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MIDAMERICAN
ENERGY COMPANY.

GAS SERVICE MANUAL 2018

 **MIDAMERICAN**
ENERGY COMPANY.

GAS SERVICE MANUAL

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GAS SERVICE MANUAL COMMUNITIES SERVED

IOWA

Adair County	Colfax	Harrison County	Marne	Rock Valley
Adel	Coralville	Hartford	Martensdale	Rockwell
Afton	Cumming	Harvey	Melcher-Dallas	Rockwell City
Agency	Cylinder	Hedrick	Meriden	Runnells
Akron	Dakota City	Henderson	Merrill	Ruthven
Algona	Dallas Center	Hiawatha	Mills County	Sac County
Alleman	Dallas County	Hills	Milo	Saint Charles
Allison	Danbury	Hinton	Minburn	Saint Marys
Altoona	Davenport	Holstein	Minden	Salix
Alvord	Defiance	Hospers	Mingo	Schaller
Ankeny	Denver	Hudson	Missouri Valley	Scott County
Aplington	Des Moines	Hull	Mitchellville	Sergeant Bluff
Archer	De Soto	Humboldt	Monona County	Sheffield
Arthur	DeWitt	Humboldt County	Monroe	Shelby
Atalissa	Dexter	Ida County	Monroe County	Shelby County
Atkins	Donnellson	Ida Grove	Montgomery County	Sheldon
Audubon	Doon	Independence	Moorland	Shell Rock
Audubon County	Dubuque County	Indianola	Moville	Shenandoah
Aurelia	Dumont	Inwood	Muscatine County	Shueyville
Avoca	Duncombe	Iowa City	Nashua	Silver City
Badger	Dunkerton	Irwin	Neola	Sioux City
Bagley	Dunlap	Jackson County	New Hartford	Sioux County
Barnes City	Durant	Jamaica	New Sharon	Sloan
Battle Creek	Eagle Grove	Janesville	Newell	Solon
Bayard	Earlham	Jasper County	North Liberty	Spring Hill
Beacon	Earling	Jesup	Norwalk	Stanton
Benton County	Early	Johnson County	Oakland	Stuart
Bertram	Eddyville	Johnston	O'Brien County	Sutherland
Bettendorf	Eldridge	Keokuk County	Odebolt	Swisher
Black Hawk County	Elk Horn	Keomah Village	Oskaloosa	Thor
Blue Grass	Elk Run Heights	Kimballton	Otho	Tiffin
Bondurant	Elkhart	Kingsley	Ottumwa	Treynor
Boone County	Elliott	Kossuth County	Oxford	Underwood
Bouton	Ely	Lake City	Pacific Junction	Union County
Boyden	Emerson	Larrabee	Page County	University Heights
Brayton	Emmet County	Latimer	Palo Alto County	University Park
Bremer County	Essex	Lawton	Panora	Urbandale
Bristow	Evansdale	Le Mars	Panorama Park	Van Meter
Buchanan County	Exira	LeClaire	Parkersburg	Walcott
Buena Vista County	Fairfax	Lee County	Perry	Walnut
Buffalo	Farragut	Leighton	Persia	Wapello County
Bussey	Fenton	Linden	Plainfield	Warren County
Butler County	Floyd	Linn County	Pleasant Hill	Washington County
Calhoun County	Floyd County	Logan	Pleasantville	Waterloo
Callender	Fort Dodge	Lohrville	Plymouth County	Waukee
Calumet	Fort Madison	Lone Rock	Polk City	Waverly
Carlisle	Franklin County	Long Grove	Polk County	Webster County
Carson	Fremont	Lovilia	Port Neal	Wesley
Cass County	Fremont County	Lyon County	Portsmouth	West Des Moines
Cedar County	Galva	Lytton	Pottawattamie County	West Liberty
Cedar Rapids	Gilbertville	Macedonia	Prairie City	West Point
Charles City	Goldfield	Madison County	Princeton	Whiting
Cherokee County	Granville	Mahaska County	Raymond	Wilton
Chickasaw County	Grimes	Malvern	Red Oak	Windsor Heights
Clarion	Griswold	Manson	Redfield	Winterset
Clarksville	Guthrie County	Mapleton	Ringsted	Woodbury County
Cleghorn	Hamilton	Marcus	Riverdale	Wright County
Clinton County	Hampton	Marion	Riverside	Yale
Clive	Hancock	Marion County	Robins	

GAS SERVICE MANUAL

COMMUNITIES SERVED

ILLINOIS



Andalusia
Carbon Cliff
Cleveland
Coal Valley
Colona
Cordova
East Moline
Hampton
Henry County
Hillsdale
Milan
Moline
Oak Grove
Orion
Port Byron
Rapids City
Rock Island
Rock Island County
Silvis

SOUTH DAKOTA



Alcester
Baltic
Beresford
Brandon
Canton
Centerville
Clay County
Colton
Dakota Dunes
Dell Rapids
Elk Point
Flandreau
Gayville
Harrisburg
Hartford
Jefferson
Lake County
Lennox
Lincoln County
McCook County
Minnehaha County
Montrose
Moody County
North Sioux City
Ramona
Salem
Sioux Falls
Tea
Turner County
Union County
Valley Springs
Vermillion
Worthing
Yankton
Yankton County

NEBRASKA



Crystal Lake
Dakota City
Dakota County
South Sioux City



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GAS SERVICE MANUAL

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GAS SERVICE MANUAL INTRODUCTION

PURPOSE

The purpose of this manual is to supply essential information regarding gas installations of MidAmerican Energy Company (MidAmerican Energy or Company) to:

- Customers
- Customer's representatives
- Employees
- Architects
- Engineers
- Contractors

It is the Company's objective to cooperate with and assist customers in obtaining safe, efficient gas service. The Company's facilities will be constructed, installed, maintained and operated in accordance with applicable codes and accepted good engineering practice in the gas industry to ensure, as far as reasonably possible, continuity of service, uniformity in the quality of the service furnished, and the safety of persons and property.

OFFICIAL VERSION OF GAS SERVICE MANUAL

The official and most current version of this manual is found on midamericanenergy.com website, on the "Contractors" page.

CODE COMPLIANCE

Information contained within this manual shall not be construed to relieve or lessen the responsibility of the customer or customer's representative from complying with all applicable codes, rules and regulations.

COMPANY LIABILITY

Consistent with the Company's tariff, no inspection by the Company or failure to object to the customer's installation shall render the Company liable for injury or damage resulting from any defective or deficient installation by the customer.

GAS SERVICE MANUAL INTRODUCTION

SAFETY CODES AND REGULATIONS

The information in this manual is based upon management-approved interpretation of the intended safe and practical application of the following:

- National Fuel Gas Code (NFPA 54/ANSI Z223.1, edition adopted by state)
- NFPA 501A Standard for Fire Safety Criteria for Manufactured Home Installations, Sites and Communities
- Uniform Mechanical Code
- Pipeline Safety Regulations CFR 49 Part 192
- Regulations of the governing state's utilities commission/board
- MidAmerican Energy tariffs

All installations shall meet these requirements for design, construction, materials and maintenance of natural gas fuel piping systems, equipment and related accessories.

Local governing authorities may impose more stringent requirements than shown in this manual.

MANUAL DOES NOT COVER

This manual does not cover gas utility installations that are under the exclusive control of the Company for the purpose of:

- Metering
 - Control
 - Regulation
 - Transmission
 - Distribution
 - Associated work practices of the Company in the exercise of its function as a utility
-

SPECIFIC PROBLEMS

If you desire to discuss specific problems not covered or resolved by this manual, contact your Company representative or call 1-888-427-5632.

ADDITIONAL INFORMATION

For additional copies of the 2018 Gas Service Manual, contact your Company representative or call 1-888-427-5632.

Additional information on MidAmerican Energy's rates and tariffs, and a current list of the communities served, can be found on our website: www.midamericanenergy.com

1.0 SAFETY

INTRODUCTION

The purpose of this section is to help those working near natural gas to understand the inherent dangers of natural gas, to help prevent damage to customer equipment and property, and to help prevent damage to Company facilities.

WHAT IS NATURAL GAS?

Natural gas is a naturally occurring mixture of combustible hydrocarbon gases (primarily methane) found in underground reservoirs. Natural gas is lighter than air and is colorless, tasteless and odorless.

SMELL OF NATURAL GAS

Natural gas is an odorless gas. An odorant is added to natural gas to produce a "rotten egg" or skunk-like odor.

DANGERS OF NATURAL GAS

The presence of all three of the following can produce a natural gas fire or explosion:

- Natural Gas
- Oxygen
- Source of Ignition

If the concentration of natural gas is 5-15% of gas in air and a source of ignition is present, an explosion and/or fire may result.

EXCESS FLOW VALVES

Federal regulations require that MidAmerican Energy install an excess flow valve on all eligible new or rebuilt service lines.

You may request that MidAmerican install an excess flow valve on your existing gas service line. To learn about costs and find out if your service is eligible, contact your Company representative or call 1-888-427-5632.

MANUAL SERVICE LINE SHUTOFF VALVES

Federal regulations require that MidAmerican Energy install manual service line shutoff valves on new or rebuilt service lines, as required.

EMERGENCY PHONE NUMBER

If you smell natural gas or suspect a gas leak, immediately evacuate the building and move to a safe location. Avoid doing anything that might produce static or sparks, such as touching any electrical switches, telephones (including cell phones) or smoking. Next, report the leak by calling MidAmerican Energy at: 1-800-595-5325

1.1 SAFETY OF CUSTOMER EQUIPMENT

CUSTOMER RESPONSIBILITY

The customer is solely responsible for all piping and equipment beyond the delivery point. This includes obtaining any necessary safety inspections, tests and repairs required to ensure safe operation. The delivery point will be the outlet side of the MidAmerican Energy meter set or at the connection to the customer's piping, whichever is further downstream.

To help ensure safety, the customer is required to use only piping, equipment and appliances that meet recognized gas piping, appliance and equipment codes. If any questions concerning the compliance of customer equipment arise, the customer should contact the local governing authority or MidAmerican Energy for assistance.

For the customer's responsibilities for pipe that is beyond the delivery point, refer to "Customer Owned Fuel Piping" on the following page.

The Company may refuse to provide service or may disconnect service, without notice, for a hazardous condition on the customer's premises.

PROTECTION OF EQUIPMENT AND PIPING

When the gas delivery pressure is in excess of 7 inches water column, the customer is responsible for providing regulation devices downstream of the Company meter to control the delivered pressure. It is the responsibility of the customer to provide over-pressure-protection devices downstream of any customer-owned regulating devices. The customer shall notify MidAmerican Energy prior to making any changes to their system's Maximum Allowable Operating Pressure (MAOP).

INSPECTION OF CUSTOMER FACILITIES

MidAmerican Energy may, but is not required or obligated to, inspect customer equipment when:

- turning service on or off,
- checking for gas leaks,
- investigating high or low gas pressure complaints,
- reading meters,
- relocating meters or
- performing any other similar utility services.

Any inspection of customer-owned piping or equipment by MidAmerican Energy is to avoid unnecessary interruptions of service to its customers or prevent damage to Company facilities and for no other purpose. The inspection shall not be construed to impose any liability upon the Company to the customer or any other person by reason thereof, and MidAmerican Energy shall not be liable or responsible for any loss, injury or damage which may result from the use of or defects in the customer's piping or equipment.

1.1 SAFETY OF CUSTOMER EQUIPMENT

CUSTOMER OWNED FUEL PIPING

MidAmerican Energy does not inspect or maintain customer-owned fuel piping beyond the delivery point. Customer-owned fuel piping must comply with National Fuel Gas Code NFPA 54 requirements or other local codes, whichever is more stringent. To meet these requirements, the customer is responsible for completing locates and periodic leak inspections on buried metallic and plastic pipes. The customer is also responsible for atmospheric corrosion inspections on metallic pipes and taking preventative action to control corrosion on buried metallic pipes. Repairs should be made immediately by a qualified person to correct any unsafe conditions. Check with your local governing authorities for more information.

APPROVED APPLIANCE CONNECTORS

Older appliance connectors that were made of uncoated brass or aluminum are prone to leaking. These connectors were deemed unsafe by government officials because of the high instances of leakage. MidAmerican Energy recommends customers have a qualified plumbing and heating dealer replace any uncoated brass connectors with approved connectors certified by the CSA Group (CSA). Approved connectors are made of either stainless steel or plastic coated metal that conforms to American National Standards Institute (ANSI) Z21.24.

The following CSA marks indicate that gas appliances and equipment designs meet minimum defined safety and performance standards, including all appropriate ANSI standards, and identifies that the product is certified for use in the United States.

USA Only

USA and Canada



(NRTL = OSHA Nationally Recognized Testing Laboratory)

Approved appliance connectors:
CSA approved connectors
Stainless steel connectors
Coated brass connectors

Unapproved Connectors:
Connectors not approved by CSA
Aluminum connectors
Uncoated brass connectors

For additional information, refer to the following website:
<http://www.csagroup.org/services-industries/csa-marks/>

1.1 SAFETY OF CUSTOMER EQUIPMENT

CORRUGATED STAINLESS STEEL TUBING (CSST)

MidAmerican Energy standard meter sets utilize the customer's piping for support. To minimize stress on the customer's piping, the preferred installation method is to use a rigid CSST Termination Fitting on the exterior wall to terminate the CSST (see Figure 7).

A Termination Fitting at the building wall creates a rigid connection point at the meter set. This is recommended by the manufacturer.

Alternative installation: If the customer's CSST piping will be connected directly to MidAmerican Energy's meter set, the contractor will have to inform MidAmerican Energy when applying for service so a special meter support can be installed (see Figure 7A). Failure to inform MidAmerican Energy that CSST will be connected to its meter will result in a charge to install the meter set support bracket.

The gas piping for the meter stub-out may be subject to local requirements such as size, location and material type. Check with your local governing authorities for more information.

BONDING

National Electrical Code (NEC), section 250.104(B): Other Metallic Piping: Where installed in or attached to a building or structure, metal piping system(s), including gas piping, that is likely to become energized shall be bonded to the service equipment enclosure, the grounded conductor at the service, the grounding electrode conductor where of sufficient size, or to the one or more grounding electrodes used. The bonding jumper(s) shall be sized in accordance with 250.122 using the rating of the circuit that is likely to energize the piping system(s).

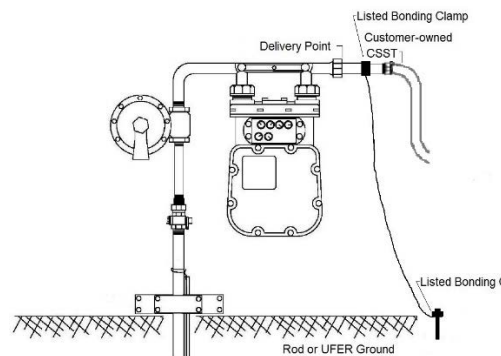
The equipment grounding conductor for the circuit that is likely to energize the piping shall be permitted to serve as the bonding means.

The points of attachment of the bonding jumper(s) shall be accessible.

CSST is required to be bonded. All CSST must be bonded by a qualified person according to installation instructions.

If bonding outside near the gas meter, the customer shall not attach the bond to the MidAmerican Energy side of the gas meter.

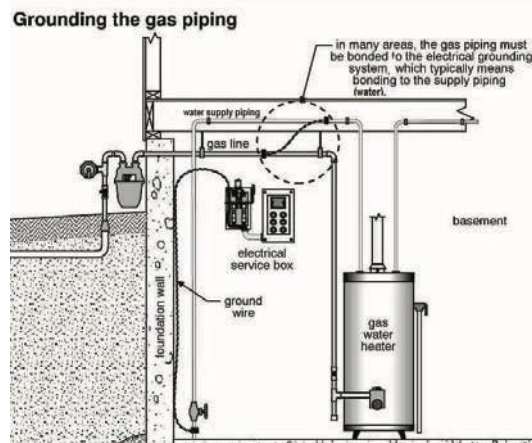
Bonding CSST



Gas Piping Picture" on the following page.

1.1 SAFETY OF CUSTOMER EQUIPMENT

GROUNDING GAS PIPING PICTURE



ONE CALL

It is the excavator's responsibility to make certain that they plan and do their work in such a manner that damage to utility property does not occur. At least two (2) working days before starting actual construction work, call the appropriate "One Call" number to have Company facilities located. The excavator is responsible to maintain locate marks during construction work. Excavators should never assume the location or depth of underground gas pipelines.

The excavator should know and understand the one call laws for the state in which they are digging. Each state in MidAmerican Energy's service territory publishes a Professional Excavator's Manual or Excavator Handbook for informational purposes and as a reference. Check the one call website for your state to view a copy of the publication.

ONE CALL PHONE CONTACTS

NATIONWIDE	<u>Dial 811</u> (Preferred)	
States:		
Illinois	1-800-892-0123	www.illinois1call.com
Iowa	1-800-292-8989	www.iowaonecall.com
Nebraska	1-800-331-5666	www.ne1call.com
South Dakota	1-800-781-7474	www.sdonecall.com

REPORTING DAMAGE TO PIPELINES

If a pipeline of any material, the tracer wire for plastic pipe or the coating on a steel pipeline is damaged in any way, immediately contact MidAmerican Energy at 1-888-427-5632 so that inspection and/or repair can be made before backfilling. If the pipeline coating is damaged and MidAmerican Energy is notified before backfilling, the repair of the pipeline coating will be completed at no charge.

1.1 SAFETY OF CUSTOMER EQUIPMENT

Most underground steel gas pipelines have a protective coating that prevents corrosion of the pipe. The protective coating can be damaged by direct contact either by dumping backfill containing broken pieces of masonry, stones or other heavy objects into the excavation or by rubbing or bumping against the coated pipe with digging equipment. Once the coating is damaged, corrosion begins and leaks may quickly develop.

Failure to notify MidAmerican Energy in the event of damage to facilities may:

- jeopardize the safety and the lives of employees and the public,
- violate federal laws,
- violate state one call laws,
- risk damage to customer's equipment,
- create costly project delays,
- create additional cost due to damage to other facilities.

Report any damage, regardless of how slight it might seem.

1.2 PROTECTION OF MIDAMERICAN ENERGY FACILITIES

PLACEMENT OF SPOIL

Spoil shall be located to minimize weight that may cause cave-ins on existing utilities. Prolonged storage over and near facilities shall be avoided. Spoil shall be arranged so rocks, concrete and other debris cannot fall into open cut trenches to damage exposed facilities.

Never cover valve or street boxes, manhole covers and other surface structures on MidAmerican Energy's utility system.

CLEARANCE TO OTHER FACILITIES

There shall be a minimum of 12 inches of clearance between the gas facilities and all other underground structures or utilities.

BACKFILL REQUIREMENTS AROUND PIPELINES

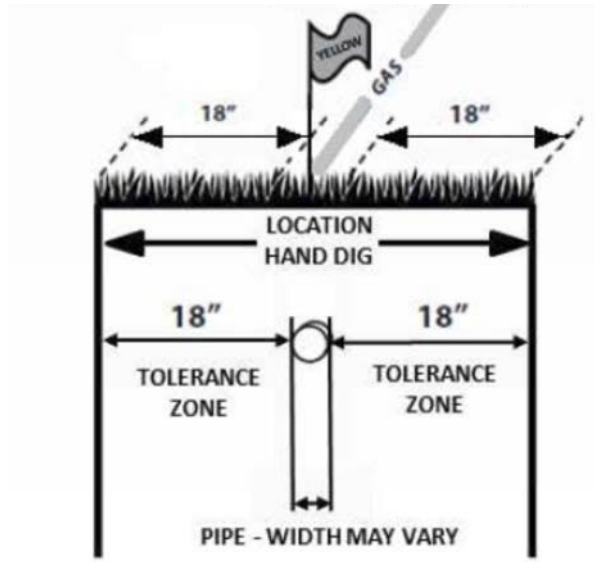
Backfill material placed around underground utilities should be free from frozen dirt, broken concrete, rocks or other materials that could cause damage to the pipeline. Backfill must be properly compacted to minimize the possibility of settlement or washout.

