April, 2008

TO: THE RESIDENTS OF THE SOUTHERN ONONDAGA AREA WATER DISTRICTS, TOWNS OF MARCELLUS, OTISCO, AND SPAFFORD

The construction of the Southern Onondaga Area Water Districts has begun water main installation along many of the lakefront roads. If you own a home in the new districts, the contractor (North Country Contractors, LLC.) will begin to string out pipe along the highway right-of-ways and easements throughout these areas. As part of the planning and design over 300 easements were needed for construction along the State/County roads and within the dense private sections along the waterfront. The engineer and contractor will be coming through these locations in an effort to work with the residents to locate and mark all existing underground utilities. We ask for you help with the marking of known private facilities. If possible, please use marking paint or flags to identify such location when you see construction crews in close proximity to your property.

In the event that you have any questions or concerns during construction of the water mains and services, the engineer's field representatives from Barton and Loguidice, P.C, are Neil Beebe and Neil Zimmer. Their field office is located in front of the T&T Redemption Center, 2542 Otisco Valley Road, in the Town of Marcellus. They can be reached at (315) 636-8669. To assist with questions from the districts' property owners they will be holding "office hours" on:

- Tuesdays - 8am to 9am; and
- Thursdays - 4pm to 5pm

In addition, a mail box will available outside the trailer for the convenience of identifying any written concerns. Please use the attached Form A with any written questions.

The sequence of construction is such that the contractor is required to install the water main, hydrants and valves, followed by testing and flushing. No services will be connected until testing is completed and approved. Once the water main is approved, the contractor will coordinate the installation of water services for each area. The residents of the districts are entitled to one ¾" water service to be installed at the time of the water main installation. At this time, a blue stake will be delivered by the contractor and each home owner will be asked to place this stake at the front property line where you want your water service connection located. The contractor is responsible to bring each water service to the property line or easement line fronting the water main and terminate this with a valve.

After this work is done by the contractor, a second mailing will include an OCWA ¾" service application card with additional instructions for meter installation. Once the contractor installs services in your area, we suggest that those who wish to receive water service proceed by installing their portion of the service from their home to the property line fronting the water main as shown on the enclosed Typical Water Service and Meter Installation sketch.

- You or your plumber (Onondaga County requires a licensed plumber) will be responsible to install the pipe from your property line into your house.
- A meter pit will be required at the property line if:
    1. If your house is more than 150 feet from the shut off valve; or

2. If your home/seasonal residence does not have a basement to protect a water service from freezing; (refer to attached details for make and model of the meter/PRV pit)
3. The service lateral to your building is not constructed using copper

- This service is within a high-pressure area (except the western end of Route 174 above Glencove Road) requiring that a pressure reducing valve be installed on the inlet side of the meter (i.e. basement or meter pit). This PRV needs to be installed by your plumber, and will be owned and maintained by you, the owner.
- Once the service is fully installed OCWA will install the water meter (i.e. basement or meter pit).
- Your plumber will be responsible for the connection at the curb stop.

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Please review the attached **Q&A – Easements and Private Meter/Lateral Installations,** prior to contacting the inspectors, for any answers to your questions.

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Rev 4/26/008
CGL/JAR

Towns of Marcellus, Otisco and Spafford
Southern Onondaga Area Water Districts

Q&A – Easements and Private Meter/Lateral Installations

Q: Why is an easement required?
A: A temporary easement is needed for construction and a permanent easement is needed for operation and maintenance of the municipal water mains in areas where there is not sufficient space for installation in the highway right-of-way or along private roads.

Q: What will the easement be used for after construction?
A: Once the new construction is completed and the system is operational the easement will allow OCWA to legally access all portions of the water system they are responsible to maintain.

Q: When will construction begin and end?
A: The scheduled construction period began March 14th, 2008 and will run through January 2009. Final restoration of some areas will be completed during the spring of 2009.

Q: Who installs my water service? Where will it be located?
A: North Country Contractors, LLC has been hired by the Towns to install the water mains, hydrants, valves, and service laterals up to the curb stop (which will be located at either the highway right of way boundary or easement boundary). Prior to construction of the service laterals, the Contractor will provide each house/seasonal residence with a blue stake to be placed at the front property line where you want your water service connection located.

It is the homeowner's responsibility to install the water service on their private property according to the laws and standards set forth by the Onondaga County Plumbing Code. Each homeowner should hire a licensed plumber in Onondaga County. The licensed plumber will obtain a permit from Onondaga County Plumbing Control who will inspect and approve the work prior to final connection. It is after this inspection/approval that OCWA shall be contacted to install the meter.

