



## City of Biggs

### Agenda Item Staff Report For the Regular City Council Meeting: May 8, 2018

TO: Honorable Mayor and Members of the City Council

FROM: City Administrator

SUBJECT: F Street Water Line Replacement

#### **Background**

Staff has identified an approximately 508' section of water main in need of replacement. The old 4" steel pipe is both undersized and (more importantly) deteriorated to the point of unreliability.

The City Engineer drafted a project description and project details for circulation. Three responses were received with Construction & Utilities Inc as the low responsive bidder.

**Recommendation:** Authorize the City Administrator to contract for replacement of the F Street water main, not to exceed \$80,000. Repeal the previous budget modification for this project. And to modify the FY 2017-2018 budget by increasing line item "Water Fund Contract work" and "Total Expenses" by \$80,000.

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Mark Sorensen, City Administrator

CONSTRUCTION & UTILITIES Inc.

981103

4/13/2018

General Engineering Contractor 9811003 WBE / 442613

10435 Old Dobbins Road / PO Box 482

Dobbins Ca. 95935

dagtimber@aol.com / (530) 635-0971

**CITY OF BIGGS - F St. WATER LINE PROJECT**

PO Box 307, 465 C Street, Biggs, CA 95917-0307

(530) 868-0100 / [www.biggs-ca.gov](http://www.biggs-ca.gov)

[Mark Sorensen / mark@biggs-ca.gov](mailto:Mark.Sorensen@biggs-ca.gov)

The Bid sums shall be as follows:

SCHEDULE OF BID PRICES

All bid items; including lump sums, unit prices, and additive alternates must be filled in completely. The Contract will be awarded on the basis of the lowest, responsive, responsible bid for the Base Bid Total Price. Award for the Alternative Bid Addition elements is at the City's sole discretion, and determination of whether to proceed with the items contained in the Alternative Bid Addition is dependent upon completion and evaluation of preceding bid items.

BASE BID ITEMS

Item No.	Item Description	Estimated Unit Quantity	Unit Price	Total Cost
1A	MOBILIZATION	1 LS	\$3,460.00	\$3,460.00
2A	REMOVE WHARF HYDRANT	1 EA	\$1,850.00	\$1,850.00
3A	SERVICE CONNECTION TO MAIN	6 EA	\$820.00	\$4,920.00
4A	INSTALL 6" C900 WATER PIPE	510 LF	\$96.00	\$48,960.00

Base Bid Total: Fifty Nine Thousand One Hundred and Ninety Dollars **\$59,190.00**

CONTRACTOR: **Construction & Utilities Inc.**

ALTERNATIVE #1 ITEMS

Item No.	Item Description	Estimated Quantity	Unit	Unit Price	Total Cost
1B	INSTALL WATER METER BOX	6	EA	\$195.00	\$1,170.00
2B	INSTALL CITY-SUPPLIED WATER METER	6	EA	\$200.00	\$1,200.00
3B	INSTALL WATER SERVICE LINE	6	EA	\$1,820.00	\$10,920.00

Alternative #1 Total: Thirteen Thousand Two Hundred and Ninety Dollars **\$13,290.00**

CONTRACTOR: **Construction & Utilities Inc.**

Price Includes:

- Estimate Based on One (1) Mob / De-mob (Additional Mob / De-mob at \$3,460.00 each.)
- Only the listed work above is included in this estimate.
- City of Biggs, Business license and encroachment fee are included.
- Hours are Monday thru Friday 8 Hours per day.
- Traffic Management for one lane only for the duration of our work only.
- Sidewalk removal and replacement as necessary for our work only.
- Machine Dig Asphalt & Concrete over located existing utilities. Hand Dig soil to verify located existing utilities.

Exclusions:

Price Excludes:

- Hazardous materials handling and disposal.
- Bonds, permits, fees, engineering and are excluded in this estimate, other than noted above.
- Off haul of any material & Import of any material other than Sand or Slurry for above work. (Except as listed above.)
- Any dewatering of trenches, excavations or structures to be done at an extra charge!
- No Conduit installation, Wiring, splicing or any other electrical work are included in this estimate!

Terms and Conditions:

- We assume no responsibility as to the accuracy of the information provided.
- Our work is limited to the upgrade as in this estimate. This proposal is in accordance with our understanding of these requirements.
- Additional Hand Dig Prices to be at an additional charge at \$337.10 per cubic yard!
- We reserve our right to only perform changes in scope of work upon written notification authorized by the Owner and General Contractor.
- This proposal shall become a part of any contract, purchase order or notice-to-proceed authorization. Any item, clarification, and/or condition of this, proposal, in whole or part, shall supersede any conflicting term in any other contract document.

Terms and Conditions continued:

- This proposal is based solely on the usual direct cost elements such as labor, material and normal markups and does not include any amount for additional changes in the sequence of work, delays, disruptions, rescheduling, extended overhead, overtime, acceleration and/or other impact costs; and the right is expressly reserved to make claim and be paid for any and all of these related cost items prior to final settlement of this contract.

Respectfully submitted,

Daniel A. Giddings Jr.

