LOS ANGELES COUNTY PUBLIC WORKS
BUILDING AND SAFETY DIVISION

CHECKLIST FOR REUSE OF EXISTING FOUNDATION SYSTEMS IN A FIRE DAMAGED STRUCTURE

The reuse of existing foundation system and slab after a major fire is not recommended. However, if a homeowner or contractor proposes to reuse the existing foundation, an engineering report/plan including but not limited to the following checklist shall be prepared by a licensed engineer/architect who is knowledgeable in fire damaged concrete investigation and submitted to Building & Safety Division for review and approval certifying the reuse of the existing foundation and slab system. Foundation shall include footings, piers, grade beams, retaining walls and any other concrete elements that support the structure.

This checklist serves as a roadmap for the engineer/architect to investigate the suitability of reusing the existing concrete foundation and slab. This checklist does not limit the scope of the testing and evaluation to be performed by the responsible licensed engineer or architect in order to produce a complete and comprehensive report of the existing foundation and slab.

1. Property Address: _____

2. APN _____

3. Property Owner Name _____

5. Foundation and Slab Inspection Results
(Visual observation)

a.) Conditions of concrete (color) indicate which of the following exist

□ Normal concrete color
Location _____

□ Pink or Red
Location _____

□ Light/Whitish Grey
Location _____

□ Buff (Yellowish Brown)
Location _____

Further evaluation performed?

□ No
□ Yes. Non-destructive Test performed (attach test results):
Audible/Sound Observations ASTM D4580
□ Schmidt Hammer ASTM C805
□ Ultrasonic measurements
□ Other(s): _____

□ Yes. Destructive Test performed (attach test results): ASTM C805
□ Compressive core test C42 AND C39 OR C496
□ Petrography

Core sampling and testing should be performed by a certified testing laboratory. At least three core samples should be taken from the existing foundation, including at least two core samples taken from locations where visual inspection indicates that fire damage, if any, is most severe

b.) No. of stories of existing structure:
□ 1 Story
□ 2 Story
□ 3 Story

c.) Type of Footing
□ Isolated spread footing
□ Continuous wall (spread "T")
□ Piers & Grade Beams
□ Retaining wall
□ Concrete
□ CMU

d.) Depth of Footing (Spread or "T" Footing) _____ ft.
e.) Width of Footing (Spread or "T" Footing) _____ ft.

At least one location along the perimeter footings at each side of the structure and one location along an interior footing should be exposed and documented.

f.) Condition of Footing and Slab
□ Plumb □ Out of Plumb
□ Level □ Rotated

Comments: _____

g.) □ Deep Foundations: Grade Beam and Caisson Verification (If Applicable)

Though deep foundations are typically well-protected from damaging heat, delamination and/or spalling depth for shallower portions of deep foundations should be evaluated for potential partial removal and replacement. Reused deep foundation elements are subject to the load testing requirements of Section

1810.1.2 of the 2022 CBC.

Comments: _____

h.) □ The condition of Existing CMU

□ Good condition:

Masonry found to have mortar and units intact with no visible cracking, deterioration, or deformation.

□ Fair condition

Masonry found to have mortar and units intact but with minor cracking (i.e. cracks under 1/16” in size), deterioration, or deformation.

□ Poor condition

Masonry found to have significant cracking, degraded mortar, degraded masonry units, and/or significant deformation

If tested using prism method ASTM C1314, at least one sample should be taken for every 1,500 sf of wall area, and a minimum of two total tests should be performed. At least 50% of the samples tested should be taken from locations where visual inspection indicates fire damage, if any, is most severe

Comments: _____

6. Conditions of Existing Anchor Bolts & Hold-down Anchor Bolt

□ Reuse existing anchor bolts?

□ No. New anchor bolts will be provided (pull test will be required for new anchor bolts) ASTM E3121

□ Yes. Pull test performed (attach test results): Min. 2 tests for each wall required. ASTM E3121

The tension test load should be a minimum of 1,000 pounds of force, applied using a hydraulic ram. The anchors should maintain the test load for a minimum of 15 seconds and should exhibit no discernable movement during the tension test. For more than five bolts to be reused, five anchor bolts plus a minimum of 25 percent of the remaining anchor bolts should be tested.

7. Conditions of Existing Reinforcing Steel

How was the condition of the existing reinforcing steel evaluated?

If re-bar scanning is performed, scan at least two footings along the perimeter and one footing at the interior. For walls re-bar scanning, scan at least one four-foot square area at each wall segment.

Comments: _____

8. Conditions of Existing plumbing pipes, Mechanical ducts and Electrical Conduits if could be reused.

Comments: _____

9. Determine if Existing Vapor Barrier can be reused or provide alternative measures to prevent moisture intrusion.

Comments: _____

10. Condition of the Existing Site slopes

Slope Stability

- ☐ No Slope (Flat)
- ☐ Existing Slope, 1 vertical to_____horizontal
- ☐ Stable
- ☐ Unstable (visible signs of erosion exist)
- ☐ Foundations on or adjacent to slopes LAC Building code Section 1808.7

11. Recommendations and Conclusions

- ☐No repairs appear to be required. The foundation is suitable for reuse. _____
- ☐The repairs and strengthening described below are recommended.
- ☐ Recommend demolition of existing foundation and construction of a new foundation.

Suggested repairs to foundation: _____

_____

_____

_____

_____

_____

12. The following information shall be attached

- ☐ Drawings to scale of existing fire damaged structure plans and sections.
- ☐ Photographs of existing conditions.
- ☐Calculations and drawings to scale of proposed repair of correction details.
- ☐ Test Report (if test is performed)

The Engineer of Record of the new building (EOR) shall review this report to verify proper integration of the existing foundation system into the final structural design. (EOR) shall be responsible for the overall structural safety of the new building including the existing foundation system.