



# LINEAR DRAIN SYSTEMS:

DESIGN, INSTALLATION, & APPLICATION

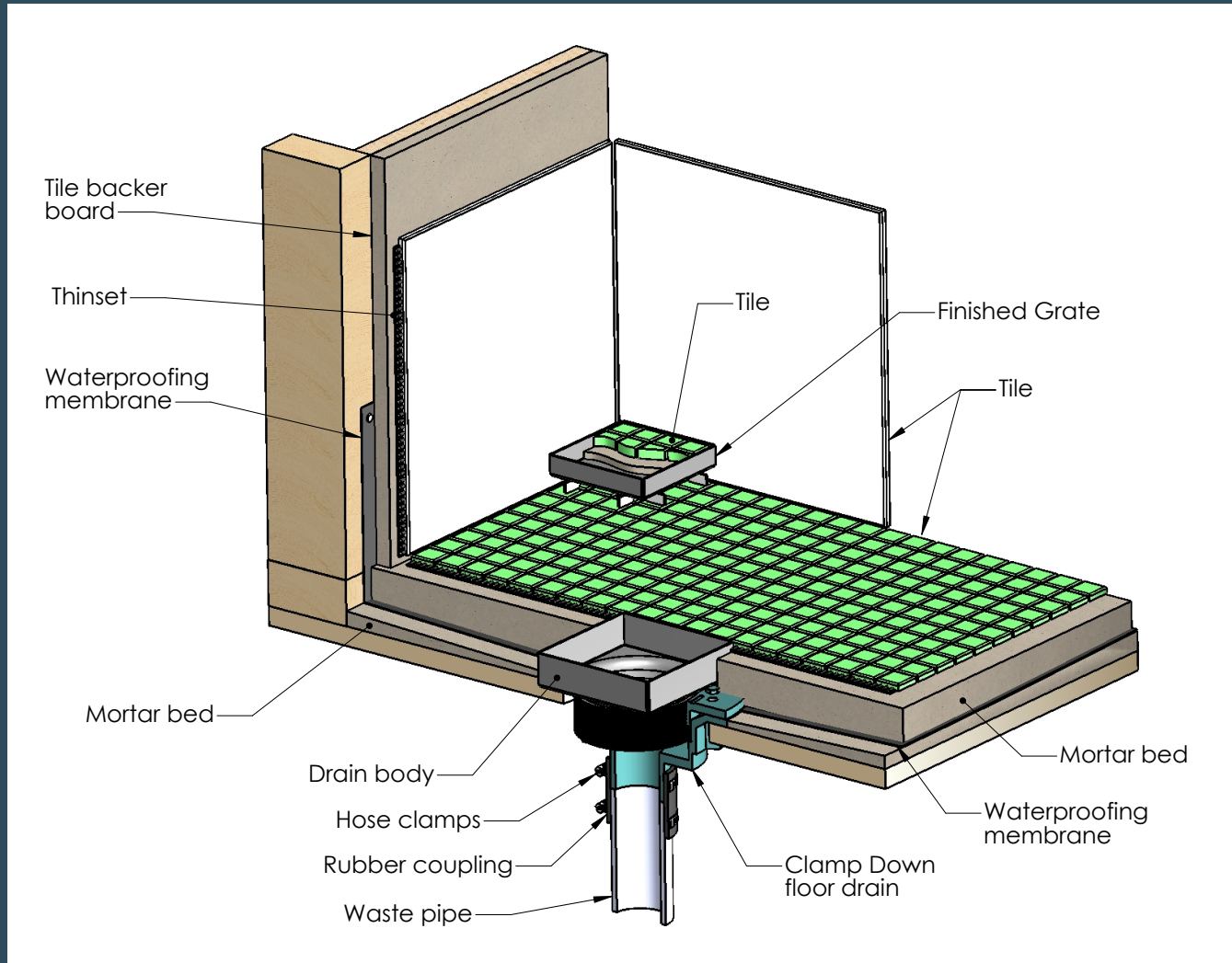
# Course Outline:

1 hour AIA CEU “Health, Safety, and Welfare Credit”

- Traditional & Modern types of waterproofing within an indoor wet area and/or bathroom.
- How to design a “Barrier Free Bathroom” using Linear Drain Systems.
- Floor Pitch & ADA requirements within the indoor wet area/ bathroom.
- Outdoor Architectural trench drain design and applications.