Over 40 years in business.

Previous similar work as reference.

Pacific Gas & Electric

Marin Municipal Water District

North Marin Water District

Yuba County Environmental Health

# Annualized Annual Budget Estimate-Solid Waste Fund 060

Based upon the expense of the new Waste Management Contract and New Proposed Refuse Fees

8-Nov-17

Estimated revenues	\$204,638	- ACT 207,954
Estimated contract Costs	\$163,711	
Transfer to Road Maint	\$10,000	
Estimated all other costs	\$25,000	
-Total Expense	\$198,711	
Annual Fund Balance	\$5,928	

			Multiplier 125.0%			
		Contract Cost			Gross Revenue	
	COST	Per Year	Units	Retail	/month	/year
32 gallon	\$18.82	\$112,016.64	496	23.53	11,668.40	\$140,020.80
64 gallon	\$24.98	\$28,477.20	95	31.23	2,966.38	\$35,596.50
96 gallon	\$30.71	\$23,216.76	63	38.39	2,418.41	\$29,020.95
		\$163,710.60	654		17,053.19	\$204,638.25
Additional cart	\$2.68		0	3.35		
6-25'	\$2.50		0	3.13		
26-50'	\$7.50		0	9.38		
51-100'	\$15.00		0	18.75		
101	\$21.64		0	27.05		



# City of Biggs

465 C STREET  
P.O. BOX 307  
BIGGS, CALIFORNIA 95917  
TELEPHONE (530) 868-5493  
[www.biggs-ca.gov](http://www.biggs-ca.gov)

March 7, 2018

To Contractors:

**Subject: F Street Water Line Project – Request for Quotes**

The City of Biggs is requesting quotes from contractors for the F Street Water Line Project (Project). The Project area is on F Street, bound by 6th Street and 7th Street, and involves upsizing the existing water main from a 4" to a 6" pipe. Generally, the project scope includes the following items:

1. Mobilization
2. Removal of Existing Wharf Hydrant (1 EA)
3. Installation of New 6" Water Pipe (~510 LF)
4. Re-connection of Water Services to New Water Main (6 EA)

Additionally, the City requests that contractors provide a quote for the following alternative bid items:

1. Installation of Water Meter Boxes (6 EA)
2. Installation of City-Supplied Water Meters and Appurtenances (6 EA)
3. Installation of Water Service Lines from Main to Meter (6 EA)

Please submit a quote based on the following: the scope of work described above, the attached Schedule of Bid Prices, and the attached Measurement and Payment specification. If you have any questions, please contact Dave Harden at (916) 771-6144 or [dharden@ben-en.com](mailto:dharden@ben-en.com).

Trin Campos, P.E.  
City Engineer

Attached: - Schedule of Bid Prices  
- Measurement and Payment Specification  
- City Standard Details

The Bid sums shall be as follows:

**SCHEDULE OF BID PRICES**

All bid items; including lump sums, unit prices, and additive alternates must be filled in completely. The Contract will be awarded on the basis of the lowest, responsive, responsible bid for the Base Bid Total Price. Award for the Alternative Bid Addition elements is at the City's sole discretion, and determination of whether to proceed with the items contained in the Alternative Bid Addition is dependent upon completion and evaluation of preceding bid items.

**BASE BID ITEMS**

1A.

Item No.	Item Description	Estimated Quantity	Unit	Unit Price	Total Cost
1A	MOBILIZATION	1	LS		
2A	REMOVE WHARF HYDRANT	1	EA		
3A	SERVICE CONNECTION TO MAIN	6	EA		
4A	INSTALL 6" C900 WATER PIPE	510	LF		

**Base Bid Total:** \$ \_\_\_\_\_

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**CONTRACTOR**

**ALTERNATIVE #1 ITEMS**

1B.

Item No.	Item Description	Estimated Quantity	Unit	Unit Price	Total Cost
1B	INSTALL WATER METER BOX	6	EA		
2B	INSTALL CITY-SUPPLIED WATER METER	6	EA		
3B	INSTALL WATER SERVICE LINE	6	EA		

**Alternative #1 Total:** \$ \_\_\_\_\_

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**CONTRACTOR**



## **GENERAL**

Contractor shall include prevailing wages for this project. Contractor shall not include bonds in the quote provided to the City of Biggs.

Payment for the labor, materials, tools, equipment, and incidentals for doing all the work required to complete the contract requirements for this project in full shall be included in the prices for the bid items listed below and no additional compensation will be made therefore.

## **BASE BID ITEMS**

### **Item 1A: Mobilization**

“Mobilization” includes all work involving: the obtaining of all required insurance; moving onto the site of all equipment; submittal and approval of project schedule, shop drawings, materials/equipment; obtaining and paying for all permits as applicable (City of Biggs business permit and City of Biggs encroachment permit); furnishing all necessary temporary construction utilities; installing construction signs; implementing a traffic control system; potholing and utility field locates; demobilization of equipment and materials after work is complete; and other construction all as required for the proper performance and completion of the work.

City will not require a water pollution control plan for this work.

Measurement of mobilization is based on City’s determination, measured as a partial payment of a lump sum.

