

February 11, 2004

Town of Pendleton

Pendleton Water Department Additions to Water Standards and Specifications

1. Call before you dig. At least two [2] working days before you dig you shall call Indiana Underground Plant Protection Service "Holey Moley" at 1-800-382-5544.
2. Separation of water mains, sanitary and storm sewers.
 - a. Parallel installation- shall be at least 10 feet horizontally from any existing or proposed sewer.
 - b. Crossing installation – shall be laid to provide a minimum vertical distance of 18 inches between.
3. No water pipe shall pass through or come in contact with any part of a sewer or manhole.
4. Valves- sufficient valves shall be provided on water mains so that inconvenience and sanitary hazards will be minimized during repairs. Valves should be located at not more than 500-foot intervals, in commercial districts and not more than one block or 800-foot intervals in other districts.
5. Fire Hydrants- Fire hydrants should be provided at each street intersection and at intermediate points between intersections. Generally fire hydrant spacing may range from 350 to 600 feet depending on the area being served.
6. Fire Hydrants- should have a bottom valve size of at least five [5] inches, and one pumper nozzle with 5" Storz fitting and two hose nozzles.
7. Hydrant Leads- shall be a minimum of six [6] inch in diameter. Auxiliary valve shall be installed in all hydrant leads.
8. Blocking- all tees, bends, plugs and fire hydrants are provided with reaction blocking, tie rods or joints designed to prevent movement. Ductile iron anchor couplings are also accepted. The preferred method of restraint is the mega-lug type gland. Any mechanical device used for restraining pipe shall be installed in accordance to the manufacturers recommended installation specifications.
9. Underwater Crossings- a minimum of two [2] feet of cover shall be provided over the pipe. When crossing watercourses which are greater than fifteen [15] feet in width the following shall be provided.
 - a. The pipe shall be of special construction, having flexible watertight joints [High Density Polyethylene Pipe-HDPE].
 - b. Valves shall be provided at both ends of water crossings, so that the section can be isolated for testing or repair. Locating wire is required, and shall terminate on the outside of the valve boxes.
 - c. The line shall be installed in steel casing.
 - d. Casing chock or guides shall be required to hold and slip the pipe into the casing.
 - e. Casing shall be sealed at both ends to provide a watertight seal.
 - f. Signs or blue "Carsonite" type utility locator posts shall be installed to mark the water line at both sides of the water way crossing.
10. Any contractor that installs any water mains in the Pendleton Water Service area shall provide the Pendleton Water Department with three sets of "as built" prints.
11. Any assistance required by a customer or contractor after regular working hours that person is responsible to pay for any overtime that may be incurred.

Pendleton
WATER RULES,
REGULATIONS AND SPECIFICATIONS

DEFINITIONS

- "Company" Pendleton Municipal Water Company
- "Main" means a pipe owned by the Company, located within a public right-of-way or an easement granted to the Company or reserved for utilities, which delivers water to fire hydrants and service pipes.
- "Meter" means a device owned by the Company, which measures and records the quantity of water supplied to the customer.
- "Customer" means an individual, firm, corporation, governmental agency or other-entity. "Potable water supply" means water meeting the drinking water quality standards enumerated in 327 IAC 8-2.
- "Premises" means the whole or part of a dwelling, building, or structure owned, leased or operated by a single legal entity located on a single parcel or contiguous parcels of real estate and receiving water service as approved by the Company. Examples of buildings and the corresponding number of premises are as follows:

<u>Examples</u>	<u>No. Of Premises</u>
Residential	1
Commercial building(s)	1 per building Double 2
Condominium	1 per residential unit Apartment complex 1 per structure

Each lot or service building will be considered a premise, and therefore, served by a Separate service pipe. The Company must approve any exception to this. If the situation is not described by one of the above examples or is unusual, the Company will give such special consideration, as the circumstances require in its judgment.

- "Service pipe" means a customer owned pipe connected to a main or primary service pipe that supplies water to only one premises.
- "Primary service pipe" means a customer owned pipe connected to a Company main that supplies water to more than one premises.
- "Public right-of-way" means the entire right-of-way of a road, street or way, which has been dedicated for use by the public and accepted by the appropriate governmental authority.

