

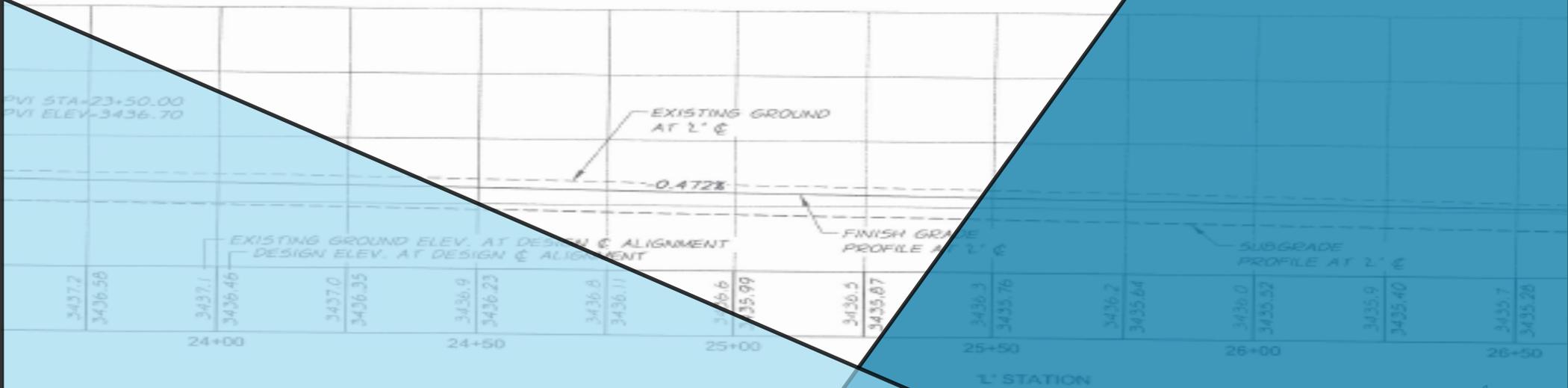


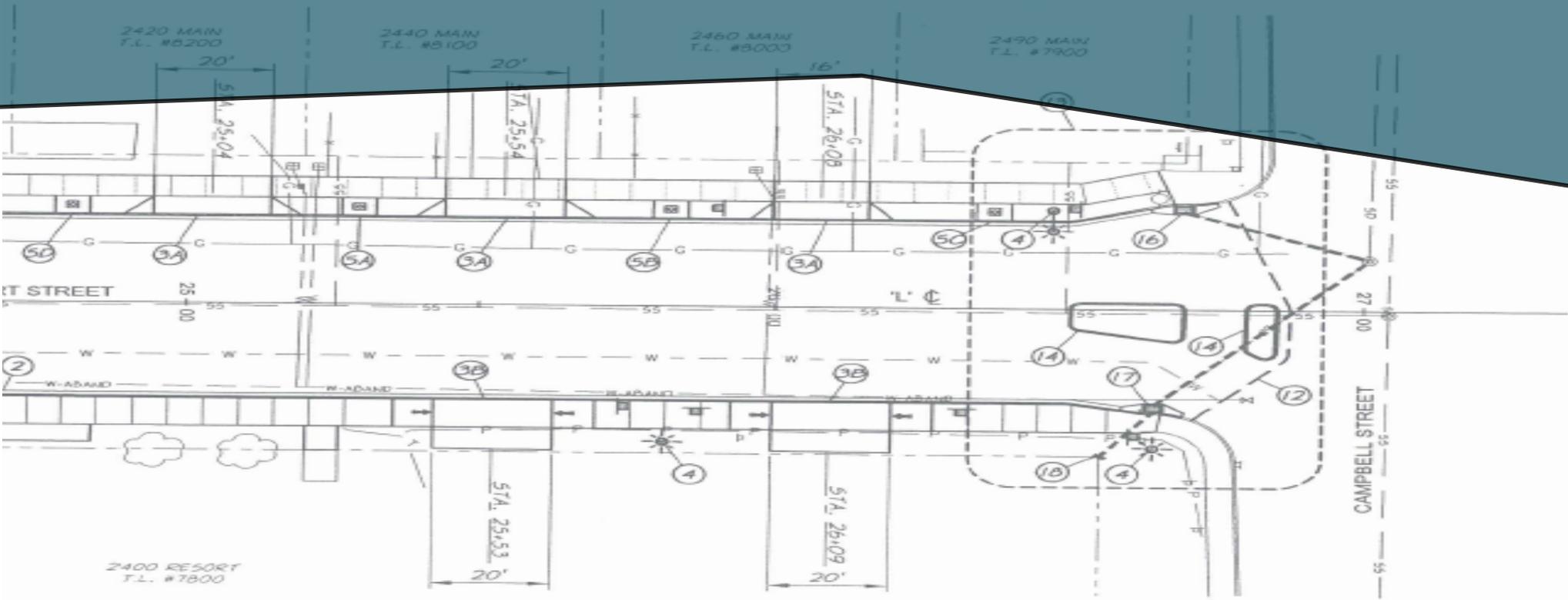
2021

Baker City Public Works

Capital Plan

Water - Wastewater - Stormwater





Public Works Department

1655 1st Street P.O. Box 650 Baker City, OR 97814 Phone: (541) 524-2047

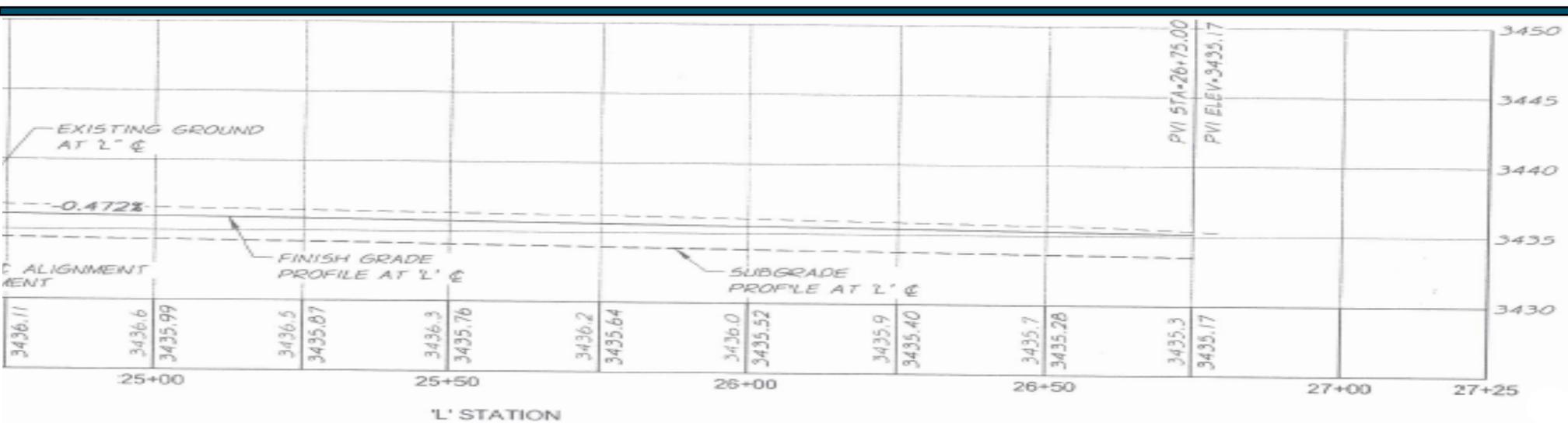
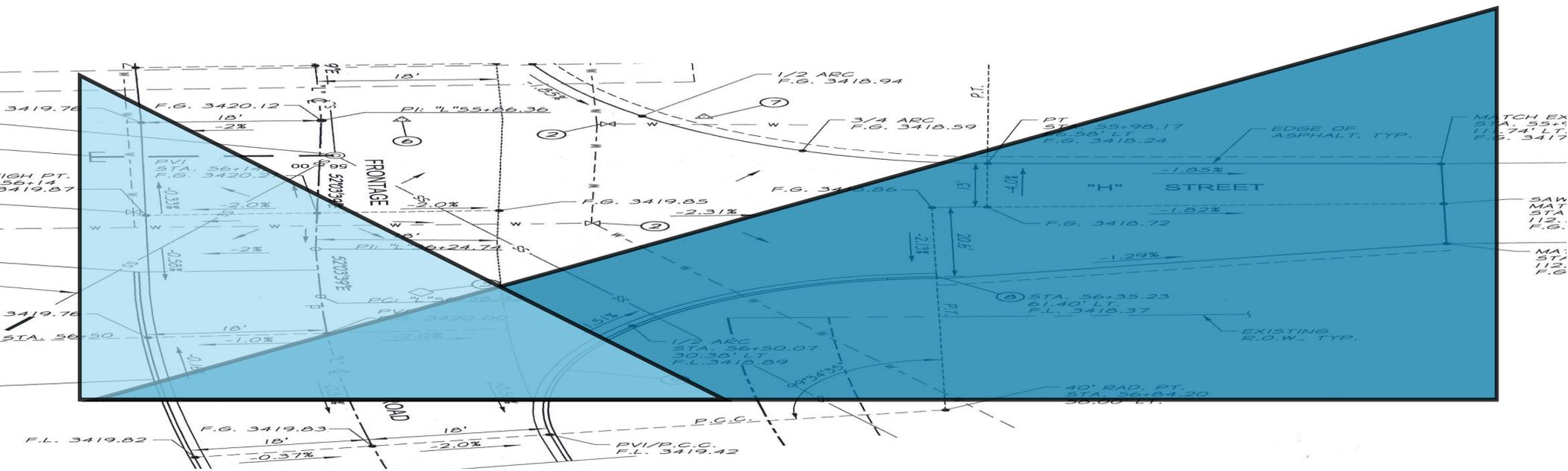


Table of Contents

Introduction	1
Projects Completed in 2020	2
Scheduled Projects for 2021	3
Water	4
Mountain Pipe Line Project	5
Hydrants	6
Wastewater	25
Wastewater Improvements ...	26
Biosolid Waste Removal	27
CIPP Lining	28
Stormwater	33

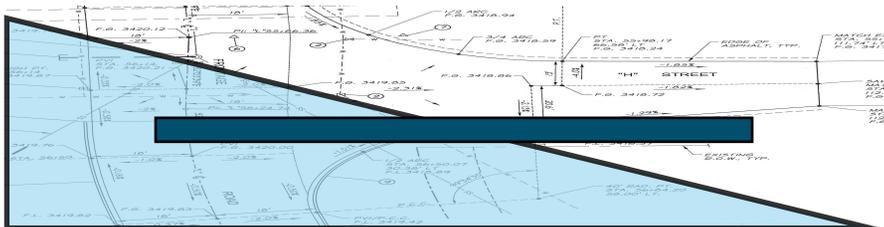


Introduction



This three-year Capital Plan for Water, Wastewater and Stormwater was completed to help inform the Public Works Advisory Committee, City Council and interested citizens about the upcoming major projects that are planned within the Public Works Department. Staff understands that residents pay fees for water and wastewater and taxes for streets and they want to see what they get for the money spent. This plan tries to show through both words and pictures the types of projects we need to accomplish to keep our utilities operating effectively and efficiently. Many of the projects are in response to ever increasing regulations. All of the projects proposed are necessary to help propel Baker City into the future with solid infrastructure. Thank you for taking time to read through this plan.

Michelle Owen
Public Works Director



Projects completed in 2020

Water

- Over 7500 feet of transmission line were replaced in the Baker City Watershed
- A new drinking water well is being drilled to add capacity and redundancy to the water system
- Three (3) hydrants were replaced-others scheduled
- Added 8" mainline on Washington between 7th and 8th to improve the grid.

Wastewater

- The wastewater treatment facility effluent disposal project made its way through permitting and out to bid.
- The CIPP lining project is scheduled for February 2021. A total of 1,793 feet of mainline will be lined.

Stormwater

- Approximately 650 feet of mainline was replaced on 1st Street between B and D Streets.

