



ENGINEERING

Monthly Report

Fiscal Year 2016-2017

December 2016 & January 2017



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FROM THE DIRECTOR

With all of the infrastructure investments we are making in Bend, it is hard to know how we compare with other communities. As of yet, there is no national standard of comparisons. As a member of the American Public Works Association I serve on two committees developing these standards so communities can better assess where they stand. We are also looking at assessment tools to help us evaluate the current condition of infrastructure assets. What we do know is that infrastructure on a national and state scale is in need of serious investment.

The American Society of Civil Engineers began reporting grades on the condition in 1988 and has shown our infrastructure has slipped, both in terms of condition and investment. In 2013 Oregon received a grade of C- compared to a national D+ rating. In 2016 the League of Oregon Cities further explored the State’s water and transportation needs with a 120 city survey that showed a need for \$11.4 billion in transportation and \$7.6 billion in water investments over the next 20 years. See page 3-4 of the Executive Summary for more information.

Where this money will come from is unknown. Legislative efforts on both a state and federal level have not changed funding commitments on infrastructure in many years. The competition for limited dollars has forced communities to self-invest. In speaking with my colleagues from across the country, many are surprised with Bend’s commitment to infrastructure. They are interested in the master planning techniques – right sizing and timing – we have put in place to help get this done. Today’s investments give Bend at an advantage for our community’s long-term economic growth. While we still have funding challenges, Bend appears to be leading on many fronts.

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

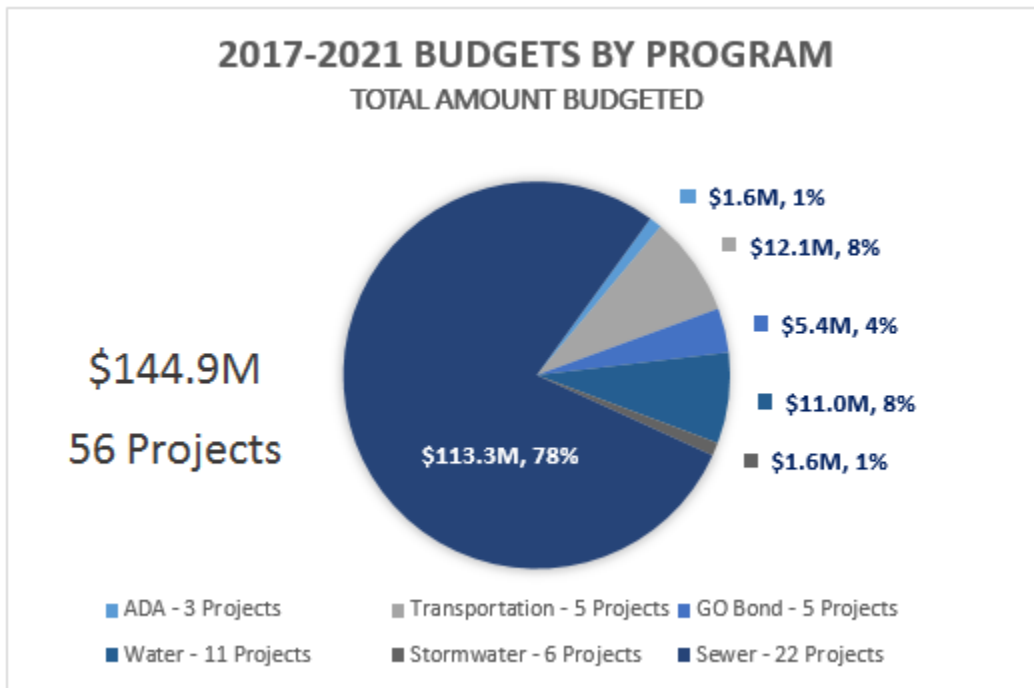
CIP by the Numbers

This section identifies changes to the CIP for the reporting period: November 1, 2016 – December 31, 2016

0 **Initiated**

6 **Substantial Completion** Valhalla, Colorado Pump Station & Sewer Mains (sub-projects are Colorado Bride Force Main, Colorado Force Main Street Portion, Colorado Gravity Main, Colorado Odor Control and Colorado Pump Station).

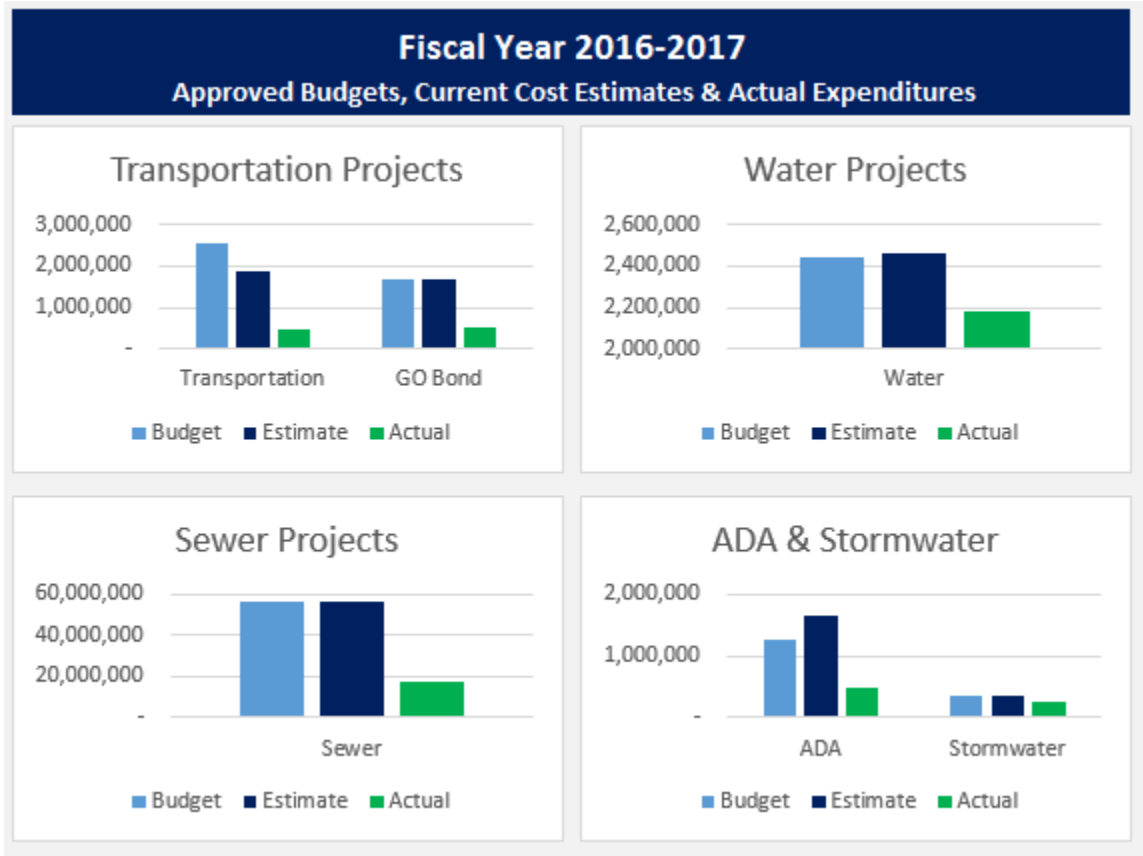
The graph below shows the number of projects, amounts budgeted and the percentage of budgets by program for the 2017-2021 CIP.



The table below shows the status of projects in the current CIP Plan.

Status	CIP	R&R
Open (Active): In planning, design or construction phase	19	1
Substantially Complete (Active): Asset transferred to Operations and City has beneficial use	7	0
Closed (Not Active): Completed 1-2 yr. warranty; Cancelled; Transferred project to Ops	0	0
Pending (Not Active): Scheduled to start within 5-Year CIP Plan	30	15
Total	56	16

The graph below show the 2017 Fiscal Year approved budgets, current estimates and capital expenditures by program.



The table below shows current fiscal year expenditures and remaining budgets by program. Program budgets are approximately 21% spent for Fiscal Year 2016-17.