- “Tap fee” means a monetary sum defined by ordinance that must be paid to the Water Company prior to establishment of service. A tap fee is payable for each service pipe serving an individual premises.

WATER COMPANY EQUIPMENT

- The Water Co. owns and maintains water mains and pipes in the street right-of-ways and selected utility easements. In general, the customer’s responsibility begins on the outlet
- Side of the meter (If in the easement) or the valve, which is required, if metering, is approved for a different location. When a valve is the initial point of connection of customer equipment, additional valves will be required so the customer-owned pipe before the meter can be isolated and pressure checked for leaks. The customer to avoid discontinuance of service must correct leakage of un-metered water on private property immediately.
- The Water Co. owns and maintains all water meters regardless of their location. Those meters, which are purchased by developers as part of initial service, requirements will be. Dedicated to the Water Co.
- With the exception of private fire hydrants, all equipment and service lines located on
- Private property will be the sole responsibility of the customer(s). Customers with private fire hydrants will pay a hydrant rental fee. The Water Co will perform routine maintenance. The cost of major repair or replacement will be the responsibility of the customer.

All tap fees must be paid before the tap is constructed.

- Initial taps for existing residential and commercial structures will be made by the Water Co. With the exception that all service upgrades (larger taps) required by commercial additions or expansions will be done by the customer.
- Taps for new, individual single-family dwellings, which are not part of a subdivision, will be made by the Water Co.
- All new commercial/industrial taps, all two-family/ multi-family residential taps and all taps in a subdivision will be made by the builder/customer.
- Each premise, as defined, will be required to pay a tap fee according to the current fee ordinance.
- A structure may have more than one tap if approved by the Water Co.

WATER MAIN EXTENSIONS (Ordinance 1997:16)

- Commercial/Industrial development and subdivisions will completely install the required water mains as directed by the Water Co.
- Other extensions will be made as per "Rules and Standards of Water Service"

METERS

- Each commercial/industrial structure and each multi-family apartment building shall Have a separate meter. Exceptions will be by specific written permission.
- In general, master metering is strongly recommended for multi-family residential
- Structures and commercial structures, which contain more than one individual business.
- Individual metering may be approved by the Water Co. in multi-family residential and multi-tenant commercial structures if all design requirements are met. Such requirements will be case specific but will include a well-designed equipment room in each structure.
- All new single-family residences, duplexes, doubles and condos, etc. will have separate Meters. There will be no exceptions. The service lines may be connected directly to Water Co. main or a customer-owned primary service line (with Water Co. permission)

1. All taps for water service in the mains of the waterworks system shall be made under the direct authority and supervision of the Water Department. All applications for new water services shall be made to the Utility Office. A charge shall be paid for each tap before any tap is made in the amount set forth in the schedule of rates.

2. In case of temporary users such as contractors, street fairs, carnivals, etc., the Water Department shall be authorized to require payment in advance for the amount of water estimated to be required unless said water is metered.

3. All water meters shall be installed in the location and manner as selected by the Water Department. Any refusal of prospective user to agree to meter location and/or installation shall, at the option of the Water Department, be sufficient reason to refuse water service until such requirements are met.

4. A Water Department representative shall have the right to inspect at any reasonable time all service piping and water appurtenances inside customers' premises.

5. Any service pipe that services two or more customers shall be provided with a separate stopcock and separate meter for each customer.

6. The meter pit is owned by Pendleton Water Company. No person shall open, gain

access or any way change the water pit for any reason unless authorized by the Water Company. Water shall be turned off or on at curb cock in front of meter only by a Water Department employee and **NOT BY CUSTOMER OR ANY OTHER PERSON**. Any water apparatus operated by a person other than a Water employee, owner or leaser of property shall be held financially responsible for whatever rule or regulation of the Pendleton water Department that was disregarded.

7. All service pipes must have stop and waste cocks between outside meter and customer premises for emergency shut-offs and making repairs.

8. NO PERSON SHALL TAKE WATER FROM ANY FIRE HYDRANT EXCEPT FOR FIRE PURPOSES, except upon authority of the Water Department.