For more information visit Onondaga County Plumbing Control:
Website - http://www.ongov.net/WEP/we16.html
Phone - 315-435-6614

Q: Will I be able to continue to use my existing private water supply?
A: All property owners who connect to the public water supply system will be required under Onondaga County Health Department code to disconnect their private water supply system from their plumbing system prior to connecting to the public water system.

Q: Who do I contact if I have questions about my water service?
A: Once construction has been completed, the water system will be operated and maintained by OCWA. Contact OCWA at 455-7061 regarding specific requirements for water service installations or contact Onondaga County Plumbing Control (see above contact information).

Q: What is a curb stop? What is a pressure reducing valve? What is a meter?
A: A curb stop is the shut off that is installed on your service. The curb stop is installed at the edge of the right-of-way/easement and is the limit of work that the Towns are responsible for.

A Pressure Reducing Valve (PRV) is a valve that reduces the water pressure to a level that is acceptable for residential plumbing (you can adjust the amount of pressure reduction).

A meter is a device used to measure the amount of water that is used. The amount of water that is used determines the water usage and operating and maintenance costs that each resident of the water district will pay.

Q: Is a Pressure Reducing Valve (PRV) required for my service?
A: PRV's will allow you to adjust your pressure to a maximum set point (e.g. 50 PSI). New York State Health Department requires the installation of PRVs on the inlet side of the meter for water services where the pressure in the water main is 80 psi or greater. Since normal pressures in most areas of the system will exceed 80 psi, PRVs will be required. The only areas where they are not needed are along Kenyon Road (Otisco) and along NYS Route 174 uphill of Glencove Road (Spafford). The PRV needs to be installed by your plumber and will be owned and maintained by the property owner. This PRV will be installed in your meter pit if a meter pit is needed/used.

Q: What is an EDU?
A: An EDU is an Equivalent Dwelling Unit. EDU is an assessment used by the Towns of Marcellus, Otisco and Spafford to determine what amount of the construction costs each resident will account for. For example, a single family household and a seasonal residence will each be charged 1.0 EDU while a buildable vacant lot will be charged 0.5 EDU.

Q: What size lateral do I need to sustain adequate pressure in my house?
A: A scientific calculation called the Hazen-Williams equation is used to calculate pressure loss in different diameters and lengths of pipe. Attached is a chart identifying these losses per pipe length and diameter. Suggested minimum working pressure is 30 PSI.

Q: What kind of piping material should I use?
A: ¾" Type K copper must be used before and up to the meter. Any connection of which two different metals would be in contact, a dielectric or brass fitting must be used. After the meter, the homeowner may use any piping material desired. OCWA requirements prohibit the use of sweat, compression or soldered fittings between the curb stop and the meter. **Also attached are details of recommended meter setters.**

Q: Do I need a meter pit?
A: If your house is more than 150 feet from the curb stop (water valve at property line); if you cannot protect your meter from freezing (e.g. a seasonal residence of lack of basement); or if your personal service lateral is not the specified copper material you need a meter pit. Where meter pits are required, they must be of sufficient size to accommodate the installation of both a water meter and a PRV. Attached are details of the type and model of meter pit required.

These meter pits can be purchased through Martisco Corporation in Liverpool, NY at 471-3181.

Q: Where should I put my meter pit?
A: Meter Pits are designed to be located near the property line in an area which will not receive vehicular traffic. An ideal location for a meter pit is a few feet from the curb stop on your house/camp side.

Q: I have a seasonal residence and I have to drain it every winter. Is there a way to drain the lines back into the meter pit?
A: Yes. If you have a meter pit, you would need to shut the inflow side of the meter off, remove the meter, drop the platform back down into the ground and store your meter inside. As long as the plumbing in the meter pit is lower than your house, it will drain back into the meter pit.

Q: Where should I mount my meter inside my house?
A: If installed in a basement, meters shall be installed in accordance with OCWA's typical water meter and meter installation requirements. **See the attached "Typical Water Service & Meter Installation" detail.**

Q: What are the estimated connection charges?

A: The estimated connection charges are as follows:

$160 5/8-inch water meter - OCWA charge

$750 Meter pit (3/4-inch, tandem pits with watts PRV) – Not supplied through OCWA, see above for supplier information.

Q: What size meter do I need for my private service?

A: Most applications for typical households will not require any more than a 5/8" meter, capable of 25 gallons per minute (gpm). The average flow for a household fixture is between 2-2.5 gpm. This means that to exceed the maximum capacity of a typical 5/8" x 3/4" meter, a house would have to have 10-12 fixtures open at the same time. Meter size shall not be any larger than the service size.

