



CITY OF OWOSSO

DRINKING WATER REVOLVING FUND PROJECT PLAN

AMENDMENT NO. 1

JUNE 6, 2022



AMENDMENT NUMBER ONE

2019 Drinking Water Revolving Fund Project Plan

City of Owosso, Michigan

Dated: May 2022

Item #1: Add the Following Items to the List of Appendices on Page iv of the Table of Contents:

K. Public Hearing – Amendment Number 1

a. Notice of Public Hearing

b. Attendance List

c. Verbatim Transcript

L. City of Owosso Council Resolution – Amendment Number 1

Item #2: Replace Table in Project Background – Section Existing Facilities on page 4

Table 4. Summary of Raw Water Wells				
Well ID	Long-Term Plan	Year Installed	Permitted Capacity (GPM)	Actual Capacity (GPM)
LW-1 (WL001)		Pre 1960	700	800
LW-13 (WL013)	Emergency Backup	1955	750	752
Hintz (WL022)		2018	730	584
OSBURN (WL005)	Emergency Backup	1968	722	917
PS-1	Decommission	1963	INACTIVE	INACTIVE
PS-2 (WL002)		1963	757	902
PS-3 (WL003)	Decommission	1964	INACTIVE	INACTIVE
Palmer 3a	Future install	2023	Submitted 800	Permit Submitted 800
Juniper 1	Future Install	2023	850	Proposed 850
Juniper 2	Futuer Install	2024		
Hintz 2	Future install			
Total Capacity			4,451 (6.41 MGD)	3,110 (4.48 MGD)
Firm Capacity			3,659 (5.27 MGD)	2,257 (3.25 MGD)

Item #3: Replace the following Bullet Points from Project Background – Section Summary of Project Need on Page 9:

- Water main replacements.
- Repairs to water storage facilities.

- Water Filtration Plant improvements and repairs.
- Development of a new well field.

With:

- Water main replacements.
- Lead & Galvanized Service Lines Replacement
- Repairs to water storage facilities.
- Water Filtration Plant improvements and repairs.
- Development of a new well field.

Item #4: Replace the following paragraph from Project Background – Section Exploratory Well/Investigations/Well Site Selection/Test Well Drilling Procedures on Page 12:

“The City currently owns property east of Vandekarr Road and south of Oak Hill Cemetery. They would like to develop the property for use as a well field.

The densely forested, 34.7 acre property is directly adjacent to a freshwater forest and shrub wetland. About 400 feet north of the site is a residential neighborhood. Roughly 1,500 feet west of the site is Hillcrest Cemetery.

This property is next to an existing raw water transmission main that provides water to the Water Treatment Plant. It was

originally identified as a potential well field by Layne Christensen, a licensed well driller. The transmission main length from the proposed well site to the Water Treatment Plant would be approximately one (1) mile. This location is mapped in the Area of Potential Effects (Figure 4 found in Appendix A - Maps) and the existing raw water transmission main is shown the Existing Facilities Map (Figure 5 found in Appendix A - Maps).

There are known contamination sites approximately 1,300 to 2,000 feet east of the site which are shown on Figure 4. Sites of Contamination.”

With the following:

“The City is currently in the process of decommissioning and the abandonment of inactive wells PS-3 and PS-1. The City also foresees the eventual decommissioning of emergency backup wells LW-13, and Osburn. LW-1 had a complete rehab in 2020/21 yet the City expects this well to also require replacement eventually. To address this issue and issues with well protection, the City has completed hydrogeological studies, investigation and testing to develop an additional wells at the Vandekarr Road site, (aquifer supply and brownfield contaminate issues prevent use) Palmer 3a Well, (Permit submitted 04/19/2022) Osburn Well, Juniper St, and Hintz Well sites. Priority was given to establish and meet permit requirements to replace P-3 with P-3a. Development of P-3a started on 04/2021 and is now awaiting EGLE approval and funding to proceed with development. Development of Juniper St started on 09/2020 and is now awaiting funding to proceed with permitting and development. The

best new water sources are Palmer 3a and Juniper St.”