9. All persons are forbidden to cover up or in any way interfere with any curb-box, valve pit, valve box, or hydrant.

10. In no case shall service pipes be allowed to run across from one lot to another, but each lot shall be serviced directly from the distribution main serving said premises.

11. The Water Department may require that separate customers in apartment houses or commercial buildings with four or less consumer quarters or family units, and in double houses or duplex flats be metered separately in cases where one meter is presently installed and consumption is less than combined minimums for all customers. Until such time as customer and/or property owner realigns piping at his expense to facilitate installation of separate meters, the monthly billing shall be not less than the combined minimums of all separate customer units served.

12. WATER SERVICE TO ANY CUSTOMER MAY BE DISCONTINUED FOR THE FOLLOWING REASONS:

Wasting or improper use after it has been called to his attention.

Refusal to pay bill within prescribed time.

Bad checks returned for non-sufficient funds.

For interfering with or destroying water appurtenances or appliance

Belonging to the Town.

Any customer with a possibility of a cross connection.

Failure to comply with any contractual obligations.

For any emergency situation such natural or man-made disaster.

13. MATERIALS, INSPECTIONS, APPROVAL: Unless otherwise indicated on the drawings or specifications, only new materials and equipment shall be incorporated in the work. All materials and equipment furnished by contractor to be incorporated in the work shall be subject to the inspection and approval of the Water Department. No material shall be processed or fabricated for, or delivered to the work site without prior approval of the Water Department, except at the risk of the Contractor.

14. Facilities and labor for the handling and inspection of all materials and equipment shall be furnished by the Contractor. Defective materials and equipment shall

immediately be removed from the site of work.

15. Any fitting showing a crack and any fitting or pipe which has received a severe blow that may have caused an incipient fracture even though no such fracture can be seen shall be marked as rejected and removed at once from the job site.

16. All materials shall be delivered and distributed at the site by the Contractor. All pipe, fittings, valves, hydrants and accessories shall be loaded and unloaded by hoists or skidding so as to avoid shock or damage. Pipe handled on skid ways shall not be skidded or rolled against the pipe already on the ground.

17. In distributing the material at the site of the work, each piece shall be unloaded opposite or near the place where it is to be laid in the trench. The Contractor shall not block walk or private driveways with such materials.

18. **PROTECTION OF PROPERTY:** Materials delivered shall be neatly, safely and compactly piled up along the sides of the roadway in which the improvement is located or adjacent thereto, as the Water Department may direct, in such manner as to cause the least inconvenience and damage to property and to the general public, and not within five (5) feet of any fire hydrant. Private drives and street crossings shall be kept open. Trees and other improvements shall be protected from damage. Damage to lawns, trees, sidewalks, streets or other improvements must be corrected by the Contractor in a timely fashion. improvements.

19. **BARRICADES:** The Contractor shall provide proper barricades and rails as directed. Barricades are used for the protection of the public generally, but additional may be required to prevent intrusion of children into the construction area. Danger signals, such as warning signs, red flags and flashers shall be provided and maintained day and night.

20. **Excavation in Town street right-of-way requires an excavation permit.**

21. The Contractor shall protect the excavation and trenches from damage from rainwater, ground water, backing up of drains and sewers and all other water. He shall provide all pumps and equipment and enclosures to ensure this protection.

22. Protection must be provided against weather rain, wind, storms, frost or heat, so as to maintain all work, materials, apparatus and fixtures from damage. Any work damaged by failure to provide protection shall be removed and replaced at the Contractor's expense. Work may be performed in adverse conditions with proper approved shelters.

23. The Water Department may issue on a stop work order when, in their judgment, improper materials, workmanship or other adverse conditions is present. A written document outlining the deficiencies and corrective action will be provided to the contractor within forty eight (48) hours. Decisions of the Water Department Supervisor may be appealed to the Town Manager and Town Council in writing.

24. The Contractor may be required to furnish to the Water Department progress photographs which shall be taken regularly or as needed when the work begins and continues so long as the work is in progress. Photographs shall be taken from points as directed by the Water Department.

25. **MAINTAINING TRAFFIC:** Before closing any thoroughfare, the contractor shall notify and if necessary, obtain a permit or permits from all public authorities having jurisdiction.

