# **Appendix O**

# **Project Profiles and Cost Estimates**

CIP No.	Mini	Basin Proj	ect Description
6–Year CIP	s Central D	strict Area -	Collection and Conveyance
2-1603A	2-1603	NE 20 <sup>th</sup> Ave	nue Trunk
2-1604A	2-1604	NE 10 <sup>th</sup> Ave	nue Bridge CRP (NE 154 <sup>th</sup> Street to NE 164 <sup>th</sup> Street)
2-1605A	2-1605	NE 179 <sup>th</sup> St	reet CRP (NE Delfel Rd – NE 10 <sup>th</sup> Ave)
2-1605B	2-1605	Whipple Cre	ek Trunk (Killian Commercial)
2-1702B	2-1702	Curtin Cree	k Pump Station - Phase 2
2-1702E	2-1701	NE 119 <sup>th</sup> St	reet CRP (50 <sup>th</sup> Ave to 72 <sup>nd</sup> Ave)
2-1710A	2-1710	NE 99 <sup>th</sup> Stre	et CRP (94 <sup>th</sup> Ave - SR 503)
2-1710C	2-1710	NE 119 <sup>th</sup> St	reet CRP (87 <sup>th</sup> Ave to 112 <sup>th</sup> Ave)
1-201A	1-201	NE Hazel D	ell Avenue (NE 77 <sup>th</sup> St to NE Anderson Rd) GM-4
2-504B	2-504	NE 78 <sup>th</sup> Stre	et Trunk (NE 13 <sup>th</sup> Ave to NE 20 <sup>th</sup> Ave)
2-1710D	2-1710	NE 95 <sup>th</sup> and	SR 503 (Yearout Business Park) GM-3
2-1710F	2-1710	NE 99 <sup>th</sup> Stre	et CRP (94 <sup>th</sup> Ave - SR 503)
2-1715A	2-1715	NE 107 <sup>th</sup> Av	e Sidewalk CRP

### Appendix O – Project Profiles for 6- and 20-year Capital Improvement Projects

### 6–Year CIPs Central District Area - Pump Stations and Force Mains

2-504A	2-504	St. Johns Wood Pump Station
2-1502A	2-1502	Pleasant Valley North Pump Station
2-1604A	2-1604	NE 10 <sup>th</sup> Avenue Pump Station
2-1605C	2-1605	Whipple Creek North Pump Station Increased Capacity – Phase II
2-1605G	2-1605	Union Road Pump Station Upgrade
2-16051	2-1605	Union Road Force Main Upgrade
2-1605H	2-1605	Vista Terrace Reconstruction
2-1702A	2-1702	Curtin Creek Pump Station – Phase I
2-1705A	2-1705	Glenwood Pump Station Upgrade
2-1707A	2-1707	Schuller Pump Station Increased Capacity
2-1710E	2-1710	Columbia Resource Company Force Main

2-601A	2-601	Oro-Vega Pump Station Replacement
2-601B	2-601	Shadow Wood MOV Vault Improvements
2-901A	2-901	Klineline Pump Station Replacement
2-1001A	2-1001	Plantation Pump Station Replacement
2-1001B	2-1001	Knoll Ridge South Pump Station Replacement
2-1101A	2-1101	Stag Leap Pump Station Removal
2-1101B	2-1101	Buckman Gardens Pump Station Removal
2-1503A	2-1503	Mill Creek Pump Station Restoration
2-1716A	2-1716	Sierra Vista/Hunter's Glen Pump Station Removals

### 6-Year CIPs Ridgefield District Area - Collection and Conveyance

3-603F	3-603	Royle Road Trunk
3-603G	3-603	Wells Property Trunk
3-606A	3-606	South Junction Trunk Upgrade

### 6-Year CIPs Ridgefield District Area - Pump Station and Force Main

3-301A	3-301	Hillhurst Pump Stations Redirection
3-302A	3-302	Taverner Ridge Phase 8 & 9 Pump Station
3-303A	3-303	Canyon Ridge Pump Station and Force Main
3-505A	3-505	35 <sup>th</sup> Ave Roundabout
3-602A	3-602	Pioneer Place Pump Station
3-603A	3-603	Royle Road Pump Station
3-603B	3-603	Royle Road Pump Station B (Carty Road - central) and Force Main
3-603D/ 3-604A	3-603/ 3-604	Kennedy Farm Pump Stations
3-605A	3-605	North Junction Pump Station and Trunk
3-610A	3-610	Boschma (aka NE 10 <sup>th</sup> Street) Pump Station – Phase I
3-611A	3-611	Urban Downs Pump Station
3-501A	3-501	Abram's Park Pump Station Replacement

3-606B	3-606	NB/SB Rest Area Pump Stations Tank Decommission
20–Year CIP	s Central Dis	strict Area - Collection and Conveyance
2-203C	2-203	Whipple Creek West Trunk Sewer (flows to Whipple Creek West PS A – South)
2-1501A	2-1501	Mt Vista Trunk Upgrade (downstream of Pleasant Valley North force main)
2-1606A	2-1606	Neil Kimsey Trunk (from terminus of 209 <sup>th</sup> Street PS force main to existing gravity)
2-1606C	2-1606	209 <sup>th</sup> Street Trunk
2-1710G	2-1710	Bowyer Trunk (associated with the elimination of Bowyer Pump Station)
1-102A	1-102	NE Minnehaha Street, NE 10th Ave to NE 14th Ct (Ludlum Hills) GM-8
2-501A	2-501	NW 16th Ave and 113th Street (Tiare Hills) GM-6
2-502A	2-502	NW 94 <sup>th</sup> Street (NW 17 <sup>th</sup> Ave to NW 10 <sup>th</sup> Ave) GM-1
2-502B	2-502	NW 15 <sup>th</sup> Avenue and NW 17 <sup>th</sup> Avenue (NW 94 <sup>th</sup> St to NW 102 <sup>nd</sup> Cir) GM-7
2-504C	2-504	NE 78 <sup>th</sup> Street (NE 6 <sup>th</sup> Ave to NE 30 <sup>th</sup> Ave) GM-2

#### 20–Year CIPs Central District Area - Pump Stations and Force Mains

### **Existing Pump Stations**

2-1603B	2-1603	Legacy Pump Station and Force Main (extended to NE 129 <sup>th</sup> Street)
2-1606B	2-1606	Neil Kimsey Pump Station and Force Main
2-1702D	2-1701	Force Main along NE 119 <sup>th</sup> Street

#### **New/Future Pump Stations**

2-203A	2-203	Whipple Creek West Pump Station A (aka NW 11 <sup>th</sup> Street - south) and Force Main – Phase I
2-203B	2-203	Whipple Creek West Pump Station A (NW 11th Street - south) and Force Main – Phase II
2-203C	2-203	Whipple Creek West Pump Station B (north) and Force Main
2-801A	2-801	Hwy 99 East Pump Station and Force Main
2-1303A	2-1303	Curtin Creek North Pump Station (aka 72 <sup>nd</sup> Ave PS)
2-1502B	2-1502	Pleasant Valley North Pump Station B (east) and Force Main

2-1502C	2-1502	Pleasant Valley North Pump Station C (northeast) and Force Main
2-1502D	2-1502	Pleasant Valley North Pump Station D (north) and Force Main
2-1604B	2-1604	Whipple Creek South Pump Station B (west) and Force Main
2-1605E	2-1605	Whipple Creek East Pump Station E (central) and Force Main
2-1605F	2-1605	Whipple Creek East Pump Station F (east) and Force Main
2-1606D	2-1606	I-5 Corridor (aka 209th Street) Pump Station and Force Main
2-1702C	2-1702	Curtin Creek West Pump Station C (east)
2-1712A	2-1712	Land Bank Pump Station A (south) and Force Main
2-1712B	2-1712	Land Bank Pump Station B (north) and Force Main
2-1712C	2-1712	Freight Rail Overlay Pump Station
2-103A	2-103	West of Westmoor Place Pump Station Elimination
2-202A	2-202	149th Street Pump Station Elimination
2-202B	2-202	Whipple Creek Place Pump Station Elimination
2-1605D	2-1605	Payne Pump Station Redirection to mini-basin 2-1503
2-1701A	2-1701/1301	Jessie Hollow Pump Station Elimination – Phase I
2-1701B	2-1701/1301	Jessie Hollow Pump Station Elimination – Phase II
2-1709A	2-1709	Silver Star Pump Station Elimination
2-1710B	2-1710	Bowyer Pump Station Elimination

#### 20–Year CIPs Ridgefield Area - Collection and Conveyance

3-203B 3-203 Marina Pump Station Trunk
3-603H 3-603 Carty Road (Royle Road Central) Trunk
3-610B 3-610 Boschma Trunk

#### 20-Year CIPs Ridgefield Area - Pump Station and Force Main

3-202A	3-202	Heron Ridge East Pump Station and Force Main
3-203A	3-203	Marina Pump Station, Force Main and WWTP Decommissioning – Phase II
3-502A	3-502	Gee Creek Pump Station and Force Main Redirection – Phase II
3-503A	3-503	Gee Creek East Pump Station A (Midway PS) – Phase I
3-503B	3-503	Gee Creek East Pump Station A (Midway PS) and Force Main – Phase II

3-503C	3-503	Gee Creek East Pump Station C (Central) and Force Main
3-503D	3-503	Gee Creek East Pump Station D (South) and Force Main
3-601A	3-601	Pioneer Canyon Pump Station Upgrade and Force Main Connection
3-603A	3-603	Royle Road Pump Station Upgrade – Phase II
3-603F	3-603	Royle Road Pump Station Upgrade – Phase III
3-603C	3-603	Royle Road Pump Station C (East) and Force Main
3-603E	3-603	Royle Road Pump Station E (North) and Force Main
3-610B	3-610	Boschma (aka NE 10 <sup>th</sup> ) Pump Station – Phase II
3-612A	3-612	Walker – Roher Pump Station and Force Main

### Six – Year Capital Improvement Projects

### **Central District Area**

### **Collection and Conveyance**

CIP No.	Min	Basin Project Description	
CIP Projec	ts		
2-1603A	2-1603	NE 20 <sup>th</sup> Avenue Trunk	
2-1604A	2-1604	NE 10 <sup>th</sup> Avenue Bridge CRP (NE 154 <sup>th</sup> Street to NE 164 <sup>th</sup> S	Street)
2-1605A	2-1605	NE 179 <sup>th</sup> Street CRP (NE Delfel Rd – NE 10 <sup>th</sup> Ave)	
2-1605B	2-1605	Whipple Creek Trunk (Killian Commercial)	
2-1702B	2-1702	Curtin Creek Pump Station - Phase 2	
2-1702E	2-1701	NE 119 <sup>th</sup> Street CRP (50 <sup>th</sup> Ave to 72 <sup>nd</sup> Ave)	
2-1710A	2-1710	NE 99th Street CRP (94th Ave - SR 503)	
2-1710C	2-1710	NE 119 <sup>th</sup> Street CRP (87 <sup>th</sup> Ave to 112 <sup>th</sup> Ave)	
Restoratio	on and Repla	ement Projects	
1-201A	1-201	NE Hazel Dell Avenue (NE 77th St to NE Anderson Rd) GN	1-4
2-504B	2-504	NE 78 <sup>th</sup> Street Trunk (NE 13 <sup>th</sup> Ave to NE 20 <sup>th</sup> Ave)	
2-1710D	2-1710	NE 95 <sup>th</sup> and SR 503 (Yearout Business Park) GM-3	
2-1710F	2-1710	NE 99 <sup>th</sup> Street CRP (94 <sup>th</sup> Ave - SR 503)	

2-1715A 2-1715 NE 107<sup>th</sup> Ave Sidewalk CRP



### **Six-Year Capital Program Capital Project Profile**

# NE 20<sup>th</sup> Avenue Trunk

Location: Central	Capital Improvement Project 🖂
Number: <u>2-1603A</u>	General Facilities 🛛
	District Installed Infrastructure $\Box$
	District Installed Infrastructure $\Box$
GL Number: TBD	Septic Elimination Program $\Box$
	Developer Reimbursement Program 🗆
Phase: Planning	Fleet & Facilities 🗆
Project Manager: TBD	Restoration & Replacement Project
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$

**GSP Basin:** Legacy (2-1603)

Restoration & Replacement – Fleet & Facilities □

#### **Project Definition:**

Objective. Upgrade the capacity of the NE 20<sup>th</sup> Avenue Trunk sewer.

Scope of Work. Install a new 30-inch diameter Trunk sewer, parallel and adjacent to existing sewer in NE 20th Avenue between NE 152<sup>nd</sup> Street to NE 139<sup>th</sup> Street. Projected flows from City of Ridgefield, through DCWTS conveyance system, combined with increased flow within Whipple Creek East and I-5 basins exceed the capacity of existing conveyance system within the 20-year planning period.

Project Statistics. Gravity trunk – 3,267 feet of 30-inch diameter trunk sewer.

#### **Photos:** (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:
Total Project Cost:
Construction Cost:
Basis of Estimate:
Date of Estimate:

\$3,210,000 \$2,467,664 Planning Sept. 2017

<u>Activity</u>	Year
Predesign	2022
Permitting	2022
Real Property/ROW	2022
Design	2022
Bid	2023
Construction	2023-2024

CIP # 2-1603A

D' LIC

NE 20th Ave Trunk 6-YEAR (2020) IMPROVEMENTS

Did item	Di Mara Dava Jata a			11.9	<b>T</b> . ( . )
NO.	Bid Item Description	Unit Bid Price	Quantity	Unit	lotal
1	Pump Station - Mechanical			LS	
2	Pump Station Electrical			LS	
3	Pump Station - Above Grade Structure			LS	
4	Emergency Generator			LS	
5	4-inch Force Main			LF	
6	6-inch Force Main			LF	
7	72-inch wetwell			EA	
8	96-inch wetwell			EA	
9	8-inch PVC Gravity Upsize	\$120		LF	\$0
10	10-inch PVC Gravity Upsize	\$130		LF	\$0
11	12-inch PVC Gravity Upsize	\$140		LF	\$0
12	15-inch PVC Gravity Upsize	\$160		LF	\$0
13	18-inch PVC Gravity Upsize	\$170		LF	\$0
14	21-inch PVC Gravity Upsize	\$250		LF	\$0
15	24-inch PVC Gravity Upsize	\$300	3,267	LF	\$980,100
16	30-inch PVC Gravity Upsize	\$330		LF	\$0
17	48-inch Diameter Manhole	\$7,500	0	EA	\$0
18	54-inch Diameter Manhole	\$8,500	0	EA	\$0
19	60-inch Diameter Manhole	\$9,500	11	EA	\$104,500
20	Lateral Connection	\$3,000	33	EA	\$98,010
21	Dewatering	\$20.000	1	LS	\$20,000
22	Temporary Flow Bypass	\$5.000		EA	\$0
23	Plug and Cap Abandoned Pipe	\$1.000		EA	\$0
24	Sheeting, Shoring, Bracing	\$10	3,267	LE	\$32,670
25	HMA Trench Patch	\$175	678	TN	\$118,580
26	Half-Width Grind and Overlay	\$150	0.0	TN	\$0
27	Imported Trench Backfill	\$25	3,590	TN	\$89,750
28	Crushed Surfacing	\$30	1 350	TN	\$40,500
29	Traffic Control (2%)	\$30,000	1,000	IS	\$30,000
30	General Restoration (2%)	\$30,000	1	1.5	\$30,000
31	Mobilization (10%)	\$148,000	1	1.5	\$148,000
32	Temporary Frosion & Sediment Control (4%)	\$59,000	1	1.5	\$59,000
02		400,000	1	20	400,000
	Construction Costs Subtotal				\$1,751,110
	Sales Tax @ 8.4%				\$147,093
	Subtotal				\$1,898,203
	Contingency	30%			\$569,461
	Total Construction Cost				\$2,467,664
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$370,150
	Administration/Legal (3%)				\$74,030
	Construction Services (7%)				\$172,736
	Property/Easement Acquisition (5%)				\$123,383
					ų 120,000
	TOTAL ESTIMATED PROJECT COST				\$3,207,963
	USE				\$3,210,000
					<i>φ</i> 3,210,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet

The opinion of probable cost herein is based on our perception of current conditions at the project location. This opinion reflects our professional opinion of costs at this time and is subject to change as the project design progresses. BHC Consultants has no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. BHC Consultants cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented as shown.







Six-Year Capital Program Capital Project Profile

# NE 10<sup>th</sup> Avenue Bridge CRP (NE 154<sup>th</sup> St to NE 164<sup>th</sup> St)

Location: <u>Central</u> Project Number: <u>2-1604A</u> GL Number: <u>409-000-189-00-01-20</u>

Phase: Design

Project Manager: <u>Phil Roppo</u> County Project Manager: <u>Troy Pierce</u> GSP Basin: <u>Basin 25-Whipple Creek West</u>

#### Capital Improvement Project 🛛

- General Facilities ⊠
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

#### **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

- Restoration & Replacement PS & FM  $\square$
- Restoration & Replacement Fleet & Facilities  $\Box$

#### **Project Definition**:

<u>Objective</u>. Serve the NE 10<sup>th</sup> Avenue corridor in association with the NE 10<sup>th</sup> Avenue Bridge County Road Project (CRP) over Whipple Creek.

<u>Scope of Work.</u> Install the gravity main in NE 10<sup>th</sup> Avenue that will drain to the NE 10<sup>th</sup> Avenue Pump Station. Install the force main from the pump station south on NE 10<sup>th</sup> Avenue and then east on NE 154<sup>th</sup> Street to the extent of the road project. Install the wetwell for the future NE 10<sup>th</sup> Avenue Pump Station.

<u>Project Statistics.</u> Force main - pump station to road project extent – 1,775 feet of 6-inch force main. Gravity main – 60 feet of 10-inch gravity trunk to the pump station, 4,311 feet of 8-inch gravity main in NE 10<sup>th</sup> Avenue, NE 154<sup>th</sup> Street, NE 159<sup>th</sup> Street and NE 164<sup>th</sup> Street; 1 – 8-inch gravity stub, 15 – 6-inch gravity laterals and 2 – 4-inch gravity laterals in NE 10<sup>th</sup> Avenue, NE 154<sup>th</sup> Street, NE 159<sup>th</sup> Street for local service. 8-foot wetwell.

#### Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:				
Total Project Cost:				
Construction Cost:				
Basis of Estimate:				
Date of Estimate:				

\$1,163,500 \$1,000,000 Contract Bid March, 2017

<u>Activity</u>	Year
Predesign	2014
Permitting	2015-2016
Real Property/ROW	2015-2016
Design	2014-2016
Bid	2017
Construction	2017-2018







Six-Year Capital Program Capital Project Profile

# NE 179<sup>th</sup> Street CRP (NE Delfel Road – NE 10<sup>th</sup> Ave)

Location: <u>Central</u>	Capital Improvement Project 🛛
Number: <u>2-1605A</u>	General Facilities 🛛
GL Number: TBD	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Predesign	Developer Reimbursement Program 🗆
	Fleet & Facilities $\Box$
Project Manager: TBD	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Basin 1 – Whipple Creek East	Restoration & Replacement – Fleet & Facilities $\Box$

#### **Project Definition:**

<u>Objective.</u> Provide service to the I-5 interchange area at NE 179<sup>th</sup> Street in association with the County Road Project (CRP) and in support of commercial and industrial development.

<u>Scope of Work.</u> Construct a gravity trunk from the existing Fairgrounds Pump Station through the I-5 interchange with NE 179<sup>th</sup> Street to NE 10<sup>th</sup> Avenue. Project is proposed to connect to Whipple Creek Trunk (Killian Commercial) improvements. Abandon the Fairgrounds Pump Station.

Project Statistics. Gravity trunk – 900 feet of 18-inch gravity trunk.

Photos: (Map of area on the reverse side)

#### **Budget Information:**

\$1,150,000 \$1,000,000 Planning Sept. 2016

<u>Activity</u>	Year
Predesign	2020
Permitting	2020-2021
Real Property/ROW	2020-2021
Design	2020-2021
Bid	2022
Construction	2022







Six-Year Capital Program Capital Project Profile

# Whipple Creek Trunk (Killian Commercial)

Location: Central	Capital Improvement Project 🛛
Number: <u>2-1605B</u>	General Facilities 🗆
GL Number: TBD	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Predesign	Developer Reimbursement Program 🛛
	Fleet & Facilities $\Box$
Project Manager: Steve Bacon	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Basin 1-Whipple Creek East	Restoration & Replacement – Fleet & Facilities $\Box$

#### **Project Definition:**

<u>Objective.</u> Whipple Creek Trunk will serve the eastern quadrants of the NE 179<sup>th</sup> Street / I-5 junction area employment corridor and allow for the eventual abandonment of the existing Fairgrounds Pump Station. The Killian Commercial project will provide a portion of the Whipple Creek Trunk.

<u>Scope of Work.</u> Whipple Creek Trunk will extend from the existing Whipple Creek North Pump Station north and west to NE 179<sup>th</sup> Street and along NE 179<sup>th</sup> Street to the east side of the junction with I-5. The Killian Commercial project will extend a portion of the Whipple Creek Trunk along NE 179<sup>th</sup> Street (or through the development site) from NE 15<sup>th</sup> Ave to NE 10<sup>th</sup> Ave. District reimbursement for oversize.

Project Statistics. Gravity trunk – 1,700 feet of 24-inch gravity trunk.

#### Photos: (Map of area on the reverse side)

#### **Budget Information**:

Project Cost Estimate: Total Project Cost: Construction Cost: Basis of Estimate: Date of Estimate:

\$600,000 vs. cost est. \$1.3M TBD Planning Sept. 2017

<u>Activity</u>	Year
Predesign	By Others
Permitting	By Others
Real Property/ROW	By Others
Design	By Others
Bid	By Others
Construction	2019, 2021

#### **General Sewer Plan 2017 Capital Improvement Projects**

CIP # 2-1605B

Whipple Creek Trunk 6-YEAR (2020) IMPROVEMENTS

Bid Item	l Did Item Deceminis	Linit Did Drive	Oursetite	1.1.4.14	Tatal
NO.	Bid Item Description	Unit Bid Price	Quantity	Unit	Iotal
1	Pump Station - Mechanical			LS	
2	Pump Station Electrical			LS	
3	Pump Station - Above Grade Structure			LS	
4	Emergency Generator			LS	
5	4-inch Force Main				
6	6-inch Force Main				
7	72-inch wetwell			EA	
8	96-inch wetwell	<b>A</b> + <b>A</b> = <b>A</b>		EA	
9	8-inch PVC Gravity Upsize	\$120		LF	\$0
10	10-inch PVC Gravity Upsize	\$130		LF	\$0
11	12-inch PVC Gravity Upsize	\$140			\$0
12	15-inch PVC Gravity Upsize	\$160	1,700	LF	\$272,000
13	18-inch PVC Gravity Upsize	\$170		LF	\$0
14	21-inch PVC Gravity Upsize	\$250		LF	\$0
15	24-inch PVC Gravity Upsize	\$300		LF	\$0
16	30-inch PVC Gravity Upsize	\$330		LF	\$0
17	48-inch Diameter Manhole	\$7,500	0	EA	\$0
18	54-inch Diameter Manhole	\$8,500	6	EA	\$51,000
19	60-inch Diameter Manhole	\$9,500	0	EA	\$0
20	Lateral Connection	\$3,000	17	EA	\$51,000
21	Dewatering	\$20,000		LS	\$0
22	Temporary Flow Bypass	\$5,000		EA	\$0
23	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
24	Sheeting, Shoring, Bracing	\$10	1,700	LF	\$17,000
25	HMA Trench Patch	\$175	353	ΤN	\$61,704
26	Half-Width Grind and Overlay	\$150		TN	\$0
27	Imported Trench Backfill	\$25	1,870	ΤN	\$46,750
28	Crushed Surfacing	\$30	700	ΤN	\$21,000
29	Traffic Control (2%)	\$10,000	1	LS	\$10,000
30	General Restoration (2%)	\$10,000	1	LS	\$10,000
31	Mobilization (10%)	\$52,000	1	LS	\$52,000
32	Temporary Erosion & Sediment Control (4%)	\$21,000	1	LS	\$21,000
	Construction Costs Subtotal				\$613,454
	Sales Tax @ 8.4%				\$51,530
	Subtotal				\$664,984
	Contingency	30%			\$199,495
	Tatal Osmatmustian Osat				<b>*</b> ~~ (70
	I of al Construction Cost				\$864,479
	Allind Costs				
	Anieu UUSIS				¢400.670
	Engineening/Survey/Permis (15%)				Φ129,072
	Autimistration Services (3%)				⊅∠0,934 ¢co 544
	Dreparty/Economic Acquisition (50/)				30U,514
	Property/Easement Acquisition (5%)				\$43,224
	TOTAL ESTIMATED PROJECT COST				\$1,123,823
	USE				\$1,130.000
Assumption	- Mistor				, ,,

vs. \$300,000

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet

The opinion of probable cost herein is based on our perception of current conditions at the project location. This opinion reflects our professional opinion of costs at this time and is subject to change as the project design progresses. BHC Consultants has no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. BHC Consultants cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented as shown.







Six-Year Capital Program Capital Project Profile

## **Curtin Creek Pump Station – Phase 2**

Location: Central	Capital Improvement Project 🛛
Number: <u>2-1702B</u>	General Facilities 🗆
GL Number: TBD	District Installed Infrastructure 🛛
	Septic Elimination Program $\Box$
Phase: Predesign	Developer Reimbursement Program 🗆
	Fleet & Facilities $\Box$
Project Manager: Steve Bacon	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Basin 50-Curtin Creek West	Restoration & Replacement – Fleet & Facilities $\Box$

#### **Project Definition:**

<u>Objective.</u> Construct a gravity main to serve the western area of Basin 50 as a companion project to Curtin Creek Pump Station – Phase 1.

<u>Scope of Work.</u> Construct a gravity line west from the Curtin Creek Pump Station to provide service to the City of Vancouver Fire Station and extend service to NE 72<sup>nd</sup> Avenue.

Project Statistics. Gravity main – 2,000 feet of 8-inch gravity main.

Photos: (Map of area on the reverse side)

#### **Budget Information:**

\$1,000,000 TBD Planning Sept. 2017

<u>Activity</u>	Year
Predesign	2019
Permitting	2019
Real Property/ROW	2015-2016
Design	2019
Bid	2020
Construction	2020-2021





Six-Year Capital Program Capital Project Profile

# NE 119<sup>th</sup> Street CRP (50<sup>th</sup> Ave to 72<sup>nd</sup> Ave)

Location: <u>Central</u> Number: <u>2-1702E</u> GL Number: <u>409-000-189-00-01-29</u>

#### Capital Improvement Project ⊠ General Facilities ⊠

- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$

Phase: Construction

Project Manager: <u>Vanessa Johnson</u> County Project Manager: <u>Robin Washington</u> GSP Basin: <u>Basins 8-Barberton, 28-St Johns,</u> <u>50-Curtin Creek W</u>

#### Restoration & Replacement Project $\Box$

Restoration & Replacement - Gravity  $\Box$ Restoration & Replacement – PS & FM  $\Box$ Restoration & Replacement – Fleet & Facilities  $\Box$ 

#### **Project Definition:**

Objective. Serve the NE 119<sup>th</sup> Street corridor in association with the NE 119<sup>th</sup> Street County Road Project (CRP).

<u>Scope of Work.</u> Extend force main, gravity trunk and gravity main in NE 119<sup>th</sup> Street from NE 50<sup>th</sup> Avenue to NE 72<sup>th</sup> Avenue.

<u>Project Statistics.</u> Gravity trunk – 800 feet of 10-inch gravity trunk. Gravity main – 1,350 feet of 8-inch gravity main, 500 feet of which is over existing deep sewer main (to provide local service). Force main – 1,900 feet of 8-inch force main. 7 – 8-inch stubs for future development and 29 - 4-inch laterals in NE 119<sup>th</sup> Street for local service.

Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$973,000
Construction Cost:	\$820,000
Basis of Estimate:	Bid
Date of Estimate:	Sept. 2017

<u>Activity</u>	Year
Predesign	2015
Permitting	2016-2017
Real Property/ROW	2016-2017
Design	2016-2017
Bid	2017
Construction	2017-2018











# NE 99<sup>th</sup> Street CRP (94<sup>th</sup> Ave - SR 503)

Location: <u>Central</u> Number: <u>2-1710A</u> GL Number: <u>409-000-189-00-01-24</u> Capital Improvement Project 🛛

Six-Year Capital Program Capital Project Profile

General Facilities

- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

### Restoration & Replacement Project $\Box$

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

# **Project Definition:**

<u>Objective.</u> Connect existing service in Brush Prairie to the Glenwood Pump Station along the NE 99<sup>th</sup> Street corridor through the Clark County Leichner Landfill site in association with the NE 99<sup>th</sup> Street County Road Project (CRP). Remove the existing Country Meadows Pump Station.

<u>Scope of Work.</u> Extend the gravity trunk from the Country Meadows Pump Station west along NE 99<sup>th</sup> Street to the existing trunk in NE 100<sup>th</sup> Way, including a deep section installed via trenchless technology under the existing local gravity service. Local gravity main to remain in service. Decommission the existing Country Meadows Pump Station.

<u>Project Statistics.</u> Pump Station – Decommission existing Country Meadows Pump Station. Gravity trunk – 2,800 feet of 18-inch trunk, including 1,100 feet of deep trunk under existing local gravity service.

#### Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate: Total Project Cost: Construction Cost: Basis of Estimate: Date of Estimate:

\$3,400,000 \$2,700,000 Predesign Sept. 2017

#### Schedule Information:

Activity	<u>Year</u>
Predesign	2015
Permitting	2015-2019
Real Property/ROW	2015-2019
Design	2015-2019
Bid	2019
Construction	2019-2020



Project Phase: Predesign

Project Manager: <u>Vanessa Johnson</u> County Project Manager: <u>Scott Fakler</u> GSP Basin: <u>Basins 29-Glenwood Creek, 30-NE 88<sup>th</sup> Street,</u> 31-Country Meadows







# NE 119<sup>th</sup> Street CRP (87<sup>th</sup> Ave to 112<sup>th</sup> Ave)

Location: <u>Central</u> Number: <u>2-1710C</u> GL Number: <u>409-000-189-00-01-28</u>

Project Manager: Vanessa Johnson

County Project Manager: Robin Washington

**GSP Basin:** Basins 29-Glenwood Creek, 51-NE 119<sup>th</sup> Street,

52-N Prairie, 31-Country Meadows

Capital Improvement Project

General Facilities

- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

#### **Restoration & Replacement Project**

Restoration & Replacement – Gravity  $\Box$ 

- Restoration & Replacement PS & FM  $\Box$
- Restoration & Replacement Fleet & Facilities  $\Box$

#### **Project Definition:**

Objective. Serve the NE 119<sup>th</sup> Street corridor in association with the NE 119<sup>th</sup> Street County Road Project (CRP).

<u>Scope of Work.</u> Extend gravity trunk in NE 119<sup>th</sup> Street from the Bowyer Pump Station to NE 107<sup>th</sup> Avenue. Sewer lines will be dry until the future NE 108<sup>th</sup> Avenue project is complete.

<u>Project Statistics.</u> Gravity trunk - 1,500 feet of 10-inch gravity trunk. 10 – 4-inch to 8-inch stubs for future development and local service.

#### Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:
Total Project Cost:
Construction Cost:
Basis of Estimate:
Date of Estimate:

\$344,000 \$290,000 90% Design Sept. 2017

#### **Schedule Information:**

<u>Activity</u>	Year
Predesign	2015
Permitting	2016
Real Property/ROW	2016-2018
Design	2016-2018
Bid	2018
Construction	2018-2019



Phase: Design





Six-Year Capital Program **Capital Project Profile** 

# NE Hazel Dell Avenue (NE 77<sup>th</sup> St to NE Anderson Rd)

Capital Improvement Project

- General Facilities
- District Installed Infrastructure
  - Septic Elimination Program
- Developer Reimbursement Program
  - Fleet & Facilities  $\Box$

### **Restoration & Replacement Project** ⊠

- Restoration & Replacement Gravity ⊠
- Restoration & Replacement PS & FM  $\Box$

Restoration & Replacement – Fleet & Facilities □

Phase: Planning

Project Manager: TBD

**GSP Basin:** Basin 42- Chicken Creek

#### **Project Definition:**

Objective. Replace sections of gravity main in NE Hazel Dell Avenue. These pipes were originally identified by operation staff as having sags and were originally part of the Hazel Dell Avenue South Project that went to 95% design in 2012 but was not constructed. These pipes were identified again during the General Sewer Plan update as having elevated condition scores due to pipe deficiencies and will be repaired to increase reliability and reduce maintenance.

Scope of Work. Replace gravity sewers in NE Hazel Dell Avenue between existing sanitary manholes 42-305 and 42-336.

Project Statistics. Gravity main – 2,100 feet of 8-inch diameter pipe in NE Hazel Dell Avenue.

**Photos:** (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate: Total Project Cost: Construction Cost: Basis of Estimate: Date of Estimate:

\$1,880,000 \$1,590,000 Planning Sept. 2017

#### **Schedule Information:**

<u>Activity</u>	Year
Predesign	2021
Permitting	2021
Real Property/ROW	2021
Design	2021
Bid	2022
Construction	2022



Location: Central

Number: 1-201A

**GL Number:** 

Clark Regional Wastewater District Comprehensive General Sewer Plan Update Asset Management Plan - Gravity Sewer R&R Proposed CIP Projects 16-1831

CIP # 1-201A GM-4 - NE Hazel Dell Ave (NE 77th Street to NE Anderson Road) ULID.01 8-inch Main

	Unit Cost/			
	Allowance			
Bid Item Description	Factor	Quantity	Unit	Total
8-inch PVC Gravity (material & installation)	\$216	2085	LF	\$450,360
10-inch PVC Gravity (material & installation)	\$225		LF	
48-inch Diameter Manhole (material & installation)	\$10,885	11	EA	\$119,735
Lateral Connection	\$3,000	19	EA	\$57,000
Surface Restoration (6" HMAC trench patch)	\$65	2,389	LF	\$155,285
Materials & Installation Subtotal				\$782,380
Mobilization (7%)	\$54,767	1	LS	\$54,767
Temporary Erosion & Sediment Control (1%)	\$7,824	1	LS	\$7,824
Traffic Control (3%)	\$23,471	1	LS	\$23,471
Removal of Structures and Obstructions (4%)	\$31,295	1	LS	\$31,295
General Contractor's Overhead	10%			\$89,974
General Contractor's Profit	8%			\$71,979
Construction Cost Subtotal				\$1,061,690
Sales Tax @ 8.4%	8.4%			\$89,182
Total Construction Cost				\$1,150,872
Engineering, Permitting and Construction Services	25%			\$287,718
Subtotal				\$1,438,590
Contingency	30%			\$431,577
Subtotal				\$1,870,167
District Administration/Legal Overhead	-			-
Property/Easement Acquisition	-			-
TOTAL ESTIMATED PROJECT COST				\$1,870,167
BUDGET				\$1,880,000

Assumptions, Notes:

1. All Costs in 2016 Dollars. Unit costs for materials and installation based on RS Means Heavy Construction Cost Data, published Jan 2016, for national averages and adjusted to Portland area market locaton.

2. Piping unit cost includes all materials, excavation, shoring, dewatering, bypass pumping, imported granular bedding and trench backfill, testing, and removal/haul/disposal of existing piping. Average depth to invert is 14ft for GM1 through GM8 projects.

3. Assumes new replacement MHs - 48" dia MH for pipe up thru 18-inch and 60" dia MH for pipe 24-inch and larger. Assumes average of 1 new MH per 200 LF of main based on average of actual quantities from GIS for GM1 through GM8 projects.

4. Assumes average of 1 lateral connections per 115 LF of main. This average is based on actual quantities from GIS for GM1 through GM8 projects.

5. Assumes all trenching and project work is within paved ROWs; surface restoration consists of an 8ft wide trench patch for mains and laterals; cost includes sawcuts and removal/haul of existing AC pavement, haul/placement/compaction of 6" depth of aggregate base, and haul/placement/compaction of 6" depth of HMAC.

6. Typical assumed construction cost allowances for commonly occurring general work elements are included, which are non-site specific.

7. Typical project cost allowances are included which factor on top of the total estimated construction cost. Engineering allowance includes design and surveying. Engineering, permitting (local agency ROW permits) and construction administration costs can also vary depending on the scope and site conditions unique to each project, thus contingency is added after the inclusion of these allowances.

8. Property/easement acquition is excluded.





Six-Year Capital Program Capital Project Profile

# NE 78<sup>th</sup> Street Trunk (NE 13<sup>th</sup> Ave to NE 20<sup>th</sup> Ave)

Capital Improvement Project

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$ 
  - Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

### Restoration & Replacement Project

- Restoration & Replacement Gravity  $\boxtimes$
- Restoration & Replacement PS & FM  $\square$

Restoration & Replacement – Fleet & Facilities  $\Box$ 

Phase: Design

Location: Central

Number: 2-504B

Project Manager: Phil Roppo

GSP Basin: Basin 14-Cougar Canyon

GL Number: <u>407-000-189-00-00-04</u>

#### **Project Definition:**

<u>Objective</u>. Replace a segment of the 50-year old gravity trunk in Hazel Dell to increase reliability and reduce maintenance. The existing pipe has pipe deficiencies, including sags that lead to grease build-up and other maintenance issues.

<u>Scope of Work.</u> Replace the gravity trunk in NE 78<sup>th</sup> Street from existing sanitary manhole 14-719 east of NE 13<sup>th</sup> Avenue to existing sanitary manhole 14-753 located 300 feet east of NE 19<sup>th</sup> Court. In addition, replace the gravity sewer in NE 13<sup>th</sup> Avenue and NE 19<sup>th</sup> Court. The sewer line replacement work on the Heritage Farm property has been completed by Clark County under a parking lot improvement project.

<u>Project Statistics.</u> Gravity trunk – 1,550 feet of 12-inch gravity trunk in NE 78<sup>th</sup> Street. Gravity main – 550 feet of 8-inch gravity main in NE 13<sup>th</sup> Avenue. Gravity main – 447 feet of 8-inch gravity main in NE 19<sup>th</sup> Ct. In 2016, 266 feet of 12-inch gravity trunk running north-south on the Heritage Farm property was installed and paid for as part of this project budget.

#### Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate: Total Project Cost: Construction Cost: Basis of Estimate: Date of Estimate:

\$2,435,000 \$2,220,000 90% Design Sept. 2017

<u>Activity</u>	Year
Predesign	2014-2015
Permitting	2017
Real Property/ROW	2017
Design	2015-2017
Bid	2018
Construction	2018






**Six-Year Capital Program Capital Project Profile** 

# NE 95<sup>th</sup> Street and SR503 (Yearout Business Park)

Capital Improvement Project

- General Facilities
- District Installed Infrastructure
  - Septic Elimination Program  $\Box$
- Developer Reimbursement Program
  - Fleet & Facilities  $\Box$

### **Restoration & Replacement Project** ⊠

- Restoration & Replacement Gravity ⊠
- Restoration & Replacement PS & FM  $\Box$

Restoration & Replacement – Fleet & Facilities

**Phase:** Planning

**GL Number:** 

Project Manager: TBD

**GSP Basin:** Basin 31- Country Meadows

## **Project Definition:**

Objective. Replace sections of gravity main in NE 95<sup>th</sup> Street, NE 94<sup>th</sup> Street, NE 117<sup>th</sup> Avenue, and NE 116<sup>th</sup> Avenue. These pipes have deficiencies that were identified during routine CCTV inspections. This grouping of pipes is the result of the General Sewer Plan update efforts that included grouping pipes with the worst condition scores into projects.

Scope of Work. Replace gravity sewers in NE 95<sup>th</sup> Street between existing sanitary manholes 31-724 and 31-747, in NE 117<sup>th</sup> Avenue between existing sanitary manholes 31-735 and 31-733, in NE 116<sup>th</sup> Avenue between existing sanitary manholes 31-724 and 31-723, and in NE 94<sup>th</sup> Street between manholes 31-718 and 31-723.

Project Statistics. Gravity main – 823 feet in NE 95<sup>th</sup> Street, 536 feet in NE 117<sup>th</sup> Avenue, 182 feet in NE 116<sup>th</sup> Avenue, and 79 feet of 8-inch gravity main NE 94<sup>th</sup> Street.

### **Photos:** (Map of area on the reverse side)

### **Budget Information:**

<u> Project Cost Estimate:</u>	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$1,530,000 \$1,260,000 Planning Sept. 2017

#### Schedule Information:

<u>Activity</u>	Year
Predesign	2023
Permitting	2023
Real Property/ROW	2023
Design	2023
Bid	2024
Construction	2024



Location: Central

Number: 2-1710D

#### CIP# 2-1710D

#### GM-3 - NE 95th St and SR 503 (Yearout Business Park)

	Unit Cost/			
	Allowance			
Bid Item Description	Factor	Quantity	Unit	Total
8-inch PVC Gravity (material & installation)	\$216	1620	LF	\$349,920
10-inch PVC Gravity (material & installation)	\$225		LF	
48-inch Diameter Manhole (material & installation)	\$10,885	9	EA	\$97,965
Lateral Connection	\$3,000	15	EA	\$45,000
Surface Restoration (6" HMAC trench patch)	\$65	1,860	LF	\$120,900
Materials & Installation Sub	ototal			\$613,785
Mobilization (7%)	\$42,965	1	LS	\$42,965
Temporary Erosion & Sediment Control (1%)	\$6,138	1	LS	\$6,138
Traffic Control (3%)	\$18,414	1	LS	\$18,414
Removal of Structures and Obstructions (4%)	\$24,551	1	LS	\$24,551
General Contractor's Overhead	10%			\$70,585
General Contractor's Profit	8%			\$56,468
Construction Cost Sub	ototal			\$832,906
Sales Tax @ 8.4%	8.4%			\$69.964
Total Construction	Cost			\$902,870
Engineering Permitting and Construction Services	30%			\$270 861
Sul	ototal			\$1,173,731
Contingonau	200/			<b>\$</b> 250.440
Sul	ototal			\$352,119 \$1,525,850
	lotar			φ <i>1</i> ,020,000
District Administration/Legal Overhead	-			-
Property/Easement Acquisition	-			-
TOTAL ESTIMATED PROJECT COST				\$1,525,850
BUDGET				\$1,530,000

#### Assumptions, Notes:

1. All Costs in 2016 Dollars. Unit costs for materials and installation based on RS Means Heavy Construction Cost Data, published Jan 2016, for national averages and adjusted to Portland area market locaton.

2. Piping unit cost includes all materials, excavation, shoring, dewatering, bypass pumping, imported granular bedding and trench backfill, testing, and removal/haul/disposal of existing piping. Average depth to invert is 14ft for GM1 through GM8 projects.

3. Assumes new replacement MHs - 48" dia MH for pipe up thru 18-inch and 60" dia MH for pipe 24-inch and larger. Assumes average of 1 new MH per 200 LF of main based on average of actual quantities from GIS for GM1 through GM8 projects.

4. Assumes average of 1 lateral connections per 115 LF of main. This average is based on actual quantities from GIS for GM1 through GM8 projects.

5. Assumes all trenching and project work is within paved ROWs; surface restoration consists of an 8ft wide trench patch for mains and laterals; cost includes sawcuts and removal/haul of existing AC pavement, haul/placement/compaction of 6" depth of aggregate base, and haul/placement/compaction of 6" depth of HMAC.

6. Typical assumed construction cost allowances for commonly occurring general work elements are included, which are non-site specific.

7. Typical project cost allowances are included which factor on top of the total estimated construction cost. Engineering allowance includes design and surveying. Engineering, permitting (local agency ROW permits) and construction administration costs can also vary depending on the scope and site conditions unique to each project, thus contingency is added after the inclusion of these allowances.

8. Property/easement acquition is excluded.







Six-Year Capital Program Capital Project Profile

# NE 99<sup>th</sup> Street CRP (94<sup>th</sup> Ave - SR 503)

Location: <u>Central</u> Number: <u>2-1710F</u> GL Number: <u>409-000-189-00-01-24</u> Capital Improvement Project 🛛

General Facilities ⊠

- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

### **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

# Project Phase: Predesign

Project Manager: <u>Vanessa Johnson</u> County Project Manager: <u>Scott Fakler</u> GSP Basin: <u>Basins 29-Glenwood Creek, 30-NE 88<sup>th</sup> Street,</u> <u>31-Country Meadows</u>

#### **Project Definition:**

<u>Objective.</u> Connect existing service in Brush Prairie to the Glenwood Pump Station along the NE 99<sup>th</sup> Street corridor through the Clark County Leichner Landfill site in association with the NE 99<sup>th</sup> Street County Road Project (CRP). Remove the existing Country Meadows Pump Station.

<u>Scope of Work.</u> Extend the gravity trunk from the Country Meadows Pump Station west along NE 99<sup>th</sup> Street to the existing trunk in NE 100<sup>th</sup> Way, including a deep section installed via trenchless technology under the existing local gravity service. Local gravity main to remain in service. Decommission the existing Country Meadows Pump Station.

<u>Project Statistics.</u> Pump Station – Decommission existing Country Meadows Pump Station. Gravity trunk – 2,800 feet of 18-inch trunk, including 1,100 feet of deep trunk under existing local gravity service.

#### Photos: (Map of area on the reverse side)

#### **Budget Information:**

\$3,400,000 \$2,700,000 Predesign Sept. 2017

<u>Activity</u>	<u>Year</u>
Predesign	2015
Permitting	2015-2019
Real Property/ROW	2015-2019
Design	2015-2019
Bid	2019
Construction	2019-2020







Location: Central

Number: 2-1715A

Phase: Design

### Six-Year Capital Program Capital Project Profile

# NE 107<sup>th</sup> Ave Sidewalks CRP

#### Capital Improvement Project

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program
  - Fleet & Facilities  $\Box$

### **Restoration & Replacement Project**

Restoration & Replacement - Gravity 🛛

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Basin 33-Orchards Crest South

GL Number: 409-000-189-00-01-30

Project Manager: Phil Roppo

#### **Project Definition:**

Objective. Modify existing service infrastructure in support of County sidewalk improvement project.

<u>Scope of Work.</u> Extend existing laterals and cleanouts to new right of way behind new sidewalk on NE 107<sup>th</sup> Avenue from NE Covington Road to NE 67<sup>th</sup> Street.

Project Statistics. Extend 10 laterals and install new cleanouts.

#### Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:
Total Project Cost:
Construction Cost:
Basis of Estimate:
Date of Estimate:

\$20,000 \$15,000 Planning Sept. 2017

#### **Schedule Information:**

<u>Activity</u>	Year
Predesign	2015
Permitting	2015-2017
Real Property/ROW	2015-2017
Design	2015-2017
Bid	2017
Construction	2018

Updated: Sept. 2017





# Six – Year Capital Improvement Projects

## **Central District Area**

### Pump Stations and Force Mains

CIP No.	Min	i-Basin Project Description
CIP Projec	cts	
2-504A	2-504	St. Johns Wood Pump Station
2-1502A	2-1502	Pleasant Valley North Pump Station
2-1604A	2-1604	NE 10 <sup>th</sup> Avenue Pump Station
2-1605C	2-1605	Whipple Creek North Pump Station Increased Capacity – Phase II
2-1605G	2-1605	Union Road Pump Station Upgrade
2-1605l	2-1605	Union Road Force Main Upgrade
2-1605H	2-1605	Vista Terrace Reconstruction
2-1702A	2-1702	Curtin Creek Pump Station – Phase I
2-1705A	2-1705	Glenwood Pump Station Upgrade
2-1707A	2-1707	Schuller Pump Station Increased Capacity
2-1710E	2-1710	Columbia Resource Company Force Main

### **Restoration and Replacement**

2-601A	2-601	Oro-Vega Pump Station Replacement
2-601B	2-601	Shadow Wood MOV Vault Improvements
2-901A	2-901	Klineline Pump Station Replacement
2-1001A	2-1001	Plantation Pump Station Replacement
2-1001B	2-1001	Knoll Ridge South Pump Station Replacement
2-1101A	2-1101	Stag Leap Pump Station Removal
2-1101B	2-1101	Buckman Gardens Pump Station Removal
2-1503A	2-1503	Mill Creek Pump Station Restoration
2-1716A	2-1716	Sierra Vista/Hunter's Glen Pump Station Removals



Location: Central

Number: 2-504A

**Phase:** Design

Six-Year Capital Program Capital Project Profile

# **St. Johns Wood Pump Station**

### Capital Improvement Project 🛛

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program 🛛
  - Fleet & Facilities  $\Box$

### **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Basin 12-Highway 99 East

Project Manager: Steve Bacon

GL Number: <u>409-900-189-00-00-03</u>

#### **Project Definition:**

Objective. Serve the residential development in the easternmost area of Basin 12.

<u>Scope of Work.</u> Construct a new pump station in conjunction with the St. Johns Wood subdivision. Connect the force main from the pump station to the existing force main at the intersection of NE 88<sup>th</sup> Street and NE 51<sup>st</sup> Avenue in association with residential development. District reimbursement for the pump station and force main.

Project Statistics. Force main – 900 feet of 6-inch force main.

Pump Station – 3.5 hp duplex submersible pumps for 205 gpm capacity; 8-foot wetwell; single phase electrical service; diesel generator; control kiosk; chemical storage tank for odor control.

Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate: Total Project Cost: Construction Cost: Basis of Estimate: Date of Estimate:

\$762,000 \$700,000 Agreement Sept. 2017

<u>Activity</u>	Year
Predesign	By Others
Permitting	By Others
Real Property/ROW	By Others
Design	By Others
Bid	By Others
Construction	2016-2018









Six-Year Capital Program Capital Project Profile

# **Pleasant Valley North Pump Station**

Location: <u>Central</u> Number: <u>2-1502A</u> GL Number: <u>409-000-189-00-01-08</u>

Phase: Predesign

Project Manager: Vanessa Johnson

#### Capital Improvement Project 🛛

- General Facilities ⊠
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

### **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Basin 5-Pleasant Valley North

#### **Project Definition:**

<u>Objective.</u> Serve the northeast area of Basin 5 in coordination with Washington State University (WSU) Vancouver and Vancouver Public Schools STEM campus expansion in support of this innovation zone.

<u>Scope of Work.</u> Current Siting Study recommends locating a pump station west of NE 50<sup>th</sup> Avenue on the southeast corner of the WSU property. Install a new pump station and force main from the proposed location north along NE 50th Avenue, west along NE 159<sup>th</sup> Street to the existing Mt. Vista trunk sewer. Install gravity main north to the NE 50<sup>th</sup> Avenue and NE 159<sup>th</sup> Street Intersection.

<u>Project Statistics.</u> Force main – 4,100 feet of 8-inch force main. Gravity main – 1,100 feet of 12-inch gravity main.

Pump Station – 20 hp duplex submersible pumps for 670 gpm at startup; 1000 gpm at buildout; 8-foot wetwell; three phase electrical service; diesel generator; control kiosk; odor control chemical tank.

#### Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate: Total Project Cost: Construction Cost: Basis of Estimate: Date of Estimate:

\$2,250,000 \$1,600,000 Planning Sept. 2017

#### Schedule Information:

<u>Activity</u>	Year
Predesign	2017
Permitting	2017-2018
Real Property/ROW	2017-2018
Design	2017-2018
Bid	2018
Construction	2018-2019

Updated: Sept. 2017

#### General Sewer Plan 2017 Capital Improvement Projects

**CIP #** 2-1502A

Pleasant Valley North Pump Station A (South) and Force Main 6-YEAR (2022) IMPROVEMENTS

Bid Item					
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical (250 gpm)	\$150,000	1	LS	\$150,000
2	Pump Station Electrical Service	\$65,000	1	LS	\$65,000
3	Pump Station - Above Grade Structure	\$35,000	1	LS	\$35,000
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator	\$35,000	1	LS	\$35,000
6	4-inch Force Main	<b>.</b>		LF	\$0
7	6-inch Force Main	\$60	6,300		\$378,000
8	72-Inch wetwell	<b>*</b> 25 000		EA	\$0
9	96-Inch wetwell	\$25,000	1	EA	\$25,000
10	8-inch PVC Gravity Upsize	\$120			\$0
11	10-inch PVC Gravity Upsize	\$130			\$0
12	12-Inch PVC Gravity Upsize	\$140			\$0
13	15-Inch PVC Gravity Upsize	\$160			\$0
14	18-inch PVC Gravity Upsize	\$170			\$0
15	21-inch PVC Gravity Upsize	\$250			\$0
16	24-inch PVC Gravity Upsize	\$300			\$0
1/	30-inch PVC Gravity Upsize	\$330	0		\$0
18	48-Inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21		\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000	0.000	EA	\$0
25	Sneeting, Shoring, Bracing	\$10	6,300		\$63,000
26	HMA Trench Patch	\$175	1,310		\$229,250
27	Hall-Wildth Grind and Overlay	\$15U	0		\$U
28		\$25 \$20	6,910		\$172,750
29	Traffia Control (20()	\$3U	0		04 00
30	Capacel Destruction (2%)	\$23,000	1	L3	\$23,000
20	Mehilization (10%)	\$23,000	1	10	\$23,000
32	Mobilization (10%)	\$117,000 \$47,000	1	10	\$117,000
33		\$47,000	1	Lo	\$47,000
	Construction Costs Subtotal				\$1,383,000
	Sales Tax @ 8.4%				\$116,172
	Subtotol				¢1 400 172
	Contingency	30%			\$449 752
	Contingency	0070			ψ++5,702
	Total Construction Cost				\$1,948,924
					¢.,0.0,02.
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$292,339
	Administration/Legal (3%)				\$58,468
	Construction Services (7%)				\$136,425
	Property/Easement Acquisition (5%)				\$97,446
					<b>*</b> 0 <b>5</b> 00 <b>6</b> 04
	TOTAL ESTIMATED PROJECT COST				\$2,533,601
	USE				\$2,540,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average

6. Assume one Lateral Reconnection every 100 lineal feet

The opinion of probable cost herein is based on our perception of current conditions at the project location. This opinion reflects our professional opinion of costs at this time and is subject to change as the project design progresses. BHC Consultants has no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. BHC Consultants cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented as shown.







Six-Year Capital Program Capital Project Profile

Capital Improvement Project

# **NE 10<sup>th</sup> Ave Pump Station**

Location: <u>Central</u> Number: <u>2-1604A</u> GL Number: <u>409-000-189-00-01-31</u>

Phase: Design

Project Manager: Vanessa Johnson

**GSP Basin:** <u>Basin 25-Whipple Creek West</u>

#### **Project Definition:**

<u>Objective</u>. Extend service from the NE 17<sup>th</sup> Avenue Trunk to the NE 10<sup>th</sup> Avenue corridor.

<u>Scope of Work.</u> Construct a new, duplex submersible pump station adjacent to NE 10<sup>th</sup> Avenue and north of Whipple Creek (Gillingham property). The wet well will be installed as part of the NE 10<sup>th</sup> Avenue Bridge County Road Project (TAB) along with the associated force main. Construct a new gravity trunk beginning approximately 350 feet east of the intersection of NE 154<sup>th</sup> Street and NE 10<sup>th</sup> Avenue, where TAB ends, and continue the gravity trunk installation east and then south along NE 15<sup>th</sup> Avenue crossing I-5 at NE 150<sup>th</sup> Street and connecting to an existing manhole on the east side of I-5.

<u>Project Statistics.</u> Gravity trunk – 2,100 feet of 10-inch gravity trunk including a bored and jacked steel pipe crossing of I-5.

Pump Station – 10 hp duplex submersible pumps for 400 gpm at startup; 800 gpm at buildout; valve vault and appurtenances; 3-phase electrical service; diesel generator; control kiosk; chemical storage tank for odor control.

#### Photos: (Map of area on the reverse side)

#### **Budget Information:**

\$2,300,000 \$1,770,000 90% Design Sept. 2017

#### **Schedule Information:**

<u>Activity</u>	Year
Predesign	2017
Permitting	2017
Real Property/ROW	NA
Design	2017-2018
Bid	2018
Construction	2018-2019

Updated: Sept. 2017

General Facilities ⊠ District Installed Infrastructure □ Septic Elimination Program □ Developer Reimbursement Program □ Fleet & Facilities □ Restoration & Replacement Project □ Restoration & Replacement - Gravity □ Restoration & Replacement - PS & FM □ Restoration & Replacement - Fleet & Facilities □









# Whipple Creek North Pump Station Increased Capacity – Phase II

Location: Central	Capital Improvement Project 🛛
<b>CIP Number:</b> <u>2-1605C</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program 🗆
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Whipple Creek East (2-1605)	Restoration & Replacement – Fleet & Facilities $\Box$

#### **Project Definition:**

<u>Objective.</u> Increase firm pump capacity at the Whipple Creek North Pump Station from the current rated capacity of 358 gpm to serve the added flow coming from directing the Fairground PS to Whipple Creek North PS. The 2036 hydraulic load to the Whipple Creek North PS is estimated to be 950 gpm.

Scope of Work. Replace pumps and upgrade electrical service at the Whipple Creek North Pump Station.

Project Statistics. No change in force main size.

Pump station – Two new submersible pumps with a 2036 capacity of 950 gpm. Add new emergency generator and local electrical control panel with weather protected enclosure.

#### **Photos:** (on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$570,000
Construction Cost:	\$434,034
Basis of Estimate:	Bid
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	2018
Permitting	2018
Real Property/ROW	2018
Design	2018
Bid	2018
Construction	2019

#### General Sewer Plan 2017 Capital Improvement Projects

**CIP #** 2-1605C

Whipple Creek North Pump Station Capacity Increase - Phase II 6-YEAR (2022) IMPROVEMENTS

Bid Item					
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical (950 gpm)	\$150,000	1	LS	\$150,000
2	Pump Station Electrical Service	\$65,000	1	LS	\$65,000
3	Pump Station - Above Grade Structure		1	LS	\$0
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator	\$50,000	1	LS	\$50,000
6	4-inch Force Main			LF	\$0
7	6-inch Force Main	\$60		LF	\$0
8	72-inch wetwell			EA	\$0
9	96-inch wetwell	\$25,000		EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5.000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1.000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	0	LF	\$0
26	HMA Trench Patch	\$175	0	ΤN	\$0
27	Half-Width Grind and Overlay	\$150	0	TN	\$0
28	Imported Trench Backfill	\$25	0	TN	\$0
29	Crushed Surfacing	\$30	0	TN	\$0
30	Traffic Control (2%)	\$5,000	0	1.5	\$0
31	General Restoration (2%)	\$5,000	1	1.5	\$5,000
32	Mobilization (10%)	\$27,000	1	1.5	\$27,000
33	Temporary Frosion & Sediment Control (1%)	\$11,000	1	1.5	\$11,000
00		ψ11,000		LU	\$000,000
	Construction Costs Subtotal				\$308,000
	Sales Tax @ 0.4%				\$Z3,67Z
	Subtotal				¢222 872
	Contingency	30%			\$100 162
	Contingency	5070			φ100,102
	Total Construction Cost				\$434.034
					Ψ-0-,00-
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$65 105
	Administration/Legal (3%)				\$13,021
	Construction Services (7%)				\$30,382
	Property/Easement Acquisition (5%)				\$21.702
	· · · · · · · · · · · · · · · · · · ·				φ <u>_</u> .,. σ <sub>L</sub>
	TOTAL ESTIMATED PROJECT COST				\$564,244
	USE				\$570,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average

6. Assume one Lateral Reconnection every 100 lineal feet

The opinion of probable cost herein is based on our perception of current conditions at the project location. This opinion reflects our professional opinion of costs at this time and is subject to change as the project design progresses. BHC Consultants has no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. BHC Consultants cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented as shown.





