

NAVAJO TRIBAL UTILITY AUTHORITY

WATER & WASTEWATER FACILITIES
PERMISSION TO TAP



NAME: _____

LOCATION: _____

DISTRICT: _____

For

_____ FACILITIES

NTUA Project No. _____

NTUA WATER SERVICE TAP PROCEDURES

The following procedures are to be adhered to by customer(s) and/or private contractor(s) for all water and wastewater taps and line constructions involving NTUA systems.

Approval of the permission to tap form will be granted upon full compliance with NTUA's requirements. Non-compliance of these requirements and/or NTUA's construction and material standards will result in disapproval to tap and/or construction; and service will not be initiated until all discrepancies are corrected.

Listed below are the necessary steps (check list) for all concerned parties to follow. When construction is completed and all pertinent information and documents are compiled and submitted; the District Manager and Water/Wastewater Foreman will approve and submit a copy of the final transfer package to the NTUA HQ Civil Engineering Dept. NOTE: The NTUA does not accept operation and maintenance responsibilities for customer sewer service lines or septic tank systems. These will be the customer's responsibility.

1. Permission to tap forms initiated at the local NTUA District office. The respective NTUA District office shall provide the necessary information and plans required to the customer/requestor; and assist the requestor in completing the forms. All the necessary information required from the customer to complete the form should be obtained at this point.
2. Proposed Construction Plans and Specifications: The completed permission to tap form and the proposed construction plan(s) are to be submitted to the District Manager and Water/Wastewater Foreman for their review and approval, at least 10 working days prior to construction. Utilize the attached forms provided, WS-1d or WWS-1d, for the "Proposed Construction" plans and use the NTUA legends; with direction indicated by the North arrow. Include the location of septic systems. The forms are for residential installations only. Commercial projects shall submit three (3) sets of plans for both the water and sewer combined.
3. Standard Material Listing: The respective NTUA District Office will review the standard drawings (WS-1, WS-2, WS-3, SS-1) and select the drawing(s) that apply. Please note the standard drawings are for 1" and 2" water services and 4" wastewater services only. Water service(s) over 2" and wastewater service(s) over 4", will require deviation from the standard construction drawings and material listings. Contact NTUA HQ Civil Engineering Dept. for any deviation. Note: The NTUA does not compensate customers for any donated materials.
4. Rights-of-Ways: the customer and/or contractor will be responsible for obtaining Rights-of-Ways and/or clear Grants of Easements; to be submitted with the permission to tap forms.

5. The customer(s) shall provide copies of home-site lease or land use permits, archeological clearances, deposits, service applications, customer meter requests, and etc.
6. Pressure readings, elevations, and system as-built ties information: these are to be provided on both the proposed and the as-built drawings. Flow requirements and demand should be submitted to size the meter and/or verify wastewater system capacity. The NTUA can assist customer(s) in determining these requirements.
7. Open Trench Policy: NTUA may monitor the tap and construction of water and wastewater facilities. It is important to notify one of the main contact persons at NTUA at least three working days prior to actual construction.
8. Final Inspection: All discrepancies/deficiencies shall be corrected by the customer and /or contractor and verified by NTUA.
9. As-built requirements and cost of plant: Very Important! The NTUA requires as-constructed as-built drawings with swing ties and all pertinent information, to be submitted upon completion. Please submit a cost of plant list up to the metering point, of the following: (The cost of plant should be attached to the TA as Exhibit "A".)
- A. MATERIALS (List of items installed.)
 - B. LABOR
 - C. EQUIPMENT
 - * D. TOTAL
- * Total cost of plant to be included on transfer agreement.
10. The customer(s) and/or contractor(s) shall provide NTUA a one-year warranty period on workmanship and materials. The Transfer Agreement will document the beginning date of the warranty period and it will authorize the NTUA to incorporate the capitalized portion of the project (see Item 9, the cost of plant) into the plant records; and to operate and maintain such facilities. (See attached Transfer Agreement.)
11. Initiation of service by the NTUA.
12. Submit a copy of the **Transfer Package** to NTUA HQ Civil Engineering. Provide copies to customer(s) and respective NTUA District Office.
- A. **Complete Construction As-Built drawings with NTUA system tie information.**
 - B. **R.O.W. Agreement/Grant of Easement**
 - C. **Final Inspection Certifications**
 - D. **Completed Transfer Agreement w/Cost of Plant**

Instructions-Permission to Tap an existing NTUA Water line

This form is to be filled out and submitted to NTUA at least ten (10) working days prior to the requested date of construction of the tap. The ten (10) working days is to allow for the scheduling of an NTUA inspector and this does not imply that a full review with permission to tap being approved or disapproved will be issued in that time period.