1.2 PROTECTION OF MIDAMERICAN ENERGY FACILITIES

EXPOSING UNDERGROUND PIPELINES NEAR EXCAVATIONS

Where operators mark their underground facilities, excavators must observe a “tolerance zone”, an area eighteen (18) inches horizontally on either side of the marked facility. If excavation must occur directly above the facility or within the tolerance zone, excavators should hand-dig test holes to determine the location of the underground facilities. No equipment or machinery, other than accepted procedures, such as vacuum excavation, should be used for exposing underground facilities within the tolerance zone or above the utility. Operators do not locate for depth.

Tolerance Zone (Hand Digging Required)



BLASTING

Prior to any blasting operation, MidAmerican Energy shall be notified by calling 1-888-427-5632. MidAmerican will review the request and may require a Company representative to be on site during the blasting operations. One Call shall also be notified 48 hours in advance.

OPEN CUT TRENCHING

Gas facilities near open cut trenching must be braced, sheeted or shored to eliminate damage or stress to pipelines due to settlement or cave-in. Contact MidAmerican Energy at 1-888-427-5632 with questions or concerns regarding the adequacy of your protective system.

2.0 AVAILABILITY AND CHARACTERISTICS OF SERVICE

INTRODUCTION

To determine if natural gas is available in your area, please contact MidAmerican Energy at 1-888-427-5632 or your Company representative.

EXTENSION POLICY

All extensions of gas facilities will be installed according to the Company's tariff. For further information, see Section 3.0 "Obtaining Gas Service" on pages 12-16 in this manual.

DELIVERY PRESSURES

The nominal pressure delivered at the outlet of the meter to most customers is approximately 7 inches water column (" w.c.) (0.25 psig).

MidAmerican Energy may provide delivery pressure greater than 7 inches water column upon customer request. The following standard pressures may be available:

MidAmerican standard delivery pressures above 7" w.c.

10" water column
0.5 psig (14" w.c.)
1 psig
2 psig
5 psig
10 psig

For other delivery pressures, contact your Company representative.

- For less than 1 psig (28" w.c.) delivery pressure to a customer, the customer's piping system must be able to receive, withstand and control 2 psig of gas pressure.
- For 1 psig (28" w.c.) or 2 psig delivery pressure to a customer, the customer's piping system must be able to receive, withstand and control 5 psig of gas pressure.
- For 5 psig delivery pressure to a customer, the customer's piping system must be able to receive, withstand and control 10 psig of gas pressure.
- For 10 psig delivery pressure to a customer, the customer's piping system must be able to receive, withstand and control 20 psig of gas pressure.

2.0 AVAILABILITY AND CHARACTERISTICS OF SERVICE

DELIVERY PRESSURES

For delivery pressures of 2 psig or greater where gas piping serves appliances designed to operate at a gas pressure of 14" w.c. or less, overpressure protection devices shall be installed by the customer. Refer to NFPA 54 Section 5.9, Overpressure Protection Devices.

Piping systems serving equipment designed to operate at delivery pressures greater than 14" w.c. shall be equipped with overpressure protection devices adjusted to limit the gas pressure to each connected appliance as required by the equipment manufacturer's installation instructions.

Upon inquiry by the customer, other higher delivery pressure options may be available. These special cases may require the execution of a contract between the customer and the Company. Not all pressures are available at all locations. Contact your Company representative for further information.

AVERAGE GROSS HEATING VALUE

The average gross heating value of gas received by the Company from its suppliers is expected to be approximately 1,000 BTU per cubic foot.

3.0 OBTAINING GAS SERVICE

INTRODUCTION

This section is provided to assist customers, developers and contractors in determining the requirements for gas main and service extensions. To avoid any unnecessary expense or delay to the customer, it is recommended that a Company representative be contacted at 1-888-427-5632, well before any construction or remodeling begins.

DEFINITIONS

Company equipment – MidAmerican Energy’s items carrying natural gas, such as valves, meters, regulators, relief valves that are normally installed above ground.

Company facilities – MidAmerican Energy’s natural gas carrying pipe and equipment installed below ground or above ground.

Gas main – The natural gas pipeline used for the purpose of delivering and distributing natural gas to or throughout large areas such as subdivisions or developments.

Gas service – The natural gas pipeline from the gas main to the inlet side of the regulator or gas meter for the purpose of serving a customer.

PROCEDURE FOR REQUESTING GAS MAIN

CUSTOMER RESPONSIBILITY

The following information is required for a gas main extension:

- Final plat map including 100% complete construction drawings in AutoCad or Microstation format and PDF, including civil plan and profile, master plan, lots, ROW, curb lines, public utility easements, other utilities, sidewalks, vicinity map, lot number or addresses, street names and legal description
- Number of single or multi-dwelling lots
- Location of existing or proposed utilities
- Location of public utility easements
- Detailed construction schedule, including site-ready date
- Storm Water Pollution Prevention Plan, if available
- Contact information for Civil Engineer, Construction Project Manager and customer to include:
 - o Firm Name
 - o Contact Name
 - o Phone number
 - o Email
 - o Address

COMPANY RESPONSIBILITY

Gas main information is forwarded to MidAmerican Energy engineering for design. The main extension contribution or advance, if any, is calculated based upon the customers who are expected to attach to the extension and begin service within 30 days, unless a longer time is agreed upon, not to exceed one year.

3.0 OBTAINING GAS SERVICE

PROCEDURE FOR REQUESTING GAS MAIN

CUSTOMER CONTRIBUTION OR ADVANCE

MidAmerican Energy will send a proposal or extension agreement to the customer for review and approval. If approved, the customer shall return a signed agreement along with a check, letter of credit or other surety, where applicable, for payment of the main extension unless the timing of the contribution or advance has been modified by mutual agreement.

A MidAmerican Energy representative will notify the customer if there will be charges for adverse construction conditions or other permit fees as applicable.

PROCEDURE FOR REQUESTING GAS SERVICE

CUSTOMER RESPONSIBILITY

The following information is required for a service line installation:

- A completed and signed facility agreement, including addresses (See Appendix A)
- Site plan
- Location and number of meters required
- Delivery pressure required
- Size and type of gas burning equipment
- Special regulator requirements (boilers, grain dryers)
- Site-ready date

COMPANY RESPONSIBILITY

After the above-mentioned information and forms are received, gas service installation information is forwarded to engineering to prepare a design and cost estimate. Customer design requests will be accommodated, when possible, within Company rules and regulations.

CUSTOMER CONTRIBUTION

A MidAmerican Energy representative will notify the customer if there will be additional charges for excess footage, adverse construction conditions or other permit fees as applicable.

PROCEDURE FOR REQUESTING COMMERCIAL/ INDUSTRIAL GAS SERVICE

CUSTOMER RESPONSIBILITY

The following additional information is required for a service line to a commercial / industrial facility:

- Final plat map including 100% complete construction drawings in AutoCad or Microstation format and PDF, including civil plan and profile, master plan, lots, ROW, curb lines, public utility easements, other utilities, sidewalks, vicinity map, addresses, street names and legal description
- Architectural floor plan and elevations in AutoCad or Microstation format and PDF noting customers preferred meter location showing doors, windows, grilles, etc.

3.0 OBTAINING GAS SERVICE

PROCEDURE FOR REQUESTING COMMERCIAL/ INDUSTRIAL GAS SERVICE

- Contact information for: Civil Engineer, Construction Project Manager and customer to include:
 - Firm Name
 - Contact Name
 - Phone number
 - Email
 - Address
- Total connected load (load of each equipment unit) (any existing load)
- Overall plat master plan and plat phasing (if available)

COMPANY RESPONSIBILITY

After the above-mentioned information and forms are received, gas service installation information is forwarded to engineering to prepare a design and cost estimate. Customer design requests will be accommodated, when possible, within Company rules and regulations.

CUSTOMER CONTRIBUTION

A Company representative will notify the customer if there will be additional charges for excess footage, adverse construction conditions or other permit fees as applicable.

TEMPORARY SERVICE

If sufficient system capacity exists at the proposed location, temporary service may be available. Before temporary service begins, a customer will need to:

- Sign a written agreement for temporary service for a specified period
- Pay all costs of the installation and removal
- Provide a suitable support for the meter and appurtenances
- Receive city or county approval, if needed

Temporary service is not available in Illinois.

3.0 OBTAINING GAS SERVICE

REQUIREMENTS FOR SCHEDULING WORK FOR MAIN AND/OR SERVICE

The customer should provide an approximate need date for installation. MidAmerican Energy personnel will inspect site for readiness and, if appropriate, will schedule work to be done. The customer is responsible to have site ready for construction by completing the following items:

MAIN

- Curb and gutter or street paving in new plat areas should be installed, as well as water and sewer, before gas mains will be extended.
- All necessary easements and permits for gas utilities that are required to be obtained by customer/developer have been obtained.
- Lot corners are pinned and/or staked, and marked, where applicable.
- Easements are staked, where applicable.
- Ground must be within four (4) inches of final grade where Company facilities are to be installed.
- All material and obstructions must be removed from path where Company facilities are to be installed.
- The location of any customer-owned underground facilities (i.e. fuel lines, sanitary sewer / septic lines, sump pump lines, watering systems, satellite TV cables, etc.) must be identified and clearly marked.
- Executed agreements and customer advance has been received, as applicable.
- The developer is required to maintain all erosion control.

SERVICE

- Address must be clearly posted at property.
- Lot corners are pinned and/or staked, and marked, where applicable.
- Easements are staked, where applicable.
- Ground must be within four (4) inches of final grade where Company facilities are to be installed.
- Foundation or meter site must be backfilled and properly compacted to prevent settling.
- A gas riser bracket, meter bracket, or other means of support shall be installed where applicable.
- All material and obstructions must be removed from path where Company facilities are to be installed.
- The location of any customer-owned underground facilities (i.e. fuel lines, sanitary sewer / septic lines, sump pump lines, watering systems, satellite TV cables, etc.) must be identified and clearly marked.
- All necessary easements and permits for gas utilities that are required to be obtained by customer have been obtained.
- The customer is required to maintain all erosion control.

3.0 OBTAINING GAS SERVICE

ADVERSE CONSTRUCTION CONDITIONS

MidAmerican Energy will apply an additional charge for all gas main extensions and on some services when adverse construction conditions exist. Typical “adverse construction conditions” include, but are not limited to, severe ground frost, unusually muddy or rugged terrain, rock, and/or inordinate amounts of unforeseen obstructions. The customer will be notified when it is necessary to apply these charges.

PERMITS

If customers are located in areas where special permits are required (railroad crossing, interstate crossing, etc.), allow additional time for gas main and service installation. Special permit requirements can extend construction times and/or increase expense to the customer.

RESIDENTIAL AND COMMERCIAL METER SETS

The gas meter for a new residential or commercial service will be installed at the time of service installation or as soon as practical after the service line is installed. The service will be secured by locking the service shutoff valve in the closed position to prevent flow of gas to the customer.

METER TURN ON

Meters on new gas service installations will not be turned on until the customer piping is connected to the gas meter outlet. MidAmerican Energy must be contacted a minimum of 48 hours (excluding Saturdays, Sundays and legal holidays) before the gas service turn on is required.

The customer is responsible for the following requirements in order for MidAmerican Energy to perform this check and turn on the gas meter:

- Where applicable, local inspections must be completed and the inspecting authority must notify MidAmerican Energy of the inspection release
- All valves are to be in the closed position
- All pipe ends shall be capped
- All individual fuel lines on multiple meter sets shall be permanently marked (see page 19)

MidAmerican Energy will perform a no-flow check on all meters to be turned on to ensure the customer piping is gas tight. If the no-flow check fails, the meter will remain locked in the off position and the customer will be contacted to make repairs.

Important! The plumber, builder or owner is responsible to ensure all requirements have been met to have gas service turned on. Contact MidAmerican Energy at 1-888-427-5632 or your Company representative to initiate a gas service turn on order or inquire about the status of your service.

4.0 REQUIREMENTS FOR SERVICE INSTALLATIONS

INTRODUCTION

This section relates to MidAmerican Energy's requirements for gas service piping installations.

NUMBER OF SERVICES TO A BUILDING

In the case of a single property with several adjacent buildings, the allowable footage will only be applied to one building. Exceptions may apply; refer to the current tariff for your state.

Only one service will be installed to a building. Units separated by a firewall, as determined by city code, will be treated as separate buildings.

MidAmerican Energy's service lines will not be extended inside a building from one tenant's basement to another tenant's basement, or from one building to another.

For multiple occupancy buildings, a single service may be installed to facilitate the banking of meters. If the building has more than one floor level, all meters for occupancy units above the first floor shall be installed at ground level.

SERVICE LINE ACCESS

MidAmerican Energy's gas service line will generally be installed in a straight line perpendicular to the gas main and shall be routed in a manner as to be accessible for future maintenance.

Gas service lines will not be installed beneath buildings or structures. When a building or structure is proposed to be constructed over a service line, the service will be moved at the customer's expense. For further information, see Section 7.0, "Modification of Company Gas Facilities" on page 22 in this manual.

PLACEMENT OF STRUCTURES NEAR GAS FACILITIES

Please notify MidAmerican Energy before installing any of these items: decks, porches, gazebos, pools, fire pits, sheds, garages, etc. These items shall not be located over a main or service line.

Contact MidAmerican Energy at 1-888-427-5632 or your Company representative to notify them or if you have any questions.

SHUT-OFF VALVES

All new gas service lines shall have an accessible shut-off valve outside of the building. MidAmerican Energy will install and maintain this valve.

5.0 REQUIREMENTS FOR GAS METER SETS

INTRODUCTION

This section relates to MidAmerican's requirements for gas meter installations.

ADVANCE NOTICE

The customer or the customer's agent is requested to consult MidAmerican in advance on any matters pertaining to the location and type of meter installation required, the size and operating characteristics of gas burning equipment, the gas pressures available, and the plans and procedures for connecting the equipment. For more information, see Section 3.0, "Obtaining Gas Service", pages 12-16 in this manual.

METER LOCATION

All meters shall be installed outdoors at a point agreeable to the property owner or building contractor and MidAmerican. Each meter must be installed in a readily accessible location, generally on the front one-half of the structure (See Figure 1), and be protected from damage. If it is not possible to meet these requirements, the installation will be considered a special case and must be approved by MidAmerican.

One metering location will be allowed for each building. Exceptions must be approved by MidAmerican.

Meters shall be located in an accessible area. The meter shall not be located where the flow from a downspout overflow or sump pump line could cause an accumulation of ice on the gas meter set or where future construction may require meter relocation.

The customer shall provide adequate working space for MidAmerican personnel to maintain the metering and regulating equipment as follows:

- Six (6) feet head clearance above grade
 - Three (3) feet from the front of the meter
 - One (1) foot to either side of the meter
 - Six (6) feet of level ground to any retaining walls or other sudden drop offs in front of the meter
-

PROTECTION OF METER FACILITIES

To provide customer safety, all meter facilities subject to vehicular traffic shall be protected from damage. Protection against damage is the responsibility of the customer. The customer shall furnish and install physical barriers to protect the meter facilities as specified by the Company (See Figures 20 and 21). Failure by the customer to provide the necessary protection may result in MidAmerican installing the protection at the customer's expense.

5.0 REQUIREMENTS FOR GAS METER SETS

CLEARANCE REQUIREMENTS FOR REGULATOR VENT

For vertical and horizontal clearance requirements from the regulator vent, refer to Figures 2 - 5.

For clearance requirements from an industrial gas meter set to the power supply for a telecommunications box (EC350 Cell Phone Design), refer to Figure 19.

If clearances are not maintained, the customer shall pay all necessary expenses to bring the installation into compliance.

Local codes may require a greater clearance. Check with your local governing authorities.

TYPICAL METER CONFIGURATIONS

The various configurations and dimensions of MidAmerican Energy's typical meter sets are shown in Figures 6 - 18. The meter sets shown are based upon the load capacity required by the customer.

An alternate metering configuration may be designed by MidAmerican Energy due to special load requirements or due to limited construction space.

DELIVERY POINT

The delivery point will be the outlet side of the MidAmerican Energy meter set or at the connection to the customer's fuel piping, whichever is further downstream. Fuel line piping shall be installed in a manner that avoids undue strain on the meter.

MARKING MULTIPLE METERS AT ONE LOCATION

MidAmerican Energy will not install multiple meters at one location unless the customer's individual fuel lines are clearly and permanently marked or identified by address, apartment number, unit number, etc.

Permanent marking methods include paint, metal tags, or another method approved by the Company representative. Felt tip "permanent" markers are not acceptable as these quickly fade.

6.0 MANUFACTURED HOMES

INTRODUCTION

The requirements of this section shall apply to the installation and connection of gas service to all manufactured homes (mobile homes, trailers, manufactured homes).

SAFETY CODES AND REGULATIONS

All gas appliances installed must meet the specifications of NFPA 501A for Manufactured Home Installations and NFPA 54 (National Fuel Gas Code). Gas water heaters and furnaces must be designed and labeled for mobile home use. Where the local governing authorities have established more stringent requirements, those requirements shall prevail.

CUSTOMER OWNED FUEL PIPING

MidAmerican Energy does not inspect or maintain customer-owned fuel piping beyond the delivery point. MidAmerican Energy recommends calling a qualified plumbing and heating dealer for an inspection. Customer-owned fuel piping must comply with National Fuel Gas Code NFPA 54 and 501A requirements or other local codes, whichever is more stringent. Check with your local governing authorities.

An approved manufactured home connector shall be connected to rigid piping that extends outside the skirting of the home, refer to Figure 8.

To meet these requirements, the customer is responsible for completing periodic leak inspections and taking preventative action to control corrosion on metallic pipes. Repairs should be made immediately to correct any unsafe conditions.

EASEMENT REQUIREMENTS

Installation of gas mains in manufactured home parks must be made on platted public utility easements or on a specifically granted gas easement to MidAmerican Energy. MidAmerican Energy requires that easements be obtained for all gas mains before installation of any facilities. Mains shall be installed in manufactured home parks along the street or roadway, not on the back lot line, unless otherwise authorized by engineering.

PLACEMENT OF MANUFACTURED HOME NEAR GAS FACILITIES

Customer must provide adequate space for installation of Company facilities. A manufactured home must maintain a distance of five (5) feet from the gas main or gas service. If this is not practical, contact your MidAmerican Energy Company representative at 1-888-427-5362.

If a manufactured home or other structure (decks, porches, gazebos, pools, fire pits, sheds, etc.) is placed over a gas main or service, the manufactured home or other structure must be moved. If this is not practical, the customer or property owner shall reimburse the Company for relocating the gas main or service.

6.0 MANUFACTURED HOMES

LOCATION OF SERVICE TERMINATION

MidAmerican Energy will install the service riser at the side of the manufactured home.

Services will typically terminate 3 feet from the side of the manufactured home at a point within the rear third of the pad. Customer-owned piping must be properly supported.

ANCHORING

Manufactured homes shall be properly anchored prior to the meter being turned on.

CONNECTORS

Connectors between the meter outlet and the manufactured home shall be a flex-type connector approved by CSA for outdoor use. Other connectors may be allowed by local governing authorities. The customer shall furnish and install this connector.

7.0 MODIFICATION OF COMPANY GAS FACILITIES

NOTIFICATION REQUIREMENTS

The customer shall notify the Company in advance of any work that may require the relocation, replacement or modification of Company facilities.