Whipple Creek North Pump Station Increased Capacity - Phase II





6-Year Capital Program Capital Project Profile

# **Union Road Pump Station Upgrade**

Location: Central Capital Improvement Project 🛛 **CIP Number:** 2-1605G General Facilities ⊠ **GL Number:** District Installed Infrastructure Septic Elimination Program Developer Reimbursement Program **Phase:** Advanced Planning Fleet & Facilities **Restoration & Replacement Project** Project Manager: Unassigned Restoration & Replacement - Gravity  $\Box$ Restoration & Replacement – PS & FM  $\Box$ **GSP Basin:** Whipple Creek East (2-1605) Restoration & Replacement – Fleet & Facilities □

#### **Project Definition:**

<u>Objective.</u> The additional flow resulting from development of the Whipple Creek East mini-basin requires additional capacity at the Union Road Pump Station.

<u>Scope of Work.</u> The current rated capacity of the Union Road Pump Station is 440 gpm (drawdown test shows 415 gpm). The upgrade the existing pump station is anticipated to include new pumps and motors, verify electrical service to the station is adequate and a new emergency generator to support the new pumps.

This will increase the station's capacity to 1,200 gpm.

<u>Project Statistics</u>. The current discharge force main was increased to a 15-inch under 6-year CIP #2-1605I which will be adequate for the 20-year and 50-year expected flows.

Pump station – Capacity increase from 440 gpm to 1,200 gpm.

#### **Photos:** (on the reverse side)

Budget Information: Schedule Information		Schedule Information:	n:	
Project Cost Estimate:		<u>Activity</u>	Year	
Total Project Cost:	\$600,000	Predesign	TBD	
Construction Cost:	\$459,399	Permitting	TBD	
Basis of Estimate:	Class 4 Est.	Real Property/ROW	TBD	
Date of Estimate:	Nov. 2017	Design	TBD	
		Bid	TBD	
		Construction	TBD	

#### General Sewer Plan 2017 Capital Improvement Projects

#### CIP # 2-1605G

Union Road Pump Station - Increase capacity to 1,200 gpm 6- YEAR (2036) IMPROVEMENTS

Bid Item			<b>O</b> <i>iii</i>		<b>T</b> ( )
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	l otal
1	Pump Station - Mechanical (1,200 gpm)	\$150,000	1	LS	\$150,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$50,000	1	LS	\$50,000
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator	\$35,000	1	LS	\$35,000
6	4-inch Force Main			LF	\$0
7	12-inch Force Main	\$95		LF	\$0
8	72-inch wetwell			EA	\$0
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	0	LF	\$0
26	HMA Trench Patch	\$175	0	ΤN	\$0
27	Half-Width Grind and Overlay	\$150	0	ΤN	\$0
28	Imported Trench Backfill	\$25	0	ΤN	\$0
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$6,000	1	LS	\$6,000
31	General Restoration (2%)	\$6,000	1	LS	\$6,000
32	Mobilization (10%)	\$29,000	1	LS	\$29,000
33	Temporary Erosion & Sediment Control (4%)	\$11,000		LS	\$0
	Construction Costs Subtotal				¢226.000
					\$320,000 \$37.394
	Sales Tax @ 0.4%				¢∠7,304
	Subtatal				¢252.204
	Subiolal	2004			\$303,304 \$400.045
	Conungency	30%			\$106,015
	Total Construction Cost				¢450.200
					\$409,099
	Allied Costs				
	Engineering/Survey/Dermite (15%)				¢60 040
	Administration/Logal (2%)				Φ00,910 ¢12 702
	Automistration Services (3%)				\$13,782 \$20,450
	Construction Services (7%)				\$3∠,158 €00.070
	Property/Easement Acquisition (5%)				\$22,970
	TOTAL ESTIMATED PROJECT COST				\$507 210
					\$097,219
	USE				\$600,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 200 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet

The opinion of probable cost herein is based on our perception of current conditions at the project location. This opinion reflects our professional opinion of costs at this time and is subject to change as the project design progresses. BHC Consultants has no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. BHC Consultants cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented as shown.





Union Road Pump Station Upgrade





Six-Year Capital Program Capital Project Profile

# **Union Road Force Main Upgrade**

Location: <u>Central</u> Number: <u>2-1605I</u> GL Number: <u>409-000-189-00-01-34</u>

Phase: Design

Project Manager: Philip Roppo

GSP Basin: Basin 4-Interstate 5 North

Capital Improvement Project 🖂

- General Facilities 🛛
- District Installed Infrastructure  $\Box$ 
  - Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$
- **Restoration & Replacement Project** 
  - Restoration & Replacement Gravity  $\Box$
- Restoration & Replacement PS & FM  $\Box$
- Restoration & Replacement Fleet & Facilities 🗆

### **Project Definition:**

<u>Objective.</u> Install a new (second) larger diameter force main to help increase the capacity of the Union Road Pump Station and decrease operational cost by reducing energy consumption.

<u>Scope of Work.</u> Install a new 12-inch diameter force main in NE Union Road from the Union Road Pump Station to the discharge structure located near the intersection of NE 20<sup>th</sup> Avenue and NE 154<sup>th</sup> Street.

Project Statistics. Force main – 1,800 feet of 15-inch force main.

Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$700,000
Construction Cost:	\$533,382
Basis of Estimate:	Per-design
Date of Estimate:	Sept. 2017

<u>Activity</u>	Year
Predesign	2017
Permitting	2017
Real Property/ROW	2017
Design	2017
Bid	2018
Construction	2018

#### General Sewer Plan 2017 Capital Improvement Projects

CIP # 2-16051

Union Road Force Main Upgrade 6-YEAR (2016) IMPROVEMENTS

Bid Item	Rid Itom Description	Linit Rid Price	Quantity	Linit	Total
1	Diu lieni Description	¢125.000	Quantity		10tai ¢0
	Pump Station - Inechanical	\$125,000 \$50,000			ው ው ው
2	Pump Station Electrical	\$00,000 \$25,000			ው ወ
3	Pump Station - Above Grade Structure	φ25,000			ው ወ
4		¢25,000			ው ው ው
5	Emergency Generator	\$25,000		<u>LS</u>	<u>ወ</u>
0 7		000 0100	1 800		⊕U ↑190,000
/		ቅ 100 ይተደ 000	1,800		\$180,000 ¢0
ŏ		\$15,000			<u>ወ</u>
9	96-INCH WETWEII	¢400			<u>ቅሀ</u>
10	8-Inch PVC Gravity Upsize	<u>→120</u>			<u>ቅሀ</u>
11	10-inch PVC Gravity Upsize	\$130			<u>ቅሀ</u>
12	12-inch PVC Gravity Upsize	\$140			<u>ک</u> ں
13	15-inch PVC Gravity Upsize	\$160			<u>۵</u>
14	18-inch PVC Gravity Upsize	\$170			\$U
15	21-inch PVC Gravity Upsize	\$250			\$U
16	24-inch PVC Gravity Upsize	\$300			\$0
1/	30-inch PVC Gravity Upsize	\$330			\$U
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	1,800	LF	\$18,000
26	HMA Trench Patch	\$175	380	TN	\$66,500
27	Half-Width Grind and Overlay	\$150	0	TN	\$0
28	Imported Trench Backfill	\$25	1,480	TN	\$37,000
29	Crushed Surfacing	\$30	0	TN	\$0
30	Traffic Control (2%)	\$6,000	1	LS	\$6,000
31	General Restoration (2%)	\$6,000	1	LS	\$6,000
32	Mobilization (10%)	\$32,000	1	LS	\$32,000
33	Temporary Erosion & Sediment Control (4%)	\$13,000	1	LS	\$13,000
F	Construction Costs Subtotal				\$378,500
	Sales Tax @ 8.4%				\$31,794
	Subtotal				\$410,294
	Contingency	30%			\$123,088
	0				
	Total Construction Cost				\$533,382
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$80.007
	Administration/Legal (3%)				\$16,001
	Construction Services (7%)				\$37,337
	Property/Essement Acquisition (5%)				\$26,660
	riopenty/Lasement Acquisition (3%)				φ20,009
	TOTAL ESTIMATED PROJECT COST				\$693,397
	USE				\$700.000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet

The opinion of probable cost herein is based on our perception of current conditions at the project location. This opinion reflects our professional opinion of costs at this time and is subject to change as the project design progresses. BHC Consultants has no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. BHC Consultants cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented as shown.





### CLARK REGIONAL WASTEWATER DISTRICT

Location: Central

Number: 2-1605H

GL Number: TBD

**Phase:** Design

# **Clark Regional Wastewater District**

Six-Year Capital Program Capital Project Profile

# **Vista Terrace Reconstruction**

Capital Improvement Project 🛛

- General Facilities
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program
  - Fleet & Facilities

### **Restoration & Replacement Project**

- Restoration & Replacement Gravity  $\Box$
- Restoration & Replacement PS & FM  $\Box$
- Restoration & Replacement Fleet & Facilities  $\Box$

GSP Basin: Basin 2-Mill Creek

Project Manager: Vanessa Johnson

#### **Project Definition:**

<u>Objective.</u> Repair concrete pavement in the Vista Terrace residential roadway that was damaged during the construction of Payne Pump Station.

<u>Scope of Work.</u> Replace concrete panels that were severely damaged and reconstruct the base course. Perform concrete crack sealing.

Project Statistics. Replace 4,800 square feet of concrete panels and seal 300 feet of cracks.

Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$110,000
Construction Cost:	\$100,000
Basis of Estimate:	50% Design
Date of Estimate:	Sept. 2016

<u>Activity</u>	Year
Pre-Design	2015-2016
Permitting	NA
Real Property/ROW	NA
Design	2016-2017
Bid	2017
Construction	2017







**Six-Year Capital Program Capital Project Profile** 

# **Curtin Creek Pump Station – Phase 1**

Location: Central Capital Improvement Project 🛛 Number: 2-1702A General Facilities District Installed Infrastructure GL Number: TBD Septic Elimination Program  $\Box$ **Phase:** Predesign Developer Reimbursement Program Fleet & Facilities **Restoration & Replacement Project** Project Manager: Steve Bacon Restoration & Replacement - Gravity Restoration & Replacement – PS & FM  $\Box$ **GSP Basin:** Basin 50-Curtin Creek West Restoration & Replacement – Fleet & Facilities □

#### **Project Definition:**

Objective. Construct a pump station to serve the western area of Basin 50 and initiate service to residential, commercial and industrial lands along the NE 119<sup>th</sup> Street corridor.

Scope of Work. Construct the Curtin Creek Pump Station - Phase 1 to connect to the existing force main and gravity main installed just west of Curtin Creek from NE 119<sup>th</sup> Street north to approximately NE 124<sup>th</sup> Street.

Project Statistics. Pump Station - TBD hp duplex submersible pumps for TBD gpm at startup; TBD gpm at buildout; 8-10 foot wetwell; three phase electrical service; diesel generator; control kiosk; odor control chemical tank.

**Photos:** (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$750,000 TBD Planning Sept. 2017

<u>Activity</u>	<u>Year</u>
Predesign	By Others
Permitting	By Others
Real Property/ROW	By Others
Design	By Others
Bid	By Others
Construction	2018







Six-Year Capital Program Capital Project Profile

# **Glenwood Pump Station Upgrade**

Location: <u>Central</u> Number: <u>2-1705A</u> GL Number: <u>409-000-189-00-00-87</u>

Phase: Post-Construction

Project Manager: Dale Lough

#### Capital Improvement Project 🛛

- General Facilities
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

### **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Basin 29-Glenwood Creek

#### **Project Definition:**

<u>Objective.</u> Increase the capacity at the Glenwood Pump Station to accommodate growth in the Brush Prairie and Orchards areas.

<u>Scope of Work.</u> Upgrade the existing pump station to comply with current safety and building codes, and improve the station's operation efficiency. Increase the capacity of the pump station to 6.7 mgd. Potential acquisition of additional easement area as a buffer for future neighbors is anticipated for 2018.

Project Statistics. No change to existing force main.

Pump station – Capacity increase from 3.4 mgd to 6.7 mgd, including replacement of three existing pumps with larger pumps, upgrades to the electrical and heating/ventilation and cooling (HVAC) systems, modifications to the chemical feed system and odor control, modifications to roof, and expansion of the existing concrete apron.

Photos: (on the reverse side)

#### **Budget Information:**

\$2,18
\$1,35
Sept.

\$2,180,000 \$1,357,500 Bid Sept. 2017

<u>Activity</u>	Year
Predesign	2010-2011
Permitting	2015-2016
Real Property/ROW	2018
Design	2015-2016
Bid	2016
Construction	2016-2017






6-Year Capital Program Capital Project Profile

## **Schuller Pump Station Increased Capacity**

Location: Central Capital Improvement Project 🛛 **CIP Number:** 2-1707A General Facilities ⊠ **GL Number:** District Installed Infrastructure  $\Box$ Septic Elimination Program  $\Box$ Phase: Advanced Planning Developer Reimbursement Program  $\Box$ Fleet & Facilities Project Manager: Unassigned **Restoration & Replacement Project** Restoration & Replacement - Gravity  $\Box$ Restoration & Replacement – PS & FM  $\Box$ GSP Basin: Schuller (2-1707) Restoration & Replacement – Fleet & Facilities □ **Project Definition:** 

<u>Objective</u>. Increase firm pump capacity at the Schuller Pump Station from 130 gpm to 275 gpm to serve the Schuller mini-basin.

<u>Scope of Work.</u> Replace pumps, upgrade electrical service and an emergency generator at the Schuller Pump Station.

Project Statistics. No Change in force main size.

Pump station – Two new submersible pumps with a 2036 capacity of 275 gpm.

**Photos:** (on the reverse side)

Budget Information:		Schedule Information:	
Project Cost Estimate:		<u>Activity</u>	Year
Total Project Cost:	\$200,000	Predesign	2020
Construction Cost:	\$150,784	Permitting	2020
Basis of Estimate:		Real Property/ROW	2020
Date of Estimate:	June 2017	Design	2020
		Bid	2020
		Construction	2021

#### General Sewer Plan 2017 Capital Improvement Projects

#### CIP # 2-1707A

Increased Cpacity at Schuller Pump Station 6-YEAR (2022) IMPROVEMENTS

Bid Item No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical Capacity Increase (130 to 275 gpm)	\$40,000	1	IS	\$40,000
2	Pump Station Electrical Service	\$20,000	1	LS	\$20,000
3	Pump Station - Above Grade Structure	\$20,000	•	LS	\$0
4	Pump Station - Site Work			LS	\$0
5	Emergency Generator	\$35.000	1	LF	\$35.000
6	4-inch Force Main	+ )		LF	\$0
7	6-inch Force Main			LF	\$0
8	72-inch wetwell			EA	\$0
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	0	LF	\$0
26	HMA Trench Patch	\$175	0	ΤN	\$0
27	Half-Width Grind and Overlav	\$150	0	TN	\$0
28	Imported Trench Backfill	\$25	0	TN	\$0
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$2,000		LS	\$0
31	General Restoration (2%)	\$2,000	1	LS	\$2,000
32	Mobilization (10%)	\$10,000	1	LS	\$10.000
33	Temporary Erosion & Sediment Control (4%)	\$4,000		LS	\$0
	Construction Costs Subtotal	. ,			\$107.000
	Sales Tax @ 8.4%				\$8,988
					40,000
	Subtotal				\$115,988
	Contingency	30%			\$34,796
	Total Construction Cost				\$150,784
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$22,618
	Administration/Legal (3%)				\$4,524
	Construction Services (7%)				\$10,555
	Property/Easement Acquisition (5%)				\$7,539
					\$106 000
					\$190,020
					φ200,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet

The opinion of probable cost herein is based on our perception of current conditions at the project location. This opinion reflects our professional opinion of costs at this time and is subject to change as the project design progresses. BHC Consultants has no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. BHC Consultants cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented as shown.





Schuller Pump Station Increased Capacity





Six-Year Capital Program Capital Project Profile

## **Columbia Resource Company Force Main**

Location: <u>Central</u> Number: <u>2-1710E</u> GL Number: 407-000-189-00-01-36

Phase: Predesign

Project Manager: Phillip Roppo

### Capital Improvement Project 🛛

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program 🛛
  - Fleet & Facilities  $\Box$

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM □

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Basin 31-Country Meadows

### **Project Definition:**

<u>Objective</u>. Remove force main and air release valve (ARV) from busy roadway, increasing safety and efficiency for maintenance activities.

<u>Scope of Work.</u> Abandon existing force main and ARV in SR 503 after the force main on Columbia Resource property is rerouted north to a new gravity sewer that is part of the Prairie Park development. Secure new easement, as necessary.

Project Statistics. Force main – 100 feet of 4-inch PVC force main.

Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate: Total Project Cost: Construction Cost: Basis of Estimate: Date of Estimate:

\$50,000 \$40,000 Planning Sept. 2016

<u>Activity</u>	Year
Predesign	By Others
Permitting	By Others
Real Property/ROW	By Others
Design	By Others
Bid	By Others
Construction	2016-2017









Six-Year Capital Program Capital Project Profile

## **Oro-Vega Pump Station Replacement**

Location: <u>Central</u> Number: <u>2-601A</u> GL Number: <u>407-000-189-00-01-22</u>

Phase: Design

Project Manager: Phil Roppo

**GSP Basin:** Basin 24-Oro-Vega

### Capital Improvement Project

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## Restoration & Replacement Project 🛛

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM ⊠

Restoration & Replacement – Fleet & Facilities  $\Box$ 

### **Project Definition:**

Objective. Upgrade the existing pump station for reliable service and to decrease maintenance costs.

<u>Scope of Work.</u> Install a new top slab on the wetwell, new vaults and associated force main, a new electrical generator, new electrical and control equipment and a new shelter.

Project Statistics. Force main – 80 feet of 8-inch force main.

Pump Station – 10 hp duplex submersible pumps for 500 gpm; three phase electrical service; diesel generator; control kiosk.

Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:
Total Project Cost:
Construction Cost:
Basis of Estimate:
Date of Estimate:

\$485,000 \$415,000 90% Design Sept. 2017

<u>Year</u>
2013-2014
2014-2015
2014-2015
2014-2015
2020
2020







Six-Year Capital Program Capital Project Profile

## **Shadow Wood MOV Vault Improvements**

Location: <u>Central</u> Number: <u>2-601B</u> GL Number: <u>407-000-189-00-01-49</u>

Phase: Planning

Project Manager: Phil Roppo

### Capital Improvement Project

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program 🗆
  - Fleet & Facilities  $\Box$

## Restoration & Replacement Project 🛛

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM ⊠

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Basin 24 – Oro-Vega

### **Project Definition:**

Objective. Extend service life of existing vaults.

<u>Scope of Work.</u> Clean and conduct a condition assessment on the existing vaults, piping, and valves. Conduct repairs identified by the condition assessment. At a minimum, upsize access ports from 3-inch to 8-inch on the 12-inch sewers and upsize the access ports from 3-inch to 6-inch on the 6-inch sewers.

<u>Project Statistics.</u> During Phase 1, replace all bolts with stainless steel bolts. Replace 6" tees with 6" wyes to facilitate future inspection. During Phase 2, clean and inspect the pipeline crossings of Salmon Creek and perform other work.

#### Photos: (Map of area on the reverse side)

### **Budget Information:**

Project Cost Estimate:
Total Project Cost:
Construction Cost:
Basis of Estimate:
Date of Estimate:

\$125,000 \$105,000 Planning Sept. 2017

<u>Activity</u>	Year
Predesign	2017-2018
Permitting	2017
Real Property/ROW	NA
Design	2017-2018
Bid	2017-2018
Construction	2017-2018









Six-Year Capital Program Capital Project Profile

## **Klineline Pump Station Replacement**

Location: Central Capital Improvement Project Number: 2-901A General Facilities District Installed Infrastructure GL Number: TBD Septic Elimination Program Project Phase: Design Developer Reimbursement Program Fleet & Facilities Project Manager: Philip Roppo **Restoration & Replacement Project** ⊠ Restoration & Replacement - Gravity  $\Box$ Restoration & Replacement – PS & FM ⊠ GSP Basin: Basin 11-Sylvan Creek Restoration & Replacement – Fleet & Facilities □

### **Project Definition:**

Objective. Replace the existing pump station to increase reliability and decrease maintenance costs.

<u>Scope of Work.</u> Replace the existing Klineline Pump Station north of the intersection of NE 117<sup>th</sup> Street and NE Klineline Road with a grinder package pump station. Install a new smaller diameter 2-inch HDPE force main inside the existing 4-inch diameter force main. Connect to the existing discharge manhole.

Project Statistics. Force main – 340 feet of 2-inch force main.

Pump Station – 2.0 hp duplex grinder package pump station with 50 gpm capacity; 4-foot wetwell; single phase electrical service; control kiosk.

#### Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:
Total Project Cost:
Construction Cost:
Basis of Estimate:
Date of Estimate:

\$220,000 \$200,000 Planning Sept. 2016

<u>Activity</u>	Year
Predesign	2014
Permitting	2016
Real Property/ROW	2016
Design	2016
Bid	2017
Construction	2017







## **Plantation Pump Station Replacement**

Location: Central Capital Improvement Project Number: 2-1001A General Facilities District Installed Infrastructure **GL Number:** TBD Septic Elimination Program **Phase:** Predesign Developer Reimbursement Program Fleet & Facilities Project Manager: Phil Roppo **Restoration & Replacement Project** ⊠ Restoration & Replacement - Gravity  $\Box$ Restoration & Replacement – PS & FM ⊠ GSP Basin: Basin 22-Knollridge Restoration & Replacement – Fleet & Facilities

### **Project Definition:**

Objective. Replace the existing pump station with a new grinder package pump station for reliability and to decrease maintenance costs.

Scope of Work. Replace the existing submersible pump station with a new grinder package pump station. Install a new smaller diameter 2-inch HDPE force main inside the existing force main. Connect to adjacent gravity line.

Project Statistics. Force main – 10 feet of 2-inch force main.

Pump Station – 2.0 hp duplex grinder pumps with 50 gpm capacity. 4-foot wetwell; single phase electrical service; control kiosk.

#### **Photos:** (Map of area on the reverse side)

### **Budget Information:**

Project Cost Estimate:
Total Project Cost:
Construction Cost:
Basis of Estimate:
Date of Estimate:

\$220,000 \$200,000 Planning Sept. 2017

<u>Activity</u>	<u>Year</u>
Predesign	2019
Permitting	2019
Real Property/ROW	2019
Design	2019
Bid	2020
Construction	2020









Six-Year Capital Program Capital Project Profile

## **Knoll Ridge South Pump Station Replacement**

Location: <u>Central</u> Number: <u>2-1001B</u> GL Number: <u>407-000-189-00-01-40</u>

Phase: Design

Project Manager: Phil Roppo

GSP Basin: Basin 23-Wood Creek

Capital Improvement Project

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities

### **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

- Restoration & Replacement PS & FM ⊠
- Restoration & Replacement Fleet & Facilities  $\Box$

#### **Project Definition:**

<u>Objective.</u> Upgrade the existing pump station to increase reliability and decrease maintenance costs.

<u>Scope of Work.</u> Install two new pumps and piping inside the existing wetwell. Install a new valve vault with valves, piping and other appurtenances. Use existing electrical and control panel. Connect to the existing force main.

Project Statistics. Force main – 20 feet of 4-inch force main.

Pump Station – 3.0 hp duplex submersible pumps for 130 gpm capacity; 5-foot wetwell; single phase electrical service; control kiosk; valve vault.

#### Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$225,000 \$200,000 Planning Sept. 2017

<u>Activity</u>	Year
Predesign	2014
Permitting	2021
Real Property/ROW	2021
Design	2021
Bid	2022
Construction	2022









# **Stag Leap Pump Station Removal**

Capital Improvement Project

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$ 
  - Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## Restoration & Replacement Project 🛛

- Restoration & Replacement Gravity  $\Box$
- Restoration & Replacement PS & FM 🛛
- Restoration & Replacement Fleet & Facilities  $\Box$

## **Project Definition:**

<u>Objective</u>. Improve service and decrease maintenance costs by removing the existing pump station.

<u>Scope of Work.</u> Install gravity main from the existing Stag Leap Pump Station located near the intersection of NE 106<sup>th</sup> Street and NE 43<sup>rd</sup> Place to an existing gravity main located in a northwesterly direction from the pump station. This route will require obtaining easements from one property owner. Abandon existing pump station.

Project Statistics. Gravity main – 570 feet of 8-inch gravity main.

### Photos: (Map of area on the reverse side)

## **Budget Information**:

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$169,000 \$125,000 50% Design Sept. 2016

### Schedule Information:

<u>Activity</u>	Year
Predesign	2014
Permitting	2015
Real Property/ROW	2015
Design	2016
Bid	2018
Construction	2018



Location: Central

Number: 2-1101A

Phase: Design

GL Number: 407.000.189.00.00.96

Project Manager: Philip Roppo

**GSP Basin:** Basin 9-Sherwood Creek







**Six-Year Capital Program Capital Project Profile** 

## **Buckman Gardens Pump Station Removal**

Location: Central	Capital Improvement Project 🗆
Number: <u>2-1101B</u>	General Facilities 🗆
GL Number: TBD	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Predesign	Developer Reimbursement Program $\Box$
	Fleet & Facilities $\Box$
Project Manager: Philip Roppo	Restoration & Replacement Project 🛛
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM 🛛
GSP Basin: Basin 12-Highway 99 East	Restoration & Replacement – Fleet & Facilities $\Box$

### **Project Definition:**

Objective. Replace/upgrade or remove the existing "temporary" pump station constructed in 1994 with the Buckman Gardens North Subdivision to reduce maintenance costs and increase reliability of service.

Scope of Work. Perform an alternatives analysis between restoration/replacement of the existing 100 gpm capacity Buckman Gardens Pump Station and removing it from service. Restoration/replacement has not yet been scoped. Removal would require installation of approximately 1,300 feet of 8-inch diameter gravity line in a south easterly direction from the existing Buckman Gardens Pump Station to an existing manhole near the Buckman Gardens II Pump Station, including obtaining easements from at least three property owners.

Project Statistics. TBD hp for TBD qpm capacity; TBD-foot wetwell; single phase electrical service; control kiosk.

#### **Photos:** (Map of area on the reverse side)

#### **Budget Information:**

\$362.000 \$315,000 Planning Sept. 2017

<u>Activity</u>	Year
Predesign	2015
Permitting	2020
Real Property/ROW	2020
Design	2020
Bid	2021
Construction	2021







**Phase:** Planning

**Six-Year Capital Program Capital Project Profile** 

## Mill Creek Pump Station Restoration

**Location:** Central Capital Improvement Project Number: 2-1503A General Facilities District Installed Infrastructure  $\Box$ **GL Number: TBD** Septic Elimination Program  $\Box$ Developer Reimbursement Program Fleet & Facilities Project Manager: Vanessa Johnson **Restoration & Replacement Project** Restoration & Replacement - Gravity Restoration & Replacement – PS & FM ⊠ Restoration & Replacement – Fleet & Facilities

**GSP Basin:** Basin 2 - Mill Creek

### **Project Definition:**

Objective. Repair flood wall to prevent Mill Creek floodwaters from entering the pump station and modify the site to ensure the transformer is above the flood elevation. The 2015 December storm resulted in approximately 8" of standing water around the transformer and sand bags were placed within the flood wall to keep flood waters out of the pump station.

Scope of Work. Remove and replace the existing concrete flood wall and construct a new concrete platform to raise the transformer.

Project Statistics. Flood wall – 85 feet long, 2 feet in height. Transformer platform –1.5 feet in height.

**Photos:** (Map of area on the reverse side)

### **Budget Information:**

Project Cost Estimate: **Total Project Cost: Construction Cost:** Basis of Estimate: Date of Estimate:

\$220,000 \$200,000 Planning Sept. 2016

<u>Activity</u>	Year
Predesign	2017
Permitting	NA
Real Property/ROW	NA
Design	2017
Bid	2017
Construction	2017





## CLARK REGIONAL WASTEWATER DISTRICT

Location: Central

Number: 2-1716A

**GL Number: TBD** 

**Phase:** Predesign

## **Clark Regional Wastewater District**

**Six-Year Capital Program Capital Project Profile** 

## Sierra Vista/Hunter's Glen Pump Station Removals

Capital Improvement Project General Facilities District Installed Infrastructure Septic Elimination Program  $\Box$ Developer Reimbursement Program Fleet & Facilities **Restoration & Replacement Project** Project Manager: Phil Roppo Restoration & Replacement - Gravity  $\Box$ 

> Restoration & Replacement – PS & FM ⊠ Restoration & Replacement – Fleet & Facilities □

GSP Basin: Basin 34-Covington North,

Basin 36-Green Meadows East

### **Project Definition:**

Objective. Improve service and decrease maintenance costs by removing two existing pump stations.

Scope of Work. Install a gravity main from the intersection of NE Meadows Drive and NE 66<sup>th</sup> Street, near the existing Hunter's Glen Pump Station, east under I-205. Continue installation of the pipeline east and then north before connecting to existing Manhole 34-13. From existing Sierra Vista Pump Station located near the intersection of NE 66th Street and NE 91<sup>st</sup> Avenue, install a gravity main north and connect to the pipe from the Hunter's Glen Pump Station. Abandon and remove both the Hunter's Glen and Sierra Vista Pump Stations.

Project Statistics. Gravity main - 1,000 feet of 8" gravity sewer, of which 200 feet will be installed in a bored and jacked steel casing under I-205.

#### **Photos:** (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate: **Total Project Cost:** Construction Cost: Basis of Estimate: Date of Estimate:

\$700,000 \$550,000 Planning Sept. 2017

<u>Activity</u>	Year
Predesign	2018
Permitting	2018
Real Property/ROW	2018
Design	2018
Bid	2019
Construction	2019





# Six – Year Capital Improvement Projects Ridgefield District Area Collection and Conveyance

CIP No.		Mini-Basin	Project Description
CIP Projects	6		
3-603F	3-603	Royle	Road Trunk
3-603G	3-603	Wells	Property Trunk
3-606A	3-606	South	Junction Trunk Upgrade

## **Restoration and Replacement Projects**



Location: <u>Ridgefield</u> Number: 3-603F

**GL Number:** TBD

Phase: Design

Six-Year Capital Program Capital Project Profile

## **Royle Road Trunk**

Capital In	nprovement	Project	$\ge$
------------	------------	---------	-------

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program 🛛
  - Fleet & Facilities  $\Box$

## **Restoration & Replacement Project**

- Restoration & Replacement Gravity  $\Box$
- Restoration & Replacement PS & FM 🗆
- Restoration & Replacement Fleet & Facilities

GSP Basin: Basin 4-Ridgefield

Project Manager: Steve Bacon

### **Project Definition:**

Objective. Provide sewer service to the southwestern portion of the City of Ridgefield.

<u>Scope of Work.</u> The City of Ridgefield 2013 General Sewer Plan shows the extension of gravity trunk T-25W to the south along S Royle Road to serve properties along NW Hillhurst Road. This project includes developer reimbursement for oversize gravity trunk extension of T-25W in association with future property development.

Project Statistics. TBD

Photos: (Map of area on the reverse side)

### **Budget Information:**

Project Cost Estimate:
Total Project Cost:
Construction Cost:
Basis of Estimate:
Date of Estimate:

\$550,000 \$550,000 Planning Sept. 2016

<u>Activity</u>	Year
Predesign	By Others
Permitting	By Others
Real Property/ROW	By Others
Design	By Others
Bid	By Others
Construction	2018







Location: Ridgefield

Number: 3-603G

**GL Number:** TBD

Phase: Design

## **Clark Regional Wastewater District**

Six-Year Capital Program Capital Project Profile

## **Wells Property Trunk**

### Capital Improvement Project 🛛

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program 🛛
  - Fleet & Facilities  $\Box$

## **Restoration & Replacement Project**

- Restoration & Replacement Gravity  $\Box$
- Restoration & Replacement PS & FM  $\Box$
- Restoration & Replacement Fleet & Facilities  $\Box$

GSP Basin: Basin 4-Ridgefield

Project Manager: Steve Bacon

### **Project Definition:**

Objective. Provide sewer service to the southwestern portion of the City of Ridgefield.

<u>Scope of Work.</u> The City of Ridgefield 2013 General Sewer Plan shows the extension of gravity trunk T-25E to serve properties to the south and east of S Royle Road. This project includes developer reimbursement for oversize gravity trunk extension of T-25E in association with the Wells property development.

Project Statistics. TBD

Photos: (Map of area on the reverse side)

### **Budget Information:**

Project Cost Estimate:
Total Project Cost:
Construction Cost:
Basis of Estimate:
Date of Estimate:

\$150,000 \$150,000 Planning Sept. 2016

<u>Activity</u>	Year
Predesign	By Others
Permitting	By Others
Real Property/ROW	By Others
Design	By Others
Bid	By Others
Construction	2017





## CLARK REGIONAL WASTEWATER DISTRICT

## **Clark Regional Wastewater District**

**Six-Year Capital Program Capital Project Profile** 

## South Junction Trunk Upgrade

Location: Ridgefield	Capital Improvement Project 🛛
Number: <u>3-606A</u>	General Facilities 🛛
GL Number: TBD	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Pre-Design	Developer Reimbursement Program 🗆
	Fleet & Facilities $\Box$
Project Manager: TBD	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Basins 2, 3-Ridgefield	Restoration & Replacement – Fleet & Facilities $\Box$

### **Project Definition:**

Objective. Provide increased capacity to serve the southern portion of the Ridgefield Junction in support of economic development and jobs creation.

Scope of Work. Upgrade existing 8-inch gravity main to 18-inch gravity trunk to match the rest of the trunk service to the southern portion of the Ridgefield Junction. This will accommodate the projected 50-year flows

Project Statistics. TBD

**Photos:** (Map of area on the reverse side)

#### **Budget Information:**

\$1,630,000 \$1,248,269 Planning Sept. 2017

<u>Activity</u>	Year
Predesign	2020
Permitting	2020
Real Property/ROW	2020
Design	2020-2021
Bid	2021
Construction	2021

CIP # 3-606A

South Junction Trunk Upgrade 6-YEAR (2020) IMPROVEMENTS

Bid Item					
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical			LS	
2	Pump Station Electrical			LS	
3	Pump Station - Above Grade Structure LS				
4	Emergency Generator			LS	
5	4-inch Force Main			LF	
6	6-inch Force Main			LF	
7	72-inch wetwell			EA	
8	96-inch wetwell			EA	
9	8-inch PVC Gravity Upsize	\$120		LF	\$0
10	10-inch PVC Gravity Upsize	\$130		LF	\$0
11	12-inch PVC Gravity Upsize	\$140		LF	\$0
12	15-inch PVC Gravity Upsize	\$160		LF	\$0
13	18-inch PVC Gravity Upsize	\$170	2,700	LF	\$459,000
14	21-inch PVC Gravity Upsize	\$250		LF	\$0
15	24-inch PVC Gravity Upsize	\$300		LF	\$0
16	30-inch PVC Gravity Upsize	\$330		LF	\$0
17	48-inch Diameter Manhole	\$7,500	0	EA	\$0
18	54-inch Diameter Manhole	\$8,500	9	EA	\$76,500
19	60-inch Diameter Manhole	\$9,500	0	EA	\$0
20	Lateral Connection	\$3,000	27	EA	\$81,000
21	Dewatering	\$20,000		LS	\$0
22	Temporary Flow Bypass	\$5,000		EA	\$0
23	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
24	Sheeting, Shoring, Bracing	\$10	2,700	LF	\$27,000
25	HMA Trench Patch	\$175		ΤN	\$0
26	Half-Width Grind and Overlay	\$150		ΤN	\$0
27	Imported Trench Backfill	\$25	2,960	ΤN	\$74,000
28	Crushed Surfacing	\$30	1,110	ΤN	\$33,300
29	Traffic Control (2%)	\$15,000	1	LS	\$15,000
30	General Restoration (2%)	\$15,000	1	LS	\$15,000
31	Mobilization (10%)	\$75,000	1	LS	\$75,000
32	Temporary Erosion & Sediment Control (4%)	\$30,000	1	LS	\$30,000
	Construction Costs Subtotal				\$885,800
	Sales Tax @ 8.4%				\$74,407
					+ , -
	Subtotal				\$960,207
	Contingency	30%			\$288.062
					+,
	Total Construction Cost				\$1,248,269
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$187 240
	Administration/Legal (3%)				\$37,448
	Construction Services (7%)				\$87 370
	Property/Fasement Acquisition (5%)				\$62 413
	roperty/Euconomic requisition (070)				ψυ2,+13
	TOTAL ESTIMATED PROJECT COST				\$1.622.750
	USE				\$1,622,700
	USE				\$1,630,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings, pipe, bedding, shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet

The opinion of probable cost herein is based on our perception of current conditions at the project location. This opinion reflects our professional opinion of costs at this time and is subject to change as the project design progresses. BHC Consultants has no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. BHC Consultants cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented as shown.





South Junction Trunk Upgrade



# Six – Year Capital Improvement Projects Ridgefield District Area Pump Station and Force Main

CIP No.	Mir	ni-Basin	Project Description
CIP Projec	ts		
3-301A	3-301	Hillhurs	st Pump Stations Redirection
3-302A	3-302	Tavern	er Ridge Phase 8 & 9 Pump Station
3-303A	3-303	Canyo	n Ridge Pump Station and Force Main
3-505A	3-505	35 <sup>th</sup> Av	e Roundabout
3-602A	3-602	Pionee	r Place Pump Station
3-603A	3-603	Royle I	Road Pump Station
3-603B	3-603	Royle I Main	Road Pump Station B (Carty Road - central) and Force
3-603D/ 3-604A	3-603/ 3-604	Kenne	dy Farm Pump Stations
3-605A	3-605	North .	Junction Pump Station and Trunk
3-610A	3-610	Boschr	na (aka NE 10 <sup>th</sup> Street) Pump Station – Phase I
3-611A	3-611	Urban	Downs Pump Station

## **Restoration and Replacement Projects**

3-501A	3-501	Abram's Park Pump Station Replacement
3-606B	3-606	NB/SB Rest Area Pump Stations Tank Decommission


Six-Year Capital Program Capital Project Profile

# **Hillhurst Pump Stations Redirection**

Location: <u>Ridgefield</u>	Capital Improvement Project 🖂
Number: <u>3-301A</u>	General Facilities 🛛
GL Number: <u>TBD</u>	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: <u>Planning</u>	Developer Reimbursement Program 🗆
	Fleet & Facilities $\Box$
Project Manager: <u>TBD</u>	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Ridgefield Basins 7-10	Restoration & Replacement – Fleet & Facilities $\Box$

GSP Basin: <u>Ridgefield Basins 7-10</u>

#### **Project Definition:**

<u>Objective</u>. Remove flow that is currently going to the Ridgefield Treatment Plant to delay or remove the need to expand the plant capacity.

<u>Scope of Work.</u> Transfer flow from the City of Ridgefield 2013 General Sewer Plan Basins 7, 8, 9, and 10 away from the Ridgefield Treatment Plant and into the DCWTS system. This will be accomplished by capping the western end of the existing 4-inch and 6-inch force mains in S Hillhurst Road and connecting existing mains to the future 8-inch force main that will discharge into the Royle Road trunk sewer. Approximately 8 homes currently on grinder systems will also be disconnected from the existing 4-inch and 6-inch force mains and re-directed north into gravity sewer.

<u>Project Statistics.</u> Connections - 6 main connections to 8-inch force main. Grinder system force main - approximately 400 feet of 3-inch.

Photos: (Map of area on the reverse side)

#### **Budget Information:**

\$360,000 \$310,000 Planning Sept. 2017

<u>Activity</u>	Year
Predesign	2018
Permitting	2018
Real Property/ROW	2018
Design	2018
Bid	2018
Construction	2019







Location: Ridgefield

Number: 3-302A

**GL Number:** TBD

**Phase:** Design

Six-Year Capital Program Capital Project Profile

# **Taverner Ridge Phase 8 & 9 Pump Station**

Capital Improvement Project 🛛

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program 🛛
  - Fleet & Facilities  $\Box$
- **Restoration & Replacement Project** 
  - Restoration & Replacement Gravity  $\Box$
  - Restoration & Replacement PS & FM  $\Box$
- Restoration & Replacement Fleet & Facilities  $\Box$

GSP Basin: Basin 10-Ridgefield

Project Manager: Steve Bacon

#### **Project Definition:**

Objective. Extend service in the Hillhurst Road corridor in southwestern City of Ridgefield.

<u>Scope of Work.</u> The City of Ridgefield 2013 General Sewer Plan shows the Taverner Ridge Phase 8 & 9 Pump Station (PS-14) and force main (FM-14). This project includes developer reimbursement for the new pump station in Phase 8 & 9 of the Taverner Ridge residential subdivision. The force main connection is being made to the existing Taverner Ridge force main in S Hillhurst Road during Phase 7 of the Taverner Ridge residential subdivision. The total project cost estimate below includes both the force main and the pump station reimbursement.

Project Statistics. TBD

Photos: (Map of area on the reverse side)

#### **Budget Information:**

\$550,000 \$550,000 Planning Sept. 2016

<u>Activity</u>	Year
Predesign	By Others
Permitting	By Others
Real Property/ROW	By Others
Design	By Others
Bid	By Others
Construction	2017







6-Year Capital Program **Capital Project Profile** 

# **Canyon Ridge Pump Station and Force Main**

Location: <u>Ridgefield</u> Capital Improvement Project 🛛 **CIP Number: 3-303A** General Facilities ⊠ **GL Number:** District Installed Infrastructure Septic Elimination Program Developer Reimbursement Program **Phase:** Advanced Planning Fleet & Facilities **Restoration & Replacement Project** Project Manager: Unassigned Restoration & Replacement - Gravity  $\Box$ Restoration & Replacement – PS & FM  $\Box$ GSP Basin: Canyon Ridge (3-303) Restoration & Replacement – Fleet & Facilities □

#### **Project Definition:**

Objective. Provide new Pump Station and Force main to serve the Canyon Ridge Mini-Basin.

Scope of Work. Forecasted capacity requirements for this Pump Station is a peak hour flow of approximately 150 gpm and abandonment of the existing pump station. Potential easement acquisition.

Project Statistics. New 4-inch Force Main for an approximate distance of 1,500 feet.

Pump station – New submersible Pump Station with a 2036 capacity of 150 gpm and an approximate 50-year capacity of approximately 280 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure.

#### **Photos:** (on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$950,000
Construction Cost:	\$783,163
Basis of Estimate:	Class 4 Est
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### General Sewer Plan 2017 Capital Improvement Projects

#### **CIP #** 3-303A

Canyon Ridge Pump Station and Force Main 6-YEAR (2036) IMPROVEMENTS

Bid Item	1				
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical (150 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator	\$25,000	1	LF	\$25,000
6	4-inch Force Main	\$50	1,500	LF	\$75,000
7	6-inch Force Main			LF	\$0
8	72-inch wetwell	\$15,000	1	EA	\$15,000
9	96-inch wetwell	* -/		EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		IF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170			<u>\$0</u>
15	21-inch PV/C Gravity Upsize	\$250		LF	<u>\$0</u>
16	21-inch PV/C Gravity Upsize	\$300			0 \$0
10	30-inch PV/C Gravity Upsize	\$330			υψο ΦΦ
10	48-inch Diameter Manholo	\$350 \$7,500	0		0¥ 0
10	54 inch Diameter Manhole	\$7,500	0		
19	60 inch Diameter Manhole	\$8,500	0		φ <u>0</u>
20		\$9,500	0		\$0 \$0
21	Devetoring	\$3,000	1		0¢ 000.009
22	Dewatering	\$20,000			\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000	4 500	EA	\$0
25	Sheeting, Shoring, Bracing	\$10	1,500		\$15,000
26	HMA Irench Patch	\$175	320		\$56,000
27	Half-Width Grind and Overlay	\$150	0	IN	\$0
28	Imported Trench Backfill	\$25	1,240	IN	\$31,000
29	Crushed Surfacing	\$30	0	IN	\$0
30	Traffic Control (2%)	\$9,000	1	LS	\$9,000
31	General Restoration (2%)	\$9,000	1	LS	\$9,000
32	Mobilization (10%)	\$44,000	1	LS	\$44,000
33	Temporary Erosion & Sediment Control (4%)	\$17,000	1	LS	\$17,000
	Construction Costs Subtotal				\$516,000
	Sales Tax @ 8.4%				\$43,344
					••••••
	Subtotal				\$559.344
	Contingency	30%			\$167,803
	Containgency	0070			φτον,000
	Total Construction Cost				\$727 147
					$\psi I \Sigma I$ , IHI
	Allied Costs				
					¢400.070
	Engineering/Survey/Permits (15%)				\$109,072
	Auministration/Legal (3%)				\$21,814
	Construction Services (7%)				\$50,900
	Property/Easement Acquisition (5%)				\$36,357
					<b>AA AB AB</b>
	TOTAL ESTIMATED PROJECT COST				\$945,291
	USE				\$950,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet

The opinion of probable cost herein is based on our perception of current conditions at the project location. This opinion reflects our professional opinion of costs at this time and is subject to change as the project design progresses. BHC Consultants has no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. BHC Consultants cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented as shown.





Canyon Ridge Pump Station and Force Main





Location: Ridgefield

Number: 3-505A

**Phase:** Design

# **Clark Regional Wastewater District**

Six-Year Capital Program Capital Project Profile

## **35th Ave Roundabout**

Capital Improvement Project 🛛

- General Facilities
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

#### **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM 🗆

Restoration & Replacement – Fleet & Facilities

GSP Basin: Ridgefield Basin 5

Project Manager: Dale Lough

GL Number: <u>409-100-189-00-01-10</u>

#### **Project Definition:**

<u>Objective.</u> Provide for a future connection to Pioneer Canyon Pump Station through the City of Ridgefield's new roundabout project.

<u>Scope of Work.</u> Install force main pipe at the intersection of Pioneer Street and 35<sup>th</sup> Avenue as part of the City roundabout project. Pipe will be dry until connected in the future.

Project Statistics. Force main - 550 feet of 12-inch force main.

Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$
Construction Cost:	\$
Basis of Estimate:	
Date of Estimate:	Sep

\$90,000 \$80,000 Bid ept. 2017

<u>Activity</u>	Year
Predesign	2015
Permitting	2015-2017
Real Property/ROW	2015-2017
Design	2015-2017
Bid	2017
Construction	2017-2018





## CLARK REGIONAL WASTEWATER DISTRICT

Location: Ridgefield

Phase: Construction

Number: 3-602A

# **Clark Regional Wastewater District**

Six-Year Capital Program Capital Project Profile

# **Pioneer Place Pump Station**

#### Capital Improvement Project 🛛

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program 🛛
  - Fleet & Facilities

#### **Restoration & Replacement Project**

- Restoration & Replacement Gravity  $\Box$
- Restoration & Replacement PS & FM  $\Box$
- Restoration & Replacement Fleet & Facilities

GSP Basin: Ridgefield Basin 2

Project Manager: Steve Bacon

GL Number: 409-910-189-00-00-06

#### **Project Definition:**

Objective. Extend service to the newly added area north of Ridgefield.

<u>Scope of Work.</u> Pump station and force main (approximately 1,500') along a northern extension of N 35<sup>th</sup> Avenue serving approximately 130 acres of area along the northern city limits (north of Green Gables).

Project Statistics. TBD

**Photos:** (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate: Total Project Cost: Construction Cost: Basis of Estimate: Date of Estimate:

\$730,000 \$730,000 Agreement Sept. 2017

<u>Activity</u>	<u>Year</u>
Predesign	By Others
Permitting	By Others
Real Property/ROW	By Others
Design	By Others
Bid	By Others
Construction	2017-2018







Six-Year Capital Program Capital Project Profile

# **Royle Road Pump Station**

Location: <u>Ridgefield</u> Number: <u>3-603A</u> GL Number: <u>409-100-189-00-01-09</u>

Phase: Planning

Project Manager: Dale Lough

#### Capital Improvement Project 🛛

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program 🛛
  - Fleet & Facilities  $\Box$

#### **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Basin 4-Ridgefield

#### **Project Definition:**

<u>Objective.</u> Provide sewer service to the southwestern portion of the Ridgefield I-5 junction area from which local service can be extended to serve future development.

<u>Scope of Work.</u> The City of Ridgefield 2013 General Sewer Plan includes the Royle Road Pump Station (PS-7) and Force Main (FM-7). With the construction of the Discovery Corridor Wastewater Transmission System (DCWTS) – Phase 1 Project, the flow will now be directed to the Pioneer Canyon Pump Station and the DCWTS rather than the Ridgefield Treatment Plant. This project includes developer reimbursement for the Royle Road at the Gee Creek crossing with a force main connection to the existing Pioneer Canyon Pump Station.

<u>Project Statistics.</u> Force main - 7,200 feet of 12-inch on NW Royle Road/S 45<sup>th</sup> Avenue to Pioneer Canyon Pump Station.

Pump Station - 70 hp duplex submersible pumps for 800 gpm at startup; 150 hp triplex submersible pumps for 1,200 gpm at buildout; 12-foot wetwell; three phase electrical service; diesel generator; space for future control building; chemical storage tank for odor control.

#### Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:
Total Project Cost:
Construction Cost:
Basis of Estimate:
Date of Estimate:

\$3,000,000 \$2,800,000 Bid Sept. 2016

<u>Activity</u>	Year
Predesign	2015
Permitting	By Others
Real Property/ROW	By Others
Design	2015-2016
Bid	By Others
Construction	2016-2017







# Royle Road Pump Station B (Carty Road - central) and Force Main

Location: <u>Ridgefield</u> CIP Number: <u>3-603B</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

Capital Improvement Project 🛛

General Facilities

District Installed Infrastructure  $\Box$ 

Septic Elimination Program  $\Box$ 

Developer Reimbursement Program  $\Box$ 

Fleet & Facilities  $\Box$ 

## Restoration & Replacement Project

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM 🗆

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Royle Road (3-603)

#### **Project Definition:**

<u>Objective.</u> Provide new Pump Station and Force main to serve the Royle Road Mini-Basin. There are five pump stations in this mini-basin. This facility is centrally located and receives flow from three other satellite pump stations. This pump station and force main discharges directly into the trunk that flows directly to the Royle Road Pump Station.

<u>Scope of Work.</u> Forecasted capacity requirements for this Pump Station is a peak hour flow of approximately 350 gpm. Potential easement acquisition.

Project Statistics. New 6-inch Force Main for an approximate distance of 2,900 feet.

Pump station – New submersible Pump Station with a 2036 capacity of 350 gpm and a 50-year capacity of approximately 700 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure.

#### **Photos:** (on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$1,300,000
Construction Cost:	\$993,838
Basis of Estimate:	Class 4 Est
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### General Sewer Plan 2017 Capital Improvement Projects

#### **CIP #** 3-603B

Royle Road Pump Station B (Carty Road - central) and Force Main 6-YEAR (2036) IMPROVEMENTS

Bid Item	l				
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical (350 gpm)	\$150,000	1	LS	\$150,000
2	Pump Station Electrical	\$65,000	1	LS	\$65,000
3	Pump Station - Above Grade Structure	\$35,000	1	LS	\$35,000
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator	\$35,000	1	LS	\$35,000
6	4-inch Force Main			LF	\$0
7	6-inch Force Main	\$65	2,900	LF	\$188,500
8	72-inch wetwell	\$15,000	1	EA	\$15,000
9	96-inch wetwell	· · ·		EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7.500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	FA	\$0
22	Dewatering	\$20,000	1	IS	\$20,000
23	Temporary Flow Bypass	\$5,000	•	FA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		FA	\$0
25	Sheeting Shoring Bracing	\$10	2 900	LF	\$29,000
26	HMA Trench Patch	\$175	2,000	TN	\$0
27	Half-Width Grind and Overlay	\$150	0	TN	\$0
28	Imported Trench Backfill	\$25	2 390	TN	\$59 750
29	Crushed Surfacing	\$30	0	TN	\$0
30	Traffic Control (2%)	\$12,000	1	1.5	\$12,000
31	General Restoration (2%)	\$12,000	1	1.5	\$12,000
32	Mobilization (10%)	\$60,000	1	1.5	\$60,000
33	Temporary Frosion & Sediment Control (4%)	\$24,000	1	1.5	\$24,000
00		ψ24,000	1	20	φ24,000
	Construction Costs Subtotal				\$705,250
	Sales Tax @ 8.4%				\$59,241
	Subtotal				\$764,491
	Contingency	30%			\$229,347
	Total Construction Cost				\$993,838
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$149,076
	Administration/Legal (3%)				\$29,815
	Construction Services (7%)				\$69,569
	Property/Easement Acquisition (5%)				\$49,692
	· · · · · · ·				
	TOTAL ESTIMATED PROJECT COST				\$1,291,990
	USE				\$1,300,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet

The opinion of probable cost herein is based on our perception of current conditions at the project location. This opinion reflects our professional opinion of costs at this time and is subject to change as the project design progresses. BHC Consultants has no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. BHC Consultants cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented as shown.



W S E

Royle Road Pump Station B (Carty Road-central) and Force Main





Six-Year Capital Program Capital Project Profile

## **Kennedy Farm Pump Station**

Location: <u>Ridgefield</u> Number: <u>3-603D & 3-604A</u> GL Number: <u>TBD</u>

Phase: Predesign

Project Manager: Steve Bacon

Capital Improvement Project 🛛

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program 🛛
  - Fleet & Facilities  $\Box$

#### **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Ridgefield Basin 8

#### **Project Definition:**

<u>Objective.</u> Extend service to the southern portion of the City of Ridgefield in association with residential development.

<u>Scope of Work.</u> The City of Ridgefield 2013 General Sewer Plan includes the western pump station (PS-10) and force main (FM-10) along NW Hillhurst Road. This project includes developer reimbursement for a new pump station and force main to serve the proposed Kennedy Farm residential subdivision.

Project Statistics. Force main – TBD. Pump Stations – TBD.

Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate: Total Project Cost: Construction Cost: Basis of Estimate: Date of Estimate:

\$1,000,000 TBD Planning Sept. 2017

<u>Activity</u>	Year
Predesign	By Others
Permitting	By Others
Real Property/ROW	By Others
Design	By Others
Bid	By Others
Construction	2018-2019

#### General Sewer Plan 2017 Capital Improvement Projects

#### CIP # 3-604A

Kennedy Farms Pump Station and Force Main 6-YEAR (2016) IMPROVEMENTS

Bid Item	1				
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical (50 gpm)	\$135,000	1	LS	\$135,000
2	Pump Station Electrical	\$60,000	1	LS	\$60,000
3	Pump Station - Above Grade Structure	\$30,000	1	LS	\$30,000
4	Pump Station - Site Work	\$60,000	1	LS	\$60,000
5	Emergency Generator	\$30,000	1	LS	\$30,000
6	4-inch Force Main	\$50	2,700	LF	\$135,000
7	6-inch Force Main			LF	\$0
8	72-inch wetwell	\$15,000	1	EA	\$15,000
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	FA	\$0
22	Dewatering	\$20,000	1	IS	\$20,000
23	Temporary Flow Bypass	\$5,000	•	FA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		FA	\$0
25	Sheeting Shoring Bracing	\$10	2 700	LE	\$27,000
26	HMA Trench Patch	\$175	570	TN	\$99,750
27	Half-Width Grind and Overlay	\$150	0.0	TN	\$0
28	Imported Trench Backfill	\$25	2 230	TN	\$55 750
29	Crushed Surfacing	\$30	2,200	TN	\$0
30	Traffic Control (2%)	\$13,000	1	1.5	\$13,000
31	General Restoration (2%)	\$13,000	1	1.5	\$13,000
32	Mobilization (10%)	\$67,000	1	1.5	\$67,000
33	Temporary Frosion & Sediment Control (4%)	\$27,000	1	1.5	\$27,000
00		ψ21,000		20	ψ21,000
	Construction Costs Subtotal				\$787,500
	Sales Tax @ 8.4%				\$66,150
	Subtotal				\$853,650
	Contingency	30%			\$256,095
	Total Construction Cost				\$1,109,745
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$166,462
	Administration/Legal (3%)				\$33,292
	Construction Services (7%)				\$77,682
	Property/Easement Acquisition (5%)				\$55,487
					. , -
	TOTAL ESTIMATED PROJECT COST				\$1,442,669
	USE				\$1,450,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet

The opinion of probable cost herein is based on our perception of current conditions at the project location. This opinion reflects our professional opinion of costs at this time and is subject to change as the project design progresses. BHC Consultants has no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. BHC Consultants cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented as shown.







Six-Year Capital Program Capital Project Profile

# **North Junction Pump Station and Trunk**

Location: <u>Ridgefield</u> Number: <u>3-605A</u> GL Number: <u>409-100-189-00-01-01</u>

Phase: Design

Project Manager: Phil Roppo

#### Capital Improvement Project 🛛

- General Facilities
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Ridgefield Basins 1-2

#### **Project Definition:**

<u>Objective.</u> Provide trunk sewer to the northern portion of the Ridgefield I-5 junction area, including both sides of I-5 from which local service can be extended to serve future employment land development.

<u>Scope of Work.</u> Construct a new pump station on N 10<sup>th</sup> Street west of I-5 with dual force main connection to the existing force mains stubbed out on N 10<sup>th</sup> Street, 800 feet east of 45<sup>th</sup> Ave. Extend gravity sewer trunk east across I-5 to N 65<sup>th</sup> Avenue and extend south to serve the future Clark College site.

<u>Project Statistics.</u> Force main – 950 feet each of parallel 8-inch and 12-inch force mains. 3,000 feet of 18-inch, 21-inch and 24-inch trunk from new pump station to N 65<sup>th</sup> Ave, including 42-inch casing across I-5. Gravity main – 540 feet of 8-inch gravity on N 10<sup>th</sup> Street and 200 feet of 8-inch gravity on N 65<sup>th</sup> Avenue to serve local properties.

