

CITY OF TEMPE, ARIZONA
PUBLIC WORKS DEPARTMENT
DIVISION OF ENGINEERING

JOB ORDER NO. 15 TO CSW CONTRACTORS, INC.
THROUGH EXISTING CONTRACT NO. C2015-240

CITY-WIDE WATER VALVE REPLACEMENTS – PHASE 9

PROJECT NO. 3204961M

This **JOB ORDER NO. 15** is entered into on this 8th day of December, 2016, by and between the **City of Tempe**, an Arizona municipal corporation (“City”) and **CSW Contractors, Inc.**, an Arizona corporation (“JOC”), through the existing Contract made and entered into by and between the parties on October 22, 2015, (Contract No. C2015-240) along with that certain Addendum No. 1 entered into on October 28, 2015, Addendum No. 2 on August 19, 2016 and Addendum No. 3 on October 11, 2016 (collectively “Contract”).

SECTION 1 – JOB ORDER PRICE AND WORK LOCATION: JOC shall furnish any and all plant, materials, labor, construction equipment, services and transportation (all applicable taxes included) required for performing all work for the construction of City-Wide Water Valve Replacements – Phase 9, (Project No. 3204861M) (“Project”) for the sum of Two Hundred Ninety Seven Thousand Four Hundred Fifty Seven and 70/100 Dollars (\$297,457.70), as detailed in the Proposal (Exhibit “A”) attached hereto and incorporated herein by this reference, and to completely and totally construct the same and install the materials therein for the Project, in a good and workmanlike and substantial manner and to the satisfaction of City or its properly authorized agents and strictly pursuant to and in conformity with the Specifications and Plans for the Project and other documents that may be requested by City through its Engineer or other properly authorized agents, as provided herein. The full street or physical address of the construction work locations (“Work Location”) are 2625 S. Wilson St., 2404 S. Wilson St., 2401 S. Wilson St., 2223 S. Wilson St., 2115 S. Wilson St., 444 W. 21st St. (2 hydrants), 525 W. 21st St., 811 W. Broadway

Rd., 711 W. Broadway Rd. (2 hydrants), 507 W. Broadway Rd., 2105 S. Hardy Dr. (2 hydrants), 2601 S. Hardy Dr., 1301 W. 21st St. (1 valve), and 538 W. 13th St. (2 valves), Tempe, Arizona. JOC shall list the Work Location in any subcontract related to this job order at any level and each subcontractor shall likewise include the Work Location in any of its subcontracts.

SECTION 2 – REQUIRED SUBMITTALS: JOC shall submit the completed forms referenced in the Forms Appendix (Exhibit “B”) attached hereto to City for approval prior to receipt of a Notice to Proceed issued by City for the Project.

SECTION 3 – AMENDMENT: City of Tempe Contract No. C2015-240, as amended on October 28, 2015, August 19, 2016 and October 11, 2016, the terms and conditions contained therein and all exhibits attached to the Contract and to this Job Order No. 15, are by reference incorporated into this Job Order No. 15. All provisions of the underlying Contract where not inconsistent with this Job Order No. 15 shall remain binding on the parties.

SECTION 4 – JOB ORDER TERM: Work shall start as soon as practicable, and in no case later than seven (7) calendar days after the Notice to Proceed is issued by City, and shall be completed within one hundred (100) calendar days thereafter.

[SIGNATURE PAGE TO FOLLOW]

City-Wide Water Valve Replacements – Phase 9
Project No. 3204961M

DATED this 8th day of December, 2016.

CITY OF TEMPE, ARIZONA

By: _____
Mark W. Mitchell, Mayor

By: _____
Public Works Director

ATTEST:

Recommended by:

Brigitta M. Kuiper, City Clerk

Deputy PW Director/Interim City Engineer

APPROVED AS TO FORM:

Judith R. Baumann, City Attorney

JOC warrants that the person who is signing this Job Order on behalf of the JOC is authorized to do so and to execute all other documents necessary to carry out the terms of this Job Order.

CSW CONTRACTORS, INC.

By: _____
Signature

Printed Name

Its: _____
Title

Federal I.D. No./Social Security No.



October 14, 2016

EXHIBIT A

City of Tempe
Engineering Division
Attention: Barrett Jurgemeyer, P.E.
31 East Fifth Street
Tempe, Arizona 85281

Re: Tempe JOC City Wide Small Valve and Fire Hydrant Replacement Package #09 Rev.1

Dear Mr. Jurgemeyer:

Enclosed for your review and consideration is our bid proposal for the replacement of the following valves and fire hydrants identified by the City to be replaced:

<u>Tempe ID #</u>		
NE28N4FH0033	NE28N4FH0039	NE28N4FH0026
NE28N4FH0032	NE28N4FH0002	NW28N4FH0030
NE28N4FH0031	NE28N4FH0003	NW28N4FH0031
NE28N4FH0030	NE28N4FH0004	NW28N4VL0069
NE28N4FH0029	NE28N4FH0006	SE21N4VL0005
NE28N4FH0028	NE28N4FH0042	SE21N4VL0004
NE28N4FH0040	NE28N4FH0043	

Also enclosed are the corresponding GIS maps for these valve locations. As service laterals are not indicated on these maps, nor all the valves that must be closed for the shutdowns, we anticipate that the City will provide us a list of customers who will be effected with each waterline shutdown. To minimize disruption to the City of Tempe customers, CSW will complete this work during off-peak hours between 8:30am – 3:30pm on weekdays. We understand that this time frame may not be the best time to shut down a waterline in certain areas, therefore, we will be flexible in our schedule to accommodate the City and its residents and businesses. If necessary, we can complete the valve replacements during weekend or evening hours as well. We will also assist the City in distributing door hangers and/or flyers as necessary to alert the customers of the water shutdowns.

Based on the plans, the information above and the scope of work attached, CSW will complete the Tempe JOC City Wide Small Valve and Fire Hydrant Replacement #08 project for the Lump Sum price of \$297,457.70

Should you have any questions, concerns, or comments, feel free to contact me at 602-266-7000.