Some examples of customer modification work are:

Garages or sheds	Landscaping
Porches	Gazebos
Pools	Fire pits
Building additions or remodeling	Decks

Substantial changes to load such as, but not limited to:

- installation or removal of a natural gas generator
 - installation or removal of tankless on-demand water heater
-

MODIFICATION OF GAS FACILITIES

The customer or property owner shall reimburse the Company for the costs incurred in relocating or replacing the Company facilities under the following conditions:

- Structural changes to an existing building or addition of a new building which would result in a safe service piping arrangement becoming hazardous according to Company standards
 - Gas meter, riser or meter shutoff valve becomes buried due to changes in grade
 - Bottom of riser or service pipe becomes exposed/shallow due to changes in grade
 - Modifications for the convenience or at the request of the customer or property owner
-

METER RELOCATIONS

When a customer requests a gas meter to be moved, the customer may be charged for the relocation. Additionally, the customer is required to have a qualified contractor install all necessary customer-owned fuel line piping to the new delivery point. A city/county inspection may also be required.

If MidAmerican Energy performs a planned replacement of the customer's gas service within 12 months of the meter being moved from inside to outside, the customer will be refunded the MidAmerican Energy charges.

AUTHORIZATION

Written authorization shall be obtained from the customer or property owner before work is started. Billing shall be based on the cost estimate prepared by a Company representative.

The entire cost of the relocation will be billed to the customer unless the modification is mutually beneficial. In such instances, the cost may be shared on a basis agreeable to both the customer or property owner and the Company.

8.0 DIVERSION OF SERVICE OR TAMPERING

INTRODUCTION

MidAmerican Energy is legally authorized through its tariffs to recover losses associated with diversion of service, unauthorized use of service, etc.

Unauthorized use of service occurs when a person receives benefit of metered utility service without MidAmerican Energy's consent. Diversion of service is illegally tampering with or bypassing Company equipment with the intent of stealing/benefiting from unmetered utility service. Tampering is interfering with the operation of Company equipment.

PROHIBITED ACTIONS

The following actions are prohibited:

- Opening or damaging Company locks
 - Breaking/removing seals on meters or regulators
 - Tampering with, moving, or removing Company equipment
 - Bypassing the meter
 - Interference with operation of Company equipment
 - Unauthorized work performed on meter installations or other property of the Company
-

DISCONNECTION

The Company may disconnect service to the customer without notice in the event of such diversion or tampering. In such cases, the meter and metering equipment may be removed.

CUSTOMER COST

The customer shall be responsible for payment of all costs incurred as a result of unauthorized use, diversion of service or tampering. The customer may also be back-billed for estimated/approximate consumption charges and the customer may also be required to relocate their gas meter and associated service to the outside of the premises to allow 24-hour access to the meter. This will be done at the customer's expense. Service will not be restored until all required payments are received.

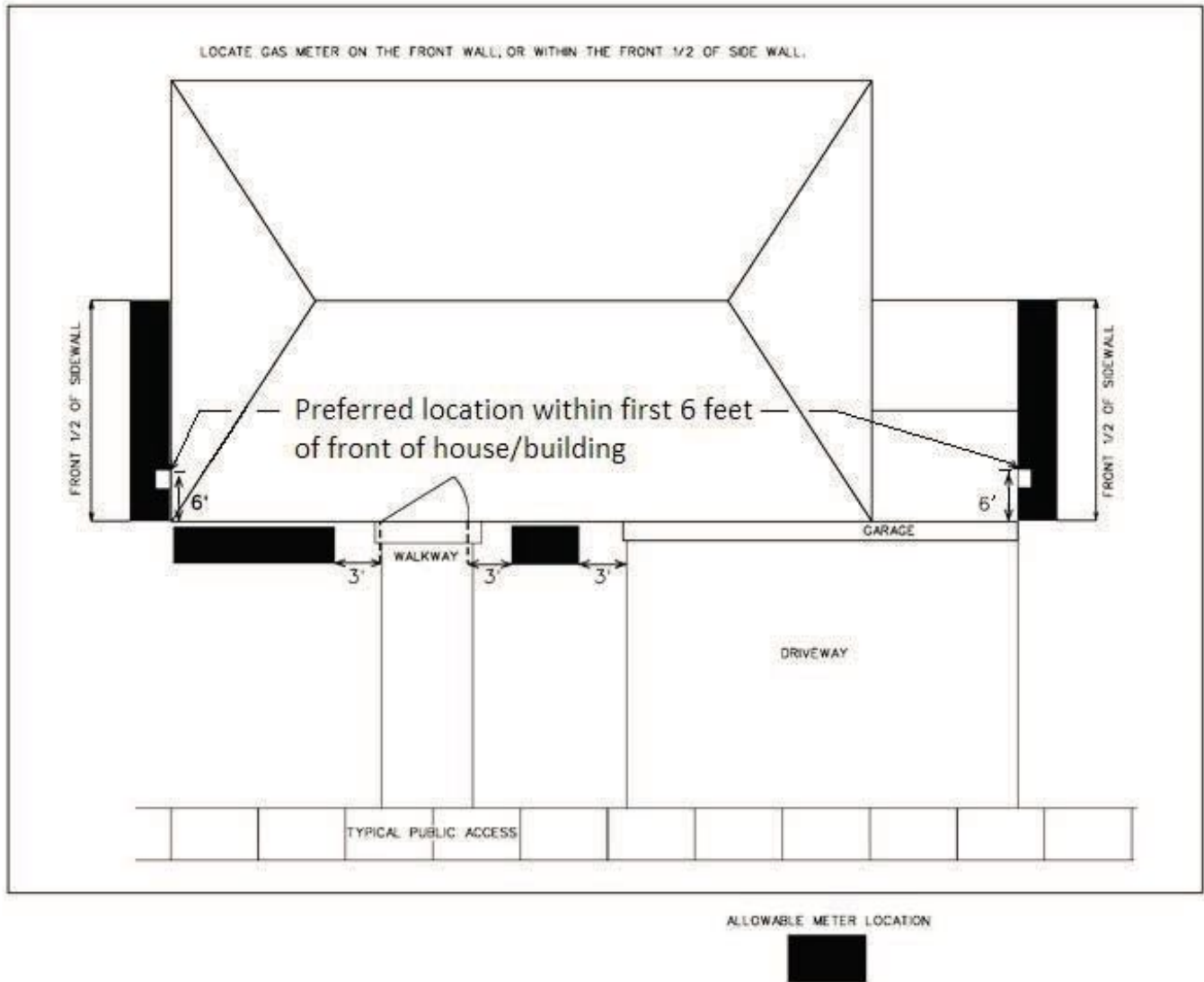
DOCUMENTATION

Each incident will be documented on the customer's account. Incidents may be reported to local authorities.



GAS SERVICE MANUAL
FIGURES

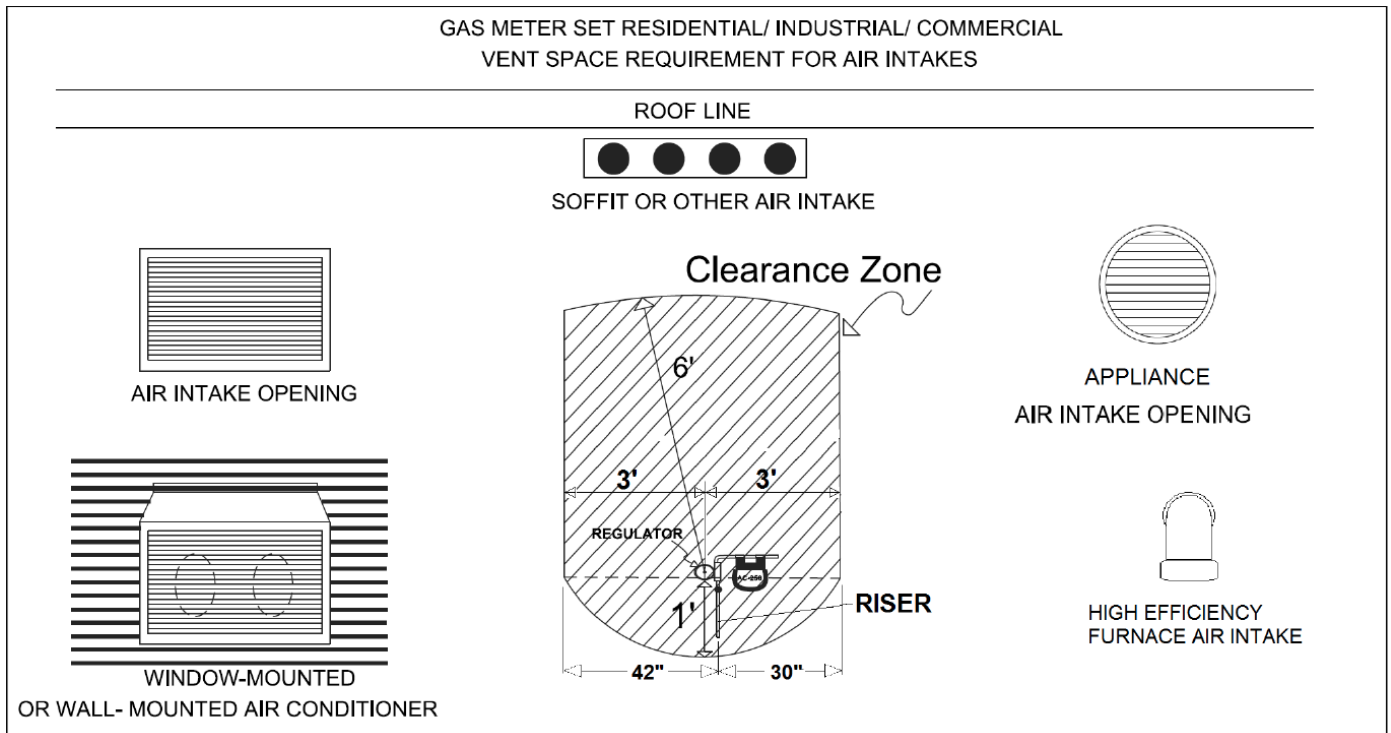
FIGURE 1 PREFERRED LOCATION OF GAS METER SET



NOTES:

- 1 Preferred meter location is along a side wall, within the front six (6) feet from of the front corner as shown.
- 2 Meter sets will not be approved on the back side of a structure, including behind a garage.
- 3 The customer is responsible to provide damage protection for the gas meter set (examples include damage from vehicular traffic, lawn mowing equipment, etc.). Refer to Figure 20, "Typical Meter Barricade" and Figure 21 "Typical Meter Barricade Footing").
- 4 Decks, plantings, landscaping, retaining walls or other structures should be placed as to not prohibit MidAmerican Energy personnel from readily accessing the meter and shut-off valve.

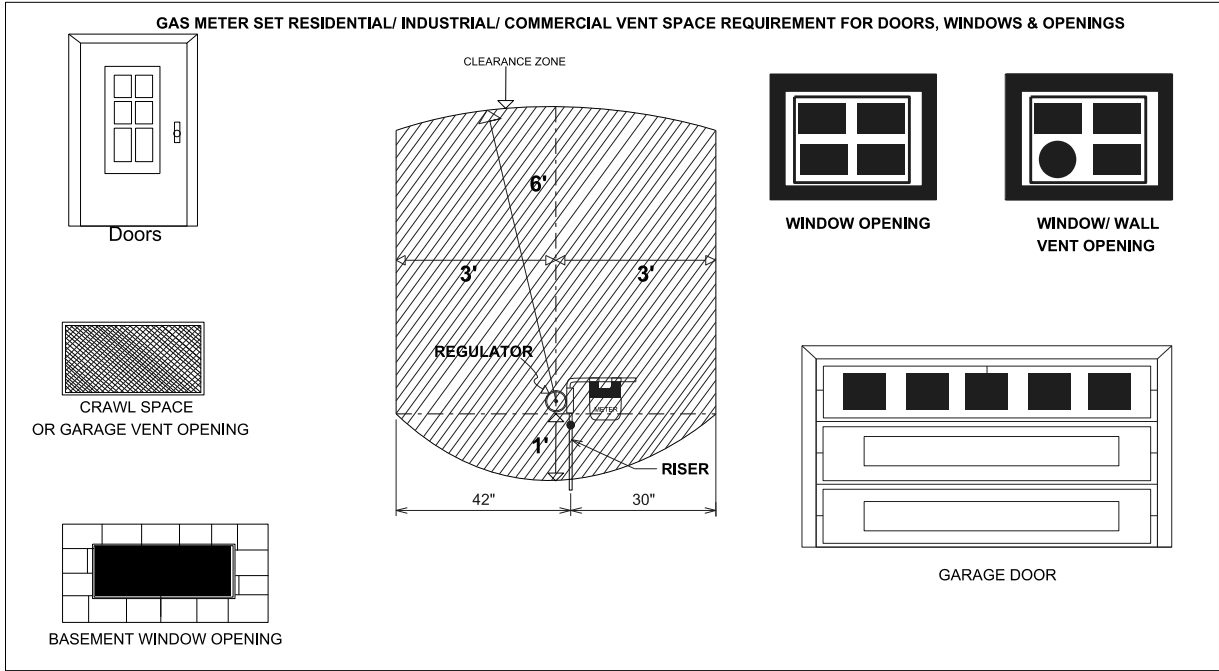
FIGURE 2 CLEARANCE ZONE REQUIREMENTS FROM VENTS AND AIR INTAKES



NOTES:

- 1 Local codes may require a greater clearance. Check with your local governing authorities.
- 2 The distance between the gas riser and the regulator vent opening is approximately six (6) inches on a typical regulator.

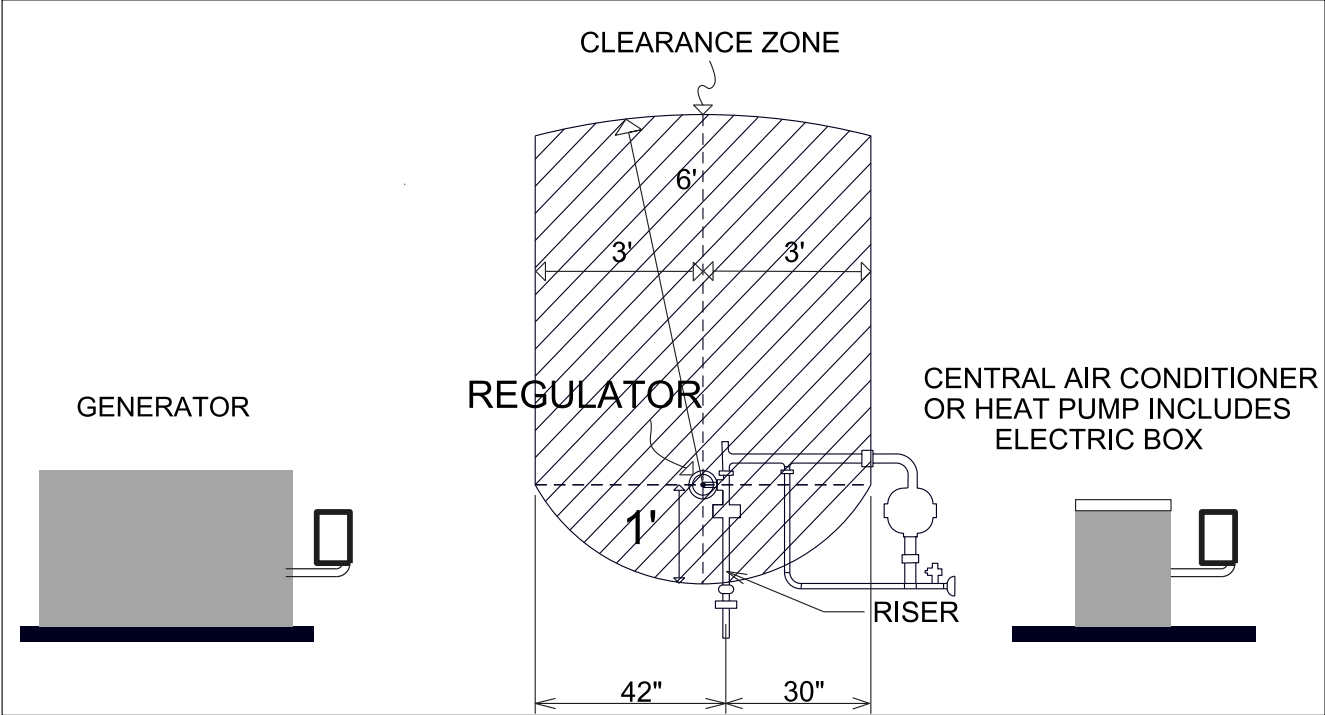
FIGURE 3
CLEARANCE ZONE REQUIREMENTS FROM DOORS
AND WINDOWS



NOTES:

- 1 This clearance requirement applies to all windows and doors that are designed to be opened.
- 2 Local codes may require a greater clearance. Check with your local governing authorities.
- 3 The distance between the gas riser and the regulator vent opening is approximately six (6) inches on a typical regulator.

**FIGURE 4
CLEARANCE ZONE REQUIREMENTS FROM
ELECTRICAL SOURCE***

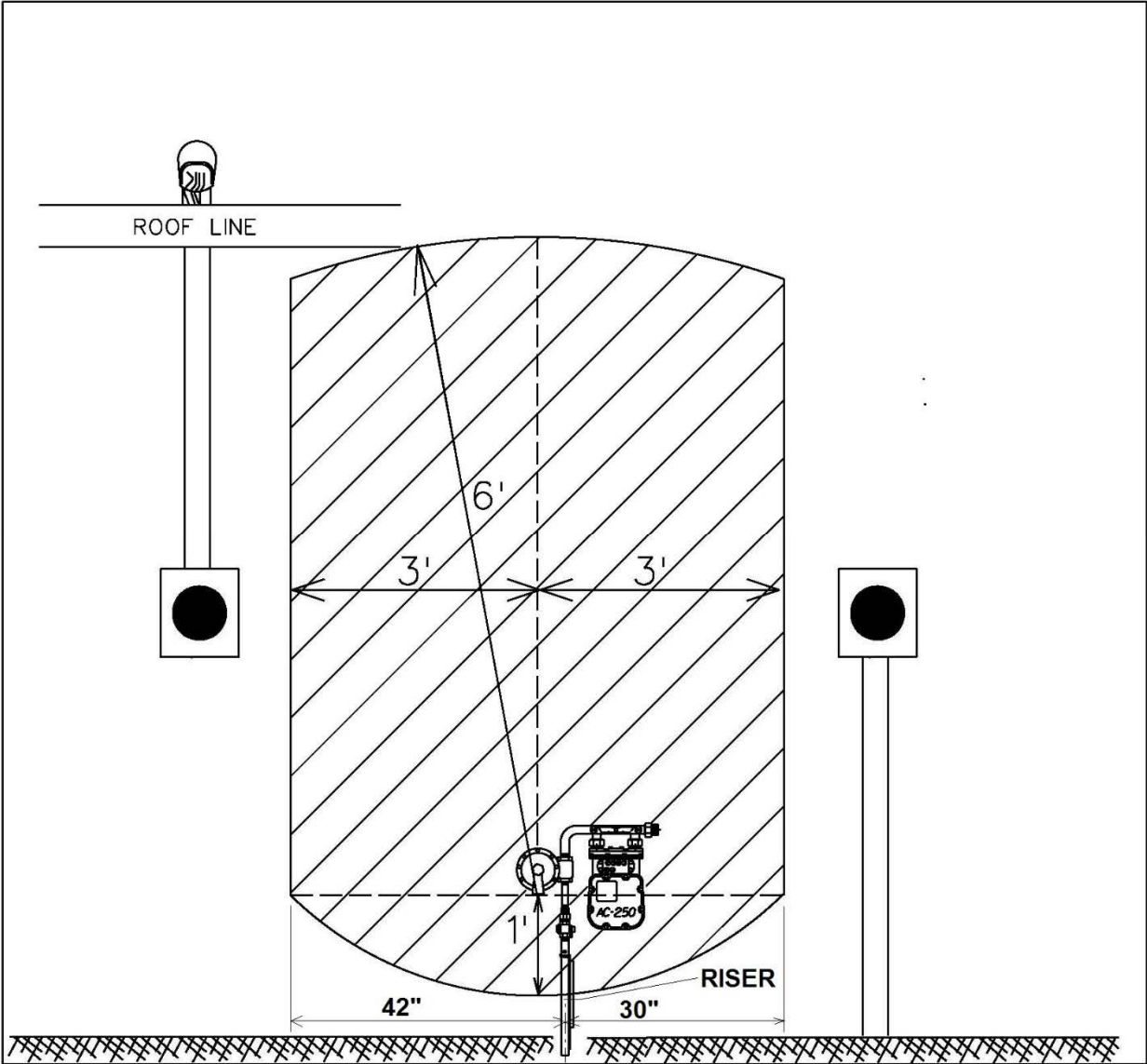


NOTES:

* - An electrical source is an electrical device which can automatically be energized without human intervention at the location of the device.

