South Orange Village Water Utility

NEW SERVICE APPLICATION

AMERICAN WATER

★ **I AM APPLYING FOR:**

☐ Domestic Service ☐ Fire Service ☐ Irrigation Service

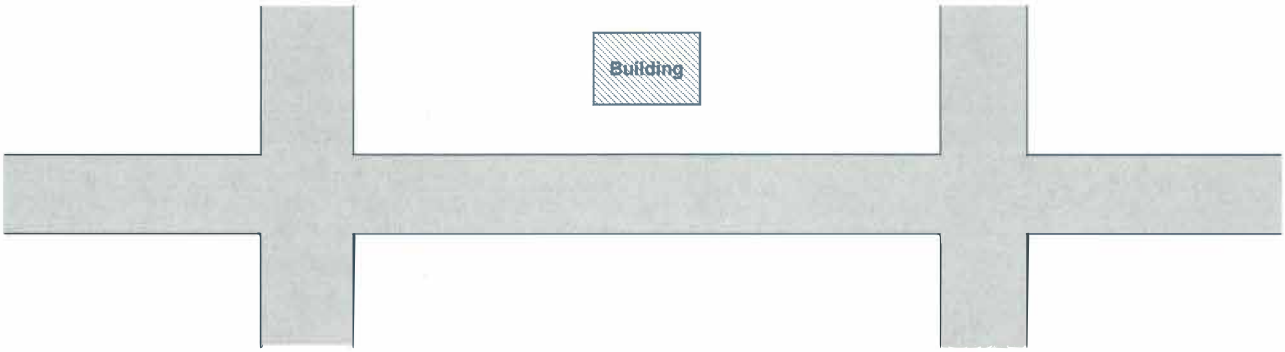
★ **SERVICE LOCATION:**

Street Address_____Town_____

County_____Block_____Lot_____

Property is situated between streets_____&_____

Please sketch your preferred service location on diagram below:



★ **APPLICANT INFORMATION:**

Name_____

Address_____Town_____

Phone_____Cell_____Fax_____

★ **BILLING INFORMATION (party responsible for bill):**

Name_____

Address_____Town_____

Phone_____Cell_____Fax_____

Email_____

★ **BUILDING OWNER INFORMATION (if different from billing information):**

Name_____

Address_____Town_____

Phone_____Cell_____Fax_____

Email_____

★ **THIS PROPERTY IS:**

☐ New construction ☐ Subdivision ☐ Vacant Land

☐ Existing building ☐ Demolition ☐ Currently using well water

★ **USE OF SERVICE:**

☐ Single Family ☐ Total # Bedrooms_____ ☐ Commercial

☐ Multi-Family (2 - 4 units) ☐ Total # Bathrooms_____ ☐ Irrigation only

☐ Apartments (5 unit and up) ☐ Other (describe)_____

South Orange Village Water Utility

NEW SERVICE APPLICATION

AMERICAN WATER

★ COMPLETE FOR DOMESTIC WATER SERVICE

(Provide NJAW Demand Worksheet and NJAW Fixture Count Data Sheet for service greater than 1 inch)

Is there an existing domestic service at the property? ☐ Yes ☐ No

If yes, do you want to: ☐ Replace/Upgrade the existing service ☐ Add a new service (keep the existing service)

What size meter are you requesting?_____ (Standard single-family is 5/8" meter, approximately 20 GPM)

What is your GPM requirement if greater than 20 GPM?_____

★ COMPLETE FOR FIRE SERVICE

Is there an existing fire service at the property? ☐ Yes ☐ No

If yes, do you want to: ☐ Replace/Upgrade the existing service ☐ Add a new service (keep the existing service)

What size fire service are you requesting?_____

Number of buildings_____Building use_____Type of construction_____

Number of sprinkler heads_____Number of hydrants_____Number of Fire Dept. connections_____

Wet or Dry system_____Type of backflow device (name/model)_____

Fire Sprinkler plans must be submitted/reviewed by the local fire official, who should sign here that they have seen plans:

Print name_____Title_____

Signature_____Date_____

★ COMPLETE FOR IRRIGATION SERVICE

What size meter are you requesting?_____ What is your GPM requirement?_____

★ APPLICANT, PLEASE COMPLETE AND SIGN BELOW:

☐ I understand that these services are subject to the rates and conditions of the South Orange Village Water Utility.

