

PORTAGE COUNTY WATER RESOURCES

PROCEDURE FOR REGISTRATION OF SEWER BUILDERS AND/OR WATER CONTRACTORS

1. An Applicant requesting registration as a Sewer Builder and/or Water Contractor shall make application for such registration with a form prescribed by the Water Resources Department. Application form will be checked for completeness and accuracy.
2. The Water Resources Department, shall then investigate the references given by the Applicant and analyze the application to determine whether a registration should be granted to the Applicant. If the application is approvable, the Water Resources Department will notify the applicant of such approval.
3. The Applicant then shall deliver or mail the signed application, all bond and certificate of insurance required of the contractor to the Budget and Financial Management Department at 449 South Meridian Street, Ravenna, OH 44266 located on the 3rd Floor of the Portage County Administration Building along with a \$35.00 annual registration fee.
4. When all appropriate documents and fees have been received by the Water Resources Department, the contractor will be mailed a certificate of registration which must be renewed by June 30th of each year.

A. BONDS REQUIRED

Each Building Sewer and/or Water Contractor shall furnish a bond to Portage County. Said bond shall obligate the contractor to well and truly perform and discharge the duties imposed upon him by the Rules And Regulations governing the construction of building sewers and water service laterals and save the County harmless from any and all damages that may arise from the performance of the Applicant's work. The amount of the bond shall be \$5,000.00. Said bond form shall have attached thereto a certified copy of the Power Of Attorney which the insurance company granted to the agency that issued the bond.

B. CONTRACTOR'S PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE AND VEHICLE LIABILITY INSURANCE REQUIRED

The Contractor shall procure and shall maintain during the life of this registration Contractor's Public Liability Insurance, the Contractor's Property Damage Insurance and Vehicle Liability Insurance in the amounts specified below.

1. Scope Of Insurance And Special Hazards

The insurance required under Section 2 below shall provide adequate protection for the Contractor and his Subcontractors, respectively, against claims which may arise from operations under this registration, whether such operations are by the insured or by anyone directly or indirectly employed by him and also against any of the special hazards which may

be encountered in the performance of the work under this registration.

2. Proof of Carriage of Insurance

The Contractor shall furnish the Portage County Board of Commissioners with certificates showing the type, amount, class of operations covered, effective date and date of expiration of policies. Such certificates shall also contain the following statement: "The insurance covered by this certificate will not be canceled or materially altered, except after 10 days written notice has been received by the Portage County Board of Commissioners." Any certificate not containing this statement shall not be accepted as proof of insurance. The minimum amounts of such insurance shall be as follows:

<u>Bodily Injury Liability</u>	
Each Person	\$300,000.00
Each Accident	\$300,000.00
<u>Property Damage Liability</u>	
Each Person	\$100,000.00
Each Accident	\$100,000.00

C. WORKMEN'S COMPENSATION INSURANCE REQUIRED

The Contractor shall procure proof of Workmen's Compensation and shall submit to the Portage County Water Resources Department a copy of the current Workmen's Compensation Certificate for any work being done specifically for the Portage County Water Resources Department. Contractor must supply Portage County with a current copy of the Workmen's Compensation Certificate. A list of all employees covered by the Blanket Compensation Certificate must also be submitted.

D. TERM OF CONTRACTOR REGISTRATION

This registration shall expire on the 30th day of June of each year and the Contractor shall then be required to meet all requirements for renewal of registration as shall be in effect at that time. If at such time the Contractor's Bond or Certificate of Insurance expires the registration will be pulled until such necessary forms are received by the Water Resources Department.

PROCEDURES FOR SEWER AND/OR WATER CONNECTION PERMITS REGISTERED
SEWER BUILDERS AND/OR WATER CONTRACTORS

1. The Owner or Registered Contractor must make Application for Sewer And/Or Water Permit and prior to the start of construction pay the necessary fees for such permits and all applicable tap-in fees, meter fees or deposits. All tap-in fees or deposits must be paid by cash, check or money order. All checks are to be payable to the Portage County Water Resources.