Program	Projects	2017 FY Budget	2017 FY Spent	Remaining
Water Reclamation	25	\$ 56,484,700	\$ 17,588,547	\$ 38,896,153
Water	11	\$ 2,443,100	\$ 2,178,554	\$ 264,546
Transportation	5	\$ 2,528,000	\$ 478,288	\$ 2,049,712
GO Bond	4	\$ 1,682,300	\$ 508,514	\$ 1,173,786
ADA Construction	4	\$ 1,267,000	\$ 492,029	\$ 774,971
Stormwater	6	\$ 350,000	\$ 245,241	\$ 104,759
Totals	55	\$ 64,755,100	\$ 21,491,173	\$ 43,263,927

OREGON | 2010 REPORT CARD GPA: **C-**



OREGON INFRASTRUCTURE GRADES

2010 REPORT CARD GPA: **C-**

AVIATION	D	DAMS AND LEVEES	C	ENERGY	C
INLAND WATERWAYS	B-	RAIL	C	SOLID WASTE	B
TRANSIT	C-	TRANSPORTATION	C-	WATER AND WASTEWATER	D

A: EXCEPTIONAL, B: GOOD, C: MEDIOCRE, D: POOR, F: FAILING, ?: INCOMPLETE

Each category was evaluated on the basis of capacity, condition, funding, future need, operation and maintenance, public safety, resilience, and innovation

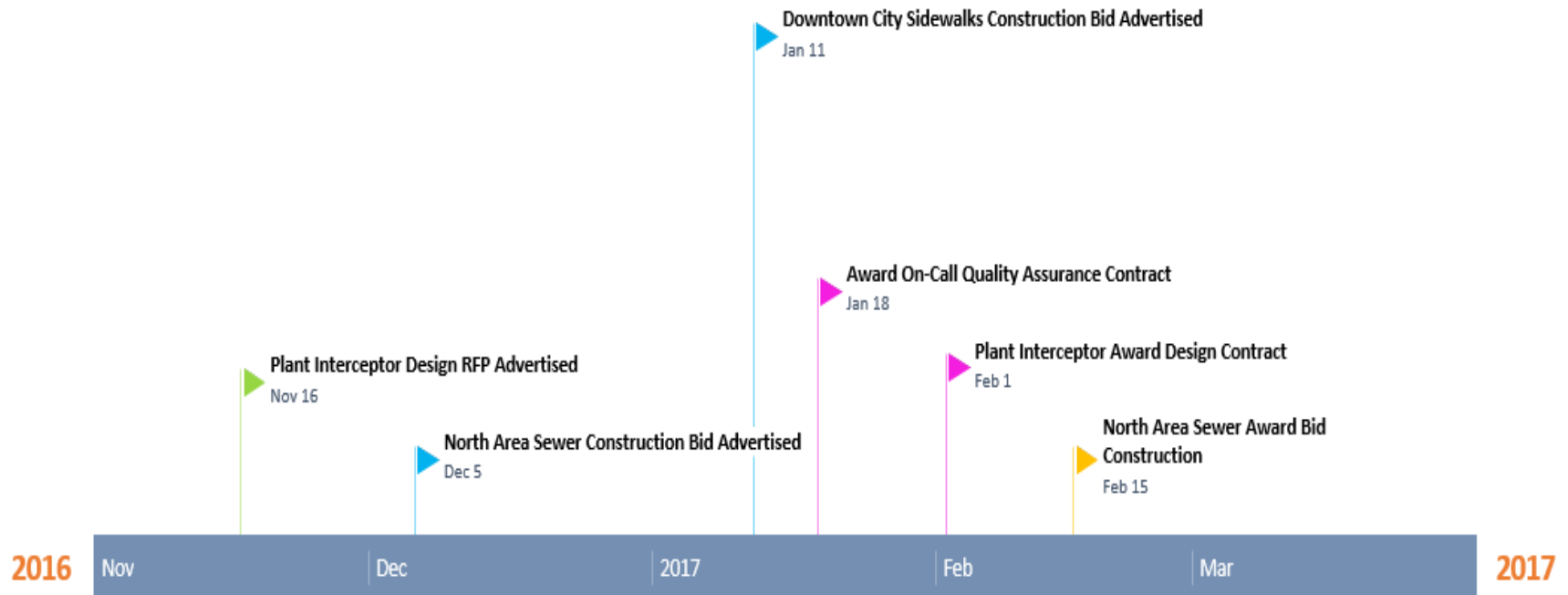
Oregon's water and wastewater infrastructure currently faces needs exceeding \$4.4 billion. These systems are primarily funded through rate-based collections and revolving funds. Of the almost 2,000 groundwater public drinking water sources, two-thirds are considered to be sensitive groundwater sources and just less than half are identified as highly sensitive per Oregon Department of Environmental Quality (DEQ) requirements. More than 1 million Oregonians, or approximately 35% of the state's population, use septic systems.

In Oregon, 23% of the state's bridges are either structurally deficient or functionally obsolete. With existing funding mechanisms, Oregon's bridges will become structurally deficient at a rate of 25 per year by the year 2018. In 2008, 85% of state highways were rated in fair or better condition, which was 2% less than in 2006. The percentage of state highways in good to very good condition dropped 11% since 2006, and the percentage of pavements in fair condition has increased from 15% to 24%. Some local and county roads are facing excessive shortfalls. Federal agencies are closing roads and reducing maintenance. While the Oregon Transportation Investment Act and the American Recovery and Reinvestment Act (ARRA) provided investment, these programs are one time measures and do not put in place a permanent funding mechanisms necessary for the ongoing needs of Oregon's bridges and roads.

Oregon's aviation system is experiencing a number of shortcomings. While there is high-quality and substantial investment by the Port of Portland in its facilities, the balance of the state's 96 airports do not realize the same level of investment. Using standards developed by the Oregon Department of Aviation, the group of airports offering some scheduled airline service are 29% deficient in runway length, 57% in taxiways, 14% in visual approach aids and 14% in taxiway lighting.

Oregon's locally operated public transportation system has more than 300 transportation providers. The transit agencies in Portland, Salem and Eugene have substantial systems, while Oregonians who live in non-metropolitan areas have limited access to transit. Funding sources are fragmented including such diverse sources as federal government, property taxes, fares, Business Energy Tax Credit, contributions from universities, group pass programs, federal grants and subsidies, donations, employer taxes, user fees, self-employment taxes, payroll taxes and state grants. This funding structure requires cuts in transit when the economy is down – just when transit services are needed the most. Finally, there is no significant intercity passenger rail service between Oregon cities aside from the Portland-Eugene corridor.

EIPD Procurement Timeline



KEY	
	Design RFP Advertised
	Award Design Contract
	Complete Design
	Bid Advertised
	Award Bid Construction
	Construction Start
	Complete Construction
	Contract Amendment

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City of Bend 2017 - 2021 Capital Improvement Program Project List

