

BOARD of SUPERVISORS



City Hall  
Dr. Carlton B. Goodlett Place, Room 244  
San Francisco 94102-4689  
Tel. No. 554-5184  
Fax No. 554-5163  
TDD/TTY No. 554-5227

March 20, 2017

File No. 170273

Lisa Gibson  
Acting Environmental Review Officer  
Planning Department  
1650 Mission Street, Ste. 400  
San Francisco, CA 94103

Dear Ms. Gibson:

On March 14, 2017, Supervisor Farrell introduced the following proposed legislation:

**File No. 170273**

**Ordinance amending the Public Works Code to allow the use of microtrenching to install fiber-optic cables in the sidewalk portion of the public right-of-way; and affirming the Planning Department's determination under the California Environmental Quality Act.**

This legislation is being transmitted to you for environmental review.

Angela Calvillo, Clerk of the Board

*for* By:  Alisa Somera, Legislative Deputy Director  
Land Use and Transportation Committee

Attachment

c: Joy Navarrete, Environmental Planning  
Jeanie Poling, Environmental Planning

[Public Works Code - Excavation by Microtrenching]

**Ordinance amending the Public Works Code to allow the use of microtrenching to install fiber-optic cables in the sidewalk portion of the public right-of-way; and affirming the Planning Department's determination under the California Environmental Quality Act.**

NOTE: **Unchanged Code text and uncodified text** are in plain Arial font.  
**Additions to Codes** are in *single-underline italics Times New Roman font*.  
**Deletions to Codes** are in *strikethrough italics Times New Roman font*.  
**Board amendment additions** are in double-underlined Arial font.  
**Board amendment deletions** are in ~~strikethrough Arial font~~.  
**Asterisks (\* \* \* \*)** indicate the omission of unchanged Code subsections or parts of tables.

Be it ordained by the People of the City and County of San Francisco:

Section 1. The Planning Department has determined that the actions contemplated in this ordinance comply with the California Environmental Quality Act (California Public Resources Code Sections 21000 et seq.). Said determination is on file with the Clerk of the Board of Supervisors in File No. \_\_\_\_ and is incorporated herein by reference. The Board of Supervisors affirms that determination.

Section 2. The Public Works Code is hereby amended by revising Article 2.4, Subarticle I, Sections 2.4.2, 2.4.3, 2.4.4, and Subarticle V, Section 2.4.53, to read as follows:

**SEC. 2.4.2. PERMITS REQUIRED TO EXCAVATE.**

(a) It is unlawful for any person to make or to cause or permit to be made any excavation in any public right-of-way that is under the jurisdiction of the Department of Public Works without first obtaining from the Department a permit authorizing such excavation.

1 (b) The Department shall issue a permit to excavate only if the owner has the legal  
2 authority to occupy and use the public right-of-way for the purposes identified in the  
3 application for the permit and the owner and its agent, if any, are in compliance with this  
4 Article.

5 (c) No permit to excavate shall be required when an excavation is to be completed  
6 within a period of 24 hours or less to install a parking meter, street light, street tree, traffic  
7 sign, traffic signal, or utility pole or to repair a utility box in a sidewalk; or when an excavation  
8 is in connection with the construction or maintenance of a subsidewalk basement; or when an  
9 excavation is performed for the sole purpose of repairing a sidewalk.

10 (d) Permit requirements pertaining to emergency excavation are addressed in  
11 Section 2.4.22.

12 (e) On or after January 2, 2018, the Department shall issue permits to excavate that allow  
13 the permittee to use microtrenching to install a fiber-optic cable in the sidewalk portion of the public  
14 right-of-way, subject to any orders, regulations, or standard plans and specifications the Department  
15 may adopt.

### 17 **SEC. 2.4.3. DEPARTMENT ORDERS AND REGULATIONS.**

18 (a) In addition to the requirements set forth in this Article, the Department may  
19 adopt such orders or regulations as it deems necessary in order to preserve and maintain the  
20 public health, safety, welfare, and convenience. Each excavation in the public right-of-way  
21 pursuant to this Article shall be performed in accordance with the standard plans and  
22 specifications of the Department and any Department orders or regulations, except where the  
23 Director, in his or her discretion, grants prior written approval to deviate from such standard  
24 plans and specifications, orders, or regulations. The Director shall develop guidelines to  
25 implement the granting of waivers authorized pursuant to this Article. Furthermore, excavation



1 in the public right-of-way shall conform to the orders, regulations, and rules of the Municipal  
2 Transportation Agency.