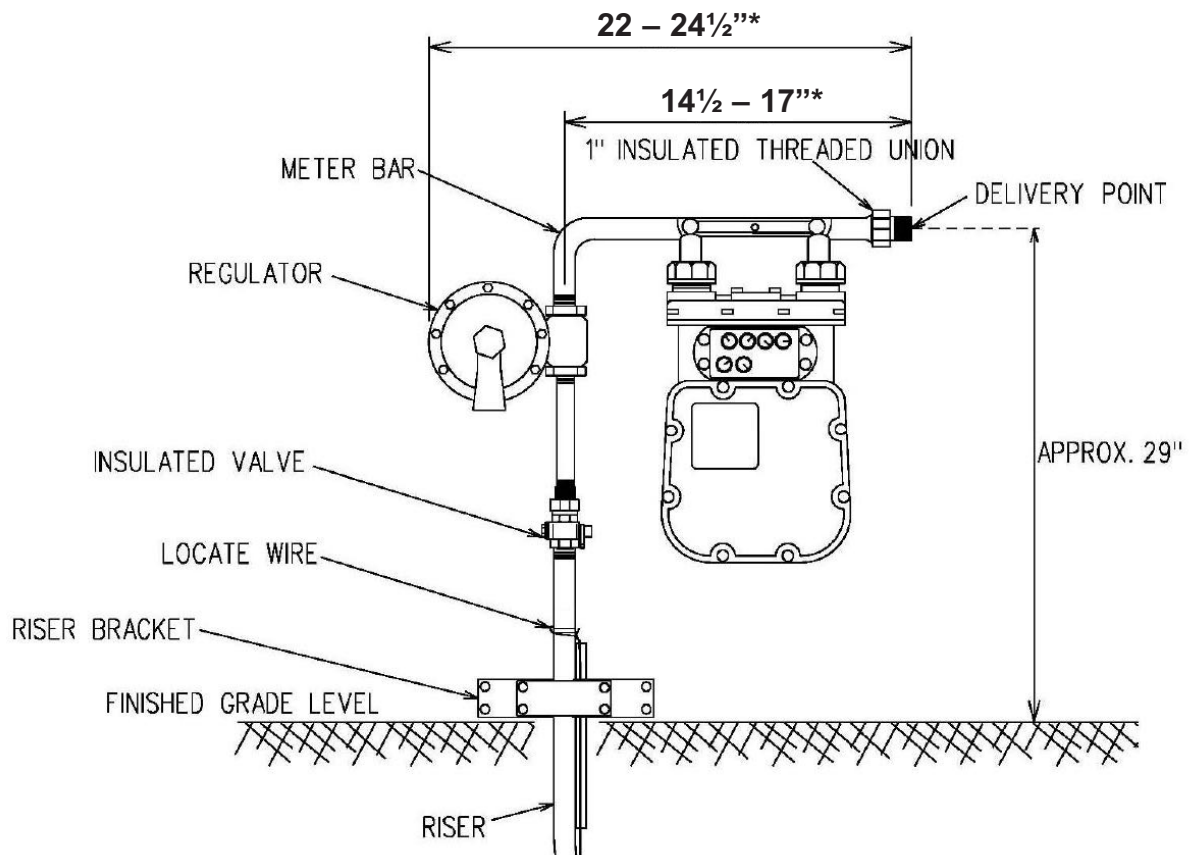
- 1 Additional clearance requirements may apply. Contact your Company representative for details.
- 2 Local codes may require a greater clearance. Check with your local governing authorities.

**FIGURE 5
CLEARANCE ZONE REQUIREMENTS FROM
ELECTRICAL METER**



It is recommended that the gas meter be set a minimum of three (3) feet from the electric meter.

FIGURE 6 TYPICAL RESIDENTIAL METER SET

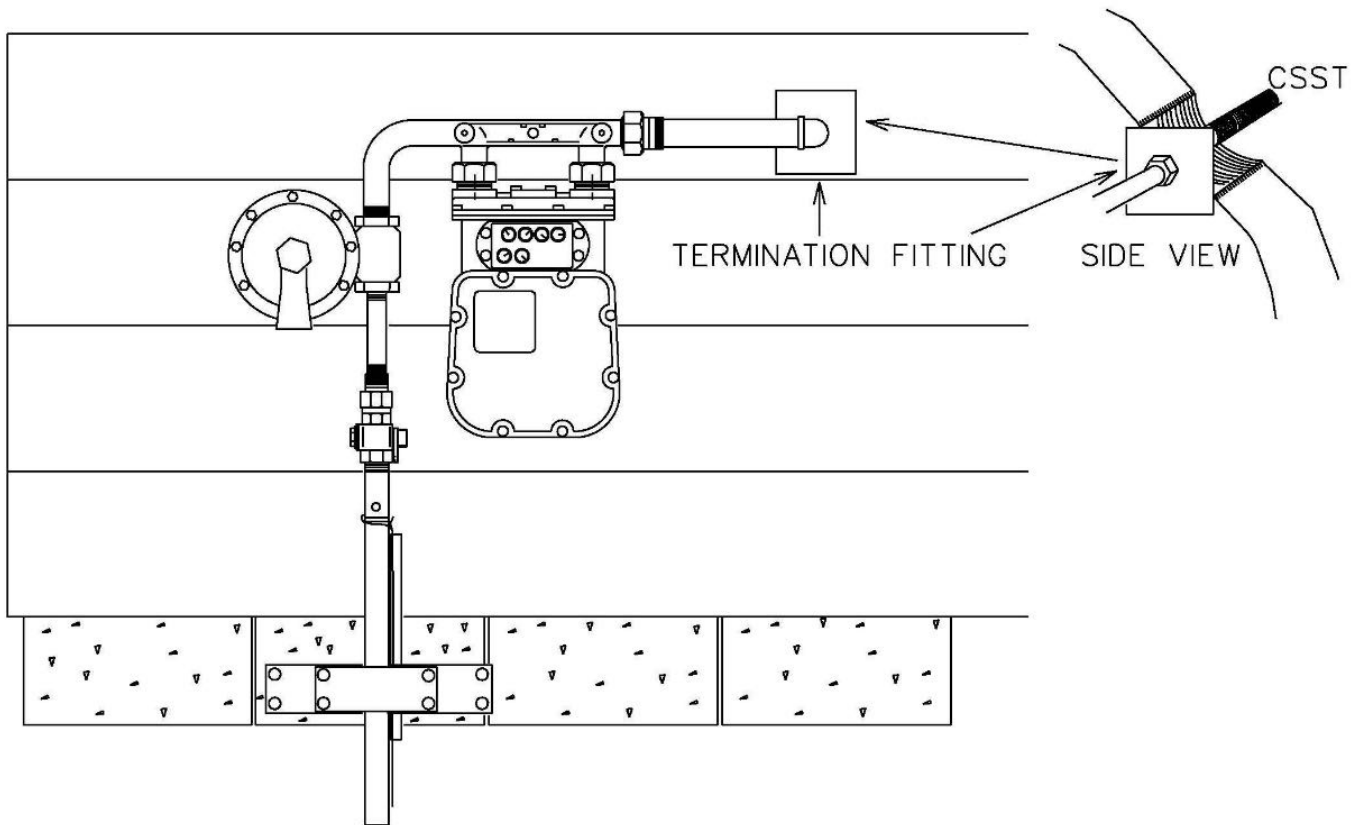


* Call your Company representative for the specific dimensions for your installation.

NOTES:

- 1 Riser bracket shall be installed with the bottom of the bracket within four (4) inches of final grade.
- 2 Riser bracket shall be attached to the building using four (4) bolts.
- 3 Anchors or suitable masonry fasteners shall be used to prevent pull-out of the bracket.
- 4 All measurements are approximate.

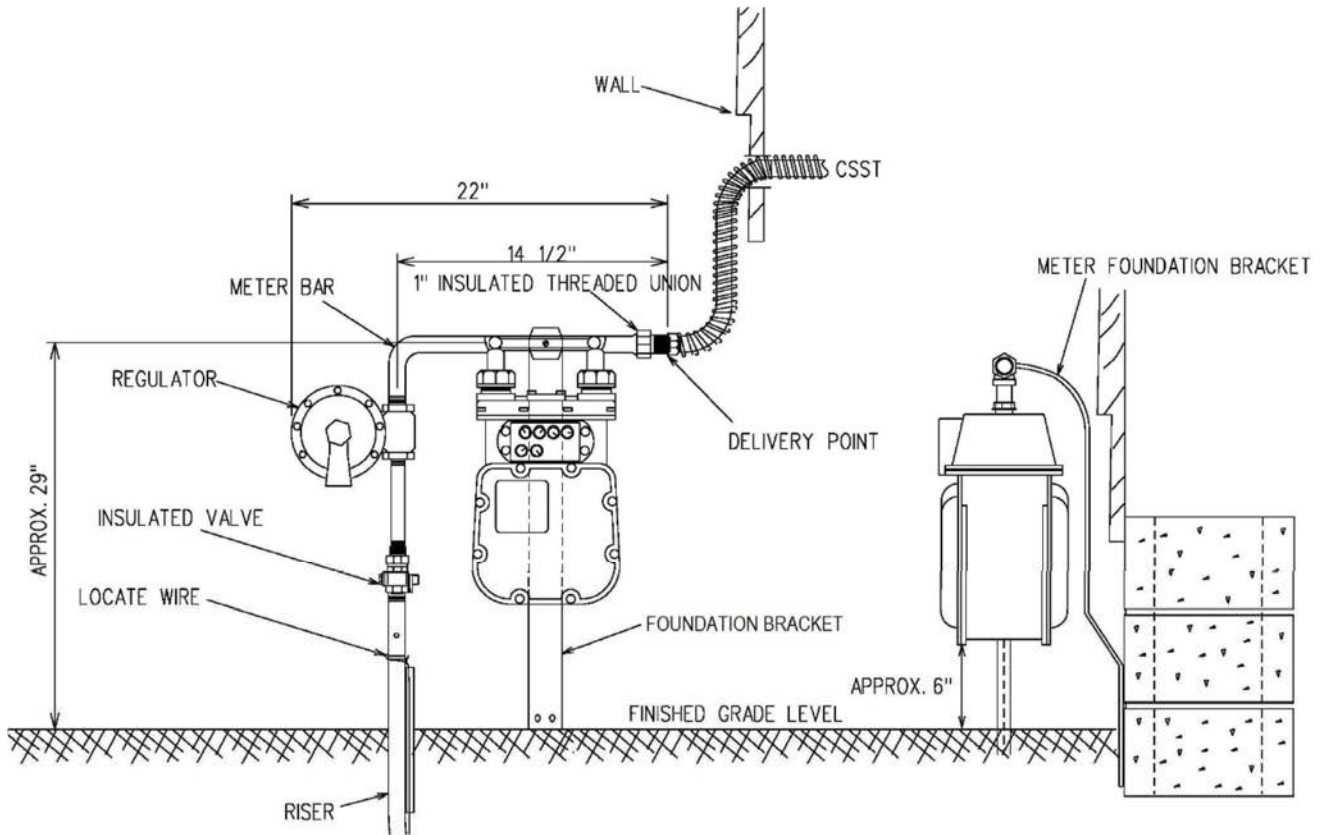
FIGURE 7
TYPICAL RESIDENTIAL METER SET FOR FLEXIBLE
CUSTOMER PIPING



NOTES:

- 1 Customer shall notify the Company representative when using corrugated stainless steel tubing (CSST) from the exterior wall to gas meter set as this installation may require a special foundation bracket.
- 2 CSST must be bonded. See bonding requirements for exterior CSST on page 6.

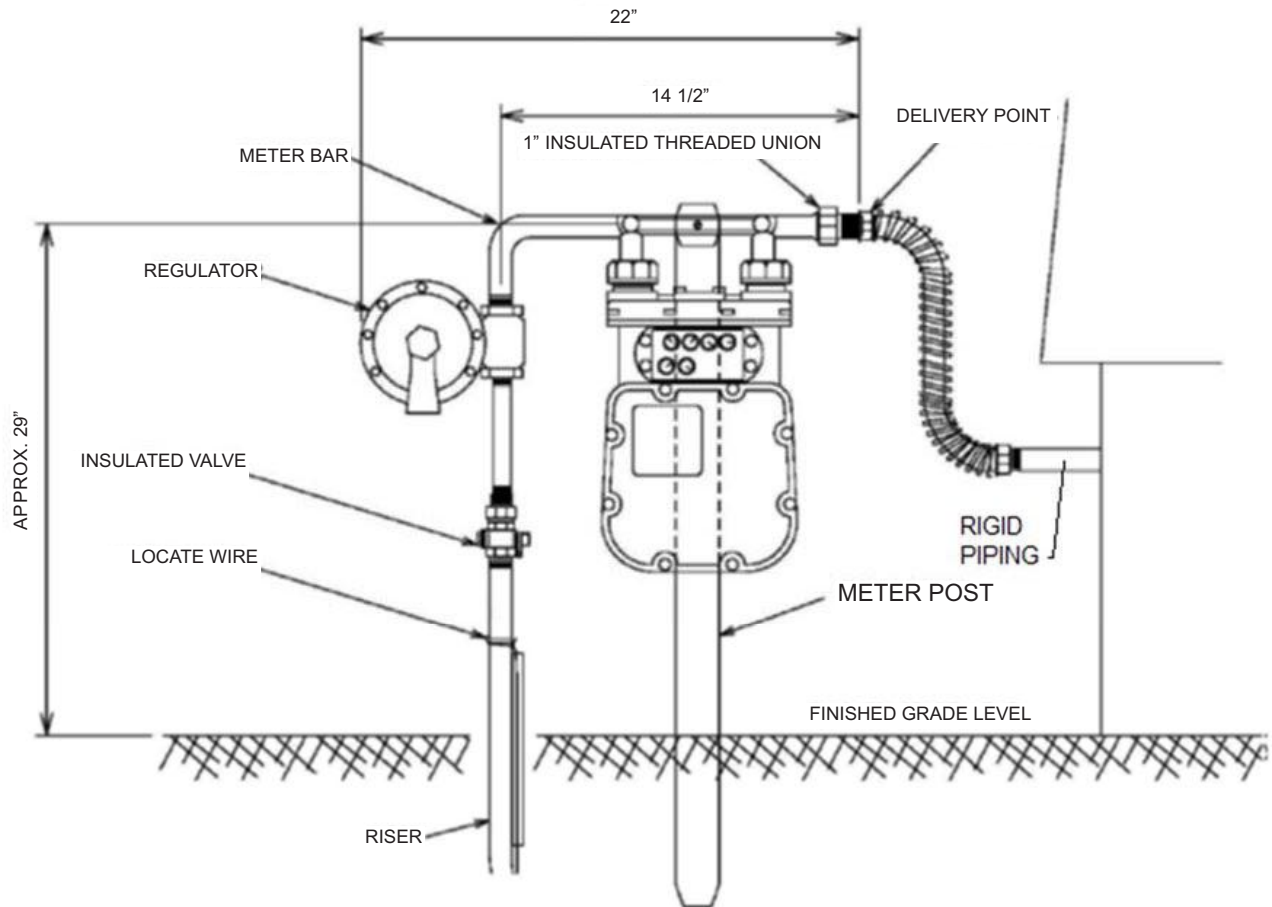
**FIGURE 7A
RESIDENTIAL METER SET FOR FLEXIBLE CUSTOMER
PIPING (ALTERNATE)**



NOTES:

- 1 Customer shall notify the Company representative when using corrugated stainless steel tubing (CSST) from the exterior wall to gas meter set as this installation may require a special foundation bracket.
- 2 CSST must be bonded. See bonding requirements for exterior CSST on page 6.
- 3 All measurements are approximate.

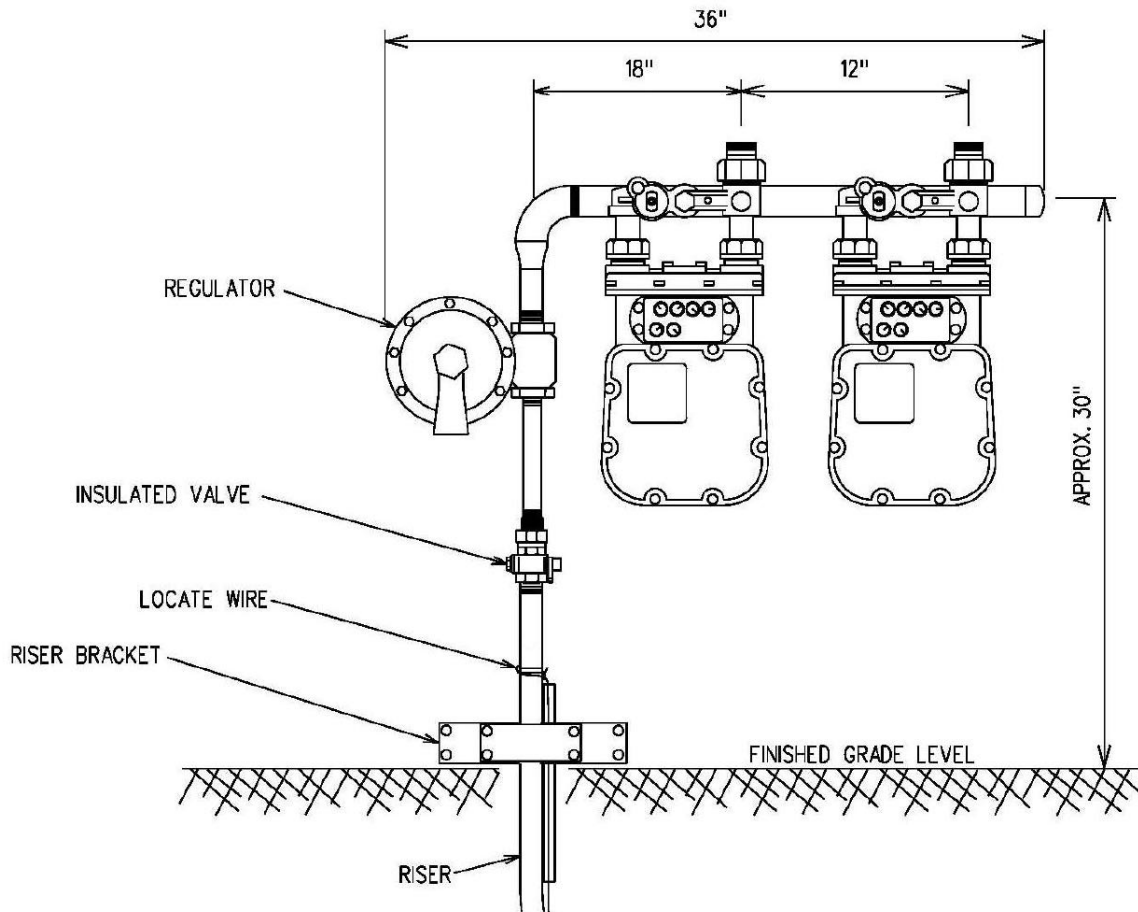
FIGURE 8 TYPICAL RESIDENTIAL METER SET FOR MANUFACTURED HOMES



NOTES:

- 1 Customer will supply and install an approved manufactured home connector, which shall be connected to rigid piping that extends outside the skirting of the home.
- 2 MidAmerican Energy will supply and install the required meter post.
- 3 All measurements are approximate.

