

EXHIBIT "A"

Shoring for Excavation within the Street and Sidewalk Area: Removal and Other Requirements

The treatment of the shoring system with the sidewalks and street areas, after building construction has been completed, and is as follows:

1. All members of the shoring system in the sidewalk area, at or within two (2) feet of the property line, shall be removed to a distance of (4) feet below the adjacent sidewalk grade. All tie-back connections to soldier beams within this 4 feet distance shall be severed.
2. All members of the shoring system in the sidewalk or roadway area, two (2) feet or more from the property line, shall be removed to a distance of ten (10) feet below the sidewalk grade. All tie-back connections to soldier beams within this 10 feet distance shall be severed.
3. All timber shoring left in place above the low water table shall be treated with wood preservative in accordance with the applicable requirements of Section 415 of the Standard Specifications. If low water table has not been determined definitely, all timber shoring to be left in place shall be so treated.
4. Tie-backs will be allowed to remain in place provided they are encased in concrete. However, the tie-back connection to the soldier beam shall be severed and the appropriate portions of the shoring system removed as applicable to the requirements in (a) and (b) above.
5. Concrete will be allowed to be poured against the shoring system provided a bond breaker, such as building paper is installed adjacent to that portion of the shoring system to be removed.

The temporary shoring and tie-backs in the street area shall not be used to provide permanent support after the completion of the construction project, since they may be subject to removal upon any subsequent conflict with a public project in the street area.

This policy is intended as a uniform guide for Contractors to include in their shoring plans. Requests for deviation from the above mentioned policy will be considered only if, in the opinion of the City Engineer, the individual project requirements warrant special conditions.

APPROVAL OF DPW STREET IMPROVEMENT INSPECTORS IS REQUIRED PRIOR TO BACKFILLING AND PRIOR TO POURING CONCRETE; TELEPHONE: (628) 271-2000.

**ADDITIONAL CONDITIONS FOR MINOR SIDEWALK ENCROACHMENT PERMIT NO. 13MSE-0441
(SHORING TIEBACKS)**

6. The Permittee shall comply with all conditions set forth in form titled "Shoring for Excavation within the Street and Sidewalk Area-Removal and Other Requirements", attached to this permit and made a part thereof.
7. The Permittee shall provide pre and post video inspection of existing **12" VCP** sewer main located on **Stanford Street**, fronting the construction site, including the segments of the main sewer twenty (20) linear feet on either side of the construction site. Preconstruction video inspection of the sewer shall be completed before tie back installations begin. Post construction video inspection of the sewers shall be performed after the completion of all tie back installation.
8. The video shall be in MPEG format on DVD media with individual chapters for each manhole to manhole run. The Contractor shall provide continuous recording of main sewer in color video picture. The video shall have the project name and limits of the sewer being televised superimposed on the beginning of each segment and/or audio recording. The camera shall travel through the sewer at a maximum speed of a half of a foot (0.5 feet) per second. A continuous tape counter in feet measurement shall be superimposed at the bottom of the screen to show the distance from the starting manhole or a reference point to an existing manhole or reference point. The date of the video recording shall be superimposed on the screen and/or audio recording. There shall be sufficient artificial light in the interior of the sewer to produce a clear and well focused picture. The DVD video shall have a label with the project name, and limits including the date of the television inspection. The Sewer T.V. Inspection Log shall be submitted in paper and/or digital format. The digital format of the Inspection Log shall be in PDF form and shall be included in the corresponding DVD. The Sewer T.V. Inspection Log shall also include a sketch showing the project limits and the direction the camera was pulled through the sewer.
9. All "pre" and "post" tieback installation DVDs of the main sewers including items specified in paragraph 7 shall be submit to BSM which will in turn be transmitted to Mr. Cliff Wong, DPW/Infrastructure Design and Construction Division - Hydraulic Section, through the Bureau of Street Use & Mapping, and shall be the property of the City. Preconstruction DVDs and logs shall be submitted at least fourteen (14) calendar days before the installation of the tiebacks begin. Post Construction DVDs shall be submitted within twenty-eight (28) calendar days of the completion of tieback installation.
10. Main sewer DVDs will be used to observe structural condition of main sewer (s) before and after the installation of tie backs, and determine damage, if any, caused by the tie-back installation. The Permittee shall be responsible for making necessary repairs to sewer facilities if damaged by tie back installation. In the absence of any preconstruction video submittal, the permitted shall be responsible for making repairs to sewer facilities found to be in need of repair based on post tie back installation videos. No final clearance on this project shall be issued until review of the "before" and "after"

television DVDs and any required repairs to the sewers are completed. All repairs or replacements shall be done at the sole expense of the Permittee and to the satisfaction of the Hydraulics Section and the San Francisco Public Utilities Commission. Sewer System Information is available from: Infrastructure Design & Construction Division, Hydraulic Engineering Section, 1680 Mission Street, 2nd Floor, San Francisco, CA 94103.

11. The Permittee shall not receive a sign-off on either their Temporary Certificate of Occupancy (TCO) or Certificate of Final Completion (CFC) from DPW until the above post construction DVD has been submitted to DPW/IDC and signed-off with no damage caused to the existing sewer main.
12. The Permittee shall have the excavation and temporary shoring designed by and constructed under supervision of a Registered Engineer, licensed in the State of California.
13. The Permittee shall provide special inspections to insure that the work is done according to the revised shoring and underpinning plans prepared by **Tuan & Robinson Structural Engineers, Inc.** titled “**SH1.1, SH2.1, & SH3.1**”, dated October 18, 2013 (Revisions/response to PUC dated 1/08/2014) and for any settlement greater than predicted by Geotechnical Engineers, **Carolyn E. Ronan, G.E.** and **Richard D. Rogers, G.E.**
14. The Permittee shall conduct their operations in accordance with the requirements established at the on-site street space meeting. Pedestrians adjacent to the construction site must be accommodated within the limits established at the street space meeting.