



# ENGINEERING

Monthly Report

December 2015

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## FROM THE DIRECTOR

January marks the New Year and more than the half-way point in the fiscal year. This is an ideal time to update the status of the 2015-2016 CIP Budget.

The first six months of this fiscal year shows spending on capital projects trending approximately \$3.2 million lower than budgeted, primarily due increases in project timelines. The implementation of “Proposal Based Procurement” added time in getting several contracts out to bid. We believe the benefits of awarding the bid to the best value contractor outweigh any negative impacts from delays. Another factor impacting timelines is the significant increase in administrative requirements needed for the funding awarded to the City through the DEQ Clean Water State Revolving Fund loan program. The favorable interest rates realized through these loans benefit the City far more than the negative impacts of delays. These current fiscal year savings will be rolled forward or re-budgeted in the CIP.

Property and constructions consultants Rider Levett Bucknall predict construction cost escalation will continue to rise as construction activity increases. Looking forward, if Bend continues to experience the current rate of growth we can anticipate increases in bid prices as more demand is put on already limited construction industry resources.

To address a growing project list and available staff within EIPD to do these projects we recently hired a Project Engineer focused on Transportation and ADA Construction projects. Additionally, we are actively recruiting for an additional Project Engineer. Even though these positions have been approved in the strategic plan for some time we wanted to ensure workload warranted the need.

**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.

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

# Executive Summary

## CIP Numbers Snapshot

- **1 Substantial Completion** Reed Market: 3rd to Newberry, this is the last month the project will have a detailed project sheet.
- **1 Cancelled** Firerock Bridge & Waterline

Status	CIP	R&R
Open – Planning, Design, Construction	22	1
Substantially Complete – Minor budgets required	5	-
Final Closeout – No financial obligation, complete or cancelled	6	3
Pending – Projected scheduled to start within the next 5 years	27	41
<b>Total</b>	<b>60</b>	<b>45</b>

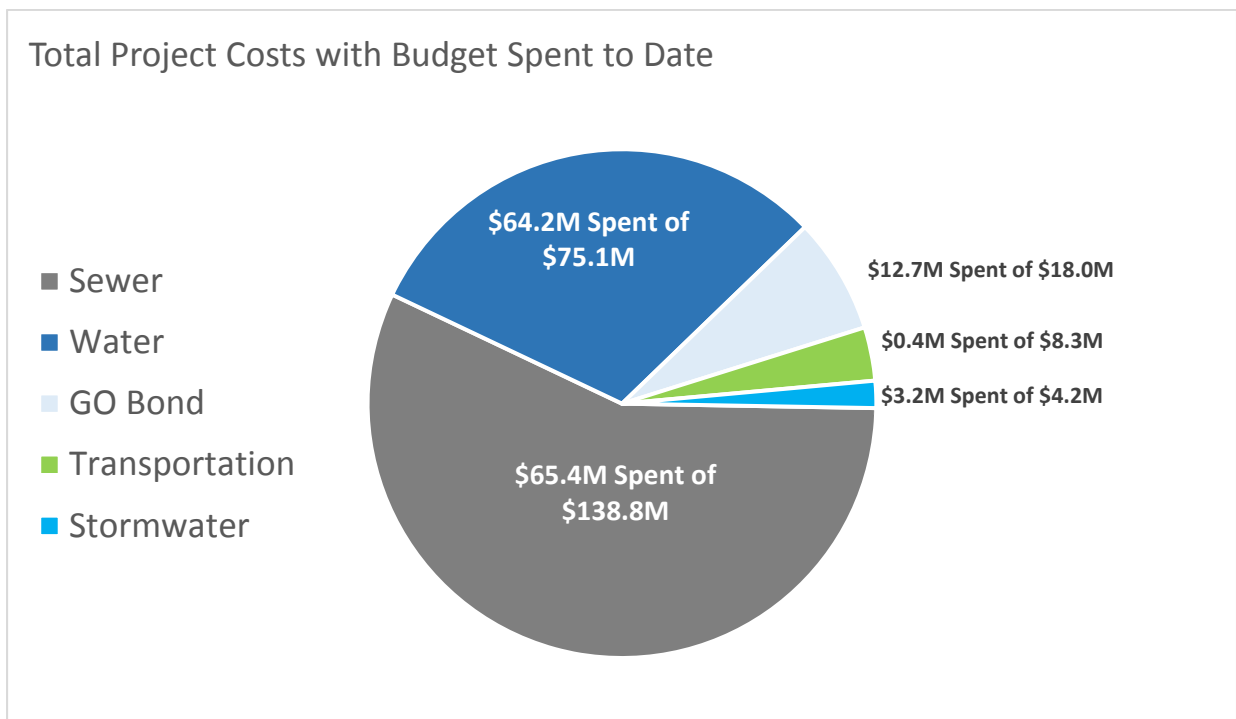
\*Completed projects are projects that have been closed out, which is at the end of the warranty period. This is typically one to two years after construction was completed.

## Upcoming

In February we will begin preparing RFP packages for both the Sidewalk Design and Projects and the Neff and Purcell Sidewalks project. We will also define and initiate the Future ADA Projects AA17XX. This project is being moved up one fiscal year in the CIP and the project name and number will change. These changes will be reflected in next month’s report.

## Active Project Cost

The graph below shows the total value of the 27 active projects in the CIP and budget spent to date.



