

## EVALUATION REPORT

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**Title:** Evaluation of Commercial Hardware

**Report #:** IR09-003-R1

**Manufacturer:** Schlage Lock Company, LLC  
11819 N. Pennsylvania Street  
Carmel, IN 46032

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Product Compliance Engineer

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**Date:** December 27, 2013

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### I. Introduction/ Scope

This is a revision to the original report dated September 6, 2009 and only changes the FBC 2007 to 2010, updates to the NOA #s/ expiration dates and to recognize the company name change. Based on wind load and impact/cyclic testing for commercial hardware, the following report will review the wind load & impact requirements for the Schlage cylindrical & mortise locks. All hardware testing from NCTL per the approved listed NOAs were conducted per TAS 201-94 (Impact Test Procedures), TAS 202-94 (Uniform Static Air Pressure) and TAS 203-94 (Criteria for Testing Products Subject to Cyclic Wind Pressure Loading).

### II. Reference Documents

The following documents were referenced in the evaluation review:

1. Dade County NOA 12-0305.13, Double Flush Outswing Steel Door, May 5, 2015  
IR Dwg IRFD07, Double Flush Doors, Mortise & Cylindrical Locks, +/- 65 & +/- 75 psf
2. Dade County NOA 12-0305.14, Single Flush Outswing Steel Door, May 5, 2015  
IR Dwg IRFS07, Single Flush Doors, Mortise Locks, +/-75 psf
3. Dade County NOA 12-0305.16, Single Glass Outswing Steel Door, May 5, 2015  
IR Dwg IRGS07, Single Glass Doors, Cylindrical Locks, +/-75 psf
4. Dade County NOA 13-1007.06, Double Outswing Steel Door w/ Louver, Nov 14, 2014  
IR Dwg 882W-2, Double Door w/ Louver, Mortise Locks, +/- 60 psf
5. Dade County NOA 11-0921.11, Single Flush Outswing Steel Door, February 24, 2017  
IR Dwg 776W-2, Single Flush Door, Mortise Locks, +/- 120 psf & +/- 170 psf
6. Dade County NOA 13-0617.31. Single Flush Inswing Steel Door, February 24, 2017  
IR Dwg 776W-3, Single Flush Door, Mortise Locks, +/- 120 psf & +/- 170 psf.

### III. Product Evaluation

Schlage Lock Company is offering a new series of electronic lock hardware for the commercial wind load market. The Schlage CO/AD MS series is a mortise lock with the same internal construction as the Schlage L9400 series. The Schlage CO/AD CY series is a cylindrical lock with the same internal construction as the Schlage ND series. Both the L9400 & ND series locks have been tested and approved per the NOAs listed above. The primary difference with the new hardware is to add the

electronic keying to replace the mechanical keys along with some exterior trim designs. All the mechanical components that are important to passing the wind load tests remain the same.

#### IV. Evaluation Summary

The following tables summarize the hardware configurations that have been evaluated against the hardware that has been tested and those with Dade County Approvals.

Item	IR Brand	Hardware Family	Design Pressure	Door Size/Type	NOA Approval
1	Schlage CO/AD MS Series	Mortise No DB	+/- 75 psf	Single, Outswing	12-0305.14
2	Schlage CO/AD MS Series	Mortise No DB	+/- 60 psf	Double, Outswing	13-1007.06
3	Schlage CO/AD MS Series	Mortise w/ DB, Std Strike	+/- 120 psf	Single, Inswing/Outswing	11-0921.11 13-0617.31
4	Schlage CO/AD MS Series	Mortise w/ DB, SS Strike	+/- 170 psf	Single, Inswing/Outswing	11-0921.11 13-0617.31
5	Schlage CO/AD MS Series	Mortise w/ DB	+/- 75 psf	Double, Outswing	12-0305.13
6	Schlage CO/AD CY Series	Cylindrical 1/2" throw	+/- 75 psf	Single, Outswing	12-0305.16
7	Schlage CO/AD CY Series	Cylindrical 1/2" throw	+/- 65 psf	Double, Outswing	12-0305.13
8	Schlage CO/AD Cy Series	Cylindrical 3/4" throw	+/- 75 psf	Double, Outswing	12-0305.13

Note 1 – Single Door size is 3' x 7'. Double Door size is 4' x 8'

Note 2 – Reference IR Dwg FBC AD, 2 shs, dated 8/27/09 for all configurations.

Note 3 – DB refers to deadbolt

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#### V. Limitations of Use

The drawings referenced above provide the primary details for the limitations of use.

The door hardware details are contained in IR drawings listed above. This includes trim options, door sizes and mullion types.

I have concluded that the configurations shown above comply with the structural requirements for the wind load and large missile impact requirements of the 2010 Florida Building Code.

Maximum Door Width	4'-0"
Maximum Door Height	8'-0"
Maximum Wind load	Reference chart above
Hardware Details	Reference drawings listed in the NOAs and the chart above.
Rated for TAS 201 impact rating	

#### Certification of Independence of Evaluation Entity

I hereby certify that (1) I have no financial interest in Schlage Lock Company, LLC; (2) I am an independent licensed Professional Engineer in the State of Florida and; (3) I comply with the criteria of independence as stated in 9B-72.110 (3), F.A.C. and 9B-72.110(4), F.A.C.