If sanitary sewers are available to the subject property, an Application For Sewer Permit must be obtained before an Application For Water Permit will be issued.

A. The Contractor shall know the following information:

1. The legal owner of the property to be served.
2. The Owner's service billing address.
3. The service address.
4. Whether the building is a single family residence, duplex or other. If the building is other than a single family residence the Owner should personally make Application For Sewer And/Or Water Permit since construction plans, easements and agreements may be required.

B. If in the opinion of the Water Resources Department, the work will require extra inspections or supervision, the Owner or Registered Contractor will be required to deposit in cash, check, or money order an amount determined by the Water Resources Department to be sufficient to guarantee the payment of all costs incurred by the Water Resources Department. This deposit shall be determined by the Water Resources' estimate of supervision time required, provided however, in no case shall the inspection deposits be less than \$100.00 per permit issued. The permit fee shall entitle the Contractor to one scheduled inspection. All time in excess of one scheduled inspection shall be charged to the inspection deposit at the standard rate for plan review, inspection, supervision, mileage and start up of facilities.

- C. If, at the completion of the installation, the costs are less than the amount on deposit, the balance will be refunded to the Contractor. If during construction, it appears that inspection time will be longer than originally estimated, the Inspector may require that an additional deposit be made before the work may proceed. Any fees or charges not paid by the time that the installation is completed, must be paid before another permit will be issued to the Contractor. In the event extra inspection invoices remain unpaid after 60 days, the Water Resources Department reserves the right to make a claim against the Contractor and/or his Bonding Company.
- 2. The Owner or Contractor may then schedule a clearwater inspection with the Portage County Plumbing Inspector. When the interior plumbing is approved for connection to the sanitary sewer or water line, the Contractor may proceed to obtain the Sewer And/Or Water Connection Permits.
 - 3. The Contractor shall contact the office of the Portage County Water Resources Department before 9:30 AM on the day before he begins work to schedule his work and confirm approval. All work is to be done in accordance with the approved schedule. It shall be the responsibility of the Contractor to schedule all work with the Water Resources Department. No work is to be done without verbal confirmation as to the approved schedule.

Any inspection must be scheduled 24 hours in advance and may be canceled only in accordance with the following:

 - A. Any inspection scheduled between the hours of 10:00 AM and 12:00 PM can only be canceled before 9:30 AM.
 - B. Any inspection schedule after 1:00 PM can only be canceled before 12:00 PM.
 - 4. All inspections are to be made within the Inspector's regular scheduled working times, unless the Contractor has made satisfactory provisions for overtime inspection. Portage County's Inspector shall be under no obligation to work overtime. In the event that Portage County's Inspector agrees to work overtime, the Contractor will be required to pay overtime inspection fees in accordance with the inspection rate in effect the time of inspection.

5. The Contractor shall be required to observe all Rules And Regulations Of The Water Resources Department regarding material, specifications and construction techniques. All pipe shall be inspected and approved before it may be covered. In the event that any part of an installation has been covered without inspections and approval, the Contractor shall be required to uncover the pipe and correct any deficiencies found. If the Contractor fails to comply with an order to uncover work that was not inspected and approved, the Water Resources Department will disconnect the installation and bill the costs to him.
6. If the sanitary sewer facilities are available to the property, the sewer lateral must be completed and approved before any connection is made to a public water supply.
7. The Contractor shall be required to observe all Federal, State and County Rules And Regulations regarding safety and shall accept complete responsibility and personal liability for all injuries or property damage which may occur.
8. Portage County will not be liable for any injuries or damage to private property which occurs as a result of construction under the Contractor's registration.

