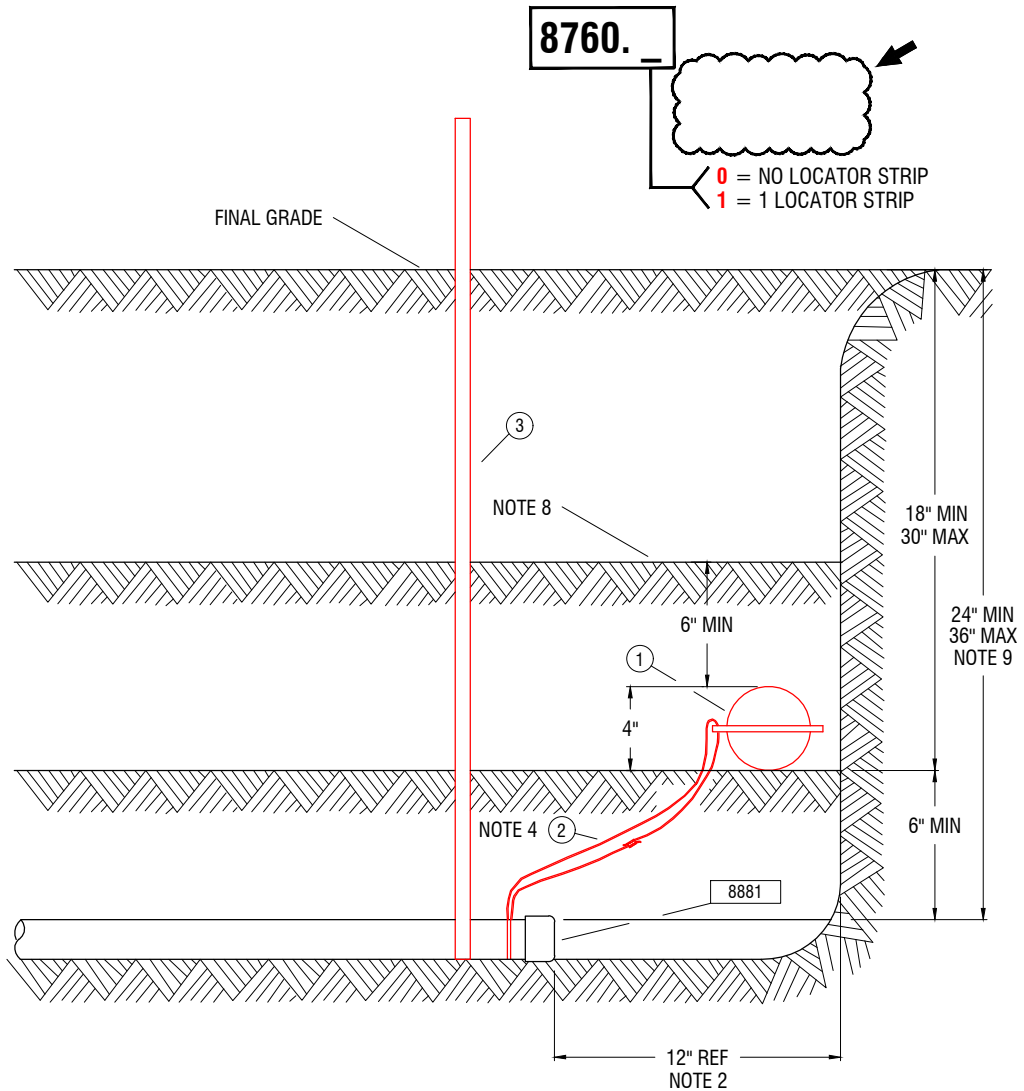


ATTENTION: These documents are provided for informational purposes. They provide standard configurations, general requirements, and guidelines for trenching and standard customer interconnections for APS customers. These documents do not address every possible situation. It is the responsibility of the customer to ensure that the documents provided here are the most current version. APS reserves the rights to require modifications based on site specific or system conditions.