26. The Contractor shall carry on the work in a manner, which will cause the least interruption to traffic. When traffic must cross open trenches, the Contractor shall use boiler plate and barricades as prescribed in the Street Department excavation explanation in right-of-way guidelines.

27. The Contractor shall post suitable signs indicating that a street is closed and necessary detour signs for the proper maintenance of traffic.

28. The Contractor shall conduct his work in such manner as not to unduly or unnecessarily restrict or impede normal traffic through the streets of the community. Vision and proper lists of site must be maintained as necessary to ensure safe traffic flow. In so far as it is practicable, excavated material and spoil banks shall not be located in such manner as to obstruct traffic, and the traveled way of all streets, roads and alleys shall be kept clear and unobstructed insofar as is possible, and shall not be used for the storage of construction materials, equipment, supplies, or excavated earth, except when and where necessary. Private driveways shall not be closed except when and where necessary, and then only upon due advance notice to the owner, and for the shortest practicable period of time, consistent with efficient and expeditious construction. The Contractor shall be liable for any damage to persons or property resulting from his work.

29. **TRENCHES:** Trenches shall be completely dewatered prior to pipe laying. Discharge from trench dewatering pumps shall be conducted to natural drainage channels, drains or storm sewers.

30. **TRENCH WIDTH and DEPTH:** All pipes shall be laid to the depth specified on the plans. In all cases it shall be laid to a depth so that not less than four (4) feet of cover shall be provided over the pipe. The new mains shall cross beneath the existing mains, except in cases where the specified cover can be maintained by crossing above existing mains. Any variation from the specified cover shall require permission of the Water Department.

31. If the trench is excavated below grade, the sub grade shall be made by backfilling with an approved material in 3-inch uncompacted layers. The layers shall be thoroughly tamped as directed by the Engineer so as to provide a uniform and continuous bearing and support for the pipe at every point between bell holes, except that it will be

permissible to disturb and otherwise damage the finished surface over a maximum length of 18 inches near the middle of each length of pipe by the withdrawal of pipe slings or other lifting tackle. The finished sub grade shall be prepared accurately by means of hand tools.

32. When material in the trench bottom is too soft to provide sufficient bearing to support the pipe, excavation shall be carried to a minimum over depth of 6", and the over depth then backfilled with loose, granular approved material and thoroughly tamped. No extra payment will be allowed for such over depth excavation and/or granular backfill, and compensation for these items shall be included in the contract unit price for the water line.

33. Where the water mains are to be constructed parallel to and close to existing sewer, drains or buried utilities the alignment will be adjusted to least interfere with these utilities.

34. The Contractor shall proceed with caution in the excavation and preparation of the trench so that the exact location of underground structures, both known and unknown, may be determined, and he shall be held responsible for the repair of such structures when broken or otherwise damaged.

35. All poles, fences, sewer, gas, water or other pipes, wires, conduits and manholes, railroad tracks, buildings, structures and property along the route of the said water main shall be supported and protected from injury by the Contractor, during the construction and until the completion of said main and its appurtenances.

36. Contractor shall include rock excavation where rock is encountered in the line of the water main as shown on the drawings.

WATER MAIN CONSTRUCTION

PIPE LAYING:

37. Proper implements, tools and facilities satisfactory to the Water Department shall be provided and used by the Contractor for the safe and convenient prosecution of the work. All pipe fittings, valves and hydrants shall be carefully lowered into the trench piece by piece by means of such a manner as to prevent damage to water main material sand protective coatings and linings. Under no circumstances shall water main materials be dropped or dumped into the trench.

38. Every precaution shall be taken to prevent foreign material from entering the pipe while it is being placed in the line. If the pipe-laying crew cannot put the pipe into the trench and in place without getting earth into it, the Water Department may require that before lowering the pipe into the trench, a sealing appurtenance of suitable size shall be placed over each end and left there until the connection is to be made to the adjacent pipe. During laying operations, no debris, tools, clothing or other material shall be

placed in the pipe.

39. After placing a length of pipe in the trench, the spigot end shall be centered in the bell completely connected and brought in correct line and grade. The pipe shall be secured in place with approved backfill material tamped under it except at the bells. Pipe and fittings, which do not allow a sufficient and uniform space for joints, shall be removed and replaced with pipe and fittings of proper dimensions to insure such uniform space. Precautions shall be taken to prevent dirt from entering the joint space.