APPLICATION FOR SEWER BUILDERS AND/OR WATER CONTRACTORS REGISTRATION
 COUNTY OF PORTAGE
 OFFICE OF COUNTY WATER RESOURCES

SEWER:

DATE _____

_____ hereby applies to the Portage County board Of Commissioners for a SEWER BUILDER'S CERTIFICATE OF REGISTRATION, for the purpose of connecting sanitary sewer service laterals to main sanitary sewers in all Portage County Sewer Districts in accordance with the regulations and specifications of the Portage County Water Resources Office.

WATER:

_____ hereby applies to the Portage County board Of Commissioners for a WATER CONTRACTOR'S CERTIFICATE OF REGISTRATION, for the purpose of connecting water service laterals to main water lines in all Portage County Sewer Districts in accordance with the regulations and specifications of the Portage County Water Resources Office.

1. Business Address _____

2. Home Address _____

3. Telephone _____ Business _____ Home _____

4. Years of experience constructing sanitary sewers _____ Years

5. Years of experience constructing water lines _____ Years

6. Percentage of work concerned with constructing sewers _____

7. Percentage of work concerned with constructing water lines _____

8. Other types of work engaged in and percentage of total work which each is.

9. Business References: (One Bank Reference & One Business Reference)

Name _____	Name _____
Address _____	Address _____
Phone _____	Phone _____

10. Cities, Villages or Counties in which Applicant has performed work during previously two years and the official, preferably an engineer, having personal knowledge of Applicant's workmanship and character.

COUNTY, CITY OR VILLAGE	PERSON'S NAME	OFFICIAL CAPACITY	QUANTITY AND TYPE OF WORK PERFORMED

11. Public Liability and Property Damage Insurance Company Policy No. _____

A. Limits of Bodily Injury Insurance _____ Each Person _____ Each Accident
 B. Limits of Property Damage Insurance _____ Each Accident _____ All Accident
 C. Insurance Agency (Name) _____
 Address _____ City _____ State _____
 Zip Code _____ Phone No. _____

12. Workman's Compensation Insurance.

A. Are Applicant's employees covered by Workman's Company Insurance?
Yes _____ Risk & Employer No. _____ No _____

13. Does Applicant own the following equipment? If yes, state number.

	<u>YES</u>	<u>NO</u>		<u>YES</u>	<u>NO</u>
Backhoe	_____	_____	Ladder	_____	_____
Steel Cage	_____	_____	Spud Bars	_____	_____
Boring Mach	_____	_____	Hard Hats	_____	_____
Coring Mach	_____	_____	Safety Equip	_____	_____
Trencher	_____	_____	Surveyor's Level	_____	_____
Pump	_____	_____	Surveyor's Laser	_____	_____
Probe Rods	_____	_____			

14. List other equipment owned by Applicant.

15. The names and addresses of the Applicant's usual employees.

16. Is the Applicant aware of and does the Applicant agree to abide by all rules, regulations and construction specifications of the Water Resources Department?

Yes _____ No _____

17. Will the Applicant be present during the performance of work under his Registration?

Yes _____ No _____

VERIFICATION

_____, being first duly sworn, says that he is the officer or person duly authorized to execute the foregoing application and that the statements made and answers given therein, written or printed, are true as he verily believes.

Applicant's Signature _____

Sworn to and subscribed in my presence this _____ day of _____, 20____, at

_____, County of _____ and State of _____.

Notary Public _____ My Commission expires _____

Sewer Builder's & Water Installer Application Approved: Yes _____ No _____

PORTAGE COUNTY WATER RESOURCES

PORTAGE COUNTY COMMISSIONERS
SEE RESOLUTION NO. 94-287

DATE _____

DATE _____

SEWER BUILDER'S AND WATER CONTRACTOR'S BOND

BOND NO. _____

KNOW ALL MEN BY THESE PRESENTS:

That we, (1) _____
as Principal and (2) _____ as
Sureties, are held and firmly bound unto the County Of Portage in the penal sum of \$5,000.00, for
payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our
heirs, executors, administrators, successors and assigns. THE CONDITION OF THIS
OBLIGATION IS SUCH THAT,

WHEREAS, said _____,
Principal, has this day been granted a Sewer Builder's And Water Contractor's Certificate Of
Registration by the County Commissioners Of Portage County in accordance with the provisions
and under the terms and conditions set forth in Resolution No. 83-107, regulating building sewer
construction adopted by the Portage County Board Of Commissioners on April 7, 1983 and in
Resolution No. 83-107, regulating the construction of water service laterals adopted by the Portage
County Board Of Commissioners on April 7, 1983.