Payment for the labor, materials, tools, equipment, and incidentals for doing all the work required to complete the contract requirements for “Mobilization” shall be included in the prices bid for “Mobilization” and no additional compensation will be made therefore.

### **Item 2A: Remove Wharf Hydrant**

Contractor shall remove the wharf hydrant located at 478 F Street, and any connecting pipe and appurtenances up to the water main in F Street.

“Remove Wharf Hydrant” includes all work involving removal of existing wharf hydrant, including: removal of hydrant, hydrant pipe, and appurtenances; abandonment of hydrant thrust block(s); disposal of hydrant, pipe, and materials; excavation; trenching; sheeting, shoring, and bracing; trench backfill; compaction; aggregate base; soils; pavement/landscape restoration; asphalt concrete; and compost/seeding.

Measurement will be the actual quantity of wharf hydrants removed.

Payment for the labor, materials, tools, equipment, and incidentals for doing all the work required to complete the contract requirements for “Remove Wharf Hydrant” shall be included in the prices bid for “Remove Wharf Hydrant” and no additional compensation will be made therefore.

**Item 3A: Service Connection to Main**

Contractor shall connect six (6) existing water service lines to the new water main by means of a full body support saddle (Ford FS202, or equal) connected to a ball-type compression corporation stop (James Jones E-1935SG, or equal) installed in a nylon bushing.

Water service connections to the main shall be in accordance with City Standard Detail 307A.

“Service Connection to Main” includes all work involving the connection of existing water services to the new water main, including: installation of pipe saddle; corporation stop; and water service line extension to reconnect.

Measurement will be the actual quantity of service connections made to the water main.

Payment for the labor, materials, tools, equipment, and incidentals for doing all the work required to complete the contract requirements for “Service Connection to Main” shall be included in the prices bid for “Service Connection to Main” and no additional compensation will be made therefore.

**Item 4A: Install 6” C900 PVC Water Pipe**

Contractor shall install approximately 510 linear feet of new C900 polyvinyl chloride (PVC) water main line offset of active water main to minimize interruption to service, and shall excavate bell holes in advance of tie-ins. City will allow four (4) hours of water service interruption for tie-ins. Contractor shall notify residents 24 hours in advance before service interruption.

Contractor shall install water main with 36” minimum cover, and shall maintain ten (10) feet horizontal separation between water services and sewer laterals at City right-of-way.

Contractor shall connect to existing valves at tees with an appropriately sized reducer at the following intersections: 1) Sixth Street and F Street, and 2) Seventh Street and F Street.

Contractor shall abandon in place approximately 510 linear feet of existing 4” water main, and cap ends of the existing pipe. Contractor shall not abandon existing water main until the new water main and services have been installed, disinfected, and pressure tested.

Contractor shall perform disinfection and pressure testing of water main.

Backfill and trench restoration in paved sections shall be done in accordance with City Standard Detail 101, Type “B” (except that the asphalt concrete shall be HMA Type A, ¾”). Backfill and trench restoration in unpaved sections shall be done in accordance with City Standard Detail 101, Type “D”. In landscaped areas, Contractor shall install suitable native fill with compost/seeding.

Thrust blocks shall be installed in accordance with City Standard Detail 303.

Locating wire shall be installed in accordance with City Standard Detail 306.

“Install 6” C900 PVC Water Pipe” includes all work involving installing water pipe (main), including: pipe; joints; fittings; valves; locating wire; thrust blocks; excavation; trenching; sheeting, shoring, and bracing; abandonment of existing water main; disposal of materials; trench backfill; compaction; pipe bedding materials; aggregate base; soils; pavement/landscape restoration; asphalt concrete; and compost/seeding.

Measurement of all installed water pipe will be in linear feet.

Payment for the labor, materials, tools, equipment, and incidentals for doing all the work required to complete the contract requirements for "Install 6" C900 PVC Water Pipe" shall be included in the prices bid for "Install 6" C900 PVC Water Pipe" and no additional compensation will be made therefore.

## **ALTERNATIVE #1 BID ITEMS**

### **Item 1B: Install Water Meter Box**

Contractor shall install six (6) water meter boxes at the following locations: 482 F Street, 485 F Street, 487 F Street, 488 F Street, 489 F Street, and 490 F Street.

"Install Water Meter Box" includes all work involving installation of water meter boxes, including: meter box installation; clearing and grubbing; excavation; aggregate base; backfill; compaction; landscape restoration; soils; and compost/seeding.

Measurement will be the actual quantity of water meter boxes installed.

Payment for the labor, materials, tools, equipment, and incidentals for doing all the work required to complete the contract requirements for "Install Water Meter Box" shall be included in the prices bid for "Install Water Meter Box" and no additional compensation will be made therefore.

### **Item 2B: Install City-Supplied Water Meter**

Contractor shall install six (6) water meters (that will be supplied by the City of Biggs) at the following locations: 482 F Street, 485 F Street, 487 F Street, 488 F Street, 489 F Street, and 490 F Street.

Water meter shall be installed in accordance with City Standard Detail 307A.