Item #5: Replace Table in Principal Alternatives – Section Improve Distribution System Pressures and Reliability-Subsection Monetary Evaluation on page 19

	Alt 1 PVC	Alt 2 Ductile Iron
2020 Water Main	\$ 2,262,700.00	\$ 2,526,000.00
2021 Water Main	\$ -	\$ -
2022 Water Main	\$ 705,018.36	\$ 789,620.56
2023 Water Main	\$ 1,771,000.00	\$ 1,983,520.00
2024 Water Main	\$ 2,640,625.00	\$ 2,957,500.00
Total Cost	\$ 7,379,343.36	\$ 8,256,640.56

Item #6: Replace Table in Principal Alternatives – Section WTP Failing Backwash Pump, Failing Process Piping, Obsolete Controls and Communications Equipment-Subsection Monetary Evaluation on page 23

	Alternative 1
Backwash Pumps	\$ 406,300.00
High-Service Piping Replacement	\$ 414,400.00
Water System Controls (SCADA)	\$ 1,100,000.00
Total	\$ 1,920,700.00

Item #7: Replace Table in Selected Alternative – Section Cost Estimate on page 36

Year	Activity	Loan Amount
2020	Water Main Replacements 2020 WTP Upgrades and Repairs	\$ 4,382,300.00
2021	N/A	\$ -
2022	Water Main Replacement 2022 & LSLR Storage Repair	\$ 1,367,409.97
2023	Water Main Replacements 2023 & LSLR WTP Upgrades Supply Well Constructions	\$ 4,043,000.00
2024	Water Main Replacements 2024 & LSLR	\$ 3,293,700.00
Total		\$13,086,409.97

Item #8: Replace Table in Selected Alternative – Section User Cost Estimate on page 37

Description	DWRF Loan Amount	Quarterly Resident Payment Increase
Water Storage Repairs	\$ 662,391.61	\$ 0.99
Water Treatment Plant Improvements	\$ 2,294,400.00	\$ 3.44
Well Field Investigation and Construction	\$ 1,055,000.00	\$ 1.58
2020 Water Main Replacements	\$ 2,251,700.00	\$ 3.38
2021 Water Main Replacements	\$ -	\$ -
2022 Water Main Replacements	\$ 705,018.36	\$ 1.06
2023 Water Main Replacements	\$ 1,771,000.00	\$ 2.66
2024 Water Main Replacements	\$ 2,640,625.00	\$ 3.96
Total Loan Amount	\$ 11,380,134.97	
Total Quarterly increases over 5 years per REU		\$ 17.07

Item #9: Add Section in Public Participation – The Formal Public Hearing AND Adoption of the Project Plan Amendment after page 45

The Formal Public Hearing for Amendment Number One

The formal public hearing was held on Monday, June 6th, 2022 at 7:30 P.M. in the City Hall Council Chambers, 301 West Main Street, Owosso, Michigan, 48667.

Public Hearing Advertisement

The public hearing advertisement ran in The Argus-Press on Friday, May 6th, 2022. A copy of the advertisement and an affidavit confirming its publication is included in Appendix K.

Public Hearing Transcript

A transcript of the public hearing is located in Appendix K. The names and addresses of the people who attended the public hearing are included.

Comments Received and Answered

“XX” written comments were received during the Public Comment Period May 6, 2022 through June 6, 2022. During the hearing, there was “.....”.

Adoption of the Project Plan

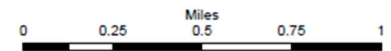
The City of Owosso **unanimously passed** Resolution Number **“XX-2022”**: Adopting a Final Project Plan Amendment Number One for Water System Improvements and Designating an Authorized Project Representative. This resolution is included in Appendix L and names Ryan E. Suchanek, Director of Public Services and Utilities as the Authorized Representative for all activities associated with this project plan.