**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	4	435,309	157,953	355,000	-	-	-	-	355,000		36%
AA14DA Summit Drive Curb Ramps	2015	10/9/15	Sub.Complete	1	910,000	899,499	393,000	-	-	-	-	393,000	1	99%
AA17XX Future ADA Projects **	2017	2017	Pending	5	350,000	-	-	350,000	-	-	-	350,000		0%
<b>Total ADA Construction Projects</b>					<b>1,695,309</b>	<b>1,057,452</b>	<b>748,000</b>	<b>350,000</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	45,016	1,755,022	-	-	-	-	1,755,022	2	3%
<b>Total BURA Murphy Crossing Construction Projects</b>					<b>1,800,038</b>	<b>45,016</b>	<b>1,755,022</b>	-	-	-	-	<b>1,755,022</b>		
<b>Transportation Construction</b>														
ST11GA Galveston Corridor Improvements	2011	2017	Planning	5	626,099	231,188	250,000	50,000	-	-	-	300,000		37%
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	5	3,344,000	-	360,000	-	-	-	-	360,000		0%
ST15NA Phase 2 South 3rd Street Striping	2016	6/30/16	Design	5	30,000	-	30,000	-	-	-	-	30,000		0%
<b>Total Transportation Projects</b>					<b>6,196,196</b>	<b>263,494</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	2,167,650	20,000	-	-	-	-	20,000		99%
ST12CD Powers/Brookwood Roundabout	2012	10/15/15	Complete	1	2,147,600	2,146,000	1,000	-	-	-	-	1,000		100%
ST12CE Reed Mkt: Newberry to 27th	2012	10/15/16	Sub.Complete	1	4,841,330	4,820,666	20,000	-	-	-	-	20,000		100%
ST12CJ Reed Mkt: 3rd to Newberry	2012	11/13/15	Sub.Complete	1	14,145,450	12,745,154	4,234,610	-	-	-	-	4,234,610		90%
ST12CH 27th Street Reconstruction	2017	2017	Pending	5	1,049,300	-	-	1,049,300	-	-	-	1,049,300		0%
ST12CK 14th St. Reconstruction	2016	2017	Planning	5	3,888,950	-	2,732,050	1,149,300	-	-	-	3,881,350		0%
<b>Total GO Bond Projects</b>					<b>30,902,086</b>	<b>24,525,304</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	Construction	1	73,954,698	64,187,807	17,713,500	-	-	-	-	17,713,500	3	87%
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	N/A	60,000	578	60,000	-	-	-	-	60,000		1%
WA15FA Firerock Bridge & Waterline	-	-	Cancelled	5	450,000	-	50,000	400,000	-	-	-	450,000		0%
WA15GA South 3rd Street Pedestrian - Water portion	2017	3/31/17	Design	4	70,000	-	70,000	-	-	-	-	70,000		0%
WA15HA Water Master Plan Update	2016	6/30/16	Pending	N/A	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	-	-	Cancelled	5	345,000	-	345,000	-	-	-	-	345,000		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	N/A	1,169,000	-	-	-	-	-	1,169,000	1,169,000		0%
WA20DX Valves Operational System Study	2020	2020	Pending	N/A	75,000	-	-	-	-	-	75,000	75,000		0%
<b>Total Water Projects</b>					<b>80,393,761</b>	<b>64,213,448</b>	<b>20,298,500</b>	<b>400,000</b>	-	-	-	<b>3,429,000</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	38,450,254	6,148,000	1,102,000	-	-	-	7,250,000		77%
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	19,315,990	16,163,000	7,925,000	7,185,000	-	-	31,273,000		34%
SW0707 SEI Phase II North Medical Center to Deschutes Market Rd.	2020	2025	Pending	5	16,500,000	-	-	-	-	-	5,737,000	5,737,000		0%
SW11BA Valhalla Sewer Relocation	2011	10/16/16	Design	3	1,860,370	131,556	1,746,000	-	-	-	-	1,746,000		7%
SW12AA Collection System Master Plan Update	2012	12/30/14	Sub.Complete	5	3,791,557	3,855,093	506,000	-	-	-	-	506,000		102%
SW13DA North Area Sewer Capacity Improvements	2013	11/1/16	Design	3	6,547,522	734,695	5,909,300	-	-	-	-	5,909,300		11%
SW13EA Colorado Pump Station and Sewer Mains	2013	1/10/17	Construction	1	13,620,132	2,841,884	11,321,400	-	-	-	-	11,321,400		21%
SW14BA Deschutes Brewery Sewer	-	-	Cancelled	1	300,000	-	170,000	-	-	-	-	170,000		0%
SW15AA Plant Interceptor Rehabilitation	2015	6/30/17	Planning	5	5,738,000	20,955	5,718,000	-	-	-	-	5,718,000		0.4%
SW15DA N.E. 2nd & Penn Sewer Line Realignment	2016	5/27/16	Planning	4	300,000	-	100,000	200,000	-	-	-	300,000		0.0%
SW15GA Wood River Village Lift Station/Vacuum Evaluation	2016	3/11/16	Planning	N/A	50,000	-	50,000	-	-	-	-	50,000		0%
SW15IA Bend South Sewer Evaluation	2016	3/11/16	Planning	N/A	50,000	-	50,000	-	-	-	-	50,000		0%
SW15JA WRF Treatment Plant Upgrades	2016	On-Going	Pending	5	700,000	-	100,000	100,000	100,000	200,000	200,000	700,000		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	2020	2020	Pending	5	200,000	-	-	-	-	-	200,000	200,000		0%
<b>Total Water Reclamation (Sewer) Projects</b>					<b>172,239,954</b>	<b>65,526,445</b>	<b>48,981,700</b>	<b>9,577,000</b>	<b>10,116,000</b>	<b>4,445,000</b>	<b>12,837,000</b>	<b>85,956,700</b>		
<b>Stormwater</b>														
SR0802 Drake and Dohema Pump Station	2008	4/15/16	Construction	1	404,686	217,686	172,000	-	-	-	-	172,000		54%
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	Planning	N/A	250,000	-	150,000	100,000	-	-	-	250,000		0%
SR15BA South 3rd Street - Stormwater portion	2016	3/31/17	Design	4	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>3,182,624</b>	<b>927,000</b>	<b>100,000</b>	<b>-</b>	<b>425,000</b>	<b>-</b>	<b>1,452,000</b>		
<b>Total Capital Improvement Program Projects</b>					<b>297,856,038</b>	<b>158,813,783</b>	<b>81,018,082</b>	<b>14,145,600</b>	<b>10,136,000</b>	<b>4,870,000</b>	<b>16,266,000</b>	<b>126,435,682</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

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

Project will 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

Design, right of way acquisition, and construction of sidewalks, curb ramps that is coordinated with other infrastructure for water, stormwater, and streets. April 2015 reduction in scope decreased construction duration by approximately 25%.

### Schedule

Start Date: 11/1/2011  
 Substantial Completion: 3/31/2017  
 Final Closeout: 3/31/2018\*  
 \* Includes warranty period

### Cost

Total Estimated: \$655,309  
 Spent to Date: \$157,953  
 Percent Spent: 24%  
 Three Projects: ADA \$435,309, Water \$70,000, Stormwater \$150,000

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:** Presented to Council on December 16, 2015 the revised resolution for exercising the power of eminent domain. Modified acquisition type for two properties from temporary easement to fee right of way.

### Cost Estimate Classification: 4





## 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.

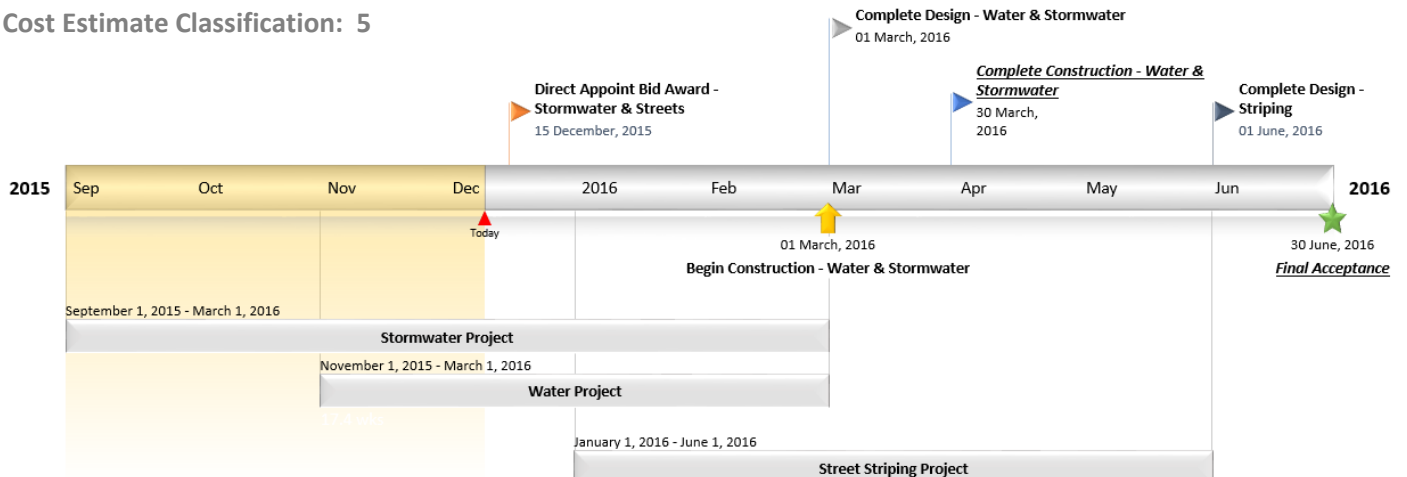


Project Engineer: Jason Suhr | jsuhr@bendoregon.gov

Scope	Schedule	Cost
Includes design and construction for streets, water, and stormwater. This work will include an analysis of the drainage basin to assess the performance and condition of the existing stormwater facilities; creation of a striping and paving plan; replace existing 2-inch sub-standard waterlines with 8-inch pipelines.	Start Date: 10/1/2015 Substantial Completion: 6/30/2016 Final Closeout: 7/1/2017*  * Includes warranty period	Total Estimated: \$1,530,000 Spent to Date: \$0 Percent Spent: 0%  Three Projects: Water \$1,100,000, Stormwater \$400,000, Streets \$30,000
<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:** Likely schedule change for water portion due to street preservation timing. Timeline will be adjusted in January 2016 Monthly Report.