"Install City-Supplied Water Meter" includes all work involving installation of water meters, including: water meter installation; and installation of all valves, appurtenances, and piping configuration within the meter box.

Measurement will be the actual quantity of City-supplied water meters installed.

Payment for the labor, materials, tools, equipment, and incidentals for doing all the work required to complete the contract requirements for "Install City-Supplied Water Meter" shall be included in the prices bid for "Install City-Supplied Water Meter" and no additional compensation will be made therefore.

### **Item 3A: Install Water Service Line**

Contractor shall install six (6) water service lines from main to meter, and remove any existing water service lines, at the following locations: 482 F Street, 485 F Street, 487 F Street, 488 F Street, 489 F Street, and 490 F Street.

Contractor shall maintain ten (10) feet horizontal separation between water service lines and sewer laterals.

Locating wire shall be installed in accordance with City Standard Detail 306.

Water service line shall be installed in accordance with City Standard Detail 307A.

Contractor shall perform disinfection and pressure testing of water services.

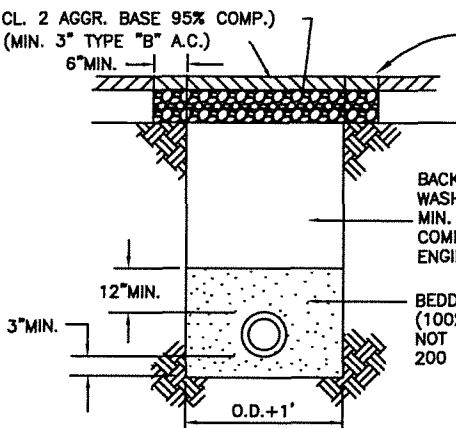
“Install Water Service Line” includes all work involving the installation of water service lines, including: service pipe; fittings, joints; locating wire; excavation; trenching; sheeting, shoring, and bracing; trench backfill; removal and disposal of existing water service line; compaction; pipe bedding materials; aggregate base; soils; pavement/landscape restoration; concrete; asphalt concrete; chain link fence restoration; and compost/seedling.

Measurement will be the actual quantity of water service lines installed.

Payment for the labor, materials, tools, equipment, and incidentals for doing all the work required to complete the contract requirements for “Install Water Service Line” shall be included in the prices bid for “Install Water Service Line” and no additional compensation will be made therefore.

**END OF SECTION**

(MIN. 10" CL. 2 AGGR. BASE 95% COMP.)  
(MIN. 3" TYPE "B" A.C.)



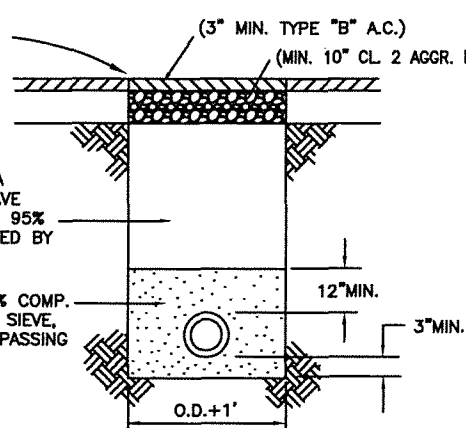
TYPE "A"

IMPROVED ASPHALTIC CONCRETE  
OR PLANT- MIX CONCRETE

SEE NOTE 6

(3" MIN. TYPE "B" A.C.)

(MIN. 10" CL. 2 AGGR. BASE 95% COMP.)



TYPE "B"

IMPROVED ARMOR COAT  
OR SEAL COAT STREETS

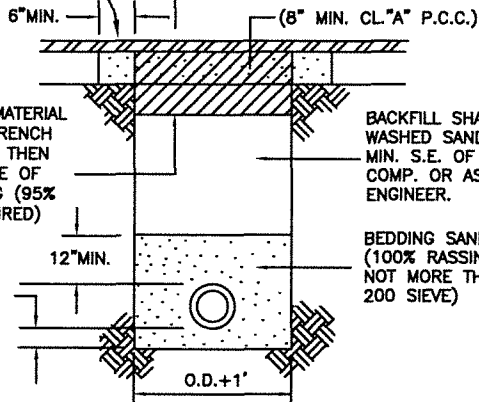
BACKFILL SHALL BE A  
WASHED SAND OR HAVE  
MIN. S.E. OF 20 AND 95%  
COMP. OR AS DIRECTED BY  
ENGINEER.

