



HIGH PRESSURE PIPELINE DEVELOPERS' HANDBOOK



TABLE OF CONTENTS

Introduction	2
Safety & Reliability	3
Pipeline Facilities Overview	4
SoCalGas Rights-of-Way & Easements	5
Legislation	6
Notification & Construction Safety Requirements	7
Plan Design & Review Requirements	8
Encroachments	10
Encroachment Specifications	10-15
Contact Information	16

INTRODUCTION

This handbook outlines the standards and procedures to be followed when planning land-use development on or near SoCalGas Transmission Pipeline Rights-of-Way. The handbook is intended for use by city and county planners, engineers, developers, land surveyors or anyone involved in the initial stages of land development seeking SoCalGas® maps or other information regarding SoCalGas facilities, including SoCalGas standards and procedures, that may affect a land development project. Including SoCalGas in the initial planning stages will help prevent project delays and will promote safe development practices near pipelines.

The handbook is designed to make you aware of the most common standards and procedures SoCalGas typically requires to protect its facilities in areas of changing land use. Each proposed development or activity, however, requires a case-specific evaluation by a qualified SoCalGas Transmission representative. Keep in mind that obtaining a city permit does not constitute permission to encroach into a SoCalGas Easement or Right-of-Way.



SAFETY

The safe operation of the pipeline system is the core priority of SoCalGas. SoCalGas and the industry enjoy an excellent safety and reliability record. SoCalGas has a comprehensive damage prevention policy to prevent pipeline failures.

Third-party damage is one of the leading causes of pipeline failures.

RELIABILITY

SoCalGas is committed to reliable delivery of natural gas transportation services. Communities, factories, hospitals, power plants, businesses and residences depend on our services for energy to generate heat and electricity.

SoCalGas uses every available resource to help ensure the safety and reliability of its facilities. SoCalGas does not encourage or support any development or encroachment that interferes with the operation or maintenance of its pipelines or pipeline facilities. In cases where development or encroachment cannot be avoided, we need your help to ensure the safety and reliability of our facilities. As a responsible landowner, developer, contractor or other party engaged in any ground-disturbing activity near pipeline facilities, we urge you to read and understand the guidelines presented in this publication.

PIPELINE FACILITIES OVERVIEW

SoCalGas owns and operates more than 3,500 miles of transmission pipeline to bring in natural gas from out of state. The transmission operations includes high-pressure steel pipelines ranging from 6- to 42-inches in diameter, compressor stations, meter stations, cathodic protection equipment, valve settings, communications equipment, and other facilities.

The maintenance of pipeline markers - and unimpeded and immediate access to pipeline easements - is critical to public safety and necessary to perform maintenance and inspection in order to prevent and respond to pipeline emergencies. Construction or development near transmission pipelines increases the potential for excavation damage. It is the responsibility of SoCalGas, individual landowners, and contractors to ensure all temporary and permanent pipeline markers installed by SoCalGas are protected and maintained at all times, especially during construction. Removing or defacing a pipeline marker is a federal criminal offense.



SOCALGAS RIGHT-OF-WAY & EASEMENTS



SoCalGas holds Rights-of-Way and easements which grant SoCalGas the right to construct, operate, maintain, repair, modify, alter, protect, remove, replace, access and change the size of its pipelines. General Order 112-F § 143.5 (GO 112-F), issued by the California Public Utilities Commission (CPUC), prohibits a building or other encroachment to be constructed within the pipeline Right-of-Way that would hinder maintenance activities on the pipeline or cause a lengthy delay in accessing the pipeline facilities in an emergency.

Property owners cannot make use of the easement area if the use unreasonably interferes with SoCalGas's easement rights.

Property owners can, however, make acceptable uses of the easement area provided said use is compatible and does not cause a lengthy delay in accessing pipeline facilities in an emergency or otherwise hinder the ability to access, patrol, survey, operate or perform maintenance on pipeline facilities. All authorized improvements placed on SoCalGas pipeline Rights-of-Way are individually accessed and must be approved in advance by SoCalGas. If the use and improvement is deemed acceptable and consistent with SoCalGas policy and GO 112-F, a permissible use may be documented by a Permissible Use Agreement between the property owner and SoCalGas and recorded with the local county recorder. SoCalGas encourages developers to inform subsequent purchasers of land encumbered by SoCalGas easements, about the encumbrances so they are familiar with the pipeline and potential restrictions on land use.

Width

When the original pipeline routes were selected, undeveloped environments were deliberately chosen whenever possible. SoCalGas holds Rights-of-Way and easements in varying widths. These depend on the diameter of the pipelines, terrain and terms of the Rights-of-Way and easements agreements.