40. In the event of rock excavation, the bottom of the trench shall be lowered so that the bottom of the trench is 6" below the outside surface of the pipe. The space between the rock and the pipe shall be filled with sand or granular material.

41. When construction is not in progress, the open ends of pipe shall be closed by a watertight plug or other means approved by the Water Department.

42. Deflection from a straight line or grade, as required by horizontal or vertical alignments or offsets shall be in accordance with manufacturer's specifications.

43. If the alignment requires deflections in excess of the allowable deflection per joint, special bends or a sufficient number of shorter lengths of pipe shall be furnished to provide angular deflections within the limit set forth, as approved by the Water Department and or manufacturer specifications.

44. All pipes shall be laid and maintained to the required lines and grades as indicated on the drawings or as directed by the Water Department. Fittings, valves and fire hydrants shall be installed at the locations shown on the drawings. All fire hydrants shall have shut-off valves. All new fire hydrants require review and approval by the Water Department and the Fire Chief.

45. All water line joints shall be made with one of the types of joint described herein or others of the Contractor's choice subject to the approval of the Water Department.

46. Valves and fittings shall be set and jointed to pipe in a manner heretofore specified for cleaning, laying and jointing pipe. **Water Department approved Locking restraint glands shall be used on all mechanical joints.**

47. The socket, gasket and spigot end of the pipe shall be wiped clean of all dirt and other foreign matter.

48. The packing gland shall be slipped over the spigot end of the pipe, followed by a rubber gasket, and the pipe end pushed to its full depth in the bell.

49. The rubber gasket shall be properly seated and the loose gland moved into position against the face of the gasket and the bolts and nuts loosely assembled with fingers.

50. The nuts shall then be pulled up tight and evenly, using a ratchet type wrench, to make a watertight joint. Care shall be taken not to over strain the bells.

51. Valves, valve boxes, curb boxes, and hydrants shall be installed where shown on the drawings and directed by the Water Department, and shall be set plumb and to finished grade. Valve boxes shall be centered on the valves. Where feasible, valves shall be located outside the area

Of roads and streets. Earth fill shall be carefully tamped around each valve box to a distance of 4' on all sides of the box, or to the undisturbed trench face if less than 4'. Hydrants shall be set at such elevations that the connecting pipe will not have less cover than the distributing main. The hydrant shall be set upon a slab of stone or concrete not less than 4" thick and 15" square. The back of the hydrant, opposite the pipe connection, shall be firmly wedged against the vertical face of the trench, or as indicated on the drawings, to prevent the hydrant from blowing off the line. Hydrants shall be restrained by mechanical means and blocked properly. Base of hydrants shall have aggregate placed for good bleed off drainage. The backfill around the hydrants shall be thoroughly compacted to the grade line in a manner satisfactory to the Water Department. Hydrants and valves shall have the interiors cleaned of all foreign matter before installation. Stuffing boxes shall be tightened and the hydrant or valve shall be inspected in opened or closed positions to insure that all parts are in working condition.

52. Tapping valves and sleeves for making wet connections shall be of the type suitable for installation under pressure, where shown on the drawings.

53. Cutting-in-tees and sleeves and other fittings necessary for making connections to existing mains under dry conditions (water main drained) shall be set and jointed to a pipe in a manner heretofore specified for cleaning, laying and jointing pipe.

54. The connection work includes all necessary cutting and fitting of the existing mains to measurement for installation of the new pipe, fittings, "y's", sleeves, tees, crosses, plugs, bends and reducers as required to make a complete connection. All fittings shall be sprayed with a chlorine concentrate to disinfect before installation.

55. Corporation stops shall be specified or shown on drawings.

56. All corporation stops shall be installed in the water main at approximately 22 1/2 degrees above the horizontal plane passing through the center of the main.

57. The location of the service connections are to be determined during the course of construction. In the event of any differences of opinion as to the location of any service connection, the Water Department shall decide the exact location.

58. No physical connection between the new water main and service connection shall be made until the testing and sterilization is satisfactorily completed and the new main service connections are ready for service, unless otherwise directed by the Water Department.