 ARIZONA PUBLIC SERVICE COMPANY T&D CONSTRUCTION STANDARDS					SUBSTRUCTURES ELECTRONIC MARKER	COVER
BY	LDR.	MGR.	DATE	REV.		
MLM	M. CAM	J.M. HORMELL	06/2020	5		8760

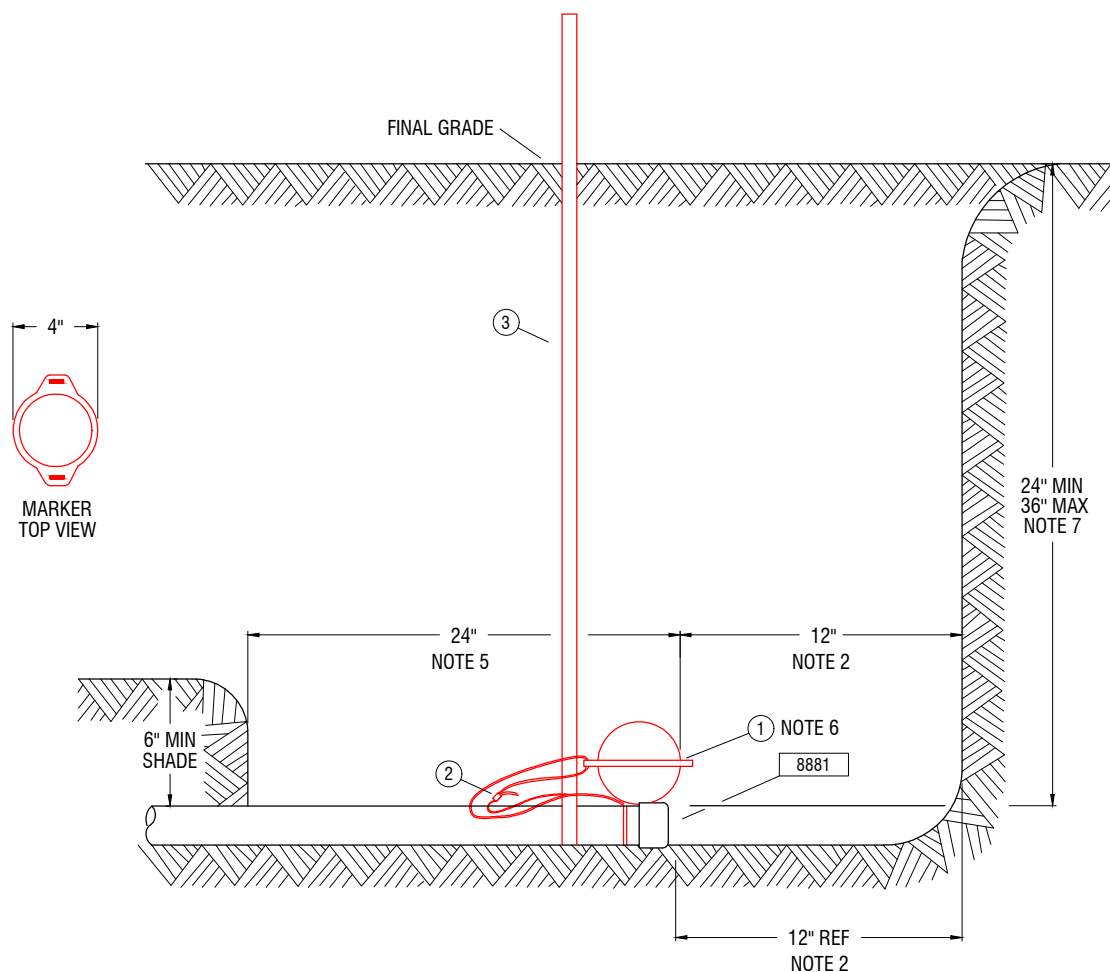


**TYPICAL STUB-OUT AREA
FOR SECONDARY AND
SERVICE STUB-OUTS**

NOTES:

1. INSTALL AN ELECTRONIC MARKER AT ALL STUB-OUT LOCATIONS.
2. INSTALL STUB-OUTS TO WITHIN 12 INCHES OF THE END OF THE SERVICE TRENCH.
3. ALL STUB-OUTS SHALL BE A MINIMUM OF 24 INCHES FROM THE BACKBONE TRENCH AT A 24-INCH TO 36-INCH DEPTH. IT IS RECOMMENDED THAT ALL STUB-OUTS BE BELOW GROUND.
4. ATTACH THE ELECTRONIC MARKER TO THE END OF THE STUBBED-OUT CONDUIT WITH THE CABLE TIE. PULL MARKER AT A 45 DEGREE ANGLE TOWARD THE END OF THE TRENCH TO AVOID DAMAGE TO THE CONDUIT BY THE SERVICE CREWS WHEN EXPOSING THE MARKER TO EXTEND SERVICE TO THE METER.
5. CONDUIT END SHALL BE SEALED PER 8601, 18.0.
6. FILL BETWEEN THE ELECTRONIC MARKER AND THE STUB-OUT WITH A MINIMUM OF 6 INCHES OF ACCEPTABLE SHADING MATERIAL AND COMPACTION PER 8601.
7. ALLOW A MINIMUM OF 6 INCHES BETWEEN MARKER AND ANY METAL OBJECT TO ELIMINATE DISTORTION OF THE ELECTRONIC SIGNAL WHEN LOCATING.
8. COVER ALL STUB-OUTS AND MARKERS WITH A MINIMUM OF 6 INCHES OF SOIL TO STABILIZE THE MARKER AND ENSURE IT WILL NOT BE DISTURBED.
9. THESE DIMENSIONS ARE FOR STUB-OUTS AND MARKERS ONLY, NOT DEPTH OF SERVICE TRENCH.
10. WHEN THE RED PLASTIC UNDERGROUND LOCATOR STRIP, APN 33101586, IS CALLED OUT, PLACE LOOPED END AROUND CONDUIT. KEEP STRIP VERTICAL DURING BACKFILLING.

CODE	8760	MATERIAL LIST	
ITEM	QTY	DESCRIPTION	APN
1	1	MARKER ELECTRONIC BALL	33101593
2	2	TIE 30" SELF LOCKING	33107350
3	VAR	LOCATOR UNDERGROUND SERVICE	33101586



**TYPICAL STUB-OUT AREA
FOR SERVICE STUB-OUTS
IN A JOINTLY USED TRENCH**

NOTES:

1. INSTALL AN ELECTRONIC MARKER AT ALL STUB-OUT LOCATIONS.
2. INSTALL STUB-OUTS WITHIN 12 INCHES OF THE END OF THE SERVICE TRENCH.
3. ALL STUB-OUTS SHALL BE A MINIMUM OF 24 INCHES FROM THE BACKBONE TRENCH AT A 24-INCH TO 36-INCH DEPTH. IT IS RECOMMENDED THAT ALL STUB-OUTS BE BELOW GROUND.
4. CONDUIT ENDS SHALL BE SEALED PER 8601, 18.0.
5. DO NOT SHADE THE LAST 24 INCHES OF THE STUB-OUT OR MARKER, TO ENABLE THE COMMUNICATION COMPANY TO LAY THEIR SERVICE COIL DIRECTLY ON TOP OF THE STUB-OUT.
6. ATTACH THE ELECTRONIC MARKER TO THE END OF THE STUBBED-OUT CONDUIT WITH THE CABLE TIE. THEN PLACE THE MARKER ON TOP OF THE STUB-OUT. THE COMMUNICATIONS COMPANY WILL INSTALL THEIR SERVICE COIL, COMPLETE THE SHADING AND POSITION THE MARKER AS SHOWN IN 8760.
7. ALL DIMENSIONS ARE FOR STUB-OUT AREA ONLY; NOT DEPTH OF SERVICE TRENCH.
8. ALLOW A MINIMUM OF 6 INCHES BETWEEN MARKER AND ANY METAL OBJECT TO ELIMINATE DISTORTION OF THE ELECTRONIC SYMBOL WHEN LOCATING.
9. WHEN THE RED PLASTIC UNDERGROUND LOCATOR STRIP, APN 33101586, IS CALLED OUT, PLACE LOOPED END AROUND CONDUIT. KEEP STRIP VERTICAL DURING BACKFILLING.



ARIZONA PUBLIC SERVICE COMPANY
T&D CONSTRUCTION STANDARDS

BY	LDR.	MGR.	DATE	REV.
MLM	M. CAMPA	J.M. HORMELL	06/2020	5

**SUBSTRUCTURES
ELECTRONIC MARKER**

SH 2 OF 3

8760

