

**City
Of
Baxter
Water
Rules
&
Regulations**

Welcome to the City of Baxter Water Dept.

We designed this handbook to help you understand how Baxter Water Dept. operates. It covers topics ranging from installation to meter reading to billing. Keeping you well informed is important to us so we have compiled our service rules in this concise and easy to use format. If you have any questions about the service rules or Baxter Water Dept. in general, please call us at 641-227-3120

Water Customer Service Handbook

Definitions:

Complaint means a statement or question by anyone, whether a Utility customer or not, alleging a wrong, grievance, injury, dissatisfaction, illegal action or procedure, dangerous condition or action, or Utility obligation. Complaints are requested to be submitted in writing.

Contiguous Locations are those where one customer has more than one building on the same property or on adjacent property separated only by a public right-of-way.

Contract means any claim, account or demand against, or agreement with, the Utility, express or implied.

Customer means any person, firm, association, or corporation, any agency of the federal, state, or local government, or legal entity responsible by law for payment for the water from the Utility. In the case of a residence, customer also means other adult persons occupying the residence.

Delinquent or delinquency means an account for which a service bill or service payment agreement has not been paid in full on or before the last date for timely payment.

Governing Body means the Baxter City Council.

Meter means, unless otherwise qualifies, a device that measures and registers the quantity of water used.

Premises means a tract of land, building, part of a building or facility to which water service is provided.

Service Rules means these rules as adopted by the Baxter City Council.

Timely payment is a payment on a customer's account, made on or before the date shown on a current bill for service, or a form which records an agreement between the customer and the Utility for a series of partial payments to settle a delinquent account.

Utility means Baxter Water Dept.

Division Two – General

Applications

All applications for water service may be made by the customer at the City office of Baxter.

Extent or Service

The Utility will supply the customer with water from water mains and through meters owned by the Utility or as otherwise herein provide. The property owner shall install, own, and maintain the water service line from the City main to the meter in accordance with these rules. Additional plumbing regulations of the City of Baxter not addressed by these rules will apply.

There will be only one customer with one meter served by a single service line except as follows here and elsewhere in these rules.

Multiple Occupancy Buildings

Each unit shall be considered a separate customer and shall be metered and billed separately; except service to apartments or offices under one roof in which the owner or landlord assumes responsibility for payment of water consumed by the tenants, and may be billed under one meter.

Combined Bill

Any firm or corporation under one roof or group of buildings at one contiguous location separated only by public property, may be furnished water through one or several meters. At the discretion of the utility, customers served by more than one-meter may receive a combination usage bill.

Mobile Home Parks

Each mobile home park shall be considered a single customer, served by one meter, and shall be billed accordingly. Water shall be billed to the owner or designee at the Multi-Family rate using commercial water rate schedule.

Water Service Connections

Water service connections larger than two inches will require a tapping valve and sleeve, which shall be furnished by the Utility and paid for by the customer.

Water Service Lines

Water service line shall be the term applied to the line carrying water from the city main to the customer's meter.

Property Owner Responsible

All water service lines shall be owned, installed, and maintained by the property owner.

Corporation Stops and Tapping Valves

A water service line shall consist of a corporation stop or tapping valve and sleeve installed in the City Utility's water main, from which a water service line is extended to the customer's property line, and a curb stop and riser or valve box is installed. (see Exhibit 1)

Tap Hydrant Stem

Water service lines must be tapped to distribution main and may not be tapped to hydrant stem.

Adjacent Property

The water service line shall not be installed on adjacent private property unless the plans have been reviewed and approved by the utility, and the property owner has procured an easement.

2" or Greater Service Line

New water service lines of size two inch or greater must be pressure tested, flushed, chlorinated, and bacteria tested before the meter will be set. These activities are the responsibility of the customer or the agent.

¾" to 2" Service Lines

All new or replaced water service lines ¾" through 2" between main and meter shall be type K soft copper pipe with proper size corporation stop and curb shut-off.

Additional Water Requirements

If additional water is required, a meter of larger capacity may be installed or, in some cases, a second meter may be installed adjacent to the existing meter. This will be done only up to the point where meter capacity equals service capacity.

Old Taps to be shut off

It is the property owner's responsibility to shut off the old tap when replacing their service line. Whenever possible the contractor shall open the hole over the old tap to cause both the old tap to be shut off and the new tap installed. All costs associated with the shutoff of the old tap shall be born by the property owner.

Service Line Breaks or Leaks

If a water service line breaks or leaks, the owner shall engage a plumber licensed with the city, upon notification by the Utility. If the leak is not repaired within 5 working days after notification, service may be discontinued, until repairs are made. If it is determined during repairs that a customer's water service line is constructed of lead or galvanized steel, the Utility will require, for potential health reasons and the potential for leaks, that the line be replaced with water service material as outlined in this section.

Frozen Service Lines

Thawing and / or repair of frozen water service lines shall be the responsibility of the property owner. The Utility does not recommend the use of welders connected to water service lines for thawing frozen pipes due t the potential for electric shock and fire.

Backflow Prevention

- The utility will require backflow prevention to be installed on new or replaced Water lines where backflow is likely to result in contamination.
- Backflow devices installed will be required to meet the minimum requirements for containment. This means that the device will protect the potable water source from actual or potential connection, physical or otherwise, between the city potable water supply system and any plumbing fixture or tank, receptacle, equipment, or device, through which it may be possible for non-potable, used unclean, polluted, and contaminated water, or

other substance to enter into any part of the potable water system under any condition.

