



# VisitAbility

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

Jonathan White, M.Arch.

COPYRIGHT 2014 IDEA CENTER

Center for Inclusive Design and Environmental Access

COPYRIGHT 2014 IDEA CENTER

June 16, 2014 Webinar

Hosted by the Canadian Centre on Disability Studies

COPYRIGHT 2014 IDEA CENTER

# Today's Presentation

Housing Issues

VisitAbility Basics

Cost

Design Strategies

Best Practices

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

# Changing Demographics

COPYRIGHT 2014 IDEA CENTER

Number of Canadians aged 65+:  
14.1% in 2010, Projected 20% by 2026, Over 25% by 2056

COPYRIGHT 2014 IDEA CENTER

Disability rates rise with age for both sexes

COPYRIGHT 2014 IDEA CENTER

Disability is usually related to mobility and agility

COPYRIGHT 2014 IDEA CENTER

Activity-limiting disabilities:

14.3% Canadians

43.4% Canadians aged 65+ (1/3 of all due to mobility)

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER



# Housing Barriers

COPYRIGHT 2014 IDEA CENTER

Over 1 million homes have resident with a disability with unmet housing needs

(Kochera, 2002)

25% of houses built today will have a resident with a severe long-term mobility impairment, 97% will have such a person visit the home

(Smith, Rayer, and Smith, 2008)

Typical life of a new home is 75-100 years

70% of Americans live in single-family homes

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

# Housing Accessibility in the U.S.

COPYRIGHT 2014 IDEA CENTER

## Government Funded: 5% Rule

5% of Multi- and Single- Family Housing must be Fully Accessible (usually ANSI Type A). Some localities extend to larger percentage

COPYRIGHT 2014 IDEA CENTER

## Privately Funded Multi-family: Fair Housing Law

All units in housing with 4+ units must meet ANSI Type B if elevator, first floor units if not

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

## Privately Funded Single-Family: None

Unless local government requires VisitAbility (ANSI Type C) or other requirements

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

# The High Cost of No Access

COPYRIGHT 2014 IDEA CENTER

Social isolation

COPYRIGHT 2014 IDEA CENTER

Premature institutionalization

COPYRIGHT 2014 IDEA CENTER

Compromised health and safety - Falls

COPYRIGHT 2014 IDEA CENTER

Stress

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

# What is VisitAbility?

COPYRIGHT 2014 IDEA CENTER

## 1.) Accessible Entry

COPYRIGHT 2014 IDEA CENTER

One Zero-Step Entry with Low Threshold (Under  $\frac{1}{4}$  inch)

## 2.) Accessible Path through Entry Floor

COPYRIGHT 2014 IDEA CENTER

32-inch C.O. Door, 36-inch Hallways, Switches & Outlets 15-48 in. A.F.F.

## 3.) Accessible/Adaptable Half-Bath on Entry Floor

COPYRIGHT 2014 IDEA CENTER

Accessible Door, Sink, Toilet, Blocking in Walls at Toilet

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

# Perspectives

COPYRIGHT 2014 IDEA CENTER

	<b>Homebuilders'</b>	<b>Advocates'</b>
<b>Demand</b>	We respond to market and don't see demand.	Builders shape market. Consumers lack awareness to demand.
<b>Cost</b>	It's expensive, which makes it unaffordable.	No impact on marketability or aesthetics, cost impact is under 1%.
<b>Regulation</b>	Private homes are a private matter. VisitAbility should be voluntary.	Homes are not entirely private. There is public interest in private housing (e.g. smoke detectors).
<b>Variables</b>	Unique sites prevent blanket regulations.	All existing and proposed regulations have exceptions for unique sites.

COPYRIGHT 2014 IDEA CENTER



# The Cost of Basic Access

COPYRIGHT 2014 IDEA CENTER

	New	Retrofit
Zero-Step Entrance	\$150	\$1,000
Widen Interior Doors	\$50	\$700
<hr/>		
Total Cost	\$200	\$1,700

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

Sources: Concrete Change and IDeA Center: Based on experience of 3 Habitat for Humanity chapters, the City of Austin, and discussions with contractors

COPYRIGHT 2014 IDEA CENTER

# The Cost of Basic Access

COPYRIGHT 2014 IDEA CENTER

City	In Stock?	32" Cost	34" Cost	36" Cost
Boston, MA	Yes	\$70.45	\$72.95	\$72.95
Chicago, IL	Yes	\$58.46	\$59.98	\$63.36
San Diego, CA	Yes	\$73.13	\$74.29	\$76.50
Portland, OR	Yes	\$68.83	\$69.93	\$72.53
Dallas, TX	Yes	\$56.63	\$56.89	\$59.35

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

Method: IDeA Center simulation of order for 120 single pre-hung, six-panel hollow core doors with dull brass hinges from local millwork suppliers, 30 each in four different sizes.

COPYRIGHT 2014 IDEA CENTER

# The Cost of Basic Access

COPYRIGHT 2014 IDEA CENTER

Schroeder, Steinfeld, et al. (1979)

The Cost of Accessibility, HUD

COPYRIGHT 2014 IDEA CENTER

Cost of access was less than 1% of new construction in all types of buildings

COPYRIGHT 2014 IDEA CENTER

Steven Winter Associates (1993)

COPYRIGHT 2014 IDEA CENTER

The Cost of Accessible Housing, HUD

Total cost of access features was .07% - .87% with an average of .63% of new construction

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

# Design Strategies

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER



# Design Strategies

COPYRIGHT 2014 IDEA CENTER

## Single Family Detached House | American Craftsman Bungalow

1370 sf habitable interior space

910 sf building footprint

3 bedroom, 2 bath

**Visitable**

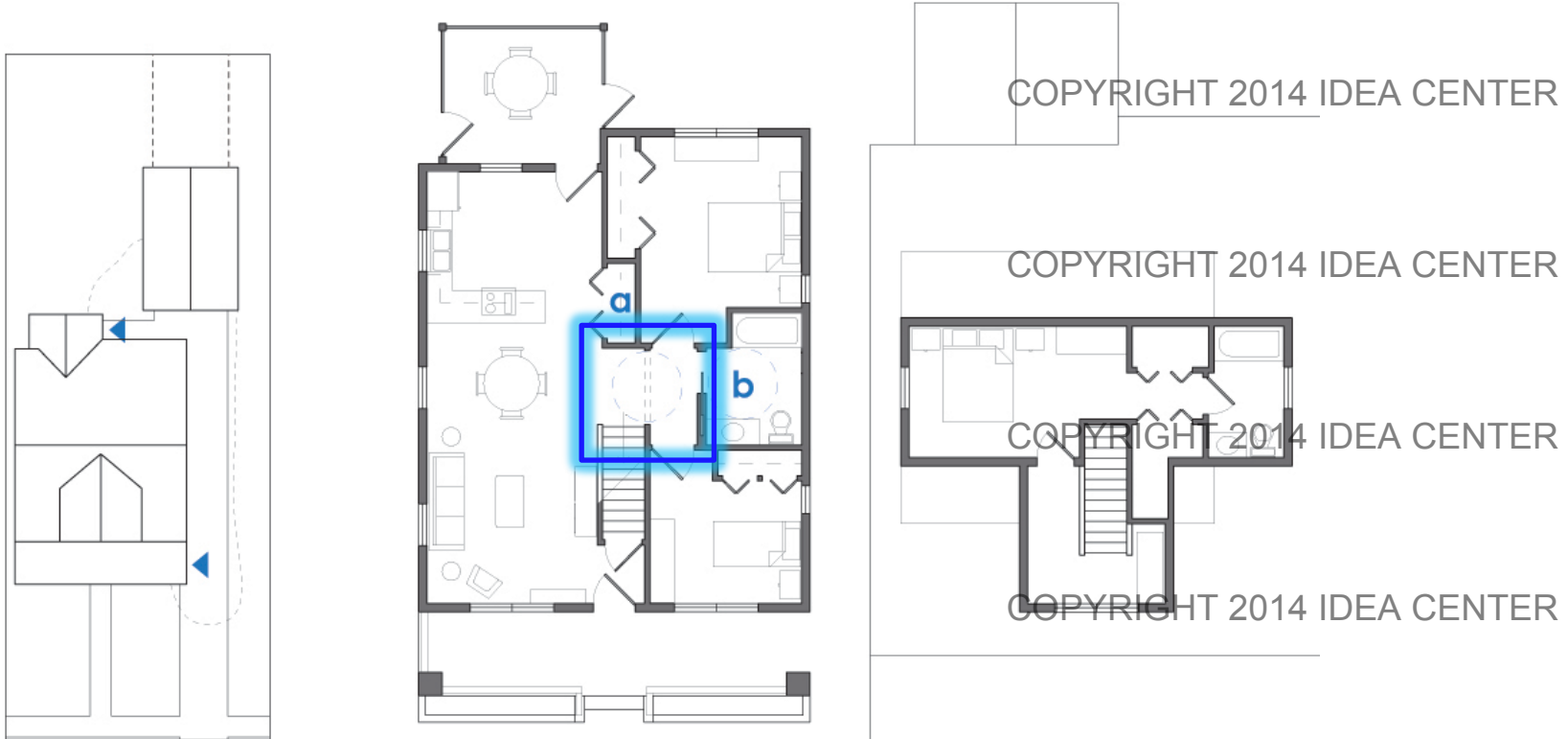
**Lifespan**



COPYRIGHT 2014 IDEA CENTER

# Efficient Circulation Plan

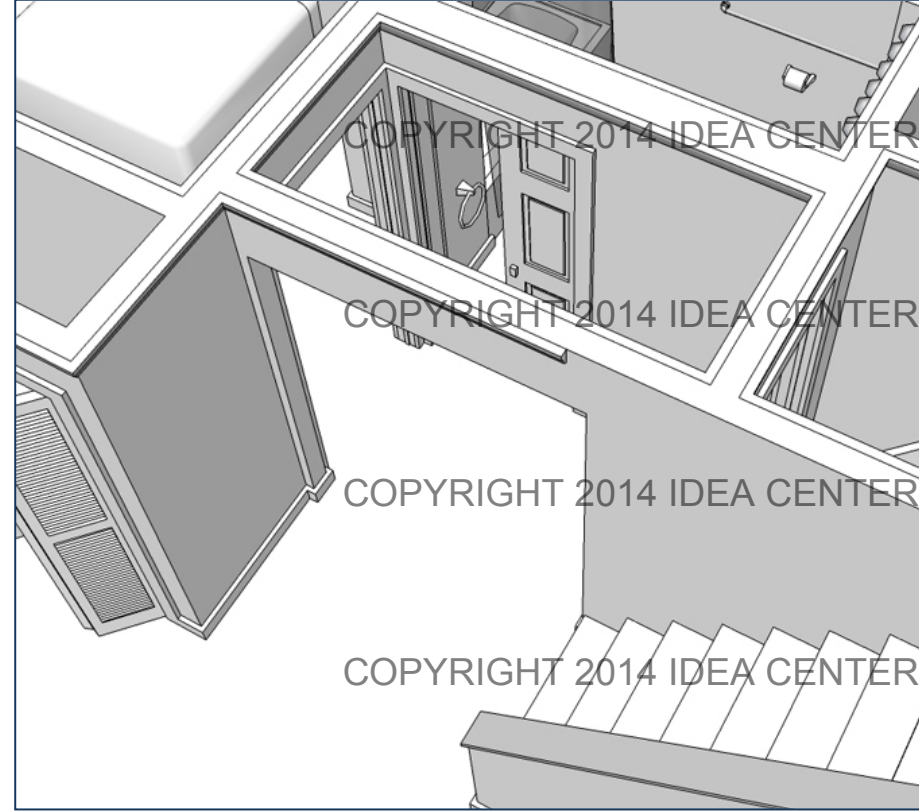
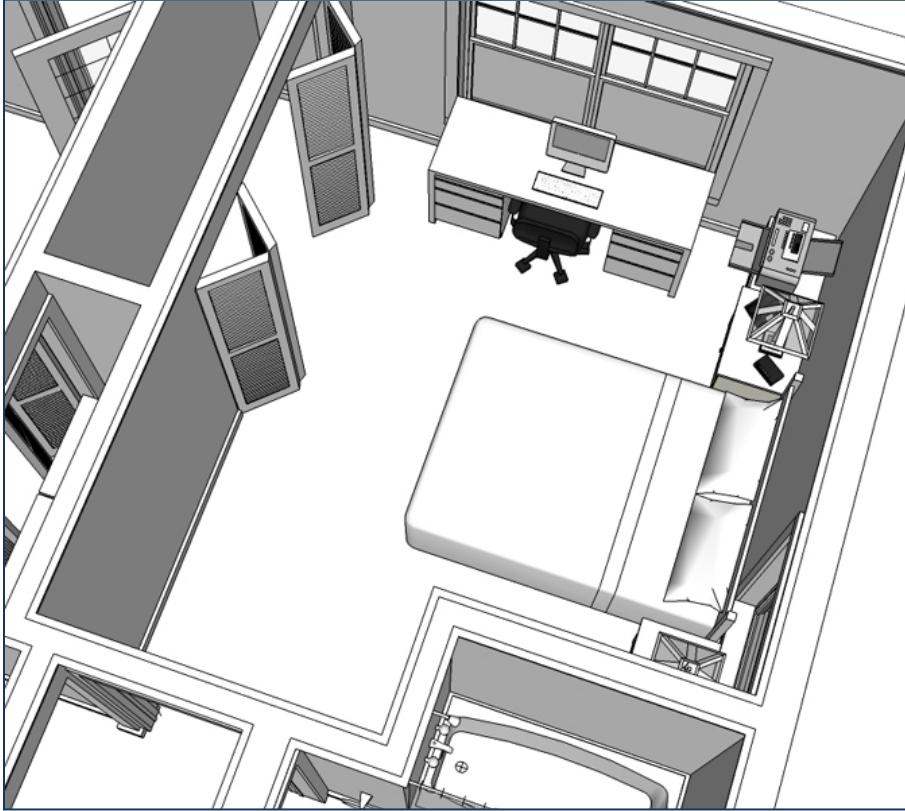
COPYRIGHT 2014 IDEA CENTER



COPYRIGHT 2014 IDEA CENTER

# Efficient Circulation Plan

COPYRIGHT 2014 IDEA CENTER



COPYRIGHT 2014 IDEA CENTER

# Bathroom Design





# VisitAble Half-Bath

COPYRIGHT 2014 IDEA CENTER

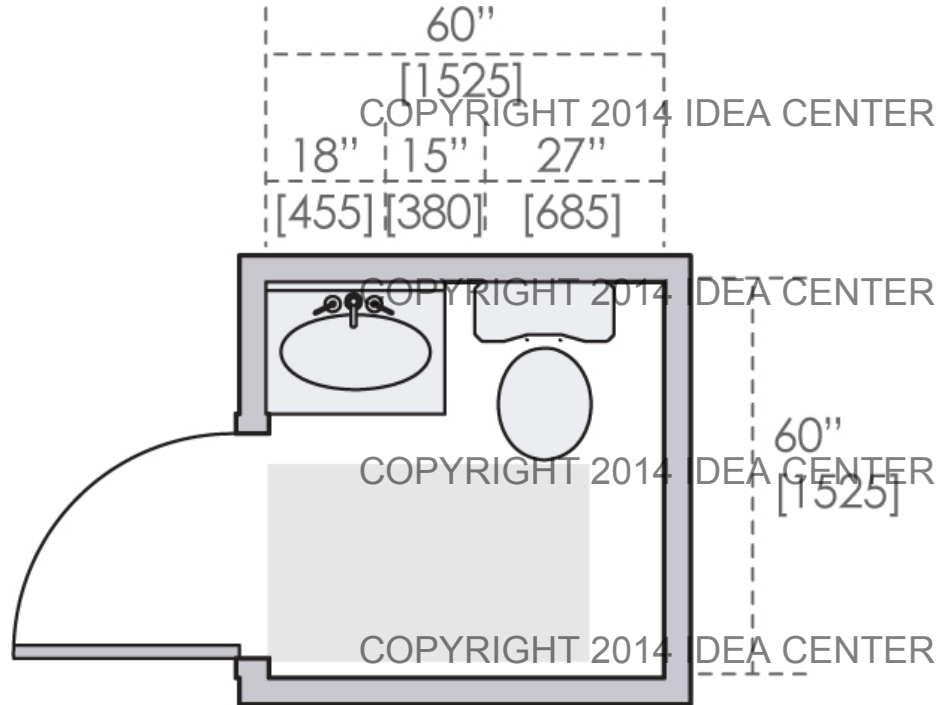
Satisfies VisitAbility requirements

Minimal space necessary

Toilet dimension is critical

Door must open outward

Special hardware may be needed to close door once inside



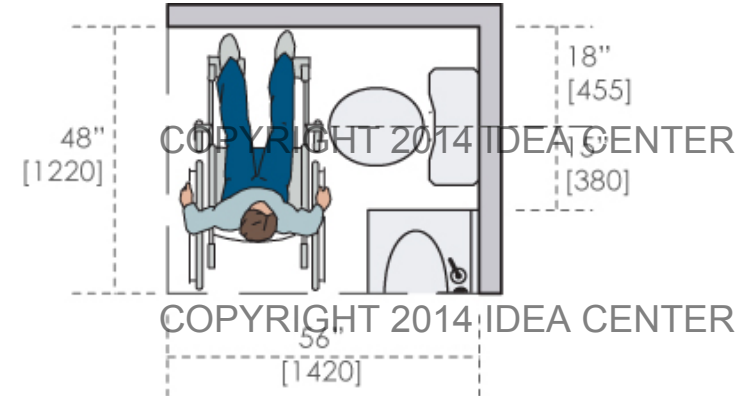
COPYRIGHT 2014 IDEA CENTER

# VisitAble Toilets

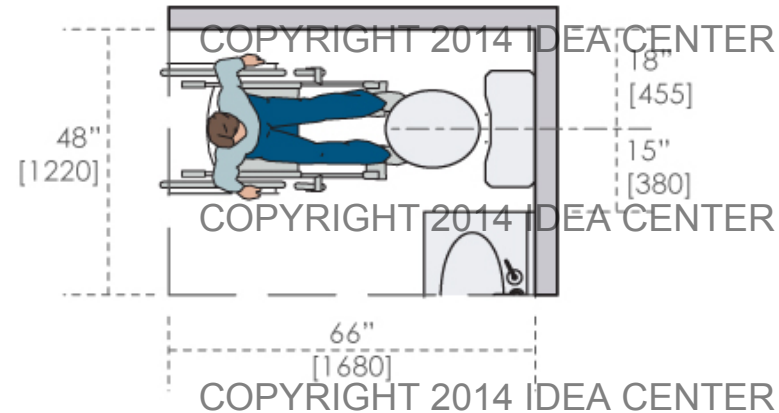
Parallel Approach (top) occupies least amount of space but means greater transfer distance

Forward Approach (bottom) requires standing and completing a 180-degree turn

COPYRIGHT 2014 IDEA CENTER



COPYRIGHT 2014 IDEA CENTER

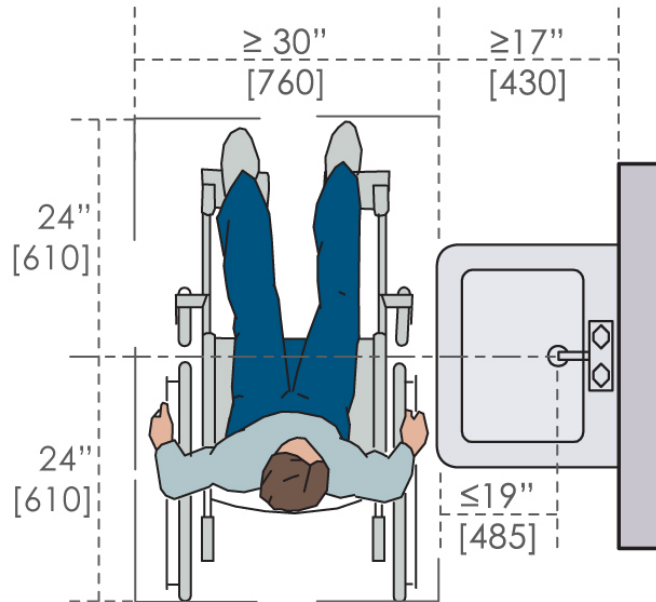


COPYRIGHT 2014 IDEA CENTER

# VisitAble vs. Lifespan Lavatory

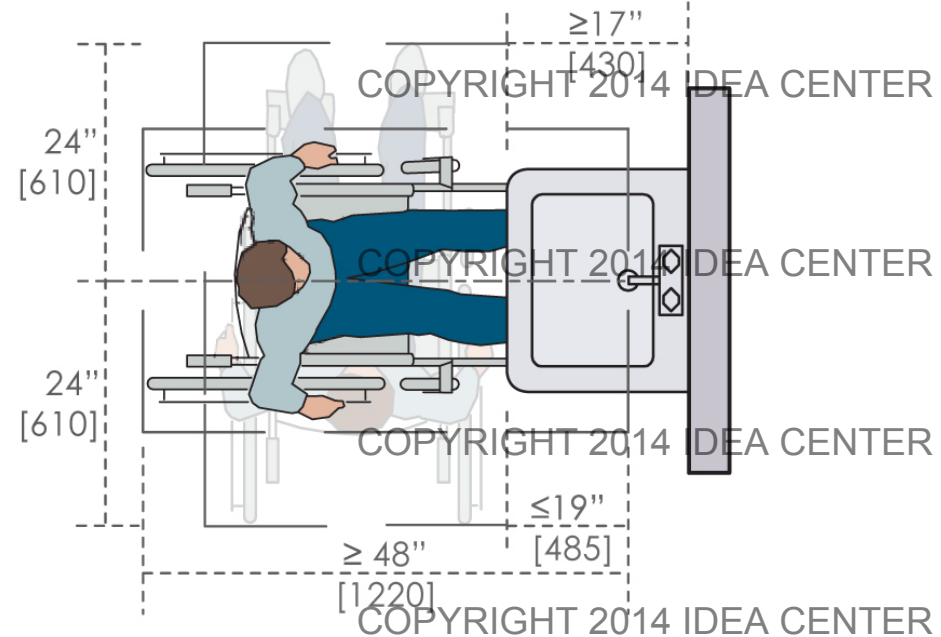
COPYRIGHT 2014 IDEA CENTER

## VisitAble

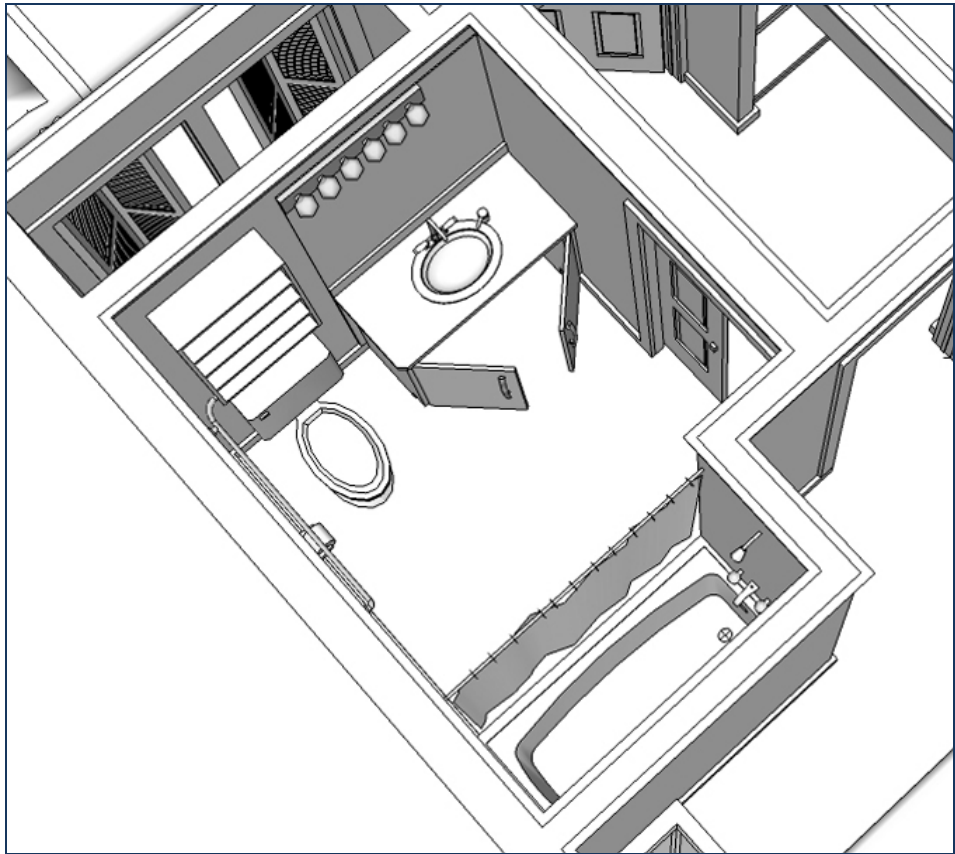


## Lifespan

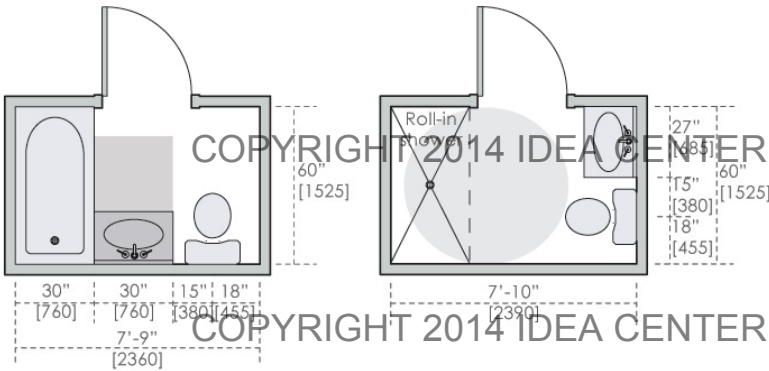
COPYRIGHT 2014 IDEA CENTER



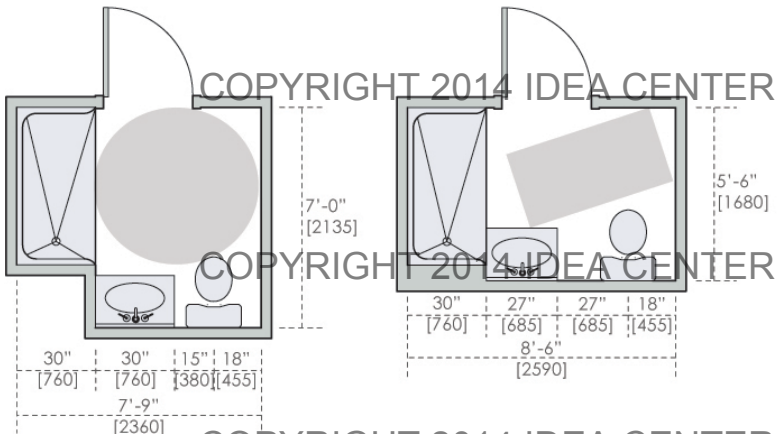
# Bathrooms



COPYRIGHT 2014 IDEA CENTER



COPYRIGHT 2014 IDEA CENTER



COPYRIGHT 2014 IDEA CENTER



# Zero-Step Entries

COPYRIGHT 2014 IDEA CENTER

Place on leeward side

COPYRIGHT 2014 IDEA CENTER

Use covered porch or patio

COPYRIGHT 2014 IDEA CENTER

Work with existing grade or design grade to minimize height

COPYRIGHT 2014 IDEA CENTER

Use grates and slight pitch (1:48 max) to take water away from landings

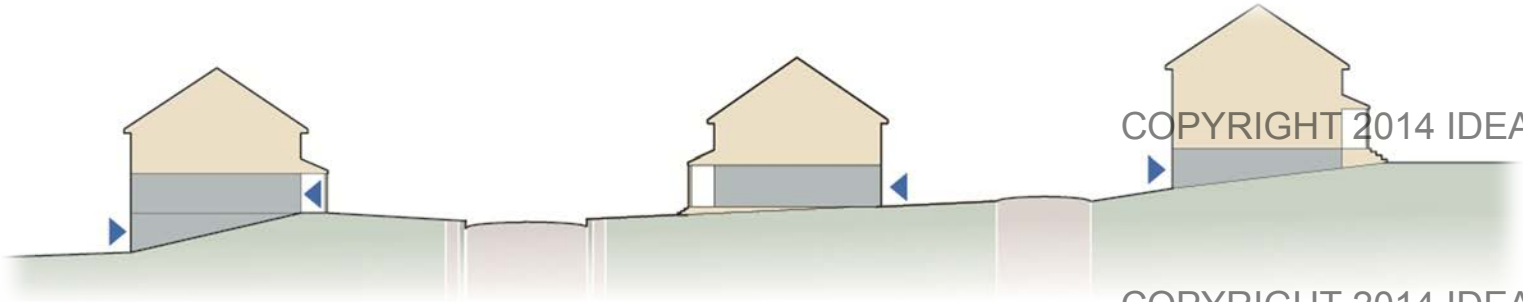
COPYRIGHT 2014 IDEA CENTER

Use alternative construction methods to lower first floor level (e.g. reverse brick ledge)

COPYRIGHT 2014 IDEA CENTER

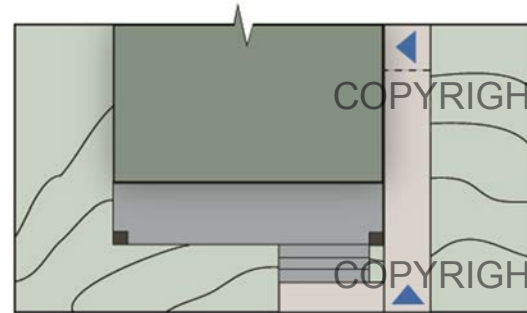
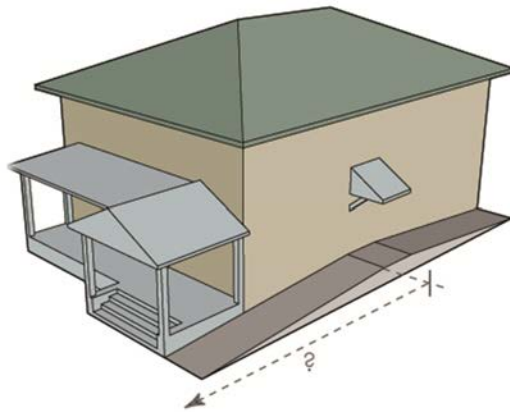
# Lot Planning

COPYRIGHT 2014 IDEA CENTER



COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER



COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

# Use Existing Grade to Your Advantage



COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER



# Use Existing Grade to Your Advantage

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER



# Design Grade to Your Advantage





# Design Grade to Your Advantage

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER



# Use Landscape Walls to Conceal Ramp



COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER



# Use Landscape Walls to Conceal Ramp

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

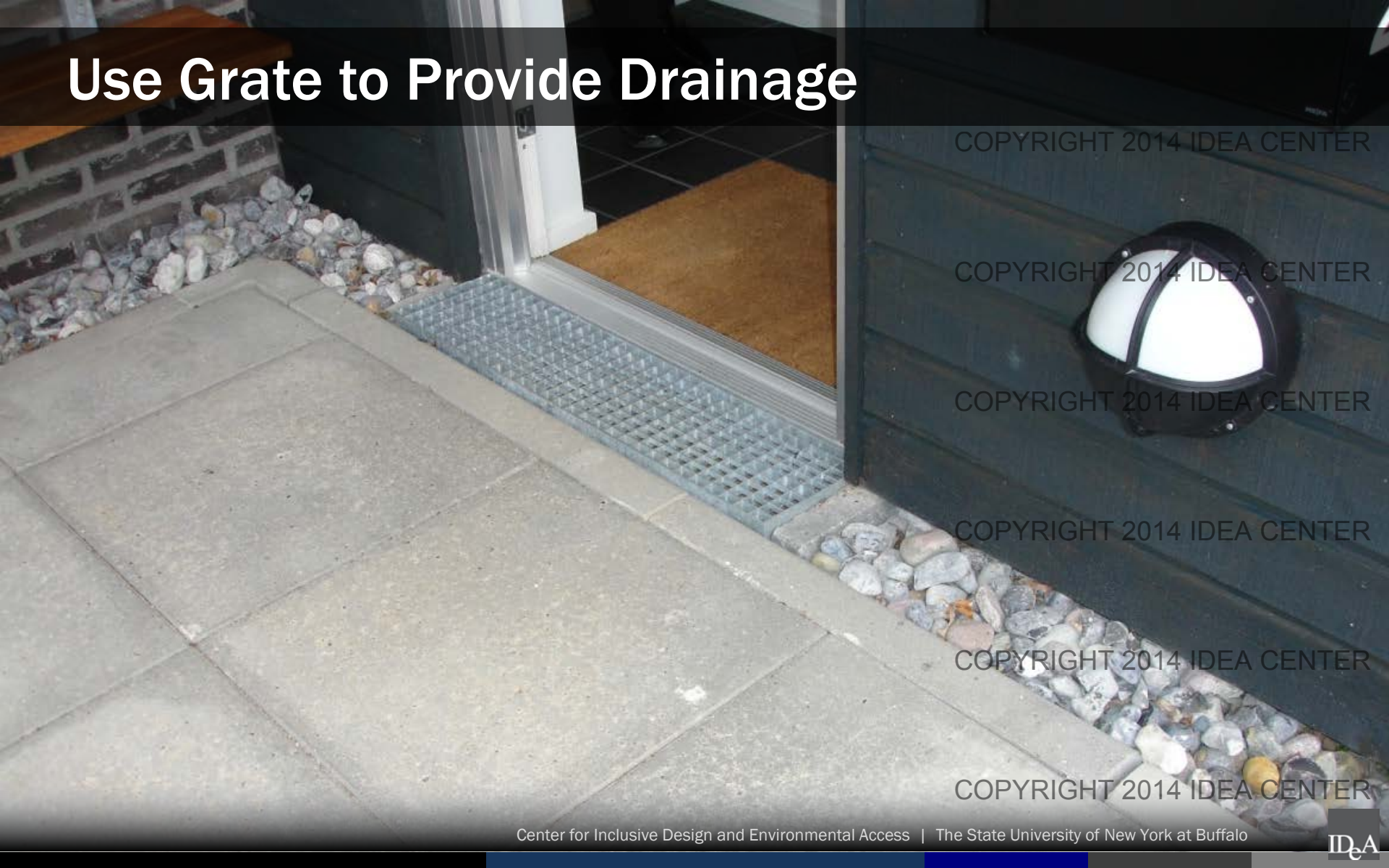
COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

# Use Grate to Provide Drainage



COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER



# Use Minimal Slope to Provide Drainage



COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

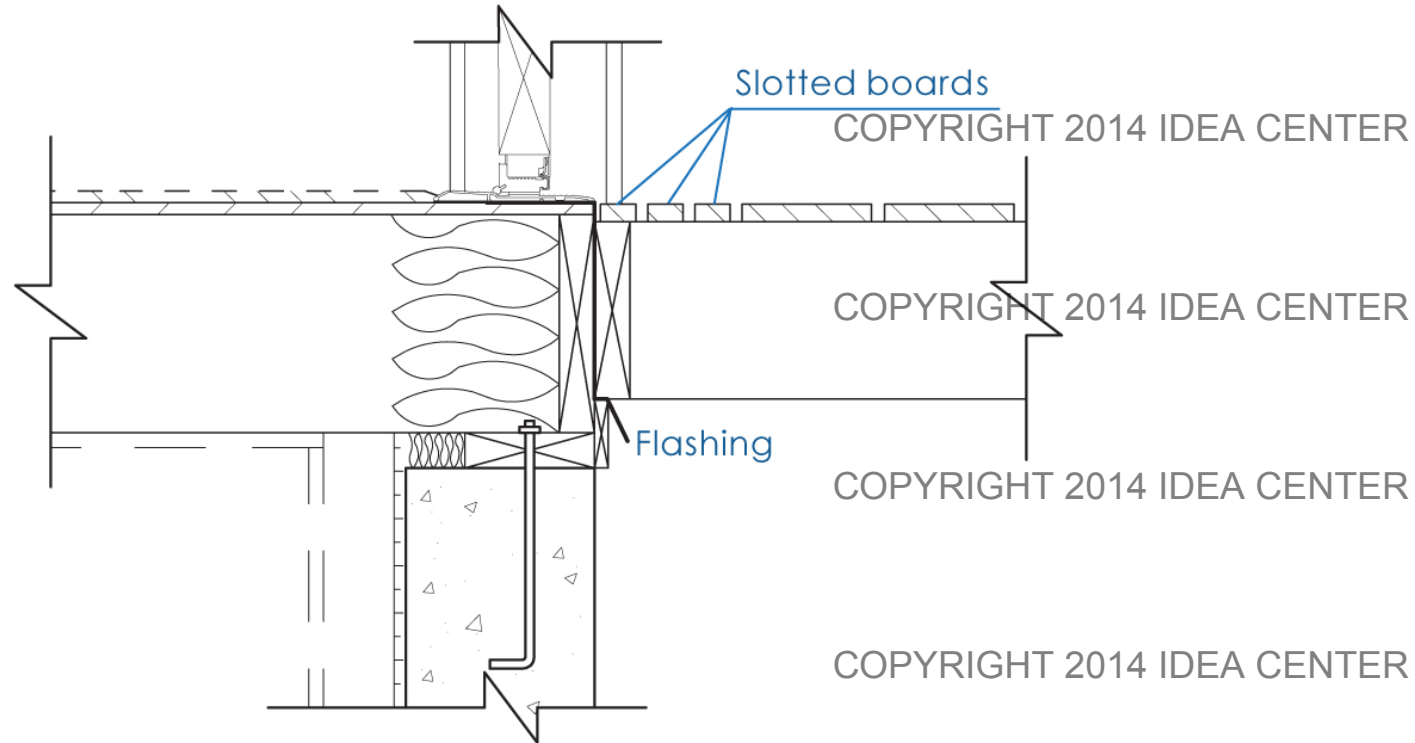


# Place Entry on Porch or Deck



# Place Entry on Porch or Deck

COPYRIGHT 2014 IDEA CENTER



Low-threshold door to porch or deck

COPYRIGHT 2014 IDEA CENTER

# Alternative Construction Methods

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

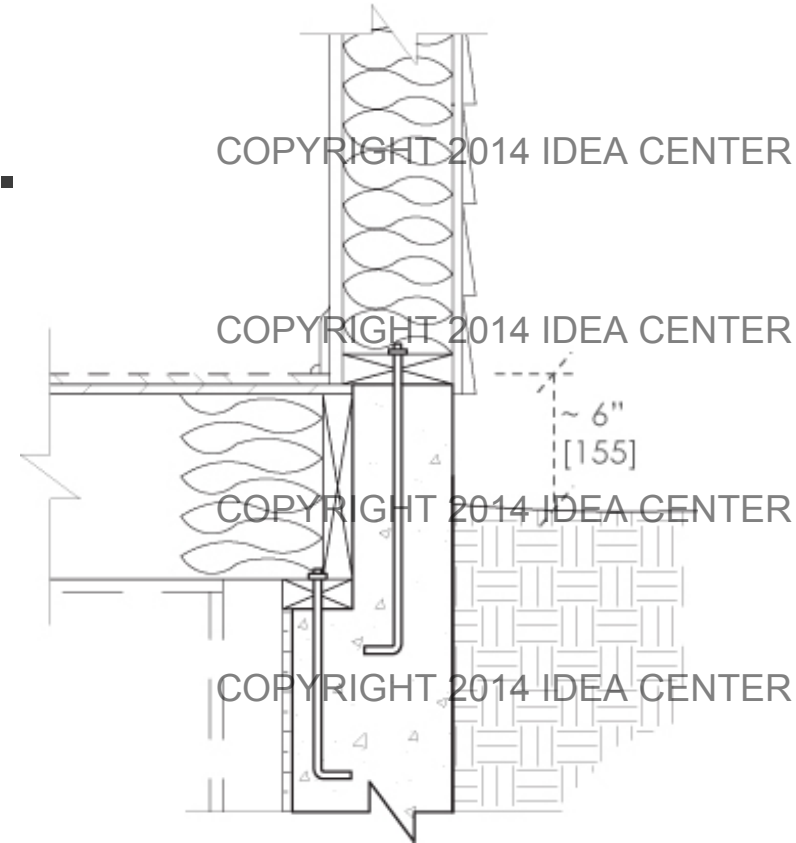
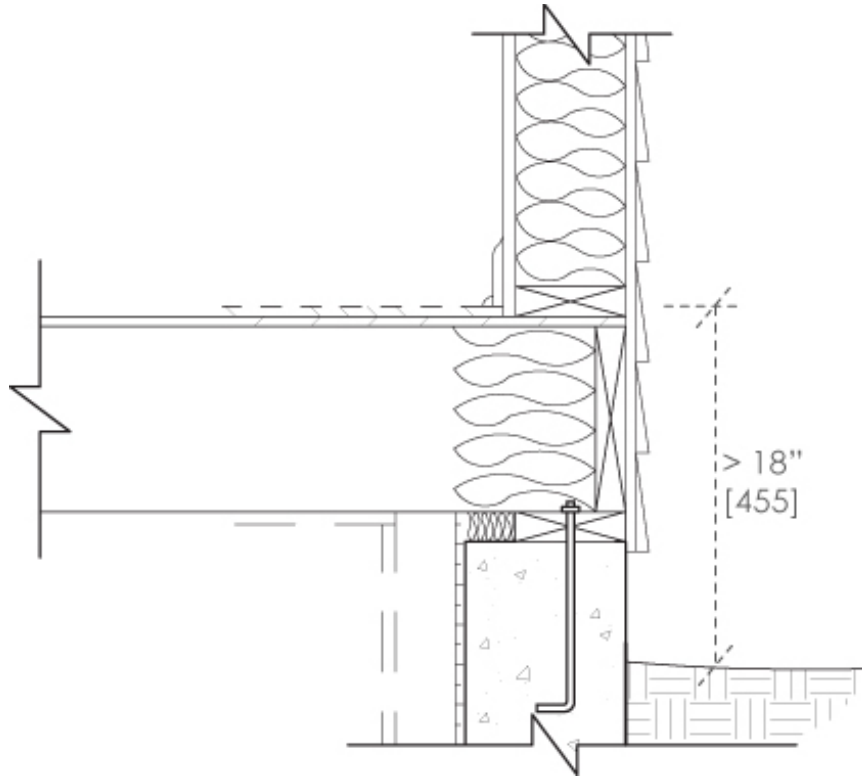
COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

VS.





# Affordable Housing - Best Practices

COPYRIGHT 2014 IDEA CENTER



COPYRIGHT 2014 IDEA CENTER



# Affordable Housing - Best Practices



# Affordable Housing - Best Practices



COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER



# Affordable Housing - Best Practices





# Affordable Housing - Best Practices



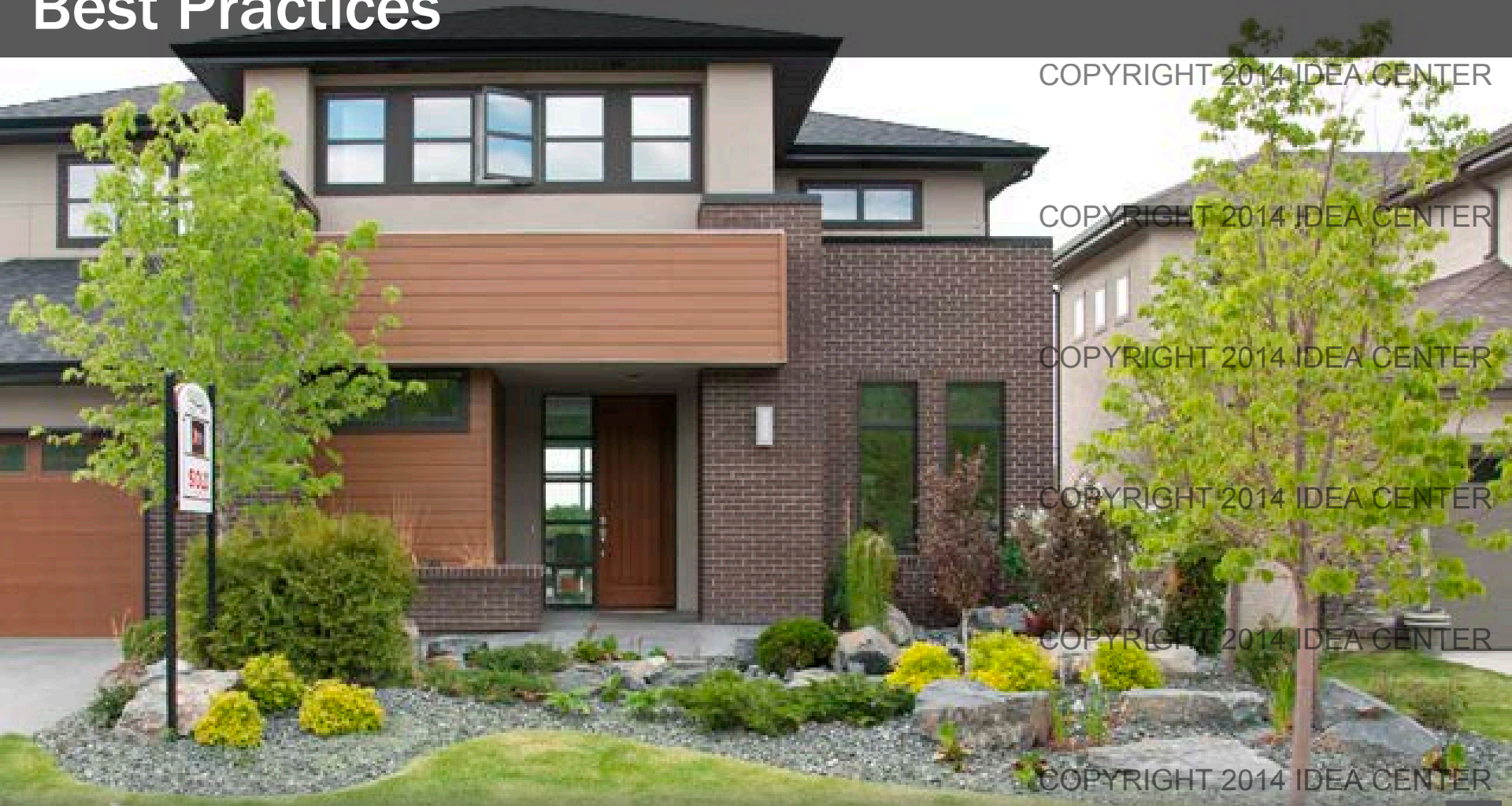


# Best Practices





# Best Practices



COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

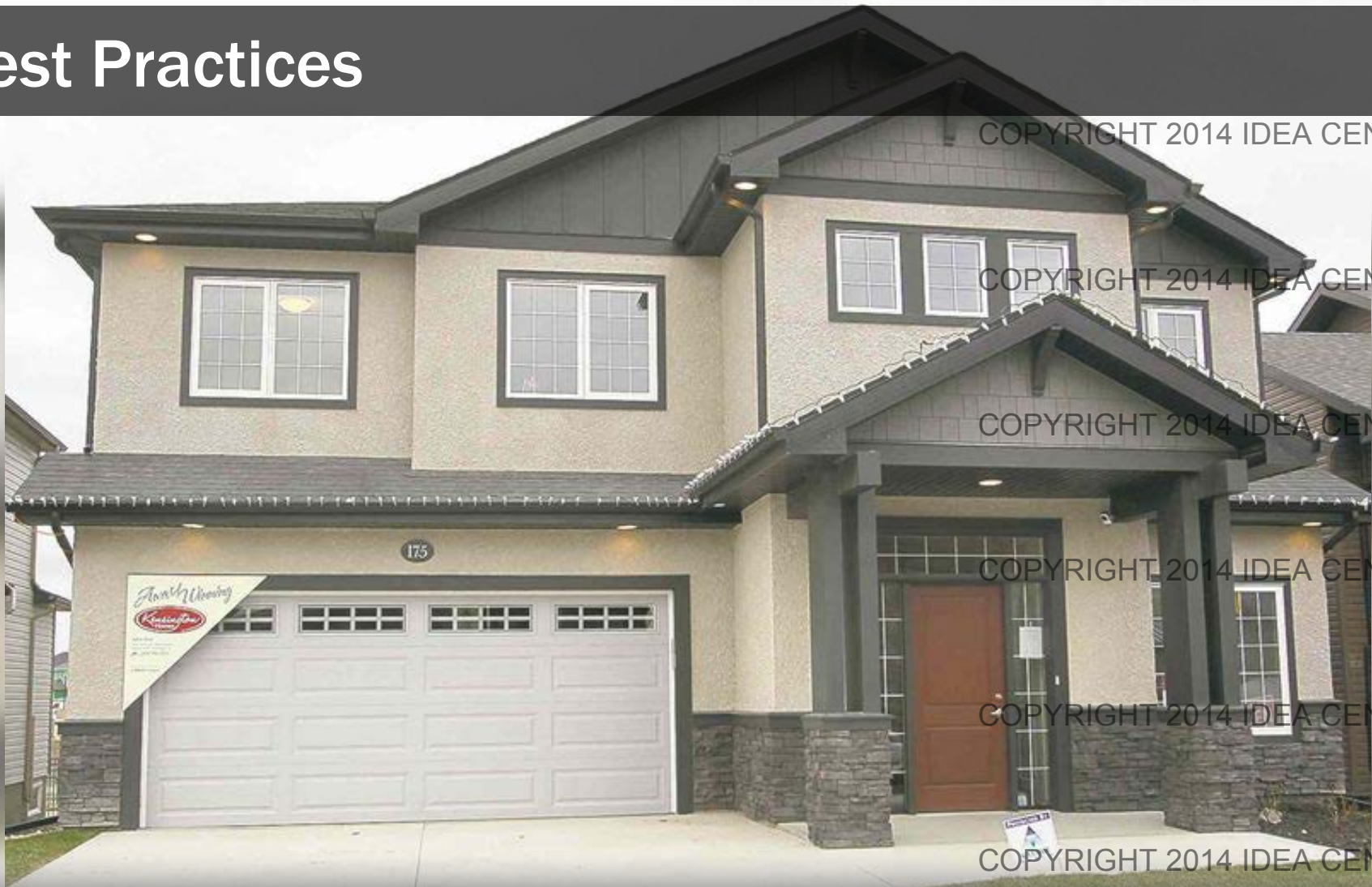
COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