Sincerely,

Joseph Kilgallen
Procurement and Operations Manager

BBJ
10/18/16



Project Name: City Wide Small Valve & Fire Hydrant Replacement

HD # 2762

Customer: City of Tempe

Date: October 14, 2016

Description: Replace Small Valves & Fire Hydrants

Invoicing: JOA #9 Rev 1

Valve Number	Group	DESCRIPTION	QUANTITY	UM	UNIT COST	TOTAL
NE28N4FH0033	A	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 14,278.00	\$ 14,278.00
NE28N4FH0032	B	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 10,462.03	\$ 10,462.03
NE28N4FH0031	B	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 10,462.03	\$ 10,462.03
NE28N4FH0030	C	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 10,462.03	\$ 10,462.03
NE28N4FH0029	C	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 10,462.03	\$ 10,462.03
NE28N4FH0028	D	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 21,092.27	\$ 21,092.27
NE28N4FH0040	D	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 10,587.03	\$ 10,587.03
NE28N4FH0039	E	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 12,130.71	\$ 12,130.71
NE28N4FH0002	F	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 13,013.02	\$ 13,013.02
NE28N4FH0003	F	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 13,013.02	\$ 13,013.02
NE28N4FH0004	G	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 16,285.03	\$ 16,285.03
NE28N4FH0006	H	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 14,707.76	\$ 14,707.76
NE28N4FH0042	J	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 12,801.97	\$ 12,801.97
NE28N4FH0043	J	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 10,256.97	\$ 10,256.97
NE28N4FH0026	K	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 10,071.16	\$ 10,071.16
NW28N4FH0030	K	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 10,890.09	\$ 10,890.09
NW28N4FH0031	K	6" Gate Valve Replacement & Fire Hydrant Installation	1	Each	\$ 10,890.09	\$ 10,890.09
NW28N4VL0069	W	8" Gate Valve Replacement	1	Each	\$ 12,937.75	\$ 12,937.75
SE21N4VL0005	X	12" Gate Valve Replacement	1	Each	\$ 13,328.71	\$ 13,328.71
SE21N4VL0004	X	6" Gate Valve Replacement	1	Each	\$ 11,578.71	\$ 11,578.71
		Fire Watch Allowance	160	Hours	\$ 40.48	\$ 6,476.80
Subtotal Construction						\$ 256,187.21
Overhead & Profit						8.00% \$ 20,494.98
General Liability Insurance						1.11% \$ 2,843.68
Builders Risk Insurance						0.10% \$ 256.19
Payment & Performance Bond						1.00% \$ 2,797.82
Subtotal						\$ 282,579.87
Sales Tax						5.265% \$ 14,877.83
Total Job Order Price						\$ 297,457.70

QUALIFICATIONS:

1. Group letter refers to the valves / fire hydrants that are planned to be replaced during the same shutdowns combining activities
2. Pot-holing after blue stake included.
3. De-watering as necessary included based on a complete line shutdown.
4. Bedding and shading to one foot above pipe.
5. 1/2 Sack Slurry backfill included for valves located in paved roadways.
6. All Spoils to be hauled off of site.
7. Valve Adjustments included.
8. Materials testing is excluded.
9. Traffic Control is included.
10. Off-Duty police officer included within 300' of signalized intersection.
11. Milling for T-Top included.
12. 6" Asphalt T-Top included.
13. Crack Seal Pavement Joints included.
14. Pedestrian traffic will be re-routed at signalized intersections for sidewalk closures.
15. Temporary pedestrian walkways are excluded
16. Concrete sidewalk panel replacement included.
17. Asbestos pipe removal and disposal included.
18. Fire Hydrants to be supplied by COT and installed by CSW.
19. 6" Gate Valve will be replaced with each new fire hydrant.
20. New fire hydrants will be connected to the existing waterline with a restrained coupling / solid sleeve utilizing the existing tee

*BBJ
10/18/16*

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

CBSCode	Description	Forecast Quantit	UM	UnitCost	Total Cost (Forecast)
9	JOA #9 (Valves & Fire Hydrants)	1.00	LS	\$256,187.21	\$256,187.21
9.1	NE28N4FH0033 A	1.00	LS	\$14,278.00	\$14,278.00
9.1.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.1.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.1.3	Public outreach notifications	1.00	LS	\$250.54	\$250.54
9.1.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$2,191.78	\$2,191.78
9.1.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.1.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.1.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.1.8	Sawcut	1.00	Each	\$249.79	\$249.79
9.1.9	Demo Concrete or asphalt	1.00	Each	\$245.55	\$245.55
9.1.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.1.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.1.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.1.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.1.14	Dewatering standby time	1.00	Each	\$982.20	\$982.20
9.1.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.1.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.1.17	Mill existing asphalt	1.00	LS	\$384.00	\$384.00
9.1.18	Patch Pave / pour adjustment	1.00	Each	\$1,142.94	\$1,142.94
9.1.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.1.20	Crack Seal Joints	1.00	LS	\$75.00	\$75.00
9.1.21	Striping	1.00	LS	\$0.00	\$0.00
9.1.22	Landscaping	1.00	LS	\$0.00	\$0.00
9.1.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.1.24	Job Management	1.00	LS	\$2,158.83	\$2,158.83
9.1.25	Portable Toilet	1.00	Each	\$150.00	\$150.00
9.2	NE28N4FH0032 B	1.00	LS	\$10,462.03	\$10,462.03
9.2.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.2.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.2.3	Public outreach notifications	1.00	LS	\$250.54	\$250.54
9.2.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$1,515.27	\$1,515.27
9.2.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.2.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.2.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.2.8	Sawcut	1.00	Each	\$0.00	\$0.00
9.2.9	Demo Concrete or asphalt	1.00	Each	\$0.00	\$0.00
9.2.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

CBSCode	Description	Forecast Quantit	UM	UnitCost	Total Cost (Forecast)
9.2.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.2.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.2.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.2.14	Dewatering standby time	1.00	Each	\$491.10	\$491.10
9.2.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.2.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.2.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.2.18	Patch Pave / pour adjustment	1.00	Each	\$0.00	\$0.00
9.2.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.2.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.2.21	Striping	1.00	LS	\$0.00	\$0.00
9.2.22	Landscaping	1.00	LS	\$100.00	\$100.00
9.2.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.2.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75
9.2.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.3	NE28N4FH0031 B	1.00	LS	\$10,462.03	\$10,462.03
9.3.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.3.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.3.3	Public outreach notifications	1.00	LS	\$250.54	\$250.54
9.3.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$1,515.27	\$1,515.27
9.3.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.3.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.3.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.3.8	Sawcut	1.00	Each	\$0.00	\$0.00
9.3.9	Demo Concrete or asphalt	1.00	Each	\$0.00	\$0.00
9.3.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.3.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.3.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.3.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.3.14	Dewatering standby time	1.00	Each	\$491.10	\$491.10
9.3.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.3.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.3.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.3.18	Patch Pave / pour adjustment	1.00	Each	\$0.00	\$0.00
9.3.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.3.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.3.21	Striping	1.00	LS	\$0.00	\$0.00
9.3.22	Landscaping	1.00	LS	\$100.00	\$100.00

