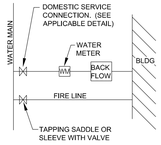
PROJECT REFERENCE NO.	SHEET NO.
U-4405	UC-03G
DESIGNED BY: AMH	
DRAWN BY: AMH/AB	
CHECKED BY: AMH	
APPROVED BY: BRO	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	Oct 3 2021 10:55 PM
UTILITIES ENGINEERING SEC. PHONE:(919)707-6690 FAX:(919)250-4151	UTILITY CONSTRUCTION PLANS ONLY

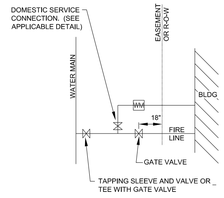
NORTH CAROLINA PROFESSIONAL SEAL 024448 ENGINEER BRYAN R. ODOM

UTILITY CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNTIL ALL SIGNATURES ARE COMPLETED



TYPICAL FIRE LINE AND DOMESTIC SERVICE LAYOUT



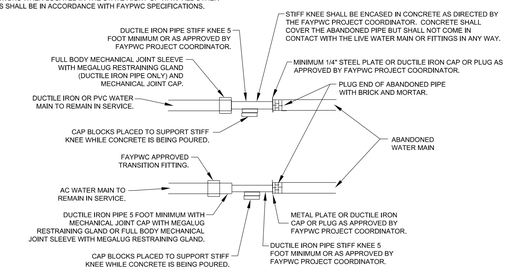
OPTIONAL FIRE LINE AND DOMESTIC SERVICE LAYOUT (AS APPROVED BY FAYPWC)

NOTES:
1. DOMESTIC BACKFLOW MAY BE LOCATED INSIDE THE BUILDING.
2. THE FIRE LINE SHALL HAVE A BACKFLOW DEVICE WITHIN 100 FEET OF THE MAIN.
3. REFER TO THE CROSS CONNECTION CONTROL ORDINANCE FOR ADDITIONAL INFORMATION ON BACKFLOW REQUIREMENTS.
4. REFER TO APPROPRIATE METER BOX DETAIL FOR ADDITIONAL INFORMATION.
5. IF THE FIRE LINE HAS A DOMESTIC OR IRRIGATION SERVICE, BOTH THE FIRE LINE AND SERVICE SHALL BE TESTED AND DISINFECTED, REGARDLESS OF THE LENGTH.
6. IF THE FIRE LINE DOES NOT HAVE ANY SERVICES CONNECTED TO IT, DISINFECTION IS ONLY REQUIRED IF THE TOTAL LENGTH OF THE FIRE LINE IS GREATER THAN 20 LINEAR FEET (i.e., ONE (1) FULL JOINT OF PIPE.)
7. IF THE FIRE LINE IS GREATER THAN 20 LINEAR FEET, THEN IT SHALL BE PRESSURE TESTED.
8. ALL TESTING AND DISINFECTION SHALL BE DONE IN ACCORDANCE WITH FAYPWC REQUIREMENTS.
9. DOMESTIC TAPS OFF 2" FIRE LINES WILL NOT BE ALLOWED.
10. NO MORE THAN ONE (1) TAP SHALL BE MADE OFF THE FIRE LINE, REGARDLESS OF THE TAP SIZE.
11. METER BANKS SHALL NOT BE TAPPED OFF THE FIRELINE.
12. DETAIL FOR INFORMATIONAL PURPOSES ONLY. ACTUAL LAYOUT TO BE REVIEWED AND APPROVED BY FAYPWC.

FIRE LINE SERVICES N.T.S.	FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.	NO.	DATE	REVISION
SHEET NO. 1 OF 1 — DWG. NO. W.21 — DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	10/17	ADDED NOTES 4, 5, 6, 7, 8.
DATE: JAN. 01, 2021 — APPROVED BY: J.E.G.		2	10/19	ADDED NOTES 9, 10 AND 11.