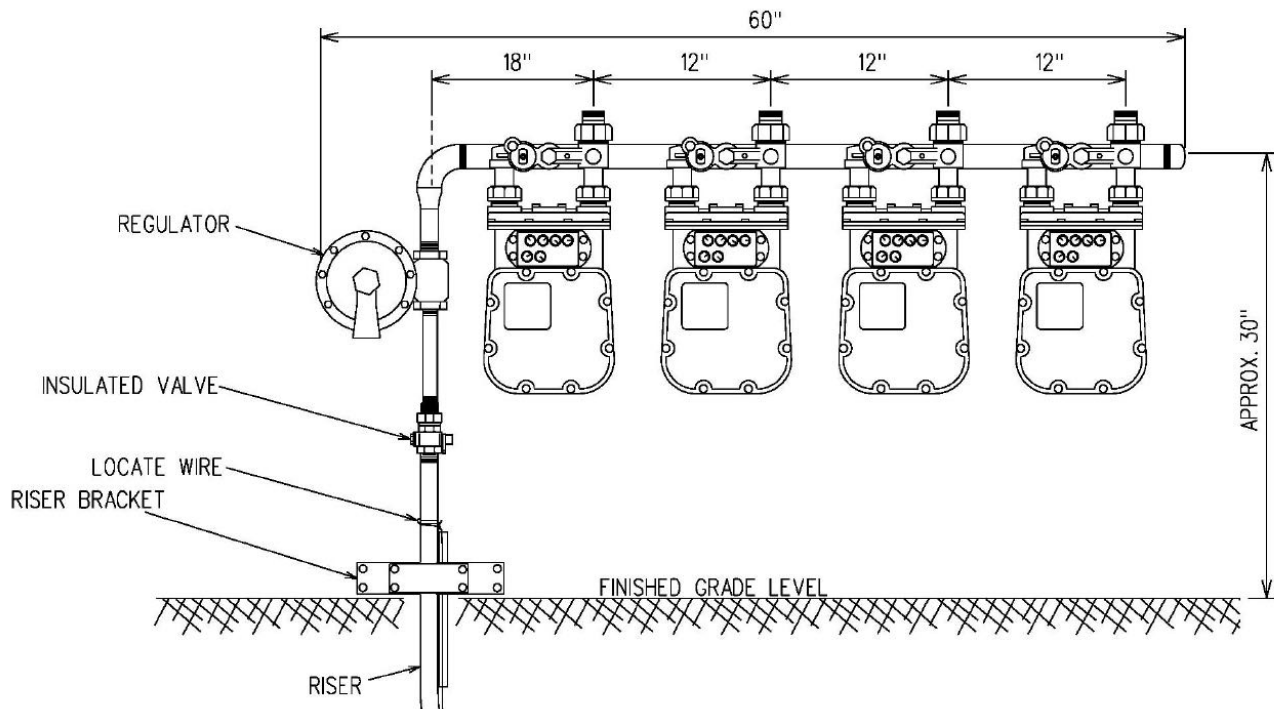
FIGURE 9
TYPICAL 2-METER MANIFOLD



NOTES:

- 1 Riser bracket shall be installed with the bottom of the bracket within four (4) inches of final grade.
- 2 The customer may be required to install additional support brackets. Prior to installation of support brackets, contact Company representative for specific requirements.
- 3 Riser bracket shall be attached to the building using four (4) bolts.
- 4 Anchors or suitable masonry fasteners shall be used to prevent pull-out of the bracket.
- 5 All measurements are approximate.
- 6 Alternate meter configurations may be available.

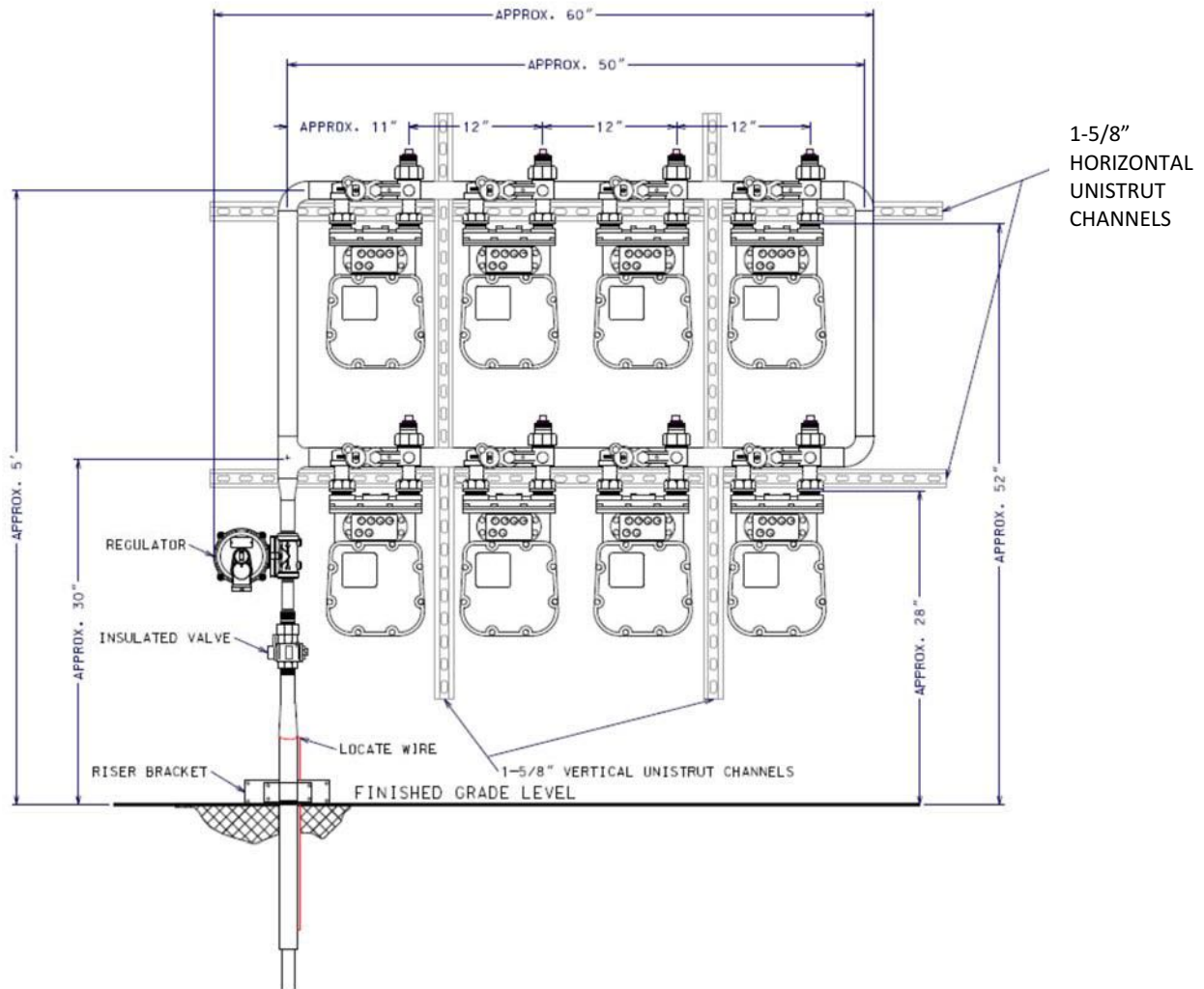
FIGURE 10
TYPICAL 4-METER MANIFOLD



NOTES:

- 1 Riser bracket shall be installed with the bottom of the bracket within four (4) inches of final grade.
- 2 The customer may be required to install additional support brackets. Prior to installation of support brackets, contact Company representative for specific requirements.
- 3 Riser bracket shall be attached to the building using four (4) bolts.
- 4 Anchors or suitable masonry fasteners shall be used to prevent pull-out of the bracket.
- 5 All measurements are approximate.
- 6 Alternate meter configurations may be available.

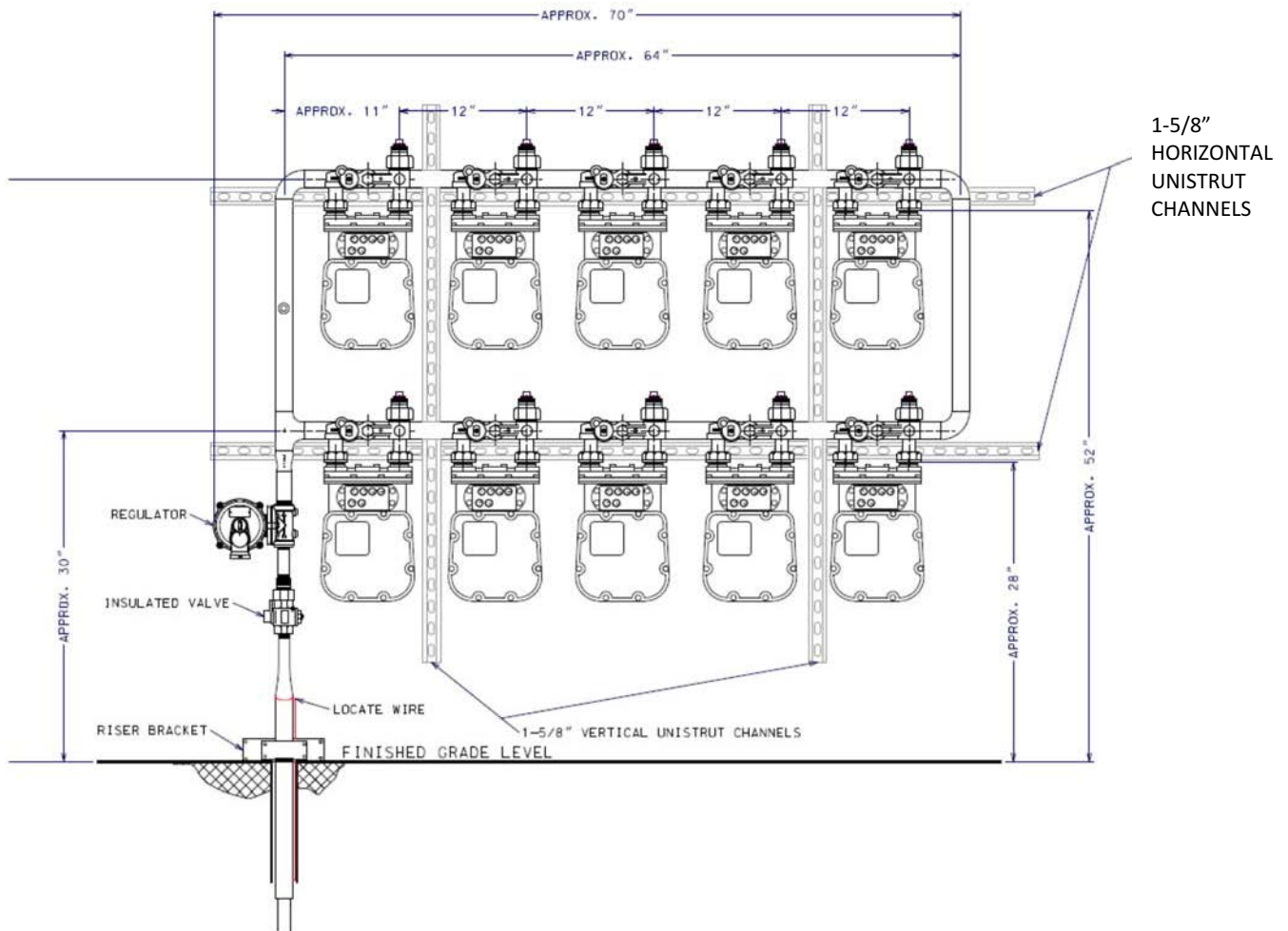
FIGURE 11
TYPICAL 8-METER MANIFOLD, UNISTRUT DESIGN



NOTES:

- 1 Where required, the riser bracket shall be installed with the bottom of the bracket within four inches of final grade.
- 2 Where required, the customer shall install unistrut supports.
- 3 The customer may be required to install additional support brackets. Prior to installation of any support brackets, contact Company representative for specific requirements.
- 4 Riser bracket shall be attached to the building using four (4) bolts.
- 5 Anchors or suitable masonry fasteners shall be used to prevent pull-out of the bracket.
- 6 All measurements are approximate.
- 7 Alternate meter configurations may be available.

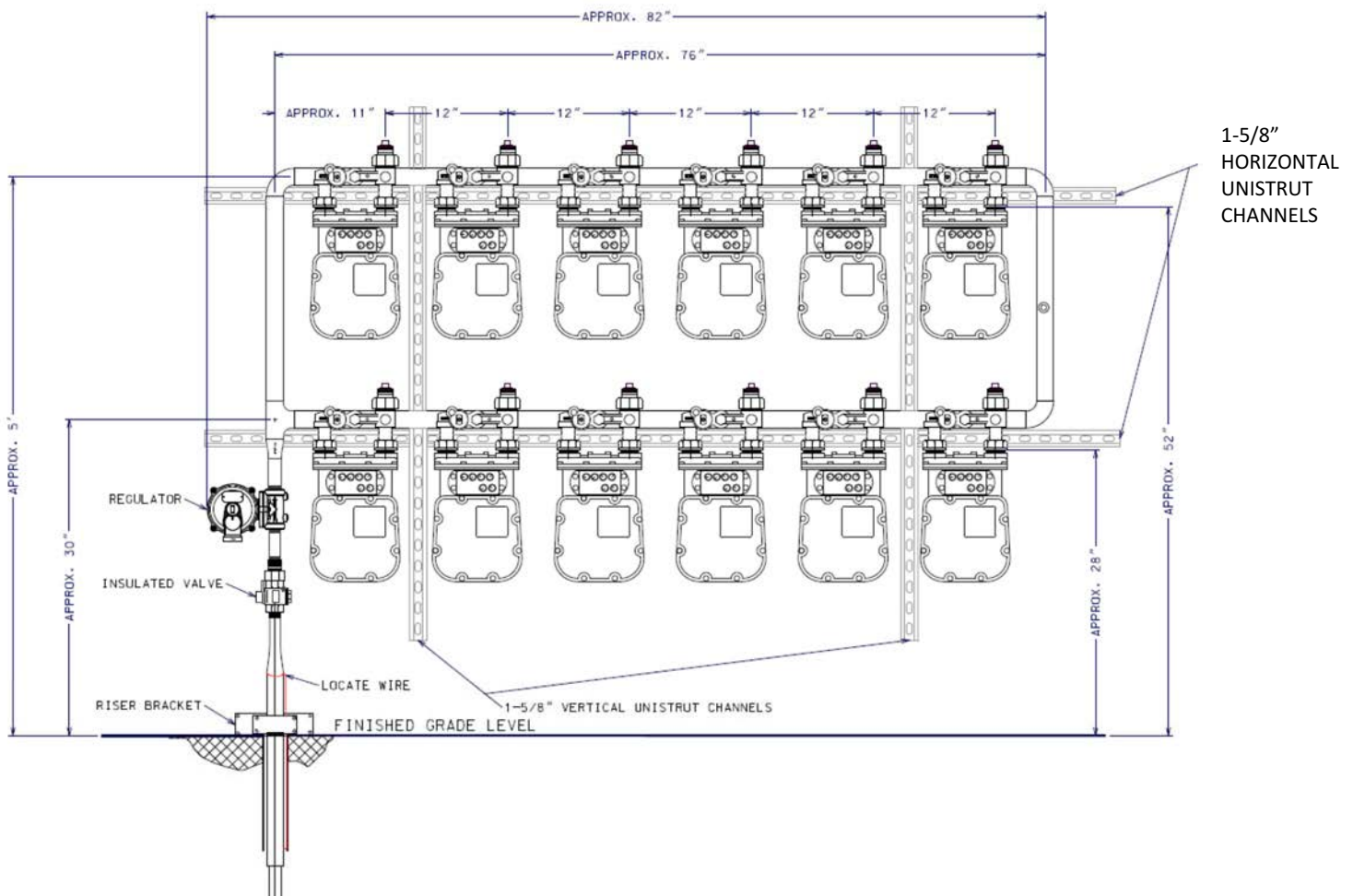
FIGURE 12
TYPICAL 10-METER MANIFOLD, UNISTRUT DESIGN



NOTES:

- 1 Where required, the riser bracket shall be installed with the bottom of the bracket within four inches of final grade.
- 2 Where required, the customer shall install unistrut supports.
- 3 The customer may be required to install additional support brackets. Prior to installation of any support brackets, contact Company representative for specific requirements.
- 4 Riser bracket shall be attached to the building using four (4) bolts.
- 5 Anchors or suitable masonry fasteners shall be used to prevent pull-out of the bracket.
- 6 All measurements are approximate.
- 7 Alternate meter configurations may be available.

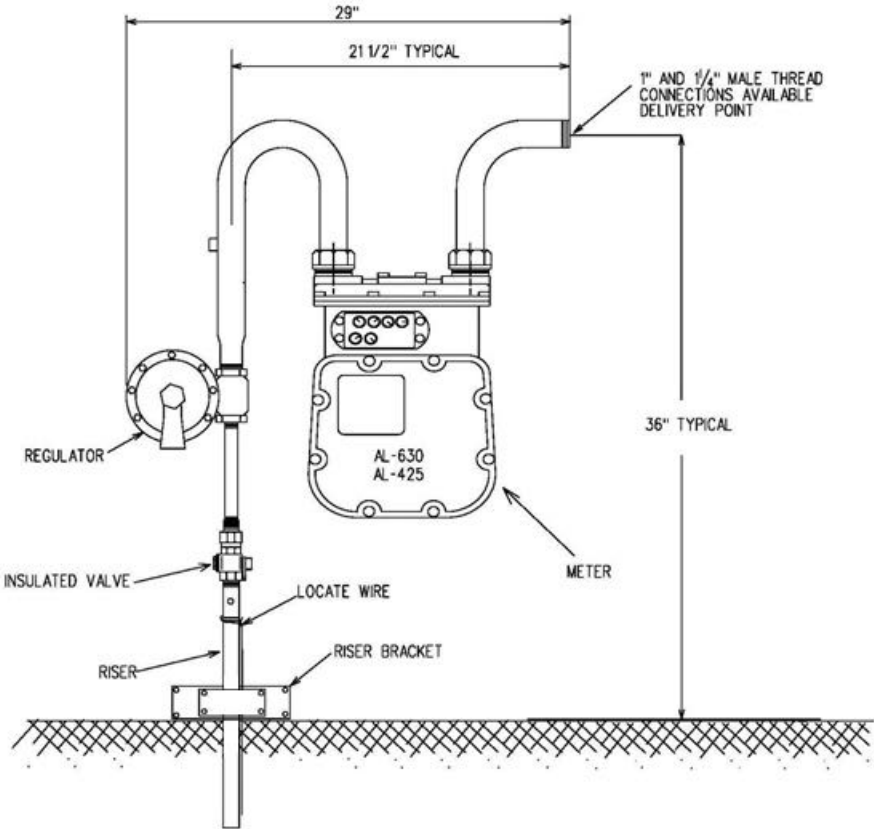
FIGURE 13
TYPICAL 12-METER MANIFOLD, UNISTRUT DESIGN



NOTES:

- 1 Where required, the riser bracket shall be installed with the bottom of the bracket within four inches of final grade.
- 2 Where required, the customer shall install unistrut supports.
- 3 The customer may be required to install additional support brackets. Prior to installation of any support brackets, contact Company representative for specific requirements.
- 4 Riser bracket shall be attached to the building using four (4) bolts.
- 5 Anchors or suitable masonry fasteners shall be used to prevent pull-out of the bracket.
- 6 All measurements are approximate.
- 7 Alternate meter configurations may be available.

