

New Mexico State Board of Licensure for Professional Engineers and Professional Surveyors

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PUBLIC NOTICE AFFECTED BY FIRE REGARDING BUILDINGS AFFECTED BY FOREST FIRES

When a foundation and slab, including utility infrastructure, have been exposed to fire, it is crucial to assess the extent of damage and determine the necessary measures to verify or restore their integrity. Here are some key engineering requirements to consider in such a scenario:

1. Structural Assessment: A thorough structural assessment should be conducted by a New Mexico licensed Professional Engineer to evaluate the damage caused by the fire. This assessment will help determine the level of damage to the foundation and slab, if any, including structural weakening or compromised load-bearing capacity.

2. Material Testing: The materials used in the construction of the foundation and slab should be tested to determine their residual strength and durability. This includes testing the concrete for fire-induced spalling, which can significantly affect its structural integrity and/or service life.

3. Reinforcement Evaluation: The reinforcement within the foundation and slab should be carefully evaluated to ensure it has not been compromised by the fire. Any damaged or weakened reinforcement should be identified and replaced as necessary to maintain the structural integrity of the foundation and slab.

4. Fire Protection Measures: It is prudent to incorporate fire protection measures into the design of the restored foundation and slab. This may include the use of fire-resistant materials, such as fire-rated concrete or fireproof coatings, to enhance the structure's resistance to future fire incidents.

5. Thermal Expansion Considerations: Fire exposure can cause thermal expansion and contraction of materials, leading to potential cracking and deformation.

6. Compliance with Building Codes: The engineering requirements for the foundation and slab restoration should adhere to local building codes and regulations. Compliance with these standards ensures that the structure meets safety and quality standards established by the relevant authorities.

In conclusion, the engineering requirements for a foundation and slab, and utility infrastructure, that have been affected by fire require a comprehensive assessment of the damage, material testing, reinforcement evaluation, fire protection measures, consideration of thermal expansion, and compliance with building codes. The Board places the welfare of the public in safeguarding life, health, and property by addressing these requirements, we can ensure the safety and stability of the structure for the public.