,407	360,000	-	-	-	-	360,000	6	5%
ST15NA Phase 2 South 3rd Street Striping	2016	6/30/16	Design	5	30,000	14,050	30,000	-	-	-	-	30,000		47%
ST16AA Colorado Arizona Paving Project	2016	4/20/16	Construction	1	220,000	-	-	-	-	-	-	-		
<b>Total Transportation Projects</b>					<b>6,196,196</b>	<b>461,694</b>	<b>1,290,000</b>	<b>1,520,000</b>	<b>20,000</b>	-	-	<b>2,830,000</b>		
<b>GO Bond</b>														
ST12CB Empire/18th Roundabout	2012	10/15/15	Complete	1	2,647,809	2,645,834	10,200	-	-	-	-	10,200		100%
ST12CC Simpson/Mt. Washington Roundabout	2012	10/15/15	Complete	1	2,181,647	2,181,659	20,000	-	-	-	-	20,000		100%
ST12CD Powers/Brookwood Roundabout	2012	10/15/15	Complete	1	2,147,600	2,147,703	1,000	-	-	-	-	1,000		100%
ST12CE Reed Mkt: Newberry to 27th	2012	10/15/15	Sub.Complete	1	4,841,330	4,850,965	20,000	-	-	-	-	20,000		100%
ST12CJ Reed Mkt: 3rd to Newberry	2012	11/13/15	Sub.Complete	1	14,145,450	13,155,860	4,234,610	-	-	-	-	4,234,610		93%
ST12CH 27th Street Reconstruction	2017	2017	Pending	5	1,049,300	-	-	1,049,300	-	-	-	1,049,300		0%
ST12CK 14th St. Reconstruction	2016	2017	Design	5	3,888,950	10,243	2,732,050	1,149,300	-	-	-	3,881,350		0.26%
<b>Total GO Bond Projects</b>					<b>30,902,086</b>	<b>24,992,263</b>	<b>7,017,860</b>	<b>2,198,600</b>	-	-	-	<b>9,216,460</b>		
<b>Water</b>														
WA0902 Bridge Creek Intake and Pipeline	2008	6/30/16	Sub.Complete	1	73,954,698	69,413,892	17,713,500	-	-	-	-	17,713,500	3	94%
WA12AA 18th Street Waterline Extension (JR)	2012	4/30/16	Pending	2	485,063	25,063	460,000	-	-	-	-	460,000		5%
WA15BA Water SDC Methodology Study	2016	6/30/16	Pending	-	60,000	578	60,000	-	-	-	-	60,000		1%
WA15FA Firerock Bridge & Waterline	-	-	Transferred	-	450,000	-	-	-	-	-	-	-	5	0%
WA15GA South 3rd Street Pedestrian - Water portion	2017	3/31/17	Design	2	70,000	-	70,000	-	-	-	-	70,000		0%
WA15HA Water Master Plan Update	2016	6/30/16	Pending	-	500,000	-	500,000	-	-	-	-	500,000		0%
WA15JA Phase 2 South 3rd St. - Water portion	2016	6/30/16	Design	5	1,100,000	-	1,100,000	-	-	-	-	1,100,000		0%
WA16AA Westwood Reservoir Maintenance	-	-	Transferred	-	345,000	-	-	-	-	-	-	-	5	0%
WA20AX Awbrey Well Supply Expansion	2020	2020	Pending	5	1,944,000	-	-	-	-	-	1,944,000	1,944,000		0%
WA20BX Lafayette Pipe Enlargement	2020	2020	Pending	5	241,000	-	-	-	-	-	241,000	241,000		0%
WA20CX College Parallel Pipe Study	2020	2020	Pending	-	1,169,000	-	-	-	-	-	1,169,000	1,169,000		0%
WA20DX Valves Operational System Study	2020	2020	Pending	-	75,000	-	-	-	-	-	75,000	75,000		0%
<b>Total Water Projects</b>					<b>80,393,761</b>	<b>69,439,532</b>	<b>19,903,500</b>	-	-	-	<b>3,429,000</b>	<b>23,332,500</b>		

**City of Bend 2016 - 2020 Capital Improvement Program Project List**

Project Name & Number	Project Start	Estimated Substantial Completion	Project Stage	Cost Estimate Classification	Total Project Budgeted	Total Project Spent to Date	2015-16 Adopted Budget	2016-17 Adopted Budget	2017-18 Proposed Budget	2018-19 Proposed Budget	2019-20 Proposed Budget	Current 5-Year CIP Planned Budgets	Budget Revisions	Percent Budget Spent
<b>Sewer - Water Reclamation</b>														
SW0802 Secondary Expansion	2009	12/30/17	Construction	1	49,835,881	39,615,638	6,148,000	1,102,000	-	-	-	7,250,000		79%
SW14CA Headworks Upgrade	2016	10/1/17	Pending	1	1,720,492	176,018	1,000,000	-	-	-	-	1,000,000		10%
SW16AA Solids Handling (Secondary Expansion)	2017	2020	Pending	1	4,000,000	-	-	250,000	1,750,000	1,000,000	1,000,000	4,000,000		0%
SW0707 Southeast Interceptor Phase 1	2007	12/31/17	Construction	3	57,000,000	27,235,418	16,163,000	7,925,000	7,185,000	-	-	31,273,000		48%
SW0707 SEI Phase II North	2020	2025	Pending	5	16,500,000	-	-	-	-	-	5,737,000	5,737,000		0%
SW11BA Valhalla Sewer Relocation	2011	11/14/16	Construction	1	1,860,370	260,325	1,746,000	-	-	-	-	1,746,000		14%
SW12AA Collection System Master Plan Update	2012	12/30/14	Sub.Complete	5	3,791,557	3,987,339	506,000	-	-	-	-	506,000		105%
SW13DA North Area Sewer Capacity Improvements	2013	11/1/16	Design	2	6,547,522	877,772	5,909,300	-	-	-	-	5,909,300		13%
SW13EA Colorado Pump Station and Sewer Mains	2013	1/10/17	Construction	1	13,620,132	9,189,974	11,321,400	-	-	-	-	11,321,400		67%
SW14BA Deschutes Brewery Sewer	-	-	Cancelled	-	300,000	-	170,000	-	-	-	-	170,000		0%
SW15AA Plant Interceptor Rehabilitation	2015	6/30/17	Planning	5	5,738,000	22,918	5,718,000	-	-	-	-	5,718,000		0.4%
SW15DA N.E. 2nd & Penn Sewer Line Realignment	2016	5/27/16	Design	2	300,000	157,736	100,000	200,000	-	-	-	300,000		52.6%
SW15GA Wood River Village Lift Station/Vacuum Evaluation	2016	3/11/16	Sub.Complete	-	50,000	49,198	50,000	-	-	-	-	50,000		98%
SW15IA Bend South Sewer Evaluation	2016	3/11/16	Sub.Complete	-	50,000	49,194	50,000	-	-	-	-	50,000		98%
SW16DA Riverhouse Lift Station Hydraulic Upgrade	2016	6/30/17	Planning	5										
SW15JA WRF Treatment Plant Upgrades	2016	On-Going	Transferred	5	700,000	-	-	-	-	-	-	-	5	0%
SW17AA WRF Facilities Plan Update	2018	2018	Pending	5	500,000	-	-	-	500,000	-	-	500,000		0%
SW18BX Parallel Sewer on Olney Avenue	2018	2018	Pending	5	581,000	-	-	-	581,000	-	-	581,000		0%
SW15KA WRF Evaporation Percolation Ponds	2019	2019	Pending	5	1,567,000	-	-	-	-	1,567,000	-	1,567,000		0%
SW19AX Amethyst/Mahogany Street Sewer	2019	2019	Pending	5	679,000	-	-	-	-	679,000	-	679,000		0%
SW19BX Mahogany Street/Hwy 97 Sewer	2019	2019	Pending	5	999,000	-	-	-	-	999,000	-	999,000		0%
SW18AA WRF Support Facilities Upgrade	2020	2020	Pending	5	2,400,000	-	-	-	-	-	2,400,000	2,400,000		0%
SW20AX Odor Control Master Plan	2020	2020	Pending	5	1,000,000	-	-	-	-	-	1,000,000	1,000,000		0%
SW20BX Sewer Storage - Land Acquisition	2020	2020	Pending	5	700,000	-	-	-	-	-	700,000	700,000		0%
SW20EX Plant Interceptor Condition Assessment	2020	2020	Pending	5	600,000	-	-	-	-	-	600,000	600,000		0%
SW20FX Collection System Master Plan (Years 6-10)	2020	2020	Pending	5	1,000,000	-	-	-	-	-	1,000,000	1,000,000		0%
SW20GX Gravity Pipe Condition Assessment Improvements	2020	2020	Pending	5	200,000	-	-	-	-	-	200,000	200,000		0%
<b>Total Water Reclamation (Sewer) Projects</b>					<b>172,239,954</b>	<b>81,621,531</b>	<b>48,881,700</b>	<b>9,477,000</b>	<b>10,016,000</b>	<b>4,245,000</b>	<b>12,637,000</b>	<b>85,256,700</b>		
<b>Stormwater</b>														
SR0802 Drake and Dohema Pump Station	-	-	Transferred	-	404,686	241,939	-	-	-	-	-	-	5	60%
SR09AA Third Street Underpass	2009	10/30/15	Sub.Complete	1	2,999,008	2,964,938	55,000	-	-	-	-	55,000		99%
SR14AA Phase 2 3rd Street - Stormwater portion	2016	6/30/16	Planning	5	400,000	-	400,000	-	-	-	-	400,000		0%
SR15AA South Awbrey Butte Drainage Study	2016	12/26/16	Design	5	250,000	518	150,000	100,000	-	-	-	250,000		0%
SR15BA South 3rd Street - Stormwater portion	2016	3/31/17	Design	3	150,000	-	150,000	-	-	-	-	150,000		0%
SR15CA Newport Pipe Replacement Design	2018	2019	Pending	5	425,000	-	-	-	-	425,000	-	425,000		0%
<b>Total Stormwater Projects</b>					<b>4,628,694</b>	<b>3,207,395</b>	<b>755,000</b>	<b>100,000</b>	<b>-</b>	<b>425,000</b>	<b>-</b>	<b>1,280,000</b>		
<b>Total Capital Improvement Program Projects</b>					<b>297,856,038</b>	<b>181,486,118</b>	<b>80,451,082</b>	<b>13,545,600</b>	<b>10,036,000</b>	<b>4,670,000</b>	<b>16,066,000</b>	<b>124,768,682</b>		

