TAHLEQUAH PUBLIC WORKS AUTHORITY
WATER & SEWER CONSTRUCTION
POLICY GUIDELINES

Approved May 16, 2008

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SECTION 1: INTENT AND OVERVIEW

1.1 These policy guidelines are set forth to assist the implementation of the Tahlequah Public Works Authority's purpose to provide, furnish and supply to the citizens of the City of Tahlequah and the territory in proximity thereto, and to protect the health, safety, and general welfare of the general public within the Authority's jurisdiction to serve and maintain water and sanitary sewer facilities.

1.2 LET IT BE KNOWN, that the Tahlequah Public Works Authority, to implement these policies, shall continue to revise and replace existing policies and to establish new standards and policies so that the needs and demands of new growth and expansion to the City of Tahlequah will not burden the existing facilities but provide the necessary increased level of service and funding expected to continue service and maintenance of water and sanitary sewer facilities as part of the Authority's current plans for the future growth of the City of Tahlequah.

1.3 All of the TPWA water and sewer facilities will benefit all new development that depends on these services and it is therefore appropriate to treat each development independently within each basin or distribution grid for the purposes of calculating, collecting, and spending the funds collected for the construction of these facilities.

1.4 A three tier method for new development shall be used to finance, defray, or reimburse all or a portion of the costs incurred by the TPWA to construct the improvements for water and sewer facilities.

SECTION 2: DEFINITIONS

The following abbreviations and words shall have the designated meanings:

Board--- The Tahlequah Public Works Authority Board of Trustees, the Governing Board of the Authority.

City---City of Tahlequah, Oklahoma, a municipal corporation acting through the city's duly authorized officers or agents.

Development---Any construction or expansion of a building, structure, or use, any change in use of a building or structure, or any change in the use of land, which creates additional demand for water and sewer facilities.

Inspector---The authorized representative of the TPWA who is assigned to a specific project site or any part thereof.

ODEQ---Oklahoma Department of Environmental Quality, the State regulatory authority under which the State Construction Standards are promulgated.

Sanitary Sewer---A pipe that conveys sewage or wastewater, and into which storm, surface and ground waters or unpolluted industrial wastes are not admitted intentionally.

TPWA---Tahlequah Public Works Authority, a State of Oklahoma Public Trust acting through the Authority's duly authorized officers or agents.

Water Line---A water conveyance pipe that supplies pressurized drinkable water to connections for public use.

SECTION 3: PERMITS, PLANS & REVIEW FEES

3.1 All municipal water and sewer systems, facilities, and connections shall be constructed in compliance with the Oklahoma Administrative Code, Title 252, Chapter 625 titled "**Public Water Supply Construction Standards**" and Chapter 656 titled "**Water Pollution Control Facility Construction** Standards" established by the ODEQ or ordinances, regulations, rules and requirements set forth by the City or TPWA standards, whichever is more stringent.

3.2 No municipal water and sewer systems, collectors or distribution lines shall be constructed until plans and specifications meeting the above criteria are reviewed, approved, and signed by a licensed professional engineer in responsible charge of the project.

3.3 All water and sewer line plans for the connection to the municipal system shall have TPWA Board approval prior to actual construction except plans on small extensions less than 500 feet that can be approved by the General Manager prior to actual construction. Approval shall be withheld if the water or sewer systems to which the proposed lines are connecting to have reached or, with the addition of the proposed lines, would reach treatment or hydraulic capacities *(See Section Five (5) Capacity Guidelines)*. Further, approval shall also be withheld if the proposed lines do not meet or exceed the standards of the ODEQ and the TPWA, or may be withheld for any other valid reason.

3.4 All plans approved by the TPWA Board and General Manager shall have an application for a "Permit to Construct" sent, with a minimum of five (5) sets of plans and an Engineers Design Report and application fee, to the ODEQ for review and approval for the Permit.

3.5 The General Manager or his designated representative shall inspect each approved project and shall prohibit commencement of any construction or connection: (1) prior to the scheduled date of a pre-work conference, (2) during construction that is not in accordance with the approved plans, and (3) any deviation that does not meet with these policies and regulations.

