



**CITY OF CHANDLER
JOB ORDER PROJECT AGREEMENT**

Brooks Crossing Water Production Facility Pressure Reducing Valve Addition

Project No. WA2408.401

Council Date: October 16, 2025

This JOB ORDER PROJECT AGREEMENT ("Job Order") is made this ____ day of _____ 2025, ("Effective Date"), by and between the City of Chandler, an Arizona municipal corporation, ("City") and MGC Contractors, Inc., an Arizona corporation, ("JOC Contractor") and is entered into pursuant to Job Order Master Agreement No. JOC2411.401 ("JOC Master Agreement"). City and JOC Contractor may be referred to individually as "Party" or collectively as "Parties").

City and JOC Contractor, in consideration of the mutual covenants herein set forth, agree as follows:

RECITALS

A. On or about March 1, 2024, the Parties entered into the JOC Master Agreement, which terms and conditions are made a part of and incorporated into this Job Order Project Agreement by this reference.

B. City proposes to engage JOC Contractor for construction services as more fully described in **Exhibit "A"**, which is attached to and made a part of this Job Order by this reference.

C. JOC Contractor is ready, willing, and able to provide the services described in **Exhibit "A"** for the compensation and fees set forth and as described in **Exhibit "B"**, which is attached to and made a part of this Agreement by this reference.

ARTICLE 1. DESCRIPTION OF WORK

The Parties enter into this Job Order Project Agreement for the Brooks Crossing Water Production Facility Pressure Reducing Valve Addition, Project Number WA2408.401. The scope of work consists of installation of a pressure reducing valve addition at the Brooks Crossing Water Production Facility, all as more particularly set forth in **Exhibit "A"** attached hereto and incorporated herein by reference.

The JOC Contractor will not accept any change of scope, or change in Agreement provisions, unless issued in writing, as a Agreement amendment or change order and signed by the authorized signatories for each party.

Performance and Payment Bonds, as set forth in **Exhibit "C"** and **Exhibit "D"** respectively attached hereto and incorporated herein by reference, will be due prior to execution of each Job Order Project Agreement in the full amount of each Job Order.

At project completion, JOC Contractor must complete Contractor's Affidavit Regarding Settlement of Claims and Certificate of Completion, as set forth in **Exhibit "E"** and **Exhibit "F"** respectively attached hereto and incorporated herein by reference.

ARTICLE 2. PROJECT PRICE

City will pay JOC Contractor for completion of the Work in accordance with the JOC Master Agreement a fee not to exceed the Guaranteed Maximum Price of \$960,686.14 Dollars determined and payable as set forth in JOC Master Agreement and **Exhibit "B"** attached hereto and made a part hereof by reference.

ARTICLE 3. AGREEMENT TIME & SCHEDULE

JOC Contractor agrees to complete all Construction within 100 calendar days from the Notice to Proceed (NTP) Date.

ARTICLE 4. JOB ORDER CONTACTS

The following parties serve in the capacity below for this Job Order Project.

CITY:	Construction Project Manager: Adam Kleiser	
	Phone:	480-782-3325
	Email:	adam.kleiser@chandleraz.gov
JOC CONTRACTOR:	MGC Contractors, Inc.	
	P. O. Box 61748, Phoenix, AZ 85082	
	JOC Contractor Representative: Bryan Forster	
	Phone:	602-695-9652
	Email:	bforster@mgccontractors.com

ARTICLE 5. FORCED LABOR OF ETHNIC UYGHURS PROHIBITED

By entering into this Agreement, Contractor certifies and agrees Contractor does not currently use and will not use for the term of this Agreement: (i) the forced labor of ethnic Uyghurs in the People's Republic of China; or (ii) any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; or (iii) any contractors, subcontractors or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.

IN WITNESS WHEREOF, the Parties have executed this Job Order as of the Effective Date.

"CITY" CITY OF CHANDLER

**"JOC CONTRACTOR"
MGC CONTRACTORS, INC.**

Mayor

Bryan Forster September 18, 2025
Signature Date

RECOMMENDED BY:

Bryan Forster
Print Name

Daniel Haskins September 18, 2025
Daniel Haskins, P.E.
CIP City Engineer

Projects Director
Title
Bforster@mgccontractors.com
Signer Email Address

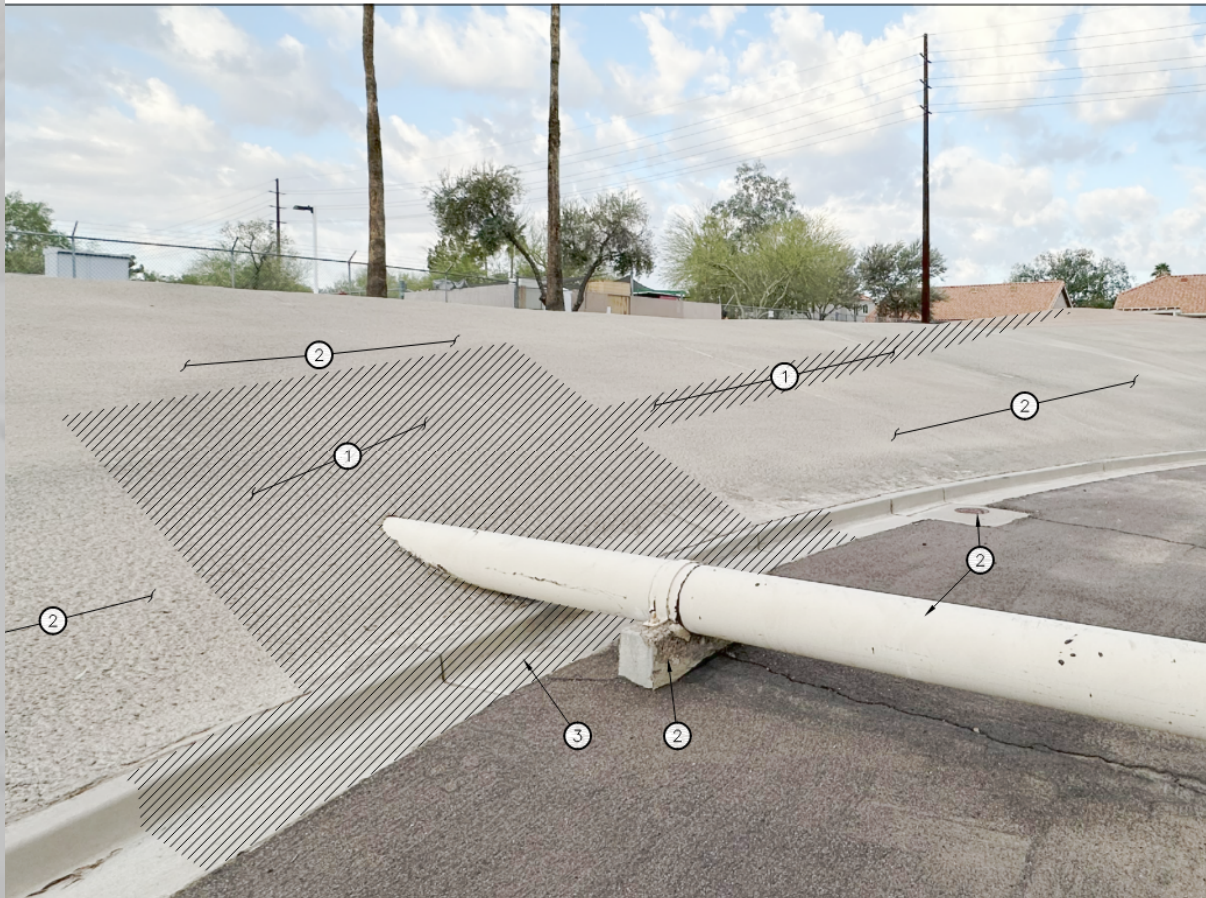
APPROVED AS TO FORM:

City Attorney 

ATTEST:

City Clerk Seal

EXHIBIT A SCOPE OF WORK



Project Number WA2408.401

Cost Proposal– REV2

Project Name:

Brooks Crossing WPF - PRV Additions Project



September 4th, 2025

City of Chandler Water Resources
975 E Armstrong Way
Chandler, AZ 85225

Attn: Adam Kleiser

Re: Cost Proposal
Brooks Crossing WPF-PRV Additions Project – WA2408.401

Dear Adam:

In accordance with the information provided, we are pleased to offer a cost proposal for the Brooks Crossing WPF-PRV project. The total price for this scope of work is (\$960,686.14) Nine Hundred Sixty Thousand Six Hundred Eighty-Six dollars and Fourteen Cents. We have included bond and sales tax. Below is a further breakdown of the proposal and scope of work. Please note the following clarifications:

Tank	Location	Design Engineer
Brooks Crossing WPF	Calle Del Norte and Longmore Street	Wilson Engineers

Included scope:

- Demolition Work:
 - Demo existing Shotcrete in/around the work area.
 - Demo existing Curb & Gutter.
- 12” Tie-in:
 - Assist the Hydro-Vac Crew with deep excavation, with an assumed depth of 14 feet or more per the design plans.
 - Install Deep Trench Boxes to work on the 12” line safely. We have included engineering costs due to the excavation being deeper than 18ft, as required.
 - Dig, Lay, and Backfill the 12” DI Pipe and Valves.
 - Pressure test installed 12” piping.
 - Disinfection



- 8'' Waterline Piping:
 - Dig, Lay and Backfill the 8'' DI Pipe and Valves.
 - Install Trench Boxes to work on the 8'' line safely. No engineering costs were included due to the assumed depth.
 - Pressure test installed 8'' waterline.
 - Disinfection
- PRV Mechanical Valve & Fittings:
 - Layout and install all above-ground PRV piping, valves, and fittings.
 - Trim out the above-ground piping.
 - Pressure test installed above-ground piping.
 - Coating of the installed above-ground piping – performed by subcontractor.
- Concrete Work:
 - Form, Pour, Finish, and Strip the Curb and Gutter.
 - Form, Pour, Finish, and Strip PRV Vault SOG.
 - Form, Pour, Finish, and Strip the PRV Pad and Walls.
- Private Utility Location Services and Blue Staking.
- CADD drawings and as-builts
- Operations and maintenance manuals for all required equipment.
- Any Additional work requested by Wilson Engineering and approved by the City.

Allowance Breakdown:

No.	Description	Quantity	Unit	Total Allowance
1	CMU Wall Replacement – Per Plans	1	LS	\$ 26,100.00
2	Residents Side – Pool Mural Painting	1	LS	\$ 39,200.00
3	1 Sack CLSM for Backfill & Haul-Off Spoils - Per Plans	1	LS	\$ 53,600.00
4	Vac-Truck Potholing for 12" Tie-in	1	LS	\$ 38,600.00
5	Tank Isolation Line-stop, current valve seating concerns	1	LS	\$ 29,800.00
6	Repurpose the existing gate and create an equipment entry point	1	LS	\$ 6,000.00
7	Tank Disinfection, Cleaning and Inspection Assistance – Third Party	1	LS	\$ 74,900.00
8	Owner's Contingency	1	LS	\$ 60,000.00
TOTAL ALLOWANCE				\$ 328,200.00

Clarifications, Assumptions, and Exclusions:

- Total Allowances are included in the overall project cost. These allowances will only be used once the City of Chandler has approved them.
- We have excluded third-party inspection. This includes soil compaction, concrete cylinder testing, and inspections of exposed piping coatings.
- We have excluded third-party reservoir tank inspections, including coatings and structural inspections,



as well as any repairs that may be needed due to those inspections. However, we have included costs for internal scaffolding erection and disassembly for tank inspection purposes in Allowance Breakdown Item 7. \$10,000 has been included for Wilson's Tank inspections.