☐ I understand that I will be billed for water usage on fire services.

☐ I understand that water distribution system pressure varies throughout the system and that it is the applicant's and/or their agent's responsibility to inquire as to the maximum system pressure they will be connecting to and to ensure their plumbing system is in compliance with all applicable code requirements.

☐ I understand that a Backflow Device is required for domestic services on commercial accounts and for all fire services.

☐ Existing well, if any, will be physically removed.

Print name_____Title_____

Signature_____Date_____

★ MUNICIPAL APPROVAL:

After completing this form and all attachments, the applicant must transmit this form and all supporting documents to the Village Engineer (via email to srenda@southorange.org) for review of this new connection.

Village Engineer _____ Date _____

After securing municipal approval, the applicant must transmit this form and all supporting documents to the Customer Service Center at southorangecustserv@utilitiesbp.com for creation of a work order to install this new connection. Maintain a record copy of all documents and correspondence for your records.

AMERICAN WATER

FIXTURE COUNT DATA SHEET

SERVICE ADDRESS_____

PRINT NAME_____ **PHONE #**_____ **DATE**_____

FIXTURE	QTY		FIXTURE VALUE		TOTAL
Bathtub		x	8	=	
Shower Head (Shower Only)		x	4	=	
Bedpan Washers		x	10	=	
Combination Sink And Tray		x	3	=	
Dental Unit		x	1	=	
Dental Lavatory		x	2	=	
Drinking Fountain- Cooler		x	1	=	
Drinking Fountain- Public		x	2	=	
Kitchen Sink- 1/2" Conn.		x	3	=	
Kitchen Sink- 3/4" Conn.		x	7	=	
Lavatory Sink- 3/8" Conn.		x	2	=	
Lavatory Sink- 1/2" Conn.		x	4	=	
Laundry Tray- 1/2" Conn.		x	3	=	
Laundry Tray- 3/4" Conn.		x	7	=	
Service Sink- 1/2" Conn.		x	3	=	
Service Sink- 3/4" Conn.		x	7	=	
Urinal- Pedestal Flush Valve		x	35	=	
Urinal- Wall Flush Valve		x	12	=	
Toilet- Tank Type		x	3	=	
Toilet- Flush-O-Meter Type		x	35	=	
Wash Sink- (each set of faucets)		x	4	=	
Dishwasher- 1/2" Conn.		x	5	=	
Dishwasher- 3/4" Conn.		x	10	=	
Washing Machine- 1/2" Conn.		x	5	=	
Washing Machine- 3/4" Conn.		x	12	=	
Washing Machine- 1" Conn.		x	25	=	
Hose Conn.- 1/2"		x	6	=	
Hose Conn.- 5/8"		x	9	=	
Hose Conn.- 3/4"		x	12	=	
				Fixture Value Total =	
				Fixed Loads (if any) =	

DO NOT WRITE IN THIS SECTION. WATER COMPANY USE ONLY.

Total Calculated Peak Demand:_____ **Recommended Meter Size:**_____

Excel version available at:
http://www.amwater.com/files/Fire%20Flow%20Calculator%20Worksheet%20Sept%202016.xlsx

Needed Fire Flow (NFF) Calculation Worksheet

NEW JERSEY
AMERICAN WATER

For Residential Buildings, see Tab 1 - Residential Fire Flow

For Non-Residential Buildings with a fully sprinklered system, see Tab 2 - Non-Residential Sprinkler

Print and Sign Tab 3 - Sign off sheet

Preparer: Please fill in only the yellow shaded cells on worksheets

Municipal Fire Official or assigned Delegate: Please fill in only the blue shaded cells as appropriate on Sign Off Sheet

The ability of a distribution system to provide safe, adequate and reliable service to its customers is analyzed based on forecasted customer demands and the Needed Fire Flow (NFF). Hydraulic computer modeling of the distribution system is utilized as the primary tool in the analysis. The model will determine system adequacy/deficiency and evaluate the effectiveness of proposed improvements under requested fire demand conditions. Published manuals from the ISO are used as a guide in determining the NFF. The calculations and tables contained within are obtained from the ISO's *Guide For Determination of Needed Fire Flow*, Edition 06-2014.