BEDDING SAND & 95% COMP.  
(100% RASSING 3/4" SIEVE,  
NOT MORE THAN 6% PASSING  
200 SIEVE)

TABLE 1

TYPE	LOCATION	BACKFILL & COMP.	RESTORATION TYPE
D-1	WITHIN 5' E.P.	STRUCTURE 95%	10" CL. 3 A.B.
D-2	GREATER THAN 3' TO E.P.	SELECT SOIL 90%	1.5' MIN. SELECT SOIL
D-(SW)	SIDEWALK AREAS	STRUCTURE 95%	4" P.C.C. OR EQUAL TO EXIST. WHICHEVER IS GREATER

(PLACE TYPE "B" A.C. IF PAVEMENT HAS AN A.C. OVERLAY) SEE NOTE 6



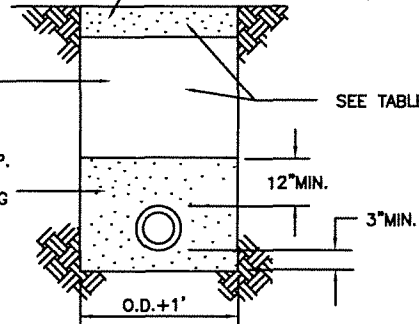
TYPE "C"

PORTLAND CEMENT  
CONCRETE STREETS

BACKFILL SHALL BE A  
WASHED SAND OR HAVE  
MIN. S.E. OF 20 AND 95%  
COMP. OR AS DIRECTED BY  
ENGINEER.

BEDDING SAND & 95% COMP.  
(100% RASSING 3/4" SIEVE,  
NOT MORE THAN 6% PASSING  
200 SIEVE)

(10" MIN. CL. 3 AGGR. BASE  
OR 1.5' MIN. SELECT SOIL AS  
DIRECTED BY ENGINEER)



TYPE "D"

UNIMPROVED STREETS  
ALLEYS OR EASEMENTS

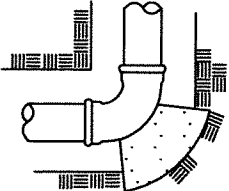
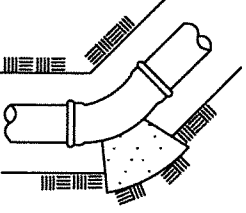
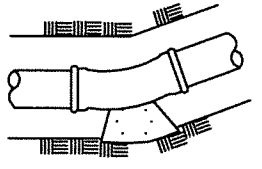
NOTES:

- TYPE "A" & "C" TRENCHES REQUIRE (2) TWO CUTS; FIRST CUT INITIAL TRENCH WIDTH THEN 30 DAYS AFTER WORK HAS BEEN COMPLETED SECOND CUT 6" WIDER BOTH SIDES.
- TYPE "A" & "C" TRENCHES REQUIRE PLACEMENT AND MAINTENANCE OF TEMPORARY PAVEMENT (SC-800 COLD MIX) FOR A MINIMUM OF 30 DAYS PRIOR TO PERMANENT PAVING.
- STRUCTURAL THICKNESS SHOWN ARE MINIMUM ALLOWABLE. OVER THICKNESS OF STRUCTURAL SECTIONS MAY BE REQUIRED BY CITY ENGINEER IF EXISTING STRUCTURAL SECTION EXCEEDS THESE MINIMUMS.
- ALL TRENCH WORK 5' AND DEEPER SHALL HAVE APPROVED SHORING, ALL IN ACCORDANCE WITH CITY TECHNICAL SPECIFICATIONS SECTION 13 "TRENCHING OPERATIONS".
- NATIVE MATERIAL MUST BE SUITABLE TO OBTAIN THE 95% COMPACTION REQUIRED.
- PAVING SURFACE AT TRENCH JOINTS SHALL BE SEALED WITH ASPHALT EMULSION 4" EACH SIDE OF JOINT AFTER FINAL COMPACTION OF ASPHALT CONCRETE. SEALANT SHALL BE SANDED AS NECESSARY TO PREVENT TRAFFIC PICKUP.
- PERMITTEE IS REQUIRED TO NOTIFY DEPT. OF PUBLIC WORKS, 868-5493, 24 HOURS PRIOR TO THE CLOSING OF ANY CITY OF BIGGS STREET.

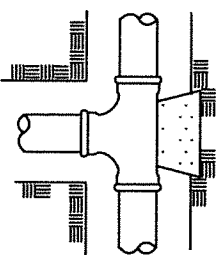
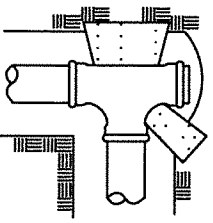
BACKFILL & TRENCH  
RESTORATION

DATE	REVISIONS	BY
5/03	UPDATE NOTES & BEDDING	DLS

CITY OF BIGGS	
STANDARD DETAIL	
101	
DAVID L SWARTZ, P.E.	1/97
APPROVED	DATE

TYPE OF FITTING		90° BEND	45° BEND	11 1/2' OR 22 1/2' BEND
TYPICAL INSTALLATION				
SIZE OF PIPE	4"	2	1	1
	6"	4	2	1
	8"	7	4	2
	10"	12	6	3
	12"	16	10	5

TYPE OF FITTING		TEE OR DEAD END	TEE WITH PLUG
TYPICAL INSTALLATION			
SIZE OF PIPE	4"	2	2
	6"	3	4
	8"	5	7
	10"	8	12
	12"	12	16