Upon approval, a copy of the approved permission to tap form will be sent to the requestor with the local NTUA office retaining the original copy.

All addresses shall include the Zip Code. All telephone numbers shall include the Area Code.

1. a. Permanent addresses and telephone number of the requestor. In some cases this will be a contractor, if not the customer.
b. Local address and telephone number.
c. Vicinity location of the tap and/or project.
2. If the person to coordinate with NTUA is the same as item 1a, then write the appropriate number and letter in the name space. In most cases, this is the customer and not a contractor. If other than 1a, complete the information required.
3. Complete information required.
4. Self-explanatory.
5. Self-explanatory.
6. One copy of the PTT with the specifications and drawings is to remain at the local NTUA District Office. After review by the District Office, the original request form and copies of both the specifications and drawings are to be forwarded to the NTUA Headquarters Civil Engineering Department, unless this is an I.H.S./O.E.H. P.L. 86-121 project or a N.H.A. project.

If this is a P.L. 86-121 project, the documents will be sent to the NTUA Headquarters Special Operations Department. If this is a N.H.A. project, the documents will be sent to the NTUA NHA Projects Coordinator, NTUA Headquarters, Civil Engineering Department.

If both sewer and water taps are requested and covered in the same set of drawings and specifications, the original copy of the PTT and copies of the drawings and specifications are to be forwarded to the NTUA Headquarters Civil Engineering Department. Reproducible Mylar's or Sepias may be substituted for drawings forwarded to NTUA Headquarters since the Engineering Department can reproduce the copies required.

Under any "NO" conditions, other than P.L. 86-121 projects, attach a note of explanation.

Before forwarding the documentations to NTUA Headquarters, Civil Engineering Department, the local NTUA District Office will check the drawing(s) for:

- A. The basis of elevation as given by showing the bench-mark identification, location, and elevation;
 - B. A description of the tap point that gives specific ties to existing facilities and drawings in the NTUA files.
 - C. Detail drawing of tap point and materials to be used; may require submittals.
 - D. The portion of the proposed system that is to be transferred to NTUA for operations and maintenance is indicated, per attached ROW and/or Grant of Easement Documentation(s). Item "D" does not apply to P.L. 86-121 projects since this is covered in detail in other documents.
7. The type of service requested such as Residential Domestic, Commercial, or Industrial and Permanent or Temporary Service, (e.g., "Permanent Residential Domestic"), will be stated plus the meter size. If questions arise contact the NTUA Civil Engineering for assistance on information required for these entries on the request forms.
 8. Provide customer requested flows rates and demands required.
 9. If the customer requires both domestic and fire flow services, the NTUA may require a single or dual meter set up for this purpose based on flow rates required. Flow rates required shall be submitted.
 10. The hour of the day as well as the date, are expected entries in this space. Provide enough lead-time for tap approval and to schedule an inspector, a minimum of ten (10) working days.
 11. Signatures of customer(s) and/or contractor(s) responsible for tap construction and acceptance by NTUA.
 12. Self-explanatory.
 13. The District Engineering will do a complete review of the PTT with the assistance of the District Water Department.

14. The District Water Foreman will do a complete review of the PTT with the assistance of the District Engineering Dept. Attach a list of District operational constraints and current operating problems that affect or will be caused by the approval of this permission to tap. If there are no operational constraints or problems, write "NOP" beside the date of the signature.
15. Self-explanatory
16. The District Manager will do a complete review of the permission to tap forms and related documents.
17. Self-explanatory, per the local NTUA District office schedule.
18. Self-explanatory.
19. Unless otherwise noted, a list of restrictions, recommendations, conditions, notes, and etc. on the approval will be stated.

PERMISSION TO TAP AN
EXISTING N.T.U.A. WATER LINE

1. Requester

- a. NAME : _____
TITLE : _____
ORGANIZATION : _____
PERMANENT : _____
ADDRESS : _____
TELEPHONE # : _____

- b. LOCAL ADDRESS : _____

LOCAL PHONE # : _____

- c. VICINITY/LOCATION: _____
OF TAP/PROJECT _____

2. Person responsible for tap construction and its acceptance by the Navajo Tribal Utility Authority.

- NAME : _____
- TITLE : _____
- ORGANIZATION : _____
- ADDRESS : _____

- TELEPHONE # : _____

3. Person responsible for paying the Navajo Tribal Utility Authority for service after the construction is completed and accepted.