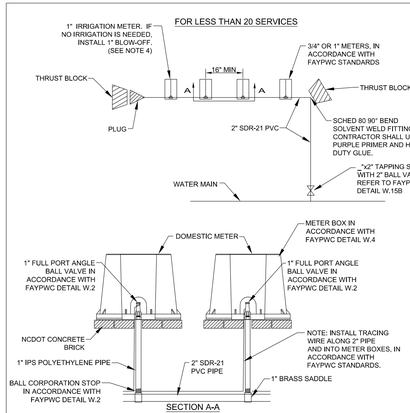
W21-STANDARD-TAPS.dwg

NOTES:
1. KILL OUT SHALL BE DONE A MINIMUM OF 5 FEET FROM ANY FITTING ON THE EXISTING WATER MAIN THAT IS TO REMAIN IN SERVICE.
2. IRON PIPE SHALL BE 4" DIAMETER FOR MAINS 12" OR LESS. UTILIZE 8" PIPE OR LARGER AS DIRECTED BY THE FAYPWC PROJECT COORDINATOR FOR ALL MAINS LARGER THAN 12".
3. ALLOW CONCRETE TO SET-UP PRIOR TO PLACING BACKFILL.
4. VOLUME OF CONCRETE FOR THRUST BLOCK SHALL BE IN ACCORDANCE WITH FAYPWC STANDARD DETAIL W.17.
5. ALL OUTAGES SHALL BE COORDINATED WITH THE FAYPWC PROJECT COORDINATOR.
6. PIPE SHALL BE GROUT FILLED OR REMOVED IN ACCORDANCE WITH NCDOT SPECIFICATIONS WHEN LOCATED IN THE STATE RIGHT-OF-WAY. ALL OTHER INSTANCES SHALL BE IN ACCORDANCE WITH FAYPWC SPECIFICATIONS.



WATER MAIN KILL-OUT N.T.S.	FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.	NO.	DATE	REVISION
SHEET NO. 1 OF 1 — DWG. NO. W.22 — DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT			
DATE: JAN. 01, 2021 — APPROVED BY: J.E.G.				

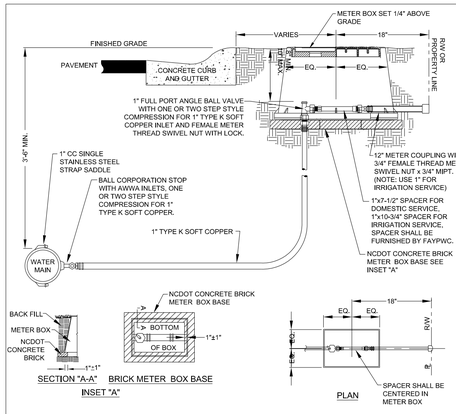
W22-WATERMAIN-KILLOUT.dwg



NOTES:
1. ALL MATERIALS TO BE APPROVED BY FAYPWC.
2. SERVICE LATERAL SIZE 1" IPS PVC PETHYLENE UNLESS OTHERWISE SPECIFIED.
3. ALL FITTINGS AND MATERIALS FROM 2" LATERAL TO AND INTO METER BOX SHALL BE IN ACCORDANCE WITH FAYPWC DETAIL W.2.
4. THE 1" "BLOW-OFF" SHALL BE A STANDARD 1" TAP UP TO AND INCLUDING THE ANGLE BALL VALVE. NO OTHER FITTINGS ARE REQUIRED (IE: SPACER, TAILPIECE). THE METER BOX SHALL BE SET IN ACCORDANCE WITH FAYPWC DETAIL W.2.
5. SHOULD THERE BE MORE THAN 20 SERVICES, THE 2" LATERAL SHALL BE LOOPED (IE: NO PLUG) TO THE MAIN. IN SUCH INSTANCES, NO 1" BLOW-OFF IS REQUIRED.
6. WATER MAIN AND LATERAL SHALL PASS HYDROSTATIC (200PSI) AND STERILIZATION TESTS.
7. CENTER OF METER BOXES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM THE BUILDING, UNLESS OTHERWISE APPROVED BY FAYPWC.
8. METER BOXES LOCATED IN PAVED AREAS SHALL BE IN ACCORDANCE WITH FAYPWC DETAIL W.4B.
9. LATERAL SHALL NOT BE BACKFILLED UNTIL INSPECTED AND APPROVED BY FAYPWC PROJECT COORDINATOR.
10. SHOULD IT BE NECESSARY TO CRIMP THE WATER SERVICE LATERAL, A FULL CIRCLE REPAIR CLAMP SHALL BE PLACED ON THE CRIMPED AREA.
11. SHOULD THE LENGTH OF THE LINE EXCEED 150 FEET, OR AS APPROVED BY FAYPWC, THE LINE SHALL BE LOOPED.