**Budget Revisions:**  
 1 - \$75,000 budget adjustment approved 11/18/2015  
 2 - \$455,022 prior FY carryforward approved 11/18/2015  
 3 - \$3,382,000 prior FY carryforward approved 11/18/2015  
 4 - Project initiated early, moved \$100,000 to current FY 12/23/2015  
 5 - \$1,667,000 transferred to Utility Operations  
 6 - \$360,000 Project Initiated

## Phase I - S. 3rd St. Pedestrian – Improvements

Project is a collaboration with ODOT to provide continuous pedestrian facilities along the 3rd Street corridor between Wilson Avenue and Powers Road by repairing existing facilities that are either non-compliant or deteriorated. In addition, the project will also construct pedestrian facilities where none currently exist. The project is being coordinated with several other projects (water, stormwater, streets) within the corridor.



**Project Engineer: Jason Suhr | jsuhr@bendoregon.gov**

Scope	Schedule	Cost
Design, right of way acquisition, and construction of sidewalks, curb ramps that is coordinated with other infrastructure for water, stormwater, and streets. Stormwater scope increased to now include catch basin and drill hole vault replacement.	Start Date: 11/1/2011 Substantial Completion: 7/21/2017 Final Closeout: 7/21/2018	Total Estimated: \$1,205,000 Spent to Date: \$157,953 % Spent to Estimated: 13%  Three Projects: ADA \$665,000, Water \$70,000, Stormwater \$470,000
<b>Status: On Scope</b>	<b>Status: On Schedule</b>	<b>Status: Potential Cost Increase</b>
Adjustments: No change from prior month	Adjustments: No change from prior month	Adjustments: No change from prior month

**Status Update:** Received council authorization for construction phase services on June 1, 2016.

### Cost Estimate Classification: 2



## Phase 2 - S. 3<sup>rd</sup> Street Improvements

Phase 2 projects are capital improvement projects and address maintenance issues. The timing is being driven to occur in advance of the street preservation work within 3rd Street that is planned for the summer of 2017. Due to the impacts to the 3rd Street roadway, it is imperative that they occur prior to the grind and inlay preservation work.



Project Engineer: Jason Suhr | [jsuhr@bendoregon.gov](mailto:jsuhr@bendoregon.gov)

### Scope

Includes design and construction for streets, water, and stormwater. This work will include an analysis of the drainage basin to assess the condition of the existing stormwater facilities; creation of a striping and paving plan; replace existing 2-inch sub-standard waterlines with 8-inch pipelines.

### Schedule

Start Date: 10/1/2015  
 Substantial Completion: 6/30/2017  
 Final Closeout: 7/1/2018

### Cost

Total Estimated: \$1,135,000  
 Spent to Date: \$28,100  
 % Spent to Estimated: 2%

Three Projects: Water \$1,100,000, Stormwater \$5,000, Streets \$30,000

### Status: On Scope

Adjustments: No change from prior month

### Status: On Schedule

Adjustments: No change from prior month

### Status: Cost Adjustment

Adjustments: No change from prior month

**Status Update:** Striping plans at 90% completion. Stormwater modifications have been incorporated into the design plan set.

### Cost Estimate Classification: 5





## Citywide Accessibility Improvements

Through the help of dedicated volunteers on the City of Bend Accessibility Advisory Committee (COBAAC) and the Central Oregon Coalition for Access (COCA), key corridors and neighborhoods across the city have been prioritized for accessibility improvements. This project will design, construct, or repair these curb ramps and sidewalks including those identified through the City's Barrier Removal Request process.



Project Engineer: Rory Rowan | [rrowan@bendoregon.gov](mailto:rrowan@bendoregon.gov)

### Scope

Survey, design, and construction of accessibility improvements, as funding allows, in the Wells Acres, Bear Creek, Division, Downtown & Old Mill and Brookwood/Southwest neighborhoods.

### Schedule

Start Date: 3/1/16  
 Substantial Completion: 9/28/2018  
 Final Closeout: 09/28/2019

### Cost

Total Estimated: \$750,000  
 Spent to Date: \$2,768  
 % Spent to Estimated: 0.37%

### Status: On Scope

Adjustments: No change from prior month

### Status: On Schedule

Adjustments: No change from prior month

### Status: On Budget

Adjustments: No change from prior month

**Status Update:** Task orders have been issued for design in the Wells Acres, Dean Swift and Bend Community Center neighborhoods. Continue outreach with City of Bend Accessibility Advisory Committee (COBAAC) and Central Oregon Coalition for Access (COCA).

### Cost Estimate Classification: 4



# Murphy & Parrell Roundabout

This project will finalize the extension of Murphy Road on the east side as a part of the Murphy Overcrossing Project and make the intersection safer for vehicles, pedestrians and bicycles.