- NAME : _____
- TITLE : _____
- ORGANIZATION : _____
- ADDRESS : _____

- TELEPHONE # : _____

4. Date request is submitted to the Navajo Tribal Utility Authority.

- DATE : _____

5. Submitted to:

- NAME : _____
- TITLE : _____
- NTUA OFFICE : _____

6. Specifications and Drawings of proposed construction attached? _____ (Yes/No).

7. Actual Services:

ACTUAL NUMBER : _____
METER SIZE : _____
TYPE OF SERVICE : _____

REMARKS (Type of Building Served): _____

8. Water demand/customer requested flow rates and minimum available pressure at the meter outlet.

NORMAL : _____ GPM
PEAK : _____ GPM
PRESSURE : _____ PSI
@ ELEVATION OF : _____ FT. above MSL

9. Fire Flow Demand is not guaranteed and is based only on what the system will provide. FOR NTUA INFORMATION: Flow rate and minimum available pressure at the meter outlet.

	Sprinkler system	Total Fire Hydrant Flow
QUANTITY	: _____	_____ GPM
DURATION	: _____	_____ MINS.
PRESSURE	: _____	_____ PSI
SIMULTANEOUS USE	_____	(YES/NO)

10. Requested Date and Time of the actual construction of the tap: _____

11. I agree to adhere to the Navajo Tribal Utility Authority (NTUA) construction methods, material standards, line test procedures, disinfections requirements, water and wastewater construction policies, As-built drawing requirements, and tariff requirements, as they pertain to tapping the existing NTUA water and wastewater facilities; and the constructed utilities to be transferred to NTUA for operations and maintenance, with services provided by the NTUA thereafter.

Signature Print Date

Signature Print Date

Signature Print Date

12. Is this service downstream from a previous Master Metered area? _____ (Yes/No).

13. Specifications and proposed construction drawings reviewed by:

District Engineering Dept.

Date

14. Specifications and proposed construction drawings reviewed and approved by:

District W/WW Foreman

Date

*OCP? (Yes/No)

* "OC/P" = Operational constraints/problems. If YES, attach list of current operating problems that will affect PTT.

15. Assigned NTUA inspector's name.

Name/Title

16. Reviewed by District Manager.

Signature

Date

17. Approved time and date of construction of tap.

Time and Date: _____

18. Permission to Tap reviewed and approved by.

NTUA, HQ, Civil Engineering Dept./Title

Date

19. Comments / Remarks:

FINAL INSPECTION FOR INDIVIDUAL FACILITIES

Homeowner's Name: _____
Address: _____

Location of Service: _____
Water System Name/Project No: _____

Description of Building Served: _____

Facilities Installed: Water line/Water tap
 Sewer line/Sewer tap
 Sewer septic system. Note: For information only.

Construction Completion Date: _____

Construction As-Built provided To Operating Utility: Date: _____ By: _____

Final Inspection Date: _____

Attendees: NAME(S) REPRESENTING:

The facilities indicated above have been completed and inspected, with all deficiencies (if any) corrected to NTUA's requirements and such facilities have been transferred to NTUA per the "Transfer Agreement" for normal operation and maintenance.

_____ will warranty these facilities against defects in material and workmanship for one year, beginning _____ and ending _____.

Customer's Signature/Date _____ NTUA Representative/Title/Date _____

WATER/WASTEWATER TEST CERTIFICATIONS

DISTRICT: _____ DATE: _____

WATER SYSTEM

CUSTOMER: _____
LOCATION: _____

LOCATION OF LINE TESTED: _____
LENGTH, SIZE, & TYPE OF PIPE: _____
DATE OF TEST(S): _____ PASSED : _____ *FAILED: _____

*If FAILED, waterline must be re-tested.

PRESSURE TEST RESULTS: (Attach work sheets)

- 1. Test Pressure : _____ PSI.
- 2. Duration of Test : _____ HRS.
- 3. Allowable Leakage : _____ Gals.
- 4. Total Leakage : _____ Gals.

DATE (Water Sample to Lab) : _____ Lab no.: _____

RESULTS OF BACTEE: _____ PASSED : _____ *FAILED: _____
*If FAILED, water must be re-sampled.

TEST RESULTS CERTIFIED BY: _____
NTUA REPRESENTATIVE / TITLE DATE

WASTEWATER SYSTEM

CUSTOMER: _____
LOCATION: _____

DATE OF TEST(S): _____
LOCATION OF LINE TESTED: _____ SECTION OF _____
LENGTH, SIZE, & TYPE OF PIPE: _____
SIZE, & TYPE OF MANHOLE (S): _____

WASTEWATER TESTS: (Attach work sheets)

- 1. Line Test* : _____ Gal/Section/2 hrs.
- 2. Manhole Test** : _____ Gal/MH/2 Hrs.