## REQUIRED BEARING – TOTAL SQUARE FEET

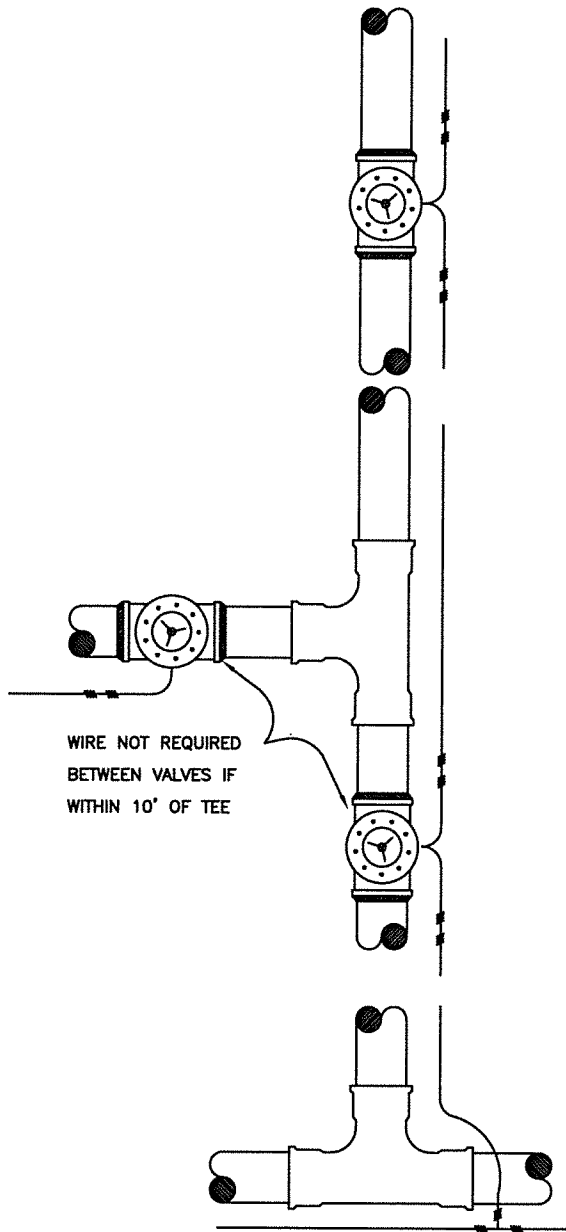
**NOTES:**

1. THRUST BLOCKS TO BE CONSTRUCTED OF CLASS "B" CONCRETE.
2. AREAS GIVEN ARE FOR CLASS 150 PIPE AT TEST PRESSURE OF 150 P.S.I. IN SOIL WITH 2,000 P.S.F. BEARING CAPACITY. INSTALLATIONS USING DIFFERENT PIPE, TEST PRESSURES, AND/OR SOIL TYPES SHOULD ADJUST AREAS ACCORDINGLY, SUBJECT TO APPROVAL OF ENGINEER.
3. BLOCKS TO BE POURED AGAINST UNDISTURBED SOIL.
4. JOINTS TO BE KEPT CLEAR OF CONCRETE.
5. BLOCKS TO BE IN PLACE 7 (SEVEN) DAYS BEFORE TESTING.
6. ALL PLUGS SHALL BE SECURED WITH THRUST BLOCKS.
7. SEE STANDARD DETAIL 304 FOR CROSS THRUST BLOCK.

THRUST BLOCKS

DATE	REVISIONS	BY

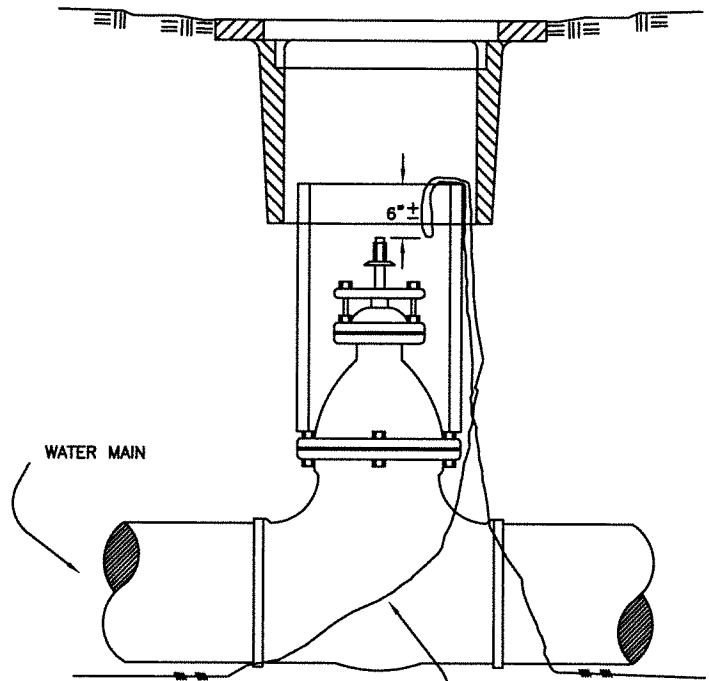
CITY OF BIGGS
STANDARD DETAIL
303
DAVID L. SWARTZ, P.E. <span style="float: right;">1/97</span> APPROVED <span style="float: right;">DATE</span>



