



ICC-ES Evaluation Report

Reissued April 2022

ESR-3764

This report is subject to renewal April 2024.

DIVISION: 05 00 00—METALS
Section: 05 10 00—Structural Metal Framing
Section: 05 12 00—Structural Steel Framing

REPORT HOLDER:

SG BLOCKS, INC.

EVALUATION SUBJECT:

SG BLOCKS STRUCTURAL BUILDING MATERIALS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2021, 2018 and 2015 *International Building Code*® (IBC)
- 2021, 2018 and 2015 *International Residential Code*® (IRC)

For evaluation for compliance with codes adopted by Los Angeles Department of Building and Safety (LADBS), see [ESR-3764 LABC and LARC Supplement](#).

Properties evaluated:

Structural - Materials

2.0 USES

SG Blocks structural building materials are used in custom designed, factory built, building modules transported to the jobsite to construct site specific buildings.

3.0 DESCRIPTION

SG Blocks Building Modules (modules) are site specific, custom designed, factory built, modules. The modules are transported to the jobsite and assembled to form a completed building. Intermodal shipping containers are used as the source of structural and non-structural building materials for constructing the building modules. The steel structural building materials from the intermodal shipping containers and the quality control process for selecting intermodal shipping containers is the subject of this report. All other aspects of the modules are outside the scope of this report. The steel components of the intermodal shipping containers selected for use as structural building materials have been correlated to the appropriate ASTM International steel specification and are suitable for use with the design provisions specified in the American Institute of Steel Construction Specification for Structural Steel Buildings (AISC 360) or the American Iron and Steel Institute North

American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100), as applicable. The various components used, detail drawings of the components, steel specification for the steel used to fabricate the components, cross-reference to the equivalent ASTM standard, yield strength, and tensile strength used for design are specified in SG Blocks Internal Design Handbook, Version 1, dated January 23, 2017.

4.0 DESIGN AND INSTALLATION

The structural building materials used in the building modules must be designed in accordance with the AISC 360 or AISI S100, as applicable. The design of the building module must be in compliance with the IBC and installation of the building modules must be in accordance with the approved plans. The approved plans must be available at the jobsite at all times.

5.0 CONDITIONS OF USE

The structural building materials described in this report comply with, or are a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** The scope of the report is limited to the evaluation (verification) of the steel structural building materials used in construction of the building modules in Durant, Oklahoma for their suitability for use with AISC 360 and AISI S100. All other aspects of the building modules and the final structure, such as, but not limited to, structural design, plumbing and electrical are outside the scope of this report.
- 5.2** Where approved by the code official, the markings and existing data plates on the intermodal shipping containers are permitted to be removed before they are repurposed for use as buildings or structures or part of buildings or structures in accordance with Section 3115.3 of the 2021 IBC.
- 5.3** The design of buildings or structures with repurposed intermodal shipping containers conforming to ISO 1496-1 shall be in accordance with Section 3115.8 of the 2021 IBC.
- 5.4** Complete construction documents and calculations must be submitted to the code official for each specific project. The calculations and construction documents must be prepared and sealed by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

- 5.5 A copy of this report must be submitted in addition to all other required material when applying for a building permit.
- 5.6 The structural building materials are procured for use in Durant, Oklahoma, under quality control programs with inspections by ICC-ES.

6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Structural Building Materials from Intermodal Shipping Containers (AC462), dated October 2018 (editorially revised March 2021).

7.0 IDENTIFICATION

- 7.1 Each SG Blocks Building Module manufactured from intermodal shipping container materials shall be labeled with the SG Blocks, Inc. name and address,

the manufacturing location, and the evaluation report number (ICC-ES ESR-3764).