Scheduled projects in 2021

New Well Construction

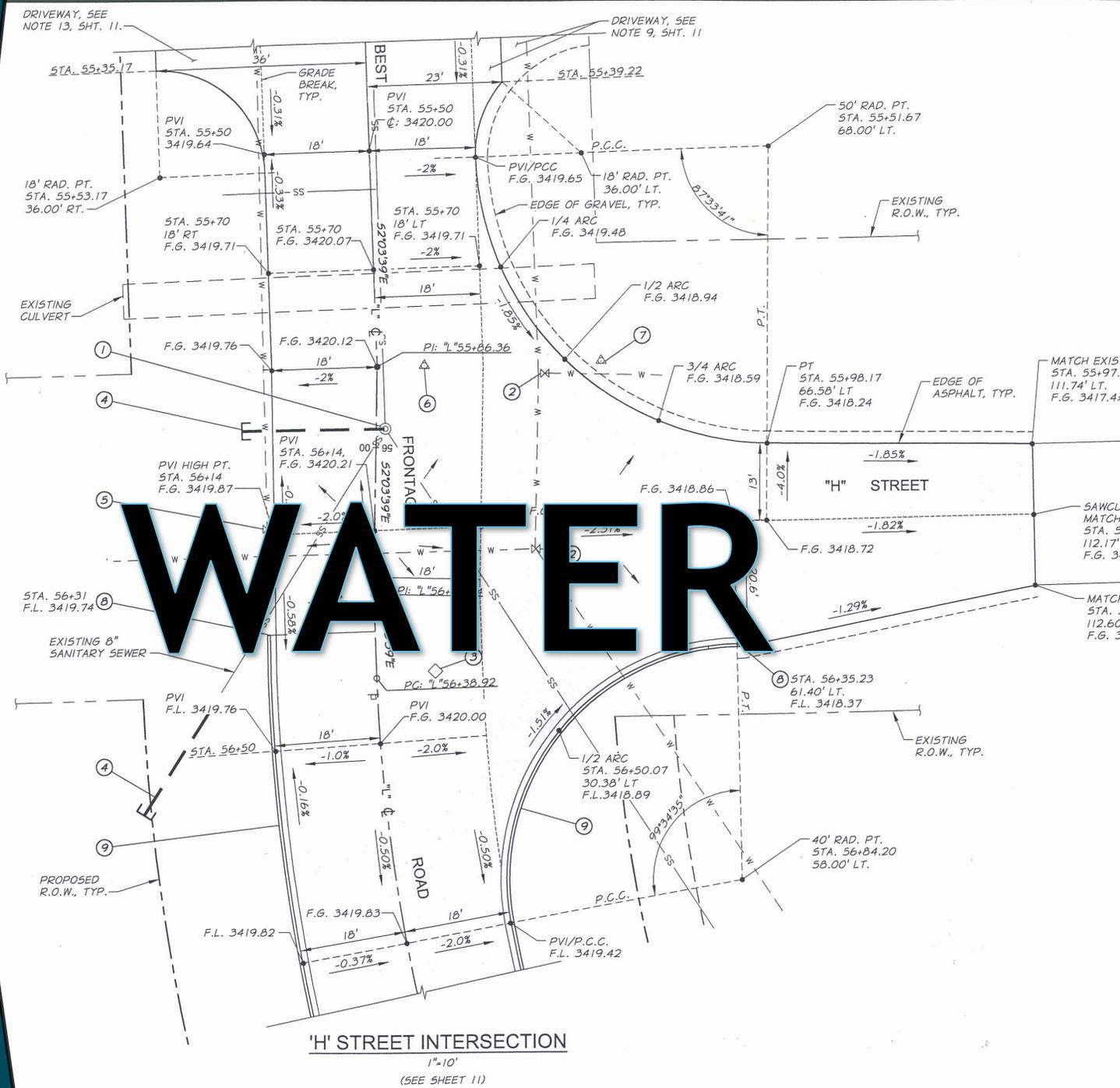
The construction of a new drinking water well has been broken down into multiple phases. The first phase was to modify the City's water rights to allow for combined groundwater use at any City well. The next phase was design of the well and well house. That preliminary work was completed in 2019/20. The well drilling and pump testing is taking place during the fall/winter of 2020/21. The well is planned for a depth of 700 feet with an initial bore hole of 20" necking down to a 12" casing. The well should provide up to 1,500 gpm. The final phase will be construction of the well house and piping. This is scheduled for construction beginning July 2021 and is in compliance with our 2016 Water Facility Plan. The new well will supply additional water when needed in the summer months, provide redundancy and serve as a back-up to the City's other well and the watershed supply.



CONSTRUCTION WORK ITEMS

- 1) MAJOR ADJUSTMENT OF MANHOLE, SEE SHT. 20.
- 2) ADJUST VALVE BOX. SEE DETAIL, SH...
- 3) RELOCATE TELEPHONE PEDESTAL, (B...
- 4) PROPOSED SANITARY SEWER EXTEN...
- 5) PROTECT VALVE DURING CONSTRU...
- 6) REMOVE EXISTING SURVEY MONUM...
- 7) PROTECT EXISTING SURVEY MONU...
- 8) CONSTRUCT CURB ENDING. SEE DRG. RD700. WORK INCLUDED IN ALTERNATIVE NO. 2.
- 9) CONSTRUCT CURB AND GUTTER IN ADDITIVE ALTERNATIVE NO.

NOTE:
ALL ELEVATIONS SHOWN ON SHEET ARE EITHER FINISHED ASPHALT CONCRETE PAVEMENT SURFACE (F.G.) OR GUTTER FLOW LINE (F.L.).



'H' STREET INTERSECTION
1"=10'
(SEE SHEET 11)

REGISTERED PROFESSIONAL ENGINEER
64420PE
[Signature]
OREGON
JAN. 15, 2002
REW LINDSEY
NEWS 12-31-14
SIGNED 04-11-14

REVISION	
DESIGNED BY	B. MAHO
DRAWN BY	R. RASML
REVIEWED BY	A. LINDSEY

10 0 10 20 30 SCALE IN FEET	
VERT. SCALE 1"=10'	VERT. SCALE
NUMBER 90-51	DATE 2014
FILE: Int Detis Best Frontage.dwg	
COPYRIGHT 2014 BY ANDERSON PERRY & ASSOC., INC.	

THIS DRAWING HAS BEEN REDUCED 50%.
ADJUST SCALE ACCORDINGLY.
BARSCALE SHOWN IS ACCURATE.

ap anderson perry & associates, inc.
engineering • surveying • natural resources
LA GRANDE, OR. WALLA WALLA, WA.

BAKER COUNTY, OREGON
BEST FRONTAGE ROAD IMPROVEMENT
2014
4
INTERSECTION DETAIL
'H' STREET

Mountain Pipe Line Project

The City of Baker City operates one of the most unique municipal water systems in the state. The municipal water system is gravity fed from intakes high in the Elkhorn Mountain Range through a water transmission pipeline network to the City's storage reservoirs. The watershed accounts for 88 percent of the municipal water supplied to the City. Baker City's predecessors developed the early water system in 1862, with the City acquiring the water and rights-of-way (ROW) in 1900 and 1901. From this early beginning, Baker City has actively maintained and upgraded the water collection system to continue serving the municipal needs of the City. This water transmission pipeline (known as the Mountain Line) consists of an approximately 23.4-mile concrete and steel line that extends from the Goodrich Creek Mountain Line Intake to the Elk Creek settling tank, where it combines with Elk Creek water and continues to the City's reservoirs and water treatment plant. See Figure 1 for the system location and major features. The majority of the existing Mountain Line is old and is deteriorating in many areas. Since 2009 the City has been replacing sections of the Mountain Line each year. The replacement of Mountain Line provides improved water volume and quality, water conservation, improved water system reliability, and reduced maintenance. Each year, the City's Technical Services staff members complete the surveying and design of the replacement of the Mountain Line. Utilizing this design, Baker City Public Works crews complete the installation of the new pipeline. Installation work includes coordination with landowners and the US Forest Service, road construction, pipeline installation and diversion structure construction. During construction the City utilizes a three-man crew to complete the pipeline installation. One operator excavates the trench while a utility worker in the trench checks grade, and assists with setting and installing each piece of pipe. A second operator is responsible for the bedding and backfill of the trench. Utilizing a "crusher bucket" the operator takes native rocky material found on-site and crushes it in order to create a finer material suitable for pipe bedding. He then compacts the bedding on each side or along the "haunches" of the pipeline. Tracer wire and electrical conduit are also installed within the trench. Finally the trench is backfilled utilizing the native materials that were originally excavated from the trench.



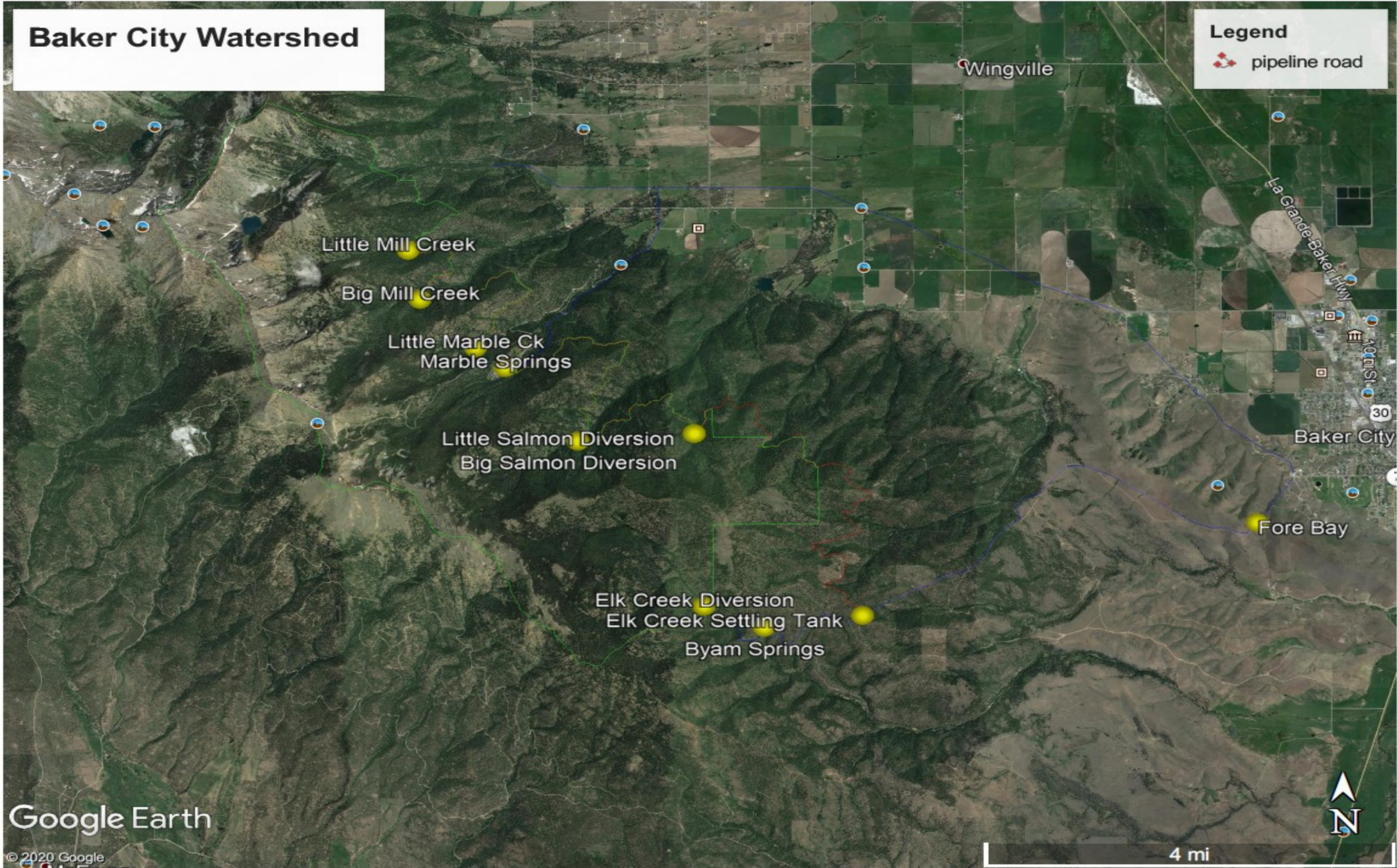
Hydrants

One of the main functions of a City's water distribution system is to provide fire suppression capabilities. Firefighter's access the City's municipal water system through the many fire hydrants that are located throughout the City. Ensuring that the hydrants are operational and in working order is a critical task carried out by Public Works crews. Each year City crews "flush" hydrants, verifying that they are operating correctly. Like any mechanical device, over time, hydrants begin to fail. As the City crews encounter old or non-functioning hydrants, they are identified and prioritized for replacement. Currently, the City's goal is to replace approximately five hydrants per year.