Project Engineer: Ryan Oster | roster@bendoregon.gov

## Scope

Construct a portion of Segment 6 of the SE Interceptor. Construct a roundabout, landscaping, stormwater facilities, illumination, signs and striping to current City standards. Design was completed as part of the Murphy overpass and extension project.

## Schedule

Start Date: 5/1/2015  
 Substantial Completion: 7/29/2016  
 Final Closeout: 7/29/2019\*  
 \* 1 Year warranty and 2 years additional for plant establishment

## Cost

Total Estimated: \$2,000,000  
 Spent to Date: \$702,663  
 % Spent to Estimated: 35%

Status: On Scope

Status: On Schedule

Status: On Budget

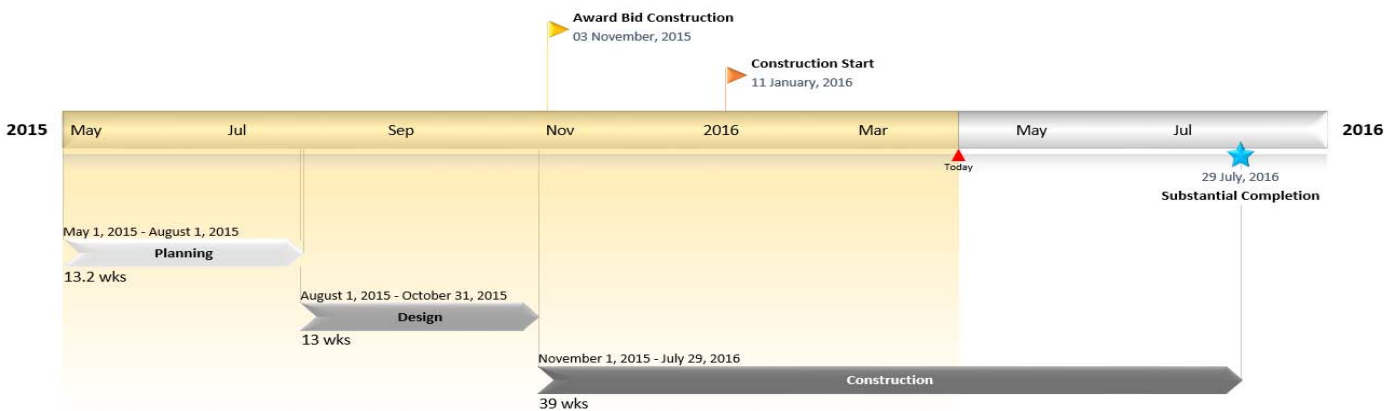
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

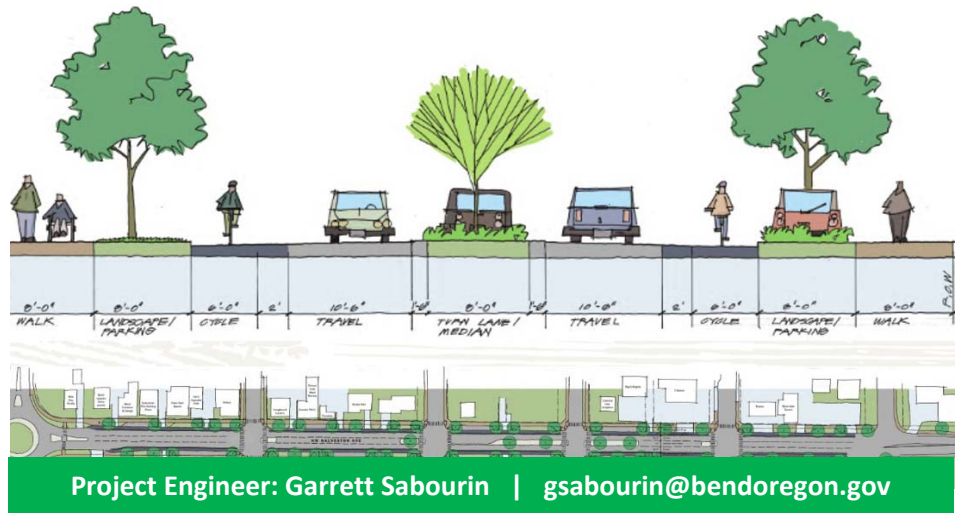
**Status Update:** Stormwater pipe installation and utility relocations are nearing completion at the end of May. Two retaining walls were also completed along with the start of the building of the base for the future roadway.

### Cost Estimate Classification: 1



# Galveston Corridor Improvements

The project is the highest ranked Traffic Safety Advisory Committee (TSAC) arterial and collector street safety project to improve vehicle, bicycle, and pedestrian safety, access, and connectivity. It also continues the bike and pedestrian improvements on Galveston from 14th to Lindsey Ct. The project will improve bicycle and pedestrian safety, access, stormwater system, and parking.



## Scope

Study to improve safety, access, and connectivity for vehicles, bicycles, and pedestrians. Also to improve the streetscape along a newly emerging mixed use corridor. A collaborative process has formed between City staff and property/business owners with a taskforce to devise project concepts and designs. At 30% design project will be brought to council to decide the Stormwater and other elements to be carried forward.

## Schedule

Start Date: 06/01/2011  
 Substantial Completion: TBD  
 Final Closeout: TBD

## Cost

Total Estimated: \$2,700,000  
 Spent to Date: \$239,932\*  
 % Spent to Estimated: 9%

\* Includes planning. At 30% design cost estimates will be updated to account for water, stormwater and sewer utility projects.

## Status: On Scope

Adjustments: No change from prior month

## Status: On Schedule

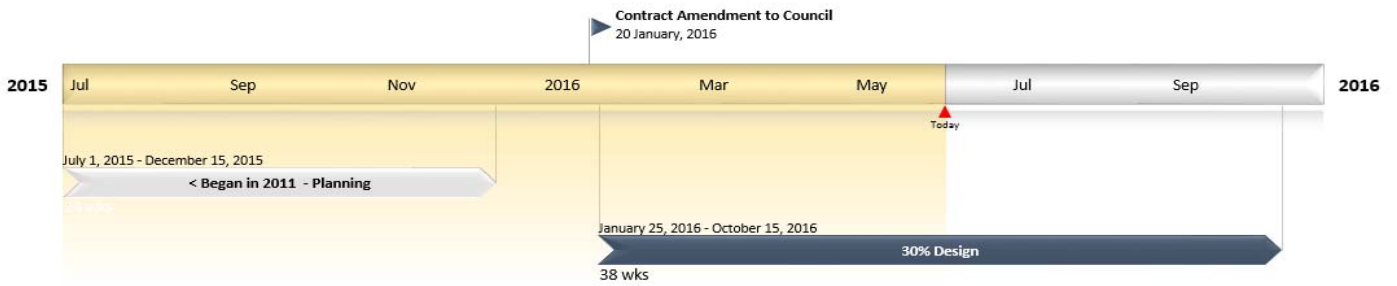
Adjustments: No change from prior month

## Status: On Budget

Adjustments: No change from prior month

**Status Update:** Consultant developing draft design criteria due to the City June 8 for internal review. Progress meeting scheduled for June 15 to discuss comments.

## Cost Estimate Classification: 5



## Citywide Safety Improvements

With the help of the community and a prior safety study, the city has identified multiple locations across the city where there have been a high number of crashes. Several treatments are proposed to make these locations safer for people walking, riding bicycles, and driving. This project will further develop the design of these treatments and construct them with additional community input.