Project Name & Number	Project Start	Estimated Substantial Completion	Project Stage	Cost Estimate Class	Total Project Cost Estimate	Total Project Spent to Date	2016-17	2017-18	2018-19	2019-20	2020-21	2017-2021 Budgeted	Revisions Budget	Percent Project Estimate Spent
ADA Construction														
1A3AA South 3rd Street Pedestrian Improvements	2011	03/31/17	Design	1	666,500	709,497	100,000	-	-	-	-	100,000		106%
1ACAI Citywide Accessibility Improvements	2016	9/28/18	Design	4	750,000	163,364	400,000	300,000	-	-	-	700,000		22%
1ADCS Downtown City Offices Sidewalk	2016	06/30/17	Design	4	250,000	60,335						-	1	24%
1AADA Future ADA Projects	2017	07/10/05	Pending	5	642,000	-	767,000	-	-	-	-	767,000	1	0%
Total ADA Construction Projects					2,308,500	933,195	1,267,000	300,000	-	-	-	1,567,000		
BURA - Murphy Crossing Construction														
1TMPR Murphy & Parrell Roundabout	2015	07/29/16	Sub.Complete	1	2,000,000	1,023,699	1,014,000	-	-	-	-	1,014,000		51%
Total BURA Projects					2,000,000	1,023,699	1,014,000	-	-	-	-	1,014,000		
Transportation Construction														
1TGC Galveston Corridor Improvements	2011	10/15/16	Design	5	2,700,000	371,065	225,000	-	-	-	-	225,000		14%
1TSDP Sidewalk Design and Projects	2017	2018	Pending	5	3,500,000	7,062	140,000	380,000	1,830,000	1,150,000	-	3,500,000		0%
1TNPS Neff and Purcell Sidewalks	2016	2020	Pending	5	4,000,000	-	50,000	350,000	300,000	3,300,000	-	4,000,000		0%
1TCSI Citywide Safety Improvements	2016	09/30/18	Design	4	3,344,000	334,056	1,099,000	1,470,000	775,000	-	-	3,344,000	1	10%
Total Transportation					13,544,000	712,183	1,514,000	2,200,000	2,905,000	4,450,000	-	11,069,000		5%
GO Bond														
1T14R 14th St. Reconstruction	2016	10/15/16	Design	5	3,888,950	228,535	513,000	3,643,527	-	-	-	4,156,527		6%
1T27R 27th Street Reconstruction	2017	2017	Pending	5	1,049,300	116,017	1,049,300	-	-	-	-	1,049,300		11%
1TPWP Powers & Brookwood Roundabout Phase II	2016	10/15/16	Design	3	50,000	-	45,000	-	-	-	-	45,000		0%
1TR27 Reed Mkt: Newberry to 27th	2012	10/15/15	Sub.Complete	1	4,841,330	4,851,450	30,000	21,000	-	-	-	51,000		100%
1TR3N Reed Mkt: 3rd to Newberry	2012	11/13/15	Sub.Complete	1	14,145,450	13,379,811	45,000	10,000	16,000	-	-	71,000		95%
Total GO Bond					23,975,030	18,575,812	1,682,300	3,674,527	16,000	-	-	5,372,827		
Water														
1XSWP Bridge Creek Intake and Pipeline	2008	06/30/16	Sub.Complete	1	73,954,698	72,152,611	783,100	-	-	-	-	783,100		98%
1WEWL Egypt Waterline	2012	2019	Planning	2	500,000	29,931	-	-	478,400	-	-	478,400		6%
1WSDC Water SDC Methodology Study	2017	07/09/05	Pending	-	60,000	578	60,000	-	-	-	-	60,000		1%
1WMP1 Water Master Plan Update	2017	07/09/05	Pending	-	500,000	-	500,000	-	-	-	-	500,000		0%
1WS3W Phase 2 South 3rd St. - Water portion	2016	03/31/17	Design	3	1,100,000	6,437	1,100,000	-	-	-	-	1,100,000		1%
1WAWP Awbrey Well Supply Expansion	2020	2020	Pending	5	2,021,760	-	-	-	-	2,021,760	-	2,021,760		0%
1WLPE Lafayette Pipe Enlargement	2020	2020	Pending	5	250,640	-	-	-	-	250,640	-	250,640		0%
1WCPS College Parallel Pipe Study	2020	2020	Pending	-	1,215,760	-	-	-	-	1,215,760	-	1,215,760		0%
1WVSS Valves Operational System Study	2021	2022	Pending	-	156,000	-	-	-	-	78,000	78,000	156,000		0%
1WSSC Opt Study - New Level 5 Well - Shirley Ct	2021	2021	Pending	-	1,596,400	-	-	-	-	-	2,830,464	2,830,464		0%
1WSPP Opt Study - Parallel Piping Rock Bluff to Brookwood	2021	2021	Pending	-	2,830,464	-	-	-	-	-	1,596,400	1,596,400		0%
Total Water					84,185,722	72,189,557	2,443,100	-	478,400	3,566,160	4,504,864	10,992,524		
Stormwater														
1RABD South Awbrey Butte Drainage Study	2016	03/31/17	Design	-	250,000	107,933	200,000	-	-	-	-	200,000		43%
1R3AA South 3rd Street - Stormwater portion	2016	12/26/16	Design	1	470,000	162,491	150,000	-	-	-	-	150,000		35%
1RNPR Newport Pipe Replacement Design	2018	2019	Pending	5	442,000	-	-	-	442,000	-	-	442,000		0%
1RMP1 Stormwater Master Plan Update	2020	2022	Pending	5	130,000	-	-	-	-	-	130,000	130,000		0%
1RFGU Franklin & Greenwood Underpass	2021	2029	Pending	5	572,000	-	-	-	-	-	572,000	572,000		0%
1RRMC Roosevelt & McKinley	2020	2022	Pending	5	104,000	-	-	-	-	-	104,000	104,000		0%
Total Stormwater					1,968,000	270,424	350,000	-	442,000	-	806,000	1,598,000		

City of Bend 2017 - 2021 Capital Improvement Program Project List

Project Name & Number	Project Start	Estimated Substantial Completion	Project Stage	Cost Estimate Class	Total Project Cost Estimate	Total Project Spent to Date	2016-17	2017-18	2018-19	2019-20	2020-21	2017-2021 Budgeted	Revisions Budget	Percent Project Estimate Spent
Sewer - Water Reclamation														
1S2S3 SEI Schedule 2S&3	7/1/2015	12/30/17	Construction	1	30,000,000	9,679,517	18,284,000	9,070,000	-	-	-	27,354,000		32%
1S45R SEI Schedule 4&5R	4/2025	12/30/16	Sub.Complete	1	16,000,000	12,227,460	4,180,500	-	-	-	-	4,180,500		76%
1SP1X SEI Phase 1 Extension	3/1/2016	12/31/17	Design	4	8,200,000	394,147	4,637,500	3,402,500	-	-	-	8,040,000		5%
1SNAF North Area Force Main	2016	12/31/17	Design	2	3,000,000	255	2,834,850					2,834,850		0%
1SNAS North Area Gravity Main	2016	12/31/17	Design	2	3,547,522	1,025,560	2,834,850					2,834,850		29%
1SRLS Riverhouse Lift Station Hydraulic Upgrade	2016	06/30/17	Design	2	500,000	11,577	370,000					370,000		2%
1SBSS Southeast Bend Septic Solutions (NEW)	2017	2019	Design	5	2,000,000	-	-	-	-	-	-	-		0%
1SPIR Plant Interceptor Rehabilitation	2015	06/30/17	Design	5	5,738,000	22,918	5,970,000					5,970,000		0%
1SVOC Valhalla Sewer Relocation	2011	10/16/16	Sub.Complete	1	1,860,370	1,614,376	2,000,000					2,000,000		87%
1XCOL Colorado Pump Station and Force Main	2013	01/10/17	Sub.Complete	2	13,620,132	13,727,823	4,525,000					4,525,000		101%
1SWRF Secondary Expansion	2009	06/30/17	Construction	1	45,000,000	40,619,167	2,353,000					2,353,000		90%
1SSHI Solids Handling Improvement Project	2016	2019	Pending	5	17,000,000	-	6,000,000	4,000,000	7,000,000			17,000,000		0%
1SEIP East Interceptor (Formerly SEI Phase II North)	2016	2028	Pending	5	21,000,000	-	1,000,000	1,000,000				2,000,000		0%
1SNIP North Interceptor	2016	2021	Pending	5	23,000,000	-	1,000,000	1,000,000	7,000,000	7,000,000	7,000,000	23,000,000		0%
1SFPU WRF Facilities Plan Update	2018	2018	Pending	5	500,000	-		500,000				500,000		0%
1SPSO Parallel Sewer on Olney Avenue	2018	2018	Pending	5	581,000	-		605,000				605,000		0%
1SEPP WRF Evaporation Percolation Ponds	2019	2019	Pending	5	1,567,000	-			1,630,000			1,630,000		0%
1SAMM Amethyst/Mahogany Street Sewer	2019	2019	Pending	5	679,000	-			710,000			710,000		0%
1SM97 Mahogany Street/Hwy 97 Sewer	2019	2019	Pending	5	999,000	-			1,050,000			1,050,000		0%
1SSFU WRF Support Facilities Upgrade	2020	2020	Pending	5	2,400,000	-				2,500,000		2,500,000		0%
1SOC1 Odor Control Master Plan	2020	2020	Pending	-	1,000,000	-				1,050,000		1,050,000		0%
1SSLA Sewer Storage - Land Acquisition	2020	2020	Pending	-	700,000	-				730,000		730,000		0%
1SPIC Plant Interceptor Condition Assessment	2020	2020	Pending	5	600,000	-				630,000		630,000		0%
1SMP1 Collection System Master Plan (Years 6-10)	2020	2020	Pending	-	1,000,000	-				1,050,000		1,050,000		0%
1SGPA Gravity Pipe Condition Assessment	2020	2035	Pending	5	200,000	-				210,000	208,000	418,000		0%
Total Sewer					200,692,024	79,322,800	55,989,700	19,577,500	17,390,000	13,170,000	7,208,000	113,335,200		
Total 2017-2020 Capital Improvement Program					344,365,853	173,027,672	64,260,100	25,752,027	21,231,400	21,186,160	12,518,864	144,948,551		

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

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.