WIRE NOT REQUIRED  
BETWEEN VALVES IF  
WITHIN 10' OF TEE

SPLICE RUNS TOGETHER  
KEEP CLEAR OF FITTING

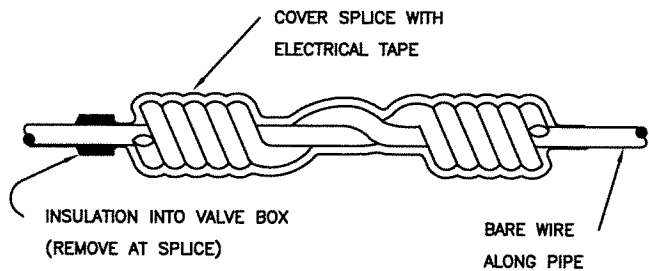
TYPICAL LAYOUT



WATER MAIN

10 AWG. SINGLE STRAND, SOFT DRAWN  
COPPER WIRE; BARE ALONG PIPE, 4/64"  
POLYVINYL CHLORIDE INSULATION INTO BOX.

SEE DETAIL  
BELOW



COVER SPLICE WITH  
ELECTRICAL TAPE

INSULATION INTO VALVE BOX  
(REMOVE AT SPLICE)

BARE WIRE  
ALONG PIPE

SPLICE DETAIL

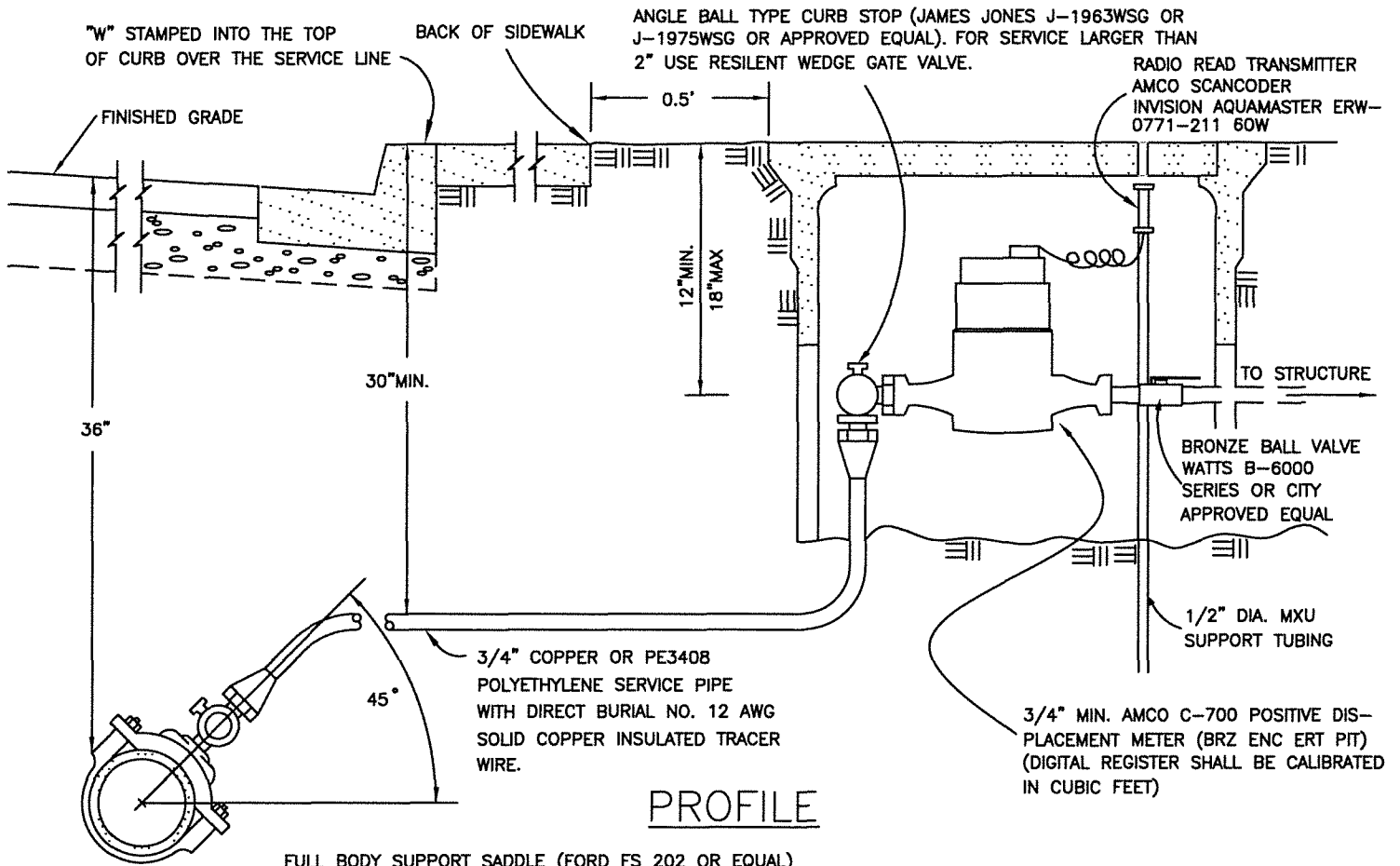
NOTES:

1. WIRE TO BE CONTINUOUS BETWEEN VALVE BOXES, EXCEPT AS NOTED.
2. BARE WIRE NOT TO TOUCH VALVES OR FITTINGS.
3. LOCATING WIRE TO BE LAID AT BOTTOM OF TRENCH, NEXT TO PIPE.
4. LOCATING WIRE MUST BE TESTED & BE IN WORKING ORDER AFTER ALL UNDERGROUND WORK IS DONE, AND PRIOR TO STREET PAVING.