Project Engineer: Rory Rowan | rrowan@bendoregon.gov

### Scope

Survey, design, traffic analysis, public involvement, and construction of safety improvements at the following locations: 3rd St at Hawthorne, Franklin, Roosevelt, and Reed Market, Colorado Ave & Bend Pkwy (US Hwy 97) interchange, Neff Rd at Williamson Blvd, 27th St at Conners Ave, Brosterhous Road railroad underpass.

### Schedule

Start Date: 10/1/2014  
 Substantial Completion: 9/30/2018  
 Final Closeout: 9/30/2019

### Cost

Total Estimated: \$3,344,000  
 Spent to Date: \$175,407  
 % Spent to Estimated: 5%

### Status: On Scope

Adjustments: No change from prior month

### Status: On Schedule

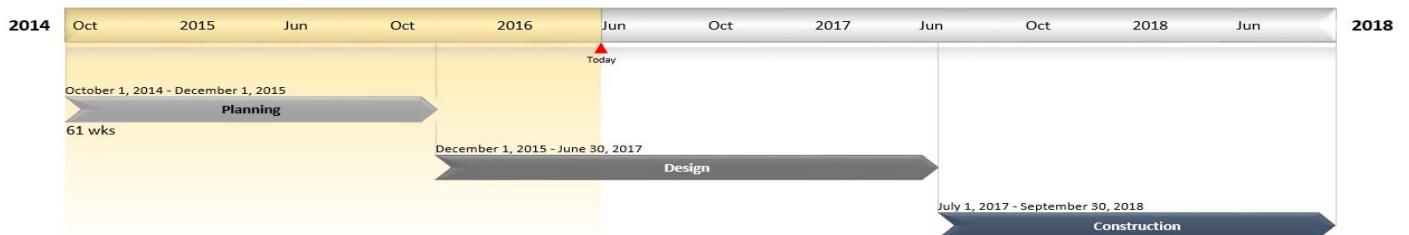
Adjustments: No change from prior month

### Status: On Budget

Adjustments: No change from prior month

**Status Update:** The “Making Bend Safer by Design” public engagement campaign was launched this month as part of the Bend Livability Project. This included temporary demonstrations of potential safety designs at First Friday Art Walk and throughout City neighborhoods the first weekend in June.

### Cost Estimate Classification: 4



# 14<sup>th</sup> Street Reconstruction

Improve safety of corridor from SW Colorado Avenue to NW Newport Avenue for all modes of transportation. Project is part of voter approved General Obligation Bond and will focus on an up updated roadway configuration to include surfacing, striping, bike lanes, sidewalks and streetscape. Design will attempt to tie-in with suggested changes being made to the Galveston Corridor Improvements.



## Scope

Upgrade to City standard to include but not limited to: roadway, surface, curbs, sidewalks, and striping. Final scope to be determined at 30% concept level, but will include safety improvements for bicycles, pedestrians and vehicles.

## Schedule

Start Date: 06/30/2014  
 Substantial Completion: TBD  
 Final Closeout: TBD

## Cost

Total Estimated: \$3,888,950\*  
 Spent to Date: \$10,243  
 % Spent to Estimated: 0.26%

\*Corridor extension construction cost not included in Total Cost Estimate. At 30% design cost estimates will be updated to account for water, stormwater and sewer utility projects.

**Status: On Scope**

**Status: On Schedule**

**Status: On Budget**

Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

**Status Update:** Consultant developing draft design criteria due to the City June 8 for internal review. Progress meeting scheduled for June 15 to discuss comments.

### Cost Estimate Classification: 5



## Bridge Creek Intake, Pipeline & Treatment

Replace pipeline to reduce risk of transmission main failure to secure a dual water supply source. Membrane treatment for surface water to meet federal treatment requirements to treat for Cryptosporidium will also protect Bend's surface water in the event of a fire in the watershed. Intake does not meet current building code, and lacks fish screens. New intake allows remote monitoring and operation of the facilities.



Project Engineer: Heidi Lansdowne | [hansdowne@bendoregon.gov](mailto:hansdowne@bendoregon.gov)

### Scope

Feasibility study of alternative water supplies; design and construction to replace transmission lines, intake, flow control, fish screens, membrane filtration, construction management, and inspection services. These costs also include all costs related to legal.

### Schedule

Start Date: 4/1/2008  
Substantial Completion: 06/30/2016  
Final Closeout: 06/30/2017

### Cost

Total Estimated: \$73,954,698  
Spent to Date: \$69,413,892  
% Spent to Estimated: 94%

Status: On Scope

Status: On Schedule

Status: On Budget

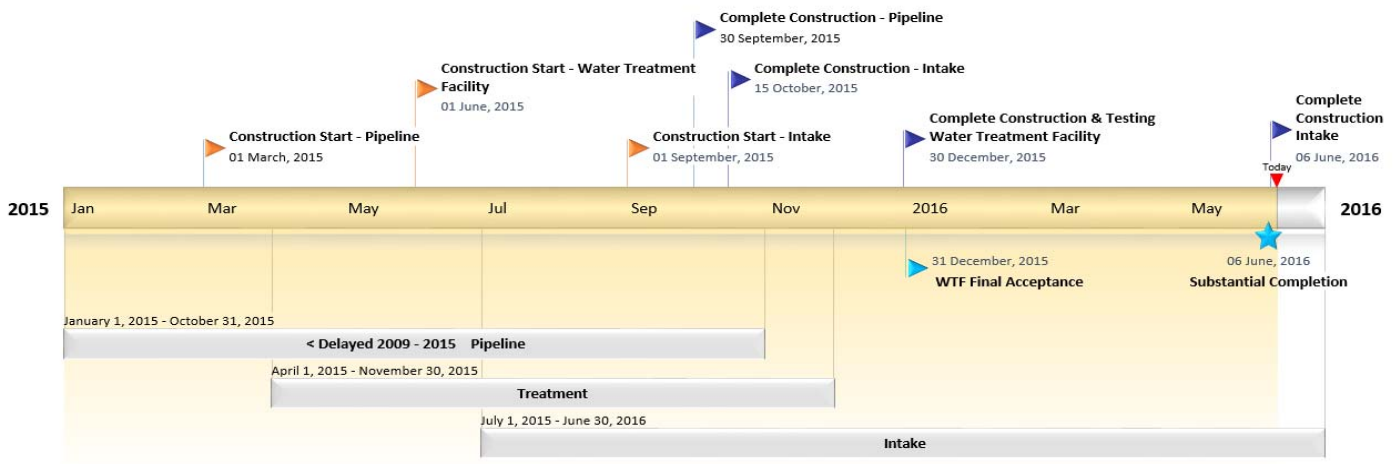
Adjustments: No change from prior month

Adjustments: Project completion estimated June 2016

Adjustments: No change from prior month

**Status Update:** Substantial completion of Intake expected June 2016. This is the final month this project will appear in the monthly report.

### Cost Estimate Classification: 1



## Water Rec. Facility Secondary Expansion

Provides additional treatment capacity at the Water Reclamation Facility (WRF) in order to ensure the City continues to meet the needs of the community and DEQ permit requirements. Treatment capacity increases from 6.5 MGD to 8.5 MGD when complete with greater flexibility in the future to increase capacity at a much lower cost.



Project Engineer: Jeff England | [jengland@bendoregon.gov](mailto:jengland@bendoregon.gov)

### Scope

The project adds a primary clarifier, aeration basin, blower facilities, UV and sodium hypochlorite disinfection improvements, and various piping modifications.

### Schedule

Start Date: 4/1/2009  
 Substantial Completion: Feb. 2016\*  
 Final Closeout: Spring 2017\*  
 \* Actual dates TBD

### Cost

Total Estimated: \$60,000,000\*  
 Spent to Date: \$39,615,638  
 % Spent to Estimated: 66%  
 \* Includes Facilities Plan, pre-design, final design, services during construction, and construction.