3.6 All ODEQ Permit Fees and TPWA Plan Review Fees shall be paid to the TPWA office when submitting the ODEQ Permit Application for "Permit to Construct", Engineer approved plans, specifications, and Engineering Reports. The ODEQ Permit Fee will be forwarded on to the ODEQ Water Quality Division for review. The amount is determined by the ODEQ Fee schedule for

construction projects and can be obtained through the project engineer. The TPWA Plan Review Fee shall be set by the TPWA General Manager and is presently set at $100.00 for each water project, $100.00 for each sewer project and $175.00 for each combined water & sewer projects.

TECHNICAL SPECIFICATIONS

I. WATER LINES

1.1 GENERAL:

The intent of this specification is to delineate materials and methods of construction for potable water lines and subsidiary systems as shown on the plans, complete in place and ready for operation by the OWNER. The work consists of all clearing, trench excavation, backfill and cleanup; furnishing and installing all pipe, casings, valves, fittings, concrete thrust blocks, and appurtenant items; testing and disinfection of system; and replacing fences, driveways, road surfaces, and all other improvements disturbed during the construction. All pipe shall be of the type and size shown on the drawings and all materials and work shall conform to the provisions of these specifications unless specifically exempted in other portions of the CONTRACT DOCUMENTS.

1.2 MATERIALS:

1.2.1 Ductile Iron Pipe: All pipe shall conform to ANSI Specification A21.51; AWWA Specification C151, and cement lining in accordance with ANSI Specification A21.4 and AWWA Specification C104. Pipe shall be pressure rated at 350psi with surge allowance of 100psi, with pipe thickness to conform with depth of cover and laying conditions.

1.2.2 PVC Pressure Pipe: Materials used to produce the pipe, couplings, and fittings shall be manufactured in accordance with ASTM D-2241, ASTM D-3139, Commercial Standard CS 256, and approved by the National Sanitation Foundation (NSF). The pipe shall be made from clean, virgin, **class 12454-B** PVC compound conforming to ASTM Resin Specifications D-1784 Type 1, Grade 1. Standard joint length shall be twenty (20) feet. The pipe shall have a minimum Standard Dimension ratio (SDR) of 21 for class 200psi. The pipe shall be marked continuously along the length with: Manufacturer's name, nominal size, class pressure rating, PVC 1120, NSF, and identification code. Pipe certification sheets shall be submitted by the manufacturer to show compliance with these specifications as requested by the Engineer.

1.2.3 Fittings: Fittings for all pipe 4" or larger shall be standard mechanical joint ductile iron unless otherwise indicated on the plans or noted by details. Ductile Iron Fittings shall conform to ANSI Specifications A21.10 and A21.11 and AWWA Specification C110.

Fittings shall be manufactured in accordance with ANSI Specification A21.4 and AWWA Specification C104, and shall be furnished with a complete set of joint materials for each socket opening.

1.2.4 Joints: Mechanical joints shall conform to and be tested in accordance with ANSI Specification A21.11 and AWWA Specification C111.

Restrained joints, when necessitated by the conditions of construction as determined by the Engineer, shall be used with or without thrust blocking for pipe joints adjacent to fittings, bends and terminal points as well as fitting joints or where utilized in ANSI Specification A21.10 and with A21.11. Joint restraints at Fire Hydrants shall conform to ASTM A307. Specified restraints shall be MIDCO's PERMA-GRIP Mechanical restrained Fittings for Class 200, SDR-21 PVC pipe or Model 1300 Uniflange Pipe restraints by Standard International and MEGALUG joint restraint by EBAA Iron Sales.

Flanged joints shall be used if indicated and shall conform to ANSI Specification A21.15 and AWWA Specification C115 for 125 pounds flange with appropriate bolts per standard ASA specifications for each flange size.

1.2.5 PVC Pipe Couplings: Couplings including bell ends, shall be Ring-Tite, Bell-Ring, or Push Joint connected, with fittings furnished by the pipe manufacturer and certified to be suitable for use with the pipe furnished. They shall have a minimum pressure rating of 200psi, and be constructed with deep sockets.

1.2.6 Gate Valves: Specified gate valves shall be manufactured by AVK. All Gate Valves shall conform to, and be tested in accordance with, the AWWA Standard for Resilient Seated Gate Valves, for water and sewage systems, ANSI/AWWA Specification C509. Valves shall be bubble tight from either direction at a rated design working pressure of 200psi. Valves shall have a single disc gate with synthetic rubber seat bonded or mechanically attached to the disc; a non-rising stem with 2" AWWA operating nut; opening counter clockwise with "O" ring stem seals. Valve interiors shall have a corrosion resistant coating acceptable for potable water and end connection to fit the pipe or connection to which it is attached. Valves installed with stems placed at depths greater than 36-inches shall have extensions attached to the operating nut as part of the valve component.