3 (b) The Department may adopt such orders, regulations, or standard plans and  
4 specifications as it deems necessary or appropriate to allow a permittee to use microtrenching to install  
5 a fiber optic cable in the sidewalk portion of the public right-of-way. In such orders, regulations, or  
6 standard plans and specifications the Department may specify those requirements of this Article 2.4  
7 that the Department may or shall waive in a permit that allows for the use of microtrenching in the  
8 sidewalk portion of the public right-of-way.

#### 10 **SEC. 2.4.4. DEFINITIONS.**

11 For purposes of this Article, the following terms shall have the following meanings:

12 "Agent" shall mean a person or persons authorized to assist an owner in the permitting  
13 process or in the performance of an excavation.

14 "Applicant" shall mean an owner or duly authorized agent of such owner, who has  
15 submitted an application for a permit to excavate.

16 "Article" shall mean this Article 2.4 of the Public Works Code.

17 "Block" shall mean that part of the public right-of-way that includes the street area from  
18 the property line to the parallel property line in width and extending from the property line of  
19 an intersecting street to the nearest property line of the next intersecting street in length. For  
20 purposes of this definition, an intersection also shall be considered a "block."

21 "City" shall mean the City and County of San Francisco.

22 "City communications infrastructure" shall mean conduits, pull boxes, and other  
23 facilities that are used by the City to provide communications services.

24 "Department" shall mean the Department of Public Works.

1 "Department of Technology" shall mean the Department of Technology or any  
2 successor City agency that is responsible for managing City communications infrastructure.

3 "Department of Technology Requirements" shall mean the Department of Technology's  
4 regulations implementing the Department of Technology's participation in excavation projects  
5 by installing City communications infrastructure.

6 "Deposit" shall mean any bond, cash deposit, or other security provided by the  
7 applicant in accordance with Section 2.4.40 of this Article.

8 "Director" shall mean the Director of the Department of Public Works or his or her  
9 designee.

10 "Excavation" shall mean any work in the surface or subsurface of the public right-of-  
11 way, including, but not limited to opening the public right-of-way; installing, servicing, repairing  
12 or modifying any facility(ies) in or under the surface or subsurface of the public right-of-way,  
13 and restoring the surface and subsurface of the public right-of-way.

14 "Facility" or "facilities" shall include, but not be limited to, any and all cables, cabinets,  
15 ducts, conduits, converters, equipment, drains, handholds, manholes, pipes, pipelines, splice  
16 boxes, surface location markers, tracks, tunnels, utilities, vaults, and other appurtenances or  
17 tangible things owned, leased, operated, or licensed by an owner or person, that are located  
18 or are proposed to be located in the public right-of-way.

19 "Fiber-optic cable" shall mean a cable made up of thin filaments of glass or other transparent  
20 materials that can carry beams of light.

21 "Incremental cost" shall mean the cost associated with adding City communications  
22 infrastructure to an excavation project, including the cost of the materials needed by the City  
23 and any additional labor cost.

24 "Large excavation project" shall mean any excavation of more than 1000 square feet.  
25



1 "Major work" shall mean any reasonably foreseeable excavation that will affect the  
2 public right-of-way for more than 15 consecutive calendar days.

3 "Medium excavation project" shall mean any excavation of more than 100 but no  
4 greater than 1,000 square feet.

5 "Microtrench" shall mean a trench that is deep enough to provide clearance of at least 18"  
6 from the top of any installed conduit to the surface of the sidewalk.

7 "Microtrenching" shall mean a process for installing conduits in the public right-of-way to  
8 house a fiber-optic cable by using a microtrench.

9 "Moratorium street" shall mean any block that has been reconstructed, repaved, or  
10 resurfaced by the Department or any other owner or person in the preceding five-year period.