- We have excluded any required permitting, except for dust control and SWPPP.
- We have excluded design engineering costs.
- We have excluded public outreach.
- We have included Confined Space Entry and the required equipment for reservoir tank inspections.
- We have included the cost of pressure washing the inside of the tank in preparation for the required inspection.
- We have included an allowance for 1 sack CLSM for all excavations. If native or AB backfill is authorized, we will need to price that material and utilize this allowance as needed. Backfill material from Vac-Truck spoils cannot be used for backfilling, and costs for backfill materials, other than pipe bedding, have not been included in base pricing.
- The Potholing and Excavating costs were factored to the depth of the pipe per the design plans.

Thank you for the opportunity to be of service. If you have any questions, please do not hesitate to call.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Bryan Forster', is positioned above the printed name.

Bryan Forster
Projects Director

24473 - COC Brooks Crossing PRV Cost Proposal**Project Name: Brooks Crossing PRV**
Name: City of Chandler**Submittal: Consultant:**
Contractor: MGC Contractors, Inc.
Date: 09/04/2025**Disposition Codes:**

- A. Will Comply
- B. Consultant to Evaluate
- C. Client to Evaluate
- D. No Further Action
- E. Further Understanding is Required

Item No	Agency	Reviewer	Comment Yes/No	Location (Total Cost Breakdown)	Review Comments	Disposition Code	Response	Responder
1	COC	AK	Y		The Tax rate appears to be high. Can MGC verify that this is correct.	A	The sales tax calculation is incorrect and will be adjusted in revised proposal.	AMT
2	COC	AK	Y		Construction Survey/Staking seems low. I assume that Utils wants GIS Data Dictionary applied to this for info on the water pipe being installed.	A	Additional Survey/Staking funds to be added in revised proposal.	AMT
3	COC	AK	Y		The project number needs to be updated to WA2408.401	A	To be adjusted in revised proposal.	AMT
4	COC	AK	Y		Provide the backup information/quotes/correspondence for the scope related to the tank inspection.	A	Clarification of the contents of the tank inspection scope will be included in the revised proposal.	AMT
5	COC	AK	Y		Add an Owner's contingency of \$60K.	A	To be added in revised proposal.	AMT
6	COC	AK	Y		For Wilson's tank inspection, we requested that we reserve the right for cutting/welding back a steel coupon(s) from the tank floor, should the magnetic scanning require further investigation. Can MGC confirm that this scope can be accommodated in the Proposal?	C	In the clarified inspection scope, Wilson has an inspection allowance of \$10,000.00. Please confirm if the allowance total needs adjustment.	AMT
7	COC	AK	Y		\$53k was included as an allowance item for slurry backfill. The design documents call for slurry backfill in the shot-crete excavations, Why was this cost included as an Allowance and not included in the cost of the work?	C	This was included as an allowance because the depth and exact location of existing piping is not known until we pothole.	AMT
8	COC	AK	Y		Remove highlight on cover page, address to Adam Kleiser, & change wording of "owner's allowance" to "owner's contingency".	A	To be updated in revised proposal.	AMT

EXHIBIT B
FEE SCHEDULE

EXHIBIT "B"**JOB ORDER COST PROPOSAL
SUMMARY SHEET**

Negotiated Prices		
Price of Subcontractor(s) and Supplier(s)	\$	172,531.43
Price of Subconsultant(s)	\$	-
General Conditions	\$	110,009.40
Preconstruction Labor (if applicable)	\$	-
Construction Labor & Equipment (if applicable)	\$	245,166.62
SUBTOTAL (NEGOTIATED PRICES):		\$ 527,707.45
Overhead and Profit (Coefficient per Job Order Master Agreement)	11.00%	\$ 58,047.82
TOTAL (NEGOTIATED PRICES + OVERHEAD & PROFIT):		\$ 585,755.27
Insurance, Bonds, & Taxes		
Sales Tax Percentage (Current Tax Rate) ENTER TAX % HERE:	7.80%	\$ 30,519.70
General Liability Insurance Percentage (Actual Cost per Job Order)		\$ 10,554.15
Builder's Risk Insurance Percentage (Actual Cost per Job Order)		\$ 379.95
Payment Bond (Actual Cost per Job Order)		\$ 5,277.07
Performance Bond (Actual Cost per Job Order) (P&P Included Above)		\$ -
SUBTOTAL (INSURANCE, BONDS, & TAXES):		\$ 46,730.87
COMBINED TOTAL (TOTAL + INSURANCE, BONDS, & TAXES):		\$ 632,486.14
City's Allowance		\$ 328,200.00
TOTAL JOB ORDER:		\$ 960,686.14

Per the Job Order Master Agreement - This Fee Table includes all fees, costs, insurance and bond premiums, allowances, construction contingency, and taxes of any type necessary to fully, properly and timely perform and construct the Work. Also per the Job Order Master Agreement - For any portion of the Work which, either through this Contract, Change Order or otherwise, is performed and paid for on a cost, or time and materials basis, the costs may be reimbursed to JOC Contractor and chargeable against the Contract Price will be determined as set forth in MAG 109.5.

Project Number:	JOC2411.401 - WA2408.401			
Contractor:	MGC Contractors, Inc			
Date:	04-Sep-25			
Activity ID#	Description	% of Total	Cost	Comments
00.00.00	Construction Indirect Costs Summary			
00.00.00	Division 0 - Bidding and Contract Requirements			
00.01.00	Sales Tax	3.18%	\$ 30,519.70	
00.02.00	Sales Tax Deduct	0.00%	\$ -	
00.03.00	Profit & Overhead	6.04%	\$ 58,047.82	
00.04.00	Insurance (GL, IF, PL)	1.10%	\$ 10,554.15	
00.04.00	Builders Risk Insurance	0.04%	\$ 379.95	
00.05.00	Payment & Performance Bond	0.55%	\$ 5,277.07	
00.00.00	Sub-Total	10.9%	\$ 104,778.69	
01.00.00	Division 1 - General Requirements			
01.01.00	Preconstruction Services	0.00%	\$ -	
01.02.00	General Conditions - Project Staff	7.76%	\$ 74,520.40	
01.03.00	General Conditions - Project Site Temporary Facilities	3.69%	\$ 35,489.00	
01.00.00	Sub-Total	11.5%	\$ 110,009.40	
00+01	Sub-Total Indirect Costs	22.4%	\$ 214,788.09	
02.00.00	SUBCONTRACTORS & SUPPLIERS			
02.01.00	Above Ground PRV Piping Coating Subcontractor	0.77%	\$ 7,350.00	A-O Paintings
02.02.00	Required Civil and Pipe Materials for Project	17.19%	\$ 165,181.43	
03.00.00	Sub-Total	18.0%	\$ 172,531.43	
03.00.00	SUBCONSULTANT(S)			
03.01.00	No Sub Consultants	0.00%	\$ -	
04.00.00	Sub-Total	0.0%	\$ -	
04.00.00	MGC SELF-PERFORMED WORK (LABOR & EQUIPMENT)			
04.01.00	Demolition Work	0.39%	\$ 3,773.52	
04.02.00	12" Tie-In Piping	13.61%	\$ 130,796.80	
04.04.00	8" Waterline Piping	4.49%	\$ 43,135.60	
04.04.00	PRV Mechanical Valve & Fittings	2.30%	\$ 22,143.50	
04.05.00	Concrete Work	4.72%	\$ 45,317.20	
04.00.00	Sub-Total	25.5%	\$ 245,166.62	
02+03+04	Sub-Total Direct Costs	43.5%	\$ 417,698.05	
00+01+02+03+04	Overall Total (Indirects & Directs)		\$ 632,486.14	
	CITYS ALLOWANCE (Includes 19.07% On Top of Direct Costs for Sales Tax, Profit & OH, Insurance, & Bond)			
	CMU Wall Replacement	2.72%	\$ 26,100.00	Rounded Up to Nearest \$100
	Mural Painting	4.08%	\$ 39,200.00	Rounded Up to Nearest \$100
	Purchase 1 Sack CLSM for Backfill & Haul-Off Spoils	5.58%	\$ 53,600.00	Rounded Up to Nearest \$100
	Vac Truck Potholing	4.02%	\$ 38,600.00	Rounded Up to Nearest \$100
	Tank Isolation Linestop	3.10%	\$ 29,800.00	Rounded Up to Nearest \$100
	Repurpose Existing Gate	0.62%	\$ 6,000.00	Rounded Up to Nearest \$100
	Tank Disinfection, Cleaning, & Inspection Assistance - 3rd Party	7.80%	\$ 74,900.00	Rounded Up to Nearest \$100
	Owner's Contingency	6.25%	\$ 60,000.00	Rounded Up to Nearest \$100
05.00.00	Sub-Total	34.2%	\$ 328,200.00	
00+01+02+03+04+05	Overall Total (Indirects, Directs, & City Allowance)		\$ 960,686.14	

Preconstruction (01.01.00)

Labor				
Position	Unit	Quantity	Labor Cost	
			Unit	Total
Program Leader (Includes Vehicle)	HR	0.0	\$181.20	\$0
Sr. Project Manager (Includes Vehicle)	HR	0.0	\$171.20	\$0
Project Manager (Includes Vehicle)	HR	0.0	\$141.80	\$0
Project Engineer (Includes Vehicle)	HR	0.0	\$106.85	\$0
Project Superintendent (Includes Vehicle)	HR	0.0	\$141.26	\$0
CAD Engineer	HR	0.0	\$65.16	\$0
Administration	HR	0.0	\$50.00	\$0
QA/QC Manager (Includes Vehicle)	HR	0.0	\$171.20	\$0
	HR	0.0		\$0
Total Labor Cost:				\$0

Equipment				
Item	Unit	Quantity	Equipment Cost	
			Unit	Total
Pickup Truck (Included Above)	HR		\$28.00	\$0.00
Supervisor (Heavy Duty) Truck (Included Above)	HR		\$36.20	\$0.00
Total Equipment Cost:				\$0.00

Miscellaneous				
Item	Unit	Quantity	Material Cost	
			Unit	Total
				\$0
				\$0
				\$0
				\$0
Total Material Cost:				\$0

Project Staff (01.02.00)

Labor				
Position	Unit	Quantity	Labor Cost	
			Unit	Total
Program Leader (Includes Vehicle)	HR	2.0	\$161.00	\$322.00
Sr. Project Manager (Includes Vehicle)	HR	8.0	\$149.00	\$1,192.00
Project Manager (Includes Vehicle)	HR	240.0	\$132.00	\$31,680.00
Project Engineer (Includes Vehicle)	HR	320.0	\$102.00	\$32,640.00
Project Superintendent (Includes Vehicle)	HR	0.0	\$132.00	\$0.00
CAD Engineer	HR	40.0	\$65.16	\$2,606.40
Administration	HR	16.0	\$50.00	\$800.00
QA/QC Manager (Includes Vehicle)	HR	0.0	\$132.00	\$0.00
Safety Manager (Includes Vehicle)	HR	40.0	\$132.00	\$5,280.00
			Total Labor Cost:	\$74,520.40

Equipment				
Item	Unit	Quantity	Equipment Cost	
			Unit	Total
Pickup Truck (Included Above)	HR		\$0.00	\$0.00
Supervisor (Heavy Duty) Truck (Included Above)	HR		\$0.00	\$0.00
			Total Equipment Cost:	\$0.00