***This worksheet is only a guide and in no way does New Jersey American Water take responsibility for the calculated Needed Fire Flow indicated within. In some cases the requested Needed Fire Flow for a site may be more or less based on other factors not accounted for in this worksheet. ISO's municipal fire protection testing may identify sites with needed fire flows greater than 3,500 gpm for a duration of three hours. In many pressure zones, particularly in residential areas, the identified maximum is less than 3,500 gpm. Where individual structures are assigned ISO Needed Flows above 3,500 gpm, fire protection needs in excess of 3,500 gpm at these sites will be satisfied through the development of individual customer-owned fire suppression systems.**

References:
Guide for Determination of Needed Fire Flow. Rep. 06-2014 ed. N.p.: Insurance Services Office, 2014. Print.
Fire Suppression Rating Schedule. Rep. N.p.: Insurance Services Office, 2012. Print.

1. Residential

Needed Fire Flow (NFF) (Refer to Table and Notes below)	*Example*	GPM @ 20 psi
	750	

For 1- and 2-family dwellings not exceeding 2 stories with an Effective Area* of 4800 Square Feet or less, use the following Needed Fire Flows:

Distance Between Buildings	Needed Fire Flow
More than 30 feet	500 gpm
21-30 feet	750 gpm
11-20 feet	1,000 gpm
0-10 feet	1,500 gpm

Residential with Automatic Fire Sprinkler System

For a 1- or 2-family dwelling protected with an automatic fire sprinkler system installed in accordance with the general criteria of NFPA 13D, *Installation of Sprinkler Systems for One-and Two-Family Dwellings and Manufactured Homes* , the Needed Fire Flow is either the **demand at the base of the automatic sprinkler riser or 500 gpm, whichever is greater.**

The NFF for residential occupancies (such as **apartment buildings, lodgings and rooming houses, board and care facilities, hotels, motels and dormitories**) protected by an automatic fire sprinkler system installed in accordance with the general criteria of NFPA 13R, *Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and including Four Stories in Height* , is either the **demand at the base of the automatic sprinkler riser or 1000 gpm, whichever is greater.**

Residential with Effective Area* of greater than 4800 square feet

For a 1- or 2-family dwelling with an Effective Area* greater than 4,800 square feet, **refer to ISO's *Guide for Determination of Needed Fire Flow* , Edition 06-2014.**

** To calculate Effective Area refer to ISO's Guide for Determination of Needed Fire Flow, Edition 06-2014.*

References:
Guide for Determination of Needed Fire Flow. Rep. 06-2014 ed. N.p.: Insurance Services Office, 2014. Print.
Fire Suppression Rating Schedule. Rep. N.p.: Insurance Services Office, 2012. Print.

2. Non-Residential, Fully Sprinklered

Fill in the Demand at the Base of the Automatic Sprinkler Riser and the NFPA 13 Hose Stream Demand

For projects with multiple buildings, fill out for the highest demand building.	GPM @ 20 psi
Demand at the Base of the Automatic Sprinkler Riser	
NFPA 13 Hose Stream Demand	
Needed Fire Flow (NFF) *	0

** Minimum NFF is 500 GPM*

If a fire pump is required, please provide the following information		
Pump Flow Rate		**GPM**
Total Dynamic Head		**feet**

Notes

The Needed Fire Flow (NFF) for commercial occupancies protected by an automatic fire sprinkler system installed in accordance with the general criteria of NFPA 13, *Standard for Installation of Sprinkler Systems,* is **the demand at the base of the automatic sprinkler riser and inside/outside hose stream demand.**

For Non-Residential, not fully sprinklered buildings **refer to ISO's *Guide for Determination of Needed Fire Flow* , Edition 06-2014.**

References:

Guide for Determination of Needed Fire Flow. Rep. 06-2014 ed. N.p.: Insurance Services Office, 2014. Print.