Pump Station – 15 hp duplex submersible pumps for 570 gpm at startup; 2,200 gpm at buildout; 10-foot wetwell; three phase electrical service; diesel generator; control building; chemical storage tank for odor control.

#### **Photos:** (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$3,500,000 \$2,735,000 50% Design Sept. 2017

Activity	Year
Predesign	2014
Permitting	2015-2018
Real Property/ROW	2014-2017
Design	2014-2018
Bid	2018
Construction	2018-2019









Six-Year Capital Program Capital Project Profile

# Boschma (aka NE 10<sup>th</sup> Street ) Pump Station – Phase I

Location: <u>Ridgefield</u> CIP Number: <u>3-610A</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

#### Capital Improvement Project 🛛

General Facilities ⊠

District Installed Infrastructure  $\Box$ 

Septic Elimination Program  $\Box$ 

Developer Reimbursement Program  $\Box$ 

Fleet & Facilities  $\Box$ 

#### **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Boschma (3-610)

#### **Project Definition:**

Objective. Provide new residential pump station to serve the Boschma Mini-Basin.

<u>Scope of Work.</u> This initial pump station will have a capacity of 100 gpm, but will have an oversized wetwell to accommodate the ultimate configuration. The ultimate capacity will include flows from the McCormick Creek mini-basin and is estimated to have a peak hour flow of approximately 450 gpm. Potential easement acquisition.

<u>Project Statistics.</u> The 6-inch Force Main associated with this new pump station was installed as part of the Walker-Roher project, and consequently is not part of this CIP.

Pump station – New submersible Pump Station with an initial capacity of 100 gpm and a 50-year capacity of approximately 950 gpm. No emergency generator provided in Phase I. Local electrical control panel with weather protected enclosure.

#### Photos: (on the reverse side)

#### **Budget Information:**

\$
\$-
Cla
Ju

\$600,000 \$459,399 Class 4 Est. June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### General Sewer Plan 2017 Capital Improvement Projects

**CIP #** 3-610A

Boschma (aka NE 10th Street) Pump Station and Force Main - Phase 1 6-YEAR (2036) IMPROVEMENTS

Bid Item	) Did Kara Daa sistian		Original	1.1	Tatal
NO.	Bid Item Description	Unit Bid Price	Quantity	Unit	lotal
1	Pump Station - Mechanical (100 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$35,000	1	LS	\$35,000
4	Pump Station - Site Work	\$30,000	1	LS	\$30,000
5	Emergency Generator	\$35,000		LS	\$0
6	4-inch Force Main			LF	\$0
7	6-inch Force Main	\$65		LF	\$0
8	72-inch wetwell	\$15,000	1	EA	\$15,000
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	0	LF	\$0
26	HMA Trench Patch	\$175		ΤN	\$0
27	Half-Width Grind and Overlay	\$150	0	ΤN	\$0
28	Imported Trench Backfill	\$25		ΤN	\$0
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$6,000	1	LS	\$6,000
31	General Restoration (2%)	\$6,000	1	LS	\$6,000
32	Mobilization (10%)	\$28,000	1	LS	\$28,000
33	Temporary Erosion & Sediment Control (4%)	\$11,000	1	LS	\$11,000
	Construction Costs Subtotal				\$326,000
					\$320,000 \$37,394
					φ27,304
	Subtotal				¢252.201
	Contingenou	30%			\$303,304 \$106.015
	Contingency	30 %			\$100,015
	Total Construction Cost				¢450.200
					\$409,399
	Alliad Casts				
					<b>\$</b> \$\$\$\$\$\$
	Engineering/Survey/Permits (15%)				\$68,910
	Administration/Legal (3%)				\$13,782
	Construction Services (7%)				\$32,158
	Property/Easement Acquisition (5%)				\$22,970
					A-07 0/0
	TOTAL ESTIMATED PROJECT COST				\$597,219
	USE				\$600,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet

The opinion of probable cost herein is based on our perception of current conditions at the project location. This opinion reflects our professional opinion of costs at this time and is subject to change as the project design progresses. BHC Consultants has no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. BHC Consultants cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented as shown.



# W SEE

Boschma (aka NE 10th Street) Pump Station - Phase I



## CLARK REGIONAL WASTEWATER DISTRICT

Location: <u>Ridgefield</u> Number: 3-611A

**GL Number: TBD** 

**Phase:** Predesign

# **Clark Regional Wastewater District**

Six-Year Capital Program Capital Project Profile

# **Urban Downs Pump Station**

Capital	Improvement	Project I	X
---------	-------------	-----------	---

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program 🛛
  - Fleet & Facilities  $\Box$

#### Restoration & Replacement Project

- Restoration & Replacement Gravity  $\Box$
- Restoration & Replacement PS & FM  $\Box$
- Restoration & Replacement Fleet & Facilities  $\Box$

GSP Basin: Basin 2 - Ridgefield

Project Manager: Steve Bacon

#### **Project Definition:**

Objective. Extend service to the easternmost portion of the City of Ridgefield.

<u>Scope of Work.</u> The City of Ridgefield 2013 General Sewer Plan shows this pump station (PS-12) ultimately connecting via force main and gravity to the proposed PS-5. This project includes developer reimbursement for the new PS-12 northeast of the intersection between S 85<sup>th</sup> Avenue and NE 259<sup>th</sup> Street.

Project Statistics. TBD

Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$840,000 \$645,793 Planning Sept. 2017

<u>Activity</u>	Year
Predesign	By Others
Permitting	By Others
Real Property/ROW	By Others
Design	By Others
Bid	By Others
Construction	2017

#### General Sewer Plan 2017 Capital Improvement Projects

#### CIP # 3-611A

Urban Downs Pump Station and Force Main 6-YEAR (2022) IMPROVEMENTS

Bid Item	Bid Item Description	Linit Bid Price	Quantity	Unit	Total
110.	Pump Station - Mochanical (100 gpm)	\$125,000	Quantity		\$125.000
2	Pump Station Electrical Service	\$125,000	1	19	\$125,000
3	Pump Station - Above Grade Structure	\$30,000	1		\$25,000
4	Pump Station - Site Work	\$23,000	1	1.5	ψ <u>2</u> 0,000 \$0
5	Emergency Generator	\$25,000	1	LS	\$25,000
6	4-inch Force Main	\$50	1 000	LF	\$50,000
7	6-inch Force Main	\$60	1,000	LF	\$0
8	72-inch wetwell	\$15.000	1	EA	\$15.000
9	96-inch wetwell	\$25.000		EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	0	LF	\$0
26	HMA Trench Patch	\$175	210	TN	\$36,750
27	Half-Width Grind and Overlay	\$150	0	TN	\$0
28	Imported Trench Backfill	\$25	1,100	ΤN	\$27,500
29	Crushed Surfacing	\$30	420	TN	\$12,600
30	Traffic Control (2%)	\$8,000	1	LS	\$8,000
31	General Restoration (2%)	\$8,000	1	LS	\$8,000
32	Mobilization (10%)	\$39,000	1	LS	\$39,000
33	Temporary Erosion & Sediment Control (4%)	\$15,000	1	LS	\$15,000
	Construction Costs Subtotal				\$456.850
	Sales Tax @ 8.4%				\$38,375
					. ,
	Subtotal				\$495,225
	Contingency	30%			\$148,568
	Total Construction Cost				\$643,793
	Allied Costs				¢06 500
	Administration/Legal (3%)				990,009 \$10,011
	Construction Services (7%)				\$19,314 \$45,066
	Property/Easement Acquisition (5%)				\$32 100
					ψ <b>0</b> 2,130
	TOTAL ESTIMATED PROJECT COST				\$836.931
	USE				\$840,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet

The opinion of probable cost herein is based on our perception of current conditions at the project location. This opinion reflects our professional opinion of costs at this time and is subject to change as the project design progresses. BHC Consultants has no control over variances in the cost of labor, materials, equipment; nor services provided by others, contractor's means and methods of executing the work or of determining prices, competitive bidding or market conditions, practices or bidding strategies. BHC Consultants cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented as shown.





Urban Downs Pump Station





**Six-Year Capital Program Capital Project Profile** 

# **Abrams Park Pump Station Replacement**

Location: Ridgefield Capital Improvement Project Number: 3-501A General Facilities District Installed Infrastructure **GL Number:** TBD Septic Elimination Program **Phase:** Predesign Developer Reimbursement Program Fleet & Facilities Project Manager: Philip Roppo **Restoration & Replacement Project** ⊠ Restoration & Replacement - Gravity  $\Box$ Restoration & Replacement – PS & FM ⊠ **GSP Basin:** Ridgefield Basin 11 Restoration & Replacement – Fleet & Facilities

#### **Project Definition:**

Objective. Replace the existing pump station with a new grinder package pump station for reliability and to decrease maintenance costs.

Scope of Work. Replace the existing vacuum primed pump station with a new grinder package pump station. Install a new smaller diameter 2-inch HDPE force main inside the existing 4-inch force main. Connect to the gravity line near Division Street and N 5<sup>th</sup> Avenue.

Project Statistics. Force main – 1300 feet of 2-inch force main installed inside existing 4-inch PVC force main.

Pump Station – 2.0 hp duplex grinder pumps with 50 gpm capacity. 4-foot wetwell; three phase electrical service; control kiosk.

#### **Photos:** (Map of area on the reverse side)

#### **Budget Information:**

\$220,000 \$200,000 Planning Sept. 2017

<u>Activity</u>	Year
Predesign	2018
Permitting	2018
Real Property/ROW	2018
Design	2019
Bid	2020
Construction	2020







**Location:** Central

Number: 3-606B

**Phase:** Predesign

Six-Year Capital Program Capital Project Profile

# **NB/SB Rest Area Pump Stations Tank Decommission**

Capital Improvement Project 🗆

General Facilities  $\Box$ 

District Installed Infrastructure  $\Box$ 

- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

#### Project Manager: Phil Roppo

GL Number: 407-000-189-00-01-50

#### **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

**GSP Basin:** <u>Basin 57 – Ridgefield, Basin 48 – Interstate 5 Corridor</u> Re

dor Restoration & Replacement – PS & FM  $\boxtimes$  Restoration & Replacement – Fleet & Facilities  $\square$ 

#### **Project Definition:**

<u>Objective.</u> Abandon existing septic tanks in the north and south bound rest areas when they are no longer needed due to the Discovery Corridor Wastewater Transmission System running continuously. Abandon the WSDOT pump station.

<u>Scope of Work.</u> After the Pioneer Street Pump Station is dedicated to permanently send flow to the Salmon Creek Treatment Plant, abandon the existing septic tanks that were used to separate out the solids in the STEP systems installed originally by WSDOT. Abandonment will include pumping out three of four of the existing tanks, removing the access hatches, filling the tanks with sand, and landscaping the area above the tanks. There are two tanks located in the south bound rest area (restroom and RV dump) and two in the north bound rest area (restroom and RV dump). The RV dump in the SB rest area will not be abandoned until the RV dump is relocated.

Project Statistics. Abandon four 20,000 gallon tanks.

#### Photos: (Map of area on the reverse side)

#### **Budget Information**:

-
Project Cost Estimate:
Total Project Cost:
Construction Cost:
Basis of Estimate:
Date of Estimate:

\$80,000 \$80,000 Predesign Sept. 2017

<u>Activity</u>	Year
Predesign	2017
Permitting	2017-2018
Real Property/ROW	2017-2018
Design	2017-2018
Bid	2018
Construction	2018




## 20 – Year Capital Improvement Projects

## **Central District Area**

## **Collection and Conveyance**

CIP No.	Mini-B	asin Project Description
<b>CIP</b> Projects	5	
2-203C	2-203	Whipple Creek West Trunk Sewer (flows to Whipple Creek West PS A – South)
2-1501A	2-1501	Mt Vista Trunk Upgrade (downstream of Pleasant Valley North force main)
2-1606A	2-1606	Neil Kimsey Trunk (from terminus of 209 <sup>th</sup> Street PS force main to existing gravity)
2-1606C	2-1606	209 <sup>th</sup> Street Trunk
2-1710G	2-1710	Bowyer Trunk (associated with the elimination of Bowyer Pump Station)

## **Restoration and Replacement Projects**

1-102A	1-102	NE Minnehaha Street, NE 10 <sup>th</sup> Ave to NE 14 <sup>th</sup> Ct (Ludlum Hills) GM-8
2-501A	2-501	NW 16th Ave and 113th Street (Tiare Hills) GM-6
2-502A	2-502	NW 94 <sup>th</sup> Street (NW 17 <sup>th</sup> Ave to NW 10 <sup>th</sup> Ave) GM-1
2-502B	2-502	NW 15 <sup>th</sup> Avenue and NW 17 <sup>th</sup> Avenue (NW 94 <sup>th</sup> St to NW 102 <sup>nd</sup> Cir) GM-7
2-504C	2-504	NE 78 <sup>th</sup> Street (NE 6 <sup>th</sup> Ave to NE 30 <sup>th</sup> Ave) GM-2





## Whipple Creek West Trunk Sewer (flows to Whipple Creek West PS A -South

Location: <u>Central</u> CIP Number: <u>2-203C</u> GL Number:

Phase: Advance Planning

Project Manager: Unassigned

GSP Basin: Mt Vista (2-203)

Capital Improvement Project 🛛

General Facilities 🛛

District Installed Infrastructure  $\Box$ 

Septic Elimination Program  $\Box$ 

Developer Reimbursement Program  $\Box$ 

Fleet & Facilities

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\square$ 

Restoration & Replacement – Fleet & Facilities

## Project Definition:

<u>Objective</u>. Gravity flow to the Whipple Creek West Pump Station A (see CIP# 2-203A) will be sized to convey 50year flows which are anticipated to be approximately 600 gpm. To convey these flows a 12-inch trunk line will need to be installed.

<u>Scope of Work.</u> Installed approximately 2,300 LF of 12-inch trunk. The 12-inch sizing will accommodate the anticipated 50-year growth forecast.

Project Statistics. 2,300 LF of 12-inch gravity trunk.

#### Photos: (on the reverse side)

### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$1
Construction Cost:	
Basis of Estimate:	Cl
Date of Estimate:	Se

\$1,100,000 \$878,284 Class 4 Est. Sept. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

CIP # 2-203C

Whipple Creek West Trunk 20-YEAR (2036) IMPROVEMENTS

No	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical		Quantity	19	10101
2	Pump Station Electrical			1.5	
3	Pump Station - Above Grade Structure			LS	
4	Pump Station - Site Work			LS	
5	Emergency Generator			1.5	
6	4-inch Force Main			1 F	
7	6-inch Force Main			L F	
8	72-inch wetwell			EA	
9	96-inch wetwell			EA	
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140	2.300	LF	\$322.000
13	15-inch PVC Gravity Upsize	\$160	,	LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	8	EA	\$60,000
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	23	EA	\$69,000
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	2,300	LF	\$23,000
26	HMA Trench Patch	\$175		ΤN	\$0
27	Half-Width Grind and Overlay	\$150		ΤN	\$0
28	Imported Trench Backfill	\$25	2,530	ΤN	\$63,250
29	Crushed Surfacing	\$30		ΤN	\$0
30	Traffic Control (2%)	\$11,000		LS	\$0
31	General Restoration (2%)	\$11,000	1	LS	\$11,000
32	Mobilization (10%)	\$54,000	1	LS	\$54,000
33	Temporary Erosion & Sediment Control (4%)	\$21,000	1	LS	\$21,000
	Construction Costs Subtotal				\$623,250
	Sales Tax @ 8.4%				\$52,353
	Subtotal				\$675,603
	Contingency	30%			\$202,681
	Total Construction Cost				\$878,284
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$131,743
	Administration/Legal (3%)				\$26,349
	Construction Services (7%)				\$61,480
	Property/Easement Acquisition (5%)				÷-,
	TOTAL ESTIMATED PROJECT COST				\$1,097,855
	USE				\$1,100,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Whipple Creek West Trunk Sewer (flows to Whipple Creek West PS A- South)





20-Year Capital Program **Capital Project Profile** 

## Mt. Vista Trunk Upgrade (downstream of Pleasant Valley North force main)

Location: Central	Capital Improvement Project 🛛
CIP Number: <u>2-1501A</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advance Planning	Developer Reimbursement Program $\Box$
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Mt Vista (2-1501)	Restoration & Replacement – Fleet & Facilities $\Box$

### **Project Definition:**

Objective. The development of the Pleasant Valley North Pump Station and force main delivers added hydraulic loading on the Mt. Vista Trunk. The lower reaches of this trunk surcharges above the allowable surcharge limits.

Scope of Work. Increase the existing trunk size from 10-inch to 15-inch between manholes 3-450 and 3-453, a total distance of 1,139 feet. The 15-inch sizing will accommodate the anticipated 50-year growth forecast.

Project Statistics. 1,139 LF of 15-inch gravity trunk.

#### **Photos:** (on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$600,000 \$479,198 Class 4 Est. Sept. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

**CIP #** 2-1501A

Mt Vista Trunk Upgrade downstream of Pleasant Valley North force Main (10-inch trunk to 15-inch) 20-YEAR (2036) IMPROVEMENTS

Bid Item					
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical			LS	
2	Pump Station Electrical			LS	
3	Pump Station - Above Grade Structure			LS	
4	Pump Station - Site Work			LS	
5	Emergency Generator			LF	
6	4-inch Force Main			LF	
7	6-inch Force Main			LF	
8	72-inch wetwell			EA	
9	96-inch wetwell			EA	
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160	1,139	LF	\$182,240
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	4	EA	\$34,000
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	11	EA	\$34,170
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	1,139	LF	\$11,390
26	HMA Trench Patch	\$175		ΤN	\$0
27	Half-Width Grind and Overlay	\$150		ΤN	\$0
28	Imported Trench Backfill	\$25	1,250	ΤN	\$31,250
29	Crushed Surfacing	\$30		ΤN	\$0
30	Traffic Control (2%)	\$6,000		LS	\$0
31	General Restoration (2%)	\$6,000	1	LS	\$6,000
32	Mobilization (10%)	\$29,000	1	LS	\$29,000
33	Temporary Erosion & Sediment Control (4%)	\$12,000	1	LS	\$12,000
	Construction Costs Subtotal				\$340,050
	Sales Tax @ 8.4%				\$28,564
	Subtotal				\$368,614
	Contingency	30%			\$110,584
	Total Construction Cost				\$479,198
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$71,880
	Administration/Legal (3%)				\$14,376
	Construction Services (7%)				\$33,544
	Property/Easement Acquisition (5%)				
	TOTAL ESTIMATED PROJECT COST				\$598,998
	USE				\$600,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings, pipe, bedding, shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Mt. Vista Trunk Upgrade( downstream of Pleasant Valley North force main)





## CLARK REGIONAL WASTEWATER DISTRICT

## Neil Kimsey Trunk (from terminus of 209<sup>th</sup> Street PS force main to existing gravity)

Location: Central	Capital
CIP Number: <u>2-1606A</u>	
GL Number:	Distri
	Se
Phase: Advance Planning	Developer
Project Manager: Unassigned	Restoration &

Capital Improvement Project 🛛

General Facilities ⊠

ct Installed Infrastructure 🗆

- ptic Elimination Program
- Reimbursement Program 🗆
  - Fleet & Facilities

## **Replacement Project**

- Restoration & Replacement Gravity  $\Box$
- Restoration & Replacement PS & FM □
- Restoration & Replacement Fleet & Facilities

GSP Basin: I-5 Corridor (2-1606)

## **Project Definition:**

Objective. The future pump station at 209<sup>th</sup> Street conveys flow back to the Neil Kimsey Pump Station. The discharge from the 209<sup>th</sup> Street PS flows by gravity in a northerly direction to the north bound rest area and the Neil Kimsey Pump Station. Approximately 1,100 LF of 12-inch gravity trunk will be required.

Scope of Work. Installed approximately 1,100 LF of 12-inch trunk. The 12-inch sizing will accommodate the anticipated 50-year growth forecast.

Project Statistics. 1,100 LF of 12-inch gravity trunk.

### **Photos:** (on the reverse side)

### **Budget Information:**

\$470,000 \$369,563 Class 4 Est. Sept. 2016

Activity	Year
Predesign	2032
Permitting	2033
Real Property/ROW	2033
Design	2034
Bid	2035
Construction	2036

#### General Sewer Plan 2017 Capital Improvement Projects

#### **CIP #** 2-1606A

Neil Kimsey Trunk (from terminus of 209th Street pump station force main to existing gravity) 20-YEAR (2036) IMPROVEMENTS

No.         Bid tem Description         Unit Bid Price         Quantity         Unit         Total           1         Pump Station - Mochanical         LS         L	Bid Item	1				
1         Pump Station - Mechanical         LS           2         Pump Station - Above Grade Structure         LS           3         Pump Station - Above Grade Structure         LS           4         Pump Station - Stew Work         LS           5         Emergency Generator         LS           6         4-inch Force Main         LF           7         6-inch Force Main         LF           8         6-inch wetwell         EA           9         96-inch wetwell         EA           10         8-inch PVC Gravity Upsize         \$120           11         10-inch PVC Gravity Upsize         \$140           12         12-inch PVC Gravity Upsize         \$1510           13         15-inch PVC Gravity Upsize         \$250           14         18-inch PVC Gravity Upsize         \$330           15         21-inch PVC Gravity Upsize         \$330           16         24-inch PVC Gravity Upsize         \$3300           18         48-inch Diameter Manhole         \$7,500         4         EA           14         13-inch Diameter Manhole         \$8,500         0         EA           15         21-inch Diameter Manhole         \$1,00         LF         \$0	No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
2         Pump Station Above Grade Structure         LS           4         Pump Station - Site Work         LS           5         Emergency Generator         LS           6         4-inch Force Main         LF           7         6-inch Force Main         LF           8         72-inch wetwell         EA           9         96-inch wetwell         EA           10         8-inch PVC Gravity Upsize         \$120         LF           11         10-inch PVC Gravity Upsize         \$140         1,100           12         12-inch PVC Gravity Upsize         \$140         1,100           13         15-inch PVC Gravity Upsize         \$177         LF         \$00           14         18-inch PVC Gravity Upsize         \$130         LF         \$00           15         21-inch PVC Gravity Upsize         \$130         LF         \$00           16         24-inch PVC Gravity Upsize         \$300         LF         \$00           18         48-inch Diameter Manhole         \$8,500         0         EA         \$00           19         54-inch Diameter Manhole         \$8,500         EA         \$00         \$00         EA         \$00           20	1	Pump Station - Mechanical			LS	
3         Pump Station - Above Grade Structure         LS           4         Pump Station - Site Work         LS           5         Emergency Generator         LS           6         4-Inch Force Main         LF           7         6-Inch Force Main         LF           8         7         6-Inch Force Main         LF           9         96-Inch wetwell         EA           9         8-Inch PVC Gravity Upsize         \$120         LF           10         8-Inch PVC Gravity Upsize         \$131         10-In-FVC Gravity Upsize         \$160         LF         \$00           13         15-Inch PVC Gravity Upsize         \$170         LF         \$00         \$15         \$1-Inch PVC Gravity Upsize         \$250         LF         \$00           14         18-Inch PVC Gravity Upsize         \$330         LF         \$00         \$16         \$2+Inch PVC Gravity Upsize         \$330         LF         \$00         \$6         \$30,000         EA         \$30,00         EA         <	2	Pump Station Electrical			LS	
4         Pump Station - Site Work         LS           5         Emergency Generator         LS           6         4-inch Force Main         LF           7         6-inch Force Main         LF           8         72-inch wetwell         EA           9         96-inch wetwell         EA           9         96-inch wetwell         EA           10         8-inch PVC Gravity Upsize         \$130         LF           11         10-inch PVC Gravity Upsize         \$140         1,100         LF         \$150           14         18-inch PVC Gravity Upsize         \$160         LF         \$0           15         15-inch PVC Gravity Upsize         \$170         LF         \$0           16         24-inch PVC Gravity Upsize         \$330         LF         \$0           17         30-inch PVC Gravity Upsize         \$330         LF         \$0           18         48-inch Diameter Manhole         \$8,500         0         EA         \$0           20         60-inch Diameter Manhole         \$8,500         EA         \$0           21         Lateral Connection         \$3,000         EA         \$0           22         Dewatering <td< td=""><td>3</td><td>Pump Station - Above Grade Structure</td><td></td><td></td><td>LS</td><td></td></td<>	3	Pump Station - Above Grade Structure			LS	
5       Emergency Generator       LS         6       4-inch Force Main       LF         7       6-inch Force Main       LF         8       72-inch wetwell       EA         9       96-inch vetwell       EA         10       8-inch PVC Gravity Upsize       \$130       LF         11       10-inch PVC Gravity Upsize       \$140       1,100       LF         13       15-inch PVC Gravity Upsize       \$160       LF       \$00         14       18-inch PVC Gravity Upsize       \$170       LF       \$00         15       21-inch PVC Gravity Upsize       \$250       LF       \$00         16       24-inch PVC Gravity Upsize       \$330       LF       \$00         17       30-inch PVC Gravity Upsize       \$330       LF       \$00         18       48-inch Diameter Manhole       \$7,50       4       EA       \$00         20       60-inch Diameter Manhole       \$9,500       0       EA       \$00         21       Leteral Connection       \$3,000       EA       \$00         22       Dewatering       \$10       1,000       EA       \$00         23       Temporary Flow Bypass       \$5,000	4	Pump Station - Site Work			LS	
6       4-inch Force Main       LF         7       6-inch Force Main       EA         9       96-inch vetwell       EA         10       8-inch PVC Gravity Upsize       \$130       LF         11       10-inch vetwell       EA         12       12-inch vetwell       EA         13       15-inch PVC Gravity Upsize       \$140       1,100         14       15-inch PVC Gravity Upsize       \$170       LF         14       15-inch PVC Gravity Upsize       \$170       LF         16       24-inch PVC Gravity Upsize       \$170       LF         16       24-inch PVC Gravity Upsize       \$330       LF       \$00         16       24-inch PVC Gravity Upsize       \$330       LF       \$00         17       30-inch PVC Gravity Upsize       \$330       LF       \$00         18       48-inch Diameter Manhole       \$8,500       0       EA       \$00         20       60-inch Diameter Manhole       \$8,600       EA       \$00         21       Latral Connection       \$3,000       EA       \$00         22       Dewatering       \$10       1,00       EA       \$00         23       Temporary Flow	5	Emergency Generator			LS	
7       6-inch Proce Main       LF         8       72-inch wetwell       EA         9       96-inch wetwell       EA         10       8-inch PVC Gravity Upsize       \$120       LF       \$00         11       10-inch PVC Gravity Upsize       \$140       LF       \$00         12       12-inch PVC Gravity Upsize       \$140       LF       \$00         13       15-inch PVC Gravity Upsize       \$140       LF       \$00         14       18-inch PVC Gravity Upsize       \$170       LF       \$00         15       21-inch PVC Gravity Upsize       \$330       LF       \$00         16       24-inch PVC Gravity Upsize       \$330       LF       \$00         17       30-inch PVC Gravity Upsize       \$330       LF       \$00         18       48-inch Diameter Manhole       \$7,500       4       EA       \$30,000         19       54-inch Diameter Manhole       \$9,500       0       EA       \$00         21       Lateral Connection       \$33,000       EA       \$00         22       Devatering       \$100       1,100       LF       \$11,000         23       Temporary Flow Bypass       \$5,000       EA	6	4-inch Force Main			LF	
8         72-inch wetwell         EA           9         96-inch wetwell         EA           10         8-inch PVC Gravity Upsize         \$120         LF         \$0           11         10-inch PVC Gravity Upsize         \$130         LF         \$0           12         12-inch PVC Gravity Upsize         \$140         1,100         LF         \$0           13         15-inch PVC Gravity Upsize         \$1170         LF         \$0           14         18-inch PVC Gravity Upsize         \$120         LF         \$0           15         21-inch PVC Gravity Upsize         \$2300         LF         \$0           16         24-inch PVC Gravity Upsize         \$330         LF         \$0           17         30-inch PVC Gravity Upsize         \$330         LF         \$0           18         48-inch Diameter Manhole         \$8,500         0         EA         \$0           20         60-inch Diameter Manhole         \$8,500         EA         \$0           21         Lateral Connection         \$3,000         EA         \$0           22         Dewatering         \$100         EA         \$0           24         Plug and Cap Abandoned Pipe         \$1,000	7	6-inch Force Main			LF	
9         96-inch wetwell         EA           10         8-inch PVC Gravity Upsize         \$120         LF         \$0           11         10-inch PVC Gravity Upsize         \$140         1.00         LF         \$10           13         15-inch PVC Gravity Upsize         \$140         1.00         LF         \$0           14         18-inch PVC Gravity Upsize         \$170         LF         \$0           15         21-inch PVC Gravity Upsize         \$250         LF         \$0           16         24-inch PVC Gravity Upsize         \$330         LF         \$0           17         30-inch PVC Gravity Upsize         \$3330         LF         \$0           18         48-inch Diameter Manhole         \$7,500         4         EA         \$0           20         60-inch Diameter Manhole         \$3,000         EA         \$0           21         Lateral Connection         \$3,000         EA         \$0           23         Temporary Flow Bypass         \$5,000         EA         \$0           24         Plug and Cap Abandoned Pipe         \$1,000         EA         \$0           25         Sheeting, Shoring, Bracing         \$10         1,100         LF         \$10 <td>8</td> <td>72-inch wetwell</td> <td></td> <td></td> <td>EA</td> <td></td>	8	72-inch wetwell			EA	
10       8-inch PVC Gravity Upsize       \$130       LF       \$0         11       10-inch PVC Gravity Upsize       \$140       1,100       LF       \$0         12       12-inch PVC Gravity Upsize       \$140       1,100       LF       \$0         13       15-inch PVC Gravity Upsize       \$170       LF       \$0         14       18-inch PVC Gravity Upsize       \$250       LF       \$0         16       24-inch PVC Gravity Upsize       \$330       LF       \$0         17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$7,500       4       EA       \$30,000         19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$9,500       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       EA       \$0         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10<	9	96-inch wetwell			EA	
11       10-inch PVC Gravity Upsize       \$140       1,100       LF       \$0         12       12-inch PVC Gravity Upsize       \$160       LF       \$15         13       15-inch PVC Gravity Upsize       \$270       LF       \$0         14       18-inch PVC Gravity Upsize       \$250       LF       \$0         15       21-inch PVC Gravity Upsize       \$330       LF       \$0         16       24-inch PVC Gravity Upsize       \$330       LF       \$0         17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$1,500       4       EA       \$30,000         19       54-inch Diameter Manhole       \$20,000       EA       \$0         20       60-inch Diameter Manhole       \$20,000       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$1,000       EA       \$0         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       heeting, Shoring, Bracing       \$10       1,100	10	8-inch PVC Gravity Upsize	\$120		LF	\$0
12       12-inch PVC Gravity Upsize       \$160       LF       \$15         13       15-inch PVC Gravity Upsize       \$170       LF       \$00         15       21-inch PVC Gravity Upsize       \$250       LF       \$00         16       24-inch PVC Gravity Upsize       \$300       LF       \$00         16       24-inch PVC Gravity Upsize       \$300       LF       \$00         17       30-inch PVC Gravity Upsize       \$330       LF       \$00         18       48-inch Diameter Manhole       \$25,00       0       EA       \$00         19       54-inch Diameter Manhole       \$25,00       0       EA       \$00         20       60-inch Diameter Manhole       \$25,000       EA       \$00         21       Lateral Connection       \$3000       EA       \$00         22       Dewatering       \$20,000       LS       \$00         23       Temporary Flow Bypass       \$5,000       EA       \$00         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$00         25       Sheeting, Shoring, Bracing       \$10       1,100       LF       \$11,000         27       Hall-Width Grind and Overlay       \$150	11	10-inch PVC Gravity Upsize	\$130		LF	\$0
13       15-inch PVC Gravity Upsize       \$160       LF       \$0         14       18-inch PVC Gravity Upsize       \$250       LF       \$0         15       21-inch PVC Gravity Upsize       \$330       LF       \$0         16       24-inch PVC Gravity Upsize       \$330       LF       \$0         17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$7,500       4       EA       \$30,000         19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$9,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       EA       \$0         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       1,100       LF       \$11,000         26       HMA Trench Patch       \$175       TN       \$0       \$0       Traffic Control (2%)       \$5,000       L S	12	12-inch PVC Gravity Upsize	\$140	1,100	LF	\$154,000
14       18-inch PVC Gravity Upsize       \$170       LF       \$0         15       21-inch PVC Gravity Upsize       \$250       LF       \$0         16       24-inch PVC Gravity Upsize       \$300       LF       \$0         17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$7,500       4       EA       \$0         20       60-inch Diameter Manhole       \$8,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       LS       \$0         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       1,100       LF       \$11,000         26       Sheeting, Shoring, Bracing       \$10       1,000       EA       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         29       Crushed Surfacing       \$330	13	15-inch PVC Gravity Upsize	\$160		LF	\$0
15       21-inch PVC Gravity Upsize       \$250       LF       \$0         16       24-inch PVC Gravity Upsize       \$300       LF       \$0         17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$7,500       4       EA       \$30,000         19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$8,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       LS       \$0         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       1,100       LF       \$11,000         26       HMA Trench Patch       \$175       TN       \$0         27       Half-With Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25,000       LS       \$0         30       Trafic Control (2%)       \$5,000	14	18-inch PVC Gravity Upsize	\$170		LF	\$0
16       24-inch PVC Gravity Upsize       \$300       LF       \$0         17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$7,500       4       EA       \$30,00         19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$8,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$2,000       LS       \$0         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       1,100       LF       \$11,000         26       HMA Trench Patch       \$175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       1,210       TN       \$30,250         29       Crushed Surfacing       \$3,000       1       LS       \$5,000       1       LS       \$5,000 <td>15</td> <td>21-inch PVC Gravity Upsize</td> <td>\$250</td> <td></td> <td>LF</td> <td>\$0</td>	15	21-inch PVC Gravity Upsize	\$250		LF	\$0
17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$7,500       4       EA       \$30,000         19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$9,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       LS       \$0         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       1,100       LF       \$11,000         26       HMA Trench Patch       \$1175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       1,210       TN       \$30,250         29       Crushed Surfacing       \$330       TN       \$0       \$1       General Restoration (2%)       \$5,000       L S       \$00         31       General Restoration (2%)       \$5,000	16	24-inch PVC Gravity Upsize	\$300		LF	\$0
18       44-inch Diameter Manhole       \$7,500       4       EA       \$30,000         19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$9,550       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       LS       \$0         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       1,100       LF       \$11,000         26       HMA Trench Patch       \$175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       1,210       TN       \$30,250         29       Crushed Surfacing       \$30       TN       \$0       \$2       \$25,000       LS       \$0         30       Traffic Control (2%)       \$5,000       1       LS       \$2,000         31       General Restoration (2%)       \$25,000       1       L	17	30-inch PVC Gravity Upsize	\$330		LF	\$0
19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$3,000       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       LS       \$0         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       1,100       LF       \$11,000         26       HMA Trench Patch       \$175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       1,210       TN       \$30,250         29       Crushed Surfacing       \$30       TN       \$0       \$30       TN       \$0         31       General Restoration (2%)       \$5,000       LS       \$0,000       \$2       \$0,000       1       LS       \$2,000       \$2       \$2,000       \$2       \$2,022       \$2       \$2       \$2       \$2       \$2       \$2       \$2       \$2	18	48-inch Diameter Manhole	\$7,500	4	EA	\$30,000
20       60-inch Diameter Manhole       \$9,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       LS       \$0         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       1,100       LF       \$11,000         26       HMA Trench Patch       \$175       TN       \$0         27       Half-Witch Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       1,210       TN       \$30,250         29       Crushed Surfacing       \$30       TN       \$0         30       Traffic Control (2%)       \$5,000       LS       \$00         20       Mobilization (10%)       \$23,000       1       LS       \$2,000         31       General Restoration (2%)       \$5,000       1       LS       \$2,000         20       Mobilization (1%)       \$23,000       1       LS       \$2,000         33       Temporary Erosin & Sediment Co	19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       LS       \$0         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$100       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       1,000       EF       \$11,000         26       HMA Trench Patch       \$175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       1,210       TN       \$30,250         29       Crushed Surfacing       \$30       TN       \$0         30       Traftic Control (2%)       \$5,000       LS       \$00         31       General Restoration (2%)       \$5,000       1       LS       \$2,000         32       Mobilization (10%)       \$23,000       1       LS       \$2,000         33       Temporary Erosion & Sediment Control (4%)       \$9,000       \$26,250       \$26,250         Sales Tax @ 8.4%       \$22,029       \$26,250       \$26,250       \$26,250         Subtotal       \$26,261	20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
22         Dewatering         \$20,000         LS         \$0           23         Temporary Flow Bypass         \$5,000         EA         \$0           24         Plug and Cap Abandoned Pipe         \$10         1,100         LF         \$11,000           25         Sheeting, Shoring, Bracing         \$10         1,100         LF         \$11,000           26         HMA Trench Patch         \$175         TN         \$0           27         Half-Width Grind and Overlay         \$150         TN         \$0           28         Imported Trench Backfill         \$25         1,210         TN         \$30,250           29         Crushed Surfacing         \$30         TN         \$0         \$30         TN         \$0           30         Traffic Control (2%)         \$5,000         LS         \$0         \$1         General Restoration (2%)         \$5,000         1         LS         \$5,000           32         Mobilization (10%)         \$23,000         1         LS         \$20,000         \$22,020         \$24,200           33         Temporary Erosion & Sediment Control (4%)         \$9,000         1         LS         \$22,029           Subtotal         \$22,029         \$24,279	21	Lateral Connection	\$3,000		EA	\$0
23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       1,100       LF       \$11,000         26       HMA Trench Patch       \$175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       1,210       TN       \$30,250         29       Crushed Surfacing       \$30       TN       \$0       \$30       TN       \$0         30       Traffic Control (2%)       \$5,000       LS       \$0       \$1       General Restoration (2%)       \$5,000       1       LS       \$5,000         31       General Restoration (2%)       \$5,000       1       LS       \$5,000       \$2       \$23,000       1       LS       \$23,000       1       LS       \$23,000       1       LS       \$24,000       \$22,029       \$24,029       \$24,229       \$22,029       \$262,250       \$368,284       \$222,029       \$262,250       \$368,284       \$22,029       \$262,250       \$369,563       \$369,563       \$31,087       \$369,563       \$369,563 <td>22</td> <td>Dewatering</td> <td>\$20,000</td> <td></td> <td>LS</td> <td>\$0</td>	22	Dewatering	\$20,000		LS	\$0
24         Plug and Cap Abandoned Pipe         \$1,000         EA         \$0           25         Sheeting, Shoring, Bracing         \$10         1,100         LF         \$11,000           26         HMA Trench Patch         \$175         TN         \$0           27         Half-Width Grind and Overlay         \$150         TN         \$0           28         Imported Trench Backfill         \$25         1,210         TN         \$30,250           29         Crushed Surfacing         \$30         TN         \$0           30         Traffic Control (2%)         \$5,000         LS         \$5,000           31         General Restoration (2%)         \$5,000         1         LS         \$23,000           32         Mobilization (10%)         \$23,000         1         LS         \$24,000           33         Temporary Erosion & Sediment Control (4%)         \$9,000         1         LS         \$20,000           33         Temporary Erosion & Sediment Control (4%)         \$9,000         1         LS         \$22,009           Subtotal         \$262,250         \$3else Tax @ 8,4%         \$22,029         \$25,434         \$262,250           Subtotal         \$28,636         \$264,279         \$369,56	23	Temporary Flow Bypass	\$5,000		EA	\$0
25         Sheeting, Shoring, Bracing         \$10         1,100         LF         \$11,000           26         HMA Trench Patch         \$175         TN         \$00           27         Half-Width Grind and Overlay         \$150         TN         \$00           28         Imported Trench Backfill         \$25         1,210         TN         \$30,250           29         Crushed Surfacing         \$30         TN         \$00           30         Traffic Control (2%)         \$5,000         LS         \$00           31         General Restoration (2%)         \$5,000         1         LS         \$5,000           33         Temporary Erosion & Sediment Control (4%)         \$9,000         1         LS         \$23,000           33         Temporary Erosion & Sediment Control (4%)         \$9,000         1         LS         \$24,200           34         General Restoration Costs Subtotal         \$262,250         \$246,279         \$200         \$28,200         \$284,279           Contingency         30%         \$284,279         \$30%         \$284,279         \$369,563           Allied Costs         Engineering/Survey/Permits (15%)         \$25,434         \$369,563         \$11,087           Construction Cost (	24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
26       HMA Trench Patch       \$175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       1,210       TN       \$30,250         29       Crushed Surfacing       \$30       TN       \$00         30       Traffic Control (2%)       \$5,000       LS       \$0         31       General Restoration (2%)       \$5,000       1       LS       \$5,000         32       Mobilization (10%)       \$23,000       1       LS       \$23,000         33       Temporary Erosion & Sediment Control (4%)       \$9,000       1       LS       \$26,250         Sales Tax @ 8.4%       \$22,029       \$22,029       \$22,029       \$24,279       \$262,250         Subtotal       \$284,279       \$262,250       \$369,563       \$262,250         Subtotal       \$284,279       \$30%       \$85,284       \$262,250         Subtotal       \$284,279       \$30%       \$85,284       \$369,563         Allied Costs       \$369,563       \$369,563       \$310,97       \$311,087         Construction Cost (5%)       \$25,869       \$25,869       \$25,869         Property/Easem	25	Sheeting, Shoring, Bracing	\$10	1,100	LF	\$11,000
27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       1,210       TN       \$30,250         29       Crushed Surfacing       \$30       TN       \$0         30       Traffic Control (2%)       \$5,000       LS       \$0         31       General Restoration (2%)       \$5,000       1       LS       \$5,000         32       Mobilization (10%)       \$23,000       1       LS       \$5,000         33       Temporary Erosion & Sediment Control (4%)       \$9,000       1       LS       \$20,000         33       Temporary Erosion & Sediment Control (4%)       \$9,000       1       LS       \$20,000         34       General Restoration Costs Subtotal       \$262,250       \$24,279       \$20,000       \$22,029         Subtotal       \$284,279       \$20,029       \$24,279       \$26,250       \$369,563         Allied Costs       \$369,563       \$369,563       \$369,563       \$369,563         Allied Costs       \$369,563       \$11,087       \$11,087         Construction Services (7%)       \$25,869       \$25,869         Property/Easement Acquisition (5%)       \$461,953       \$461,953	26	HMA Trench Patch	\$175	•	ΤN	\$0
28         Imported Trench Backfill         \$25         1,210         TN         \$30,250           29         Crushed Surfacing         \$30         TN         \$0           30         Traffic Control (2%)         \$5,000         LS         \$0           31         General Restoration (2%)         \$5,000         1         LS         \$2,000           32         Mobilization (10%)         \$23,000         1         LS         \$23,000           33         Temporary Erosion & Sediment Control (4%)         \$9,000         1         LS         \$23,000           33         Temporary Erosion & Sediment Control (4%)         \$9,000         1         LS         \$22,029           Subtotal         \$262,250         \$3els Tax @ 8.4%         \$22,029         \$22,029         \$22,029           Subtotal         \$284,279         \$200         \$284,279         \$200         \$85,584           Total Construction Cost         \$369,563         \$369,563         \$369,563         \$461,953           Allied Costs         \$11,087         \$25,869         \$25,869           Property/Easement Acquisition (5%)         \$25,869         \$25,869           Total ESTIMATED PROJECT COST         \$461,953         \$461,953           U	27	Half-Width Grind and Overlay	\$150		ΤN	\$0
29       Crushed Surfacing       \$30       TN       \$0         30       Traffic Control (2%)       \$5,000       LS       \$0         31       General Restoration (2%)       \$5,000       1       LS       \$5,000         32       Mobilization (10%)       \$23,000       1       LS       \$23,000         33       Temporary Erosion & Sediment Control (4%)       \$9,000       1       LS       \$9,000         33       Temporary Erosion & Sediment Control (4%)       \$9,000       1       LS       \$9,000         34       General Restoration Costs Subtotal       \$262,250       \$242,229       \$22,029         Subtotal       \$262,250       \$30%       \$284,279       \$209         Subtotal       \$284,279       \$200       \$262,250         Subtotal       \$285,284       \$262,250       \$369,563         Allied Costs       \$369,563       \$369,563         Allied Costs       \$55,434       \$40ministration/Legal (3%)       \$11,087         Construction Services (7%)       \$25,869       \$25,869         Property/Easement Acquisition (5%)       \$461,953       \$461,953         USE       \$470,000       \$470,000       \$470,000	28	Imported Trench Backfill	\$25	1,210	ΤN	\$30,250
30       Traffic Control (2%)       \$5,000       LS       \$0         31       General Restoration (2%)       \$5,000       1       LS       \$5,000         32       Mobilization (10%)       \$23,000       1       LS       \$23,000         33       Temporary Erosion & Sediment Control (4%)       \$9,000       1       LS       \$23,000         33       Temporary Erosion & Sediment Control (4%)       \$9,000       1       LS       \$9,000         34       General Restoration Costs Subtotal       \$262,250       \$22,029       \$22,029       \$22,029         Subtotal       \$2242,279       \$200       \$284,279       \$200       \$284,279         Construction Cost       \$284,279       \$30%       \$85,284         Total Construction Cost       \$369,563       \$369,563         Allied Costs       \$369,563       \$369,563         Engineering/Survey/Permits (15%)       \$55,434       \$369,563         Administration/Legal (3%)       \$11,087       \$25,869         Property/Easement Acquisition (5%)       \$25,869       \$25,869         TOTAL ESTIMATED PROJECT COST       \$461,953       \$461,953         USE       \$470,000       \$470,000       \$470,000	29	Crushed Surfacing	\$30	•	ΤN	\$0
31       General Restoration (2%)       \$5,000       1       LS       \$5,000         32       Mobilization (10%)       \$23,000       1       LS       \$23,000         33       Temporary Erosion & Sediment Control (4%)       \$9,000       1       LS       \$262,250         Sales Tax @ 8.4%       \$262,250       \$22,029       \$22,029       \$22,029         Subtotal       \$284,279       \$2000       \$284,279         Construction Cost       \$30%       \$85,284         Total Construction Cost       \$369,563         Allied Costs       \$369,563         Engineering/Survey/Permits (15%)       \$55,434         Administration/Legal (3%)       \$11,087         Construction Services (7%)       \$25,869         Property/Easement Acquisition (5%)       \$461,953         USE       \$470.000	30	Traffic Control (2%)	\$5,000		LS	\$0
32         Mobilization (10%)         \$23,000         1         LS         \$23,000           33         Temporary Erosion & Sediment Control (4%)         \$9,000         1         LS         \$9,000           33         Temporary Erosion & Sediment Control (4%)         \$9,000         1         LS         \$9,000           Construction Costs Subtotal         \$262,250         \$262,250         \$22,029         \$22,029           Subtotal         \$284,279         \$200         \$284,279         \$200         \$284,279           Contingency         30%         \$85,284         \$262,563         \$369,563           Allied Costs         \$369,563         \$369,563         \$369,563           Allied Costs         \$369,563         \$55,434           Administration/Legal (3%)         \$11,087         \$55,434           Construction Services (7%)         \$25,869         \$25,869           Property/Easement Acquisition (5%)         \$461,953         \$461,953           USE         \$470.000         \$470,000	31	General Restoration (2%)	\$5,000	1	LS	\$5,000
33         Temporary Erosion & Sediment Control (4%)         \$9,000         1         LS         \$9,000           Construction Costs Subtotal Sales Tax @ 8.4%         \$262,250         \$262,250         \$22,029           Subtotal Contingency         \$284,279         \$284,279         \$284,279           Contingency         30%         \$85,284         \$369,563           Allied Costs Engineering/Survey/Permits (15%) Administration/Legal (3%) Construction Services (7%) Property/Easement Acquisition (5%)         \$55,434         \$11,087           TOTAL ESTIMATED PROJECT COST         \$461,953         \$461,953	32	Mobilization (10%)	\$23,000	1	LS	\$23,000
Construction Costs Subtotal\$262,250Sales Tax @ 8.4%\$22,029Subtotal\$284,279Contingency30%Total Construction Cost\$369,563Allied Costs\$369,563Engineering/Survey/Permits (15%)\$55,434Administration/Legal (3%)\$11,087Construction Services (7%)\$25,869Property/Easement Acquisition (5%)\$461,953USE\$461,953	33	Temporary Erosion & Sediment Control (4%)	\$9,000	1	LS	\$9,000
Sales Tax @ 8.4%\$22,029Subtotal\$284,279Contingency30%Total Construction Cost\$369,563Allied Costs\$369,563Engineering/Survey/Permits (15%)\$55,434Administration/Legal (3%)\$11,087Construction Services (7%)\$25,869Property/Easement Acquisition (5%)\$461,953USE		Construction Costs Subtotal				\$262,250
Subtotal\$284,279Contingency30%Total Construction Cost\$369,563Allied Costs\$369,563Engineering/Survey/Permits (15%)\$55,434Administration/Legal (3%)\$11,087Construction Services (7%)\$25,869Property/Easement Acquisition (5%)\$461,953USE		Sales Tax @ 8.4%				\$22,029
Subtotal Contingency\$284,279Contingency30%\$85,284Total Construction Cost\$369,563Allied Costs Engineering/Survey/Permits (15%) Administration/Legal (3%) Construction Services (7%) Property/Easement Acquisition (5%)\$55,434TOTAL ESTIMATED PROJECT COST\$461,953USE\$470,000						<i><b>\\\\\\\\\\\\\</b></i>
Contingency30%\$204,213Contingency30%\$85,284Total Construction Cost\$369,563Allied Costs\$369,563Engineering/Survey/Permits (15%)\$55,434Administration/Legal (3%)\$11,087Construction Services (7%)\$25,869Property/Easement Acquisition (5%)\$461,953USE		Subtotal				\$284 279
ContingencyConstTotal Construction Cost\$369,563Allied Costs\$55,434Engineering/Survey/Permits (15%)\$55,434Administration/Legal (3%)\$11,087Construction Services (7%)\$25,869Property/Easement Acquisition (5%)\$461,953USE		Contingency	30%			\$85,284
Total Construction Cost\$369,563Allied Costs\$55,434Engineering/Survey/Permits (15%)\$55,434Administration/Legal (3%)\$11,087Construction Services (7%)\$25,869Property/Easement Acquisition (5%)\$461,953USE		Contailgonoy	0070			\$00,20 I
Allied Costs       \$55,434         Engineering/Survey/Permits (15%)       \$55,434         Administration/Legal (3%)       \$11,087         Construction Services (7%)       \$25,869         Property/Easement Acquisition (5%)       \$461,953         USE       \$470,000		Total Construction Cost				\$369 563
Allied Costs Engineering/Survey/Permits (15%) \$55,434 Administration/Legal (3%) \$11,087 Construction Services (7%) \$25,869 Property/Easement Acquisition (5%) TOTAL ESTIMATED PROJECT COST \$461,953 USE \$461,953						\$000,000
Engineering/Survey/Permits (15%)         \$55,434           Administration/Legal (3%)         \$11,087           Construction Services (7%)         \$25,869           Property/Easement Acquisition (5%)         \$461,953           USE         \$470,000		Allied Costs				
Administration/Legal (3%) \$11,087 Construction Services (7%) \$25,869 Property/Easement Acquisition (5%) TOTAL ESTIMATED PROJECT COST \$461,953 USE \$461,953		Engineering/Survey/Permits (15%)				\$55,434
Construction Services (7%) \$25,869 Property/Easement Acquisition (5%) TOTAL ESTIMATED PROJECT COST \$461,953 USE \$470,000		Administration/Legal (3%)				\$11.087
Property/Easement Acquisition (5%) TOTAL ESTIMATED PROJECT COST \$461,953 USE \$470,000		Construction Services (7%)				\$25.869
TOTAL ESTIMATED PROJECT COST \$461,953 USE \$470,000		Property/Easement Acquisition (5%)				<i><i><i></i></i></i>
TOTAL ESTIMATED PROJECT COST         \$461,953           USE         \$470,000						
USE \$470.000		TOTAL ESTIMATED PROJECT COST				\$461,953
		USE				\$470.000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Neil Kimsey Trunk (from terminus of 209th St PS force main to existing gravity)





20-Year Capital Program Capital Project Profile

General Facilities

Capital Improvement Project 🛛

District Installed Infrastructure  $\Box$ 

2	09	th	Street	Trunk
---	----	----	--------	-------

Location: <u>Central</u> CIP Number: <u>2-1606C</u> GL Number:

Phase: Advance Planning

Project Manager: Unassigned

Septic Elimination Program Developer Reimbursement Program Fleet & Facilities **Restoration & Replacement Project** Restoration & Replacement - Gravity Restoration & Replacement – PS & FM Restoration & Replacement – Fleet & Facilities

GSP Basin: I-5 Corridor (2-1606)

#### **Project Definition:**

<u>Objective</u>. The future pump station at 209<sup>th</sup> Street conveys from the I-5 Corridor mini-basin and pumps it back to the Neil Kimsey Pump Station. The major trunk that collects this flow and conveys it the station is the 209<sup>th</sup> Street Trunk. This 3,100 LF of 12-inch trunk flows in a northwesterly direction. Estimated District contribution to this project is limited to the over sizing of the trunk line and has been established at 20%.

<u>Scope of Work.</u> Installed approximately 3,100 LF of 12-inch trunk. The 12-inch sizing will accommodate the anticipated 50-year growth forecast.

Project Statistics. 3,100 LF of 12-inch gravity trunk.

#### Photos: (on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$1,530,000
Construction Cost:	\$1,219,663
Basis of Estimate:	Class 4 Est.
Date of Estimate:	Sept. 2016
Total Project Cost: Construction Cost: Basis of Estimate: Date of Estimate:	\$1,530,000 \$1,219,663 Class 4 Est Sept. 2016

Activity	Year
Predesign	2032
Permitting	2033
Real Property/ROW	2033
Design	2034
Bid	2035
Construction	2036

**CIP #** 2-1606C

**D** · · · ·

209th Street Pump Station Trunk 20-YEAR (2036) IMPROVEMENTS

No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical		,	LS	
2	Pump Station Electrical			LS	
3	Pump Station - Above Grade Structure			LS	
4	Pump Station - Site Work			LS	
5	Emergency Generator			LS	
6	4-inch Force Main			LF	
7	6-inch Force Main			LF	
8	72-inch wetwell			EA	
9	96-inch wetwell			EA	
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140	3,100	LF	\$434,000
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	11	EA	\$82,500
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	31	EA	\$93,000
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	3,100	LF	\$31,000
26	HMA Trench Patch	\$175		ΤN	\$0
27	Half-Width Grind and Overlay	\$150		ΤN	\$0
28	Imported Trench Backfill	\$25	3,400	ΤN	\$85,000
29	Crushed Surfacing	\$30		TN	\$0
30	Traffic Control (2%)	\$15,000		LS	\$0
31	General Restoration (2%)	\$15,000	1	LS	\$15,000
32	Mobilization (10%)	\$75,000	1	LS	\$75,000
33	Temporary Erosion & Sediment Control (4%)	\$30,000	1	LS	\$30,000
	Construction Costs Subtotal				\$865,500
	Sales Tax @ 8.4%				\$72,702
	Subtotal				\$938,202
	Contingency	30%			\$281,461
	Total Construction Cost				\$1,219,663
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$182,949
	Administration/Legal (3%)				\$36,590
	Construction Services (7%)				\$85,376
	Property/Easement Acquisition (5%)				
	, , , ,				
	TOTAL ESTIMATED PROJECT COST				\$1,524,578
	USE				\$1,530,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





209th Street Trunk





## Bowyer Trunk (associated with the elimination of Bowyer Pump Station)

Location: Central **CIP Number: 2-1710G GL Number:** 

**Phase:** Advance Planning

Project Manager: Unassigned

- Capital Improvement Project
  - General Facilities
  - District Installed Infrastructure  $\Box$ 
    - Septic Elimination Program  $\Box$
- Developer Reimbursement Program
  - Fleet & Facilities

## **Restoration & Replacement Project**

- Restoration & Replacement Gravity
- Restoration & Replacement PS & FM ⊠
- Restoration & Replacement Fleet & Facilities □

**GSP Basin:** Country Meadows (2-1710)

### **Project Definition:**

Objective. The elimination and abandonment of the Bowyer Pump Station requires the installation of approximately 2,600 LF of 10-inch trunk sewer. Demolition of the Bowyer Pump Station will be done under CIP# 2-1710B.

Scope of Work. Installed approximately 2,6000 LF of 10-inch trunk. The 10-inch sizing will accommodate the anticipated 50-year growth forecast.

Project Statistics. 2,600 LF of 10-inch gravity trunk.

**Photos:** (on the reverse side)

### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$1,190,000
Construction Cost:	\$949,801
Basis of Estimate:	Class 4 Est.
Date of Estimate:	Sept. 2016

**Schedule Information:** Activity

<u>ctivity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

CIP # 2-1710G

Bowyer Trunk

20-YEAR (2036) IMPROVEMENTS

Bid Item					
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	lotal
1	Pump Station - Mechanical			LS	
2	Pump Station Electrical			LS	
3	Pump Station - Above Grade Structure			LS	
4	Pump Station - Site Work			LS	
5	Emergency Generator			LS	
6	4-inch Force Main			LF	
7	6-inch Force Main			LF	
8	72-inch wetwell			EA	
9	96-inch wetwell			EA	
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130	2,600	LF	\$338,000
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	9	EA	\$67,500
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	26	EA	\$78,000
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	2,600	LF	\$26,000
26	HMA Trench Patch	\$175	· · ·	ΤN	\$0
27	Half-Width Grind and Overlay	\$150		ΤN	\$0
28	Imported Trench Backfill	\$25	2,860	ΤN	\$71,500
29	Crushed Surfacing	\$30		ΤN	\$0
30	Traffic Control (2%)	\$12,000		LS	\$0
31	General Restoration (2%)	\$12,000	1	LS	\$12,000
32	Mobilization (10%)	\$58,000	1	LS	\$58,000
33	Temporary Erosion & Sediment Control (4%)	\$23,000	1	LS	\$23,000
	Construction Costs Subtotal				\$674.000
					ΦE6 616
	Sales Tax @ 0.4%				\$00,010
	Subtotal				¢720 616
	Contingency	208/			\$730,010 \$210,195
	Contingency	30%			\$219,100
	Total Construction Cost				¢040.901
					\$949,001
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$142 470
	Administration/Legal (3%)				\$28 /0/
	Construction Services (7%)				920,494 \$66 186
	Property/Easement Acquisition (5%)				ψ00,400
	roporty/Easement Acquisition (070)				
	TOTAL ESTIMATED PROJECT COST				\$1,187,251
	USE				\$1 100 000
					φ1,190,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Bowyer Trunk (associated with the elimination of Bowyer Pump Station)



**Six-Year Capital Program Capital Project Profile** 

## NE Minnehaha Street, NE 10<sup>th</sup> Ave to NE 14<sup>th</sup> Ct (Ludlum Hill)

Location: Central	Capital Improvement Project 🗆
Number: <u>1-102A</u>	General Facilities 🗆
GL Number: TBD	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
	Developer Reimbursement Program 🗆
Phase: Planning	Fleet & Facilities 🗆
	Restoration & Replacement Project 🛛

Project Manager: TBD

**GSP Basin:** 1-102 Hwy 99 South

## **Project Definition:**

Objective. Replace sections of gravity main in and adjacent to NE Minnehaha Street, generally between NE 10<sup>th</sup> Avenue and NE 14<sup>th</sup> Court. These pipes have deficiencies that were identified during routine CCTV inspections. This grouping of pipes is the result of the General Sewer Plan update efforts that included grouping pipes with the worst condition scores into projects.