Miscellaneous				
Item	Unit	Quantity	Material Cost	
			Unit	Total
				\$0.00
				\$0.00
				\$0.00
				\$0.00
			Total Material Cost:	\$0.00

CITY OF CHANDLER - BROOKS CROSSING WPF-PRV ADDITIONS PROJECT

01.03.00

Division 01

BY:

-

#	DESCRIPTION	QUANT	UNIT	UNIT COST	AMOUNT	Comments
1.	Mobilization/Demobilization:				-	
	- Company Equipment	6	Ea	\$ 1,000	\$ 6,000	
		0	Ea	\$ 600	\$ -	
	- Rental Equipment	0	Ea	\$ 650	\$ -	
	- Equipment Delivery	0	Ea	\$ 400	\$ -	
	- Other	0	Ea	\$ 400	\$ -	
2.	Permits				\$ -	
	- Local	0	Ea		\$ -	
	- County	1	Ea	\$ 1,100	\$ 1,100	Dust Control Permit
	- Railroad	0	Ea		\$ -	
	- Other	0	Ea		\$ -	
3.	Trailers:				\$ -	
	- MGC - storage	2.5	Mo	\$ 250	\$ 625	
	- MGC - office	2.5	Mo	\$ 450	\$ 1,125	Towable Office Trailer (Small)
	- Engineer's office	0			\$ -	
4.	Temporary/Cellular Phone	2.5	Mo	\$ 150	\$ 375	
5.	Temporary Power:				\$ -	
	- Set-up	1	Ea	\$ 200	\$ 200	
	- Construction - monthly	2.5	Mo	\$ 225	\$ 563	
	- Trailer - construction mo.	2.5	Mo	\$ 75	\$ 188	
	- Trailer - Engineer mo.	0			\$ -	
6.	J-Jon/Sanitation Facilities	2.5	Mo	\$ 850	\$ 2,125	
7.	Water - drinking/ice	10.5	WK	\$ 218	\$ 2,289	
8.	Water - construction	2.5	Mo	\$ 750	\$ 1,875	Backflow w/ Certs
9.	Temporary Fencing:				\$ -	
	- Set-up	0	LS	\$ 50	\$ -	
	- Monthly Charges	0	Mo	\$ 300	\$ -	
10.	Surveying/Construction Staking	6	Ea	\$ 2,200	\$ 13,200	Updated Units per CoC Comments
11.	Subcontractor Bonds	0			\$ -	
12.	Construction Testing	0	Mo	\$ -	\$ -	
13.	Design/P.E. Stamp	0			\$ -	
14.	Dumpster - monthly	3	Ea	\$ 500	\$ 1,500	
	Dump Fees	3	LS	\$ 350	\$ 1,050	
15.	Clean-up	0	LS	\$ 1,500	\$ -	
16.	AGC Fees	0	LS		\$ -	
17.	Site Signage	0	LS	\$ 950	\$ -	
18.	Liquidated Damages	0			\$ -	
19.	Traffic Control:	0	Dy	\$ 150	\$ -	
	Traffic plates	0	Mo	\$ 2,500	\$ -	
	Traffic officer	0	Hr	\$ 75	\$ -	
20.	Subsistence	0			\$ -	
21.	Courier Fees	0			\$ -	
22.	Reprographics	1	Ea	\$ 350	\$ 350	
23.	O&M Costs	2	Ea	\$ 150	\$ 300	Time & Binder Materials
	OCR Recognition	0			\$ -	
24.	Security Costs	0	Mo		\$ -	Capture Cam
25.	Insurance - Builders Risk	0	Mo	\$ 576	\$ -	Included Elsewhere in Proposal
26.	Dust Control - Materials	1	LS	\$ 300	\$ 300	
27.	Other	0	Mo	\$ 260	\$ -	Sweeper Once/Month
28.	SWPPP Permit	1	LS	\$ 1,100	\$ 1,100	
	SWPPP Materials	1	LS	\$ 350	\$ 350	
27.	Per Diem	0	Dy		\$ -	
28.	Hotel / Subsistence	0	Rm		\$ -	
29.	Engineering -	0	LS	\$ -	\$ -	
					\$ -	
30.	Communications	2.5	MO	\$ 350	\$ 875	Internet \$400, Printer \$300
					\$ -	
TOTAL					\$ 35,489	

CITY OF CHANDLER - BROOKS CROSSING WPF-PRV ADDITIONS PROJECT
Work Order Breakdown (04.00.00)

			LABOR									EQUIPMENT											\$ Total
#	Water & Wastewater Facilities Projects	Info	HRS Craft Supt	HRS Forman	HRS Equip Operator	HRS Carp Jour	HRS Carp Appr	Finisher	Pipefitter	HRS Pipefitter Foreman	HRS Laborer	HRS Supt Truck	HRS Back Hoe	HRS Excavator- 330 Sized	HRS SM (3.5) Loader	HRS Rammax	HRS Wacker	HRS Vactor Truck	HRS Genset & Cords	HRS Hi Cycle Vibrator	HRS Small Tools	For Line	
04.00.00	Self-Perform Work																						
04.01.00	Demolition Work																						
04.01.01	Craft Supervision		10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	\$ 1,587	
04.01.02	Demo Existing Shotcrete (4" Thick)		0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	\$ 1,944	
04.01.03	Demo Existing Curb & Gutter		0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	\$ 243	
04.02.00	12" Tie-In Piping																						
04.02.01	Craft Supervision		168.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	168.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	168.0	\$ 26,657	
04.02.02	Assist Hydro-Vac Crew		0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	120.0	0.0	0.0	0.0	0.0	0.0	0.0	80.0	0.0	0.0	160.0	\$ 31,416	
04.02.03	Set Deep Trench Boxes for 12" Install		0.0	0.0	80.0	0.0	0.0	0.0	0.0	0.0	240.0	0.0	0.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	320.0	\$ 38,195	
04.02.04	Dig,Lay,Backfill 12" DI Pipe & Valves		0.0	0.0	80.0	0.0	0.0	0.0	80.0	40.0	80.0	0.0	0.0	40.0	40.0	40.0	40.0	0.0	0.0	0.0	280.0	\$ 32,692	
04.02.05	Pressure Test 12" Piping		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	\$ 893	
04.02.06	Disinfect 12" Piping (Install Appuretenances, Disinfection by Sub)		0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	\$ 945	
04.03.00	8" Waterline Piping																						
04.03.01	Craft Supervision		48.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.0	\$ 7,616	
04.03.02	Dig,Lay,Backfill 8" DI Pipe & Valves		0.0	0.0	80.0	0.0	0.0	0.0	80.0	40.0	80.0	0.0	0.0	40.0	40.0	40.0	40.0	0.0	0.0	0.0	280.0	\$ 32,692	
04.03.03	Pressure Test 8" Piping		0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0	\$ 1,883	
04.03.04	Disinfect 8" Piping (Install Appuretenances, Disinfection by Sub)		0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	\$ 945	
04.04.00	PRV Mechanical Valve & Fittings																						
04.04.01	Craft Supervision		50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	\$ 7,934	
04.04.02	Layout Above Ground PRV Piping		0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	\$ 248	
04.04.03	Install Above Ground PRV Pipe, Valves, & Fittings		0.0	0.0	0.0	0.0	0.0	0.0	80.0	40.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	200.0	\$ 12,166	
04.04.04	Trim-Out Above Ground PRV Piping		0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	\$ 359	
04.04.05	Pressure Test Above Ground PRV Piping		0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	\$ 1,437	
04.05.00	Concrete Work																						
04.05.01	Craft Supervision		80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	80.0	\$ 12,694	
04.05.02	Form and Strip Curb & Gutter		0.0	12.0	0.0	12.0	24.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	60.0	\$ 3,740	
04.05.03	Pour and Finish Curb & Gutter		0.0	4.0	0.0	4.0	8.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	20.0	\$ 1,247	
04.05.04	Form and Strip PRV Vault SOG		0.0	16.0	0.0	16.0	32.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	80.0	\$ 4,987	
04.05.05	Form and Strip PRV Vault Walls		40.0	0.0	0.0	40.0	80.0	0.0	0.0	0.0	80.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	240.0	\$ 18,262	
04.05.06	Pour and Finish PRV Pad and Walls		8.0	0.0	0.0	8.0	0.0	24.0	0.0	0.0	16.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	8.0	56.0	\$ 4,389	
A	Total Column		404.0	32.0	249.0	80.0	144.0	24.0	256.0	180.0	824.0	404.0	9.0	160.0	80.0	80.0	80.0	80.0	80.0	8.0	2,193.0	\$ 245,167	
B	Unit Cost		\$ 116.27	\$ 64.60	\$ 56.91	\$ 64.16	\$ 46.93	\$ 55.88	\$ 57.28	\$ 63.00	\$ 50.80	\$ 37.40	\$ 69.47	\$ 248.13	\$ 94.68	\$ 34.50	\$ 12.00	\$ 275.00	\$ 13.25	\$ 13.25	\$ 5.00		
C	Total Cost \$		\$ 46,973	\$ 2,067	\$ 14,171	\$ 5,133	\$ 6,758	\$ 1,341	\$ 14,664	\$ 11,340	\$ 41,859	\$ 15,110	\$ 625	\$ 39,701	\$ 7,574	\$ 2,760	\$ 960	\$ 22,000	\$ 1,060	\$ 106	\$ 10,965	\$ 245,167	

