

## Priority 1 Project Sheets

*Note: See Appendix K, Addendum Riverfront Master Plan  
(Adopted 5/3/21)*

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## Collection System Project:

Project Identifier:

## Hess Creek Phase 1 - CIPP

C1.a

### Project Location: Upper Portion of Hess Creek Trunk Line



**Objective:** Cured-in-place pipe lining of the upper portion of Hess Creek trunk line to reduce I/I influence and extend the life of the pipe. Flow monitoring in the basin will also be completed to inform the design phase of Hess Creek Phase 2 Project.

**Key Issues:** Access to Hess Creek trunk line is limited and can be difficult. Truck access is very limited.

	Item	Unit	Unit Price	Quantity	Cost
<b>Phase 1</b>					
	CIPP, 8-18-inch <sup>1</sup>	LF	\$ 98	7,500	\$ 731,250
	Flow monitoring	LS	\$ 20,000	1	\$ 20,000
	<i>Subtotal (rounded)</i>				\$ 752,000
	Mobilization	%	5	-	\$ 37,600
	<i>Subtotal (rounded)</i>				\$ 790,000
	Contingency	%	10	-	\$ 79,000
	<i>Subtotal (rounded)</i>				\$ 869,000
	Engineering and CMS	%	15	-	\$ 130,350
	<b>Phase 1 Cost (rounded):</b>				<b>\$ 1,000,000</b>

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## Collection System Project:

Hess Creek Phase 2 - Parallel Gravity Line

Project Identifier:

C1.b

## Project Location: Parallel Line to Lower Portion of Hess Creek



**Objective:** Resolve undersized downstream pipeline along Villa Road. Construct gravity line parallel to Hess Creek canyon and reduce flow going to Hess Creek trunk line. The new lift station in Hess Creek Phase 3 will discharge to this gravity main.

**Key Issues:** Most downstream portion of pipeline is in Hess Creek Canyon and access is limited. Groundwater could be high in this area as well.

	Item	Unit	Unit Price	Quantity	Cost
<b>Phase 2</b>					
	Parallel gravity main				
	27-inch new pipe	LF	\$ 220	5,300	\$ 1,166,000
	24-inch new pipe	LF	\$ 205	900	\$ 184,500
	15-inch new pipe	LF	\$ 170	1,200	\$ 204,000
	12-inch pipe replacement (Villa Rd)	LF	\$ 160	1,900	\$ 304,000
	Re-grading pipe	LF	\$ 135	2,400	\$ 324,000
	Re-connect laterals	EA	\$ 500	210	\$ 105,000
	Re-connect manholes	EA	\$ 1,500	35	\$ 52,000
	Roadway restoration	LF	\$ 30	10,400	\$ 312,000
	Install access road	LF	\$ 60	1,300	\$ 78,000
	Manhole 72-inch - >18-inch pipe	EA	\$ 5,500	5	\$ 27,500
	Existing pipe rehab/replacement				
	36-inch pipe replacement	LF	\$ 245	700	\$ 171,500
	18-inch pipe replacement	LF	\$ 185	800	\$ 148,000
	Re-connect manholes	EA	\$ 1,500	7	\$ 10,500
	Install access road	LF	\$ 60	1,500	\$ 90,000
	Soil restoration	LF	\$ 5	1,500	\$ 7,500
	Hess Creek constructability	%	\$ 150	-	\$ 641,250
	Bypass pumping	LS	\$ 50,000	1	\$ 50,000
	<b>Subtotal (rounded)</b>				<b>\$ 3,876,000</b>
	Mobilization	%	5	-	\$ 193,800
	<b>Subtotal (rounded)</b>				<b>\$ 4,070,000</b>
	Contingency	%	30	-	\$ 1,221,000
	<b>Subtotal (rounded)</b>				<b>\$ 5,291,000</b>
	Engineering and CMS	%	25	-	\$ 1,322,750
	Floodplain hydraulic study	LS	\$ 20,000	1	\$ 20,000
	Permitting	LS	\$ 15,000	1	\$ 15,000
	<b>Phase 2 Cost (rounded):</b>				<b>\$ 6,649,000</b>

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## Springbrook Road

**Project Identifier:**

**C1.c**

**Project Location: Springbrook Road south of Portland Road**



**Objective:** Increase capacity of Springbrook Road pipeline north of Fernwood Road. Construct a parallel line south of Fernwood Road to alleviate surcharging and overflows.