Each valve shall have the maker's name or initials, pressure rating and year of manufacture cast on the body and shall be furnished complete with set of joint materials for each socket.

1.2.7 Tapping Sleeves & Valves: Tapping sleeves and valves shall be furnished and installed in sizes indicated on connections to existing lines. Tapping sleeves manufactured by SMITH BLAIR or FORD are acceptable. The valves shall be Flange by Mechanical Joint Resilient Seat conforming with applicable provisions of AWWA C509.

1.2.8 Valve Boxes: Valve boxes shall be of the cast iron extension type with screw or slide adjustment and flared base. The minimum thickness of the metal shall be 3/16 inch. The word WATER shall be cast in the cover. The boxes shall be of such length as will be adapted to the depth

of cover over the pipe at the valve location, with bottom section, extension pieces, and top section as needed. **All installed valve boxes shall have a minimum 24"x 24" x 6" thick concrete pad set in place around the valve box for location and protection of the box.**

1.2.9 Valve & Line Markers: Identification markers shall be of metal fabrication with baked enamel finish noting the OWNER, and type of facility identified. Marker must be at least 80 square inches in area and shall have attachments to be firmly secured to a galvanized rod or post five (5) feet in length for erection at the location needed.

1.2.10 Steel Pipe Casing: All steel pipe casing shall be new or used smooth walled, welding steel pipe. The pipe shall be straight, round, and sound with no dents or splits and shall have a standard wall thickness as noted:

18" Pipe.....0.375" Minimum Thickness
12" Pipe.....0.330" Minimum Thickness
10" Pipe.....0.307" Minimum Thickness
8" Pipe.....0.277" Minimum Thickness

Pipe shall be delivered in lengths that will best fit the crossings as noted in the plans with a minimum number of joints to be welded. Pipe shall be subject to adequate inspection before, during, and after unloading of pipe at the job site and owner reserves the right to reject any and all pipe not in satisfactory conformance with this specification.

Spacers used between casing and pipe shall be as shown on the plans or as manufactured by RACI Spacers, Inc., Tulsa; M-2 THINsulator by T. D. Williamson, Inc., Tulsa; or APS Casing Spacers by Advance Prod. & Systems, Inc., Lafayette, La.

1.2.11 Fire & Flushing Hydrants: Fire Hydrants shall be AVK and shall conform to, and be tested in accordance with the AWWA Standard for Dry-Barrel Fire Hydrants, AWWA C502. Fire Hydrants shall have a 5¼-inch compression main valve; 6-inch inlet connection; mechanical joint hub; bury length as specified on the plans; two 2½-inch hose nozzles with TAHLEQUAH (e.g. Mueller 301 threads are Tahlequah threads) THREADS; one 4½-inch pumper nozzle with National Standard threads**(CHECK WITH FIRE DEPARTMENT)**; and Safety Red finish paint above ground line. Flushing Hydrant shall have a 2¼-inch main valve opening with one 2½-inch hose nozzle with TAHLEQUAH THREADS and Safety Red finish paint above ground line. All other specifications shall meet the model requirements and sizes including a 10 year guarantee.

1.2.12 Air Release Valve: Air Release Valves shall be installed at the locations shown on the plans, or as directed by the Engineer. Valve shall be a heavy-duty air release type for 150psi working pressure, tested to 300psi, size shown on plans. Body, cover and baffle shall be cast iron. All internal parts to be stainless steel and/or bronze, and the inside valve coated with rust inhibitor as manufactured by Val-Matic, or an approved equal. Tapping saddle shall be CLOW, twin seal brass saddle and corporation stop with IP threads on outlet piping connection. Valve and piping connection shall be offset from the main line and properly supported to avoid stresses on piping connections. The valve discharge will have open end piping extended with a screened downward

facing elbow. Valve to be place in a 24" meter box and lid with keyed locking mechanism and lettering as approved by the Engineer. Use tapping sleeve Spec.

1.2.13 Tracer Wire: 12 gauge TRACER WIRE for the location of PVC water lines shall be required in all trenched areas of construction. The wire shall be attached to the water line and shall be brought to the surface and attached at all valve and meter boxes and any other appurtenance where the wire can be accessed.