59. Curb stops shall be specified or shown on drawings, and a 2x4 wood marker shall be located as temporary markings or blue paint on top of 2X4, 4' above the ground.

60. The Contractor shall make all measurements and check all dimensions necessary for the proper construction of the work called for by the drawings and specifications, and during the prosecution of the work he shall make all necessary measurements to prevent misfitting in said work, and he shall be responsible therefore, and for the accurate construction for the entire work.

61. **STERILIZATION:** Upon completion of work, or any usable portion thereof, and prior to placing the system or part in operation, all new mains, valves, hydrants, etc. shall be thoroughly flushed and sterilized, using a chlorine-gas mixture or a hypo chlorite and water mixture applied in amounts sufficient to produce a dosage of 50 ppm.

62. **STERILIZATION OF WATER LINES:** Sterilization shall be described below or by the system prescribed by the American Water Works Association standard C 601, as determined by the Water Department. The chlorinating material shall be introduced into the water lines and distribution systems in a manner approved by the Water Department. After a contact period of not less than 24 hours, the system shall be flushed with clean water until the residual chlorine content is not greater than 1.0 ppm. All valves in lines being sterilized shall be opened and closed several times during the contact period. Before system is placed into use, the Contractor shall obtain, from new mains two successive water samples 24 hours apart, and have them tested for bacteria content by the Water Departments choice of Labs. Samples shall be drawn in accordance with the Water Department procedure. Copies of submittals shall be provided to the Engineer and Water Department. A representative of the Pendleton Water Department shall observe all samplings.

If necessary, repeat sterilization until bacteriological quality of water to be delivered through system is satisfactory to the Water Department and or IDEM.

63. **FILLING IN THE MAINS:** All air shall be expelled from the mains as they are filled. Air valves and hydrants at high points. Where permanent vents are not provided, Contractor shall install corporation cocks at high points to assure removal of air. Such cocks shall be left in place and location noted by dimension ties on the field record set of drawings.

64. **HYDROSTATIC TESTING:** A leakage test must be successfully performed on the new water line in accordance with the following provisions:

Said test shall include all water lines in this contract as shown on drawings. The Contractor shall make arrangements with the Water Department for scheduling the test after the piping has been accepted as being ready for testing. All concrete thrust blocks shall have been in place for a period of at least 48 hours unless otherwise instructed prior to testing. The test shall be performed on the day mutually agreed upon in the presence of the Water Department.

65. **BACKFILLING:** Unless otherwise specified or directed and noted by the Water Department, water lines should be backfilled with sand to a depth of at least 1' above the top of the pipe. A 6" metallic locating tape shall be put on sand directly over the pipe. #10 wire shall be laid in the ditch for location and brought up the outside of valve boxes and more sand hand placed over said tape. If tape is torn, it shall be spliced back together before backfilling.

66. Backfilling for the remainder of the trenches as excavated shall be approved material and containing no stones over 6" in their largest dimensions. Stones, which are used in backfilling, shall be distributed among the earth backfill so that all interstices are filled with fine material. All backfilling shall be deposited as directed. Excess earth to meet the amount required to replace settlement shall be neatly rounded over the trench and the remainder hauled off the work sight. The Contractor shall maintain Trenches until settlement has ceased and trenches remain level with the adjacent ground.

Specifications for material to be installed in the Town of Pendleton Water Distribution system

(Specifications are subject to change.)

Pipe:

- Water Main shall be Ductile Iron pressure Class 350 or PVC pipe with a minimum of SDR-21.
- Service lines shall be Type K soft copper or polyethylene tubing, 200 PSI, SDR-copper tube O.D.
- Bury 6" locating tape 1' above pipe.
- Restraint glands shall be used on all mechanical joints and 2 bell joints back from mechanical joints. Parts installed in mains shall be disinfected by a chlorine solution sprayed on parts before installation.