LOCATING WIRE FOR WATER  
MAINS AND SERVICES

DATE	REVISIONS	BY

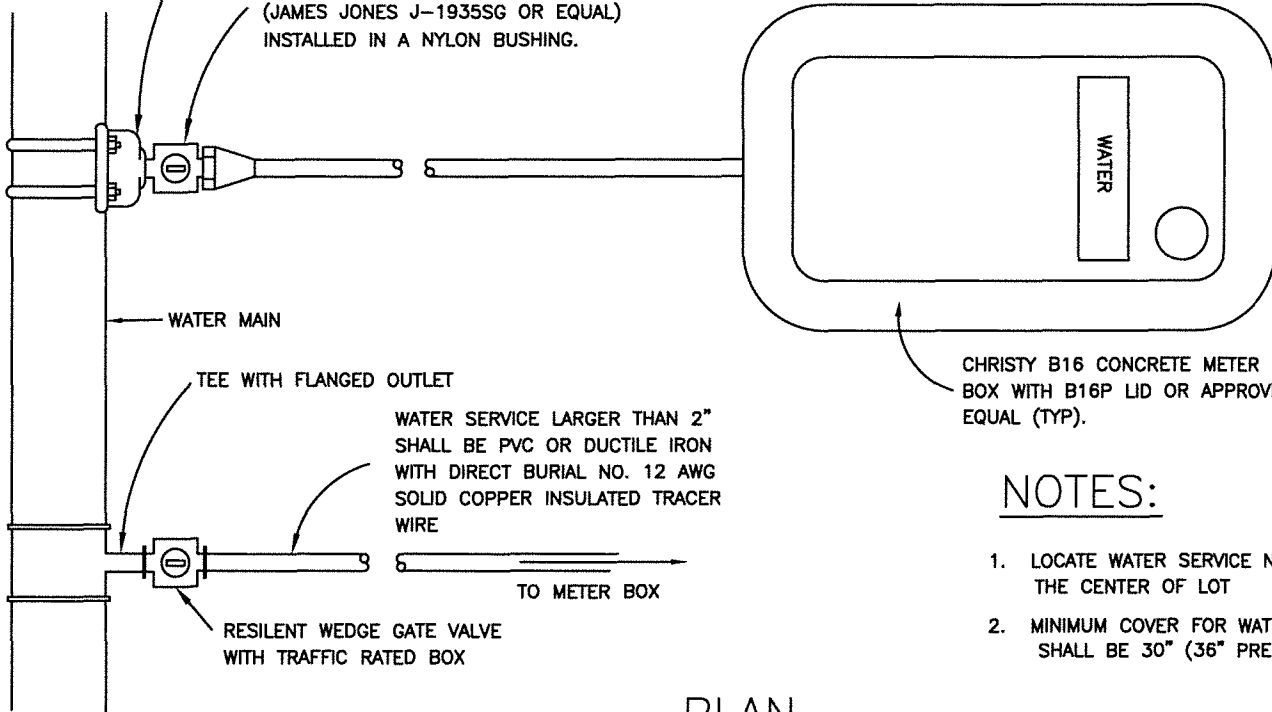
CITY OF BIGGS	
STANDARD DETAIL	
306	
DAVID L. SWARTZ P.E. APPROVED	1/97 DATE



**PROFILE**

FULL BODY SUPPORT SADDLE (FORD FS 202 OR EQUAL) ON PVC C900 WATER MAIN. USE STANDARD DOUBLE STRAP SADDLE ON OTHER PIPE MATERIALS. SADDLE TO BE ONE SIZE LARGER THAN SERVICE FOR NYLON BUSHING WITH OTHER THAN BRONZE SADDLE.

BALL-TYPE COMPRESSION CORPORATION STOP (JAMES JONES J-1935SG OR EQUAL) INSTALLED IN A NYLON BUSHING.



CHRISTY B16 CONCRETE METER BOX WITH B16P LID OR APPROVED EQUAL (TYP.)

**NOTES:**

1. LOCATE WATER SERVICE NEAR THE CENTER OF LOT
2. MINIMUM COVER FOR WATER MAIN SHALL BE 30" (36" PREFERRED)

**PLAN**

**SINGLE WATER SERVICE MAIN CONNECTION**

6-94	LID TYPE	S.M.M.
08/02/05	NEW WATER METER	P.W.P.
DATE	REVISIONS	BY

CITY OF BIGGS	
STANDARD DETAIL	
307A	
DAVID L. SWARTZ, P.E. APPROVED	1/97 DATE