Amendments or Modifications

As the undeveloped environment is altered and land developments are proposed, SoCalGas, at the request of the landowner, may elect to amend or modify the Right-of-Way agreement to reflect the changing land use. SoCalGas may work with developers to incorporate the Right-of-Way into the project design, including consent to use the right-of-way as a “greenway” or open space area, so long as the use is compatible and does not cause a lengthy delay in accessing pipeline facilities in an emergency or otherwise hinder the ability to access, patrol, survey, operate or perform maintenance on its pipeline facilities or otherwise unreasonably interfere with SoCalGas easement rights.

LEGISLATION

Federal: The Department of Transportation's Office of Pipeline Safety regulates SoCalGas pipelines. The pipeline safety regulations are administered through Title 49, Code of Federal Regulations, Part 192. Part 192 prescribes minimum standards for the safe operation of pipelines.

State: California Government Code section 4216 details the safe excavation and damage prevention laws for the protection of pipelines and other underground utilities. California requires excavators to notify their local one-call system of their excavation plans **before excavation**. SoCalGas participates in the one-call system that notifies impacted industries of excavation.

City & County: Local governments often play a major role in regulating land use by means of comprehensive planning and zoning. Some counties offer developer incentives to encourage easement use for parks and open space purposes. Some counties require an additional building setback from the pipeline easement. Please check local codes before submitting lot layout plans.

NOTIFICATION AND CONSTRUCTION SAFETY REQUIREMENTS

Notification & Coordination

In order to prevent unnecessary delays, SoCalGas encourages early and ongoing communication with our representatives throughout your entire project. We will be happy to attend pre-construction meetings and provide a safety/informational presentation to any interested parties, including contractors, local government, maintenance crews, and developers. To schedule a pre-construction meeting or safety/information presentation, contact:

SoCalGasTransmissionUtilityRequest@semprautilities.com.

Federal and State laws require notification to **811** two business days (not including the date of notification) ahead of any excavation activity so the location of buried utilities can be marked by the utility owners. It's easy to do. Simply outline your dig site with white paint or chalk. Then, **contact 811** Underground Service Alert (USA) at **Contact811.com** or **dial 811**, to submit a location request. SoCalGas will be contacted, as well as other local utility owners, to mark the location of all utility-owned lines for FREE.

NOTE: SoCalGas does not mark customer-owned natural gas lines, which typically run from the meter to natural gas equipment. To have customer-owned lines located and marked before a project, contact a qualified pipe-locating professional.

If a high pressure gas pipeline is within 10 feet of your excavation, then you must meet with a SoCalGas representative to coordinate having SoCalGas on standby while excavation work is conducted. Any encroachment made without a SoCalGas representative on site may have to be re-excavated at the excavator's expense to provide SoCalGas an opportunity to inspect all affected pipeline facilities.



California's law **requires** all excavators to notify underground utility operators of excavation activities; failure to follow these laws could result in criminal prosecution.

SoCalGas transmission pipelines operate at high pressure. To ensure the safety and reliability of our facilities, we require a SoCalGas representative to be on site while you work around our pipelines. Please contact your local SoCalGas office before work commences on, or in close proximity to, a SoCalGas facility. A SoCalGas representative will be on site to inspect the work and monitor the site until construction is completed.

Safety Requirements

Excavations must be barricaded to protect pedestrians and vehicles. Proper access into the trench must be provided. Excavations must be properly sloped or shored, as required by state and federal OSHA requirements. Stockpiling brush, trash or other debris on any SoCalGas easement area is prohibited, since it could conceal pipeline markers and hinder pipeline inspections or routine maintenance. Contact your SoCalGas office concerning burning restrictions on SoCalGas easements.

PLAN DESIGN & REVIEW REQUIREMENTS

Ideal Subdivision Layout Guidelines

- The entire easement width is reserved as an open-space trail
- The easement identity is clear and easily marked
- Crews can undertake emergency repairs quickly
- The fewest possible landowners are affected by the easement, which reduces the chance of damage caused by third-party digging
- Routine maintenance and inspections are not hindered.

Visit the Pipeline Mapping System (NPMS) website at npms.phmsa.dot.gov or socalgas.com/Map to access basic transmission and high pressure distribution pipeline information, including operator name and the general location of facilities. Please note that the NPMS does not display all underground pipelines or other utilities. You must still contact **811** to ensure all underground utilities are notified before beginning any excavation work.



When your proposed development plans call for the dedication of the street/road Right-of-Way to the city, county or state, it is important to note SoCalGas easement rights are not diminished.

Subdivision Plans

- SoCalGas requires a lead-time of 60 business days to review preliminary plans for impacts to the easement area and to ensure all proposed improvements are designed in accordance with SoCalGas Encroachment Specifications.
- SoCalGas representatives will work with your surveyors to stake the location of our pipeline facilities.