1.2.14 Cast-in-Place Concrete: Concrete used for capping channel crossings, road crossings, and thrust blocking shall use as and included by reference herein ACI 301 Concrete Standard Specifications for Concrete for Building in its entirety. All concrete shall be mixed and proportioned as a six sack per yard mix to give good workability with a maximum slump of 4-inches. Concrete shall show a compressive strength of 3500psi at 28 days when tested. All crossing pours shall be vibrated to reduce voids, honeycombing, or defects. Concrete shall not be placed when the outside air temperature is 40° F or under and falling, except with the approval of the Engineer. All concrete will be placed against undisturbed earth or compacted bedding with all exposed concrete leveled and broomed to achieve a smooth brushed finish and all blocking placed so that pipe and fittings will be accessible for repair or Polyethylene wrapped. Concrete thrust blocking for all pipe fittings shall be in accordance with the table on the following page:

1.2.15 Submittals: The CONTRACTOR shall submit to the Engineer, three (3) copies of material submittals for all material he proposes to use. Construction shall not begin until the submittals have been approved by the Engineer.

Submittals for pipe shall consist of notarized certifications from the manufacturer that the pipe was manufactured and tested in accordance with the applicable specifications. The certifications shall indicate the pipe diameter, the pressure rating, resin classification, and the batch number from which the pipe was manufactured.

Submittals for material other than pipe shall consist of manufacturer's product literature or shop drawings, indicating dimensions and material specifications. Submittals shall include reference to compliance with ANSI, AWWA, ASTM, NSF, and other applicable standards.

1.3 INSTALLATION:

1.3.1 Protection of service & lateral lines: The location of utility service lines and sewer system lateral lines serving individual properties or other utilities may or may not be shown on the plans. The CONTRACTOR shall assume that such service lines exist whether or not they are shown on the plans, and it shall be the responsibility of the Contractor to make any necessary changes in the line and/or grade of such services, or to secure the necessary changes therein to be made by the particular utility company involved or other owner thereof. Contractor shall pay the cost of all such revisions whether performed by the Contractor, the utility company, or other owner. In the event of interruption of a utility service as a result of accidental breakage, the Contractor shall promptly notify the owner of the utility, and shall repair or have repaired, in the same manner as necessary changes above provided for, and the Contractor shall do all things necessary to see the restoration of services as promptly as may be reasonably done.

1.3.2 General Installation Details: All material for the project shall be transported, delivered, and stored in a manner to prevent damage to the materials. All damaged, broken or otherwise defective materials will be rejected. Store lubricants, gaskets, jointing materials, and other packaged materials in a dry, protected area in which the manufacturer's name and all other applicable data is plainly marked and visible.

Pipe shall be delivered to the job site by means which will adequately support it, and not subject it to undue stresses. The load shall be so supported that bottom rows of pipe are not damaged by crushing. Pipe shall be stored and protected and shall not be strung along the line of trenching more than two days prior to placing. The trench wall shall be straight with a minimum trench width of eight (8) inches or three (3) times the pipe diameter, whichever is greater, at the grade line with the upper portion of the trench sloped to prevent cave-in or collapse of the trench. The bottom of the trench shall be finished to provide a uniform bearing for the pipe. Changes in grade in the trench bottom shall be made as shown on the drawings so the pipe will rest on the trench bottom. Where smaller radius of curvature than that recommended by the pipe manufacturer is required to fit the trench bottom, suitable elbows shall be used. Concrete thrust blocking shall be installed at all points of lateral thrust such as tees, elbows, etc., unless restraining connections are used as approved by the Water Department Superintendent. The pipe is to be laid in a trench having a six (6) inch bed of select material prepared before the pipe is lowered into the trench. Backfilling shall be carefully placed to avoid dropping rocks or large clods on the pipe. All backfill within eight (8) inches of the edges of the pipe shall contain no stones. Underground crossover piping shall provide a minimum clearance of twenty-four (24) inches between bottom of existing pipe and top of new pipe unless conditions restrict such clearance.

Sand, pea gravel, or crushed stone shall be used as bedding around the pipe, **(6) inches below, and twelve (12) inches over the pipe as standard trench bedding**. All pipe installed shall have a **minimum cover over the top of the pipe of thirty-six (36) inches** except where otherwise specified or approved by the Engineer. Where ledge or solid rock is encountered at this depth the pipe may be raised to a minimum depth of thirty (30) inches cover over the top of pipe.