### Status: Reduced Scope

Adjustments: No change from prior month

### Status: Behind Schedule

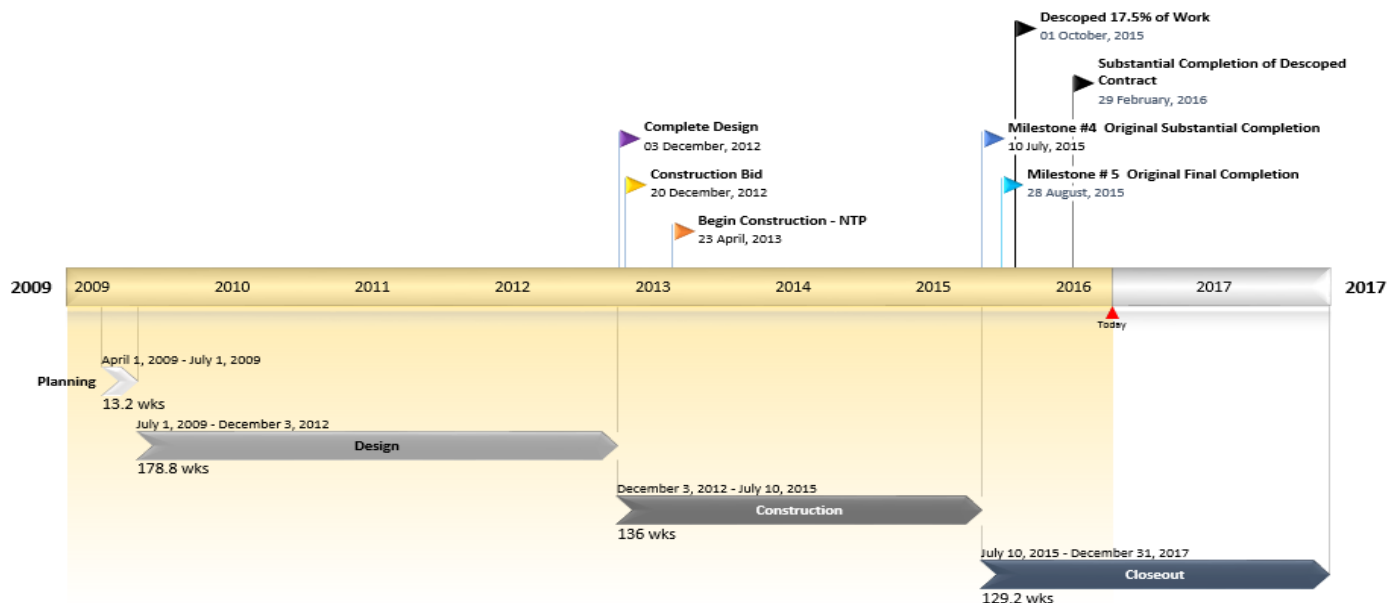
Adjustments: Schedule revision is necessary due to change in scope and overall project delay.

### Status: Potential Cost Increase

Adjustments: Project cost increase likely. Cost estimate and budgets will be updated in Spring 2016.

**Status Update:** Contractor has fully de-mobilized from the site. City staff has begun operating completed facilities. This is the final month this project will appear in the monthly report.

### Cost Estimate Classification: 1



# Southeast Interceptor Phase I

Large diameter gravity sewer pipeline extending from the southwest quadrant to the northeast quadrant of the City, approximately 4 ½ miles in length. This project reroutes or intercepts a significant volume of sewage away from the downtown and central sewer systems to the east side of the City in accordance with the Collection System Master Plan completed in 2014. Segment 2S&3 indicates the 2.5 mile stretch of 27<sup>th</sup> Street between Neff and Reed Market Rd.

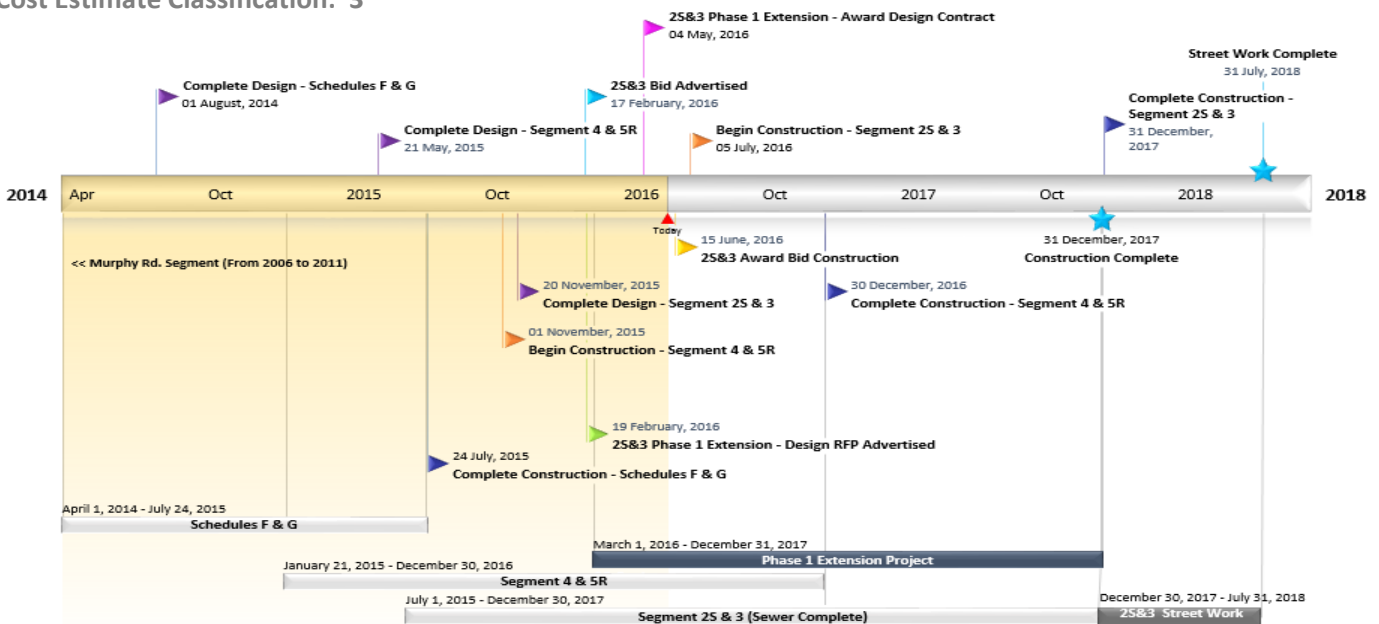


Project Engineer: Eric Forster | eforster@bendoregon.gov

Scope	Schedule	Cost
Design and construction of gravity sewer, from South 3rd street to the Neff Road interim connection. Phase 1 Extension Project, approved in January 2016, adds approximately 3,000 feet of sewer main work.	Start Date: 7/1/2006 Sewer Completion: 12/31/2017 Street Completion: 07/31/2018 Final Closeout: 7/30/2019	Total Estimated: <b>\$71,700,000</b> Spent to Date: \$27,235,418 % Spent to Estimated: 38%
<b>Status: Increased Scope</b>	<b>Status: On Schedule</b>	<b>Status: Cost Increase</b>
Adjustments: No change from prior month	Adjustments: No change from prior month	Adjustments: <b>Overall project cost estimates increased</b>

**Status Update:** The construction contract selected through the competitive best value process is 23% higher than engineer’s final design estimate for Segment 2S&3. Construction contract brought to Council June 15.