Street & Road Crossing Plans

- SoCalGas requires 60 business days to review proposed road-crossing plans.

Additional review time may be necessary for proposed divided highways, interstate highways, parallel/coincidental roadways and other road construction projects that require pipeline modifications.

- The costs for any necessary pipeline modifications or relocations will generally be borne by the developer, state, county or city highway departments.
- SoCalGas must be given the opportunity to make a pipeline inspection prior to the start of road construction.
- When submitting road-crossing plans, provide a scope of work, description, and profile drawings with your plans. Profiles are required to show the depth of cover over each SoCalGas pipeline (existing and finished grade) and the clearance between the SoCalGas pipeline and any associated utilities. Include a location map showing the project site area, including sufficient geographical references, such as legal property lines, roads, and appropriate deed information to the properties impacted.

- An open space trail, free of trees and other deep-rooted plants, is the ideal easement area use. This land use reduces the opportunity for damage caused by third-party digging. When this is not possible, lot division on either boundary of the easement is preferable to splitting the easement between lots. A lot division configured on top of the pipeline causes lot restrictions, because no fences can be built directly over the pipeline.
- Construction, maintenance, and routine inspections can be disruptive to the landowner when the easement area is split between lots.

ENCROACHMENTS

Safety is paramount, and SoCalGas takes substantial steps to mitigate risks and to prevent encroachments that could potentially damage utility facilities by working with agencies, developers, and individuals to design projects around its pipeline easement. Unimpeded and immediate access to pipeline easements is necessary to perform maintenance and inspection in order to prevent and respond to pipeline emergencies.

To this end, SoCalGas will strictly enforce its easement rights to allow SoCalGas the continued ability to safely operate and maintain pipeline infrastructure in order to provide safe and reliable gas utility service to its customers and the public.



Encroachment Requirements

The following SoCalGas specifications are minimum requirements for most proposed encroachments to maintain the safety and reliability of the pipelines and to avoid conflicts with U.S. Department of Transportation regulations and existing rights-of-way agreements. Additional requirements may be imposed, depending upon the scope of the proposed encroachment and the existing SoCalGas easement rights. For a review of your individual situation, please contact SoCalGasTransmissionUtilityRequest@semptrautilities.com.

General Requirements for Surface Alterations

- Contact 811 at least two business days (not including the date of notification) prior to excavation activities. Check your local requirements. Notification is the law.
- No aboveground structures or appurtenances are to be located within the SoCalGas right-of-way. (e.g., buildings, sheds, block walls, foundations, gates, footings...)
- An authorized SoCalGas representative must be on site prior to and during any surface-disturbing work performed within the right-of-way. A SoCalGas representative will assist you in determining the location of the pipeline, the right-of-way width, and existing cover over the pipeline.
- No cutting or filling on the right-of-way is permitted without SoCalGas approval. SoCalGas may require submittal of plan and profile drawings for prior review and approval. All drawings must show, in detail, any nearby SoCalGas facilities and other features that will allow SoCalGas to determine the effects of the proposed construction or maintenance activity on its facilities.
- All foreign lines crossing SoCalGas's right-of-way must be installed in accordance with all applicable codes and requirements governing such installations.
- SoCalGas pipelines are protected against corrosion by cathodic protection. At SoCalGas's request, metallic foreign lines that enter or cross the SoCalGas right-of-way must have test leads installed. In addition, SoCalGas personnel must be provided an opportunity to install test leads on SoCalGas existing pipelines. All necessary measures (coatings, electrical bonds, etc.) will be taken to protect the proposed pipe or utility from potential interference.

- All foreign lines crossing SoCalGas pipelines or related facilities will be installed with a minimum of 18 inches of clearance between the existing SoCalGas pipeline facilities and the proposed foreign line. The foreign line will be installed at a uniform depth across the full width of the SoCalGas right-of-way. SoCalGas may require foreign lines be installed under its existing pipelines and related facilities.
- In some cases, there is significant delay between the review of developer's plans and actual construction. All construction and maintenance activities are subject to SoCalGas's requirements in effect at the time the work actually takes place.

Fences

- Fences shall not be installed within the SoCalGas easement without SoCalGas approval.
- Unless prior approval by SoCalGas has been granted, fence posts shall not be installed within five feet of any SoCalGas pipeline. In addition, SoCalGas may require fence posts installed within its rights-of-way to be hand dug.
- SoCalGas easements generally guarantee the free right of ingress and egress. SoCalGas may require that new fences have an access gate installed within the right-of-way at a location approved by SoCalGas.