Private services vary greatly in size and length so no two are alike. Estimated pressure losses and maximum and minimum flows are as follows:

Meter Sizes

	5/8", 5/8"x ¾"	¾", ¾" x 1"	1"	1-1/2"
Pressure loss, psi	0.15 – 0.36	0.36 – 0.04	0.04	-
Min. flow	¼	3/8	¾	1-1/4
Max. flow	25	30	70	120

Head losses in pipe

L(pipe)	D = 3/4" HF(PSI)	D = 1" HF(PSI)	D = 1.5" HF(PSI)	L(pipe)	D = 3/4" HF(PSI)	D = 1" HF(PSI)	D = 1.5" HF(PSI)
10	6.51	1.61	0.22	190	26.04	6.42	0.89
20	7.59	1.87	0.26	200	27.12	6.69	0.93
30	8.68	2.14	0.30	250	32.54	8.03	1.12
40	9.76	2.41	0.33	300	37.97	9.37	1.30
50	10.85	2.68	0.37	350	43.39	10.70	1.49
60	11.93	2.94	0.41	400	48.82	12.04	1.67
70	13.02	3.21	0.45	450		13.38	1.86
80	14.10	3.48	0.48	500		14.72	2.05
90	15.19	3.75	0.52	550		16.06	2.23
100	16.27	4.01	0.56	600		17.39	2.42
110	17.36	4.28	0.60	650		18.73	2.60
120	18.44	4.55	0.63	700		20.07	2.79
130	19.53	4.82	0.67	750		21.41	2.98
140	20.61	5.08	0.71	800		22.74	3.16
150	21.70	5.35	0.74	850		24.08	3.35
160	22.78	5.62	0.78	900		25.42	3.54
170	23.87	5.89	0.82	950		26.76	3.72
180	24.95	6.15	0.86	1000		28.10	3.91

Notes: An additional 50' is added on to the lengths to account for plumbing inside the house. All calculations based on a flow of 7.5 gpm and a C = 120. Losses do not include changes inherited with elevation changes.

FORM A

Southern Onondaga Area Water Districts

(please print neatly)

Name: _____

Address: _____

Town of Residence: _____

Property Tax # (if known): _____

Phone #: _____

Best Time To Call:

Day _____

Evening_____

Questions and/or Concerns:

_____

_____

_____

_____

_____

_____

_____

_____

_____

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_____

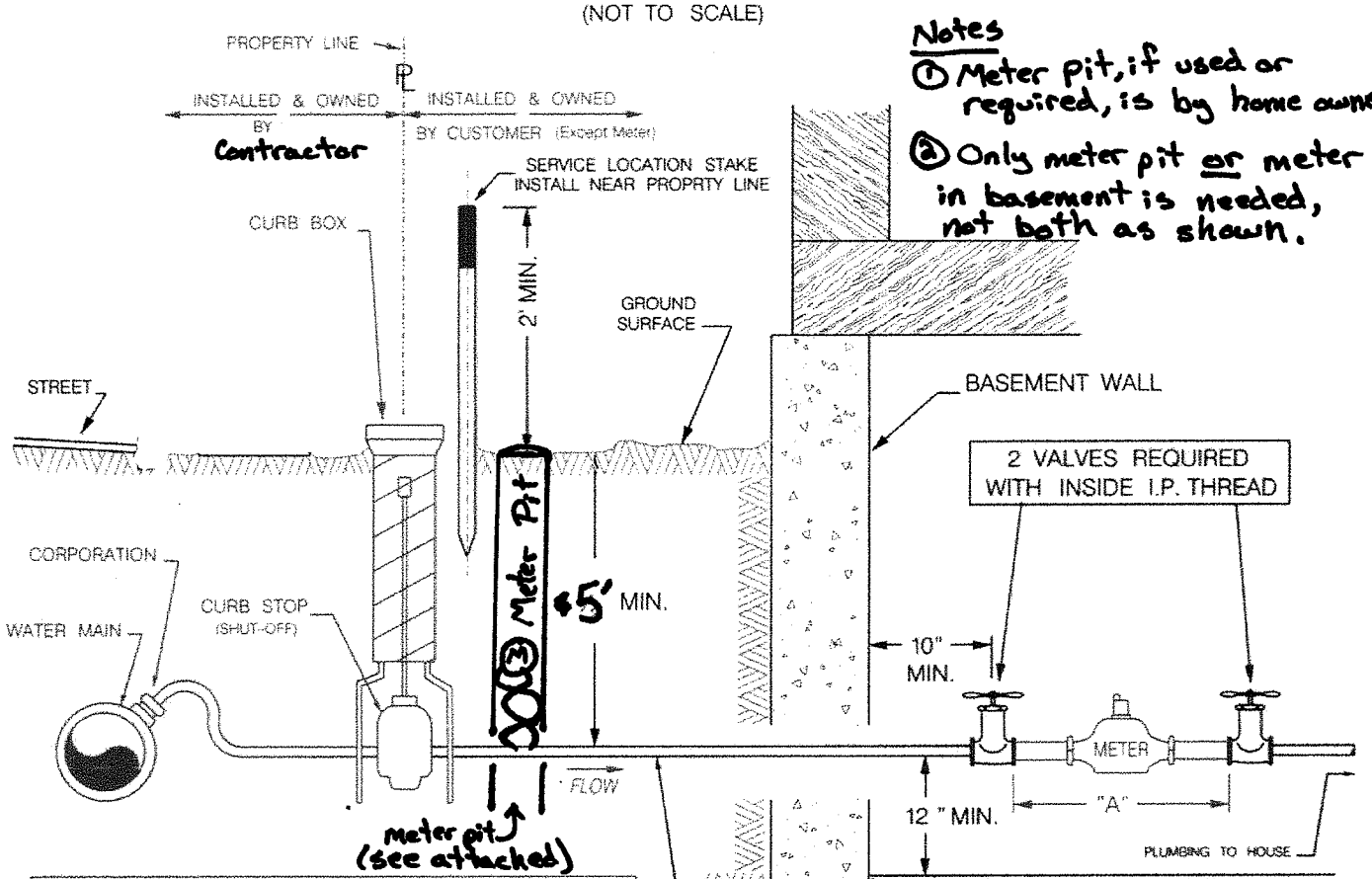
_____

_____

ONONDAGA COUNTY WATER AUTHORITY
NORTHERN CONCOURSE–P.O. BOX 9
SYRACUSE, N.Y. 13211–0009

TYPICAL WATER SERVICE & METER INSTALLATION

(NOT TO SCALE)



Notes
① Meter pit, if used or required, is by home owner.
② Only meter pit or meter in basement is needed, not both as shown.

SRACE REQUIRED FOR METER SETTING		
METER SIZE	DIMENSIONS "A" INCHES	FLEXIBILITY
5/8"	12" TO 13"	1"
3/4"	13" TO 14"	1"
1"	15" TO 16"	1"

If a meter pit is not used or needed,
CUSTOMER PIPING SHALL BE NEW TYPE "K" COPPER TUBING. SWEAT, COMPRESSION OR SOLDERED FITTINGS SHALL NOT BE USED BETWEEN THE CURB STOP AND THE METER.