Valves:

- Shall conform to A WW A C-509, latest issue.
- Wedge shall be, fully encapsulated in synthetic rubber except of guide and wedge nut areas.
- Synthetic rubber shall be molded in place and bonded to the wedge; mechanical fasteners are not allowed.
- Stem shall be sealed by at least two O-rings; contained within the stuffing box.
- All stem seals shall be replaceable with the valve wide open and while subjected pressure.
- Valve body and bonnet shall be coated, inside and out, with fusion-bond epoxy.
- Bonnet and body and stuffing box bolts and nuts shall be type stainless steel and be installed by the manufacturer.

- Shall have a full ten (10) year money back warranty.

Fire Hydrants:

- Mueller A 423 Centurion, Only Yellow paint.
- Shall conform to A WW A C-502 "Standard for Dry-Barrel Fire Hydrants".
- Steamers shall have Permanent mounted **5" Storz no adaptors** fittings
- Shall be of the traffic model design.
- Main valve opening shall be a minimum of 5 1/4".
- The bronze valve seat shall thread into a bronze sub-seat.
- Nozzle section shall have 360 degree rotation capabilities.
- Shoe and lower valve washer shall be coated inside with fusion-bonded epoxy.
- Shoe shall be attached to lower barrel with stainless steel bolts and nuts.
- Design shall allow for plugging of drains without excavating.
- Steamers towards Road.
- **Fire Protection Systems:**
- The FDC (Fire Department Connection) to any fire protection system or standpipe will be a **5" Storz** fitting.
- A fire hydrant will be located in close proximity to the FDC. The exact location of that hydrant will be determined by the Fire Chief.
- Hose connections to the standpipe(s) shall be fire hose thread. The Fire Chief will be consulted as to the size of those connections.

Meter Settings:

- Pits shall be Mid States with white Interior 18" minimum I.D. for single 3/4" service 24" for 1" service or double 3/4" service meter setting. Depth shall be 36" minimum.
- Cover shall be locking type, with single lid, 4" rise, and small operating nut. Lids shall have holes for touch read meter pads. Temporary plugs for touch read holes shall be supplied (by contractor).
- Meter setter shall have compression fittings for 3/4" CTS or equivalent.
- All brass parts shall be Muller unless Water Department approves substitutes.

Meter Service Settings:

- Standard residential 3/4"
- Customer pays tap fee to cover installation costs.
- Commercial-Industrial: Customer pays tap fee for each service hook-up and is responsible for all installation costs. After installation and inspection, the meter will be dedicated to and maintained by the Water Department. However, any future changes of service will be the responsibility of the customer.
- Subdivision: (Covered by subdivision ordinance) all subsequent changes will require approval of the Water Company.
- Each business shall be individually metered.
- CURB STOPS before Meter Pit.

Notes:

- ANY substitutions must be approved by the Water Department.
- After Water Department has approved and then taken possession of meter service no one is allowed in service pit unless they are a representative of the Pendleton Water Company. Ref. (penalty, 10.99)
- Contractor must furnish submittals on all materials to be installed on our system
- Before any trench is back filled you must call the PENDLETON WATER DEPARTMENT at 778-9966 or 778-4100 for inspection.