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

CBSCode	Description	Forecast Quantit	UM	UnitCost	Total Cost (Forecast)
9.3.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.3.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75
9.3.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.4	NE28N4FH0030 C	1.00	LS	\$10,462.03	\$10,462.03
9.4.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.4.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.4.3	Public outreach notifications	1.00	LS	\$250.54	\$250.54
9.4.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$1,515.27	\$1,515.27
9.4.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.4.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.4.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.4.8	Sawcut	1.00	Each	\$0.00	\$0.00
9.4.9	Demo Concrete or asphalt	1.00	Each	\$0.00	\$0.00
9.4.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.4.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.4.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.4.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.4.14	Dewatering standby time	1.00	Each	\$491.10	\$491.10
9.4.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.4.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.4.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.4.18	Patch Pave / pour adjustment	1.00	Each	\$0.00	\$0.00
9.4.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.4.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.4.21	Striping	1.00	LS	\$0.00	\$0.00
9.4.22	Landscaping	1.00	LS	\$100.00	\$100.00
9.4.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.4.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75
9.4.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.5	NE28N4FH0029 C	1.00	LS	\$10,462.03	\$10,462.03
9.5.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.5.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.5.3	Public outreach notifications	1.00	LS	\$250.54	\$250.54
9.5.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$1,515.27	\$1,515.27
9.5.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.5.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.5.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.5.8	Sawcut	1.00	Each	\$0.00	\$0.00

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

CBSCode	Description	ForecastQuantit	UM	UnitCost	Total Cost (Forecast)
9.5.9	Demo Concrete or asphalt	1.00	Each	\$0.00	\$0.00
9.5.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.5.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.5.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.5.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.5.14	Dewatering standby time	1.00	Each	\$491.10	\$491.10
9.5.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.5.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.5.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.5.18	Patch Pave / pour adjustment	1.00	Each	\$0.00	\$0.00
9.5.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.5.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.5.21	Striping	1.00	LS	\$0.00	\$0.00
9.5.22	Landscaping	1.00	LS	\$100.00	\$100.00
9.5.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.5.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75
9.5.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.6	NE2SN4FH0028 D	1.00	LS	\$21,092.27	\$21,092.27
9.6.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.6.2	Reholing conflicts	1.00	EA	\$685.29	\$685.29
9.6.3	Public outreach notifications	1.00	LS	\$250.54	\$250.54
9.6.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$2,191.78	\$2,191.78
9.6.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.6.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.6.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.6.8	Sawcut	1.00	Each	\$249.79	\$249.79
9.6.9	Demo Concrete or asphalt	1.00	Each	\$736.65	\$736.65
9.6.10	Excavate and backfill	1.00	LS	\$3,801.29	\$3,801.29
9.6.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.6.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.6.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.6.14	Dewatering standby time	1.00	Each	\$491.10	\$491.10
9.6.15	Purchase 6" Valve and piping	1.00	LS	\$2,250.00	\$2,250.00
9.6.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$2,655.49	\$2,655.49
9.6.17	Mill existing asphalt	1.00	LS	\$384.00	\$384.00
9.6.18	Patch Pave / pour adjustment	1.00	Each	\$2,928.82	\$2,928.82
9.6.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.6.20	Crack Seal Joints	1.00	LS	\$150.00	\$150.00

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

CBSCode	Description	Forecast Quantit	UM	UnitCost	Total Cost (Forecast)
9.6.21	Striping	1.00	LS	\$0.00	\$0.00
9.6.22	Landscaping	1.00	LS	\$225.00	\$225.00
9.6.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.6.24	Job Management	1.00	LS	\$2,158.83	\$2,158.83
9.6.25	Portable Toilet	1.00	Each	\$150.00	\$150.00
9.7	NE28N4FH0040 D	1.00	LS	\$10,587.03	\$10,587.03
9.7.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.7.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.7.3	Public outreach notifications	1.00	LS	\$250.54	\$250.54
9.7.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$1,515.27	\$1,515.27
9.7.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.7.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.7.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.7.8	Sawcut	1.00	Each	\$0.00	\$0.00
9.7.9	Demo Concrete or asphalt	1.00	Each	\$0.00	\$0.00
9.7.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.7.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.7.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.7.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.7.14	Dewatering standby time	1.00	Each	\$491.10	\$491.10
9.7.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.7.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.7.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.7.18	Patch Pave / pour adjustment	1.00	Each	\$0.00	\$0.00
9.7.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.7.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.7.21	Striping	1.00	LS	\$0.00	\$0.00
9.7.22	Landscaping	1.00	LS	\$225.00	\$225.00
9.7.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.7.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75
9.7.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.8	NE28N4FH0039 E	1.00	LS	\$12,130.71	\$12,130.71
9.8.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.8.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.8.3	Public outreach notifications	1.00	LS	\$250.54	\$250.54
9.8.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$2,191.78	\$2,191.78
9.8.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.8.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

CBSCode	Description	Forecast Quantit	UM	UnitCost	Total Cost (Forecast)
9.8.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.8.8	Sawcut	1.00	Each	\$0.00	\$0.00
9.8.9	Demo Concrete or asphalt	1.00	Each	\$0.00	\$0.00
9.8.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.8.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.8.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.8.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.8.14	Dewatering standby time	1.00	Each	\$982.20	\$982.20
9.8.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.8.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.8.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.8.18	Patch Pave / pour adjustment	1.00	Each	\$0.00	\$0.00
9.8.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.8.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.8.21	Striping	1.00	LS	\$0.00	\$0.00
9.8.22	Landscaping	1.00	LS	\$100.00	\$100.00
9.8.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.8.24	Job Management	1.00	LS	\$2,158.83	\$2,158.83
9.8.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.9	NE28N4FH0002 F	1.00	LS	\$13,013.02	\$13,013.02
9.9.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.9.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.9.3	Public outreach notifications	1.00	LS	\$375.81	\$375.81
9.9.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$2,402.70	\$2,402.70
9.9.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.9.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.9.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.9.8	Sawcut	1.00	Each	\$249.79	\$249.79
9.9.9	Demo Concrete or asphalt	1.00	Each	\$245.55	\$245.55
9.9.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.9.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.9.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.9.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.9.14	Dewatering standby time	1.00	Each	\$491.10	\$491.10
9.9.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.9.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.9.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.9.18	Patch Pave / pour adjustment	1.00	Each	\$1,142.94	\$1,142.94