TEST RESULTS CERTIFIED BY: _____
NTUA REPRESENTATIVE / TITLE DATE

* Allowable Leakage: ≤ 1 Gal./Section/2hrs. for 8" to 12" lines, regardless of length, with 4 feet of head test pressure.

** Allowable Exfiltration: ≤ 5 gal/MH/2 hrs. regardless of height.

UTILITY TRANSFER AGREEMENT
for
WATER AND WASTEWATER FACILITIES

This agreement is made between _____, hereinafter called the Grantor and the **NAVAJO TRIBAL UTILITY AUTHORITY**, hereinafter called the Grantee.

WHEREAS, the Grantor has constructed or caused to have constructed water and wastewater facilities located at or near _____ as shown on the plans titled _____, designed by _____, and dated _____ and said facilities and related final as-built plans already have been inspected, accepted and approved by the Grantee, and;

WHEREAS, the Grantor wishes to convey to the Grantee all his interest in these facilities and appurtenances constructed at the above-mentioned location on or about the above-mentioned time, along with all rights, rights of way, and privileges so that the Grantee may own, operate, and maintain all such facilities and appurtenances.

NOW THEREFORE IT IS AGREED:

For consideration of \$1.00 the receipt of which already has been acknowledged, the Grantor transfers, assigns, grants, and conveys to the Grantee all rights, titles, interests, easements, and rights of way in the aforementioned facilities, and;

The Grantee agrees to accept such aforementioned facilities, and further agrees to own, operate, and maintain such facilities in a reasonable and prudent manner until such facilities are determined to be no longer of any value. Further, the Grantor hereby warrants all such facilities against defects in workmanship and materials, and for design deficiencies, errors and omissions for the period of one year beginning on _____ and ending on _____.

A listing of the total inventory and Cost of Plant determined by the Grantor to be transferred to the Grantee is attached as **EXHIBIT** _____ and made a part of this Utility Transfer Agreement. The total Cost of Plant as appears on this document is \$ _____.

IN WITNESS THEREOF, both parties have signed and dated this agreement.

Grantor

Signature

Date:

Print Name/Title

Navajo Tribal Utility Authority: _____

Signature

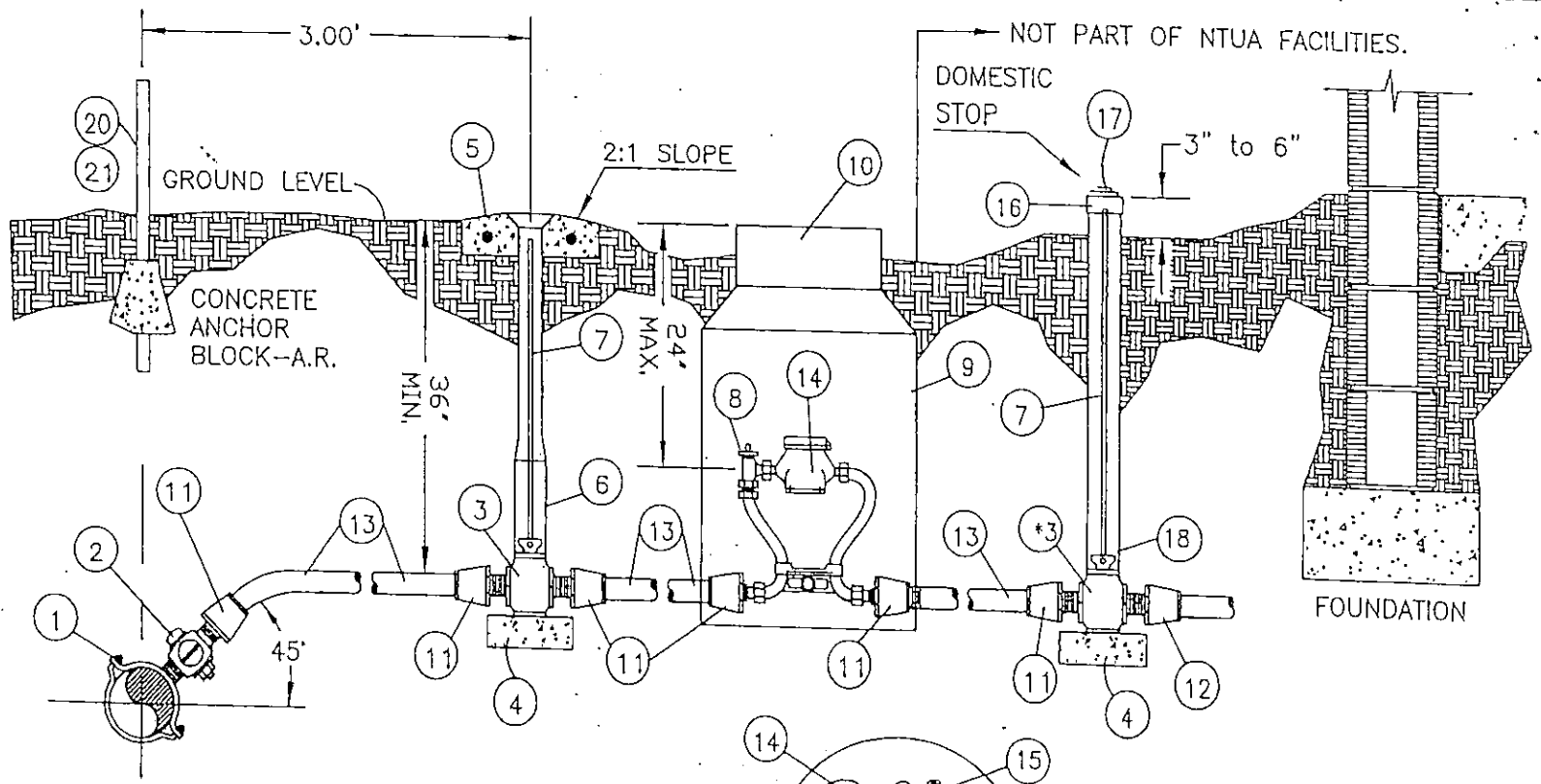
Date

Print Name/Title

TITLE: STANDARD 1" WATER SERVICE FOR A 5/8" OR 1" METER
 Customer Name & Location: _____
 SAP Project No.: _____
 Designed by: NTPUA
 Drawn By: RKB
 Appr. Engr: _____
 Exhibit no.: _____
 Date: 12/85
 Date: 8/96
 Date: _____
 NTUA STANDARD NO.: WS-1

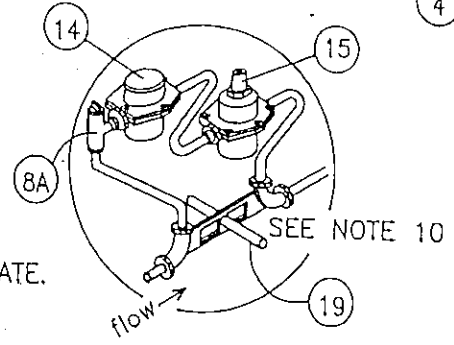


Scale: N.T.S.
 ACAD File name: WS-1.dwg



NOTES

1. PROVIDE SWING TIES FROM NEAREST PERMANENT STRUCTURE ON "AS-BUILT" DRAWINGS.
2. SELECT EITHER PAGE 2a or 2b BASED ON FLOW RATE.
3. * NEED NOT BE MINNEAPOLIS



REVISION			
NO.	DATE	BRIEF	BY
1	8/98	WS-1 STANDARD DWG.	EJ
2	10/98	UPDATE/ACAD DWG.	RKB
3	4/02	UPDATE/ACAD DWG.	NT
4	10/03	UPDATE ACAD DWG.	LRJ

AS-BUILT LOCATION OF TAP	
SYSTEM NAME	
PROJECT NO.	
SHEET NO.	
LINE NO.	
STATION NO.	

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MATERIAL LIST: 5/8" X 3/4" METER	2a of 5
MATERIAL LIST: 1" METER	2b of 5
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INDIVIDUAL AS-BUILT	5 of 5

ALL MATERIAL SHALL HAVE A MINIMUM 160-PSI WORKING PRESSURE CAPABILITY. THE MINIMUM TEST PRESSURE SHALL BE 160-PSI FOR 2-HOURS WITH NO LEAKAGE IF TESTED W/NEW MAINLINE. DATE PERFORMED: _____. IF NOT TESTED WITH NEW MAINLINE, THEN SYSTEM PRESSURE OF ____-PSI WAS USED, WITH NO LEAKAGE OBSERVED FROM EXPOSED JOINTS, SADDLES, CONNECTIONS, ETC., FOR 2-HOURS. DATE PERFORMED: _____. LAB SAMPLE NO.: _____. INITIALED (NTUA): _____