NOW, THEREFORE, the condition of this obligation is such that if the said
_____ shall at
all times hereafter as Sewer Builder And Water Contractor under the said Certificate Of
Registration well and truly perform and discharge the duties imposed upon him by said Rules And
Regulations or any amendment thereto and shall save said County harmless from all damages that
may arise from the performance of his work or the work of any one in his employ including the
failure to fully restore property in kind, then this obligation is to be void, otherwise to remain in full
force and effect.

The Surety Company further agrees that 10 days prior to cancellation or reduction of the
bond afforded by this policy with respect to work performed as a Sewer Builder And Water
Contractor registered by the Board Of County Commissioners Of Portage County, written notice
will be made to Portage County Water Resources.

Signed, sealed and dated this _____ day of _____, 200__.

PRINCIPAL

ADDRESS

SURETY COMPANY

BY: _____

Expires: _____

CONSTRUCTION SPECIFICATIONS FOR INSTALLING SANITARY SEWER LATERALS

These Construction Specifications apply to all proposed connections to gravity sewers or force mains that are part of Portage County Water Resources Wastewater Collections Systems. Currently these facilities are located in unincorporated sections of Portage County, the City of Streetsboro, or the villages of Brady Lake and Sugarbush Knolls.

1. SANITARY SEWER PERMIT

A sanitary sewer permit must be purchased at the Portage County Water Resources Department prior to any work being done on sanitary sewer laterals. All such work must be inspected by the Portage County Water Resources Department.

2. CLEAR WATER PERMIT,

- A. On existing buildings, **the sewer lateral may not be constructed** until a clear water permit has been issued and approved by the Portage County Health Department Plumbing Inspector.
- B. Downspouts, footer drains, foundation drains or other sources of storm, surface or groundwater shall not be connected to the sanitary sewer system.

3. SCHEDULING INSPECTION

No inspector's services will be available unless proper scheduling or arrangements have been made with the office of the Sanitary Engineer at least 24 hours to the time of inspection requirements. The regular hours of the Inspectors employed by the Water Resources Department are from 7:30 AM until 4:00 PM, Monday through Friday, except for the specific holidays designated by the Ohio Revised Code. All hours inconsistent with the 7:30 AM until 4:00 PM or in excess of eight hours in any one day or any Saturday, Sunday or Holiday, shall be at the one and one-half times the rate in effect. If inspection is for an existing building a clear water permit must be issued by the local plumbing inspector. The Contractor must contact the office of the Portage County Water Resources Department to schedule an inspection prior to any sewer work being done. In case of cancellation due to weather conditions or other problems encountered on the job the Contractor must notify the Portage County Water Resources Department at least one hour prior to the scheduled inspection. The following numbers can be used to schedule or cancel inspection:

330-298-2065 - Inspection Department	330-697-6775 - Inspector Cell Phone
330-298-2066 - Permit Department	330-297-3670 - Main Office

Inspections or cancellations must be verified and should not be left on voice mail.

4. INSPECTOR MUST SEE:

- A. That the Contractor maintains a safe trench and that all personnel wear hard hats at all times. It is the responsibility of the Contractor to maintain a safe trench and job site safety.
- B. See the uncovering and connection to any riser, manhole or tapping of any main line sewer.
- C. The pipe and bedding from connection at the road lateral to the building.
- D. The septic tank(s) pumped and filled and receive a copy of the pumping slip (if applicable).