Scope of Work. Replace 6-inch gravity sewer adjacent to NE Minnehaha Street between existing sanitary manholes 44-64 and 44-66, 8-inch gravity sewer in NE Minnehaha Street between existing sanitary manholes 44-111 and 44-485 and 8-inch gravity sewer South of NE Minnehaha Street, near NE 60<sup>th</sup> Street between existing sanitary manholes 44-78 and 44-67.

Project Statistics. Gravity main – 329 feet of 6-inch gravity main and 1,460 feet of 8-inch gravity main in and around NE Minnehaha Street.

#### **Photos:** (Map of area on the reverse side)

#### **Budget Information:**

\$1,550,000 \$912,000 Planning Dec. 2016

#### **Schedule Information:**

<u>Activity</u>	<u>Year</u>
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD



Restoration & Replacement - Gravity ⊠ Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities



## Six-Year Capital Program Capital Project Profile



Updated: Sept. 2017



20-Year Capital Program Capital Project Profile

# NW 16<sup>th</sup> Ave and NW 113<sup>th</sup> Street (Tiare Hills)

Capital Improvement Project

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$ 
  - Septic Elimination Program  $\Box$
- Developer Reimbursement Program
  - Fleet & Facilities  $\Box$

## **Restoration & Replacement Project**

- Restoration & Replacement Gravity  $\boxtimes$
- Restoration & Replacement PS & FM  $\square$

Restoration & Replacement – Fleet & Facilities  $\Box$ 

## **Project Definition:**

<u>Objective</u>. Replace sections of gravity main in NW 16<sup>th</sup> Avenue and NW 113<sup>th</sup> Street. These pipes have deficiencies that were identified during routine CCTV inspections. This grouping of pipes is the result of the General Sewer Plan update efforts that included grouping pipes with the worst condition scores into projects.

<u>Scope of Work.</u> Replace gravity sewers in NW 16<sup>th</sup> Avenue between existing sanitary manholes 14-3352 and 14-3353 and in NW 113<sup>th</sup> Street between manholes 14-3353 and 14-3391.

Project Statistics. Gravity main – 180 feet in NW 16<sup>th</sup> Avenue and 671 feet of 8-inch gravity main NW 113<sup>th</sup> Street.

#### Photos: (Map of area on the reverse side)

### **Budget Information**:

Project Cost Estimate: Total Project Cost: Construction Cost: Basis of Estimate: Date of Estimate:

\$820,000 \$480,000 Planning Dec. 2016

#### **Schedule Information:**

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD



Phase: Planning

Location: Central

Number: 2-501A

**GL Number:** 

Project Manager: TBD

GSP Basin: 2-501 Cougar Canyon North



20-Year Capital Program Capital Project Profile



## Six-Year Capital Program Capital Project Profile

## NW 94<sup>th</sup> Street (NW 17<sup>th</sup> Ave to NW 10<sup>th</sup> Ave)

Capital Improvement Project

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$ 
  - Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## **Restoration & Replacement Project** ⊠

- Restoration & Replacement Gravity  $\boxtimes$
- Restoration & Replacement PS & FM  $\Box$
- Restoration & Replacement Fleet & Facilities  $\Box$

Phase: Planning

Location: Central

Number: 2-502A

**GL Number:** TBD

Project Manager: TBD

GSP Basin: Basin 14-Cougar Canyon

## **Project Definition:**

<u>Objective.</u> Replace a section of gravity trunk in NW 94<sup>th</sup> Street and four gravity mains on side streets. These pipes have deficiencies that were identified during routine CCTV inspections. This grouping of pipes is the result of the General Sewer Plan update efforts that included grouping pipes with the worst condition scores into projects.

<u>Scope of Work.</u> Replace the gravity trunk in NW 94<sup>th</sup> Street between existing sanitary manholes 14-719 and 14-2364. In addition, replace gravity sewers in NW 17<sup>th</sup> Avenue, NW 15<sup>th</sup> Avenue, NW 95<sup>th</sup> Circle, and NW 10<sup>th</sup> Avenue.

<u>Project Statistics.</u> Gravity trunk – 1,820 feet of 10-inch gravity trunk in NW 94<sup>th</sup> Street. Eight-inch gravity main – 250 feet in NW 17<sup>th</sup> Avenue, 220 feet in NW 15<sup>th</sup> Avenue, 118 feet in NW 95<sup>th</sup> Circle, and 256 feet in NW 10<sup>th</sup> Avenue.

## Photos: (Map of area on the reverse side)

## **Budget Information:**

\$2,430,000 \$2,050,000 Planning Dec. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD





Six-Year Capital Program Capital Project Profile



# NW 15<sup>th</sup> Avenue and NW 17<sup>th</sup> Avenue (NW 94<sup>th</sup> St to NW 102<sup>nd</sup> Cir)

Location: <u>Central</u> Number: <u>2-502B</u> GL Number: <u>TBD</u> Capital Improvement Project

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$ 
  - Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## **Restoration & Replacement Project** ⊠

- Restoration & Replacement Gravity  $\boxtimes$
- Restoration & Replacement PS & FM  $\square$
- Restoration & Replacement Fleet & Facilities

### Phase: Planning

Project Manager: TBD

GSP Basin: Basin 14-Cougar Canyon

## **Project Definition:**

<u>Objective</u>. Replace sections of gravity main in NW 17<sup>th</sup> Avenue, NW 15<sup>th</sup> Avenue, and NW 98<sup>th</sup> Street. These pipes have deficiencies that were identified during routine CCTV inspections. This grouping of pipes is the result of the General Sewer Plan update efforts that included grouping pipes with the worst condition scores into projects.

<u>Scope of Work.</u> Replace a run of gravity sewers in NW 17<sup>th</sup> Avenue and NW 15<sup>th</sup> Avenue between existing sanitary manholes 14-1894 and 14-2950. In addition, replace gravity sewers in NW 98<sup>th</sup> Street between existing sanitary manholes 14-2877 and 14-2954 and in NW 15<sup>th</sup> Avenue between 14-1518 and 14-3001.

<u>Project Statistics.</u> Eight-inch gravity main – 1067 feet in NW 15<sup>th</sup> Avenue, 263 feet in NW 99<sup>th</sup> Street, 172 feet in an existing sewer easement, 431 feet in NW 98<sup>th</sup> Street, and 803 feet in NW 17<sup>th</sup> Avenue.

#### Photos: (Map of area on the reverse side)

### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$820,000 \$680,000 Planning Dec. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD





Six-Year Capital Program Capital Project Profile



## Six-Year Capital Program Capital Project Profile

## NE 78<sup>th</sup> Street (NE 6<sup>th</sup> Ave to NE 30<sup>th</sup> Ave)

Capital Improvement Project

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$ 
  - Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## **Restoration & Replacement Project** ⊠

- Restoration & Replacement Gravity  $\boxtimes$
- Restoration & Replacement PS & FM  $\square$
- Restoration & Replacement Fleet & Facilities  $\Box$

## Phase: Planning

Location: Central

Number: 2-504C

**GL Number:** TBD

Project Manager: TBD

GSP Basin: Basin 14-Cougar Canyon

## **Project Definition:**

<u>Objective.</u> Replace sections of gravity main in NE 78<sup>th</sup> Street, NE 25<sup>th</sup> Avenue, NE 30<sup>th</sup> Avenue, and an existing sewer easement just west of NE Highway 99. These pipes have deficiencies that were identified during routine CCTV inspections. This grouping of pipes is the result of the General Sewer Plan update efforts that included grouping pipes with the worst condition scores into projects.

<u>Scope of Work.</u> Replace gravity sewers in NE 78<sup>th</sup> Street between existing sanitary manholes 14-761 and 14-769. In addition, replace gravity sewers in NE 25<sup>th</sup> Avenue, NE 30<sup>th</sup> Avenue, and an existing sewer easement just west of NE Highway 99.

<u>Project Statistics.</u> Gravity main – 417 feet in NE 78<sup>th</sup> Street, 160 feet in NE 25<sup>th</sup> Avenue, 385 feet in NE 30<sup>th</sup> Avenue, and 275 feet of 8-inch gravity main in an existing sewer easement just west of NE Highway 99.

### Photos: (Map of area on the reverse side)

## **Budget Information:**

Project Cost Estimate: Total Project Cost: Construction Cost: Basis of Estimate: Date of Estimate:

\$1,170,000 \$960,000 Planning Dec. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD





Six-Year Capital Program Capital Project Profile



## 20 – Year Capital Improvement Projects

## **Central District Area**

## **Pump Stations and Force Mains**

## CIP No. Mini-Basin Project Description

## CIP Projects – Existing Pump Stations

2-1603B	2-1603	Legacy Pump Station and Force Main (extended to NE 129 <sup>th</sup> Street)
2-1606B	2-1606	Neil Kimsey Pump Station and Force Main
2-1702D	2-1701	Force Main along NE 119 <sup>th</sup> Street

## CIP Projects – New/Future Pump Stations

2-203A	2-203	Whipple Creek West Pump Station A (aka NW 11 <sup>th</sup> Street - south) and Force Main – Phase I
2-203B	2-203	Whipple Creek West Pump Station A (NW 11th Street - south) and Force Main – Phase II
2-203C	2-203	Whipple Creek West Pump Station B (north) and Force Main
2-801A	2-801	Hwy 99 East Pump Station and Force Main
2-1303A	2-1303	Curtin Creek North Pump Station (aka 72 <sup>nd</sup> Ave PS)
2-1502B	2-1502	Pleasant Valley North Pump Station B (east) and Force Main
2-1502C	2-1502	Pleasant Valley North Pump Station C (northeast) and Force Main
2-1502D	2-1502	Pleasant Valley North Pump Station D (north) and Force Main
2-1604B	2-1604	Whipple Creek South Pump Station B (west) and Force Main
2-1605E	2-1605	Whipple Creek East Pump Station E (central) and Force Main
2-1605F	2-1605	Whipple Creek East Pump Station F (east) and Force Main
2-1606D	2-1606	I-5 Corridor (aka 209th Street) Pump Station and Force Main
2-1702C	2-1702	Curtin Creek West Pump Station C (east)
2-1712A	2-1712	Land Bank Pump Station A (south) and Force Main
2-1712B	2-1712	Land Bank Pump Station B (north) and Force Main
2-1712C	2-1712	Freight Rail Overlay Pump Station

## **Restoration and Replacement**

2-103A	2-103	West of Westmoor Place Pump Station Elimination
2-202A	2-202	149th Street Pump Station Elimination
2-202B	2-202	Whipple Creek Place Pump Station Elimination
2-1605D	2-1605	Payne Pump Station Redirection to mini-basin 2-1503
2-1701A	2-1701/1301	Jessie Hollow Pump Station Elimination – Phase I
2-1701B	2-1701/1301	Jessie Hollow Pump Station Elimination – Phase II
2-1709A	2-1709	Silver Star Pump Station Elimination
2-1710B	2-1710	Bowyer Pump Station Elimination



# Legacy Pump Station and Force Main (extended to NE 129<sup>th</sup> Street)

Location: <u>Central</u> CIP Number: <u>2-1603B</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

Capital Improvement Project 🛛

General Facilities 🛛

District Installed Infrastructure  $\Box$ 

- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## Restoration & Replacement Project

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Legacy (2-1603)

### **Project Definition:**

<u>Objective.</u> The additional flow resulting from the redirection of the Ridgefield flows via the Neil Kimsey Pump Station requires additional capacity at the Legacy Pump Station.

<u>Scope of Work.</u> The current rated capacity of the Legacy Pump Station is 1,200 gpm. The upgrade for the existing pump station is anticipated to include new pumps and motors, verify electrical service to the station is adequate and a new emergency generator to support the new pumps. This will increase the station's capacity to 6,200 gpm. Additionally, there are two force mains from the Legacy Pump Station, 1) a 16-inch force main that flow south from the station and 2) an existing 8-inch force main that flows northerly and westerly from the station. This second force main will need to be increased to a 12-inch.

<u>Project Statistics.</u> The current discharge force main will need to be increased to a 12-inch be adequate for the 20-year and 50-year expected flows. Approximately 2,130 feet of 12-inch force will be required, which will connect to the gravity system at NE 129<sup>th</sup> Street.

Pump station – Capacity increase from 1,200 gpm to 6,200 gpm.

Photos: (on the reverse side)

#### **Budget Information**:

Project Cost Estimate:	
Total Project Cost:	\$1,710,000
Construction Cost:	\$1,309,570
Basis of Estimate:	Class 4 Est.
Date of Estimate:	Sept. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### General Sewer Plan 2017 Capital Improvement Projects

#### **CIP #** 2-1603B

Legacy Pump Station upgrade and Force Main (extended to NE 129th Street) 20 - YEAR (2036) IMPROVEMENTS

Bid Item	Bid Itom Description	Linit Did Drive	Quantity	Linit	Total
INO.		Unit Bid Price	Quantity	Unit	I OTAI
1	Pump Station - Mechanical (6,200 gpm)	\$250,000	1	LS	\$250,000
2	Pump Station Electrical	\$100,000	1	LS	\$100,000
3	Pump Station - Above Grade Structure		1	LS	\$0
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator	\$50,000	1	LF	\$50,000
6	4-inch Force Main			LF	\$0
7	12-inch Force Main	\$95	2,130	LF	\$202,350
8	72-inch wetwell			EA	\$0
9	96-inch wetwell	-		EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	2,130	LF	\$21,300
26	HMA Trench Patch	\$175	450	ΤN	\$78,750
27	Half-Width Grind and Overlay	\$150		ΤN	\$0
28	Imported Trench Backfill	\$25	2,340	ΤN	\$58,500
29	Crushed Surfacing	\$30	880	ΤN	\$26,400
30	Traffic Control (2%)	\$16,000	1	LS	\$16,000
31	General Restoration (2%)	\$16,000	1	LS	\$16,000
32	Mobilization (10%)	\$79,000	1	LS	\$79,000
33	Temporary Erosion & Sediment Control (4%)	\$31,000	1	LS	\$31,000
	Construction Costs Subtotal				\$929,300
	Sales Tax @ 8.4%				\$78,061
	Subtotal				\$1,007,361
	Contingency	30%			\$302,208
	<b>.</b> ,				• • • • •
	Total Construction Cost				\$1,309,570
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$196,435
	Administration/Legal (3%)				\$39,287
	Construction Services (7%)				\$91,670
	Property/Easement Acquisition (5%)				\$65,478
	TOTAL ESTIMATED PROJECT COST				\$1,702,440
	USE				\$1,710,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 200 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet




Legacy Pump Station and Force Main (extend Force Main to NE 129th St)



# **Clark Regional Wastewater District**



20-Year Capital Program Capital Project Profile

# **Neil Kimsey Pump Station Force Main**

Location: Central	Capital Improvement Project 🛛
<b>CIP Number:</b> <u>2-1606B</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program 🗆
	Fleet & Facilities 🗆
Project Manager: Unassigned	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: I-5 Corridor (2-1606)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

<u>Objective.</u> The additional flow resulting from the redirection of the Ridgefield flows via the Neil Kimsey Pump Station requires additional force main capacity for the Neil Kimsey flows. As part of the DCWTS project, approximately 1,465 feet of 22-inch force main was installed in the WSDOT right-of-way. This initial section of force main has not been used but will be the point of connection for extending that pipe segment to the 20<sup>th</sup> Avenue Trunk. This additional length totals 17, 041 feet.

<u>Scope of Work.</u> This additional force main had been planned and anticipated since the inception of the DCWTS system. Provide approximately 17,041 LF of 22-inch force and make connection to the existing 22-inch force main that had been previously installed.

<u>Project Statistics.</u> The current discharge force main will need and additional 17,041 LF of 22-inch force and make connection to the existing end of the 22-inch system.

Pump station – No change.

Photos: (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$8,330,000
Construction Cost:	\$6,406,505
Basis of Estimate:	Class 4 Est.
Date of Estimate:	Sept. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 2-1606B

Neil Kimsey Pump Station Upgrade 20-YEAR (2036) IMPROVEMENTS

Bid Item	) Bid Itom Deparintion	Linit Rid Price	Quantity	Linit	Total
INO.	Bid item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical			LS	\$0
2	Pump Station Electrical			LS	\$0
3	Pump Station - Above Grade Structure			LS	\$0
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator			LS	\$0
6	4-inch Force Main	<b>*</b> 1 = 0			\$0
/	22-inch Force Main	\$150	17,041		\$2,556,150
8	/2-inch wetwell			EA	\$0
9	96-inch wetwell	<b>*</b> 1 <b>*</b> 2		EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	0	LF	\$0
26	HMA Trench Patch	\$175	3,540	ΤN	\$619,500
27	Half-Width Grind and Overlay	\$150	0	ΤN	\$0
28	Imported Trench Backfill	\$25	18,690	ΤN	\$467,250
29	Crushed Surfacing	\$30	7,010	ΤN	\$210,300
30	Traffic Control (2%)	\$77,000	1	LS	\$77,000
31	General Restoration (2%)	\$77,000	1	LS	\$77,000
32	Mobilization (10%)	\$385,000	1	LS	\$385,000
33	Temporary Erosion & Sediment Control (4%)	\$154,000	1	LS	\$154,000
	Construction Costs Subtotal				\$4,546,200
	Sales Tax @ 8.4%				\$381.881
					* /
	Subtotal				\$4.928.081
	Contingency	30%			\$1,478,424
					<i>+</i> ·,··-,·-·
	Total Construction Cost				\$6.406.505
					<i>•-,,</i>
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$960.976
	Administration/Legal (3%)				\$192,195
	Construction Services (7%)				\$448,455
	Property/Easement Acquisition (5%)				\$320.325
					<i><b>4020,020</b></i>
	TOTAL ESTIMATED PROJECT COST				\$8,328,457
	USE				\$8,330,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 200 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Neil Kimsey Pump Station and Force Main



# **Clark Regional Wastewater District**



Location: Central

**Phase:** Pre-design

**GL Number:** 

**CIP Number: 2-1702D** 

20-Year Capital Program Capital Project Profile

# Force Main along NE 119<sup>th</sup> Street

Capital Improvement Project 🛛

General Facilities ⊠

- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

# **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: St Johns (2-1701)

Project Manager: Vanessa Johnson

## **Project Definition:**

<u>Objective</u>. The Force Main from the future Curtin Creek West Pump Station (see CIP# 2-1702C) is routed along NE 119<sup>th</sup> Street. A portion of this force main is located between NE 143<sup>rd</sup> avenue and NE 60<sup>th</sup> Avenue.

<u>Scope of Work.</u> Install new force main between NE 143<sup>rd</sup> Avenue and NE 60<sup>th</sup> Avenue along NE 119<sup>th</sup> Street to convey flow from the Curtin Creek West Pump station.

Project Statistics. New 6-inch force main for a total distance of approximately 4,300 feet.

Map: (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$1,260,000 \$969,229 Class 4 Est. June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

## **CIP #** 2-1702D

Force Main Along NE 119th Street between NE 43rd Ave and NE 60th Ave 20-YEAR 2036 IMPROVEMENTS

Bid Item	Did Item Description	Linit Did Drice	Quantitu	Linit	Tatal
INO.	Bid item Description	Unit Bid Price	Quantity	Unit	I otal
1	Pump Station - Mechanical			LS	\$0
2	Pump Station Electrical			LS	\$0
3	Pump Station - Above Grade Structure			LS	\$0
4	Emergency Generator				\$0
5	4-inch Force Main		1.000		\$0
6	6-inch Force Main	60	4,300		\$258,000
1	/2-inch wetwell			EA	\$0
8	96-Inch wetwell	¢100		EA	\$0
9	8-Inch PVC Gravity Upsize	\$120			\$U \$0
10	10-Inch PVC Gravity Upsize	\$130			\$U
11	12-Inch PVC Gravity Upsize	\$140			\$U
12	15-Inch PVC Gravity Upsize	\$160			\$U
13	18-Inch PVC Gravity Upsize	\$170			\$0
14	21-Inch PVC Gravity Upsize	\$250			\$0
15	24-inch PVC Gravity Upsize	\$300			\$0
16	30-inch PVC Gravity Upsize	\$330	-		\$0
17	48-inch Diameter Manhole	\$7,500	0	EA	\$0
18	54-inch Diameter Manhole	\$8,500	0	EA	\$0
19	60-inch Diameter Manhole	\$9,500	0	EA	\$0
20		\$3,000	0	EA	\$0
21	Dewatering	\$20,000		LS	\$0
22	I emporary Flow Bypass	\$5,000		EA	\$0
23	Plug and Cap Abandoned Pipe	\$1,000	1.000	EA	\$0
24	Sheeting, Shoring, Bracing	\$10	4,300		\$43,000
25	HMA Irench Patch	\$175	900		\$157,500
26	Half-Width Grind and Overlay	\$150	0		\$0
27	Imported Trench Backfill	\$25	4,720		\$118,000
28		\$30	0	IN	\$0
29	I raffic Control (2%)	\$12,000	1	LS	\$12,000
30	General Restoration (2%)	\$12,000	1		\$12,000
31	Mobilization (10%)	\$58,000	1		\$58,000
32	remporary Erosion & Sediment Control (4%)	\$23,000	1	LS	\$23,000
	Construction Costs Subtotal				\$681,500
	Sales Tax @ 9.4%				\$64,061
	Subtotal				\$745,561
	Contingency	30%			\$223,668
	Total Construction Cost				\$969,229
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$145,384
	Administration/Legal (3%)				\$29,077
	Construction Services (7%)				\$67,846
	Property/Easement Acquisition (5%)				\$48,461
					. , -
	TOTAL ESTIMATED PROJECT COST				\$1,259,998
	USE				\$1,260,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 200 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Force Main along NE 119th Street







# Whipple Creek West Pump Station A (aka NW 11<sup>th</sup> Ave - south) and Force Main - Phase I

Location: Central	Capital Improvement Project 🛛
CIP Number: <u>2-203A</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program 🗆
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Whipple Creek West (2-203)	Restoration & Replacement – Fleet & Facilities 🗆

GSP Basin: Whipple Creek West (2-203)

# **Project Definition:**

Objective. Provide new Pump Station and Force main to serve the Whipple Creek West Mini-Basin.

Scope of Work. The initial new pump station will be sized to serve the local service area. The wet well and force main will be sized to accommodate the ultimate service scheme which will include flows from the Whipple Creek Place PS and the 149<sup>th</sup> Street PS. This facility would be located at the intersection of NW 11<sup>th</sup> Avenue and Whipple Creek. Forecasted 50-year peak hour flows are approximately 600 gpm.

Project Statistics. Pump station – New submersible Pump Station with an initial capacity of 100 gpm, 800 feet of 6-inch force main, emergency generator, local electrical control panel with weather protected enclosure.

## **Photos:** (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$870,000
Construction Cost:	\$663,945
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

Year
TBD

**CIP #** 2-203A

Whipple Creek West Pump Station A (aka NW 11th Ave - South) and Force Main - Phase I 20-YEAR 2036 IMPROVEMENTS

Bid Item	1				
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical (100 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work	\$30,000	1	LS	\$30,000
5	Emergency Generator	\$25,000	1	LF	\$25,000
6	4-inch Force Main	\$50		LF	\$0
7	6-inch Force Main	\$65	800	LF	\$52,000
8	72-inch wetwell	\$15,000	1	EA	\$15,000
9	96-inch wetwell	+ -/		EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		L F	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170			<u>\$0</u>
15	21-inch PVC Gravity Upsize	\$250		LF	<u>\$0</u>
16	21-inch PVC Gravity Upsize	\$300			0 \$0
10	30-inch PV/C Gravity Upsize	\$330			
10	48-inch Diameter Manhole	\$350	0		0¥ 0
10	54-inch Diameter Manhole	\$7,500	0		00 \$0
20	60-inch Diameter Manhole	\$6,500	0		<u>پ0</u> ۵۵
20		\$9,500	0		
21	Devetoring	\$3,000	1		0¢ 000.009
22	Dewalening	\$20,000	I	LO	
23	Rive and Can Abandanad Dina	\$5,000			\$U
24	Plug and Cap Abandoned Pipe	\$1,000	000	EA	\$U
25	Sneeting, Snoring, Bracing	\$10	800		\$8,000
26	HMA Trench Patch	\$175	170		\$29,750
27	Half-Width Grind and Overlay	\$150	0		\$0
28		\$25	660		\$16,500
29		\$30	330		\$9,900
30	I raffic Control (2%)	\$8,000		LS	\$0
31	General Restoration (2%)	\$8,000	1	LS	\$8,000
32	Mobilization (10%)	\$41,000	1	LS	\$41,000
33	Temporary Erosion & Sediment Control (4%)	\$16,000	1	LS	\$16,000
	Construction Costs Subtotal				\$471,150
	Sales Tax @ 8.4%				\$39.577
					* / -
	Subtotal				\$510.727
	Contingency	30%			\$153,218
		0070			\$100 <u>,</u> 210
	Total Construction Cost				\$663 945
					<i>\\\</i> 0000,010
	Allied Costs				
	Engineering/Survey/Dermite (15%)				¢00 500
	Administration/Logal (20/)				\$33,032 \$10,019
	Automistration/Legal (3%)				\$19,918 \$40,470
	Construction Services (7%)				\$46,476
	Property/Easement Acquisition (5%)				\$33,197
					¢000.400
				_	\$863,128
	USE				\$870,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Whipple Creek West Pump Station A (aka NW 11th Ave - south) and Force Main - Phase I







# Whipple Creek West Pump Station A (aka NW 11<sup>th</sup> Ave - south) and Force Main - Phase II

Location: Central	Capital Improvement Project 🖂
CIP Number: <u>2-203B</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program $\Box$
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Whipple Creek West (2-203)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

Objective. Provide capacity upgrade to the NW 11<sup>th</sup> Avenue PS to accommodate flows from the 149<sup>th</sup> Street PS and the Whipple Creek Place PS.

Scope of Work. The initial pump station was constructed under CIP# 2-203A. The wet well and force main was sized and installed for this added flow. This facility would be located at the intersection of NW 11<sup>th</sup> Avenue and Whipple Creek. Forecasted 50-year peak hour flows are approximately 600 gpm.

Project Statistics. Replace original pumps with higher capacity pumps capable of meeting the estimated 2036 capacity of 400 gpm.

## **Photos:** (on the reverse side)

## **Budget Information:**

Project Cost Estimate.	
Total Project Cost:	\$430,000
Construction Cost:	\$326,934
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

## **Schedule Information:**

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD



CLARK

#### CIP # 2-203B

Whipple Creek West Pump Station A (aka NW 11th Ave - South) and Force Main - Phase II 20-YEAR 2036 IMPROVEMENTS

Bid Item					
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical (400 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000		LS	\$0
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator	\$25,000	1	LF	\$25,000
6	4-inch Force Main	\$50		LF	\$0
7	6-inch Force Main	\$65		LF	\$0
8	72-inch wetwell	\$15,000		EA	\$0
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	0	LF	\$0
26	HMA Trench Patch	\$175	0	ΤN	\$0
27	Half-Width Grind and Overlay	\$150	0	ΤN	\$0
28	Imported Trench Backfill	\$25	0	ΤN	\$0
29	Crushed Surfacing	\$30	0	TN	\$0
30	Traffic Control (2%)	\$4,000		LS	\$0
31	General Restoration (2%)	\$4,000	1	LS	\$4,000
32	Mobilization (10%)	\$20,000	1	LS	\$20,000
33	Temporary Erosion & Sediment Control (4%)	\$8,000	1	LS	\$8,000
	Construction Costs Subtotal				\$232,000
	Sales Tax @ 8.4%				¢202,000 \$10,488
					ψ13,400
	Subtotal				\$251 / 88
	Contingency	30%			¢251,400 \$75,446
	Contailgency	5078			φ/ 3,440
	Total Construction Cost				\$326,934
	Alliad Casts				
	Alleu COSIS				¢ 40.040
	Engineering/Survey/Permis (15%)				Φ49,040 ¢0,000
	Auministration/Legal (3%)				\$9,808 ¢00.005
	Construction Services (7%)				\$22,885
	Property/Easement Acquisition (5%)				\$16,347
	TOTAL ESTIMATED PROJECT COST				\$425,015
	USE				\$430,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Whipple Creek West Pump Station A (aka NW 11th Ave - south) and Force Main - Phase II







# Whipple Creek West Pump Station B (north) and Force Main

Location: <u>Central</u> CIP Number: <u>2-203C</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

## Capital Improvement Project 🛛

- General Facilities
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program
  - Fleet & Facilities

# **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM 🗆

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Whipple Creek West (2-203)

## **Project Definition:**

<u>Objective</u>. Provide new Pump Station and Force main to serve the northern portions of the Whipple Creek West Mini-Basin.

<u>Scope of Work.</u> New Pump Station with an estimate 2036 peak hour flow of approximately 100 gpm and a 4inch force main. This facility would be located westerly of the intersection of NW 11<sup>th</sup> Avenue and NW 184<sup>th</sup> Street. Forecasted 50-year peak hour flows are approximately 200 gpm. Since this pump station is located outside the UGA, there is a portion of the gravity lines flowing to this station that will never provide service to the adjacent properties. As such, the District will contribute to the costs of the lines outside the UGA.

<u>Project Statistics.</u> Pump station – New submersible Pump Station with a 2036 capacity of 100 gpm, 4,100 feet of 4-inch force main, approximately 1,900 LF of 8-inch gravity, emergency generator, local electrical control panel with weather protected enclosure.

Photos: (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$2,590,000
Construction Cost:	\$1,985,492
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 2-203C

Whipple Creek West Pump Station B (North) and Force Main 20-YEAR (2036) IMPROVEMENTS

Bid Item	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical (100 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	1.5	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	1.5	\$25,000
4	Pump Station - Site Work	\$20,000	1	1.5	\$0
5	Emergency Generator	\$25,000	1	15	\$25,000
6	4-inch Force Main	\$50	4,100	1 F	\$205,000
7	6-inch Force Main	+	.,	LF	\$0
8	72-inch wetwell	\$15.000	1	EA	\$15.000
9	96-inch wetwell	+ • • , • • •		EA	\$0
10	8-inch PVC Gravity Upsize	\$120	1.900	LF	\$228.000
11	10-inch PVC Gravity Upsize	\$130	,	LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	10	EA	\$75,000
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000		EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	6,000	LF	\$60,000
26	HMA Trench Patch	\$175	1,250	ΤN	\$218,750
27	Half-Width Grind and Overlay	\$150		ΤN	\$0
28	Imported Trench Backfill	\$25	4,940	ΤN	\$123,500
29	Crushed Surfacing	\$30	790	ΤN	\$23,700
30	Traffic Control (2%)	\$24,000	1	LS	\$24,000
31	General Restoration (2%)	\$24,000	1	LS	\$24,000
32	Mobilization (10%)	\$119,000	1	LS	\$119,000
33	Temporary Erosion & Sediment Control (4%)	\$48,000	1	LS	\$48,000
	Construction Costs Subtotal				\$1,408,950
	Sales Tax @ 8.4%				\$118,352
	Subtotal				\$1,527,302
	Contingency	30%			\$458,191
	Total Construction Cost				\$1,985,492
	Allied Costs				
	Anieu UUSIS Engineering/Survey/Dermite (15%)				¢207 024
	Administration/Legal (3%)				9291,024 ¢50,565
	Construction Sonicos (7%)				009,000 ¢120,004
	Construction Services (7%) Property/Easement Acquisition (5%)				ຈ I 30,984 ¢00,975
	Froperty/Easement Acquisition (5%)				\$ <del>99</del> ,275
	TOTAL ESTIMATED PROJECT COST				\$2,581,140
	USE				\$2,590,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings, pipe, bedding, shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet



# W SEE

Whipple Creek West Pump Station B (north) and Force Main



# **Clark Regional Wastewater District**



20-Year Capital Program Capital Project Profile

# Hwy 99 East Pump Station and Force Main

**Location:** Central Capital Improvement Project 🛛 **CIP Number:** 2-801A General Facilities **GL Number:** District Installed Infrastructure Septic Elimination Program  $\Box$ Developer Reimbursement Program **Phase:** Advanced Planning Fleet & Facilities **Restoration & Replacement Project** Project Manager: Unassigned Restoration & Replacement - Gravity Restoration & Replacement – PS & FM  $\Box$ GSP Basin: Hwy 99 East (2-801) Restoration & Replacement – Fleet & Facilities □

## **Project Definition:**

Objective. Provide new Pump Station and Force main to serve the eastern portion of Hwy 99 East Mini-Basin.

<u>Scope of Work.</u> New Pump Station with an estimate 2036 peak hour flow of approximately 100 gpm and a 4inch force main in a northly direction a distance of approximately 1,000 feet. Forecasted 2066 capacity requirements for this Pump Station is a peak hour flow of approximately 150 gpm.

<u>Project Statistics.</u> Pump station – New submersible Pump Station with a 2036 capacity of 100 gpm and an approximate 50-year capacity of approximately 150 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure. Approximately 1,000 feet of 4-inch force main.

## Photos: (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$820,000 \$629,208 Class 4 Est. June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 2-801A

Hwy 99 East Pump Station and Force Main 20-YEAR (2036) IMPROVEMENTS

Bid Item	Pid Item Description	Link Did Dei	Quantity	Linit	Tetal
INO.		Unit Bid Price	Quantity	Unit	I OTAI
1	Pump Station - Mechanical (100 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work	<b>ФОЕ 000</b>	1	LS	\$0
5	Emergency Generator	\$25,000	1		\$25,000
6	4-inch Force Main	\$50	1,000		\$50,000
/	6-Inch Force Main	¢15.000	4		\$0
8		\$15,000	1	EA	\$15,000
9	96-Inch wetwell	¢400		EA	<u>\$0</u>
10	8-Inch PVC Gravity Upsize	\$120			<u>\$0</u>
11	10-inch PVC Gravity Upsize	\$130			\$0
12	12-inch PVC Gravity Upsize	\$140			\$0
13	15-inch PVC Gravity Upsize	\$160			\$0
14	18-inch PVC Gravity Upsize	\$170			\$0
15	21-inch PVC Gravity Upsize	\$250			\$0
16	24-inch PVC Gravity Upsize	\$300			\$0
1/	30-inch PVC Gravity Upsize	\$330			\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	I emporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	1,000		\$10,000
26	HMA Irench Patch	\$175	210	IN	\$36,750
27	Half-Width Grind and Overlay	\$150	0	IN	\$0
28	Imported Trench Backfill	\$25	830		\$20,750
29	Crushed Surfacing	\$30	0		\$0
30	I ramic Control (2%)	\$8,000	1	10	\$8,000
31	General Restoration (2%)	\$8,000	1	LS	\$8,000
32	Mobilization (10%)	\$38,000	1	LS	\$38,000
33	Temporary Erosion & Sediment Control (4%)	\$15,000	1	L3	\$15,000
	Construction Costs Subtotal				\$446,500
	Sales Tax @ 8.4%				\$37,506
	Subtotal				\$484,006
	Contingency	30%			\$145,202
	Total Construction Cost				\$629,208
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$94,381
	Administration/Legal (3%)				\$18,876
	Construction Services (7%)				\$44,045
	Property/Easement Acquisition (5%)				\$31,460
	TOTAL ESTIMATED PROJECT COST				\$817,970
	USE				\$820,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Hwy 99 East Pump Station and Force Main



**Clark Regional Wastewater District** 



20-Year Capital Program Capital Project Profile

# **Curtin Creek North Pump Station (aka 72<sup>nd</sup> Ave PS)**

Location: <u>Central</u> CIP Number: <u>2-1303A</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

## Capital Improvement Project 🛛

General Facilities

District Installed Infrastructure  $\Box$ 

Septic Elimination Program  $\Box$ 

Developer Reimbursement Program  $\Box$ 

Fleet & Facilities

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM 🗆

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Curtin Creek North (2-1303)

## **Project Definition:**

<u>Objective.</u> Provide new Pump Station in conjunction with the previously installed force main to serve the Curtin Creek North Mini-Basin as part of the County's CRP.

Scope of Work. New Pump Station with an estimate 2036 peak hour flow of approximately 100 gpm.

<u>Project Statistics.</u> Pump station – New submersible Pump Station with a 2036 capacity of 100 gpm and an approximate 50-year capacity of approximately 225 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure.

## Photos: (on the reverse side)

Budget Information:		Schedule Information:	
Project Cost Estimate:		<u>Activity</u>	Year
Total Project Cost:	\$570,000	Predesign	TBD
Construction Cost:	\$434,034	Permitting	TBD
Basis of Estimate:	Class 4 Est.	Real Property/ROW	TBD
Date of Estimate:	Sept 2017	Design	TBD
		Bid	TBD
		Construction	TBD

#### **CIP #** 2-1303A

Curtin Creek North Pump Station and Force Main 20- YEAR (2036) IMPROVEMENTS

Bid Item	Pid Itam Description	Linit Rid Price	Quantity	Linit	Total
INO.			Quantity	Unit	I OTAI
1	Pump Station - Mechanical (100 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work	¢05 000	1	LS	\$0
5	Emergency Generator	\$25,000	1	15	\$25,000
6	4-Inch Force Main	\$50			\$U \$0
/	0-Inch Force Main	¢15.000	4		\$U
8	72-Inch wetwell	\$15,000	I		\$15,000
9	96-Inch welwell 9 inch DVC Crowity Unoize	¢120			\$U \$0
10	10 inch DVC Gravity Upsize	\$120			\$U \$0
10	12 inch DVC Gravity Upsize	\$130			\$U \$0
12	12-Inch PVC Gravity Upsize	\$140			
13	19-inch PVC Gravity Upsize	\$100			
14	18-Inch PVC Gravity Upsize	\$170			\$U
10	21-Inch PVC Gravity Upsize	\$250			\$U \$0
10	24-Inch PVC Gravity Upsize	\$300			\$U \$0
10	30-Inch PVC Gravity Upsize	\$33U	0		\$U \$0
10	40-Inch Diameter Manhole	\$7,500	0		φ0 \$0
19	60 inch Diameter Manhole	\$0,500 \$0,500	0		<u>۵۵</u>
20		\$9,500	0		<u>۵۵</u>
21	Dewatering	\$3,000 \$20,000	1		00 000 009
22	Temperany Flow Rypace	\$20,000	I	L3 EA	φ20,000 ¢0
23	Plug and Cap Abandoned Pine	\$5,000			
24	Shooting Shoring Proving	\$1,000	0		
20		\$10 \$175	10		ው ሮ1 750
20	Holf Width Grind and Overlay	\$175 \$150	10		φ1,730 ΦΩ
21	Imported Trench Backfill	\$150 \$25	10		φ <u>υ</u> ¢250
20	Crushed Surfacing	φ <u>2</u> 0	10		
29	Traffic Control (2%)	\$5,000	1	15	Ψ <u>Ψ</u> \$5.000
31	General Restoration (2%)	\$5,000	1	1.5	\$5,000
32	Mobilization (10%)	\$26,000	1	1.5	\$26,000
33	Temporary Frosion & Sediment Control (4%)	\$10,000	1	IS	\$10,000
		\$10,000		20	\$10,000
	Construction Costs Subtotal				\$308,000
	Sales Tax @ 8.4%				\$25,872
	Subtotal				\$333,872
	Contingency	30%			\$100,162
	Table and the first of the				<b>*</b> • • • • • • • •
	Total Construction Cost				\$434,034
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$65,105
	Administration/Legal (3%)				\$13,021
	Construction Services (7%)				\$30,382
	Property/Easement Acquisition (5%)				\$21,702
					<b><b><i>ФЕСА ОАА</i></b></b>
					\$564,244
	USE				\$570,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet



# W S E

Curtin Creek North Pump Station (aka 72nd Ave PS)







20-Year Capital Program Capital Project Profile

# Pleasant Valley North Pump Station B (east) and Force Main

Location: Central	Capital Improvement Project 🛛
<b>CIP Number:</b> <u>2-1502B</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program 🗆
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project 🗆
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Pleasant Valley North (2-1502)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

<u>Objective</u>. Provide new Pump Station and Force main to serve the eastern portion of Pleasant Valley North Mini-Basin.

<u>Scope of Work.</u> New Pump Station with an estimate 2036 peak hour flow of approximately 100 gpm and a 4inch force main in a westerly direction a distance of approximately 1,200 feet then southerly a distance of approximately 800 feet. Forecasted 2036 capacity requirements for this Pump Station is a peak hour flow of approximately 100 gpm.

<u>Project Statistics.</u> Pump station – New submersible Pump Station with a 2036 capacity of 100 gpm and an approximate 50-year capacity of approximately 250 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure. Approximately 2,000 feet of 4-inch force main.

## Photos: (on the reverse side)

## **Budget Information**:

<u>Project Cost Estimate:</u>	
Total Project Cost:	\$1,030,000
Construction Cost:	\$787,391
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### **CIP #** 2-1502B

Pleasant Valley North Pump Station B (east) and Force Main 20-YEAR (2036) IMPROVEMENTS

Bid item	Rid Itom Description	Linit Rid Drice	Quantity	Linit	Total
110.	Durinem Description		Quantity	Unit	10121
1	Pump Station - Mechanical (100 gpm)	\$125,000	1	10	\$125,000
2	Pump Station Electrical	\$50,000	1	_LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	_LS	\$25,000
4	Pump Station - Site Work	\$25.000	1		\$U
5	Emergency Generator	\$25,000	1	15	\$25,000
0	4-Inch Force Main	\$50	2,000		\$100,000 ¢0
/	5-Inch Force Main	\$1E 000	1		ው ሮ15 000
8	72-Inch wetwell	\$15,000	I	EA	\$15,000
9	96-Inch welwell	¢400			
10	8-Inch PVC Gravity Upsize	\$120			
10	10-inch PVC Gravity Upsize	\$130 \$140			\$U \$0
12	12-Inch PVC Gravity Upsize	\$140			\$0
13	15-Inch PVC Gravity Upsize	\$160			\$0
14	18-Inch PVC Gravity Upsize	\$170			\$0
15	21-Inch PVC Gravity Upsize	\$250			\$0
16	24-Inch PVC Gravity Upsize	\$300			<u>\$0</u>
17	30-inch PVC Gravity Upsize	\$330			\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Mannole	\$9,500	0	EA	\$0
21		\$3,000	0	EA	\$0
22	Dewatering	\$20,000		LS	\$0
23	I emporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	2,000		\$20,000
26	HMA Irench Patch	\$175	420	IN	\$73,500
27	Half-Width Grind and Overlay	\$150	0	IN	\$0
28	Imported Trench Backfill	\$25	1,650		\$41,250
29	Crushed Surfacing	\$30	0		\$0
30	I ramic Control (2%)	\$9,000	1	10	\$9,000
31	General Restoration (2%)	\$9,000	1		\$9,000
32	Mobilization (10%)	\$47,000	1		\$47,000
33	Temporary Erosion & Sediment Control (4%)	\$19,000	1	L3	\$19,000
	Construction Costs Subtotal				\$558,750
	Sales Tax @ 8.4%				\$46,935
	Subtotal				\$605,685
	Contingency	30%			\$181,706
	Total Construction Cost				\$787,391
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$118,109
	Administration/Legal (3%)				\$23,622
	Construction Services (7%)				\$55,117
	Property/Easement Acquisition (5%)				\$39,370
					. ,
	TOTAL ESTIMATED PROJECT COST				\$1,023,608
	USE				\$1,030,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet



# W E

Pleasant Valley North Pump Station B (east) and Force Main







# Pleasant Valley North Pump Station C (northeast) and Force Main

Location: Central	Capital Improvement Project 🛛
<b>CIP Number:</b> <u>2-1502C</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program $\Box$
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Pleasant Valley North (2-1502)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

<u>Objective</u>. Provide new Pump Station and Force main to serve the northeastern portion of Pleasant Valley North Mini-Basin.

<u>Scope of Work.</u> New Pump Station with an estimate 2036 peak hour flow of approximately 150 gpm and a 4inch force main in a southerly direction a distance of 2,100 feet then westerly direction a distance 800 feet, then southerly a distance of 1,000 feet. The forecasted 2036 capacity requirements for this pump station is a peak hour flow of approximately 150 gpm. Also 1,200 LF of 8-inch gravity line that is located outside the UGA. There will be no connections to this 8-inch line and consequently, will be a no opportunity for developer contribution.

<u>Project Statistics.</u> Pump station – New submersible Pump Station with a 2036 capacity of 150 gpm and an approximate 50-year capacity of approximately 350 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure. Approximately 3,900 feet of 4-inch force main. Approximately 1,200 LF of 8-inch gravity which conveys flow to the pump station.

## **Photos:** (on the reverse side)

## **Budget Information:**

<u> Project Cost Estimate:</u>	
Total Project Cost:	\$2,310,000
Construction Cost:	\$1,771,364
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

## CIP # 2-1502 C

Pleasant Valley North Pump Station C (Northeast) and Force Main 20-YEAR (2036) IMPROVEMENTS

Bid Item	Pid Item Description	Linit Did Drive	Questitu	فأحال	Tetal
INO.	Big item Description		Quantity	Unit	I OTAI
1	Pump Station - Mechanical (150 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work	<b>*</b> 05.000	1	LS	\$0
5	Emergency Generator	\$25,000	1	LS	\$25,000
6	4-Inch Force Main	\$50	3,900		\$195,000
/		<b>*</b> 15 000			\$0
8	72-Inch wetwell	\$15,000	1	EA	\$15,000
9 10	96-inch wetwell	<b>\$</b> 100	4 000	EA	\$0
10	8-Inch PVC Gravity Upsize	\$120	1,200		\$144,000
11	10-inch PVC Gravity Upsize	\$130			\$0
12	12-inch PVC Gravity Upsize	\$140			\$0
13	15-inch PVC Gravity Upsize	\$160			\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300			\$0
17	30-inch PVC Gravity Upsize	\$330			\$0
18	48-inch Diameter Manhole	\$7,500	6	EA	\$45,000
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	12	EA	\$36,000
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	5,100	LF	\$51,000
26	HMA Trench Patch	\$175	1,060	TN	\$185,500
27	Half-Width Grind and Overlay	\$150	190	IN	\$28,500
28	Imported Trench Backfill	\$25	4,200	IN	\$105,000
29	Crushed Surfacing	\$30	500	IN	\$15,000
30		\$21,000	1	LS	\$21,000
31	General Restoration (2%)	\$21,000	1	LS	\$21,000
32	Mobilization (10%)	\$107,000	1	LS	\$107,000
33	Temporary Erosion & Sediment Control (4%)	\$43,000	1	LS	\$43,000
	Construction Costs Subtotal				\$1,257,000
	Sales Tax @ 8.4%				\$105,588
	Subtotal				\$1,362,588
	Contingency	30%			\$408,776
	Total Construction Cost				\$1,771,364
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$265.705
	Administration/Legal (3%)				\$53,141
	Construction Services (7%)				\$123.996
	Property/Easement Acquisition (5%)				\$88.568
					+,-00
	TOTAL ESTIMATED PROJECT COST				\$2,302,774
	USE				\$2,310,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet




Pleasant Valley North Pump Station C (northeast) and Force Main





20-Year Capital Program Capital Project Profile

# Pleasant Valley North Pump Station D (north) and Force Main

Location: <u>Central</u> CIP Number: <u>2-1502D</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

## Capital Improvement Project 🛛

General Facilities

- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities

GSP Basin: Pleasant Valley North (2-1502)

## **Project Definition:**

<u>Objective.</u> Provide new Pump Station and Force main to serve the northern portion of Pleasant Valley North Mini-Basin.

<u>Scope of Work.</u> New Pump Station with an estimate 2036 peak hour flow of approximately 50 gpm and a 4-inch force main in a easterly direction a distance of 500 feet then southerly direction a distance 1,900 feet.

<u>Project Statistics.</u> Pump station – New submersible Pump Station with a 2036 capacity of 50 gpm and an approximate 50-year capacity of approximately 100 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure. Approximately 2,400 feet of 4-inch force main.

## Photos: (on the reverse side)

## **Budget Information:**

Project Cost Estimate:		
Total Project Cost:		
Construction Cost:		
Basis of Estimate:		
Date of Estimate:		

\$1,160,000 \$884,978 Class 4 est. June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 2-1502D

Pleasant Valley North Pump Station D (North) and Force Main 20-YEAR (2036) IMPROVEMENTS

Bid Item	Pid Itam Deparintion	Linit Pid Drice	Quantity	Linit	Total
10.	Bid item Description		Quantity		101al
1	Pump Station - Mechanical (50 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work	¢25,000	1	_LS	\$U
5	A inch Earce Main	\$25,000	2 400		\$25,000
0	4-Inch Force Main	\$50	2,400		\$120,000
/	0-Inch Force Main	¢15.000	4		<u>ቅሀ</u> ሮ 4 ፫ 000
8	72-Inch wetwell	\$15,000	I	EA	\$15,000
9	96-Inch welweil	¢100			\$U
10	8-Inch PVC Gravity Upsize	\$120			\$0
11	10-inch PVC Gravity Upsize	\$130			\$0
12	12-inch PVC Gravity Upsize	\$140			\$0
13	15-inch PVC Gravity Upsize	\$160			\$0
14	18-inch PVC Gravity Upsize	\$170			\$0
15	21-inch PVC Gravity Upsize	\$250			\$0
16	24-inch PVC Gravity Upsize	\$300			\$0
1/	30-inch PVC Gravity Upsize	\$330			\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	2,400		\$24,000
26	HMA Irench Patch	\$175	500	IN	\$87,500
27	Half-Width Grind and Overlay	\$150	0	IN	\$0
28	Imported Trench Backfill	\$25	1,980	IN	\$49,500
29	Crushed Surfacing	\$30	0		\$0
30	I raffic Control (2%)	\$11,000		LS	\$0
31	General Restoration (2%)	\$11,000	1	LS	\$11,000
32		\$54,000	1	LS	\$54,000
33	Temporary Erosion & Sediment Control (4%)	\$22,000	1	LS	\$22,000
	Construction Costs Subtotal				\$628,000
	Sales Tax @ 8.4%				\$52,752
	Subtotal				\$680,752
	Contingency	30%			\$204,226
	Total Construction Cost				\$884,978
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$132,747
	Administration/Legal (3%)				\$26,549
	Construction Services (7%)				\$61,948
	Property/Easement Acquisition (5%)				\$44,249
					<b>.</b>
	IOTAL ESTIMATED PROJECT COST				\$1,150,471
	USE				\$1,160,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet



# W S E

Pleasant Valley North Pump Station D (north) and Force Main







# Whipple Creek South Pump Station B (west) and Force Main

Location: Central					
CIP Number:	<u>2-1604B</u>				
GL Number:					

Phase: Advanced Planning

Project Manager: Unassigned

## Capital Improvement Project 🛛

- General Facilities
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM □

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Whipple Creek South (2-1604)

## **Project Definition:**

<u>Objective.</u> Provide new Pump Station and Force main to serve the western portion of Whipple Creek South Mini-Basin.

<u>Scope of Work.</u> New Pump Station with an estimate 2036 peak hour flow of approximately 100 gpm and a 4inch force main along NE 154<sup>th</sup> Street. Forecasted 2036 capacity requirements for this Pump Station is a peak hour flow of approximately 100 gpm.

<u>Project Statistics.</u> Pump station – New submersible Pump Station with a 2036 capacity of 100 gpm and an approximate 50-year capacity of approximately 250 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure. Approximately 1,700 feet of 4-inch force main.

## Photos: (on the reverse side)

## **Budget Information:**

Project Cost Estimate:			
Total Project Cost:			
Construction Cost:			
Basis of Estimate:			
Date of Estimate:			

\$1,000,000 \$763,786 Class 4 Est. June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### **CIP #** 2-1604B

Whipple Creek South Pump Station B (west) and Force Main 20-YEAR (2036) IMPROVEMENTS

Bid Item	Pid Itom Description	Lipit Pid Prico	Quantity	Lloit	Total
NU.	Bid item Description		Quantity		10(a)
1	Pump Station - Mechanical (100 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work	<b>*</b>	1	LS	\$0
5	Emergency Generator	\$25,000	1	LS	\$25,000
6	4-Inch Force Main	\$50	1,700		\$85,000
/	6-inch Force Main	<b>A</b> ( <b>a</b> a a a			\$0
8	/2-inch wetwell	\$15,000	1	EA	\$15,000
9	96-inch wetwell	<b>•</b> • • • •		EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	1,700	LF	\$17,000
26	HMA Trench Patch	\$175	360	ΤN	\$63,000
27	Half-Width Grind and Overlay	\$150	0	ΤN	\$0
28	Imported Trench Backfill	\$25	1,400	ΤN	\$35,000
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$9,000	1	LS	\$9,000
31	General Restoration (2%)	\$9,000	1	LS	\$9,000
32	Mobilization (10%)	\$46,000	1	LS	\$46,000
33	Temporary Erosion & Sediment Control (4%)	\$18,000	1	LS	\$18,000
	Construction Costs Subtotal				\$542,000
	Sales Tax @ 8.4%				\$45,528
					<b>*</b>
	Subtotal				\$587,528
	Contingency	30%			\$176,258
	Total Construction Cost				\$763,786
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$117 569
	Administration/Logal (3%)				\$22 Q14
	Construction Services (7%)				422,314 \$52 165
	Property/Fasement Acquisition (5%)				400,400 ¢20,400
	roperty/Lasement Acquisition (3%)				φ <b>30, 10</b> 9
	TOTAL ESTIMATED PROJECT COST				\$992,922
	USE				\$1,000,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet



# W S E

Whipple Creek South Pump Station B (west) and Force Main



## **Clark Regional Wastewater District**



20-Year Capital Program Capital Project Profile

# Whipple Creek East Pump Station E (central) and Force Main

Location: <u>Central</u> CIP Number: <u>2-1605E</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

## Capital Improvement Project 🛛

General Facilities

- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Whipple Creek East (2-1605)

## **Project Definition:**

Objective. Provide new Pump Station and Force main to serve all the Whipple Creek East Mini-Basin.

<u>Scope of Work.</u> New Pump Station with an estimate 2036 peak hour flow of approximately 300 gpm and a 6inch force main. This facility would be located at the intersection of NE 29<sup>th</sup> Avenue and NE 179<sup>th</sup> Street. Forecasted 50-year peak hour flows are approximately 600 gpm.

<u>Project Statistics.</u> Pump station – New submersible Pump Station with a 2036 capacity of 300 gpm, 2300 feet of 6-inch force main, emergency generator, local electrical control panel with weather protected enclosure.

## Photos: (on the reverse side)

Budget Information:		Schedule Information:		
Project Cost Estimate:		<u>Activity</u> <u>Ye</u>		
Total Project Cost:	\$1,330,000	Predesign	TBD	
Construction Cost:	\$1,018,147	Permitting	TBD	
Basis of Estimate:	Class 4 Est.	Real Property/ROW	TBD	
Date of Estimate:	June 2017	Design	TBD	
		Bid	TBD	
		Construction	TBD	

#### CIP # 2-1605E

Whipple Creek East Pump Station (central) and Force Main 20-YEAR (2036) IMPROVEMENTS

Bid Item	Bid Item Description	Unit Bid Price	Quantity	Llnit	Total
1	Bump Station Machanical (200 gpm)	\$150,000	Quantity	1.6	\$150,000
1	Pump Station - Mechanical (300 gpm)	\$150,000	1	10	\$150,000 \$65,000
2	Pump Station Above Grade Structure	\$65,000	1	10	\$05,000
3	Pump Station - Above Grade Structure	\$35,000	1	10	\$35,000 ¢0
4	Fullip Station - Sile Work	\$25 000	1	10	φο Φοε ορο
5	4 inch Earon Main	\$35,000	1	15	\$35,000 \$0
7	4-Incli Force Main	0.92	2 200		00 000 9212
0	72 inch wetwoll	\$00 \$15,000	2,300		\$130,000
0	72-Inch wetwell	\$15,000	I		\$15,000 \$0
9	90-Inch Welwein	¢120			φ <u>0</u>
10		\$120			φ <u>0</u>
12	12 inch PVC Gravity Upsize	\$130 \$140			\$U
12	12-Inch PVC Gravity Upsize	\$140			\$0 \$0
13	19-Inch PVC Gravity Upsize	\$100			\$U
14	21 inch DVC Gravity Upsize	\$170			\$U
10	21-Inch PVC Gravity Upsize	\$250			\$U
10	24-Inch PVC Gravity Upsize	\$300			\$U
17	30-Inch PVC Gravity Opsize	\$33U	0		\$U
18	48-Inch Diameter Manhole	\$7,500	0	EA	\$U
19	54-Inch Diameter Manhole	\$8,500	0	EA	\$U
20		\$9,500	0		\$U
21	Devetering	\$3,000	0		ტე იიი იიე
22	Dewatening	\$20,000	1	LS	\$20,000 ¢0
23	Plug and Can Abandanad Dina	\$5,000			\$U
24	Plug and Cap Abandoned Pipe	\$1,000	2 200	EA	\$U
25	Sheeting, Shoring, Bracing	\$10 \$175	2,300		\$23,000
20	Hill Width Crind and Overlay	\$175 \$175	460		
27	Imported Treach Bookfill		1 000		Φ47 E00
20	Crushed Surfacing	\$20 \$20	1,900		φ47,500 ¢0
29	Troffic Control (29/)	\$30 \$12,000	0		Φ12 000
30	General Restoration (2%)	\$12,000	1	10	\$12,000
22	Mehilization (10%)	\$12,000	1	10	\$12,000
32	Tomporary Erosion & Sodimont Control (49/)	\$01,000	1	10	\$01,000
- 33		\$25,000		LS	\$23,000
	Construction Costs Subtotal				\$722,500
	Sales Tax @ 8.4%				\$60,690
	Subtotal				\$783,190
	Contingency	30%			\$234,957
	Total Construction Cost				\$1,018,147
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$152 722
	Administration/Legal (3%)				\$30 511
	Construction Services (7%)				\$71 270
	Property/Fasement Acquisition (5%)				\$50 Q07
					φ50,907
	TOTAL ESTIMATED PROJECT COST				\$1,323,591
	USE				\$1,330,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet



# W S E

Whipple Creek East Pump Station E (central) and Force Main







# Whipple Creek East Pump Station F (east) and Force Main

Location: <u>Central</u> CIP Number: <u>2-1605F</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

Capital Improvement Project 🛛

General Facilities 🛛

District Installed Infrastructure  $\Box$ 

Septic Elimination Program  $\Box$ 

Developer Reimbursement Program  $\Box$ 

Fleet & Facilities

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Whipple Creek East (2-1605)

## **Project Definition:**

<u>Objective.</u> Provide new Pump Station and Force main to serve the eastern portion of the Whipple Creek East Mini-Basin.