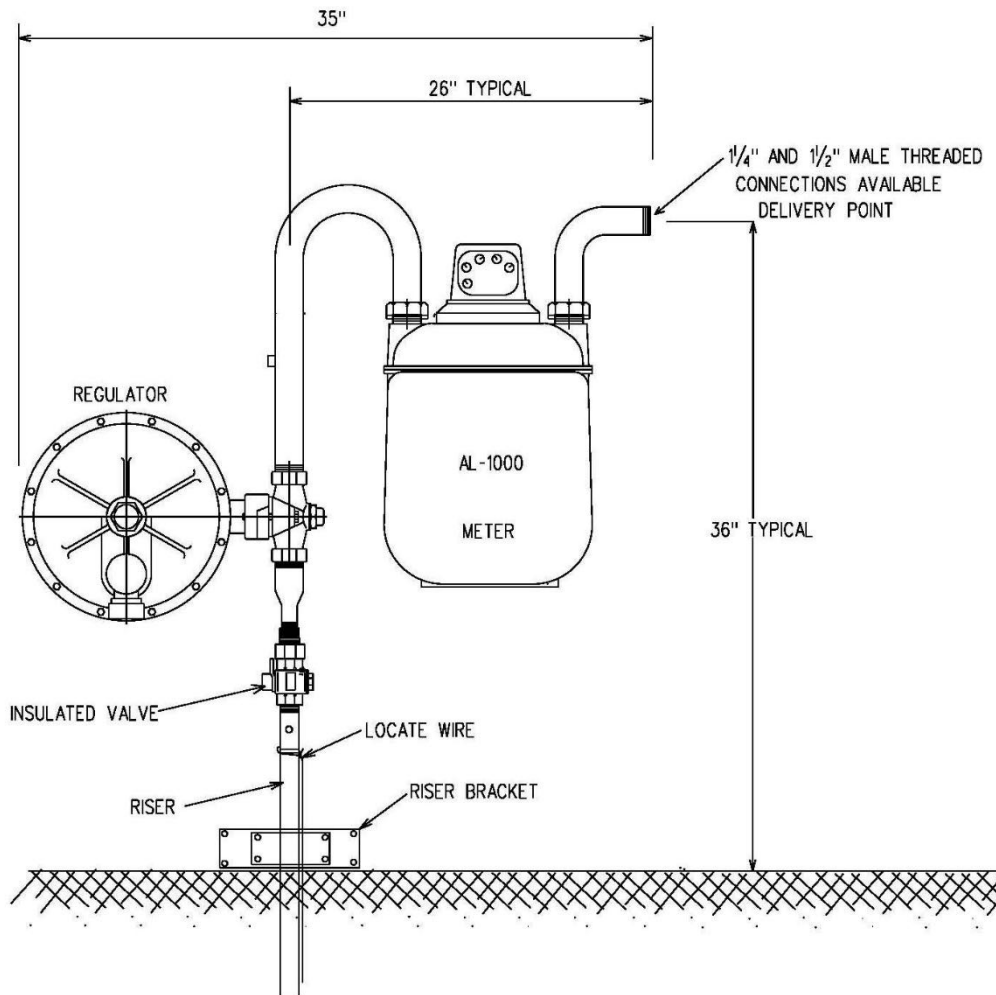
FIGURE 14
TYPICAL METER SET FOR LOADS OF
300 TO 800 CFH



NOTES:

- 1 Riser bracket shall be installed with the bottom of the bracket within four (4) inches of final grade.
- 2 The customer may be required to install additional support brackets. Prior to installation of support brackets, contact Company representative for specific requirements.
- 3 Riser bracket shall be attached to the building using four (4) bolts.
- 4 Anchors or suitable masonry fasteners shall be used to prevent pull-out of the bracket.
- 5 All measurements are approximate.
- 6 Alternate meter configurations may be available.

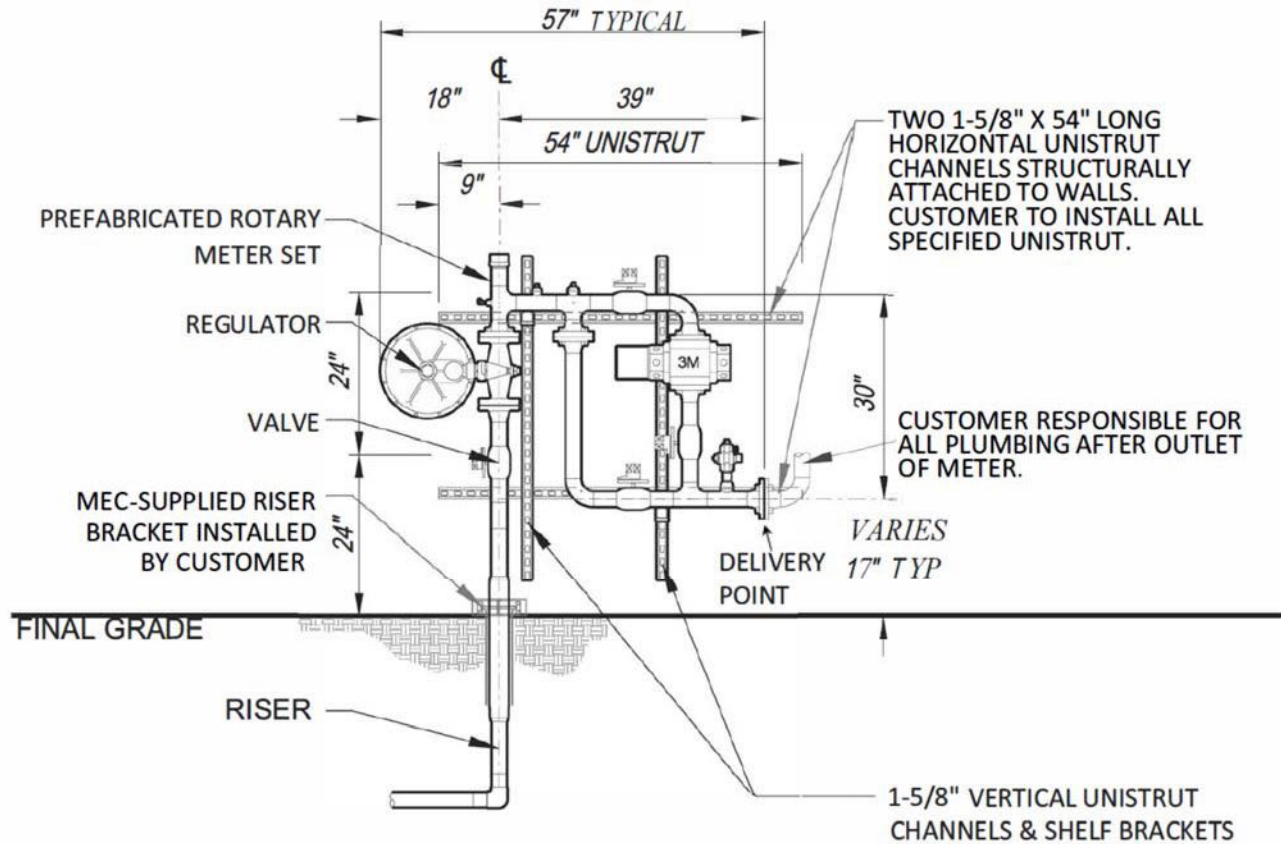
FIGURE 15
TYPICAL METER SET FOR LOADS OF 800 TO
1,500 CFH



NOTES:

- 1 Riser bracket shall be installed with the bottom of the bracket within four (4) inches of final grade.
- 2 The customer may be required to install additional support brackets. Prior to installation of support brackets, contact Company representative for specific requirements.
- 3 Riser bracket shall be attached to the building using four (4) bolts.
- 4 Anchors or suitable masonry fasteners shall be used to prevent pull-out of the bracket.
- 5 All measurements are approximate.
- 6 Alternate meter configurations may be available.

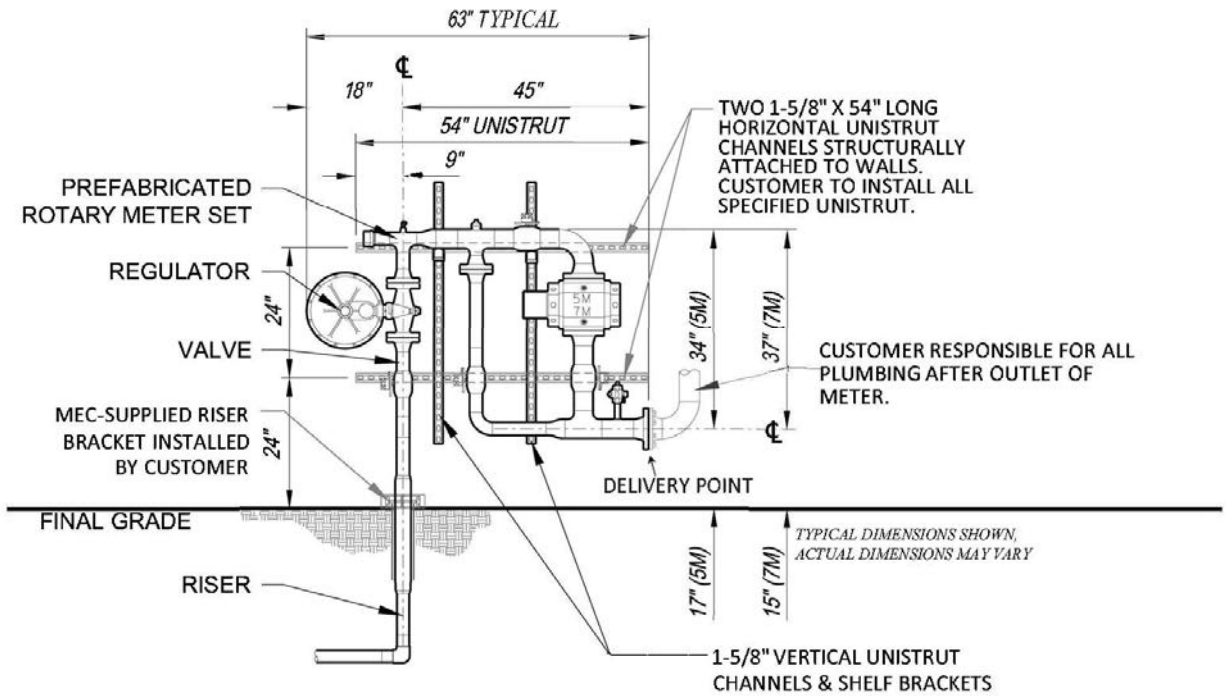
FIGURE 16
TYPICAL METER SET FOR LOADS OF 1500 TO
3000 CFH, UNISTRUT DESIGN



NOTES:

- 1 Meter set length and height may vary. Consult a Company representative to discuss space required for meter set.
- 2 Height of customer fuel piping is typically between 12 inches and 24 inches above final grade.
- 3 Delivery point is a two (2) inch flat face flange. For all above grade installations that have flange connections, a minimum of two (2) threads showing after tightening is required. Consult a Company representative if an alternate connection type is desired.
- 4 Riser bracket shall be installed with the bottom of the bracket within four (4) inches of final grade.
- 5 Riser bracket shall be attached to the building using four (4) bolts.
- 6 Customer is to provide and install unistrut supports.
- 7 Customer is to contact the Company representative for unistrut specifications prior to installation.
- 8 Anchors or suitable masonry fasteners shall be used to prevent pull-out of the unistrut supports.
- 9 All measurements are approximate.
- 10 Alternate meter configurations may be available.

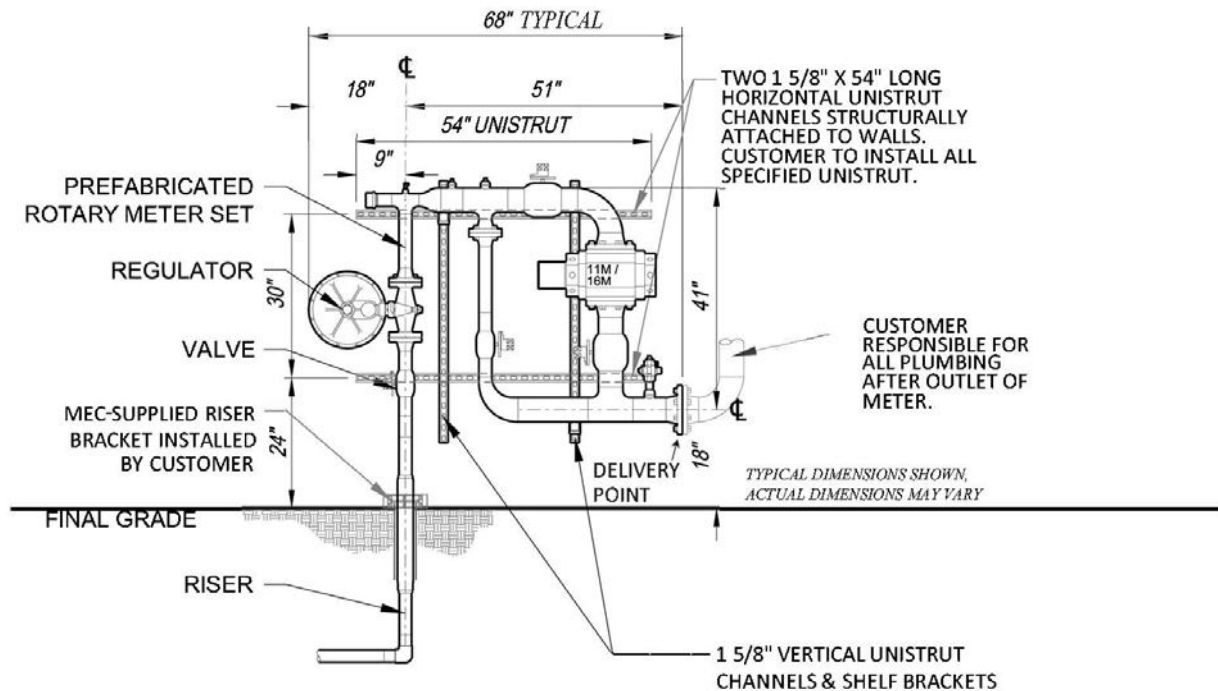
FIGURE 17
TYPICAL METER SET FOR LOADS OF 3500 TO 7000 CFH, UNISTRUT DESIGN



NOTES:

- 1 Meter set length and height may vary. Consult a Company representative to discuss space required for meter set.
- 2 Height of customer fuel piping is typically between 12 inches and 24 inches above final grade.
- 3 Delivery point is a three (3) inch flat face flange. For all above grade installations that have flange connections, a minimum of two (2) threads showing after tightening is required. Consult a Company representative if an alternate connection type is desired.
- 4 Riser bracket shall be installed with the bottom of the bracket within four (4) inches of final grade.
- 5 Riser bracket shall be attached to the building using four (4) bolts.
- 6 Customer is to provide and install unistrut supports.
- 7 Customer is to contact the Company representative for unistrut specifications prior to installation.
- 8 Anchors or suitable masonry fasteners shall be used to prevent pull-out of the unistrut supports.
- 9 All measurements are approximate.
- 10 Alternate meter configurations may be available.

FIGURE 18
TYPICAL METER SET FOR LOADS OF
7,500 TO 16,000 CFH, UNISTRUT DESIGN



NOTES:

- 1 Meter set length and height may vary. Consult a Company representative to discuss space required for meter set.
- 2 Height of customer fuel piping is typically between 12 inches and 24 inches above final grade.
- 3 Delivery point is a two (2) inch flat face flange. For all above grade installations that have flange connections, a minimum of two (2) threads showing after tightening is required. Consult a Company representative if an alternate connection type is desired.
- 4 Riser bracket shall be installed with the bottom of the bracket within four (4) inches of final grade.
- 5 Riser bracket shall be attached to the building using four (4) bolts.
- 6 Customer is to provide and install unistrut supports.
- 7 Customer is to contact the Company representative for unistrut specifications prior to installation.
- 8 Anchors or suitable masonry fasteners shall be used to prevent pull-out of the unistrut supports.
- 9 All measurements are approximate.
- 10 Alternate meter configurations may be available.

FIGURE 19 EC350 CELL PHONE DESIGN - CLEARANCE ZONE REQUIREMENTS TO TELECOMMUNICATIONS BOX POWER SUPPLY

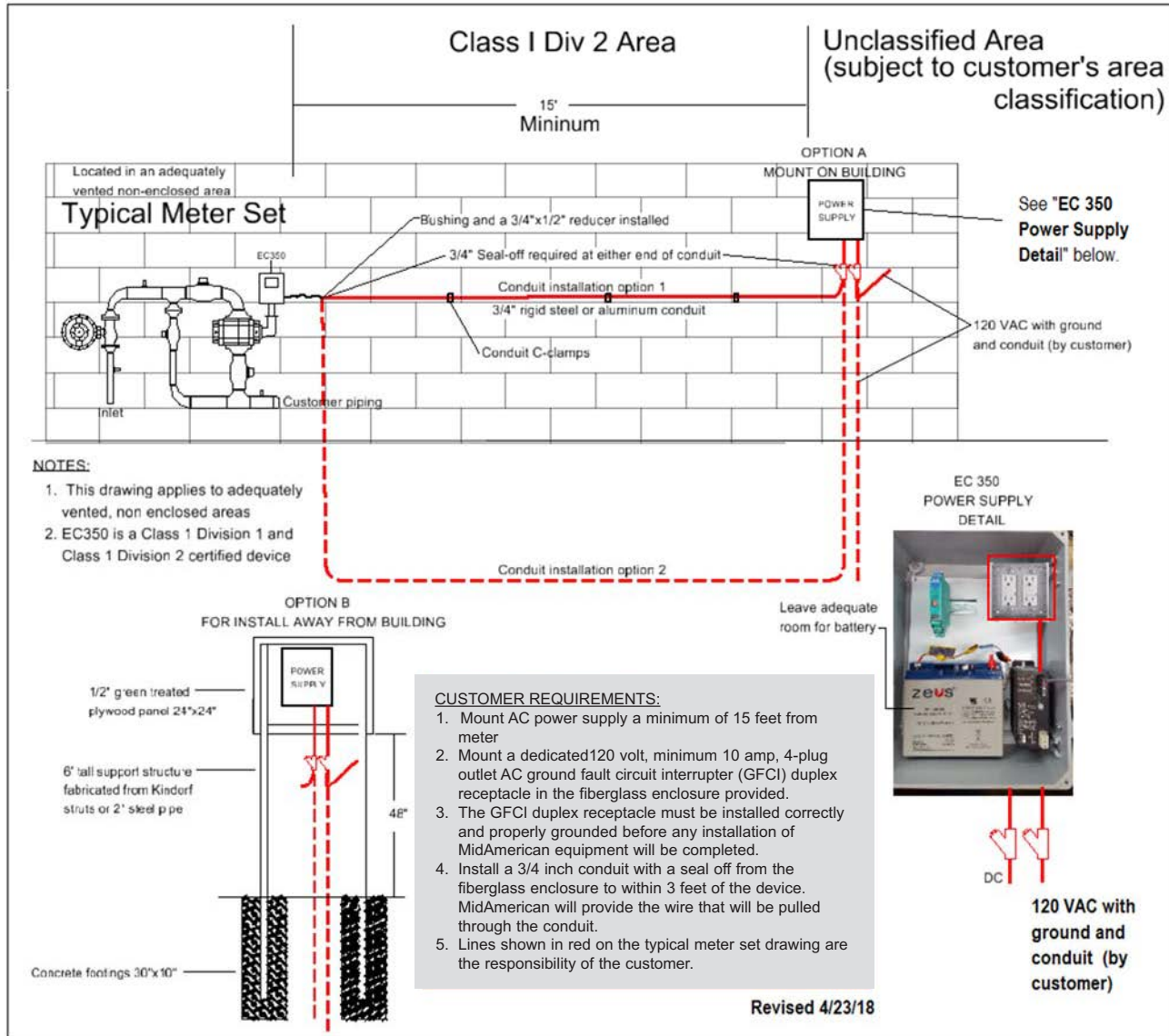
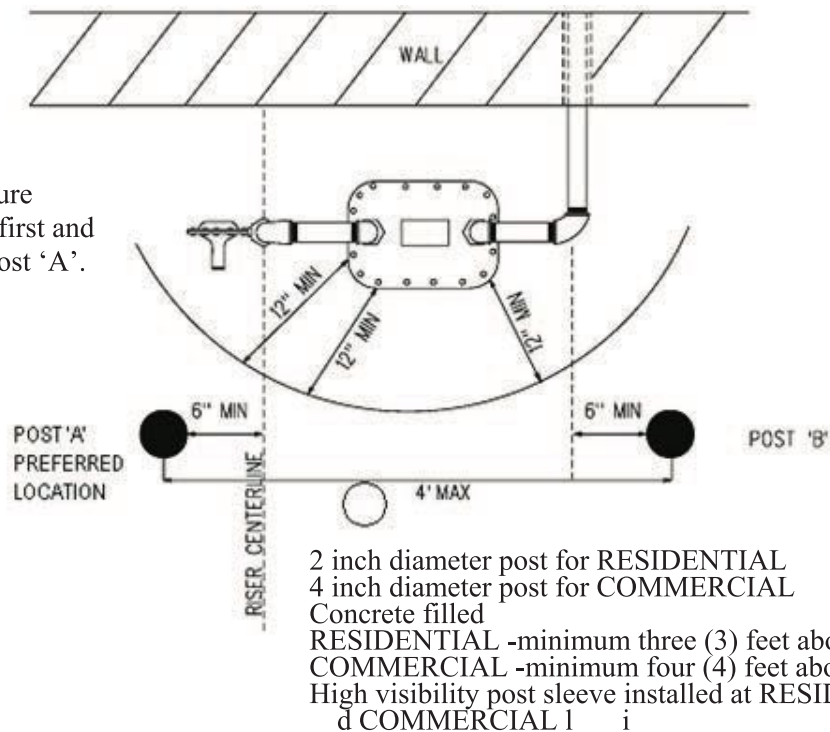


FIGURE 20 TYPICAL METER BARRICADE

Note:

To maintain clearance for future maintenance, locate post 'A' first and all others four (4) feet from post 'A'.