The Contractor shall replace all street and paved surfaces as soon as possible after the pipe has been backfilled. Concrete, asphalt and gravel streets, parking lots, and driveways shall be cut in straight lines a minimum of twelve (12) inches on undisturbed soil from the excavated area and replaced with concrete or material in kind to a minimum thickness of eight (8) inches for streets and six (6) inches for driveways and parking lots. Any pavement or other surfaces of streets, roads, driveways, or walks which are removed or damaged whether or not within the trench or excavated limits shall be replaced or repaired to its original or better condition. Backfill above the specified pipe embedment will require compaction to 95% standard density under these surfaces. All other compaction will be of a character that will be reasonable free from settlement. Wherever trenches have not been properly filled or where settlement has occurred at any time prior to final acceptance of the entire work covered by this contract, to the extent that the top of the backfill is below the original ground surface, such trenches shall be refilled and backfill surface compacted and smoothed to conform to the elevation of the adjacent ground surface.

Trench backfill shall proceed immediately behind the pipe laying to avoid leaving open ditches over night. Any excavation which remains open over night shall be properly barricaded and lighted to avoid any injury to persons or property. When work is stopped at night or for any other reason, water tight plugs shall be used to prevent excavated material, water, and small animals from entering the pipe.

Where the Contractor encounters water or the trench soil becomes mucky or in such condition that the bedding cannot be graded properly or support the pipe, then the Contractor shall excavate below the sub-grade sufficiently to allow for a gravel sub-grade bedding to be placed. Pumps shall be installed and operated to allow the water level to be drawn down below the bottom of the pipe. The Contractor shall install trench bracing where protection of his employees and the work is necessary and required by safety codes.

1.3.3 Testing & Disinfection of Lines: After each convenient section of pipe line is completed, that section shall be pressure tested and disinfected. The pipe shall be tested by applying a hydraulic pressure of not less than 150 psi, nor more than the pressure rating of the pipe, for a minimum period of (24) hours. The allowable leakage shall not exceed ten (10) gallons per inch of diameter per mile of pipe. Leakage in excess of this amount shall be isolated and repaired and all visible leakage shall be repaired regardless of the amount. The Contractor shall pay for all water loss and usage during the period of construction and testing and until final acceptance of the system. The Contractor shall disinfect the completed water system in accordance with the latest requirements of the Oklahoma State Department of Environmental Quality, including taking appropriate samples and furnishing the OWNER laboratory test reports.

1.3.4 Clearing & Restoring R-O-W: The Contractor will clear stretches of rights-of-way in advance of staking the line for excavation. Contractor shall notify the OWNER at least one week in advance of any particular section to be staked and shall remove trees, brush, stumps, logs, dirt piles, debris, or other objects along the designated area to be staked. Depressions left from the clearing operations shall be filled and the materials from all clearing operations disposed of to the complete satisfaction of the property owner. Clean up of areas shall proceed as the construction progress. Drainage ditches and culverts shall be cleaned out immediately after the backfill has been placed over the trench to assure proper drainage. Where lines are laid across lawns or other special areas, the Contractor shall backfill the trench as soon as possible and clean up in a workmanlike manner. All excess excavation, rock, waste concrete, wire, piping, or other refuse or debris resulting from the work shall be cleaned up and disposed of. The Contractor is responsible to provide an area to dispose of his waste material. Shrubbery shall be taken up ahead of construction, stored, and reset in such a manner as to not damage the plant. Shrubbery damaged by the construction shall be replaced by the Contractor to the satisfaction of the property owner at no cost to the OWNER.

The Contractor must restore all fences, driveways, road surfaces and other public or private property disturbed during construction, to a condition as good as it was when he entered upon the work including the purchase and installation of new materials to replace all that which is injured or disturbed during the course of the work. The entire site shall be finished to a smooth surface with adequate drainage and left in a clean condition such that all yard areas may be mowed with a lawn

mower and all other areas mowed with a pasture mower. Removing and replacing any road surfaces, driveways, and other improvements will not be measured as a separate pay item but shall be considered a subsidiary part of clearing and restoring rights-of-way.