11 "Municipal excavator" shall mean any agency, board, commission, department, or  
12 subdivision of the City that owns, installs, or maintains a facility or facilities in the public right-  
13 of-way.

14 "Owner" shall mean any person, including the City, who owns any facility or facilities  
15 that are or are proposed to be installed or maintained in the public right-of-way.

16 "Permit" or "permit to excavate" shall mean a permit to perform an excavation as it has  
17 been approved, amended, or renewed by the Department.

18 "Permittee" shall mean the applicant to whom a permit to excavate has been granted  
19 by the Department in accordance with this Article.

20 "Person" shall mean any natural person, corporation, partnership, any municipal  
21 excavator, or any governmental agency, including the State of California or United States of  
22 America.

23 "Public right-of-way" shall mean the area across, along, beneath, in, on, over, under,  
24 upon, and within the dedicated public alleys, boulevards, courts, lanes, roads, sidewalks,  
25

spaces, streets, and ways within the City, as they now exist or hereafter will exist and which are or will be under the permitting jurisdiction of the Department of Public Works.

"Responsible party" shall mean the owner for each excavation involving the owner's facility or facilities. In addition, it shall mean any person who performs an excavation or has a duty or right to manage or participate in the management of an excavation and whom the Director designates as responsible, in whole or in part, for such excavation.

"Sidewalk" shall mean the area between the fronting property line and the back of the nearest curb.

"Small excavation project" shall mean any excavation of 100 square feet or less.

"Standard City communications infrastructure specifications" shall mean the type, size, and quantity of conduits, the size and frequency of pull boxes, and any other facilities that the Department of Technology determines are necessary to serve the City's communications needs.

"Street furniture" shall mean facilities placed or fixed in the sidewalk portion of the public right-of-way including, but not limited to, utility poles and cabinets, traffic, transit, and street light poles, transit and traffic controllers, bus shelters, advertising kiosks, automatic toilets, news racks, bicycle racks, benches, trash receptacles, mail boxes, parking meters and payment kiosks, parklets, and fire hydrants.

"Street furniture zone" shall mean that part of the sidewalk portion of the public right-of-way that is being used or may be used to install and maintain street furniture, typically though not necessarily 24" inches from the curb.

Subsidewalk facility shall mean facilities installed under the sidewalk including, but not limited to, basements, vaults, silica cells, and storage tanks.

"Utility excavator" shall mean any owner whose facility or facilities in the public right-of-way are used to provide electricity, gas, information services, sewer service, steam,



1 telecommunications, traffic controls, transit service, video, water, or other services to  
2 customers regardless of whether such owner is deemed a public utility by the California Public  
3 Utilities Commission.

#### 4 5 **SEC. 2.4.53. REGULATIONS CONCERNING EXCAVATION SITES.**

6 Each owner and its agent shall be subject to requirements for excavation sites that are  
7 set forth in Department orders or regulations. Such orders or regulations shall include, but not  
8 be limited to, the following measures:

9 (a) **Protection of the Excavation.** Each owner and its agent shall cover open  
10 excavation with steel plates ramped to the elevation of the contiguous street, pavement, or  
11 other public right-of-way, or otherwise protected in accordance with guidelines prescribed by  
12 the Department.

13 (b) **Housekeeping and Removal of Excavated Material.** Each owner and its  
14 agent shall keep the area surrounding the excavation clean and free of loose dirt or other  
15 debris in a manner deemed satisfactory to the Department. Excavation sites shall be cleaned  
16 at the completion of each work day. In addition, the owner and its agent shall remove all  
17 excavated material from the site of the excavation no later than the end of each work day.

18 (c) **Storage of Materials and Equipment.** Materials and equipment that are to be  
19 used for the excavation within seven calendar days may be stored at the site of the  
20 excavation, except that fill material, sand, aggregate, and asphalt-coated material may be  
21 stored at the site only if it is stored in covered, locked containers.