Item #10: – Replace Map for 2023 Water Main Replacement – Appendix A. Maps – Figure 16

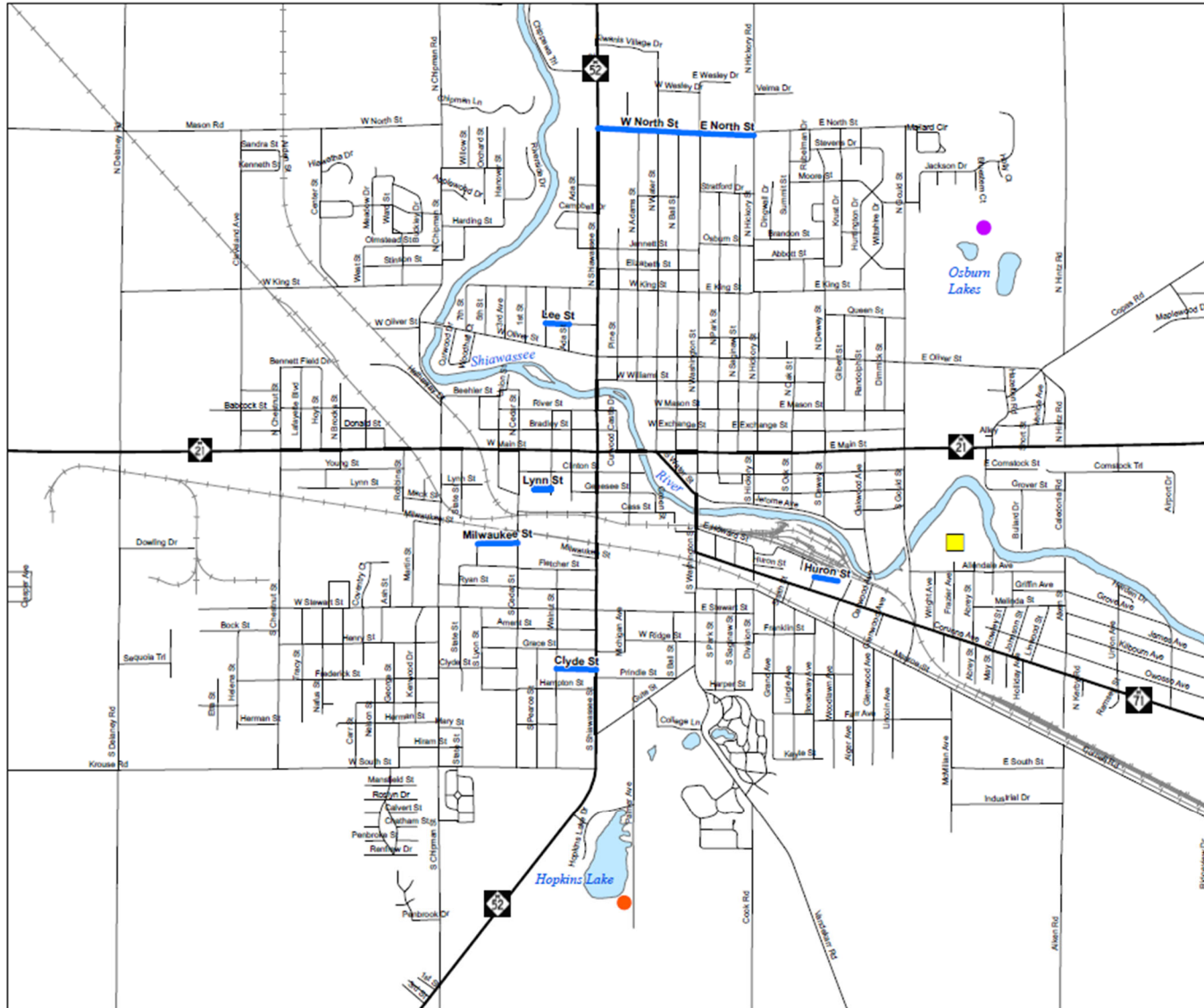


Owosso DWRF
2023 Projects
Figure 16

- Treatment Plant Upgrade
- Supply Well Juniper
- Supply Well Palmer
- 2023 Water Main Replacement



