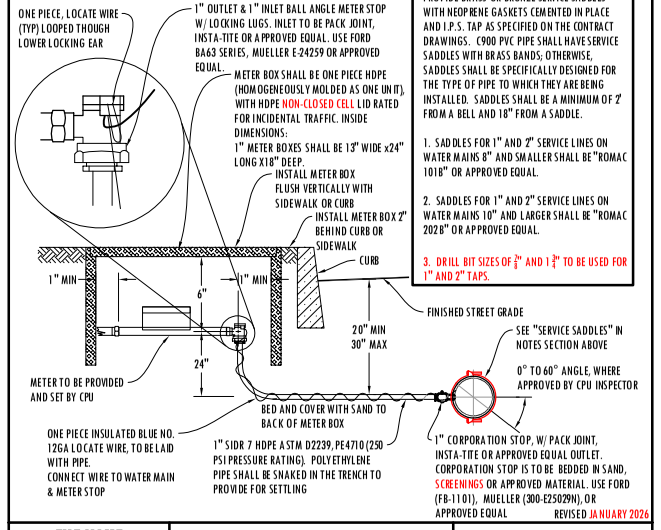
REVISED JANUARY 2025

Clark Public Utilities

CALL 48 HOURS BEFORE YOU DIG 1-800-553-4344 "It's The Law!" NORTHWEST UTILITIES NOTIFICATION CENTER

NOTES:

1. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CLARK PUBLIC UTILITIES (CPU) WATER CONSTRUCTION SPECIFICATIONS, STANDARD DETAILS AND THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT).
2. A WATER UTILITY INSPECTOR SHALL BE AT THE JOB SITE DURING CONSTRUCTION OF ALL WATER FACILITIES. CONTACT 360-992-8022 TWO (2) WORKING DAYS PRIOR TO COMMENCING WORK.
3. WORK WITHIN COUNTY RIGHT-OF-WAY SHALL CONFORM WITH CLARK COUNTY PUBLIC WORKS UTILITY PERMIT REQUIREMENTS AND DETAILS. WORK WITHIN STATE RIGHT-OF-WAY SHALL CONFORM TO WSDOT UTILITY PERMIT REQUIREMENTS AND DETAILS.
4. THE LOCATION OF THE UTILITIES SHALL BE VERIFIED IN ADVANCE TO ALLOW FOR ALIGNMENT ADJUSTMENTS. CALL UTILITY LOCATES TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION (1-800-553-4344).
5. A TAPPING COMPANY APPROVED BY CLARK PUBLIC UTILITIES SHALL BE USED TO MAKE ALL TAPS. 1" AND 2" TAPS MAY BE PERFORMED BY THE CONTRACTOR UPON INSPECTORS APPROVAL.
6. METER BOX ASSEMBLIES SHALL BE ARMORCAST, RAVEN, DFW OR APPROVED EQUAL.
7. NO CONNECTIONS WILL BE ALLOWED TO AN EXISTING SERVICE PRIOR TO AN APPROVED BACTERIOLOGICAL TEST. BACTERIOLOGICAL TEST SHALL PRECEDE PRESSURE TEST.
8. SERVICES SHALL BE PRESSURE TESTED WITH THE MAIN LINE AND BE CAPABLE OF WITH-STANDING THE MAINS TEST PRESSURE.
9. WATER METER BOX SHALL BE PLACED IN NON-PAVED AREAS, OUT OF CONFLICT WITH DRIVEWAYS, LANDSCAPING AND OTHER UTILITIES. ALL METER BOXES PLACED IN CONFLICT AREAS SHALL BE MOVED AT CONTRACTORS EXPENSE.
10. ALL COMPRESSION FITTINGS TO HAVE STAINLESS STEEL INSERTS.