<u>Scope of Work.</u> New Pump Station with an estimate 2036 peak hour flow of approximately 200 gpm and a 4inch force main. This facility would be located at the intersection of Mill Creek and NE 179<sup>th</sup> Street. Forecasted 50-year peak hour flows are approximately 400 gpm.

<u>Project Statistics.</u> Pump station – New submersible Pump Station with a 2036 capacity of 200 gpm, 2,100 feet of 4-inch force main, emergency generator, local electrical control panel with weather protected enclosure.

## Photos: (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$1,070,000 \$817,336 Class 4 Est. June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 2-1605F

Whipple Creek East Pump Station (eastern) and Force Main 20-YEAR (2036) IMPROVEMENTS

Bid Item	) Did Item Deparintion	Linit Did Drive	Overstitu	1.1	Tatal
INO.	Bid item Description	Unit Bid Price	Quantity	Unit	I otal
1	Pump Station - Mechanical (200 gpm)	\$150,000	1	LS	\$150,000
2	Pump Station Electrical	\$65,000	1	LS	\$65,000
3	Pump Station - Above Grade Structure	\$35,000	1	LS	\$35,000
4	Pump Station - Site Work	•	1	LS	\$0
5	Emergency Generator	\$35,000	1	LF	\$35,000
6	4-inch Force Main	\$50	2,100	LF	\$105,000
7	6-inch Force Main	\$60		LF	\$0
8	72-inch wetwell	\$15,000	1	EA	\$15,000
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	2,100	LF	\$21,000
26	HMA Trench Patch	\$175	10	ΤN	\$1,750
27	Half-Width Grind and Overlay	\$150	0	ΤN	\$0
28	Imported Trench Backfill	\$25	1,730	ΤN	\$43,250
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$10,000	1	LS	\$10,000
31	General Restoration (2%)	\$10,000	1	LS	\$10,000
32	Mobilization (10%)	\$49,000	1	LS	\$49,000
33	Temporary Erosion & Sediment Control (4%)	\$20,000	1	LS	\$20,000
	Construction Costs Subtotal				\$580,000
	Sales Tax @ 8.4%				\$48,720
	Subtotal				\$628,720
	Contingency	30%			\$188,616
	Total Construction Cost				\$817,336
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$122,600
	Administration/Legal (3%)				\$24,520
	Construction Services (7%)				\$57,214
	Property/Easement Acquisition (5%)				\$40,867
					¢1 060 507
<u> </u>					¢1,002,037
					<b>Φ1,070,000</b>

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Whipple Creek East Pump Station F (east) and Force Main







# I-5 Corridor (aka 209<sup>th</sup> Street) Pump Station and Force Main

Location: <u>Central</u> CIP Number: <u>2-1606D</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

Capital Improvement Project 🛛

General Facilities 🛛

District Installed Infrastructure  $\Box$ 

Septic Elimination Program  $\Box$ 

Developer Reimbursement Program  $\Box$ 

Fleet & Facilities  $\Box$ 

## Restoration & Replacement Project

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM □

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: I-5 Corridor (2-1606)

## **Project Definition:**

Objective. Provide new Pump Station and Force main to serve the I-5 Corridor mini-basin.

<u>Scope of Work.</u> New Pump Station with an estimate 2036 peak hour flow of approximately 750 gpm and an 8inch force main in an easterly direction a distance of approximately 400 feet. Forecasted 2066 capacity requirements for this Pump Station is a peak hour flow of approximately 1,600 gpm.

<u>Project Statistics.</u> Pump station – New submersible Pump Station with a 2036 capacity of 750 gpm and an approximate 50-year capacity of approximately 1,600 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure. Approximately 400 feet of 8-inch force main.

## Photos: (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$1,040,000 \$795,141 Class 4 Est. June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 2-1606D

I-5 Corridor Pump Station (aka 209th Street PS) and Force Main 20-Year (2036) IMPROVEMENTS

No.         One Data Trace         One Data Trace <thone data="" th="" trace<="">         One Data Trace<th>Bid Item</th><th>Bid Item Description</th><th>Unit Bid Price</th><th>Quantity</th><th>Llnit</th><th>Total</th></thone>	Bid Item	Bid Item Description	Unit Bid Price	Quantity	Llnit	Total
1       Pump Station Flexibility (20 gptn)       \$ 175,000       1       LS       \$ 375,000         3       Pump Station - Above Grade Structure       \$ 100,000       1       LS       \$ \$ 375,000         4       Pump Station - Above Grade Structure       \$ 100,000       1       LS       \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	110.	Burner Station Machanical (350 mm)		Quantity		10tal
2         Pump Station - Rowel Grade Structure         \$17,000         1         LS         \$17,000           4         Pump Station - Site Work         1         LS         \$100,000           4         Pump Station - Site Work         1         LS         \$100,000           6         Emergency Generator         \$40,000         1         LS         \$40,000           6         4-inch Force Main         \$75,000         LF         \$30,000           8         7.8-inch Force Main         \$75,000         LF         \$30,000           9         96-inch wetwell         \$25,000         LF         \$30,000           10         8-inch PVC Gravity Upsize         \$140         LF         \$50           11         10-inch PVC Gravity Upsize         \$160         LF         \$50           12         12-inch PVC Gravity Upsize         \$170         LF         \$50           14         18-inch PVC Gravity Upsize         \$3000         LF         \$50           15         21-inch PVC Gravity Upsize         \$3000         LF         \$50           14         18-inch PVC Gravity Upsize         \$3000         LF         \$50           15         21-inch PVC Gravity Upsize         \$300	1	Pump Station - Mechanical (750 gpm)	\$175,000	1	LS	\$175,000
3         Pump Station - Above Calobis Structure         \$100,000         1         LS         \$100,000           4         Pump Station - Stee Work         1         LS         \$40,000         1         LS         \$40,000           6         Emergency Generator         \$40,000         1         LS         \$40,000           6         4-Inch Force Main         LF         \$00         LF         \$30,000           7         8-Inch Force Main         \$75         400         LF         \$30,000           8         76.nch wetwell         \$25,000         1         EA         \$20,000           10         8-Inch PVC Gravity Upsize         \$130         LF         \$00           11         10-Inch PVC Gravity Upsize         \$140         LF         \$00           13         15-Inch PVC Gravity Upsize         \$130         LF         \$00           14         18-Inch PVC Gravity Upsize         \$130         LF         \$00           15         21-Inch PVC Gravity Upsize         \$130         LF         \$00           16         24-Inch PVC Gravity Upsize         \$130         LF         \$00           16         48-Inch PVC Gravity Upsize         \$3300         LF         \$00 <td>2</td> <td>Pump Station Electrical</td> <td>\$75,000</td> <td>1</td> <td>LS</td> <td>\$75,000</td>	2	Pump Station Electrical	\$75,000	1	LS	\$75,000
4         Pump station - site work         1         L.S         \$40,000           6         4-inch Force Main         LF         \$00           7         8-inch Force Main         \$75         400         LF         \$30,000           8         72-inch wetwell         \$25,000         1         EA         \$20,000           9         96-inch wetwell         \$25,000         1         EA         \$20,000           10         8-inch PVC Gravity Upsize         \$130         LF         \$00           11         10-inch PVC Gravity Upsize         \$160         LF         \$00           13         15-inch PVC Gravity Upsize         \$170         LF         \$00           14         18-inch PVC Gravity Upsize         \$330         LF         \$00           15         21-inch PVC Gravity Upsize         \$330         LF         \$00           16         24-inch PVC Gravity Upsize         \$330         LF         \$00           16         24-inch PVC Gravity Upsize         \$330         LF         \$00           17         30-inch PVC Gravity Upsize         \$330         LF         \$00           16         24-inch PVC Gravity Upsize         \$330         LF         \$00	3	Pump Station - Above Grade Structure	\$100,000	1	LS	\$100,000
s         Emergency Generator         \$40,000         1         LS         \$40,000           6         4-inch Force Main         \$75         400         LF         \$30,000           7         8-inch Force Main         \$75         400         LF         \$30,000           8         7-inch wetwell         \$25,000         1         EA         \$25,000           9         96-inch wetwell         \$25,000         1         EA         \$25,000           10         8-inch PVC Gravity Upsize         \$140         LF         \$90           11         10-inch PVC Gravity Upsize         \$160         LF         \$90           13         15-inch PVC Gravity Upsize         \$250         LF         \$90           14         18-inch PVC Gravity Upsize         \$2300         LF         \$90           16         24-inch PVC Gravity Upsize         \$330         LF         \$90           17         30-inch PVC Gravity Upsize         \$3300         LF         \$90           19         54-inch Diameter Manhole         \$90,500         0         EA         \$90           21         Lateral Connection         \$3,000         EA         \$90           22         Dewatering	4	Pump Station - Site Work	<b>*</b> ( <b>* * *</b>	1	LS	\$0
6         4-inch Force Main         \$75         400         LF         \$30.000           8         72-inch wetwell         EA         \$0.000           9         96-inch wetwell         \$25.000         1         EA         \$20.000           10         8-inch PVC Gravity Upsize         \$120         LF         \$20.000           11         10-inch PVC Gravity Upsize         \$140         LF         \$0.000           12         12-inch PVC Gravity Upsize         \$170         LF         \$0.000           14         18-inch PVC Gravity Upsize         \$170         LF         \$0.000           15         21-inch PVC Gravity Upsize         \$330         LF         \$0.000           16         24-inch PVC Gravity Upsize         \$3300         LF         \$0.000           17         30-inch PVC Gravity Upsize         \$3300         LF         \$0.000           18         48-inch Diameter Manhole         \$7.500         0         EA         \$0.000           10         14-ital Connection         \$3.000         EA         \$0.000         \$0.000         EA         \$0.000           21         Lateral Connection         \$3.000         EA         \$0.000         \$0.000         \$1.5	5	Emergency Generator	\$40,000	1	LS	\$40,000
7       8-inch Proceed Main       \$75       400       LP       \$80,000         8       72-inch wetwell       EA       \$\$0         9       96-inch wetwell       \$\$25,000       1       EA       \$\$25,000         10       8-inch PVC Gravity Upsize       \$\$120       LF       \$\$0         11       10-inch PVC Gravity Upsize       \$\$140       LF       \$\$0         12       12-inch PVC Gravity Upsize       \$\$160       LF       \$\$0         13       15-inch PVC Gravity Upsize       \$\$170       LF       \$\$0         16       24-inch PVC Gravity Upsize       \$\$300       LF       \$\$0         17       30-inch PVC Gravity Upsize       \$\$330       LF       \$\$0         18       48-inch Diameter Manhole       \$\$7,500       0       EA       \$\$0         21       Lateral Connection       \$\$3,000       EA       \$\$0         22       Devatering       \$\$1000       EA       \$\$0         23       Temporary Flow Bypass       \$\$5,000       EA       \$\$0         24       Plug and Cap Abandoned Pipe       \$\$1,000       EA       \$\$0         25       Sheeting, Shoring, Bracing       \$\$10       400       LF	6	4-Inch Force Main	<b>^</b>			\$0
8         72-inch wetwell         EA         \$30           9         96-inch Wetwell         \$25,000         1         EA         \$25,000           10         8-inch PVC Gravity Upsize         \$130         LF         \$30           11         10-inch PVC Gravity Upsize         \$140         LF         \$30           12         12-inch PVC Gravity Upsize         \$140         LF         \$30           13         15-inch PVC Gravity Upsize         \$170         LF         \$30           14         18-inch PVC Gravity Upsize         \$250         LF         \$30           16         24-inch PVC Gravity Upsize         \$330         LF         \$30           17         30-inch PVC Gravity Upsize         \$330         LF         \$30           18         48-inch Diameter Manhole         \$7,500         EA         \$0           20         60-inch Diameter Manhole         \$8,500         EA         \$0           21         Lateral Connection         \$3,000         EA         \$0           22         Dewatering         \$1000         EA         \$0           24         Plug and Cap Abandoned Pipe         \$1,000         EA         \$0           25         She	/	8-Inch Force Main	\$75	400		\$30,000
9         96-inch wetwell         \$25,000         1         EA         \$25,000           10         8-inch PVC Gravity Upsize         \$120         LF         \$0           11         10-inch PVC Gravity Upsize         \$140         LF         \$0           12         12-inch PVC Gravity Upsize         \$160         LF         \$0           13         15-inch PVC Gravity Upsize         \$170         LF         \$0           14         18-inch PVC Gravity Upsize         \$250         LF         \$0           15         21-inch PVC Gravity Upsize         \$330         LF         \$0           16         24-inch PVC Gravity Upsize         \$330         LF         \$0           17         30-inch PVC Gravity Upsize         \$3330         LF         \$0           18         48-inch Diameter Manhole         \$7,500         EA         \$0           20         60-inch Diameter Manhole         \$9,500         EA         \$20           21         Lateral Connection         \$3,000         EA         \$20           22         Devatering         \$10         400         LF         \$4,00           23         Temporary Flow Bypass         \$5000         EA         \$0	8	/2-inch wetwell	<b>*</b>		EA	\$0
10       8-inch PVC Gravity Upsize       \$130       LF       \$00         11       10-inch PVC Gravity Upsize       \$140       LF       \$00         13       15-inch PVC Gravity Upsize       \$170       LF       \$00         14       18-inch PVC Gravity Upsize       \$170       LF       \$00         15       21-inch PVC Gravity Upsize       \$170       LF       \$00         16       24-inch PVC Gravity Upsize       \$330       LF       \$00         16       24-inch PVC Gravity Upsize       \$330       LF       \$00         17       30-inch PVC Gravity Upsize       \$330       LF       \$00         18       48-inch Diameter Manhole       \$25,500       0       EA       \$00         20       60-inch Diameter Manhole       \$30,000       EA       \$00         21       Lateral Connection       \$30,000       EA       \$20,000         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$00         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$00         25       Sheeting, Shoring, Bracing       \$10,000       ILS	9	96-inch wetwell	\$25,000	1	EA	\$25,000
11       10-inch PVC Gravity Upsize       \$140       LF       \$00         12       12-inch PVC Gravity Upsize       \$140       LF       \$0         13       15-inch PVC Gravity Upsize       \$170       LF       \$0         14       18-inch PVC Gravity Upsize       \$250       LF       \$0         15       21-inch PVC Gravity Upsize       \$330       LF       \$0         16       24-inch PVC Gravity Upsize       \$330       LF       \$0         17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$17.500       0       EA       \$0         19       54-inch Diameter Manhole       \$25,500       0       EA       \$0         20       60-inch Diameter Manhole       \$25,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$100       00       EA       \$0         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10	10	8-inch PVC Gravity Upsize	\$120		LF	\$0
12       12-inch PVC Gravity Upsize       \$140       LF       \$30         13       15-inch PVC Gravity Upsize       \$160       LF       \$0         14       18-inch PVC Gravity Upsize       \$250       LF       \$0         15       21-inch PVC Gravity Upsize       \$250       LF       \$0         16       24-inch PVC Gravity Upsize       \$330       LF       \$0         17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$7,500       0       EA       \$0         20       60-inch Diameter Manhole       \$9,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       400       LF       \$4,000         26       HMA Trench Patch       \$175       TN       \$0       71 Half-Width Grind and Overlay       \$150       TN       \$0	11	10-inch PVC Gravity Upsize	\$130		LF	\$0
13       15-inch PVC Gravity Upsize       \$170       LF       \$00         14       18-inch PVC Gravity Upsize       \$170       LF       \$00         15       21-inch PVC Gravity Upsize       \$330       LF       \$00         16       24-inch PVC Gravity Upsize       \$330       LF       \$00         17       30-inch PVC Gravity Upsize       \$330       LF       \$00         18       48-inch Diameter Manhole       \$7,500       0       EA       \$00         20       60-inch Diameter Manhole       \$8,500       0       EA       \$00         21       Lateral Connection       \$3,000       EA       \$00         22       Dewatering       \$20,000       ILS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$00         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$00         25       Sheeting, Shoring, Bracing       \$10       400       LF       \$4,000         26       HMA Trench Patch       \$175       TN       \$00       Traffic Control (2%)       \$10,000       1       LS       \$10,000         27       Half-Width Grind and Overlay       \$10,000       1       <	12	12-inch PVC Gravity Upsize	\$140		LF	\$0
14       18-inch PVC Gravity Upsize       \$250       LF       \$0         15       21-inch PVC Gravity Upsize       \$250       LF       \$0         17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$7,500       0       EA       \$0         19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$8,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$50,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       400       LF       \$4,00         26       HMA Trench Patch       \$175       TN       \$0       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       30       TN       \$0         29       Crushe	13	15-inch PVC Gravity Upsize	\$160		LF	\$0
15       21-inch PVC Gravity Upsize       \$300       LF       \$0         16       24-inch PVC Gravity Upsize       \$300       LF       \$0         17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$7,500       0       EA       \$0         19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       400       LF       \$4,00         26       HMA Trench Patch       \$175       TN       \$0       \$2       Dewatering       \$10,000       1       LS	14	18-inch PVC Gravity Upsize	\$170		LF	\$0
16       24-inch PVC Gravity Upsize       \$300       LF       \$0         17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$7,500       0       EA       \$0         19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$9,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       400       LF       \$4,000         26       HMA Trench Patch       \$175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Crushed Suffacing       \$30       TN       \$8,250         29       Crushed Suffacing       \$10,000       1       LS       \$10,000         30       Traffic Control (2%)	15	21-inch PVC Gravity Upsize	\$250		LF	\$0
17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$7,500       0       EA       \$0         19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$9,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       400       LF       \$4,000         26       HMA Trench Patch       \$175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$22       330       TN       \$2         29       Crushed Surfacing       \$10,000       1       LS       \$10,000         30       Traffic Control (2%)       \$10,000       1       LS       \$10,000         31 <td>16</td> <td>24-inch PVC Gravity Upsize</td> <td>\$300</td> <td></td> <td>LF</td> <td>\$0</td>	16	24-inch PVC Gravity Upsize	\$300		LF	\$0
18       48-inch Diameter Manhole       \$7,500       0       EA       \$0         19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$9,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       400       LF       \$4,000         26       MMA Trench Patch       \$175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$8,20         28       Imported Trench Backfill       \$25       330       TN       \$8,250         29       Crushed Surfacing       \$10,000       1       LS       \$10,000         31       General Restoration (2%)       \$10,000       1       LS       \$10,000         32       Temporary Erosion & Sediment Control (4%)       \$19,000       1       LS       <	17	30-inch PVC Gravity Upsize	\$330		LF	\$0
19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$9,500       0       EA       \$0         21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       400       LF       \$4,000         26       HMA Trench Patch       \$175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       330       TN       \$8,250         29       Crushed Surfacing       \$10,000       1       LS       \$10,000         31       General Restoration (2%)       \$10,000       1       LS       \$10,000         31       General Restoration (2%)       \$19,000       1       LS       \$10,000         33       Temporary Erosion & Sediment Control (4%)       \$19,000       1       LS	18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
20         60-inch Diameter Manhole         \$9,500         0         EA         \$0           21         Lateral Connection         \$3,000         EA         \$0           21         Lateral Connection         \$20,000         1         LS         \$20,000           23         Temporary Flow Bypass         \$5,000         EA         \$0           23         Temporary Flow Bypass         \$5,000         EA         \$0           24         Plug and Cap Abandoned Pipe         \$1,000         EA         \$0           25         Sheeting, Shoring, Bracing         \$10         400         LF         \$4,000           26         HMA Trench Patch         \$175         TN         \$0           27         Half-Width Grind and Overlay         \$150         TN         \$0           28         Imported Trench Backfill         \$25         330         TN         \$8,250           29         Crushed Surfacing         \$10,000         1         LS         \$10,000           30         Traffic Control (2%)         \$10,000         1         LS         \$48,000           31         General Restoration (2%)         \$10,000         1         LS         \$44,000           33	19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
21       Lateral Connection       \$3,000       EA       \$0         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       400       LF       \$\$4,000         26       HMA Trench Patch       \$175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       330       TN       \$8,250         29       Crushed Surfacing       \$10,000       1       LS       \$10,000         30       Traffic Control (2%)       \$10,000       1       LS       \$10,000         32       Mobilization (10%)       \$10,000       1       LS       \$10,000         33       Temporary Erosion & Sediment Control (4%)       \$19,000       1       LS       \$10,000         347,397       Subtotal       \$611,647       \$64,250       \$44,394       \$47,397         Subtotal       \$611,647       \$795,141       \$119,271       \$47,397 <td>20</td> <td>60-inch Diameter Manhole</td> <td>\$9,500</td> <td>0</td> <td>EA</td> <td>\$0</td>	20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
22         Dewatering         \$20,000         1         LS         \$20,000           23         Temporary Flow Bypass         \$5,000         EA         \$0           24         Plug and Cap Abandoned Pipe         \$10         400         LF         \$4,000           25         Sheeting, Shoring, Bracing         \$10         400         LF         \$4,000           26         HMA Trench Patch         \$175         TN         \$0           27         Half-Width Grind and Overlay         \$150         TN         \$0           28         Imported Trench Backfill         \$25         330         TN         \$8,250           29         Crushed Surfacing         \$10,000         1         LS         \$10,000           30         Traffic Control (2%)         \$10,000         1         LS         \$10,000           31         General Restoration (2%)         \$10,000         1         LS         \$10,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$10,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$14,000           347,397         Subtotal         \$611,647	21	Lateral Connection	\$3,000		EA	\$0
23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       400       LF       \$4,000         26       Sheeting, Shoring, Bracing       \$175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       330       TN       \$8,250         29       Crushed Surfacing       \$30       TN       \$8,250         29       Crushed Surfacing       \$10,000       1       LS       \$10,000         30       Traffic Control (2%)       \$10,000       1       LS       \$10,000         31       General Restoration (2%)       \$10,000       1       LS       \$48,000         33       Temporary Erosion & Sediment Control (4%)       \$19,000       1       LS       \$47,397         Subtotal       \$64,250       \$30%       \$183,494       \$641,647         Construction Cost       \$795,141       \$19,271       \$40       \$23,854         Construction Cost       \$795,141       \$23,854       \$23,854         <	22	Dewatering	\$20,000	1	LS	\$20,000
24         Plug and Cap. Abandoned Pipe         \$1,000         EA         \$0           25         Sheeting, Shoring, Bracing         \$10         400         LF         \$4,000           26         HMA Trench Patch         \$175         TN         \$0           27         Half-Width Grind and Overlay         \$150         TN         \$0           28         Imported Trench Backfill         \$25         330         TN         \$8,250           29         Crushed Surfacing         \$330         TN         \$8,250           29         Crushed Surfacing         \$330         TN         \$8,250           29         Crushed Surfacing         \$330         TN         \$8,250           30         Traffic Control (2%)         \$10,000         1         LS         \$10,000           31         General Restoration (2%)         \$10,000         1         LS         \$10,000           32         Mobilization (10%)         \$48,000         1         LS         \$140,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$140,000           33         Temporary Erosion & Sediment Control (4%)         \$10         \$30%         \$134,47,397 <td>23</td> <td>Temporary Flow Bypass</td> <td>\$5,000</td> <td></td> <td>EA</td> <td>\$0</td>	23	Temporary Flow Bypass	\$5,000		EA	\$0
25         Sheeting, Shoring, Bracing         \$10         400         LF         \$4,000           26         HMA Trench Patch         \$175         TN         \$0           27         Half-Width Grind and Overlay         \$150         TN         \$0           28         Imported Trench Backfill         \$25         330         TN         \$8,250           29         Crushed Surfacing         \$30         TN         \$8,250           29         Crushed Surfacing         \$30         TN         \$8,250           30         Traffic Control (2%)         \$10,000         1         LS         \$10,000           31         General Restoration (2%)         \$10,000         1         LS         \$48,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$44,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$47,397           Subtotal         Solotal         \$6611,647         \$133,494         \$147,397           Subtotal         \$113,494         \$143,494         \$143,494         \$23,854           Construction Cost         \$119,271         \$30%         \$23,854         \$23,854	24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
26       HMA Trench Patch       \$175       TN       \$0         27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       330       TN       \$8,250         29       Crushed Surfacing       \$30       TN       \$8,250         29       Crushed Surfacing       \$30       TN       \$8,250         30       Traffic Control (2%)       \$10,000       1       LS       \$10,000         31       General Restoration (2%)       \$10,000       1       LS       \$10,000         32       Mobilization (10%)       \$48,000       1       LS       \$10,000         33       Temporary Erosion & Sediment Control (4%)       \$19,000       1       LS       \$10,000         33       Temporary Erosion & Sediment Control (4%)       \$19,000       1       LS       \$10,000         347,397       Subtotal       \$664,250       \$64,250       \$64,250       \$64,250       \$64,7397         Subtotal       \$611,647       \$000       \$118,494       \$611,647       \$795,141         Allied Costs       Engineering/Survey/Permits (15%)       \$23,854       \$23,854       \$23,854       \$23,854       \$23,854	25	Sheeting, Shoring, Bracing	\$10	400	LF	\$4,000
27       Half-Width Grind and Overlay       \$150       TN       \$0         28       Imported Trench Backfill       \$25       330       TN       \$8,250         29       Crushed Surfacing       \$30       TN       \$8,250         30       Traffic Control (2%)       \$10,000       1       LS       \$10,000         31       General Restoration (2%)       \$10,000       1       LS       \$10,000         32       Mobilization (10%)       \$48,000       1       LS       \$10,000         32       Mobilization (10%)       \$48,000       1       LS       \$10,000         33       Temporary Erosion & Sediment Control (4%)       \$19,000       1       LS       \$19,000         33       Temporary Erosion & Subtotal       \$664,250       \$147,397         Subtotal       \$611,647       \$47,397         Subtotal       \$611,647       \$183,494         Total Construction Cost       \$795,141       \$119,271         Administration/Legal (3%)       \$12,3854       \$23,854         Construction Services (7%)       \$23,854       \$23,854         Property/Easement Acquisition (5%)       \$39,757       \$39,757         TOTAL ESTIMATED PROJECT COST       \$1,033,683 <td>26</td> <td>HMA Trench Patch</td> <td>\$175</td> <td></td> <td>ΤN</td> <td>\$0</td>	26	HMA Trench Patch	\$175		ΤN	\$0
28         Imported Trench Backfill         \$25         330         TN         \$8,250           29         Crushed Surfacing         \$30         TN         \$0           30         Traffic Control (2%)         \$10,000         1         LS         \$10,000           31         General Restoration (2%)         \$10,000         1         LS         \$10,000           32         Mobilization (10%)         \$44,000         1         LS         \$48,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$48,000           33         Temporary Erosion & Subtotal         \$564,250         \$19,000         \$47,397           Subtotal         \$611,647         \$611,647         \$611,647           Construction Costs         \$47,397         \$183,494         \$611,647           Contingency         30%         \$183,494         \$611,647           Allied Costs         \$795,141         \$23,854         \$23,854           Engineering/Survey/Permits (15%)         \$119,271         \$23,854           Administration/Legal (3%)         \$23,854         \$23,854           Construction Services (7%)         \$55,660         \$39,757           Property/Easement Acquisiti	27	Half-Width Grind and Overlay	\$150		ΤN	\$0
29         Crushed Surfacing         \$30         TN         \$0           30         Traffic Control (2%)         \$10,000         1         LS         \$10,000           31         General Restoration (2%)         \$10,000         1         LS         \$10,000           32         Mobilization (10%)         \$48,000         1         LS         \$48,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$48,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$19,000           34         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$19,000           35         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$19,000           36         Construction Costs         \$47,397         \$564,250         \$64,250           Sales Tax @ 8.4%         \$611,647         \$611,647         \$795,141           Allied Costs         \$795,141         \$19,271         \$40ministration/Legal (3%)         \$23,854           Construction Services (7%)         \$55,660         \$39,757         \$39,757           TOTAL ESTIMATED PROJECT COST         \$1,03	28	Imported Trench Backfill	\$25	330	ΤN	\$8,250
30         Traffic Control (2%)         \$10,000         1         LS         \$10,000           31         General Restoration (2%)         \$10,000         1         LS         \$10,000           32         Mobilization (10%)         \$48,000         1         LS         \$48,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$48,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$48,000           34         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$19,000           35         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$19,000           36         Construction Costs Subtotal         \$19,000         1         LS         \$664,250           Subtotal         \$611,647         \$611,647         \$611,647         \$611,647           Contingency         30%         \$183,494         \$612,849         \$612,849           Total Construction Cost         \$795,141         \$119,271         \$140         \$122,854         \$23,854           Construction Services (7%)         \$23,854         \$339,757         \$39,757	29	Crushed Surfacing	\$30		ΤN	\$0
31         General Restoration (2%)         \$10,000         1         LS         \$10,000           32         Mobilization (10%)         \$48,000         1         LS         \$48,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$19,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$19,000           34         Construction Costs Subtotal         \$564,250         \$264,250         \$47,397           Subtotal         \$611,647         \$47,397         \$611,647         \$183,494           Construction Cost         \$611,647         \$183,494         \$795,141           Allied Costs         \$795,141         \$795,141           Allied Costs         \$119,271         \$119,271           Administration/Legal (3%)         \$23,854         \$23,854           Construction Services (7%)         \$55,660         \$39,757           TOTAL ESTIMATED PROJECT COST         \$1,033,683         \$1,033,683	30	Traffic Control (2%)	\$10,000	1	LS	\$10,000
32         Mobilization (10%)         \$48,000         1         LS         \$48,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$19,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$19,000           33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$19,000           34         Construction Costs Subtotal         \$564,250         \$47,397         \$47,397           Subtotal         \$611,647         \$47,397         \$611,647         \$183,494           Total Construction Cost         \$795,141         \$611,647         \$795,141           Allied Costs         \$795,141         \$19,271         \$119,271           Administration/Legal (3%)         \$23,854         \$23,854           Construction Services (7%)         \$55,660         \$39,757           TOTAL ESTIMATED PROJECT COST         \$1,033,683         \$10,33,683	31	General Restoration (2%)	\$10,000	1	LS	\$10,000
33         Temporary Erosion & Sediment Control (4%)         \$19,000         1         LS         \$19,000           Construction Costs Subtotal Sales Tax @ 8.4%         \$564,250         \$564,250         \$47,397           Subtotal Contingency         \$0%         \$183,494         \$611,647         \$183,494           Total Construction Cost         \$795,141         \$795,141         \$795,141           Allied Costs Engineering/Survey/Permits (15%) Administration/Legal (3%) Construction Services (7%) Property/Easement Acquisition (5%)         \$119,271         \$119,271           TOTAL ESTIMATED PROJECT COST         \$1,033,683         \$10,33,683	32	Mobilization (10%)	\$48,000	1	LS	\$48,000
Construction Costs Subtotal         \$564,250           Sales Tax @ 8.4%         \$47,397           Subtotal         \$611,647           Contingency         30%           Total Construction Cost         \$795,141           Allied Costs         \$119,271           Administration/Legal (3%)         \$23,854           Construction Services (7%)         \$55,660           Property/Easement Acquisition (5%)         \$39,757           TOTAL ESTIMATED PROJECT COST         \$1,033,683	33	Temporary Erosion & Sediment Control (4%)	\$19,000	1	LS	\$19,000
Sales Tax @ 8.4%         \$47,397           Subtotal Contingency         \$611,647           Total Construction Cost         \$795,141           Allied Costs         \$795,141           Engineering/Survey/Permits (15%)         \$119,271           Administration/Legal (3%)         \$23,854           Construction Services (7%)         \$55,660           Property/Easement Acquisition (5%)         \$1,033,683		Construction Costs Subtotal				\$564,250
Subtotal Contingency\$611,647 30%Total Construction Cost\$795,141Allied Costs\$795,141Engineering/Survey/Permits (15%) Administration/Legal (3%)\$119,271 \$23,854Construction Services (7%) Property/Easement Acquisition (5%)\$55,660 \$39,757TOTAL ESTIMATED PROJECT COST\$1,033,683		Sales Tax @ 8.4%				\$47,397
Subtotal\$611,647Contingency30%\$183,494Total Construction Cost\$795,141Allied CostsEngineering/Survey/Permits (15%)\$119,271Administration/Legal (3%)\$23,854Construction Services (7%)\$55,660Property/Easement Acquisition (5%)\$39,757TOTAL ESTIMATED PROJECT COST\$1,033,683						
Contingency30%\$183,494Total Construction Cost\$795,141Allied CostsEngineering/Survey/Permits (15%)\$119,271Administration/Legal (3%)\$23,854Construction Services (7%)\$55,660Property/Easement Acquisition (5%)\$39,757TOTAL ESTIMATED PROJECT COST\$1,033,683		Subtotal				\$611,647
Total Construction Cost\$795,141Allied Costs\$119,271Engineering/Survey/Permits (15%)\$119,271Administration/Legal (3%)\$23,854Construction Services (7%)\$55,660Property/Easement Acquisition (5%)\$39,757TOTAL ESTIMATED PROJECT COST\$1,033,683		Contingency	30%			\$183,494
Total Construction Cost\$795,141Allied CostsEngineering/Survey/Permits (15%)\$119,271Administration/Legal (3%)\$23,854Construction Services (7%)\$55,660Property/Easement Acquisition (5%)\$39,757TOTAL ESTIMATED PROJECT COST\$1,033,683						
Allied CostsEngineering/Survey/Permits (15%)\$119,271Administration/Legal (3%)\$23,854Construction Services (7%)\$55,660Property/Easement Acquisition (5%)\$39,757TOTAL ESTIMATED PROJECT COST\$1,033,683		Total Construction Cost				\$795,141
Alled CostsEngineering/Survey/Permits (15%)\$119,271Administration/Legal (3%)\$23,854Construction Services (7%)\$55,660Property/Easement Acquisition (5%)\$39,757TOTAL ESTIMATED PROJECT COST\$1,033,683						
Engineering/Survey/Permits (15%)         \$119,271           Administration/Legal (3%)         \$23,854           Construction Services (7%)         \$55,660           Property/Easement Acquisition (5%)         \$39,757           TOTAL ESTIMATED PROJECT COST         \$1,033,683						<b>A</b> · · · <b>A</b> · · ·
Administration/Legal (3%)       \$23,854         Construction Services (7%)       \$55,660         Property/Easement Acquisition (5%)       \$39,757         TOTAL ESTIMATED PROJECT COST       \$1,033,683		Engineering/Survey/Permits (15%)				\$119,271
Construction Services (7%)       \$55,660         Property/Easement Acquisition (5%)       \$39,757         TOTAL ESTIMATED PROJECT COST       \$1,033,683		Administration/Legal (3%)				\$23,854
Property/Easement Acquisition (5%)       \$39,757         TOTAL ESTIMATED PROJECT COST       \$1,033,683		Construction Services (7%)				\$55,660
TOTAL ESTIMATED PROJECT COST \$1,033,683		Property/Easement Acquisition (5%)				\$39,757
		TOTAL ESTIMATED PROJECT COST				\$1.033.683
USE \$1.040.000		USE				\$1,040.000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





I-5 Corridor (aka NE 209th St) Pump Station and Force Main



## **Clark Regional Wastewater District**



20-Year Capital Program **Capital Project Profile** 

# **Curtin Creek West Pump Station C (east)**

**Location:** Central Capital Improvement Project 🛛 **CIP Number:** 2-1702C General Facilities **GL Number:** District Installed Infrastructure Septic Elimination Program  $\Box$ Developer Reimbursement Program **Phase:** Advanced Planning Fleet & Facilities **Restoration & Replacement Project** Project Manager: Unassigned Restoration & Replacement - Gravity Restoration & Replacement – PS & FM  $\Box$ Restoration & Replacement – Fleet & Facilities □

**GSP Basin:** Curtin Creek West (2-1702)

## **Project Definition:**

Objective. Provide new Pump Station and Force main to serve the eastern portion of Curtin Creek West Mini-Basin.

Scope of Work. The 8-inch force main along NE 119<sup>th</sup> Street has been constructed and installed. Forecasted 2036 capacity requirements for this Pump Station is a peak hour flow of approximately 100 gpm.

Project Statistics. Pump station - New submersible Pump Station with a 2036 capacity of 100 gpm and an approximate 50-year capacity of approximately 250 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure.

## **Photos:** (on the reverse side)

## **Budget Information:**

#### Project Cost Estimate: Total Project Cost: Construction Cost: Basis of Estimate: Date of Estimate:

\$570,000 \$437,486 Class 4 Est. June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 2-1702C

Curtin Creek West Pump Station C (east) 20-YEAR (2036) IMPROVEMENTS

Bid Item	Did liere Description		Quantita	1.1	Tatal
NO.	Bid Item Description	Unit Bid Price	Quantity	Unit	lotal
1	Pump Station - Mechanical (100 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator	\$25,000	1	LS	\$25,000
6	4-inch Force Main	\$50	20	LF	\$1,000
7	6-inch Force Main	\$60		LF	\$0
8	72-inch wetwell	\$15,000	1	EA	\$15,000
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7.500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	FA	\$0
20	60-inch Diameter Manhole	\$9,500	0	FA	\$0
21	Lateral Connection	\$3,000	0	FA	\$0
22	Dewatering	\$20,000	1	IS	\$20,000
23	Temporary Flow Bypass	\$5,000	1	FA	\$0
24	Plug and Can Abandoned Pine	\$1,000		ΕΛ	0 <del>0</del>
25	Sheeting Shoring Bracing	\$10	20		\$200
26	HMA Trench Patch	\$10 \$175	10		\$1 750
20	Half-Width Grind and Overlay	\$175	10		<u>\$1,750</u>
21	Imported Trench Backfill	\$130 \$25	20		ψυ \$500
20	Crushed Surfacing	ψ <u>2</u> 0	20		4300 ¢0
29	Traffic Control (2%)	\$50 \$5 000	1	10	ψυ \$5.000
21	Caparal Postaration (2%)	\$5,000	1	10	\$5,000 \$5,000
20	Mehilization (10%)	\$5,000	1	10	\$0,000 \$00,000
32	Mobilization (10%)	\$20,000	1	L3	\$20,000
33	Temporary Erosion & Sediment Control (4%)	\$11,000	1	L5	\$11,000
	Construction Costs Subtotal				\$310,450
	Sales Tax @ 8.4%				\$26,078
	Subtotal				\$336,528
	Contingency	30%			\$100,958
	с.,				
	Total Construction Cost				\$437,486
	Allied Costs				
	Engineering/Survey/Permits (15%)				<b>¢65 672</b>
	Administration/Legal (3%)				\$13 125
	Construction Services (7%)				¢10,120
	Property/Essement Acquisition (5%)				\$30,024 \$21,071
	r iopeny/Easement Acquisition (5%)				<b>⊅∠1,0/4</b>
	TOTAL ESTIMATED PROJECT COST				\$568 700
					\$000,732
	UJE				\$570,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Curtin Creek West Pump Station C (east)





20-Year Capital Program Capital Project Profile

# Land Bank Pump Station A (South) and Force Main

Location: <u>Ridgefield</u> CIP Number: <u>2-1712A</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

Capital Improvement Project 🛛

General Facilities

- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Land Bank (2-1712)

## **Project Definition:**

Objective. Provide new Pump Station and Force main to serve the Land Bank Mini-Basin.

<u>Scope of Work.</u> Forecasted 2036 capacity requirements for this Pump Station is a peak hour flow of approximately 500 gpm. Potential easement acquisition.

Project Statistics. New 6-inch Force Main for an approximate distance of 1,800 feet.

Pump station – New submersible Pump Station with a 2036 capacity of 500 gpm and an approximate 50-year capacity of approximately 1,100 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure.

## Photos: (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$1,210,000
Construction Cost:	\$929,720
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 2-1712A

Land Bank Pump Station A (South) and Force Main 20-YEAR (2036) IMPROVEMENTS

Bid Item	Pid Itom Description	Linit Rid Price	Quantity	Lloit	Total
INO.	Bid item Description		Quantity	Unit	10181
1	Pump Station - Mechanical (500 gpm)	\$150,000	1	LS	\$150,000
2	Pump Station Electrical	\$65,000	1	LS	\$65,000
3	Pump Station - Above Grade Structure	\$35,000	1	LS	\$35,000
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator	\$35,000	1	LS	\$35,000
6	4-inch Force Main	\$50			\$0
7	6-inch Force Main	\$60	1,800	LF	\$108,000
8	72-inch wetwell	\$15,000		EA	\$0
9	96-inch wetwell	\$25,000	1	EA	\$25,000
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	1,800	LF	\$18,000
26	HMA Trench Patch	\$175	380	ΤN	\$66,500
27	Half-Width Grind and Overlay	\$150	0	ΤN	\$0
28	Imported Trench Backfill	\$25	1,490	ΤN	\$37,250
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$11,000	1	LS	\$11,000
31	General Restoration (2%)	\$11,000	1	LS	\$11,000
32	Mobilization (10%)	\$56,000	1	LS	\$56,000
33	Temporary Erosion & Sediment Control (4%)	\$22,000	1	LS	\$22,000
	Construction Costs Subtotal				\$659,750
	Sales Tax @ 8.4%				\$55,419
	Subtotal				\$715,169
	Contingency	30%			\$214,551
	Total Construction Cost				\$929,720
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$139.458
	Administration/Legal (3%)				\$27,892
	Construction Services (7%)				\$65.080
	Property/Easement Acquisition (5%)				\$46,486
					÷,
	TOTAL ESTIMATED PROJECT COST				\$1,208,636
	USE				\$1,210,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet



# Land Bank Pump Station A (south) and Force Main



## **Clark Regional Wastewater District**



20-Year Capital Program Capital Project Profile

# Land Bank Pump Station B (north) and Force Main

Location: Central	Capital Improvement Project 🖂
<b>CIP Number:</b> <u>2-1712B</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program 🗆
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Land Bank (2-1712)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

<u>Objective</u>. Provide new Pump Station and Force main to serve the northern portion of the Land Bank mini-Basin.

<u>Scope of Work.</u> Forecasted 2036 capacity requirements for this Pump Station is a peak hour flow of approximately 250 gpm. Potential easement acquisition.

Project Statistics. New 4-inch force main for an approximate distance of 5,800 feet.

Pump station – New submersible Pump Station with a 2036 capacity of 250 gpm and an approximate 50-year capacity of approximately 600 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure.

## **Photos:** (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$2,160,000
Construction Cost:	\$1,661,447
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 2-1712B