Map compiled by
City of Owosso Engineering Department
GIS Office
City of Owosso, MI
6 May, 2022

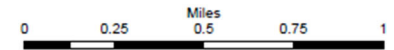


Item #12: – Replace Map for 2024 Water Main Replacement – Appendix A. Maps – Figure 17

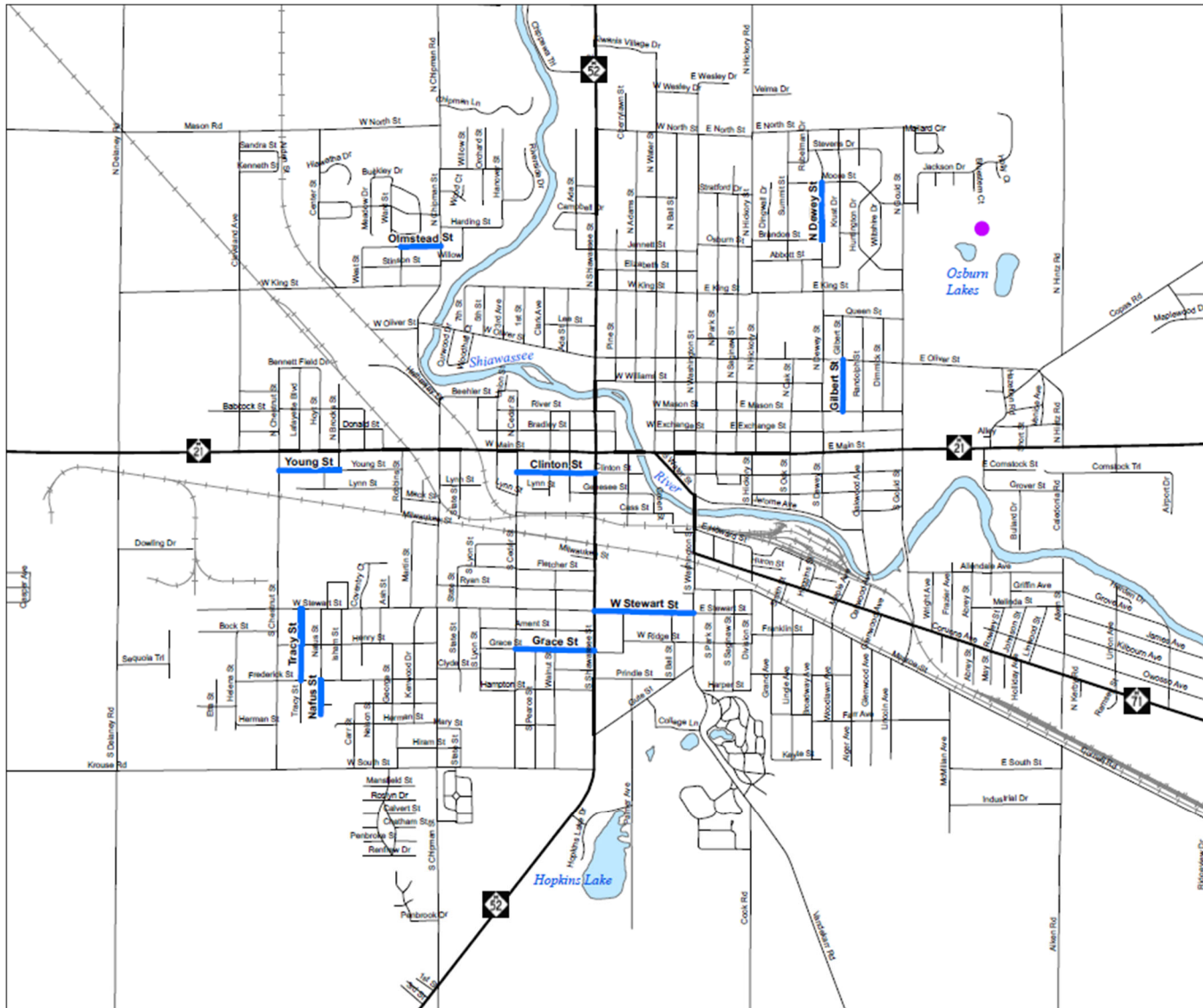


Owosso DWRF
2024 Projects
Figure 17

- Supply Well Juniper
- 2024 Water Main Replacement



Map compiled by
City of Owosso Engineering Department
GIS Office
City of Owosso, MI
13 May, 2022