Item #	Description	Size	Quantity	Unit	Cost Each	Total	Notes
02.02.00	CITY OF CHANDLER - BROOKS CROSSING WPF-PRV ADDITIONS PROJECT						
	Required Civil and Pipe Materials for Project						
04.01.00	Demolition Work						
04.01.01	Craft Supervision						
04.01.01A	No Materials for This Item		1	LS	\$ -	\$ -	
04.01.02	Demo Existing Shotcrete (4" Thick)						
04.01.02A	Double Saw Cut Around Shotcrete for Demolition		672	LF	\$ 4.00	\$ 2,688.00	
04.01.02B	Haul-Off Shotcrete Rubble & Curb/Gutter		2	HRS	\$ 135.00	\$ 270.00	
04.01.02C	Dump Fee for Haul-Off		1	EA	\$ 550.00	\$ 550.00	
04.01.03	Demo Existing Curb & Gutter						
04.01.03A	Haul-Off Shotcrete Rubble & Curb/Gutter		2	HRS	\$ 135.00	\$ 270.00	
04.01.03B	Dump Fee for Haul-Off		1	EA	\$ 550.00	\$ 550.00	
04.02.00	12" Tie-In Piping						
04.02.01	Craft Supervision						
04.02.01A	No Materials for This Item		1	LS	\$ -	\$ -	
04.02.02	Assist Hydro-Vac Crew						
04.02.02A	Purchase ABC for Displaced Hydro Vac Materials		240	TNs	\$ 21.50	\$ 5,160.00	
04.02.03	Set Deep Trench Boxes for 12" Install						
04.02.03A	Type in Material					\$ -	
04.02.04	Dig,Lay,Backfill 12" DI Pipe & Valves						
04.02.04A	Pipe & Valves for 12" Tie-In		1	LS	\$ 39,531.46	\$ 39,531.46	See BI#1 in PTO for Breakdown.
04.02.05B	Rent Trench Shoring		160	HRS	\$ 87.20	\$ 13,952.00	
04.02.05C	Rental Trench Shoring Engineering Design		1	LS	\$ 4,190.51	\$ 4,190.51	
04.02.05D	Pipe Bedding		13.2	TONS	\$ 21.50	\$ 283.80	
04.02.05E	Pipe Accessories		40	LF	\$ 2.18	\$ 87.20	
04.02.05	Pressure Test 12" Piping						
04.02.05A	Rent Hydrostatic Test Pump		8	HRS	\$ 23.08	\$ 184.64	
04.02.05B	Pipe Accessories (Tapping Saddles, Corp Stops, Gauge, Test Piping)		1	LS	\$ 1,000.00	\$ 1,000.00	
04.02.06	Disinfect 12" Piping (Install Appuretenances, Disinfection by Sub)						
04.02.06A	Disinfection Sub for 12" Piping		1	LS	\$ 500.00	\$ 500.00	
04.03.00	8" Waterline Piping						
04.03.01	Craft Supervision						
04.03.01A	No Materials for This Item		1	LS	\$ -	\$ -	
04.03.02	Dig,Lay,Backfill 8" DI Pipe & Valves						
04.03.02A	Pipe & Valves for 8" DI Pipe		1	LS	\$ 16,501.07	\$ 16,501.07	See BI#2 in PTO for Breakdown.
04.03.02B	Rent Trench Shoring		40	HRS	\$ 87.20	\$ 3,488.00	
04.03.02C	Pipe Bedding		95.7	TONS	\$ 21.50	\$ 2,057.55	
04.03.02D	Pipe Accessories		1	LS	\$ 368.42	\$ 368.42	
04.03.03	Pressure Test 8" Piping						
04.03.03A	Rent Hydrostatic Test Pump		40	HRS	\$ 23.08	\$ 923.20	
04.03.03B	Pipe Accessories (Tapping Saddles, Corp Stops, Gauge, Test Piping)		1	LS	\$ 1,000.00	\$ 1,000.00	
04.03.04	Disinfect 8" Piping (Install Appuretenances, Disinfection by Sub)						
04.03.04A	Disinfection Sub for 8" Piping		1	LS	\$ 1,100.00	\$ 1,100.00	
04.04.00	PRV Mechanical Valve & Fittings						
04.04.01	Craft Supervision						
04.04.01A	No Materials for This Item		1	LS	\$ -	\$ -	
04.04.02	Layout Above Ground PRV Piping						
04.04.02A	No Materials for This Item		1	LS	\$ -	\$ -	
04.04.03	Install Above Ground PRV Pipe, Valves, & Fittings						
04.04.03A	Pipe & Valves PRV to Reservoir		1	LS	\$ 51,327.94	\$ 51,327.94	See BI#3 in PTO for Breakdown.
04.04.03B	Type in Material					\$ -	
04.04.03C	Type in Material					\$ -	

Item #	Description	Size	Quantity	Unit	Cost Each	Total	Notes
04.04.03D	Type in Material					\$ -	
04.04.04	Trim-Out Above Ground PRV Piping						
04.04.04A	Pipe Accessories & Pipe Support Grout		1	LS	\$ 550.00	\$ 550.00	
04.04.05	Pressure Test Above Ground PRV Piping						
04.04.05A	Rent Hydrostatic Test Pump		8	HRS	\$ 23.08	\$ 184.64	
04.04.05B	Pipe Accessories		1	LS	\$ 450.00	\$ 450.00	
04.05.00	Concrete Work						
04.05.01	Craft Supervision						
04.05.01A	No Materials for This Item		1	LS	\$ -	\$ -	
04.05.02	Form and Strip Curb & Gutter						
04.05.02A	Form Accessories		48	SF	\$ 2.00	\$ 96.00	
04.05.02A	Form Lumber		48	SF	\$ 6.00	\$ 288.00	
04.05.03	Pour and Finish Curb & Gutter						
04.05.03A	3000# Concrete		1.1	CY	\$ 125.00	\$ 137.50	
04.05.03B	Ice/Nitro Concrete Adder		1.1	CY	\$ 15.00	\$ 16.50	
04.05.03C	Ready Mix Environmental Fee		1	EA	\$ 20.00	\$ 20.00	
04.05.03D	Ready Mix Fuel Fee		1	EA	\$ 15.00	\$ 15.00	
04.05.03E	Short Load Concrete Fee		1	EA	\$ 200.00	\$ 200.00	
04.05.03F	Reinforcing Steel		350	LBS	\$ 1.00	\$ 350.00	
04.05.04	Form and Strip PRV Vault SOG						
04.05.04A	Included Under 04.05.05A		1	LS	\$ -	\$ -	
04.05.05	Form and Strip PRV Vault Walls						
04.05.05A	Form Accessories		473	SF	\$ 2.00	\$ 946.00	
04.05.05B	Form Lumber		473	SF	\$ 6.00	\$ 2,838.00	
04.05.06	Pour and Finish PRV Pad and Walls						
04.05.06A	4000# Concrete		22	CY	\$ 160.00	\$ 3,520.00	
04.05.06B	Ice/Nitro Concrete Adder		22	CY	\$ 15.00	\$ 330.00	
04.05.06C	Ready Mix Environmental Fee		2	EA	\$ 20.00	\$ 40.00	
04.05.06D	Ready Mix Fuel Fee		2	EA	\$ 15.00	\$ 30.00	
04.05.06E	Reinforcing Steel		4800	LBS	\$ 1.00	\$ 4,800.00	
A	Small Tools and Safety						
A.1	Safety (\$2 per MH of labor)		2193	HRS	\$ 2.00	\$ 4,386.00	
Total Cost						\$ 165,181.43	



CITY OF CHANDLER, ARIZONA
BROOKS CROSSING WATER
PRODUCTION FACILITY

PRV ADDITIONS PROJECT
CALLE DEL NORTE AND LONGMORE
STREET

PROJECT NO. WA2408.201
JUNE 2025

MAYOR
KEVIN HARTKE

VICE MAYOR
CHRISTINE ELLIS

COUNCIL
OD HARRIS
ANGEL ENCINAS
MATT ORLANDO
JANE POSTON
JENNIFER HAWKINS

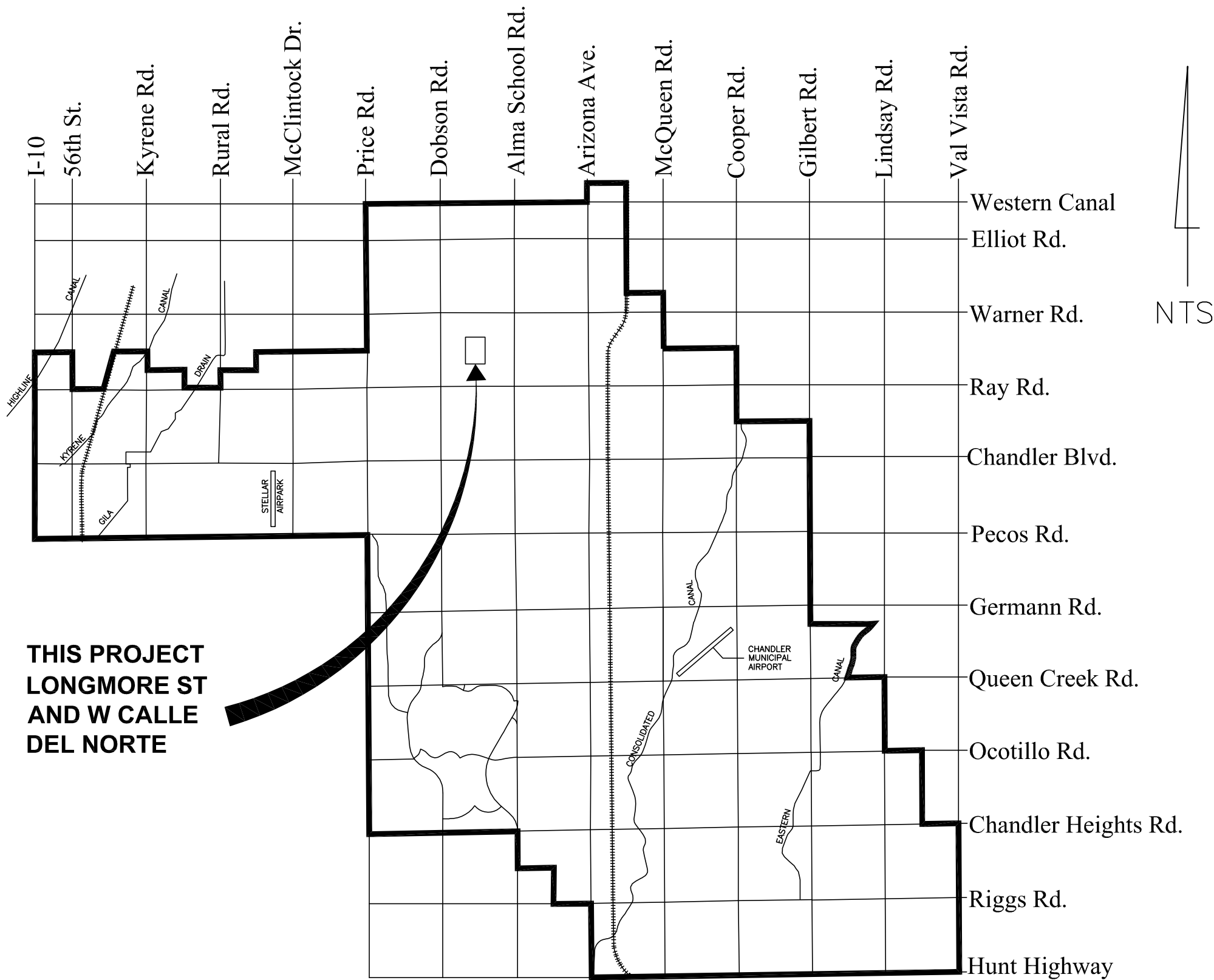
APPROVED:

PUBLIC WORKS & UTILITIES DIRECTOR DATE

CITY ENGINEER FOR CIP DATE

CIVIL PLAN REVIEW MANAGER DATE

MARICOPA COUNTY ENVIRONMENTAL
SERVICE DEPARTMENT DATE



THIS PROJECT
LONGMORE ST
AND W CALLE
DEL NORTE

VICINITY MAP

BENCHMARK:

THE VERTICAL DATUM FOR THIS SURVEY IS BASED ON A 3-INCH CITY OF CHANDLER
BRASS CAP FLUSH AT THE INTERSECTION OF CHIPPEWA STREET AND GALVESTON
STREET WITH AN ELEVATION OF 1202.43 (NAVD88 DATUM), CITY OF CHANDLER
BENCHMARK NO. 29.

AS-BUILT CERTIFICATION:

I HEREBY CERTIFY THAT THE "AS-BUILT" INFORMATION AS SHOWN HEREON WAS MADE UNDER
MY SUPERVISION, OR AS NOTED, AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR SIGNATURE PRINTED NAME DATE
FIRM NAME:

REGISTRATION NO. EXPIRATION DATE

I HEREBY CERTIFY THAT THE "AS-BUILT" INFORMATION SHOWN HEREON SATISFIES THE INTENT
OF THE DESIGN.

