CER, INC CONSTRUCTION ENGINEERING RESOURCE, INC
Engineering Consulting Construction Management Claims Analysis

April 30, 2014

To: Stan Klopfenstein
Executive Director
Regional Training Group
Los Angeles Area Fire Chief's Assn.

Attn: Stan Klopfenstein

Re: Letter of 6/3/12-Firescope US&R Specialist Working Group
2x12 uprights and OSHA Subpart P Options 3 and Option 4

Stan;

This is in further response to the referenced letter and questions.

As stated in the letter the upright should be minimum 2x12. As shown in attached sketch it is also ok to use a 2x8 and 2x4 or 2-2x6with a 4x4 or 2x4 cross block. This configuration provides equivalent shear and bending strength as the 2x12.

The tabulated data for this project was developed utilizing allowable stress design with timber values from the National Design Specifications for Wood Construction, 2005 edition, NDS developed by the The American Forest and Paper Association. These are the same standards adopted by all US building codes.

The soil loading values are developed utilizing apparent earth pressure theories developed by Terzoghi, Peck and Hanson. Engineering judgement is applied and drawn from over 25 years of experience in excavation shoring system design.

Best Regards

Joe Turner

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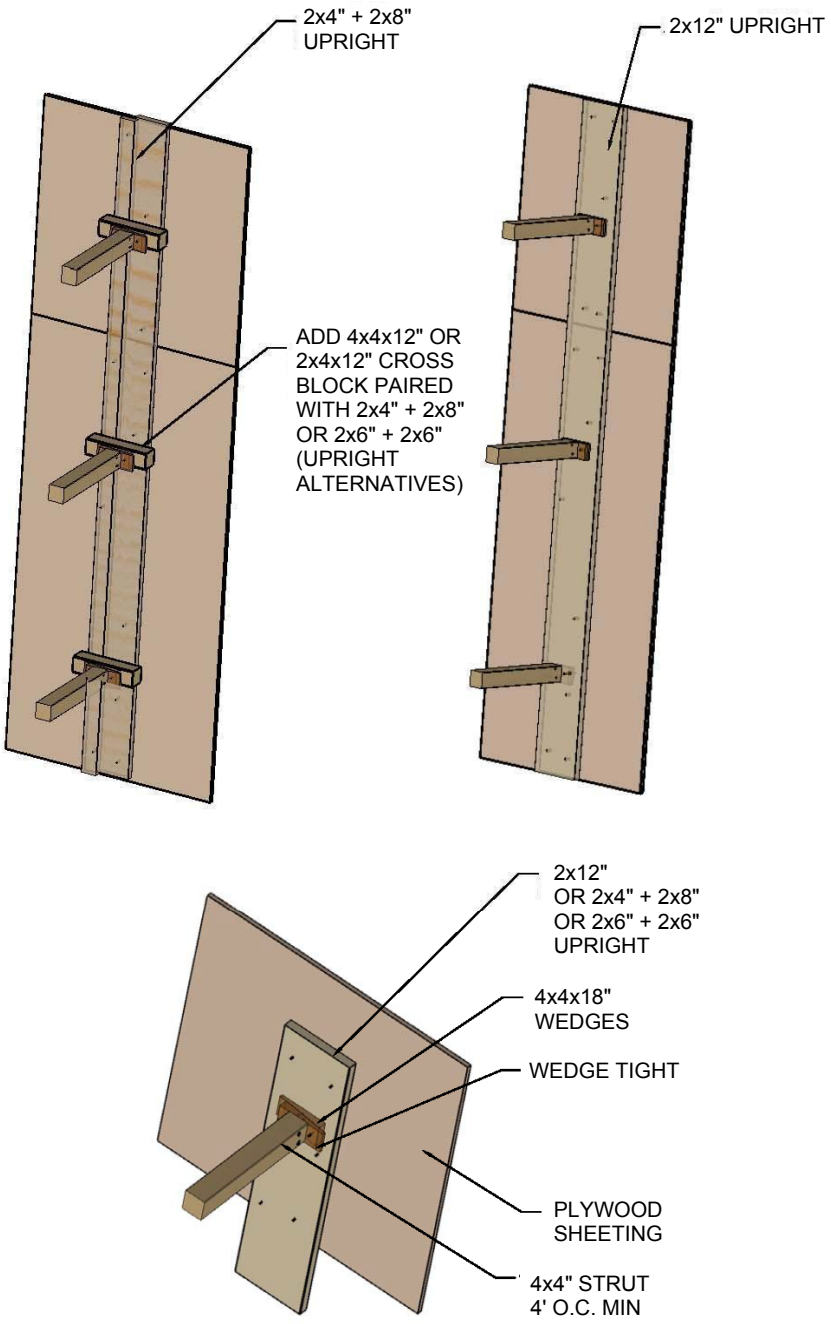
ALTERNATIVE for UPRIGHT

TABULATED DATA FOR
TRENCH RESCUE SHORING(Note 1)



Sketch 1