MATERIAL LIST

DESCRIPTION

ITEM	QUAN.	DESCRIPTION	SEE NOTE	ITEM MODEL NO.
1	1	SADDLE, BRASS/BRONZE, 1" FIPT TAPPED x APPROPRIATE PIPE TYPE O.D., and LINE PRESSURE	4,5,6	
2	1	1" CORPORATION STOP, MIPT x FIPT: MUELLER H-10046, OAE		
3	1	1" CURB STOP, FIPT x FIPT, MINNEAPOLIS PATTERN with RESILIENT O-RINGS, MUELLER H-10287, OAE	11,13	
4	A.R.	CONCRETE BLOCK or BRICK		
5	A.R.	CONCRETE COLLAR, 18" SQUARE x 4" THICK, W/ #4 REBARS, E.W.O.C.	8	
6	1	CURB VALVE BOX, EXTENSION TYPE, with 2" x 1-1/2" BUSHING, MUELLER H-10302 or OAE.		
7	2	STATIONARY ROD (CURB STOP OPERATOR), 36" LONG (MUELLER 84338). Secured to the curb stop with a Cotter Pin.		
8	1	COPPERSETER with VALVED 12" RISER, for 5/8" x 3/4" WATER METER, with UNION NUT and 1" FIPT SWIVEL	7	
		ASSEMBLY CONNECTION on INLET & OUTLET, and 1/2" BRACING EYE. FORD No. V72-12W-FF-44 or OAE.		
8A	1	TANDEM COPPERSETER with VALVED 12" RISER, for 5/8" x 3/4" WATER METER, with UNION NUT and 1" FIPT	10	
		SWIVEL ASSEMBLY CONNECTION on INLET & OUTLET, and 1/2" BRACING EYE with TWO REGULATOR ADAPTERS for the INDIVIDUAL PRV (Item 15), FORD NO. TV72-12W-FF-44 or OAE.		
9	1	METER CAN 20" O.D. x 30" HT., DFV PLASTIC. PART No. DFV 2030 or OAE.	6	
10	1	METER BOX COVER with LOCKING DOUBLE LID, for 20" O.D. METER CAN, 11-1/2" MINIMUM INNER LID OPENING. FORD No. W32 or OAE.		
11	6	1" ADAPTER, INSTAITE, MIPT x STAB for ASTM D-2239, SDR 7 PE PIPE. MUELLER H-15426		
12	1	CONNECTOR/ADAPTER, 1" MIPT x APPROPRIATE PIPE TYPE AND O.D.	9	
13	A.R.	1" PIPE, P.E., ASTM D-2239, SDR 7, 200 PSI. LIMITED TO 200' MAX.	10,13	
14	1	5/8" x 3/4" METER, POSITIVE DISPLACEMENT, SENSUS, SR, GALLONS, (PROVIDED BY N.T.U.A.)		
15	1	3/4" PRV, 3/4" FIPT, MIN. 6" LONG. WILKENS 600, WATTS 25 AUB or OAE.		
16	1	3" ADAPTER, HUB x FIPT, PVC-DWV, ASTM D-2665	10	
17	1	3" PLUG, MIPT, PVC-DWV, ASTM D-2665	11	
18	1	RISER, 3" x 36" LONG, PVC-DWV, ASTM D-2665	11	
19	1	STABILIZER, 1/2" O.D. x 12" LONG, SCH. 40, PVC PIPE	11	
20	A.R.	BLUE CARSONITE MARKER POST		
21	A.R.	"NTUA WATERLINE WARNING" DECAL (for item 20) * *	12	

A.R. = AS REQUIRED

* * = DECAL TO BE AFFIXED TO ITEM NO. 20

NOTE: NORMAL FLOW RATE = 1-20 GPM.


MANUFACTURER & SIZE INSTALLED: BRASS SADDLE:

IND. PRV: _____
 WATER METER: _____
 METER SERIAL NO.: _____

REVISION		BY
NO.	DATE	
1	8/91	WS-1 UPDATE/ACAD DWG. RKE
2	10/98	WS-1 UPDATE/ACAD DWG. BLM
3	4/02	WS-1 UPDATE/ACAD DWG. INT
4	10/03	UPDATE ACAD DWG. LRU

TITLE: MATERIAL LIST: 1" WATER SERVICE WITH A 5/8" x 3/4" METER SHEET 2 OF 5

Customer' Name & Location _____ SAP Project No. _____

Designed by: NTUA	Drawn By: RKB	Appr. Engr:	Exhibit no.
Date: 12/85	Date: 8/96	Date:	NTUA STANDARD NO. WS-1a
			Scale: N.T.S.
			ACAD File name ws-1a.dwg

