Staff Report

Agenda Item: **PARSONS CONTRACTING PURCHASE ORDER FOR THE OLD TOWN WATERLINE REPLACEMENT PROJECT** - Consideration and possible approval of purchase order with Parsons Contracting for the Old Town Waterline Replacement Project, in the amount of $1,383,396.00, using the Mohave Educational Services Cooperative, as authorized by ARS 41-2632.

Meeting Date: 8/31/2010

Prepared By: Wayne Debrosky, Utilities Director

Background: On August 11, 2009 the Town Council approved a proposal from Wildan Engineering to design the above referenced water system infrastructure upgrades for Lower Town in the Town of Clarkdale.

These water system upgrades include replacing approximately 12,300 feet of aging waterlines located in Lower Town Clarkdale with new 8-inch C-900 PVC water mains, upgrading fire hydrants, and providing new customer service connections from the new mains to the water meters. The new Lower Town water mains would be tied into the recently completed Main Street water main and pressure reducing station. These improvements would reduce service outages, reduce water loss through system leaks, and improve fire protection for Lower Town.

The Mohave process is different than what everyone is used to for public procurement. Mohave is a non-profit corporation authorized by a fairly new statute (ARS 41-2632) to operate a co-op for the benefit of governmental entities. Mohave does all the competitive bidding, public notice, invitation to bid, etc in compliance with statute, so that its members, such as the Town of Clarkdale, do not have to. The advantage is that as a large co-op Mohave gets low prices that its individual members probably could not, due to the volume of business Mohave can send to approved vendors, through its membership.

On August 9, 2010 Parsons, under the Mojave JOC, submitted a scope of work, bid tab, and a cost estimate of $1,383,396.00 for the Lower Town water Main Replacement Project (LTWMRP) to upgrade the above referenced water mains and appurtenances. A contingency line of $138,340.00 or 10% of the project cost would bring the project total to $1,521,736.00.

Recommendation: Approval of purchase order with Parsons Contracting for the Old Town Waterline Replacement Project, in the amount of $1,383,396.00, using the Mohave Educational Services Cooperative, as authorized by ARS 41-2632.

Town of Clarkdale

PURCHASE ORDER

P.O. Box 308
Clarkdale AZ 86324
Phone 928-639-2520 Fax 928-639-2529

The following number must appear on all related correspondence, shipping papers, and invoices:
P.O. NUMBER 081810PAR

TO:
Parsons
419 West Aspen
Flagstaff, AZ 86001

Tel: 928-774-2337
Fax: 928-774-2347

SHIP TO:

Town of Clarkdale
375B S. Broadway
Clarkdale AZ 86324
Tel: 928-639-2520 Fax: 928-639-2529

P.O. DATE	REQUISITIONER	SHIPPED VIA	F.O.B. POINT	TERMS
8/31/10	Wayne Debrosky			MESC #09D-PARS2-0902

		DESCRIPTION		TOTAL
		Town of Clarkdale –Old Town Waterline Replacement Project MESC #09D-PARS2-0902		$1,383,396.00
				$1,383,396.00

1. Please send two copies of your invoice.
2. Enter this order in accordance with the prices, terms, delivery
   Method, and specifications listed above.
3. Please notify us immediately if you are unable to ship as specified
4. Send all correspondence to:
   Town of Clarkdale
   P.O. Box 308
   Clarkdale, AZ 86324
   Tel: 928-639-2520 Fax: 928-639-2529

Wayne Debrosky,
Utilities Director

	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL AMOUNT
	General				
A	Mobilization	1	LS	$12,213.45	$12,213.45
B	Allowance for Extra Work	1	ALLOW	TBD $0.00	$0.00
C	Allowance for Stormwater Pollution Best Management Practices	1	ALLOW	TBD $0.00	$0.00
D	Traffic Control	1	LS	$12,345.46	$12,345.46
E	Construction Survey and As-Builts	1	LS	$14,663.78	$14,663.78
F	Materials Testing by Licensed Geotech Firm	1	LS	$13,267.18	$13,267.18
G	Removal of Existing Improvements	1	LS	$17,876.13	$17,876.13
	Removals				
1	Sawcut, Remove & Dispose Exist. AC	1722	SY	$5.55	$9,557.10
2	Sawcut, Remove & Dispose Exist. Curb & Gutter	16	LF	$15.85	$253.60
3	Sawcut, Remove & Dispose Exist. PCC Sidewalk	1259	SF	$1.96	$2,467.64
3A	Sawcut, Remove & Dispose Exist. Valley Gutter	90	SF	$14.85	$1,336.50
4	Cut & Plug Existing Waterline	6	EA	$396.28	$2,377.68
5	Remove & Re-Install Fire Hydrant Assembly Complete on New Line from Tee	5	EA	$992.67	$4,963.35
5A	Remove Existing Fire Hydrant Assembly and Deliver to Town	11	EA	$378.78	$4,166.58
6	Remove & Salvage 6" Tapping Sleeve & Valve, Deliver to Town	1	EA	$525.34	$525.34
7	Remove Flange / Blow-Off & Connect to Exist. Water Line	10	EA	$165.18	$1,651.80
8	Remove Existing Tree	11	EA	$298.16	$3,279.76
9	Remove Existing Concrete Steps and Replace in Kind	1	LS	$1,238.89	$1,238.89
	Installations				
1	Install 8" C-900 PVC, CL-200 Waterline per MAG Sec. 610 & Dtl. On Sht 3	9480	LF	$42.98	$407,450.40
1A	Install 8" CL-350 MJDIP Waterline per MAG				