- 7.2 The report holder's contact information is the following:

SG BLOCKS, INC.
195 MONTAGUE STREET, 14TH FLOOR
BROOKLYN HEIGHTS, NEW YORK 11201
(615) 566-5092

www.sgblocks.com

info@sgblocks.com

DIVISION: 05 00 00—METALS**Section: 05 10 00—Structural Metal Framing****Section: 05 12 00—Structural Steel Framing****REPORT HOLDER:****SG BLOCKS, INC.****EVALUATION SUBJECT:****SG BLOCKS STRUCTURAL BUILDING MATERIALS****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that the SG Blocks Structural Building Materials, described in ICC-ES evaluation report [ESR-3764](#), have also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

Applicable code editions:

- 2020 *City of Los Angeles Building Code* (LABC)
- 2020 *City of Los Angeles Residential Code* (LARC)

2.0 CONCLUSIONS

The SG Blocks Structural Building Materials, described in Sections 2.0 through 7.0 of the evaluation report [ESR-3764](#), comply with the LABC Chapters 16, 17 and 22, and the LARC, and are subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The SG Blocks Structural Building Materials described in this evaluation report supplement must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-3764](#).
- The design, installation, conditions of use and identification of the SG Blocks Structural Building Materials are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report [ESR-3764](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16, 17 and 22, as applicable.
- Under the LARC, an engineered design in accordance with LARC Section R301.1.3 must be submitted.

This supplement expires concurrently with the evaluation report, reissued April 2022.

DIVISION: 05 00 00—METALS
Section: 05 10 00—Structural Metal Framing
Section: 05 12 00—Structural Steel Framing

REPORT HOLDER:

SG BLOCKS, INC.

EVALUATION SUBJECT:

SG BLOCKS STRUCTURAL BUILDING MATERIALS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that SG Blocks Structural Building Materials, described in ICC-ES evaluation report ESR-3764, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2019 *California Building Code (CBC)*

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) and Division of State Architect (DSA), see Sections 2.1.1 and 2.1.2 below.

- 2019 *California Residential Code (CRC)*

2.0 CONCLUSIONS

2.1 CBC:

The SG Blocks Structural Building Materials, described in Sections 2.0 through 7.0 of the evaluation report ESR-3764, comply with CBC Chapters 16, 17 and 22, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Chapters 16, 17 and 22, as applicable.

2.1.1 OSHPD: The applicable OSHPD Sections of the CBC are beyond the scope of this supplement.

2.1.2 DSA: The applicable DSA Sections of the CBC are beyond the scope of this supplement.

2.2 CRC:

The SG Blocks Structural Building Materials, described in Sections 2.0 through 7.0 of the evaluation report ESR-3764, comply with CRC Section R301.1.3, provided the design and installation are in accordance with the 2018 *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CRC Section R303.1.3

This supplement expires concurrently with the evaluation report, reissued April 2022.

DIVISION: 05 00 00—METALS**Section: 05 10 00—Structural Metal Framing****Section: 05 12 00—Structural Steel Framing****REPORT HOLDER:****SG BLOCKS, INC.****EVALUATION SUBJECT:****SG BLOCKS STRUCTURAL BUILDING MATERIALS****1.0 REPORT PURPOSE AND SCOPE****Purpose:**

The purpose of this evaluation report supplement is to indicate that SG Blocks Structural Building Materials, described in ICC-ES evaluation report ESR-3764, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2020 *Florida Building Code—Building*
- 2020 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The SG Blocks Structural Building Materials, described in Sections 2.0 through 7.0 of evaluation report ESR-3764, comply with the *Florida Building Code—Building* and the *Florida Building Code—Residential*. The design requirements must be determined in accordance with the *Florida Building Code—Building* and *Florida Building Code—Residential*, as applicable. The installation requirements noted in ICC-ES evaluation report ESR-3764 for the 2018 *International Building Code*® (IBC) meet the requirements of the *Florida Building Code—Building* and *Florida Building Code—Residential*, as applicable.

Use of the SG Blocks Structural Building Materials for compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building* and the *Florida Building Code—Residential* has not been evaluated, and is outside the scope of this supplemental report.

For products falling under Florida Rule 61G20-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report, reissued April 2022.