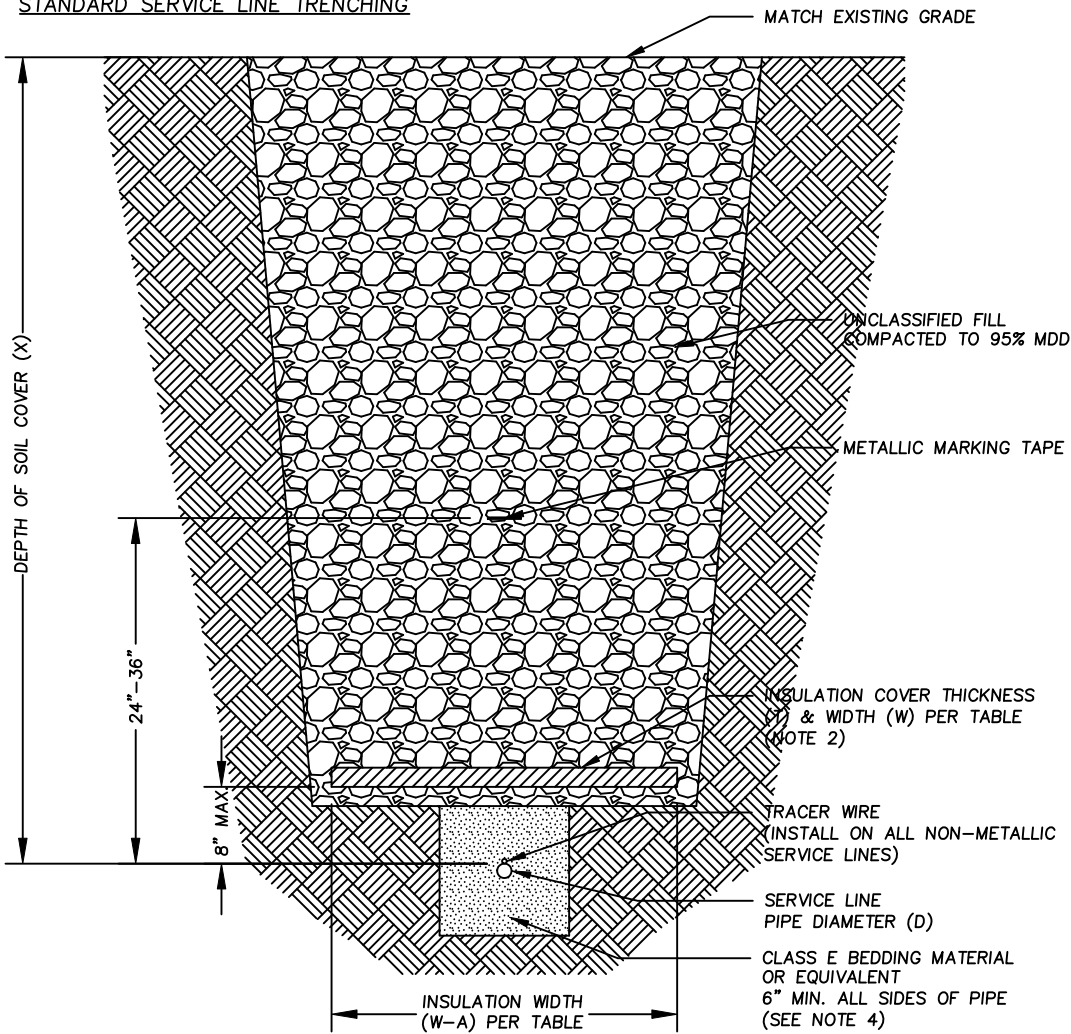
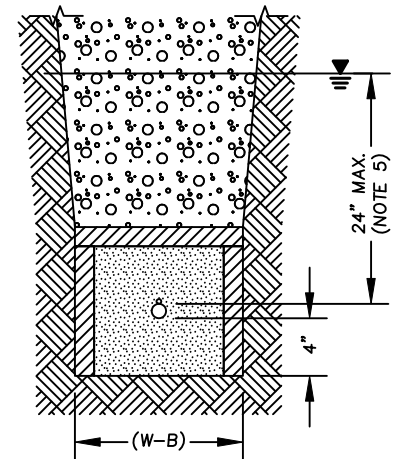


ALTERNATIVE A:
STANDARD SERVICE LINE TRENCHING



ALTERNATIVE B:
INSULATION ENCASEMENT



D1 TYPICAL SERVICE CONNECTION TRENCH SECTION
SCALE: NTS

NOTES:

- CONTRACTOR MAY SELECT BETWEEN ALTERNATIVE A (SHEET INSULATION) AND ALTERNATIVE B (INSULATION ENCASEMENT) AS SITE CONDITIONS ALLOW. ALTERNATIVE INSULATION CONFIGURATIONS MAY BE APPROVED AT THE DISCRETION OF THE UTILITY.
- INSULATION SHALL BE RIGID BOARD EPS CONFORMING TO ASTM C578 TYPE VII OR APPROVED EQUIVALENT. USE OF XPS IS NOT PERMITTED. INSULATION MUST HAVE A MINIMUM RATED COMPRESSIVE STRENGTH OF 60 PSI OR GREATER AND A MINIMUM THERMAL RATING OF R-18 OR GREATER PER 4" OF FOAM. INSULATION SHALL NOT BE BURIED GREATER THAN 8" ABOVE THE PIPE.
- BACKFILL MATERIAL SHALL BE COMPACTED IN 18" LIFTS TO 95% MDD BEGINING AT 4 FEET OF FILL ABOVE PIPE ELEVATION.
- PIPE BEDDING MATERIAL SHALL BE CLASS E MATERIAL OR 1/2" MINUS SAND CONFORMING TO AASHTO CLASSIFICATION A-1 OR A-3 AND NOT CONTAINING MORE THAN 12% FINES PASSING #200 SIEVE. BEDDING MATERIAL SHALL BE FREE OF COBBLES, ICE, CLAY, ORGANIC MATER OR OTHER DELETERIOUS MATERIAL.
- IF THE GROUNDWATER TABLE IS ENCOUNTERED ABOVE THE TARGET DEPTH, ALTERNATIVE B SHALL BE USED. THE WATER LINE SHALL NOT BE BURIED MORE THAN 24" BELOW THE WATER TABLE UNLESS BY EXCEPTION OF THE UTILITY IN AREAS KNOWN TO HAVE DYNAMIC GROUNDWATER FLUCTUATION.
- MINIMUM DEPTH TO BURY UNDER NON-DRIVEN WAYS IS 5 FEET. MINIMUM DEPTH TO BURY UNDER

ALTERNATIVE A - INSULATION DIMENSIONS

	NON-DRIVEN WAYS				DRIVEN WAYS		
X (ft)	5'	6'	7'	8'	8'	9'	10'
T (in)	4"	2"	2"	NR	2"	2"	NR
D (in)	W-A				W-A		
3/4"-2"	5'	3'	2'	NR	4'	2'	NR
>2"-6"	6'	4'	2'	NR	4'	4'	NR
>6"	7'	5'	3'	NR	4'	4'	NR

NR: INSULATION NOT REQUIRED

ALTERNATIVE B - INSULATION DIMENSIONS

	NON-DRIVEN WAYS				DRIVEN WAYS		
X (ft)	5'	6'	7'	8'	8'	9'	10'
T (in)	4"	2"	2"	NR	2"	2"	NR
D (in)	W-B				W-B (ft)		
3/4"-2"	2'	2'	2'	NR	2'	2'	NR
>2"-6"	2'	2'	2'	NR	2'	2'	NR
>6"	2'	2'	2'	NR	2'	2'	NR

NR: INSULATION NOT REQUIRED

D1

DESIGN: OM
DRAWN: OM
CHECKED: DK
DATE: 3/16/23
REV./DATE:

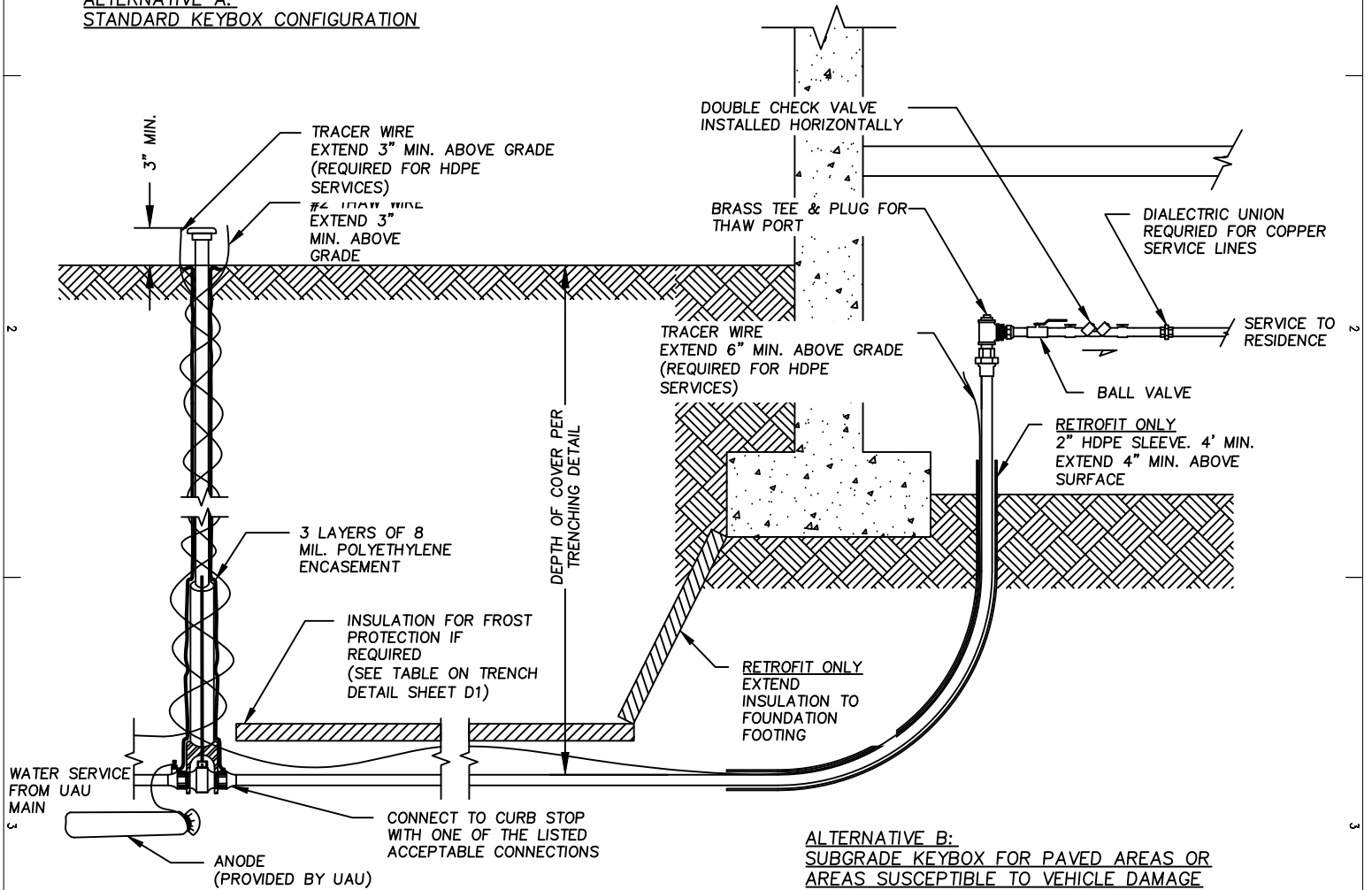
SERVICE CONNECTION
STANDARD DETAIL

SERVICE LINE
TRENCHING

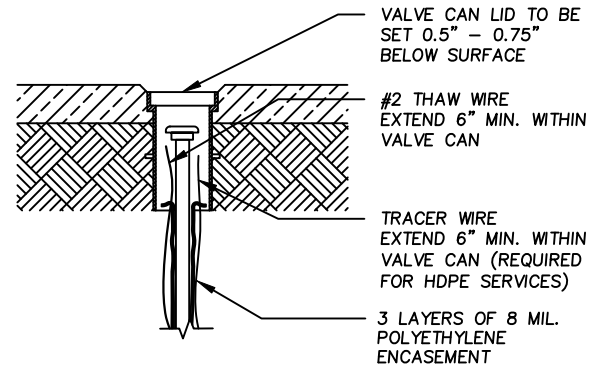
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UTILITIES

PO BOX 233368, Anchorage AK, 99523 UnifiedAKU.com
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**ALTERNATIVE A:
STANDARD KEYBOX CONFIGURATION**



**ALTERNATIVE B:
SUBGRADE KEYBOX FOR PAVED AREAS OR
AREAS SUSCEPTIBLE TO VEHICLE DAMAGE**



D2 RESIDENTIAL SERVICE CONNECTION
SCALE: NTS

Approved Materials:

1. Plastic coated Type K Copper
2. SDR11 200 psi rated HDPE PE7410

Approved End Connection:

1. AWWA C800 compliant Pack Joint style compression fitting (stainless steel insert required for plastic pipe)
2. Polly-cam style threaded HDPE transition (lead free brass or stainless steel)
3. Flare adapter HDPE transition AWWA C800 compliant
4. Flare fitting (Type K Copper)

Approved Joining Methods:

1. HDPE Butt Fusion (1.5" and larger)
2. HDPE Socket Fusion (< 1.5")
3. AWWA C800 compliant Pack Joint Style compression fittings (stainless steel insert required for plastic pipe)
4. AWWA C800 compliant Flare fitting 3 part union (Type K Copper) wrapped in viscotac.
5. Silver solder (Type K Copper)

Prohibited Joining/End Connection Methods:

1. HDPE Butt Fusion on pipe smaller than 1.5"
2. HDPE Electrofusion in buried applications
3. King nipple and clamp
4. Push Fit fittings such as shark bite (Non-AWWA C800 Compliant)
5. Non-Silver Soldered Copper

Prohibited Materials:

1. Galvanized or Black Iron steel pipe or fittings
2. Leaded brass fittings
3. Uncoated copper pipe
4. PVC

D2

DESIGN: OM
DRAWN: OM
CHECKED: DK
DATE: 4/12/23
REV./DATE:

**RESIDENTIAL SERVICE
CONNECTION STANDARD**

**SERVICE CONNECTION
TO STRUCTURE**

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