Fire Suppression Rating Schedule. Rep. N.p.: Insurance Services Office, 2012. Print.

3 - Sign Off Sheet

Residential Fire Flow		
Needed Fire Flow (per ISO)	0	**GPM @ 20 psi**
Total Needed Fire Flow (if higher flow amount requested by township official)		**GPM @ 20 psi**

Non-Residential, Fully Sprinklered		
Needed Fire Flow (per ISO)	0	**GPM @ 20 psi**
Total Needed Fire Flow (if higher flow amount requested by township official)		**GPM @ 20 psi**

Note: Please Provide Both Signatures

Project Name: _____

Project Address: _____

_____

Prepared By: _____

Signature: _____

Title: _____

Date: _____

Phone # _____

Signing this sheet is only an **acknowledgement** of the NFF.
It **does not** imply a review and approval of the NFF calculations.

Municipal Fire Official or Delegate

(Print name): _____

Municipality _____

Signature: _____

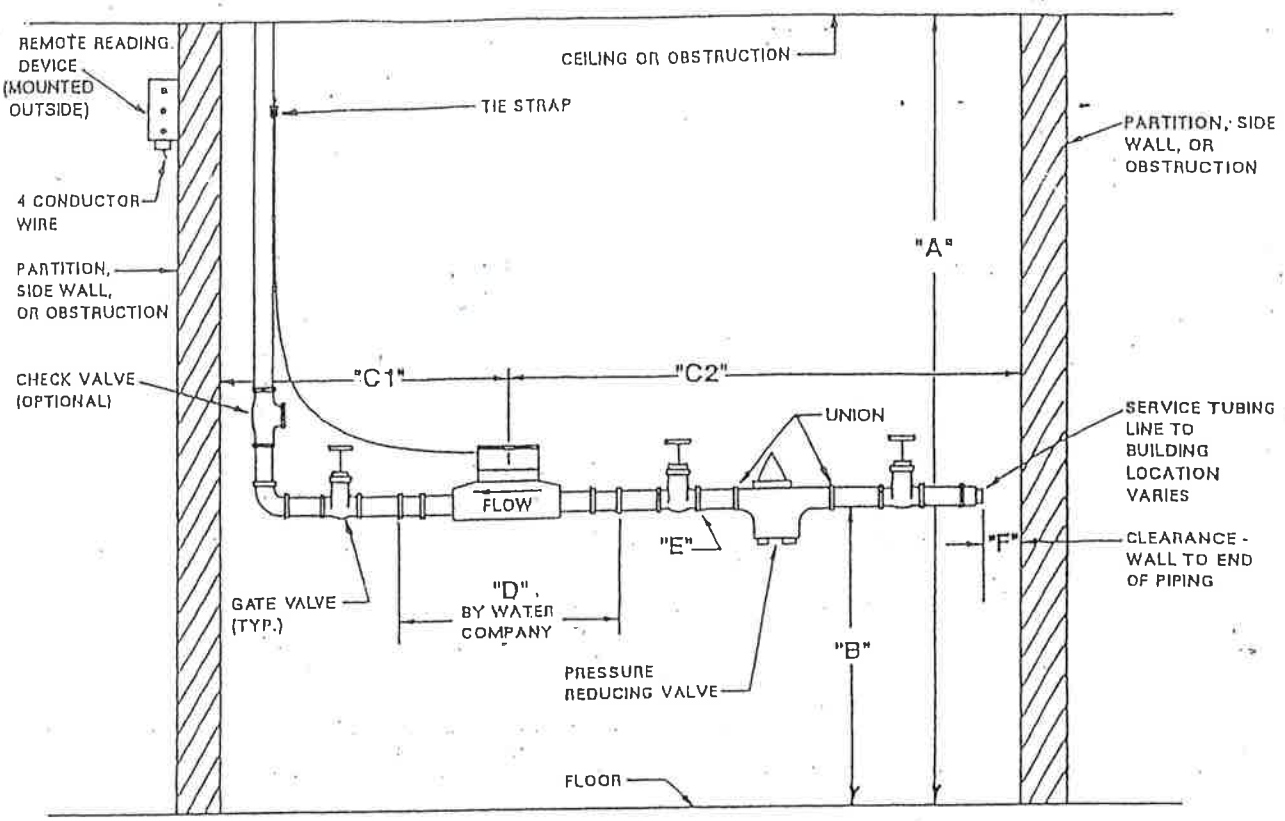
Title: _____

Date: _____

Phone # _____

REVISED 9/16/

STANDARDS FOR INDOOR WATER METER INSTALLATIONS



METER SIZE	"A" MIN.	"B" MIN. / MAX.	"C1" MIN.	"C2"	"D" Meter & Couplings	"E" Female Pipe Thread	"F" MIN.	Center distance from wall
5/8"	6'-0"	18" / 48"	24"	24"	13"	3/4"	5"	5"
3/4"	6'-0"	18" / 48"	24"	24"	14"	3/4"	5"	5"
1"	6'-0"	18" / 48"	24"	24"	15-1/2"	1"	5"	7"
1-1/2"	6'-0"	18" / 48"	28"	40"	22"	1-1/2"	5"	14"
2"	6'-0"	18" / 48"	28"	40"	24"	2"	5"	14"

NOTES:

NO METER SETTINGS SHALL BE INSTALLED UNDER STEPS OR IN CRAWL SPACES.