SERVICE SADDLES:

PROVIDE BRASS OR BRONZE SERVICE SADDLES WITH NEOPRENE GASKETS CEMENTED IN PLACE AND I.P.S. TAP AS SPECIFIED ON THE CONTRACT DRAWINGS. C900 PVC PIPE SHALL HAVE SERVICE SADDLES WITH BRASS BANDS; OTHERWISE, SADDLES SHALL BE SPECIFICALLY DESIGNED FOR THE TYPE OF PIPE TO WHICH THEY ARE BEING INSTALLED. SADDLES SHALL BE A MINIMUM OF 2" FROM A BELL AND 18" FROM A SADDLE.

1. SADDLES FOR 1" AND 2" SERVICE LINES ON WATER MAINS 8" AND SMALLER SHALL BE "ROMAC 1018" OR APPROVED EQUAL.

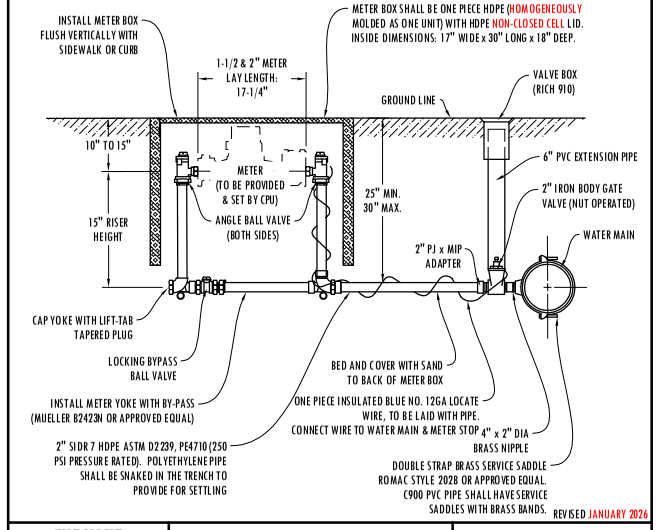
2. SADDLES FOR 1" AND 2" SERVICE LINES ON WATER MAINS 10" AND LARGER SHALL BE "ROMAC 2028" OR APPROVED EQUAL.

3. DRILL BIT SIZES OF $\frac{7}{8}$" AND $1\frac{3}{4}$" TO BE USED FOR 1" AND 2" TAPS.

FILE NAME		STANDARD 1" WATER SERVICE WITH 5/8", 3/4" OR 1" WATER METER	Clark Public Utilities
1W			
SHEET	1 OF 1	STANDARD DETAILS	

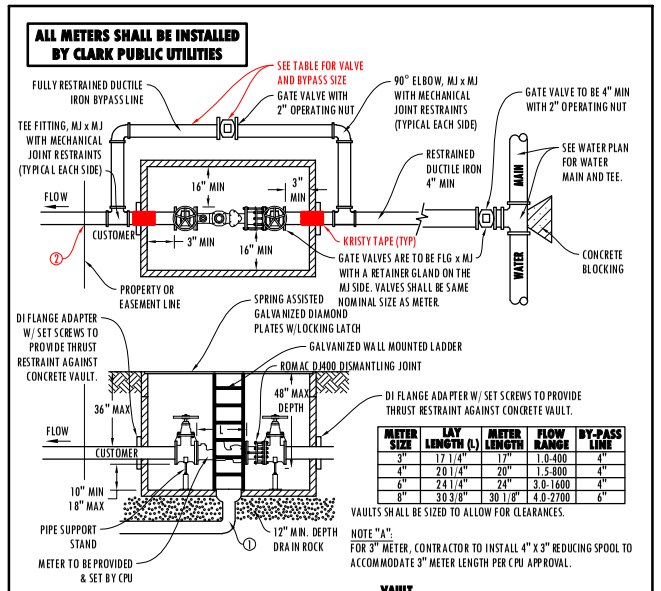
NOTES:

1. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CLARK PUBLIC UTILITIES (CPU) WATER CONSTRUCTION SPECIFICATIONS, STANDARD DETAILS AND THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT).
2. A WATER UTILITY INSPECTOR SHALL BE AT THE JOB SITE DURING CONSTRUCTION OF ALL WATER FACILITIES. CONTACT 360-992-8022 TWO (2) WORKING DAYS PRIOR TO COMMENCING WORK.
3. WORK WITHIN COUNTY RIGHT-OF-WAY SHALL CONFORM WITH CLARK COUNTY PUBLIC WORKS UTILITY PERMIT REQUIREMENTS AND DETAILS. WORK WITHIN STATE RIGHT-OF-WAY SHALL CONFORM TO WSDOT UTILITY PERMIT REQUIREMENTS AND DETAILS.
4. THE LOCATION OF THE UTILITIES SHALL BE VERIFIED IN ADVANCE TO ALLOW FOR ALIGNMENT ADJUSTMENTS. CALL UTILITY LOCATES TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION (1-800-553-4344).
5. A TAPPING COMPANY APPROVED BY CLARK PUBLIC UTILITIES SHALL BE USED TO MAKE ALL TAPS.
6. NO CONNECTIONS WILL BE ALLOWED TO AN EXISTING SERVICE PRIOR TO AN APPROVED BACTERIOLOGICAL TEST. BACTERIOLOGICAL TEST SHALL PRECEDE PRESSURE TEST.
7. SERVICES SHALL BE PRESSURE TESTED WITH THE MAIN LINE AND BE CAPABLE OF WITH-STANDING THE MAINS TEST PRESSURE.
8. ALL COMPRESSION FITTINGS TO HAVE STAINLESS STEEL INSERTS.
9. 1.5" AND 2" WATER METERS REQUIRE PREMISE ISOLATION BACKFLOW PROTECTION. TYPE OF BACKFLOW REQUIRED WILL BE BASED ON THE HIGHEST POTENTIAL HAZARD. UNLESS APPROVED, NO CONNECTIONS SHALL BE MADE BETWEEN THE METER AND PREMISE ISOLATION.



FILE NAME		2" WATER SERVICE WITH 1-1/2" OR 2" WATER METER	Clark Public Utilities
2W			
SHEET	1 OF 1	STANDARD DETAILS	

ALL METERS SHALL BE INSTALLED BY CLARK PUBLIC UTILITIES



METER SIZE	LAY LENGTH (L)	METER LENGTH	FLOW RANGE	BY-PASS LINE
3"	17 1/4"	17"	1.0-400	4"
4"	20 1/4"	20"	1.5-800	4"
6"	24 1/4"	24"	3.0-1600	4"
8"	30 3/8"	30 1/8"	4.0-2700	6"

VAULTS SHALL BE SIZED TO ALLOW FOR CLEARANCES.

NOTE "A":
FOR 3" METER, CONTRACTOR TO INSTALL 4" X 3" REDUCING SPOOL TO ACCOMMODATE 3" METER LENGTH PER CPU APPROVAL.

NOTE:
1. ALL JOINTS SHALL BE RESTRAINED FROM THE MAIN LINE TEE TO THE BYPASS TEE DOWNSTREAM OF THE METER TO PROVIDE FOR METER REMOVAL. PIPE MATERIAL SHALL BE DUCTILE IRON.
2. PRIOR TO METER INSTALLATION, GATE VALVES SHALL BE ALIGNED & SPACED W/ RIGID SPOOL (DRILLED WITH HOLES SO AS NOT TO ALLOW WATER PASSAGE). CONTACT CPU WATER UTILITY FOR DISTANCE BETWEEN METER GATE VALVES PRIOR TO INSTALLATION. (360-992-8022)
3. TEN PIPE DIAMETERS OF STRAIGHT PIPE REQ'D. IN & OUT OF METER.
4. INSTALL VAULT IN SOFT-SCAPE AREA, VERTICALLY FLUSH WITH CURB OR SIDEWALK.
5. IF VAULT MUST BE LOCATED IN A WALKING AREA, A NON-SKID TRAFFIC RATED LID SHALL BE REQUIRED.