REGISTERED CIVIL ENGINEER SIGNATURE PRINTED NAME DATE
FIRM NAME:

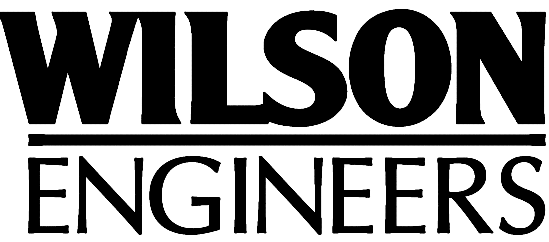
REGISTRATION NO. EXPIRATION DATE

DATE: JUNE 2025

REV. NO.	DATE	DRWN	CHKD	REMARKS

C.O.C. LOG NO. CIV00-0000

SHEET G-1



1620 W. Fountainhead Parkway,
Suite 501
Tempe, Arizona 85282
Phone: (480) 893-8860
Improving Arizona's
Infrastructure Since 1942

PROJECT NAME: BROOKS CROSSING WATER PRODUCTION FACILITY - PRV ADDITION PROJECT NO. WA2408.201

EXHIBIT C

PERFORMANCE BOND

ARIZONA STATUTORY PERFORMANCE BOND
PURSUANT TO TITLES 28, 34, AND 41, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Agreement amount)

KNOW ALL MEN BY THESE PRESENTS THAT: _____

(hereinafter "Principal"), and _____ (hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____ with its principal office in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto _____(hereinafter "Obligee") in the amount of _____ (Dollars) (\$_____), for the payment whereof, 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 Agreement with the Obligee, dated the _____ day of _____, 20__ for construction of **Brooks Crossing Water Production Facility Pressure Reducing Valve Addition, WA2408.401** which Agreement is hereby referred to and made a part hereof as fully and to the same extent as if copies at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal faithfully performs and fulfills all the undertakings, covenants, terms, conditions and agreements of the Agreement during the original term of the Agreement and any extension of the Agreement, with or without notice of the Surety, and during the life of any guaranty required under the Agreement, and also performs and fulfills all the undertakings, covenants, terms, conditions, and agreements of all duly authorized modifications of the Agreement 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.

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 will be determined in accordance with the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Agreement.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 20__.

AGENT OF RECORD

PRINCIPAL

SEAL

By _____

SURETY

SEAL

EXHIBIT D

PAYMENT BOND

ARIZONA STATUTORY PAYMENT BOND
PURSUANT TO TITLES 28, 34, AND 41, OF THE ARIZONA REVISED STATUTES
(Penalty of this Bond must be 100% of the Agreement amount)

KNOW ALL MEN BY THESE PRESENTS THAT: _____

(hereinafter "Principal"), as Principal, and _____ (hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____ with its principal office in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of the Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto _____ (hereinafter "Obligee") in the amount of _____ (Dollars) (\$_____), for the payment whereof, the 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 Agreement with the Obligee, dated the _____ day of _____, 20__ for construction of **Brooks Crossing Water Production Facility Pressure Reducing Valve Addition, WA2408.401** which Amendment 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 moneys 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 said Agreement, 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 will 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 it were copied at length in this Agreement.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 20__.

AGENT OF RECORD

PRINCIPAL SEAL

By _____

SURETY SEAL

AGENT ADDRESS

EXHIBIT E

CONTRACTOR'S AFFIDAVIT REGARDING SETTLEMENT OF CLAIMS

_____, Arizona

Date _____

Project Name: **Brooks Crossing Water Production Facility Pressure Reducing Valve Addition**

Project No.: **WA2408.401**

To the City of Chandler, Arizona

Gentlemen:

This is to certify that all lawful claims for materials, rental of equipment and labor used in connection with the construction of the above project, whether by subcontractor or claimant in person, have been duly discharged.

The undersigned, for the consideration of \$_____, as set out in the final pay estimate, as full and complete payment under the terms of the Agreement, hereby waives and relinquishes any and all further claims or right of lien under, in connection with, or as a result of the above described project. The undersigned further agrees to indemnify and save harmless the City of Chandler against any and all liens, claims or liens, suits, actions, damages, charges and expenses whatsoever, which said City may suffer arising out of the failure of the undersigned to pay for all labor performances and materials furnished for the performance of said installation.

Signed and dated at _____, this _____ day of _____ 20_____.

CONTRACTOR

By _____

STATE OF ARIZONA)
) SS
COUNTY OF MARICOPA)

The foregoing instrument was subscribed and sworn to before me this _____ day of _____ 20_____.

Notary Public

My Commission Expires

EXHIBIT F

CERTIFICATE OF COMPLETION

Project: **Brooks Crossing Water Production Facility Pressure Reducing Valve Addition**
Project No.: **WA2408.401**

(TO BE COMPLETED BY CONTRACTOR)

I HEREBY CERTIFY THAT ALL GOODS AND/OR SERVICES REQUIRED BY CITY OF CHANDLER PROJECT NO. **WA2408.401** HAVE BEEN DELIVERED IN ACCORDANCE WITH THE AGREEMENT DOCUMENTS AND BID SPECIFICATIONS AND ALL ACTIVITIES REQUIRED BY THE CONTRACTOR UNDER THE AGREEMENT HAVE BEEN COMPLETED AS OF _____.
(Date)

FIRM NAME: _____

PRINCIPAL: _____
(Name)

(Signature)

(Title) DATE: _____

CERTIFIED BY ENGINEER/CONSULTANT (IF APPLICABLE):

(Signature) DATE: _____

(Firm Name)

PROJECT ACCEPTED BY USER DEPARTMENT

(Signature) DATE: _____

(Dept. /Div.)

_____ Date of Final Walk-Through

_____ Date As-Built Received

_____ City As-Built Number

EXHIBIT G

SUBCONTRACTOR DOCUMENTS WITH JOC CONTRACTOR

Any subcontractor assumptions, clarifications, exclusions, terms & conditions, signature blocks, etc. included are strictly between the JOC Contractor and their subcontractors, and do not apply to the Agreement between the JOC Contractor and the City.

N/A

EXHIBIT H

BUILDERS RISK INSURANCE

EXHIBIT I**GIS / GPS Data Delivery Requirements**

Contractor shall provide survey grade GPS / GIS data, meeting the following requirements for all facilities to be owned and/or operated by the City of Chandler.

a) ESRI File Geodatabase format:

All GPS point data, along with corresponding GIS Attribute data, must be submitted in ESRI File Geodatabase format. The City of Chandler will provide a copy of the File Geodatabase in ESRI ArcGIS format. Please submit your request through the Project Manager.

b) Data dictionary and Attribute data:

Attribute data should be provided for each of the GPS'd Utility Features listed in Section 'd' below. All Attribute data should conform to the ESRI File Geodatabase format, provided by the City. A copy of the data dictionary is also attached here for reference.

c) Coordinate System:

Horizontal Datum: Arizona State Plane Coordinates, Central Zone NAD83 (HARN)
Vertical Datum: NAVD88

d) Point Data for GPS:

1) Water System Features:

- Water main location (top of pipe), size and material (one (1) coordinate provided every 100 feet minimum) and at fittings.
- Water fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Line Stop, Reducer, Saddle, Other.
- Water valve location (center of valve box cover), size and type.
- Fire hydrant location (top of hydrant), manufacturer and year.
- Water service line location (at connection to main, any bends, and termination at meter box or meter vault or at the edge of easement or ROW), size and material.
- Water blow-off and air release valve location (center of cover), size, type and manufacturer.
- Water manhole or vault location (center of cover), size and type.

2) Waste Water System Features:

- Sewer manhole and cleanout location (center of cover), size, material, and cover type.
- Sewer gravity main location (invert of pipe), size, material and flow direction (from) at all manholes, cleanouts and structures.
- Sewer service line location, size and material (at connection to main, and termination at cleanout, or stub out at edge of the easement or ROW).
- Sewer force main location (top of pipe), size, and material (one (1) coordinate provided every 100 feet minimum) and at fittings.

- Sewer force main (and gravity) fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Linestop, Reducer, Saddle, Wye, Other
- Sewer force main valve location (center of valve box cover), size and type.
- Sewer force main air release valve location (center of cover), size, type and manufacturer.
- Sewer force main manhole or vault location (center of cover), size and material.
- Sewer structure (center of structure), type (diversion, junction box).

3) Reclaimed Water System Features:

- Reclaimed main location (top of pipe), size, and material (one (1) coordinate provided every 100 feet minimum) and at fittings.
- Reclaimed fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Linestop, Reducer, Saddle, Other.
- Reclaimed valve location (center of valve box cover), size and type.
- Reclaimed service line location (at connection to main, any bends, and termination at meter box or meter vault or at the edge of easement or ROW), size and material.
- Reclaimed blow-off and air release valve location (center of cover), size, type and manufacturer.
- Reclaimed manhole or vault location (center of cover), size and type.

4) Storm Water System Features:

- Storm manhole and cleanout location (center of cover), size, material, and cover type.
- Storm gravity main location (invert of pipe), size, material, and flow direction (from) at all manholes, cleanouts and structures.
- Storm structure location (center of structure), type and category including: Drywell, Catch Basin, Scupper, Bubbler Box, and Collection Vault.

5) Streetlight Feature:

- Streetlights

6) Standard GPS Metadata on all points collected: Date, Time, Horizontal Accuracy, Vertical Accuracy, Latitude, Longitude, Altitude, Surveyor, and Comments.

7) Electronic Data Submittal: Each submittal must consist of

- ESRI – ArcGIS Geodatabase with cumulative data and attributes
- Construction plans with collected utilities clearly redlined and changes marked

The frequency of data submittals will be every two weeks after water, sewer, reclaim or storm assets go into the ground. Please email submittals to: GIS@chandleraz.gov

DATA DICTIONARY: WATER

WATER_BACKFLOW				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	GIS_BACKFLOW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	GIS_BACKFLOW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	GIS_BACKFLOW_SPATIALSOURCE
SIZE	SIZE	Double		
TYPE	TYPE	Text	25	GIS_BACKFLOW_TYPE
MANUFACTURER	MANUFACTURER	Text	25	GIS_BACKFLOW_MANUFACTURER
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	15	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

WATER_FITTING				
Field Name	Alias Name	Data Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	WS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	WS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	WS_SPATIALSOURCE_STD
MATERIAL	MATERIAL	Text	20	WS_FITTING_MATERIAL
DIAMETER1	DIAMETER1	Text	8	RWS_FITTING_DIAMETER
DIAMETER2	DIAMETER2	Text	8	RWS_FITTING_DIAMETER
TYPE	TYPE	Text	30	WS_FITTING_TYPE
BEND	BEND	Text	20	WS_FITTING_BEND
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

WATER_HYDRANT				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	Feature Owner	Text	25	WS_FEATUREOWNER
LIFECYCLESTATUS	Lifecycle Status	Text	25	WS_LIFECYCLESTATUS
SPATIALSOURCE	Spatial Source	Text	25	WS_SPATIALSOURCE_STD
BARRELDIAMETER	Barrel Diameter	Double		
LARGENOZZLEDIAMETER	Large Nozzle Diameter	Double		
SMALLNOZZLEDIAMETER	Small Nozzle Diameter	Double		
OUTLETCONFIGURATION	Outlet Configuration	Double		
SEATDIAMETER	Seat Diameter	Double		
MANUFACTURER	Manufacturer	Text	25	WS_HYD_MANUFACTURER
YEARMANUFACTURED	Manufacture Year	Text	25	
HASLOCK	Has Lock ?	Text	25	GIS_BOOLEAN_YES_NO
COLOR	Color	Text	25	WS_HYD_COLOR
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	25	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