Schedule

Start Date: 11/1/2011
 Substantial Completion: 7/21/2017
 Final Closeout: 7/21/2018

Cost

Total Estimated: \$1,206,500
 Spent to Date: \$902,600
 % Spent to Estimated: 75%

Sub-Projects:	Est.	Spent
ADA	\$665,000	\$709,497
Water	\$70,000	\$30,612
Stormwater	\$470,000	\$162,491

Status: On Scope

Adjustments: No change from prior month

Status: On Schedule

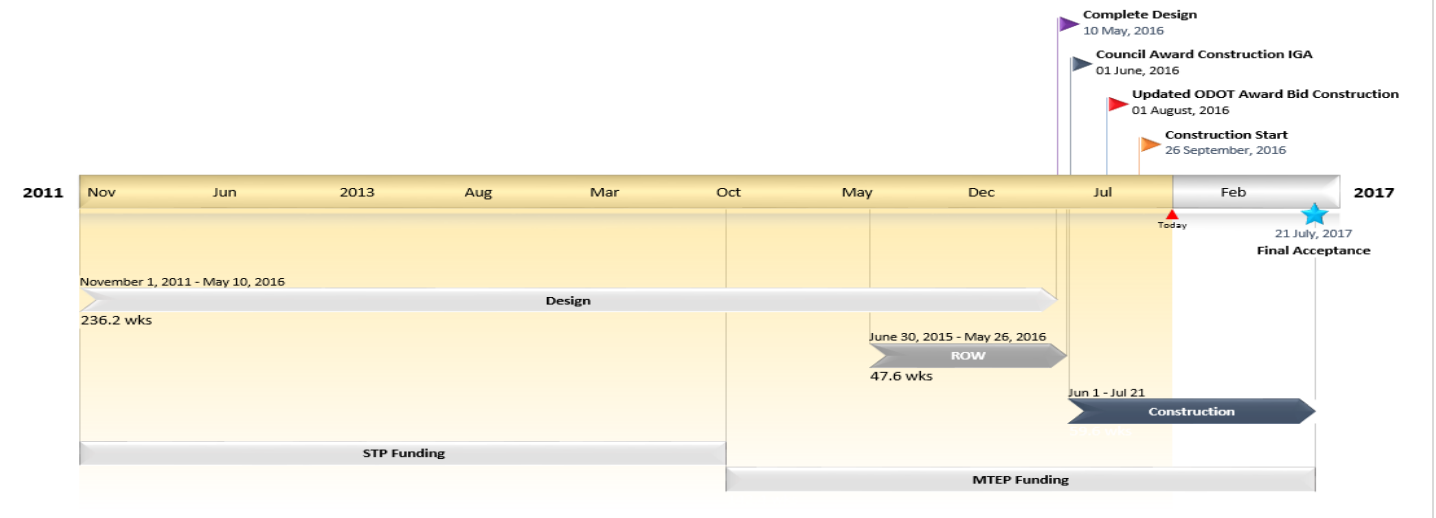
Adjustments: No change from prior month

Status: On Budget

Adjustments: No change from prior month

Status Update: Winter shutdown is in effect as of November 18. Construction will resume in March 2017. No status updates will be provided until construction resumes. Work was completed on the east side of 3rd between Brosterhous Road and Powers Road.

Cost Estimate Classification: 1



Phase 2 - S. 3rd 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.



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

- Stormwater portion complete
- Streets portion complete

Cost

Total Estimated: \$1,135,000
 Spent to Date: \$28,691
 % Spent to Estimated: 3%

Sub-Projects:	Est.	Spent
Water	\$1,100,000	\$6,150
Stormwater	\$5,000	\$6,437
Streets	\$30,000	\$16,104

Status: On Scope

Status: On Schedule

Status: On Budget

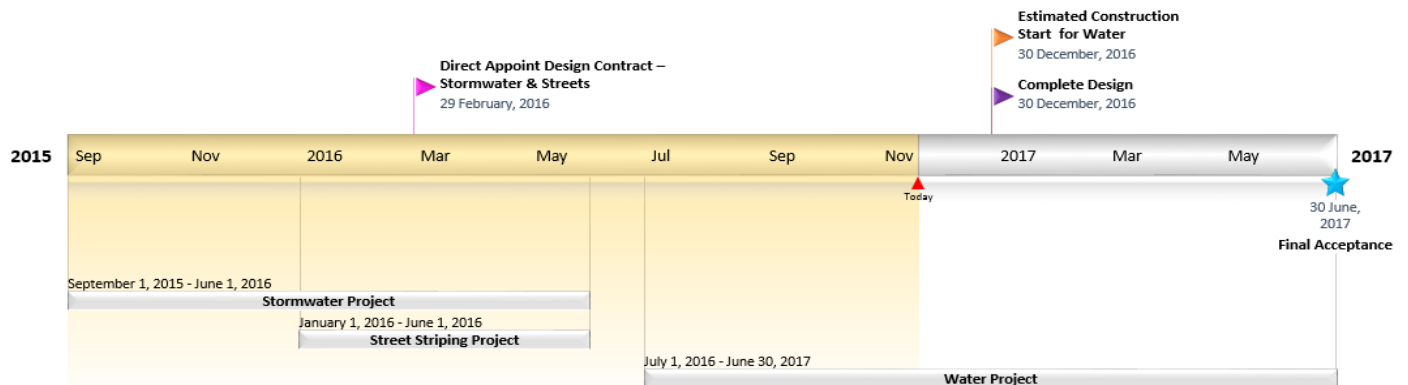
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

Status Update: No update from November. 60% Design efforts are underway on the water project.

Cost Estimate Classification: 4



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

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: \$163,364
 % Spent to Estimated: 22%

Status: On Scope

Adjustments: No change from prior month

Status: Ahead of Schedule

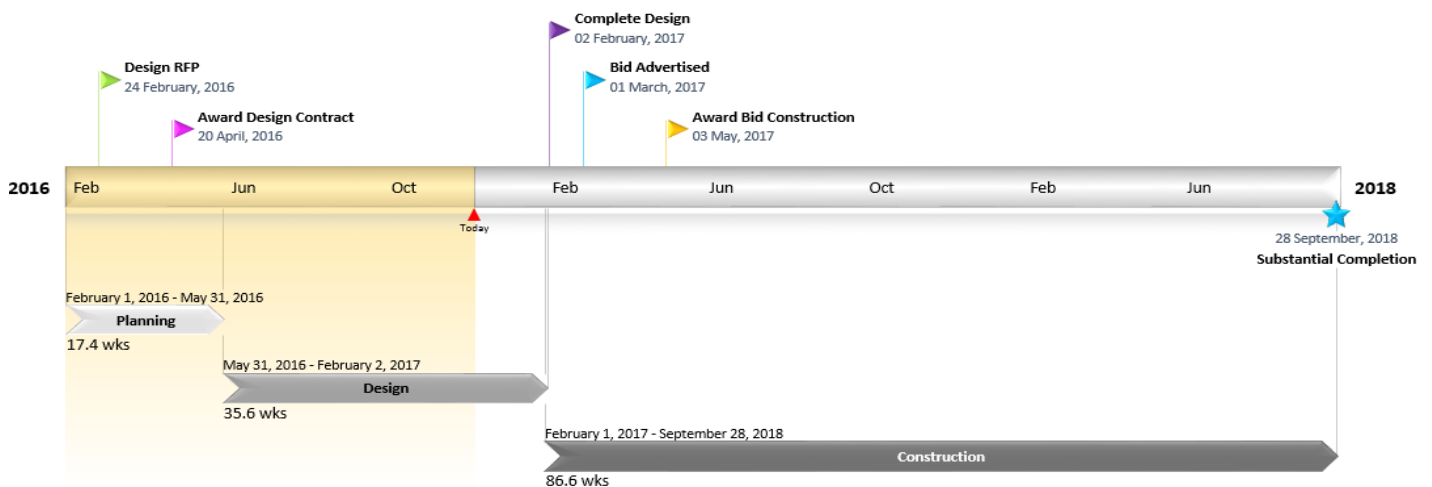
Adjustments: Construction timeline move forward, adjustment will be made in early spring.