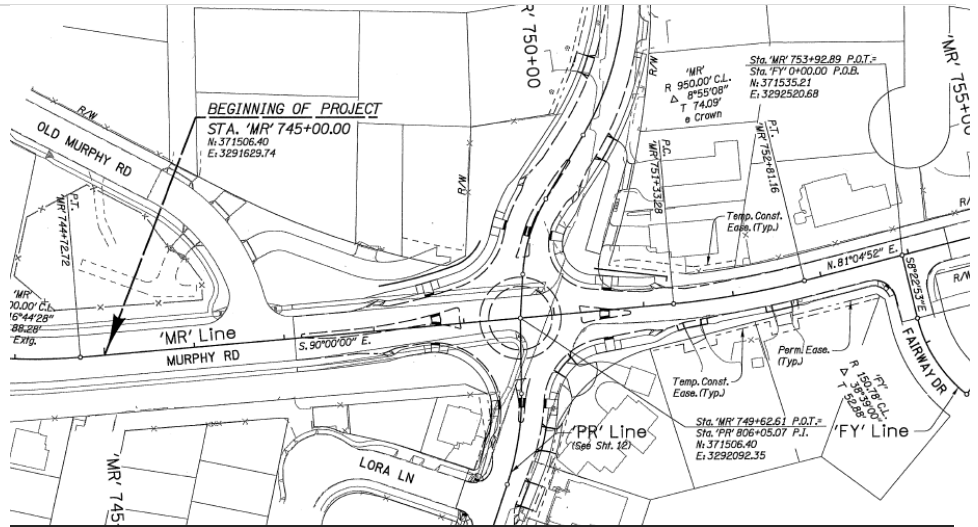
### Cost Estimate Classification: 5





# Murphy & Parrell Roundabout

This project will finalize the original conceptualized 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: \$45,016  
 Percent Spent: 3%

### 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

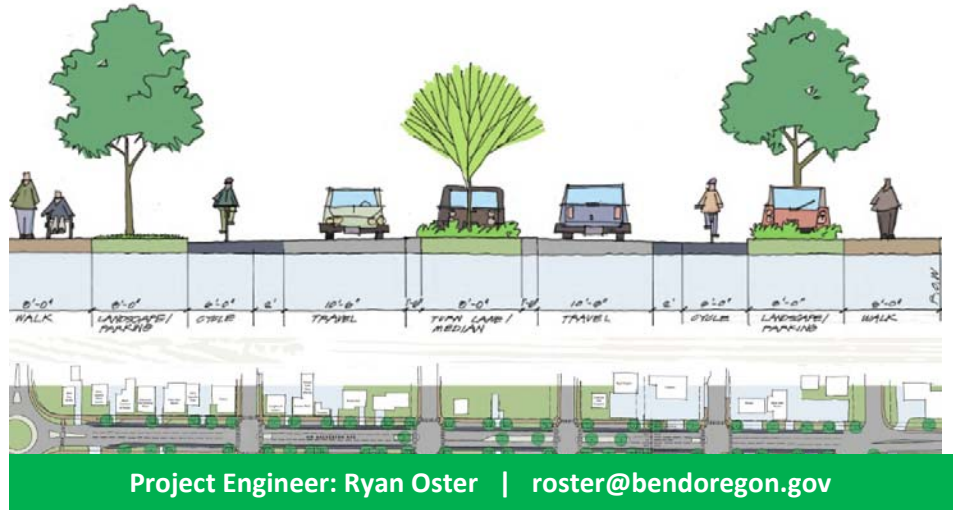
**Status Update:** Project Cost Estimate Classification changed to 1. Council approved \$2,050,000 December 16, 2015 with the understanding that a portion of this contract is for work on SEI SW0707 being performed on the Murphy alignment so no budget adjustment is needed on this project.

### 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.

## Schedule

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

## Cost

Total Estimated: **\$2,700,000**  
 Spent to Date: \$231,188  
 Percent Spent: 37%

### Status: On Scope

Adjustments: No change from prior month

### Status: On Schedule

Adjustments: **Minor design schedule delay. No impact to overall project schedule.**

### Status: Updated Project Cost

Adjustments: **Received the Galveston Corridor Concept Plan that includes the Class 5 Cost Estimate. Only design is currently budgeted; previous estimate did not include construction or right of way.**

**Status Update:** Milestones will be added in early 2016 once we have an approved 30% design contract. The anticipated construction window for work on Galveston Street is dependent on future funding levels.

### 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	Schedule	Cost
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.	Start Date: 10/1/2014 Substantial Completion: 9/30/2018 Final Closeout: 9/30/2019*  * Includes warranty period	Total Estimated: \$3,344,000 Spent to Date: \$0 Percent Spent: 0%
<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:** Neff Road at Williamson location scheduled to be constructed in conjunction with the Southeast Interceptor project. Other locations are currently under design.

**Cost Estimate Classification: N/A**



## GO Bond Reed Market: 3<sup>rd</sup> to Newberry

Improved safety of the corridor for vehicular, pedestrian, and bicycle traffic. Reduced congestion in the corridor. Provides new stormwater facilities, signing, lighting, retaining walls and striping; upgrades the existing railroad crossing; and realigns American Lane to the west of the current location and reconstructs a bridge at the new location.



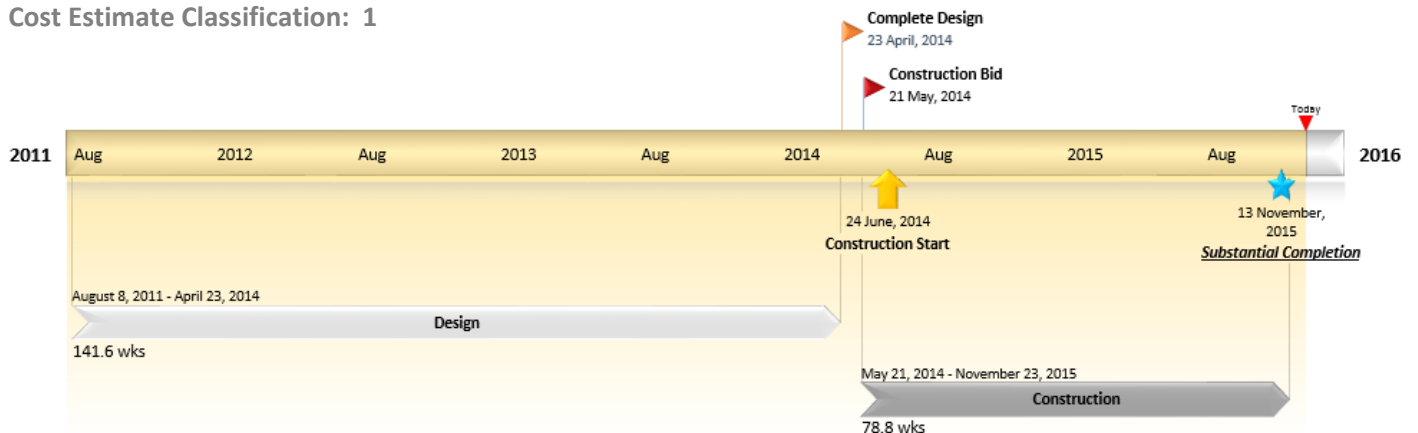
Project Engineer: Ryan Oster | roster@bendoregon.gov

Scope	Schedule	Cost
Design and construction of travel lanes, turn lane, 6-foot shoulders and bike lanes, separated sidewalks and a landscape strip. At the intersection of Reed Market and 15th Street the existing signalized intersection will be upgraded to a roundabout. Construction management and inspection services.	Start Date: 8/8/2011 Substantial Completion: 11/13/2015 Final Closeout: 11/13/2018*  * 1 Year warranty and 2 years additional for plant establishment	Total Estimated: \$14,145,450 Spent to Date: \$12,745,154* Percent Spent: 90%  * Final billing has not been processed.
<b>Status: On Scope</b>	<b>Status: On Schedule</b>	<b>Status: On Budget</b>
Adjustments: No change	Adjustments: No change	Adjustments: No change

There has been a great deal of public comment and scrutiny over the length of time and disruption caused to the corridor as a result of this project. The City could have completed the work on the project within a one year period with full shutdown of the corridor. However, Council chose to perform the work in stages in order to minimize the impact to businesses, resulting in a significant increase to project timelines.

**Status Update:** Project is substantially complete and this is the last monthly report to include a detailed project sheet. Project Manager will bring the final Knife River contract amendment to Council in mid-January for approval on final change order and bid item adjustments.

