

Referenced 2021 International Residential Code Sections:

R310.2 Emergency escape and rescue openings. Emergency escape and rescue openings shall have minimum dimensions in accordance with Sections R310.2.1 through R310.2.4.

R310.2.1 Minimum size. Emergency escape and rescue openings shall have a net clear opening of not less than 5.7 square feet (0.530 m²).

Exception: The minimum net clear opening for grade-floor emergency escape and rescue openings shall be 5 square feet (0.465 m²).

R310.2.2 Minimum dimensions. The minimum net clear opening height dimension shall be 24 inches (610 mm). The minimum net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

R310.2.3 Maximum height from floor. Emergency escape and rescue openings shall have the bottom of the clear opening not greater than 44 inches (1118 mm) above the floor.

R310.4 Area wells. An emergency escape and rescue opening where the bottom of the clear opening is below the adjacent grade shall be provided with an area well in accordance with Sections R310.4.1 through R310.4.4.

R310.4.1 Minimum size. The horizontal area of the area well shall be not less than 9 square feet (0.9 m²), with a horizontal projection and width of not less than 36 inches (914 mm). The size of the area well shall allow the emergency escape and rescue opening to be fully opened.

Exception: The ladder or steps required by Section R310.4.2 shall be permitted to encroach not more than 6 inches (152 mm) into the required dimensions of the area well.

R310.4.2 Ladder and steps. Area wells with a vertical depth greater than 44 inches (1118 mm) shall be equipped with an approved, permanently affixed ladder or steps. The ladder or steps shall not be obstructed by the emergency escape and rescue opening where the window or door is in the open position. Ladders or steps required by this section shall not be required to comply with Section R311.7.

R310.4.2.1 Ladders. Ladders and rungs shall have an inside width of not less than 12 inches (305 mm), shall project not less than 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center vertically for the full height of the area well.

Referenced 2021 International Residential Code Sections (Cont.):

R310.4.3 Drainage. Area wells shall be designed for proper drainage by connecting to the building's foundation drainage system required by Section R405.1.

Exception: A drainage system for area wells is not required where the foundation is on well-drained soil or sand-gravel mixture soils in accordance with the United Soil Classification System, Group I Soils, as detailed in Table R405.1.

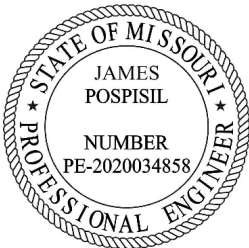
R310.4.4 Bars, grilles, covers and screens. Where bars, grilles, covers, screens or similar devices are placed over emergency escape and rescue openings, bulkhead enclosures or area wells that serve such openings, the minimum net clear opening size shall comply with Sections R310.2 through R310.2.2 and R310.4.1. Such devices shall be releasable or removable from the inside without the use of a key or tool or force greater than that required for the normal operation of the escape and rescue opening.

Material Properties:

Product Specification: ASTM A653-23
Steel Designation: Extra Deep Drawing Steel (EDDS)
Yield Strength: Fy = 15,000 psi

Soil Properties:

Soil unit weight: 120 pcf (assumption)
Soil friction angle: 30° (assumption)
Lateral Earth pressure: 40 psf per foot of depth



BARBER & HOFFMAN, INC.



2217 East 9th Street, Suite 350
Cleveland, OH 44115-1257
216-875-0100
barberhoffman.com

BARBER & HOFFMAN, INC.