VAULT

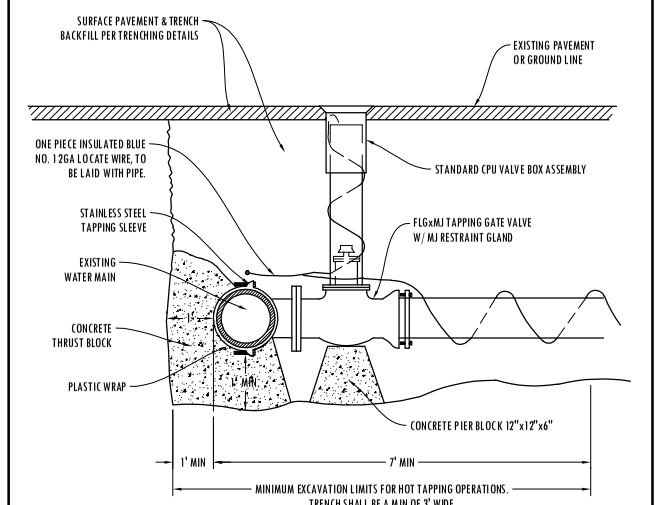
VAULTS SHALL BE PRE-APPROVED PRIOR TO INSTALLATION OLDCASTLE PRECAST VAULTS (OR APPROVED EQUAL):
3" & 4": #575-LA
6" & 8": #676-WA

① A 4-INCH DRAIN LINE SHALL BE EXTENDED TO AN APPROVED DRAINAGE OUTLET. IN LOCATIONS W/ NO FEASIBLE DRAINAGE SYSTEM, DRAIN MAY BE CONNECTED TO A CPU APPROVED DRYWELL SYSTEM.

② 3", 4", 6" AND 8" WATER METERS REQUIRE PREMISE ISOLATION BACKFLOW PROTECTION. TYPE OF BACKFLOW REQUIRED WILL BE BASED ON THE HIGHEST POTENTIAL HAZARD. UNLESS APPROVED, NO CONNECTIONS SHALL BE MADE BETWEEN THE METER AND PREMISE ISOLATION.

REVISED JANUARY 2026

FILE NAME		3", 4", 6" AND 8" STANDARD METER INSTALLATION DETAILS	Clark Public Utilities
3W			
SHEET	1 OF 1	STANDARD DETAILS	

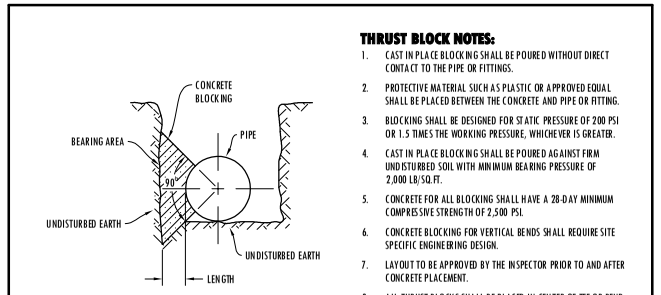


NOTES:

1. LAYOUT AND TAP LOCATION SHALL BE APPROVED BY THE CPU INSPECTOR PRIOR TO EXCAVATING. THE TAPPING COMPANY SHALL CONTACT THE CPU INSPECTOR TWO(2) WORKING DAYS IN ADVANCE PRIOR TO SCHEDULING THE HOT TAP.
2. HOT TAPS MAY ONLY BE DONE BY A CPU APPROVED TAPPING CONTRACTOR
3. THE CPU INSPECTOR SHALL BE AT THE WORKSITE DURING TAPPING OPERATIONS.
4. THRUST BLOCK SHALL BE POURED AGAINST FIRM UNDISTURBED SOIL. USE PLASTIC OR OTHER PROTECTIVE MATERIAL BETWEEN PIPE FITTINGS AND THRUST BLOCK.
5. TRENCH EXCAVATIONS OVER 4' WILL REQUIRE SHORING OR OTHER MEASURES CONSISTENT WITH APPLICABLE LOCAL, STATE OR FEDERAL SAFETY CODES.
6. ALLOW MINIMUM 24 HOURS FOR CONCRETE THRUST BLOCK TO CURE PRIOR TO CONNECTING TO PIPING.