### Cost Estimate Classification: 1





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

Improve safety of corridor from SW Simpson Avenue to NW Galveston 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.



Project Engineer: Ryan Oster | roster@bendoregon.gov

Scope	Schedule	Cost
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.	Start Date: 06/30/2014 Substantial Completion: TBD Final Closeout: TBD	Total Estimated: \$3,888,950 Spent to Date: \$0 Percent Spent: 0%
<b>Status: On Scope</b>	<b>Status: Schedule</b>	<b>Status: On Budget</b>
Adjustments: No change from prior month	<b>Adjustments: Minor design schedule delay. No impact to overall project schedule.</b>	Adjustments: No change from prior month

**Status Update:** Milestones will be added to the timeline in early 2016 once we have an approved 30% design contract.

Cost Estimate Classification: N/A



## Bridge Creek Intake, Pipeline & Treatment

Replace pipeline to reduced 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 | [hlansdowne@bendoregon.gov](mailto:hlansdowne@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\*

\* Includes warranty periods

### Cost

Total Estimated: \$73,954,698  
 Spent to Date: \$64,187,807  
 Percent Spent: 87%

### Status: On Scope

Adjustments: No change from prior month

### Status: On Schedule

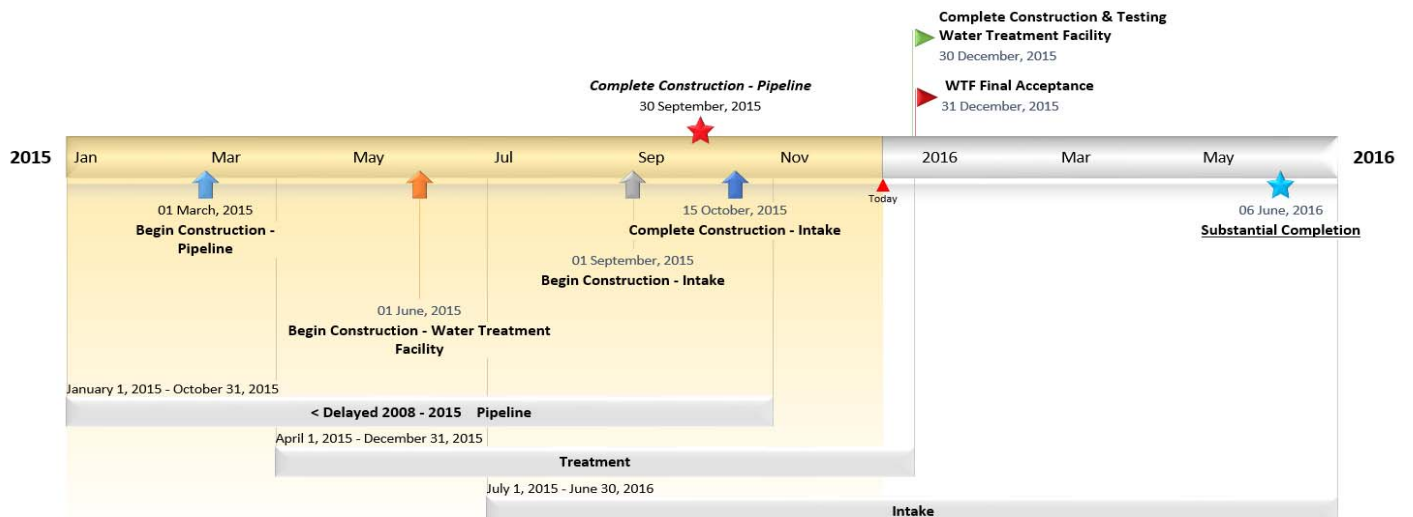
Adjustments: No change from prior month

### Status: On Budget

Adjustments: No change from prior month

**Status Update:** The Water Treatment Facility is fully operational and staff are currently being trained to operate the facility. Intake currently under construction, as shown in photos above. Anticipated completion for the Intake is spring 2016.

### 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.

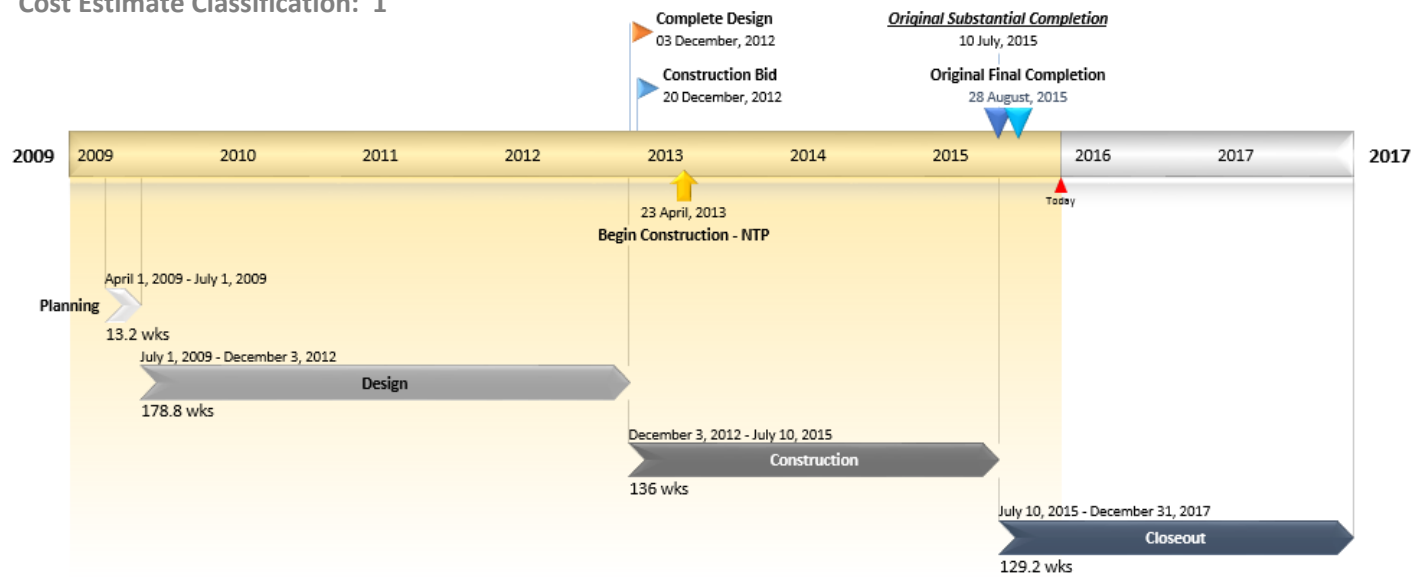


Project Engineer: Jeff England | [jengland@bendoregon.gov](mailto:jengland@bendoregon.gov)

Scope	Schedule	Cost
The project adds a primary clarifier, aeration basin, blower facilities, UV and sodium hypochlorite disinfection improvements, and various piping modifications.	Start Date: 4/1/2009 Substantial Completion: <b>TBD</b> Final Closeout: <b>TBD</b>	Total Estimated: \$60,000,000 Spent to Date: \$38,450,254 Percent Spent: 77% Includes Facilities Plan, pre-design, final design, services during construction, and construction.
<b>Status: Reduced Scope</b>	<b>Status: Construction Delayed</b>	<b>Status: Potential Cost Increase</b>
Adjustments: No change from prior month	Adjustments: <b>Revised schedule TBD. Removed future milestones from timeline below.</b>	Adjustments: Potential cost increase. Amount unknown at this time.

**Status Update:** Remaining construction is winding down at multiple facilities. Cost and schedule implications remain unclear and will be resolved in the coming months.