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

CBSCode	Description	Forecast Quantit	UM	UnitCost	Total Cost (Forecast)
9.9.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.9.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.9.21	Striping	1.00	LS	\$0.00	\$0.00
9.9.22	Landscaping	1.00	LS	\$0.00	\$0.00
9.9.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.9.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75
9.9.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.10	NE28N4FH0003 F	1.00	LS	\$13,013.02	\$13,013.02
9.10.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.10.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.10.3	Public outreach notifications	1.00	LS	\$375.81	\$375.81
9.10.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$2,402.70	\$2,402.70
9.10.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.10.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.10.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.10.8	Sawcut	1.00	Each	\$249.79	\$249.79
9.10.9	Demo Concrete or asphalt	1.00	Each	\$245.55	\$245.55
9.10.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.10.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.10.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.10.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.10.14	Dewatering standby time	1.00	Each	\$491.10	\$491.10
9.10.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.10.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.10.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.10.18	Patch Pave / pour adjustment	1.00	Each	\$1,142.94	\$1,142.94
9.10.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.10.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.10.21	Striping	1.00	LS	\$0.00	\$0.00
9.10.22	Landscaping	1.00	LS	\$0.00	\$0.00
9.10.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.10.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75
9.10.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.11	NE28N4FH0004 G	1.00	LS	\$16,285.03	\$16,285.03
9.11.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.11.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.11.3	Public outreach notifications	1.00	LS	\$375.81	\$375.81
9.11.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$3,030.54	\$3,030.54

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

CBSCode	Description	Forecast Quantit	UM	UnitCost	Total Cost (Forecast)
9.11.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.11.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$1,652.00	\$1,652.00
9.11.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.11.8	Sawcut	1.00	Each	\$249.79	\$249.79
9.11.9	Demo Concrete or asphalt	1.00	Each	\$245.55	\$245.55
9.11.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.11.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.11.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.11.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.11.14	Dewatering standby time	1.00	Each	\$982.20	\$982.20
9.11.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.11.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.11.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.11.18	Patch Pave / pour adjustment	1.00	Each	\$1,142.94	\$1,142.94
9.11.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.11.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.11.21	Striping	1.00	LS	\$0.00	\$0.00
9.11.22	Landscaping	1.00	LS	\$0.00	\$0.00
9.11.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.11.24	Job Management	1.00	LS	\$2,158.83	\$2,158.83
9.11.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.12	NE28N4FH0006 H	1.00	LS	\$14,707.76	\$14,707.76
9.12.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.12.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.12.3	Public outreach notifications	1.00	LS	\$250.54	\$250.54
9.12.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$3,030.54	\$3,030.54
9.12.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.12.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.12.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.12.8	Sawcut	1.00	Each	\$249.79	\$249.79
9.12.9	Demo Concrete or asphalt	1.00	Each	\$245.55	\$245.55
9.12.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.12.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.12.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.12.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.12.14	Dewatering standby time	1.00	Each	\$982.20	\$982.20
9.12.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.12.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

CBSCode	Description	Forecast Quantit	UM	UnitCost	Total Cost (Forecast)
9.12.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.12.18	Patch Pave / pour adjustment	1.00	Each	\$1,342.94	\$1,342.94
9.12.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.12.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.12.21	Striping	1.00	LS	\$0.00	\$0.00
9.12.22	Landscaping	1.00	LS	\$0.00	\$0.00
9.12.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.12.24	Job Management	1.00	LS	\$2,158.83	\$2,158.83
9.12.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.13	NE28N4FH0042 J	1.00	LS	\$12,801.97	\$12,801.97
9.13.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.13.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.13.3	Public outreach notifications	1.00	LS	\$187.90	\$187.90
9.13.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$892.84	\$892.84
9.13.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.13.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.13.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.13.8	Sawcut	1.00	Each	\$0.00	\$0.00
9.13.9	Demo Concrete or asphalt	1.00	Each	\$0.00	\$0.00
9.13.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.13.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.13.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.13.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.13.14	Dewatering standby time	1.00	Each	\$491.10	\$491.10
9.13.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.13.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.13.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.13.18	Patch Pave / pour adjustment	1.00	Each	\$0.00	\$0.00
9.13.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.13.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.13.21	Striping	1.00	LS	\$0.00	\$0.00
9.13.22	Landscaping	1.00	LS	\$3,125.00	\$3,125.00
9.13.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.13.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75
9.13.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.14	NE28N4FH0043 J	1.00	LS	\$10,256.97	\$10,256.97
9.14.1	Private Locator	1.00	LS	\$480.00	\$480.00
9.14.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

CBSCode	Description	ForecastQuantit	UM	UnitCost	Total Cost (Forecast)
9.14.3	Public outreach notifications	1.00	LS	\$187.90	\$187.90
9.14.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$892.84	\$892.84
9.14.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.14.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.14.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.14.8	Sawcut	1.00	Each	\$0.00	\$0.00
9.14.9	Demo Concrete or asphalt	1.00	Each	\$0.00	\$0.00
9.14.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.14.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.14.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.14.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.14.14	Dewatering standby time	1.00	Each	\$491.10	\$491.10
9.14.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.14.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.14.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.14.18	Patch Pave / pour adjustment	1.00	Each	\$0.00	\$0.00
9.14.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.14.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.14.21	Striping	1.00	LS	\$0.00	\$0.00
9.14.22	Landscaping	1.00	LS	\$100.00	\$100.00
9.14.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.14.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75
9.14.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.15	NE26N4FH0026 K	1.00	LS	\$10,071.16	\$10,071.16
9.15.1	Private Locator	1.00	LS	\$480.00	\$480.00
9.15.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.15.3	Public outreach notifications	1.00	LS	\$166.61	\$166.61
9.15.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$892.84	\$892.84
9.15.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.15.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.15.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.15.8	Sawcut	1.00	Each	\$0.00	\$0.00
9.15.9	Demo Concrete or asphalt	1.00	Each	\$0.00	\$0.00
9.15.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.15.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.15.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.15.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.15.14	Dewatering standby time	1.00	Each	\$326.58	\$326.58

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

CBSCode	Description	Forecast Quantit	UM	UnitCost	Total Cost (Forecast)
9.15.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.15.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.15.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.15.18	Patch Pave / pour adjustment	1.00	Each	\$0.00	\$0.00
9.15.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.15.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.15.21	Striping	1.00	LS	\$0.00	\$0.00
9.15.22	Landscaping	1.00	LS	\$100.00	\$100.00
9.15.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.15.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75
9.15.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.16	NW28N4FH0030 K	1.00	LS	\$10,890.09	\$10,890.09
9.16.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.16.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.16.3	Public outreach notifications	1.00	LS	\$166.61	\$166.61
9.16.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$2,191.78	\$2,191.78
9.16.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.16.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.16.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.16.8	Sawcut	1.00	Each	\$0.00	\$0.00
9.16.9	Demo Concrete or asphalt	1.00	Each	\$0.00	\$0.00
9.16.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.16.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.16.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.16.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.16.14	Dewatering standby time	1.00	Each	\$326.58	\$326.58
9.16.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.16.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.16.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.16.18	Patch Pave / pour adjustment	1.00	Each	\$0.00	\$0.00
9.16.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.16.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.16.21	Striping	1.00	LS	\$0.00	\$0.00
9.16.22	Landscaping	1.00	LS	\$100.00	\$100.00
9.16.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.16.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75
9.16.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.17	NW28N4FH0031 K	1.00	LS	\$10,890.09	\$10,890.09

