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201 NORTH FIGUEROA STREET  
LOS ANGELES, CA 90012

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OSAMA YOUNAN, P.E.  
EXECUTIVE OFFICER

ASC Profiles, LLC  
2110 Enterprise Boulevard  
West Sacramento, CA 95691

Attn: Brian Gough  
(916) 376-2862

RESEARCH REPORT: RR 25762  
(CSI #05 31 00)

BASED UPON ICC-ES EVALUATION  
REPORT NO. ER-0329

REEVALUATION DUE  
DATE: February 1, 2020  
Issued Date: December 1, 2017  
Code: 2017 LABC

**GENERAL APPROVAL** – Reevaluation/Clerical Modification - ASC Steel Floor and Roof Deck System.

**DETAILS**

The above assemblies and/or products are approved when in compliance with the use, description, design, installation, conditions of approval, and identification of Evaluation Report No. ER-0329, revised October 23, 2017, of the IAPMO Uniform Evaluation Service, Incorporated. The report, in its entirety, is attached and made part of this general approval.

The parts of Report No. ER-0329 which are marked by the asterisks are deleted or revised by the Los Angeles City Building Department from this approval.

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

1. Deck units for each job shall be identified by the manufacturer's name and deck designation. The material thickness and amount of galvanizing shall also be indicated.
2. When requested by the Department, test data by the mill or by an approved testing agency shall be submitted to verify the deck material is as specified in the attachment.
3. Where exposed to the weather, the deck units shall be galvanized.

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4. For each job where the deck units are specified, the following information shall be indicated on the plans to be reviewed by the Department: (a) Cross-section details of the deck units; (b) fastener details, including deck welding or other fasteners at supports, at diaphragm boundaries parallel to flutes, at shear transfer elements, and at side seams if such fasteners are required; (c) minimum length of deck units; and (d) design shears.
5. Spacing of attachments parallel to flutes and at side seams shall be as required by design but shall not be greater than 3 feet at boundaries parallel to flutes nor greater than 4 feet at side seams if attachments are required.
6. Any change of deck units from those specified on the approved plans shall be approved by the design engineer of the building and by Structural Plan Check of the Department. The proprietary nature of the data in this report precludes their use for deck units by other manufacturers.
7. Concrete must be reinforced with minimum 6x6 W1.4 x W1.4 Steel welded wire reinforcement complying with ASTM A185 placed at the approximate center of the concrete fill.
8. The allowable tension (uplift) load for arc spot welds fastening steel sheets to supporting members must be calculated in accordance with Section E2.2.2 of AISI NASPEC (and AISI/COS/NASPEC-SUP 04).
9. The sizes of puddle welds specified are the fused sizes. For ½" round puddle welds, the top or appearance size is approximately ¾" round.
10. Minimum yield strength for ASTM A446, Grade E steel shall not exceed 36,000 psi. Minimum yield strength for ASTM A446, Grade A steel shall not exceed 33,000 psi.
11. The number of "puddle welds" specified in the tables are required at each support for each deck unit.
12. For diaphragm construction, the use of deck units less than the full width shall be designed to transfer all shear loads.
13. Continuous inspection by deputy building inspectors shall be provided for welding of the deck units for diaphragms, and for the mixing and placing of the concrete for the topping.
14. Deck welding shall be performed by Los Angeles City certified light gage welders. Prior to proceeding with the welding, the welders shall demonstrate to the Deputy Inspectors their ability to produce the prescribed weld satisfactorily. A sample of the deck material shall be welded to steel simulating the framing. The sample specimen shall then be twisted, and if the deck material tears or if the

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weld in torsion indicates the proper fusion area, the weld shall be considered satisfactory.

15. Admixtures containing calcium chloride or other corrosive materials shall not be used in the concrete fill for the deck units.
16. Temperature reinforcement shall be provided in the concrete fill approximately 1" below top surface of concrete. The ratio of reinforcing area to cross section area of concrete above top of steel deck units shall be not less than .001 each way, nor shall the reinforcement be less than 6 x 6 - W1.4 x W1.4 W.W.F. (This requirement is not applicable to insulating concrete fill).
17. Welding of cellular panels shall be performed in an approved Los Angeles City licensed fabricators shop.
18. See the Department Information bulletin P/BC 2017-046 for composite steel concrete construction of steel beams or girders connected to concrete filled steel decks.
19. Allowable loads in the tables are not applicable to concentrated loads or to predominantly vibratory loads.
20. Diaphragm shear values in the tables shall not be increased one-third for seismic or wind loading.
21. Use of the roof decks in fire-resistive construction shall be in accordance with a separate Los Angeles City Research Report.

## **DISCUSSION**

The clerical modification is to update the approval to the 2017 Los Angeles Building Code.

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

The approval is based on tests in accordance with IAPMO Uniform Evaluation Service Evaluation Criteria, EC007-2015, Evaluation Criteria for Steel Composite, Non-Composite and Roof Deck Construction. Test results are from laboratories in compliance with ISO/IEC 17025.

This general approval will remain effective provided the Evaluation Report is maintained valid and unrevised with the issuing organization. Any revision to the report must be submitted to this Department for review with appropriate fee to continue the approval of the revised report.

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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.

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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QUAN NGHIEM, Chief  
Engineering Research Section  
201 N. Figueroa St., Room 880  
Los Angeles, CA 90012  
Phone - 213-202-9812  
Fax - 213-202-9943

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Attachment: IAPMO UES Report No. ER-0329 (120 Pages)