REVISED JANUARY 2026

FILE NAME		STANDARD HOT TAP	Clark Public Utilities
4W			
SHEET	1 OF 1	STANDARD DETAILS	



THRUST BLOCK NOTES:

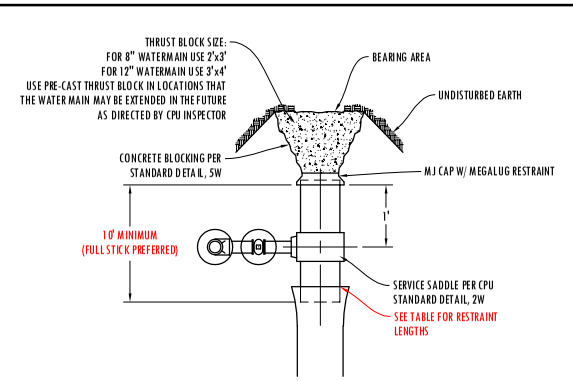
1. CAST IN PLACE BLOCKING SHALL BE POURED WITHOUT DIRECT CONTACT TO THE PIPE OR FITTINGS.
2. PROTECTIVE MATERIAL SUCH AS PLASTIC OR APPROVED EQUAL SHALL BE PLACED BETWEEN THE CONCRETE AND PIPE OR FITTING.
3. BLOCKING SHALL BE DESIGNED FOR STATIC PRESSURE OF 200 PSI OR 1.5 TIMES THE WORKING PRESSURE, WHICHEVER IS GREATER.
4. CAST IN PLACE BLOCKING SHALL BE POURED AGAINST FIRM UNDISTURBED SOIL WITH MINIMUM BEARING PRESSURE OF 2,000 LB/SQ.FT.
5. CONCRETE FOR ALL BLOCKING SHALL HAVE A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI.
6. CONCRETE BLOCKING FOR VERTICAL BENDS SHALL REQUIRE SITE SPECIFIC ENGINEERING DESIGN.
7. LAYOUT TO BE APPROVED BY THE INSPECTOR PRIOR TO AND AFTER CONCRETE PLACEMENT.
8. ALL THRUST BLOCKS SHALL BE PLACED IN CENTER OF TEE OR BEND.
9. THESE DETAILS IN NO WAY LIMIT THE SIZE OR LOCATION OF ADDITIONAL BLOCKING WHEN REQUESTED BY THE UTILITY.
10. THRUST BLOCKS ON WATER MAINS AND FITTINGS 16" OR LARGER SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER AND APPROVED BY CLARK PUBLIC UTILITIES PRIOR TO CONSTRUCTION.