WATER_MANHOLE				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	WS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	WS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	WS_SPATIALSOURCE_STD
ACCESSDIAMETER	ACCESSDIAMETER	Text	8	
ACCESSTYPE	ACCESSTYPE	Text	20	
GROUNDTYPE	GROUNDTYPE	Text	20	WS_SYSVAL_GROUNDTYPE
COVERMATERIAL	COVERMATERIAL	Text	10	
COVERTYPE	COVERTYPE	Text	8	
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

WATER_METER				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	Feature Owner	Text	20	GBA_WMSL_FEATUREOWNER
LIFECYCLESTATUS	Lifecycle Status	Text	25	GBA_WMSL_LIFECYCLESTATUS
SPATIALSOURCE	Spatial Source	Text	25	GBA_STATIC_SPATIALSOURCE
DIAMETER	DIAMETER	Double		WS_METER_DIAM
MANUFACTURER	Manufacturer	Text	25	WS_METER_MANUFACTURER
METERTYPE	Meter Type	Text	25	WS_METER_TYPE
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	15	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

WATER_SYSTEM_VALVE				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATURE OWNER	Text	20	WS_SYSVAL_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLE STATUS	Text	20	WS_SYSVAL_LIFECYCLESTATUS
SPATIALSOURCE	SPATIAL SOURCE	Text	20	WS_SYSVAL_SPATIALSOURCE
TYPE	TYPE	Text	25	WS_SYSVAL_TYPE
VALVETYPE	VALVE TYPE	Text	10	WS_SYSVAL_VALVETYPE
FUNCTION	FUNCTION	Text	25	WS_SYSVAL_FUNCTION
GROUNDTYPE	GROUNDTYPE	Text	25	WS_SYSVAL_GROUNDTYPE
DIAMETER	Diameter	Text	8	WS_SYSVAL_DIAM
GPS_DATE	GPS DATE	Date		
GPS_TIME	GPS TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS COMMENT	Text	30	

Water Domains:

Domain name	WS_LIFECYCLESTATUS
ABANDONED	ABANDONED
ACTIVE	ACTIVE
FUTURE	FUTURE
INACTIVE	INACTIVE
REMOVED	REMOVED
UNKNOWN	UNKNOWN

Domain name	WS_SYSVAL_SPATIALSOURCE
APPROVED PLANS	APPROVED PLANS
ASBUILT	ASBUILT
DESIGN	DESIGN
GPS	GPS
HYDRMAINT	HYDRMAINT
ORTHOPHOTO	ORTHOPHOTO
TM7	TM7
UNKNOWN	UNKNOWN

Domain name	WS_HYD_MANUFACTURER
AMERICANDARLING	AMERICANDARLING
AVK	AVK
CLOW	CLOW
DRESSER	DRESSER
GREENBERG	GREENBERG
KENNEDY	KENNEDY
MUELLER	MUELLER
PACIFIC	PACIFIC
UNKNOWN	UNKNOWN
WATEROUS	WATEROUS

Domain name	WS_FEATUREOWNER
COC	Chandler
COG	Gilbert
COM	Mesa
COP	Phoenix
COT	Tempe
COUNTY	Maricopa County
GOULD	Gould
GRIC	GRIC
INTEL	Intel
MICROCHIP	Microchip
MOTOROLA	Motorola
PRIVATE	Private
SRP	SRP
SRVWUA	SRVWUA
UNKNOWN	UNKNOWN

Domain name	WS_SYSVAL_LIFECYCLESTATUS
FUTURE	FUTURE
UNKNOWN	UNKNOWN
INACTIVE	INACTIVE
ACTIVE	ACTIVE
REMOVED	REMOVED
ABANDONED	ABANDONED

Domain name	WS_FITTING_BEND
HORIZONTAL	HORIZONTAL
VERTICAL	VERTICAL

Domain name	WS_SYSVAL_DIAM
2	2
3	3
4	4
6	6
8	8
10	10
12	12
16	16
20	20
24	24
30	30
36	36
42	42
48	48
54	54

Domain name	WS_HYD_COLOR
0	YELLOW
1	BLACK/YELLOW
2	RED
3	UNKNOWN

Domain name	WS_FITTING_TYPE
11B	11B
22B	22B
45B	45B
90B	90B
COUPLING	COUPLING
CROSS	CROSS
ENDCAP	ENDCAP
LINESTOP	LINESTOP
OTHER	OTHER
REDUCER	REDUCER
SADDLE	SADDLE
TAPPING SLEEVE	TAPPING SLEEVE
TEE	TEE
UNKNOWN	UNKNOWN
WYE	WYE

Domain name	WS_SYSVAL_GROUNDTYPE
CONCRETE	CONCRETE
ASPHALT	ASPHALT
LANDSCAPE	LANDSCAPE
UNKNOWN	UNKNOWN

Domain name	WS_SPATIALSOURCE_STD
ASBUILT	ASBUILT
DESIGN	DESIGN
FIELD	FIELD
GPS	GPS
ORTHOPHOTO	ORTHOPHOTO
UNKNOWN	UNKNOWN

Domain name	WS_METER_DIAM
0.63	.63
0.75	.75
1	1
1.5	1.5
2	2
2.5	2.5
3	3
4	4
6	6
8	8
10	10

Domain name	WS_METER_MANUFACTURER
BADGER METERS	BADTER METERS
NEPTUNE METERS	NEPTUNE METERS
PRECISION METERS	PRECISION METERS
BADGER-NEPTUNE	BADGER-NEPTUNE
SENSUS	SENSUS

Domain name	WS_METER_TYPE
BYPASS	BYPASS
COMBO	COMBO
CMPND	CMPND
DISC	DISC
MAG	MAG
FDTEC	FDTEC
MLTJET	MLTJET
TURBIN	TURBIN
Ultrasonic	Ultrasonic

S

Domain name	WS_SYSVAL_FEATUREOWNER
COC	COC
PRIVATE	PRIVATE
COM	COM
MOTOROLA	MOTOROLA
INTEL	INTEL
UNKNOWN	UNKNOWN
TOG	TOG

Domain name	WS_FITTING_MATERIAL
DI	DI
PVC	PVC
BRASS	BRASS
STL	STL
COPPER	COPPER
AC	AC
CC	CC
CI	CI

Domain name	WS_SYSVAL_TYPE
STANDARD	STANDARD
BLOWOFF	BLOWOFF
ARV	ARV
AIR VACUUM	AIR VACUUM
PERMASEAL	PERMASEAL

Domain name	GBA_WMSI_LIFECYCLESTATUS
Operational	Operational
Empty	Empty
Out of Service	Out of Service
Abandoned	Abandoned

Domain name	WS_SYSVAL_FUNCTION
INLINE	INLINE
HYDRANT	HYDRANT
STUBOUT	STUBOUT
UNKNOWN	UNKNOWN
SERVICE	SERVICE
BYPASS	BYPASS
WPF	WPF
FDC	FDC
VAULT	VAULT
BACKFLOW	BACKFLOW
PUMPOUT	PUMPOUT
PUMPSTATION	PUMPSTATION
FIRELINE	FIRELINE
ARV	ARV
ZONE_SPLIT_VALVES	ZONE_SPLIT_VALVES

Domain name	GIS_BACKFLOW_FEATUREOWNER
COC	COC
PRIVATE	PRIVATE
CONTRACTOR	CONTRACTOR
INTEL	INTEL
OCA	OCA
OMG	OMG
TOG	TOG
UNKNOWN	UNKNOWN

Domain name	WS_SYSVAL_VALVETYPE
GATE	GATE
BUTTERFLY	BUTTERFLY
BALL	BALL
PLUG	PLUG
PIV	PIV
UNKNOWN	UNKNOWN
INSERTA	INSERTA

Domain name	GIS_BACKFLOW_MANUFACTURER
FEBCO	FEBCO
WATTS	WATTS
WILKINS	WILKINS
AMES	AMES
CONBRACO	SERVICE
HERSEY	HERSEY
RAIN BIRD	RAIN BIRD
APOLLO VALVES	APOLLO VALVES
METRON	METRON
OTHER	OTHER

Domain name	GIS_BACKFLOW_TYPE
Air Gap	Air Gap
Unknown	Unknown
Double Check Detector	Double Check Detector
Pressure Vacuum Breaker	Pressure Vacuum Breaker
Double Check	Double Check
Reduced Pressure Detector	Reduced Pressure Detector
Atmospheric Vacuum Breaker	Atmospheric Vacuum Breaker

DATA DICTIONARY: SEWER

SEWER CLEANOUT				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	WW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	WW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	WW_SPATIALSOURCE
RIM_ELEV	RIM_ELEV	Double		
INV_ELEV	INV_ELEV	Double		
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

SEWER CONTROL VALVE				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	WW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	WW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	WW_SPATIALSOURCE
TYPE	TYPE	Text	25	WW_CONTROL_VALVE_TYPE
DIAMETER	DIAMETER	Text	8	
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

SEWER_FITTING				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	WW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	WW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	WW_SPATIALSOURCE
MATERIAL	MATERIAL	Text	20	WW_FITTING_MATERIAL
TYPE	TYPE	Text	30	WW_FITTING_TYPE
BEND	BEND	Text	20	WW_FITTING_BEND
SIZE	SIZE	Text	20	
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

SEWER_MANHOLE				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	WW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	WW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	WW_SPATIALSOURCE
TYPE	TYPE	Text	20	WW_MH_TYPE
COVER_MATERIAL	COVER_MATERIAL	Text	25	WW_MH_COVER_MATERIAL
COVER_HOLE	COVER_HOLE	Text	25	WW_MH_COVER_HOLE
COVER_SIZE	COVER_SIZE	Text	20	WW_MH_COVER_SIZE
RIM_ELEV	RIM_ELEV	Double		
INV_ELEV	INV_ELEV	Double		
LINING	LINING	Text	255	WW_MH_LINER
WALL_MATERIAL	WALL_MATERIAL	Text	255	WW_MH_WALL_MATERIAL
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

Sewer Domains:

Domain name	WW_FEATUREOWNER
COC	COC
PRIVATE	PRIVATE
TOG	TOG
UNKNOWN	UNKNOWN

Domain name	WW_SPATIALSOURCE
GPS	GPS
ASBUILT	ASBUILT
UNKNOWN	UNKNOWN

Domain name	WW_MH_COVER_HOLE
UNKNOWN	UNKNOWN
SEALED	SEALED

Domain name	WW_MH_LINER
CAST-IN-PLACE	CAST-IN-PLACE
CEMENTITIOUS	CEMENTITIOUS
COMPOSITE	COMPOSITE
CURED-IN-PLACE	CURED-IN-PLACE
EPOXY	EPOXY
FR PLASTIC INSERT	FR PLASTIC INSERT
FR POLYMER INSERT	FR POLYMER INSERT
INSERT	INSERT
UNKNOWN	UNKNOWN

Domain name	WW_LIFECYCLESTATUS
ABANDONED	ABANDONED
ACTIVE	ACTIVE
INACTIVE	INACTIVE
PULLED	PULLED
UNKNOWN	UNKNOWN

Domain name	WW_MH_COVER_MATERIAL
ALUMINUM	ALUMINUM
CASTIRON	CASTIRON
HDPE COMPOSITE - CAP	HDPE COMPOSITE - CAP
HDPE COMPOSITE - EJ	HDPE COMPOSITE - EJ
HDPE COMPOSITE - HD20	HDPE COMPOSITE - HD20
STEEL	STEEL
UNKNOWN	UNKNOWN

Domain name	WW_MH_COVER_SIZE
0	Unknown
4	4
6	6
8	8
22	22
24	24
26	26
28	28
30	30
32	32
38	38
48	48
60	60

