

UNIFORM TEMPORARY MARKING OF UNDERGROUND FACILITIES

APWA GUIDE

Audience

Residents, Local Government, Utilities, Contractors, Surveyors, Public Works Directors, and Right-of-Way Managers.

APWA Committee

Utilities and Public Rights-of-Way (UPROW) Committee

Purpose

The American Public Works Association (APWA) seeks to inform the public works community, its professionals and practitioners, policymakers and decision-makers at all levels of government, and the public at-large about Uniform Temporary Marking of Underground Facilities.

Guidance

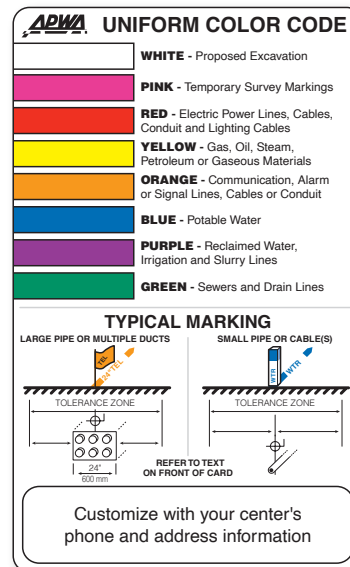
APWA urges public agencies, utilities, contractors, surveyors, other associations, and all others involved in construction or maintenance excavation or surveying of any kind to recognize and adopt the APWA "Guidelines for Uniform Temporary Marking of Underground Facilities." These guidelines use the APWA Uniform Color Code and the safety colors in the American National Standards Institute Standard Z53.1 as follows:

- **White**—Route of proposed subsurface line or location of proposed excavation;
- **Red**—Electric power lines, cables and conduit systems and lighting cables;
- **Yellow**—Gas, oil, steam, petroleum, gaseous, or dangerous materials;
- **Orange**—Communications, cable television, alarm or signal lines, cables or conduit systems;
- **Blue**—Water, irrigation, and slurry lines;
- **Purple**—reclaimed water;
- **Green**—Sewer and drain lines.

The APWA Uniform Color Code also includes fluorescent pink for temporary construction project site survey markings or to make survey monuments temporarily more visible.

Guidance Implementation

APWA, through its Utilities and Public Rights-of-Way Committee, has developed and published guidelines for temporary marking of underground facilities which include an APWA Uniform Color Code in order to minimize damages during excavation and similar operations in which the earth or the earth's surface is moved, removed, or displaced. The APWA Uniform Color Code enables excavators, line owners, and surveyors to recognize the intent of paint, flags, stakes and other temporary marking, including markings that identify the location of subsurface utilities, lines and similar facilities, markings that identify the proposed excavation, and survey markings which are inherent to construction sites.



GUIDELINES FOR UNIFORM TEMPORARY MARKING OF UNDERGROUND FACILITIES

This marking guide provides for universal use and understanding of the temporary marking of subsurface facilities to prevent accidents and damage or service interruption by contractors, excavators, utility companies, municipalities or any others working on or near underground facilities.

ONE-CALL SYSTEMS

The One-Call damage prevention system shall be contacted prior to excavation.

PROPOSED EXCAVATION

Use white marks to show the location, route or boundary of proposed excavation. Surface marks on roadways do not exceed 1.5" by 18" (40 mm by 450 mm). The facility color and facility owner identity may be added to white flags or stakes.

USE OF TEMPORARY MARKING

Use color-coded surface marks (i.e., paint or chalk) to indicate the location or route of active and out-of-service buried lines. To increase visibility, color coded vertical markers (i.e., stakes or flags) should supplement surface marks. Marks and markers indicate the name, initials or logo of the company that owns or operates the line, and width of the facility if it is greater than 2" (50 mm). Marks placed by other than line owner/operator or its agent indicate the identity of the designating firm. Multiple lines in joint trench are marked in tandem. If the surface over the buried line is to be removed, supplementary offset markings are used. Offset markings are on a uniform alignment and clearly indicate the actual facility is a specific distance away.

TOLERANCE ZONE

Any excavation within the tolerance zone is performed with non-powered hand tools or non-invasive method until the marked facility is exposed. The width of the tolerance zone may be specified in law or code. If not, a tolerance zone including the width of the facility plus 18" (450 mm) measured horizontally from each side of the facility is recommended.

ADOPT UNIFORM COLOR CODE

The American Public Works Association encourages public agencies, utilities, contractors, other associations, manufacturers and all others involved in excavation to adopt the APWA Uniform Color Code, using ANSI standard Z535.1 Safety Colors for temporary marking and facility identification.

Rev. 4/99