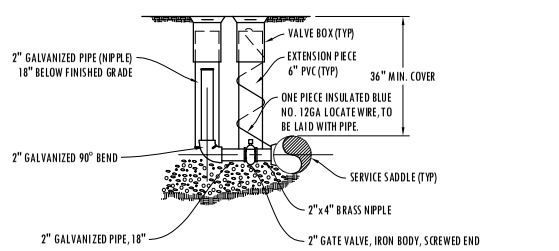
PIPE SIZE	HORIZ. FITTINGS (BENDS)	BEARING AREA (SF)	MINIMUM BLOCK SIZE (FT.)	MINIMUM LENGTH OF BLOCKING (FT.-IN.)
4"	TEE	1.9	1.5' x 1.5'	0'-6"
	90°	2.7	2.0' x 2.0'	0'-6"
	45°	1.4	1.5' x 1.5'	0'-6"
	22-1/2°	0.7	1.5' x 1.5'	0'-6"
6"	TEE	2.8	2.0' x 2.0'	0'-6"
	90°	4.0	2.0' x 2.0'	0'-6"
	45°	2.2	1.5' x 1.5'	0'-6"
	22-1/2°	1.1	1.5' x 1.5'	0'-6"
	11-1/4°	0.8	1.5' x 1.5'	0'-6"
8"	TEE	5.0	2.0' x 3.0'	0'-8"
	90°	7.1	3.0' x 4.0'	0'-8"
	45°	3.8	2.0' x 2.0'	0'-6"
	22-1/2°	2.0	1.5' x 1.5'	0'-6"
	11-1/4°	1.5	1.5' x 1.5'	0'-6"
10"	TEE	7.9	3.0' x 4.0'	0'-8"
	90°	11.1	3.0' x 4.0'	0'-8"
	45°	6.0	3.0' x 4.0'	0'-8"
	22-1/2°	3.1	2.0' x 2.0'	0'-6"
	11-1/4°	2.3	2.0' x 2.0'	0'-6"
12"	TEE	11.3	3.0' x 4.0'	0'-8"
	90°	16.0	4.0' x 4.0'	1'-0"
	45°	8.7	3.0' x 4.0'	0'-8"
	22-1/2°	4.4	2.0' x 3.0'	0'-8"
	11-1/4°	3.3	2.0' x 2.0'	0'-6"

TABLE ASSUMES SOIL BEARING OF 2,000 LB/SQ.FT AND DESIGN WORKING PRESSURE OF 200 PSI

REVISED JANUARY 2026

FILE NAME		THRUST BLOCK	Clark Public Utilities
5W			
SHEET	1 OF 1	STANDARD DETAILS	





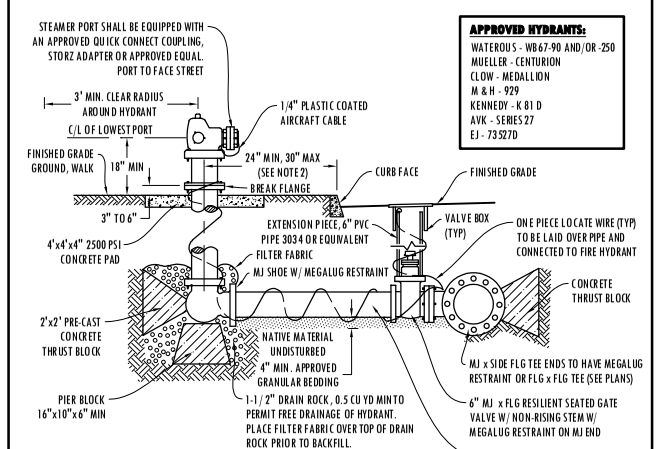
RESTRAINED PIPE LENGTHS					
PIPE TYPE	4"	6"	8"	10"	12"
PVC	40	56	74	90	107
DUCTILE IRON	29'	41'	55'	66'	70'

REVISED JANUARY 2026

FILE NAME		STANDARD END BLOW-OFF ASSEMBLY	Clark Public Utilities
6W			
SHEET	1 OF 1	STANDARD DETAILS	

NOTES:

1. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CLARK PUBLIC UTILITIES (CPU) WATER CONSTRUCTION SPECIFICATIONS, STANDARD DETAILS AND THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT).
2. A CPU WATER UTILITY INSPECTOR SHALL BE AT THE JOB SITE DURING CONSTRUCTION OF ALL WATER FACILITIES. CONTACT 360-992-8022 TWO (2) WORKING DAYS PRIOR TO COMMENCING WORK.
3. WORK WITHIN COUNTY RIGHT-OF-WAY SHALL CONFORM WITH CLARK COUNTY PUBLIC WORKS UTILITY PERMIT REQUIREMENTS AND DETAILS. WORK WITHIN STATE RIGHT-OF-WAY SHALL CONFORM TO WSDOT UTILITY PERMIT REQUIREMENTS AND DETAILS.