Land Bank Pump Station B (North) and Force Main 20-YEAR (2036) IMPROVEMENTS

No.         Data failer Deschluion         One bid Price Guarding         On	Bid Item	) Did Item Deparinties	Linit Did Drive	Overstitu	المثلم ال	Tatal
1         Pump Station - Mechanical (250 gpm)         \$150,000         1         LS         \$150,000           2         Pump Station - Above Grade Structure         \$35,000         1         LS         \$35,000           4         Pump Station - Above Grade Structure         \$33,000         1         LS         \$35,000           5         Emergency Generator         \$33,000         1         LS         \$35,000           6         Archo Force Main         \$50         5,800         LF         \$230,000           7         6-inch rotee Main         LF         \$300         1         EA         \$15,000           8         72-inch wetwell         \$120         LF         \$30         1         F         \$00           8         -inch PVC Gravity Upsize         \$130         LF         \$00         1         15-inch PVC Gravity Upsize         \$130         LF         \$00           14         18-inch PVC Gravity Upsize         \$120         LF         \$00         \$14         18-inch PVC Gravity Upsize         \$250         LF         \$00           15         16-inch PVC Gravity Upsize         \$3300         LF         \$00         \$0         \$64         \$50         \$6         \$16         \$250 <td>INO.</td> <td>Bid Item Description</td> <td></td> <td>Quantity</td> <td>Unit</td> <td>I otal</td>	INO.	Bid Item Description		Quantity	Unit	I otal
2         Pump Station - Above Grade Structure         \$35,000         1         LS         \$35,000           4         Pump Station - Site Work         1         LS         \$35,000           5         Emergency Generator         \$35,000         1         LS         \$35,000           6         4-inch Force Main         \$50         5.800         LF         \$290,000           7         6-inch Force Main         \$15,000         1         EA         \$15,000           9         96-inch wetwell         \$15,000         1         EA         \$15,000           10         8-inch PVC Gravity Upsize         \$140         LF         \$00           11         10-inch PVC Gravity Upsize         \$140         LF         \$00           12         12-inch PVC Gravity Upsize         \$170         LF         \$00           13         15-inch PVC Gravity Upsize         \$170         LF         \$00           14         16-inch PVC Gravity Upsize         \$1330         LF         \$00           14         18-inch PVC Gravity Upsize         \$3300         LF         \$00           14         18-inch PVC Gravity Upsize         \$3300         LF         \$00           14         18-in	1	Pump Station - Mechanical (250 gpm)	\$150,000	1	LS	\$150,000
3       Pump Station - Above Grade Structure       \$35,000       1       LS       \$35,000         4       Pump Station - Above Grade Structure       \$35,000       1       LS       \$35,000         6       Emergency Generator       \$35,000       1       LS       \$35,000         7       6-inch Force Main       Sto       LF       \$280,000         7       6-inch Force Main       LF       \$30         10       8-inch PVC Gravity Upsize       \$1130       LF       \$00         11       10-inch PVC Gravity Upsize       \$140       LF       \$00         12       12-inch PVC Gravity Upsize       \$160       LF       \$00         13       15-inch PVC Gravity Upsize       \$1500       LF       \$00         14       18-inch PVC Gravity Upsize       \$3300       LF       \$00         15       21-inch PVC Gravity Upsize       \$3300       LF       \$00         16       24-inch PVC Gravity Upsize       \$3300       LF       \$00         17       30-inch PVC Gravity Upsize       \$35,000       EA       \$00         19       54-inch DVC Gravity Upsize       \$35,000       EA       \$00         10       6-inch Diameter Manhole       <	2	Pump Station Electrical	\$65,000	1	LS	\$65,000
4         Pump Station - Site Work         1         LS         \$30           5         Emergency Generator         \$35,000         1         LS         \$35,000           6         4-inch Force Main         \$50         5,800         LF         \$220,000           9         66-inch wetwell         \$15,000         1         EA         \$15,000           9         96-inch wetwell         EA         \$10         8-inch PVC Gravity Upsize         \$140         LF         \$00           10         10-inch PVC Gravity Upsize         \$140         LF         \$00         11         10-inch PVC Gravity Upsize         \$170         LF         \$00           11         10-inch PVC Gravity Upsize         \$170         LF         \$00         16         24-inch PVC Gravity Upsize         \$170         LF         \$00           16         24-inch PVC Gravity Upsize         \$3300         LF         \$00         16         24-inch PVC Gravity Upsize         \$3300         LF         \$00           16         24-inch PVC Gravity Upsize         \$3300         LF         \$00         16         24-inch PVC Gravity Upsize         \$3300         LF         \$00           10         46-inch Diameter Manhole         \$7,500	3	Pump Station - Above Grade Structure	\$35,000	1	LS	\$35,000
5         Emergency Generator         \$35,000         1         LS         \$35,000           6         4-inch Force Main         LF         \$200.000           7         6-inch Force Main         LF         \$200.000           8         72-inch wetwell         \$15,000         1         EA         \$15,000           9         8-inch PVC Gravity Upsize         \$130         LF         \$90           10         8-inch PVC Gravity Upsize         \$140         LF         \$90           11         10-inch PVC Gravity Upsize         \$160         LF         \$90           13         15-inch PVC Gravity Upsize         \$170         LF         \$90           14         18-inch PVC Gravity Upsize         \$250         LF         \$90           15         21-inch PVC Gravity Upsize         \$3300         LF         \$90           16         24-inch PVC Gravity Upsize         \$3300         LF         \$90           18         48-inch Diameter Manhole         \$9,500         0         EA         \$90           19         54-inch Diameter Manhole         \$9,000         1         LS         \$20,000           20         Bewatering         \$100         0.00         EA	4	Pump Station - Site Work		1	LS	\$0
6       4-inch Force Main       \$50       5,800       LF       \$20,000         8       72-inch wetwell       EA       \$15,000       1       EA       \$15,000         9       96-inch wetwell       EA       \$00       \$100       8-inch PVC Gravity Upsize       \$120       LF       \$00         11       10-inch PVC Gravity Upsize       \$130       LF       \$00       \$11       \$10-inch PVC Gravity Upsize       \$140       LF       \$00         12       12-inch PVC Gravity Upsize       \$170       LF       \$00       \$00       LF       \$00         14       18-inch PVC Gravity Upsize       \$170       LF       \$00       \$00       LF       \$00         15       21-inch PVC Gravity Upsize       \$3300       LF       \$00       \$00       \$00       \$00       \$00       \$00       \$00       \$16       \$4-inch Diameter Manhole       \$7,500       0       EA       \$00       \$120	5	Emergency Generator	\$35,000	1	LS	\$35,000
7       6-inch Vetze Main       LF       \$00         8       72-inch wetwell       \$15,000       1       EA       \$10         9       96-inch wetwell       EA       \$10       B-inch PVC Gravity Upsize       \$110       LF       \$00         10       8-inch PVC Gravity Upsize       \$110       LF       \$00         11       10-inch PVC Gravity Upsize       \$140       LF       \$00         12       12-inch PVC Gravity Upsize       \$160       LF       \$00         13       15-inch PVC Gravity Upsize       \$170       LF       \$00         14       18-inch PVC Gravity Upsize       \$300       LF       \$00         15       21-inch PVC Gravity Upsize       \$300       LF       \$00         16       24-inch Diameter Manhole       \$7,500       0       EA       \$00         19       54-inch Diameter Manhole       \$9,500       0       EA       \$00         21       Lateral Connection       \$3,000       0       EA       \$00         22       Dewatering       \$10       5,000       EA       \$00         23       Temporary Flow Bypass       \$5,000       EA       \$00         24       Plu	6	4-inch Force Main	\$50	5,800		\$290,000
8       72-inch wetwell       EA       \$15,000       1       EA       \$15,000         10       8-inch PVC Gravity Upsize       \$120       LF       \$00         11       10-inch PVC Gravity Upsize       \$130       LF       \$00         12       12-inch PVC Gravity Upsize       \$140       LF       \$00         13       15-inch PVC Gravity Upsize       \$110       LF       \$00         14       18-inch PVC Gravity Upsize       \$120       LF       \$00         15       21-inch PVC Gravity Upsize       \$120       LF       \$00         16       24-inch PVC Gravity Upsize       \$250       LF       \$00         17       30-inch PVC Gravity Upsize       \$300       LF       \$00         18       48-inch Diameter Manhole       \$250.00       EA       \$00         20       60-inch Diameter Manhole       \$8,500       0       EA       \$00         21       Lateral Connection       \$3,000       EA       \$00         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$00         24       Plug and Cap Abandoned Pipe       \$1,0	(	6-inch Force Main				\$0
g       Be-inch wetwell       EA       \$00         10       8-inch PVC Gravity Upsize       \$120       LF       \$00         11       10-inch PVC Gravity Upsize       \$140       LF       \$00         12       12-inch PVC Gravity Upsize       \$140       LF       \$00         13       15-inch PVC Gravity Upsize       \$160       LF       \$00         14       18-inch PVC Gravity Upsize       \$1250       LF       \$00         15       21-inch PVC Gravity Upsize       \$250       LF       \$00         16       24-inch PVC Gravity Upsize       \$330       LF       \$00         17       30-inch Ver Gravity Upsize       \$330       LF       \$00         18       48-inch Diameter Manhole       \$7,500       0       EA       \$00         20       60-inch Diameter Manhole       \$9,500       0       EA       \$00         21       Lateral Connection       \$3,000       0       EA       \$00         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$510       5.000       EA       \$00         24       Plug and Cap Abandoned Pipe       \$110	8	/2-inch wetwell	\$15,000	1	EA	\$15,000
10       8-inch PVC Gravity Upsize       \$130       LF       \$00         11       10-inch PVC Gravity Upsize       \$140       LF       \$00         13       15-inch PVC Gravity Upsize       \$140       LF       \$00         14       18-inch PVC Gravity Upsize       \$140       LF       \$00         15       21-inch PVC Gravity Upsize       \$170       LF       \$00         16       24-inch PVC Gravity Upsize       \$330       LF       \$00         16       24-inch PVC Gravity Upsize       \$330       LF       \$00         17       30-inch PVC Gravity Upsize       \$330       LF       \$00         18       48-inch Diameter Manhole       \$7,500       0       EA       \$00         20       60-inch Diameter Manhole       \$3,000       0       EA       \$00         21       Lateral Connection       \$3,000       0       EA       \$00         22       Dewatering       \$20,000       1       LS       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$00       \$2       \$20,000       1       LS       \$20,000       1       LS       \$20,000       1<	9	96-inch wetwell	<b>A</b>		EA	\$0
11       10-inch PVC Gravity Upsize       \$140       LF       \$00         12       12-inch PVC Gravity Upsize       \$140       LF       \$00         13       15-inch PVC Gravity Upsize       \$170       LF       \$00         14       18-inch PVC Gravity Upsize       \$250       LF       \$00         15       21-inch PVC Gravity Upsize       \$330       LF       \$00         16       24-inch PVC Gravity Upsize       \$330       LF       \$00         17       30-inch PVC Gravity Upsize       \$330       LF       \$00         18       48-inch Diameter Manhole       \$17,500       0       EA       \$00         10       60-inch Diameter Manhole       \$25,500       0       EA       \$00         21       Lateral Connection       \$3000       0       EA       \$00         22       Dewatering       \$100       5.8000       EA       \$00         23       Temporary Flow Bypass       \$100       0       EA       \$00         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$00       14       \$211,750         25       Sheeting, Shoring, Bracing       \$30       0       TN       \$211,750	10	8-inch PVC Gravity Upsize	\$120		LF	\$0
12       12-inch PVC Gravity Upsize       \$140       LF       \$00         13       15-inch PVC Gravity Upsize       \$160       LF       \$00         14       18-inch PVC Gravity Upsize       \$250       LF       \$00         15       21-inch PVC Gravity Upsize       \$2300       LF       \$00         16       24-inch PVC Gravity Upsize       \$330       LF       \$00         17       30-inch PVC Gravity Upsize       \$330       LF       \$00         18       48-inch Diameter Manhole       \$25,500       0       EA       \$00         20       60-inch Diameter Manhole       \$30,000       EA       \$00         21       Lateral Connection       \$30,000       EA       \$00         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$00         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$00         25       Sheeting, Shoring, Bracing       \$10       5,800       LF       \$58,000         26       HMA Trench Patch       \$175       1,210       TN       \$21,750         27       Halt-Width Grind and Overlay <td>11</td> <td>10-inch PVC Gravity Upsize</td> <td>\$130</td> <td></td> <td>LF</td> <td>\$0</td>	11	10-inch PVC Gravity Upsize	\$130		LF	\$0
13       15-inch PVC Gravity Upsize       \$160       LF       \$00         14       18-inch PVC Gravity Upsize       \$170       LF       \$00         15       21-inch PVC Gravity Upsize       \$250       LF       \$00         16       24-inch PVC Gravity Upsize       \$330       LF       \$00         17       30-inch PVC Gravity Upsize       \$330       LF       \$00         18       48-inch Diameter Manhole       \$7,500       0       EA       \$00         19       54-inch Diameter Manhole       \$8,500       0       EA       \$00         20       60-inch Diameter Manhole       \$8,500       0       EA       \$00         21       Lateral Connection       \$3,000       0       EA       \$00         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$00         24       Plug and Cap Abandoned Pipe       \$110       5,800       LF       \$58,000         26       HMA Trench Patch       \$175       1,210       TN       \$211,750         27       Half-Width Grind and Overlay       \$150       0       TN       \$20,000 <td>12</td> <td>12-inch PVC Gravity Upsize</td> <td>\$140</td> <td></td> <td>LF</td> <td>\$0</td>	12	12-inch PVC Gravity Upsize	\$140		LF	\$0
14       18-inch PVC Gravity Upsize       \$170       LF       \$00         15       21-inch PVC Gravity Upsize       \$250       LF       \$00         16       24-inch PVC Gravity Upsize       \$300       LF       \$00         18       48-inch Diameter Manhole       \$7,500       0       EA       \$00         19       54-inch Diameter Manhole       \$8,500       0       EA       \$00         20       60-inch Diameter Manhole       \$9,500       0       EA       \$00         21       Lateral Connection       \$3,000       0       EA       \$00         23       Temporary Flow Bypass       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$10       5,800       EA       \$00         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$00         25       Sheeting, Shoring, Bracing       \$10       5,800       LF       \$58,000         26       HMA Trench Patch       \$175       1,210       TN       \$211,750         27       Half-Width Grind and Overlay       \$150       0       TN       \$00         29       Crushed Surfacing       \$30       0       T	13	15-inch PVC Gravity Upsize	\$160		LF	\$0
15       21-inch PVC Gravity Upsize       \$250       LF       \$00         16       24-inch PVC Gravity Upsize       \$300       LF       \$00         17       30-inch PVC Gravity Upsize       \$330       LF       \$00         18       48-inch Diameter Manhole       \$7,500       0       EA       \$00         19       54-inch Diameter Manhole       \$8,500       0       EA       \$00         20       60-inch Diameter Manhole       \$9,500       0       EA       \$00         21       Lateral Connection       \$3,000       0       EA       \$00         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$00         24       Plug and Cap Abandoned Pipe       \$1,00       EA       \$00         25       Sheeting, Shoring, Bracing       \$10       5,800       LF       \$58,000         26       HMA Trench Patch       \$175       1,210       TN       \$211,750         27       Half-Width Grind and Overlay       \$150       0       TN       \$20,000         28       Imported Trench Backfill       \$220,000       1       LS <t< td=""><td>14</td><td>18-inch PVC Gravity Upsize</td><td>\$170</td><td></td><td>LF</td><td>\$0</td></t<>	14	18-inch PVC Gravity Upsize	\$170		LF	\$0
16       24-inch PVC Gravity Upsize       \$300       LF       \$00         17       30-inch PVC Gravity Upsize       \$330       LF       \$00         18       48-inch Diameter Manhole       \$7,500       0       EA       \$00         19       54-inch Diameter Manhole       \$8,500       0       EA       \$00         20       60-inch Diameter Manhole       \$9,500       0       EA       \$00         21       Lateral Connection       \$33,000       0       EA       \$00         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$00         24       Plug and Cap Abandoned Pipe       \$11,000       EA       \$00         25       Sheeting, Shoring, Bracing       \$15       1,210       TN       \$21,175         27       Half-Width Grind and Overlay       \$150       0       TN       \$21,175         28       Imported Tench Backfill       \$25       4,770       N       \$119,250         29       Crushed Surfacing       \$30       0       TN       \$20,000         30       Traffic Control (2%)       \$20,000       1       LS	15	21-inch PVC Gravity Upsize	\$250		LF	\$0
17       30-inch PVC Gravity Upsize       \$330       LF       \$0         18       48-inch Diameter Manhole       \$7,500       0       EA       \$0         20       60-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$9,500       0       EA       \$0         21       Lateral Connection       \$3,000       0       EA       \$0         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,500       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       5,800       LF       \$58,000         26       HMA Trench Patch       \$1175       1,210       TN       \$211,250         27       Half-Width Grind and Overlay       \$150       0       TN       \$0         28       Imported Trench Backfill       \$22       4,770       TN       \$119,250         29       Crushed Surfacing       \$20,000       1       LS       \$20,000         30       Traffic Control (2%)       \$20,000       1	16	24-inch PVC Gravity Upsize	\$300		LF	\$0
18       48-inch Diameter Manhole       \$7,500       0       EA       \$0         19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$3,000       0       EA       \$0         21       Lateral Connection       \$3,000       0       EA       \$0         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       5,800       LF       \$58,000         26       HMA Trench Patch       \$175       1,210       TN       \$211,750         27       Half-Width Grind and Overlay       \$150       0       TN       \$20         29       Crushed Surfacing       \$30       0       TN       \$20         29       Crushed Surfacing       \$20,000       1       LS       \$20,000         20       Mobilization (10%)       \$100,000       1       LS       \$20,000         20       Mobilization (10%)       \$40,000       1	17	30-inch PVC Gravity Upsize	\$330		LF	\$0
19       54-inch Diameter Manhole       \$8,500       0       EA       \$0         20       60-inch Diameter Manhole       \$9,500       0       EA       \$0         21       Lateral Connection       \$3,000       0       EA       \$0         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       5,800       LF       \$56,000         26       HMA Trench Patch       \$175       1,210       TN       \$211,750       TN       \$211,750         27       Half-Width Grind and Overlay       \$150       0       TN       \$20,000       1       LS       \$220,000         28       Imported Trench Backfill       \$25       4,770       TN       \$119,250         29       Crushed Surfacing       \$20,000       1       LS       \$20,000         30       Traffic Control (2%)       \$20,000       1       LS       \$20,000         31       General Restoration (2%)       \$20,000       1       LS <td< td=""><td>18</td><td>48-inch Diameter Manhole</td><td>\$7,500</td><td>0</td><td>EA</td><td>\$0</td></td<>	18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
20       60-inch Diameter Manhole       \$9,500       0       EA       \$0         21       Lateral Connection       \$3,000       0       EA       \$0         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$10       5,800       LF       \$58,000         25       Sheeting, Shoring, Bracing       \$10       5,800       LF       \$58,000         26       HMA Trench Patch       \$115       1,210       TN       \$211,750         27       Half-Width Grind and Overlay       \$150       0       TN       \$10,255         28       Imported Trench Backfill       \$25       4,770       TN       \$119,250         29       Crushed Surfacing       \$30       0       TN       \$0         30       Traffic Control (2%)       \$20,000       1       LS       \$20,000         31       General Restoration (2%)       \$20,000       1       LS       \$10,000         32       Mobilization (10%)       \$10,000       1       LS       \$40,000         33       Temporary Erosin & Sedimen	19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
21       Lateral Connection       \$3,000       0       EA       \$0         22       Dewatering       \$20,000       1       LS       \$20,000         23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       5,800       LF       \$56,000         26       HMA Trench Patch       \$175       1,210       TN       \$211,750         27       Half-Width Grind and Overlay       \$150       0       TN       \$20         28       Imported Trench Backfill       \$25       4,770       TN       \$119,250         29       Crushed Surfacing       \$20,000       1       LS       \$20,000         30       Traffic Control (2%)       \$20,000       1       LS       \$20,000         31       General Restoration (2%)       \$20,000       1       LS       \$20,000         32       Mobilization (10%)       \$100,000       1       LS       \$40,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         Subtotal       Subtotal	20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
22         Dewatering         \$20,000         1         LS         \$20,000           23         Temporary Flow Bypass         \$5,000         EA         \$0           24         Plug and Cap Abandoned Pipe         \$1,000         EA         \$0           25         Sheeting, Shoring, Bracing         \$10         5,800         LF         \$58,000           26         HMA Trench Patch         \$175         1,210         TN         \$211,750           27         Half-Width Grind and Overlay         \$150         0         TN         \$20           28         Imported Trench Backfill         \$25         4,770         TN         \$119,250           29         Crushed Surfacing         \$30         0         TN         \$0           30         Traffic Control (2%)         \$20,000         1         LS         \$20,000           32         Mobilization (10%)         \$20,000         1         LS         \$100,000           33         Temporary Erosion & Sediment Control (4%)         \$40,000         1         LS         \$40,000           34         Mobilization (10%)         \$40,000         1         LS         \$40,000         \$11         LS         \$40,000         \$33 <td< td=""><td>21</td><td>Lateral Connection</td><td>\$3,000</td><td>0</td><td>EA</td><td>\$0</td></td<>	21	Lateral Connection	\$3,000	0	EA	\$0
23       Temporary Flow Bypass       \$5,000       EA       \$0         24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$0         25       Sheeting, Shoring, Bracing       \$10       5,800       LF       \$\$5,000         26       HMA Trench Patch       \$1175       1,210       TN       \$\$211,750         27       Half-Width Grind and Overlay       \$150       0       TN       \$\$0         28       Imported Trench Backfill       \$\$25       4,770       TN       \$\$119,250         29       Crushed Surfacing       \$\$30       0       TN       \$\$0         30       Traffic Control (2%)       \$\$20,000       1       LS       \$\$20,000         31       General Restoration (2%)       \$\$100,000       1       LS       \$\$20,000         32       Mobilization (10%)       \$100,000       1       LS       \$\$100,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$1,179,000         Sales Tax @ 8.4%       \$99,036       \$1,278,036       \$1,278,036       \$1,61,447	22	Dewatering	\$20,000	1	LS	\$20,000
24       Plug and Cap Abandoned Pipe       \$1,000       EA       \$00         25       Sheeting, Shoring, Bracing       \$10       5,800       LF       \$58,000         26       HMA Trench Patch       \$175       1,210       TN       \$211,750         27       Half-Width Grind and Overlay       \$150       0       TN       \$20         28       Imported Trench Backfill       \$225       4,770       TN       \$119,250         29       Crushed Surfacing       \$30       0       TN       \$10         30       Traffic Control (2%)       \$20,000       1       LS       \$20,000         32       Mobilization (10%)       \$100,000       1       LS       \$20,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         34       Subtotal       \$1,779,000       \$338,411       \$1,779,000       \$338,411         Total Construction Cost       \$1,661,447         Allied Costs       \$49,843       \$49,843       \$49,843         Construction Services (7%)       \$49,843       \$49,843 <td>23</td> <td>Temporary Flow Bypass</td> <td>\$5,000</td> <td></td> <td>EA</td> <td>\$0</td>	23	Temporary Flow Bypass	\$5,000		EA	\$0
25       Sheeting, Shoring, Bracing       \$10       5,800       LF       \$\$86,000         26       HMA Trench Patch       \$175       1,210       TN       \$\$211,750         27       Half-Width Grind and Overlay       \$150       0       TN       \$00         28       Imported Trench Backfill       \$25       4,770       TN       \$119,250         29       Crushed Surfacing       \$30       0       TN       \$00         30       Traffic Control (2%)       \$20,000       1       LS       \$20,000         31       General Restoration (2%)       \$20,000       1       LS       \$20,000         32       Mobilization (10%)       \$100,000       1       LS       \$20,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         34       General Restoration Costs Subtotal       \$1,278,036       \$11,179,000       \$383,411         Total Construction Cost       \$1,661,447         Allied Costs       Engineering/Survey/Permits (15%)       \$249,217       \$49,843         Construction Services (7%)<	24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
26       HMA Trench Patch       \$175       1,210       TN       \$211,750         27       Half-Wildth Grind and Overlay       \$150       0       TN       \$0         28       Imported Trench Backfill       \$25       4,770       TN       \$119,250         29       Crushed Surfacing       \$30       0       TN       \$0         30       Traffic Control (2%)       \$20,000       1       LS       \$20,000         31       General Restoration (2%)       \$20,000       1       LS       \$20,000         32       Mobilization (10%)       \$100,000       1       LS       \$40,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         Sales Tax @ 8.4%       \$1,179,000       \$40,000       1       LS       \$40,000         Subtotal       \$1,278,036       \$1,278,036       \$1,278,036       \$1,278,036       \$1,661,447         Allied Costs       Engineering/Survey/Permits (15%)       \$249,217       \$49,843       \$49,843       \$49,843       \$49,843       \$49,843       \$20,921       \$49,843	25	Sheeting, Shoring, Bracing	\$10	5,800	LF	\$58,000
27       Half-Width Grind and Overlay       \$150       0       TN       \$0         28       Imported Trench Backfill       \$25       4,770       TN       \$119,250         29       Crushed Surfacing       \$30       0       TN       \$0         30       Traffic Control (2%)       \$20,000       1       LS       \$20,000         31       General Restoration (2%)       \$20,000       1       LS       \$20,000         32       Mobilization (10%)       \$100,000       1       LS       \$20,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         34       Construction Costs Subtotal       \$1,179,000       \$40,000       1       LS       \$40,000         Subtotal       Contingency       30%       \$1,278,036       \$1,278,036       \$1,278,036       \$249,217         Administration/Legal (3%)       Subtotal       \$1,661,447       \$49,843       \$49,843       \$49,843       \$49,843       \$49,843       \$49,843       \$49,843       \$49,843       \$49,843       \$49,843       \$49,843       \$49,843	26	HMA Trench Patch	\$175	1,210	TN	\$211,750
28         Imported Trench Backfill         \$25         4,770         TN         \$119,250           29         Crushed Surfacing         \$30         0         TN         \$0           30         Traffic Control (2%)         \$20,000         1         LS         \$20,000           31         General Restoration (2%)         \$20,000         1         LS         \$20,000           32         Mobilization (10%)         \$100,000         1         LS         \$20,000           33         Temporary Erosion & Sediment Control (4%)         \$40,000         1         LS         \$40,000           33         Temporary Erosion & Subtotal         \$100,000         1         LS         \$40,000           34         Temporary Erosion & Sediment Control (4%)         \$40,000         1         LS         \$40,000           35         Subtotal         \$1,778,036         \$1,278,036         \$1,278,036         \$333,411           Total Construction Cost         \$1,661,447         \$1,661,447         \$40         \$49,843         \$249,217           Administration/Legal (3%)         \$49,843         \$49,843         \$49,843         \$30,72         \$49,843           Property/Easement Acquisition (5%)         \$83,072         \$83,072         <	27	Half-Width Grind and Overlay	\$150	0	TN	\$0
29       Crushed Surfacing       \$30       0       TN       \$0         30       Traffic Control (2%)       \$20,000       1       LS       \$20,000         31       General Restoration (2%)       \$100,000       1       LS       \$20,000         32       Mobilization (10%)       \$100,000       1       LS       \$100,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         34       Construction Costs Subtotal       \$1,179,000       \$1,179,000       \$1,278,036         Contingency       30%       \$383,411       \$1,278,036       \$1,278,036         Contingency       30%       \$1,661,447       \$1,661,447         Allied Costs       \$1,661,447       \$1,661,447         Allied Costs       \$49,843       \$49,843       \$49,843         Construction Services (7%)       \$116,301       \$49,843         Property/Easement Acquisition (5%)       \$2,159,881       \$2,159,881         USE       USE       \$2,160,000       \$2,160,000	28	Imported Trench Backfill	\$25	4,770	TN	\$119,250
30       Traffic Control (2%)       \$20,000       1       LS       \$20,000         31       General Restoration (2%)       \$20,000       1       LS       \$20,000         32       Mobilization (10%)       \$100,000       1       LS       \$100,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         33       Temporary Erosion & Subtotal       \$1100,000       1       LS       \$40,000         Sales Tax @ 8.4%       \$99,036       \$99,036       \$99,036         Subtotal       \$1,278,036       \$99,036       \$99,036         Construction Cost       \$1,661,447       \$1,661,447         Allied Costs       \$1,661,447       \$1,661,447         Allied Costs       \$1,661,447       \$249,217         Administration/Legal (3%)       \$49,843       \$49,843         Construction Services (7%)       \$116,301       \$49,843         Property/Easement Acquisition (5%)       \$2,159,881       \$2,159,881         USE       S2 160 000       \$2,159,881	29	Crushed Surfacing	\$30	0	TN	\$0
31       General Restoration (2%)       \$20,000       1       LS       \$20,000         32       Mobilization (10%)       \$100,000       1       LS       \$100,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         34       Construction Costs Subtotal       \$1,179,000       \$1,179,000       \$99,036         Subtotal       Subtotal       \$1,278,036       \$99,036         Contingency       30%       \$1,661,447         Allied Costs       \$1,661,447         Engineering/Survey/Permits (15%)       \$249,217         Administration/Legal (3%)       \$449,843         Construction Services (7%)       \$116,301         Property/Easement Acquisition (5%)       \$2,159,881         USE       USE       \$2,159,881	30	Traffic Control (2%)	\$20,000	1	LS	\$20,000
32       Mobilization (10%)       \$100,000       1       LS       \$100,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         33       Temporary Erosion & Sediment Control (4%)       \$40,000       1       LS       \$40,000         34       Construction Costs Subtotal       \$1,179,000       \$99,036       \$99,036         Subtotal       Contingency       30%       \$1,278,036         Contingency       30%       \$383,411         Total Construction Cost       \$1,661,447         Allied Costs       \$1,661,447         Engineering/Survey/Permits (15%)       \$249,217         Administration/Legal (3%)       \$49,843         Construction Services (7%)       \$116,301         Property/Easement Acquisition (5%)       \$83,072         TOTAL ESTIMATED PROJECT COST       \$2,159,881	31	General Restoration (2%)	\$20,000	1	LS	\$20,000
33         Temporary Erosion & Sediment Control (4%)         \$40,000         1         LS         \$40,000           Construction Costs Subtotal Sales Tax @ 8.4%         \$1,179,000         \$99,036         \$99,036           Subtotal Contingency         \$1,278,036         \$1,278,036         \$383,411           Total Construction Cost         \$1,661,447         \$1,661,447           Allied Costs Engineering/Survey/Permits (15%) Administration/Legal (3%) Construction Services (7%)         \$249,217           Administration /Legal (3%) Construction Services (7%)         \$116,301           Property/Easement Acquisition (5%)         \$83,072           TOTAL ESTIMATED PROJECT COST         \$2,159,881	32	Mobilization (10%)	\$100,000	1	LS	\$100,000
Construction Costs Subtotal         \$1,179,000           Sales Tax @ 8.4%         \$99,036           Subtotal         \$1,278,036           Contingency         30%         \$383,411           Total Construction Cost         \$1,661,447           Allied Costs         \$1,661,447           Engineering/Survey/Permits (15%)         \$249,217           Administration/Legal (3%)         \$49,843           Construction Services (7%)         \$116,301           Property/Easement Acquisition (5%)         \$83,072           TOTAL ESTIMATED PROJECT COST         \$2,159,881           USE         \$2460,000	33	Temporary Erosion & Sediment Control (4%)	\$40,000	1	LS	\$40,000
Sales Tax @ 8.4%       \$99,036         Subtotal       \$1,278,036         Contingency       30%       \$383,411         Total Construction Cost       \$1,661,447         Allied Costs       \$1,661,447         Engineering/Survey/Permits (15%)       \$249,217         Administration/Legal (3%)       \$49,843         Construction Services (7%)       \$116,301         Property/Easement Acquisition (5%)       \$83,072         TOTAL ESTIMATED PROJECT COST       \$2,159,881         USE       \$2 160 000		Construction Costs Subtotal				\$1,179,000
Subtotal \$1,278,036 Contingency 30% \$383,411 Total Construction Cost \$1,661,447 Allied Costs Engineering/Survey/Permits (15%) \$249,217 Administration/Legal (3%) \$249,217 Administration/Legal (3%) \$449,843 Construction Services (7%) \$116,301 Property/Easement Acquisition (5%) \$83,072 TOTAL ESTIMATED PROJECT COST \$2,159,881 USE \$2 160 000		Sales Tax @ 8.4%				\$99,036
Subtotal\$1,278,036Contingency30%\$383,411Total Construction Cost\$1,661,447Allied Costs\$249,217Engineering/Survey/Permits (15%)\$249,217Administration/Legal (3%)\$44,843Construction Services (7%)\$116,301Property/Easement Acquisition (5%)\$83,072TOTAL ESTIMATED PROJECT COST\$2,159,881USE						
Contingency30%\$383,411Total Construction Cost\$1,661,447Allied Costs\$249,217Engineering/Survey/Permits (15%)\$249,217Administration/Legal (3%)\$49,843Construction Services (7%)\$116,301Property/Easement Acquisition (5%)\$23,072TOTAL ESTIMATED PROJECT COST\$2,159,881USE		Subtotal				\$1,278,036
Total Construction Cost\$1,661,447Allied Costs\$249,217Engineering/Survey/Permits (15%)\$249,217Administration/Legal (3%)\$49,843Construction Services (7%)\$116,301Property/Easement Acquisition (5%)\$83,072TOTAL ESTIMATED PROJECT COST\$2,159,881USE\$2 160 000		Contingency	30%			\$383,411
Total Construction Cost\$1,661,447Allied CostsEngineering/Survey/Permits (15%)\$249,217Administration/Legal (3%)\$49,843Construction Services (7%)\$116,301Property/Easement Acquisition (5%)\$83,072TOTAL ESTIMATED PROJECT COST\$2,159,881USE						
Allied CostsEngineering/Survey/Permits (15%)\$249,217Administration/Legal (3%)\$49,843Construction Services (7%)\$116,301Property/Easement Acquisition (5%)\$83,072TOTAL ESTIMATED PROJECT COST\$2,159,881USE		Total Construction Cost				\$1,661,447
Allied CostsEngineering/Survey/Permits (15%)\$249,217Administration/Legal (3%)\$49,843Construction Services (7%)\$116,301Property/Easement Acquisition (5%)\$83,072TOTAL ESTIMATED PROJECT COST\$2,159,881USE						
Engineering/Survey/Permits (15%)         \$249,217           Administration/Legal (3%)         \$49,843           Construction Services (7%)         \$116,301           Property/Easement Acquisition (5%)         \$83,072           TOTAL ESTIMATED PROJECT COST         \$2,159,881           USE         \$2 160 000		Alliea Costs				
Administration/Legal (3%)       \$49,843         Construction Services (7%)       \$116,301         Property/Easement Acquisition (5%)       \$83,072         TOTAL ESTIMATED PROJECT COST       \$2,159,881         USE       \$2 160 000		Engineering/Survey/Permits (15%)				\$249,217
Construction Services (7%) \$116,301 Property/Easement Acquisition (5%) \$83,072 TOTAL ESTIMATED PROJECT COST \$2,159,881 USE \$2 160 000		Administration/Legal (3%)				\$49,843
Property/Easement Acquisition (5%) \$83,072 TOTAL ESTIMATED PROJECT COST \$2,159,881 USE \$2 160 000		Construction Services (7%)				\$116,301
TOTAL ESTIMATED PROJECT COST \$2,159,881 USE \$2 160 000		Property/Easement Acquisition (5%)				\$83,072
USE \$2,160,000		TOTAL ESTIMATED PROJECT COST				\$2,159,881
		USE				\$2,160,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet



W S E

Land Bank Pump Station B (north) and Force Main



## CLARK REGIONAL WASTEWATER DISTRICT

# **Clark Regional Wastewater District**

20-Year Capital Program Capital Project Profile

# **Freight Rail Overlay Pump Station**

Location: <u>Central</u>	Capital Improvement Project 🖂
Number: <u>2-1712C</u>	General Facilities 🛛
GL Number: TBD	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: <u>Planning</u>	Developer Reimbursement Program 🛛
	Fleet & Facilities 🗆
Project Manager: <u>TBD</u>	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: 2-1712 Land Bank	Restoration & Replacement – Fleet & Facilities 🗆

## Project Definition:

<u>Objective</u>. Initiate service to industrial uses in the southwestern portion, approximately 50 Acres, of the Freight Rail Dependent Uses Overlay area.

<u>Scope of Work.</u> Construct a Pump Station and force main to connect to future gravity sewers, both of which are planned to be installed in the overlay area with development.

<u>Project Statistics.</u> Pump Station – TBD hp duplex submersible pumps for TBD gpm at startup; TBD gpm at buildout; 6-8 foot wetwell; three phase electrical service; control kiosk; odor control chemical tank; 4-inch diameter force main (3,200± lf).

## Photos: (Map of area on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$725,000 TBD Planning Jan. 2018

<u>Activity</u>	Year
Predesign	By Others
Permitting	By Others
Real Property/ROW	By Others
Design	By Others
Bid	By Others
Construction	TBD



# **Clark Regional Wastewater District**

20-Year Capital Program Capital Project Profile


## CLARK REGIONAL WASTEWATER DISTRICT

## **Clark Regional Wastewater District**

20-Year Capital Program Capital Project Profile

# West of Westmoor Place Pump Station Elimination

Location: Central	Capital Improvement Project 🗆
CIP Number: 2-103A	
	General Facilities 🗆
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program $\Box$
	Fleet & Facilities 🗆
Project Manager: Unassigned	Restoration & Replacement Project 🛛
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM 🛛
GSP Basin: Lake River (2-103)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

<u>Objective.</u> The West of Westmoor Place Pump Station can be eliminated with the extension of an 8-inch gravity line. The extension of this line will provide sewer service to parcels along this alignment.

Scope of Work. Demolition of the existing station and surplus salvageable components.

Project Statistics. Decommissioning and abandonment of the existing pump station and force main.

Photos: (on the reverse side)

budget information:	Bud	lget	Information:
---------------------	-----	------	--------------

\$100,000 \$76,097 Class 4 Est. Sept. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

CIP # 2-103A

West of Westmoor PS Demolition and route 8-inch gravity to Horizon West II PS 20-YEAR (2036) IMPROVEMENTS

Bid Item	Pid Itom Deparintion	Linit Rid Drice	Quantity	Linit	Total
INO.			Quantity	Unit	
1	Pump Station - Mechanical Demolition	\$35,000	1	LS	\$35,000
2	Pump Station Electrical Demolition	\$10,000	1	LS	\$10,000
3	Pump Station - Above Grade Structure			LS	\$0
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator				\$0
6	4-Inch Force Main				\$0
1	6-Inch Force Main				\$0
8				EA	\$0
9	96-Inch wetwell	¢100		EA	\$0
10	8-Inch PVC Gravity Upsize	\$120			\$0
11	10-inch PVC Gravity Upsize	\$130			\$0
12	12-Inch PVC Gravity Upsize	\$140			\$0
13	15-inch PVC Gravity Upsize	\$160			\$0
14	18-inch PVC Gravity Upsize	\$170			\$0
15	21-inch PVC Gravity Upsize	\$250			\$0
16	24-inch PVC Gravity Upsize	\$300			\$0
17	30-inch PVC Gravity Upsize	\$330			\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22		\$20,000		LS	\$0
23	I emporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	0		\$0
26	HMA Trench Patch	\$175			\$0
27	Half-Width Grind and Overlay	\$150			\$0
28		\$25	0		<u>\$0</u>
29	Crushed Surfacing	\$30	4		\$0
30	Canaral Destaration (2%)	\$1,000	1		\$1,000
31	General Residration (2%)	\$1,000	1	10	\$1,000 \$5,000
32	Temperary Freedon & Sediment Centrel (49/)	\$5,000	1	10	\$3,000
- 33		\$2,000	1	L3	\$2,000
	Construction Costs Subtotal				\$54,000
	Sales Tax @ 8.4%				\$4,536
	Subtotal				\$58,536
	Contingency	30%			\$17,561
	Total Construction Cost				\$76,097
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$11,415
	Administration/Legal (3%)				\$2.283
	Construction Services (7%)				\$5,327
	Property/Easement Acquisition (5%)				\$3.805
					<i>+-,-</i> ,-,-,-,-,-,-,-,-,-,-,-,-,-,-,-,-,-,
	TOTAL ESTIMATED PROJECT COST				\$98,926
	USE				\$100,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 200 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





West of Westmoor Place Pump Station Elimination





20-Year Capital Program Capital Project Profile

# 149<sup>th</sup> Street Pump Station Elimination

Location: Central	Capital Improvement Project 🗆
CIP Number: <u>2-202A</u>	General Facilities 🗆
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program 🗆
	Fleet & Facilities 🗆
Project Manager: Unassigned	Restoration & Replacement Project 🛛
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM 🛛
GSP Basin: Seward Bridge North (2-202)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

<u>Objective</u>. The 149<sup>th</sup> Street Pump Station can be eliminated with the extension of an 8-inch gravity line as shown on the attachment. The extension of this line will provide sewer service to parcels along a portion of this alignment, resulting a cost sharing opportunity.

<u>Scope of Work.</u> Construction of 600 feet of 8-inch pipe from the 149<sup>th</sup> Street PS site to the point of intersection with CIP# 202B. Demolition of the existing station and surplus salvageable components.

<u>Project Statistics.</u> Construction of 600 feet of 8-inch gravity line; decommissioning and abandonment of the existing pump station and force main.

#### Photos: (on the reverse side)

#### **Budget Information:**

Project Cost Estimate:
Total Project Cost:
Construction Cost:
Basis of Estimate:
Date of Estimate:

\$480,000 \$366,744 Class 4 Est. Sept. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

**CIP #** 2-202A

149th Street Pump Station Removal 20-YEAR (2036) IMPROVEMENTS

Bid Item					
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical Demolition	\$35,000	1	LS	\$35,000
2	Pump Station Electrical Demolition	\$10,000	1	LS	\$10,000
3	Pump Station - Above Grade Structure Demolition			LS	\$0
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator			LS	\$0
6	4-inch Force Main			LF	\$0
7	6-inch Force Main			LF	\$0
8	72-inch wetwell			EA	\$0
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120	600	LE	\$72,000
11	10-inch PVC Gravity Upsize	\$130		L F	\$0
12	12-inch PVC Gravity Upsize	\$140			\$0 \$0
12	15-inch PVC Gravity Upsize	\$160			0¢ 0\$
1/	18-inch PVC Gravity Upsize	\$100 \$170			0¢ 02
14	21-inch PVC Gravity Upsize	\$170 \$250			υψ 0.2
16	24 inch PVC Gravity Upsize	\$200			ψ0 ¢0
10	24-Inch PVC Gravity Upsize	\$300			\$U \$0
17	30-Inch PVC Gravity Upsize	\$33U	0		\$U
18	48-Inch Diameter Manhole	\$7,500	3	EA	\$22,500
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	6	EA	\$18,000
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	600	LF	\$6,000
26	HMA Trench Patch	\$175	130	ΤN	\$22,750
27	Half-Width Grind and Overlay	\$150	100	ΤN	\$15,000
28	Imported Trench Backfill	\$25	500	ΤN	\$12,500
29	Crushed Surfacing	\$30	250	ΤN	\$7,500
30	Traffic Control (2%)	\$4,000	1	LS	\$4,000
31	General Restoration (2%)	\$4,000	1	LS	\$4,000
32	Mobilization (10%)	\$22,000	1	LS	\$22,000
33	Temporary Erosion & Sediment Control (4%)	\$9,000	1	LS	\$9,000
	Organization Organization Organization				¢000.050
					\$260,250
	Sales Tax @ 8.4%				\$21,861
	Subtotal				\$282,111
	Contingency	30%			\$84,633
	Total Construction Cost				\$366,744
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$55,012
	Administration/Legal (3%)				\$11.002
	Construction Services (7%)				\$25,672
	Property/Easement Acquisition (5%)				\$18,337
					÷.0,001
	TOTAL ESTIMATED PROJECT COST				\$476,768
	USE				\$480,000
					φ400,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 200 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





149th Street Pump Station Elimination





20-Year Capital Program Capital Project Profile

# **Whipple Creek Place Pump Station Elimination**

Location: Central	Capital Improvement Project 🗆
<b>CIP Number:</b> <u>2-202B</u>	General Facilities 🗆
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program 🗆
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project 🖂
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM 🛛
GSP Basin: Seward Bridge North (2-202)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

<u>Objective</u>. The Whipple Creek Place Pump Station can be eliminated with the extension of an 8-inch gravity line as shown on the attachment. The extension of this line will provide sewer service to parcels along this alignment, resulting a cost sharing opportunity.

<u>Scope of Work.</u> Construction of 200 feet of 8-inch pipe from the Whipple Creek Place PS to the future Pump Station constructed under CIP# 2-203A. Demolition of the existing station and surplus salvageable components. Potential easement acquisition.

<u>Project Statistics.</u> Construction of 200 feet of 8-inch gravity line; decommissioning and abandonment of the existing pump station and force main.

#### Photos: (on the reverse side)

#### **Budget Information:**

<u>Project Cost Estimate:</u>	
Total Project Cost:	\$230,000
Construction Cost:	\$171,218
Basis of Estimate:	Class 4 Est.
Date of Estimate:	Sept. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### **CIP #** 2-202B

Whipple Creek PlacePump Station Removal 20-YEAR 2036 IMPROVEMENTS

Bid Item	1				
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical Demolition	\$35,000	1	LS	\$35,000
2	Pump Station Electrical Demolition	\$10,000	1	LS	\$10,000
3	Pump Station - Above Grade Structure			LS	\$0
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator			LS	\$0
6	4-inch Force Main			LF	\$0
7	6-inch Force Main			LF	\$0
8	72-inch wetwell			EA	\$0
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120	200	LF	\$24,000
11	10-inch PVC Gravity Upsize	\$130		IF	\$0
12	12-inch PVC Gravity Upsize	\$140		I.F	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170			<u>\$0</u>
15	21-inch PV/C Gravity Upsize	\$250		LF	<u>\$0</u>
16	24-inch PV/C Gravity Upsize	\$300		LF	\$0 \$0
17	30-inch PV/C Gravity Upsize	\$330		LF	<u>\$0</u>
18	48-inch Diameter Manhole	\$7,500	1	ΕΔ	φυ \$7.500
10	54-inch Diameter Manhole	\$8,500	0		φ1,500 \$0
20	60-inch Diameter Manhole	\$0,500	0		<u>ψ</u> \$0
20	Lateral Connection	\$3,000	2		000 32
21	Dewatering	\$3,000	2		ψ0,000 ΦΩ
22	Temperany Flow Pypage	\$20,000 \$5,000		L3 E A	φ <u>0</u>
23	Rive and Cap Abandanad Dina	\$3,000			φ <u>0</u>
24	Plug and Cap Abandoned Pipe	\$1,000	200		00 00 00
20	Sheeting, Shoring	۵۱ <u>۵</u>	200		\$2,000 \$9,750
20		\$175	50		\$0,750 \$C.000
27	Hall-Width Grind and Overlay	\$150	40		\$6,000
20		\$25 \$20	170		\$4,250 \$
29		\$30			\$U
30	Canaral Destaution (2%)	\$2,000	1	<u>LS</u>	\$2,000
31	General Restoration (2%)	\$2,000	1	LS	\$2,000
32		\$10,000	1	LS	\$10,000
33	Temporary Erosion & Sediment Control (4%)	\$4,000	1	LS	\$4,000
	Construction Costs Subtotal				\$121,500
	Sales Tax @ 8.4%				\$10,206
	Subtotal				\$131,706
	Contingency	30%			\$39.512
					* / -
	Total Construction Cost				\$171.218
					* / -
	Allied Costs				
	Engineering/Survey/Permits (15%)				¢75 683
	Administration/Legal (3%)				φ20,000 \$5 127
	Construction Services (7%)				ψυ, 137 \$11 Ω05
	Property/Essement Acquisition (5%)				φιι,900 Φο ερ4
	riopeny/Lasement Acquisition (5%)				φ0,00 I
	TOTAL ESTIMATED PROJECT COST				¢000 E00
					φ222,003
	USE				\$230,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 200 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Whipple Creek Place Pump Station Elimination





20-Year Capital Program Capital Project Profile

# Payne Pump Station Redirection to mini-basin 2-1503

Location: Central	Capital Improvement Project 🗆
<b>CIP Number:</b> <u>2-1605D</u>	General Facilities 🗆
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program 🗆
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project 🛛
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM 🛛
GSP Basin: Whipple Creek East (2-1605)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

<u>Objective</u>. Redirect the discharge from the Payne Pump Station which originally discharged to mini-basin 2-1605 to the Mill Creek East mini-basin 2-1503.

<u>Scope of Work.</u> The existing pumps in the Payne Pump Station are rated at 440 gpm. With redirecting these pumps toward mini-basin 2-1503, the discharge point is at a substantially higher elevation which causes the pumps to deliver less flow. This new operating point is estimated to be 125 gpm at 110 feet. The forecasted peak hour flow in 2036 is 115 gpm. This is reasonably close to the estimated delivery from the existing equipment and hence no changes are anticipated for the mechanical elements of this station. The cost estimate includes only the redirected force main.

Project Statistics. No change in the pump station

New force main – 1,300 feet of 6-inch force main to mini-basin 2-1503.

#### Photos: (on the reverse side)

#### Budget Information: Project Cost Estimate

<u>oject Cost Estimate:</u>	
Total Project Cost:	\$230,000
Construction Cost:	\$172,451
Basis of Estimate:	Class 4 Est.
Date of Estimate:	Sept. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 2-1605D

Payne Pump Station Redirection to 2-1503 20-YEAR (2036) IMPROVEMENTS

Bid item	Pid Itom Deparintion	Linit Did Drice	Quantity	Linit	Total
NO.	Bid item Description	Unit Bid Price	Quantity		TOLAI
1	Purine Station - Mechanical				\$0
2	Purine Station Electrical				\$0
3	Pump Station - Above Grade Structure		4		\$0
4	Fullip Station - Site Work		1		<u>\$0</u>
5	Emergency Generator				<u>\$0</u>
<u></u> б 7	4-inch Force Main	Ф <u>с</u> о	1 200		\$U
1	72 inch wotwoll	\$60	1,300		<u>۵/۵,000</u>
Ö					<u>\$0</u>
9	96-Inch weiweil	¢120			<u>۵</u> ۵
10	8-Inch PVC Gravity Upsize	\$120			<u>\$0</u>
10	10-Inch PVC Gravity Upsize	\$130			\$U \$0
12	12-Inch PVC Gravity Upsize	\$140			<u>\$0</u>
13	15-Inch PVC Gravity Upsize	\$160			\$U
14	18-Inch PVC Gravity Upsize	\$170 \$250			\$U \$0
15	21-Inch PVC Gravity Upsize	\$250			\$0
10	24-inch PVC Gravity Upsize	<u>\$300</u>			<u>\$0</u>
10	30-Inch PVC Gravity Upsize	\$330 \$7.500	^		<u>\$0</u>
10	40-Inch Diameter Manhole	\$7,500 \$8,500	0		<u>\$0</u>
19	54-inch Diameter Manhole	\$8,500 \$0,500	0	EA	<u>\$0</u>
20		\$9,500	0	EA	<u>۵۵ (۳۵ (۳۵ (۳۵ (۳۵ (۳۵ (۳۶ (۳۶ (۳۶ (۳۶ (۳۶ (۳۶ (۳۶ (۳۶ (۳۶ (۳۶</u>
21	Dewetering	\$3,000	0	EA	04 000 000
22	Dewaterilly Tomporany Flow Pupace	¢ε 000	1	L3 E ^	⇒∠U,UUU ¢⊃
23	Dug and Can Abandanad Dina	Φ1,000			\$U #0
24	Flug and Cap Abandoned Pipe	<u>۵۱,000</u> ۳۸۵	1 200		\$U @12.000
20	UMA Tronch Datch	۵۱ <u>۵</u>	1,300		\$13,000 \$20,275
20	Half-Width Grind and Overlay	\$175 ¢150			<u>მაუ,375</u> ტი
21	Imported Trench Backfill		0		<u>ს</u> ბეე ელ
20		<u>φ20</u>	000		<u>φ20,000</u> ¢∩
29	Traffic Control (2%)	 φου \$2 000	1	1.9	ው ውር ድቃ
31	General Restoration (2%)		1	1.5	\$3,000
32	Mobilization (10%)	\$17 000	1	1.5	\$17 000
33	Temporary Frosion & Sediment Control (4%)	<u>\$7 000</u>	1	1.5	\$7,000
00		ψι,000	1	20	φr,000
	Construction Costs Subtotal				\$122,375
	Sales Tax @ 8.4%				\$10,280
	Subtotal				\$132,655
	Contingency	30%			\$39,796
	T ( ) O ( ) ( ) ( ) O ( )				<b>*·</b>
	I otal Construction Cost				\$172,451
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$25.868
	Administration/Legal (3%)				\$5,174
	Construction Services (7%)				\$12,072
	Property/Easement Acquisition (5%)				\$8,623
					<i>\\</i> 0,020
	TOTAL ESTIMATED PROJECT COST				\$224,186
	USE				\$230,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 200 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet



# W S E

Payne Pump Station Redirection to mini-basin 2-1503



20-Year Capital Program Capital Project Profile

# Jessie Hollow Pump Station – Phase I

Location: <u>Central</u> CIP Number: <u>2-1701A</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

## Capital Improvement Project $\Box$

- General Facilities  $\Box$
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## Restoration & Replacement Project 🛛

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM 🛛

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: St Johns (2-1701)

## **Project Definition:**

<u>Objective.</u> The Jessie Hollow Pump Station may require some interim repairs to the pumps to address nuisance high water alarms reported by the Operations staff.

<u>Scope of Work.</u> Operations staff to investigate nuisance high water alarms. Dependent on the findings, repair or replace pumps and/or level sensors.

Project Statistics. New or repaired pumps and /or level sensors.

Photos: (on the reverse side)

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$50,000 \$32,412 Class 4 Est. June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD



#### CIP # 2-1701A

Jessie Hollow Pump Station - Phase I 20-YEAR (2036) IMPROVEMENTS

No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical Repairs/Replacements	\$20,000	1	LS	\$20,000
2	Pump Station Electrical Service Demolition	\$10,000		LS	\$0
3	Pump Station - Above Grade Structure Demolition	\$10.000		LS	\$0
4	Pump Station - Site Work	+ -)		LS	\$0
5	Emergency Generator			LF	\$0
6	4-inch Force Main			LF	\$0
7	6-inch Force Main			LF	\$0
8	72-inch wetwell			EA	\$0
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	0	LF	\$0
26	HMA Trench Patch	\$175	0	ΤN	\$0
27	Half-Width Grind and Overlay	\$150	0	TN	\$0
28	Imported Trench Backfill	\$25	0	TN	\$0
29	Crushed Surfacing	\$30		ΤN	\$0
30	Traffic Control (2%)	\$0		LS	\$0
31	General Restoration (2%)	\$0	1	LS	\$0
32	Mobilization (10%)	\$2,000	1	LS	\$2,000
33	Temporary Erosion & Sediment Control (4%)	\$1,000	1	LS	\$1,000
	Construction Costs Subtotal				\$23,000
	Sales Tax @ 8.4%				\$1,932
					•••••
	Subtotal				\$24,932
	Contingency	30%			\$7,480
	Total Construction Cost				\$32,412
	Allied Costs				•
	Engineering/Survey/Permits (15%)				\$4,862
	Administration/Legal (3%)				\$972
	Construction Services (7%) Property/Ecomposition (5%)				\$2,269
	Froperty/Easement Acquisition (5%)				\$1,621
	TOTAL ESTIMATED PROJECT COST				\$10 125
	USE				\$50,000

Assumptions, Notes

1. All Costs in 2016 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Jessie Hollow Pump Station - Phase I





20-Year Capital Program Capital Project Profile

# Jessie Hollow Pump Station – Phase II

Location: <u>Central</u> CIP Number: <u>2-1701B</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

#### Capital Improvement Project

- General Facilities
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM ⊠

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: <u>St Johns (2-1701)</u>

## **Project Definition:**

<u>Objective.</u> The Jessie Hollow Pump Station was originally constructed as an interim station that would be taken off line by the extension of an 8-inch gravity line.

<u>Scope of Work.</u> The Jessie Hollow Pump Station serve only about a handful of customers. The extent of District contribution to this line would be limited to approximately 300 feet. Beyond that point to the terminus of the intercepting 8-inch line at the intersection of NE 127<sup>th</sup> Street and NE 50<sup>th</sup> Avenue would have developer contribution to serve adjacent parcels.

Project Statistics. Abandon pump station and force main and 300 feet of 8-inch pipe.

#### Photos: (on the reverse side)

Rudget	Information:
Duugei	mormation.

Project Cost Estimate:	
Total Project Cost:	\$300,000
Construction Cost:	\$223,358
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 2-1701A

Jessie Hollow Pump Station - Phase II 20-YEAR (2036) IMPROVEMENTS

No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical Demolition	\$35.000	1	LS	\$35.000
2	Pump Station Electrical Service Demolition	\$10,000	1	LS	\$10,000
3	Pump Station - Above Grade Structure Demolition	\$10,000	1	LS	\$10,000
4	Pump Station - Site Work	. ,	1	LS	\$0
5	Emergency Generator			LF	\$0
6	4-inch Force Main			LF	\$0
7	6-inch Force Main			LF	\$0
8	72-inch wetwell			EA	\$0
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120	300	LF	\$36,000
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	1	EA	\$7,500
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	3	EA	\$9,000
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	300	LF	\$3,000
26	HMA Trench Patch	\$175	70	TN	\$12,250
27	Half-Width Grind and Overlay	\$150	50	ΤN	\$7,500
28	Imported Trench Backfill	\$25	250	ΤN	\$6,250
29	Crushed Surfacing	\$30		ΤN	\$0
30	Traffic Control (2%)	\$3,000		LS	\$0
31	General Restoration (2%)	\$3,000	1	LS	\$3,000
32	Mobilization (10%)	\$14,000	1	LS	\$14,000
33	Temporary Erosion & Sediment Control (4%)	\$5,000	1	LS	\$5,000
	Construction Costs Subtotal				\$158 500
	Sales Tax @ 8 4%				\$13,314
					<i>\</i>
	Subtotal				\$171,814
	Contingency	30%			\$51,544
	Total Construction Cost				\$223,358
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$33,504
	Administration/Legal (3%)				\$6,701
	Construction Services (7%)				\$15,635
	Property/Easement Acquisition (5%)				\$11,168
					¢200.266
				_	\$290,366
	USL				\$300,000

Assumptions, Notes

1. All Costs in 2016 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Jessie Hollow Pump Station - Phase II





20 -Year Capital Program **Capital Project Profile** 

# **Silver Star Pump Station Elimination**

Location: Central Capital Improvement Project **CIP Number: 2-1709A** General Facilities **GL Number:** District Installed Infrastructure Septic Elimination Program  $\Box$ Developer Reimbursement Program **Phase:** Advanced Planning Fleet & Facilities Project Manager: Unassigned **Restoration & Replacement Project** ⊠ Restoration & Replacement - Gravity  $\Box$ Restoration & Replacement – PS & FM ⊠ Restoration & Replacement – Fleet & Facilities □

**GSP Basin:** NE 86<sup>th</sup> Street (2-1709)

## **Project Definition:**

Objective. The Silver Star Pump Station was originally constructed as an interim station that would be taken off line by the extension of an 8-inch gravity line.

Scope of Work. The Silver Star Pump Station serve only about a handful of customers. The point of connection of the 8-inch gravity line would be at the intersection of NE 86<sup>th</sup> Street and NE 98<sup>th</sup> Avenue. From that location, the line would be extended in a southerly direction along NE 98<sup>th</sup> Avenue and then easterly along NE 83<sup>rd</sup> Street to the pump station site, an approximate distance of 1,050 feet.

Project Statistics. Abandon pump station and force main and the installation of 1,050 LF of 8-inch gravity line.

#### **Photos:** (on the reverse side)

## **Budget Information:**

\$660,000 \$502,028 Class 4 Est. June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

CIP # 2-1709A

Elimination of Silver Star Pump Station 20 - YEAR (2036) IMPROVEMENTS

No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical Demolition	\$35,000	1	IS	\$35,000
2	Pump Station Electrical Service Demolition	\$10,000	1	LS	\$10,000
3	Pump Station - Above Grade Structure Demolition	\$10,000	1	LS	\$10,000
4	Pump Station - Site Work	<i><i><i>ϕ</i></i> · 0,000</i>	1	LS	\$0
5	Emergency Generator			LF	\$0
6	4-inch Force Main			LF	\$0
7	6-inch Force Main			LF	\$0
8	72-inch wetwell			EA	\$0
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120	1,050	LF	\$126,000
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	4	EA	\$30,000
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000		EA	\$0
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5.000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1.000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	1.050	LF	\$10.500
26	HMA Trench Patch	\$175	220	ΤN	\$38,500
27	Half-Width Grind and Overlav	\$150	170	TN	\$25.500
28	Imported Trench Backfill	\$25	870	ΤN	\$21,750
29	Crushed Surfacing	\$30		TN	\$0
30	Traffic Control (2%)	\$6.000		LS	\$0
31	General Restoration (2%)	\$6.000	1	LS	\$6.000
32	Mobilization (10%)	\$31,000	1	LS	\$31.000
33	Temporary Erosion & Sediment Control (4%)	\$12.000	1	LS	\$12,000
	Construction Costs Subtotal	÷-,•••			\$356,250
	Sales Tax @ 8.4%				\$29,925
					φ20,020
	Subtotal				\$386,175
	Contingency	30%			\$115,853
	Total Construction Cost				\$502,028
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$75,304
	Administration/Legal (3%)				\$15,061
	Construction Services (7%)				\$35,142
	Property/Easement Acquisition (5%)				\$25,101
	TOTAL ESTIMATED PROJECT COST				\$652 636
	USE			_	0002,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet



# Silver Star Pump Station Elimination



## CLARK REGIONAL WASTEWATER DISTRICT

# **Clark Regional Wastewater District**

20-Year Capital Program Capital Project Profile

# **Bowyer Pump Station Elimination**

Location: Central	Capital Improvement Project 🗆
CIP Number: <u>2-1710B</u>	General Facilities 🗆
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program 🗆
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project 🛛
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM 🛛
GSP Basin: Country Meadows (2-1710)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

<u>Objective</u>. The Bowyer Pump Station can be eliminated with the extension of a 10-inch gravity line as shown on the attachment. The extension of this line will provide sewer service to parcels along this alignment, resulting a cost sharing opportunity.

<u>Scope of Work.</u> Decommission Bowyer Pump Station. The construction of 1,300 LF and 2,600 LF of 10-inch pipe is constructed under CIP # 2-1710C and CIP# 2-1710G, respectively.

Project Statistics. Decommissioning and abandonment of the existing pump station and force main.

#### Photos: (on the reverse side)

Budget Information:		Schedule Information:		
Project Cost Estimate:		<u>Activity</u>	Year	
Total Project Cost:	\$230,000	Predesign	TBD	
Construction Cost:	\$174,741	Permitting	TBD	
Basis of Estimate:	Class 4 Est.	Real Property/ROW	TBD	
Date of Estimate:	Sept. 2016	Design	TBD	
		Bid	TBD	
		Construction	TBD	

**CIP #** 2-1710B

Decommision Bowyer PS 20-YEAR (2036) IMPROVEMENTS

Bid Item	Bid Item Description	Linit Rid Price	Quantity	Unit	Total
110.	Du nem Description		Quantity		10lai
1	Pump Station - Mechanical Demolition	\$50,000 \$55,000	1		\$50,000
2	Pump Station Electrical Demolition	\$25,000	1		\$25,000
3	Pump Station - Above Grade Structure Demolition	\$25,000	1		\$25,000
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator				\$0
6	4-inch Force Main				\$0
/	6-Inch Force Main				\$0
8				EA	\$0
9	96-inch wetwell	<b>\$</b> 100		EA	\$0
10	8-inch PVC Gravity Upsize	\$120			\$0
11	10-inch PVC Gravity Upsize	\$130			\$0
12	12-inch PVC Gravity Upsize	\$140			\$0
13	15-inch PVC Gravity Upsize	\$160			\$0
14	18-inch PVC Gravity Upsize	\$170			\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000	1	EA	\$5,000
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	0	LF	\$0
26	HMA Trench Patch	\$175	0	ΤN	\$0
27	Half-Width Grind and Overlay	\$150		ΤN	\$0
28	Imported Trench Backfill	\$25	0	ΤN	\$0
29	Crushed Surfacing	\$30	0	TN	\$0
30	Traffic Control (2%)	\$2,000	1	LS	\$2,000
31	General Restoration (2%)	\$2,000	1	LS	\$2,000
32	Mobilization (10%)	\$11,000	1	LS	\$11,000
33	Temporary Erosion & Sediment Control (4%)	\$4,000	1	LS	\$4,000
	Construction Costs Subtotal				\$124,000
	Sales Tax @ 8.4%				\$10,416
					<b>•</b> • • • • • • •
		0001			\$134,416
	Contingency	30%			\$40,325
	Total Construction Cost				\$174,741
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$26,211
	Administration/Legal (3%)				\$5,242
	Construction Services (7%)				\$12,232
	Property/Easement Acquisition (5%)				\$8,737
					¢007.400
					\$227,163
	002				\$230,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Bowyer Pump Station Elimination



## 20 – Year Capital Improvement Projects

# **Ridgefield Area**

# **Collection and Conveyance**

## **CIP Projects**

CIP No.		Mini-Basin	Project Description
3-203B	3-203	Marina	a PS Trunk
3-603H	3-603	Carty	Road (Royle Road Central) Trunk
3-610B	3-610	Bosch	ma Trunk



Location:

20-Year Capital Program **Capital Project Profile** 

# **Marina Pump Station Trunk**

Location: <u>Ridgefield</u>	Capital Improvement Project 🛛
<b>CIP Number:</b> <u>3-203B</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advance Planning	Developer Reimbursement Program 🗆
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Marina (3-203)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

Objective. The final step in the ultimate goal of taking the Ridgefield WWTP off line and sending all the Ridgefield flow to the Salmon Creek system, is accomplished by collecting that portion of the flow that is still tributary to the WWTP after the other infrastructure has been constructed and conveying that flow via the Marina Trunk to the Marina Pump Station.

Scope of Work. The new trunk will consist of 2,100 LF of 10-inch sewer that will flow from the WWTP to the Marina Pump Station west well.

Project Statistics. Construct 2,100 LF of 10-inch gravity trunk.

Pump station – Improvements to the Marina Pump Station will be accomplished under CIP# 3-203A.

#### **Photos:** (on the reverse side)

#### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$1
Construction Cost:	
Basis of Estimate:	CI
Date of Estimate:	Se

L,140,000 \$905,059 ass 4 Est. ept. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

CIP # 3-203B

Marina Trunk

20 -YEAR (2036) IMPROVEMENTS

Bid Item	l				
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical			LS	
2	Pump Station Electrical			LS	
3	Pump Station - Above Grade Structure			LS	
4	Pump Station - Site Work			LS	
5	Emergency Generator			LS	
6	4-inch Force Main			LF	
7	6-inch Force Main			LF	
8	72-inch wetwell			EA	
9	96-inch wetwell			EA	
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130	2,100	LF	\$273,000
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	7	EA	\$52,500
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	21	EA	\$63,000
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	2,100	LF	\$21,000
26	HMA Trench Patch	\$175	440	ΤN	\$77,000
27	Half-Width Grind and Overlay	\$150		ΤN	\$0
28	Imported Trench Backfill	\$25	2,310	ΤN	\$57,750
29	Crushed Surfacing	\$30		ΤN	\$0
30	Traffic Control (2%)	\$11,000	1	LS	\$11,000
31	General Restoration (2%)	\$11,000	1	LS	\$11,000
32	Mobilization (10%)	\$54,000	1	LS	\$54,000
33	Temporary Erosion & Sediment Control (4%)	\$22,000	1	LS	\$22,000
	Construction Costs Subtotal				\$642,250
	Sales Tax @ 8.4%				\$53,949
					<i>\$66,616</i>
	Subtotal				\$696,199
	Contingency	30%			\$208,860
	Contailing of the second				<i>q</i> 200,000
	Total Construction Cost				\$905.059
					+,
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$135 759
	Administration/Legal (3%)				\$27,152
	Construction Services (7%)				\$63,354
	Property/Easement Acquisition (5%)				ψ00,00 <del>1</del>
	TOTAL ESTIMATED PROJECT COST				\$1,131,323
	USE				\$1 140 000
					φ1,140,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet




Marina Pump Station Trunk





20-Year Capital Program **Capital Project Profile** 

# **Carty Road (Royle Road Central) Trunk**

Location: <u>Ridgefield</u>	Capital Improvement Project 🛛
<b>CIP Number:</b> <u>3-603H</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advance Planning	Developer Reimbursement Program $\Box$
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Royle Road (3-603)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

Objective. The development of the Royle Road mini-basin is dependent on a series of pump stations and a central trunk line (aka Carty Road Trunk). This central trunk is approximately 2,100 feet in length and joins the trunk line running down South Royle Road.

Scope of Work. The new trunk will consist of 2,100 LF of 10-inch sewer that will convey flow from the three central pump stations in the Royle Road mini-basin to a point of connection to the Royle Road trunk. The upsized trunk will result in a District contribution of 10%

Project Statistics. Construct 2,100 LF of 10-inch gravity trunk.