- The Utility will recommend the appropriate piping arrangement and type of backflow preventer based on the degree of hazard that will be encountered. The unit must be installed as close to the service entrance as possible.
- Backflow prevention is required on all service piping where there is a potential exposure to contamination. A licensed installer and tester shall inspect the device, upon installation.
- The customer shall be responsible for having the backflow device tested annually by a licensed tester, and the result shall be forwarded to the Utility for documentation.
- Full set of Backflow Containment rules are available from the utility. And will comply with the rules set forth by the University of Southern California the Foundation for Cross-Connection Control and Hydraulic Research.
- The Utility will follow all rules set forth by the USC – University of Southern California, AWWA – American Water Works Ass., and the State of Iowa Urban Standards Specifications.
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Building Demolition

When a building being served by the Utility is demolished, it shall be the property owners responsibility to disconnect all water services to the property by removing the curb stop and valve boxes and arrange to have waterline disconnected at the water main. The only exception to this service rule will be if the owner of the property enters into a written agreement with the Utility declaring that the service will be used within one (1) year. Only copper or other approved water service material will be allowed to be reused.

Meters

All water meters are to be owned and furnished by the Utility. All meters and Equipment owned by utility shall be accessible at all times by utility.

Meter Size, Location, and Installation

The utility shall determine the size of the water meters based upon information supplied by the owner. The customer shall be responsible for providing accurate information to the Utility for the purposes of determining water meter size. Residential meters will be 5/8" thru 1". The Utility will supply all water meters at

a location. A residential customer requesting a larger meter shall pay the difference in cost for meters above 1".

The utility shall furnish a "meter setter" to set meter with. Proper ball valve shall be installed before and after the meter setter at the inlet and outlet.

Regular Periodic Meter Testing

The utility shall test all water meters and associated equipment for accuracy before being placed into service. The customer may request a meter accuracy test of the meter servicing their account. The customer or their representative may be present when the meter is tested and the results shall be reported to the customer within 10 days. If the test finds the meter accurate according to the American Water Works Association standards, the customer shall be billed \$50.00 for the cost for performing the test.

Meters 3" and larger must be installed with a bypass and test port for testing meter in place.

Meter Damage

The customer shall be held responsible for all damages to, or loss of property of the Utility upon his premises unless the damage or loss is due to the negligence of the Utility or by an act or omission on the part of the Utility or its authorized representative. The customer shall protect meters from freezing or accidental damage and shall permit no person other than agents of the Utility to remove, inspect, or repair metering units.

Remote Reading Water Meters

All buildings shall have a remote reading touch pad register installed by the Utility at no cost to the customer. The owner or contractor shall install a conduit so that the remote reading wire can be run from meter inside of structure to the outside location. This shall be done at time of construction. (See drawing on Page)

Electric Grounding

Grounding of a building's electric distribution system to the metal water piping system is required according to the City of Baxter Electric Code. However, improper grounding may cause deterioration of the copper water service and present a potential hazard for shock.

Access to Meters

Authorized representatives of the Utility shall be granted access to meters at all reasonable hours for the purpose of inspection, testing, removal or setting and reading meters. Reasonable hours are typically 7:30 to 4:30 P.M., M-F. Appointments will always be made with the customer. If access is not possible due to an obstruction on the customer's property surrounding the meter, it will be the customer's responsibility to provide access in a timely manner.

- Failure to permit the utility reasonable access to the meter may result in Disconnection of service.

Tampering and Unauthorized Water Consumption

Prohibited Items

The following items are prohibited:

- Tampering with meters.
- Interfering with meters
- Breaking of seals on meters or associated equipment.
- Breaking of seals on by-pass valves.
- Unauthorized consuming or theft of unmetered water.

When the above activities are suspected or discovered, the Utility will investigate and take appropriate action. Violations of the above prohibitions may result in immediate disconnection of water service and/or prosecution under the laws of the State of Iowa.

Jumpers

At no time shall a jumper be used unless agreed upon by utility. When plumbing is ready for active service, the customer or plumber shall notify the Utility so that the meter can be installed.

Utility Liability for Service Interruptions

The utility will endeavor to furnish continuous service to customer, but does not guarantee uninterrupted service, and shall not be liable for any damages which the customer may sustain by reason of failure of service whether caused by accident, repairs or other causes. Notification to affected customers shall be attempted prior to shut down of system. The Utility reserves the right to interrupt service in the event system maintenance so requires. The Utility shall not be held liable for damages resulting from such interruptions.

Water Conservation and Emergencies

In order to ensure the general welfare of the people of Baxter, water resources should be used in such a way as to prevent waste and unreasonable use. Should

an emergency situation arise and water availability is limited, water shall be curtailed in accordance with the Utility Water Conservation Plan.