NO STORED MATERIALS OR OTHER OBSTRUCTIONS TO BE PLACED IN PATH OF ACCESS TO METER AND MUST HAVE A MINIMUM OF 2 FT. ACCESS IN FRONT AND ON SIDES OF METER FOR WORKING ROOM.

METER MUST BE LOCATED WITHIN 24" OF WHERE SERVICE LINE ENTERS PREMISES, AND NO TAP OR SPIGOT PRESENT BEFORE METER SETTING.

FLOOR DRAIN RECOMMENDED WITHIN 10' OF METER SETTING.

METER SETTING MUST BE LOCATED IN A HEATED AREA.

ALL OTHER SOURCES OF WATER SUCH AS WELLS, CISTERNS, ETC., MUST BE PHYSICALLY DISCONNECTED FROM THE PIPING WHICH IS TO BE SERVICED BY THE WATER COMPANY.

MUST HAVE ACCESS TO FRONT OR SIDE OUTSIDE WALL FOR REMOTE READING DEVICE. IF WIRING WILL BE INACCESSABLE DUE TO A FINISHED AREA, CONDUIT MUST BE INSTALLED FOR WIRE INSTALLATION.

VALVE REQUIRED ON INLET AND OUTLET SIDE OF METER AND ON INLET SIDE OF PRESSURE REDUCING VALVE (PRV) WHEN REQUIRED.

PRV REQUIRED WHEN PRESSURE ROUTINELY EXCEEDS 100 PSI. UNIONS ALSO REQUIRED ON PRV.

NO METER COUPLINGS SHALL BE SCREWED INTO ANY SHUT-OFF VALVE OR PRV.

GROUNDING - BONDING WILL BE IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE AND LOCAL POWER COMPANY ELECTRIC SERVICE INSTALLATION

NOTES

1. A BACKFLOW DEVICE IS REQUIRED BY THE NJDEP. THE BACKFLOW DEVICE IS FURNISHED & INSTALLED BY CUSTOMER. THE BACKFLOW DEVICE MUST BE PLACED BEFORE THE FIRST CONNECTION.
2. CUSTOMER MUST ACCOUNT FOR THE INSTALLATION OF A PRESSURE REDUCING VALVE, IF REQUIRED.

LEGEND

A - VALVES

OS&Y GATE VALVE WITH FLANGED ENDS.
FURNISHED & INSTALLED BY CUSTOMER

B - DETECTOR CHECK VALVE

FURNISHED BY WATER CO
INSTALLED BY CUSTOMER, contact local office for details.