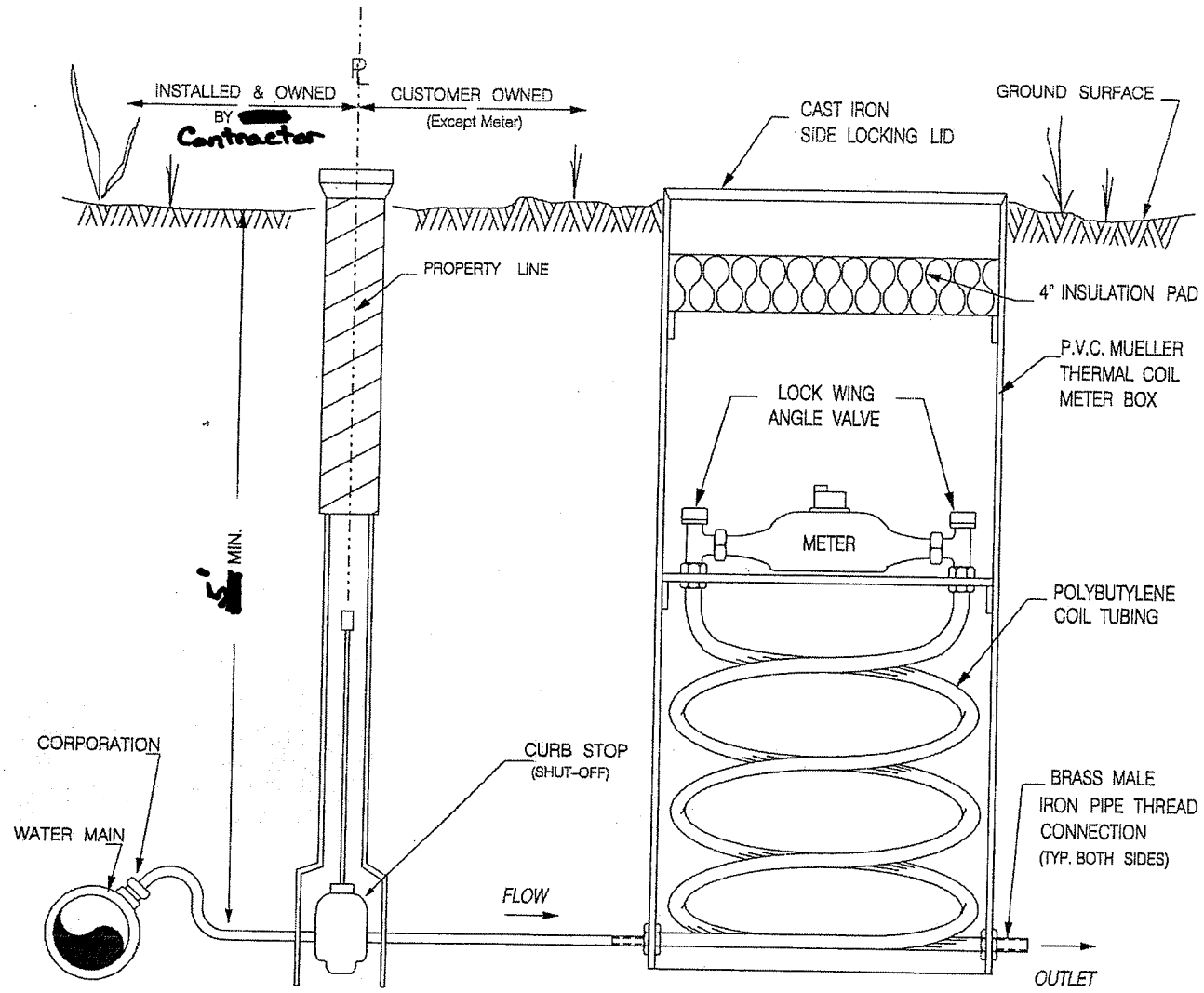
NOTES

1. Water Authority will not connect to consumers service, unless consumer has a long stake extending from the exact end of pipe to approximately two (2) feet above surface of the ground.
2. Houses having no cellars will require an inspection and approval of customer's service pipe before connection is made.
3. All materials will be furnished and installed by the Contractor from the water main to the property line.
4. Property owner furnishes all materials and installs all piping to and into the building except the meter which is furnished and installed by the Contractor. Customer's piping shall have a minimum cover of five(5) feet.
5. Meter must be located less than three (3) feet from where the service enters the basement between two (2) shut-off valves and be conveniently accessible for reading and changing.
6. Piping is to be installed at the above listed clearance and have sufficient flexibility to set and/or remove meter.
7. The inlet valve next to the meter shall be a flared copper to iron pipe thread valve or a flared copper to iron pipe thread angle valve.

Form # D16

ONONDAGA COUNTY WATER AUTHORITY
NORTHERN CONCOURSE–P.O. BOX 9
SYRACUSE, N.Y. 13211–0009

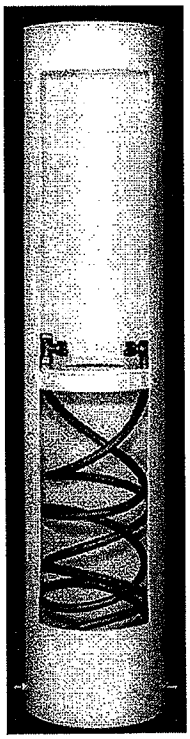
TYPICAL SMALL OUTSIDE METER PIT FOR 5/8", 3/4", & 1" METERS



MUELLER® / HUNT THERMAL-COIL® METER BOX

Mueller Co. **8F.1**

Rev. 4-99



The MUELLER / Hunt THERMAL-COIL Meter Box provides a means to allow a meter to be read and maintained even though it is set deep in the ground to resist freezing. The THERMAL-COIL Meter Box is designed with the meter installed on a platform that normally sets near the bottom of the box where the ground temperature keeps it warmer. The meter and platform are connected to the service line by coils of polybutylene tubing which allow the meter and platform to be raised to the surface.

The body of the meter box is made from rigid PVC which has a high insulating "R" value to resist frost bridging" inside the box. For extremely cold climates, an optional insulating pad is available which traps the relatively warm air rising from the earth inside the box.

