

UNDERGROUND FACILITIES STAKING REQUIREMENTS

1.0 INDEX

- 1.0 INDEX
- 2.0 PURPOSE
- 3.0 GENERAL
- 4.0 STAKING PROCEDURE
- 5.0 SPPC / DEVELOPER COORDINATION
- 6.0 ELECTRIC STAKING DETAILS
- 7.0 GAS STAKING DETAILS
- 8.0 DEVELOPER RESPONSIBILITIES
- 9.0 EXAMPLES OF STAKE LETTERING

2.0 PURPOSE

This Standard provides the requirements for the staking of utility installations in single-family, multiple resident, and commercial areas.

3.0 GENERAL

Utility staking is contingent upon the completion of the following by the developer:

- 3.1 Clearing and cutting streets, sidewalks, and utility easements (if in public R/W), to subgrade.
- 3.2 Establishment of lot corners or an offset for protection and finished street, curb, and sidewalk grades where required.

4.0 STAKING PROCEDURE

- 4.1 The developer is to provide and maintain all the staking required in 4.2. See Section 8.0.
- 4.2 Subgrade Stakes: These indicate the offset and grade cut or fill at the following locations as appropriate:
 - a. Property lines and all P.U.E. boundaries.
 - b. Property corners (none on apartments and townhouses).
 - c. Lot pad corners (none on apartments and townhouses).
 - d. Building corners (none on lot sale developments).
 - e. Other locations as required.

				
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ENGINEERING & CONSTRUCTION STANDARD
UNDERGROUND FACILITIES STAKING REQUIREMENTS

SHEET <u>3</u> OF 50
VOLUME 17
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Subgrade stakes are generally correct to within 0.2' which is sufficient precision to stake subgrade. However, care must be exercised when staking a utility location in that a greater degree of precision may be necessary.

- 4.2 It is the **Developer's responsibility** to see that finish grade is staked, in all areas back of sidewalk, where there will be utility installations. If the finish grade is not provided, the minimum trench depth in the unstaked area will be 75" - 80".
- 4.3 Curb and Gutter Stakes: These stakes indicate the offset and grade cut or fill, normally to top of curb. They are set with greater precision and are generally correct to within 0.02'.
- 4.4 Final Lot Corners: These are not normally staked until all construction is complete and are of little use in staking of underground utilities.

5.0 SPPC / DEVELOPER COORDINATION

When approaching the task of providing utilities for a proposed development, the following is normally required:

- 5.1 SPPC Utility Project Coordinator (UPC) reviews information with the developer.
- 5.2 Developer reviews plans with SPPC, UPC/designer at pre-construction meeting.
- 5.3 If SPPC does surveying, SPPC's Operating Department checks and releases the project for staking.
- 5.4 The Developer provides the staking and grading necessary for utility installation.
- 5.5 SPPC UPC or operating personnel and Developer's agents review plans at the project site.

5.6 Check standard street improvements and compare with project plans.

	<u>Reno</u>				<u>Sparks</u>	
R/W width	50	60	70	80	55	80
B/C to B/C	41	43	61	67	43	67
Back of a 4' sidewalk to R/W line	0.5	4.5	0.5	2.5	2.0	2.5

5.7 Before staking, the Developer shall confirm the location of property corners to ensure that they conform to the proper established street R/W widths.

6.0 ELECTRIC STAKING DETAILS

- 6.1 Normally, the electric staking shall include C/L trench, boxes and vaults, lot corners, and all intermediate points as required.
- 6.2 Offset Distance: A distance shall be selected which will ensure the protection of stakes during trenching. This distance is generally 10' to 15' to centerline of trench but may depend on site conditions. The stakes may be placed adjacent to the Developer's subgrade stakes if the offset distance is adequate, or may, in fact, be the same if so marked.
- 6.3 Stake Interval: Stakes will be placed normally at or near property corners, but the interval may have to be decreased to 25' or less on curves in order to ensure that the trench will be properly aligned with the curve.
- Distance to centerline of underground trench "C/L U/G Elec 15'."
 - Distance to centerline of underground box "CTR N-9 box 14 1/2'."
 - To corner of underground box (where required) "NE Cor 504 14 1/2'."
- 6.4 General:
- Although the center location on small electric boxes and property line structures are normally adequate, in most cases, it will be necessary to stake two corners on the larger boxes. When a box is to be placed against the back face of a sidewalk or any other critical location, care must be exercised to ensure adequate precision in staking.
 - On some developments, such as apartments and condominiums, careful coordination with the Developers agent is essential as to the location of structures, such as sidewalks, sewers, etc., and finish grades which are subject to change.

7.0 GAS STAKING DETAILS

- 7.1 Offset Distance: An offset distance, from C/L of trench, shall be selected which will ensure the protection of stakes during trenching. The stakes, normally, are placed adjacent to the Developer's curb and gutter stakes which provides an adequate offset.
- 7.2 Interval: Stakes will be placed at or near the property corners or at 50' intervals. However, the interval may have to be decreased to 25' or less on curves or where the site conditions otherwise dictate.

					ENGINEERING & CONSTRUCTION STANDARD		SHEET <u>5</u> OF 50	
					UNDERGROUND FACILITIES STAKING REQUIREMENTS		VOLUME 17	
							DRAWING NUMBER G10001U	
DRAWN	DESIGN	SUPR	DATE	REV				
JL	JF	SJ	5/04	3				

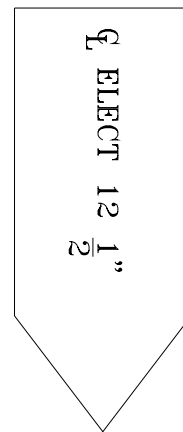
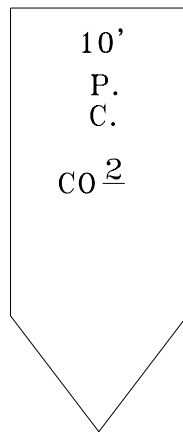
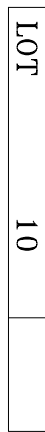
7.3 Stake Lettering: Given below is an example of typical stake information necessary for utility installation.

- a. Distance to centerline of gas trench “C/L Gas 10”

8.0 DEVELOPER RESPONSIBILITIES

8.1 Maintenance and Adjustments: *The Developer is responsible for maintenance of all stakes and adjustments of all boxes and pads to proper grade.*

9.0 EXAMPLES OF STAKE LETTERING



EXAMPLE 1

EXAMPLE 2