### 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.

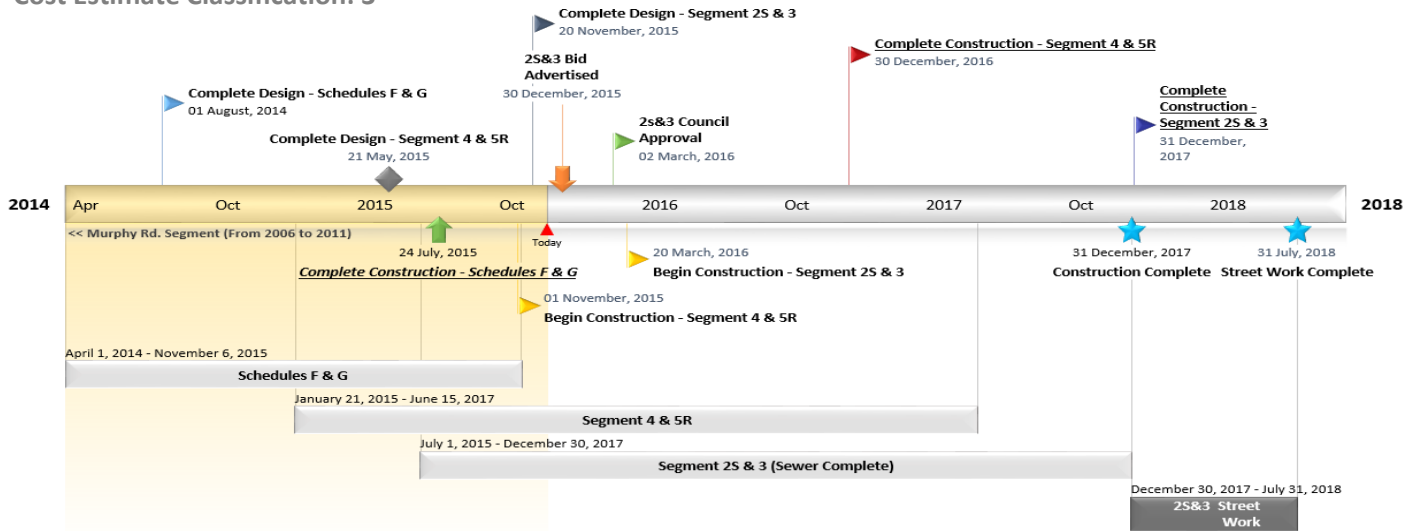


Project Engineer: Eric Forster | eforster@bendoregon.gov

Scope	Schedule	Cost
Design and construction of gravity sewer, from South 3rd street to the Neff Road interim connection.	Start Date: 7/1/2006 Sewer Completion: 12/31/2017 Street Completion: 07/31/2018 Final Closeout: 7/30/2019* * Includes warranty period Changed substantial completion to add clarity on sewer and street completion dates.	Total Estimated: \$60,000,000 Spent to Date: \$19,315,990 Percent Spent: 39%
Status: On Scope	Status: Potential Revision	Status: On Budget
Adjustments: No change from prior month	Adjustments: No change from prior month	Adjustments: No change from prior month

**Status Update:** Segments 2s&3 identified for the public as The 27<sup>th</sup> Street Sewer Line project, however, City of Bend will continue to reference the project as 2s&3. Completed six public outreach meetings. Additional meetings will be held in the spring once a contractor is selected.

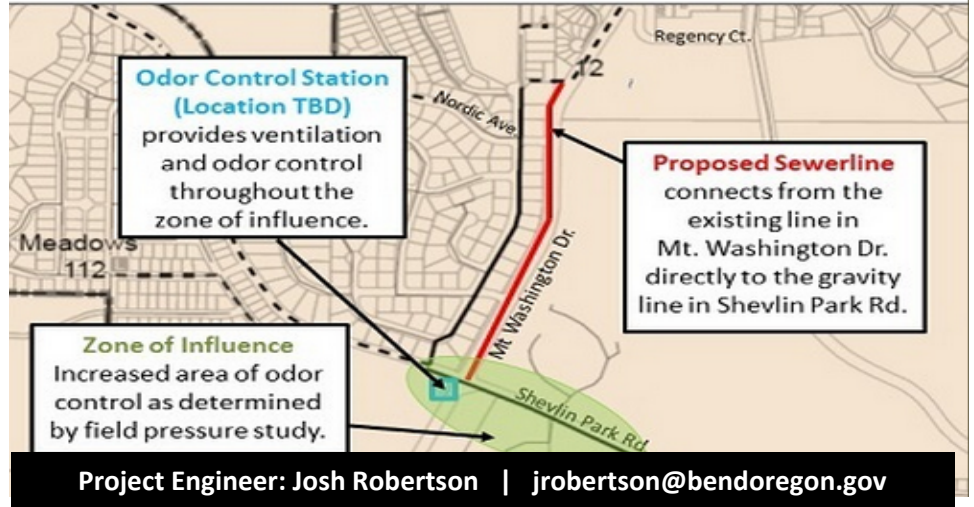
### Cost Estimate Classification: 3



## 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.

#### Schedule

Start Date: 1/24/11  
 Substantial Completion: 10/16/2016  
 Final Closeout: 10/31/2017\*

\* Includes warranty period

#### Cost

Total Estimated: \$1,860,370  
 Spent to Date: \$131,556  
 Percent Spent: 7%

#### Status: On Scope

Adjustments: No change from prior month

#### Status: On Schedule

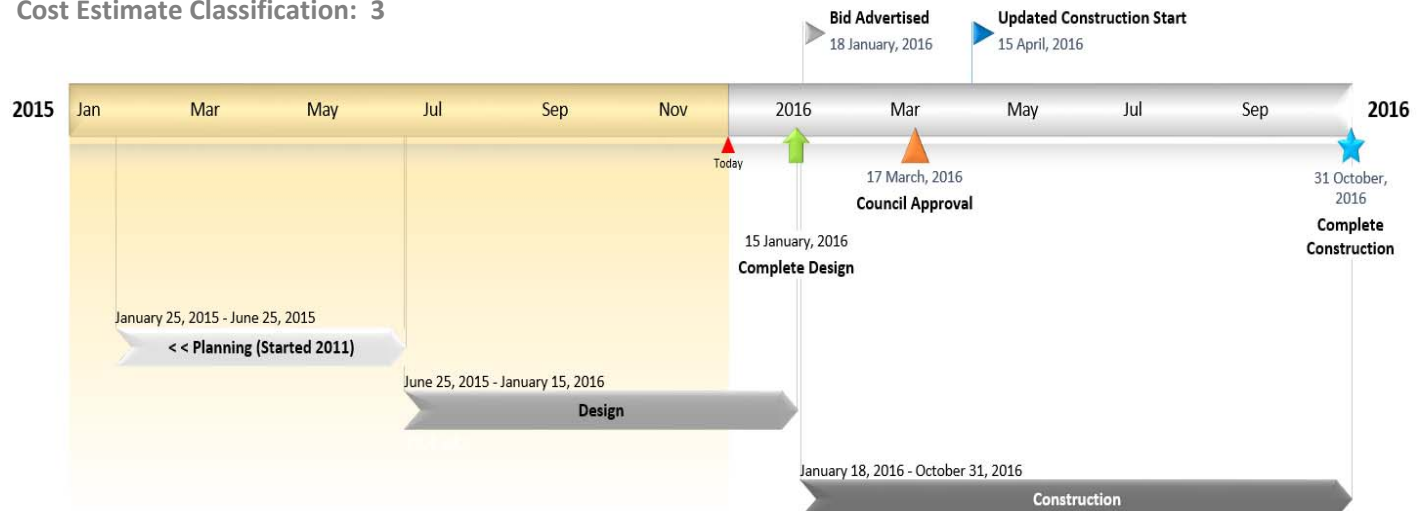
Adjustments: No change from prior month

#### Status: On Budget

Adjustments: No change from prior month

**Status Update:** Public outreach neighborhood association meeting scheduled for January 2016 to discuss project status. Project is on schedule and final design documents are in production.