WATER SERVICE DETAILS FOR MULTI-UNIT BUILDINGS N.T.S.	FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.	NO.	DATE	REVISION
SHEET NO. 1 OF 1 — DWG. NO. W.23 — DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	07/16	REVISED TITLE, NOTES
DATE: JAN. 01, 2021 — APPROVED BY: J.E.G.		2	07/17	REVISED NOTES

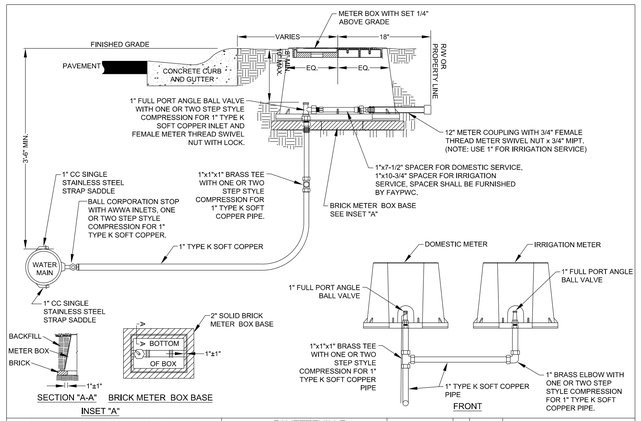
W23-SERVICE-FOR-MULTI-UNIT-BUILDINGS.dwg



NOTES:
1. ALL MATERIALS TO BE APPROVED BY FAYPWC.
2. SERVICE LATERAL SIZE 1" TYPE K SOFT COPPER UNLESS OTHERWISE SPECIFIED.
3. WATER SERVICE LOCK VALVE TO BE LOCATED 18" FROM SANITARY SEWER CLEAN-OUT STACK WHEN INSTALLED IN SAME DITCH.
4. WHEN INSTALLED IN A PAVED AREA, METER BOX TO BE SET 1/4" ABOVE FINISHED PAVEMENT GRADES AND PAVEMENT FEATHERED TO TOP OF BOX TO PROVIDE DRAIN AWAY FROM BOX.
5. COMPOSITE METER BOXES SHALL BE USED IN TRAFFIC AREAS SEE FAYPWC DETAIL W.4B.
6. INSTALL NCDOT CONCRETE BRICK BASE WITH NO GAPS, DO NOT LAY BRICK ON PIPE. SEE INSET "A".
7. WHERE ASPHALT CURB OR STRIP PAVEMENT EXISTS, THE LOCATION OF BOX SHALL BE AS DIRECTED BY FAYPWC REPRESENTATIVE.
8. DISTANCE FROM TOP OF LOCK VALVE OPERATING STEM TO TOP OF BOX SHALL BE 8" MINIMUM TO 10" MAXIMUM.
9. RESIDENTIAL METER BOX SHALL BE SET 18" FROM R/W TO CENTERLINE OF METER BOX PERPENDICULAR TO THE RIGHT-OF-WAY.
10. COMMERCIAL METER BOX LOCATION SHALL BE AS APPROVED (PREFER NO METER BE INSTALLED LESS THAN 5' FROM BUILDING TO EDGE OF BOX).
11. LATERAL SHALL BE CENTERED ON LOT UNLESS OTHERWISE NOTED.
12. LATERAL SHALL NOT BE BACKFILLED UNTIL INSPECTED AND APPROVED BY FAYPWC PROJECT COORDINATOR.
13. WATER MAIN AND LATERAL SHALL PASS HYDROSTATIC AND STERILIZATION TESTS.
14. SHOULD IT BE NECESSARY TO CRIMP THE WATER SERVICE LATERAL, A FULL CIRCLE REPAIR CLAMP SHALL BE PLACED ON THE CRIMPED AREA.