APPROVED HYDRANTS:

WATEROUS - WB67-90 AND/OR -250
MUELLER - CENTURION
CLOW - MEDALLION
M & H - 929
KENNEDY - K81D
AVK - SERIES 27
EJ - 73527D

FIRE HYDRANT NOTES:

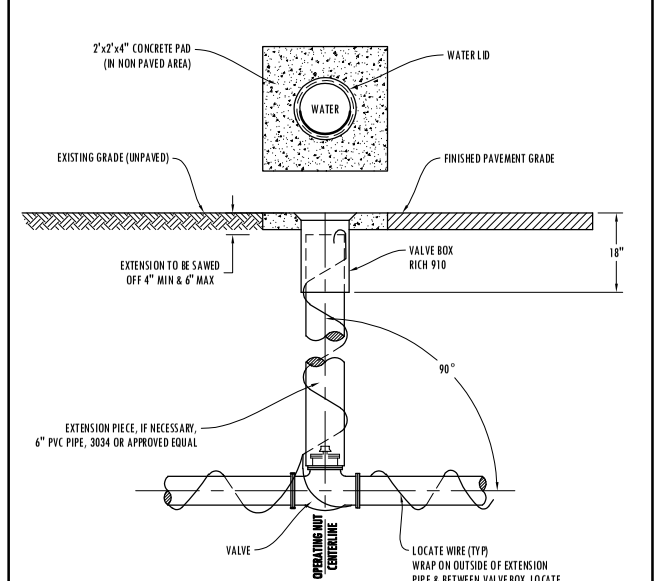
1. FIRE HYDRANT INSTALLATIONS SHALL BE INSPECTED PRIOR TO BACKFILLING.
2. WHERE HYDRANTS ARE SET BEHIND SIDEWALK OR CURB, DISTANCE FROM BACK OF SIDEWALK OR CURB TO HYDRANT C/L SHALL BE 24" MIN.- 30" MAX.
3. FIRE HYDRANTS SHALL BE SHOP PAINTED PRIOR TO INSTALLATION W/ STANDARD A.W.W.A, GLOSS B, YELLOW
4. NO DOMESTIC OR FIRE PROTECTION SERVICE SHALL BE TAPPED OFF OF THE FIRE HYDRANT PIPING.
5. FIRE HYDRANT MAINS SHALL BE 8" MIN. A 6" MAIN CAN BE USED FOR A DEAD-END RUN OF LESS THAN 50' TO A FIRE HYDRANT SUBJECT TO ADEQUATE FIRE FLOW.
6. THE LOCATION OF THE UTILITIES SHALL BE VERIFIED IN ADVANCE TO ALLOW FOR ALIGNMENT ADJUSTMENTS. CALL UTILITY LOCATES TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION (1-800-553-4344).
7. LOCATE WIRE SHALL BE INSULATED BLUE, NO. 12 GA. SOFT DRAWN SOLID COPPER.

REVISED JANUARY 2026

FILE NAME		STANDARD FIRE HYDRANT ASSEMBLY	Clark Public Utilities
7W			
SHEET	1 OF 1	STANDARD DETAILS	

NOTES:

1. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CLARK PUBLIC UTILITIES (CPU) WATER CONSTRUCTION SPECIFICATIONS, STANDARD DETAILS AND THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT).
2. IF THE OPERATING NUT HAS A DEPTH OF 5.0' OR MORE, A VALVE EXTENSION SHALL BE INSTALLED. OPERATING NUT SHALL NOT EXTEND INTO THE ROADWAY BASE ROCK.



REVISED JANUARY 2026

FILE NAME		STANDARD VALVE BOX ASSEMBLY	Clark Public Utilities
8W			
SHEET	1 OF 1	STANDARD DETAILS	

FILE NAME	WATER MAIN INSTALLATION	STANDARD DETAILS
CPU W-SD		SHEET 1 OF 4