PENDLETON WATER COMPANY

FOR 2" WATER SERVICE

765-778-4100 OFFICE

765-208-0094 CELL

765-778-9977 FAX

W
A
T
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R

M
A
I
N

PARTS LIST

* MUELLER BRASS
SETTER
WITH VALVE AND
CHECK VALVE

* NEPTUNE TOUCH READ
METER - 1000 GAL

* MID STATES
PIT

* MUELLER VALVE

* BRASS NIPPLE

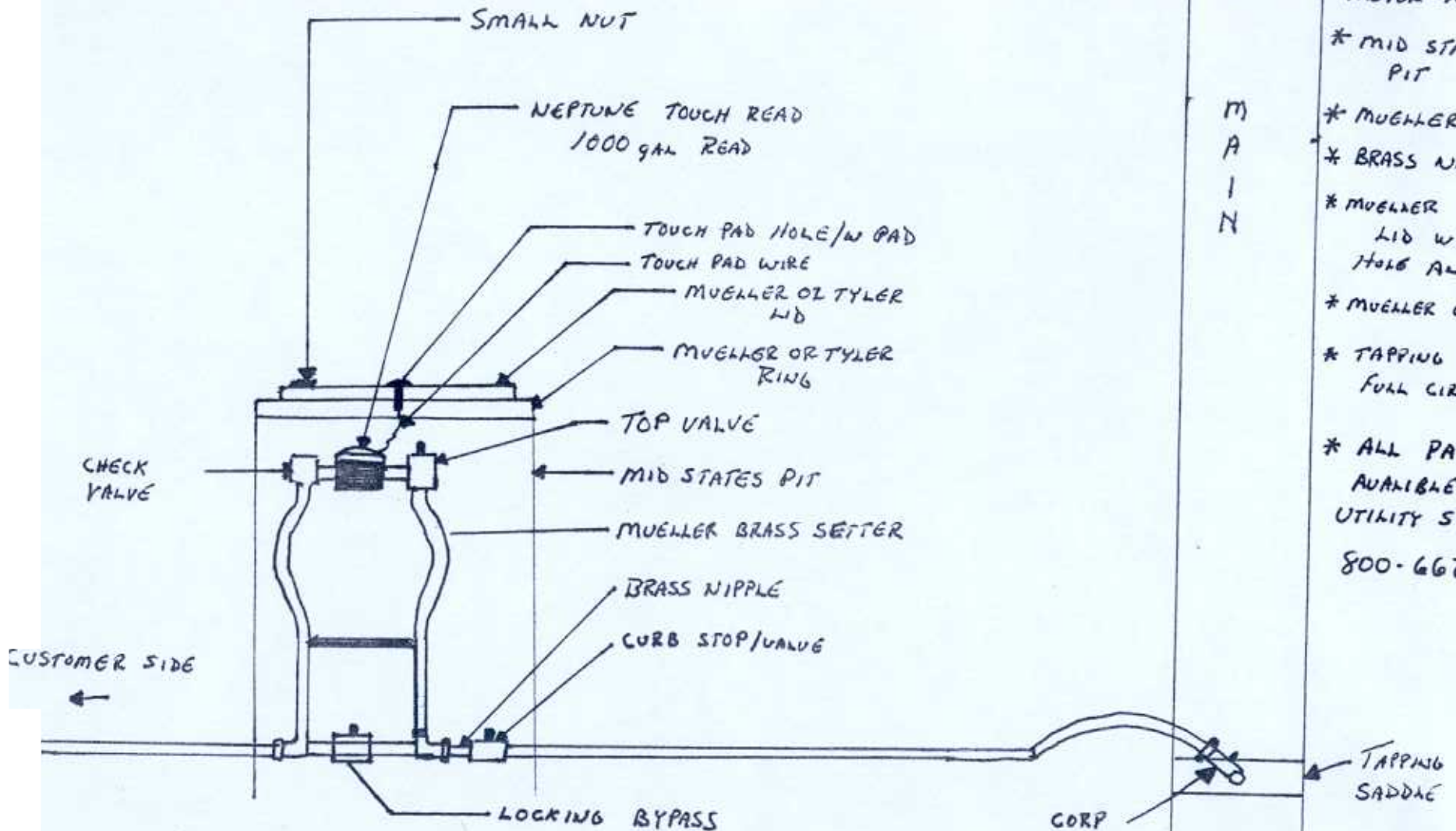
* MUELLER OR TYLER
LID W/ TOUCH PAD
HOLE AND RING

* MUELLER CORP STOP

* TAPPING SADDLE
FULL CIRCLE

* ALL PARTS
AVAILABLE AT
UTILITY SUPPLY

800-662-0829



CORP
STOP
45°

TAPPING
SADDLE

1/10/10

PENDLETON WATER COMPANY

765-778-4100 OFFICE

765-208-0094 CELL

765-778-9977 FAX

FOR 3/4" OR 1" WATER SERVICE

PARTS LIST

W
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* MUELLER BRASS
SETTER
WITH VALVE AND
CHECK VALVE

* NEPTUNE TOUCH READ
METER - 1000 GAL

* MID STATES
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* MUELLER VALVE

* BRASS NIPPLE

* MUELLER OR TYLER
LID W/ TOUCH PAD
HOLE AND RING

* MUELLER CORP STOP

* TAPPING SADDLE
FULL CIRCLE

* ALL PARTS
AVAILABLE AT
UTILITY SUPPLY

800-662-0829