Status: On Budget

Adjustments: No change from prior month

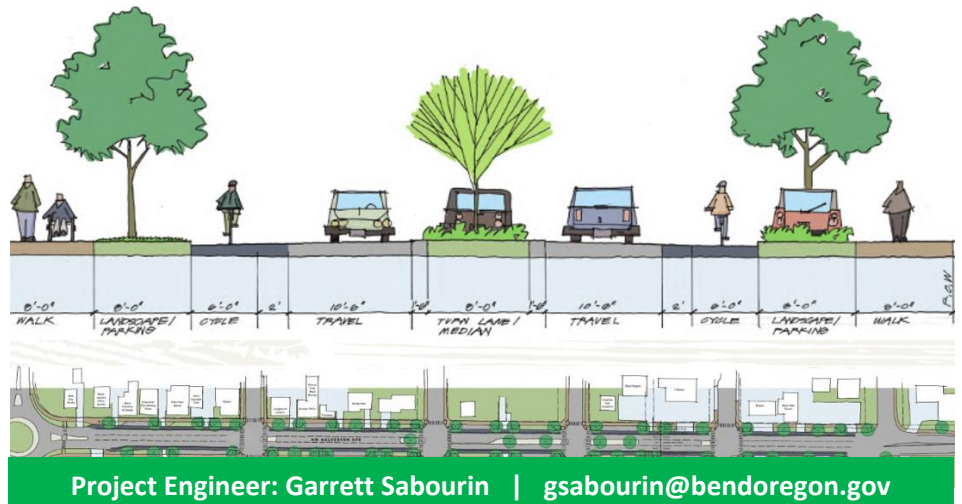
Status Update: 95% Plans have been received and are under review. Temporary construction easements are being acquired from property owners as needed.

Cost Estimate Classification: 4



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: \$371,065*
% Spent to Estimated: 14%

* 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

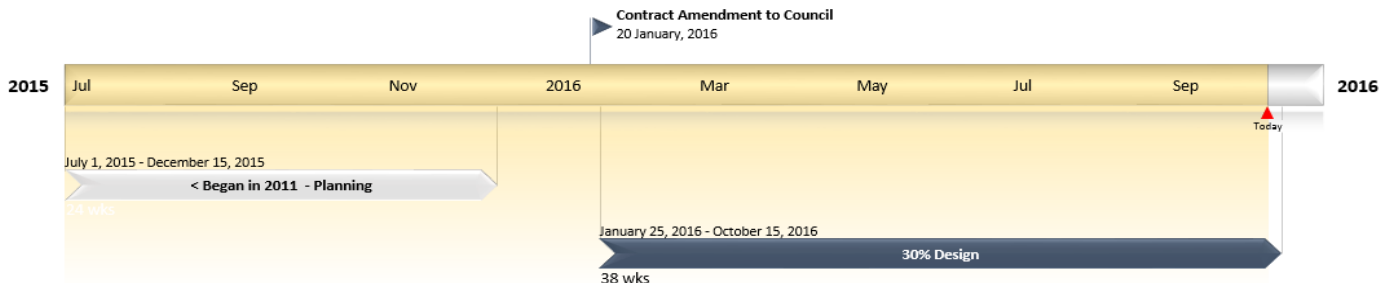
Adjustments: No change from prior month

Status: On Budget

Adjustments: No change from prior month

Status Update: 30% design effort is complete. Staff will present results to Council after Transportation CIP finalized in March 2017. No status updates will be provided until then.

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.



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: \$334,056
 % Spent to Estimated: 10%

Status: On Scope

Adjustments: No change from prior month

Status: On Schedule

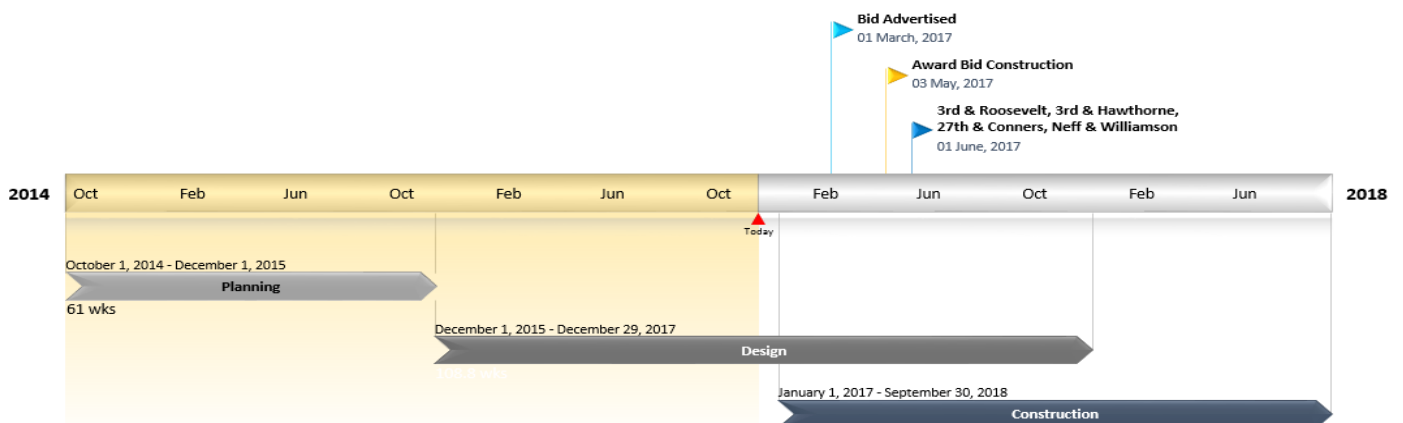
Adjustments: No change from prior month

Status: On Budget

Adjustments: No change from prior month

Status Update: Property owners are being approached to discuss right of way needs at 3rd & Hawthorne and 3rd & Franking locations.

Cost Estimate Classification: 4



14th 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: \$228,535
 % Spent to Estimated: 6%

*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

Adjustments: No change from prior month

Status: On Schedule

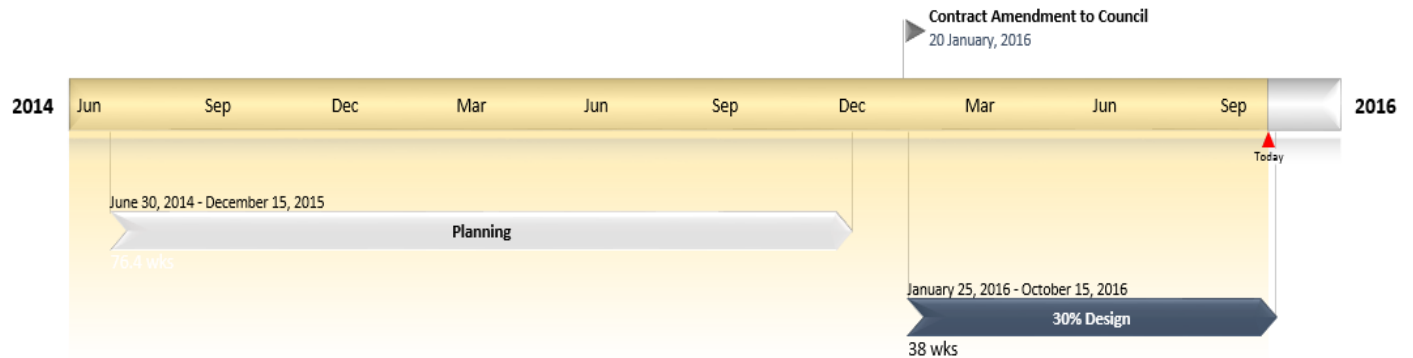
Adjustments: No change from prior month

Status: On Budget

Adjustments: No change from prior month

Status Update: Presented 30% design to council at December 7 work session. Staff is preparing a contract amendment for council consideration to complete design.

Cost Estimate Classification: 5



Downtown City Offices Sidewalk

Old and deteriorating sidewalk will be replaced in the downtown area along Franklin Avenue, Wall Street and Louisiana Avenue. Also included are improvements to provide safer and more visible street crossings at key locations.