Note:

- Two posts should be used when the maximum distance between the posts are four (4) feet or less.
- A third post should be added when the distance is more than four (4) feet.

RECOMMENDED MAXIMUM DISTANCE BETWEEN POSTS IS FOUR (4) FEET.

RECOMMENDATIONS:

RESIDENTIAL / SMALL COMMERCIAL

- One two inch diameter steel vertical post – concrete filled
- Height three (3) feet above ground or to the height of the gas-carrying equipment being protected, whichever is less

COMMERCIAL / INDUSTRIAL

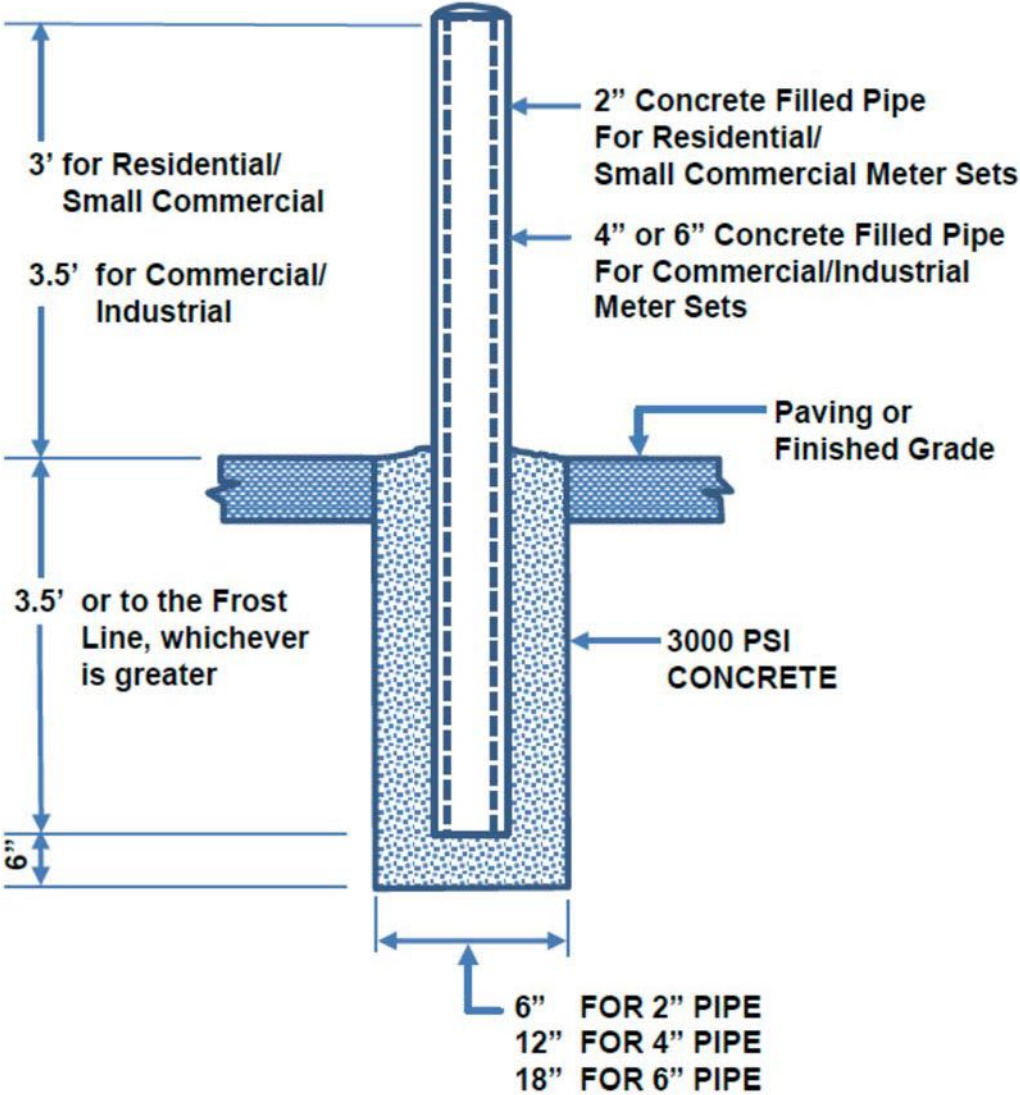
- Two (2) posts that are four (4) inch diameter steel vertical posts – concrete filled
- Height three and one-half feet above ground or to the height of the gas-carrying equipment being protected, whichever is less
- Concrete filled
- Install protective post sleeves over the steel barricade post to enhance visibility

NOTES:

1. Additional posts may be required by MidAmerican Energy. Contact your Company representative to discuss the proper barricade configuration for your specific installation.
2. When field conditions do not permit compliance with these recommendations, consult with your Company representative for an alternative design.
3. Alternative meter guard arrangements must sufficiently protect the meter set and ensure adequate distance for maintenance and meter reading.
4. For footing information, refer to Figure 21.

**FIGURE 21
TYPICAL METER BARRICADE FOOTING**

BARRICADE CROSS SECTION DETAIL



NOTE:
BARRICADE HEIGHT ABOVE GRADE MAY BE REDUCED
AS LONG AS THE GAS CARRYING EQUIPMENT IS PROTECTED.



GAS SERVICE MANUAL

APPENDICES

APPENDIX A GAS SERVICE FACILITY APPLICATION AGREEMENT (65-7) FRONT

THE MOST CURRENT VERSION OF THE APPLICATION AGREEMENT IS AVAILABLE AT MIDAMERICANENERGY.COM.

65-7
9/24/12

MidAmerican Energy GAS SERVICE FACILITY APPLICATION AGREEMENT

* Indicates required field

Shaded areas are for Company use only

ACCOUNT NUMBER: _____		GAS MAIN WR# _____		GAS SERVICE WR# _____	
APPLICATION TAKEN BY: _____			SERVICE CENTER: _____		DATE: _____
SERVICE ADDRESS* _____			UNIT# _____	CITY* _____	
STATE* _____			ZIP* _____	COUNTY* _____	CITY LIMITS <input type="checkbox"/> Y <input type="checkbox"/> N
RESPONSIBLE BILLING PARTY* _____			SUBDIVISION NAME _____		LOT# _____
MAILING ADDRESS* _____			WK PH* _____		HM/MBL PH* _____
CITY* _____			STATE* _____		ZIP* _____
Select one*: <input type="checkbox"/> NEW BLDG <input type="checkbox"/> EXISTING		Select one*: <input type="checkbox"/> RESIDENTIAL <input type="checkbox"/> COMM/INDUS		Select all that apply*: <input type="checkbox"/> SINGLE-FAMILY <input type="checkbox"/> DUPLEX <input type="checkbox"/> FARM/RURAL <input type="checkbox"/> PUBLIC AUTHORITY <input type="checkbox"/> MOBILE HOME <input type="checkbox"/> APARTMENT <input type="checkbox"/> CONDO/TOWNHOUSE	
					Is this a conversion? <input type="checkbox"/> YES <input type="checkbox"/> NO If yes, from what? (prop, elec, other) _____
GAS					
PLBG/HTG CONTR*: _____			PHONE*: _____		
TOTAL # OF METERS: _____		DELIVERY PRESSURE NEEDED*: _____		MAX EMERGENCY PRESSURE: _____	
WILL CUSTOMER HAVE CORRUGATED STAINLESS STEEL TUBING (CSST) CONNECTED TO THE OUTLET OF THE METER? <input type="checkbox"/> YES <input type="checkbox"/> NO					
PRESENT LOAD: _____ BTU's		Select all that use gas*: <input type="checkbox"/> HEATING <input type="checkbox"/> WATER HEATING <input type="checkbox"/> FIREPLACE <input type="checkbox"/> COOKING <input type="checkbox"/> PROCESS <input type="checkbox"/> OTHER _____		RATE: _____	
NEW LOAD: _____ BTU's				APPROXIMATE CHARGES	
TOTAL LOAD*: _____ BTU's				\$ _____	
FOR RATE DETERMINATION					
Main Heat Source*: <input type="checkbox"/> ELECTRIC <input type="checkbox"/> GAS <input type="checkbox"/> OTHER _____			Remarks: _____ _____ _____		
Backup Heat Source*: <input type="checkbox"/> ELECTRIC <input type="checkbox"/> GAS <input type="checkbox"/> OTHER _____					
Water Heat Source*: <input type="checkbox"/> ELECTRIC <input type="checkbox"/> GAS <input type="checkbox"/> OTHER _____					
Diagram of facility location. Indicate north arrow and desired meter location.					
<input type="checkbox"/> Check box if drawing is attached.					

Applicant shall locate and mark all privately owned underground facilities and systems (including but not limited to water services, culverts, irrigation systems, drain pipes, septic lines, and underground wiring) to conform with the current version of Recommended Guidelines for Underground Utilities and the uniform color code established by the American Public Works Association, prior to MidAmerican Energy Company's construction.

The undersigned has read the back and front of this application and requests MidAmerican Energy to install and/or repair gas and/or electric facilities on the property listed above. The applicant agrees to comply with all applicable codes, rules, regulations, and MidAmerican Energy's tariffs, electric service manual, and gas service manual as filed with the appropriate state utilities board or commission. Failure to comply may result in charges.

APPLICANT AGENT SIGNATURE _____ DATE _____ OR APPLICANT SIGNATURE _____ DATE _____

See additional requirements and terms on the back of this application.

APPENDIX A GAS SERVICE FACILITY APPLICATION AGREEMENT (65-7 OR 65-7A) BACK

**THE MOST CURRENT VERSION OF THE APPLICATION AGREEMENT IS
AVAILABLE AT MIDAMERICANENERGY.COM.**

A drawing of the proposed Gas and/or Electric meter location must be included on the front of or with this application. The gas and/or electric meter location must be approved by your local MidAmerican Energy customer contact **before any work is started**. MidAmerican Energy shall have the sole right to determine the location of the service lines and meters.

Applicants for service to commercial, industrial or residential buildings including multifamily dwellings, should obtain from MidAmerican Energy information regarding gas pressure, voltage, transformers, metering, etc. before starting construction.

Applicant will provide, **without cost to MidAmerican Energy**, such easements as are necessary for the installation and maintenance of MidAmerican Energy's facilities on private property within the area served. No building shall be constructed and/or changes made in ground elevation by the grantor within MidAmerican Energy's easement area without written permission from MidAmerican Energy indicating that said construction and/or ground elevation changes will not interfere with MidAmerican Energy's rights to operate and maintain its facilities.

The Applicant is responsible for ensuring that all gas piping and any other gas and/or electric equipment is properly installed and adjusted in accordance with local and national codes and MidAmerican Energy requirements. Consistent with MidAmerican Energy's Tariffs, no inspection by MidAmerican Energy, or failure to object to the applicant's installation, shall render MidAmerican Energy liable for any damage or injury caused by problems with the applicant's equipment and facilities. Any inspection of applicant's equipment or piping by MidAmerican Energy during service installation, pilot lighting or leak investigation is for the sole purpose of determining whether MidAmerican Energy owned equipment is operating properly.

Applicant agrees to indemnify, protect and hold harmless MidAmerican Energy from and against all liability, damage, loss, claims and actions of any nature whatsoever which arise out of contacts with electric or gas facilities that occur as a result of the applicant's negligence or noncompliance with any and all terms of this Agreement.

The installation of service is subject to MidAmerican Energy's tariff on file with, and as may be amended by, the respective Public Utility Commissions in Illinois, Iowa, Nebraska, and South Dakota.

If applicant requires that the installation be completed during the winter construction season, an additional non-refundable charge may be billed. MidAmerican Energy reserves the right to determine when such winter construction season exists and the extra associated cost. Your local MidAmerican Energy customer contact can provide current dates and costs.

Contact your local MidAmerican Energy Customer Technician for service installation costs for your service type. Installation costs are based on machine trenching in normal soil. Additional charges may be billed for unusual conditions incurred, such as rock or buried obstructions.

MidAmerican Energy will not replace sod nor be responsible for lawn or landscape restoration due to the installation of the gas and/or electric service lines.

MidAmerican Energy will schedule the installation of the gas and/or electric service lines after the applicant's premise and site is prepared and inspected for readiness by MidAmerican Energy. MidAmerican Energy will not be liable for any delays in the installation of the gas and/or electric service facilities.

Note: Site readiness is determined by the following:

- The foundation shall be backfilled and the ground shall be within 4" of final grade where the gas and electric services are to be installed. Note: Ground at meter site shall be backfilled and properly compacted to prevent settling.
- All material and obstructions shall be removed from the route and area where the gas and electric services and meters are to be installed.
- The gas riser bracket or meter bracket shall be installed where applicable. Fuel lines must be permanently marked with the service address.
- The electric meter socket shall be installed and entrance wiring approved by the local electrical inspector where applicable. Electric sockets must be permanently marked with the service address. MidAmerican Energy's Electric Service Manual describes the method for marking.
- Address and lot number shall be clearly posted at property prior to installation of gas and/or electric service being scheduled.
- See your local MidAmerican Energy customer contact for other possible requirements.

IOWA ONLY – The Applicant does hereby certify that the structure served by the gas and/or electric service lines (if intended primarily for human occupancy and if completed after April 1, 1984) meets the energy conservation standards as contained in the Iowa Administrative Code Section 661-16.800 (103a) known as the "Iowa State Building Code Thermal and Lighting Efficiency Standards."

See MidAmerican Energy's Gas Service Manual and MidAmerican Energy's Electric Service Manual for installation requirements for your gas and electric services. Copies of both books are available to the applicant upon request.

APPENDIX A

GAS / ELECTRIC SERVICE FACILITY APPLICATION AGREEMENT (2-100) FRONT

CONTACT MIDAMERICAN ENERGY TO DETERMINE IF THIS IS THE CURRENT VERSION OF THIS FORM.

2-100
9-24-12

MidAmerican Energy
GAS/ELECTRIC SERVICE FACILITY APPLICATION AGREEMENT

* indicates required field Shaded areas are for company use only

ACCOUNT NUMBER: _____ ELEC WR# _____ GAS MAIN WR# _____ GAS SERVICE WR# _____
APPLICATION TAKEN BY: _____ SERVICE CENTER: _____ DATE: _____

SERVICE ADDRESS* _____ UNIT# _____ CITY* _____ CITY LIMITS <input type="checkbox"/> Y <input type="checkbox"/> N	
STATE* _____	ZIP* _____ COUNTY* _____ SUBDIVISION NAME _____ LOT# _____
RESPONSIBLE BILLING PARTY* _____ WK PH* _____ HM/MBL PH* _____	
MAILING ADDRESS* _____ CITY* _____ STATE* _____ ZIP* _____	
Select one*: <input type="checkbox"/> NEW BLDG <input type="checkbox"/> EXISTING	Select one*: <input type="checkbox"/> RESIDENTIAL <input type="checkbox"/> COMM/INDUS
Select all that apply*: <input type="checkbox"/> SINGLE-FAMILY <input type="checkbox"/> DUPLEX <input type="checkbox"/> FARM/RURAL <input type="checkbox"/> PUBLIC AUTHORITY <input type="checkbox"/> MOBILE HOME <input type="checkbox"/> APARTMENT <input type="checkbox"/> CONDO/TOWNHOUSE	
Is this a conversion? <input type="checkbox"/> YES <input type="checkbox"/> NO If yes, from what? (prop, elec, other)	

ELECTRIC

ELECTRICAL CONTRACTOR: _____ PHONE #: _____

TEMPORARY

VOLTAGE*: _____	Select one*: <input type="checkbox"/> OH <input type="checkbox"/> UG	Connect at: <input type="checkbox"/> POLE <input type="checkbox"/> PEDESTAL <input type="checkbox"/> XFMR <input type="checkbox"/> OTHER <input type="checkbox"/> HANDHOLE	Is a transformer needed for the temp? <input type="checkbox"/> YES <input type="checkbox"/> NO	RATE: _____ APPROXIMATE CHARGES: \$ _____
-----------------	--	---	---	--

PERMANENT

VOLTAGE*: _____	Select one*: <input type="checkbox"/> OH <input type="checkbox"/> UG <input type="checkbox"/> CUST INST ¹	# of Meters*: 1-PH: _____ 3-PH _____ NETWORK/2-PH: _____ CT: _____ OTHER: _____	For Rewires: Existing Amps: _____ New Amps: _____	RATE: _____ APPROXIMATE CHARGES: \$ _____
-----------------	---	--	---	--

GAS

PLBG/HTG CONTR*: _____ PHONE*: _____

TOTAL # OF METERS: _____ DELIVERY PRESSURE NEEDED*: _____ MAX EMERGENCY PRESSURE: _____

WILL CUSTOMER HAVE CORRUGATED STAINLESS STEEL TUBING (CSST) CONNECTED TO THE OUTLET OF THE METER? YES NO

PRESENT LOAD: _____ BTU's	Select all that use gas*: <input type="checkbox"/> HEATING <input type="checkbox"/> WATER HEATING <input type="checkbox"/> FIREPLACE <input type="checkbox"/> COOKING <input type="checkbox"/> PROCESS <input type="checkbox"/> OTHER _____	RATE: _____ APPROXIMATE CHARGES: \$ _____
NEW LOAD: _____ BTU's		
TOTAL LOAD*: _____ BTU's		

FOR RATE DETERMINATION

Main Heat Source*:
 ELECTRIC GAS OTHER _____

Backup Heat Source:
 ELECTRIC GAS OTHER _____

Water Heat Source*:
 ELECTRIC GAS OTHER _____

Remarks: _____

Diagram of facility location.
Indicate North arrow and desired meter locations.