**Key Issues:** Pipeline will need to be bored under HWY 219. Easement to be negotiated with Sportsman Airpark.

	Item	Unit	Unit Price	Quantity	Cost
	Parallel gravity main				
	21-inch new pipe	LF	\$ 195	5,100	\$ 994,500
	Manhole 72-inch - >18-inch pipe	EA	\$ 5,500	17	\$ 93,500
	Highway boring	LF	\$ 600	135	\$ 81,000
	Roadway restoration (full lane)	LF	\$ 60	1,600	\$ 96,000
	Soil restoration	LF	\$ 5	3,500	\$ 17,500
	Upsize existing				
	21-inch new pipe	LF	\$ 195	2,100	\$ 409,500
	Re-connect laterals	EA	\$ 500	3	\$ 1,500
	Re-connect manholes	EA	\$ 1,500	7	\$ 10,500
	Roadway restoration (full lane)	LF	\$ 60	2,100	\$ 126,000
	Traffic Control (Highway)	LF	\$ 10	2,100	\$ 21,000
	Control density backfill	LF	\$ 165	2,100	\$ 346,500
	Subtotal (rounded)				\$ 2,198,000
	Mobilization	%	5	-	\$ 109,900
	Subtotal (rounded)				\$ 2,308,000
	Contingency	%	30	-	\$ 692,400
	Subtotal (rounded)				\$ 3,001,000
	Engineering and CMS	%	25	-	\$ 750,250
	Easement	AC	\$ 30,000	2.0	\$ 60,000
	Project Total Cost (rounded):				\$ 3,812,000

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## Collection System Project:

Project Identifier:

Pinehurst Court

C1.d

## Project Location: Pinehurst Court

**Objective:** Eliminate overflows at Pinehurst Court. The grade of Pinehurst Court and shallow gravity main, produce a potential overflow site when the trunk line on North Main Street flow close to full. This project will re-direct flow from Pinehurst Court south to existing lines on Creekside Court and to the Creekside LS basin.

**Key Issues:** Easements will be needed to connect to Creekside court. There are local grinder pumps on Pinehurst that could potentially be removed if the vertical alignment allows; this should be evaluated during design.



	Item	Unit	Unit Price	Quantity	Cost
	Cap and abandon line	EA	\$ 1,500	1	\$ 1,500
	8-inch new pipe	LF	\$ 135	300	\$ 40,500
	Re-grading pipe	LF	\$ 135	400	\$ 54,000
	Manhole 48-inch	EA	\$ 4,500	2	\$ 9,000
	Re-connect laterals	EA	\$ 500	9	\$ 4,500
	Re-connect manholes	EA	\$ 1,500	4	\$ 6,000
	Roadway restoration (full lane)	LF	\$ 60	440	\$ 26,400
	Landscape restoration	LF	\$ 20	260	\$ 5,200
	<i>Subtotal (rounded)</i>				\$ 148,000
	Mobilization	%	5	-	\$ 7,400
	<i>Subtotal (rounded)</i>				\$ 156,000
	Contingency	%	30	-	\$ 46,800
	<i>Subtotal (rounded)</i>				\$ 203,000
	Engineering and CMS	%	25	-	\$ 50,750
	Easement	AC	\$ 30,000	0.12	\$ 3,600
	<b>Project Total Cost (rounded):</b>				<b>\$ 258,000</b>

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**Collection System Project:**

**Maintenance Yard Improvements**

**Project Identifier:**

**C1.e**

**Project Location: Maintenance Yard (SW 3rd Street)**

**Objective:** A Master Plan was completed for the maintenance yard. This project is in the City's draft CIP 2017-2022. The project will include major site work, new fleet building, and eventually new administration building. The maintenance yard is utilized by a number of City divisions.



**FIGURE 1 CONCEPTUAL PUBLIC WORKS MAINTENANCE YARD PLAN**

	Item	Unit	Unit Price	Quantity	Cost
	<b>Project Total Cost (rounded):</b>				<b>\$ 737,500</b>
	Cost from City (includes mob., engineering, and admin. from sewer utility portion)				

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**Collection System Project:**

**Lift Station Improvements (short-term)**

**Project Identifier:**

**C1.f**

**Project Location: Multiple Lift Stations, Dayton LS Replacement**

**Objective:** This project includes a variety of short-term improvements to existing lift stations. The majority of this project includes replacing the Dayton LS. Andrew Lift Station does not have any short-term improvement recommendations.

**Key Issues:** Dayton LS is under contract for the City and in pre-construction phase.

Site	Recommended Improvements Cost
Charles Lift Station	\$ 3,300
Chehalem Lift Station	\$ 800
Creekside Lift Station	\$ 15,000
Fernwood Lift Station	\$ 14,300
HWY 240 Lift Station	\$ 11,400
Sheridan Lift Station	\$ 14,100
<i>Lift Station Improvements Subtotal</i>	<i>\$ 59,000</i>
<i>Contingency (30%)</i>	<i>\$ 17,700</i>
<i>Engineering (20%)</i>	<i>\$ 15,400</i>
<i>Administration (2%)</i>	<i>\$ 1,600</i>
Dayton Lift Station <sup>1</sup>	\$ 1,335,000
<b><i>Total Improvements Cost (rounded)</i></b>	<b><i>\$ 1,429,000</i></b>

<sup>1</sup>Dayton LS replacement cost provided by the City as most recent construction cost; includes mob, engineering, and admin.