Landscape Guidelines

- No trees or large, deep-rooted shrubs are permitted on the right-of-way.
- With prior approval from SoCalGas, some types of shrubs may be permitted on the right-of-way, provided the plantings do not interfere with the operation, maintenance and inspection of the pipeline and related facilities. Under no circumstances will mechanical equipment be allowed for planting shrubs on the right-of-way.
- SoCalGas reserves the right to cut or remove plants and trees on the SoCalGas right-of-way as required in the operation, inspection and maintenance of its pipeline facilities.
- All sprinkler or irrigation systems in the right-of-way will require review by a SoCalGas representative.



Streets, Roads, Driveways & Paved Parking Lots

- SoCalGas must complete a preliminary engineering review for all highways, streets, roads, and driveways proposed within the right-of-way. Any pipe casing, concrete slabs or other protection required by SoCalGas will be installed at no expense to SoCalGas. Additionally, SoCalGas may require a pipeline inspection prior to construction.
- Access to the soil above the pipeline must be maintained for leak detection and cathodic protection surveys. In certain instances, SoCalGas may require leak detection access points through concrete or asphalt surfaces.
- SoCalGas requires maintaining the existing pipeline cover is at all highways, streets, roads and driveways.
- SoCalGas retains the right to cut all highways, streets, roads and driveways within the existing right-of-way, and it will have no responsibility for restoration, loss of use or access, or any other resulting damages.

Temporary Equipment Crossings

- To protect SoCalGas's pipelines from external loading, SoCalGas must perform an engineering evaluation to determine the effects of any proposed heavy equipment use. Make/model of equipment, maximum axle weight, as applicable, construction duration and crossing location will need to be provided. Additional cover, mats, timber bridges or other protective materials deemed necessary by SoCalGas will be placed over SoCalGas facilities for the duration of any loading. Protective materials will be purchased, placed and removed at no cost to SoCalGas. The right-of-way must be restored to its original condition.
- SoCalGas may require markings to identify specific areas where equipment use is authorized.

Drainage, Water Impoundment & Erosion Control

- SoCalGas may conduct a preliminary engineering evaluation for any proposed drainage channels or ditches within the right-of-way. Altering (clearing, re-grading or changing alignment of) an existing drainage channel or ditch requires approval from SoCalGas.
- Impoundment of water on the right-of-way is not permitted. Soil erosion control measures will not be installed within the right-of-way without prior SoCalGas approval.



Excavations & Blasting

- Plans for excavation on the right-of-way require prior approval by SoCalGas. No machine excavation shall be performed within two feet of SoCalGas pipelines. A SoCalGas on-site representative is required at a distance of 10 feet or less for any excavation in the right-of-way.
- Prior to any plowing or ripping of soil on the right-of-way, your plans will be reviewed with your local SoCalGas representative to ensure proper cover exists.

- SoCalGas may require an engineering evaluation of all excavation activities which necessitate unsupported pipeline spans 10 feet in length or greater.
- SoCalGas may require a detailed blasting plan be submitted for review and authorization prior to any proposed blasting within a minimum distance of 200 feet of SoCalGas pipeline facilities. If deemed necessary by SoCalGas, the blasting contractor may be required to perform seismic monitoring.

Bored Crossings

The location of SoCalGas existing pipeline facilities will be determined by potholing. A minimum of 24 inches on either side of the pipeline are to be exposed in order to view the boring equipment's entrance and exit, prior to any proposed boring operations. SoCalGas may require submittal of both plan and profile drawings for appropriate review prior to any proposed boring operations. Inspection holes are to remain open during the entire boring process.

Overhead Line Crossings

- To protect SoCalGas pipelines from external electrical interference, SoCalGas must perform an engineering evaluation to determine the effects of any proposed electrical installations.
- When high-voltage AC power lines, high-voltage DC power lines, and DC traction systems are being installed within 1,500 feet of the pipeline, the owner will be required to pay for interference studies plus installation and maintenance of mitigation for the life of the facility.
- SoCalGas may require markings to identify specific areas where equipment use is authorized.

Disposal Systems

- No septic tanks, liquid disposal systems, or hazardous waste disposal systems will be allowed on the right-of-way. This prohibition includes, but is not limited to, facilities that have the potential of discharging effluent from sewage disposal systems, the discharge of any hydrocarbon substance, the discharge or disposal of any regulated waste, or any other discharge that may prove damaging or corrosive to SoCalGas facilities.



SOCALGAS TRANSMISSION OFFICE

Headquarters:

9400 Oakdale Ave., SC9314
Chatsworth, CA 91311
213-231-6081

Submit your plans for review to:

SoCalGasTransmissionUtilityRequest@semprautilities.com

Interactive Pipeline Map

socalgas.com/Map

24 HOUR Emergency Number

1-800-858-5601