1" COPPER WATER SERVICE LATERAL N.T.S.	FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.	NO.	DATE	REVISION
SHEET NO. 1 OF 1 — DWG. NO. W.24 — DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	2	09/05	VALVE CHANGE, ADD NOTE 16
DATE: JAN. 01, 2021 — APPROVED BY: J.E.G.		3	07/06	RESIZED METER COUPLING
		4	07/17	RESIZED NOTES

W24-COPPER-SERVICE-LATERAL.dwg



1" SPLIT WATER SERVICE LATERAL FOR TYPE K SOFT COPPER PIPE N.T.S.	FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.	NO.	DATE	REVISION
SHEET NO. 1 OF 2 — DWG. NO. W.25 — DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	05/05	VALVE CHANGE
DATE: JAN. 01, 2021 — APPROVED BY: J.E.G.		2	09/05	VALVE CHANGE, ADD NOTE 17
		3	07/06	ADDED FRONT VIEW AND MOVED NOTES TO SHEET 2

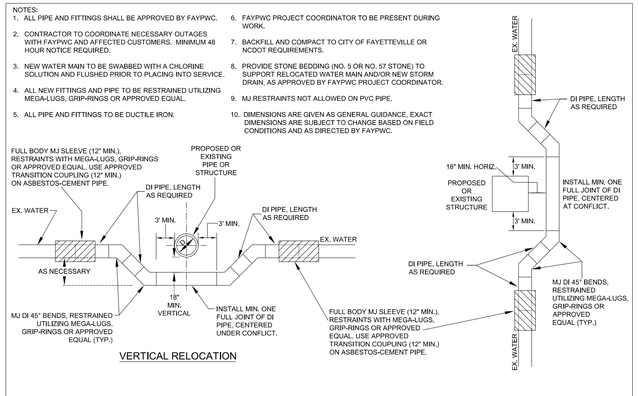
W25-COPPER-SPLIT-WLAT.dwg

NOTES:
1. ALL MATERIALS TO BE APPROVED BY FAYPWC.
2. SERVICE LATERAL SIZE 1" TYPE K SOFT COPPER PIPE UNLESS OTHERWISE SPECIFIED.
3. WATER SERVICE LOCK VALVE TO BE LOCATED 18" FROM SANITARY SEWER CLEANOUT STACK WHEN INSTALLED IN SAME DITCH
4. WHEN INSTALLED IN A PAVED AREA, METER BOX TO BE SET 1/4" ABOVE FINISHED PAVEMENT GRADES AND PAVEMENT FEATHERED TO TOP OF BOX TO PROVIDE DRAIN AWAY FROM BOX.
5. COMPOSITE METER BOXES SHALL BE USED IN TRAFFIC AREAS (SEE PWC DETAIL W.4B)
6. INSTALL NCDOT CONCRETE BRICK BASE WITH NO GAPS, DO NOT LAY BRICK ON PIPE. SEE INSET "A".
7. WHERE ASPHALT CURB OR STRIP PAVEMENT EXIST, THE LOCATION OF BOX SHALL BE AS DIRECTED BY FAYPWC REPRESENTATIVE.
8. DISTANCE FROM TOP OF LOCK VALVE OPERATING STEM TO TOP OF BOX SHALL BE 8" MINIMUM TO 10" MAXIMUM.
9. RESIDENTIAL METER BOX SHALL BE SET 18" FROM R/W TO CENTERLINE OF METER BOX PERPENDICULAR TO THE RIGHT-OF-WAY.
10. COMMERCIAL METER BOX LOCATION SHALL BE AS APPROVED BY FAYPWC PROJECT COORDINATOR.
11. LATERAL SHALL BE CENTERED ON LOT UNLESS OTHERWISE NOTED.
12. LATERAL SHALL NOT BE BACKFILLED UNTIL INSPECTED AND APPROVED BY FAYPWC PROJECT COORDINATOR.
13. WATER MAIN AND LATERAL SHALL PASS HYDROSTATIC AND STERILIZATION TESTS.
14. SHOULD IT BE NECESSARY TO CRIMP THE WATER SERVICE LATERAL, A FULL CIRCLE REPAIR CLAMP SHALL BE PLACED ON THE CRIMPED AREA.