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## Collection System Project:

Project Identifier:

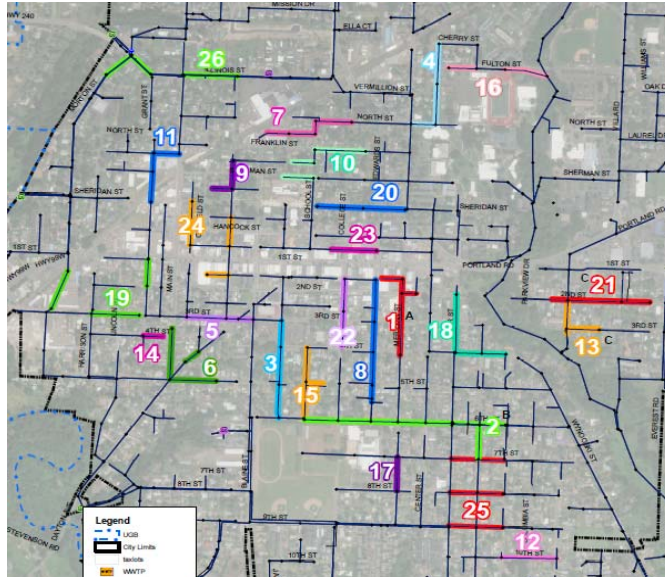
I/I Projects

C1.g

## Project Location: Downtown Core

**Objective:** Reduce I/I in the system. Focus annual pipeline replacement in areas of high I/I. Potentially postpone larger capital improvements on trunk lines and at WWTP by reducing I/I influence and peak flows in the system.

**Key Issues:** I/I data should be updated periodically to provide current recommendations for reducing I/I in the system. Coordination with other utilities could provide cost-savings for the City.



	Item	Unit	Unit Price	Quantity	Cost
	I/I Reduction Projects				\$ 2,700,000

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**Collection System Project:**

**5th Street**

**Project Identifier:**

**C1.h**

**Project Location: SW 5th Street**

**Objective:** The existing gravity line in SW 5th Street from Chehalem to River is in need of rehabilitation. There are several parcels that need ccess to the public WW system. This project is in the City's draft CIP 2017-2022.

**Key Issues:** This project will be constructed in conjunction with the pavement rehabilitation project.



	Item	Unit	Unit Price	Quantity	Cost
	SW 5th Street				\$ 350,000

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**Wastewater Treatment Plant Project:****Oxidation Ditch Rotor Replacement**

Project Identifier:

T1.a

**Objective:** There are a total of 8 brush rotor aerators in the 2 oxidation ditches. Rotor #8 was replaced in 2017. The remaining 7 need replacement since they have been in operation since the plant start up in 1987. The plan is to replace one rotor per year for the next 7 years. All the rotors are inspected annually and will be replaced based on the need determined by the inspections.

**Project Location: Oxidation Ditches**

Item	Cost (2018)
Rotors (Cost per City's CIP dated 3/16/2017)	\$ -
Mobilization (5%)	\$ -
Overhead and Profit (15%)	\$ -
<b>Subtotal</b>	<b>\$ -</b>
Contingency (25%)	\$ -
<b>Construction Subtotal</b>	<b>\$ -</b>
Engineering & CMS (23%)	\$ -
Other Indirect Costs (5%)	\$ -
<b>Total Project Cost</b>	<b>\$ 595,000</b>

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**Wastewater Treatment Plant Project:****Sawdust Bays****Project Identifier:****T1.b**

**Objective:** The current cure bay setup is configured to allow the use of two (2) of the bays as compost curing bays (equipped with blowers and temperature probes to cure compost). The sawdust that is used in the composting process must stay under cover in inclement weather otherwise it will become too wet and unusable. Adding bays will allow sufficient storage for sawdust and of the existing bays to be used for compost curing.

**Project Location: Curing Bays**

Item	Cost (2018)
Sawdust Bays (Cost per City's CIP dated 3/16/2017)	\$ -
Mobilization (5%)	\$ -
Overhead and Profit (15%)	\$ -
<b>Subtotal</b>	<b>\$ -</b>
Contingency (25%)	\$ -
<b>Construction Subtotal</b>	<b>\$ -</b>
Engineering & CMS (23%)	\$ -
Other Indirect Costs (5%)	\$ -
<b>Total Project Cost</b>	<b>\$ 350,000</b>

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**Wastewater Treatment Plant Project:**

Project Identifier:

**Operations Remodel Project**

T1.c

**Objective:** The existing administration building has underutilized space. This remodel will allow for staff work stations and a staff meeting room other than the main conference room.