Consulting Engineers

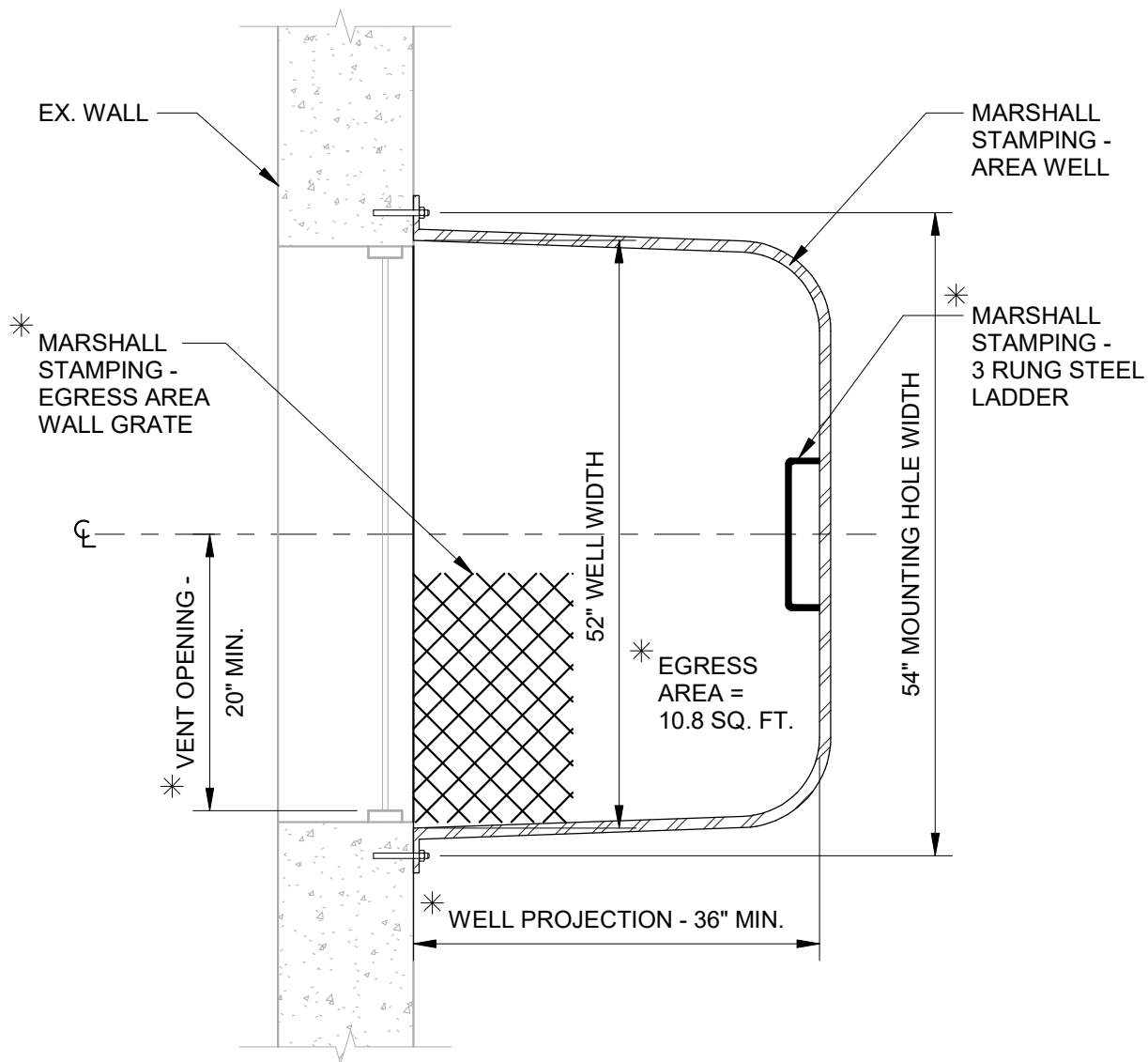
Title:
**MARSHALL STAMPING - WINDOW
WELL EVALUATION**

Drawn:	CAH	Date:	09/05/2025
Checked:	ZLC	Issue:	09/05/2025
Scale:		Revision:	
Project No.:	25P581	Ref. Dwg.:	

Drawing Number:

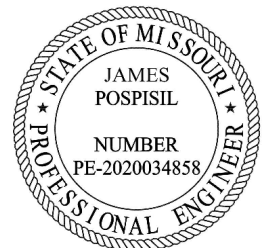
S-1

© 2025 COPYRIGHT B&H, INC.



PLAN VIEW
WINDOW WELL

ITEMS MARKED WITH *
ARE REQUIRED TO MEET
EGRESS CODE



BARBER & HOFFMAN, INC.