#### Cost Estimate Classification: 3





## 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: 11/1/2016  
 Final Closeout: 11/1/2017\*

\* Includes warranty period

### Cost

Total Estimated: \$6,547,522  
 Spent to Date: \$734,695  
 Percent Spent: 11%

Status: On Scope

Status: Revised Construction Schedule

Status: On Budget

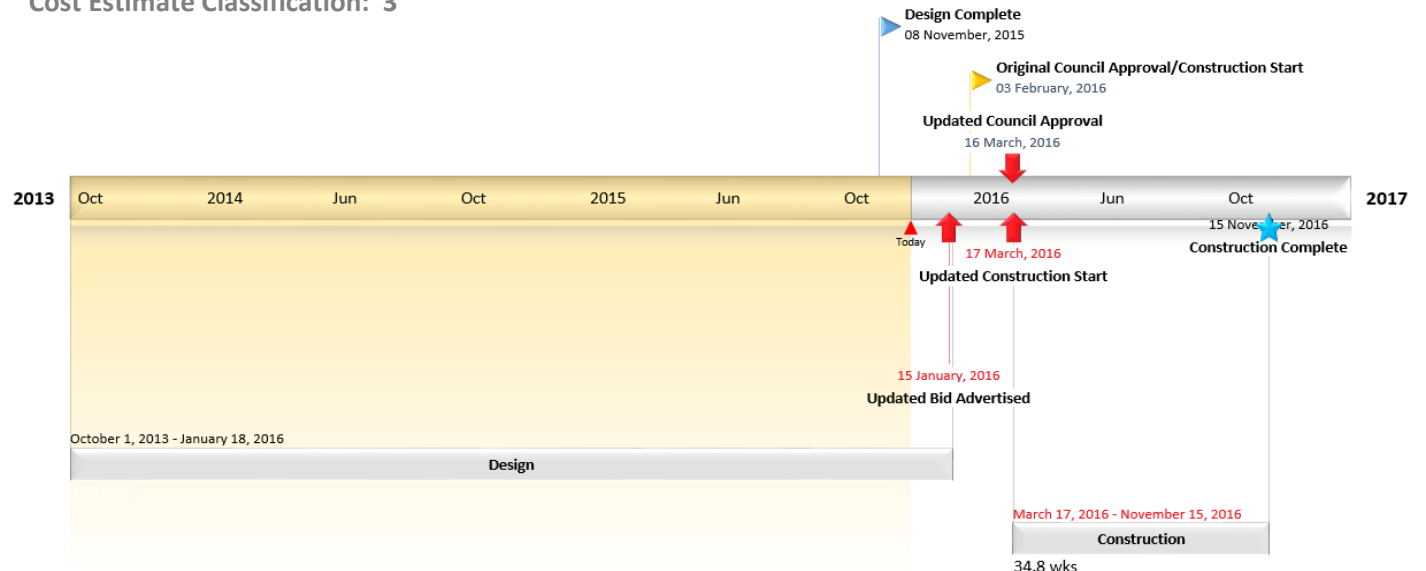
Adjustments: No change from prior month

Adjustments: Bid and construction schedule adjusted.

Adjustments: No change from prior month

**Status Update:** Bid advertisement delayed due to permitting and easement negotiations. Negotiating construction easements with private land owners and completing permits with North Unit Irrigation District and BNSF RR.

### Cost Estimate Classification: 3



## 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\*

\* Includes warranty period

### Cost

Total Estimated: \$13,620,132  
 Spent to Date: \$2,231,663  
 Percent Spent: 16%

### Status: In Negotiation

Adjustments: On-going negotiations on scope change for work on DEQ Loan requirements and design modification for Parks & Rec tunnel.

### Status: On Schedule

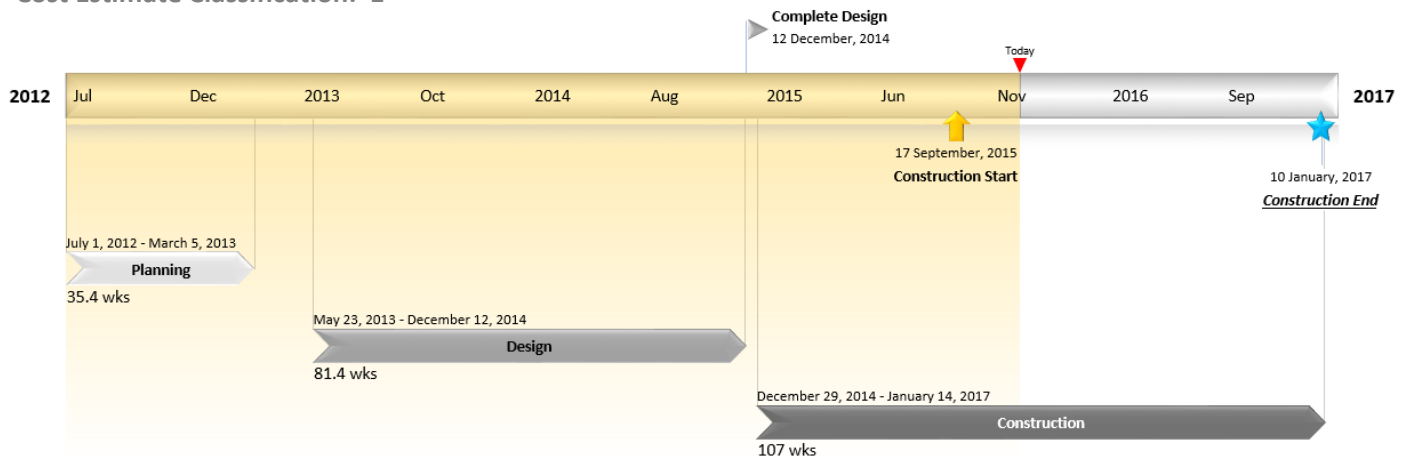
Adjustments: No change from prior month

### Status: On Budget

Adjustments: No change from prior month

**Status Update:** Work on the Colorado Bridge nearly complete with minor work to be completed in January 2016. Installation of the pipeline continues east of the bridge. Construction proceeding through intersections at Bond, Industrial Way and Wall with intermittent street closures. Temporary bypass pump system in McKay Park is on schedule to be operational in December 2015.

### Cost Estimate Classification: 1



# Plant Interceptor Rehabilitation

The existing plant interceptor conveys all of the City’s sewage to the WRF and the 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 liner and corrosion control (air extraction) system. This solution provides protection for the worst portions of the pipe and lessens the deterioration rate of the other pipeline segments.

## HDProfiler System

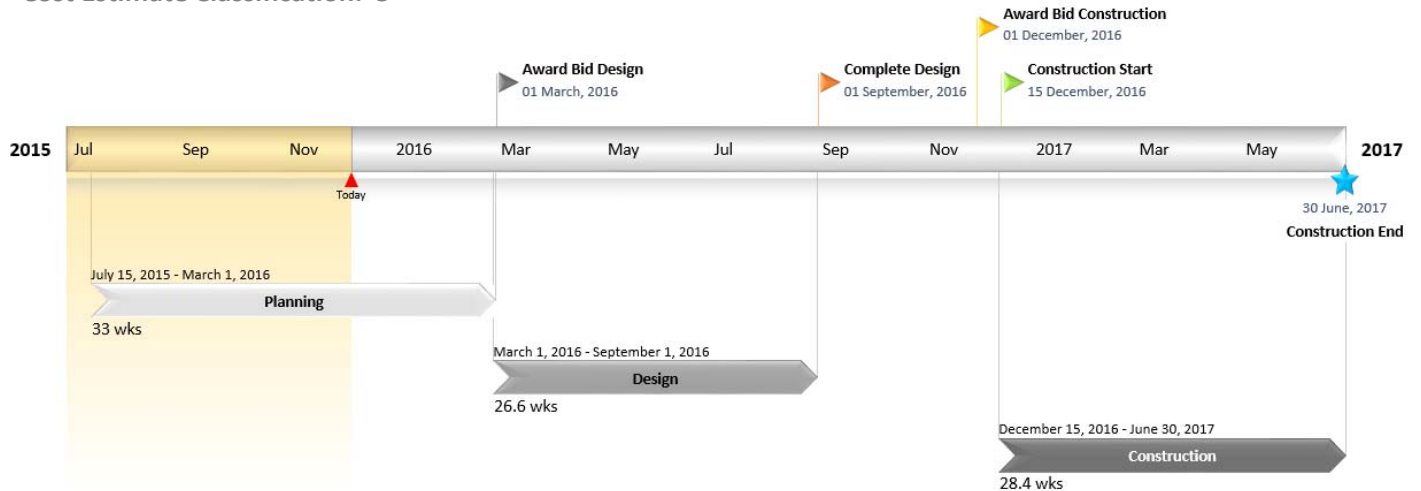


**Project Engineer: Jason Suhr | jsuhr@bendoregon.gov**

Scope	Schedule	Cost
Rehabilitate all grade 4 and 5 pipe segments with a liner as identified in the PICA. Dig and replace four segments that were identified in the CSMP as undersized for future flow projections. Install corrosion control air extraction facility to slow the degradation of the concrete pipeline.	Start Date: 3/1/2015 Substantial Completion: 6/30/2017 Final Closeout: 6/30/2018*  * Includes warranty period	Total Estimated: \$5,738,000 Spent to Date: \$20,955 Percent Spent: 0.40%
<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:** Sought Council direction on scope modification in conjunction with NI, SEI, and new PI as part of the Utility and Projects Update brought to council on December 16, 2015.