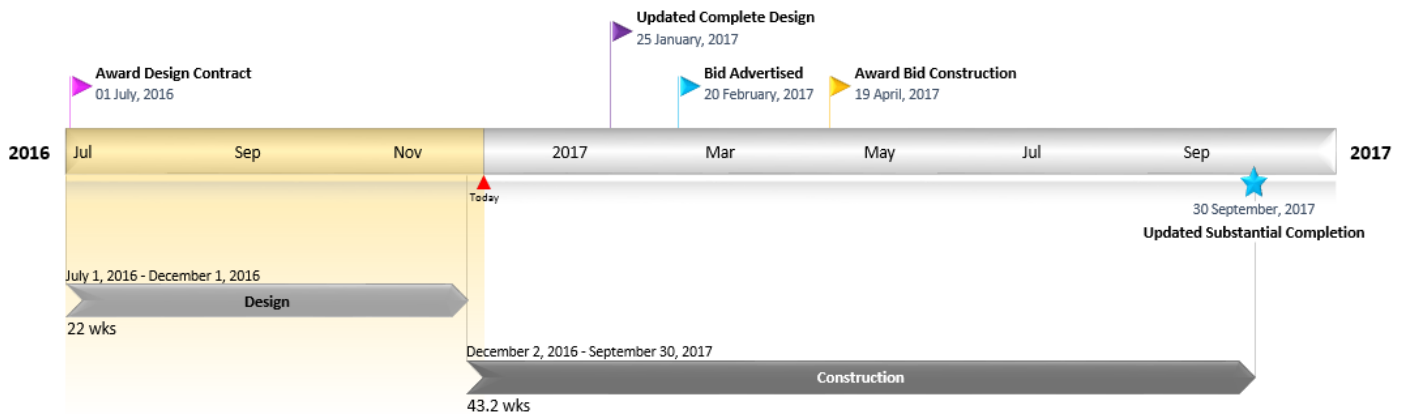


Project Engineer: Rory Rowan | rrowan@bendoregon.gov

Scope	Schedule	Cost
Survey, design and construction of accessibility and safety improvements along Franklin Avenue, Wall Street and Louisiana Avenue in the vicinity of City Hall and the Downtown Library.	Start Date: 7/1/2016 Substantial Completion: 6/30/2017 Final Closeout: 6/30/2018	Total Estimated: \$250,000 Spent to Date: \$60,335 % Spent to Estimated: 24%
Status: On Scope	Status: On Schedule	Status: On Budget
Adjustments: Project Initiated	Adjustments: Project Initiated	Adjustments: Project Initiated

Status Update: Coordination is ongoing with property owners and landscape architect about irrigation, trees and Stormwater planters.

Cost Estimate Classification: 4



Powers & Brookwood Roundabout Phase II

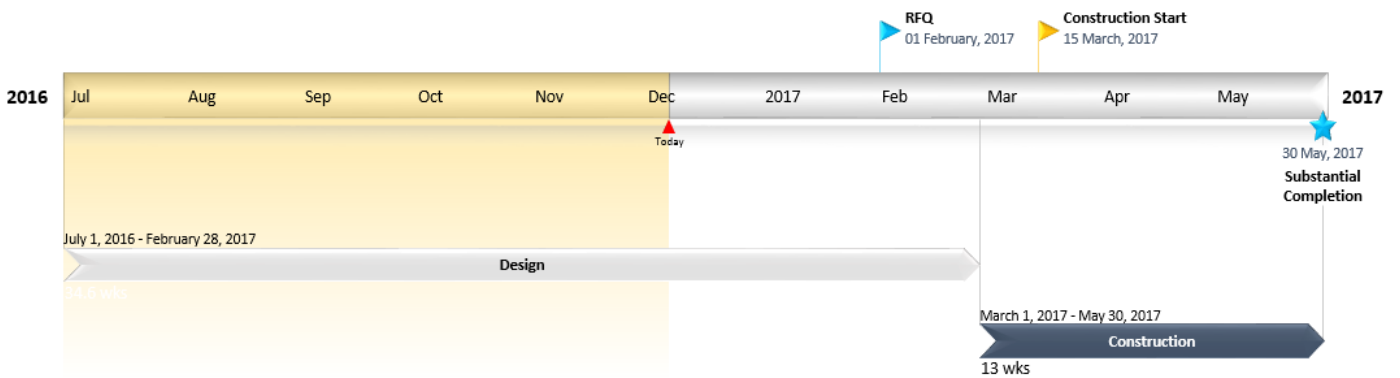
The stormwater from the newly constructed roundabout on Brookwood and Powers is conveyed to and drains into stormwater structures through a swale to the northeast of the roundabout. The Powers & Brookwood Roundabout Phase II Project intent is to rehabilitate this swale. This will be done by cleaning out the storm structures and re-constructing the check dams to convert the swale into a series of retention ponds. This will ensure proper erosion control and sediment collection.



Scope	Schedule	Cost
Re-construct check dams to convey water at appropriate velocity and location. Check dam height will also convert swale into retention ponds for increased retention capacity and sediment collection.	Start Date: 07/01/2016 Substantial Completion: 05/30/17 Final Closeout: 05/30/2018	Total Estimated: \$50,000 Spent to Date: \$0 % Spent to Estimated: 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: Waiting for final approval on design. City is evaluating whether or not to self-perform.

Cost Estimate Classification: 2



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 27th Street between Neff and Reed Market Rd.

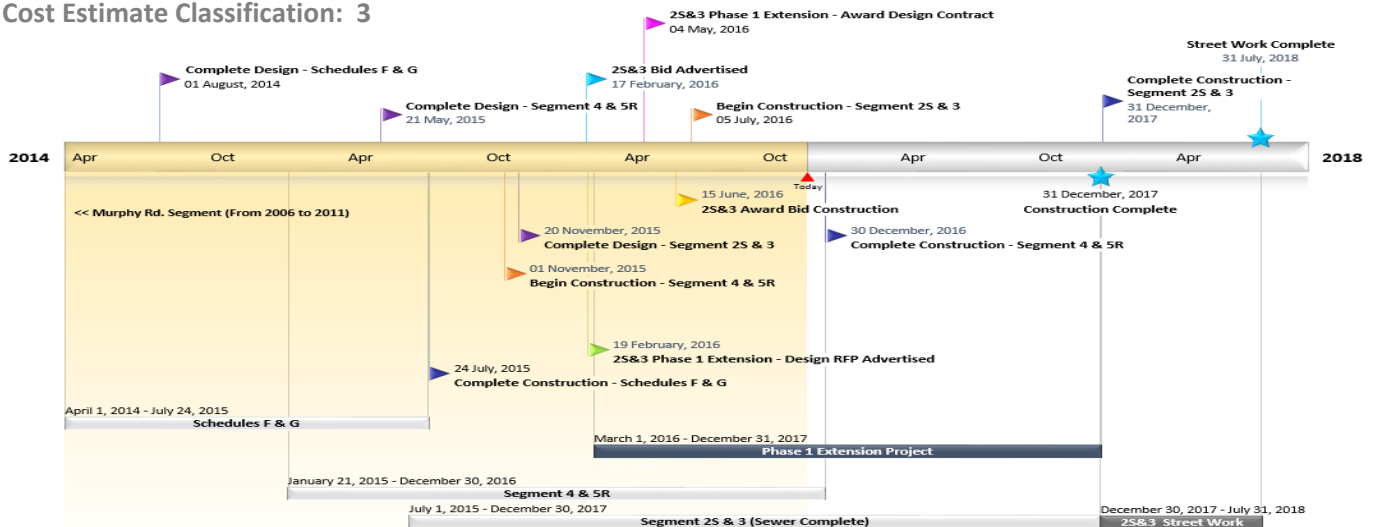


Project Engineer: Eric Forster | eforster@bendoregon.gov

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: 7/31/2018 Final Closeout: 7/30/2019 <ul style="list-style-type: none"> Previous segments, as well as 4&5R, are complete. 	Total Estimated: \$71,700,000 Spent to Date: \$39,054,656 % Spent to Estimated: 54% <table border="1"> <thead> <tr> <th>Sub-Projects:</th> <th>Est.</th> <th>Spent</th> </tr> </thead> <tbody> <tr> <td>Previous</td> <td>\$17,500,000</td> <td>\$16,753,532</td> </tr> <tr> <td>4&5R</td> <td>\$16,000,000</td> <td>\$12,274,600</td> </tr> <tr> <td>2S&3</td> <td>\$30,000,000</td> <td>\$9,679,517</td> </tr> <tr> <td>P1EX</td> <td>\$8,200,000</td> <td>\$394,147</td> </tr> </tbody> </table>	Sub-Projects:	Est.	Spent	Previous	\$17,500,000	\$16,753,532	4&5R	\$16,000,000	\$12,274,600	2S&3	\$30,000,000	\$9,679,517	P1EX	\$8,200,000	\$394,147
Sub-Projects:	Est.	Spent															
Previous	\$17,500,000	\$16,753,532															
4&5R	\$16,000,000	\$12,274,600															
2S&3	\$30,000,000	\$9,679,517															
P1EX	\$8,200,000	\$394,147															
Status: Scope Revision	Status: On Schedule	Status: Potential Budget Adjustment															
Adjustments: Alignment adjustments and pipe depth revised. Site constraints and method of sewer conveyance require new pipe.	Adjustments: No change from prior month. However, obtaining easements is a risk to maintaining schedule.	Adjustments: 60% Design for Phase 1 Extension due soon based on potential scope revision															

Status Update: Easement report indicates project is on track. Grantors have been notified and appraisals started.