22 (d) **Hazardous Material.** Each owner and its agent shall be subject to hazardous  
23 material guidelines for date collection; disposal, handling, release, and treatment of hazardous  
24 material; site remediation; and worker safety and training. The Department, in consultation  
25 with the Department of Public Health, shall develop, prescribe, and update such hazardous



1 material guidelines. The guidelines shall require the owner and its agent to comply with all  
2 federal, state, and local laws regarding hazardous material. For purposes of this subsection,  
3 "hazardous materials" shall mean any gas, material, substance, or waste which, because of  
4 its quantity, concentration, or physical or chemical characteristics, is deemed by any federal,  
5 state, or local governmental authority to pose a present or potential hazard to human health or  
6 safety or to the environment.

7 (e) **Microtrenching.** When a permit allows microtrenching in the sidewalk portion of the  
8 public right-of-way each owner or agent shall comply with the following:

9 (1) Microtrenching is not permitted in street furniture zones.

10 (2) Microtrenching is not permitted to wind around existing street furniture, tree  
11 wells, landscaping, sidewalk vaults, or other existing infrastructure.

12 (3) Microtrenching is not permitted over a subsidewalk facility or subsidewalk void.

13 (4) A Permittee using microtrenching shall restore the sidewalk in accordance with  
14 the Department's current standard plans and specifications or such other plans and specifications as  
15 the Department may adopt by order or regulation.


16  
17 Section 3. Effective Date. This ordinance shall become effective 30 days after  
18 enactment. Enactment occurs when the Mayor signs the ordinance, the Mayor returns the  
19 ordinance unsigned or does not sign the ordinance within ten days of receiving it, or the Board  
20 of Supervisors overrides the Mayor's veto of the ordinance.

21 Section 4. Scope of Ordinance. In enacting this ordinance, the Board of Supervisors  
22 intends to amend only those words, phrases, paragraphs, subsections, sections, articles,  
23 numbers, punctuation marks, charts, diagrams, or any other constituent parts of the Municipal  
24 Code that are explicitly shown in this ordinance as additions, deletions, Board amendment  
25

1 additions, and Board amendment deletions in accordance with the "Note" that appears under  
2 the official title of the ordinance.

3  
4 APPROVED AS TO FORM:  
5 DENNIS J. HERRERA, City Attorney

6  
7 By:

8   
9 WILLIAM K. SANDERS  
Deputy City Attorney

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## LEGISLATIVE DIGEST

[Public Works Code - Excavation by Microtrenching]

**Ordinance amending the Public Works Code to allow the use of microtrenching to install fiber-optic cables in the sidewalk portion of the public right-of-way; and affirming the Planning Department's determination under the California Environmental Quality Act.**

### Existing Law

To install fiber-optic cables in areas of the City and County of San Francisco ("City") where utility facilities must be placed underground an excavator must obtain an excavation permit from the Department of Public Works ("DPW") under Article 2.4 of the San Francisco Public Works Code. Pursuant to Article 2.4 and DPW Order No. 178,940 ("Regulations for Excavating and Restoring Streets in San Francisco"), trenches for fiber-optic cables are typically 24 to 26 inches deep and twelve to 18 inches wide.

### Amendments to Current Law

The ordinance authorizes DPW to issue excavation permits to City departments and utilities to install fiber-optic cables in the sidewalk portion of the public right-of-way using "microtrenching" instead of traditional excavation. Microtrenching involves digging a shallower and narrower trench than is presently required by Article 2.4 and DPW Order No. 178,940.

### Background Information

Telecommunications carriers of all kinds use fiber-optic cables to provide services to their customers including backhaul for wireless communications. City departments such as the Municipal Transportation Agency, the Public Utilities Commission, the Department of Emergency Management, and the Department of Technology use fiber-optic cables to support various governmental functions including public transportation, utility services, emergency services, inter-departmental communications, and free City Wi-Fi. City residents and businesses increasingly rely on services provided over fiber-optic cables.

To meet these needs, telecommunications carriers and City departments need to install more fiber-optic cables. It can cost as much as \$6.8 million per mile to install underground utility facilities in San Francisco. Large excavation projects can take weeks to complete and present major inconveniences for local businesses and residents.

Microtrenches are shallower and narrower than typical trenches. Microtrenching may reduce the expense of and time needed to install fiber-optic cables.

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