Baker City Watershed

Legend
● pipeline road



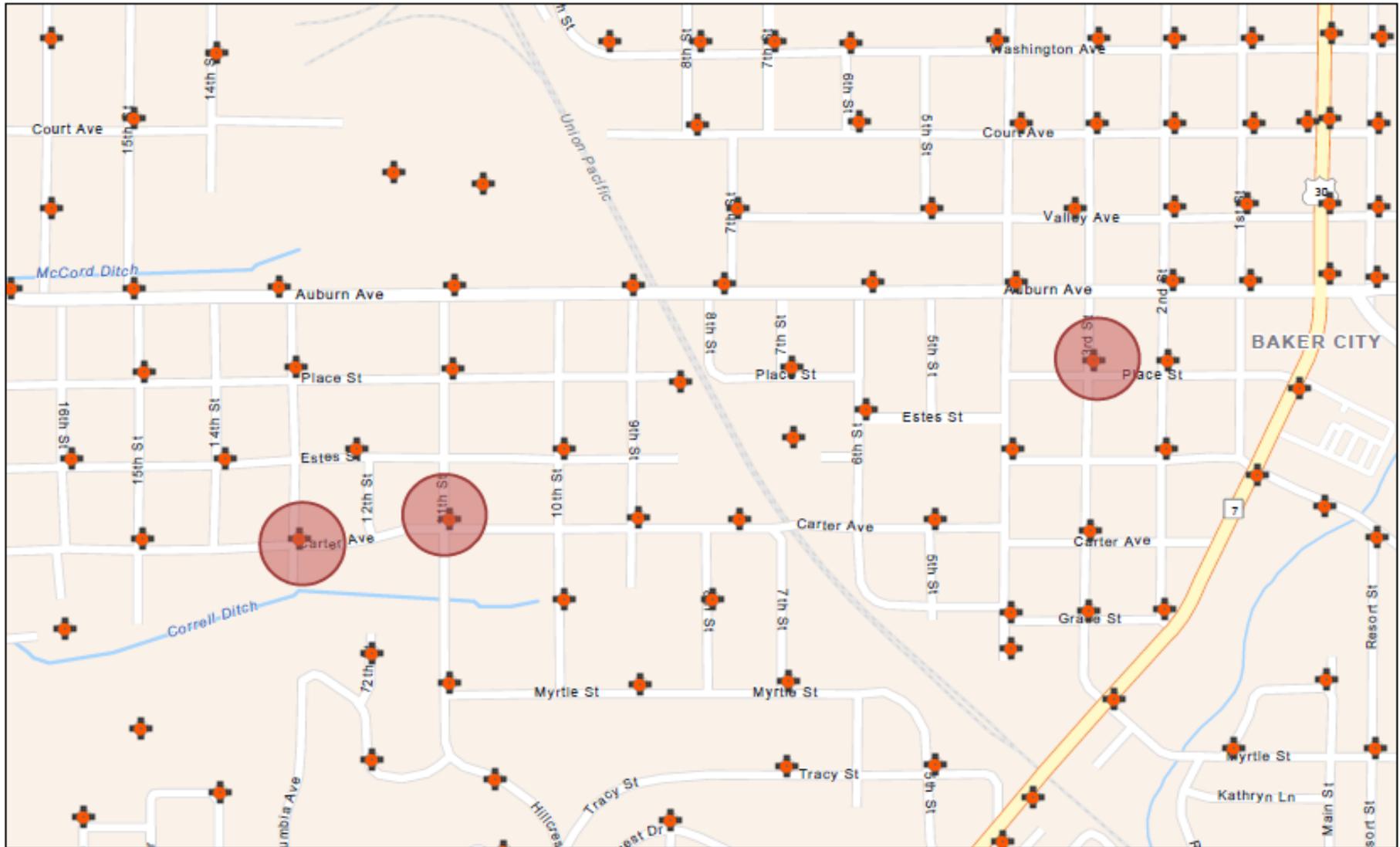
Google Earth

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**BAKER CITY PUBLIC WORKS
3 YEAR WATER CAPITAL PLAN
ESTIMATE OF COST
2020-2021 FISCAL YEAR - 2nd Half
JANUARY 1, 2021 - JUNE 30, 2021**

ITEM #	LOCATION	QUANTITY	UNIT	UNIT COST	ESTIMATED TOTAL COST	SIZE TYPE	OBJECTIVE
1	Replace Hydrants	3	Each	\$6,000.00	\$ 18,000.00	Varies	Replace hydrants at 2nd / Place, 13th / Carter, and 11th / Carter.
2	Water Line Extensions	Varies	Lineal Feet	Varies	\$ 10,000.00	Varies	Misc. water line extensions.
3	Washington Ave. (Clark St. - Birch St.)	600	Lineal Feet	\$140.00	\$ 84,000.00	8"-12" DI.	Install 8" - 12" DI pipe to replace aged Cast Iron pipe in intersections .
SUBTOTAL					\$ 112,000.00		
ENGINEERING					\$ 11,200.00		
ADMINISTRATIVE CHARGE					\$ 9,856.00		
TOTAL ESTIMATED COST					\$ 133,056.00		

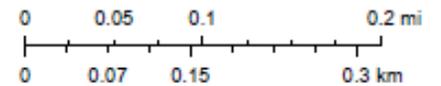
Water-Current Year-Item #1: Replace Hydrants



2/2/2021, 10:54:55 AM

-  Override 1
-  wHydrant

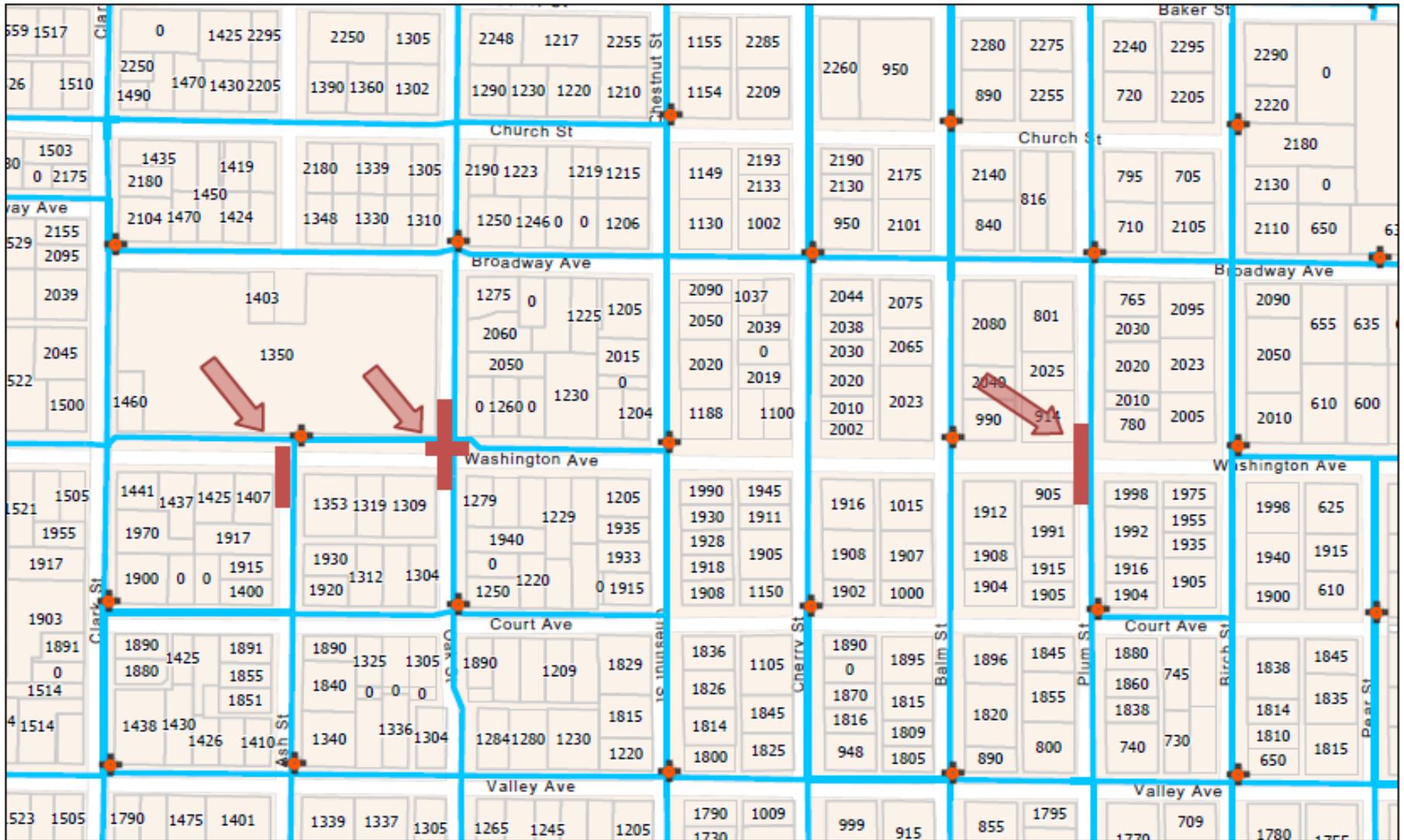
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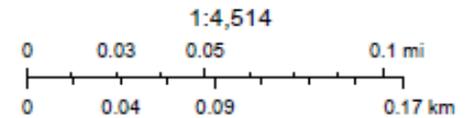
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Water-Current Year-Item #3: Replace Water Mainline Sections at Washington Ave.



2/2/2021, 10:43:14 AM

- Override 1
- wMain
- + wHydrant
- Taxlots (House Number)