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.



Project Engineer: Josh Robertson | jrobertson@bendoregon.gov

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: \$1,614,376
% Spent to Estimated: 87%

Status: On Scope

Status: On Schedule

Status: Under Budget

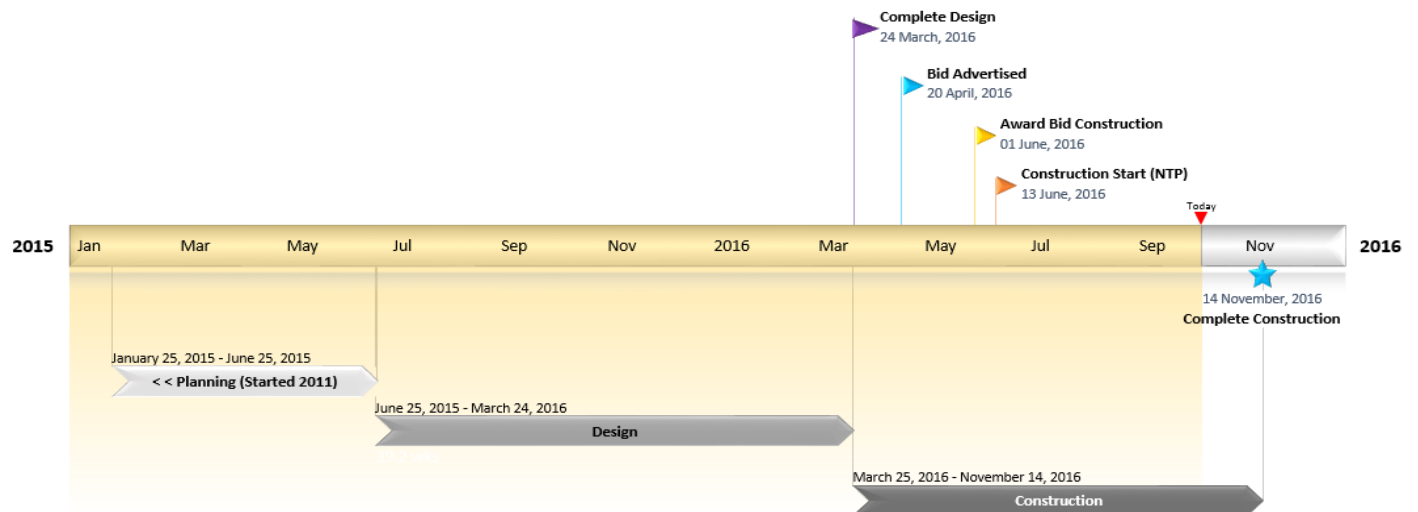
Adjustments: No change from prior month

Adjustments: No change from prior month

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

Status Update: Entering the 30-day performance period needed for final completion. Project is substantially complete and this is the last month this will be included in the monthly report.

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: 12/31/17
 Final Closeout: 12/31/18

Cost

Total Estimated: \$7,047,522
 Spent to Date: \$1,028,412
 % Spent to Estimated: 15%

Sub-Projects:	Est.	Spent
Gravity	\$3,547,522	\$1,022,560
Force Main	\$3,000,000	\$255
Lift Station	\$500,000	\$11,577

Status: On Scope

Adjustments: No change from prior month

Status: Behind Schedule

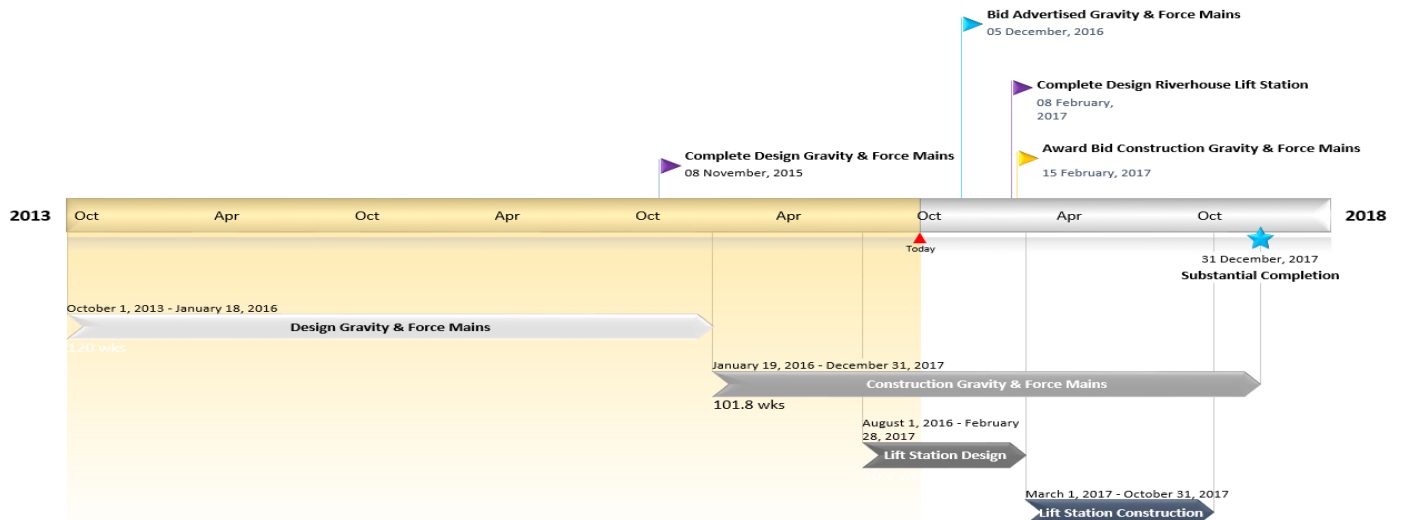
Adjustments: No change from prior month

Status: Potential Budget Adjustment

Adjustments: No change from prior month

Status Update: No update from prior month. The U.S. Bureau of Reclamation is continuing to process the crossing permit for the North Unit Irrigation District, however, bid advertisement will move forward. Delays in bid advertisement expected due to increased workload related to the recent City of Bend financial software conversion.

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: \$13,727,823
 % Spent to Estimated: 101%