After trenches have had time to settle, areas requiring top soil shall have a 4 inch layer of topsoil spread over all disturbed areas and sod grass shall be laid over the trench areas or seeded using Bermuda seed broadcast at a rate of 3.0 lbs. per 1000 square feet during the season of May thru August. All other seasons will require seeding with rye grass or fescue applied at a rate of 50 lbs. per acre. Topsoil salvaged prior to the water line construction may be used. Following the application of the seed, 10-20-10 fertilizer shall be spread at a rate of 250 lbs. per acre. Contractor shall water and re-water the seeded area as many times as necessary to develop a thick stand of grass. Any rural area or pasture that is restored without substantial damage to the pasture and has recovered a grass cover will not have to be seeded.

1.3.5 GUARANTEE : The developer and/or contractor shall guarantee all materials and appurtenances furnished and work performed for a period of one (1) year from the date of substantial completion. The Developer/Contractor warrants and guarantees for a period of one (1) year from the date of substantial completion of the system that the completed system is free from all defects due to faulty materials or workmanship and the Developer/Contractor shall promptly make such corrections as may be necessary by reason of such defects, including the repairs of any damage to other parts of the system resulting from such defects or workmanship. The TPWA will give notice of observed defects with reasonable promptness. In the event the Developer/Contractor should fail to make such corrections, the TPWA may do so and charge the Developer/Contractor the costs thereby incurred.

SECTION 5: CAPACITY GUIDELINES

5.1 The TPWA has established a water and sewer capacity fee system that implements equitable methods of imposing a proportionate share of the construction costs associated with the overall level of service required to provide, not only the presently needed improvements, but the improvements needed for additional and future areas to be served by the same systems.

5.2 The intent of the capacity guidelines will ensure that new development bears a proportionate share of the improvement costs from the beginning of a planned area of development, to the completion and final stages of future development. That all improvement costs incurred by the TPWA will be distributed by a four tier method to new development through A) the owner/developer, B) future developer/owners, C) the developer/builder, and C) the home/business buyer of the new development properties.

(A) DEVELOPMENT FEES

5.A.1 The initial planning of any development or extension of water and sewer lines will require the owner or developer to submit site plans for the location and planning of the utilities within the planned area of development. TPWA will utilize this information to develop a specific layout for the surrounding service area to be served. Sewer systems shall include the basin service area and water systems shall include the water distribution grid system.

5.A.2 All costs for water and sewer facilities within a specific development that are intended to serve the specific development will be the responsibility of the owner/developer of the development.

5.A.3 If the development includes a water or sewer line or lines that would be designed for **additional capacity** to serve the surrounding area, then the excess capacity cost for the additional sizing of the system shall be determined and the owner/developer will be required to execute a contract with the TPWA for a fee reimbursement as approved by the TPWA Board.

5.A.4 **INITIAL FEE REIMBURSEMENT:** (1) The maximum amount of any initial excess capacity cost to be considered by the TPWA will be 10% of the estimated **TOTAL** cost of the water and/or sewer line extensions that are constructed having **additional capacity design** to serve the

surrounding areas other than the development as determined by the development's Planning Engineer and approved by the TPWA. Stated again, this is the maximum or any percentage up to the maximum.

(2) On small water and/or sewer line projects that will serve additional surrounding areas or pass through properties that will be served by the same lines, the Initial Fee Reimbursement will be the full cost of the additional capacity. This reimbursement will be set at a maximum of $50,000 and shall be documented by the development's Planning Engineer and approved by the TPWA after all construction is completed and all actual costs determined.

5.A.5 **CREDITED FEE REIMBURSEMENT:** Owner/Developers may be eligible for site specific credits or reimbursements for providing such improvements that are constructed for additional and future areas to be served by the same facilities. Credits for specific sites (individual lots/properties or future area developments) will be distributed as each site is completed and occupied.

5.A.6 Credits will be given on excess capacity development costs as site specific credits or developer reimbursement credits up to 30% of the **TOTAL** cost of the water and/or sewer line extensions that are constructed having **additional capacity design** to serve the surrounding areas other than the development as determined by the development's Planning Engineer and approved by the TPWA. Stated again, this is the maximum or any percentage up to the maximum. These credits will be dispersed on an annual basis at such time as determined by the TPWA General Manager when proof of each individual site completed is documented and a request by the developer is submitted for the total number of credits to be received for that year.

Credits will be given to the Owner/Developer until all of the excess capacity development costs have been reimbursed or for a period of 15 years, whichever occurs first.

5.A.7 Excess capacity costs should not exceed 40% of the total project cost. If the excess capacity costs exceed the 40% maximum reimbursement then the Board may adjust the maximum on a case by case basis for full excess capacity reimbursement.