5. APPROVED PIPE - 6 INCH

- A. Polyvinyl Chloride Pipe SDR-35 (PVC) and fittings shall conform to minimum requirements set forth in ASTM D-3034 and shall have a Standard Dimension Ratio (SDR) of not more than 35. The pipe shall be made of PVC plastic having a cell classification of 13364-B (with a minimum tensile modulus of 500,000 PSI) as defined in Specification D-1784

- B. Extra Strength Vitrified Clay Pipe (ASTM C-700) with compression type premium (ASTM C-425) joints. Uniloc, O-Ring and Tylox joints are acceptable.
- C. PVC Pressure Pipe is approved for use where conditions warrant. If approved, PVC pressure pipe shall be SDR-26, Class 160, ASTM D-2241, D-1784, with premium joints conforming to ASTM D-1869. This pipe is to be used when depth of cover exceeds 12 feet.
- D. All pipe bells shall consist of an integral wall section with a solid cross section, rubber rings locked securely into place to prevent displacement. All fittings and accessories shall have bell and/or spigot configuration identical to that of the pipe. Joints shall be gasketed compression type conforming to ASTM D-3212.
- E. Building Connections (connection of dissimilar pipe) Adapters or reducing fittings shall be used to connect dissimilar pipe sizes or joints. Suitable pipe adapters must be on the job at all times. No couplings or boots are acceptable. A vegetable base dressing is to be used on all premium joints. The use of any petroleum base grease is unacceptable. Where approved adapters are not manufactured for connecting to existing sewers and no other viable connection may be made, the connection may be made with flexible couplings. Where required, suitable bushings shall also be installed to match the flow lines of the dissimilar pipes. Such couplings, where required, shall be a minimum of 4 inches wide with a 1/2 inch stainless steel band on each end for sealing purposes and a 1 1/2 inch wide stainless steel shear ring at the center such as the couplings manufactured by Mission Clay Product Corporation. The lower portion of the connection shall be supported by 6 inches of concrete, 18" wide x 24" long, of sufficient form and strength to permit backfilling. A layer of plastic shall be installed between the concrete and the pipe to prevent the concrete from adhering to the pipe or coupling. All connections made in this manner must be made only with the proper approval and in the presence of the Inspector.

6. PIPE INSTALLATION

- A. Flexible pipe shall be firmly bedded with No. 57 washed and crushed aggregate a minimum thickness of one-half of the nominal inside diameter of the pipe, but not less than 4 inches. The pipe shall be laid so that the barrel of the pipe is supported over its full length.
- B. The pipe shall be centered in a dry trench of minimum width so excavated as to permit laying the pipe in a straight line with a recommended minimum uniform slope of not less than 1/8 inch per foot (1%). Where necessary, a minimum slope of 0.7 percent may be approved; however, any pipe laid at a slope less than 1.00 percent must be laid with a laser beam grade control. Each building lateral shall be checked with a level for fall from the end of the road lateral to the drain from the building before laying any pipe and spot checked during construction and at completion of the lateral.
- C. No connections may be made with any part of the bell under water. No surface, groundwater or other foreign material shall be allowed to enter the sanitary sewer main or connection. If high water conditions are encountered, a pump will be required at the work site prior to installation of any pipe or the opening up of the road lateral.
- D. Any existing vitrified clay pipe, asbestos-cement pipe or cast iron pipe proposed to be used as a building sewer must be an approved type and must be tested in the presence of the Inspector before it is approved for use. If the pipe fails to pass the test, the pipe shall be removed back to the building.
- E. The trenches shall then be evenly backfilled with No. 57 washed and crushed aggregate to 6 inches above the top of the pipe.
- F. All pipe is to be installed with a least 4 feet minimum cover, unless under paved areas where 5 feet minimum cover shall be provided. Further, if unusual live loading from truck traffic or other sources is anticipated, adequate provision shall be made to prevent structural failure of the pipe or deflections in excess of 5 percent.