Status: On Scope

Status: Ahead of Schedule

Status: O Budget

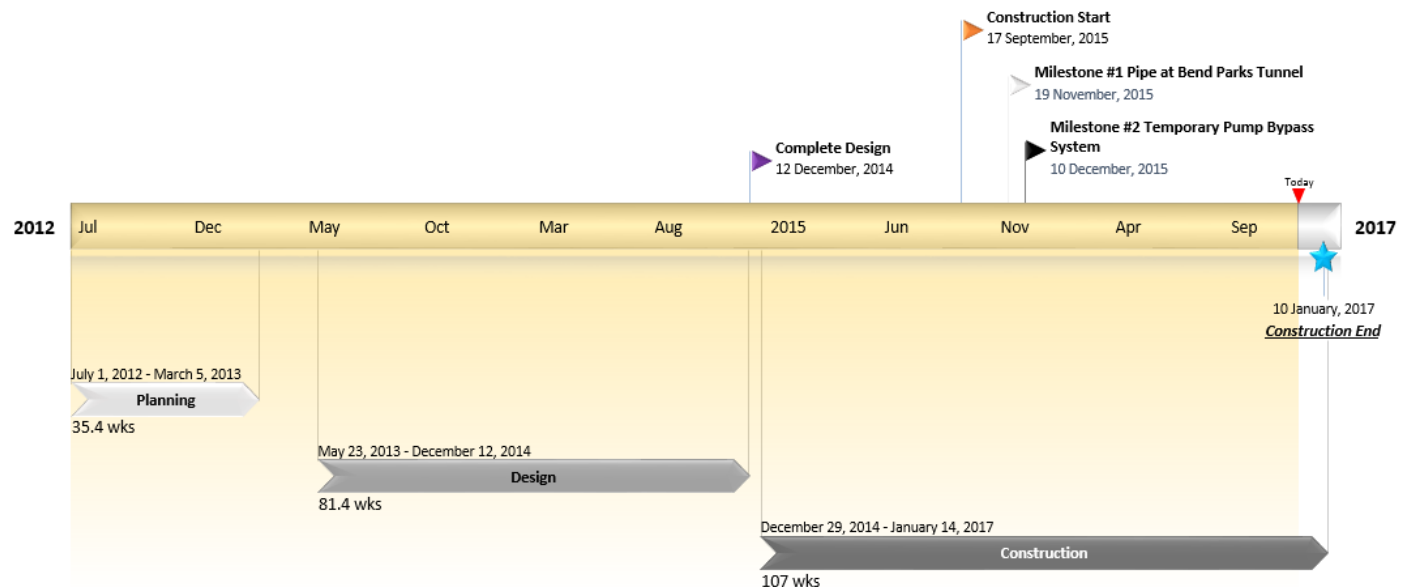
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

Status Update: Project is substantially complete. The project will finish ahead of schedule. This is the last month that this project will appear in this section of the monthly report.

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.



Project Engineer: Jason Suhr | 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: 09/30/18
 Final Closeout: 09/30/19

Cost

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

Status: On Scope

Adjustments: No change from prior month

Status: On Schedule

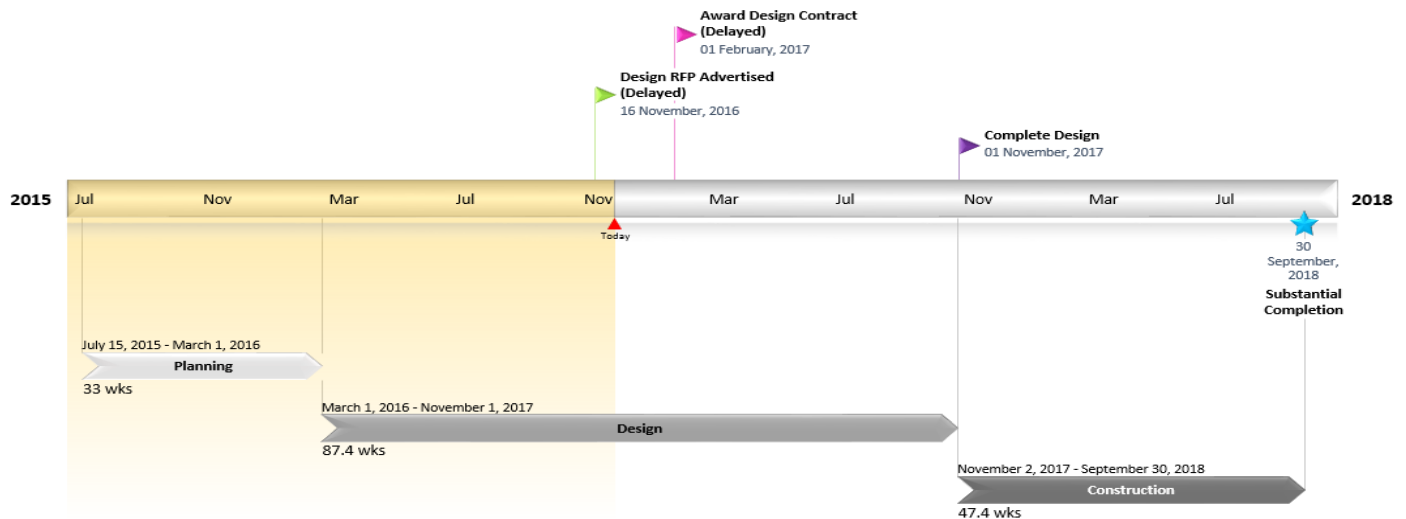
Adjustments: Overall schedule is not impacted due to procurement schedule delay.

Status: On Budget

Adjustments: No change from prior month

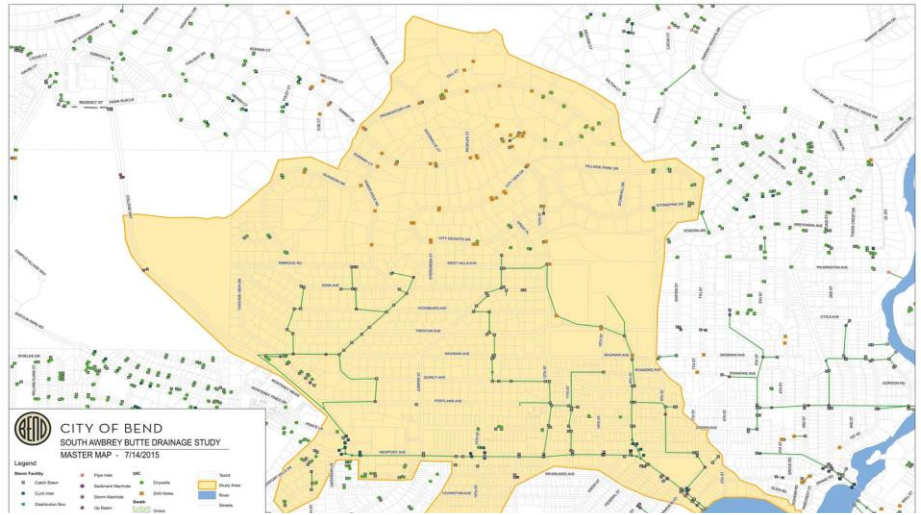
Status Update: Finalized design scope of work that will be included as part of the RFP for design. Overall schedule is unaffected by delays in drafting of RFP.

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.

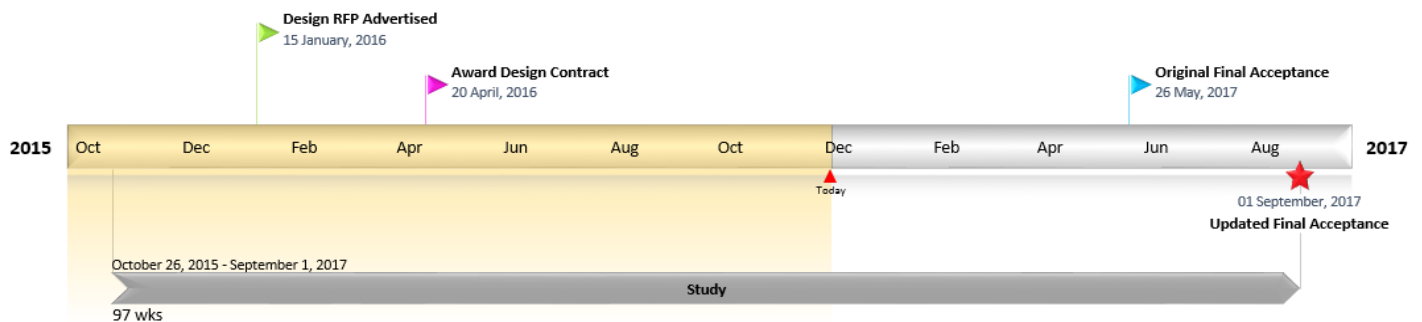


Project Engineer: Garrett Sabourin | gsabourin@bendoregon.gov

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 drainage.	Start Date: 7/1/15 Substantial Completion: 05/26/2017 Final Closeout: 09/01/2017	Total Estimated: \$250,000 Spent to Date: \$107,933 % Spent to Estimated: 43%
Status: On Scope	Status: Baseline Schedule Adjustment	Status: On Budget
Adjustments: No change from prior month	Adjustments: See timeline below	Adjustments: No impact for baseline schedule revision

Status Update: Adjustments to level of service goals and prioritization exceeded expected time duration. Schedule adjusted in accordance. Consultant is completing preferred improvement area mapping and first public meeting scheduled for January 2017.

Cost Estimate Classification: 5



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