### 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: 5/27/2016  
 Final Closeout: 5/27/2017\*

\* Includes warranty period

### Cost

Total Estimated: \$300,000  
 Spent to Date: \$0  
 Percent Spent: 0%

Status: On Scope

Status: On Schedule

Status: On Budget

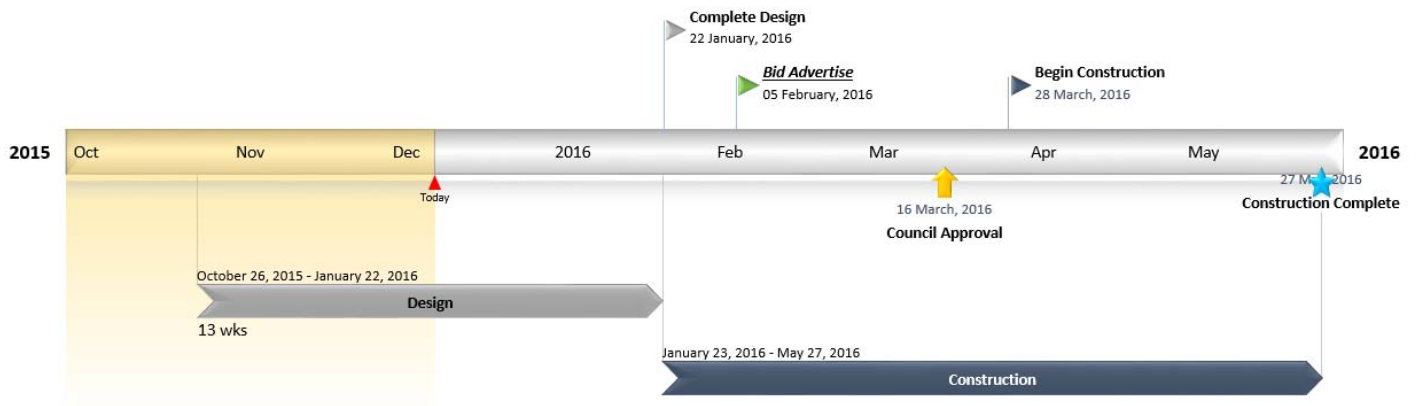
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

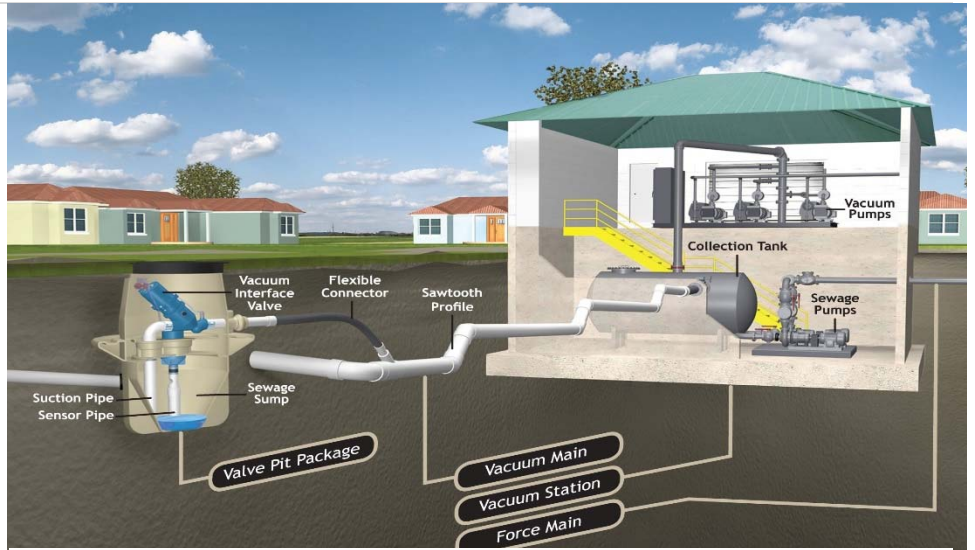
**Status Update:** Construction timeframe will be modified when more information is available on the project.

### Cost Estimate Classification: 4



## Wood River Village Lift Station & Vacuum Eval.

Evaluate existing system conditions in order to determine existing and future capacity as well as future development potential within the area.

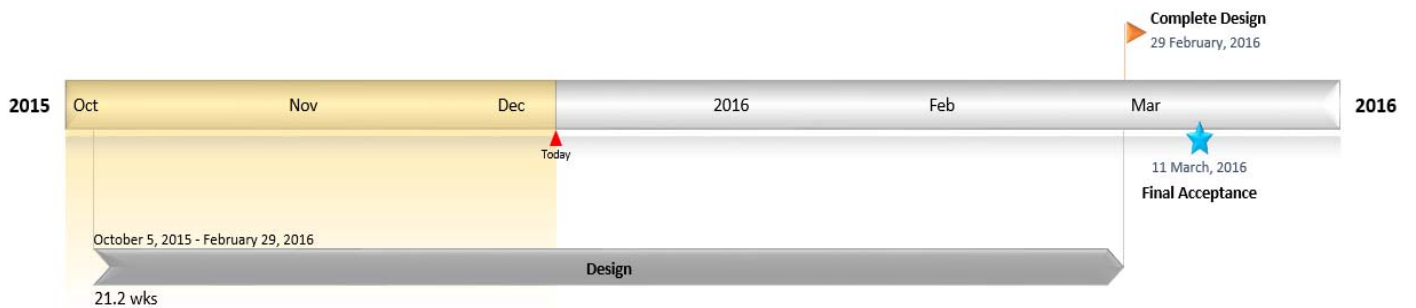


Project Engineer: Garrett Sabourin | [gsabourin@bendoregon.gov](mailto:gsabourin@bendoregon.gov)

Scope	Schedule	Cost
Complete a sewer system analysis and develop three (3) preliminary design solutions for a longstanding replacement and/or upgrade to the developments collection system.	Start Date: 9/1/2015 Substantial Completion: 3/11/2016 Final Closeout: 3/11/2016	Total Estimated: \$50,000 Spent to Date: \$0 Percent Spent: 0%
<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

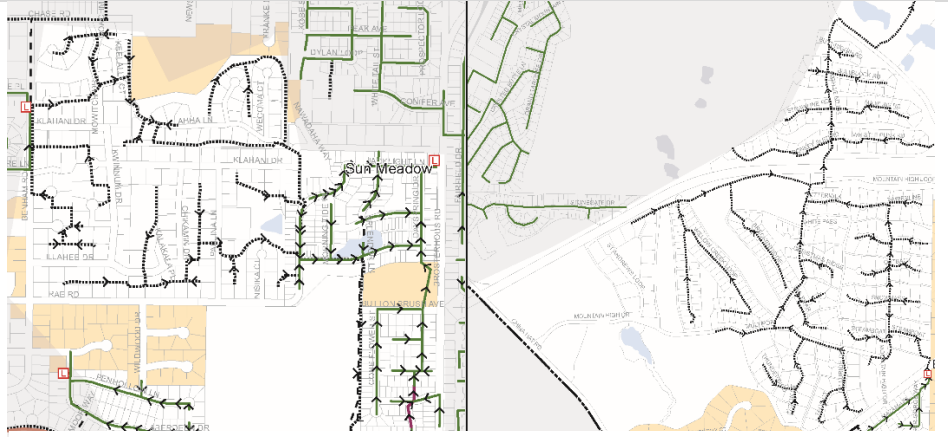
**Status Update:** Contract finalized and design consultant has initiated project execution.