- G. No sewers are permitted within a 10 foot radius of a residential water well; if conditions do not allow for such separation 6 inch SDR 26 PVC pressure rated pipe is to be used. When absolutely necessary to make a 90 degree turn, two 45 degree bends are to be used. Installation of sanitary sewers within 5 feet of the lot lines is not recommended.
- H. Outside cleanouts will be accepted under special conditions with prior approval from this Department. When approved, cleanouts are to be constructed in accordance with the Specifications and Standard Drawings of the Portage County Water Resources Department.

7. BACKFILL

- A. Upon approval from the Inspector, the Contractor shall proceed to backfill with selected material. Sand or granular material will not be required for this purpose, but the material used must be free of rocks or stones 3 inch or more in diameter and capable of compaction. Frozen, lumpy, saturated or other non-compatible material is unacceptable. Material for backfill should under no circumstances be dumped directly on the pipe, but should be dumped on previously placed backfill or the side of the trench and be allowed to roll down on to the pipe.
- B. All excavations in paved areas within the road right-of-way shall be backfilled in accordance with the Standard Construction Drawings of the Portage County Water Resources Department, which is available on request, or in accordance with the requirements of the road opening permit, if stricter. Any tamping with a backhoe bucket is prohibited.
- C. The Portage County Water Resources Department recommends that all excavations in paved areas on private property be backfilled with granular material in accordance with the Standard Construction Drawings.

8. TAPPING THE MAIN OR MANHOLE

In the event there is not a wye or manhole stub servicing a building lot, approval may be obtained to tap the main or manhole. All work involving the tapping of a main line or manhole must be done in the presence of an Inspector.

- A. Tapping the main will require a 6 inch cut with a coring machine, no straight cuts or chiseling will be allowed. A Geneco Sealtite Sewer Pipe Saddle with extra heavy cast iron hub end and stainless steel clamp, Type D, Model K, Drawing R-2961-C, must be used at no more than a 45 degree angle. The Contractor is responsible for any damages done to the main.
- B. Tapping the manhole is to be done in accordance with the Specifications and Standard Drawing of the Portage County Water Resources Department. When tapping a manhole to provide service, a Kor-N-Seal PVC adapter or approved equal must be used which consists of an abrasive silica layer on the outside that allows grout to bond the adapter into the concrete manhole, assuring a solid, watertight seal. The referenced PVC manhole adapter is manufactured by NPC Inc. under the Kor-N-Seal brand name.

9. GRINDER PUMP INSTALLATION

- A. The gravity section of pipe that runs from the building to the pump station (if the grinder pump station inlet opening is 4 inch) may be 4 inch PVC or ABS with an SDR minimum of 35 and gasketed joints.
- B. Pressure Pipe, Polyethylene SDR-11 or PVC Pipe with an SDR ratio of 26 with gasketed joints must be used for the discharge pipe. Glue or solvent cemented pipe joints are not permitted on the force main.

The Specifications and Standard Drawings of the Portage County Water Resources Department, including supplemental specifications, additions and the above described "Construction Specifications For Installing Sanitary Sewer Laterals" shall govern the installation of all building sewers. The complete cooperation of all Sewer Builders in these matters will be appreciated.

Very Truly Yours

David A. Sloan
Construction Engineer

CONSTRUCTION SPECIFICATIONS FOR INSTALLING WATER SERVICES.

These Construction Specifications apply to all proposed connections to water mains that are part of the Portage County Water Resources Water Systems. Currently these facilities are located in unincorporated sections of Portage County.

1. WATER PERMIT

A water permit must be purchased at the Portage County Water Resources Department prior to any work being done on Portage County water lines. All such work must be inspected by the Water Resources Department.