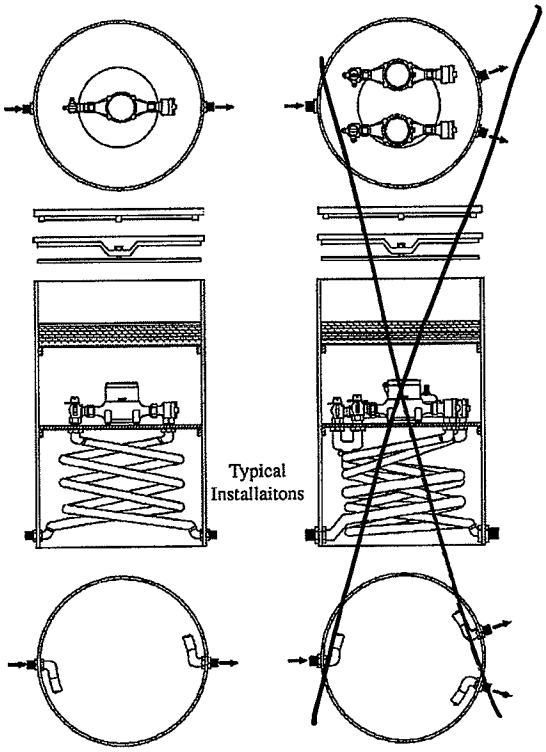
MUELLER / Hunt THERMAL-COIL Meter Boxes are shipped fully assembled, ready for meter installation. Their light weight saves shipping costs and makes installation a one man job in most cases. Every box is factory tested and has a 150 psig maximum working pressure rating.

MUELLER / Hunt THERMAL-COIL Meter Boxes are available for 5/8" to 1" meters. A wide variety of end connections, control valves, box depths, lids and other options provide you with the meter set you need. Due to the almost endless combination of features available, each box is custom built to your specifications. See page 8F.2 for options and ordering instructions.

Manufactured under one or more of the following: U.S. Patent No. 4,614,113; 4,813,281

MUELLER / Hunt THERMAL-COIL Meter Box Features

- ❑ Rigid .300 minimum wall PVC material holds shape and resists frost bridging
- ❑ Optional insulation pad traps earth's heat to prevent freezing in extremely cold climates
- ❑ White interior aids visibility
- ❑ Meter set is anchored to moveable platform to maintain alignment and stability
- ❑ Platform support and reinforcing ring add rigidity to box
- ❑ Poly coil tubing provides low friction loss equivalent to a typical conventional meter set of the same size and depth
- ❑ Male I.P. thread inlet and outlet connections accept a variety of MUELLER Service Fittings--see section 6
- ~~❑ Optional aluminum bottom available~~
- ❑ Large selection of optional lids



MUELLER Valves and Couplings used in these meter box assemblies are manufactured and tested in accordance with ANSI/AWWA C800.

8F.2 Mueller Co.

Rev. 4-99

MUELLER® /HUNT THERMAL-COIL® METER BOX

MUELLER / Hunt THERMAL-COIL Meter Box ordering instructions

To order a MUELLER / Hunt THERMAL - COIL Meter Box, simply choose the options you require from the eight catagories listed below and place the option code on the appropriate line of the catalog number shown below.

If the box you need is a tandem type, please fill out the tandem information box shown below the options listing and contact the factory for price and delivery information. Phone 1-800-821-3553 or fax 1-615-895- 7686.

Catalog Number

(1) 203 (2) CT* (3) 15 (4) 60 (5) L (6) L (7) B (8) S

Options

1 Meter size
NOTE: Meter is **not** furnished. Order meter separately.

Meter size	Code number
5/8"	200
5/8"x3/4"	(203)
3/4"	250
1"	330

2 Box Style

Box style	Code number
Single meter	~~S~~
Double meter	CD
Tandem	(CT)

* to be used with a "prv" also

3 Box diameter

Box diameter	Code number
15" box is for use with: 5/8, 5/8x3/4 or 3/4 single meters 5/8, 5/8x3/4 or 3/4 tandems *	(15)
18" box is for use with: 1" single meters 1" tandems 5/8, 5/8x3/4 or 3/4 double meters	18

4 Box depth

Depth	Code number	Depth	Code number
30"	30	66"	66
36"	36	72"	72
42"	42	78"	78
48"	48	84"	84
54"	~~54~~	90"	90
60"	(60)	96"	96

5 Meter inlet type

Meter inlet	Code number
Lockwing angle meter stop	(L)
Lockwing angle ball valve (full port)	F
Lockwing angle ball valve (reduced port)	R

6 Meter outlet type

Meter outlet	Code number
Meter coupling	A
Dual check valve	B
A.S.S.E. Dual check valve	S
A.S.S.E. Top entry vertical check	V
Lockwing angle meter stop	(L)
Lockwing angle ball valve (full port)	F
Lockwing angle ball valve (reduced port)	R

7 Box bottom type

Bottom type	Code number
Attached aluminum bottom	A
Less bottom	(B)

8 Type of box locking device (box is ordered with device to accept either a non-locking lid, center locking or side locking lid). Lids must be ordered separately.