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

CBSCode	Description	Forecast Quantit	UM	UnitCost	Total Cost (Forecast)
9.17.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.17.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.17.3	Public outreach notifications	1.00	LS	\$166.61	\$166.61
9.17.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$2,191.78	\$2,191.78
9.17.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.17.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.17.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.17.8	Sawcut	1.00	Each	\$0.00	\$0.00
9.17.9	Demo Concrete or asphalt	1.00	Each	\$0.00	\$0.00
9.17.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.17.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.17.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.17.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.17.14	Dewatering standby time	1.00	Each	\$326.58	\$326.58
9.17.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.17.16	Install 6" Valve & Fire Hydrant	1.00	Each	\$1,673.29	\$1,673.29
9.17.17	Mill existing asphalt	1.00	LS	\$0.00	\$0.00
9.17.18	Patch Pave / pour adjustment	1.00	Each	\$0.00	\$0.00
9.17.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.17.20	Crack Seal Joints	1.00	LS	\$0.00	\$0.00
9.17.21	Striping	1.00	LS	\$0.00	\$0.00
9.17.22	Landscaping	1.00	LS	\$100.00	\$100.00
9.17.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.17.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75
9.17.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.18	NW28N4V1.0069 - 8" W	1.00	LS	\$12,937.75	\$12,937.75
9.18.1	Private Locator	1.00	LS	\$480.00	\$480.00
9.18.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.18.3	Public outreach notifications	1.00	LS	\$501.08	\$501.08
9.18.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$757.63	\$757.63
9.18.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.18.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.18.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.18.8	Sawcut	1.00	Each	\$249.79	\$249.79
9.18.9	Demo Concrete or asphalt	1.00	Each	\$245.55	\$245.55
9.18.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.18.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.18.12	Pump Water	1.00	LS	\$143.92	\$143.92

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

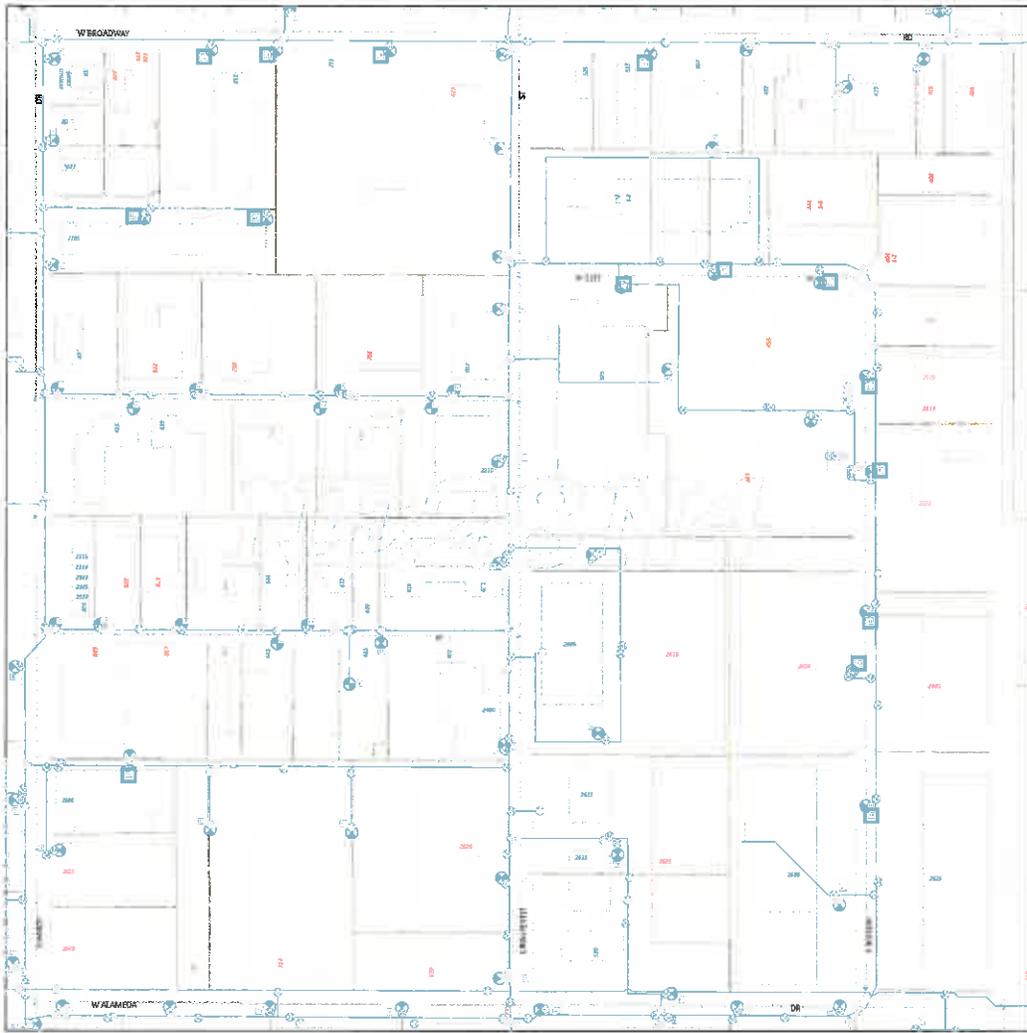
CBSCode	Description	Forecast Quantit	UM	UnitCost	Total Cost (Forecast)
9.18.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.18.14	Dewatering standby time	1.00	Each	\$982.20	\$982.20
9.18.15	Purchase 8" Valve and piping	1.00	LS	\$1,700.00	\$1,700.00
9.18.16	Install 8" Valve	1.00	Each	\$736.65	\$736.65
9.18.17	Mill existing asphalt	1.00	LS	\$384.00	\$384.00
9.18.18	Patch Pave / pour adjustment	1.00	Each	\$1,142.94	\$1,142.94
9.18.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.18.20	Crack Seal Joints	1.00	LS	\$75.00	\$75.00
9.18.21	Striping	1.00	LS	\$0.00	\$0.00
9.18.22	Landscaping	1.00	LS	\$0.00	\$0.00
9.18.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.18.24	Job Management	1.00	LS	\$2,158.83	\$2,158.83
9.18.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.19	SE21N4VL0005 - 12" X	1.00	LS	\$13,328.71	\$13,328.71
9.19.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.19.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.19.3	Public outreach notifications	1.00	LS	\$375.81	\$375.81
9.19.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$1,515.27	\$1,515.27
9.19.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.19.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.19.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.19.8	Sawcut	1.00	Each	\$249.79	\$249.79
9.19.9	Demo Concrete or asphalt	1.00	Each	\$368.32	\$368.32
9.19.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.19.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.19.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.19.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.19.14	Dewatering standby time	1.00	Each	\$491.10	\$491.10
9.19.15	Purchase 12" Valve and piping	1.00	LS	\$3,000.00	\$3,000.00
9.19.16	Install 12" Valve	1.00	Each	\$736.65	\$736.65
9.19.17	Mill existing asphalt	1.00	LS	\$192.00	\$192.00
9.19.18	Patch Pave / pour adjustment	1.00	Each	\$1,142.94	\$1,142.94
9.19.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.19.20	Crack Seal Joints	1.00	LS	\$75.00	\$75.00
9.19.21	Striping	1.00	LS	\$0.00	\$0.00
9.19.22	Landscaping	1.00	LS	\$0.00	\$0.00
9.19.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.19.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75