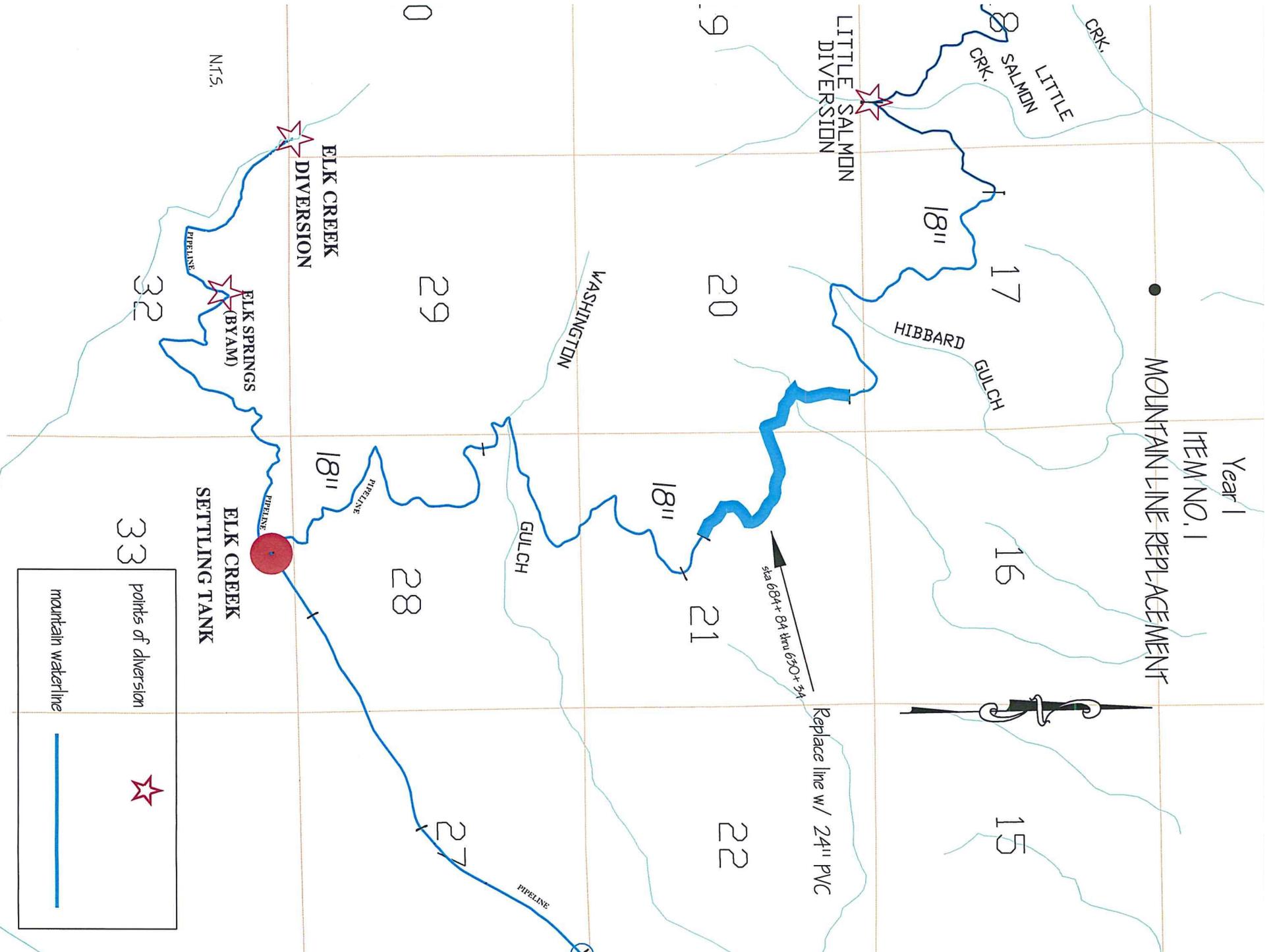
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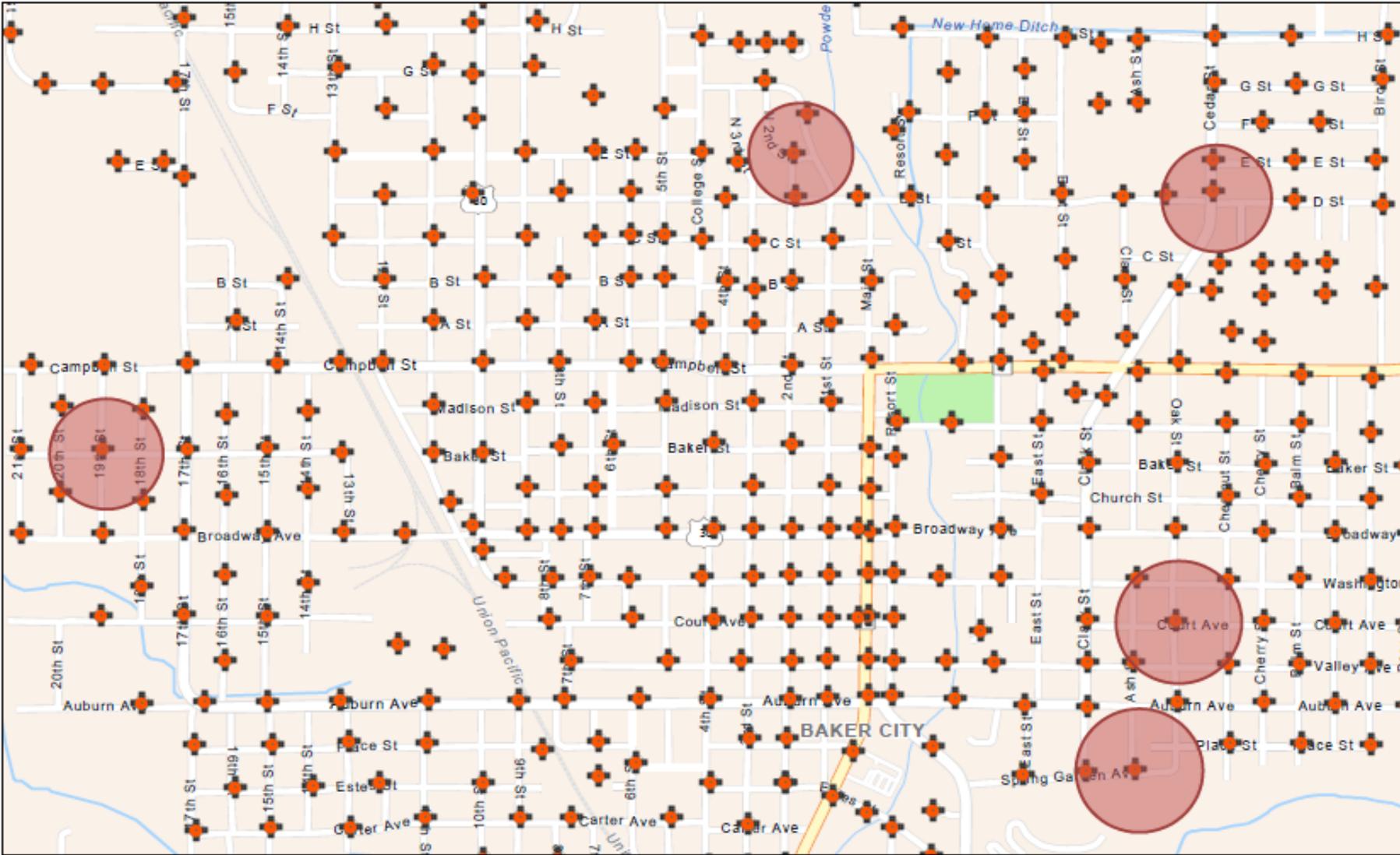
**BAKER CITY PUBLIC WORKS
3 YEAR WATER CAPITAL PLAN
ESTIMATE OF COST
2021-2022 FISCAL YEAR
JULY 1, 2021 - JUNE 30, 2022**

ITEM #	LOCATION	QUANTITY	UNIT	UNIT COST	ESTIMATED TOTAL COST	SIZE TYPE	OBJECTIVE
1	Mountain Line Replacement Sta. 684+84 to Sta. 630+34	5450	Lineal Feet	\$110.00	\$ 599,500.00	24" PVC	Purchase, transport and install, 24" C-900 PVC Pipe and fittings, ending at Rock Springs Diversion. (July thru October)
2	Mountain Line Replacement Road Work and Prep	1	Lump Sum	\$100,000.00	\$ 100,000.00	N/A	Road and prep work for pipe installation. (May thru June)
3	Replace Hydrants	5	Each	\$6,000.00	\$ 30,000.00	Varies	Replace hydrants at Cedar / D St., 2nd / E St., 19th / Baker, Oak / Court and Ash / Spring Garden.
4	Water Line Extensions	Varies	Lineal Feet	Varies	\$ 10,000.00	Varies	Misc. water line extensions.
5	Groundwater Source Development	1	Lump Sum	\$1,200,000.00	\$ 1,200,000.00	N/A	Construct well house, pump station, new piping, chlorination system, backup power, telemetry, start up and commissioning. Includes consulting services during construction and start up.
6	Park Springs Ave. - (Park Springs - Well St.)	250	Lineal Feet	\$130.00	\$ 32,500.00	8" DI.	Install 8" DI pipe to improve distribution grid and fire flows.
7	Goodrich Aqua duct	1	Lump Sum	\$20,000.00	\$ 20,000.00	N/A	Install a new blow off in the Goodrich Aqua duct.
8	Marble Creek Intertie	1	Lump Sum	\$5,000.00	\$ 5,000.00	N/A	Install a new air vac in the Marble Creek intertie line.
9	Marble Springs Transmission Line Relocation	800	Lineal Feet	\$200.00	\$ 160,000.00	12" DI.	Relocate transmission line for improved road access. This is dependent on USFS timeline for work on Marble Creek Road.
SUBTOTAL					\$ 2,157,000.00		
ENGINEERING					\$ 95,700.00		
ADMINISTRATIVE CHARGE					\$ 112,560.00		
TOTAL ESTIMATED COST					\$ 2,365,260.00		

Items noted in blue lettering are projects required by state or federal regulatory agencies.

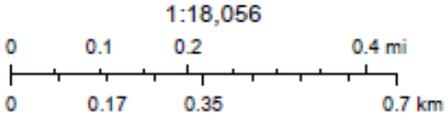


Water-July '21 to June '22-Item #3: Replace Hydrants



2/2/2021, 11:03:37 AM

- Override 1
- +
 wHydrant



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Water-July '21 to June '22-Item #6: Install 8" Mainline

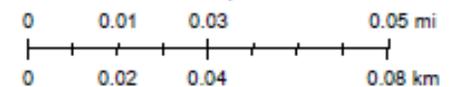


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Override 1
 wHydrant
 Taxlots (House Number)

Override 1
 wMain

1:2,257



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City of Baker City
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Year 1

UNIT

SPRINGS

MARBLE SPRINGS REPLACEMENT

ITEM NO. 9

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CREEK

MARBLE SPRINGS 16 11

18 11

Replace - Kalcate line
w/ 12" DI.

MARBLE MARBLE CREEK
SETTLING TANK

N.T.S.