5.A.8 Owner/Developers become eligible for these reimbursements after each development, or phase thereof, has all the facilities constructed. If the owner/developer does not meet the one year maintenance guarantee, as described in Section 4 of these guidelines, the reimbursement shall be used by TPWA to perform the required maintenance on the facilities as needed.

(B) FUTURE DEVELOPMENT IMPACT FEES

5.B.1 At such time that the initial water and sewer services have been constructed and all construction costs tabulated, these costs will serve as a base line for additional reimbursement to developers or TPWA for future developments using the new water and sewer services.

5.B.2 All future developments to be served by the TPWA systems will be required to offset the initial costs to provide these services through a calculated Impact Fee that will be established by the size and scope of the future development within the designed water or sewer system. This Impact Fee is for future developers/owners to share in the base line costs of the initial water and sewer improvements that their development will be impacting and using.

5.B.3 The Impact Fee will be calculated on future development design factors that will include flow demand and capacity and what impact their development will have on the additional capacity of the initial system. The Impact Fee will be assessed and shall be paid to the TPWA prior to the first connection to the initial system.

(C) SERVICE TAPS & FIRE PROTECTION FEES

5.C.1 Water and Sewer Tapping Fees shall be imposed on each connection to the TPWA system and each request for service shall be submitted to the TPWA office at least 48 hours prior to the work order being issued to the TPWA construction crews. An inspection report from the City of Tahlequah Building Inspector's Office for the structure service lines must be submitted with each request or the request will be denied and placed on Temporary Status for a period of 30 days and then dropped from the records for service.

The TPWA may allow a maximum of 25 percent of the service tapping fees for new developments to be used to offset capacity fees that are reimbursed to the developers as noted in Section 5.A.5.

5.C.2 The following fees are the current rates for service to the TPWA water and sewer facilities:

WATER CONNECTIONS :

Water Meter connection and tapping services:

¾" meter & tap----------$ 600.00

1" meter & tap----------$ 850.00

1½" meter & tap----------$1,500.00

2" meter & tap----------$2,700.00

These charges are for the cost recovery and capacity fee consisting of time and material for administrative and field personnel recording and setting the meters. Field material costs include the meter box, connection plumbing, meter, and tapping the main line for service. In cases where two meters are set in the same box, the additional meter will be one-half (½) the listed connection fee. Tap sizing will be regulated by the demand needed and pressure from the existing main to be tapped. Installation of live water taps for private contractors and rural water districts furnishing all material are $300.00 regardless of size

SEWER CONNECTIONS:

Wastewater connection and tapping services:

4" tapping service ----------$ 300.00

6" tapping service ----------$ 400.00

8"or larger ----------Requires Manhole ($900)

All sewer line connections and taps include tapping saddle and 5 feet of pipe to service line.

FIRE SYSTEM CONNECTIONS:

Fire System Connections:

2" ----------$500.00 and $100/year annual service

4" ----------$625.00 and $150/year annual service

6" ----------$750.00 and $200/year annual service

8" ----------$1,000.00 and $300/year annual service

(D) SEWER & WATER DISTRICT ZONE FEES

5.D.1 To the extent that new development is served by the constructed improvements, the TPWA will seek reimbursement for the incurred public facility costs by District Zone Fees. This cost recovery approach assures that each new development is paying for its share of the useful life or remaining capacity and maintenance of the facilities until these costs are recovered or a maximum of 10 years, which ever comes first.

5.D.2 The costs associated with water or sewer district fees will be assessed by the determination of common types of development. Residential fees will be imposed per housing unit. For nonresidential development, fees will be determined by unique demand indicators, such as different types of commercial users, apartments, schools or motels.

5.D.3 The costs associated with water or sewer district fees for existing areas of development such as annexed areas and developed areas of the city with no sanitary sewer facilities shall be split between the TPWA Capital Improvements Budget for projects of this nature and the property owners of the district area to be served. The TPWA will fund the expense of labor and equipment and the property owners will pay the cost of the planning, design and materials on the area to be served by the district. The total property owner costs will be divided by the number of services capable of being served and distributed to each connection as noted in 5.D.2 as a monthly district surcharge for a period not to exceed ten (10) years. All existing property owners which connect to the district within one year of final construction will not be charged the sewer connection and tapping fee. The costs associated with the existing residence service taps are included in the district construction expense.