Cost Breakdown Structure (CBS) Register

CSW CONTRACTORS, INC..

2762 - City Wide Water Valve Replacement Project

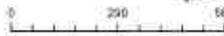
CBSCode	Description	ForecastQuantit	UM	UnitCost	Total Cost (Forecast)
9.19.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.20	SE21N4VL0004 - 6" X	1.00	LS	\$11,578.71	\$11,578.71
9.20.1	Private Locator	1.00	LS	\$0.00	\$0.00
9.20.2	Potholing conflicts	1.00	EA	\$685.29	\$685.29
9.20.3	Public outreach notifications	1.00	LS	\$375.81	\$375.81
9.20.4	Set up/take down/plan submittal Traffic Control	1.00	LS	\$1,515.27	\$1,515.27
9.20.5	Message Boards	2.00	Each	\$0.00	\$0.00
9.20.6	Law Enforcement - Intersection Traffic Control	1.00	LS	\$0.00	\$0.00
9.20.7	Pedestrian access	1.00	LS	\$0.00	\$0.00
9.20.8	Sawcut	1.00	Each	\$249.79	\$249.79
9.20.9	Demo Concrete or asphalt	1.00	Each	\$368.32	\$368.32
9.20.10	Excavate and backfill	1.00	LS	\$1,055.10	\$1,055.10
9.20.11	BobTail for material/spoils haul	1.00	Each	\$1,046.28	\$1,046.28
9.20.12	Pump Water	1.00	LS	\$143.92	\$143.92
9.20.13	Water Wagon	1.00	LS	\$134.90	\$134.90
9.20.14	Dewatering standby time	1.00	Each	\$491.10	\$491.10
9.20.15	Purchase 6" Valve and piping	1.00	LS	\$1,250.00	\$1,250.00
9.20.16	Install 6" Valve	1.00	Each	\$736.65	\$736.65
9.20.17	Mill existing asphalt	1.00	LS	\$192.00	\$192.00
9.20.18	Patch Pave / pour adjustment	1.00	Each	\$1,142.94	\$1,142.94
9.20.19	Truncated domes	1.00	LS	\$0.00	\$0.00
9.20.20	Crack Seal Joints	1.00	LS	\$75.00	\$75.00
9.20.21	Striping	1.00	LS	\$0.00	\$0.00
9.20.22	Landscaping	1.00	LS	\$0.00	\$0.00
9.20.23	Mobilization	1.00	LS	\$458.59	\$458.59
9.20.24	Job Management	1.00	LS	\$1,657.75	\$1,657.75
9.20.25	Portable Toilet	1.00	Each	\$0.00	\$0.00
9.21	Fire Watch Allowance	160.00	Hour	\$40.48	\$6,476.80
522					\$256,187.21



Notes:

Number of Hydrants: 56

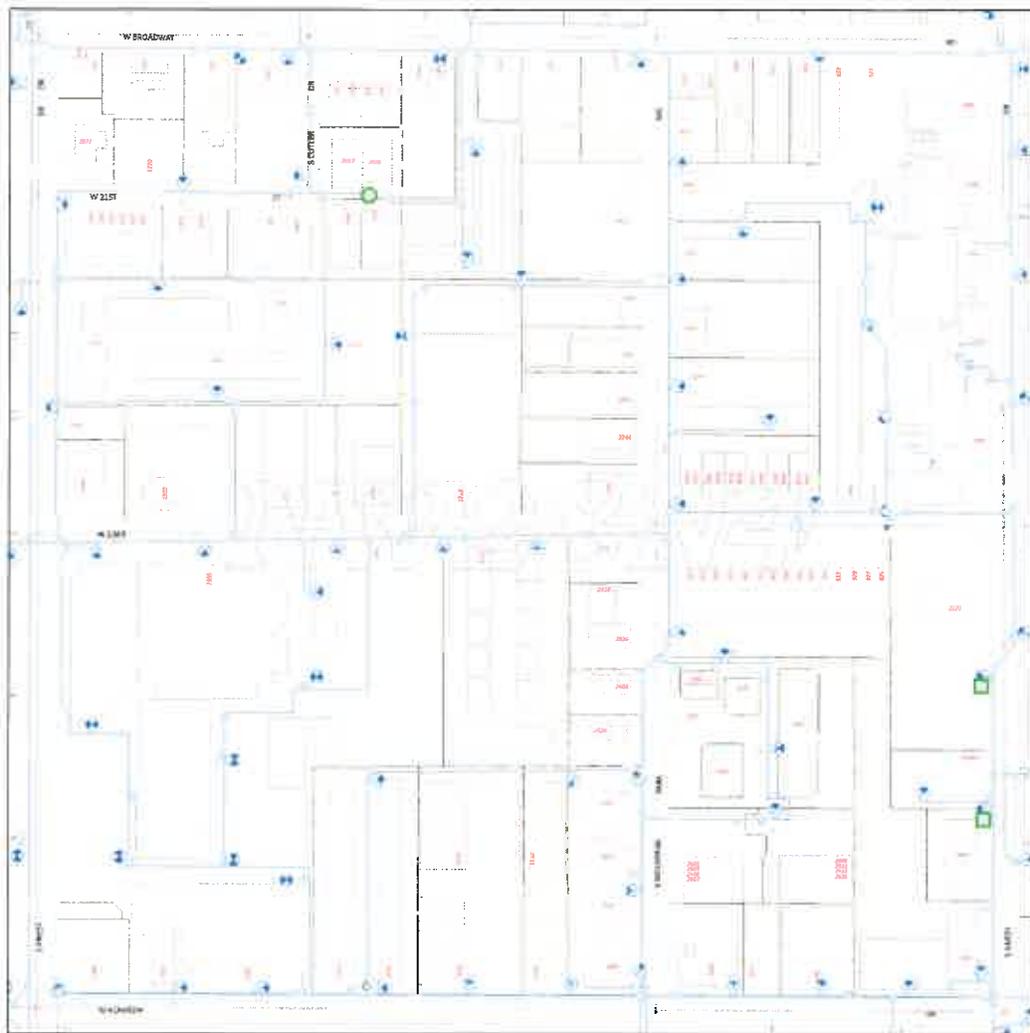
PAGE 79 OF 180



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UPDATES	CITY OF TEMPE	
TEW	P.D. Box 5002 Tempe, Arizona 85280	
4/28/2016		
PRINTED	UTILITES MAPBOOK	
truywi	1 inch = 196 feet	QTR SEC: NE28N4
7/6/2016	PAGE 79	