C - STRAINER

FURNISHED BY WATER CO
TYPICALLY INSTALLED BY WATER CO., contact local office for details.

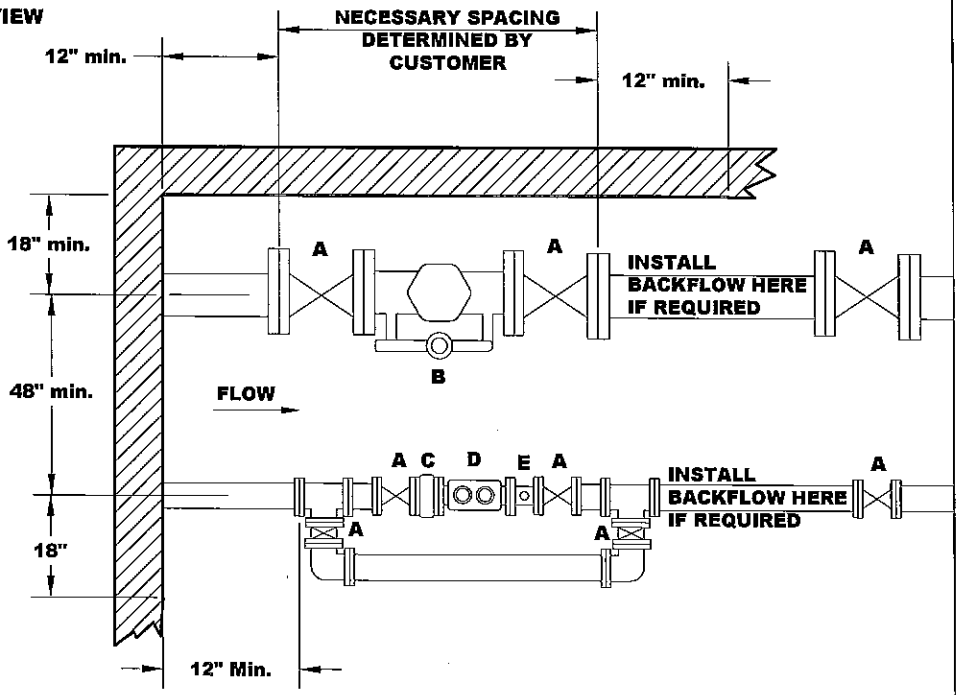
D - COMPOUND OR TURBINE METER

FURNISHED BY WATER CO
TYPICALLY INSTALLED BY WATER CO., contact local office for details.

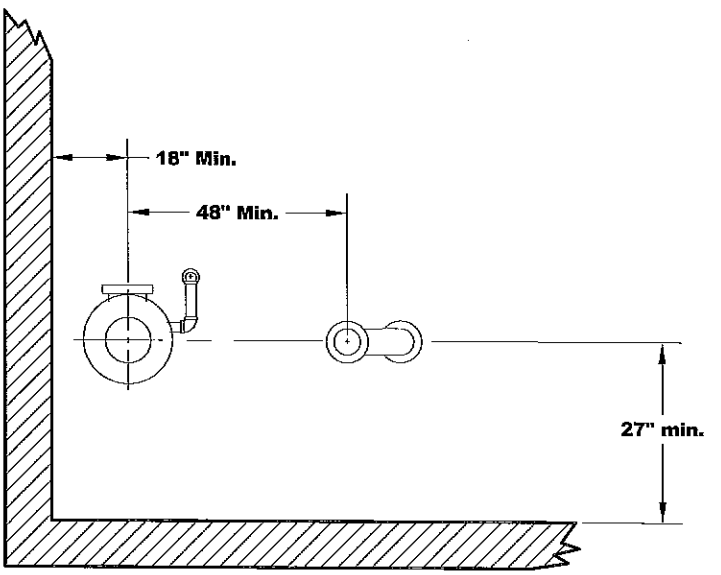
E - TEST ASSEMBLY

FURNISHED BY CUSTOMER
Contact local office for details.

PLAN VIEW



ELEVATION VIEW



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TYPICAL INSIDE SET DIAGRAM

FIELD SERVICES DEPARTMENT