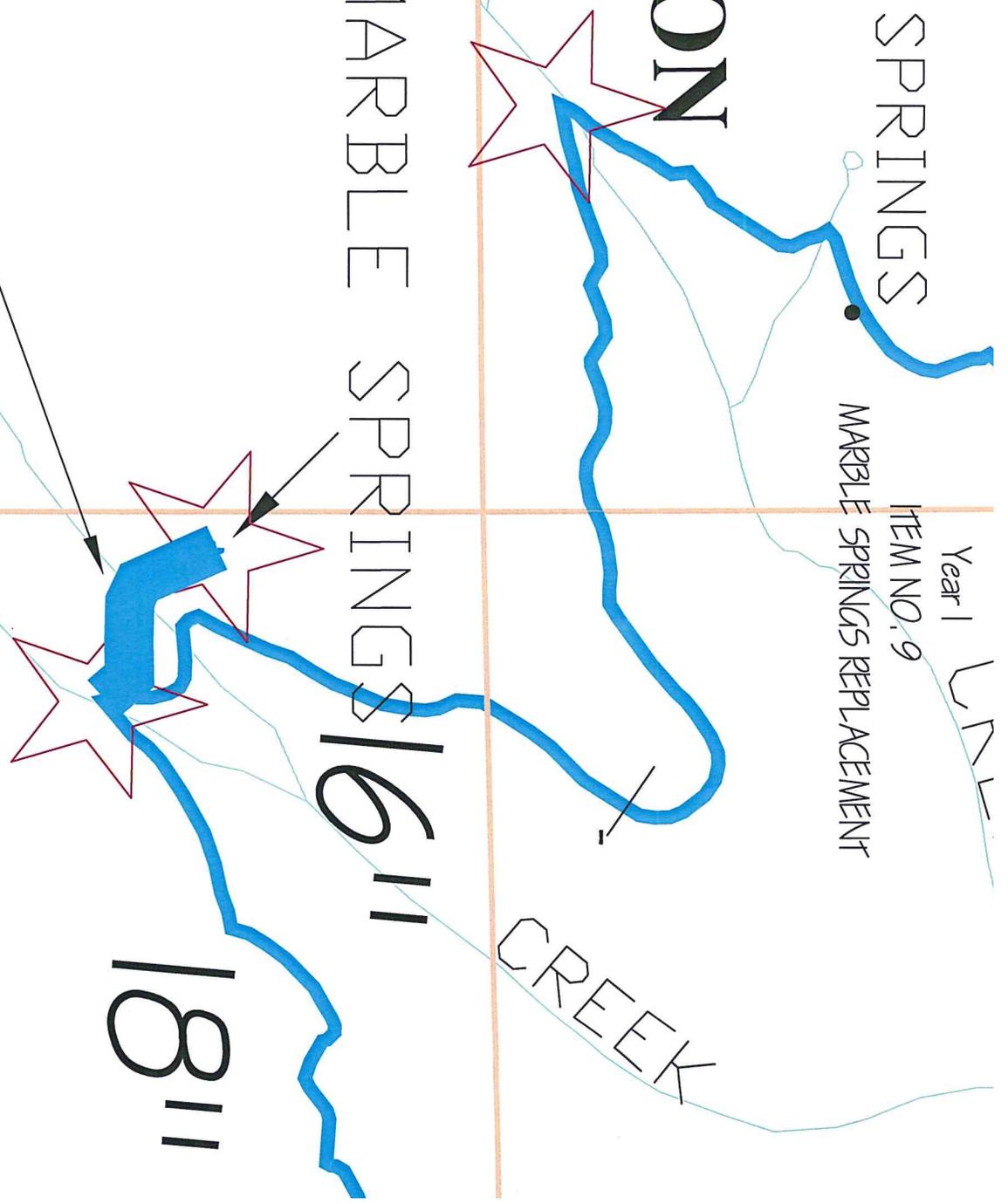
points of diversion



maintain waterline



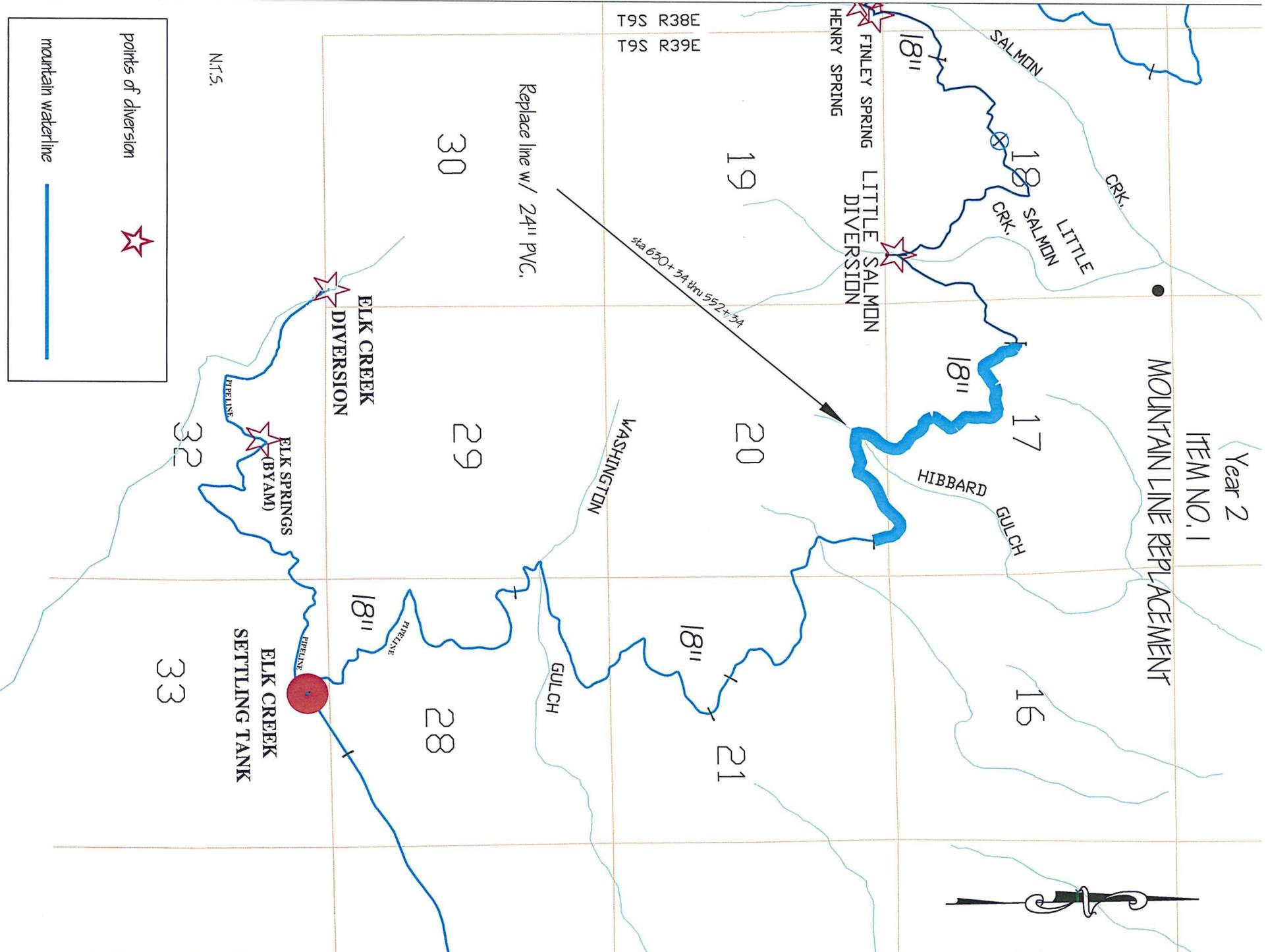
CAMPER



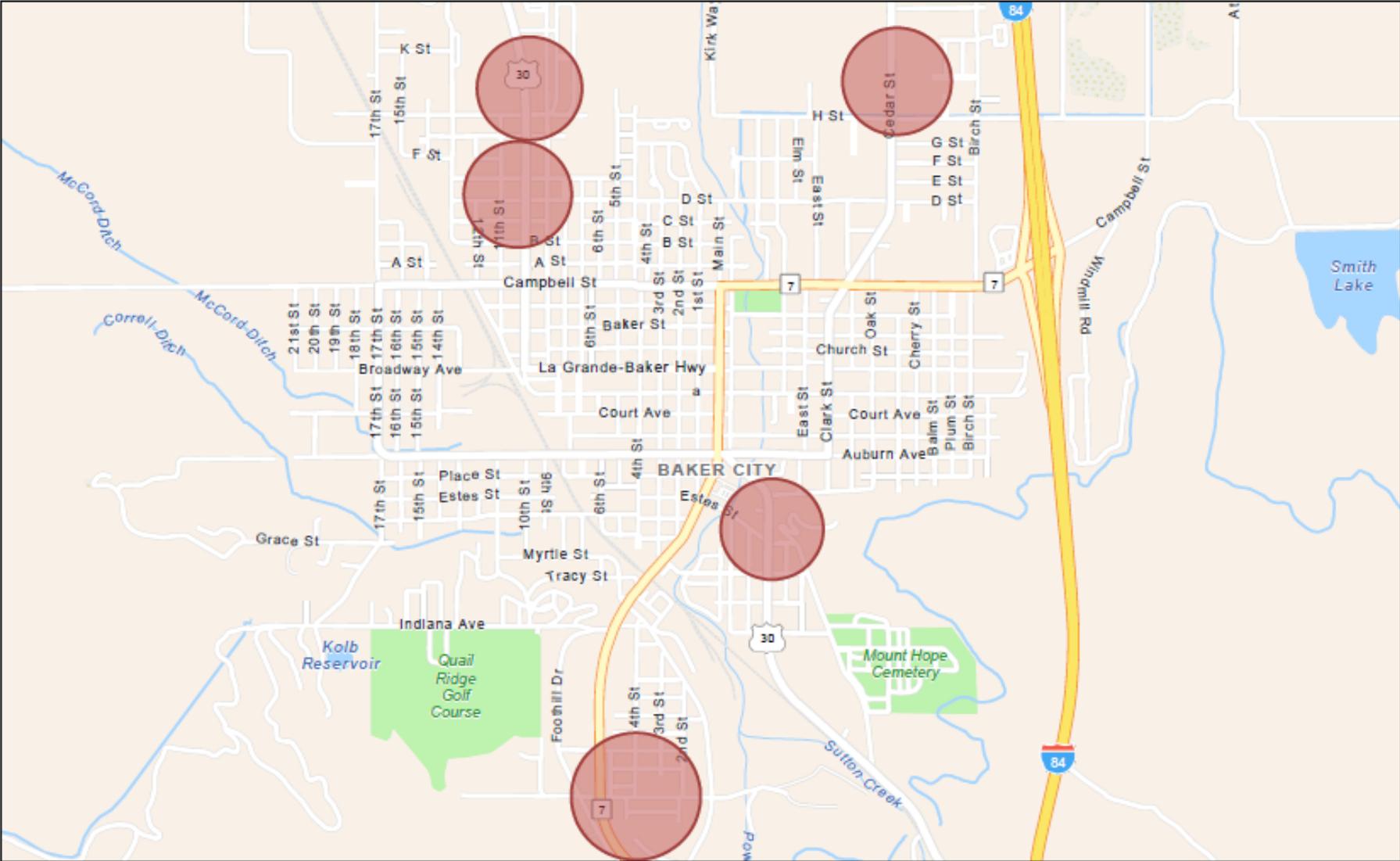
**BAKER CITY PUBLIC WORKS
3 YEAR WATER CAPITAL PLAN
ESTIMATE OF COST
2022-2023 FISCAL YEAR
JULY 1, 2022 - JUNE 30, 2023**

ITEM #	LOCATION	QUANTITY	UNIT	UNIT COST	ESTIMATED TOTAL COST	SIZE TYPE	OBJECTIVE
1	Mountain Line Replacement Sta. 630+34 to Sta. 552+34	7800	Lineal Feet	\$110.00	\$ 858,000.00	24" PVC	Purchase, transport and install, 24" C-900 PVC Pipe and fittings. (July thru October)
2	Mountain Line Replacement Road Work and Prep	1	Lump Sum	\$100,000.00	\$ 100,000.00	N/A	Road and prep work for pipe installation. (May thru June)
3	Replace Hydrants	5	Each	\$6,000.00	\$ 30,000.00	Varies	Replace hydrants at Elm / Estes, Cedar / H St. (650' N. of), 4th / Colorado, 10th / H St. (230' N. of) and 10th / D St.
4	Water Line Extensions	Varies	Lineal Feet	Varies	\$ 10,000.00	Varies	Misc. water line extensions.
5	Diversion Structure Improvements (Little Salmon, Camper, Henry and Finley Springs)	1	Lump Sum	\$30,000.00	\$ 30,000.00	N/A	Improve diversions and line basins with concrete to address turbidity issues.
6	10th Street (G St. to H St.)	360	Lineal Feet	\$140.00	\$ 50,400.00	8" DI	Install 8" DI pipe to replace 4" CI. and connect to 8 " line in G Street for improved distribution grid and fire flows.
7	Oregon Street	410	Lineal Feet	\$140.00	\$ 57,400.00	8" DI	Install 8" DI pipe from Oregon St. to Foothill Dr. to improve distribution grid and fire flows.
8	Place Street (13th St. to 17th St.)	1190	Lineal Feet	\$90.00	\$ 107,100.00	8" DI	Install 8" DI pipe to improve distribution grid, fire flows and eliminate spaghetti service lines.
9	Chlorine System Upgrade	1	Lump Sum	\$150,000.00	\$ 150,000.00	N/A	Upgrade disinfection system.
SUBTOTAL					\$ 1,392,900.00		
ENGINEERING					\$ 124,290.00		
ADMINISTRATIVE CHARGE					\$ 122,575.20		
TOTAL ESTIMATED COST					\$ 1,639,765.20		

Items noted in blue lettering are projects required by state or federal regulatory agencies.