BBJ
10/18/16



Notes:

Number of Hydrants: 61

PAGE 78 OF 180

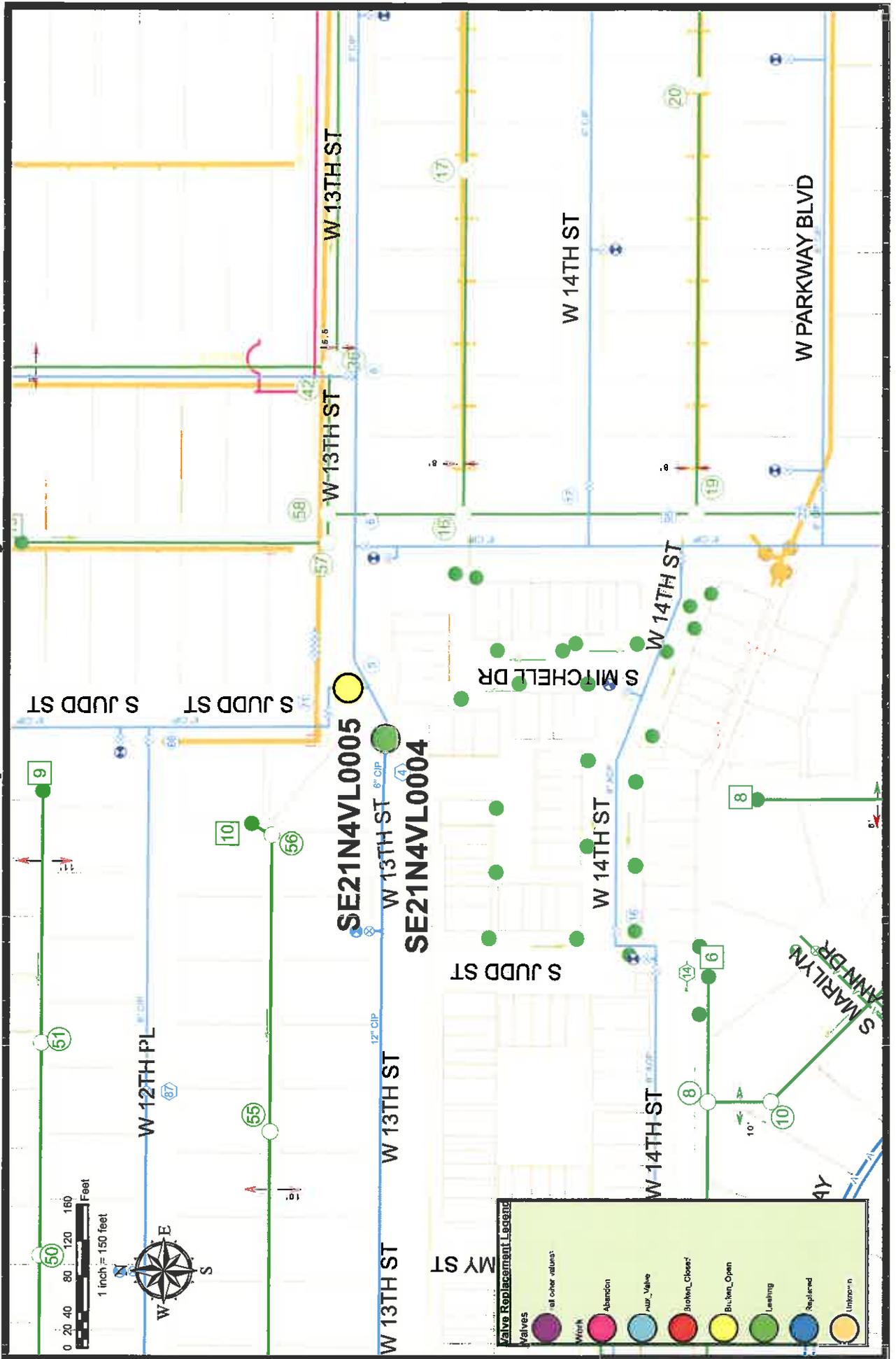


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UPDATES	CITY OF TEMPE	
TEW	P.O. Box 5002 Tempe, Arizona 85280	
4/26/2016		
PRINTED	UTILITES MAPBOOK	
tracyw	1 inch = 196 feet	QTR SEC: NW28N4
7/9/2016	PAGE 78	

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10/18/16

City of Tempe Public Works Capital Improvements Program Valve Replacement Project



ID	Task Name	Group	Description	Duration	Start	Finish
1	City Wide Small Valve & Fire Hydrant Replacements			59 days	Mon 1/23/17	Thu 4/13/17
2	NE28N4FH0033	A	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 1/23/17	Thu 1/26/17
3	NE28N4FH0032	B	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 1/30/17	Thu 2/2/17
4	NE28N4FH0031	B	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 1/30/17	Thu 2/2/17
5	NE28N4FH0030	C	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 2/6/17	Thu 2/9/17
6	NE28N4FH0029	C	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 2/6/17	Thu 2/9/17
7	NE28N4FH0028	D	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 2/13/17	Thu 2/16/17
8	NE28N4FH0040	D	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 2/13/17	Thu 2/16/17
9	NE28N4FH0039	E	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 2/20/17	Thu 2/23/17
10	NE28N4FH0002	F	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 2/27/17	Thu 3/2/17
11	NE28N4FH0003	F	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 2/27/17	Thu 3/2/17
12	NE28N4FH0004	G	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 3/6/17	Thu 3/9/17
13	NE28N4FH0006	H	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 3/13/17	Thu 3/16/17
14	NE28N4FH0042	J	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 3/20/17	Thu 3/23/17
15	NE28N4FH0043	J	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 3/20/17	Thu 3/23/17
16	NE28N4FH0026	K	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 3/27/17	Thu 3/30/17
17	NW28N4FH0030	K	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 3/27/17	Thu 3/30/17
18	NW28N4FH0031	K	6" Gate Valve Replacement & Fire Hydrant Installation	4 days	Mon 3/27/17	Thu 3/30/17
19	NW28N4VL0069	W	8" Gate Valve Replacement	4 days	Mon 4/3/17	Thu 4/6/17
20	SE21N4VL0005	X	12" Gate Valve Replacement	4 days	Mon 4/10/17	Thu 4/13/17
21	SE21N4VL0004	X	6" Gate Valve Replacement	4 days	Mon 4/10/17	Thu 4/13/17