## Cost Estimate Classification: 3

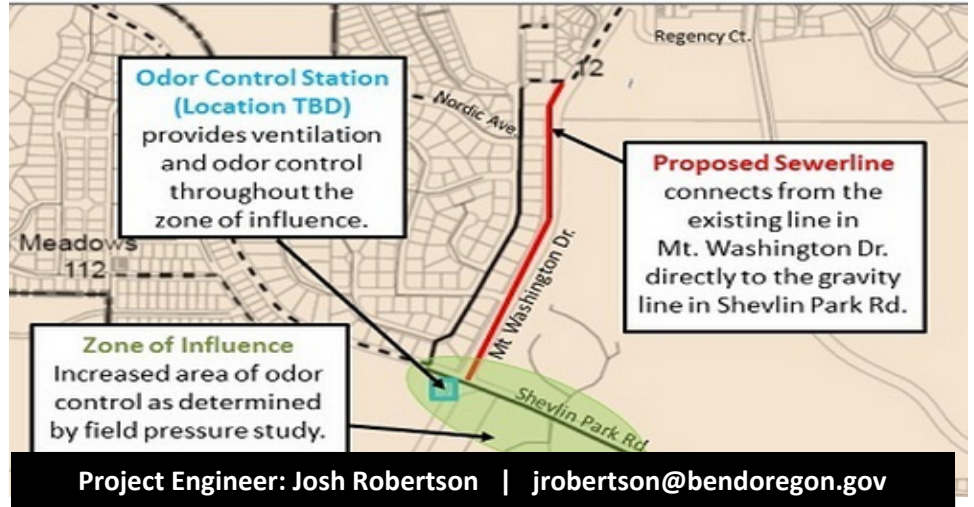




## Valhalla Odor Control & Sewer Relocation

The Awbrey Glen lift station currently pumps into the sewage collections system located within the Valhalla neighborhood. A large wet well and long force main causes odorous air discharge. The project will mitigate odor and capacity issues in the neighborhood. This will eliminate neighborhood complaints and allow for the sewage pump station to run more efficiently reducing staff time and operating costs.

### PROPOSED SEWER IMPROVEMENT PROJECT MAP



#### Scope

Design and construction of a sewer main to direct sewage around the Valhalla neighborhood and install new odor control systems. Project includes paving restoration.

#### Schedule

Start Date: 1/24/11  
 Substantial Completion: 11/14/2016  
 Final Closeout: 11/14/2017

#### Cost

Total Estimated: \$1,860,370  
 Spent to Date: \$260,325  
 % Spent to Estimated: 14%

#### Status: On Scope

Adjustments: No change from prior month

#### Status: On Schedule

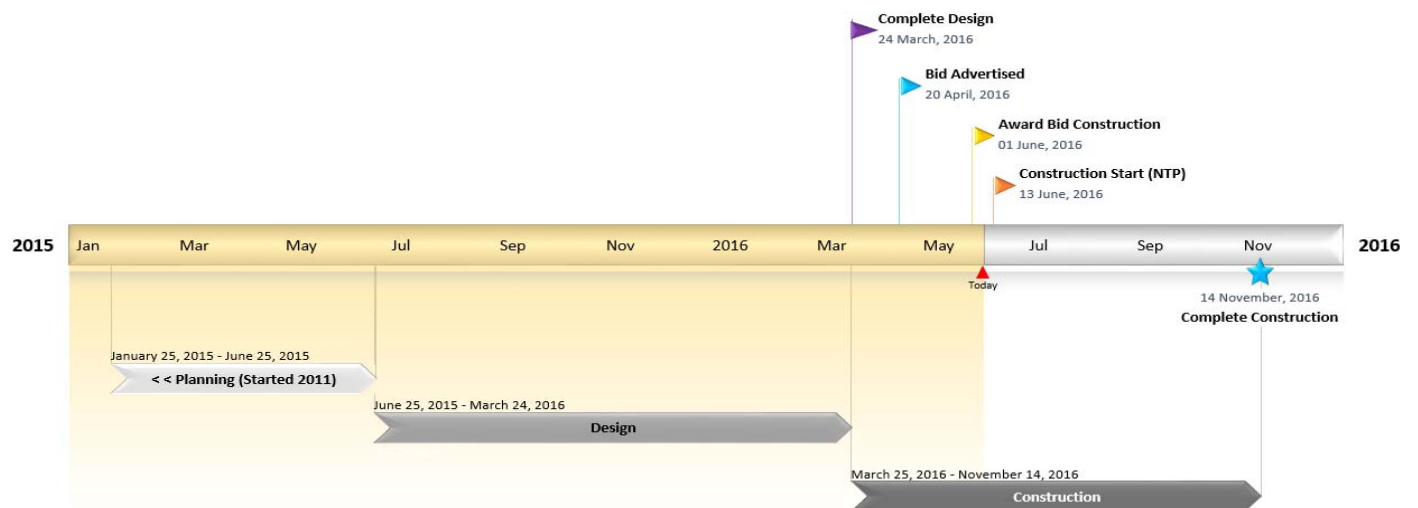
Adjustments: No change from prior month

#### Status: Potential Cost Increase

Adjustments: Project cost increase likely due to changes in scope and schedule. Cost estimate and budgets will be updated after bid closes.

**Status Update:** Construction contract awarded at June 1 Council meeting. Minimal trench patch for paving chosen to coordinate work with restoration on Shevlin Park and Mt. Washington Roundabout. Street Operations division will perform paving restoration work in the spring of 2017.

#### Cost Estimate Classification: 1



## North Area Sewer Capacity Improvements

This project will increase the capacity of the gravity main downstream of the multiple force main discharge point at manhole 3157 and reroute the force main discharge from several lift stations and the NE 3rd Street pressure sewer. It will also reconfigure the structure at Mervin Sampels Bypass and include modifications to both the Sawyer and Riverhouse lift stations.



Project Engineer: George Franklet | gfranklet@bendoregon.gov

### Scope

Analysis of alternatives for pipeline route and construction methods for crossing of irrigation canals and railroad tracks; design and construction of gravity and force mains, pump station modifications, and flow bypass optimization.

### Schedule

Start Date: 10/1/2013  
 Substantial Completion: 4/30/2017  
 Final Closeout: 4/30/2018

### Cost

Total Estimated: \$6,547,522  
 Spent to Date: \$877,772  
 % Spent to Estimated: 13%