	Sec. 610 & Dtl. On Sht 3	777	LF	$89.11	$69,238.47
1B	Install 12" C-900 PVC, CL-200 Waterline per MAG Sec. 610 & Dtl. On Sht 3	305	LF	$77.53	$23,646.65
1C	Install 12" CL-350 MJDIP Waterline per MAG Sec. 610 & Dtl. On Sht 3	40	LF	$86.44	$3,457.60
2	Install 6" DIP, CL-51 Fire Line with Polywrap per MAG Sec. 610 & Dtl Sht 3	141	LF	$47.75	$6,732.75
3	Install New Fire Hydrant per MAG Std Dtl 360	13	EA	$2,998.74	$38,983.62
4	Install 8x6 Tee & Thrust Block per MAG Std Dtl 380	18	EA	$665.43	$11,977.74
5	Install 8x8 Tee & Thrust Block per MAG Std Dtl 380	17	EA	$660.78	$11,233.26
5A	Install 12x8 Tee & Thrust Block per MAG Std Dtl 380	1	EA	$1,450.16	$1,450.16
7	Install 8x8 Cross & Thrust Block per MAG Std Dtl 380	1	EA	$1,480.97	$1,480.97
7A	Install 12x8 Cross & Thrust Block per MAG Std Dtl 380	2	EA	$1,861.25	$3,722.50
8	Install 6" Valve, Box & Cover per MAG Std Dtl 301 & 391, Type A	17	EA	$996.27	$16,936.59
9	Install 8" Valve, Box & Cover per MAG Std Dtl 301 & 391, Type A	42	EA	$1,665.54	$69,952.68
9A	Install 12" Valve, Box & Cover per MAG Std Dtl 301 & 391, Type A	2	EA	$2,451.67	$4,903.34
10	Install 4x4 Tapping Sleeve & Valve per MAG Std Dtl 340	4	EA	$3,885.39	$15,541.56
11	Install 6x4 Tapping Sleeve & Valve per MAG Std Dtl 340	0	EA		$0.00
12	Install 8" 90-Degree Bend per MAG Std Dtl 380	2	EA	$398.70	$797.40
12A	Install 6" 90-Degree Bend per MAG Std Dtl 380	2	EA	$315.68	$631.36
13	Install 8" 45-Degree Bend per MAG Std Dtl 380	17	EA	$418.45	$7,113.65
14	Install 8" 22.5-Degree Bend per MAG Std Dtl 380	6	EA	$418.47	$2,510.82
15	Install 8" 11.25-Degree Bend per MAG Std Dtl 380	5	EA	$267.93	$1,339.65
16	Install 8x6 Reducer	1	EA	$268.56	$268.56
16A	Install 8x4 Reducer	4	EA	$276.34	$1,105.36
16B	Install 12x4 Reducer	1	EA	$387.65	$387.65
18	Install Blow-Off / Curb Stop w/ Flushing Pipe per MAG Std Dtl 390, Type B	2	EA	$442.34	$884.68
19	Install Blind Flange & Thrust Block per MAG Std Dtl 380	11	EA	$196.56	$2,162.16

20	Install 1" Water Service per Dtl B, Sht 3	135	EA	$1,295.45	$174,885.75
21	Install 1" Pex Water Service Line per Dtl B, Sht 3	2338	LF	$39.82	$93,099.16
20A	Install 2" Water Service per Dtl B, Sht 3	5	EA	$1,963.78	$9,818.90
21A	Install 2" Pex Water Service Line per Dtl B, Sht 3	279	LF	$29.32	$8,180.28
22	Pavement Repalcement per MAG Std Dtl 200, Type A (Mod ABC 6" Deep)	822	SY	$40.84	$33,570.48
23	Surface Repalcement per MAG Std Dtl 200, Type F	2589	SY	$17.37	$44,970.93
24	Install 4" Thick PCC Sidewalk on 3" ABC per MAG Std Dtl 230	1259	SF	$8.85	$11,142.15
24A	Install Valley Gutter per MAG Std Dtl 240	90	SF	$19.38	$1,744.20
25	Install Curb & Gutter per MAG Std Dtl 220, Type A (Match Existing)	11	LF	$48.67	$535.37
26	Install Curb & Gutter per ADOT Std Dtl C-5.10 (Match Existing)	5	LF	$37.16	$185.80
27	Install Sanitary Sewer Encasement/Separation per MAG Std Dtl 404	320	LF	$88.68	$28,377.60
28	Install Water Jumper Connection per Detail on Sht 3	2	EA	$1,786.50	$3,573.00
29	APS to Support and Brace Utility Pole During Construction	25	EA	TBD $0.00	$0.00
29A	Support and Brace Utility Pole During Construction	3	EA	$0.00	$0.00
30	Install Vertical Re-Alignment of Water Main per MAG Std Dtl 381	7	EA	$3,987.46	$27,912.22
31	Install 2" Thick, 1" Nominal, Crushed Rock	496	SY	$14.82	$7,350.72
32	Install Air Release Valve per Detail Exact Location Determined in Field	3	EA	$3,585.69	$10,757.07
33	Restore Bark Trailway in Kind	1	LS	$737.16	$737.16
	P&P Bond	1	LS	$12,755.63	$12,755.63
	MESC Fees	1	LS	$12,628.07	$12,628.07
	Taxes	1	LS	$95,077.89	$95,077.89
	TOTAL CONTRACT PRICE				**$1,383,396.20**

TOWN OF CLARKDALE
OLD TOWN WATERLINE REPLACEMENT PROJECT
MESC # 09D-PARS2-0902

Project name	Waterline Replacement
Estimator	aha
Labor rate table	FACL2009
Equipment rate table	FACL2009
Bid date	6/21/2010
Report format	*Sorted by 'Group phase'Phase'* *'Detail' summary* *Print sort level notes*
Cost index	AZ-Prescott CCI - 2010 2nd Qrt

Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	CCI	Notes
01-45-00.00			***Quality Control***									
	01-45-23.50		Testing									
		0200	Field Testing, asphalt testing, compressive strength Marshall stability, set of three samples	15.00 ea	-	-	-	165.00	165.00	2,475	1.000	
		0220	Asphalt testing, density, set of three samples	15.00 ea	-	-	-	95.00	95.00	1,425	1.000	
		0350	Asphalt testing, mix design, 5 specimens	15.00 ea	-	-	-	200.00	200.00	3,000	1.000	
		0400	Asphalt testing, specific gravity	15.00 ea	-	-	-	45.00	45.00	675	1.000	
		2000	Concrete testing, compressive strength test, incl. picked up by lab, maximum	16.00 ea	-	-	-	30.00	30.00	480	1.000	
		4740	Soil testing, soil density, sand cone method, ASTM D1556	16.00 ea	-	-	-	30.17	30.17	483	1.000	
		4900	Soil testing, Proctor compaction, 4" standard mold, ASTM D 698	16.00 ea	-	-	-	135.00	135.00	2,160	1.000	
		5550	Earthwork inspection technician, per day	15.00 ea	-	-	-	231.00	231.00	3,465	1.000	
		5570	Concrete inspection technician, per day	15.00 ea	-	-	-	270.00	270.00	4,050	1.000	
01-54-26.00			***Temporary Swing Staging***									
	01-54-33.40		General equipment rental without operators									
		6950	Rent water truck, off highway, 6000 gallon capacity	35.00 day	-	-	1,161.00	-	1,161.00	40,635	1.000	
01-54-36.00			***Equipment Mobilization***									
	01-54-36.50		Mobilization									
		0100	Mobilization or demobilization, dozer, loader, backhoe or excavator, above 150 H.P., up to 50 miles	14.00 ea	149.50	-	335.50	-	485.00	6,790	1.000	excavator/roller/water truck/haul truck/paver/backhoe
		1100	Mobilization or demobilization, delivery charge for small equipment, placed in rear of, or towed by pickup	4.00 ea	52.71	-	20.79	-	73.50	294	1.000	
		1150	Mobilization or demobilization, delivery charge for equipment, on flatbed trailer behind pickup truck	2.00 ea	105.60	-	70.40	-	176.00	352	1.000	
01-56-23.00			***Temporary Barricades***									
	01-56-23.10		Barricades									
		0150	Barricades, wood, movable, 3 rail, 5' high, 3 rail @ 2" x 8", movable	300.00 lf	36.61	3.89	-	-	40.50	12,150	1.000	Safety Traffic Barricades & Traffic control plan
		0850	Barricades, traffic cones, PVC, 28" high	100.00 ea	-	18.05	-	-	18.05	1,805	1.000	Safety Traffic Barricades & Traffic control plan
		1300	Barricades, barricade tape, polyethylene, 7 mils thick, 3" wide x 500' long roll	5.00 ea	-	27.50	-	-	27.50	138	1.000	
01-56-29.00			***Temporary Protective Walkways***									
	01-56-29.50		Protection									
		2500	Temporary, sidewalks, exterior plywood, 2 uses, 3/4" thick	1,259.00 sf	0.91	0.32	-	-	1.23	1,549	1.000	temporar sidewalks
01-56-32.00			***Temporary Security***									
	01-56-32.50		Watchman									
		0100	Watchman, security service, uniformed person, monthly basis, max	80.00 hr	-	-	-	50.00	50.00	4,000	1.000	off-duty officer - traffic control
01-58-00.00			***Project Identification***									
	01-58-13.50		Signs									
		0020	Project Signs, sign, high intensity reflectorized, buy, excl. posts	100.00 sf	-	29.50	-	-	29.50	2,950	1.000	traffic direction signes
01-71-23.00			***Field Engineering***									
	01-71-23.13		Construction Layout									
		1400	Boundary & survey markers, crew for roadway layout, 4 person crew	8.00 day	2,248.00	-	77.00	-	2,325.00	18,600	1.000	Construction survey and as-builds
02-32-19.00			***Exploratory Excavations***									
	02-32-19.10		Test Pits									
		0100	Subsurface investigation, test pits, hand digging, heavy soil	15.00 cy	174.00	-	-	-	174.00	2,610	1.000	
		0130	Subsurface investigation, test pits, loader/backhoe, heavy soil	50.00 cy	48.66	-	21.34	-	70.00	3,500	1.000	
02-41-13.00			***Selective Site Demolition***									
	02-41-13.17		Demolish, Remove Pavement And Curb									
		5050	Demolish, remove pavement & curb, remove bituminous pavement, 4" to 6" thick, excludes hauling and disposal fees	1,722.00 sy	5.72	-	3.08	-	8.80	15,154	1.000	demo asphalt
		5200	Demolish, remove pavement & curb, remove concrete, mesh reinforced, to 6" thick, hydraulic hammer, excludes hauling and disposal fees	10.00 sy	9.37	-	5.08	-	14.45	145	1.000	demo valley gutter
		5800	Demolish, remove pavement & curb, remove concrete, mesh reinforced, to 6" thick, hand held equipment, excludes hauling and disposal fees	1,259.00 sf	1.94	-	0.18	-	2.12	2,669	1.000	demo sidewalk
		6000	Demolish, remove pavement & curb, remove concrete curbs, plain, excludes hauling and disposal fees	16.00 lf	3.85	-	1.03	-	4.88	78	1.000	demo curb & gutter
	02-41-13.33		Minor Site Demolition									

Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	CCI	Notes
	02-41-13.33		Minor Site Demolition									
		0900	Minor site demolition, hydrants, fire, remove only, excludes hauling	11.00 ea	525.90	-	144.10	-	670.00	7,370	1.000	remove & salvage Hydrant
		0950	Minor site demolition, hydrants, fire, remove and reset, excludes hauling	5.00 ea	1,287.00	-	363.00	-	1,650.00	8,250	1.000	remove & reset Fire Hydrant
		0990	Minor site demolition, hydrants, fire, remove and reset, excludes hauling, minimum labor/equipment charge	6.00 job	645.00	-	-	-	645.00	3,870	1.000	
	02-41-13.34		Selective Demolition, Utility Materials									
		0400	Selective demolition, utility materials, utility valves, 4"-12"	15.00 ea	360.00	-	-	-	360.00	5,400	1.000	cut & plug water line
	02-41-13.36		Selective Demolition, Utility Valves & Accessories									
		0100	Selective demolition, utility valves & accessories, utility valves, 4"-12", excludes excavation	68.00 ea	360.00	-	-	-	360.00	24,480	1.000	demo existing valves
	02-41-13.38		Selective Demolition, Water & Sewer Piping And Fittings									
		1300	Selective demolition, water & sewer piping & fittings, ductile iron pipe fittings, 4"-12", diameter, excludes excavation	135.00 ea	96.75	-	30.25	-	127.00	17,145	1.000	
		1600	Selective demolition, water & sewer piping & fittings, plastic Pipe, 3/4" - 4", diameter, excludes excavation	2,617.00 lf	2.07	-	-	-	2.07	5,417	1.000	demo temporary PEX piping at completion & reconnection
	02-41-13.84		Selective Demolition, Walks, Steps And Pavers									
		1300	Selective demolition, walks, steps and pavers, precast patio blocks pavers	100.00 sf	1.93	-	-	-	1.93	193	1.000	demo steps at sidewalk
02-41-19.00			***Selective Structure Demolition***									
	02-41-19.23		Selective Demolition, Rubbish Handling									
		0840	Selective demolition, rubbish handling, dumpster, 40 c.y., 13 ton capacity, weekly rental, includes one dump per week, cost added to demolition cost.	20.00 week	-	1,100.00	-	-	1,100.00	22,000	1.000	rubbish handling
		0920	Selectiv demolitn,rubbish handling,dumpster,alternate pricing method,haul,average for all sizes,includes one dump per week,cost added demolition cost.	18.00 ea	-	220.00	-	-	220.00	3,960	1.000	rubbish handling
		5000	Selective demolition, rubbish handling, 8 c.y. truck, loading & trucking, haul, per mile, includes 2 mile haul, cost to be added to demolition cost.	1,194.08 cy	0.37	-	0.63	-	1.00	1,194	1.000	
	02-41-19.25		Selective Demolition, Saw Cutting									
		0015	Selective demolition, saw cutting, asphalt, up to 3" deep	2,692.00 lf	0.89	0.45	0.50	-	1.84	4,953	1.000	
		0020	Selective demolition, saw cutting, each additional inch of depth over 3"	2,692.00 lf	0.53	0.10	0.29	-	0.91	2,450	1.000	
		9000	Selective demolition, saw cutting, minimum labor/equipment charge	4.00 job	217.30	-	40.70	-	258.00	1,032	1.000	
02-58-00.00			***Snow Control***									
	02-58-13.10		Snow Fencing System									
		7001	Snow fence on steel posts, 10' O.C., 4' high, includes 2' in ground, excludes concrete	2,683.75 lf	2.67	2.88	-	-	5.55	14,895	1.000	safety fencing at trenching areas - assembly/installation/remoavl/relocation
03-11-23.00			***Permanent Stair Forming***									
	03-11-23.75		Forms In Place, Stairs									
		2000	C.I.P. concrete forms, stairs, cast on sloping ground (length x width), 1 use, includes erecting, bracing, stripping and cleaning	100.00 sf	14.48	1.57	-	-	16.05	1,605	1.000	replace steps
03-30-00.00			***Cast-In-Place Concrete***									
	03-30-53.40		Concrete In Place									
		3540	Structural concrete, in place, equipment pad (3000 psi), 3' x 3' x 6", includes forms, reinforcing steel, concrete, placing and finishing	2.00 ea	71.52	46.75	0.74	-	119.00	238	1.000	MAG 390 - Type "B"
		3550	Structural concrete, in place, equipment pad (3000 psi), 4' x 4' x 6", includes forms, reinforcing steel, concrete, placing and finishing	20.00 ea	107.14	68.75	1.11	-	177.00	3,540	1.000	conc. footing at valve box - MAG 301
		3550	Structural concrete, in place, equipment pad (3000 psi), 4' x 4' x 6", includes forms, reinforcing steel, concrete, placing and finishing	41.00 ea	107.14	68.75	1.11	-	177.00	7,257	1.000	conc. footing at valve box - MAG 301
		3800	Structural concrete, in place, spread footing (3000 psi), under 1 C.Y., includes forms, reinforcing steel, concrete, placing and finishing	7.00 cy	263.81	165.00	1.19	-	430.00	3,010	1.000	vertical realignmnet thrust block and rebar
		4700	Structural concrete, in place, slab on grade (3500 psi), 6" thick, includes forms(4 uses), reinforcing steel, concrete and placing, excludes finishing	6.00 cy	64.34	124.30	0.36	-	189.00	1,134	1.000	valley gutter - MAG 240
		7050	Structural concrete, in place, stair landing (3500 psi), cast on ground, includes forms(4 uses), reinforcing steel, concrete, placing and finishing	100.00 sf	6.79	3.44	0.07	-	10.30	1,030	1.000	replace steps
		9000	Structural concrete, in place, minimum labor/equipment charge, includes forms(4 uses), reinforcing steel, and finishing	8.00 job	1,100.00	-	-	-	1,100.00	8,800	1.000	thrust blocks
03-35-29.00			***Tooled Concrete Finishing***									

Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	CCI	Notes
	03-35-29.30		Finishing Floors									
		0150	Concrt fnshng,floors,basic fnshng for unspcf fltwrk,bull float,manual float&broom finish,inclds edging and joints,excluds placing,strikng off&cnsldtng	1,360.00 sf	0.77	-	-	-	0.77	1,047	1.000	finishing of sidewalks/curbs/gutters/valley gutter
		4500	Concrete finishing, stairs, steel trowel	100.00 sf	2.48	-	-	-	2.48	248	1.000	steps
03-62-16.00			***Metallic Non-Shrink Grouting***									
	03-62-16.50		Grout, Metallic Non-Shrink									
		0050	Grout, non-shrink, for column and machine bases, metallic, 2" deep	70.00 sf	19.98	19.53	-	-	39.50	2,765	1.000	
04-22-00.00			***Concrete Unit Masonry***									
	04-22-10.14		Concrete Block, Back-Up									
		9000	Concrete block, back-up, minimum labor/equipment charge	5.00 job	485.00	-	-	-	485.00	2,425	1.000	cement blocks at tapping sleeves/valves - MAG 340
05-54-13.00			***Floor Plates***									
	05-54-13.70		Trench Covers									
		0020	Trench cover, cast iron grating with bar stops and angle frame, to 18" W, field fabricated	100.00 lf	34.70	63.80	-	-	98.50	9,850	1.000	removable/relocatable trench cover - multiple uses
		0150	Trench cover, frame only for grating, 2 sides, for 2" T grating, field fabricated	100.00 lf	19.37	3.63	-	-	23.00	2,300	1.000	removable/relocatable trench cover - multiple uses
10-14-00.00			***Signage***									
	10-14-19.10		Exterior Signs									
		9000	Signs, minimum labor/equipment charge	8.00 job	137.00	-	-	-	137.00	1,096	1.000	protection of street signs
10-14-53.00			***Traffic Signage***									
	10-14-53.20		Traffic Signs									
		1300	Signs, stock signs, high intensity, 24" x 24", excludes posts	25.00 ea	25.84	65.45	11.72	-	103.00	2,575	1.000	
		1600	Signs, 12'-0", excludes posts, add to above for steel posts, galvanized, upright, bolted	25.00 ea	13.07	56.10	5.83	-	75.00	1,875	1.000	
22-11-13.00			***Facility Water Distribution Piping***									
	22-11-13.25		Pipe/Tube Fittings, Copper									
		0160	Elbow, 90 Deg., copper, wrought, copper x copper, 2"	6.00 ea	58.55	37.95	-	-	96.50	579	1.000	MAG 390 Type "B"
		0718	Coupling, copper, wrought, copper x copper, 2"	10.00 ea	49.47	19.03	-	-	68.50	685	1.000	MAG 390 Type "B"
		0781	Cap, copper, wrought, copper x copper, 2"	6.00 ea	29.41	18.59	-	-	48.00	288	1.000	MAG 390 Type "B"
		1050	Adapter, copper, wrought, copper x male I.P.S., 2"	6.00 ea	59.20	41.80	-	-	101.00	606	1.000	MAG 390 Type "B"
		9000	Pipe fittings, copper, minimum labor/equipment charge	6.00 job	161.00	-	-	-	161.00	966	1.000	MAG 390 Type "B"
	22-11-13.74		Pipe, Plastic									
		7760	Pipe, plastic, PEX, non-barrier type, white, hot/cold tubing, straight lengths, 1" diameter x 20', excludes couplings and hangers	2,338.00 lf	-	1.88	-	-	1.88	4,395	1.000	1" PEX water service line
		7790	Pipe, plastic, polyethylene, flexible, 160 PSI, 2" diameter, SDR 9, excludes couplings and hangers	279.00 lf	-	2.95	-	-	2.95	823	1.000	2" PEX water service line
		7790	Pipe, plastic, polyethylene, flexible, 160 PSI, 2" diameter, SDR 9, excludes couplings and hangers	50.00 lf	-	2.95	-	-	2.95	148	1.000	2" PEX at air release valve assembly
		9900	Pipe, plastic, minimum labor/equipment charge	8.00 job	161.00	-	-	-	161.00	1,288	1.000	air release valve assembly
		9900	Pipe, plastic, minimum labor/equipment charge	4.00 job	161.00	-	-	-	161.00	644	1.000	jumper connection
	22-11-13.76		Pipe Fittings, Plastic									
		8180	Adapter, plastic, PVC for polybutylene/polyethylene, male, compression type, 160 psi cold water, 2" MPT x 2" CTS, includes insert stiffeners	135.00 ea	49.34	11.17	-	-	60.50	8,168	1.000	1" water service
		8220	Adapter, plastic, PVC for polybutylene/polyethylene, spigot, compression type, 160 psi cold water, 1" IPS x 1" CTS, includes insert stiffeners	5.00 ea	32.65	3.36	-	-	36.00	180	1.000	2" water service
		8250	Adapter, plastic, PVC for polybutylene/polyethylene, spigot, compression type, 160 psi cold water, 2" IPS x 2" CTS, includes insert stiffeners	5.00 ea	49.46	6.55	-	-	56.00	280	1.000	
22-11-19.00			***Domestic Water Piping Specialties***									
	22-11-19.38		Water Supply Meters									
		9000	Water supply meter, minimum labor/equipment charge	16.00 job	199.00	-	-	-	199.00	3,184	1.000	reclaimed water fees for dust control & excavation operations
22-14-26.00			***Facility Storm Drains***									
	22-14-26.19		Facility Trench Drains									
		6820	Drain, trench, fiberglass for cement concrete encasement, 8" internal width, with medium duty galvanized grate	320.00 lf	10.10	97.90	-	-	108.00	34,560	1.000	sanitery/sewer encasement

Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	CCI	Notes
22-14-29.00			***Sump Pumps***									
	22-14-29.16		Submersible Sump Pumps									
		9000	Pump, submersible sump, minimum labor/equipment charge	20.00 job	161.00	-	-	-	161.00	3,220	1.000	storm water control
23-05-23.00			***General-Duty Valves For HVAC Piping***									
	23-05-23.80		Valves, Steel									
		2000	Valves, steel, cast, gate, flanged, 150 lb., 2"	1.00 ea	79.00	781.00	-	-	860.00	860	1.000	air release valve
26-56-00.00			***Exterior Lighting***									
	26-56-13.10		Lighting Poles									
		6460	Light poles, wood, 4-1/2" x 5-1/8", 20' high, excl concrete bases	25.00 ea	148.50	0.00	-	-	148.50	3,713	1.000	brace/support light poles
		6460	Light poles, wood, 4-1/2" x 5-1/8", 20' high, excl concrete bases	3.00 ea	148.50		-	-	148.50	446	1.000	brace/support light poles
31-11-00.00			***Clearing And Grubbing Land***									
	31-11-10.10		Clear And Grub Site									
		0200	Clearing & grubbing, medium trees, to 12" diameter, cut and chip	1.00 acre	3,922.50	-	2,227.50	-	6,150.00	6,150	1.000	
31-22-00.00			***Grading***									
	31-22-16.10		Finish Grading									
		1050	Fine grading, fine grade for small irregular areas, to 15,000 S.Y.	3,551.00 sy	1.48	-	1.12	-	2.60	9,233	1.000	
31-23-16.00			***Excavation***									
	31-23-16.13		Excavating, Trench									
		0300	Excavating, trench or continuous footing, common earth, 1/2 C.Y. excavator, truck mounted, 4' to 6' deep, excludes sheeting or dewatering	6,370.37 bcy	4.98	-	4.47	-	9.45	60,200	1.000	utility trenching
		1398	Excavating, trench, hydraulic shoring, SF, 4' width, stable material SF protected wall, excludes installation & dewatering, rent only after first day	34,400.00 wall	-	0.26	-	-	0.26	8,944	1.000	shoring
		9000	Excavating, excludes sheeting or dewatering, minimum labor/equipment charge, hand trenching	40.00 job	109.00	-	-	-	109.00	4,360	1.000	
	31-23-16.16		Structural Excavation For Minor Structures									
		0015	Structural excavation for minor structures, bank measure, sandy soil, pits to 6' deep, hand	100.50 bcy	54.50	-	-	-	54.50	5,477	1.000	at valve boxes
		1300	Structural excavation for minor structures, bank measure, heavy soil or clay, hand loading trucks from stock pile	250.00 bcy	54.50	-	-	-	54.50	13,625	1.000	hand digging near existing lines
		9000	Strt excavation for minor strtures,bank measure,for spread and mat footings,elevator pits,and small building foundations,min labor/equipment charge	24.00 job	109.00	-	-	-	109.00	2,616	1.000	
31-23-23.00			***Fill***									
	31-23-23.13		Backfill									
		0100	Backfill, heavy soil, by hand, no compaction	500.00 lcy	39.50	-	-	-	39.50	19,750	1.000	
		1100	Backfill, 12" layers, compaction in layers, vibrating plate, add to above	500.00 ecy	4.82	-	0.53	-	5.35	2,675	1.000	
	31-23-23.14		Backfill, Structural									
		3220	Backfill, structural, common earth, 105 H.P. dozer, 150' haul	7,007.41 lcy	1.24	-	1.19	-	2.43	17,028	1.000	
	31-23-23.15		Borrow, Loading And/Or Spreading									
		0500	Borrow, bank run gravel, haul 2 miles, haul, spread with 200 H.P. dozer	550.00 ton	1.47	-	2.53	-	4.00	2,200	1.000	
		1040	Borrow, crushed stone, 1-1/2" to 3/4" size, hand spread	220.00 ton	25.26	-	1.74	-	27.00	5,940	1.000	
		1840	Borrow, delivery charge, minimum 20 tons, 2 hour round trip, add	550.00 ton	6.68	-	11.28	-	17.95	9,873	1.000	
	31-23-23.16		Fill By Borrow And Utility Bedding									
		0500	Fill by borrow and utility bedding, for pipe and conduit, compacting bedding in trench	2,388.00 ecy	4.83	-	0.42	-	5.25	12,537	1.000	shadding/bedding - includes compaction
	31-23-23.17		General Fill									
		0170	Fill, from stockpile, 130 H.P., 2-1/2 C.Y., 300' haul, spread fill, with front-end loader, excludes compaction	1,875.00 lcy	1.25	-	1.98	-	3.23	6,056	1.000	
	31-23-23.20		Hauling									
		1069	Cycle hlng(,load,travl,unld dump&rtrn) time per cycle,excvt borrow,loose cubic yards,15 min ld/wt/,12 truck,cycle 30 miles,35 mph,exclds loadng eqpmnt	2,388.00 lcy	5.16	-	8.75	-	13.90	33,193	1.000	
		2000	Excavated or borrow, loose cubic yards, small excavation job, 8 CY truck per hour, excludes loading equipment	40.00 hr	55.00	-	55.00	-	110.00	4,400	1.000	
		2310	Hauling, spotter at fill or cut, if required	80.00 hr	54.50	-	-	-	54.50	4,360	1.000	
	31-23-23.24		Compaction, Structural									
		0020	Compaction, structural, 5 tons, steel wheel tandem roller	240.00 hr	95.10	-	20.90	-	116.00	27,840	1.000	

Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	CCI	Notes
32-06-00.00			***Schedules For Exterior Improvements***									
	32-06-10.10		Sidewalks, Driveways And Patios									
		0310	Sidewalks, driveways, and patios, sidewalk, concrete, cast-in-place with 6 x 6 - W1.4 x W1.4 mesh, broomed finish, 3000 psi, 4" thick, excludes base	1,259.00 sf	2.46	1.78	-	-	4.24	5,338	1.000	
		0450	Sidewalks, driveways, and patios, sidewalks, concrete, excludes base, for 4" thick bank run gravel base, add	1,259.00 sf	0.53	0.56	0.02	-	1.11	1,397	1.000	
32-11-00.00			***Base Courses***									
	32-11-23.23		Base Course Drainage Layers									
		1510	Base course drainage layers, aggregate base course for roadways and large paved areas, sand, washed and graded, compacted, 3/4", 3" deep	93.00 ecy	5.65	38.50	9.35	-	53.50	4,976	1.000	
		7000	Base course drainage layers, prepare and roll sub-base, small areas to 2500 S.Y.	570.40 sy	1.01	-	0.92	-	1.93	1,101	1.000	
		8050	Base course drainage layers, prepare & roll sub-base for roadways	945.00 sy	0.51	-	0.56	-	1.07	1,011	1.000	
32-11-26.00			***Asphaltic Base Courses***									
	32-11-26.13		Plant Mix Asphaltic Base Courses									
		0500	Asphalt Paving, plant mixed asphaltic base courses for roadways and large paved areas, bituminous concrete, 4" thick	1,516.00 sy	1.12	16.12	0.62	-	17.85	27,061	1.000	
		0550	Asphalt Paving, plant mixed asphaltic base courses for roadways and large paved areas, bituminous concrete, 6" thick	945.30 sy	1.09	23.65	0.76	-	25.50	24,105	1.000	MAG 200 - Type "A" modified 6" ABC
32-12-16.00			***Asphalt Paving***									
	32-12-16.13		Plant-Mix Asphalt Paving									
		0160	Plant-mix asphalt paving, for highways and large paved areas, binder course, 3" thick, no hauling included	945.00 sy	1.02	11.66	0.57	-	13.25	12,521	1.000	MAG 200 - Type "A" modified 6" ABC
		1080	Plant-mix asphalt paving, for highways and large paved areas, pavement replacement over trench, 6" thick, no hauling included	782.21 sy	49.65	25.30	3.05	-	78.00	61,012	1.000	MAG 200 - Type "F"
		1080	Plant-mix asphalt paving, for highways and large paved areas, pavement replacement over trench, 6" thick, no hauling included	998.89 sy	49.65	25.30	3.05	-	78.00	77,913	1.000	
		1080	Plant-mix asphalt paving, for highways and large paved areas, pavement replacement over trench, 6" thick, no hauling included	558.21 sy	49.65	25.30	3.05	-	78.00	43,540	1.000	
		1080	Plant-mix asphalt paving, for highways and large paved areas, pavement replacement over trench, 6" thick, no hauling included	235.00 sy	49.65	25.30	3.05	-	78.00	18,330	1.000	
		1080	Plant-mix asphalt paving, for highways and large paved areas, pavement replacement over trench, 6" thick, no hauling included	14.69 sy	49.65	25.30	3.05	-	78.00	1,146	1.000	
		3100	Plant-mix asphalt paving, pre-treatment for paving, tack coat, 0.10 gallons per S.Y., 1000 S.Y.	2,589.00 sy	0.40	1.06	0.40	-	1.85	4,790	1.000	
	32-12-16.14		Asphaltic Concrete Paving									
		1140	Asphaltic concrete, parking lots & driveways, cold patch, 2" thick, fill pot holes, no asphalt hauling included	2,685.25 sf	0.88	0.94	0.09	-	1.90	5,102	1.000	patching of existing holes
32-13-00.00			***Rigid Paving***									
	32-13-13.23		Concrete Paving Surface Treatment									
		0520	Concrete paving surface treatment, welded wire fabric,sheets for rigid paving, 6 x 6 - W1.4 x W1.4 (10 x 10) 2.33 lbs. per SY, A185	-140.00 sy	3.23	1.19	-	-	4.42	(619)	1.000	delete welded wire mesh - line item # 32-06-10.10.0310
32-16-13.00			***Concrete Curbs And Gutters***									
	32-16-13.13		Cast-In-Place Concrete Curbs And Gutters									
		0430	Cast-in place concrete curbs & gutters, straight, wood forms, 0.055 C.Y. per L.F., 6" high curb, 6" thick gutter, 24" wide, includes concrete	22.00 lf	8.21	15.29	-	-	23.50	517	1.000	Curb & Gutter - MAG 220 - Type "A"
		0430	Cast-in place concrete curbs & gutters, straight, wood forms, 0.055 C.Y. per L.F., 6" high curb, 6" thick gutter, 24" wide, includes concrete	10.00 lf	8.21	15.29	-	-	23.50	235	1.000	
32-91-13.00			***Soil Preparation***									
	32-91-13.16		Mulching									
		0150	Soil preparation, mulching, aged barks, 3" deep, skid steer loader	10.00 msf	169.36	357.50	13.15	-	540.00	5,400	1.000	Restore bark trail way
32-96-43.00			***Tree Transplanting***									
	32-96-43.20		Tree Removal									
		5400	Tree transplanting, tree removal, trees, evergreen, 8'-10' high, dig & lace	11.00 ea	126.45	-	33.55	-	160.00	1,760	1.000	remove trees
33-01-00.00			***Operation And Maintenance Of Utilities***									
	33-01-10.20		Pipe Repair									

Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	CCI	Notes
	33-01-10.20		Pipe Repair									
		2210	Pipe repair, clamp, stainless steel, full seal for iron, steel, PVC pipe, two section, 6" diameter pipe, excludes excavation or backfill	135.00 ea	111.90	298.10	-	-	410.00	55,350	1.000	remove blow-off & connect to existing water line
33-05-00.00			***Common Work Results For Utilities***									
	33-05-16.13		Utility Boxes									
		0400	Utility structures, utility vaults precast concrete, hand hole, light duty, 1-1/2" thick, 1'-0" x 2'-0" x 1'-9" I.D., excludes excavation and backfill	135.00 ea	336.00	429.00	-	-	765.00	103,275	1.000	
		0490	Utility structures, utility vaults precast concrete, meter pit, 4' x 4', 10' deep, excludes excavation and backfill	1.00 ea	1,144.80	2,695.00	310.20	-	4,150.00	4,150	1.000	water meter fittings, box & cover
33-05-26.00			***Utility Line Signs, Markers, And Flags***									
	33-05-26.10		Utility Accessories									
		0500	Utility Line Signs, Markers, and Flags, underground tape, detectable, reinforced, aluminum foil core, 6", excludes excavation and backfill	200.00 clf	3.08	7.92	-	-	11.00	2,200	1.000	
		9000	Utility Line Signs, Markers, and Flags, minimum labor/equipment charge, excludes excavation and backfill	4.00 job	109.00	-	-	-	109.00	436	1.000	
33-11-13.00			***Public Water Utility Distribution Piping***									
	33-11-13.15		Water Supply, Ductile Iron Pipe									
		2040	Water supply distribution piping,ductile iron pipe,cement lined,mechanical joint,fittings,18'lengths,6"diameter,class 50,excludes excavation backfill	141.00 lf	16.37	21.12	4.51	-	42.00	5,922	1.000	6" Fire Line
		2060	Water supply distribution piping,ductile iron pipe,cement lined,mechanical joint,fittings,18'lengths,8"diameter,class 50,excludes excavation backfill	777.00 lf	19.99	23.10	5.41	-	48.50	37,685	1.000	8" MJDIP water line
		2100	Water supply distribution piping,ductile iron pipe,cement lined,mechanical joint,fittings,18'lengths,12"diameter,class 50,excludes excavation backfill	40.00 lf	25.08	39.05	6.88	-	71.00	2,840	1.000	12" MJDIP water line
		8020	Water supply distribution piping, fitting, 90 degree bend or elbow, mechanical joint, ductile iron, cement lined, 6" diameter, class 50 water piping	2.00 ea	158.50	346.50	-	-	505.00	1,010	1.000	MAG 380 - 6" 90 degree bend
		8040	Water supply distribution piping, fitting, 90 degree bend or elbow, mechanical joint, ductile iron, cement lined, 8" diameter, class 50 water piping	2.00 ea	194.50	500.50	-	-	695.00	1,390	1.000	MAG 380 - 8" 90 degree bend
		8240	Water supply distribution piping, fitting, wye or tee, ductile iron, cement lined, mechanical joint, 8" diameter, class 50 water piping	6.00 ea	293.50	731.50	-	-	1,025.00	6,150	1.000	
		8240	Water supply distribution piping, fitting, wye or tee, ductile iron, cement lined, mechanical joint, 8" diameter, class 50 water piping	5.00 ea	293.50	731.50	-	-	1,025.00	5,125	1.000	
		8400	Water supply distribution piping, fitting, 45 degree bend, ductile iron, cement lined, mechanical joint, 6" diameter, class 50 water piping	17.00 ea	161.10	273.90	-	-	435.00	7,395	1.000	
		8400	Water supply distribution piping, fitting, 45 degree bend, ductile iron, cement lined, mechanical joint, 6" diameter, class 50 water piping	7.00 ea	161.10	273.90	-	-	435.00	3,045	1.000	vertical realighnment
		8450	Water supply distribution piping, fitting, reducer, ductile iron, cement lined, mechanical joint, 6" x 4" diameter, class 50 water piping	4.00 ea	147.70	212.30	-	-	360.00	1,440	1.000	8x4 reducer
		8460	Water supply distribution piping, fitting, reducer, ductile iron, cement lined, mechanical joint, 8" x 6" diameter, class 50 water piping	1.00 ea	178.30	271.70	-	-	450.00	450	1.000	8x6 reducer
		8480	Water supply distribution piping, fitting, reducer, ductile iron, cement lined, mechanical joint, 12" x 6" diameter, class 50 water piping	1.00 ea	209.85	423.50	56.65	-	690.00	690	1.000	12x4 reducer
	33-11-13.25		Water Supply, Polyvinyl Chloride Pipe									
		2210	Water supply distribution piping, piping polyvinyl chloride, 8" diameter, awwa c900, class 150, sdr 18, excludes excavation backfill, unless specified	9,480.00 lf	5.33	6.27	-	-	11.60	109,968	1.000	8" PVC Water line
		4560	Water supply distribution piping, piping polyvinyl chloride, pressure pipe, 12", AWWA C900, Class 150, SDR 18, excludes excavation or backfill	305.00 lf	10.81	19.20	-	-	30.00	9,150	1.000	12" PVC Water line
		8240	Water supply distribution piping,fitting w/rubber gasket,polyvinyl chloride,bend 45 degree,8"diameter,class 150,dr 18,excludes excavation backfill	2.00 ea	28.70	190.30	-	-	219.00	438	1.000	
		8320	Water supply distribution piping, fitting w/rubber gasket, polyvinyl chloride, reducing tee, 8" x 6", class 150, d.r. 18, excludes excavation backfill	18.00 ea	16.00	319.00	-	-	335.00	6,030	1.000	

Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	CCI	Notes
	33-11-13.25		Water Supply, Polyvinyl Chloride Pipe									
		8490	Water supply dstrbtn piping,fitting w/rubbr gasket,plyvnyl chlorid,tapped service tee (thrdd type),8"x8"x2",class 150,dr 18,excludes excavatn backfill	17.00 ea	16.70	135.30	-	-	152.00	2,584	1.000	
		8620	Water supply distribution piping, fitting w/rubber gasket, polyvinyl chloride, plug end, 6" diameter, class 150, d.r. 18, excludes excavation backfill	17.00 ea	16.15	80.85	-	-	97.00	1,649	1.000	Temporary plugs - SWPPP
		8640	Water supply distribution piping, fitting w/rubber gasket, polyvinyl chloride, plug end, 8" diameter, class 150, d.r. 18, excludes excavation backfill	42.00 ea	29.10	86.90	-	-	116.00	4,872	1.000	Temporary plugs - SWPPP
		8680	Water supply distribution piping,fitting w/rubber gasket,polyvinyl chloride,plug end,12"diameter,class 150,dr 18,excludes excavation backfill	2.00 ea	29.40	171.60	-	-	201.00	402	1.000	Temporary plugs - SWPPP
	33-11-13.45		Water Supply, Copper Pipe									
		5108	Water supply distribution piping, copper tubing, 20' joints, 2" diameter, type L, excludes excavation or backfill	50.00 lf	4.94	16.06	-	-	21.00	1,050	1.000	MAG 390 Type "B" - flushing pipe
		7120	Water supply distribution piping, copper, curb stops, 1" diameter, excludes excavation or backfill	135.00 ea	40.30	84.70	-	-	125.00	16,875	1.000	
		7160	Water supply distribution piping, copper, curb stops, 2" diameter, excludes excavation or backfill	2.00 ea	59.00	396.00	-	-	455.00	910	1.000	MAG 390 Type "B"
		7180	Water supply distribution piping, copper, curb box, cast iron, 1/2" to 1" curb stops, excludes excavation or backfill	135.00 ea	53.70	146.30	-	-	200.00	27,000	1.000	
		7200	Water supply distribution piping, copper, curb box, cast iron, 1-1/4" to 2" curb stops, excludes excavation or backfill	2.00 ea	80.20	239.80	-	-	320.00	640	1.000	MAG 390 Type "B"
		7200	Water supply distribution piping, copper, curb box, cast iron, 1-1/4" to 2" curb stops, excludes excavation or backfill	5.00 ea	80.20	239.80	-	-	320.00	1,600	1.000	
		7240	Water supply distribution piping, copper, saddles, 2" diameter, excludes excavation or backfill, add	135.00 ea	-	84.00	-	-	84.00	11,340	1.000	
33-12-00.00			***Water Utility Distribution Equipment***									
	33-12-13.15		Tapping, Crosses And Sleeves									
		4650	Water service connctn,ductile iron,cement lined,8"main,6"brnch,class 50 water piping,tap and insert gate valve (labor only),excluds excavtn backfill	1.00 ea	638.90	-	56.10	-	695.00	695	1.000	Remove & salvage 6" tapping sleeve
		7080	Water Service Connection, tapping crosses with rubber gaskets, 8" x 8", excludes excavation and backfill	1.00 ea	100.80	1,067.00	7.21	-	1,175.01	1,175	1.000	
		7160	Water Service Connection, tapping crosses with rubber gaskets, 12" x 12", excludes excavation and backfill	2.00 ea	94.09	2,447.50	8.42	-	2,550.00	5,100	1.000	
		7900	Water Service Connection, tapping valve, MJ, ductile iron, 4", includes gaskets, excludes excavation and backfill	13.00 ea	93.09	643.50	8.42	-	745.00	9,685	1.000	MAG 340 - tapping valve
		8000	Water Service Connection, tapping sleeves with rubber gaskets, 4" x 4", excludes excavation and backfill	13.00 ea	43.90	627.00	4.10	-	675.00	8,775	1.000	MAG 340 - tapping sleeve
		8000	Water Service Connection, tapping sleeves with rubber gaskets, 4" x 4", excludes excavation and backfill	1.00 ea	43.90	627.00	4.10	-	675.00	675	1.000	
		8840	Water Service Connection, valve box, and large base w/ lid 4' deep, excludes excavation and backfill	61.00 ea	102.40	292.60	-	-	395.00	24,095	1.000	valve box - MAG 391
33-12-16.00			***Water Utility Distribution Valves***									
	33-12-16.10		Valves									
		3814	Water utilty dstrbt valves,gate valves,cast iron,mchncl joint,with boxes,250 psi,6"dm,includs valve box and mechncl joint,excluds excavtn and backfill	17.00 ea	232.85	880.00	62.15	-	1,175.00	19,975	1.000	6" valve
		3816	Water utilty dstrbt valves,gate valves,cast iron,mchncl joint,with boxes,250 psi,8"dm,includs valve box and mechncl joint,excluds excavtn and backfill	42.00 ea	260.35	1,127.50	62.15	-	1,450.00	60,900	1.000	8" valve
		3820	Water utilty dstrbt valves,gate valves,cast iron,mchncl joint,with boxes,250 psi,12"dm,inclds valve box and mechncl joint,excluds excavtn and backfill	2.00 ea	230.35	2,007.50	62.15	-	2,300.00	4,600	1.000	12" valve
33-12-19.00			***Water Utility Distribution Fire Hydrants***									
	33-12-19.10		Fire Hydrants									

Group	Phase	Item	Description	Takeoff Quantity	Labor Cost/Unit	Material Cost/Unit	Equip Cost/Unit	Other Cost/Unit	Total Cost/Unit	Total Amount	CCI	Notes
	33-12-19.10		Fire Hydrants									
		2160	Water Utility Distribution Fire Hydrants, two way, 6'-0" depth, 5-1/4" valve, includes mechanical joints, excludes excavation and backfill	13.00 ea	245.83	1,732.50	21.67	-	2,000.00	26,000	1.000	Fire hydrant - MAG 360
33-44-00.00			***Storm Utility Water Drains***									
	33-44-13.13		Catchbasins									
		3500	Utility Area Drains, catch basins or manholes frames and covers, inverts, single channel concrete, excludes footing, excavation, and backfill	4.00 ea	194.60	81.40	-	-	276.00	1,104	1.000	MAG 390 Type "B"
		3500	Utility Area Drains, catch basins or manholes frames and covers, inverts, single channel concrete, excludes footing, excavation, and backfill	2.00 ea	194.60	81.40	-	-	276.00	552	1.000	Air release valve box [includes extension ring]

Estimate Totals

Description	Amount	Totals	Hours	Rate	Percent of Total
Labor	680,674.00		424.000		49.20%
Material	645,174.00				46.64%
Subcontract					
Equipment	171,490.00		624.000		12.40%
Other	22,213.00				1.61%
	1,519,551.00	1,519,551.00			109.84
012153.50.0800 Material	25,807.00			4.000 %	1.87%
012153.50.0800 Labor	74,874.00			11.000 %	5.41%
012153.50.1700 Material	32,259.00			5.000 %	2.33%
012153.50.1700 Labor	47,647.00			7.000 %	3.44%
	180,587.00	1,700,138.00			13.05
Prescott CCI - Weighted Avg.	(266,922.00)			(15.700) %	-19.29%
	(266,922.00)	1,433,216.00			-19.29
Coef. .89 (>$120k)	(157,654.00)			(11.000) %	-11.40%
	(157,654.00)	1,275,562.00			-11.40
P&P Bond	12,756.00			1.000 %	0.92%
MESC Fee (Deduct)	(12,628.00)			(0.990) %	-0.91%
	128.00	1,275,690.00			0.01
MESC (Add Back)	12,628.00				0.91%
	12,628.00	1,288,318.00			0.91
TAX	95,078.00			7.380 %	6.87%
	95,078.00	1,383,396.00			6.87
Total		1,383,396.00			