Item #13: Replace Appendix E. Water Main Replacement Summary with the Following:

ID	Planned Replace ment Date	Location	From	To	Length (Feet)	Installation Date	Condition	Material	Existing Size (Inch)	New Size (Inch)	5 yr Break History	Reason for Work					Upsize to Improve Pressure/ Flow
												Existing Pipe Age	Existing Pipe Material	Minimum Pipe Size Requirement	Existing pipe condition	Looping needed	
1	2020	Cedar	South	Hampton	1319	1950s	Fair	Asbestos Concrete	6 & 12	12	1	x	x	x			x
2	2020	Summit	Abbott	Rubelman	1650	1950s		Cast Iron	6	8	0	x	x	x			x
4	2020	Clark	Oliver	King	970	1950s		Cast Iron	4 & 6	8	0	x	x	x			
6	2020	Cleveland	Chestnut	Brooks	1000	1950s & 1960s	Poor	Cast Iron	4	6	5	x	x	x	x	x	
7	2020	Lafayette	Main	Cleveland	600	1950s	Poor	Cast Iron	4	6	5	x	x	x	x		
8	2020	Robbins	Mack	South End	230	1950s	Poor	Galvanized Steel	2	6	0	x	x	x	x		
9	2020	Morris	Mack	North End	328	1950s	Poor	Galvanized Steel	2	6	0	x	x	x	x		
10	2020	North	Hickory	Gould	2981	1960s	Fair	Cast Iron	12"	12	5		x				
3	2022	Center	King	North	2863		Poor	Cast Iron	6	8	4	x	x				
10	2023	North	Shiawassee	Hickory	2982	1960s	Fair	Cast Iron	8 & 12	12	5		x				
	2023	Lee St	Clark	Ada	400	1950s		Cast Iron	4	6	0	x	x	x			
11	2023	Clyde	Walnut	Shiawassee	600	1970s	Fair	Cast Iron	4	6	1		x	x	x	x	
12	2023	Lynn	West End	Howell	312	1970s		Cast Iron	4	6	0		x	x			
14	2023	Huron	Huggins	West End	360		Poor	Galvanized Steel	2	6	1	x	x	x	x		
13	2023	Milwaukee	Lyon	Cedar	670	1960s	Poor	Galvanized Steel	3/4 & 3	6	1		x	x	x	x	
	2024	Stewart	Shiawassee	Washington	1650	1950s		Cast Iron	4	8	1	x	x	x	x		
21	2024	Tracy	Frederick	Stewart	1200	1950s	Poor	Cast Iron	4	8	5	x	x	x	x		x
5	2024	Dewey	Brandon	Moore	1000	1950s	Fair	Cast Iron	4&6	6	5	x	x	x	x		
19	2024	Grace	Shiawassee	Cedar	1300	1960s	Poor	Cast Iron	4	6	5		x	x	x		
22	2024	Young	Chestnut	Brooks	950	1950s	Poor	Cast Iron	6	8	5	x	x	x	x	x	x
25	2024	Nafus	Frederick	South End	500	1950s	Poor	Steel	2	6	2	x	x	x	x		
35	2024	Gilbert	Mason	Oliver	800	1950s		Cast Iron	4	6	0	x	x	x			
36	2024	Clinton	Cedar	Shiawassee	1289	1950s		Cast Iron	4	6	1	x	x	x			
	2024	Olmstead	Ward	Chipman	600	1950s	Fair	Cast Iron	6	8	2	x	x				
	2025	Harding	Willow Spring	Hanover	600	1970s	Fair	Cast Iron	6	8	1		x				
	2025	Hanover	Harding	Riverside	400	1970s	Poor	Cast Iron	6	8	5		x				x
	2025	Stewart	Cedar	Shiawassee	1300	1950s	Good	Cast Iron	6	8	0	x	x				