Lock type	Code number
Non-locking	N
Center locking	L
Side locking	(S)

Tandem box order information

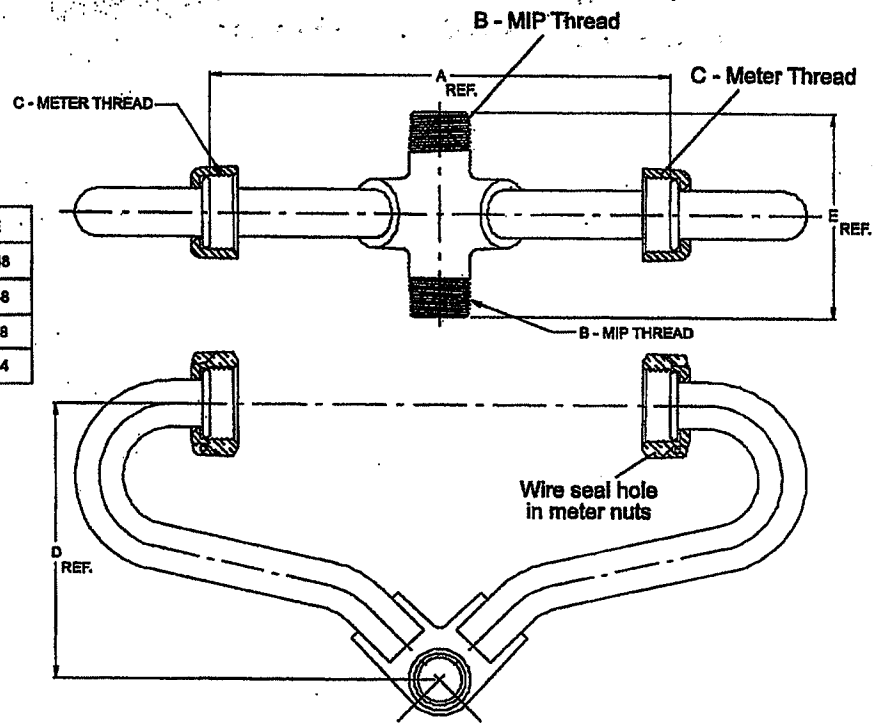
Type of tandem device (regulator, backflow preventer etc) PRV
Size_____ and length_____ of tandem device
Tandem device manufacturer's name_____ ~~Tandem device~~ model number _____

* NOTE: Tandem device is not included and must be purchased separately. ALSO, 3/4" tandems systems when used with certain regulators may need to be placed within a 18" box; list the regulator model when specifying this system. If an ASSE check valve or ball valve is being used in a 3/4" setting then an 18" meter box will be required.

MUELLER Valves and Couplings used in these meter box assemblies are manufactured and tested in accordance with ANSI/AWWA C800.

SUBMITTAL DATA
44 SERIES COPPER METER SETTER

Note: Used to set a meter inside a house/basement



PART NO.	PLATE NO.	A	B	C	D	E
4157-047	44-1	7.83	3/4	5/8	4.75	3.48
4157-048	44-2	7.83	3/4	5/8, 5/8 X 3/4	4.75	3.48
4157-049	44-3	9.33	3/4	3/4	4.75	3.48
4157-050	44-4	11.09	1	1	6.25	4.14

- Cast brass conforms to AWWA Standard C800-01 (ASTM B-62, UNS C83600 – 85-5-5-5).
- BUNA-N or EPDM rubber (in accordance with ASTM D2000) meter gaskets are provided with all meter settings.
- Meter swivel nuts include wire seal hole.
- Meter swivel nut without meter support saddle.
- Copper tubing connected to brass casting with lead-free solder.
- Male iron pipe threads on inlet and outlet.
- Tested "air under water" at 85 PSIG air pressure.
- Type K copper tubing according to ASTM B75 or B88. Alloy C1220.
- Designed for use with potable water.
- OPTIONS (contact factory):
  - ☐ Test Valves
  - ☐ Stop Valves
  - ☐ Check Valves
  - ☐ Spread Lengths