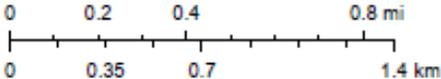
Water-July '22 to June '23-Item #3: Replace Hydrants



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Override 1

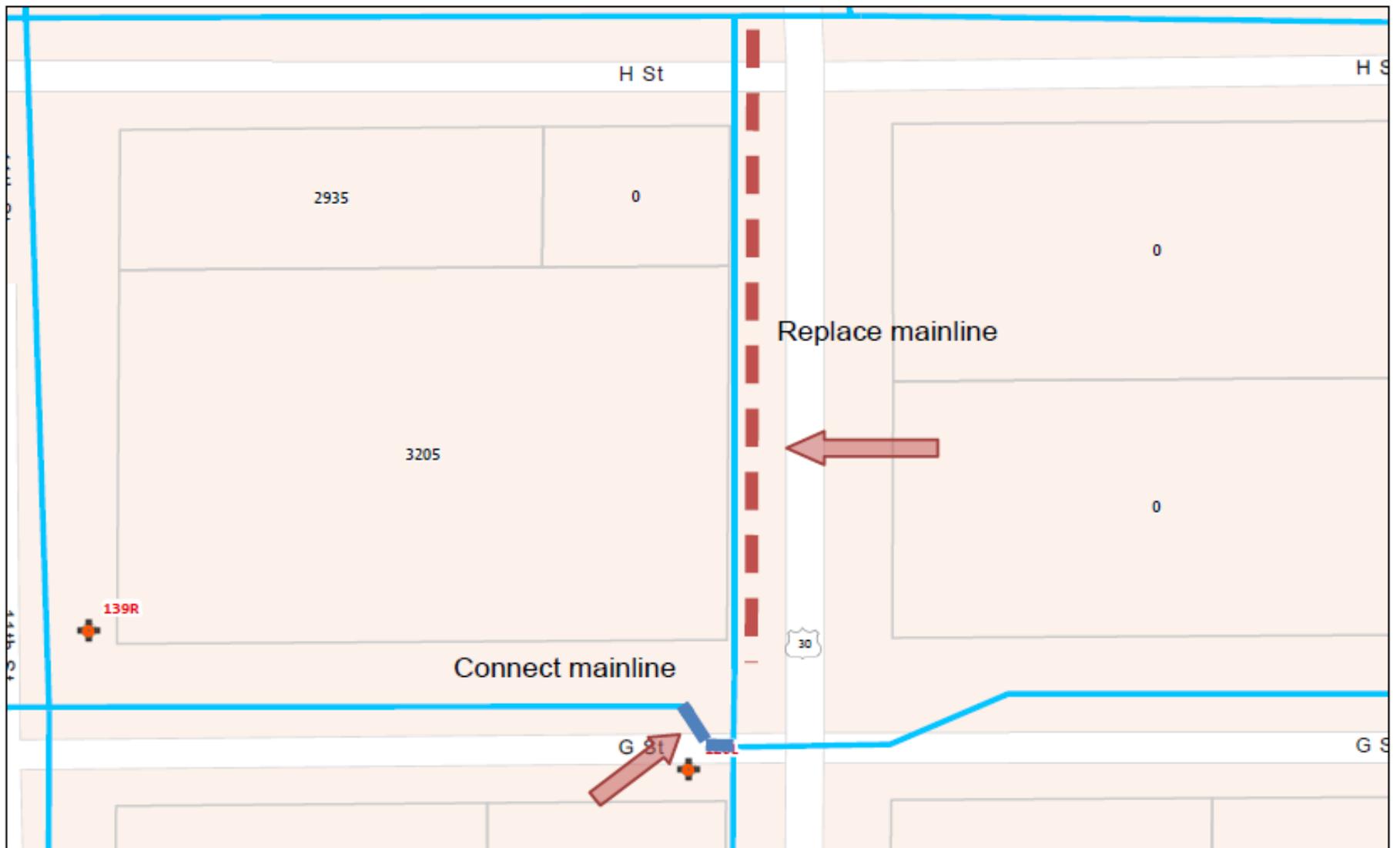
1:36,112



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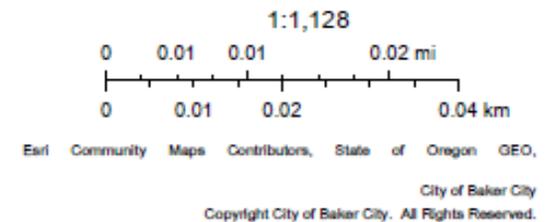
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Water- July '22 to June '23-Item #6: Replace Mainline @ 10th St & Connect Mainline @ G St



2/2/2021, 1:16:32 PM

- Override 1
- Override 2
- wMain
- Lines
- wHydrant
- Taxlots (House Number)
- Override 1

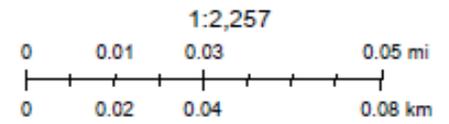


Water-July '22 to June '23-Item #7: Install Mainline from Oregon St to Foothill Dr



2/2/2021, 1:31:05 PM

- Override 1
- wHydrant
- Taxlots (House Number)
- wMain



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Water- July '22 to June '23-Item #8: Install Mainline at Place St (13th to 17th)

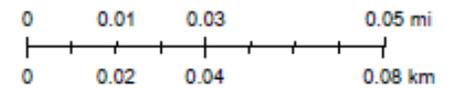


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Override 1
 wHydrant
 Taxlots (House Number)

Override 1
 wMain

1:2,257



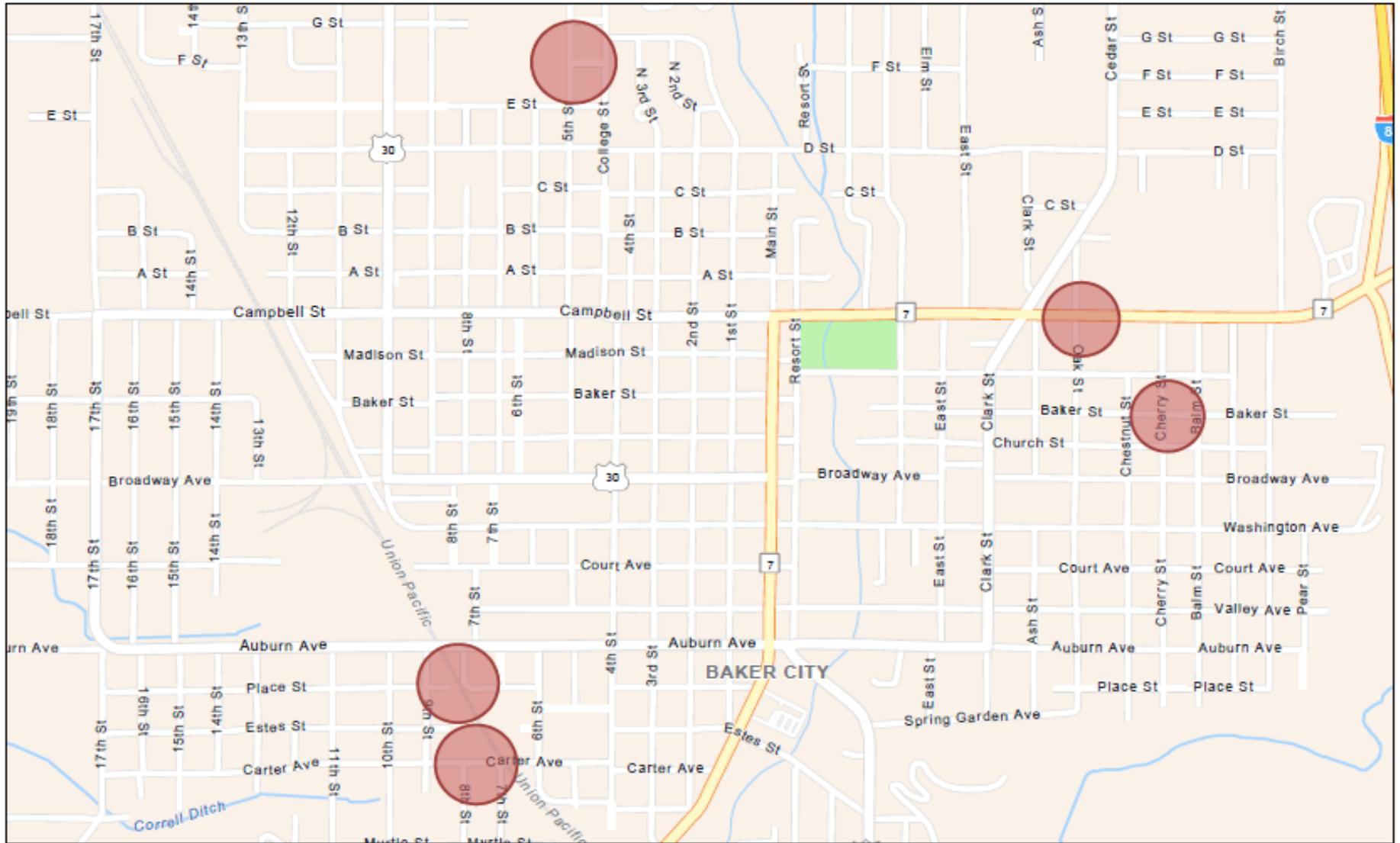
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City of Baker City
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**BAKER CITY PUBLIC WORKS
3 YEAR WATER CAPITAL PLAN
ESTIMATE OF COST
2023-2024 FISCAL YEAR
JULY 1, 2023 - JUNE 30, 2024**

ITEM #	LOCATION	QUANTITY	UNIT	UNIT COST	ESTIMATED TOTAL COST	SIZE TYPE	OBJECTIVE
1	Mountain Line Replacement Sta. 552+34 to Sta. 474+34	7800	Lineal Feet	\$120.00	\$ 936,000.00	24" PVC	Purchase, transport and install, 24" C-900 PVC Pipe and fittings. (July thru October)
2	Mountain Line Replacement Road Work and Prep	1	Lump Sum	\$100,000.00	\$ 100,000.00	N/A	Road and prep work for pipe installation. (May thru June)
3	Replace Hydrants	5	Each	\$6,000.00	\$ 30,000.00	Varies	Replace hydrants at Oak / Campbell, 5th / F St., Cherry / Baker, 8th / Carter and 9th / Place (E. of 9th)
4	Water Line Extensions	Varies	Lineal Feet	Varies	\$ 10,000.00	Varies	Misc. water line extensions.
5	Reservoir Well Rehabilitation	1	Lump Sum	\$110,000.00	\$ 110,000.00	N/A	Remove encrustation on well liner.
6	Carter Street	1	Lump Sum	\$15,000.00	\$ 15,000.00	12" DI	Design for replacing leaking cast iron line.
SUBTOTAL					\$ 1,201,000.00		
ENGINEERING					\$ 120,100.00		
ADMINISTRATIVE CHARGE					\$ 105,688.00		
TOTAL ESTIMATED COST					\$ 1,426,788.00		

Items noted in blue lettering are projects required by state or federal regulatory agencies.

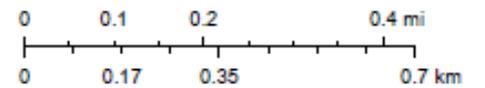
Water-July '23 to June '24-Item #3: Replace Hydrants



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1:18,056



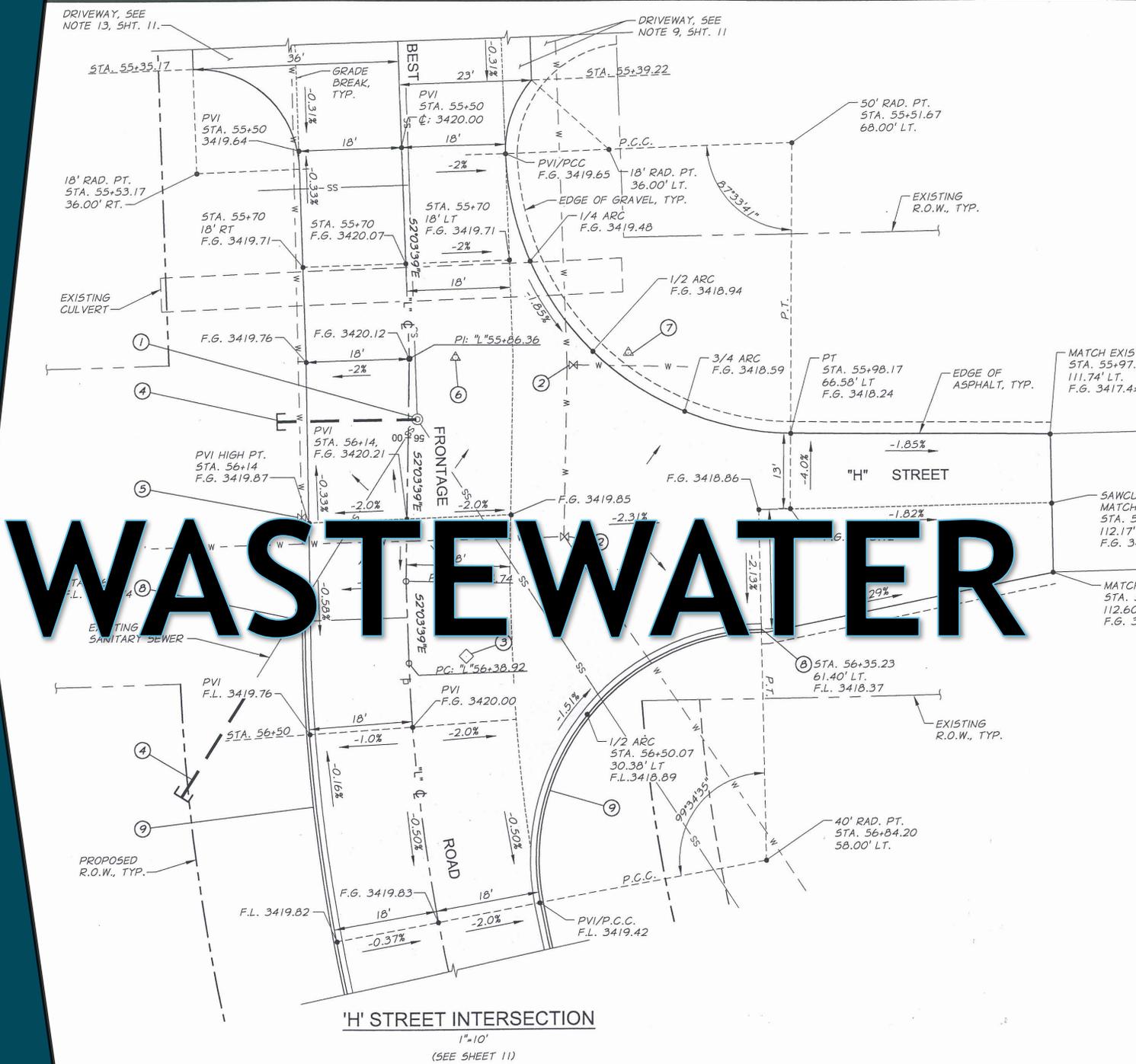
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CONSTRUCTION WORK ITEMS