Domain name	WW_MH_WALL_MATERIAL
NONE	NONE
COMPOSITE	COMPOSITE
UNKNOWN	UNKNOWN
CONCRETE	CONCRETE
POURED	POURED
TLOCK	TLOCK
PRECAST	PRECAST
BRICK	BRICK

Domain name	WW_FITTING_MATERIAL
PVC	PVC
DIP	DIP
HDPE	HDPE
RCP	RCP
ACP	ACP
ABS	ABS
RUBBER	RUBBER
CONCRETE	CONCRETE
CLAY	CLAY
STEEL ENCASED VCP	STEEL ENCASED VCP
TLOCK LINE	TLOCK LINE
LINED RCP	LINED RCP
PVC LINED RCP	PVC LINED RCP
PVC LINED DIP	PVC LINED RCP

Domain name	WW_FITTING_BEND
HORIZONTAL	HORIZONTAL
VERTICAL	VERTICAL
NONE	NONE

Domain name	WW_MH_TYPE
0	UNKNOWN
1	SANITARY SEWER
2	ARV

Domain name	WW_FITTING_TYPE
TEE	TEE
WYE	WYE
90 BEND	90 BEND
45 BEND	45 BEND
22 BEND	22 BEND
11 BEND	11 BEND
ENCAP	ENCAP
PLUG	PLUG
REDUCER	REDUCER
ARV	ARV
FLOW METER	FLOW METER
NO FLOW POINT	NO FLOW POINT
OWNERSHIP CHANGE	OWNERSHIP CHANGE
OTHER	OTHER
UNKNOWN	UNKNOWN
COUPLING	COUPLING

Domain name	WW_CONTROL_VALVE_TYPE
AIRRELEASE	AIRRELEASE
AIRVACUUMRELEASE	AIRVACUUMRELEASE
PRESSURERELIEF	PRESSURERELIEF
VACUUMRELEASE	VACUUMRELEASE
UNKNOWN	UNKNOWN
N/A	N/A

DATA DICTIONARY: RECLAIM

RECLAIM_WATER_BACKFLOW				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	GIS_BACKFLOW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	GIS_BACKFLOW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	GIS_BACKFLOW_SPATIALSOURCE
SIZE	SIZE	Double		
TYPE	TYPE	Text	25	GIS_BACKFLOW_TYPE
MANUFACTURER	MANUFACTURER	Text	25	GIS_BACKFLOW_MANUFACTURER
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	15	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

RECLAIM_WATER_FITTING				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	RWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	RWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	RWS_SPATIALSOURCE
MATERIAL	MATERIAL	Text	20	RWS_MAIN_OR_SERVICE_MATERIAL
DIAMETER1	DIAMETER1	Text	8	RWS_FITTING_DIAMETER
DIAMETER2	DIAMETER2	Text	8	RWS_FITTING_DIAMETER
TYPE	TYPE	Text	30	RWS_FITTING_TYPE
BEND	BEND	Text	20	RWS_FITTING_BEND
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double	8	
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double	8	
GPS_COMMENT	GPS_COMMENT	Text	30	

RECLAIM_WATER_MANHOLE				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	RWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	RWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	RWS_SPATIALSOURCE
ACCESSDIAMETER	ACCESSDIAMETER	Text	8	
ACCESSTYPE	ACCESSTYPE	Text	20	
GROUNDTYPE	GROUNDTYPE	Text	20	RWS_GROUNDTYPE
COVERMATERIAL	COVERMATERIAL	Text	10	RWS_COVER_MATERIAL
COVERTYPE	COVERTYPE	Text	8	RWS_COVER_TYPE
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

RECLAIM_WATER_METER				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	Feature Owner	Text	20	GBA_WMSL_FEATUREOWNER
LIFECYCLESTATUS	Lifecycle Status	Text	25	GBA_WMSL_LIFECYCLESTATUS
SPATIALSOURCE	Spatial Source	Text	25	GBA_STATIC_SPATIALSOURCE
DIAMETER	DIAMETER	Double		RWS_METER_DIAM
MANUFACTURER	Manufacturer	Text	25	RWS_METER_MANUFACTURER
METERTYPE	Meter Type	Text	25	RWS_METERTYPE
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	15	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

RECLAIM WATER SYSTEM VALVE				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATURE OWNER	Text	20	RWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLE STATUS	Text	20	RWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIAL SOURCE	Text	20	RWS_SPATIALSOURCE
TYPE	TYPE	Text	25	RWS_SYSVAL_TYPE
VALVETYPE	VALVE TYPE	Text	10	RWS_SYSVAL_VALVETYPE
FUNCTION	FUNCTION	Text	25	RWS_SYSVAL_FUNCTION
GROUNDTYPE	GROUNDTYPE	Text	25	RWS_SYSVAL_GROUNDTYPE
DIAMETER	DIAMETER	Double		RWS_SYSVAL_DIAM
GPS_DATE	GPS DATE	Date	8	
GPS_TIME	GPS TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS COMMENT	Text	30	

Reclaim Water Domains:

Domain name	RWS_SYSVAL_VALVETYPE
BALL	BALL
BUTTERFLY	BUTTERFLY
GATE	GATE
INSERTA	INSERTA
PIV	PIV
PLUG	PLUG
UNKNOWN	UNKNOWN

Domain name	RWS_SYSVAL_FUNCTION
ARV	ARV
INLINE	INLINE
PUMPOUT	PUMPOUT
PUMPSTATION	PUMPSTATION
SERVICE	SERVICE
STUBOUT	STUBOUT
UNKNOWN	UNKNOWN
VAULT	VAULT

Domain name	RWS_SYSVAL_TYPE
ARV	ARV
AIR VACUUM	AIR VACUUM
BLOWOFF	BLOWOFF
PERMASEAL	PERMASEAL
STANDARD	STANDARD

Domain name	RWS_FITTING_BEND
HORIZONTAL	HORIZONTAL
VERTICAL	VERTICAL

Domain name	RWS_MAIN_OR_SERVICE_MATERIAL
AC	AC
CC	CC
CI	CI
CU	COPPER
DI	DI
PVC	PVC
UNKNOWN	UNKNOWN
AC	AC
CC	CC

Domain name	RWS_FITTING_TYPE
11B	11B
22B	22B
45B	45B
90B	90B
COUPLING	COUPLING
CROSS	CROSS
ENDCAP	ENDCAP
LINESTOP	LINESTOP
MECHANICAL JOINT	MECHANICAL JOINT
OTHER	OTHER
RECHARGE WELL	RECHARGE WELL
REDUCER	REDUCER
SADDLE	SADDLE
TAPPING SLEEVE	TAPPING SLEEVE
TEE	TEE
UNKNOWN	UNKNOWN
WYE	WYE

Domain name	RWS_SPATIALSOURCE
ASBUILT	ASBUILT
FIELD	FIELD
GPS	GPS
ORTHOPHOTO	ORTHOPHOTO
UNKNOWN	UNKNOWN

Domain name	RWS_LIFECYCLESTATUS
ABANDONED	ABANDONED
ACTIVE	ACTIVE
INACTIVE	INACTIVE
REMOVED	REMOVED
UNKNOWN	UNKNOWN

Domain name	RWS_SYSVAL_DIAM
1.5	1.5
2	2
3	3
4	4
6	6
8	8
10	10
12	12
16	16
20	20
24	24
30	30
36	36
42	42
48	48
9999	UNKNOWN

Domain name	RWS_GROUNDTYPE
ASPHALT	ASPHALT
CONCRETE	CONCRETE
DIRT	DIRT
UNKNOWN	UNKNOWN

Domain name	RWS_SYSVAL_GROUNDTYPE
ASPHALT	ASPHALT
CONCRETE	CONCRETE
LANDSCAPE	LANDSCAPE
UNKNOWN	UNKNOWN

Domain name	RWS_FITTING_DIAMETER
0.63	0.63
0.75	0.75
1	1
1.25	1.25
1.5	1.5
2	2
2.5	2.5
3	3
4	4
6	6
8	8
10	10
12	12
15	15
16	16
18	18
20	20
24	24
30	30

Domain name	RWS_COVER_MATERIAL
CAST IRON	CAST IRON
ALUMINUM	ALUMINUM
UNKNOWN	UNKNOWN

Domain name	RWS_COVER_TYPE
SEALED	SEALED
VENTED	VENTED
BOLTED	BOLTED
UNKNOWN	UNKNOWN

Domain name	RWS_METER_MANUFACTURER
BADGER METERS	BADGER METERS
NEPTUNE METERS	NEPTUNE METERS
PRECISION METERS	PRECISION METERS
BADGER-NEPTUNE	BADGER-NEPTUNE
SENSUS	SENSUS

Domain name	RWS_METERTYPE
BYPASS	BYPASS
COMBO	COMBO
CMPND	CMPND
DISC	DISC
MAG	MAG
FDTEC	FDTEC
MLTJET	MLTJET
TURBIN	TURBIN

Domain name	RWS_METER_DIAM
0.63	.63
0.75	.75
1	1
1.5	1.5
2	2
2.5	2.5
3	3
4	4
6	6
8	8
10	10

Domain name	RWS_FEATUREOWNER
COC	CHANDLER
COM	MESA
INTEL	INTEL
OCA	OCA
OMG	OMG
PRIVATE	PRIVATE
SRP	SRP
TOG	GILBERT
UNKNOWN	UNKNOWN

DATA DICTIONARY: STORM

STORM_BUBBLER_BOX				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
GRATE_OPENINGS_NUM	GRATE_OPENINGS_NUM	Short		SWS_GRATE_OPENINGS
GRATE_LENGTH	GRATE_LENGTH	Double	8	SWS_GRATE_LENGTH
GRATE_WIDTH	GRATE_WIDTH	Double	8	SWS_GRATE_WIDTH
DRYWELL_ASSOC	DRYWELL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

STORM_CATCHBASIN				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
STRUCTURE_TYPE	STRUCTURE_TYPE	Short		SWS_STRUCTURE_TYPE
CATCHBASIN_TYPE	CATCHBASIN_TYPE	Text	25	SWS_CB_TYPE
CITY_EMBLEM	CITY_EMBLEM	Text	5	GIS_BOOLEAN_YES_NO
ACCESS_OPENING_TYPE	ACCESS_OPENING_TYPE	Text	25	SWS_CB_ACCESS_OPENING_TYPE
GRATE_LENGTH	GRATE_LENGTH	Double		SWS_GRATE_LENGTH
GRATE_WIDTH	GRATE_WIDTH	Double		SWS_GRATE_WIDTH
LID	LID	Text	5	GIS_BOOLEAN_YES_NO
LID_TYPE	LID_TYPE	Text	25	SWS_CB_LID_TYPE
DRYWELL_CONN	DRYWELL_CONN	Text	5	GIS_BOOLEAN_YES_NO
OUTLET_CONN	OUTLET_CONN	Text	5	GIS_BOOLEAN_YES_NO
BUBBLERBOX_CONN	BUBBLERBOX_CONN	Text	5	GIS_BOOLEAN_YES_NO
BUBBLERBOX_DRYWELL_ASSOC	BUBBLERBOX_DRYWELL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
LAKE_DRAIN	LAKE_DRAIN	Text	5	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