### Status: On Scope

Adjustments: No change from prior month

### Status: Behind Schedule

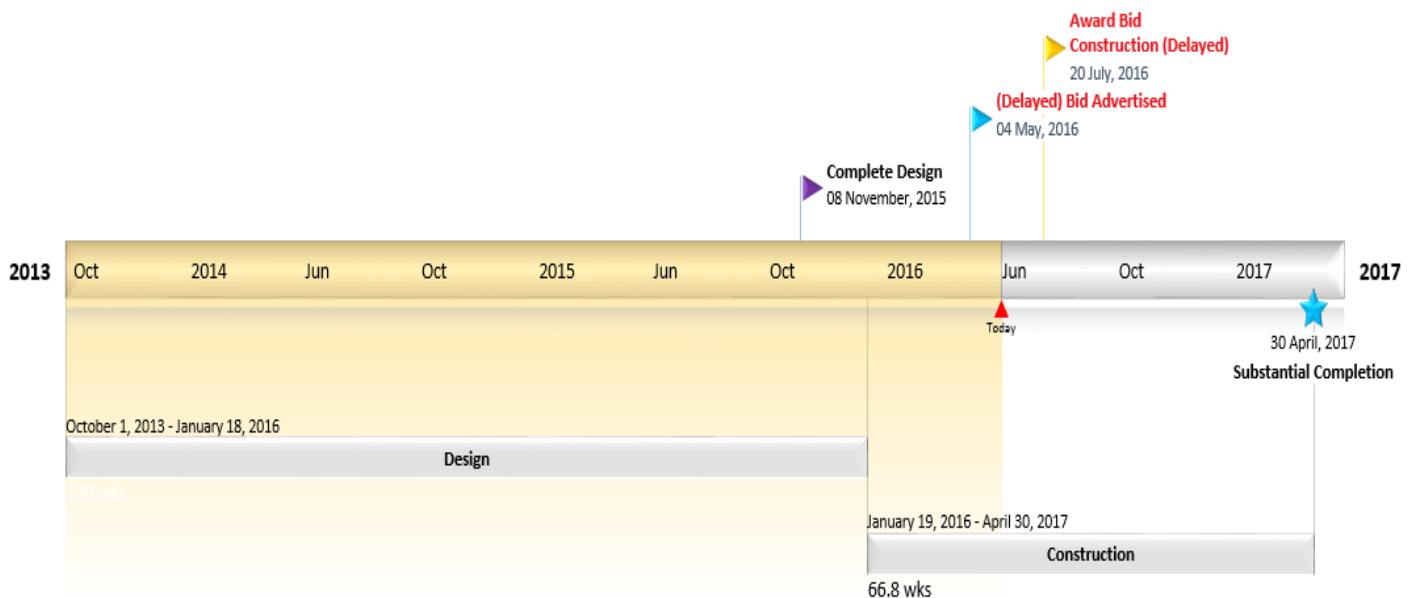
Adjustments: No change from prior month

### Status: Potential Budget Adjustment

Adjustments: No change from prior month

**Status Update:** Incremental progress. Bid advertisement delayed due to ongoing easement negotiations and irrigation district permits.

### Cost Estimate Classification: 2



## Colorado Pump Station and Sewer Mains

This project includes the design and construction of a new lift station and new gravity and force mains to divert flows from the existing Columbia Street sewer line to an existing trunk line east of the Deschutes River. This new lift station will provide service to future developments on the City's west side, allows decommissioning of an aging sewer lift station with access, capacity, and odor issue, and defer capacity-related improvements at Westside Lift Station.



**Project Engineer: George Franklet | gfranklet@bendoregon.gov**

### Scope

Analysis of service area, flows, capacities, alternatives for pump station sizing, siting, and pipeline route; design and construction of pump station, odor control facility, and gravity and force mains; decommissioning pump station.

### Schedule

Start Date: 2/1/2013  
 Substantial Completion: 01/10/2017  
 Final Closeout: 01/10/2018

### Cost

Total Estimated: \$13,620,132  
 Spent to Date: \$9,189,974  
 % Spent to Estimated: 67%

### Status: On Scope

Adjustments: No change from prior month

### Status: On Schedule

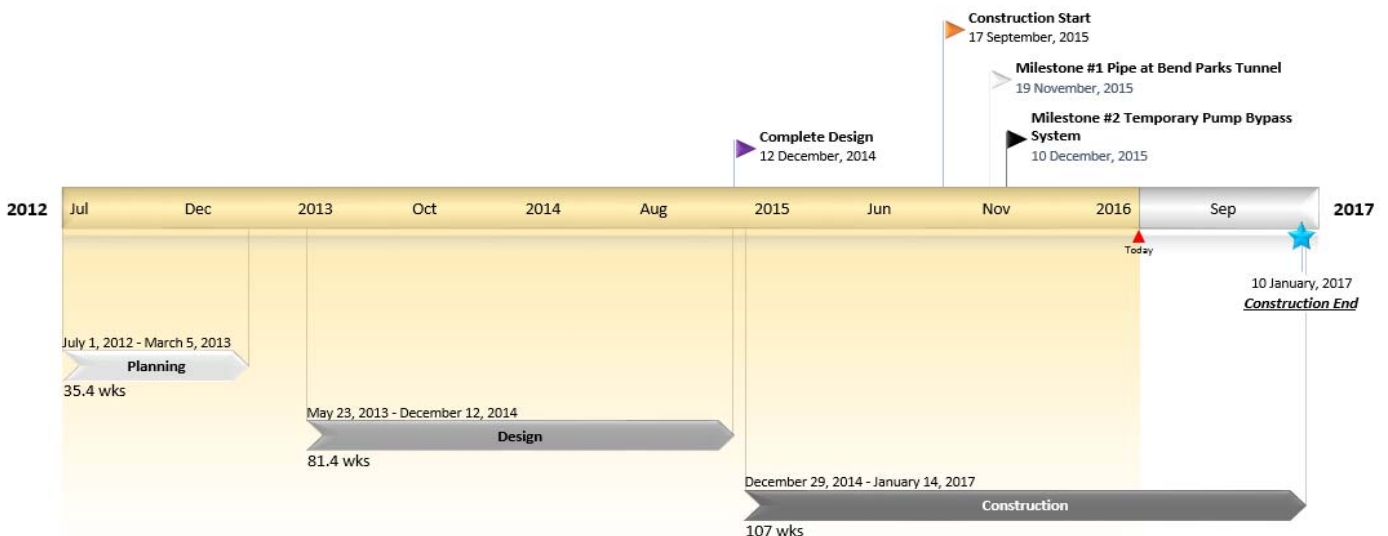
Adjustments: No change from prior month

### Status: On Budget

Adjustments: No change from prior month

**Status Update:** Paving of Arizona Avenue complete east of the bridge. Removal of shoring at the lift station site complete. The closure of Shevlin-Hixon will advance with construction of the gravity main to Allen and Commerce. Roads will be reopened as construction advances. Construction of the lift station building continues and the generator building has begun.

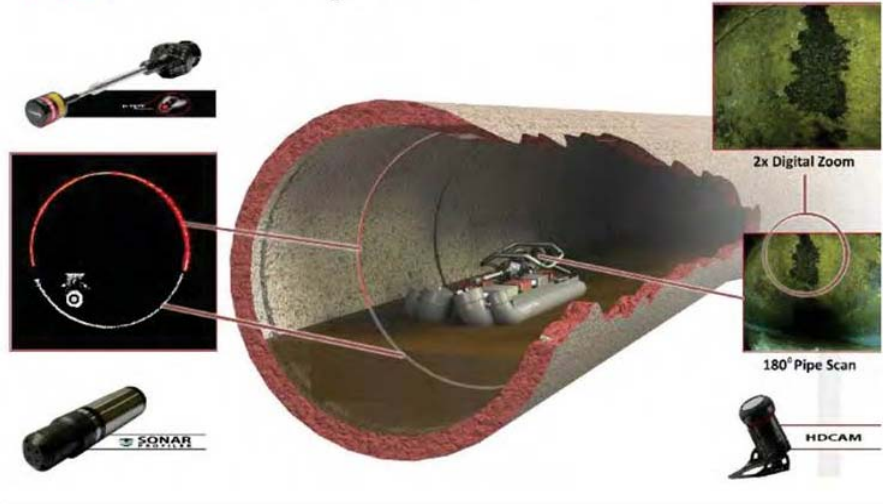
### Cost Estimate Classification: 1



## Plant Interceptor Rehabilitation

The existing plant interceptor conveys all of the City’s sewage to the WRF. The concrete pipeline is deteriorating due to age as well as the sulfides breaking down the concrete wall. This project will rehabilitate the plant interceptor by designing and constructing a Cured-In-Place Pipe (CIPP) liner on the pipe segments in the worst structural condition to lengthen the operational life of the pipeline. All project aspects were previously identified in the Plant Interceptor Condition Assessment and incorporated into the CSMP projects list.