Check box if drawing is attached

1. Service installation by customer/electrician is subject to applicable income tax gross-up charges. Applicant shall locate and mark all privately owned underground facilities and systems (including but not limited to water services, culverts, irrigation systems, drain pipes, septic lines, and underground wiring) to conform with the current version of Recommended Guidelines for Underground Utilities and the uniform color code established by the American Public Works Association, prior to MidAmerican Energy Company's construction. The undersigned has read the back and front of this application and requests MidAmerican Energy to install and/or repair gas and/or electric facilities on the property listed above. The applicant agrees to comply with all applicable codes, rules, regulations, and MidAmerican Energy's tariffs, electric service manual, and gas service manual as filed with the appropriate state utilities board or commission. Failure to comply may result in charges.

APPLICANT AGENT SIGNATURE _____ DATE _____ or APPLICANT SIGNATURE _____ DATE _____
See additional requirements and terms on the back of this application.

APPENDIX A GAS / ELECTRIC SERVICE FACILITY APPLICATION AGREEMENT (2-100) BACK

CONTACT MIDAMERICAN ENERGY TO DETERMINE IF THIS IS THE CURRENT VERSION OF THIS FORM.

A drawing of the proposed Gas and/or Electric meter location must be included on the front of or with this application. The gas and/or electric meter location must be approved by your local MidAmerican Energy customer contact **before any work is started**. MidAmerican Energy shall have the sole right to determine the location of the service lines and meters.

Applicants for service to commercial, industrial or residential buildings including multifamily dwellings, should obtain from MidAmerican Energy information regarding gas pressure, voltage, transformers, metering, etc. before starting construction.

Applicant will provide, **without cost to MidAmerican Energy**, such easements as are necessary for the installation and maintenance of MidAmerican Energy's facilities on private property within the area served. No building shall be constructed and/or changes made in ground elevation by the grantor within MidAmerican Energy's easement area without written permission from MidAmerican Energy indicating that said construction and/or ground elevation changes will not interfere with MidAmerican Energy's rights to operate and maintain its facilities.

The Applicant is responsible for ensuring that all gas piping and any other gas and/or electric equipment is properly installed and adjusted in accordance with local and national codes and MidAmerican Energy requirements. Consistent with MidAmerican Energy's Tariffs, no inspection by MidAmerican Energy, or failure to object to the applicant's installation, shall render MidAmerican Energy liable for any damage or injury caused by problems with the applicant's equipment and facilities. Any inspection of applicant's equipment or piping by MidAmerican Energy during service installation, pilot lighting or leak investigation is for the sole purpose of determining whether MidAmerican Energy owned equipment is operating properly.

Applicant agrees to indemnify, protect and hold harmless MidAmerican Energy from and against all liability, damage, loss, claims and actions of any nature whatsoever which arise out of contacts with electric or gas facilities that occur as a result of the applicant's negligence or noncompliance with any and all terms of this Agreement.

The installation of service is subject to MidAmerican Energy's tariff on file with, and as may be amended by, the respective Public Utility Commissions in Illinois, Iowa, Nebraska, and South Dakota.

If applicant requires that the installation be completed during the winter construction season, an additional non-refundable charge may be billed. MidAmerican Energy reserves the right to determine when such winter construction season exists and the extra associated cost. Your local MidAmerican Energy customer contact can provide current dates and costs.

Contact your local MidAmerican Energy Customer Technician for service installation costs for your service type. Installation costs are based on machine trenching in normal soil. Additional charges may be billed for unusual conditions incurred, such as rock or buried obstructions.

MidAmerican Energy will not replace sod nor be responsible for lawn or landscape restoration due to the installation of the gas and/or electric service lines.

MidAmerican Energy will schedule the installation of the gas and/or electric service lines after the applicant's premise and site is prepared and inspected for readiness by MidAmerican Energy. MidAmerican Energy will not be liable for any delays in the installation of the gas and/or electric service facilities.

Note: Site readiness is determined by the following:

- The foundation shall be backfilled and the ground shall be within 4" of final grade where the gas and electric services are to be installed. Note: Ground at meter site shall be backfilled and properly compacted to prevent settling.
- All material and obstructions shall be removed from the route and area where the gas and electric services and meters are to be installed.
- The gas riser bracket or meter bracket shall be installed where applicable. Fuel lines must be permanently marked with the service address.
- The electric meter socket shall be installed and entrance wiring approved by the local electrical inspector where applicable. Electric sockets must be permanently marked with the service address. MidAmerican Energy's Electric Service Manual describes the method for marking.
- Address and lot number shall be clearly posted at property prior to installation of gas and/or electric service being scheduled.
- See your local MidAmerican Energy customer contact for other possible requirements.

IOWA ONLY – The Applicant does hereby certify that the structure served by the gas and/or electric service lines (if intended primarily for human occupancy and if completed after April 1, 1984) meets the energy conservation standards as contained in the Iowa Administrative Code Section 661-16.800 (103a) known as the "Iowa State Building Code Thermal and Lighting Efficiency Standards."

See MidAmerican Energy's Gas Service Manual and MidAmerican Energy's Electric Service Manual for installation requirements for your gas and electric services. Copies of both books are available to the applicant upon request.

APPENDIX A SOUTH DAKOTA GAS FACILITY AGREEMENT (64-93A) FRONT

CONTACT MIDAMERICAN ENERGY TO DETERMINE IF THIS IS THE CURRENT VERSION OF THIS FORM.

Service Address: _____	Date Site Ready: _____
City/State/Zip: _____	Account Number: _____
Responsible Billing Party: _____	WMIS Number: _____
_____	Polygon Number: _____
Mail Address: _____	Nearest Cross Street: _____
_____	County: _____
Phone No.: _____	Township/Range/Section: _____

<input type="checkbox"/> New Building	<input type="checkbox"/> Comm/Ind	<input type="checkbox"/> Apartment Building	<input type="checkbox"/> Twin Home	Taken By: _____
<input type="checkbox"/> Existing	<input type="checkbox"/> Residential	<input type="checkbox"/> Relocate	<input type="checkbox"/> Mobile Home	Phone No.: _____
Comments: _____				

Gas Load (CFH)		Gas Facilities		Cost to Customer	
Heat	_____	Delivery Press.	_____	Excess Footage	_____
Water	_____	No. of Meters	_____	Non-Htg Serv Line	_____
Cooking	_____	Meter Location	_____	Obstruction Chg.	_____
Fireplace	_____	Service Line	_____	Adverse Const. Chg.	_____
Garage	_____	Existing Main	_____	Relocate	_____
Other	_____	Main Location	_____	Sub-total	_____
TOTAL	_____	Riser Size	_____	Excise Tax	_____
		MAOP	_____	TOTAL	_____

Heat Pump: Yes No
Geothermal Yes No

Indicate North:

Diagram of Facility Location

Indicate North:



Applicant shall locate and mark all privately owned underground facilities and systems (including but not limited to water services, culverts, irrigation systems, drain pipes, septic lines, conduit and underground wiring) to conform with the current version of Recommended Marking Guidelines for Underground Utilities and the uniform color code established by the American Public Works Association, prior to MidAmerican Energy's construction. MidAmerican Energy will not be responsible for damage to unmarked or incorrectly marked privately owned underground facilities.

MidAmerican Energy will not replace sod nor be responsible for lawn, landscape, or hard surfaces (concrete, asphalt, etc.) restoration due to the installation/relocation of the gas facility.

The undersigned has read the back and front of this agreement and requests MidAmerican Energy to install and/or relocate its facilities on the property listed above.

SIGNATURE, APPLICANT'S AGENT

DATE

APPLICANT SIGNATURE

DATE

APPENDIX A

SOUTH DAKOTA GAS FACILITY APPLICATION AGREEMENT (64-93A) BACK

CONTACT MIDAMERICAN ENERGY TO DETERMINE IF THIS IS THE CURRENT VERSION OF THIS FORM.

The Applicant agrees to comply with all applicable codes, rules, regulations, and MidAmerican Energy's Gas Service Manual and tariffs as filed with the South Dakota Public Utilities Commission. Failure to comply may result in charges.

A drawing of the proposed gas facility work **must** be included on the front of this application. The gas facility location must be approved by your local MidAmerican Energy Customer Technician **before any work is started**. MidAmerican Energy shall have the sole right to determine the location of the service line and meter.

Applicants for service to commercial, industrial or residential buildings, including multifamily dwellings, should obtain from MidAmerican Energy information regarding gas pressure, metering, meter supports, etc. before starting construction.

Applicant will furnish and install meter backing or support posts where the building wall will not support the weight of the gas meter and/or is not conducive to attachment of support brackets.

Applicant is responsible for protection of the meter facilities against damage. The Applicant shall furnish and install physical barriers when specified by MidAmerican Energy.

Applicant will provide, without cost to MidAmerican Energy, such easements as are necessary for the installation and maintenance of MidAmerican Energy's facilities on private property within the area served. No building shall be constructed and/or changes made in ground elevation by the Applicant within MidAmerican Energy's easement area without written permission from MidAmerican Energy indicating that said construction and/or ground elevation changes will not interfere with MidAmerican Energy's rights to operate and maintain its facilities.

The Applicant is responsible for ensuring that all gas piping and any other gas equipment is properly installed and adjusted in accordance with local and national codes and MidAmerican Energy requirements. Consistent with the MidAmerican Energy's Tariffs, no inspection by MidAmerican Energy, or failure to object to the Applicant's installation, shall render MidAmerican Energy liable for any damage or injury caused by problems with the Applicant's equipment and facilities. Any inspection of Applicant's equipment or piping by MidAmerican Energy during service initiation, pilot lighting or leak investigation is for the sole purpose of determining whether MidAmerican Energy owned equipment is operating properly.

Applicant agrees to indemnify, protect and hold harmless MidAmerican Energy from and against all liability, damage, loss, claims and actions of any nature whatsoever arising out of or occurring as a result of the Applicant's negligence or noncompliance with any and all terms of the Agreement.

The installation/relocation of gas facilities is subject to MidAmerican Energy's tariff as filed with, and may be amended by, the South Dakota Public Utilities Commission.

If Applicant requires that the facility work be completed during the winter construction season, an additional non-refundable charge may be billed. MidAmerican Energy reserves the right to determine when such winter construction season exists and the extra associated cost. Your local MidAmerican Energy Customer Technician can provide current dates and costs.

Contact your MidAmerican Energy Customer Technician for facility installation/relocation costs for your service type. Installation/relocation costs are based on machine trenching in normal soil. An extra charge may be billed for unusual conditions incurred, such as rock and buried obstructions.

MidAmerican Energy will inspect the site for readiness and schedule the work after the Applicant has the site prepared and ready for installation/relocation for the gas facilities. MidAmerican Energy will not be liable for any delays in the installation of the gas facilities.

Site readiness is determined by the following:

- The foundation shall be backfilled and the ground shall be within 4" of final grade where the gas facilities are to be installed.
- Meter site ground shall be backfilled and properly compacted to prevent settling.
- When required, meter backing or support posts shall be installed.
- All material and obstructions shall be removed from the route and area where the gas facilities are to be installed.
- Address and lot number shall be clearly posted at property prior to work being scheduled.
- See your local MidAmerican Energy Customer Technician for other possible requirements.

MidAmerican Energy will turn on gas service when the customer piping is connected to the gas meter outlet and passes a no flow check. In addition for multiple meter sets, each fuel line must be permanently marked with the service address before service initiation.

See MidAmerican Energy's Gas Service Manual for installation/relocation requirements for your gas facilities. A copy is available upon request.

APPENDIX A
ON-LINE GAS SERVICE FACILITY APPLICATION
AGREEMENT

The link to the “New Construction Service Application” form is under “Contractors” on the midamericanenergy.com website.

You may go to this site to **Apply for Service**.

APPENDIX B COMMERCIAL GAS SERVICE WORKSHEET (65-29E)

CONTACT MIDAMERICAN ENERGY TO DETERMINE IF THIS IS THE CURRENT VERSION OF THIS FORM.



65-29e
2-13-09

Contact your MEC Customer Technician to discuss the completed information

Commercial Gas Service Worksheet

Project Name _____ MEC Date Sent _____
 Project Address _____ MEC Date Received _____
 City _____ State _____ Zip _____

General Contractor _____
 Contact Person _____
 Title _____
 Mailing address _____
 City State Zip _____
 Office phone number _____
 Cell phone number _____

Send Gas Bill To (if different from General Contractor)
 Business Name _____
 Contact Person _____
 Mailing address _____
 City State Zip _____
 Office phone number _____
 Cell phone number _____

HVAC Contractor _____
 Contact Person _____
 Office phone number _____
 Cell phone number _____

Plumbing Contractor _____
 Contact Person _____
 Office phone number _____
 Cell phone number _____

Items necessary to design gas service & meter set

Date building will be ready for meter installation _____
 Date blackout or curb are to be installed _____
 Identify wall material where meter is to be mounted (brick, lap siding, Dryvit, metal, pre-cast, etc.) _____

NOTE: Backing or support posts will be required where the wall will not support the weight of the meter set

Number of gas meters needed _____
 Gas delivery pressure _____
 Load for each meter/unit or suite - provide load for each piece of gas burning equipment (attach additional sheets if needed)

Unit or Suite #	Appliance Type (Boiler, Furnace, etc.)	Quantity	Appliance BTU Input	Total BTU's
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Attach the following or send electronic version (pdf preferred) 0

- Site plan showing nearest cross street
- Electrical site plan
- Mechanical plan
- Exterior elevation drawings
- Gas meter location indicated on site plan in feet off closest corner (12' N of SE corner of bldg)

Form Completed By: _____ Phone Number: _____

APPENDIX C CUSTOMER'S AUTHORIZATION FORM (18-2) FRONT



18-2
4-13-12

Customer's Authorization

The work described below will be done at: Street _____ City _____ State _____ Zip _____ The customer requests MidAmerican Energy to do the following work: _____ _____ _____ When the work described is complete, Customer promises to pay: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">SUMMARY OF WORK</th> <th style="text-align: right;">COST</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td style="text-align: right;">\$ _____</td> </tr> <tr> <td>_____</td> <td style="text-align: right;">\$ _____</td> </tr> <tr> <td style="text-align: right;">Tax _____ %</td> <td style="text-align: right;">\$ _____</td> </tr> <tr> <td style="text-align: right;">TOTAL COST TO CUSTOMER</td> <td style="text-align: right;">\$ _____</td> </tr> </tbody> </table>	SUMMARY OF WORK	COST	_____	\$ _____	_____	\$ _____	Tax _____ %	\$ _____	TOTAL COST TO CUSTOMER	\$ _____	WMIS Number: _____ Bill Acct. Number: _____ Taken By: _____ Date: _____ <hr/> BILL TO: Name _____ Street _____ City _____ State _____ Zip _____ Phone No. _____ DATE REQUESTED _____
SUMMARY OF WORK	COST										
_____	\$ _____										
_____	\$ _____										
Tax _____ %	\$ _____										
TOTAL COST TO CUSTOMER	\$ _____										

Indicate North:

Diagram of Facility Location

Applicant shall locate and mark all privately owned underground facilities and systems (including but not limited to water services, culverts, irrigation systems, drain pipes, septic lines, conduit and underground wiring) to conform with the current version of Recommended Marking Guidelines for Underground Utilities and the uniform color code established by the American Public Works Association, prior to MidAmerican Energy's construction. MidAmerican Energy will not be responsible for damage to unmarked or incorrectly marked privately owned underground facilities.

MidAmerican Energy will not replace sod nor be responsible for lawn, landscape, or hard surfaces (concrete, asphalt, etc.) restoration due to the installation/relocation of the gas and/or electric facilities.

The undersigned has read the back and front of this agreement and requests MidAmerican Energy to install and/or relocate its facilities on the property listed above.

SIGNATURE, CUSTOMER'S AGENT	DATE	CUSTOMER'S SIGNATURE	DATE
-----------------------------	------	----------------------	------

APPENDIX C

CUSTOMER'S AUTHORIZATION FORM (18-2) BACK

A drawing of the proposed gas and/or electric facility work **must** be included on the front of this authorization. The gas and/or electric facility location must be approved by your local MidAmerican Energy Customer Technician **before any work is started**. MidAmerican Energy shall have the sole right to determine the location of the service lines and meters.

The Applicant agrees to comply with all applicable codes, rules, regulations and MidAmerican Energy's tariffs, Electric Service Manual, and Gas Service Manual as filed with the appropriate state utilities board or commission. Failure to comply may result in charges.

Applicants for service to commercial, industrial or residential buildings, including multifamily dwellings, should obtain from MidAmerican Energy, information regarding gas pressure, voltage, transformers, metering, etc. before starting construction.

Applicant will furnish and install meter backing or support posts where the building wall will not support the weight of the gas meter and/or is not conducive to attachment of support brackets.

Applicant is responsible for protection of the meter facilities against damage. The Applicant shall furnish and install physical barriers when specified by MidAmerican Energy.

Applicant will provide, without cost to MidAmerican Energy, such easements as are necessary for the installation and maintenance of MidAmerican Energy's facilities on private property within the area served. No building shall be constructed and/or changes made in ground elevation by the applicant within MidAmerican Energy's easement area without written permission from MidAmerican Energy indicating that said construction and/or ground elevation changes will not interfere with MidAmerican Energy's rights to operate and maintain its facilities.

The Applicant is responsible for ensuring that all gas piping and any other gas and/or electric equipment is properly installed and adjusted in accordance with local and national codes and MidAmerican Energy requirements. Consistent with MidAmerican Energy's Tariffs, no inspection by MidAmerican Energy, or failure to object to the applicant's installation, shall render MidAmerican Energy liable for any damage or injury caused by problems with the Applicant's equipment and facilities. Any inspection of Applicant's equipment or piping by MidAmerican Energy during service initiation, pilot lighting or leak investigation is for the sole purpose of determining whether MidAmerican Energy owned equipment is operating properly.

Applicant agrees to indemnify, protect and hold harmless MidAmerican Energy from and against all liability, damage, loss, claims and actions of any nature whatsoever arising out of or occurring as a result of the Applicant's negligence or noncompliance with any and all terms of the Agreement.

The relocation/installation of facilities is subject to MidAmerican Energy's tariff on file with, and as may be amended by, the respective tariffs in Illinois, Iowa, Nebraska, and South Dakota.

If Applicant requires that the facility work be completed during the winter construction season, an additional non-refundable charge may be billed. MidAmerican Energy reserves the right to determine when such winter construction season exists and the extra associated cost. Your local MidAmerican Energy Customer Technician can provide current dates and costs.

Contact your MidAmerican Energy Customer Technician for facility work costs for your service type. Relocation/installation costs are based on machine trenching in normal soil. An extra charge may be billed for unusual conditions incurred, such as rock and buried obstructions.

MidAmerican Energy will inspect the site for readiness and schedule the work after the Applicant has the site prepared and ready for installation/relocation for the gas facilities. MidAmerican Energy will not be liable for any delays in the installation of the gas facilities.

Site readiness is determined by the following:

- The foundation shall be backfilled and the ground shall be within 4" of final grade where the gas and electric facilities are to be installed.
- Meter site ground shall be backfilled and properly compacted to prevent settling.
- When required, meter backing or support posts shall be installed.
- All material and obstructions shall be removed from the route and area where the gas and electric facilities are to be installed.
- The gas riser bracket or meter bracket shall be installed where applicable.
- The electric meter socket shall be installed and entrance wiring approved by your local municipal inspector where applicable. Electric sockets must be permanently marked with the service address. MidAmerican Energy's Electric Service Manual describes the method for marking.
- Address and lot number shall be clearly posted at property prior to work being scheduled.
- See your local MidAmerican Energy Customer Technician for other possible requirements.

MidAmerican Energy will turn on gas service when the customer piping is connected to the meter outlet and passes a no flow check. In addition for multiple meter sets, each fuel line must be permanently marked with the service address before service initiation. MidAmerican Energy's Gas Service Manual describes the method for marking.

See MidAmerican Energy's Gas Service Manual and MidAmerican Energy's Electric Service Manual for relocation/installation requirements for your gas and electric facilities. Copies of both books are available to the Applicant upon request.