STORM_COLLECTION_VAULT				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	SWS_SPATIALSOURCE
INLET_NUM	INLET_NUM	Short		SWS_CV_NUMB_INLETS
INLET_DIAM	INLET_DIAM	Short		SWS_CV_PIPE_SIZE
INLET_PIPE_TYPE	INLET_PIPE_TYPE	Text	30	SWS_CV_PIPE_TYPE
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
DRYWELL_ASSOC	DRYWELL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
LID_GRATE	LID_GRATE	Text	5	SWS_LID_GRATE
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

STORM_DRAIN_MANHOLE				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
STRUCTURE_TYPE	STRUCTURE_TYPE	Short	2	SWS_STRUCTURE_TYPE
CHANDLER_NAME	CHANDLER_NAME_ON_LID	Text	5	GIS_BOOLEAN_YES_NO
DIAMETER	DIAMETER	Short	2	SWS_SDMH_SIZE
VENT_HOLE	VENT_HOLE	Text	30	GIS_BOOLEAN_YES_NO
ACCESS_OPENING_TYPE	ACCESS_OPENING_TYPE	Text	25	SWS_SDMH_ACCESS_OPENING_TYPE
LID_TYPE	LID_TYPE	Text	30	SWS_SDMH_TYPE
LID_TEXT	LID_TEXT	Text	30	SWS_SDMH_LID_TEXT
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

STORM_DRYWELL				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
FIELD_LOC	FIELD_LOC	Text	100	SWS_DW_LOCATION
INSTALLER	INSTALLER	Text	30	SWS_DW_INSTALLER
CHAMBER_TYPE	CHAMBER_TYPE	Text	30	SWS_DW_CHAMBER_TYPE
LID_SIZE	LID_SIZE	Short		SWS_DW_LID_SIZE
LID_TYPE	LID_TYPE	Text	25	SWS_DW_LID_TYPE
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
CONCRETE_PAD	CONCRETE_PAD	Text	5	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

STORM_INLET				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
CATCHBASIN_TYPE	CATCHBASIN_TYPE	Text	25	SWS_CB_TYPE
FIELD_LOC	FIELD_LOC	Text	100	SWS_FIELD_LOC
GRATE_ASSOC	GRATE_ASSOC	Text	25	GIS_BOOLEAN_YES_NO
GRATE_LENGTH	GRATE_LENGTH	Double		SWS_GRATE_LENGTH
GRATE_WIDTH	GRATE_WIDTH	Double		SWS_GRATE_WIDTH
INLET_PIPE_DIAM	INLET_PIPE_DIAM	Short		SWS_INLET_PIPE_DIAM
INLET_NUMBER	NUMBER_OF_INLETS	Short		SWS_INLET_NUMBER
TRASHRACK_ASSOC	TRASHRACK_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
TRASH_LENGTH	TRASH_LENGTH	Double		
TRASH_WIDTH	TRASH_WIDTH	Double		
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
BUBBLER_BOX_DRYWELL_ASSOC	BUBBLER_BOX_DRYWELL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
HEADWALLASSOC	HEADWALLASSOC	Text	5	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

STORM_OUTLET				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
GRATE_ASSOC	GRATE_ASSOC	Text	25	GIS_BOOLEAN_YES_NO
GRATE_LENGTH	GRATE_LENGTH	Double		SWS_GRATE_LENGTH
GRATE_WIDTH	GRATE_WIDTH	Double		SWS_GRATE_WIDTH
INLET_PIPE_DIAM	INLET_PIPE_DIAM	Short		SWS_INLET_PIPE_DIAM
INLET_NUMBER	NUMBER_OF_INLETS	Short		SWS_INLET_NUMBER
TRASHRACK_ASSOC	TRASHRACK_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
TRASH_LENGTH	TRASH_LENGTH	Double		
TRASH_WIDTH	TRASH_WIDTH	Double		
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
BUBBLER_BOX_DRYWELL_ASSOC	BUBBLER_BOX_DRYWELL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
HEADWALLASSOC	HEADWALLASSOC	Text	5	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

STORM_SCUPPER				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
CITY_EMBLEM	CITY_EMBLEM	Text	5	GIS_BOOLEAN_YES_NO
NUMBER_OPENINGS	NUMBER_OPENINGS	Short		
WIDTH	WIDTH	Double		
SPILLWAY_ASSOC	SPILLWAY_ASSOC	Text	25	GIS_BOOLEAN_YES_NO
HEADWALL_ASSOC	HEADWALL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
BUBBLERBOX_ASSOC	BUBBLERBOX_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
BUBBLER_BOX_DRYWELL_ASSOC	BUBBLER_BOX_DRYWELL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
LAKE_DRAIN	LAKE_DRAIN	Text	5	GIS_BOOLEAN_YES_NO
RIPRAP	RIPRAP	Text	25	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

Storm Domains:

Domain name	SWS_DW_LOCATION
AIRPORT	AIRPORT
CITYRETENTION	CITY RETENTION
PARK	PARK
PARKING_LOT	PARKING LOT
PRIVATERETENTION	PRIVATE RETENTION
STREET	STREET
WELL_SITE	WELL SITE

Domain name	SWS_GRATE_LENGTH
12	12
24	24
28	28
30	30
36	36
38	38
40	40
50	50
60	60
76	76

Domain name	SWS_CB_LID_TYPE
STEEL	STEEL
CONCRETE	CONCRETE

Domain name	SWS_DW_CHAMBER_TYPE
DOUBLE	DOUBLE
SINGLE	SINGLE
TRIPLE	TRIPLE

Domain name	SWS_LIFECYCLESTATUS
ACTIVE	ACTIVE
REMOVED	REMOVED
ABANDONED	ABANDONED
INACTIVE	INACTIVE
FUTURE	FUTURE

Domain name	SWS_GRATE_OPENINGS
1	1
2	2
3	3
4	4
5	5
6	6

Domain name	SWS_SPATIALSOURCE
APPROVED_PLANS	APPROVED_PLANS
ASBUILT	ASBUILT
DESIGN	DESIGN
FIELD	FIELD
GPS	GPS
ORTHOPHOTO	ORTHOPHOTO
UNKNOWN	UNKNOWN

Domain name	SWS_SDMH_SIZE
22	22
24	24
26	26
28	28
30	30
32	32
38	38

Domain name	SWS_DW_LID_SIZE
22	22
24	24
25	25
26	26
32	32
38	38

Domain name	SWS_STRUCTURE_TYPE
1	CATCH BASIN
2	SCUPPER
3	DRYWELL
4	MANHOLE
5	OUTLET
6	INLET
7	BUBBLERBOX
8	SPILLWAY
9	SEPARATOR

Domain name	SWS_SDMH_LID_TEXT
CHANDLER_SANITATION_SEWER	CHANDLER SANITATION SEWER
CHANDLER_STORM/SEWER	CHANDLER STORM/SEWER
NONE	NONE
OTHER	OTHER
STORM SEWER	STORM SEWER

Domain name	SWS_DW_INSTALLER
McGUCKINDRILLING	McGUCKIN DRILLING
TORRENTRESOURCES	TORRENT RESOURCES
WACODRILLING	WACO DRILLING
OTHER	OTHER

Domain name	SWS_CB_ACCESS_OPENING_TYPE
NONE	NONE
RECTANGULAR	RECTANGULAR
ROUND	ROUND
SQUARE	SQUARE

Domain name	SWS_FEATUREOWNER
ADOT	ADOT
CITY_OF_CHANDLER	CITY_OF_CHANDLER
HOA	HOA
OTHER	OTHER

Domain name	SWS_GRATE_WIDTH
6	6
12	12
16	16
18	18
24	24
28	28
30	30
36	36
38	38
44	44
72	72

Domain name	SWS_SDMH_ACCESS_OPENING_TYPE
NONE	NONE
RECTANGULAR	RECTANGULAR
ROUND	ROUND
SQUARE	SQUARE

Domain name	SWS_FIELD_LOC
PARK	PARK
WELLSI	WELL_SITE
PRKLOT	PARKING_LOT
STREET	STREET
AIRPOR	AIRPORT
CTYRTN	CITYRETENTION
PVRET	PRIVATERETENTION

Domain name	SWS_SDMH_TYPE
PRESSURIZED	PRESSURIZED
NON-PRESSURIZED	NON-PRESSURIZED

Domain name	SWS_DW_LID_TYPE
STEEL	STEEL
GRANITE	GRANITE
CONCRETE_SEALED	CONCRETE_SEALED
GRATE	GRATE

Domain name	SWS_INLET_PIPE_DIAM
12	12
13	13
14	14
15	15
16	16
18	18
24	24
26	26
30	30
36	36
42	42
46	46
60	60
72	72

Domain name	SWS_INLET_NUMBER
1	1
2	2
3	3
4	4

Domain name	SWS_CB_TYPE
TYPE_A	TYPE_A
TYPE_B	TYPE_B
TYPE_C	TYPE_C
TYPE_D	TYPE_D
TYPE_E	TYPE_E
TYPE_F	TYPE_F
TYPE_G	TYPE_G
TYPE_H	TYPE_H
TYPE_Q	TYPE_Q
NONE	NONE

Domain name	SWS_LID_GRATE
LID	LID
GRATE	GRATE

Domain name	SWS_CV_PIPE_TYPE
CONCRETE	CONCRETE
OTHER	OTHER
METAL	METAL

Domain name	SWS_CV_PIPE_SIZE
12	12
14	14
16	16
18	18
20	20
24	24
30	30
36	36

DATA DICTIONARY: MISCELLANEOUS POINTS

MISCELLANEOUS POINT				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
SIZE	SIZE	Double		
MATERIAL	MATERIAL	Text	30	
UTILITY_TYPE	UTILITY_TYPE	Text	30	PW_UTILITY_TYPE
NOTES	NOTES	Text	150	
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

Domains:

Domain name	PW_UTILITY_TYPE
WATER	WATER
WASTEWATER	WASTEWATER
RECLAIM	RECLAIM
STORM	STORM
OTHER	OTHER

DATA DICTIONARY: STREETLIGHTS

STREETLIGHTS				
Field Name	Alias Name	Type	Length	Domain
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	POLE_OWNER	Text	10	ST_STLITINV_FEATUREOWNER
SPATIALSOURCE	SPATIALSOURCE	Text	25	GBA_STATIC_SPATIALSOURCE
POLENUMBER	POLENUMBER	Text	10	
POLE_HEIGHT	POLE_HEIGHT	Short		
POLE_TYPE	POLE_TYPE	Text	30	TE_STLITINV_POLE_TYPE
POLE_COAT	POLE_COAT	Text	30	TE_STLITINV_POLE_COAT
FOUNDATION	FOUNDATION	Text	30	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	255	

Streetlights Domains:

Domain name	ST_STLITINV_FEATUREOWNER
COC	CITY OF CHANDLER
PRIVATE	PRIVATE
SRP	SRP
AP	APS

Domain name	GBA_STATIC_SPATIALSOURCE
GPS	GPS
ORTHOPHOTO	ORTHOPHOTO
APPROVED_PLANS	APPROVED_PLANS
GEOCODED	GEOCODED
UNKNOWN	UNKNOWN

Domain name	TE_STLITINV_POLE_TYPE
SL 1	SL 1
SL 6	SL 6
SL 8	SL 8
SL 10	SL 10
SL 16	SL 16
SL 17	SL 17
CURVED	CURVED
CUSTOM	CUSTOM
STERNBERG	STERNBERG
SIGNAL POLE	SIGNAL POLE
POWER POLE	POWER POLE

Domain name	TE_STLITINV_POLE_COAT
GALVANIZED	GALVANIZED
PAINTED	PAINTED
POWDER COATED	POWDER COATED