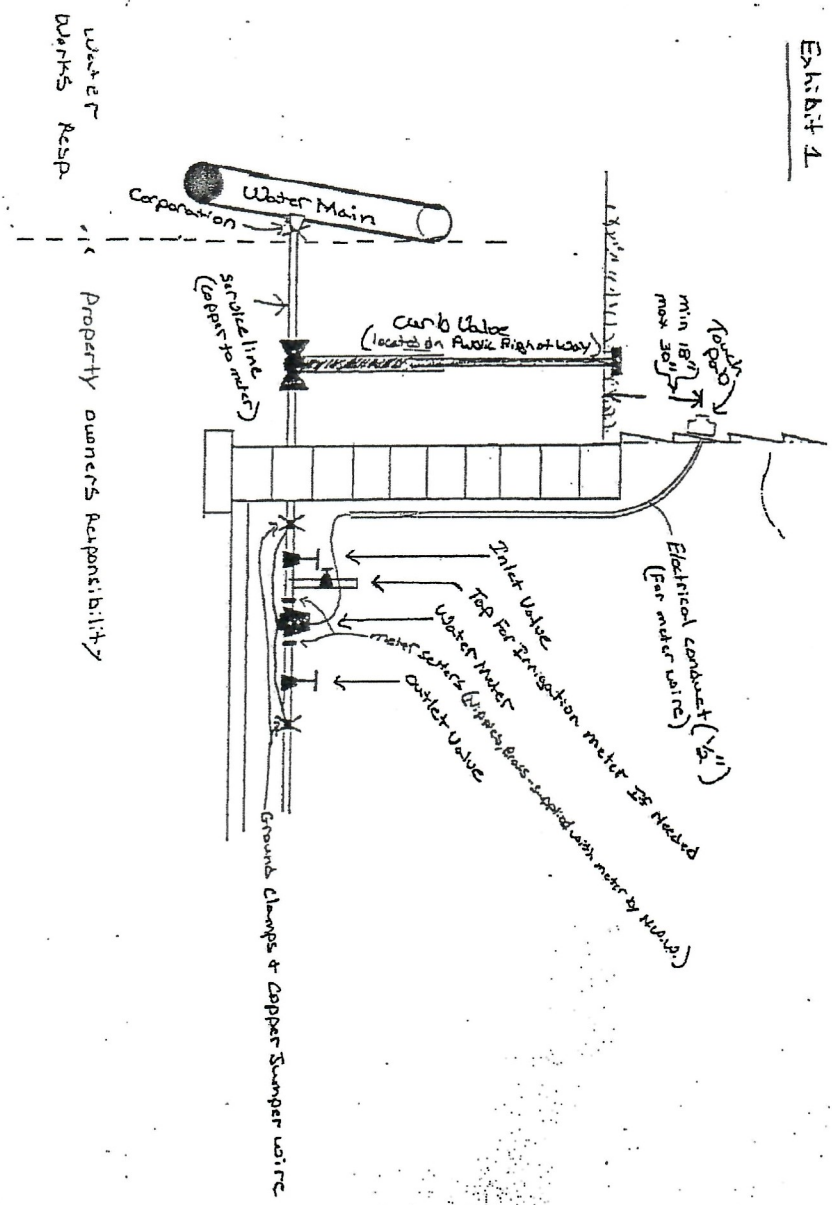
Underground Facility Locating

The utility will locate underground water mains without charge. The request shall be addressed to the "Iowa One Call" forty-eight hours in advance of project commencement and can be done by calling 1-800-292-8989. Every effort to correctly locate the underground facilities will be made by the Utility, but the Utility cannot guarantee its location not be held liable.

Fire Hydrants

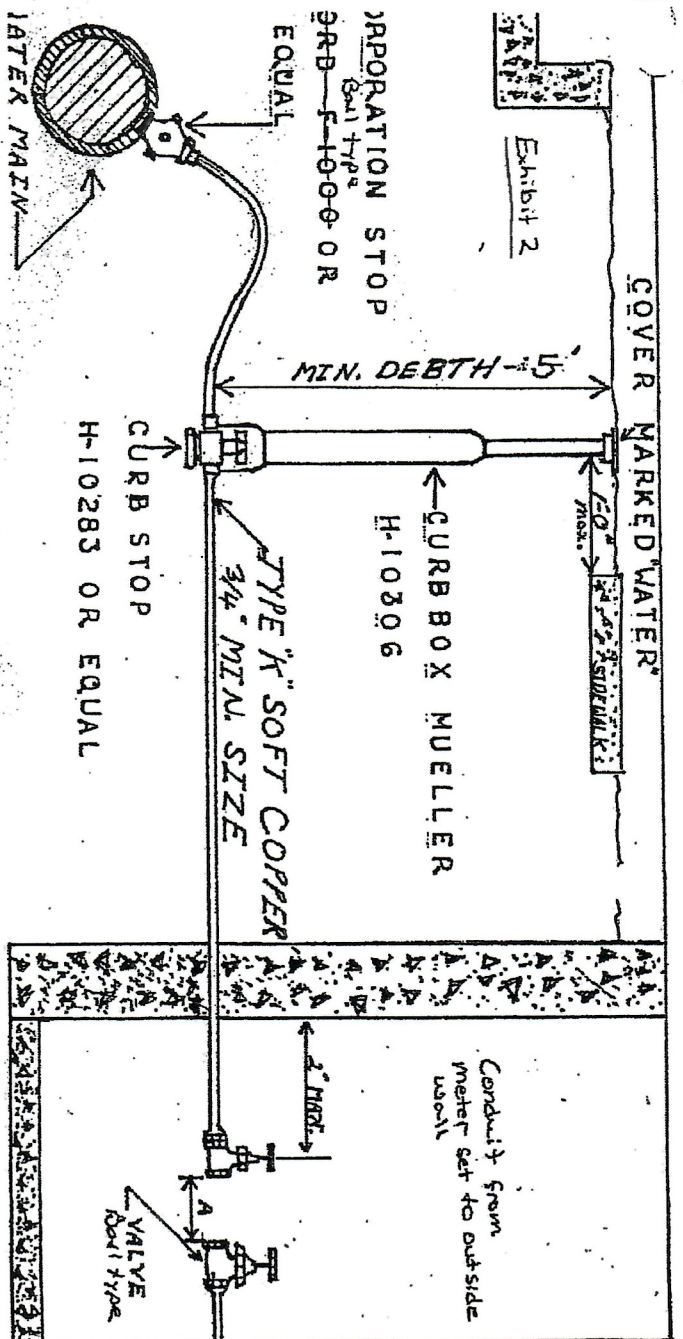
Hydrants shall only be used by the utility or Fire Dept. for the use of fighting fires or water main flushing. Any unauthorized use or tampering of fire hydrants shall be fined, \$1000 and or prosecuted under Federal Law.

Exhibit 4



Water
Mains Resp

Property owners responsibility



METER SPACING		SPECIAL NOTES		DETAIL OF SERVICE INSTALLATION		
TER	METER SPACE	METER SPACE INCLUDES	TAILPIECE MEASUREMENT	SCALE:	DATE:	FIG. NO.
	12 1/4"			1/4" = 1'	7-8-81	LDP 1
	12 1/4"					
	12 1/4"					
	12 1/4"					

COLD-WATER METERS

Exhibit 3
Displacement-Type Meters

TABLE 1

Meter Size in.	Safe Maximum Operating Capacity gpm	Maximum Pressure Loss at Safe Maximum Operating Capacity psi	Recommended* Maximum Rate for Continuous Operations gpm	Minimum Test Flow† gpm	Normal Test Flow Limit† gpm	Maximum Number of Disc Rotations or Piston Oscillations	
						per 10 gal	per cu ft
$\frac{5}{8}$	20	13	10	$\frac{1}{4}$	1-20	580	435
$\frac{3}{4}$	20	13	10	$\frac{1}{4}$	1-20	580	435
$\frac{1}{2}$	30	13	15	$\frac{1}{2}$	2-30	333	250
1	50	13	25	$\frac{3}{4}$	3-50	153	115
$1\frac{1}{4}$	100	15	50	$1\frac{1}{2}$	5-100	67	50
2	160	15	80	2	8-160	40	30
3	300	15	150	4	16-300	20	15
4	500	15	250	7	28-500	9.3	7
6	1000	15	500	12	48-1000	4	3

* See Sec. A.5.1.
† See Sec. 3.8—Registration Accuracy.

Division 3

Customer Relations

Mandatory Billing

All properties to which water service is provided will be billed for monthly service. Vacant property owners shall be billed a minimum monthly bill or have the option to disconnect the service line. Disconnection of the service line will be contracted by the City only and will involve capping the line as close to the corporation valve as possible, shutting off the corporation valve, properly backfilling and compacting the excavation site, and will include the street repair. A fee of \$2,500 plus the cost of the street repair will be billed to the property owner for this work. Any unpaid, delinquent monthly bills shall constitute a lien on the property served. Bills shall be certified to the County Treasurer for collections with and in the same manner as property taxes. Res. #10-13

Customer Deposits

A deposit intended to guarantee partial payment of bills for service is required during service application. The City of Baxter Water Department shall require a \$250.00 deposit on all residential and commercial properties. The customer deposit shall be applied against the final bill for the property. A deposit can only be transferred if the customer is an existing customer moving to a different property within the City limits. Res. #14-22

The deposit is not a loan, but a means of preventing unpaid bills, therefore interest will not be paid.

Billing Information

The customer shall be billed on a monthly basis for metered service received during the billing period according to rate, class, and in accordance with the Utility's established rates, and applicable charges, terms, and conditions of these service rules.

Meter Reading

In case a meter fails to register the amount of water supposed during any period, a bill will be calculated using historical usage.

When Payable

A bill shall be due and payable on or before the fifteenth (15th) of the month following the end of each monthly billing. A bill shall be considered as sent by the Utility when deposited in the U.S. Post Office with postage prepaid.

Failure to Receive Bill

Failure to receive a properly rendered bill shall not entitle the customer to relief from penalties for late payment.

Late Payment Penalty

Bill payments received by the Utility after the delinquent date shall be for the amount stated on the bill which shall include a late payment penalty.

Returned Checks, Credit Card Payments, Auto-Pay Payments

A service charge of \$32.50 shall be assessed to any customer whose check, credit card payment, or auto-pay payment is returned unpaid by the bank from which it was drawn. The service charge will be in addition to any late payment penalty if the check is not made good prior to the delinquent date of the bill. Res. #10-13

The utility may require future payments be made by cash, cashier's check or money order.

Discontinuance and Denial of Service for Just Cause

Notification of Discontinuance

- All water bills are due and payable upon receipt.
- Bills become past due on the 16th of each month after the bill is issued.
- A late notice is mailed to the customer on the 16th of each month after the original bill is issued. The late notice shall include the final date of payment a bill will be received prior to service shut off. If the 16th should fall on a weekend or holiday the late notice shall be mailed on the following business day.
- If water service reaches disconnect procedures a \$100.00 reconnect charge will be billed to the customer, regardless as to whether service is physically discontinued. Should service be physically discontinued, it shall not be restored until the delinquent bill and the \$100.00 reconnect fee is paid in full. All bills and fees must be paid directly to the City Clerk's office during normal business hours. Water service will not be restored after normal business hours. Someone must be present at the property before water service will be restored. Res. #05-13

Other Reasons for Refusal or Discontinuance of Service

- Without notice in case of a condition determined by the utility to be hazardous, waste or misuse of water.
- Without notice in the event of tampering with the equipment furnished and owned by the utility.
- Without notice in the event of unauthorized use, cross connection or other unlawful connection water supply to premises.
- For failure of the customer to permit the utility reasonable access to its equipment.
- Nonpayment of bills.

For reconnection from a disconnection for the above reasons, a reconnect fee of \$100.00 shall be charged. Someone must be present at property before water will be turned back on.

Discontinuation of Service at Customer Request

When a customer is moving, a discontinuance of service must be made by the customer at least one business day in advance. A forwarding address shall be given at the time of discontinuance request. A final bill will be calculated accordingly with the customers deposit applied towards the final bill.

Under/Over Charge to the Customer

Overcharge

When a customer has been overcharged as a result of incorrect reading of the meter, incorrect application of the rate schedule, incorrect connection of the meter installation, or other similar reasons, the amount of the overcharge shall be adjusted, refunded, or credited to the customer.

Undercharge

When a customer has been undercharged as a result of incorrect reading of the meter, incorrect application of the rate schedule, incorrect connection of the meter installation, or other similar reason, the bill shall be recalculated back to a period not to exceed one year. The amount to the undercharge will be billed to the customer.

Landlord & Tenants

Landlords shall be responsible for bills of tenants whereas a curb box is not operational. As previously stated, a working curb box must be supplied by property owner. If curb box is operational then refer to Iowa State Law Chapter 384.84.

Customer Communications

Utility Customer Service Representative

The Utility Clerk must give his or her name to the customer whether communication is in person, by telephone, or other electronic means of communication. The representative must have immediate access to current detailed information concerning the customer's account and previous contact with the Utility and shall be properly qualified and instructed in the screening and prompt handling of complaints.

Telephone/Email Procedure

The Business Office at Baxter City Hall, 641-227-3120 or city@baxter-iowa.com is staffed during business hours, Monday through Friday, 8:00 a.m. – 5:00 p.m. (closed during the lunch hour), to handle routine business questions and other communications.

Emergency calls should be directed to Public Works Director at 641-227-3354 or maintenance@baxter-iowa.com.

Complaint Procedure

Complaints concerning charges, practices, facilities, or service of the Utility shall be investigated promptly and thoroughly. The Utility shall keep record of the actions. Customers shall be asked to submit complaints in writing. The complaint shall include the following information:

- Name(s) of complainant.
- Address of complainant.
- Telephone number and/or email address of complainant.
- Nature of complaint.
- Relief sought.

Initial contact by a customer regarding a complaint shall be made with the Utility Clerk. If the customer is not satisfied a written complaint may be filed at the City Clerk's office and with the Mayor. This will be reviewed and if a decision is made that the complaint is warranted, the Mayor may place a complaint on the Agenda of the next regularly scheduled Council meeting for the ultimate resolution of the complaint by the City Council.

A customer who is unable to travel need not appear before any Utility official described above in person to explain the nature of the complaint. They may do so by telephone or email or in some other mutually agreed fashion.

Water Rates

Water rates are laid out under Chapter 92 of the Code of Ordinances for the City of Baxter, Iowa.

Subdivisions

At the Utilities discretion, a master meter may be required to meter a whole subdivision. This is used when the Utility does not maintain the water main system within the subdivision. The meter shall be billed at the Multi-Family rate.

Irrigation Systems

For residential, commercial, and industrial customers, a second meter, parallel to the domestic meter, may be installed to measure water flow to irrigation systems or other systems in which the water does not flow into the City of Baxter sewer system. This account shall be billed monthly.

- The request for irrigation meter must be directed to the City of Baxter.
- The Utility will review the request and make the determination that the separate line will not discharge into the sanitary sewer.
- A separate meter setting must be made on the street side of the existing meter. The setting must be separately valved and run directly to outside faucets.
- When plumbing is complete and the meter setting made, the plumber shall contact the Water Department office for inspection of the new line and installation of the meter.
- The irrigation meter shall be carried as a separate account. The account shall be billed at the base rate of \$7.21 for the first 1,000 gallons or lesser per month plus \$7.21 per 1,000 gallons for everything over the first 1,000 gallons. A 3% annual increase shall be incorporated July 1 of each fiscal year. Res. #11-13
- During the months when the irrigation water is not being used, the account shall be billed at the base rate per month. Res. #11-13
- A one-time \$120.00 fee shall be charged for the meter installation and new account set up. Res. #11-13
- If the irrigation line is determined to cause possible backflow or cross connection problems, a suitable backflow prevention device will be required and the account holder shall have such installed and maintained.

New Construction

Contractor will not be charged a utility deposit. Water/sewer service will be billed to contractor once plumbing and meter are installed. It will be the contractor's responsibility to contact the Public Works Director once installation is complete. Res. #10-13

Water Main Taps

Utility Responsibilities

The Utility will oversee and inspect all taps made on the water mains. 48-hour notice will be given to the Utility before any taps will be allowed.

Water Main Taps

The customer or plumber will be responsible for the cost of the water main taps.

CHAPTER 92

WATER RATES

92.01 Service Charges
92.02 Rates and Service
92.03 Rates Outside the City
92.04 Billing for Water Service

92.05 Service Discontinued
92.06 Lien for Nonpayment
92.07 Lien Exemption
92.08 Lien Notice
92.09 Utility Deposit

92.01 SERVICE CHARGES. Each customer shall pay for water service provided by the City based upon use of water as determined by meters provided for in Chapter 91. Each location, building, premises or connection shall be considered a separate and distinct customer whether owned or controlled by the same person or not. The service charges shall be billed as part of a combined service account which means a customer service account for the provision of two or more utility services. (Ord. 422)

(Code of Iowa, Sec. 384.84)

92.02 RATES AND SERVICE. Water service shall be furnished to the City at rates to be determined by the City Council and adopted by resolution published in the manner of an ordinance. (Ord. 525 – Sep. 06 Supp.)

92.03 RATES OUTSIDE THE CITY. Water service shall be provided to any customer located outside the corporate limits of the City which the City has agreed to serve at the rates provided in Section 92.02. No such customer, however, will be served unless the customer shall have signed a service contract agreeing to be bound by the ordinances, rules and regulations applying to water service established by the Council.

(Code of Iowa, Sec. 364.4 & 384.84)

92.04 BILLING FOR WATER SERVICE. Water service shall be billed as part of a combined service account, payable in accordance with the following:

(Code of Iowa, Sec. 384.84)

1. Meters Read. Water meters shall be read on a monthly basis, prior to the end of each month.
2. Bills Issued. The Clerk shall prepare and issue bills for combined

Division Four

Water Main Extension and Improvements

General

A water main may be extended provided there is reasonable expectation of future revenue being generated to justify the extension.

All water main extensions will conform to the requirements of the State of Iowa Urban Standards Specifications, the City Code of Baxter

A main extensions shall consist of six inch (6") diameter pipe or greater.

A water main may be extended between existing pipes in order to improve the flow characteristics of the water system.

All water main extensions shall comply with the "Utilities" Urban Standard Specifications for Public Improvements as currently files with and approved by the Iowa Department of Natural Resources. A copy of said specifications are available for viewing at the Utility Business Office.

Any water main extension, enlargement, or water system improvement not provided for in these service rules shall be referred to the City Council.

New Water Main Extensions for Subdivisions when Developer Owns Property on One Side of Street.

In order to assure an adequate supply of water, the design and construction of mains and appurtenances shall be under the control and direct supervision of the Utility. Such control shall include determination of the size and type of pipe, and selection of points of connection to the existing system.

The developer shall pay the cost of water main extensions. Any person wishing to connect to the water main, other than that property owned by the developer shall pay the developer a fee Pre foot Cost.

Any person, firm, or corporation who becomes insolvent or ceases to do business after signing of an agreement shall not be entitled to reimbursement and any agreement shall be final.

All agreements allowing for reimbursement shall become null and void after the expiration of ten years from the date of the agreement.

The Baxter City Council decision on any matter concerning this policy shall be final.

The Utility will not permit anyone to connect to the water main until the person wishing to connect presents a receipt showing payment to the original developer.

All extensions of water mains shall be and remain the property of the City of Baxter. The original contributor agrees that they establish no title or ownership to the extension by reason of their contribution. The Utility shall have the right to extend, modify, replace, connect to, tap and operate the extension at its sole discretion without procuring the consent of any party or parties, contributing to the original construction cost, and without incurring any liability thereto.

Extension and Use of Water Mains and Service Lines – Outside the Corporate Limits

Water Mains will not be extended beyond the limits of the City of Baxter except in those instances where such extensions will improve the service within the City, when such extensions are required to reach areas within the City limits or improve the utilities distribution system and or approved by the City Council.

Subdivision Development

When subdivision is planned for construction, a request shall be made to attach subdivision to city water main.

The developer shall furnish the utility with a set of plans and specifications for the proposed construction for review and approval before construction.

The developer shall obtain a "Water Main Construction Permit" from the IDNR prior to the start of construction.

The developer shall have the water main constructed by a contractor licensed with the City of Baxter and conforming to the Urban Standard Specifications for Public Improvements.

The developer shall provide the utility with a set of as built plans upon completion and acceptance by the City.

Ownership of Mains – All water mains shall be and remain the property of the City of Baxter. The developer establishes no title or ownership to the constructed water mains because of their contribution. The Waterworks' shall have the right to extend, modify, replace, connect to, top, and operate the main.

Water Main Extensions by the Utility and Tap fees

In areas where the Utility installs water mains at utility expense, the developer, contractor, and or property owner shall pay a Capital Recovery Charge for property adjacent to a water main before a service line connection is made.

The capital Recovery Charge is based on the Growth Related Method.

Service Line	Max Flow Rate	Factor	CRC Charge Per
3/4"	20gpm	1	\$429.00
1"	50gpm	2	\$1,072.50
1 1/2"	100gpm	3	\$2,145.00
2	160gpm	4	\$3,442.00
3	300gpm	5	\$6,435.00
4	600gpm	6	\$12,870.00
6	1250gpm	7	\$26,812.00
8	1600gpm	8	\$34,320.00
10 and 12"	2000gpm	9	\$42,900.00

* Residential Subdivision Developer shall be charged \$429.00 per lot.

Water System Construction Specifications for City of Baxter Waterworks'

This is a compilation of the basic construction standards for Baxter water system. Those contractors and engineers wishing a full set of standards (Urban Design Standards for Public Improvements) must contact Snyder and Associates of Ames, IA and purchase a set. Public improvement standards for 46 cities are included. As much as possible, Cities and Water utilities have tried to standardize specifications, so that engineers and contractors will have a good working knowledge of the Public Works requirements of each city.

All material used shall be approved by Utility, and supplied by contractor and or developer.

Products

Water Main Pipe

1. Poly Vinyl Chloride (PVC) Pipe
 - C900 or C905 with cast iron pipe OD
 - 4" thru 24" DR18 wall thickness
 - Over 24" refer to plans
 - Marking on pipe name of mfg., size and class, insertion depth gage, NSF seals.
2. Ductile Iron Pipe
 - 4" thru 24", Class 52
 - Over 24" as shown in plans.
 - Joint type: Use bush-on type except as otherwise required in plans or specs authorized by engineer.
 - Marking on pipe, name of mfg., size and class, spigot insertion Depth gage.
3. Water Service Pipe
 - ¾" to 2" – Type K Copper or AWWA equivalent
 - 4" and larger – C900 or DI same spec. as water main.

Valves

AWWA Approved

General

- Same size as pipe in which installed
- Open counter clockwise

Type allowed for Water Main and Service 4" and larger.

4. Gate Valve-
 - Non-rising stem, resilient seat cast iron body.
 - Exposed bolts and nuts: Stainless Steel
 - Two-inch square nut operator.
5. Tap Valve Assembly
 - Tap Valve to conform to ANSI/AWWA c509
 - Tap Sleeve Stainless Steele Type 304
 - 200 psi
 - Fully surround pipe
 - Mueller Sleeve and Valve or approved equal

- Sleeve and valve will be furnished by Utility Paid for by contractor.

6. Curb Valve

Type Allowed for ¾" to 2" service line

- Mueller H-10306 or approved equal
- Stainless Steel Rod

Fire Hydrants

- Watrous WB 67 two way or three way or approved equal
- Hydrant Valve shall open against main pressure
- Break Away Flange
- National Standard thread or all nozzles
- 6" MJ inlet and a 5 ¼" main valve, unless otherwise specified
- Operating Nut-Standard 5 sided open counter clockwise
- Bury 5'6" unless otherwise specified
- Color- two coats of Fire Hydrant red

Valve Boxes

- Valve boxes 4" to 16" Gate Valves
- Material: Cast Iron
- Screw Extension type
- 5" min. I.D.
- Adequate length to bring top to ground surface
- Check with Utility

Water Main Installation

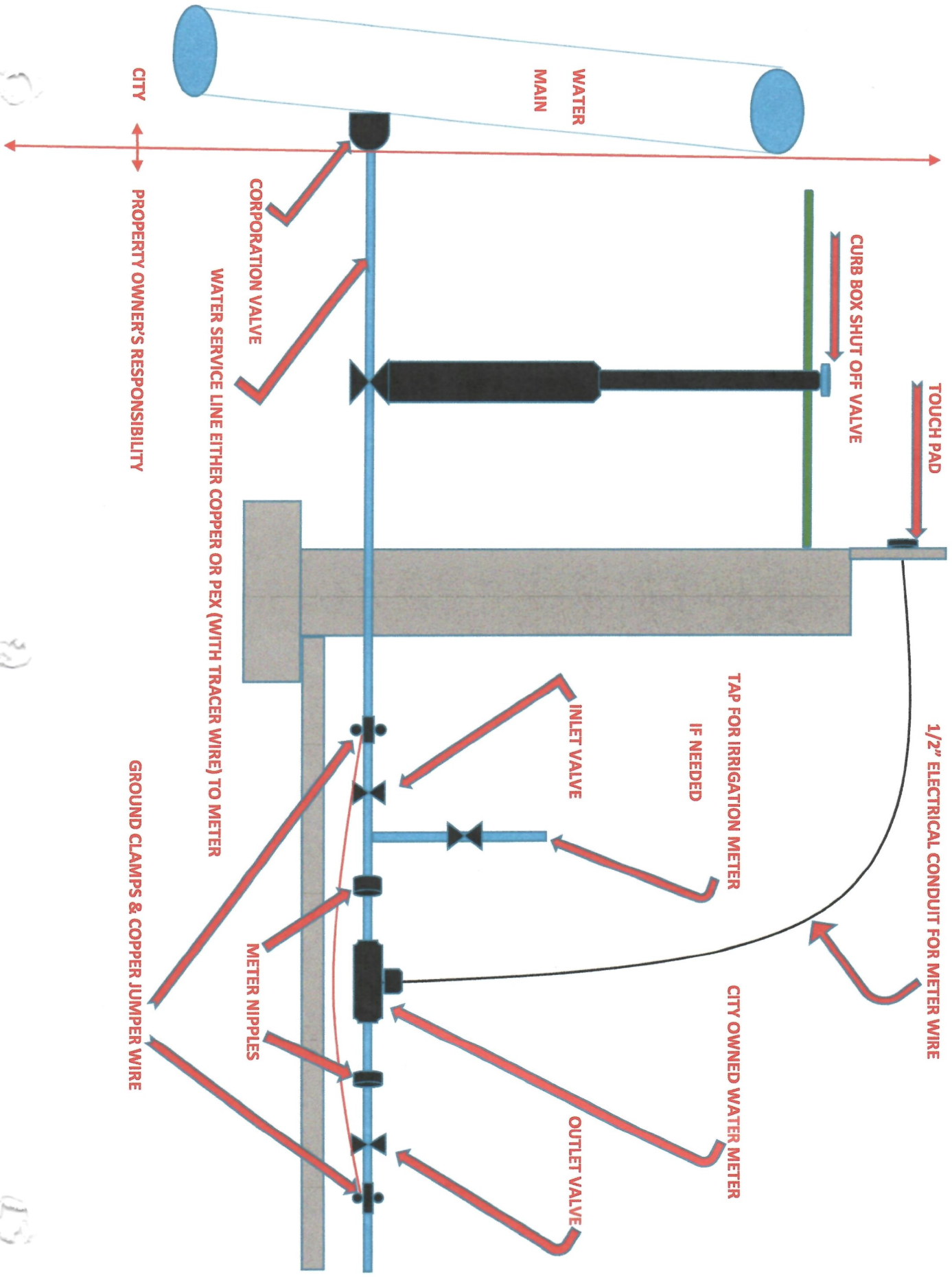
- Trenches shall be dug so that the pipe can be laid to the proper alignment and depth required.
- The width of the trench shall be ample to permit the pipe to be laid properly and the backfill to be placed and compacted as specified.
- The trench shall be excavated to the depth required so as to provide a uniform bearing for the pipe on solid and undisturbed ground at every point between the bell holes.
- Where the bottom of the trench at the sub-grade is found to be unstable or to include large rocks or other debris which under the judgment of the utility should be removed; the contractor shall excavate or remove such unsuitable

material up to the depth of one foot below plan depth without additional compensation.

- Trenches shall be shored as required by Federal and State Safety Standards and as may be necessary to protect life, property or the work.
- All excavated material shall be piled so as not to endanger the work and avoid obstructing sidewalks and driveways. Hydrants, valve pit covers, valve boxes, curb stop boxed, and other utility controls shall be left unobstructed and accessible until the work is complete.
- To protect persons from injury and to avoid property damage, adequate barricades and construction signs shall be provided.
- Work shall be carried on in a manner that will cause the least interruption in traffic. Street closing must have prior approval from the City of Baxter and the Fire Department shall be notified.
- An excavation permit must be obtained from the Public Works prior to Excavation in any public right-of-way and on city streets.
- No valve or other control on the existing structure shall be operated for any Purpose by a contractor. The utility will operate all valves, hydrants, blow-off and curb stops.

Disinfection

- Isolate piping to be chlorinated from lines in service and from points of use.
- Coordinate disinfection with utility.
- Contractor will have water samples tested supplied to Utility.
- Maintain isolation until test results have been approved.
- Chlorine residual to equal that of existing water system.
- Discharge chlorinated water in safe manner.



CITY PROPERTY OWNER'S RESPONSIBILITY

GROUND CLAMPS & COPPER JUMPER WIRE

WATER SERVICE LINE EITHER COPPER OR PEEX (WITH TRACER WIRE) TO METER

CORPORATION VALVE

WATER MAIN

INLET VALVE

OUTLET VALVE

TAP FOR IRRIGATION METER
IF NEEDED

CITY OWNED WATER METER

CURB BOX SHUT OFF VALVE

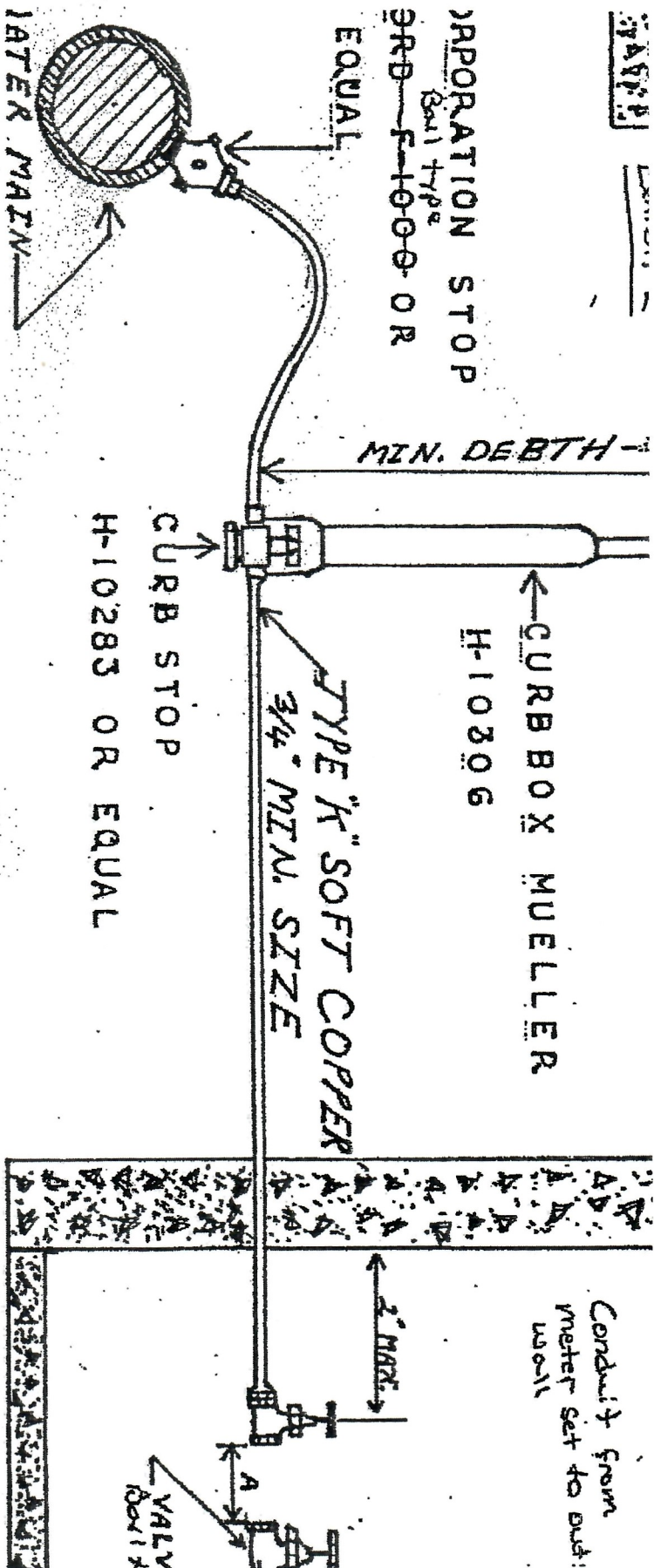
TOUCH PAD

1/2" ELECTRICAL CONDUIT FOR METER WIRE

2

2

2



METER SPACING		SPECIAL NOTES		DETAIL OF SERVICE INSTALLATION	
SIZE	METER SPACE	METER SPACE INCLUDES	TAILPIECE MEASUREMENT	SCALE:	DATE:
3/4"	18 1/4"			NONE	7-8-84
1 1/4"	24 1/4"				
1 3/4"	30 1/4"				
2"	36 1/4"				

FIG

Exhibit 3

Displacement-Type Meters

TABLE 1

Meter Size in.	Safe Maximum Operating Capacity gpm	Maximum Pressure Loss at Safe Maximum Operating Capacity psi	Recommended* Maximum Rate for Continuous Operations gpm	Minimum Test Flow† gpm	Normal Test Flow Limit† gpm	Maximum Number of Disc Nutations or Oscillations	
						per 10 gal	per
5/8	20	13	10	1 1/4	1-20	580	4
3/4	20	13	10	1 1/4	1-20	580	4
1	30	13	15	1 1/2	2-30	333	2
1 1/4	50	13	25	3/4	3-50	153	1
2	100	15	50	1 1/2	5-100	67	3
3	160	15	80	2	8-160	40	3
4	300	15	150	4	16-300	20	1
6	500	15	250	7	28-500	9.3	
	1000	15	500	12	48-1000	4	

* See Sec. A.5.1.
 † See Sec. 3.8—Registration Accuracy.