2017 February 2017 March 2017 April 2017

1/22/2017 1/16/2017 2/1/2017 2/8/2017 2/15/2017 2/22/2017 2/29/2017 3/7/2017 3/14/2017 3/21/2017 3/28/2017 4/4/2017 4/11/2017 4/18/2017 4/25/2017 5/2/2017

Project: JOA #9 Schedule
Date: Fri 10/14/16

Task Split Milestone Summary Project Summary

Inactive Task Inactive Milestone Inactive Summary Manual Task Duration-only

Manual Summary Rollup External Milestone

Manual Summary Start-only Finish-only External Tasks

Deadline Progress Manual Progress

PBJ
10/18/16

EXHIBIT B

FORMS APPENDIX

The following forms shall be completed and submitted with each Job Order.

LIST OF SUBCONTRACTORSSB-1
STATUTORY PERFORMANCE BONDPB-1
STATUTORY PAYMENT BONDPB-3
AFFIDAVIT OF COMPLIANCE WITH TEMPE CITY CODEAD-1

STATUTORY PERFORMANCE BOND
PURSUANT TO TITLE 34,
CHAPTER 6, OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS:

That _____ (“Principal”) and _____,
a corporation organized and existing under the laws of the State of _____, with
its principal office in the City of _____ (“Surety”), are held and firmly bound
unto _____ (“Obligee”) in the amount of _____ Dollars
(\$ _____), for the payment whereof, the said Principal and Surety bind themselves,
and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by
these presents.

WHEREAS, the Principal has entered into a certain written Contract with the
Obligee, dated the 8th day of December, 2016, to complete Project No. 3204961M, which
Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied
at length herein.

NOW, THEREFORE, the condition of this obligation is such, that if the principal
faithfully performs and fulfills all of the undertakings, covenants, terms, conditions and
agreements of the contract during the original term of the contract and any extension of the
contract, with or without notice to the surety, and during the life of any guaranty required under
the contract, and also performs and fulfills all of the undertakings, covenants, terms, conditions
and agreements of all duly authorized modifications of the contract that may hereafter be made,
notice of which modifications to the surety being hereby waived, the above obligation is void.
Otherwise it remains in full force and effect.

STATUTORY PAYMENT BOND
PURSUANT TO TITLE 34,
CHAPTER 6, OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS:

That _____ (“Principal”) and _____,
a corporation organized and existing under the laws of the State of _____,
with its principal office in the City of _____ (“Surety”), as held and firmly
bound unto _____ (“Obligee”) in the amount of _____
Dollars (\$_____), for the payment whereof, the said Principal and Surety bind
themselves, and their heirs, administrators, executors, successors and assigns, jointly and
severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the
Obligee, dated the 8th day of December, 2016, to complete Project No. 3204961M, which
Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied
at length herein.

NOW, THEREFORE, the condition of this obligation is such, that if the principal
promptly pays all monies due to all persons supplying labor or materials to the principal or the
principal's subcontractors in the prosecution of the work provided for in the contract, this
obligation is void. Otherwise it remains in full force and effect.

Provided, however, that this bond is executed pursuant to the provisions of title
34, chapter 2, article 2, Arizona Revised Statutes, and all liabilities on this bond shall be
determined in accordance with the provisions, conditions and limitations of title 34, chapter 2,
article 2, Arizona Revised Statutes, to the same extent as if they were copied at length in this
agreement.

**CITY OF TEMPE DEPARTMENT OF PUBLIC WORKS
UNCONDITIONAL WAIVER AND RELEASE
FOR CONTRACTOR'S PAYMENT
AND SETTLEMENT OF CLAIMS**

Upon receipt of payment from the City of Tempe, the undersigned:

Contractor's Name: _____

Contractor's Address: _____

The undersigned has been paid and acknowledges having received final payment from the City of Tempe in the amount of \$_____ [state dollar amount for final, total contract amount] for full and final payment of all work, services, equipment, labor, skill and material furnished, delivered and performed by the undersigned for the city or anyone in the construction [or other services] for **CITY-WIDE WATER VALVE REPLACEMENTS – PHASE 9** and **PROJECT NO. 3204961L** at the locations of 2625 S. Wilson St., 2404 S. Wilson St., 2401 S. Wilson St., 2223 S. Wilson St., 2115 S. Wilson St., 444 W. 21st St. (2 hydrants), 525 W. 21st St., 811 W. Broadway Rd. (2 hydrants), 507 W. Broadway Rd., 2105 S. Hardy Dr. (2 hydrants), 2601 S. Hardy Dr., 2401 S. Wilson St., 1301 W. 21st St. (1 valve), and 538 W. 13th St. (2 valves); and does hereby waive and release any and all rights to mechanic's liens, any state or federal statutory bond right, any private bond right, any claim for payment and any and all rights under any applicable federal, state or local laws related to claim or payment rights for persons in the undersigned's position held on the above-referenced project against the City of Tempe, for this value received. The undersigned further agrees to defend, indemnify and hold harmless the City of Tempe against any and all liens, claims, suits, actions, damages, charges and expenses whatsoever, which the City may incur arising out of the failure or the undersigned to pay in full for all work, services, equipment, labor, skill and material furnished with regard to the project.

The undersigned, in consideration of the payment acknowledged, hereby warrants that he has already paid or will pay using the monies received from this final payment to promptly pay in full all of his contractors, subcontractors, laborers, materialmen and suppliers for all work, materials, equipment or services provided to the above-referenced project.

Contractor Signature

Date

By (Print Name and Title)

Notice: This document waives rights unconditionally and states that you have been paid for giving up those rights. This document is enforceable against you if signed, even if you have not been paid. If you have not been paid in full, use a conditional release form.

[NOTARY SEAL TO FOLLOW]

STATE OF ARIZONA)
COUNTY OF MARICOPA)

On ____ day of _____, 2016, _____ personally appeared before me, and proved by lawful identification documents to be the person who signed the preceding document in my presence, and who affirmed to me that the contents therein are truthful and accurate to the best of his/her knowledge and belief.

Notary Seal

Notary Public

Printed Name

My Commission Expires:
