

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND

BUILDING PERMIT

This is to certify that Parsons, Linwood & Elizabeth

Located At 44 WINTER ST

Job ID: 2012-09-4883-ALTR

CBL: 045- F-005-001

has permission to Renovate interior 2nd & 3rd fls of one unit provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

Fire Prevention Officer

Joanne Bonke
Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

Close In Elec/Plmb/Frame prior to insulate or gyp

Final Inspection

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.



PORTLAND MAINE

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Director of Planning and Urban Development
Jeff Levine

Job ID: 2012-09-4883-ALTR

Located At: 44 WINTER ST

CBL: 045- F-005-001

Conditions of Approval:

Zoning

1. This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
2. ANY exterior work requires a separate review and approval thru Historic Preservation. This property is located within an Historic District.
3. This is NOT an approval for an additional dwelling unit. You SHALL NOT add any additional kitchen equipment including, but not limited to items such as stoves, microwaves, refrigerators, or kitchen sinks, etc. without special approvals.
4. This property shall remain a two family dwelling. Any change of use shall require a separate permit application for review and approval.

Building

1. Application approval based upon information provided by the applicant or design professional. Any deviation from approved plans requires separate review and approval prior to work.
2. Per Section R314.3.1 of the IRC 2009, when alterations, repairs or additions requiring a permit occur, the dwelling unit shall be equipped with smoke alarms located as required for new dwellings. Per Section R315.2 carbon monoxide alarms shall be provided in dwellings with fuel-fired appliances or attached garages. Verification of this will be upon inspection.
3. All penetrations between dwelling units and dwelling units and common areas shall be protected with approved firestop materials, and recessed lighting/vent fixtures shall not reduce the (1 hour) required rating per Sec. R317.3.1.2 of the IRC.
4. Separate permits are required for any electrical, plumbing, sprinkler, fire alarm, HVAC systems, heating appliances, including pellet/wood stoves, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.

Fire

All construction shall comply with City Code Chapter 10.

All smoke detectors and smoke alarms shall be photoelectric.

Hardwired Carbon Monoxide alarms with battery back up are required on each floor.

A sprinkler system is recommended but not required based on the following:

Plans indicate the addition will not exceed _50_% of the total completed structure.



General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

* SEE NEW PROPOSAL

Location/Address of Construction: <u>44 WINTER ST, PORTLAND, ME 04102</u>		
Total Square Footage of Proposed Structure/Area <u>2125</u>	Square Footage of Lot <u>3720</u>	Number of Stories <u>3 + BASEMENT</u>
Tax Assessor's Chart, Block & Lot Chart# Block# Lot# <u>45/F/55</u>	Applicant: (must be owner, lessee or buyer) Name <u>LINWOOD + LIZ PARSONS</u> Address <u>44 WINTER ST</u> City, State & Zip <u>PORTLAND, ME 04102</u>	Telephone: <u>617-710-6241</u>
Lessee/DBA	Owner: (if different from applicant) Name _____ Address _____ City, State & Zip _____	Cost of Work: <u>\$26,000</u> C of O Fee: \$ _____ Historic Review: \$ _____ Planning Amin.: \$ _____ Total Fee: \$ _____
Current legal use (i.e. single family) <u>TWO FAMILY</u> Number of Residential Units <u>2</u> If vacant, what was the previous use? _____ Proposed Specific use: <u>TWO FAMILY</u> Is property part of a subdivision? <u>NO</u> If yes, please name _____ Project description: <u>REMOVE EXISTING WALL AND STAIRWELL ON 2ND FL. - UNIT #2. BUILD NEW STAIRWELL TO CODE AND ADD FULL BATH ON 3RD FLOOR. CREATE OPEN CONCEPT LIVING ON 2ND FLOOR. REDUCE FULL BATH ON 2ND FLOOR TO 1/2 + LAUNDRY. BUILD TWO DORMERS FOR STAIRWELL HEADROOM AND 3RD FL FULL BATH.</u>		
Contractor's name: _____ Address: <u>* SEE ATTACHED</u> City, State & Zip: _____		Email: _____ Telephone: _____ <u>not part of permit now - revised</u>
Who should we contact when the permit is ready: _____		Telephone: _____
Mailing address: _____		

Please submit all of the information outlined on the applicable checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

and I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: [Signature] Date: 8.30.2012

This is not a permit; you may not commence ANY work until the permit is issued
[Signature]

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No: 2012-09-4883-ALTR	Date Applied: 9/5/2012	CBL: 045- F-005-001	
Location of Construction: 44 WINTER ST	Owner Name: LINWOOD & ELIZABETH PARSONS	Owner Address: 44 WINTER ST PORTLAND, ME 04101	Phone: 617-710-6241
Business Name:	Contractor Name: Mark Lenard	Contractor Address: 124 Cape Rd., Hollis Center ME 04042	Phone: (207) 720-0922
Lessee/Buyer's Name:	Phone:	Permit Type: BLDG - Building	Zone: R-6
Past Use: Two family	Proposed Use: Same - two family - interior renovation of 2 nd apartment on the 2 nd & 3 rd floors	Cost of Work: 26000.00	CEO District:
		Fire Dept: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> N/A	Inspection: Use Group: R-3 Type: SB MURBER '09 Signature: JMB
Proposed Project Description: Internal reconstruction, multiple floors; 2dormers		Pedestrian Activities District (P.A.D.) 11/7/12	
Permit Taken By: Brad		Zoning Approval	

<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building Permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.</p>	<p>Special Zone or Reviews</p> <p><input type="checkbox"/> Shoreland</p> <p><input type="checkbox"/> Wetlands</p> <p><input type="checkbox"/> Flood Zone</p> <p><input type="checkbox"/> Subdivision</p> <p><input type="checkbox"/> Site Plan</p> <p><input type="checkbox"/> Maj <input type="checkbox"/> Min <input type="checkbox"/> MM</p> <p>Date: 9/10/12 ASU</p>	<p>Zoning Appeal</p> <p><input type="checkbox"/> Variance</p> <p><input type="checkbox"/> Miscellaneous</p> <p><input type="checkbox"/> Conditional Use</p> <p><input type="checkbox"/> Interpretation</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Denied</p> <p>Date:</p>	<p>Historic Preservation</p> <p><input type="checkbox"/> Not in Dist or Landmark</p> <p><input type="checkbox"/> Does not Require Review</p> <p><input type="checkbox"/> Requires Review</p> <p><input checked="" type="checkbox"/> Approved based on revised proposal dated 10/31/12</p> <p><input type="checkbox"/> Approved w/Conditions 10/31/12</p> <p><input type="checkbox"/> Denied</p> <p>Date: 10/31/12</p> <p style="text-align: right;">D. Andrews</p>
	CERTIFICATION		

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the appication is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE



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Receipts Details:

Tender Information: Check , Check Number: 2846

Tender Amount: 330.00

Receipt Header:

Cashier Id: bsaucier

Receipt Date: 9/5/2012

Receipt Number: 47869

Receipt Details:

Referance ID:	7907	Fee Type:	BP-Constr
Receipt Number:	0	Payment Date:	
Transaction Amount:	280.00	Charge Amount:	280.00
Job ID: Job ID: 2012-09-4883-ALTR - Internal reconstruction, multiple floors; 2dormers			
Additional Comments: 44 Winter			

Referance ID:	7908	Fee Type:	BP-HRAD
Receipt Number:	0	Payment Date:	
Transaction Amount:	50.00	Charge Amount:	50.00
Job ID: Job ID: 2012-09-4883-ALTR - Internal reconstruction, multiple floors; 2dormers			

Permit Application 8-30-2012

OWNER: Linwood and Elizabeth Parsons
44 Winter Street
Portland, Maine 04102
617-710-6241
linparsons@comcast.net

PROJECT COORDINATOR:
REALTOR Jennifer Defilipp
Townsend Real Estate
207-272-6581
jend@townsendre.com

BUILDING CONTRACTOR: Mark Lenard
124 Cape Rd.
Hollis, Maine 04042
207-720-0922
mainemrk@gmail.com

ENGINEER: Helen Watts Engineering
455 Litchfield Rd.
Bowdoin, Maine 04287
207-522-9366
hcwatts@gwi.net

ELECTRICIAN: R.W. Googins (permit to follow)
N. Yarmouth, Maine
207-829-4633

PLUMBER Paul Berry (permit to follow)
Hollis, Maine
207-727-4079

GAS AND HEATING Lee Landry
Revision Heat
207-570-4222
lee@revisionheat.com

Unitil
Mark Allen
207-541-2502
allenm@unitil.com

Renovation Proposal
44 Winter St.
Portland, Maine

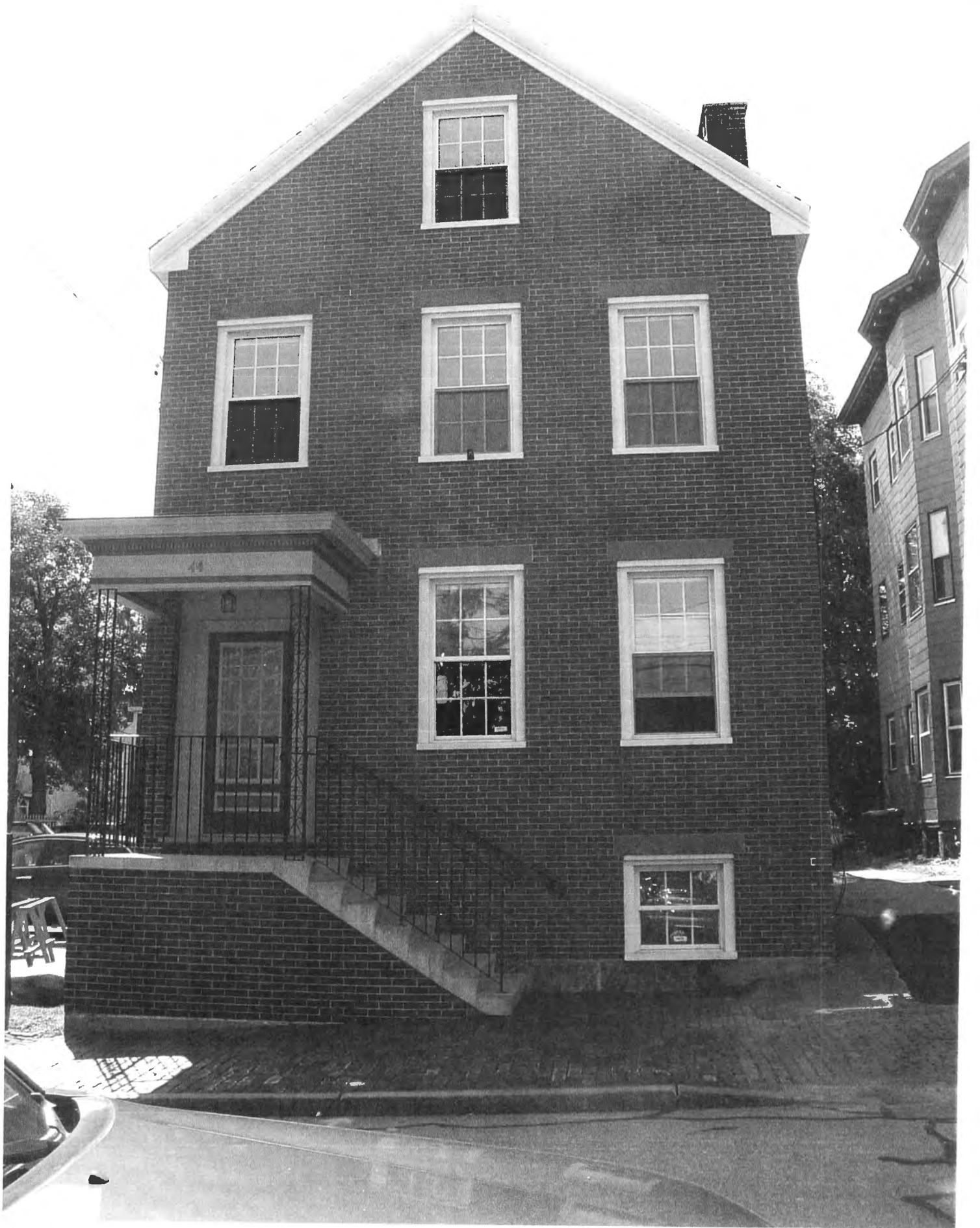
RECEIVED
OCT 31 2012
Dept. of Building Inspections
City of Portland Maine

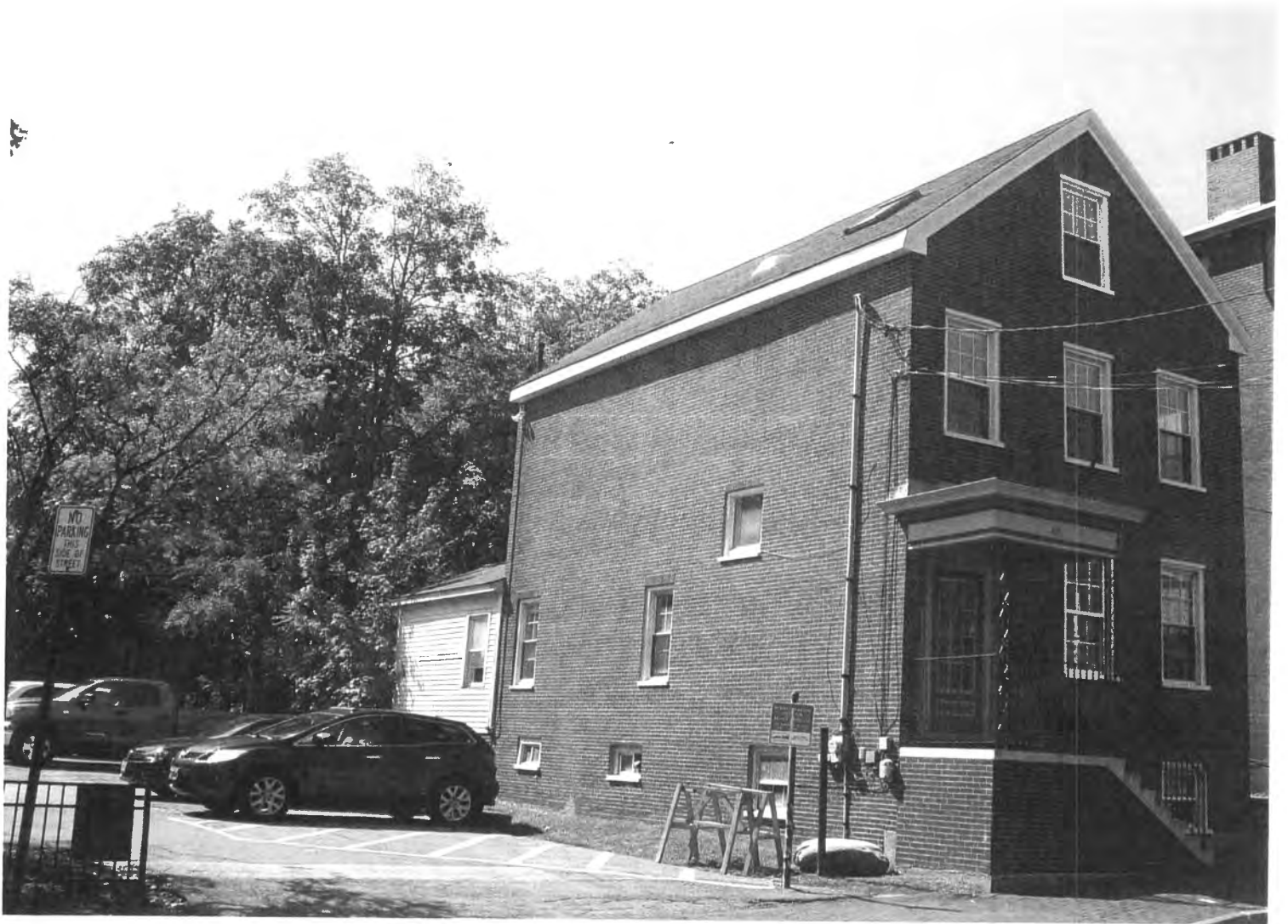
This proposal is a modified version from the previous submission. There will be no dormers.

We are proposing to take down 1/3 of an existing wall between the kitchen and living room and move the existing stairs to an existing closet space for new egress to the third floor. A small section of wall is to be moved 10" and elongated for the new stairwell support. This will create a wider entry into the living space to allow the removal of an existing entry into existing kitchen zone. A new Anderson 440 series full glass back door will be installed. 413 sqft of second floor will be modified. The walls have previously been insulated and the windows replaced. The appliances will be updated and the full bath will change to 1/2 bath and laundry.

The third floor will be gutted to the studs and rafters. Lead safe. The rafters will be strapped with 2" and spray foamed to R38, the walls will be R22 spray foam. The home has been energy audited by Horizon Residential Energy. Five new Vellux Skylights and Two Anderson 400 series casement windows, for fire egress, if necessary, will be installed. A new full bath, a bedroom and an office/guest space will be created. This is 631 sqft.

The total sqft of the entire living space of the building is 2125. The first floor is 840, the second is 654 and the third is 631. We are proposing to structurally renovate 1044 sqft.









Cnv0027.jpg



Cnv0028.jpg



DSC03149-1.JPG



DSC03144-1.JPG



DSC03145-1.JPG



DSC03146-1.JPG



Cnv0026.jpg



Cnv0029.jpg

DOOR SCHEDULE- 44 Winter Street, Portland, Maine

1st Floor Existing

1. 38x86 Wood Storm
2. 36x86 Wood Panel, 2 1/2 "
3. 34x84 Wood Panel, 2"
4. 42x84 Wood Panel, 2" pocket doors
5. 27x84 Hollow Core
6. 29x84 Hollow Core
7. 30x84 Hollow Core
8. 32x86 Wood panel, 2"
9. 30x84 Exterior, top glass, DBL Pane
10. 31x84, Wood Panel, closet
11. 31x84, Aluminum Storm

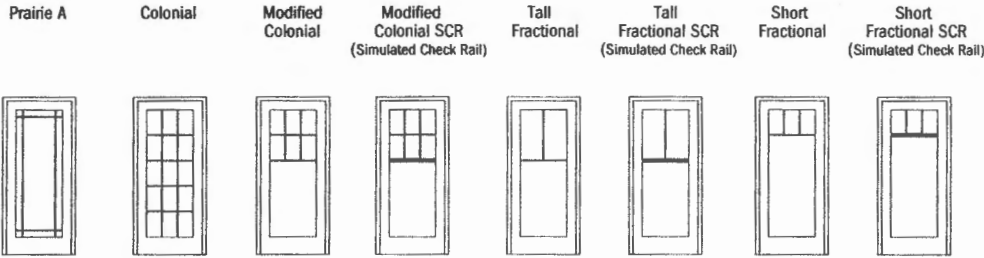
2nd Floor Existing

12. 30x84 Wood Panel 2"
13. 30x84 Wood Panel, 1 1/2"
14. 33x84 Exterior, Top half glass, DBL Pane

2nd Floor New

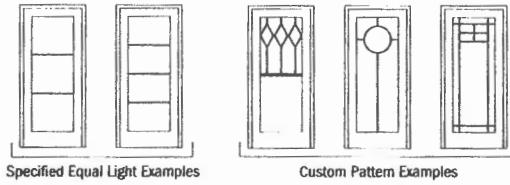
15. 36x90, Exterior Wood, Full Glass, DBL Pane-rear 2nd fl. door

Divided Light Patterns



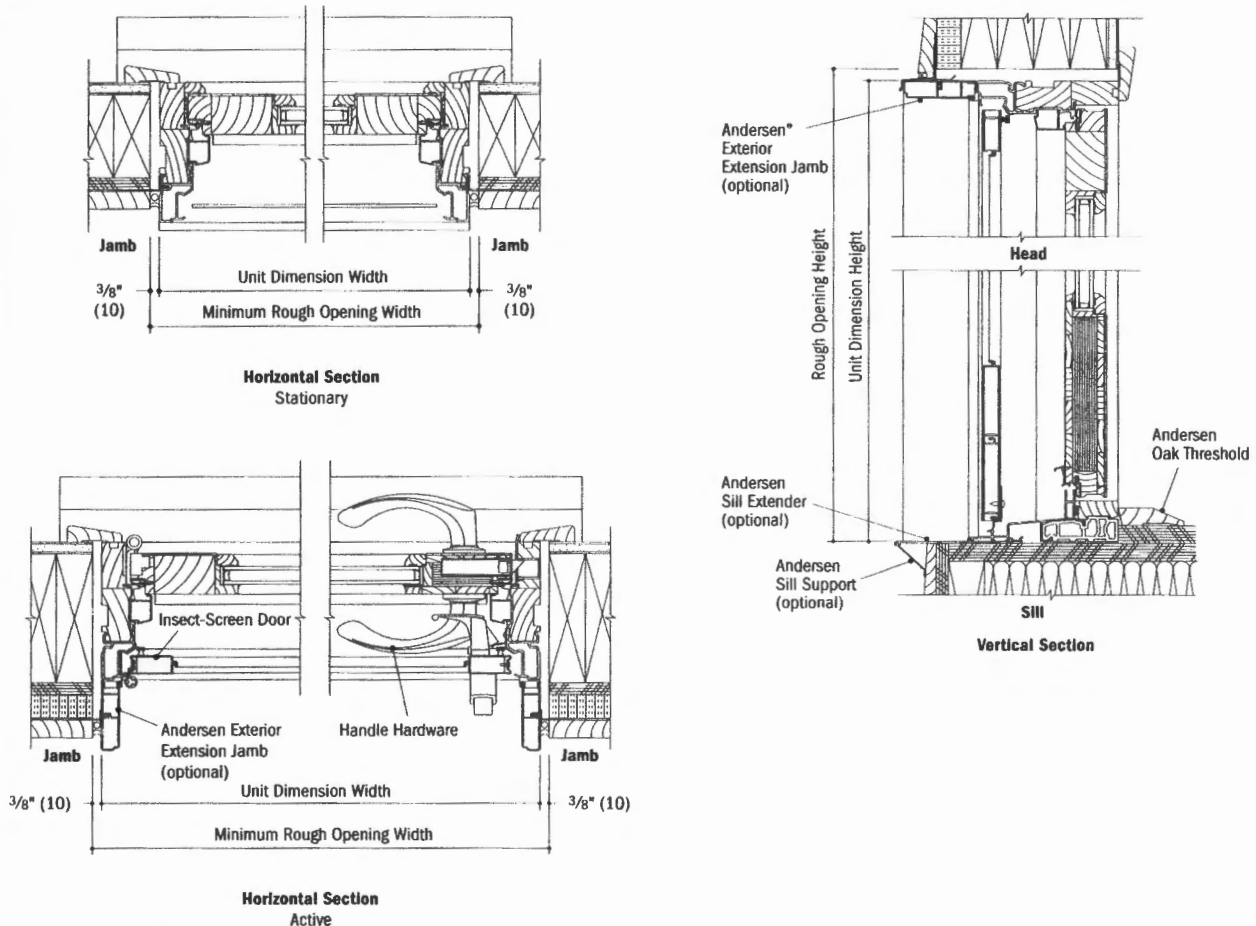
of lights and overall pattern varies with panel
Patterns are not available in all configurations.

equal light and custom patterns are also
For more information on divided light see
or visit andersenwindows.com/grilles.



Frenchwood® Hinged Inswing Patio Door Details

Scale: 1 1/2" = 1'-0" (1:8)

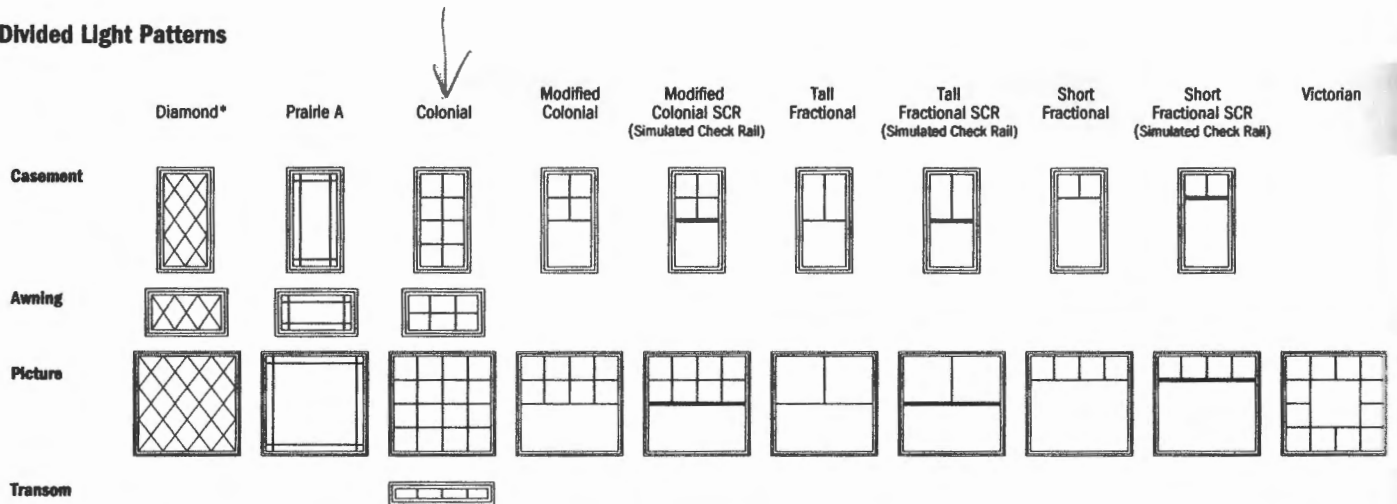


Dark-colored areas are parts included with door. Dark-colored areas are additional Andersen® parts required to complete door assembly as shown.
Openings may need to be increased to allow for use of building wraps, flashing, sill panning, brackets, fasteners or other items. See Installation Information on page 33.
Diagrams are for illustration only and are not intended to represent product installation methods or materials. Refer to product installation guides at andersenwindows.com.

400 Series
Frenchwood® Hinged
Patio Doors — Inswing

CASEMENT & AWNING WINDOWS

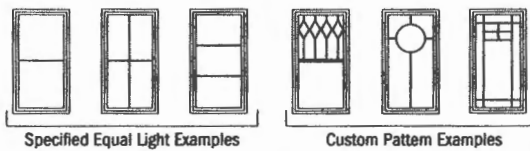
Divided Light Patterns



* Available only in Simulated Divided Light (SDL) configuration and only in 3/4" and 7/8" widths.

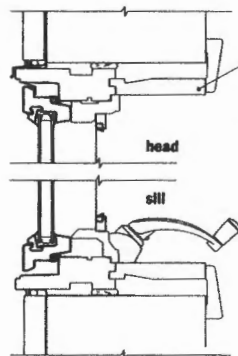
Number of lights and overall pattern varies with window size. Patterns are not available in all configurations.

Specified equal light and custom patterns are also available. For more information on divided light see page 13 or visit andersenwindows.com/grilles.

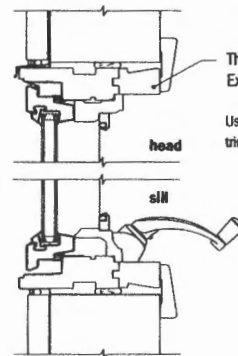


Interior Trim Options

Extension jamb and drywall return bead applications shown. See page 37 for more information.

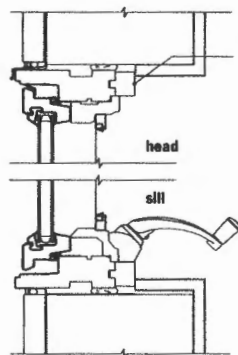


Extension Jamb
(available for a variety of wall thicknesses)

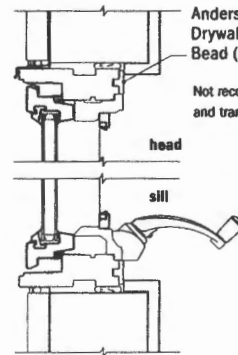


Thick Replacement
Extension Jamb

Useful when alignment with existing trim and paint lines is desired.



Andersen® Wide
Drywall Return
Bead (optional)



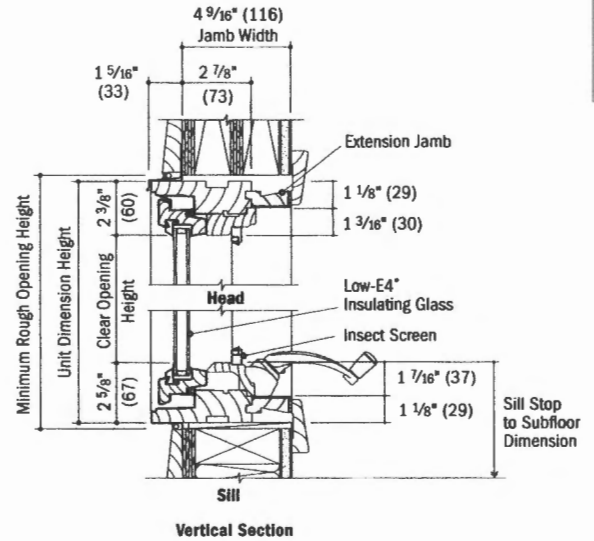
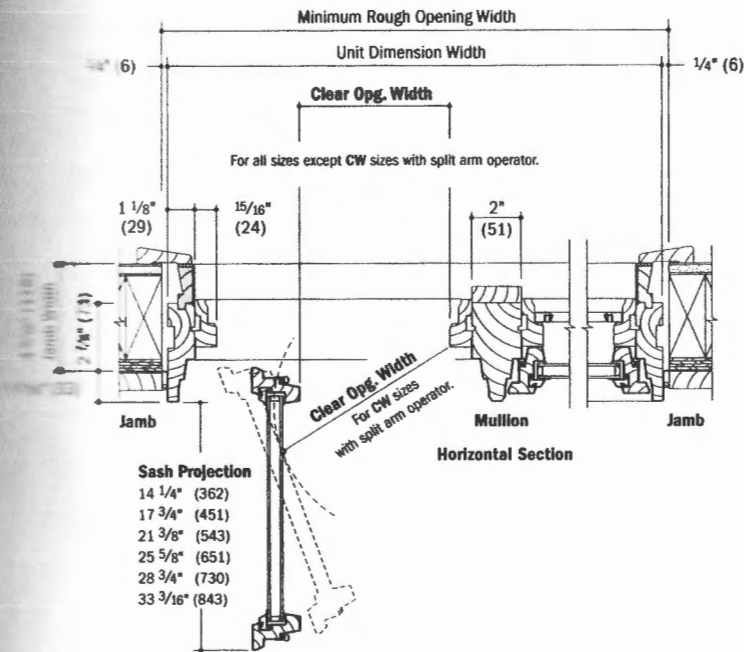
Andersen® Narrow
Drywall Return
Bead (optional)

Not recommended for picture and transom windows.

• Light-colored areas are parts included with window. Dark-colored areas are additional Andersen® parts required to complete window assembly as shown.
• Details are for illustration only and are not intended to represent product installation methods or materials. Refer to product installation guides at andersenwindows.com.

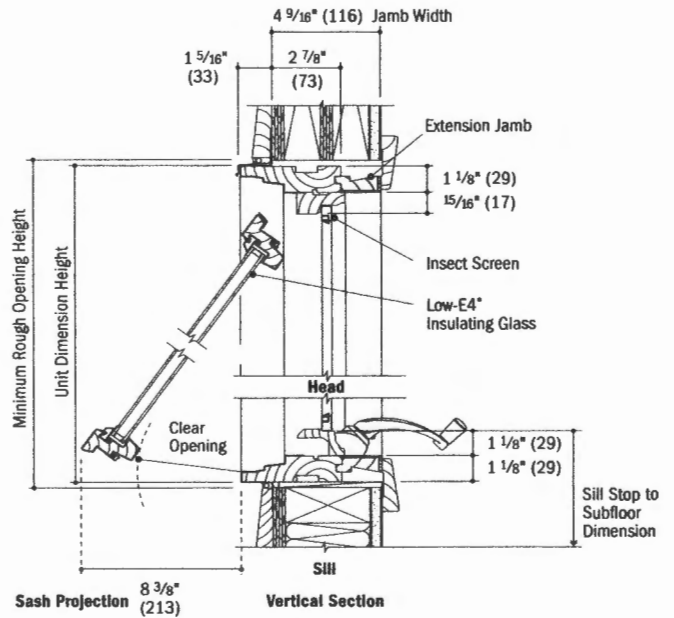
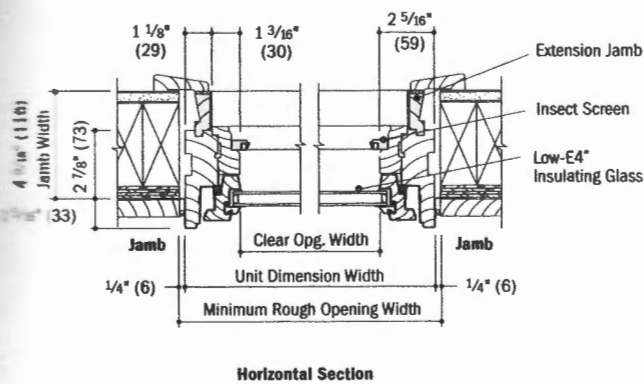
Casement Window Details

Scale 1/2" = 1'-0" (1:8)



Awning Window Details

Scale 1/2" = 1'-0" (1:8)



• 4 9/16" jamb width measurement is from backside of installation flange.
 • Light-colored areas are parts included with window. Dark-colored areas are additional Andersen® parts required to complete window assembly as shown.
 • Rough openings may need to be increased to allow for use of building wraps, flashing, sill panning, brackets, fasteners or other items. See installation information on page 33.
 • Details are for illustration only and are not intended to represent product installation methods or materials. Refer to product installation guides at andersenwindows.com.

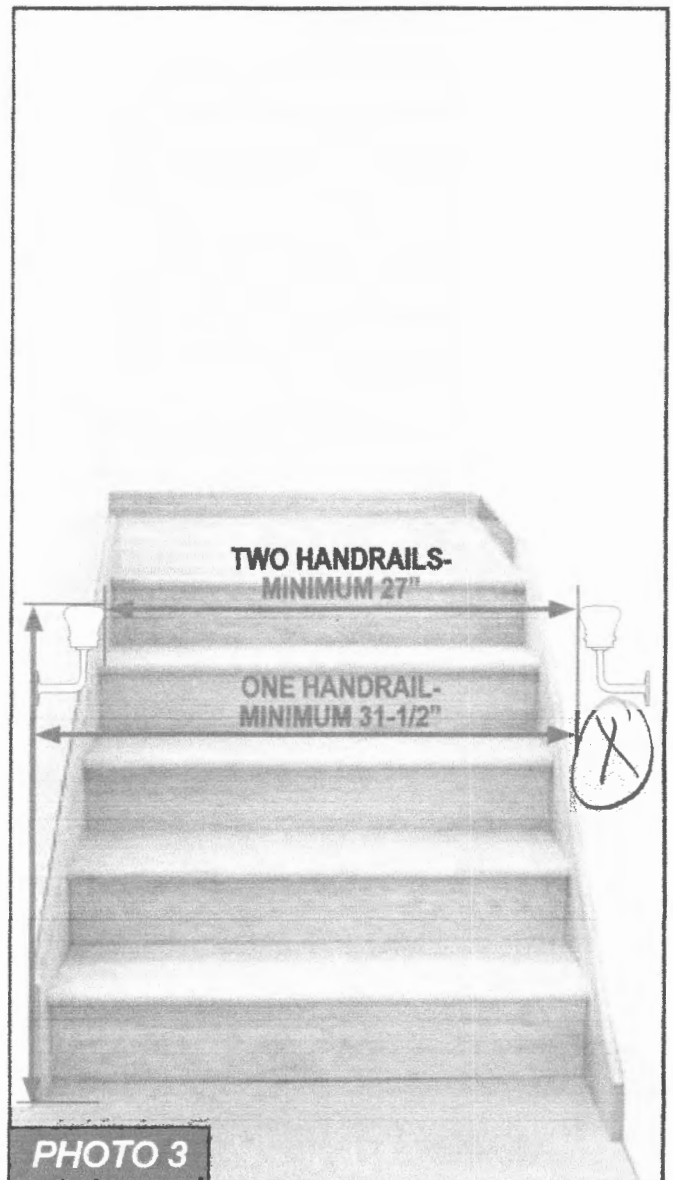
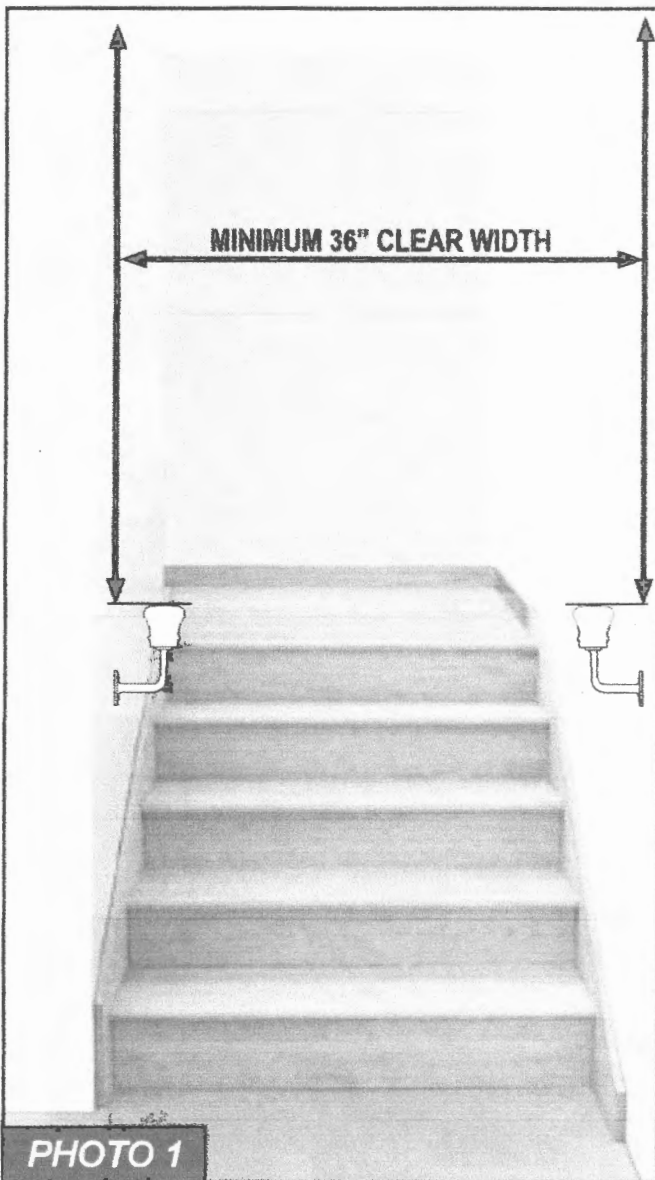
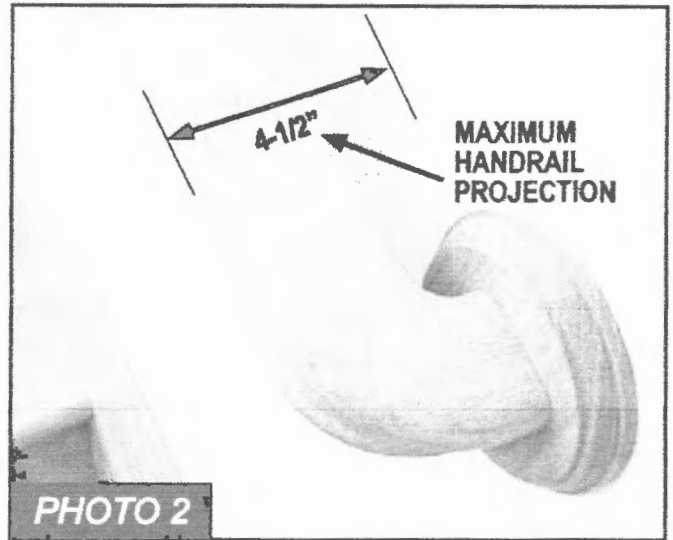
SECTION R311.5 STAIRWAYS

R311.5.1 Width.

Stairways shall not be less than 36 inches (914 mm) in clear width at all points above the permitted handrail height and below the required headroom height.

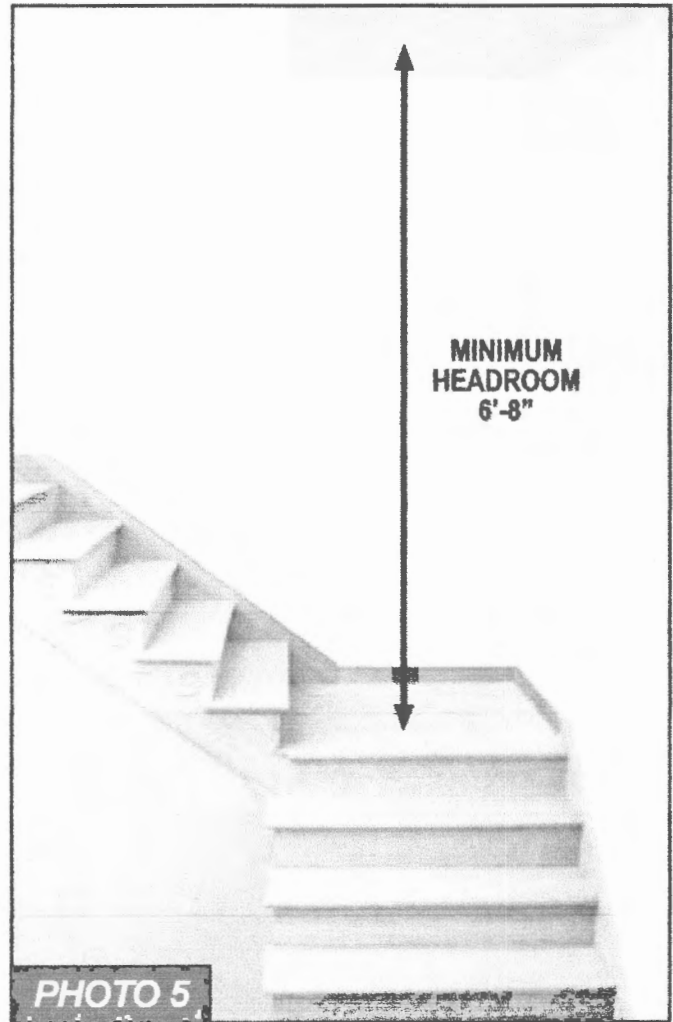
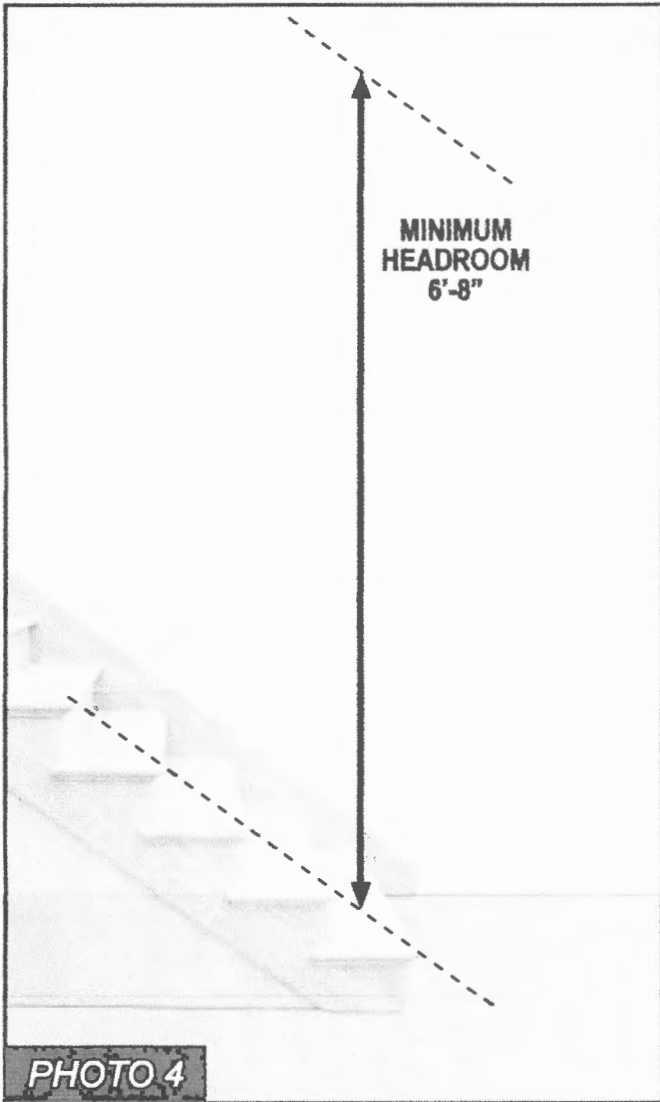
PHOTO 1. Handrails shall not project more than 4 5 inches (114 mm) on either side of the stairway **PHOTO 2** and the minimum clear width of the stairway at and below the handrail height, including treads and landings, shall not be less than 31.5 inches (787 mm) where a handrail is installed on one side and 27 inches (698 mm) where handrails are provided on both sides **PHOTO 3.**

Exception: The width of spiral stairways shall be in accordance with Section R311.5.8. See **PHOTO 35** on page 12.



R311.5.2 Headroom.

The minimum headroom in all parts of the stairway shall not be less than 6 feet, 8 inches (2036 mm) measured vertically from the sloped plane adjoining the tread nosing **PHOTO 4** or from the floor surface of the landing or platform. **PHOTO 5.**



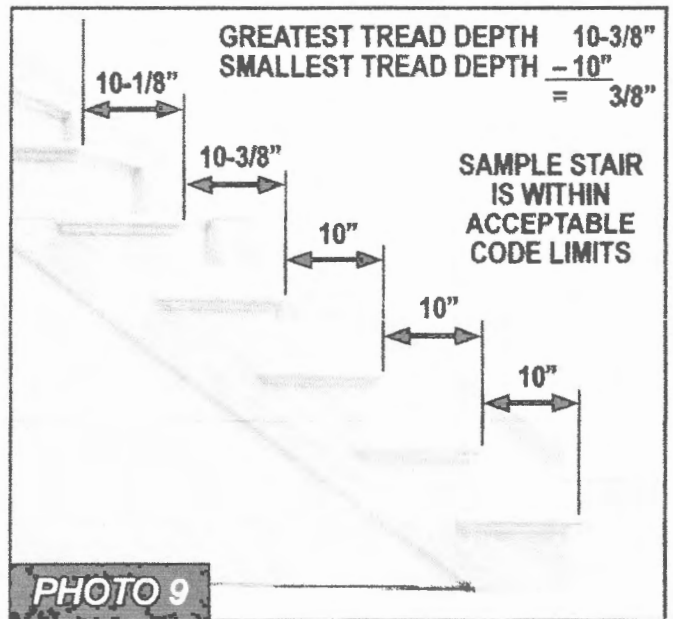
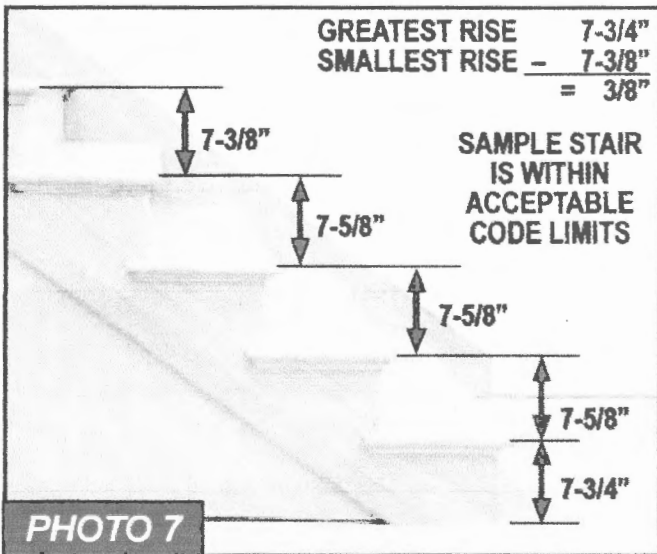
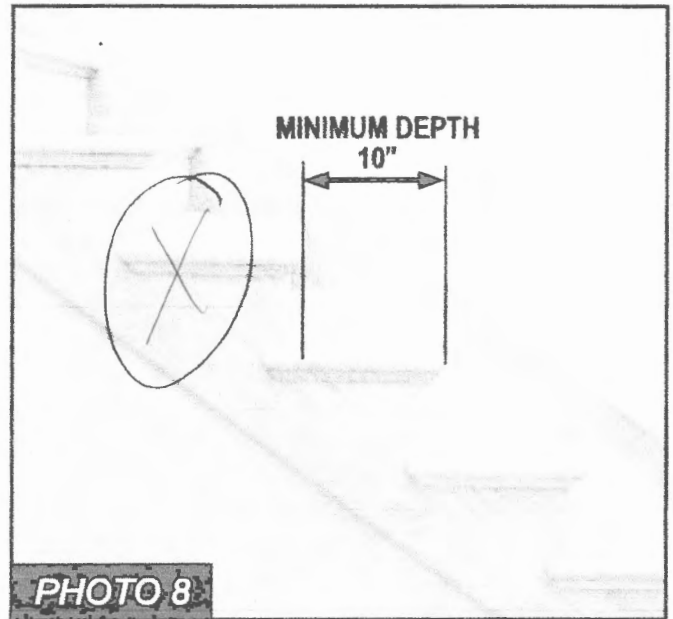
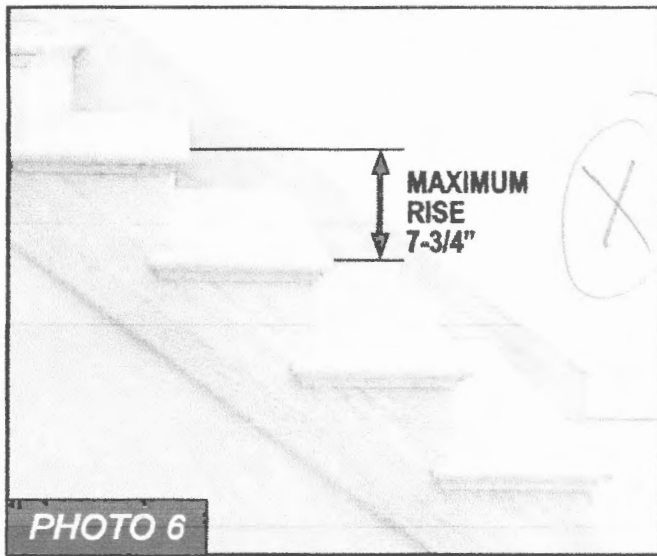
R311.5.3 Stair treads and risers.

R311.5.3.1 Riser height.

The maximum riser height shall be 7¾ inches (196 mm). The riser shall be measured vertically between leading edges of the adjacent treads. **PHOTO 6.** The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3⁄8 inch (9.5 mm). **PHOTO 7.**

R311.5.3.2 Tread depth.

The minimum tread depth shall be 10 inches (254 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. **PHOTO 8.** The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3⁄8 inch (9.5 mm). **PHOTO 9.**



Winder treads shall have a minimum tread depth of 10 inches (254 mm) measured as above at a point 12 inches (305 mm) from the side where the treads are narrower. **DRAWING 10.** Winder treads shall have a minimum tread depth of 6 inches (152 mm) at any point. **DRAWING 11.** Within any flight of stairs, the greatest winder tread depth at the 12 inch (305 mm) walk line shall not exceed the smallest by more than 3⁄8 inches (9.5 mm).

R311.5.3.3 Profile.

The radius of curvature at the leading edge of the tread shall be no greater than 9/16 inch (14.3 mm).

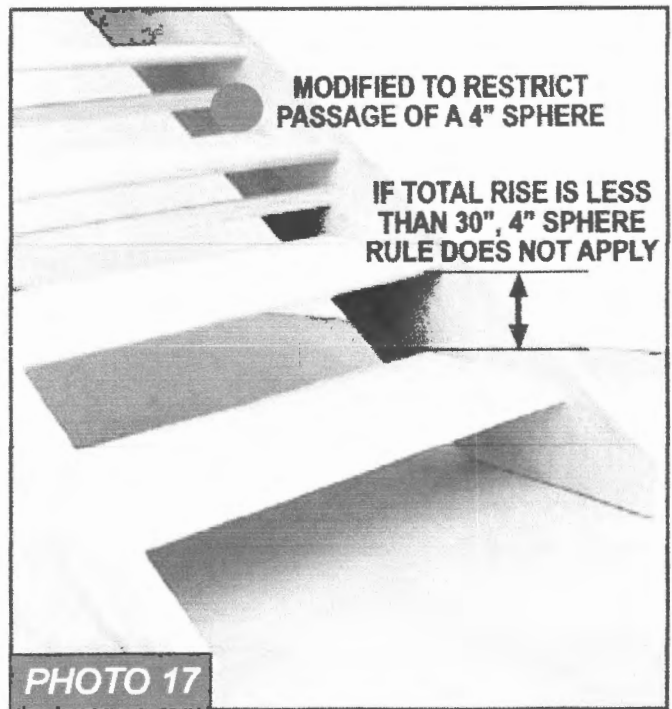
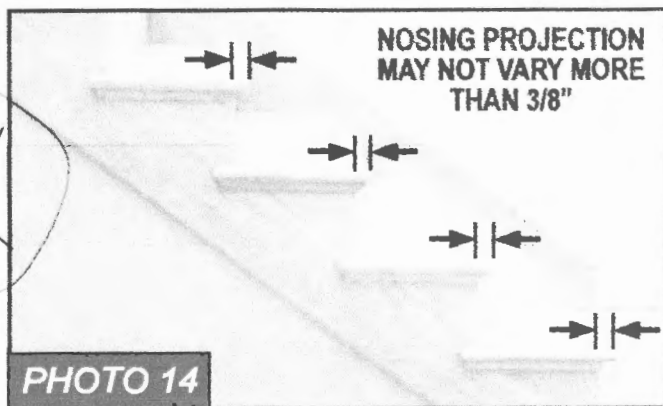
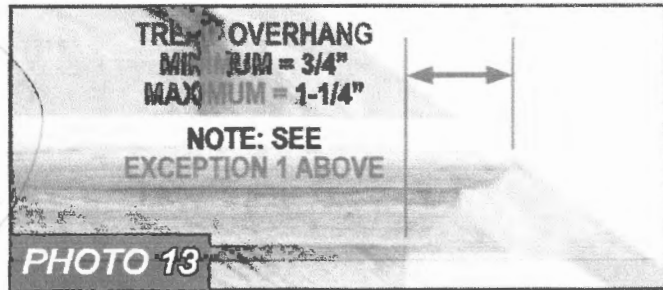
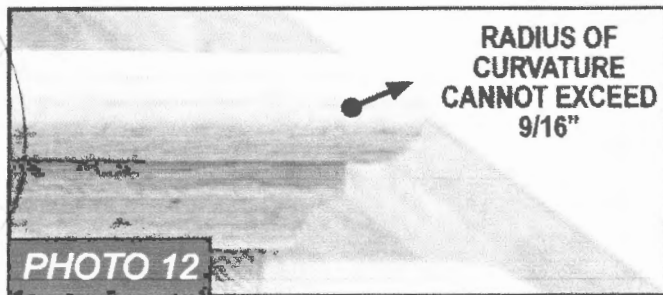
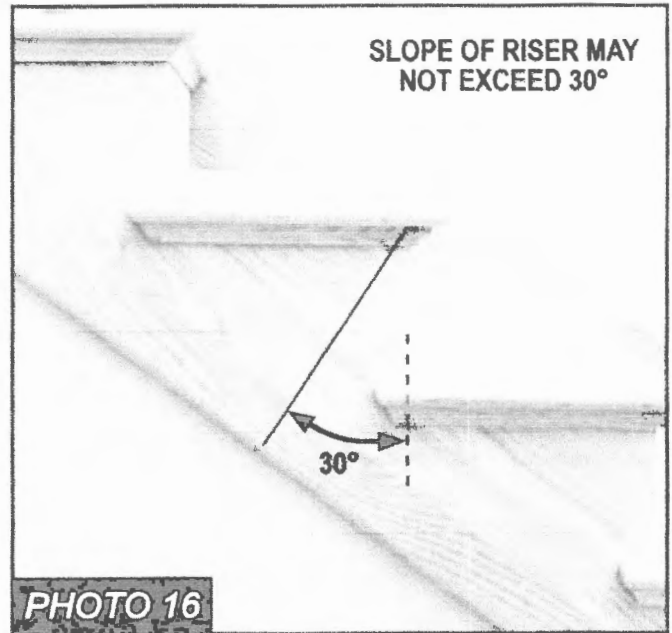
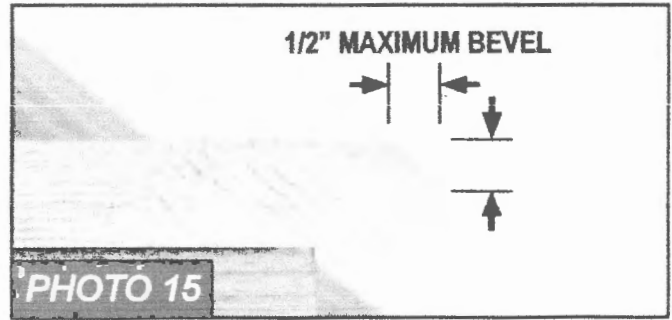
PHOTO 12. A nosing not less than 3/4 inch (19 mm) but not more than 1 1/4 inches (32 mm) shall be provided on stairways with solid risers. **PHOTO 13.**

The greatest nosing projection shall not exceed the smallest nosing projection by more than 3/8 inch (9.5 mm) between two stories, including the nosing at the level of floors and landings. **PHOTO 14.** Beveling of nosing shall not exceed 1/2 inch (12.7 mm).

PHOTO 15. Risers shall be vertical or sloped from the underside of the leading edge of the tread above at an angle not more than 30 (0.51 rad) degrees from the vertical. **PHOTO 16.** Open risers are permitted,

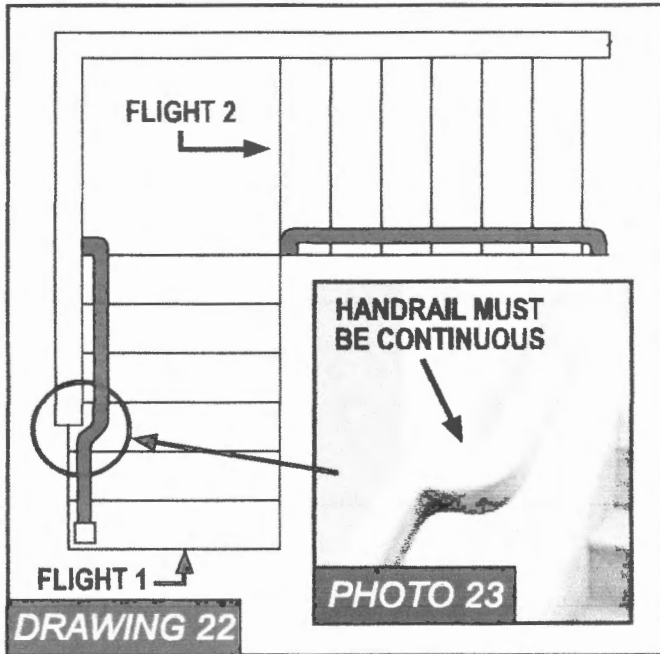
provided that the opening between treads does not permit the passage of a 4-inch diameter (102 mm) sphere. **PHOTO 17.**

- Exceptions:*
1. A nosing is not required where the tread depth is a minimum of 11 inches (279 mm).
 2. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches (762 mm) or less. **PHOTO 17.**



R311.5.6.2 Continuity.

Handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above lowest riser of the flight. **DRAWING 22** and **PHOTO 23**. Handrail ends shall be returned **PHOTO 24** or shall terminate in newel posts or safety terminals. Handrails adjacent to a wall shall have a space of not less than 1½ inches (38 mm) between the wall and the handrails. **PHOTO 25**.



DRAWING 22



PHOTO 23



PHOTO 24

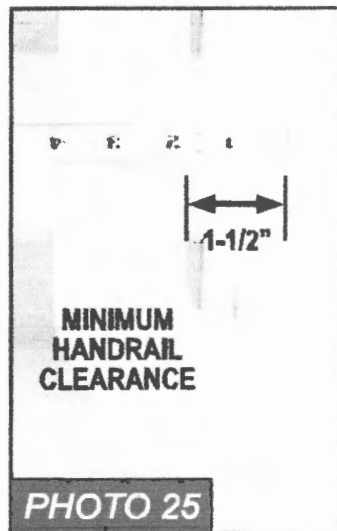


PHOTO 25

Exceptions: 1. Handrails shall be permitted to be interrupted by a newel post at the turn. **PHOTO 26**.

2. The use of a volute, turnout, starting easing or starting newel shall be allowed over the lowest tread. **PHOTO 27**.

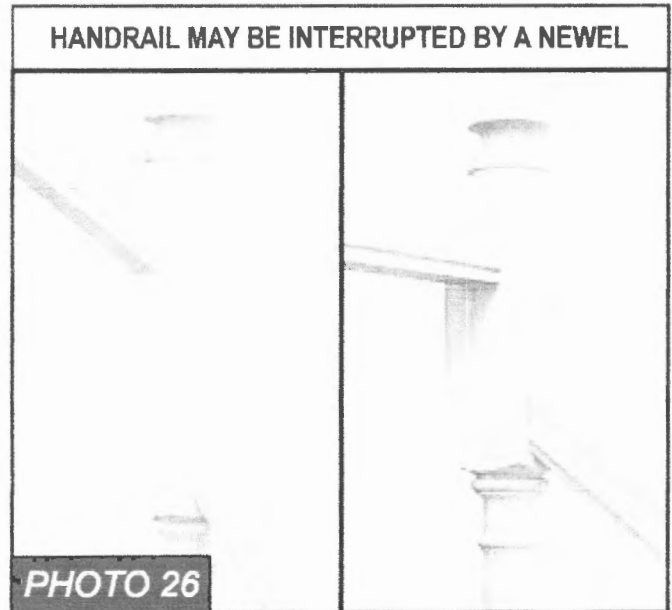


PHOTO 26

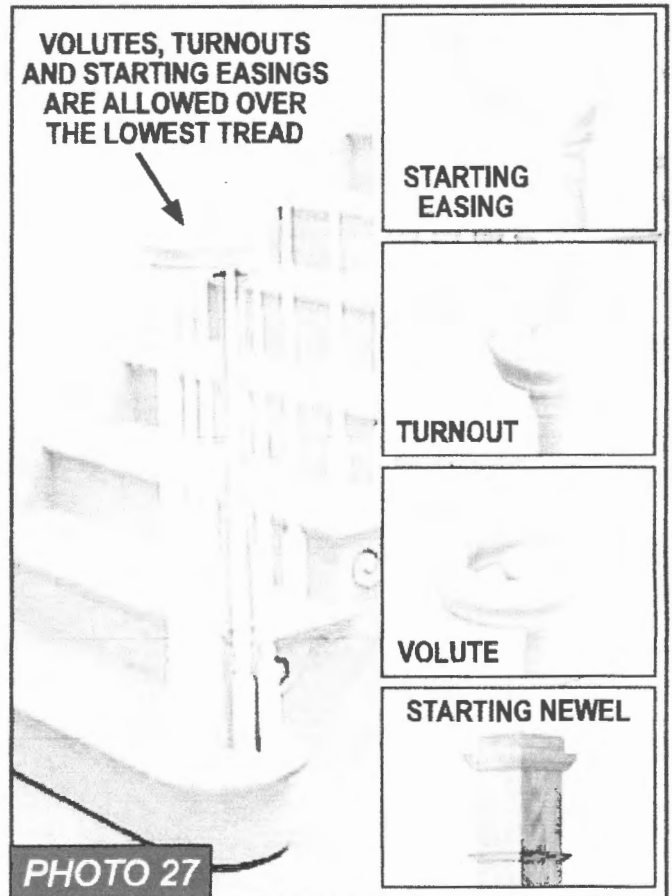
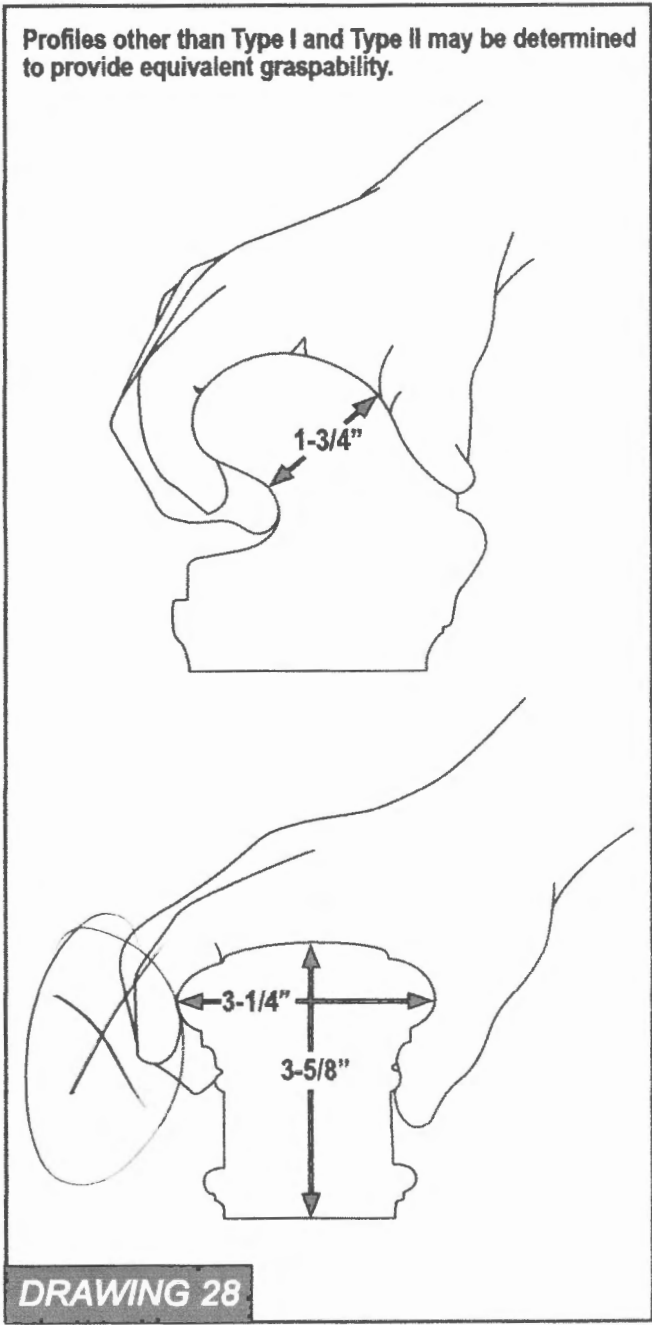


PHOTO 27

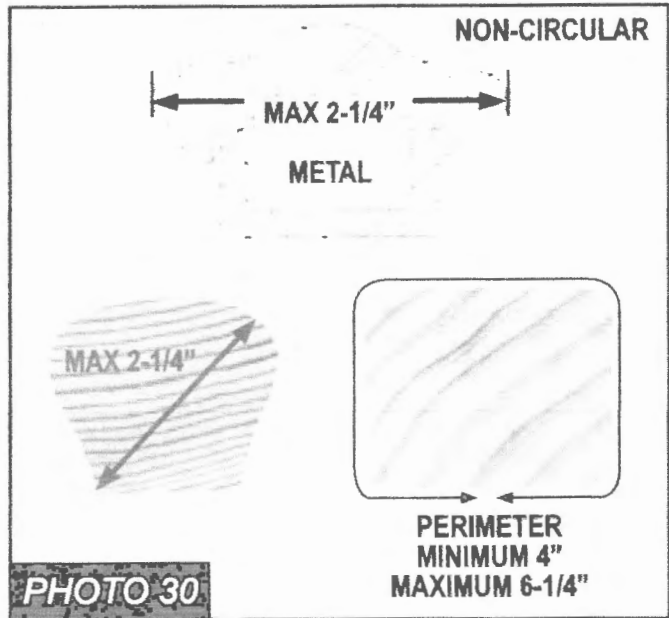
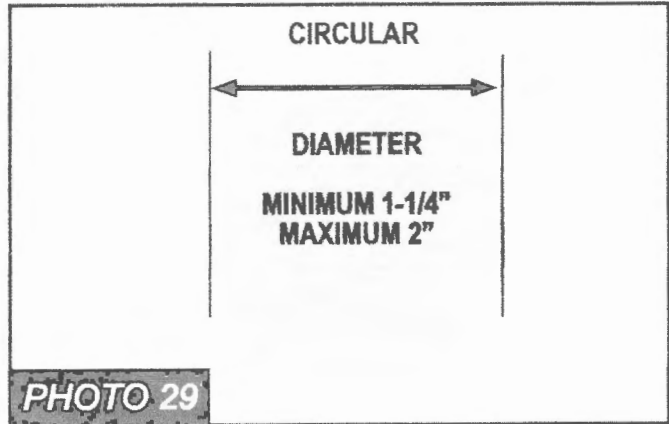
R311.5.6.3 Handrail grip size.

All required handrails shall be of one of the following types or provide equivalent graspability. **DRAWING 28.**

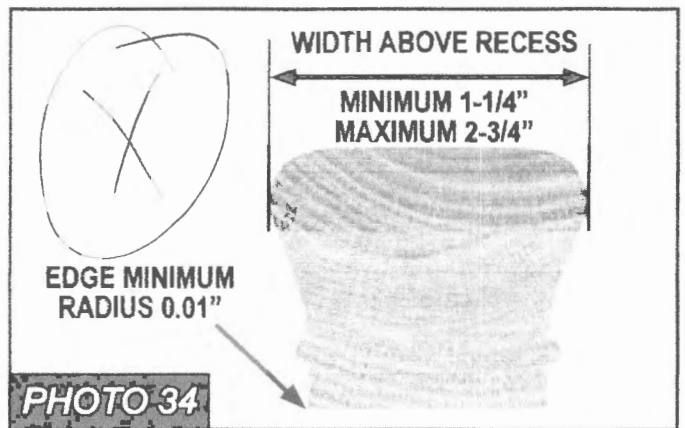
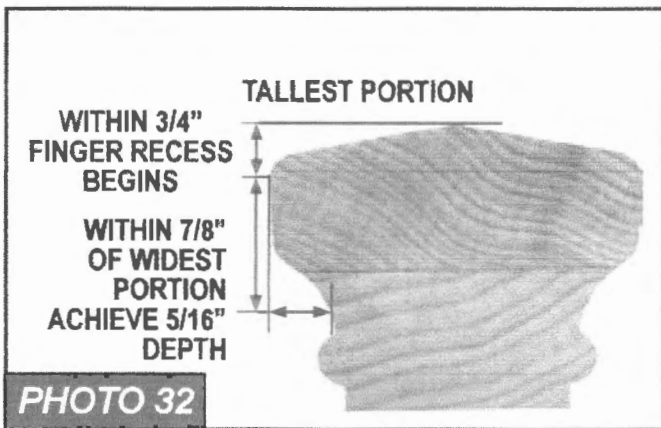
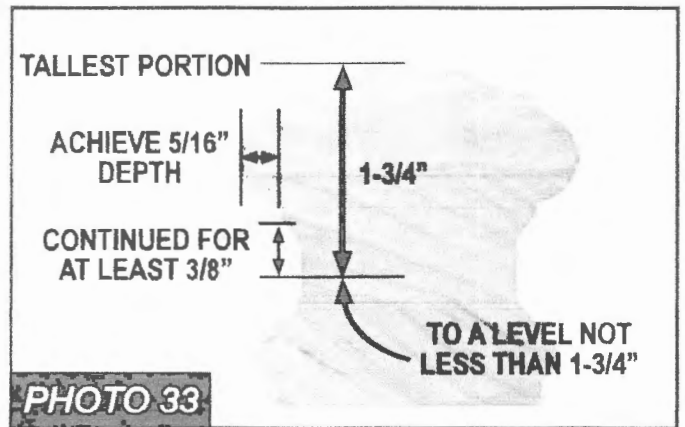
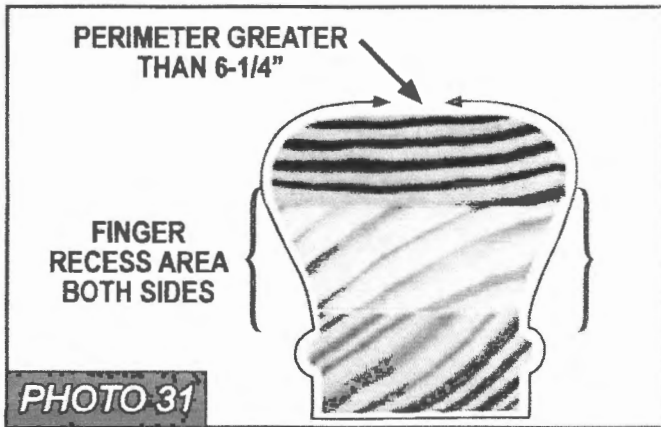


1. Type I. Handrails with a circular cross section shall have an outside diameter of at least 1 1/4 inches (32 mm) and not greater than 2 inches (51 mm).

PHOTO 29. If the handrail is not circular it shall have a perimeter dimension of at least 4 inches (102 mm) and not greater than 6 1/4 inches (160 mm) with a maximum cross section of dimension of 2 1/4 inches (57 mm). **PHOTO 30.**



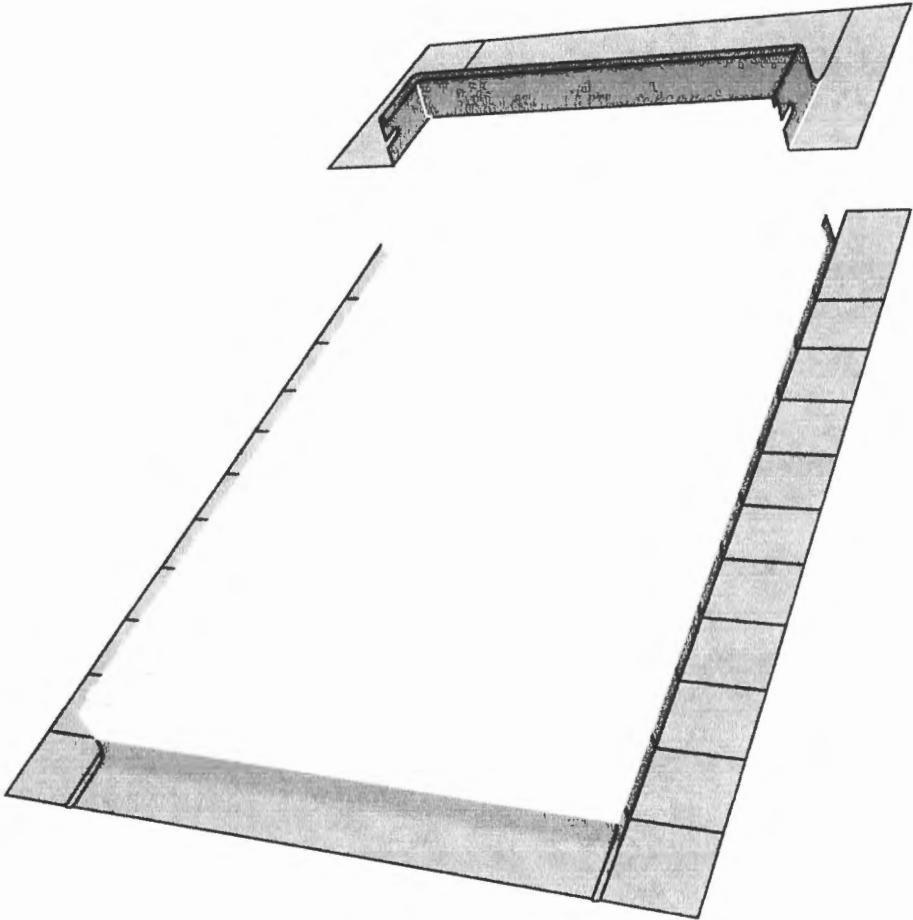
2. Type II. Handrails with a perimeter greater than 6¼ inches (160mm) shall provide a graspable finger recess area on both sides of the profile. **PHOTO 31.** The finger recess shall begin within a distance of ¾ inch (19 mm) measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16 inch (8mm) within 7/8 inch (22mm) below the widest portion of the profile. **PHOTO 32.** This required depth shall continue for at least 3/8 inch (10mm) to a level that is not less than 1¾ inches (45 mm) below the tallest portion of the profile. **PHOTO 33.** The minimum width of the handrail above the recess shall be 1¼ inches (32 mm) to a maximum of 2¾ inches (70 mm). **PHOTO 34.** Edges shall have a minimum radius of 0.01 inches (0.25 mm). **PHOTO 34.**



R311.5.7 Illumination.

All stairs shall be provided with illumination in accordance with Section R303.6

EDL +
FS, VS, VSE

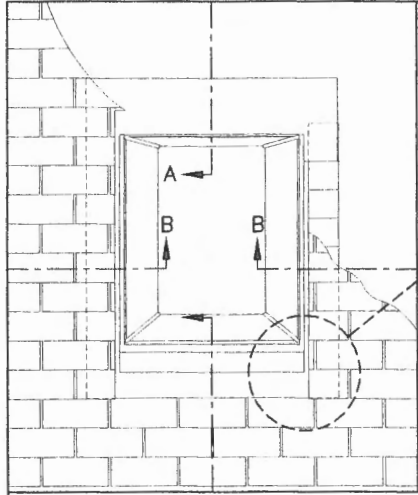


ENGLISH: EDL Deck Mounted Skylight Flashing Installation Instructions

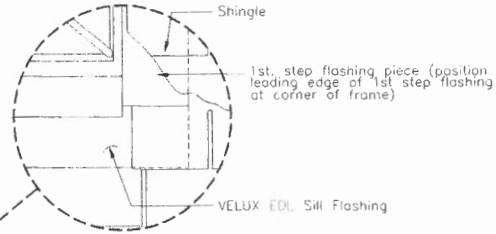
ESPAÑOL: Instrucciones de instalación de tapajuntas EDL para tragaluz montado sobre tablero

FRANÇAIS : Instructions d'installation du solin EDL pour puits de lumière à cadre intégré monté directement sur la toiture

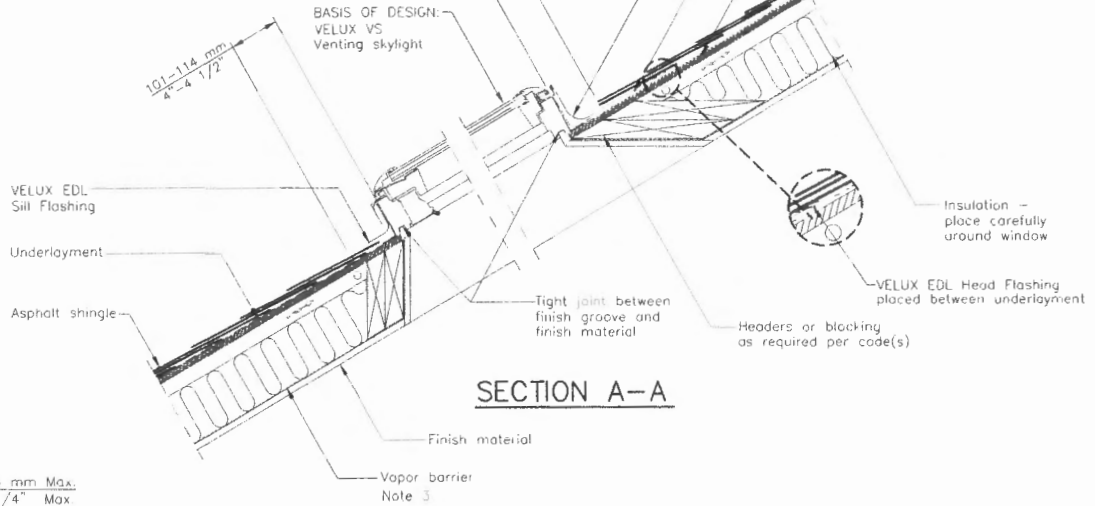




ELEVATION



Shingle
1st. step flashing piece (position leading edge of 1st step flashing at corner of frame)
VELUX EDL Sill Flashing



SECTION A-A

BASIS OF DESIGN:
VELUX VS
Venting skylight

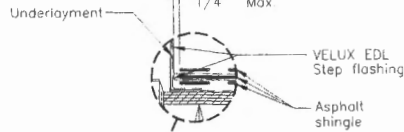
VELUX EDL
Step flashing

Sheathing

Ventilation

Insulation

Vapor barrier
Note 3



Underlayment
Note 1 & 2

SECTION B-B

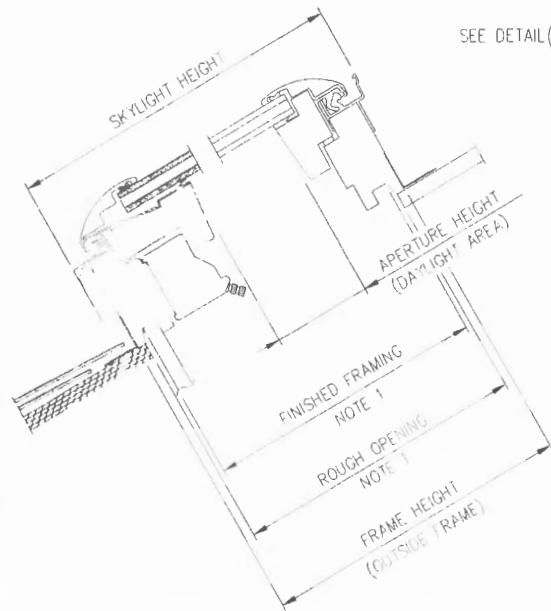
Tight joint between finish groove and finish material.
Finish material

GENERAL NOTES

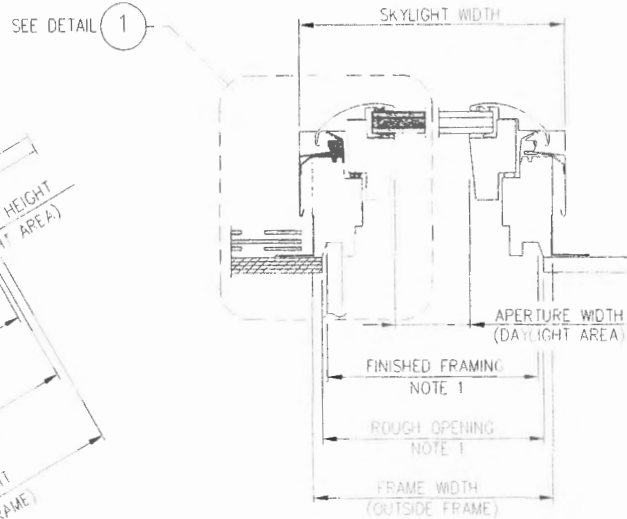
1. Wrap frame in ZOZ 216 adhesive underlayment provided with VELUX flashing.
2. Underlayment to be folded up against all sides of curb.
3. Vapor barrier should be used to avoid moisture.

	VELUX 1418 Evans Pond Road Greenwood, SC 29649 1-800-88-VELUX www.VELUXUSA.com	Name Date
	Sky-Product Management	Drawn by: JDH Apr 10 Checked by: WG, JL Apr 10 Drawing No.
VS-Residential/Commercial Roof Section (Cathedral Ceiling with Asphalt Shingles)		VS-02-1208

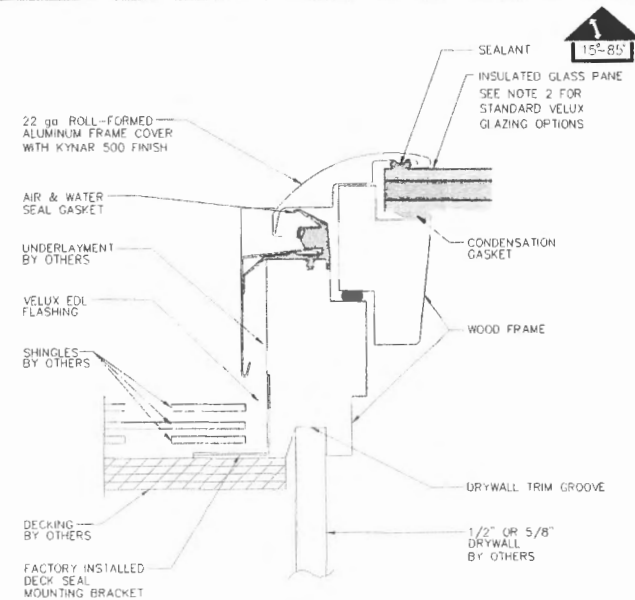
This drawing is an instrument of service and is provided for informational use only.



VERTICAL CROSS SECTION



HORIZONTAL CROSS SECTION



DETAIL 1

PRODUCT DIMENSIONS

METRIC UNITS (MILLIMETERS)								IMPERIAL UNITS (INCHES)							
SIZE	FRAME WIDTH	FRAME APERTURE WIDTH	SKYLIGHT WIDTH	FRAME HEIGHT	FRAME APERTURE HEIGHT	SKYLIGHT HEIGHT	DAYLIGHT AREA (SQ. M)	SIZE	FRAME WIDTH	FRAME APERTURE WIDTH	SKYLIGHT WIDTH	FRAME HEIGHT	FRAME APERTURE HEIGHT	SKYLIGHT HEIGHT	DAYLIGHT AREA (SQ. FT.)
A06	387	248	407.7	1175	1036	1200	.25	A06	15 1/4	9 3/4	16 1/16	46 1/4	40 3/4	47 1/4	2.67
C01	546	407	566.7	695	556	720	.21	C01	21 1/2	16	22 5/16	27 3/8	21 7/8	28 3/8	2.27
C04	546	407	566.7	975	836	1000	.33	C04	21 1/2	16	22 5/16	38 3/8	32 15/16	39 3/8	3.50
C06	546	407	566.7	1175	1036	1200	.41	C06	21 1/2	16	22 5/16	46 1/4	40 3/4	47 1/4	4.38
C08	546	407	566.7	1395	1256	1420	.50	C08	21 1/2	16	22 5/16	54 15/16	49 1/2	55 15/16	5.34
M04	776	637	796.7	975	836	1000	.51	M04	30 9/16	25	31 3/8	38 3/8	32 15/16	39 3/8	5.48
M06	776	637	796.7	1175	1036	1200	.64	M06	30 9/16	25	31 3/8	46 1/4	40 3/4	47 1/4	6.86
M08	776	637	796.7	1395	1256	1420	.78	M08	30 9/16	25	31 3/8	54 15/16	49 1/2	55 15/16	8.36
S01	1136	997	1156.7	695	556	720	.52	S01	44 3/4	39 1/4	45 9/16	27 3/8	21 7/8	28 3/8	5.57
S06	1136	997	1156.7	1175	1036	1200	1.0	S06	44 3/4	39 1/4	45 9/16	46 1/4	40 3/4	47 1/4	10.73

NOTES:

1 The ROUGH OPENING and FINISHED FRAMING dimensions are based on perpendicular interior finish material on all four sides and these dimensions will vary depending on the roof construction, the thickness and the design of the interior finish material.

2 Standard VELUX Glazing options for the VELUX VS Skylight include the following glass types:

- Laminated LowE3 (04)
- Tempered LowE3 (05)
- Impact (06)
- Snowload (10)

<p>VELUX 1418 Evans Pond Road Greenwood, SC 29649 1-800-88-VELUX www.VELUXUSA.com</p> <p>Sky-Product Management</p>	Name	Date
	Drawn by	JDH Oct 2012
	Checked by	BDM JLD Oct 2012
<p>VS - Manual Venting Skylight Product Data, Product Dimensions, Cross Sections & Enlarged Detail</p>		<p>Drawing No.</p> <p>VS-01-1012</p>

This drawing is an instrument of service and is provided for informational use only

Deck mounted skylights and roof windows

Models VSE and VS ~~X~~

New size code (Old size code)		C01 (101)	C04 (104)	C05 (105)	C06 (106)	C07 (107)	C08 (108)	M02 (202)	M04 (204)	M06 (206)	M08 (208)	S01 (601)	S06 (606)
Outside frame	in.	21 1/2 x 27 3/8	21 1/2 x 38 3/8	21 1/2 x 46 1/4	21 1/2 x 54 15/16	21 1/2 x 54 15/16	30 9/16 x 38 3/8	30 9/16 x 46 1/4	30 9/16 x 54 15/16	30 9/16 x 54 15/16	44 3/4 x 27 3/8	44 3/4 x 46 1/4	
Rough opening	in.	21 x 26 7/8	21 x 37 1/8	21 x 45 3/4	21 x 54 1/2	21 x 54 7/16	30 1/16 x 37 7/8	30 1/16 x 45 1/4	30 1/16 x 54 7/16	30 1/16 x 54 7/16	44 1/4 x 26 7/8	44 1/4 x 45 3/4	
Daylight Area	in.	16 x 20.44	16 x 31.5	16 x 39.38	16 x 48	16 x 48	25 x 31.5	25 x 39.38	25 x 48	25 x 48	30.25 x 20.44	39.25 x 39.38	
Ventilation Area	sq. ft.	2.60	3.56	4.4	4.4	4.71	4.17	4.75	5.32	5.32	4.31	5.84	

Model FS

New size code (Old size code)		A06 (056)	C01 (101)	C04 (104)	C05 (105)	C06 (106)	C07 (107)	C08 (108)	M02 (202)	M04 (204)	M06 (206)	M08 (208)	S01 (601)	S06 (606)
Outside frame	in.	15 1/4 x 46 3/4	21 1/2 x 27 3/8	21 1/2 x 38 3/8	21 1/2 x 46 1/4	21 1/2 x 54 15/16	21 1/2 x 70 3/4	23 1/4 x 23 7/16	23 1/4 x 46 1/4	30 9/16 x 30 1/2	30 9/16 x 38 3/8	30 9/16 x 46 1/4	30 9/16 x 54 15/16	44 3/4 x 27 3/8
Rough opening	in.	14 1/2 x 45 3/4	21 x 26 7/8	21 x 37 1/8	21 x 45 3/4	21 x 54 7/16	21 x 70 1/4	22 1/2 x 22 15/16	22 1/2 x 45 1/4	30 1/16 x 30	30 1/16 x 37 7/8	30 1/16 x 45 3/4	30 1/16 x 54 7/16	44 1/4 x 26 7/8
Daylight Area	in.	11 15/16 x 42 15/16	18 3/16 x 24 1/16	18 3/16 x 35 1/16	18 3/16 x 42 15/16	18 3/16 x 51 5/8	18 3/16 x 67 7/16	19 15/16 x 20 1/8	19 15/16 x 42 15/16	27 1/4 x 27 3/16	27 1/4 x 35 1/16	27 1/4 x 42 15/16	27 1/4 x 51 5/8	41 7/16 x 24 1/16

Model FS sizes D26 and D06 fit perfectly between roof trusses.

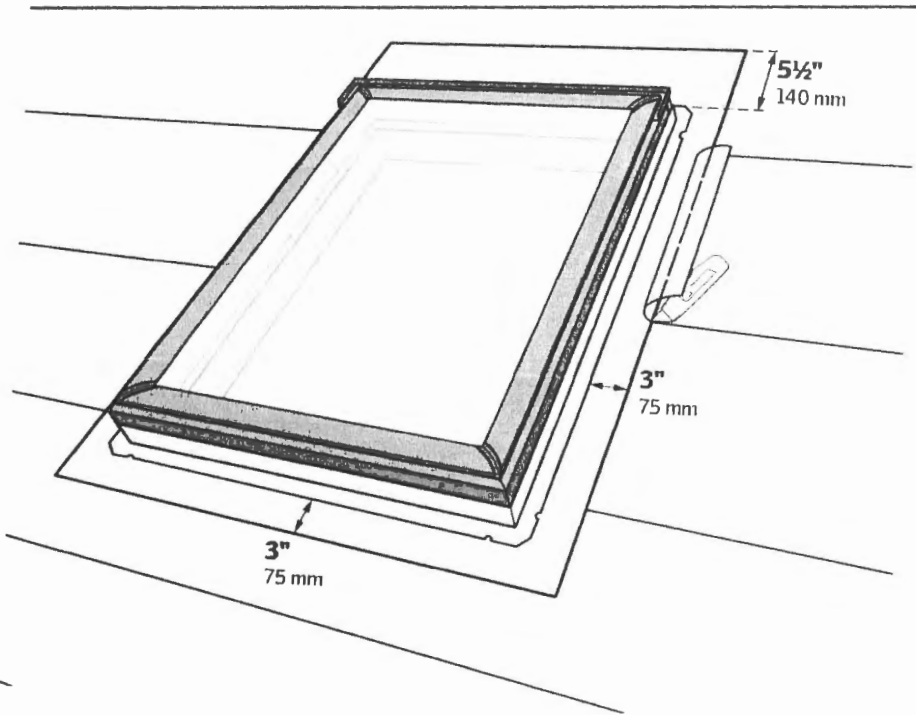
Model GDL CABRIO™

Size code		P19
Outside frame	in.	37 1/16 x 99 1/4
Rough opening	in.	39 3/8 x 101
Daylight area (upper section)	in.	30 x 53 3/4
Daylight area (lower section)	in.	30 x 28 3/4
Ventilation area (upper section)	sq. ft.	22.5
Ventilation area (flap)	sq. in.	36.7
Net wt (w/ Lam. glass)	lbs.	160

Model GPL

Size code		D06	S06
Outside frame	in.	30 9/16 x 55	44 3/4 x 46 3/8
Rough opening	in.	31 1/4 x 55 1/2	45 1/4 x 46 7/8
Daylight area (glass)	in.	23 3/4 x 45 1/4	37 15/16 x 36 5/8
Ventilation area (opening)	sq. ft.	11.34	11.64
Ventilation area (flap)	sq. in.	30.00	47.81
Net wt. (w/ Lam. glass)	lbs.	111	123

1

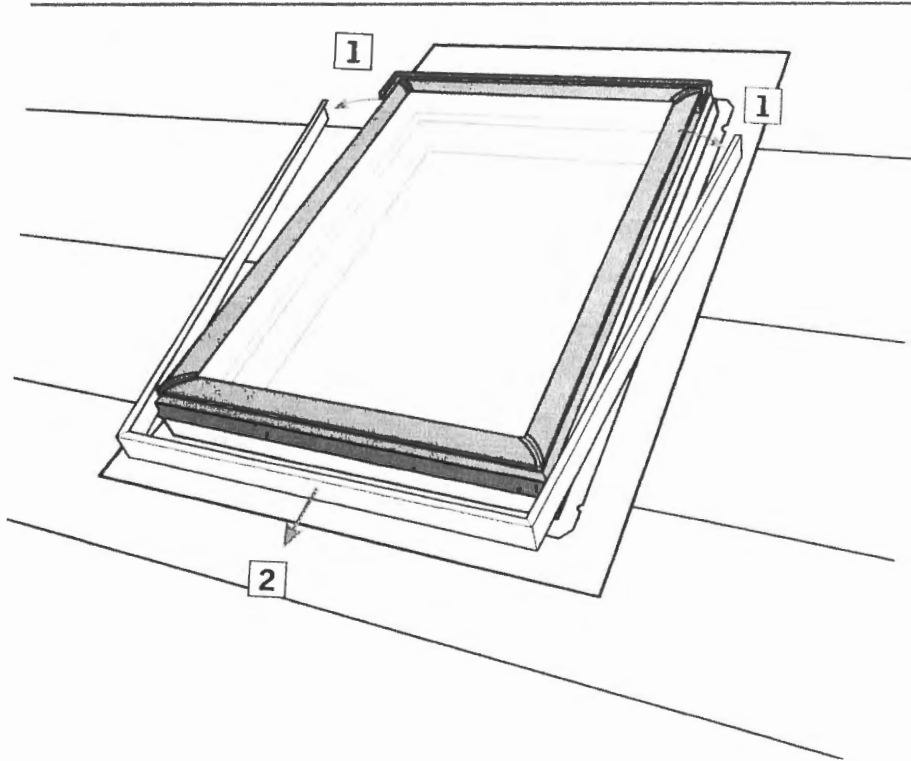


ENGLISH: Remove existing roofing underlayment around the rough opening as shown.

ESPAÑOL: Retire la lámina de soporte existente de la zona alrededor del hueco tal como se indica.

FRANÇAIS: Retirer la membrane de toiture existante autour de l'ouverture brute, tel qu'illustré.

2



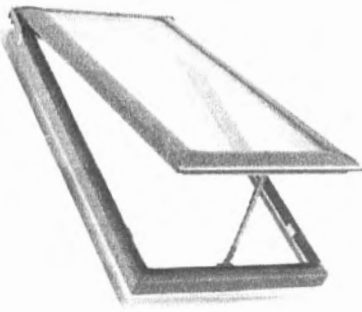
ENGLISH: To properly install VELUX adhesive skylight underlayment, remove cladding as shown.

ESPAÑOL: Para la correcta instalación de la lámina de soporte autoadhesiva para tragaluz VELUX, debe retirar el recubrimiento como se indica.

FRANÇAIS: Pour une installation adéquate de la membrane de toiture autocollante pour puits de lumière VELUX, enlever le revêtement, tel qu'illustré.



Manual venting deck mounted skylight (VS)



Designed for deck mounted installations, the VS manual venting skylight enables any home to embrace the best of what nature has to offer. Opening for maximum fresh air, the venting skylight contributes to a home's proper moisture balance and comfort level by allowing stale, humid air to be released.



The VS skylight meets ENERGY STAR® approval guidelines for energy efficiency in all climatic regions of the US.

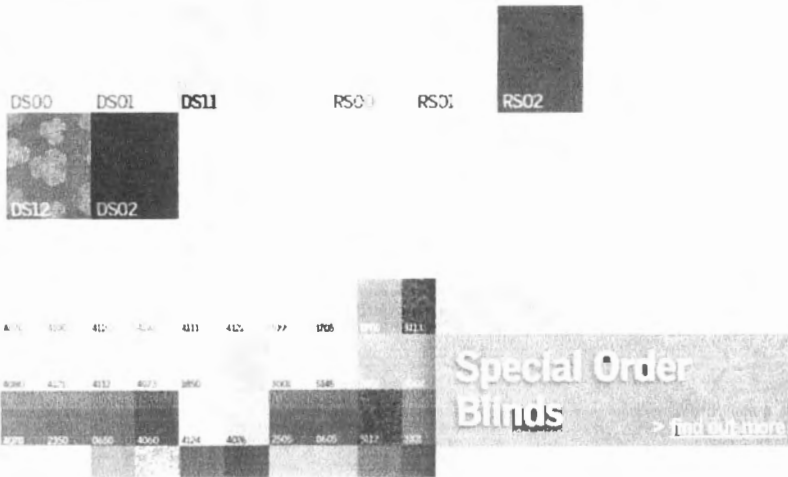
[Dealer & installer locator](#)
[Order Blinds](#)

Blinds

If in stock blinds and skylights are purchased together, blinds can be factory installed in the skylight at no additional cost.

Blackout blind (solar)
 Blocks 98% of light

Light filtering blind (solar)
 Translucent



• **Some sizes have limited or no blind options**

Visit velux.skylightblinds.com

• **Manual components**

The VS package includes the operator hook and insect screen.

• **Installation slope**

The VS skylight installs on roofs with slopes between 14° (3:12) and 85° (137:12).



Solar blackout blind
 Block the light using only the power of the sun. No wiring. No electrician.
[Details](#)



Solar roller blind
 Diffuse the light using only the power of the sun. No wiring. No electrician.
[Details](#)



Venting skylights are great for rooms that need natural ventilation (especially kitchens and baths). They are particularly effective for passive cooling, which requires no energy expenditure.



Warranties you can trust
 Our warranty covers 20 years on insulated glass seal, 10 years on the skylight, 10 years on installation and 5 years on the electronics.
[Details](#)

Product details

Convenient manual control

The VS skylight is easily opened and closed manually with VELUX control rods when installed out-of-reach. A smooth turning handle is available when skylights are installed within reach.

Pick&Click!™ pre-installed

The new innovative Pick&Click!™ brackets make blind installation a snap! Every VS (VSE, FS) skylight comes pre-installed with Pick&Click!™ brackets that allows for fast and easy installation of sunscreening blinds and accessories.

Energy efficient glass options for added safety and energy efficiency

All VELUX skylight glazings are built using energy efficient, LoE3, Argon gas injected dual glass panes. The VS skylight comes with your choice of the following glazing options, each designed to meet the needs of specific building situations:

- * Impact glass - Special safety glass designed to meet code requirements for hurricane prone areas (Available for select sizes)
- * Laminated glass - Tempered safety glass with extra laminated pane for added safety and comfort
- * Tempered glass - Tempered safety glass
- * Snowload glass - Special safety glass required in some heavy snow areas

Quality construction

The VS skylight comes with pre-finished white frames and sashes that eliminate the need for secondary high cost trips by a painter. An insect screen, a stainless steel chain operator and aluminum or copper cladding is also included in the package.

Streamlined exterior

The smooth, low-profile of the VS skylight does not obstruct your roofline.

Flashing options for a weathertight installation

A complete line of flashing systems help ensure a weathertight installation for your VS skylight, no matter what your roofing material:

- * Shingles and shakes
- * High Profile Roofing
- * Metal Roofing

Wide range of sizes

The VS skylight comes in a variety of sizes that work with rafter or truss roofs, so that you can select the one that is right for your project. Due to local sales tax, transportation and delivery costs that may vary, please consult your local VELUX dealer for pricing.

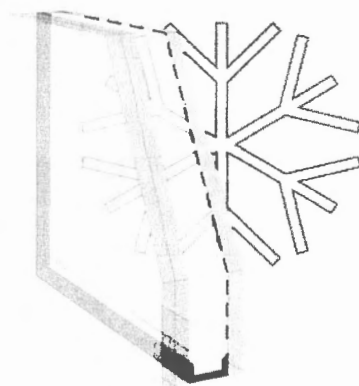
[View the skylight sizes](#)

Easy skylight replacement option

Our trim kit provides a clean interior finish when replacing older "drop-in" or "flush-mount" skylights.

VS Technical Information					
Glass	04	05	06**	08	10
Air infiltration/exfiltration* [max. @ 75 Pa (1.57 lbs/ft ²) differential pressure]					
l/s/m ²	0.7	0.5	0.5	0.7	0.7
cfm/ft ²	0.13	0.09	0.09	0.13	0.13
Water resistance @ 3.4 L/m²/min (5 USgal/ft²/hr) * [max. tested differential pressure with no leakage]					
Pascals	720	720	720	720	720
lbs/ft ²	15	15	15	15	15
Thermal performance (Certified, complete unit values)					
(VELUX Glass Skylights are rated at 20° slope and labeled with NFRC-certified U-Factor , SHGC , and VT ratings listed in the NFRC Certified Products Directory)					
U-Factor (Btu/hr ft ² °F)	0.42	0.43	0.41	0.42	0.41
SHGC	0.23	0.23	0.23	0.22	0.23
VT	0.53	0.54	0.52	0.39	0.52
UV protection, %					
(300-380 nm)	99.9	95.2	99.9	99.9	99.9
Fading protection, % (Krochmann damage function)					
(300-600 nm)	83.1	79.2	84.6	88.4	83.2
Structural Performance [Performance Grade or DP] *					
tested Size	Uplift (lbs/ft ²)				
S06	50	50	55	50	60
M08	85	75	75	85	65
C06	n.r.	n.r.	n.r.	n.r.	70
tested Size	Download (lbs/ft ²)				
S06	235	370	175	235	365
M08	280	550	230	280	270
C06	n.r.	n.r.	n.r.	n.r.	605
* Tested in accordance with AAMA/WDMA/CSA 101/1.5.2/A440-08 and -05. VS skylights are WDMA Hallmark certified. See www.wdma.com, Hallmark No. 426-F (not applicable to copper-clad variants)					
** 06 variant is tested and WDMA Hallmark certified for Windborne debris impact, in accordance with ASTM E1886 and ASTM E1996. Rated for Wind Zone 3, Missile Level C, Cycle Pressure +50/-50					
04 glass: Tempered over laminated HS (0.030" interlayer)					
05 glass: Tempered over tempered					
06 glass: Tempered over laminated HS (0.090" interlayer)					
08 glass: Same as 04, with white interlayer					
10 glass: Temp. over laminated temp. (0.030" interlayer)					

Snowload glass



Snowload glass is designed for heavy snow areas. It also features a triple-layer of LoE coating for increased energy efficiency plus a laminated pane for added safety and protection from fade-causing UV rays. Snowload glass can also be combined with other energy efficient options for even greater performance.

[Dealer & installer locator](#)

Benefits

- High energy efficiency results in a more comfortable living environment and money savings on utility bills.
- Meets ENERGY STAR® approval guidelines for all climatic regions of the U.S.
- NFRC rating is substantially better than required by most common building codes.
- Provides three times more protection against solar heat gain.
- Resists condensation twice as long as clear glass.
- Protects interior spaces by reflecting the vast majority of the sun's fade causing rays.

Features

Snowload glass is a LoE3, argon gas-filled glass designed for safety and maximum energy efficiency.

Availability

Snowload glass is available in select sizes for deck mounted VELUX skylights including:

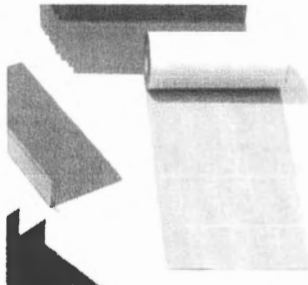
- Electric venting deck mounted skylight (VSE skylight)
- Manual venting deck mounted skylight (VS skylight)
- Fixed deck mounted skylights (FS skylight)

Sizes

See our skylight sizes in our [literature library](#) for details.

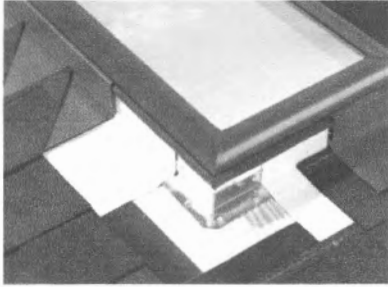
Warranty

We stand behind our products with a promise of lasting service. All VELUX insulated glazing units (IGUs) are backed by our 20 year warranty. For details, download our [warranty brochure](#).

Underlayment

This roofing underlayment is an alternative to roofing felt that wraps the skylight or roof window to provide added protection from extreme weather conditions. This is especially important in areas where ice and snow accumulate on the roof.

[Dealer & installer locator](#)

EDL step flashing

EDL step flashing provides a weathertight seal for deck mounted skylights or roof windows installed on roofs with thin roofing materials such as asphalt or fiberglass shingles, slate, cedar shingles and shakes*.

Each piece of step flashing is interwoven with a layer of roofing material for proper water drainage. No caulk or sealants are needed. Type EDL for skylights is designed for roofs with slopes from 14° (3:12) to 85° (137:12). Type EDL for roof windows is designed for roof pitches required by GPL and GDL.

* ZZZ 200 additional step flashing pieces required for shakes and other thick roofing material

Quick links

[Dealer & installer locator](#)

Related areas

[EDL instructions for skylights](#)

[EDL instructions for roof windows](#)