	2025	Williams	Shiawassee	Washington	1700	1950s	Good	Cast Iron	8	8	1	x	x				
15	2025	Dewey	M-21	King	2659	1950s & 1960s	Poor		4, 6 & 12	*See Below	2	x	x			x	
16	2025	Shady Lane	Meadow	Chipman	1184			Asbestos Concrete	6	8	2	x	x				
17	2025	Woodlawn	Farr	Auburndale	847	1950s	Fair	Cast Iron	4	6 or 8	1	x	x	x	x	x	
18	2025	Genesee	Michigan	Green	400	1950s	Poor	Steel	2	6	0	x	x	x	x		
20	2025	Nafus	Frederick	Freeman	650		Poor	Steel	2	6	1	x	x	x	x		
23	2025	Grand Avenue	Auburndale	Franklin	700		Fair	Cast Iron	4 & 6	8	2	x	x	x	x		x
24	2025	Grace	Cedar	Lyons	600		Poor	Cast Iron	6	8	5	x	x	x	x		
26	2025	Genesee	Howell	West End	422		Poor	Steel	4	6	1	x	x	x	x		
27	Future	Cedar	Hampton	Main	3972	1950s		Asbestos Concrete	6 & 12	12	3	x	x				
28	Future	Chipman	Harding	North	1695	1970s	Fair	Cast Iron	12"	12"	2		x				
29	Future	Adams	Oliver	King	1000	1950s	Fair	Cast Iron	4	6	1	x	x	x	x		
30	Future	Adams	Elizabeth	North of Jennett	600	1950s		Cast Iron	4	6 or 8	0	x	x	x			
31	Future	Ball	Exchange	Mason	250	1950s	Fair	Cast Iron	4	6	1	x	x	x	x		
32	Future	Ball	Oliver	450 Feet North	450	1950s		Cast Iron	4	6	0	x	x	x			
33	Future	Brandon	Summit	Dingwall	450		Fair	Cast Iron	4	6	3	x	x	x	x		
34	Future	Dingwall	Brandon	North End	900	1950s	Poor	Cast Iron	4	6 or 8	4	x	x	x	x	x	
37	Future	Monroe	Washington	Broadway Avenue	2073	1960s	Poor		6	8	5		x				x
38	Future	Williams	Washington	Oak	1601	1950s	Poor	Cast Iron	4	8	3	x	x	x	x	x	x
39	Future	Gould	Exchange	Oliver	1100	1950s	Fair	Cast Iron	8	12	1	x	x				x
40	Future	Gould	Oliver	North	2700		Poor	Cast Iron	8	12	5	x	x				x
41	Future	Huntington	Moore	Stevens	1000	1960s	Fair	Cast Iron	6	6	5		x				
42	Future	Jennett	Shiawassee	Adams	700	1950s	Fair	Cast Iron	4	6 or 8	1	x	x	x	x		
43	Future	Mason	Dewey	Gilbert	300	1950s		Cast Iron	4	6	0	x	x	x			
44	Future	Mason	Saginaw	Dewey	1350	1950s		Cast Iron	4	6	0	x	x	x			
45	Future	Oak	Main	Williams	1150	Before 1930			4	6	0	x	x	x			

Amendment No. 1

* 4", 6" and 12" water mains currently exist in this section of Dewey Street. The 4" and 6" mains will be abandoned and the affected services will be moved to the newer 12" WM.

Item #14: Add Appendix K – Public Hearing – Amendment Number 1

K. Public Hearing – Amendment Number 1

a. Notice of Public Hearing

b. Attendance List

c. Verbatim Transcript

Item #15: Add Appendix L – City of Owosso Council Resolution – Amendment Number 1

City of Owosso Council Resolution – Amendment Number 1