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RESEARCH REPORT: RR 26160

Attn: Gary Calderwood  
(330) 696-7575

REEVALUATION DUE  
DATE: December 1, 2019  
Issued Date: November 1, 2018  
Code: 2017 LABC

## GENERAL APPROVAL – T31 Anchor for Stone Panel Attachment

### DETAILS

The T31 Anchor is used as a Stone Panel Attachment to the exterior. The T31 anchor will be fitted to the anchor holes specifically cut for each granite panel. The procedure and process for drilling the holes and installing the anchors follow.

#### Stone Fabrication

The granite used for fabrication of this project is in accordance with the building stone included in project specification and contract documents. This material conforms to all construction and building requirements as evidenced by the physical property tests conducted on this material and is in conformance with structural engineer requirements. During fabrication and installation granite panels are inspected to ensure there are no visible structural flaws (such as cracks) that can lead to breakage. This process is done throughout the fabrication line and during shakeout and installation of the panels at the construction site.

#### Anchor Hole Drilling

Using a T31 Anchor Machine, a pivoting arm dye grinder and a custom (T31) T shaped diamond bit, the vacuum base of the machine is secured to the panel. The cutting machine starts at a horizontal or parallel position with the back of the stone as the machine pivots into a vertical position. The shaped slot is precisely cut into the back of the piece, the machine and bit designed to insure proper cutting depths. The T31 anchor is inserted into the T shaped routed slot in the back of the stone until the threaded portion of the anchor is 90\* to the back of the stone surface (see typical detail attached).

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Anchor Products

RE: T31 Anchor for Stone Panel Attachment

**The approval is subject to the following conditions:**

1. T31 Anchor for Stone Panel Attachment must be installed in accordance with the manufacturer's published installation instructions. A copy of the manufacturer's installation instructions shall be available at the job site.
2. Special inspections are required for the installation of the proprietary attachment system onto the roof assemblies as mandated by the provisions of the 2017 LABC Section 1705.11 for wind resistance.
3. Allowable tension capacity of the T31 Anchor shall be per Table 1 of the attached typical detail sheets.
4. Calculations demonstrating that the applied loads are less than the maximum allowable loads must be submitted to the structural plan check section for each project. The calculations must be prepared by a California registered Civil Engineer or Architect.
5. Installation must be in accordance with this research report and the manufacturer's published installation instructions, a copy of which must be available at the jobsite. In the event of a conflict between the manufacturer's instructions and this report, this report governs.
6. The design of the structural support system (building framing) must be submitted to and approved by the Structural Plan Check Section of the Los Angeles Department of Building and Safety for each project.

**DISCUSSION**

This report is in compliance with the 2017 City of Los Angeles Building Code.

The approval is based on tests and analyses in accordance with ASTM C170, ASTM C880, ASTM C97, and ASTM C1354.

Addressee to whom this Research Report is issued is responsible for providing copies of it, complete with any attachments indicated, to architects, engineers and builders using items approved herein in design or construction which must be approved by Department of Building and Safety Engineers and Inspectors.

Anchor Products

RE: T31 Anchor for Stone Panel Attachment

This general approval of an equivalent alternate to the Code is only valid where an engineer and/or inspector of this Department has determined that all conditions of this approval have been met in the project in which it is to be used.

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Attachment: Typical Detail Sheets (2 Pages)