# Best Practices



COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

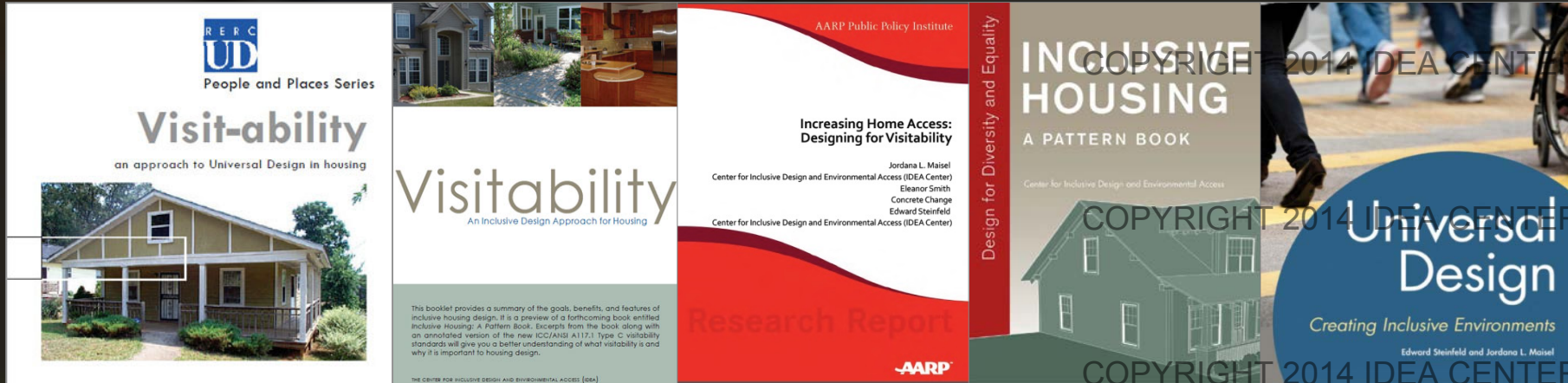
COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

# Publications

COPYRIGHT 2014 IDEA CENTER



COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

[www.udeworld.com/dissemination/publications.html](http://www.udeworld.com/dissemination/publications.html)  
[www.udeworld.com/visitability.html](http://www.udeworld.com/visitability.html)



# LEARN ABOUT UNIVERSAL DESIGN, VISITABILITY, AND INCLUSIVE HOUSING WITH OUR ONLINE CONTINUING EDUCATION COURSES

[www.udeworld.com/training/continuing-education.html](http://www.udeworld.com/training/continuing-education.html)

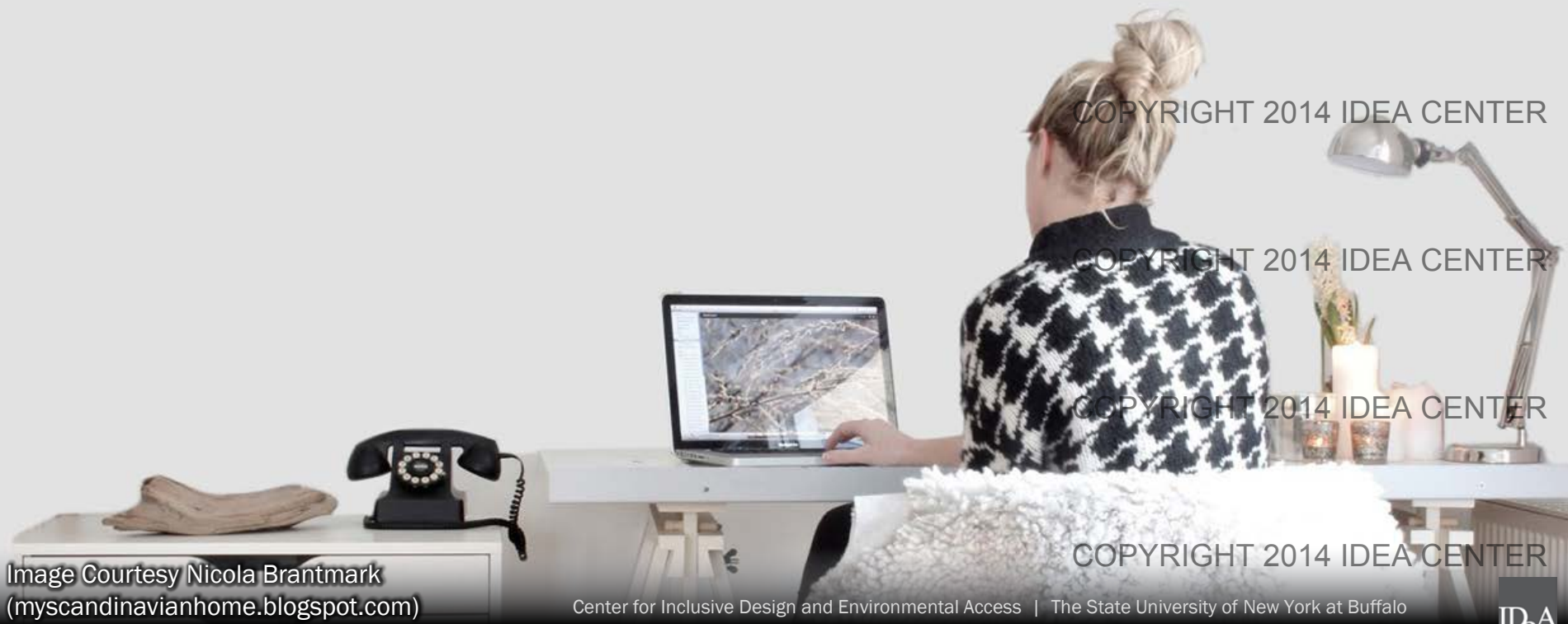


Image Courtesy Nicola Brantmark  
(myscandinavianhome.blogspot.com)

COPYRIGHT 2014 IDEA CENTER



## Center for Inclusive Design & Environmental Access

School of Architecture & Planning

State University of New York at Buffalo

114 Diefendorf Hall | 3435 Main Street

Buffalo, NY 14214 – 3087

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

tel: +1 (716) 829.5902

fax: +1 (716) 829.3861

email: jrwhite2@buffalo.edu

web: idea.ap.buffalo.edu

web: www.udeworld.com

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER





VisitAble  
Housing  
CANADA

For more information about VisitAble housing in Canada, please visit  
<http://VisitAbleHousingCanada.com>

[VisitAbility Project](#) [Visable Housing](#) [Provincial Resources](#) [What's New](#) [Contact](#)

COPYRIGHT 2014 IDEA CENTER



COPYRIGHT 2014 IDEA CENTER

Search

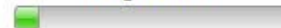
Show your support for  
VisitAble Housing in  
Canada.

[Click to Show Your Support!](#)

COPYRIGHT 2014 IDEA CENTER

COPYRIGHT 2014 IDEA CENTER

4 signatures



COPYRIGHT 2014 IDEA CENTER

What's New

[Hello world!](#)

March 18, 2014

COPYRIGHT 2014 IDEA CENTER