## HDProfiler System



Project Engineer: Jason Suhr | [jsuhr@bendoregon.gov](mailto:jsuhr@bendoregon.gov)

### Scope

Rehabilitate all Pipeline Assessment Certification Program (PACP) graded 4 and 5 pipe segments with a Cured-In-Place Pipe (CIPP) liner, replace the existing siphon junction box, and clean the double barreled siphons.

### Schedule

Start Date: 3/1/2015  
 Substantial Completion: **12/29/2017**  
 Final Closeout: **12/29/2018**

### Cost

Total Estimated: \$5,738,000  
 Spent to Date: \$22,918  
 % Spent to Estimated: 0.40%

Status: **On Scope**

Status: **Schedule Baseline Revision**

Status: **On Budget**

Adjustments: No change from prior month

Adjustments: **Schedule revised to reflect delay reported in May report**

Adjustments: No change from prior month

Status Update: Awaiting decision on the archaeological impact statement.

### Cost Estimate Classification: 5



## NE 2<sup>nd</sup> & Penn Sewer Line Realignment

The sewer main of interest currently intersects two (2) private property parcels and exceeds the hydraulic requirements for the serviced catchment area. The purpose of this project is to design an alternate route, within the City of Bend Right of Way which meets current standards.



Project Engineer: Garrett Sabourin | [gsabourin@bendoregon.gov](mailto:gsabourin@bendoregon.gov)

### Scope

Design and construct a section of gravity sewer main to provide an alternative conveyance route within the City of Bend Right of Way.

### Schedule

Start Date: 11/18/2015  
 Substantial Completion: **6/10/2016**  
 Final Closeout: **6/10/2017**

### Cost

Total Estimated: \$300,000  
 Spent to Date: \$157,736  
 % Spent to Estimated: 53%

Status: On Scope

Status: On Schedule

Status: On Budget

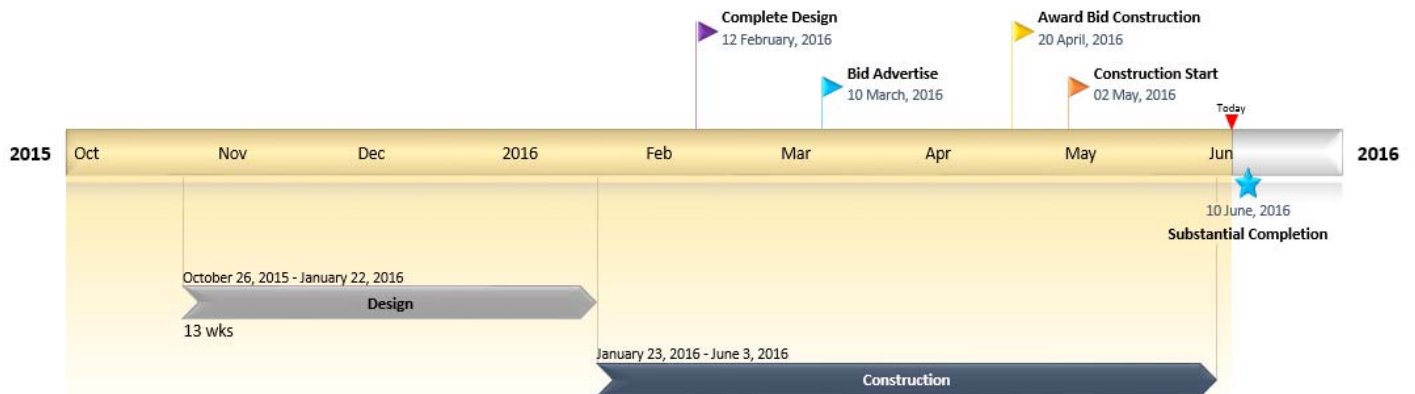
Adjustments: No change from prior month

Adjustments: **Updated substantial completion date to reflect contract**

Adjustments: No change from prior month

**Status Update:** Project team completed walk through June 7 and substantial completion June 10. This is the final month to include detail in the monthly report.

### Cost Estimate Classification: 2



## Riverhouse Lift Station Hydraulic Upgrade

This project was identified in the Collection System Master Plan as a project to be partially funded by the hotel/developer. The City received an in-lieu of payment from the developer to complete the work of downsizing the mechanical pump components to match required capacity for peak we-weather flow and will coordinate the work in conjunction with the North Area Sewer Capacity Improvements project.



### Scope

Downsize of mechanical pumping and/or electrical components to decrease hydraulic capacity to closer to required capacity. Rehabilitation and, where required, replacement of deteriorating lift station components where O&M Department condition assessment indicated poor condition: wet well, pumps, motors and electrical equipment

### Schedule

Start Date: 2/25/2016  
 Substantial Completion: 6/30/2017  
 Final Closeout: 6/30/2018

### Cost

Total Estimated: \$500,000  
 Spent to Date: \$0  
 % Spent to Estimated: 0%

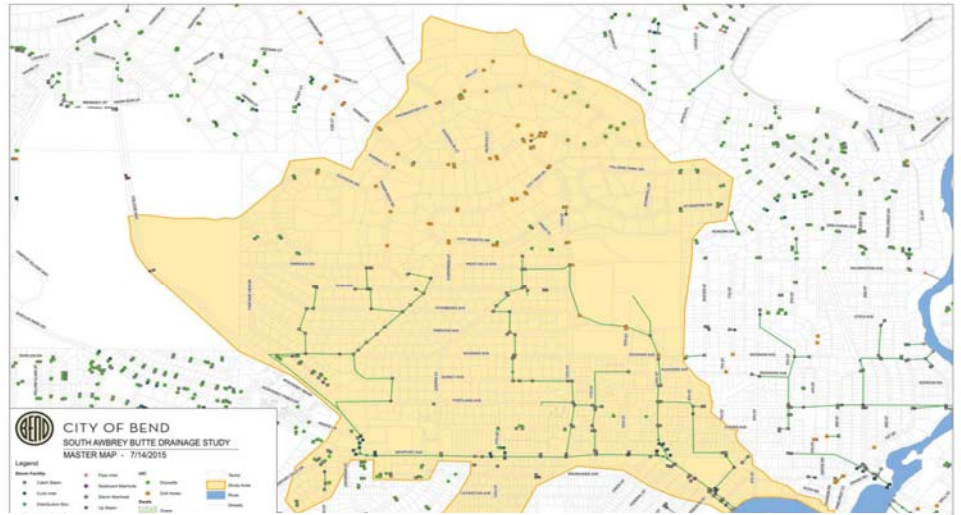
**Status Update:** Design contract initiated and design proceeding to 30%.

### Cost Estimate Classification: 5



## South Awbrey Butte Drainage Study

An evaluation will be completed in order to identify areas with run-off problems and complete a modeling effort in order to estimate run-off volumes. This will be the basis for future stormwater system improvements on Awbrey Butte and downstream areas.



**Project Engineer: Garrett Sabourin | gsabourin@bendoregon.gov**

Scope	Schedule	Cost
Complete a drainage system analysis for the southern hillside of Awbrey Butte. The intent is to identify and provide recommendations for drainage problem areas, as well as provide design peak flow rates at critical design locations along the Newport Avenue <b>drainage</b> .	Start Date: 7/1/15 Substantial Completion: 05/26/2017 Final Closeout: 05/26/2017	Total Estimated: \$250,000 Spent to Date: \$518 % Spent to Estimated: 0.21%
<b>Status: On Scope</b>	<b>Status: On Schedule</b>	<b>Status: On Budget</b>
Adjustments: No change from prior month	Adjustments: No change from prior month	Adjustments: No change from prior month

**Status Update:** Consultant currently reviewing data and develop a final data gap memo to highlight missing data in drainage basin.

### Cost Estimate Classification: 5