### **Photos:** (on the reverse side)

### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$1,140,000
Construction Cost:	\$905,059
Basis of Estimate:	Class 4 Est.
Date of Estimate:	Sept. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

**CIP #** 3-603H

Carty Road Trunk

20 -YEAR (2036) IMPROVEMENTS

No.     Lot left beschpion     Unit Bid Price     Quantity     Unit     Total       1     Pump Station - Mechanical     LS	Bid Item	) Did Itaas Daa sistian	Linit Did Drive	Quantity	1.1	Tatal	
1     Pump Station - Mechanical     LS       2     Pump Station - Above Grade Structure     LS       3     Pump Station - Above Grade Structure     LS       4     Pump Station - Stew Work     LS       5     Emergency Generator     LS       6     4-inch Force Main     LF       7     6-inch Force Main     LF       8     76-inch Proce Main     LF       96-inch wetwell     EA       96-inch PVC Gravity Upsize     \$130     2.100     LF     \$273.000       12     12-inch PVC Gravity Upsize     \$140     LF     \$30       13     15-inch PVC Gravity Upsize     \$150     LF     \$50       14     18-inch PVC Gravity Upsize     \$3300     LF     \$50       15     21-inch PVC Gravity Upsize     \$3300     LF     \$50       16     24-inch PVC Gravity Upsize     \$3300     LF     \$50       16     42-inch PVC Gravity Upsize     \$3,000     21     EA     \$6,000     EA     \$50       17     30-inch PVC Gravity Upsize	NO.	Bid Item Description	Unit Bid Price	Quantity	Unit	Iotal	
2     Pump Station - Nove Grade Structure     LS       4     Pump Station - Site Work     LS       5     Emergency Generator     LS       6     4-inch Force Main     LF       7     6-inch Force Main     LF       8     72-inch wetwell     EA       9     96-inch wetwell     EA       10     8-inch PVC Gravity Upsize     \$130     2.100     LF     \$273,000       11     10-inch PVC Gravity Upsize     \$140     LF     \$30     \$273,000       12     12-inch PVC Gravity Upsize     \$170     LF     \$30     \$30     2.100     LF     \$273,000       14     16-inch PVC Gravity Upsize     \$1770     LF     \$30     \$30     LF     \$30       15     24-inch PVC Gravity Upsize     \$3300     LF     \$30     \$4     \$40	1	Pump Station - Mechanical	LS				
3     Pump Station - Above Grade Structure     LS       4     Pump Station - Stew Work     LS       5     Emergency Generator     LS       6     4-inch Force Main     LF       7     6-inch Force Main     LF       8     72-inch wetwell     EA       9     96-inch wetwell     EA       10     8-inch PVC Gravity Upsize     \$120     LF       11     10-inch PVC Gravity Upsize     \$140     LF       13     15-inch PVC Gravity Upsize     \$160     LF       14     18-inch PVC Gravity Upsize     \$250     LF     \$00       15     21-inch PVC Gravity Upsize     \$330     LF     \$00       16     24-inch PVC Gravity Upsize     \$330     LF     \$00       17     30-inch Diameter Manhole     \$8,500     0     EA     \$00       19     54-inch Diameter Manhole     \$8,500     EA     \$00       20     60-inch Diameter Manhole     \$8,500     EA     \$00       21     Lateral Connection     \$3,000 <td< td=""><td>2</td><td>Pump Station Electrical</td><td></td><td colspan="4">LS</td></td<>	2	Pump Station Electrical		LS			
4     Pump Station - Site Work     LS       5     Emergency Generator     LS       6     4-inch Force Main     LF       7     G-inch Force Main     LF       8     72-inch wetwell     EA       9     96-inch wetwell     EA       10     8-inch PVC Gravity Upsize     \$120     LF       31     10-inch PVC Gravity Upsize     \$140     LF       32     15-inch PVC Gravity Upsize     \$170     LF     \$00       14     18-inch PVC Gravity Upsize     \$170     LF     \$00       15     21-inch PVC Gravity Upsize     \$3300     LF     \$00       16     24-inch PVC Gravity Upsize     \$3300     LF     \$00       17     30-inch PVC Gravity Upsize     \$3300     LF     \$00       18     48-inch Diameter Manhole     \$7,500     7     EA     \$25,500       10     14     18-inch Diameter Manhole     \$8,500     EA     \$00       20     60-inch Diameter Manhole     \$7,500     7     EA     \$20,000 <	3	Pump Station - Above Grade Structure					
3.   Entrigency Generator   LS     6   4-inch Force Main   LF     7   6-inch Force Main   LF     8   72-inch wetwell   EA     9   96-inch wetwell   EA     10   8-inch PVC Gravity Upsize   \$120   LF     31   15-inch PVC Gravity Upsize   \$160   LF     32   16-inch PVC Gravity Upsize   \$160   LF     31   15-inch PVC Gravity Upsize   \$160   LF     52   1-inch PVC Gravity Upsize   \$170   LF     52   1-inch PVC Gravity Upsize   \$330   LF     53   160   LF   \$50     161   24-inch PVC Gravity Upsize   \$330   LF     53   160   LF   \$50     17   30-inch PVC Gravity Upsize   \$330   LF     54-inch Diameter Manhole   \$7,500   7   EA   \$52,500     19   54-inch Diameter Manhole   \$90,500   0   EA   \$00     20   60-inch Diameter Manhole   \$90,000   LS   \$00     21   Lateral Conn	4	Pump Station - Site Work			LS		
b     4-inch POG Main     LF       7     G-inch Vetwell     EA       9     96-inch wetwell     EA       10     8-inch PVC Gravity Upsize     \$120     LF       11     10-inch PVC Gravity Upsize     \$130     2,100     LF       12     12-inch PVC Gravity Upsize     \$140     LF     \$00       13     15-inch PVC Gravity Upsize     \$160     LF     \$00       14     18-inch PVC Gravity Upsize     \$170     LF     \$00       15     21-inch PVC Gravity Upsize     \$330     LF     \$00       16     24-inch PVC Gravity Upsize     \$330     LF     \$00       16     24-inch PVC Gravity Upsize     \$330     LF     \$00       17     30-inch PVC Gravity Upsize     \$3300     LF     \$00       18     48-inch Diameter Manhole     \$7,500     7     FA     \$\$25,500       12     Lateral Connection     \$3,000     21     EA     \$63,000       20     60-inch Patch     \$11,000     EA     \$00 <tr< td=""><td>5</td><td>Emergency Generator</td><td></td><td></td><td>15</td><td></td></tr<>	5	Emergency Generator			15		
7   6-inCh PCG Miain   LP     8   72-inch wetwell   EA     9   96-inch wetwell   EA     10   8-inch PVC Gravity Upsize   \$120   LF   \$00     11   10-inch PVC Gravity Upsize   \$140   LF   \$00     12   12-inch PVC Gravity Upsize   \$140   LF   \$00     13   15-inch PVC Gravity Upsize   \$160   LF   \$00     14   18-inch PVC Gravity Upsize   \$170   LF   \$00     15   21-inch PVC Gravity Upsize   \$330   LF   \$00     16   24-inch PVC Gravity Upsize   \$330   LF   \$00     17   30-inch PVC Gravity Upsize   \$3330   LF   \$00     18   48-inch Diameter Manhole   \$17,500   7   EA   \$52,500     19   54-inch Diameter Manhole   \$9,500   0   EA   \$00     21   Lateral Connection   \$3,000   EA   \$00     22   Devatering   \$100   EA   \$00     23   Temporary Flow Bypass   \$5,000   EA   \$00 </td <td>6</td> <td>4-Inch Force Main</td> <td></td> <td></td> <td></td> <td></td>	6	4-Inch Force Main					
8   72-Inch WetWell   EA     9   96-Inch wetwell   EA     10   8-inch PVC Gravity Upsize   \$130   2,100   LF   \$00     12   12-inch PVC Gravity Upsize   \$140   LF   \$00     13   15-inch PVC Gravity Upsize   \$140   LF   \$00     14   18-inch PVC Gravity Upsize   \$170   LF   \$00     15   21-inch PVC Gravity Upsize   \$250   LF   \$00     16   24-inch PVC Gravity Upsize   \$330   LF   \$00     16   24-inch Diameter Manhole   \$7,500   7   EA   \$52,500     19   54-inch Diameter Manhole   \$8,500   0   EA   \$00     20   60-inch Diameter Manhole   \$8,500   0   EA   \$00     21   Lateral Connection   \$3,000   21   EA   \$00     22   Dewatering   \$20,000   EA   \$00     23   Temporary Flow Bypass   \$5,000   EA   \$00     24   Plug and Cap Abandoned Pipe   \$1,000   EA   \$00     25<	/	6-INCN FORCE MAIN					
9     9-c-Inch Weller     EA       10     8-inch PVC Gravity Upsize     \$120     LF     \$27,000       11     10-inch PVC Gravity Upsize     \$140     LF     \$27,000       12     12-inch PVC Gravity Upsize     \$140     LF     \$20       13     15-inch PVC Gravity Upsize     \$170     LF     \$0       14     18-inch PVC Gravity Upsize     \$250     LF     \$0       15     21-inch PVC Gravity Upsize     \$330     LF     \$0       16     24-inch PVC Gravity Upsize     \$3330     LF     \$0       17     30-inch Diameter Manhole     \$7,500     7     EA     \$\$25,500       18     48-inch Diameter Manhole     \$8,500     0     EA     \$0       20     60-inch Diameter Manhole     \$8,500     0     EA     \$0       21     Lateral Connection     \$3,000     21     EA     \$80,000       22     Devatering     \$100     EA     \$0     \$25     \$100     EA     \$0     \$25     \$100     EA>	8				EA		
10   8-inch PVC Gravity Upsize   \$130   LP   \$30     11   10-inch PVC Gravity Upsize   \$130   2,100   LF   \$27,000     12   12-inch PVC Gravity Upsize   \$160   LF   \$20     13   15-inch PVC Gravity Upsize   \$170   LF   \$0     14   18-inch PVC Gravity Upsize   \$250   LF   \$0     15   21-inch PVC Gravity Upsize   \$330   LF   \$0     17   30-inch PVC Gravity Upsize   \$330   LF   \$0     18   48-inch Diameter Manhole   \$7,500   7   EA   \$52,500     18   48-inch Diameter Manhole   \$3,000   LA   \$0     20   60-inch Diameter Manhole   \$3,000   LA   \$0     21   Lateral Connection   \$3,000   LA   \$0     23   Temporary Flow Bypass   \$5,000   EA   \$0     24   Plug and Cap Abandoned Pipe   \$1,000   EA   \$0     25   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HWA Trench Patch   \$17,50<	9	96-Inch wetwell	¢100		EA	<b>*</b> 0	
11   10-inch PVC Gravity Upsize   \$140   LF   \$0     12   12-inch PVC Gravity Upsize   \$140   LF   \$0     13   15-inch PVC Gravity Upsize   \$170   LF   \$0     14   18-inch PVC Gravity Upsize   \$250   LF   \$0     15   21-inch PVC Gravity Upsize   \$330   LF   \$0     16   24-inch PVC Gravity Upsize   \$330   LF   \$0     17   30-inch PVC Gravity Upsize   \$330   LF   \$0     18   48-inch Diameter Manhole   \$7,500   7   EA   \$52,500     10   60-inch Diameter Manhole   \$3,500   0   EA   \$0     21   Lateral Connection   \$3,000   21   EA   \$52,000   EA   \$0     22   Dewatering   \$1000   EA   \$0   \$20,000   LF   \$21,000   EA   \$0     23   Temporary Flow Bypass   \$5,000   EA   \$0   \$1   \$10   2,100   LF   \$21,000     26   HMA Trench Patch   \$11,000   I.F   \$21,000   IF	10	8-Inch PVC Gravity Upsize	\$120	0.400		\$0	
112   12-inch PVC Gravity Upsize   \$140   LP   \$0     13   15-inch PVC Gravity Upsize   \$170   LF   \$0     14   18-inch PVC Gravity Upsize   \$250   LF   \$0     15   21-inch PVC Gravity Upsize   \$300   LF   \$0     16   24-inch PVC Gravity Upsize   \$330   LF   \$0     17   30-inch PVC Gravity Upsize   \$330   LF   \$0     18   48-inch Diameter Manhole   \$7,500   7   EA   \$52,500     19   54-inch Diameter Manhole   \$8,500   0   EA   \$0     20   60-inch Diameter Manhole   \$8,500   0   EA   \$0     21   Lateral Connection   \$3,000   21   EA   \$63,000     22   Dewatering   \$20,000   LS   \$0     23   Temporary Flow Bypass   \$1,000   EA   \$0     24   Plug and Cap Abandoned Pipe   \$1,000   EA   \$0     25   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HMA Trench Patch	11	10-inch PVC Gravity Upsize	\$130	2,100		\$273,000	
13   15-inch PVC Gravity Upsize   \$170   LF   \$00     14   18-inch PVC Gravity Upsize   \$250   LF   \$00     15   21-inch PVC Gravity Upsize   \$330   LF   \$00     16   24-inch PVC Gravity Upsize   \$330   LF   \$00     18   48-inch Diameter Manhole   \$7,500   7   EA   \$52,500     19   54-inch Diameter Manhole   \$8,500   0   EA   \$00     20   60-inch Diameter Manhole   \$9,500   0   EA   \$00     21   Lateral Connection   \$3,000   21   EA   \$63,000     22   Dewatering   \$20,000   LS   \$00     23   Temporary Flow Bypass   \$5,000   EA   \$00     24   Plug and Cap Abandoned Pipe   \$1,000   EA   \$00     25   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HMA Trench Patch   \$175   440   TN   \$77,00     28   Imported Trench Backfill   \$25   2,310   TN   \$50 <td< td=""><td>12</td><td>12-inch PVC Gravity Upsize</td><td>\$140</td><td></td><td></td><td>\$0</td></td<>	12	12-inch PVC Gravity Upsize	\$140			\$0	
14   18-inch PVC Gravity Upsize   \$250   LF   \$30     15   21-inch PVC Gravity Upsize   \$330   LF   \$0     17   30-inch PVC Gravity Upsize   \$330   LF   \$0     18   48-inch Diameter Manhole   \$7,500   7   EA   \$52,500     19   54-inch Diameter Manhole   \$8,500   0   EA   \$00     20   60-inch Diameter Manhole   \$9,500   0   EA   \$00     21   Lateral Connection   \$3,000   21   EA   \$63,000     23   Temporary Flow Bypass   \$5,000   EA   \$00     24   Ptug and Cap Abandoned Pipe   \$1,000   EA   \$00     25   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HMA Trench Patch   \$175   440   TN   \$77,000     27   Half-Width Grind and Overlay   \$150   TN   \$0     28   Imported Trench Backfill   \$252   2,310   TN   \$50     29   Crushed Surfacing   \$30   TN   \$0   \$11,000	13	15-inch PVC Gravity Upsize	\$160			\$0	
15   21-inch PVC Gravity Upsize   \$250   L+   \$0     16   22-inch PVC Gravity Upsize   \$300   LF   \$0     17   30-inch PVC Gravity Upsize   \$330   LF   \$0     18   48-inch Diameter Manhole   \$7,500   7   EA   \$52,600     19   64-inch Diameter Manhole   \$8,500   0   EA   \$0     20   60-inch Diameter Manhole   \$9,500   0   EA   \$0     21   Lateral Connection   \$3,000   21   EA   \$63,000     22   Dewatering   \$20,000   LS   \$0     23   Temporary Flow Bypass   \$5,000   EA   \$0     24   Plug and Cap Abandoned Pipe   \$1,000   EA   \$0     25   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HMA Trench Patch   \$175   440   TN   \$77,000     28   Imported Trench Backfill   \$22   2,310   TN   \$57,750     29   Crushed Surfacing   \$311,000   1   LS   \$11,000  <	14	18-inch PVC Gravity Upsize	\$170			\$0	
16   24-inch PVC Gravity Upsize   \$300   L+   \$00     17   300-inch PVC Gravity Upsize   \$330   LF   \$00     18   48-inch Diameter Manhole   \$7,500   7   EA   \$52,500     19   54-inch Diameter Manhole   \$9,500   0   EA   \$00     20   60-inch Diameter Manhole   \$9,500   0   EA   \$00     21   Lateral Connection   \$33,000   21   EA   \$63,000     22   Dewatering   \$20,000   LS   \$00     23   Temporary Flow Bypass   \$50,00   EA   \$00     24   Plug and Cap Abandoned Pipe   \$1,000   EA   \$00     25   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HMA Trench Patch   \$17.5   440   TN   \$77,000     27   Half-Width Grind and Overlay   \$150   TN   \$00     28   Imported Trench Backfill   \$25,2,310   TN   \$57,750     29   Crushed Surfacing   \$11,000   1   LS   \$11,000	15	21-inch PVC Gravity Upsize	\$250			\$0	
11   30-inch PVC Gravity Upsize   \$330   LP   \$0     18   48-inch Diameter Manhole   \$7,500   7   EA   \$52,500     19   54-inch Diameter Manhole   \$8,500   0   EA   \$0     20   60-inch Diameter Manhole   \$8,500   0   EA   \$0     21   Lateral Connection   \$3,000   21   EA   \$63,000     22   Dewatering   \$20,000   LS   \$0     23   Temporary Flow Bypass   \$5,000   EA   \$0     24   Plug and Cap Abandoned Pipe   \$1,000   EA   \$0     25   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HMA Trench Patch   \$175   440   TN   \$77,500     28   Imported Trench Backfill   \$25   2,310   TN   \$57,750     29   Crushed Surfacing   \$30   Traftic Control (2%)   \$11,000   1   LS   \$11,000     31   General Restoration (2%)   \$11,000   1   LS   \$54,000   1   LS   \$52,000   1 <td>16</td> <td>24-inch PVC Gravity Upsize</td> <td>\$300</td> <td></td> <td></td> <td>\$0</td>	16	24-inch PVC Gravity Upsize	\$300			\$0	
18   48-inch Diameter Manhole   \$7,500   7   EA   \$52,500     19   54-inch Diameter Manhole   \$8,500   0   EA   \$0     20   60-inch Diameter Manhole   \$9,500   0   EA   \$0     21   Lateral Connection   \$3,000   21   EA   \$63,000     22   Dewatering   \$20,000   LS   \$30     23   Temporary Flow Bypass   \$5,000   EA   \$0     24   Plug and Cap Abandoned Pipe   \$1,000   EA   \$0     25   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HMA Trench Patch   \$175   440   TN   \$77,000     27   Half-Width Grind and Overlay   \$150   TN   \$50     28   Imported Trench Backfill   \$25   2,310   TN   \$50     29   Crushed Surfacing   \$30   TN   \$0   30   Traffic Control (2%)   \$11,000   1   LS   \$11,000     30   Traffic Control (2%)   \$11,100   1   LS   \$40,00   \$642,250	1/	30-inch PVC Gravity Upsize	\$330	_		\$0	
19   54-inch Diameter Manhole   \$8,500   0   EA   \$00     20   66-inch Diameter Manhole   \$9,500   0   EA   \$00     21   Lateral Connection   \$3,000   21   EA   \$60,000     22   Dewatering   \$20,000   LS   \$00     23   Temporary Flow Bypass   \$50,000   EA   \$00     24   Plug and Cap Abandoned Pipe   \$10   2,100   LF   \$21,000     26   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HMA Trench Patch   \$175   440   TN   \$77,000     27   Half-Width Grind and Overlay   \$150   TN   \$00     28   Imported Trench Backfill   \$25   2,310   TN   \$50     29   Crushed Surfacing   \$30   TN   \$00     31   General Restoration (2%)   \$11,000   1   LS   \$11,000     32   Mobilization (10%)   \$22,000   1   LS   \$53,040     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1 <td>18</td> <td>48-inch Diameter Manhole</td> <td>\$7,500</td> <td>/</td> <td>EA</td> <td>\$52,500</td>	18	48-inch Diameter Manhole	\$7,500	/	EA	\$52,500	
20   60-inch Diameter Manhole   \$9,500   0   EA   \$00     21   Lateral Connection   \$30,000   21   EA   \$63,000     22   Dewatering   \$20,000   LS   \$0     23   Temporary Flow Bypass   \$5,000   EA   \$0     24   Plug and Cap Abandoned Pipe   \$1,000   EA   \$0     25   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HMA Trench Patch   \$175   440   TN   \$77,000     27   Half-Width Grind and Overlay   \$150   TN   \$0     28   Imported Trench Backfill   \$25   2,310   TN   \$57,750     29   Crushed Surfacing   \$30   TN   \$0     30   Traffic Control (2%)   \$11,000   1   LS   \$11,000     31   General Restoration (2%)   \$11,000   1   LS   \$24,000     32   Mobilization (10%)   \$54,000   1   LS   \$24,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS	19	54-inch Diameter Manhole	\$8,500	0	EA	\$0	
21   Lateral Connection   \$3,000   21   EA   \$63,000     22   Dewatering   \$20,000   LS   \$0     23   Temporary Flow Bypass   \$5,000   EA   \$0     24   Plug and Cap Abandoned Pipe   \$1,000   EA   \$0     25   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HMA Trench Patch   \$1175   440   TN   \$77,000     27   Half-Width Grind and Overlay   \$150   TN   \$0     28   Imported Trench Backfill   \$25   2,310   TN   \$57,750     29   Crushed Surfacing   \$330   TN   \$0   330   TN   \$0     30   Traffic Control (2%)   \$11,000   1   LS   \$11,000     31   General Restoration (2%)   \$11,000   1   LS   \$11,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$54,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$54,000     30   Const	20	60-inch Diameter Manhole	\$9,500	0	EA	\$0	
22   Dewatering   \$20,000   LS   \$0     23   Temporary Flow Bypass   \$5,000   EA   \$0     24   Plug and Cap Abandoned Pipe   \$1,000   EA   \$0     25   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HMA Trench Patch   \$175   440   TN   \$77,000     27   Half-Width Grind and Overlay   \$150   TN   \$0     28   Imported Trench Backfill   \$25   2,310   TN   \$0     28   Imported Surfacing   \$30   TN   \$0     30   Traffic Control (2%)   \$11,000   1   LS   \$11,000     31   General Restoration (2%)   \$11,000   1   LS   \$11,000     32   Mobilization (10%)   \$\$4,000   1   LS   \$\$4,000     32   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$\$2,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$22,000     Construction Costs   Subtotal   \$696,199   \$6	21	Lateral Connection	\$3,000	21	EA	\$63,000	
23   Temporary Flow Bypass   \$5,000   EA   \$0     24   Plug and Cap Abandoned Pipe   \$1,000   EA   \$0     25   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HMA Trench Patch   \$175   440   TN   \$77,000     27   Half-Width Grind and Overlay   \$150   TN   \$0     28   Imported Trench Backfill   \$25   2,310   TN   \$57,750     29   Crushed Surfacing   \$30   TN   \$0     30   Traffic Control (2%)   \$11,000   1   LS   \$11,000     31   General Restoration (2%)   \$11,000   1   LS   \$11,000     32   Mobilization (10%)   \$54,000   1   LS   \$22,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$22,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$22,000     34   Construction Costs   Subtotal   \$642,250   \$642,250   \$642,250   \$642,250   \$208,860   \$208,8	22	Dewatering	\$20,000		LS	\$0	
24   Plug and Cap Abandoned Pipe   \$1,000   EA   \$00     25   Sheeting, Shoring, Bracing   \$110   2,100   LF   \$21,000     26   HMA Trench Patch   \$175   440   TN   \$77,000     27   Half-Width Grind and Overlay   \$150   TN   \$00     28   Imported Trench Backfill   \$25   2,310   TN   \$57,750     29   Crushed Surfacing   \$30   TN   \$00     30   Traffic Control (2%)   \$11,000   1   LS   \$11,000     31   General Restoration (2%)   \$11,000   1   LS   \$11,000     32   Mobilization (10%)   \$11,000   1   LS   \$54,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$54,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$22,000     Construction Costs   Subtotal   \$642,250   \$3ales Tax @ 8.4%   \$53,949     Subtotal   \$696,199   \$005,059   \$4ministration/Legal (3%)   \$227,152     Construction Cost	23	Temporary Flow Bypass	\$5,000		EA	\$0	
25   Sheeting, Shoring, Bracing   \$10   2,100   LF   \$21,000     26   HMA Trench Patch   \$175   440   TN   \$77,000     27   Half-Width Grind and Overlay   \$150   TN   \$0     28   Imported Trench Backfill   \$25   2,310   TN   \$57,750     29   Crushed Surfacing   \$30   TN   \$57,750     30   Traffic Control (2%)   \$11,000   1   LS   \$11,000     31   General Restoration (2%)   \$11,000   1   LS   \$11,000     32   Mobilization (10%)   \$54,000   1   LS   \$54,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$22,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$24,000     34   Subtotal   \$642,250   \$642,250   \$642,250   \$646,199   \$606,199     Contingency   30%   \$208,860   \$905,059   \$11   \$11   \$135,759   \$40ministration/Legal (3%)   \$27,152   \$3,354   \$27,152   \$63,354   <	24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0	
26   HMA Trench Patch   \$175   440   IN   \$77,000     27   Half-Width Grind and Overlay   \$150   TN   \$0     28   Imported Trench Backfill   \$25   2,310   TN   \$57,750     29   Crushed Surfacing   \$30   TN   \$57,750     30   Traffic Control (2%)   \$11,000   1   LS   \$11,000     31   General Restoration (2%)   \$11,000   1   LS   \$11,000     32   Mobilization (10%)   \$54,000   1   LS   \$54,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$54,2200     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$54,900     34   Subtotal   \$642,250   \$642,250   \$642,250   \$642,250     Sales Tax @ 8.4%   \$63,949   \$696,199   \$00,059   \$649,6199   \$00,5059     Allied Costs   Engineering/Survey/Permits (15%)   \$135,759   \$135,759   \$140,000   \$27,152     Construction Services (7%)   \$63,354   \$709,27,152   \$63,354	25	Sheeting, Shoring, Bracing	\$10	2,100		\$21,000	
27   Half-Width Grind and Overlay   \$150   IN   \$0     28   Imported Trench Backfill   \$25   2,310   TN   \$57,750     29   Crushed Surfacing   \$30   TN   \$0     30   Traffic Control (2%)   \$11,000   1   LS   \$11,000     31   General Restoration (2%)   \$11,000   1   LS   \$11,000     32   Mobilization (10%)   \$54,000   1   LS   \$54,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$54,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$54,000     34   Temporary Erosion & Subtotal   \$642,250   \$642,250   \$642,250     Sales Tax @ 8.4%   \$53,949   \$53,949   \$696,199     Contingency   30%   \$208,860   \$696,199     Contingency   30%   \$208,860   \$905,059     Allied Costs   Engineering/Survey/Permits (15%)   \$135,759     Administration/Legal (3%)   \$27,152   \$63,354     Property/Easement Acquisition (5%)   \$1,131	26	HMA Irench Patch	\$175	440		\$77,000	
28     Imported Trench Backfill     \$25     2,310     IN     \$57,750       29     Crushed Surfacing     \$30     TN     \$0       30     Traffic Control (2%)     \$11,000     1     LS     \$11,000       32     Mobilization (10%)     \$11,000     1     LS     \$11,000       32     Mobilization (10%)     \$54,000     1     LS     \$11,000       33     Temporary Erosion & Sediment Control (4%)     \$22,000     1     LS     \$22,000       33     Temporary Erosion & Sediment Control (4%)     \$22,000     1     LS     \$22,000       Construction Costs Subtotal     \$642,250       Sales Tax @ 8.4%     \$53,949     \$642,250       Subtotal     \$696,199     \$606,199       Contingency     30%     \$208,860       Total Construction Cost     \$905,059       Allied Costs     \$135,759       Administration/Legal (3%)     \$27,152       Construction Services (7%)     \$63,354       Property/Easement Acquisition (5%)     \$1,140,000       Total ESTIMATED P	27	Half-Width Grind and Overlay	\$150			\$0	
29   Crushed Surfacing   \$30   IN   \$0     30   Traffic Control (2%)   \$11,000   1   LS   \$11,000     31   General Restoration (2%)   \$11,000   1   LS   \$11,000     32   Mobilization (10%)   \$54,000   1   LS   \$54,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$54,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$54,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$54,000     34   General Restoration Costs Subtotal   \$642,250   \$642,250   \$642,250     Sales Tax @ 8.4%   \$53,949   \$53,949   \$53,949     Subtotal   \$696,199   \$606,199   \$606,199     Contingency   30%   \$208,860   \$905,059     Allied Costs   \$11,100   \$135,759     Administration/Legal (3%)   \$27,152   \$63,354     Property/Easement Acquisition (5%)   \$1,131,323   \$1,140,000	28	Imported Trench Backfill	\$25	2,310		\$57,750	
30   Traffic Control (2%)   \$11,000   1   LS   \$11,000     31   General Restoration (2%)   \$11,000   1   LS   \$11,000     32   Mobilization (10%)   \$54,000   1   LS   \$54,000     33   Temporary Erosion & Sediment Control (4%)   \$22,000   1   LS   \$54,000     33   Temporary Erosion & Subtotal   \$642,250   \$642,250   \$642,250     Sales Tax @ 8.4%   \$53,949   \$642,250   \$642,250     Subtotal   \$696,199   \$0000   \$53,949     Subtotal   \$696,199   \$000   \$208,860     Total Construction Cost   \$905,059   \$905,059     Allied Costs   \$905,059   \$11,57,59     Administration/Legal (3%)   \$227,152     Construction Services (7%)   \$63,354     Property/Easement Acquisition (5%)   \$1,131,323     USE   \$1,140,000	29	Crushed Surfacing	\$30			\$0	
31     General Restoration (2%)     \$11,000     1     LS     \$11,000       32     Mobilization (10%)     \$54,000     1     LS     \$54,000       33     Temporary Erosion & Sediment Control (4%)     \$22,000     1     LS     \$22,000       33     Temporary Erosion & Sediment Control (4%)     \$22,000     1     LS     \$22,000       Construction Costs Subtotal     \$642,250       Sales Tax @ 8.4%     \$53,949     \$53,949       Subtotal     \$696,199     \$208,860       Contingency     30%     \$208,860       Total Construction Cost     \$905,059     \$905,059       Allied Costs     \$905,059     \$135,759       Administration/Legal (3%)     \$135,759     \$135,759       Administration/Legal (3%)     \$27,152     \$63,354       Property/Easement Acquisition (5%)     \$1,131,323     \$1,140,000	30		\$11,000	1	LS	\$11,000	
32     Mobilization (10%)     \$54,000     1     LS     \$54,000       33     Temporary Erosion & Sediment Control (4%)     \$22,000     1     LS     \$22,000       33     Temporary Erosion & Sediment Control (4%)     \$22,000     1     LS     \$22,000       Construction Costs Subtotal     \$642,250     \$642,250     \$53,949     \$53,949       Subtotal     \$696,199     \$208,860     \$208,860     \$208,860       Total Construction Cost     \$905,059     \$905,059     \$905,059       Allied Costs     \$135,759     \$135,759     \$135,759       Administration/Legal (3%)     \$27,152     \$63,354       Property/Easement Acquisition (5%)     \$1,131,323     \$1,140,000	31	General Restoration (2%)	\$11,000	1	LS	\$11,000	
33     Temporary Erosion & Sediment Control (4%)     \$22,000     1     LS     \$22,000       Construction Costs Subtotal     \$642,250     \$sales Tax @ 8.4%     \$53,949     \$53,949       Subtotal     \$696,199     \$contingency     30%     \$208,860     \$905,059       Construction Cost     \$905,059     \$905,059     \$905,059     \$135,759       Allied Costs     \$135,759     \$135,759     \$135,759       Construction Services (7%)     \$63,354     \$63,354       Property/Easement Acquisition (5%)     \$1,131,323     \$1,140,000	32	Mobilization (10%)	\$54,000	1	10	\$54,000	
Construction Costs Subtotal     \$642,250       Sales Tax @ 8.4%     \$53,949       Subtotal     \$696,199       Contingency     30%     \$208,860       Total Construction Cost     \$905,059       Allied Costs     \$905,059       Allied Costs     \$135,759       Administration/Legal (3%)     \$135,759       Construction Services (7%)     \$63,354       Property/Easement Acquisition (5%)     \$1,131,323       USE     \$1,140,000	33	remporary Erosion & Sediment Control (4%)	\$22,000	1	LS	\$22,000	
Sales Tax @ 8.4%     \$53,949       Subtotal     \$696,199       Contingency     30%     \$208,860       Total Construction Cost     \$905,059       Allied Costs     \$905,059       Allied Costs     \$135,759       Engineering/Survey/Permits (15%)     \$135,759       Administration/Legal (3%)     \$27,152       Construction Services (7%)     \$63,354       Property/Easement Acquisition (5%)     \$1,131,323       USE     \$1,140,000		Construction Costs Subtotal				\$642,250	
Subtotal\$696,199Contingency30%\$208,860Total Construction Cost\$905,059Allied Costs\$905,059Engineering/Survey/Permits (15%)\$135,759Administration/Legal (3%)\$27,152Construction Services (7%)\$63,354Property/Easement Acquisition (5%)\$1,131,323USE		Sales Tax @ 8.4%				\$53,949	
Subtotal     \$696,199       Contingency     30%     \$208,860       Total Construction Cost     \$905,059       Allied Costs     \$905,059       Engineering/Survey/Permits (15%)     \$135,759       Administration/Legal (3%)     \$27,152       Construction Services (7%)     \$63,354       Property/Easement Acquisition (5%)     \$1,131,323       USE     \$1,140,000							
Contingency30%\$208,860Total Construction Cost\$905,059Allied Costs\$905,059Engineering/Survey/Permits (15%)\$135,759Administration/Legal (3%)\$27,152Construction Services (7%)\$63,354Property/Easement Acquisition (5%)\$1,131,323USE		Subtotal				\$696,199	
Total Construction Cost\$905,059Allied Costs\$135,759Engineering/Survey/Permits (15%)\$135,759Administration/Legal (3%)\$27,152Construction Services (7%)\$63,354Property/Easement Acquisition (5%)\$1,131,323USE		Contingency	30%			\$208,860	
Total Construction Cost   \$905,059     Allied Costs   Engineering/Survey/Permits (15%)     Engineering/Survey/Permits (15%)   \$135,759     Administration/Legal (3%)   \$27,152     Construction Services (7%)   \$63,354     Property/Easement Acquisition (5%)   \$1,131,323     USE   \$1,140,000							
Allied Costs Engineering/Survey/Permits (15%) \$135,759 Administration/Legal (3%) \$27,152 Construction Services (7%) \$63,354 Property/Easement Acquisition (5%) TOTAL ESTIMATED PROJECT COST \$1,131,323 USE \$1,140,000		Total Construction Cost				\$905,059	
Engineering/Survey/Permits (15%) \$135,759 Administration/Legal (3%) \$27,152 Construction Services (7%) \$63,354 Property/Easement Acquisition (5%) TOTAL ESTIMATED PROJECT COST \$1,131,323 USE \$1,140,000		Allied Costs					
Administration/Legal (3%)   \$133,759     Administration/Legal (3%)   \$27,152     Construction Services (7%)   \$63,354     Property/Easement Acquisition (5%)   \$1,131,323     USE   \$1,140,000		Engineering/Survey/Dermite (159/)				¢125 750	
Continuition Legial (3.76)   \$27,152     Construction Services (7%)   \$63,354     Property/Easement Acquisition (5%)   \$1,131,323     USE   \$1,140,000		Administration/Legal (3%)				\$100,109 \$07.450	
Construction Services (7%)   \$65,354     Property/Easement Acquisition (5%)   \$1,131,323     USE   \$1,140,000		Construction Services (7%)				ΦC2 254	
TOTAL ESTIMATED PROJECT COST \$1,131,323 USE \$1,140,000		Densitution Services (7%)				<b></b>	
TOTAL ESTIMATED PROJECT COST     \$1,131,323       USE     \$1,140,000		Fropeny/Easement Acquisition (5%)					
USE \$1.140.000		TOTAL ESTIMATED PROJECT COST				\$1,131.323	
		USE				\$1,140,000	

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Carty Road (Royle Road Central) Trunk





20-Year Capital Program Capital Project Profile

# **Boschma Trunk**

Location: <u>Ridgefield</u>	Capital Improvement Project 🛛
<b>CIP Number:</b> <u>3-610B</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advance Planning	Developer Reimbursement Program $\Box$
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Boschma (3-610)	Restoration & Replacement – Fleet & Facilities $\Box$

boschina (5-61)

## **Project Definition:**

<u>Objective.</u> Service to the Boschma mini-basin is largely conveyed by a 10-inch trunk line that flows in a northwesterly direction to the future Boschma Pump Station. This line is oversized to accommodate flows from Boschma and McCormick Creek mini-basins.

<u>Scope of Work.</u> The new trunk will consist of 4,000 LF of 10-inch sewer that will flow from in a northwesterly direction to the Boschma Pump Station. This upsized line will result in the District covering 10% of the construction costs and the balance being paid by future growth and development.

Project Statistics. Construct 4,000 LF of 10-inch gravity trunk.

### Photos: (on the reverse side)

### **Budget Information**:

\$2,170,000
\$1,730,498
Class 4 Est.
Sept. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

CIP # 3-610B

Boschma Trunk

20 -YEAR (2036) IMPROVEMENTS

Bid Item	Did Item Description	Linit Did Drice	Quantity	Linit	Tatal	
INO.	Bid Item Description Unit Bid Price Quantity Unit		Unit	TOLAI		
1	Pump Station - Mechanical	Station - Mechanical LS				
2	Pump Station Electrical					
3	Pump Station - Above Grade Structure	np Station - Above Grade Structure LS				
4	Pump Station - Site Work LS					
5	4 inch Eoroo Main			15		
7	6 inch Force Main					
/ 8	72-inch wetwell					
0	96-inch wetwell					
	8-inch PVC Gravity Llosize	\$120			02	
11	10-inch PV/C Gravity Upsize	\$120	4 000		\$520,000	
12	12-inch P\/C Gravity Upsize	\$130	4,000		<u>4020,000</u> ۵۵	
12	15-inch PVC Gravity Unsize	<u>\$140</u> \$160			<del>پر</del> ۵۳	
14	18-inch PV/C Gravity Upsize	\$170		LE	φ <u>υ</u> \$0	
15	21-inch PV/C Gravity Upsize	\$250		LE	φ <u>υ</u> \$0	
16	24-inch PVC Gravity Upsize	\$300		L.F	<u>\$0</u>	
17	30-inch PVC Gravity Upsize	\$330		LF	<u>\$0</u>	
18	48-inch Diameter Manhole	\$7,500	14	FA	\$105,000	
19	54-inch Diameter Manhole	\$8,500	0	FA	\$0	
20	60-inch Diameter Manhole	\$9,500	0	FA	\$0	
21	Lateral Connection	\$3,000	40	EA	\$120.000	
22	Dewatering	\$20.000		LS	\$0	
23	Temporary Flow Bypass	\$5.000		EA	\$0	
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0	
25	Sheeting, Shoring, Bracing	\$10	4,000	LF	\$40,000	
26	HMA Trench Patch	\$175	830	ΤN	\$145,250	
27	Half-Width Grind and Overlay	\$150		ΤN	\$0	
28	Imported Trench Backfill	\$25	4,390	ΤN	\$109,750	
29	Crushed Surfacing	\$30		ΤN	\$0	
30	Traffic Control (2%)	\$21,000	1	LS	\$21,000	
31	General Restoration (2%)	\$21,000	1	LS	\$21,000	
32	Mobilization (10%)	\$104,000	1	LS	\$104,000	
33	Temporary Erosion & Sediment Control (4%)	\$42,000	1	LS	\$42,000	
	Construction Costs Subtotal				\$1,228,000	
	Sales Tax @ 8.4%				\$103,152	
					· · · · · · ·	
	Subtotal				\$1,331,152	
	Contingency	30%			\$399,346	
	Total Construction Cost				\$1,730,498	
	Allied Costs					
	Engineering/Survey/Permits (15%)				\$259 575	
	Administration/Legal (3%)				\$51 015	
	Construction Services (7%)				\$121 125	
	Property/Easement Acquisition (5%)				ψι21,100	
	TOTAL ESTIMATED PROJECT COST				\$2,163,122	
	USE				\$2,170,000	

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet



W E

Boschma Trunk



# 20 – Year Capital Improvement Projects Ridgefield Area

# Pump Station and Force Main

CIP No.		Mini-Basin	Project Description
CIP Projec	sts		
3-202A	3-202	Heron	Ridge East Pump Station and Force Main
3-203A	3-203	Marina	a Pump Station, Force Main and WWTP Decommissioning – Phase II
3-502A	3-502	Gee C	creek Pump Station and Force Main Redirection – Phase II
3-503A	3-503	Gee C	creek East Pump Station A (Midway PS) – Phase I
3-503B	3-503	Gee C	creek East Pump Station A (Midway PS) and Force Main – Phase II
3-503C	3-503	Gee C	creek East Pump Station C (Central) and Force Main
3-503D	3-503	Gee C	creek East Pump Station D (South) and Force Main
3-601A	3-601	Pione	er Canyon Pump Station Upgrade and Force Main Connection
3-603A	3-603	Royle	Road Pump Station Upgrade – Phase II
3-603F	3-603	Royle	Road Pump Station Upgrade – Phase III
3-603C	3-603	Royle	Road Pump Station C (East) and Force Main
3-603E	3-603	Royle	Road Pump Station E (North) and Force Main
3-610B	3-610	Bosch	ma (aka NE 10 <sup>th</sup> ) Pump Station – Phase II
3-612A	3-612	Walke	r – Roher Pump Station and Force Main



20-Year Capital Program Capital Project Profile

# Heron Ridge East Pump Station and Force Main

Location: <u>Ridgefield</u> CIP Number: <u>3-202A</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

### Capital Improvement Project 🛛

- General Facilities
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: <u>Herron Ridge (3-202)</u>

## **Project Definition:**

Objective. Provide new Pump Station and Force main to serve the Heron Ridge Mini-Basin.

<u>Scope of Work.</u> Forecasted capacity requirements for this Pump Station is a peak hour flow of approximately 50 gpm. Potential easement acquisition.

Project Statistics. New 4-inch Force Main for an approximate distance of 600 feet.

Pump station – New submersible Pump Station with a 2036 capacity of 50 gpm and an approximate 50-year capacity of approximately 100 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure.

### Photos: (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$720,000
Construction Cost:	\$551,350
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 3-202A

Herron Ridge East Pump Station and Force Main 20-YEAR (2036) IMPROVEMENTS

Bid Item	1				_
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical (50 gpm)	Pump Station - Mechanical (50 gpm) \$125,000 1 LS			
2	Pump Station Electrical	1	LS	\$50,000	
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator	\$25,000	1	LS	\$25,000
6	4-inch Force Main	\$50	600	LF	\$30,000
7	6-inch Force Main			LF	\$0
8	72-inch wetwell	\$15,000	1	EA	\$15,000
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8.500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3.000	0	EA	\$0
22	Dewatering	\$20.000	1	LS	\$20.000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1.000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	600	LF	\$6.000
26	HMA Trench Patch	\$175	130	ΤN	\$22,750
27	Half-Width Grind and Overlav	\$150	0	ΤN	\$0
28	Imported Trench Backfill	\$25	500	ΤN	\$12,500
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$7.000	1	LS	\$7.000
31	General Restoration (2%)	\$7,000	1	LS	\$7,000
32	Mobilization (10%)	\$33.000	1	LS	\$33.000
33	Temporary Erosion & Sediment Control (4%)	\$13.000	1	LS	\$13.000
	Ormetmodiler Oresta Ordetetet	÷ - ;		-	¢004.050
					\$391,250
	Sales Tax @ 8.4%				\$32,865
	Subtotal				¢404.445
		000/			\$424,115 \$407.005
	Contingency	30%			\$127,235
	Total Construction Cost				<b>*554 050</b>
	Total Construction Cost				\$551,350
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$82,702
	Administration/Legal (3%)				\$16,540
	Construction Services (7%)				\$38,594
	Property/Easement Acquisition (5%)				\$27,567
					<b>•</b> -•-
	TOTAL ESTIMATED PROJECT COST				\$716,754
	USE				\$720,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Heron Ridge East Pump Station and Force Main







# Marina Pump Station, Force Main and WWTP Decommissioning – Phase II

Location: <u>Ridgefield</u> CIP Number: <u>3-203A</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

Capital Improvement Project ⊠ General Facilities ⊠ District Installed Infrastructure □ Septic Elimination Program □ Developer Reimbursement Program □ Fleet & Facilities □ Restoration & Replacement Project □ Restoration & Replacement - Gravity □ Restoration & Replacement - PS & FM □ Restoration & Replacement - Fleet & Facilities □

GSP Basin: Marina (3-203)

## **Project Definition:**

<u>Objective.</u> One of the critical elements in taking the Ridgefield WWTP off-line is directing the Marina Pump Station flow toward the Gee Creek Pump Station and its eventual conveyance to the Salmon Creek system. The Marina Pump Station and Force main will be configured to direct flow to the Gee Creek Pump Station.

<u>Scope of Work.</u> Upgrade the existing pump station to increase the capacity of the pump station from 223 gpm to 600 gpm to accommodate 2036 projected flow to the station. The anticipated 50-year flows through this station are expected to be approximately 1,500 gpm. Potential easement acquisition.

<u>Project Statistics.</u> The new force main will be directed and connected to an existing 12-inch force main requiring an added length of approximately 1,000 feet of 12-inch FM.

Pump station – Capacity increase from 223 gpm to 600 gpm. The existing wet well was installed with the anticipation of this modification and consequently does not need to be upsized. Replacement of two existing pumps with larger pumps, upgrades to the electrical system.

### Photos: (on the reverse side)

### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$1,070,000
Construction Cost:	\$821,916
Basis of Estimate:	Class 4 Est.
Date of Estimate:	Sept. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### **CIP #** 3-203A

Marina Pump Station, Force Main and WWTP Decommissioning (Phase II) 20 -YEAR (2036) IMPROVEMENTS

Bid Item	Bid Itom Description	Linit Rid Price	Quantity	Linit	Total
110.	Bid Rein Description		Quantity		101a1
1	Pump Station - Mechanical (600 gpm)	\$150,000	1	LS	\$150,000
2	Pump Station Electrical	\$75,000	1	LS	\$75,000
3	Pump Station - Above Grade Structure	\$50,000	1	LS	\$50,000
4	Pump Station - Site Work	<b>*•••••••••••••</b>	1	LS	\$0
5	Emergency Generator	\$35,000	1	LS	\$35,000
6	4-Inch Force Main	<b>\$</b> 25	4 000		\$0
1		\$95	1,000		\$95,000
8	72-inch wetwell			EA	\$0
y 10	96-inch wetwell	<b>A</b> / <b>A</b> A		EA	\$0
10	8-inch PVC Gravity Upsize	\$120			\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$15,000	1	EA	\$15,000
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	1,000	LF	\$10,000
26	HMA Trench Patch	\$175	210	ΤN	\$36,750
27	Half-Width Grind and Overlay	\$150		ΤN	\$0
28	Imported Trench Backfill	\$25	1,100	ΤN	\$27,500
29	Crushed Surfacing	\$30		ΤN	\$0
30	Traffic Control (2%)	\$10,000	1	LS	\$10,000
31	General Restoration (2%)	\$10,000	1	LS	\$10,000
32	Mobilization (10%)	\$49,000	1	LS	\$49,000
33	Temporary Erosion & Sediment Control (4%)	\$20,000	1	LS	\$20,000
	Construction Costs Subtotal				¢583.250
					\$363,230 ¢49,002
	Sales Tax @ 0.4%				\$40,995
	Subtotal				¢600.040
	Subiolal	20%			\$032,243 \$400,070
	Contingency	30%			\$109,073
	Total Construction Cost				¢021.016
					JOZ 1,910
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$123 287
	Administration/Legal (3%)				\$24 657
	Construction Services (7%)				\$57 521
	Property/Fasement Acquisition (5%)				¢07,004 ¢71 AAR
	r roperty/Lasement Acquisition (3%)				94 I,U90
	TOTAL ESTIMATED PROJECT COST				\$1,068,491
	USE				\$1.070.000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet









20-Year Capital Program Capital Project Profile

# Gee Creek Pump Station and Force Main Redirection – Phase II

Location: <u>Ridgefield</u>	Capital Improvement Project 🖂
CIP Number: <u>3-502A</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program $\Box$
	Fleet & Facilities 🗆
Project Manager: Unassigned	Restoration & Replacement Project 🗆
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Gee Creek (3-502)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

<u>Objective.</u> One of the critical elements in taking the Ridgefield WWTP off-line is redirecting the Gee Creek Pump Station flow toward the Pioneer Canyon Pump Station and its eventual conveyance to the Salmon Creek system. The existing Gee Creek Pump Station and Force main will be modified and directed to the future Gee Creek East Pump Station.

<u>Scope of Work.</u> Upgrade the existing pump station to comply with current safety and building codes, and improve the station's operation efficiency. Increase the capacity of the pump station to 950 gpm to accommodate 2036 projected flow to the station. The anticipated 50-year flows through this station are expected to be approximately 1,300 gpm. Potential easement acquisition.

<u>Project Statistics.</u> The current discharge force main will be repurposed to deliver flow from the Marina Pump Station and a new force main, approximately 1,100 feet in length, will be constructed to convey discharge to the new Gee Creek East Pump Station.

Pump station – Capacity increase from 775 gpm to 950 gpm. New 120-inch wet well, replacement of two existing pumps with larger pumps, upgrades to the electrical system.

### Photos: (on the reverse side)

### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$2,260,000
Construction Cost:	\$1,735,430
Basis of Estimate:	Class 4 Est
Date of Estimate:	Sept. 2016

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

CIP # 3-502A

Gee Creek Pump Station and Force Main Redirected (Phase II) 20-YEAR (2036) IMPROVEMENTS

Bid Item	Did Harr Description	Link Dist Date	Oursetter	1.114	Tatal
NO.	Bid Item Description	Unit Bid Price	Quantity	Unit	Iotal
1	Pump Station - Mechanical (950 gpm)	\$200,000	1	LS	\$200,000
2	Pump Station Electrical	\$100,000	1	LS	\$100,000
3	Pump Station - Above Grade Structure	\$150,000	1	LS	\$150,000
4	Pump Station - Site Work (difficult construction factor)	\$200,000	1	LS	\$200,000
5	Emergency Generator	\$50,000	1	LS	\$50,000
6	4-inch Force Main			LF	\$0
7	12-inch Force Main	\$95	1,100	LF	\$104,500
8	72-inch wetwell			EA	\$0
9	120-inch wetwell	\$60,000	1	EA	\$60,000
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Demolition of Existing Station	\$50,000	1	EA	\$50,000
22	Dewatering	\$30.000	1	LS	\$30,000
23	Temporary Flow Bypass	\$25.000	1	EA	\$25,000
24	Plug and Cap Abandoned Pipe	\$1.000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	1,100	LF	\$11.000
26	HMA Trench Patch	\$175	230	TN	\$40,250
27	Half-Width Grind and Overlay	\$150	0	TN	\$0
28	Imported Trench Backfill	\$25	910	TN	\$22,750
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$21,000	1	IS	\$21,000
31	General Restoration (2%)	\$21,000	1	LS	\$21,000
32	Mobilization (10%)	\$104,000	1	15	\$104,000
33	Temporary Frosion & Sediment Control (4%)	\$42,000	1	1.5	\$42,000
		¢ : <u>=</u> ;000	•		¢ :_;ccc
	Construction Costs Subtotal				\$1,231,500
	Sales Tax @ 8.4%				\$103,446
	Subtotal				\$1,334,946
	Contingency	30%			\$400,484
	Total Construction Cost				\$1,735,430
	Allied Costs				
					¢000.04.4
	Engineering/Survey/Permits (15%)				\$260,314
	Auministration/Legal (3%)				\$52,063
	Construction Services (7%)				\$121,480
	Property/Easement Acquisition (5%)				\$86,771
	TOTAL ESTIMATED PROJECT COST				\$2,256,059
	USE				\$2,200,000
					<i>~_,_00,000</i>

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 200 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Gee Creek Pump Station and Force Main Redirection (Phase II)





20-Year Capital Program Capital Project Profile

# Gee Creek East Pump Station A (Midway PS) Phase I

Location: <u>Ridgefield</u>	Capital Improvement Project 🖂	
CIP Number: <u>3-503A</u>	General Facilities 🛛	
GL Number:	District Installed Infrastructure $\Box$	
	Septic Elimination Program $\Box$	
Phase: Advanced Planning	Developer Reimbursement Program 🗆	
	Fleet & Facilities $\Box$	
Project Manager: Unassigned	Restoration & Replacement Project $\Box$	
	Restoration & Replacement - Gravity $\Box$	
	Restoration & Replacement – PS & FM $\Box$	
GSP Basin: Gee Creek East (3-503)	Restoration & Replacement – Fleet & Facilities $\Box$	

### **Project Definition:**

<u>Objective.</u> This initial residential pump station is will serve mini-basin parcels and will be the first phase of the ultimate configuration (Phase II) and pivotal component in redirecting the flows from the existing Gee Creek Pump Station (and the Ridgefield WWTP) to the Pioneer Canyon Pump Station. This phase of the work will include an oversized wet well for the next phase. Temporary point of discharge for this initial phase will be convey via a 4-inch force main in a northeasterly direction and discharge into the Gee Creek trunk system.

<u>Scope of Work.</u> The initial forecasted capacity requirements for this Pump Station is a peak hour flow of approximately 100 gpm. Potential easement acquisition.

Project Statistics. New 4-inch Force Main for an approximate distance of 500 feet.

Pump station – New submersible Pump Station with a capacity of 100 gpm and 500 LF of 4-inch force main.

### Photos: (on the reverse side)

### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$970,000 \$744,410 Class 4 Est. June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### **CIP #** 3-503A

Gee Creek East Pump Station A (north) and Force Main Phase I 20-YEAR (2036) IMPROVEMENTS

Bid Item	Bid Itom Description	Unit Rid Price	Quantity	Linit	Total
110.	Bid Item Description		Quantity		10lai
1	Pump Station - Mechanical (100 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	<u>LS</u>	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work	\$100,000	1	10	\$100,000
5	Emergency Generator	\$25,000	1	_LS	\$25,000
6	4-Inch Force Main	\$50	500		\$25,000
/	12-Inch Force Main	\$95			\$U
8		<b>\$</b> 00,000	4	EA	\$0
9		\$60,000	1	EA	\$60,000
10	8-inch PVC Gravity Upsize	\$120			\$0
11	10-inch PVC Gravity Upsize	\$130			\$0
12	12-inch PVC Gravity Upsize	\$140			\$0
13	15-inch PVC Gravity Upsize	\$160			\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250			\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	500	LF	\$5,000
26	HMA Trench Patch	\$175	10	ΤN	\$1,750
27	Half-Width Grind and Overlay	\$150	0	ΤN	\$0
28	Imported Trench Backfill	\$25	420	ΤN	\$10,500
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$9,000	1	LS	\$9,000
31	General Restoration (2%)	\$9,000	1	LS	\$9,000
32	Mobilization (10%)	\$45,000	1	LS	\$45,000
33	Temporary Erosion & Sediment Control (4%)	\$18,000	1	LS	\$18,000
	Construction Costs Subtotal				\$528,250
	Sales Tax @ 8.4%				\$44,373
	Subtotal				\$572,623
	Contingency	30%			\$171,787
	Total Construction Cost				\$744,410
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$111,661
	Administration/Legal (3%)				\$22,332
	Construction Services (7%)				\$52.109
	Property/Easement Acquisition (5%)				\$37,220
					··· ,
	TOTAL ESTIMATED PROJECT COST				\$967,733
	USE				\$970,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Gee Creek East Pump Station A (north) and Force Main (Mid-Way Pump Station) Phase I





# Gee Creek East Pump Station A (Midway PS) and Force Main – Phase II

Location: <u>Ridgefield</u> CIP Number: <u>3-503B</u> GL Number: District Installed Infrastructure

Phase: Advanced Planning

Project Manager: Unassigned

Capital Improvement Project 🛛

General Facilities 🛛

Septic Elimination Program  $\Box$ 

Developer Reimbursement Program  $\Box$ 

Fleet & Facilities  $\Box$ 

## Restoration & Replacement Project

Restoration & Replacement - Gravity  $\Box$ Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities

GSP Basin: Gee Creek East (3-503)

## **Project Definition:**

<u>Objective.</u> This station is a pivotal component in redirecting the flows from the existing Gee Creek Pump Station (and the Ridgefield WWTP) to the Pioneer Canyon Pump Station. Provide new pumps and force main to serve the Gee Creek East Basin and to receive the redirected flow from the Gee Creek Pump Station system. In addition to this Pump Station, there are two other smaller stations in the Gee Creek East mini-basin. The site work and wet well was installed as part of CIP# 3-503A

<u>Scope of Work.</u> 2036 forecasted capacity requirements for this Pump Station is a peak hour flow of approximately 1,100 gpm. Potential easement acquisition.

Project Statistics. New 12-inch Force Main for an approximate distance of 5,450 feet.

Pump station – New submersible Pump Station with a 2036 capacity of 1,100 gpm and a 50-year capacity of approximately 2,500 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure.

### Photos: (on the reverse side)

### **Budget Information:**

\$3,080,000
\$2,365,395
Class 4 Est.
Sept 2017

Schedule Information: Activity

<u>tivity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 3-503B

Gee Creek East Pump Station A (Midway) and Force Main - Phase II 20-YEAR (2036) IMPROVEMENTS

Bid Item	Bid Itom Description	Linit Rid Prico	Quantity	Llnit	Total
110.	Bid item Description		Quantity		10iai
1	Pump Station - Mechanical (1,100 gpm)	\$200,000	1	LS	\$200,000
2	Pump Station Electrical	\$100,000	1	LS	\$100,000
3	Pump Station - Above Grade Structure	\$150,000	1	10	\$150,000
4	Pump Station - Site Work	\$50,000	1	LS	\$50,000
5	Linergency Generator	\$50,000	1		\$50,000
0	4-Inch Force Main	\$OF	4 000		Φ465 500
/	72 inch watwoll	\$95	4,900		\$405,500 \$0
8	120 inch wetwell	\$60,000	1	EA	\$U
9	120-Inch welweil	\$60,000			
10	8-Inch PVC Gravity Upsize	\$120			\$0
11	10-Inch PVC Gravity Upsize	\$130			<u>\$0</u>
12	12-Inch PVC Gravity Upsize	\$140			\$0
13	15-inch PVC Gravity Upsize	\$160			\$0
14	18-inch PVC Gravity Upsize	\$170			\$0
15	21-inch PVC Gravity Upsize	\$250			\$0
16	24-inch PVC Gravity Upsize	\$300			\$0
17	30-inch PVC Gravity Upsize	\$330			\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	4,900	LF	\$49,000
26	HMA Trench Patch	\$175	1,020	ΤN	\$178,500
27	Half-Width Grind and Overlay	\$150	0	TN	\$0
28	Imported Trench Backfill	\$25	4,030	ΤN	\$100,750
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$28,000	1	LS	\$28,000
31	General Restoration (2%)	\$28,000	1	LS	\$28,000
32	Mobilization (10%)	\$142,000	1	LS	\$142,000
33	Temporary Erosion & Sediment Control (4%)	\$57,000	1	LS	\$57,000
	Construction Costs Subtotal				\$1,678,750
	Sales Tax @ 8.4%				\$141,015
	Subtotal				\$1,819,765
	Contingency	30%			\$545,930
	Total Construction Cost				\$2,365,695
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$354.854
	Administration/Legal (3%)				\$70.971
	Construction Services (7%)				\$165.599
	Property/Easement Acquisition (5%)				\$118,285
					¢0,200
	TOTAL ESTIMATED PROJECT COST				\$3,075,403
	USE				\$3,080,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Gee Creek East Pump Station A (north) and Force Main (Mid-Way Pump Station) Phase II





20-Year Capital Program Capital Project Profile

# Gee Creek East Pump Station C (Central) and Force Main

Location: <u>Ridgefield</u> CIP Number: <u>3-503C</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

Capital Improvement Project 🛛

General Facilities ⊠

District Installed Infrastructure  $\Box$ 

Septic Elimination Program  $\Box$ 

Developer Reimbursement Program  $\Box$ 

Fleet & Facilities  $\Box$ 

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Gee Creek East (3-503)

## **Project Definition:**

Objective. Provide new Pump Station and Force main to serve the Gee Creek East Mini-Basin.

<u>Scope of Work.</u> Forecasted capacity requirements for this Pump Station is a peak hour flow of approximately 120 gpm. Potential easement acquisition.

Project Statistics. New 4-inch Force Main for an approximate distance of 1,500 feet.

Pump station – New submersible Pump Station with a 2036 capacity of 150 gpm and an approximate 50-year capacity of approximately 350 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure.

### Photos: (on the reverse side)

### **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$950,000
Construction Cost:	\$727,147
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 3-503C

Gee Creek East Pump Station C (Central) and Force Main 20-YEAR (2036) IMPROVEMENTS

Bid Item	Pid Itam Deparimin	Linit Did Drive	Quantity	Linit	Total
110.	Durinem Description		Quantity	Unit	
1	Pump Station - Mechanical (150 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work	<b>*</b>	1	LS	\$0
5	Emergency Generator	\$25,000	1	LS	\$25,000
6	4-inch Force Main	\$50	1,500		\$75,000
/	6-inch Force Main				\$0
8	72-inch wetwell	\$15,000	1	EA	\$15,000
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	1,500	LF	\$15,000
26	HMA Trench Patch	\$175	320	ΤN	\$56,000
27	Half-Width Grind and Overlay	\$150	0	ΤN	\$0
28	Imported Trench Backfill	\$25	1,240	ΤN	\$31,000
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$9,000	1	LS	\$9,000
31	General Restoration (2%)	\$9,000	1	LS	\$9,000
32	Mobilization (10%)	\$44,000	1	LS	\$44,000
33	Temporary Erosion & Sediment Control (4%)	\$17,000	1	LS	\$17,000
	Construction Costs Subtotal				\$516,000
	Sales Tax @ 8.4%				\$43.344
	Subtotal				\$559.344
	Contingency	30%			\$167.803
					• • • • • •
	Total Construction Cost				\$727,147
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$109,072
	Administration/Legal (3%)				\$21,814
	Construction Services (7%)				\$50,900
	Property/Easement Acquisition (5%)				\$36,357
	TOTAL ESTIMATED PROJECT COST				\$945,291
	USE				\$950,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Gee Creek East Pump Station C (central) and Force Main




20-Year Capital Program Capital Project Profile

# Gee Creek East Pump Station D (South) and Force Main

Location: <u>Ridgefield</u> CIP Number: <u>3-503D</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

## Capital Improvement Project 🛛

- General Facilities
- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Gee Creek East (3-503)

## **Project Definition:**

Objective. Provide new Pump Station and Force main to serve the Gee Creek East Mini-Basin.

<u>Scope of Work.</u> Forecasted capacity requirements for this Pump Station is a peak hour flow of approximately 60 gpm. Potential easement acquisition.

Project Statistics. New 4-inch Force Main for an approximate distance of 1,800 feet.

Pump station – New submersible Pump Station with a 2036 capacity of 60 gpm and an approximate 50-year capacity of approximately 150 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure.