- 1) MAJOR ADJUSTMENT OF MANHOLE, SEE SHT. 20.
- 2) ADJUST VALVE BOX. SEE DETAIL, SH...
- 3) RELOCATE TELEPHONE PEDESTAL, (B...
- 4) PROPOSED SANITARY SEWER EXTEN...
- 5) PROTECT VALVE DURING CONSTRU...
- 6) REMOVE EXISTING SURVEY MONUM...
- 7) PROTECT EXISTING SURVEY MONU...
- 8) CONSTRUCT CURB ENDING. SEE DRG. RD700. WORK INCLUDED IN ALTERNATIVE NO. 2.
- 9) CONSTRUCT CURB AND GUTTER IN ADDITIVE ALTERNATIVE NO.

NOTE:
ALL ELEVATIONS SHOWN ON SHEET ARE EITHER FINISHED ASPHALT CONCRETE PAVEMENT SURFACE (F.G.) OR GUTTER FLOW LINE (F.L.).



WASTEWATER

'H' STREET INTERSECTION
1"=10'
(SEE SHEET 11)

REGISTERED PROFESSIONAL ENGINEER
64420PE
[Signature]
OREGON
JAN. 15, 2002
REW LINDSEY

REVISION	DATE	BY	CHKD.
DESIGNED BY	B. MAHON		
DRAWN BY	R. RASML		
REVIEWED BY	A. LINDSEY		

10 0 10 20 30 SCALE IN FEET	
VERT. SCALE	1"=10'
NUMBER	90-51
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COPYRIGHT 2014 BY ANDERSON PERRY & ASSOC., INC.	

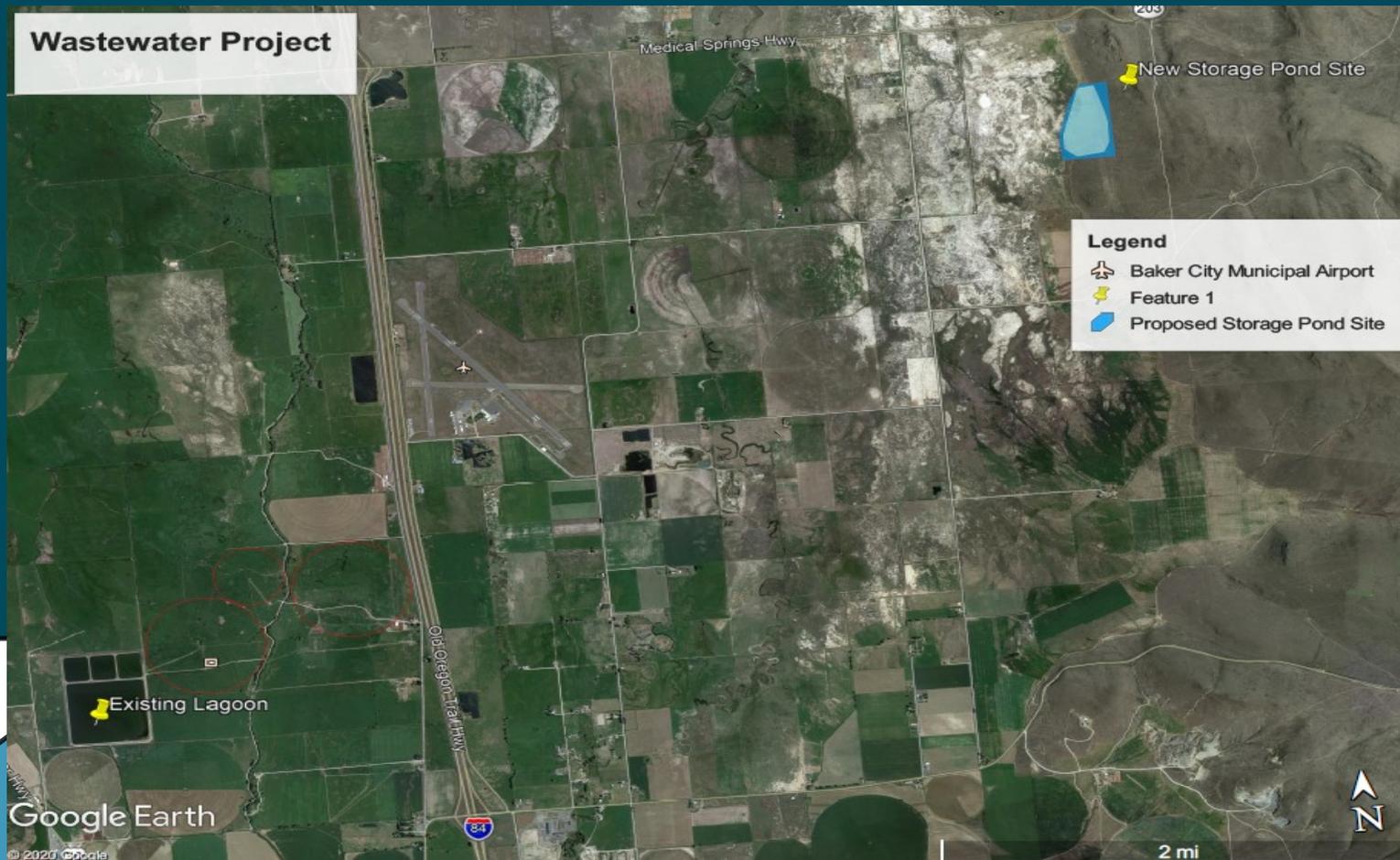
THIS DRAWING HAS BEEN REDUCED 50%.
ADJUST SCALE ACCORDINGLY.
BARSCALE SHOWN IS ACCURATE.

ap anderson perry & associates, inc.
engineering - surveying - natural resources
LA GRANDE, OR. WALLA WALLA, WA.

BAKER COUNTY, OREGON
BEST FRONTAGE ROAD IMPROVEMENT
2014
25
INTERSECTION DETAIL
'H' STREET

Wastewater System Improvements for 2021

Construction of a new storage pond for treated effluent, piping from the existing lagoon site on Imnaha Road to the pond site near Sunny Slope Road and Lee Lane, including bores beneath the Powder River and I-84, pumps and facilities at each location along with screening and control structure improvements at the lagoon site. *See Current Year and Year 1*



Biosolids Waste Removal

After the storage pond and piping project is complete the next phase of improvements will begin. This includes the removal of biosolids from the lagoon cells starting with the 70-acre "A" cell. The pond will be dewatered and then the biosolids will be removed from the bottom of the cell and relocated to the adjacent 40-acre field to dry. Once dried, the biosolids can be used as a fertilizer on grounds used to grow certain crops. *See Year 1 and Year 2*



Cured In Place Pipe (CIPP) Lining

Our wastewater mainlines in the central part of town are old. Over 39,000 feet of terra cotta (clay) pipe were installed in Baker City as far back as 1905. These older lines are deteriorating and have a tendency to collapse which will cause a mainline blockage. In an effort to prevent this type of issue the City has taken on the project of lining these older mainlines with a liner to add new life to an old pipe. The process is less costly than physically going into these tight alleys and under structures to remove and replace lines. The CIPP lining process also allows residents to stay in-service during the majority of the repair. CIPP involves inserting a flexible liner inside the existing pipe, inflating the liner, and exposing it to heat to "cure," or harden, the liner inside the pipe. The liner essentially forms a smooth surface inside the existing pipe, restoring it to near-new condition. *(Each Year has a project for CIPP lining)*



**BAKER CITY PUBLIC WORKS
 3 YEAR WASTE WATER CAPITAL PLAN
 ESTIMATE OF COST
 2020-2021 FISCAL YEAR - 2nd Half
 JANUARY 1, 2021 - JUNE 30, 2021**

ITEM #	LOCATION	QUANTITY	UNIT	UNIT COST	ESTIMATED TOTAL COST	SIZE TYPE	OBJECTIVE
1	Various Locations	Varies	Lineal Feet	Varies	\$ 150,000.00	Varies	Install CIPP (Cured In Place Pipe) lining to prevent leakage & improve structural & flow characteristics of deteriorating sewage lines.
2	*Wastewater Treatment Facility	N/A	Lump Sum	\$2,000,000.00	\$ 2,000,000.00	N/A	Begin construction of effluent storage pond and piping project.
SUBTOTAL					\$ 2,150,000.00		
ENGINEERING					\$ 215,000.00		
ADMINISTRATIVE CHARGE					\$ 72,000.00		
TOTAL ESTIMATED COST					\$ 2,437,000.00		

*Current rate structure does not provide adequate funding for this project

**BAKER CITY PUBLIC WORKS
3 YEAR WASTE WATER CAPITAL PLAN
ESTIMATE OF COST
2021-2022 FISCAL YEAR
JULY 1, 2021 - JUNE 30, 2022**

ITEM #	LOCATION	QUANTITY	UNIT	UNIT COST	ESTIMATED TOTAL COST	SIZE TYPE	OBJECTIVE
1	Various Locations	Varies	Lineal Feet	Varies	\$ 150,000.00	Varies	Install CIPP (Cured In Place Pipe) lining to prevent leakage & improve structural & flow characteristics of deteriorating sewerage lines.
2	*Wastewater Treatment Facility	N/A	Lump Sum	\$4,000,000.00	\$ 4,000,000.00	N/A	Finish construction of effluent storage pond and piping project. Also upgrade current system to include grit removal, screening, valve replacement, Scada update and discharge piping.
3	* Wastewater Treatment Facility	N/A	Lump Sum	\$500,000.00	\$ 500,000.00	N/A	Bio solids removal from pond A.
4	10th Street (Baker St. to Madison Ave)	270	Lineal Feet	\$100.00	\$ 27,000.00	8" PVC	Install 8" PVC to replace 6" TC and eliminate a problem sewer.
SUBTOTAL					\$ 4,677,000.00		
ENGINEERING					\$ 267,700.00		
ADMINISTRATIVE CHARGE					\$ 174,160.00		
TOTAL ESTIMATED COST					\$ 5,118,860.00		

*Current rate structure does not provide adequate funding for this project

**BAKER CITY PUBLIC WORKS
3 YEAR WASTE WATER CAPITAL PLAN
ESTIMATE OF COST
2022-2023 FISCAL YEAR
JULY 1, 2022 - JUNE 30, 2023**

ITEM #	LOCATION	QUANTITY	UNIT	UNIT COST	ESTIMATED TOTAL COST	SIZE TYPE	OBJECTIVE
1	Various Locations	Varies	Lineal Feet	Varies	\$ 150,000.00	Varies	Install CIPP (Cured In Place Pipe) lining to prevent leakage & improve structural & flow characteristics of deteriorating sewage lines.
2	*Wastewater Treatment Facility	N/A	Lump Sum	\$500,000.00	\$ 500,000.00	N/A	Bio solids removal from small cells B, C and D.
SUBTOTAL					\$ 650,000.00		
ENGINEERING					\$ 65,000.00		
ADMINISTRATIVE CHARGE					\$ 57,200.00		
TOTAL ESTIMATED COST					\$772,200.00		

*Current funding / rate structure does not provide adequate funding for this project

Year 3

**BAKER CITY PUBLIC WORKS
3 YEAR WASTE WATER CAPITAL PLAN
ESTIMATE OF COST
2023-2024 FISCAL YEAR
JULY 1, 2023 - JUNE 30, 2024**

ITEM #	LOCATION	QUANTITY	UNIT	UNIT COST	ESTIMATED TOTAL COST	SIZE TYPE	OBJECTIVE
1	Various Locations	Varies	Lineal Feet	Varies	\$ 150,000.00	Varies	Install CIPP (Cured In Place Pipe) lining to prevent leakage & improve structural & flow characteristics of deteriorating sewage lines.
SUBTOTAL					\$ 150,000.00		
ENGINEERING					\$ 15,000.00		
ADMINISTRATIVE CHARGE					\$ 13,200.00		
TOTAL ESTIMATED COST					\$ 178,200.00		

CONSTRUCTION WORK ITEMS

- 1) MAJOR ADJUSTMENT OF MANHOLE, SEE SHT. 20.
- 2) ADJUST VALVE BOX. SEE DETAIL, SH...
- 3) RELOCATE TELEPHONE PEDESTAL, (B...
- 4) PROPOSED SANITARY SEWER EXTEN...
- 5) PROTECT VALVE DURING CONSTRU...
- 6) REMOVE EXISTING SURVEY MONUM...
- 7) PROTECT EXISTING SURVEY MONU...
- 8) CONSTRUCT CURB ENDING. SEE DRG. RD700. WORK INCLUDED IN ALTERNATIVE NO. 2.
- 9) CONSTRUCT CURB AND GUTTER IN ADDITIVE ALTERNATIVE NO.