2217 East 9th Street, Suite 350
Cleveland, OH 44115-1257
216-875-0100
barberhoffman.com

BARBER & HOFFMAN, INC.
Consulting Engineers

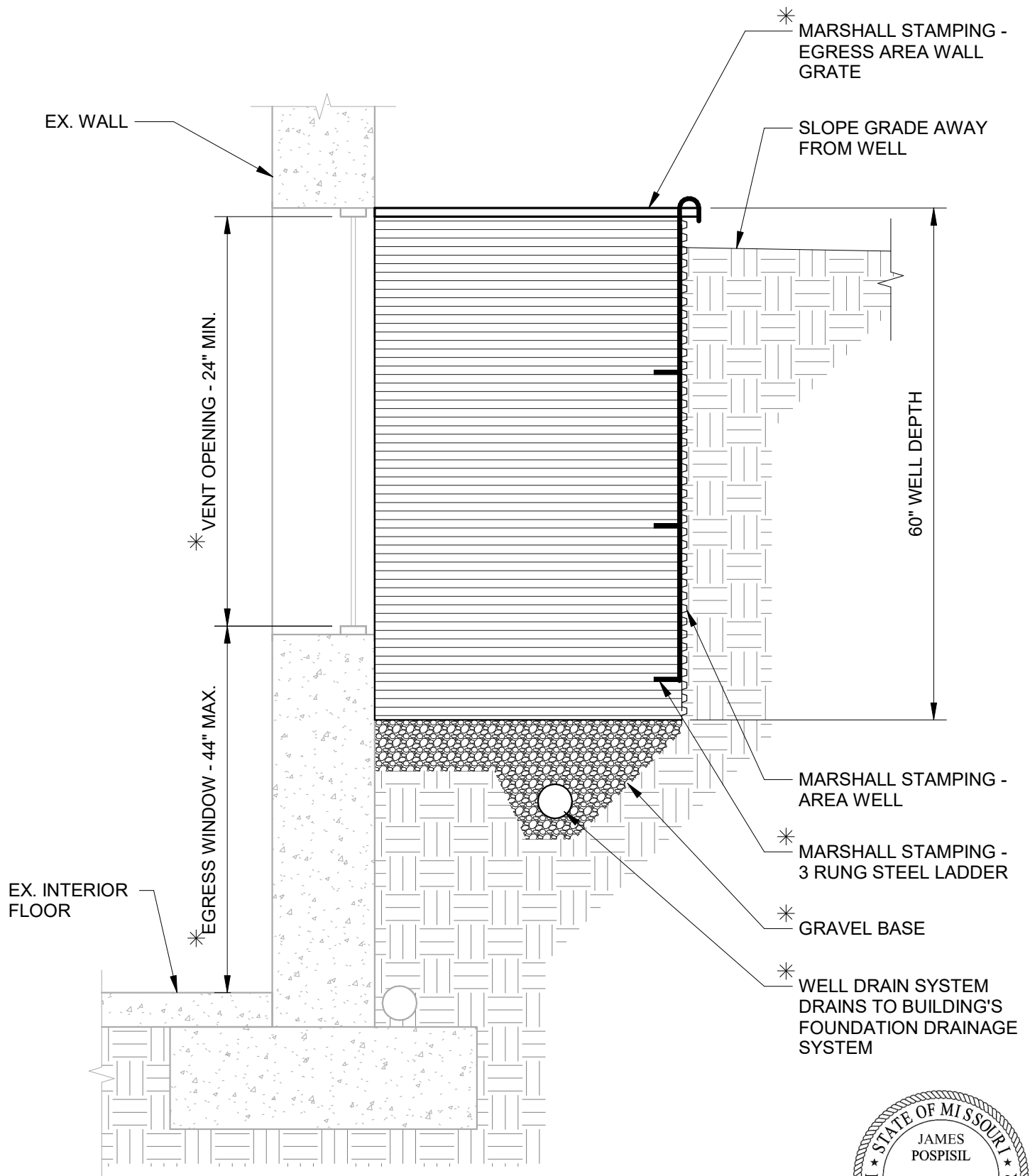
Title:
**MARSHALL STAMPING - WINDOW
WELL EVALUATION**

Drawn:	CAH	Date:	09/05/2025
Checked:	ZLC	Issue:	09/05/2025
Scale:	3/4" = 1'-0"	Revision:	
Project No.:	25P581	Ref. Dwg.:	

Drawing Number:

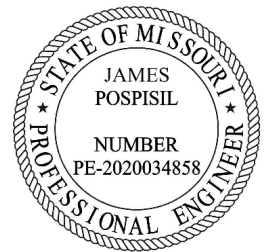
S-2

© 2025 COPYRIGHT B&H, INC.



ITEMS MARKED WITH *
ARE REQUIRED TO MEET
EGRESS CODE

SECTION VIEW - MIDLINE THRU - WINDOW AND WELL



BARBER & HOFFMAN, INC.



2217 East 9th Street, Suite 350
Cleveland, OH 44115-1257
216-875-0100
barberhoffman.com

BARBER & HOFFMAN, INC.
Consulting Engineers

Title:
**MARSHALL STAMPING - WINDOW
WELL EVALUATION**

Drawn:	CAH	Date:	09/05/2025
Checked:	ZLC	Issue:	09/05/2025
Scale:	3/4" = 1'-0"	Revision:	
Project No.:	25P581	Ref. Dwg.:	

Drawing Number:

S-3

© 2025 COPYRIGHT B&H, INC.