NOTES FOR 1" SPLIT WATER SERVICE LATERAL FOR TYPE K SOFT COPPER PIPE	FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.	NO.	DATE	REVISION
SHEET NO. 2 OF 2 — DWG. NO. W.25 — DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	07/06	ADDED FRONT VIEW AND MOVED NOTES TO SHEET 2
DATE: JAN. 01, 2021 — APPROVED BY: J.E.G.		2	07/17	REVISED NOTES

W25-COPPER-SPLIT-WLAT.dwg

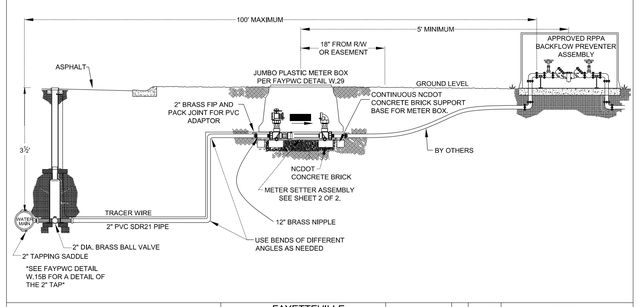
NOTES:
1. ALL PIPE AND FITTINGS SHALL BE APPROVED BY FAYPWC.
2. CONTRACTOR TO COORDINATE NECESSARY OUTAGES WITH FAYPWC AND AFFECTED CUSTOMERS. MINIMUM 48 HOUR NOTICE REQUIRED.
3. NEW WATER MAIN TO BE SWABBED WITH A CHLORINE SOLUTION AND FLUSHED PRIOR TO PLACING INTO SERVICE.
4. ALL NEW FITTINGS AND PIPE TO BE RESTRAINED UTILIZING MEGA-LUGS, GRIP-RINGS OR APPROVED EQUAL.
5. ALL PIPE AND FITTINGS TO BE DUCTILE IRON.
6. FAYPWC PROJECT COORDINATOR TO BE PRESENT DURING WORK.
7. BACKFILL AND COMPACT TO CITY OF FAYETTEVILLE OR NCDOT REQUIREMENTS.
8. PROVIDE STONE BEDDING (NO. 5 OR NO. 57 STONE) TO SUPPORT RELOCATED WATER MAIN AND/OR NEW STORM DRAIN, AS APPROVED BY FAYPWC PROJECT COORDINATOR.
9. MJ RESTRAINTS NOT ALLOWED ON PVC PIPE.
10. DIMENSIONS ARE GIVEN AS GENERAL GUIDANCE, EXACT DIMENSIONS ARE SUBJECT TO CHANGE BASED ON FIELD CONDITIONS AND AS DIRECTED BY FAYPWC.



PIPE RELOCATION DETAIL N.T.S.	FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.	NO.	DATE	REVISION
SHEET NO. 1 OF 1 — DWG. NO.: W.26 — DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	01/12	REVISED NOTES, ADDED HORIZONTAL RELOCATION
DATE: JAN. 01, 2021 — APPROVED BY: J.E.G.				

W26-PIPE-RELOCATION-DETAIL.dwg

NOTES:
1. ALL MATERIALS SHALL BE APPROVED BY FAYPWC.
2. FOR USE WITH A 1-1/2" OR 2" IRRIGATION METER.
3. LOCATION OF BOX SHALL BE AS DETERMINED BY FAYPWC PROJECT COORDINATOR. IN NO CASE SHALL BOX BE INSTALLED CLOSER THAN 5' TO BUILDING.
4. MINIMUM 5' BETWEEN THE METER AND THE BACKFLOW PREVENTER. MAXIMUM 100' FROM THE MAIN TO THE BACKFLOW PREVENTER.
5. IF THE METER BOX IS LOCATED LESS THAN 5' AWAY FROM THE MAIN, THE 2" PIPING SHALL BE BRASS FROM THE TAP TO THE METER.
6. WATER LATERAL SHALL BE INSPECTED AND APPROVED BY FAYPWC PROJECT COORDINATOR PRIOR TO BACKFILL.
7. INSTALLATION SHALL BE IN ACCORDANCE WITH FAYPWC STANDARDS.
8. CONTRACTOR SHALL INSTALL TRACING WIRE INTO METER BOX. A MINIMUM OF 2' OF WIRE SHALL BE IN BOX.



2" IRRIGATION LATERAL N.T.S.	FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.	NO.	DATE	REVISION
SHEET NO. 1 OF 2 — DWG. NO. W.28 — DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT	1	07/17	REVISED NOTES, ADDED SHEET 2
DATE: JAN. 01, 2021 — APPROVED BY: JEG				

W28-2IN-IRRIG-LAT.DWG

UTILITY REV. - JULY 24,2018 - REVISIONS TO DETAIL SHEETS

5/14/99

01-OCT-2021 09:24
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