## Photos: (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$1,020,000
Construction Cost:	\$783,163
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 3-503D

Gee Creek East Pump Station D (South) and Force Main 20-YEAR (2036) IMPROVEMENTS

Bid Item	Pid Itom Deparintion	Linit Rid Drice	Quantity	Linit	Total
INO.	Bid item Description		Quantity	Unit	Total
1	Pump Station - Mechanical (60 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work	•	1	LS	\$0
5	Emergency Generator	\$25,000	1	LS	\$25,000
6	4-inch Force Main	\$50	1,800		\$90,000
(	6-inch Force Main				\$0
8	72-inch wetwell	\$15,000	1	EA	\$15,000
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	1,800	LF	\$18,000
26	HMA Trench Patch	\$175	380	ΤN	\$66,500
27	Half-Width Grind and Overlay	\$150	0	ΤN	\$0
28	Imported Trench Backfill	\$25	1,490	ΤN	\$37,250
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$9,000	1	LS	\$9,000
31	General Restoration (2%)	\$9,000	1	LS	\$9,000
32	Mobilization (10%)	\$47,000	1	LS	\$47,000
33	Temporary Erosion & Sediment Control (4%)	\$19,000	1	LS	\$19,000
	Construction Costs Subtotal				\$555,750
	Sales Tax @ 8.4%				\$46,683
	Subtotal				\$602,433
	Contingency	30%			\$180,730
	Total Construction Cost				\$783,163
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$117,474
	Administration/Legal (3%)				\$23,495
	Construction Services (7%)				\$54.821
	Property/Easement Acquisition (5%)				\$39,158
					···, ···
	TOTAL ESTIMATED PROJECT COST				\$1,018,112
	USE				\$1,020,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Gee Creek East Pump Station D (south) and Force Main







# **Pioneer Canyon Pump Station Upgrade and Force Main Connection**

Location: Ridgefield	Capital Improvement Project 🛛
CIP Number: <u>3-601A</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program 🗆
	Fleet & Facilities 🗆
Project Manager: Unassigned	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Pioneer Canyon (3-601)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

Objective. The development of the Pioneer Canyon Pump Station was distributed over several phases. One of the future and critical elements is increasing the pump station capacity to convey all Ridgefield flows through the DCWTS system.

Scope of Work. Upgrade the existing pump station by:

- 1) Increasing the motors to 160 horsepower
- 2) Making connection to the existing force main adjacent to the existing station.

This will increase the station's capacity to 4,100 gpm.

Project Statistics. The current discharge force mains will be adequate for the 20-year expected flows, once the connection has been made.

Pump station – Capacity increase from 1,560 gpm to 4,100 gpm.

**Photos:** (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$1,590,000
Construction Cost:	\$1,217,197
Basis of Estimate:	Class 4 Est.
Date of Estimate:	Sept. 2016
Date of Estimate.	00000.2010

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### **CIP #** 3-601A

Pioneer Canyon Pump Station Upgrade and Connection to Existing FM 20-YEAR (2036) IMPROVEMENTS

Bid Item	) Did Kara Dagaristian	Linit Did Drive	Owentites	1.1	Tatal
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	lotal
1	Pump Station - Mechanical (replace with 160 HP motors)	\$200,000	1	LS	\$200,000
2	Pump Station Electrical	\$75,000	1	LS	\$75,000
3	Pump Station - Above Grade Structure			LS	\$0
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator	\$50,000	1	LS	\$50,000
6	4-inch Force Main			LF	\$0
7	6-inch Force Main			LF	\$0
8	Connection to Force Main Vault	\$500,000	1	LS	\$500,000
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7.500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	FA	\$0
20	60-inch Diameter Manhole	\$9,500	0	FA	\$0
21	Lateral Connection	\$3,000	0	FA	\$0
22	Dewatering	\$20,000	1	1.5	\$20,000
23	Temporary Flow Bypass	\$5,000		FA	<u>\$0</u>
24	Plug and Can Abandoned Pine	\$1,000		ΕΛ	0 <del>0</del>
25	Sheeting Shoring Bracing	\$10	0		0 <del>0</del>
26	HMA Trench Patch	\$175	100		φυ \$17 500
20	Half-Width Grind and Overlay	\$175 \$150	100		<u>۹۱۲,500</u> ۹۵
21	Imported Trench Backfill	ψ130 ¢25	20		ψυ \$500
20	Crushed Surfacing	ψ20 \$20	20		\$300
29	Traffia Control (2%)	¢30 ¢17.000	20	10	φ/30 ¢0
21	Conorol Restoration (2%)	\$17,000		10	<u>عں</u> 20
22	Mehilization (10%)	\$17,000		1.9	ψ <u>υ</u> ΦΦ
32	Temperary Fracian & Sediment Centrel (49()	\$00,000 \$25,000		10	<u> </u>
33	Temporary Erosion & Sediment Control (4%)	\$35,000		Lð	<b>Ф</b> О
	Construction Costs Subtotal				\$863,750
	Sales Tax @ 8.4%				\$72,555
	Subtotal				\$936,305
	Contingency	30%			\$280,892
	Total Construction Cost				\$1,217,197
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$182 579
	Administration/Legal (3%)				\$36,516
	Construction Services (7%)				\$85 204
	Property/Fasement Acquisition (5%)				\$60,204 \$60,860
	roperty Eusement Acquisition (070)				ψ00,000
	TOTAL ESTIMATED PROJECT COST				\$1 582 355
				_	\$1,502,000
					000,000 P

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 200 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Pioneer Canyon Pump Station Upgrade and Force Main Connection





20-Year Capital Program **Capital Project Profile** 

# **Royle Road Pump Station – Phase II**

Location: <u>Ridgefield</u>	Capital Improvement Project 🖂
CIP Number: <u>3-603A</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program $\Box$
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Royle Road (3-603)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

Objective. The initial construction of the Royle Road Pump Station was phased to accommodate future expansion as growth develops. Phase II involves the addition of a third pump bringing the station capacity to approximately 1,000 gpm. Flow from the Royle Road Pump Station is directed to the Pioneer Canyon Station which conveys flow through the DCWTS system.

Scope of Work. Upgrade the existing pump station by adding a third pump to the two existing pumps to bring the firm capacity up to 1,000 gpm. This is anticipated to be needed in the year 2028. This will increase the station's capacity to 1,000 gpm.

Project Statistics. The current discharge force mains will be adequate for the 20-year expected flows, once the connection has been made. Pump station – Capacity increase from 800 gpm to 1,000 gpm.

## **Photos:** (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	
Construction Cost:	
Basis of Estimate:	
Date of Estimate:	

\$190,000 \$139,511 Class 4 Est. Sept. 2016

<u>Activity</u>	<u>Year</u>
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

CIP # 3-603A

Phase II of Royle Road Pump Station 20 - YEAR (2036) IMPROVEMENTS

The instruction of the second secon	Bid Item	Bid Item Description	Linit Bid Price	Quantity	Unit	Total
1     Pump Station - Webchainca Modification - Step 2     1     LS     \$30,000     LF     \$30,000     LF     \$30,000     LS     \$30,000     LF     \$30,000     LS     \$30,000     LF	110.	Burne Station Machanical Modification Stan 1	Offic Did Pfice	Quantity		10tai
2     Pump Station Heddratical Modulization     \$20,000     1     LS     \$20,000       4     Pump Station - Above Grade Structure Modifications     \$15,000     1     LS     \$20,000       4     Pump Station - Steve Grade Structure Modifications     \$15,000     1     LS     \$20,000       6     Emergency Generator     LS     \$50       7     4-inch Force Main     LF     \$00       9     72-inch wetwell     EA     \$00       9     96-inch wetwell     EA     \$00       10     96-inch wetwell     EA     \$00       11     8-inch PVC Gravity Upsize     \$140     LF     \$00       12     10-inch PVC Gravity Upsize     \$150     LF     \$00       14     15-inch PVC Gravity Upsize     \$250     LF     \$00       15     18-inch PVC Gravity Upsize     \$250     LF     \$00       16     21-inch PVC Gravity Upsize     \$330     LF     \$00       18     30-inch PVC Gravity Upsize     \$330     LF     \$00       18	2	Pump Station - Mechanical Modification - Step 1	\$50,000	1	LO	\$50,000
3     Print Station - Above Grade Structure Modifications     \$20,000     1     LS     \$30,000       5     Prump Station - Above Grade Structure Modifications     \$15,000     1     LS     \$15,000       5     Prump Station - Site Work     LS     \$10,000     1     LS     \$10,000       6     Emergency Generator     LS     \$00	2	Pump Station Floctrical Sonvice Modifications	¢20.000	1	19	\$0 000 000
Imp Station - Site Work     LS     \$10,000     I     LS     \$10,000       6     Emergency Generator     LS     \$00       7     4-inch Force Main     LF     \$00       7     4-inch Force Main     LF     \$00       9     72-inch wetwell     EA     \$00       10     96-inch wetwell     EA     \$00       11     8-inch PVC Gravity Upsize     \$120     LF     \$00       12     10-inch PVC Gravity Upsize     \$160     LF     \$00       13     12-inch PVC Gravity Upsize     \$170     LF     \$00       14     15-inch PVC Gravity Upsize     \$170     LF     \$00       15     18-inch PVC Gravity Upsize     \$3300     LF     \$00       16     21-inch PVC Gravity Upsize     \$3300     LF     \$00       18     30-inch PVC Gravity Upsize     \$3300     LF     \$00       24-inch Diameter Manhole     \$7,500     0     EA     \$00       21     60-inch Diameter Manhole     \$30,000     EA     \$00	3	Pump Station - Above Grade Structure Modifications	\$20,000	1		\$20,000
0     Emergency Generator     LS     \$0       7     4-inch Force Main     LF     \$0       8     Ginch Force Main     LF     \$0       9     72-inch wetwell     EA     \$0       10     96-inch Vetwell     EA     \$0       11     8-inch Force Main     LF     \$0       12     10-inch Vetwell     EA     \$0       12     10-inch PVC Gravity Upsize     \$130     LF     \$0       13     12-inch PVC Gravity Upsize     \$140     LF     \$0       14     15-inch PVC Gravity Upsize     \$170     LF     \$0       15     18-inch PVC Gravity Upsize     \$250     LF     \$0       16     21-inch PVC Gravity Upsize     \$330     LF     \$0       18     30-inch PVC Gravity Upsize     \$3300     LF     \$0       12     44-inch Diameter Manhole     \$9,500     EA     \$0       13     12-inch PVC Gravity Upsize     \$3300     LF     \$0       14     45-inch Diameter Manhole     \$10	5	Pump Station - Site Work	\$13,000	I	LS	\$13,000 \$0
0     Endiguny University     ED     90       7     4-Inch Force Main     LF     \$0       8     6-Inch Force Main     LF     \$0       9     72-Inch wetwell     EA     \$0       10     96-Inch wetwell     EA     \$0       11     6-Inch PVC Gravity Upsize     \$120     LF     \$0       12     10-Inch PVC Gravity Upsize     \$140     LF     \$0       13     12-Inch PVC Gravity Upsize     \$160     LF     \$0       14     15-Inch PVC Gravity Upsize     \$170     LF     \$0       15     18-Inch PVC Gravity Upsize     \$250     LF     \$0       16     21-Inch PVC Gravity Upsize     \$330     LF     \$0       17     24-Inch PVC Gravity Upsize     \$330     LF     \$0       19     48-Inch Diameter Manhole     \$7,50     0     EA     \$0       20     54-Inch Diameter Manhole     \$3,000     EA     \$0     \$2     Lateral Connection     \$3,000     EA     \$0       21     <	6	Emergency Generator				\$0 \$0
1     1	7	4-inch Eorce Main			LO	\$0 \$0
a     T2-inch wetwell     EA     S0       10     96-inch wetwell     EA     \$0       11     8-inch VPC Gravity Upsize     \$130     LF     \$0       12     10-inch PVC Gravity Upsize     \$140     LF     \$0       13     12-inch PVC Gravity Upsize     \$140     LF     \$0       14     15-inch PVC Gravity Upsize     \$160     LF     \$0       15     18-inch PVC Gravity Upsize     \$320     LF     \$0       16     21-inch PVC Gravity Upsize     \$330     LF     \$0       18     30-inch PVC Gravity Upsize     \$330     LF     \$0       19     48-inch Diameter Manhole     \$7,500     EA     \$0       20     54-inch Diameter Manhole     \$8,500     EA     \$0       21     60-inch Diameter Manhole     \$9,500     EA     \$0       22     Lateral Connection     \$3,000     EA     \$0       23     Dewatering     \$10     0     LF     \$0       24     Temporary Flow Bypass     \$5,000	8	6-inch Force Main			LF	\$0
0     96-Inch wetwell     EA     \$00       11     8-Inch PVC Gravity Upsize     \$120     LF     \$00       12     10-Inch PVC Gravity Upsize     \$130     LF     \$00       13     12-Inch PVC Gravity Upsize     \$140     LF     \$00       14     15-Inch PVC Gravity Upsize     \$110     LF     \$00       16     21-Inch PVC Gravity Upsize     \$250     LF     \$00       17     24-Inch PVC Gravity Upsize     \$3300     LF     \$00       18     30-Inch PVC Gravity Upsize     \$3300     LF     \$00       19     48-Inch Diameter Manhole     \$7,500     EA     \$00       21     10-Inch Diameter Manhole     \$8,500     EA     \$00       22     Lateral Connection     \$3,000     EA     \$00       23     Dewatering     \$100     LF     \$00       24     Temporary Flow Bypass     \$5,000     EA     \$00       25     Plug and Cap Abandoned Pipe     \$1,000     EA     \$00       26     Sheeting, Shoo	9	72-inch wetwell			EA	\$0 \$0
11   8-inch PVC Gravity Upsize   \$120   LF   \$00     12   10-inch PVC Gravity Upsize   \$130   LF   \$00     13   12-inch PVC Gravity Upsize   \$140   LF   \$00     14   15-inch PVC Gravity Upsize   \$110   LF   \$00     15   18-inch PVC Gravity Upsize   \$170   LF   \$00     16   21-inch PVC Gravity Upsize   \$250   LF   \$00     17   24-inch PVC Gravity Upsize   \$330   LF   \$00     18   30-inch PVC Gravity Upsize   \$330   LF   \$00     19   48-inch Diameter Manhole   \$7,500   EA   \$00     20   54-inch Diameter Manhole   \$8,500   EA   \$00     21   60-inch Diameter Manhole   \$8,500   EA   \$00     22   Lateral Connection   \$33,000   EA   \$00     23   Dewatering   \$100   LF   \$00     24   Temporary Flow Bypass   \$500   EA   \$00     25   Plug and Cap Abandoned Pipe   \$1,000   EA   \$00 <td< td=""><td>10</td><td>96-inch wetwell</td><td></td><td></td><td>EA</td><td>\$0 \$0</td></td<>	10	96-inch wetwell			EA	\$0 \$0
12   10-inch PVC Gravity Upsize   \$130   LF   \$00     13   12-inch PVC Gravity Upsize   \$140   LF   \$00     14   15-inch PVC Gravity Upsize   \$160   LF   \$00     15   18-inch PVC Gravity Upsize   \$170   LF   \$00     16   21-inch PVC Gravity Upsize   \$250   LF   \$00     17   24-inch PVC Gravity Upsize   \$330   LF   \$00     18   30-inch PVC Gravity Upsize   \$330   LF   \$00     19   48-inch Diameter Manhole   \$7,500   0   EA   \$00     20   54-inch Diameter Manhole   \$8,500   0   EA   \$00     21   60-inch Diameter Manhole   \$8,500   0   EA   \$00     22   Lateral Connection   \$3,000   EA   \$00     23   Dewatering   \$20,000   LS   \$00     24   Temporary Flow Bypass   \$5,000   EA   \$00     25   Plug and Cap Abandoned Pipe   \$1,000   EA   \$00     26   Sheeting, Shoring, Bracing   \$10	11	8-inch PVC Gravity Unsize	\$120		LF	\$0
13     12-inch PVC Gravity Upsize     140     LF     50       14     15-inch PVC Gravity Upsize     \$1140     LF     \$00       14     15-inch PVC Gravity Upsize     \$1170     LF     \$00       16     21-inch PVC Gravity Upsize     \$250     LF     \$00       17     24-inch PVC Gravity Upsize     \$300     LF     \$00       18     30-inch PVC Gravity Upsize     \$330     LF     \$00       19     48-inch Diameter Manhole     \$7,500     0     EA     \$00       20     54-inch Diameter Manhole     \$8,500     EA     \$00       21     60-inch Diameter Manhole     \$8,500     EA     \$00       23     Dewatering     \$100     LF     \$00       24     Temporary Flow Bypass     \$5,000     EA     \$00       25     Plug and Cap Abandoned Pipe     \$100     0     LF     \$00       26     Sheeting, Shoring, Bracing     \$10     0     LF     \$00       27     HMA Trench Patch     \$175     TN	12	10-inch PVC Gravity Upsize	\$130		LF	\$0 \$0
14   15-Inch PVC Gravity Upsize   \$160   LF   \$00     15   18-inch PVC Gravity Upsize   \$170   LF   \$00     16   21-inch PVC Gravity Upsize   \$250   LF   \$00     17   24-inch PVC Gravity Upsize   \$330   LF   \$00     18   30-inch PVC Gravity Upsize   \$330   LF   \$00     19   48-inch Diameter Manhole   \$7,500   0   EA   \$00     20   54-inch Diameter Manhole   \$8,500   0   EA   \$00     21   60-inch Diameter Manhole   \$20,000   LS   \$00     22   Lateral Connection   \$3,000   EA   \$00     23   Dewatering   \$20,000   LS   \$00     24   Temporary Flow Bypass   \$5,000   EA   \$00     25   Plug and Cap Abandoned Pipe   \$1,000   EA   \$00     26   Sheeting, Shoring, Bracing   \$10   0   LF   \$00     27   HIMA Trench Patch   \$175   0   TN   \$00     28   Half-Width Grind and Overlay   \$150	13	12-inch PVC Gravity Upsize	\$140		LF	\$0 \$0
11   10   10   11   15   16   16   170   1.F   \$100   16     16   21-inch PVC Gravity Upsize   \$250   1.F   \$00     17   24-inch PVC Gravity Upsize   \$330   1.F   \$00     18   30-inch PVC Gravity Upsize   \$330   1.F   \$00     19   48-inch Diameter Manhole   \$7,500   0   EA   \$00     21   60-inch Diameter Manhole   \$8,500   0   EA   \$00     21   60-inch Diameter Manhole   \$3,000   EA   \$00     22   Lateral Connection   \$3,000   EA   \$00     23   Dewatering   \$100   0   EA   \$00     24   Temporary Flow Bypass   \$5,000   EA   \$00     25   Plug and Cap Abandoned Pipe   \$100   0   LF   \$00     26   Sheeting, Shoring, Bracing   \$10   0   LF   \$00     27   HMA Trench Patch   \$110   0   LF   \$00     28   Half-Width Grind and Overlay   \$150   0	14	15-inch PVC Gravity Upsize	\$160		LF	\$0 \$0
10   10   10   11   10   11   10   11   10   11 <td< td=""><td>15</td><td>18-inch PVC Gravity Upsize</td><td>\$170</td><td></td><td>LF</td><td>\$0</td></td<>	15	18-inch PVC Gravity Upsize	\$170		LF	\$0
17   24-inch PVC Gravity Upsize   \$300   LF   \$00     18   30-inch PVC Gravity Upsize   \$330   LF   \$0     19   48-inch Diameter Manhole   \$7,500   0   EA   \$0     20   54-inch Diameter Manhole   \$8,500   0   EA   \$0     21   60-inch Diameter Manhole   \$9,500   0   EA   \$0     21   60-inch Diameter Manhole   \$9,500   0   EA   \$0     22   Lateral Connection   \$3,000   EA   \$0     23   Dewatering   \$20,000   LS   \$0     24   Temporary Flow Bypass   \$5,000   EA   \$0     25   Plug and Cap Abandoned Pipe   \$1,000   EA   \$0     26   Sheeting, Shoring, Bracing   \$10   0   LF   \$0     27   HMA Trench Patch   \$117   0   TN   \$0     28   Half-Width Grind and Overlay   \$150   0   TN   \$0     30   Crushed Surfacing   \$30   TN   \$0     31   Traffic Control (2%)	16	21-inch PVC Gravity Upsize	\$250		LF	\$0 \$0
11   11   11   12   13   30   12   50     18   30-inch PVC Gravity Upsize   \$33   33   14   50     19   48-inch Diameter Manhole   \$7,500   0   EA   \$0     20   54-inch Diameter Manhole   \$8,500   0   EA   \$0     21   60-inch Diameter Manhole   \$9,500   0   EA   \$0     22   Lateral Connection   \$33,000   EA   \$0     23   Dewatering   \$20,000   LS   \$0     24   Temporary Flow Bypass   \$5,000   EA   \$0     25   Plug and Cap Abandoned Pipe   \$1,000   EA   \$0     26   Sheeting, Shoring, Bracing   \$10   0   LF   \$0     27   HMA Trench Patch   \$175   0   TN   \$0     28   Half-Width Grind and Overlay   \$150   0   TN   \$0     29   Imported Trench Backfill   \$25   0   TN   \$0     30   Crutshed Surfacing   \$33.000   1   LS   \$2,000	17	24-inch PVC Gravity Upsize	\$300		LF	\$0 \$0
10   36 mini-to Control (2000)   EA   500   EA   500     19   48-inch Diameter Manhole   \$7,500   0   EA   \$00     20   54-inch Diameter Manhole   \$8,500   0   EA   \$00     21   60-inch Diameter Manhole   \$3,000   EA   \$00     22   Lateral Connection   \$30,000   EA   \$00     23   Dewatering   \$20,000   LS   \$00     24   Temporary Flow Bypass   \$5,000   EA   \$00     25   Plug and Cap Abandoned Pipe   \$1000   EA   \$00     26   Sheeting, Shoring, Bracing   \$10   0   LF   \$00     27   HMA Trench Patch   \$175   0   TN   \$00     28   Half-Width Grind and Overlay   \$150   0   TN   \$00     29   Imported Trench Backfill   \$22,000   LS   \$00     30   Crushed Surfacing   \$30   TN   \$00     31   Traffic Control (2%)   \$2,000   LS   \$00     32   General Restoration (2%)	18	30-inch PVC Gravity Upsize	\$330		LF	\$0 \$0
13   40 monoto   0   EA   50     20   54-inch Diameter Manhole   \$8,500   0   EA   \$0     21   60-inch Diameter Manhole   \$9,500   0   EA   \$0     22   Lateral Connection   \$3,000   EA   \$0     23   Dewatering   \$20,000   LS   \$0     24   Temporary Flow Bypass   \$5,000   EA   \$0     25   Plug and Cap Abandoned Pipe   \$1,000   EA   \$0     26   Sheeting, Shoring, Bracing   \$10   0   LF   \$0     27   HMA Trench Patch   \$175   0   TN   \$0     28   Half-Width Grind and Overlay   \$150   0   TN   \$0     29   Imported Trench Backfill   \$25   0   TN   \$0     30   Crushed Surfacing   \$30   TN   \$0     31   Traffic Control (2%)   \$2,000   LS   \$0     32   General Restoration (2%)   \$2,000   1   LS   \$3,000     34   Temporary Frosion & Sediment Control (4%)	19	48-inch Diameter Manhole	\$7 500	0	FΔ	\$0 \$0
10   001000   0   EA   \$00000     21   601-inch Diameter Manhole   \$9,500   0   EA   \$0000     22   Lateral Connection   \$3,000   EA   \$0000     23   Dewatering   \$20,000   LS   \$0000     24   Temporary Flow Bypass   \$5,000   EA   \$0000     25   Plug and Cap Abandoned Pipe   \$10,000   EA   \$0000     26   Sheeting, Shoring, Bracing   \$10   0   LF   \$0000     27   HMA Trench Patch   \$175   0   TN   \$0000     28   Half-Width Grind and Overlay   \$150   0   TN   \$0000     29   Imported Trench Backfill   \$25   0   TN   \$0000     30   Crushed Surfacing   \$300   TN   \$0000   LS   \$0000     31   Traffic Control (2%)   \$2,000   1   LS   \$2,000     32   General Restoration (2%)   \$2,000   1   LS   \$3,000     34   Temporary Erosion & Sediment Control (4%)   \$3,000   1   LS	20	54-inch Diameter Manhole	\$8,500	0	FA	\$0 \$0
22   Lateral Connection   \$3,000   EA   \$00     23   Dewatering   \$20,000   LS   \$00     24   Temporary Flow Bypass   \$5,000   EA   \$00     25   Plug and Cap Abandoned Pipe   \$1,000   EA   \$00     26   Sheeting, Shoring, Bracing   \$10   0   LF   \$00     27   HMA Trench Patch   \$175   0   TN   \$00     28   Half-Width Grind and Overlay   \$150   0   TN   \$00     29   Imported Trench Backfill   \$25   0   TN   \$00     30   Crushed Surfacing   \$30   TN   \$00     31   Traffic Control (2%)   \$2,000   LS   \$0,000     34   Temporary Erosion & Sediment Control (4%)   \$3,000   1   LS   \$3,000     34   Temporary Erosion & Sediment Control (4%)   \$3,000   1   LS   \$3,000     34   Temporary Erosion & Sediment Control (4%)   \$3,000   1   LS   \$3,000     35   Subtotal   Subtotal   \$10,7,316   \$20,927	21	60-inch Diameter Manhole	\$9,500	0	FA	\$0
Laboration     30:000     LN     30:000       23     Dewatering     \$20,000     LS     \$0:000       24     Temporary Flow Bypass     \$5,000     EA     \$0:000       24     Temporary Flow Bypass     \$5,000     EA     \$0:000       25     Plug and Cap Abandoned Pipe     \$10:00     EA     \$0:000       26     Sheeting, Shoring, Bracing     \$10:00     0     LF     \$0:000       27     HMA Trench Patch     \$175:00     TN     \$0:000     29:000     LS     \$0:000       28     Half-Width Grind and Overlay     \$150:00     TN     \$0:000     \$0:000     TN     \$0:000     \$	22	Lateral Connection	\$3,000	0	FA	\$0
24     Temporary Flow Bypass     \$5,000     EA     \$00       24     Temporary Flow Bypass     \$5,000     EA     \$00       25     Plug and Cap Abandoned Pipe     \$10     0     LF     \$00       26     Sheeting, Shoring, Bracing     \$10     0     LF     \$00       27     HMA Trench Patch     \$175     0     TN     \$00       28     Half-Width Grind and Overlay     \$150     0     TN     \$00       29     Imported Trench Backfill     \$25     0     TN     \$00       30     Crushed Surfacing     \$30     TN     \$00       31     Traffic Control (2%)     \$2,000     LS     \$20       32     General Restoration (2%)     \$2,000     1     LS     \$2,000       33     Mobilization (10%)     \$9,000     1     LS     \$2,000       34     Temporary Erosion & Sediment Control (4%)     \$3,000     1     LS     \$3,000       34     Subtotal     \$107,316     \$32,990     \$32,990     \$32,195 </td <td>23</td> <td>Dewatering</td> <td>\$20,000</td> <td></td> <td>1.5</td> <td>\$0 \$0</td>	23	Dewatering	\$20,000		1.5	\$0 \$0
25   Plug and Cap Abandoned Pipe   \$1,000   EA   \$00     26   Sheeting, Shoring, Bracing   \$10   0   LF   \$00     27   HMA Trench Patch   \$175   0   TN   \$00     28   Half-Width Grind and Overlay   \$150   0   TN   \$00     29   Imported Trench Backfill   \$25   0   TN   \$00     29   Imported Trench Backfill   \$25   0   TN   \$00     30   Crushed Surfacing   \$30   TN   \$00     31   Traffic Control (2%)   \$2,000   LS   \$2,000     32   General Restoration (2%)   \$2,000   1   LS   \$2,000     34   Tremporary Erosion & Sediment Control (4%)   \$3,000   1   LS   \$3,000     34   Temporary Erosion & Sediment Control (4%)   \$3,000   1   LS   \$3,000     34   Temporary Erosion & Sediment Control (4%)   \$3,000   1   LS   \$3,000     35   Subtotal   \$107,316   \$107,316   \$20,927   \$4,185   \$20,927     Administrati	24	Temporary Flow Bypass	\$5,000		FA	\$0 \$0
Insgrate Supring, Bracing     Instruction     Instruction <thinstruction< th="">     Instruction     <thinstructio< td=""><td>25</td><td>Plug and Cap Abandoned Pipe</td><td>\$1,000</td><td></td><td>FA</td><td>\$0</td></thinstructio<></thinstruction<>	25	Plug and Cap Abandoned Pipe	\$1,000		FA	\$0
1   0   0   17   0   1   0     27   HMA Trench Patch   \$175   0   TN   \$0     28   Half-Width Grind and Overlay   \$150   0   TN   \$0     29   Imported Trench Backfill   \$25   0   TN   \$0     30   Crushed Surfacing   \$30   TN   \$0     31   Traffic Control (2%)   \$2,000   L LS   \$0     32   General Restoration (2%)   \$2,000   1   LS   \$2,000     33   Mobilization (10%)   \$2,000   1   LS   \$2,000     34   Temporary Erosion & Sediment Control (4%)   \$3,000   1   LS   \$3,000     34   Temporary Erosion & Sediment Control (4%)   \$3,000   1   LS   \$3,000     34   Temporary Erosion & Sediment Control (4%)   \$3,000   1   LS   \$3,000     35   Subtotal   \$107,316   \$107,316   \$139,511     Allied Costs   Engineering/Survey/Permits (15%)   \$20,927   \$4,185   \$20,927     Administration/Legal (3%)   \$4,185	26	Sheeting Shoring Bracing	\$10	0	LF	\$0
28   Half-Width Grind and Overlay   \$150   0   TN   \$0     29   Imported Trench Backfill   \$25   0   TN   \$0     30   Crushed Surfacing   \$30   TN   \$0     31   Traffic Control (2%)   \$2,000   LS   \$0     32   General Restoration (2%)   \$2,000   1   LS   \$2,000     33   Mobilization (10%)   \$9,000   1   LS   \$2,000     34   Temporary Erosion & Sediment Control (4%)   \$3,000   1   LS   \$3,000     34   Temporary Erosion & Sediment Control (4%)   \$3,000   1   LS   \$3,000     36   Construction Costs Subtotal   \$3,000   1   LS   \$99,000     Sales Tax @ 8.4%   \$33,000   1   LS   \$32,000     Subtotal   \$107,316   \$20,927   \$30%   \$32,195     Total Construction Cost   \$139,511   \$100   \$4,185   \$20,927     Administration/Legal (3%)   \$4,185   \$20,927   \$4,185   \$20,927     Construction Services (7%)   \$9,766   \$9,766	27	HMA Trench Patch	\$175	0	TN	\$0
1     1	28	Half-Width Grind and Overlay	\$150	0	TN	\$0
Image     Image <th< td=""><td>29</td><td>Imported Trench Backfill</td><td>\$25</td><td>0</td><td>TN</td><td>\$0</td></th<>	29	Imported Trench Backfill	\$25	0	TN	\$0
31     Traffic Control (2%)     \$2,000     LS     \$0       32     General Restoration (2%)     \$2,000     1     LS     \$2,000       33     Mobilization (10%)     \$9,000     1     LS     \$2,000       34     Temporary Erosion & Sediment Control (4%)     \$3,000     1     LS     \$9,000       34     Temporary Erosion & Sediment Control (4%)     \$3,000     1     LS     \$3,000       Construction Costs Subtotal       Sales Tax @ 8.4%     \$8,316       Subtotal     \$107,316       Contingency     30%     \$12,195       Total Construction Cost     \$139,511       Allied Costs     \$139,511       Engineering/Survey/Permits (15%)     \$20,927       Administration/Legal (3%)     \$4,185       Construction Services (7%)     \$9,766       Property/Easement Acquisition (5%)     \$6,976       TOTAL ESTIMATED PROJECT COST     \$181,364       USE     \$190,000	30	Crushed Surfacing	\$30		TN	\$0
32     General Restoration (2%)     \$2,000     1     LS     \$2,000       33     Mobilization (10%)     \$9,000     1     LS     \$9,000       34     Temporary Erosion & Sediment Control (4%)     \$3,000     1     LS     \$3,000       34     Temporary Erosion & Sediment Control (4%)     \$3,000     1     LS     \$3,000       34     Temporary Erosion & Sediment Control (4%)     \$3,000     1     LS     \$3,000       34     Temporary Erosion & Sediment Control (4%)     \$3,000     1     LS     \$3,000       34     Temporary Erosion & Sediment Control (4%)     \$3,000     1     LS     \$3,000       35     Construction Costs Subtotal     \$3,000     1     LS     \$3,000       Subtotal     Contingency     30%     \$107,316     \$107,316       Contingency     30%     \$139,511     \$139,511       Allied Costs     Engineering/Survey/Permits (15%)     \$20,927       Administration/Legal (3%)     \$4,185     \$9,766       Property/Easement Acquisition (5%)     \$6,976     \$181,364 <	31	Traffic Control (2%)	\$2,000		LS	\$0
33     Mobilization (10%)     \$1,00     1     LS     \$9,000     1     LS     \$9,000     34     Temporary Erosion & Sediment Control (4%)     \$3,000     1     LS     \$9,000     34     LS     \$3,000     1     LS     \$9,000     34     LS     \$3,000     34     35     36     36     37     36     37,316     \$32,195     30%     \$32,195     30%     \$32,195     30%     \$32,195     30%     \$32,195     30%     \$32,927     \$4,185     \$20,927     \$4,185     \$20,927     \$4,185     \$20,927     \$4,185	32	General Restoration (2%)	\$2,000	1	LS	\$2.000
34     Temporary Erosion & Sediment Control (4%)     \$3,000     1     LS     \$3,000       34     Temporary Erosion & Sediment Control (4%)     \$3,000     1     LS     \$99,000       Sales Tax @ 8.4%     \$99,000     \$88,316     \$99,000     \$88,316       Subtotal Contingency     30%     \$107,316     \$107,316     \$107,316       Subtotal Contingency     30%     \$107,316     \$139,511       Allied Costs Engineering/Survey/Permits (15%)     \$20,927     \$4,185     \$20,927       Administration/Legal (3%)     \$4,185     \$9,766     \$9,766       Property/Easement Acquisition (5%)     \$6,976     \$181,364     \$190,000	33	Mobilization (10%)	\$9,000	1	IS	\$9,000
Construction Costs Subtotal\$99,000Sales Tax @ 8.4%\$99,000Subtotal\$107,316Contingency30%Total Construction Cost\$139,511Allied Costs\$20,927Administration/Legal (3%)\$4,185Construction Services (7%)\$9,766Property/Easement Acquisition (5%)\$6,976TOTAL ESTIMATED PROJECT COST\$181,364USE\$190,000	34	Temporary Erosion & Sediment Control (4%)	\$3,000	1	LS	\$3,000
Construction Costs Sublication   \$35,000     Sales Tax @ 8.4%   \$8,316     Subtotal   \$107,316     Contingency   30%     Total Construction Cost   \$139,511     Allied Costs   \$139,511     Allied Costs   \$20,927     Administration/Legal (3%)   \$4,185     Construction Services (7%)   \$9,766     Property/Easement Acquisition (5%)   \$6,976     TOTAL ESTIMATED PROJECT COST   \$181,364     USE   \$190.000		Construction Costs Subtotal	+-,	-		\$00,000
Subtotal Contingency\$107,316 \$32,195Total Construction Cost\$1139,511Allied Costs\$139,511Engineering/Survey/Permits (15%) Administration/Legal (3%) Construction Services (7%) Property/Easement Acquisition (5%)\$20,927 \$4,185 \$9,766TOTAL ESTIMATED PROJECT COST\$181,364USE\$190,000		Sales Tax @ 8.4%				\$95,000 \$8,316
Subtotal Contingency\$107,316 \$32,195Total Construction Cost\$1139,511Allied Costs\$139,511Engineering/Survey/Permits (15%)\$20,927Administration/Legal (3%)\$4,185Construction Services (7%)\$9,766Property/Easement Acquisition (5%)\$9,766TOTAL ESTIMATED PROJECT COST\$181,364USE\$190,000						φ0,010
Contingency30%\$32,195Total Construction Cost\$139,511Allied Costs\$139,511Engineering/Survey/Permits (15%)\$20,927Administration/Legal (3%)\$4,185Construction Services (7%)\$9,766Property/Easement Acquisition (5%)\$6,976TOTAL ESTIMATED PROJECT COST\$181,364USE\$190.000		Subtotal				\$107.316
Total Construction Cost\$139,511Allied Costs\$20,927Engineering/Survey/Permits (15%)\$20,927Administration/Legal (3%)\$4,185Construction Services (7%)\$9,766Property/Easement Acquisition (5%)\$6,976TOTAL ESTIMATED PROJECT COST\$181,364USE\$190,000		Contingency	30%			\$32,195
Total Construction Cost\$139,511Allied Costs*Engineering/Survey/Permits (15%)\$20,927Administration/Legal (3%)\$4,185Construction Services (7%)\$9,766Property/Easement Acquisition (5%)\$6,976TOTAL ESTIMATED PROJECT COST\$181,364USE\$190.000						. ,
Allied Costs Engineering/Survey/Permits (15%) \$20,927 Administration/Legal (3%) \$4,185 Construction Services (7%) \$9,766 Property/Easement Acquisition (5%) \$6,976 TOTAL ESTIMATED PROJECT COST \$181,364 USE \$190,000		Total Construction Cost				\$139,511
Allied Costs Engineering/Survey/Permits (15%) \$20,927 Administration/Legal (3%) \$4,185 Construction Services (7%) \$9,766 Property/Easement Acquisition (5%) \$6,976 TOTAL ESTIMATED PROJECT COST \$181,364 USE \$190,000						
Engineering/Survey/Permits (15%)     \$20,927       Administration/Legal (3%)     \$4,185       Construction Services (7%)     \$9,766       Property/Easement Acquisition (5%)     \$6,976       TOTAL ESTIMATED PROJECT COST     \$181,364       USE     \$190.000		Allied Costs				
Administration/Legal (3%)   \$4,185     Construction Services (7%)   \$9,766     Property/Easement Acquisition (5%)   \$6,976     TOTAL ESTIMATED PROJECT COST   \$181,364     USE   \$190.000		Engineering/Survey/Permits (15%)				\$20,927
Construction Services (7%)   \$9,766     Property/Easement Acquisition (5%)   \$6,976     TOTAL ESTIMATED PROJECT COST   \$181,364     USE   \$190.000		Administration/Legal (3%)				\$4,185
Property/Easement Acquisition (5%)   \$6,976     TOTAL ESTIMATED PROJECT COST   \$181,364     USE   \$190,000		Construction Services (7%)				\$9,766
TOTAL ESTIMATED PROJECT COST\$181,364USE\$190,000		Property/Easement Acquisition (5%)				\$6,976
USE \$190.000		TOTAL ESTIMATED PROJECT COST				\$181.364
01001000		USE				\$190,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Royle Road Pump Station - Phase II





20-Year Capital Program Capital Project Profile

# **Royle Road Pump Station – Phase III**

Location: <u>Ridgefield</u> CIP Number: <u>3-603F</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

Capital Improvement Project 🛛

General Facilities ⊠

- District Installed Infrastructure  $\Box$
- Septic Elimination Program  $\Box$
- Developer Reimbursement Program  $\Box$ 
  - Fleet & Facilities  $\Box$

## Restoration & Replacement Project $\Box$

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Royle Road (3-603)

## **Project Definition:**

<u>Objective.</u> The initial construction of the Royle Road Pump Station was phased to accommodate future expansion as growth develops. Phase II (CIP# 3-603A) involves the addition of a third pump and Phase III involves replacing all three smaller pumps with larger pumps. Flow from the Royle Road Pump Station is directed to the Pioneer Canyon Station which conveys flow through the DCWTS system.

Scope of Work. Upgrade the existing pump station – Phase III:

Replace all three pumps and motors to 150 hp triplex 1,200 gpm capacity. This is anticipated to be needed in the year 2033.

This will increase the station's capacity to 1,200 gpm.

<u>Project Statistics.</u> The current discharge force mains will be adequate for the 20-year expected flows, once the connection has been made.

Pump station – Capacity increase from 1000 gpm to 1,200 gpm.

Photos: (on the reverse side)

## **Budget Information:**

Project Cost Estimate:	
Total Project Cost:	\$570,000
Construction Cost:	\$434,034
Basis of Estimate:	Class 4 Est.
Date of Estimate:	Sept. 2016

<u>Activity</u>	<u>Year</u>
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 3-603F

Phase III of Royle Road Pump Station 20 - YEAR (2036) IMPROVEMENTS

Bid item	Pid Itom Department	Linit Did Drice	Quantity	Linit	Total
INO.	Big item Description	Unit bid Price	Quantity	Unit	TOLAI
1	Pump Station - Mechanical Modification - Step 1		1		\$0
2	Pump Station - Mechanical Modification - Step 2	\$150,000	1	LS	\$150,000
3	Pump Station Electrical Service Modifications	\$50,000	1		\$50,000
4	Pump Station - Above Grade Structure Modifications	\$15,000	1		\$15,000
5	Fullip Station - Site Work	¢50.000	1	10	\$U \$C 000
0		\$50,000	1		\$30,000 \$0
8	6-inch Force Main			LF	0¢ 02
9	72-inch wetwell			EA	0 <del>0</del> 08
10	96-inch wetwell			FA	\$0 \$0
11	8-inch PVC Gravity Unsize	\$120		LE	\$0
12	10-inch PVC Gravity Upsize	\$130		LF	\$0
13	12-inch PVC Gravity Upsize	\$140		LF	\$0
14	15-inch PVC Gravity Upsize	\$160		   F	\$0
15	18-inch PVC Gravity Upsize	\$170		:   F	\$0
16	21-inch PVC Gravity Upsize	\$250		L F	\$0
17	24-inch PVC Gravity Upsize	\$300		LF	\$0
18	30-inch PVC Gravity Upsize	\$330		:   F	\$0
19	48-inch Diameter Manhole	\$7,500	0	EA	\$0
20	54-inch Diameter Manhole	\$8,500	0	FA	\$0
21	60-inch Diameter Manhole	\$9,500	0	EA	\$0
22	Lateral Connection	\$3,000		EA	\$0
23	Dewatering	\$20,000		LS	\$0
24	Temporary Flow Bypass	\$5,000		EA	\$0
25	Plug and Cap Abandoned Pipe	\$1.000		EA	\$0
26	Sheeting, Shoring, Bracing	\$10	0	LF	\$0
27	HMA Trench Patch	\$175	0	TN	\$0
28	Half-Width Grind and Overlay	\$150	0	ΤN	\$0
29	Imported Trench Backfill	\$25	0	TN	\$0
30	Crushed Surfacing	\$30		ΤN	\$0
31	Traffic Control (2%)	\$5,000		LS	\$0
32	General Restoration (2%)	\$5,000	1	LS	\$5,000
33	Mobilization (10%)	\$27,000	1	LS	\$27,000
34	Temporary Erosion & Sediment Control (4%)	\$11,000	1	LS	\$11,000
	Construction Costs Subtotal				\$308.000
	Sales Tax @ 8.4%				\$25,872
	Subtotal				\$333,872
	Contingency	30%			\$100,162
	Total Construction Cost				\$434,034
	Allied Costs				<b>\$05 405</b>
	Administration/Logal (3%)				\$00,100 \$12,021
	Construction Sonvices (7%)				⊅13,021 ¢20,202
	Property/Fasement Acquisition (5%)				\$30,302 \$21 702
					ψ21,102
	TOTAL ESTIMATED PROJECT COST				\$564,244
	USE				\$570,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Royle Road Pump Station - Phase III





20-Year Capital Program Capital Project Profile

# **Royle Road Pump Station C (East) and Force Main**

Location: <u>Ridgefield</u>	Capital Improvement Project 🛛
<b>CIP Number:</b> <u>3-603C</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program 🗆
	Fleet & Facilities 🗆
Project Manager: Unassigned	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Royle Road (3-603)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

<u>Objective.</u> Provide new Pump Station and Force main to serve the Royle Road Mini-Basin. There are five pump stations in this mini-basin. This facility serves the eastern portion of the basin and delivers its flow to the central Pump Station (CIP# 3-603B).

<u>Scope of Work.</u> Forecasted capacity requirements for this Pump Station is a peak hour flow of approximately 50 gpm. Potential easement acquisition.

Project Statistics. New 4-inch Force Main for an approximate distance of 2,700 feet.

Pump station – New submersible Pump Station with a 2036 capacity of 50 gpm and a 50-year capacity of approximately 100 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure.

## Photos: (on the reverse side)

## **Budget Information:**

<u>Project Cost Estimate:</u>	
Total Project Cost:	\$1,260,000
Construction Cost:	\$961,779
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 3-603C

Royle Road Pump Station C (east) and Force Main 20-YEAR (2036)  $\ensuremath{\mathsf{IMPROVEMENTS}}$ 

Bid Item	Bid Item Description	Linit Bid Price	Quantity	Llnit	Total
1	Burne Station Machanical (E0 gnm)	£125.000	Quantity		¢125.000
1	Pump Station - Mechanical (50 gpm)	\$125,000	1	10	\$125,000
2	Pump Station Lieculcal	\$50,000	1	10	\$30,000
3	Pump Station - Above Glade Structure	\$25,000	1	L3	\$25,000 \$0
4	Funnp Station - Site Work	¢25.000	1	L3	Φος 000
5	Emergency Generator	\$25,000	1		\$25,000
0	4-Inch Force Main	\$50	2,700		\$135,000
/	6-Inch Force Main	¢45.000			\$U
8	72-Inch wetwell	\$15,000	1	EA	\$15,000
9		<b>\$</b> 100		EA	\$0
10	8-inch PVC Gravity Upsize	\$120			\$0
11	10-inch PVC Gravity Upsize	\$130			\$0
12	12-inch PVC Gravity Upsize	\$140			\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	2,700	LF	\$27,000
26	HMA Trench Patch	\$175	570	ΤN	\$99,750
27	Half-Width Grind and Overlay	\$150	0	ΤN	\$0
28	Imported Trench Backfill	\$25	2,230	ΤN	\$55,750
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$12,000	1	LS	\$12,000
31	General Restoration (2%)	\$12,000	1	LS	\$12,000
32	Mobilization (10%)	\$58,000	1	LS	\$58,000
33	Temporary Erosion & Sediment Control (4%)	\$23,000	1	LS	\$23,000
	Construction Costs Subtotal				\$682,500
	Sales Tax @ 8.4%				\$57,330
	Subtotal				\$739.830
	Contingency	30%			\$221,949
					• ,
	Total Construction Cost				\$961,779
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$144,267
	Administration/Legal (3%)				\$28,853
	Construction Services (7%)				\$67,325
	Property/Easement Acquisition (5%)				\$48,089
					\$1 250 212
					¢1,200,313
	UUL				⇒1,200,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Royle Road Pump Station C (east) and Force Main





20-Year Capital Program Capital Project Profile

# **Royle Road Pump Station E (North) and Force Main**

Location: <u>Ridgefield</u>	Capital Improvement Project 🖂
<b>CIP Number:</b> <u>3-603E</u>	General Facilities 🛛
GL Number:	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Advanced Planning	Developer Reimbursement Program 🗆
	Fleet & Facilities $\Box$
Project Manager: Unassigned	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Royle Road (3-603)	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

<u>Objective.</u> Provide new Pump Station and Force main to serve the Royle Road Mini-Basin. There are five pump stations in this mini-basin. This facility serves the northern portion of the basin and delivers its flow to the central Pump Station (CIP# 3-603B).

<u>Scope of Work.</u> Forecasted capacity requirements for this Pump Station is a peak hour flow of approximately 50 gpm. Potential easement acquisition.

Project Statistics. New 4-inch Force Main for an approximate distance of 1,700 feet.

Pump station – New submersible Pump Station with a 2036 capacity of 50 gpm and a 50-year capacity of approximately 100 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure.

## Photos: (on the reverse side)

## **Budget Information:**

<u>Project Cost Estimate:</u>	
Total Project Cost:	\$970,000
Construction Cost:	\$741,239
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 3-603E

Royle Road Pump Station E (North) and Force Main 20-YEAR (2036) IMPROVEMENTS

Bid Item	Did Item Dependence	Halt Did Drive	Quantita	1.1	Tatal
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	lotal
1	Pump Station - Mechanical (50 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator	\$25,000	1	LS	\$25,000
6	4-inch Force Main	\$50	1,700	LF	\$85,000
7	6-inch Force Main			LF	\$0
8	72-inch wetwell			EA	\$0
9	96-inch wetwell			EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20.000	1	LS	\$20.000
23	Temporary Flow Bypass	\$5.000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1.000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	1.700	LF	\$17.000
26	HMA Trench Patch	\$175	360	TN	\$63.000
27	Half-Width Grind and Overlay	\$150	0	TN	\$0
28	Imported Trench Backfill	\$25	1.400	TN	\$35.000
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$9,000	1	IS	\$9,000
31	General Restoration (2%)	\$9.000	1	LS	\$9.000
32	Mobilization (10%)	\$45,000	1	IS	\$45,000
33	Temporary Erosion & Sediment Control (4%)	\$18,000	1	LS	\$18,000
	Ormetmetien Oreste Ordetetet	+ -,		-	¢500.000
					\$526,000
	Sales Tax @ 8.4%				\$44,184
					<b>A</b>
	Subtotal				\$570,184
	Contingency	30%			\$171,055
	Tatal Canadana (in Cast				A744.000
	Total Construction Cost				\$741,239
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$111.186
	Administration/Legal (3%)				\$22,237
	Construction Services (7%)				\$51,887
	Property/Easement Acquisition (5%)				\$37,062
					<i>401,002</i>
	TOTAL ESTIMATED PROJECT COST				\$963, <mark>611</mark>
	USE				\$970,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet





Royle Road Pump Station E (north) and Force Main





20-Year Capital Program Capital Project Profile

# Boschma (aka NE 10<sup>th</sup> Street) Pump Station – Phase II

Location: <u>Ridgefield</u> CIP Number: <u>3-610B</u> GL Number:

Phase: Advanced Planning

Project Manager: Unassigned

Capital Improvement Project 🛛

General Facilities ⊠

District Installed Infrastructure  $\Box$ 

Septic Elimination Program  $\Box$ 

Developer Reimbursement Program  $\Box$ 

Fleet & Facilities

## **Restoration & Replacement Project**

Restoration & Replacement - Gravity  $\Box$ 

Restoration & Replacement – PS & FM  $\Box$ 

Restoration & Replacement – Fleet & Facilities  $\Box$ 

GSP Basin: Boschma (3-610)

## **Project Definition:**

<u>Objective.</u> Provide increase capacity to accommodate flows from the McCormick Creek mini-basin and 2036 loadings from the Boschma mini-basin.

Scope of Work. Increase capacity from 100 gpm to a peak hour flow of approximately 450 gpm.

<u>Project Statistics.</u> The 6-inch Force Main associated with this new pump station was installed as part of the Walker-Roher project, and consequently is not part of this CIP.

Pump station – Increase capacity from 100 gpm to a peak hour flow of approximately 450 gpm. The 50-year capacity is estimated to be approximately 950 gpm. Includes an emergency generator. Local electrical control panel with weather protected enclosure.

## Photos: (on the reverse side)

# Budget Information:

Project Cost Estimate:	
Total Project Cost:	\$410,000
Construction Cost:	\$308,615
Basis of Estimate:	Class 4 Est.
Date of Estimate:	June 2017

<u>Activity</u>	Year
Predesign	TBD
Permitting	TBD
Real Property/ROW	TBD
Design	TBD
Bid	TBD
Construction	TBD

#### CIP # 3-610B

Boschma (aka NE 10th Street) Pump Station and Force Main - Phase II 20-YEAR (2036) IMPROVEMENTS

Bid Item	Pid Itom Deparintion	Linit Rid Brico	Quantity	Lloit	Total
INO.	Bid item Description		Quantity	Unit	10181
1	Pump Station - Mechanical (450 gpm)	\$100,000	1	LS	\$100,000
2	Pump Station Electrical	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$35,000		LS	\$0
4	Pump Station - Site Work	<b>Aaaaaa</b>		LS	\$0
5	Emergency Generator	\$35,000	1	LS	\$35,000
6	4-inch Force Main	<b>4</b>			\$0
/	6-inch Force Main	\$65			\$0
8	/2-inch wetwell	\$15,000		EA	\$0
9	96-inch wetwell	<b>A</b> ( <b>a a</b>		EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000		LS	\$0
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	0	LF	\$0
26	HMA Trench Patch	\$175	0	ΤN	\$0
27	Half-Width Grind and Overlay	\$150	0	ΤN	\$0
28	Imported Trench Backfill	\$25	0	ΤN	\$0
29	Crushed Surfacing	\$30	0	ΤN	\$0
30	Traffic Control (2%)	\$4,000	1	LS	\$4,000
31	General Restoration (2%)	\$4,000	1	LS	\$4,000
32	Mobilization (10%)	\$19,000	1	LS	\$19,000
33	Temporary Erosion & Sediment Control (4%)	\$7,000	1	LS	\$7,000
	Construction Costs Subtotal				\$219,000
	Sales Tax @ 8.4%				\$18,396
	Subtotal				\$237,396
	Contingency	30%			\$71,219
	Total Construction Cost				\$308,615
	Allied Costs				
	Engineering/Survey/Permits (15%)				\$46,292
	Administration/Legal (3%)				\$9,258
	Construction Services (7%)				\$21,603
	Property/Easement Acquisition (5%)				\$15,431
	TOTAL ESTIMATED PROJECT COST				\$/01 100
	USE				\$410 000
					φ+10,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings,pipe,bedding,shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet



# W SEE

Boschma (aka NE 10th Street) Pump Station - Phase II





20-Year Capital Program Capital Project Profile

# Walker-Roher Pump Station and Force Main

Location: Ridgefield	Capital Improvement Project 🖂
Number: <u>3-612A</u>	General Facilities 🗆
GL Number: TBD	District Installed Infrastructure $\Box$
	Septic Elimination Program $\Box$
Phase: Predesign	Developer Reimbursement Program 🛛
	Fleet & Facilities $\Box$
Project Manager: Steve Bacon	Restoration & Replacement Project $\Box$
	Restoration & Replacement - Gravity $\Box$
	Restoration & Replacement – PS & FM $\Box$
GSP Basin: Basin 1 - Ridgefield	Restoration & Replacement – Fleet & Facilities $\Box$

## **Project Definition:**

Objective. Extend service to the eastern portion of the City of Ridgefield.

<u>Scope of Work.</u> The City of Ridgefield 2013 General Sewer Plan shows the extension of gravity trunk T-11 to N 10<sup>th</sup> Street. This project includes developer reimbursement for oversize gravity trunk extension of T-11 from the North Junction Pump Station and Trunk project to N 10<sup>th</sup> Street in association with the proposed Ridgefield West residential subdivision. No developer reimbursement is included for the proposed onsite interim pump station.

Project Statistics. Pump Station and 5,100 LF of 4-inch force main and 1,050 LF of 10-inch force main.

## Photos: (Map of area on the reverse side)

#### **Budget Information:**

Project Cost Estimate:				

\$2,290,000 \$1,757,484 Planning Sept. 2017

<u>Activity</u>	Year
Predesign	By Others
Permitting	By Others
Real Property/ROW	By Others
Design	By Others
Bid	By Others
Construction	2020

#### **CIP #** 3-612A

Walker-Roher Pump Station and Force Main 20-YEAR (2022) IMPROVEMENTS

Bid Item					
No.	Bid Item Description	Unit Bid Price	Quantity	Unit	Total
1	Pump Station - Mechanical (150 gpm)	\$125,000	1	LS	\$125,000
2	Pump Station Electrical Service	\$50,000	1	LS	\$50,000
3	Pump Station - Above Grade Structure	\$25,000	1	LS	\$25,000
4	Pump Station - Site Work		1	LS	\$0
5	Emergency Generator	\$25,000	1	LS	\$25,000
6	4-inch Force Main	\$50	5,100	LF	\$255,000
7	10-inch Force Main	\$60	1,050	LF	\$63,000
8	72-inch wetwell	\$15,000	1	EA	\$15,000
9	96-inch wetwell	\$25,000		EA	\$0
10	8-inch PVC Gravity Upsize	\$120		LF	\$0
11	10-inch PVC Gravity Upsize	\$130		LF	\$0
12	12-inch PVC Gravity Upsize	\$140		LF	\$0
13	15-inch PVC Gravity Upsize	\$160		LF	\$0
14	18-inch PVC Gravity Upsize	\$170		LF	\$0
15	21-inch PVC Gravity Upsize	\$250		LF	\$0
16	24-inch PVC Gravity Upsize	\$300		LF	\$0
17	30-inch PVC Gravity Upsize	\$330		LF	\$0
18	48-inch Diameter Manhole	\$7,500	0	EA	\$0
19	54-inch Diameter Manhole	\$8,500	0	EA	\$0
20	60-inch Diameter Manhole	\$9,500	0	EA	\$0
21	Lateral Connection	\$3,000	0	EA	\$0
22	Dewatering	\$20,000	1	LS	\$20,000
23	Temporary Flow Bypass	\$5,000		EA	\$0
24	Plug and Cap Abandoned Pipe	\$1,000		EA	\$0
25	Sheeting, Shoring, Bracing	\$10	1.050	LF	\$10,500
26	HMA Trench Patch	\$175	1,280	TN	\$224,000
27	Half-Width Grind and Overlay	\$150	0	TN	\$0
28	Imported Trench Backfill	\$25	6 750	TN	\$168 750
29	Crushed Surfacing	\$30	2 530	TN	\$75,900
30	Traffic Control (2%)	\$21,000	1	IS	\$21,000
31	General Restoration (2%)	\$21,000	1	1.5	\$21,000
32	Mobilization (10%)	\$106,000	1	1.5	\$106,000
33	Temporary Frosion & Sediment Control (4%)	\$42,000	1	LS	\$42,000
00		¢12,000	•	20	<i>ф</i> 12,000
	Construction Costs Subtotal				\$1,247,150
	Sales Tax @ 8 4%				\$104 761
					¢.0.,.0.
	Subtotal				\$1 351 911
	Contingency	30%			\$405 573
	Contingency	0070			ψ+00,070
	Total Construction Cost				\$1 757 /8/
					ψ1,757,-04
	Alliad Casts				
	Engineering/Survey/Permits (15%)				¢263 633
	Administration/Legal (3%)				\$50,023
	Construction Sonvices (7%)				ΦΟΖ,1ΖΟ \$100.004
	Droporty/Easement Acquisition (5%)				⊅1∠3,024 ¢o7 o74
	Froperty/Easement Acquisition (3%)				۵۵٬٫۵/4
					¢0.004.700
				_	\$2,284,729
	USE				\$2,290,000

Assumptions, Notes

1. All Costs in 2017 Dollars

2. One Lane HMA Overlay at 2-inches by 12' wide, 4"deep x 8' HMA patch and 12-inches x 6' Wide Crushed Surfacing.

3. Each pipe unit price includes all fittings, pipe, bedding, shoring, testing, compaction, excavation, haul and disposal

4. Assume 48-inch MH for Pipe up to 12-inches, 54-inch MH for pipe 15-inch to 21-inch, 60-inch MH above 21-inch pipe.

5. Assume one manhole per every 300 linear feet of gravity pipe, on average.

6. Assume one Lateral Reconnection every 100 lineal feet



& Force Main