**Project Location: Administration Building**

Item	Cost (2018)
Building Remodel (Cost per City's CIP dated 3/16/2017)	\$ -
Mobilization (5%)	\$ -
Overhead and Profit (15%)	\$ -
<b>Subtotal</b>	<b>\$ -</b>
Contingency (25%)	\$ -
<b>Construction Subtotal</b>	<b>\$ -</b>
Engineering & CMS (23%)	\$ -
Other Indirect Costs (5%)	\$ -
<b>Total Project Cost</b>	<b>\$ 300,000</b>

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**Wastewater Treatment Plant Project:****Oxidation Ditch 1 Rehabilitation**

Project Identifier:

T1.d

**Objective:** In order to extend the useful life of the oxidation ditches structural rehabilitation is required. Only one ditch can be taken offline at any time. The rehabilitation of Oxidation Ditch 2 occurred in the summer of 2017.

**Project Location: Oxidation Ditch 1**

Item	Cost (2018)	
Structural Rehab	\$	350,000
Mobilization (5%)	\$	20,000
Overhead and Profit (15%)	\$	60,000
<b>Subtotal</b>	<b>\$</b>	<b>430,000</b>
Contingency (25%)	\$	110,000
<b>Construction Subtotal</b>	<b>\$</b>	<b>540,000</b>
Engineering & CMS (23%)	\$	130,000
Other Indirect Costs (5%)	\$	30,000
<b>Total Project Cost</b>	<b>\$</b>	<b>700,000</b>

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**Wastewater Treatment Plant Project:****Roofing Replacement at the WWTP****Project Identifier:****T1.e**

**Objective:** The maintenance of roofs on the existing buildings at the plant had been deferred over the years. Many of the buildings require new gutters and soffits to collect and control water from the roofs. The remaining buildings include: Administration Building and Secondary Building.

**Project Location: Admin. and Secondary Buildings**

Item	Cost (2018)
Roof replacement (Cost per City's CIP dated 3/16/2017)	\$ -
Mobilization (5%)	\$ -
Overhead and Profit (15%)	\$ -
<b>Subtotal</b>	<b>\$ -</b>
Contingency (25%)	\$ -
<b>Construction Subtotal</b>	<b>\$ -</b>
Engineering & CMS (23%)	\$ -
Other Indirect Costs (5%)	\$ -
<b>Total Project Cost</b>	<b>\$ 220,000</b>

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**Wastewater Treatment Plant Project:****WWTP Hydraulic Improvements**

Project Identifier:

T1.f

**Objective:** Hydraulic limitations between the Clarifier Distribution Box and the discharge to the Outfall are noticed at a peak flow conditions causing high water surface elevations in the oxidation ditches.

The objective is to decrease headloss accross these processes.

**Project Location: Disinfection and Clarifier Distribution Box**

Item	Cost (2018)
Concrete	\$ 25,500
Earthwork (Excavation and Backfill)	\$ 1,000
Process Interconnections (Piping and Instrumentation)	\$ 194,000
Mobilization (5%)	\$ 20,000
Overhead and Profit (15%)	\$ 40,000
<b>Subtotal</b>	<b>\$ 290,000</b>
Contingency (25%)	\$ 80,000
<b>Construction Subtotal</b>	<b>\$ 370,000</b>
Engineering & CMS (23%)	\$ 90,000
Other Indirect Costs (5%)	\$ 20,000
<b>Total Project Cost</b>	<b>\$ 480,000</b>

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**Wastewater Treatment Plant Project:****Secondary Clarifier Rerating Study**

Project Identifier:

T1.g

**Objective:** The existing secondary clarifiers are designed with a peak hydraulic loading rate of 1,200 gallons per day per square foot (gpd/sf) based on industry standards. With hydraulic improvements to the Clarifier Distribution Box, the clarifiers can pass more flow. To show higher operational flows the increased peak hydraulic loading rate would need to be verified through capacity re-rating and approval from DEQ. Historical data suggests that the current peak hydraulic loadings are infrequent (< 3 times/year) and of short duration (< 24 hours/event).

**Project Location: Secondary Clarifiers**

Item	Cost (2018)
Rerating Testing and Report	\$ 60,000
Mobilization (5%)	\$ -
Overhead and Profit (15%)	\$ -
<b>Subtotal</b>	<b>\$ -</b>
Contingency (25%)	\$ -
<b>Construction Subtotal</b>	<b>\$ -</b>
Engineering & CMS (23%)	\$ -
Other Indert Costs (5%)	\$ -
<b>Total Project Cost</b>	<b>\$ 60,000</b>

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