PREPARED FOR: _____

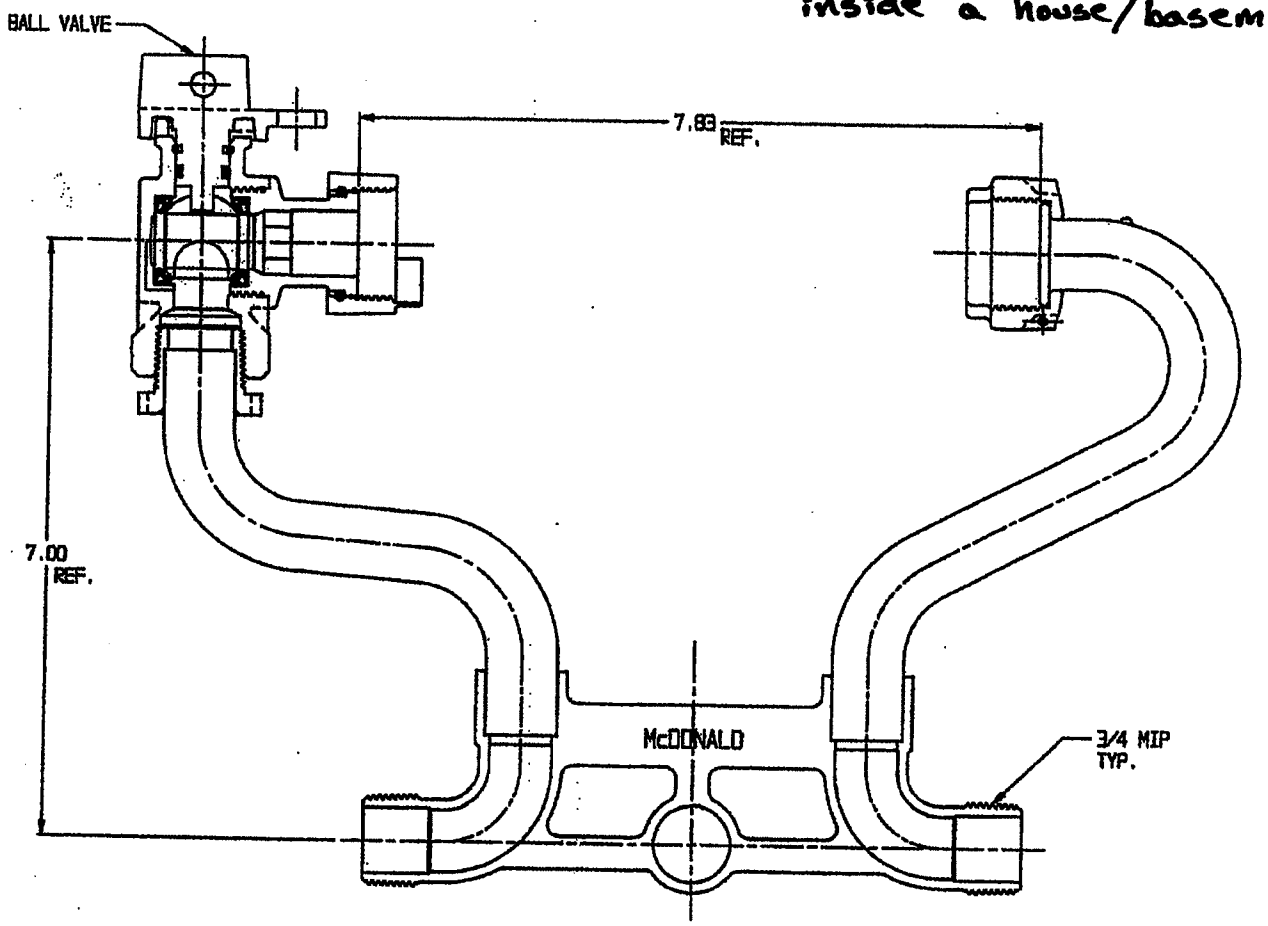
SUBMITTED BY: _____

DATE: _____

A.Y. McDONALD MFG. CO. • P.O. BOX 508 • DUBUQUE, IA 52004-0508
800-292-2737 • FAX 800-832-9295 • sales@aymcdonald.com • www.aymcdonald.com

Note: Used to set a meter inside a house/basement

4157-172	-
PATT. No.	
CORE No.	



MATERIAL SPECIFICATIONS	
UNLESS OTHERWISE SPECIFIED - TOLERANCES, ETC.	
CASTINGS: +/- .025	
2 PLACE DECIMALS (.00) +/- .015	
3 PLACE DECIMALS (.000) +/- .005	
FINISH 125 max.	MACH'Y
T.I.R. .010 max.	DRAFT
	DIM. IN INCHES

A. Y. McDONALD CONSIDERS THE INFORMATION ON THIS ASSEMBLY DRAWING CORRECT WHEN PUBLISHED. ITEM AND OPTION AVAILABILITY INCLUDING SPECIFICATIONS, ARE SUBJECT TO CHANGE WITHOUT NOTICE. PLEASE VERIFY THAT PRODUCT INFORMATION IS CURRENT.

4157-172	C.O. No.	SYM.	REVISIONS
-	09-175	1	RELEASED TO SALES ASSY DIRECTORY

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28-207WXPP 33
METERSETTER

DRAWN: DJC 09-22-09 | CHECKED | SCALE | APPROVED

A.Y. McDonald Mfg. Co.
DUBUQUE, IOWA

4157-172 -