MATERIAL LIST

ITEM	QUAN.	DESCRIPTION	SEE NOTE	ITEM MODEL NO.
1	1	SADDLE, BRASS/BRONZE, 1" FIPT TAPPED x APPROPRIATE PIPE TYPE O.D., and LINE PRESSURE	4,5,6	
2	1	1" CORPORATION STOP, MIPT x FIPT. MUELLER H-10046, OAE		
3	1	1" CURB STOP, FIPT x FIPT, MINNEAPOLIS PATTERN with RESILIENT O-RINGS, MUELLER H-10287, OAE	11,13	
4	A.R.	CONCRETE BLOCK or BRICK		
5	A.R.	CONCRETE COLLAR, 18" SQUARE x 4" THICK, W/ #4 REBARS, E.W.O.C.	8	
6	1	CURB VALVE BOX, EXTENSION TYPE, with 2" x 1--1/2" BUSHING. MUELLER H-10302 or OAE.		
7	2	STATIONARY ROD (CURB STOP OPERATOR), 36" LONG (MUELLER 84338). Secured to the curb stop with a Cotter Pin.		
8	1	COPPERSETTER with VALVED 12" RISER, for a 1" WATER METER, with UNION NUT and 1" FIPT SWIVEL ASSEMBLY CONNECTION on INLET & OUTLET, and 1/2" BRACING EYE. FORD No. V72-12W-FF-44 or OAE.	7	
8A	1	TANDEM COPPERSETTER with VALVED 12" RISER, for a 1" WATER METER, with UNION NUT and 1" FIPT SWIVEL ASSEMBLY CONNECTION on INLET & OUTLET, and 1/2" BRACING EYE with TWO REGULATOR ADAPTERS for the INDIVIDUAL PRV (Item 15). FORD NO. TV72-12W-FF-44 or OAE.	10	
9	1	METER CAN 20" O.D. x 30" HT., DFW PLASTIC. PART No. DFW 2030 or OAE.		
10	1	METER BOX COVER with LOCKING DOUBLE LID, for 20" O.D. METER CAN, 11-1/2" MINIMUM INNER LID OPENING. FORD No. W32 or OAE.	8	
11	6	1" ADAPTER, INSTATITE, MIPT x STAB for ASTM D-2239, SDR 7 PE PIPE. MUELLER H-15426		
12	1	CONNECTOR/ADAPTER, 1" MIPT x APPROPRIATE PIPE TYPE AND O.D.		
13	A.R.	1" PIPE, P.E., ASTM D-2239, SDR 7, 200 PSI. LIMITED TO 200' MAX.	9	
14	1	1" METER, POSITIVE DISPLACEMENT, SENSUS, SR, GALLONS, (NOT PROVIDED BY N.T.U.A.)	10,13	
15	1	1" PRV, FIPT x FIPT, MIN. 6" LONG. WILKENS 600, WATTS 25 AUB or OAE.		
16	1	3" ADAPTER, HUB x FIPT, PVC-DWV, ASTM D-2665	10	
17	1	3" PLUG, MIPT, PVC-DWV, ASTM D-2665	11	
18	1	RISER, 3" x 36" LONG, PVC-DWV, ASTM D-2665	11	
19	1	STABILIZER, 1/2" O.D. x 12" LONG, SCH. 40, PVC PIPE	11	
20	A.R.	BLUE CARSONITE MARKER POST		
21	A.R.	"NTUA WATERLINE WARNING" DECAL (for item 20) * *	12	

A.R. = AS REQUIRED

* * = DECAL TO BE AFFIXED TO ITEM NO. 20

NOTE: NORMAL FLOW RATE = 3-50 GPM.

MANUFACTURER & SIZE INSTALLED: BRASS SADDLE: _____

IND. PRV: _____

WATER METER: _____

NOT PROVIDED BY NTUA

METER SERIAL NO.: _____

REVISION			
NO.	DATE	BRIEF	BY
1	8/98	WS-1 UPDATE/ACAD DWG.	RKB
2	10/98	WS-1 UPDATE/ACAD DWG.	BM
3	4/02	WS-1 UPDATE/ACAD DWG.	NT
4	10/0	UPDATE ACAD DWG	LRJ

TITLE: MATERIAL LIST: 1" WATER SERVICE WITH A 1" METER SHEET 2b OF 5

Customer Name & Location

SAP Project No.

Designed by:
NTUA
Date: 12/85

Drawn By:
RKB
Date: 8/96

Appr. Engr:
Date:

Exhibit no.
NTUA STANDARD NO.
WTWS-1a



Scale:
N.T.S.
ACAD File name
WS-1b.dwg

1. PROVIDE 10' MIN. HORIZONTAL SEPARATION IN SEPARATE TRENCHES BETWEEN WATER AND SEWER SERVICES, PAST THE BUILDING PLUMBING. PROVIDE 5 FOOT MIN. HORIZONTAL SEPARATION BETWEEN WATER SERVICE AND OTHER UTILITIES.. FOR WATER AND SEWER CROSSINGS, PROVIDE A MIN. OF 12" VERTICAL CLEARANCE, PIPE O.D. TO PIPE O.D. IF WATER SERVICE CROSSES OTHER SERVICES SEE THE NTUA CROSSING POLICY.
2. BUILDING PLUMBING, WATER AND SEWER SERVICES TO BE INSTALLED IN ACCORDANCE WITH THE NATIONAL PLUMBING CODE ADOPTED BY THE NAVAJO NATION.
3. WATER SERVICES SHALL HAVE A MIN. COVER OF 36" AND SHALL BE INSTALLED IN CONFORMANCE WITH THE NTUA STANDARDS. CEMENT SOLVENT WELDED METHODS ARE NOT ACCEPTABLE.
4. SADDLES SHALL BE BRONZE/BRASS TYPE WITH 1" FIPT TAPPED AND A MIN. 2" BAND CONNECTOR, SIZED FOR THE APPROPRIATE STEEL PIPE SIZED PVC PIPE O.D. OR SHALL BE DOUBLE STRAP STYLE FOR D.I. OR A.C. ON EXISTING 2" PIPING, A TEE SHALL BE USED INSTEAD OF A SADDLE TAP. CONTACT NTUA HEADQUARTERS ENGINEERING ON PIPING SMALLER THAN 2".
5. STATE THE EXISTING PIPE TYPE AND O.D. (e.g. 6.50" SDR-21, PVC PIPE, ASTM D-2241.)
6. PROVIDE THE AS-BUILT TIES AND SWING TIES INFORMATION FOR THE TAP POINT AND OTHER APPURTENANCES INSTALLED.
7. THE WATER METER SHALL BE SET A MAX. OF 24" BELOW THE TOP OF THE METER BOX COVER.
8. THE METER CAN SHALL BE ON STABLE GROUND OR SUPPORTED AT THE METER CAN'S (90°) QUARTER POINTS. THE METER CAN SHALL BE CONTINUOUS TO THE SERVICE LINE DEPTH AND SUPPORTED ABOVE THE SERVICE LINE OR HAVE ACCESS PORTS FOR THE SERVICE LINE ENTRY AND EXIT. THE METER CAN SHALL BE LOCATED JUST BEYOND THE SIDEWALK AT THE PROPERTY LINE OR WITH OWNER'S PERMISSION A MIN. OF 10' FROM THE BUILDING.
9. STATE THE SIZE AND TYPE OF THE PROPOSED TAP POINT AND PIPE TO BE CONNECTED.
10. THE NTUA RECOMMENDED TAP POINT PRESSURE SHALL BE BETWEEN 40-psi AND 70-psi WITH NO APPRECIABLE CHANGE IN ELEVATION BETWEEN THE TAP POINT AND HOME SITE. 1" WATER SERVICE LINES ARE LIMITED TO A MAX. OF 200'. IF THE PRESSURE AT THE HOME SITE IS ABOVE 70-psi, INSTALL THE APPROPRIATE TANDEM COPPERSETTER WITH AN INDIVIDUAL PRV (ITEM 8A).
11. USE FIELD MARKERS WHERE APPROPRIATE AND PROVIDE THE SURFACE DESCRIPTION OF THE TAP POINT, (e.g. OPEN FIELD, GRAVEL ROAD, etc.)
12. IN RURAL AREAS, INSTALL THE CURB STOP AND MARKER POST 3' FROM TAP POINT. IF NOT APPROPRIATE, INSTALL THE FIELD MARKER 3' FROM THE CURB STOP AND THE CURB STOP 3' FROM THE METER. IN URBAN AREAS, INSTALL CURB STOPS BETWEEN BACK OF CURB AND THE METER.
13. SUBMIT CONSTRUCTION COST OF PLANT LISTING, TO INCORPORATE THE CAPITALIZED PORTION OF THE PROJECT (up to the Meter) INTO THE PLANT RECORDS, AS FOLLOWS: A. MATERIAL COST B. LABOR COST C. EQUIPMENT COST. E. TOTAL CONSTRUCTION COST. THE COST OF PLANT SHALL BE ATTACHED TO TRANSFER AGREEMENT AS EXHIBIT "A".

REVISION			
NO.	DATE	BRIEF	BY
1	8/96	WS-1 UPDATE/ACAD DWG.	RKB
2	10/98	WS-1 UPDATE/ACAD DWG.	BM
3	4/02	WS-1 UPDATE/ACAD DWG.	NT
4	10/03	UPDATE ACAD DWG.	LRJ

TITLE: **GENERAL NOTES FOR WATER SERVICE**

SHEET 3 OF 5

Customer' Name & Location

SAP Project No.

Designed by:
NTUA

Drawn By:
RKB

Appr. Engr:

Exhibit no.



Scale:
N.T.S.

Date:
12/85

Date:
8/96

Date:

NTUA STANDARD NO.
WS-1c

ACAD File name
ws-1_notes.dwg