### Cost Estimate Classification: N/A



# Bend South Sewer Evaluation

Evaluate existing system locations and conditions in order to determine existing and future capacity as well as future development potential within the area. This is part of the former Juniper Utility.



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

## Scope

Complete a sewer system analysis and develop three (3) preliminary design solutions for a longstanding replacement and/or upgrade to the developments collection system.

## Schedule

Start Date: 10/05/2105  
 Substantial Completion: 3/11/2016  
 Final Closeout: 3/11/2016

## Cost

Total Estimated: \$50,000  
 Spent to Date: \$0  
 Percent Spent: 0%

### Status: On Scope

Adjustments: No change from prior month

### Status: On Schedule

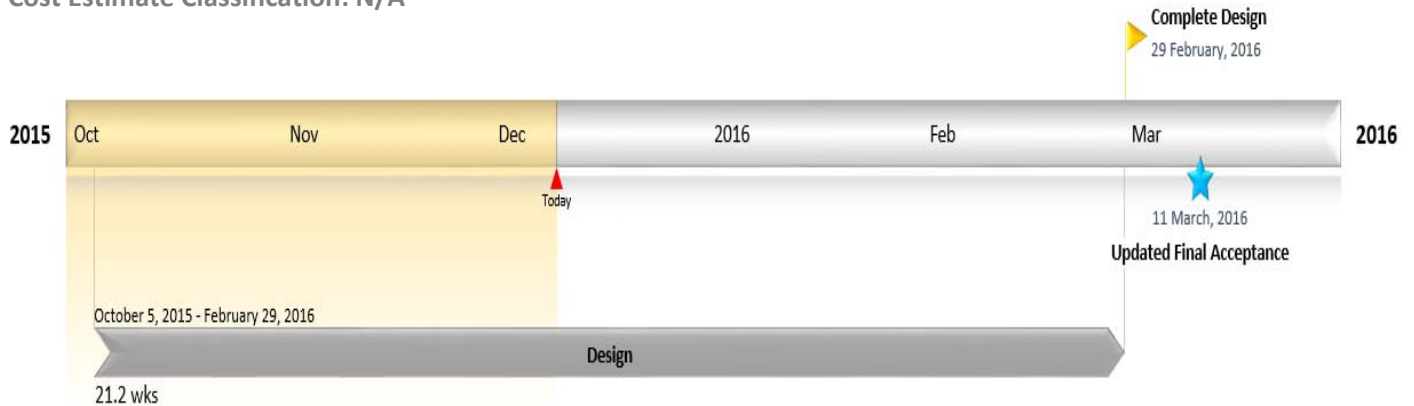
Adjustments: No change from prior month

### Status: On Budget

Adjustments: No change from prior month

**Status Update:** Contract finalized and design consultant has initiated project execution.

### Cost Estimate Classification: N/A



## Drake and Dohema Pump Station

A nine acre basin drains to the intersection of Drake and Dohema. The existing stormwater system consists of catch basins and drill holes. The existing drill holes fail to take in water, causing flooding. During larger storm events the water floods neighboring basements and has caused significant property damage in the past. The project will help prevent flooding and protect groundwater.

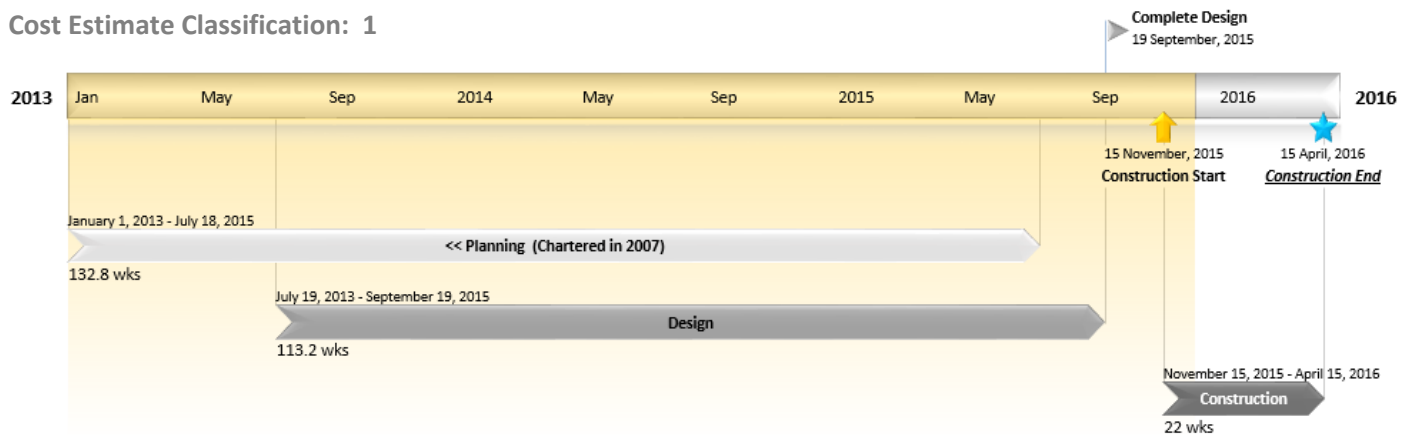


Project Engineer: Ryan Oster | roster@bendoregon.gov

Scope	Schedule	Cost
The collection system, force mains and treatment swale have been constructed. The remaining work includes installation of a control panel, minor conduit work, and a pump system.	Start Date: 4/1/2011 Substantial Completion: 4/15/2016 Final Closeout: 4/15/2017*  * Includes warranty period	Total Estimated: \$404,686 Spent to Date: \$217,686 Percent Spent: 54%  Cost savings by self- performing the instillation of pumps and control panels.
<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:** Pumps and electrical panel are being fabricated.

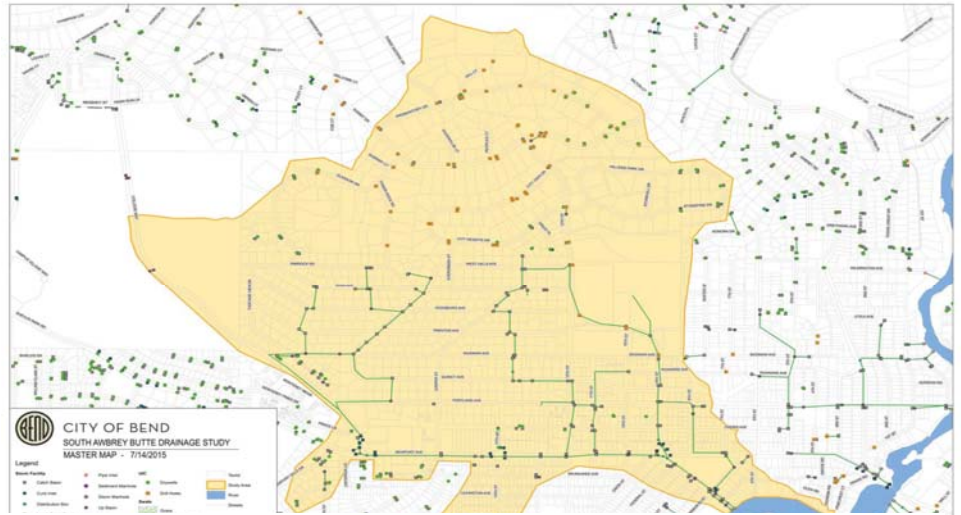
### Cost Estimate Classification: 1





## 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](mailto: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 Storm Sewer Line.	Start Date: 7/1/15 Substantial Completion: 12/26/2016 Final Closeout: 01/02/2017	Total Estimated: \$250,000 Spent to Date: \$0 Percent Spent: 0%
<b>Status: On Scope</b>	<b>Status: Revised Schedule</b>	<b>Status: On Budget</b>
Adjustments: No change from prior month	Adjustments: <b>Adjusted RFP advertisement date</b>	Adjustments: No change from prior month

**Status Update:** Advertisement date updated.

**Cost Estimate Classification: N/A**