2. SCHEDULING INSPECTION

No inspector's services will be available unless proper scheduling or arrangements have been made with the office of the Sanitary Engineer at least 24 hours to the time of inspection requirements. The regular hours of the Inspectors employed by the Water Resources Department are from 7:30 AM until 4:00 PM, Monday through Friday, except for the specific holidays designated by the Ohio Revised Code. All hours inconsistent with the 7:30 AM until 4:00 PM or in excess of eight hours in any one day or any Saturday, Sunday or Holiday, shall be at the one and one-half times the rate in effect. In case of cancellation due to weather conditions or other problems encountered on the job the Contractor must notify the Portage County Water Resources Department at least one hour prior to the scheduled inspection. The following numbers can be used to schedule or cancel inspection:

330-298-2066 – Customer Service

330-297-3670 - Main Office

Inspections or cancellations must be verified and should not be left on voice mail.

3. INSPECTOR MUST SEE:

- A. That the Contractor maintains a safe trench and that all personnel wear hard hats at all times. It is the responsibility of the Contractor to maintain a safe trench and job site safety.
- B. The uncovering and connection from the main line corporation to the curb stop and curb box (if provided).
- C. The water service line from the main line connection to the building prior to backfill.
- D. Testing of the water service line.
- E. Backfilling of the water service line.

4. APPROVED PIPE

- A. Type K-Copper Pipe, Soft Temper Copper Tubing (ASTM **B88**). 1-inch and smaller.
- B. Larger than 1-inch, ductile iron Class 52 or Type K-Copper Pipe.

Note: Water pipe for 4 inch and above shall be ductile iron Class 52 minimum or PVC C-900 pipe installed per Portage County Standards.

5. PIPE INSTALLATION

All pipe must be installed with at least 4 feet minimum cover.

6. IRRIGATION AND SPRINKLER SYSTEMS

Irrigation and Sprinkler Systems must be inspected by the Portage County Water Resources Department and have an approved backflow device and water meter. In certain situations a meter pit approved by the Portage County Water Resources Department may be required.

7. TESTING

The valve to the water service line must be turned on and the service line pressurized to check for any leaks in the line or line connections. If no leaks are found backfilling of the water service line may take place with the approval of the Portage County Water Resources Department inspector.

8. BACKFILL

- A. Upon approval from the Inspector, the Contractor shall proceed to backfill with selected material. Sand or granular material will not be required for this purpose, but the material used must be free of rocks or stones 3 inch or more in diameter and capable of compaction. Frozen, lumpy, saturated or other non-compatible material is unacceptable. Material for backfill should under no circumstances be dumped directly on the pipe, but should be dumped on previously placed backfill or the side of the trench and be allowed to roll down on to the pipe.
- B. All excavations in paved areas within the road right-of-way shall be backfilled in accordance with the Standard Construction Drawings of the Portage County Water Resources Department, which is available on request, or in accordance with the requirements of the road opening permit, if stricter. Any tamping with a backhoe bucket is prohibited.
- C. The Portage County Water Resources Department recommends that all excavations in paved areas on

private property be backfilled in accordance with the Standard Construction Drawings.

9. WATER METERS

- A. Water meters shall be Master Meter-Dialog 3G-DS type radio read meters (cubic feet read). 5/8 by 3/4 inch and 1 inch meters can be purchased at the Water Resources Department. Meters over 1 inch in size must be special ordered by the contractor for installation by a plumber or contractor of record.
- B. Shut off valves (ball type) shall be placed before and after the water meter.
- C. Portage County Water Resources Department must be notified when water is to be turned on or off at the curb box.

10. PRESSURE REGULATORS, EXPANSION TANKS AND BACKFLOW DEVICES

Reduced pressure regulators, expansion tanks, or backflow devices must be approved by the Portage County Water Resources Department prior to installation.

The Specifications and Standard Drawings of the Portage County Water Resources Department, including supplemental specifications, additions and the above described "Construction Specifications For Installing Water Services" shall govern the installation of all building water services. The complete cooperation of all Water Installers in these matters will be appreciated.

Very Truly Yours,

David A. Sloan
Construction Engineer

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T-401-W