STORMWATER

NOTE:
ALL ELEVATIONS SHOWN ON SHEET ARE EITHER FINISHED ASPHALT CONCRETE PAVEMENT SURFACE (F.G.) OR GUTTER FLOW LINE (F.L.).

REGISTERED PROFESSIONAL ENGINEER
64420PE
[Signature]
OREGON
JAN. 15, 2002
REW LINDSEY
NEWS 12-31-14
SIGNED 04-11-14

REVISION	
DESIGNED BY	B. MAHON
DRAWN BY	R. RASML
REVIEWED BY	A. LINDSEY

10 0 10 20 30 SCALE IN FEET	
VERT. SCALE 1"=10'	VERT. SCALE
NUMBER 90-51	DATE 2014
FILE Int Detis Best Frontage.dwg	
COPYRIGHT 2014 BY ANDERSON PERRY & ASSOC., INC.	

THIS DRAWING HAS BEEN REDUCED 50%.
ADJUST SCALE ACCORDINGLY.
BARSCALE SHOWN IS ACCURATE.

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engineering • surveying • natural resources
LA GRANDE, OR. WALLA WALLA, WA.

BAKER COUNTY, OREGON
BEST FRONTAGE ROAD IMPROVEMENT
2014
33
INTERSECTION DETAIL
"H" STREET

'H' STREET INTERSECTION
1"=10'
(SEE SHEET 11)

**BAKER CITY PUBLIC WORKS
 3 YEAR STORM WATER CAPITAL PLAN
 ESTIMATE OF COST
 2020-2021 FISCAL YEAR - 2nd Half
 JANUARY 1, 2021 - JUNE 30, 2021**

ITEM #	LOCATION	QUANTITY	UNIT	UNIT COST	ESTIMATED TOTAL COST	SIZE TYPE	OBJECTIVE
1	GIS Mapping	Lump Sum	Lump Sum	\$10,000.00	\$ 10,000.00	N/A	Continue mapping system.
2	TV Inspection of Storm Mainlines	1	Lump Sum	\$5,000.00	\$ 5,000.00	Varies	Inspect condition of existing storm mainlines.
SUBTOTAL					\$ 15,000.00		
ENGINEERING					\$ 1,500.00		
ADMINISTRATIVE CHARGE					\$ 1,320.00		
TOTAL ESTIMATED COST					\$ 17,820.00		

Items noted in green lettering are projects required by state or federal regulatory agencies.

**BAKER CITY PUBLIC WORKS
3 YEAR STORM WATER CAPITAL PLAN
ESTIMATE OF COST
2021-2022 FISCAL YEAR
JULY 1, 2021 - JUNE 30, 2022**

ITEM #	LOCATION	QUANTITY	UNIT	UNIT COST	ESTIMATED TOTAL COST	SIZE TYPE	OBJECTIVE
1	11th Street (Place St. to Auburn Ave.)	340	Lineal Feet	\$80.00	\$ 27,200.00	12" PVC	Install a new 12" PVC mainline to address drainage issues.
2	TV Inspection of Storm Mainlines	Lump	Lump Sum	\$5,000.00	\$ 5,000.00	Varies	Inspect condition of existing storm mainlines.
SUBTOTAL					\$ 32,200.00		
ENGINEERING					\$ 3,220.00		
ADMINISTRATIVE CHARGE					\$ 2,833.60		
TOTAL ESTIMATED COST					\$ 38,253.60		

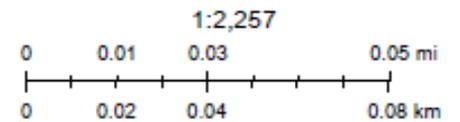
Items noted in green lettering are projects required by state or federal regulatory agencies.

Storm-July '21 to June '22-Item #1: Install Mainline 11th St (Place to Auburn)



2/5/2021, 11:40:51 AM

- Override 1
- swManhole
- Taxlots (House Number)
- Override 1
- swGravityMain



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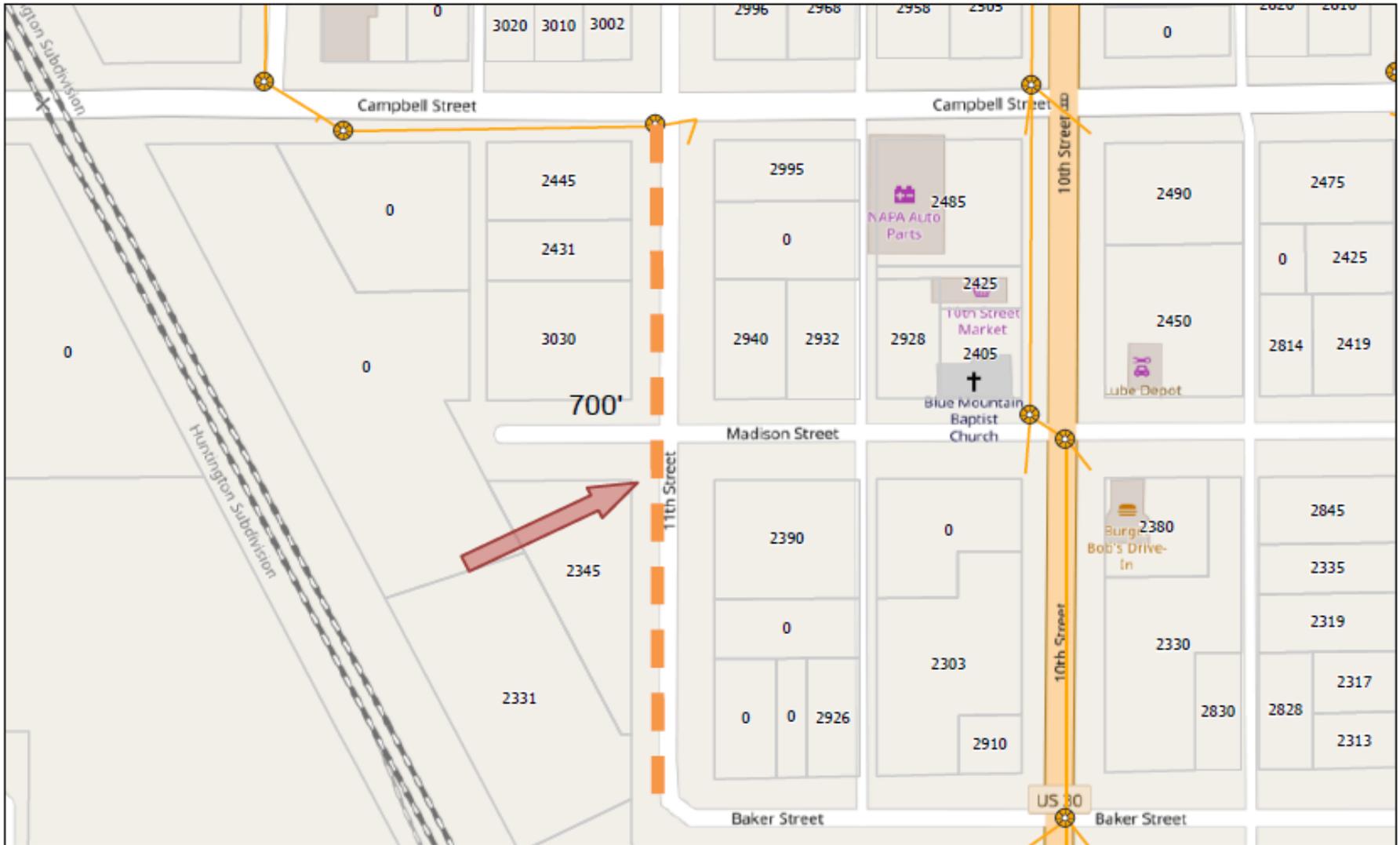
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**BAKER CITY PUBLIC WORKS
3 YEAR STORM WATER CAPITAL PLAN
ESTIMATE OF COST
2022-2023 FISCAL YEAR
JULY 1, 2022 - JUNE 30, 2023**

ITEM #	LOCATION	QUANTITY	UNIT	UNIT COST	ESTIMATED TOTAL COST	SIZE TYPE	OBJECTIVE
1	Locations to be Determined	500	Lineal Feet	\$54.00	\$ 27,000.00	Varies	Install CIPP (Cured In Place Pipe) lining to prevent leakage & improve structural & flow characteristics of deteriorating storm lines.
2	11th Street (Baker St. to Campbell St.)	700	Lineal Feet	\$60.00	\$ 42,000.00	12" PVC	Install a new 12" PVC mainline to address drainage issues.
3	TV Inspection of Storm Mainlines	Lump	Lump Sum	\$5,000.00	\$ 5,000.00	Varies	Inspect condition of existing storm mainlines.
SUBTOTAL					\$ 74,000.00		
ENGINEERING					\$ 7,400.00		
ADMINISTRATIVE CHARGE					\$ 6,512.00		
TOTAL ESTIMATED COST					\$ 87,912.00		

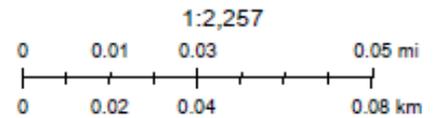
Items noted in green lettering are projects required by state or federal regulatory agencies.

Storm-July '22 to Jun '23-Item #2: Install Mainline 11th St (Baker to Campbell)



2/9/2021, 2:16:25 PM

- Override 1
- swManhole
- Taxlots (House Number)
- Override 1
- swGravityMain



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**BAKER CITY PUBLIC WORKS
 3 YEAR STORM WATER CAPITAL PLAN
 ESTIMATE OF COST
 2023-2024 FISCAL YEAR
 JULY 1, 2023 - JUNE 30, 2024**

ITEM #	LOCATION	QUANTITY	UNIT	UNIT COST	ESTIMATED TOTAL COST	SIZE TYPE	OBJECTIVE
1	Locations to be Determined	500	Lineal Feet	\$56.00	\$ 28,000.00	Varies	Install CIPP (Cured In Place Pipe) lining to prevent leakage & improve structural & flow characteristics of deteriorating storm lines.
2	TV Inspection of Storm Mainlines	Lump	Lump Sum	\$5,000.00	\$ 5,000.00	Varies	Inspect condition of existing storm mainlines.
SUBTOTAL					\$ 33,000.00		
ENGINEERING					\$ 3,300.00		
ADMINISTRATIVE CHARGE					\$ 2,904.00		
TOTAL ESTIMATED COST					\$ 39,204.00		

Items noted in green lettering are projects required by state or federal regulatory agencies.



GH PT.
6+14
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