# Traditional Shower Drain



# Linear Drains

- Slope the floor in one direction towards the drain
- Use large format tile, stone slab or solid surface material
- Create a barrier-free or curbless shower
- Drain is now a design element



# How Do I Choose?

Which one do I like?

Which one do I need?

# Decorative Top Grates



# Traditional Waterproofing



Lead Pan



PVC Vinyl



CPE



Hot Mop

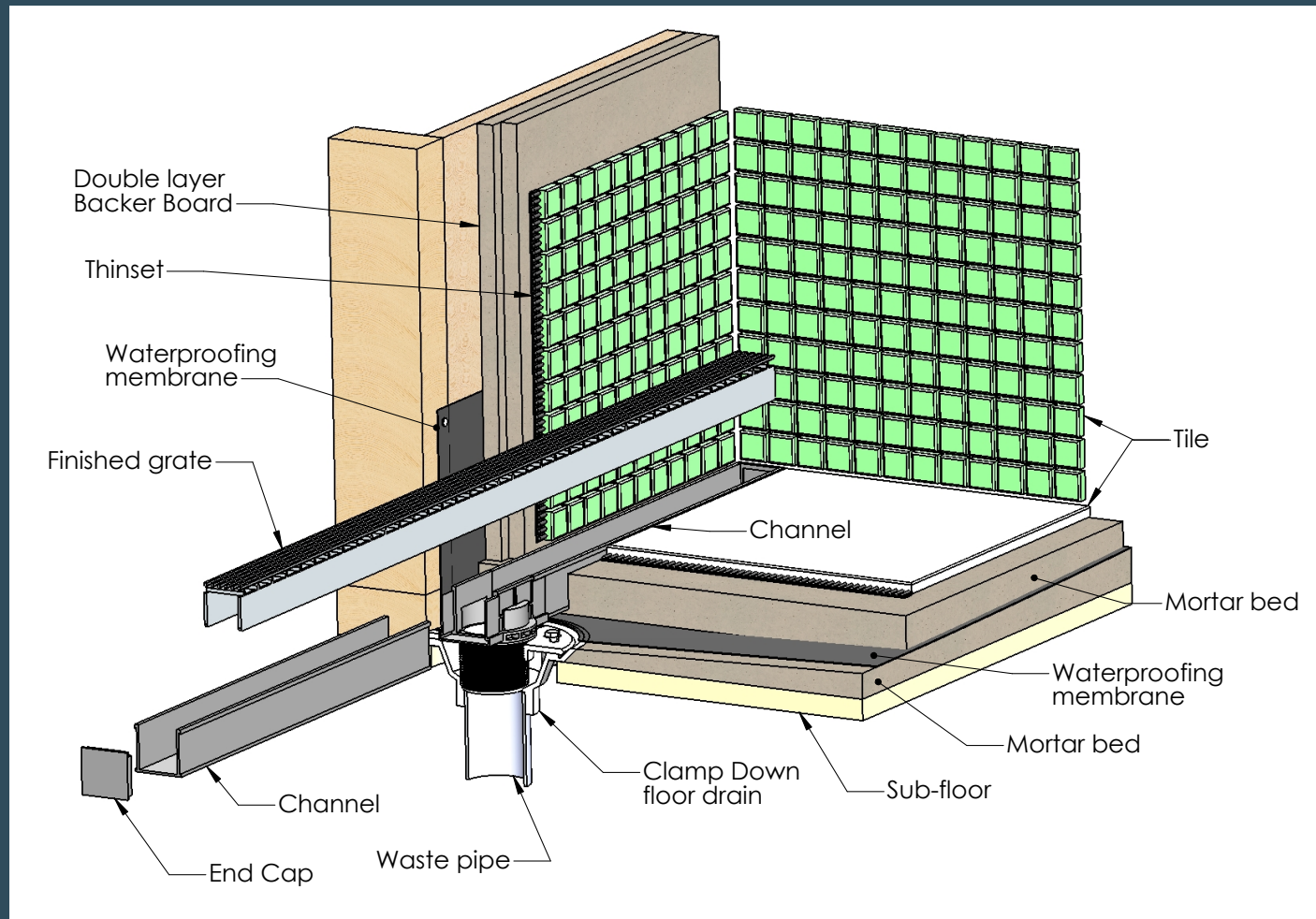
# Site Sizable Linear Drain Systems

- Standard USA Install
- Modify length of grate and channel on-site to exact specifications
- Place outlet anywhere along channel run
- Channel in Stainless Steel or PVC
- Neutral pitch channel
- Components can be combined for form any length.



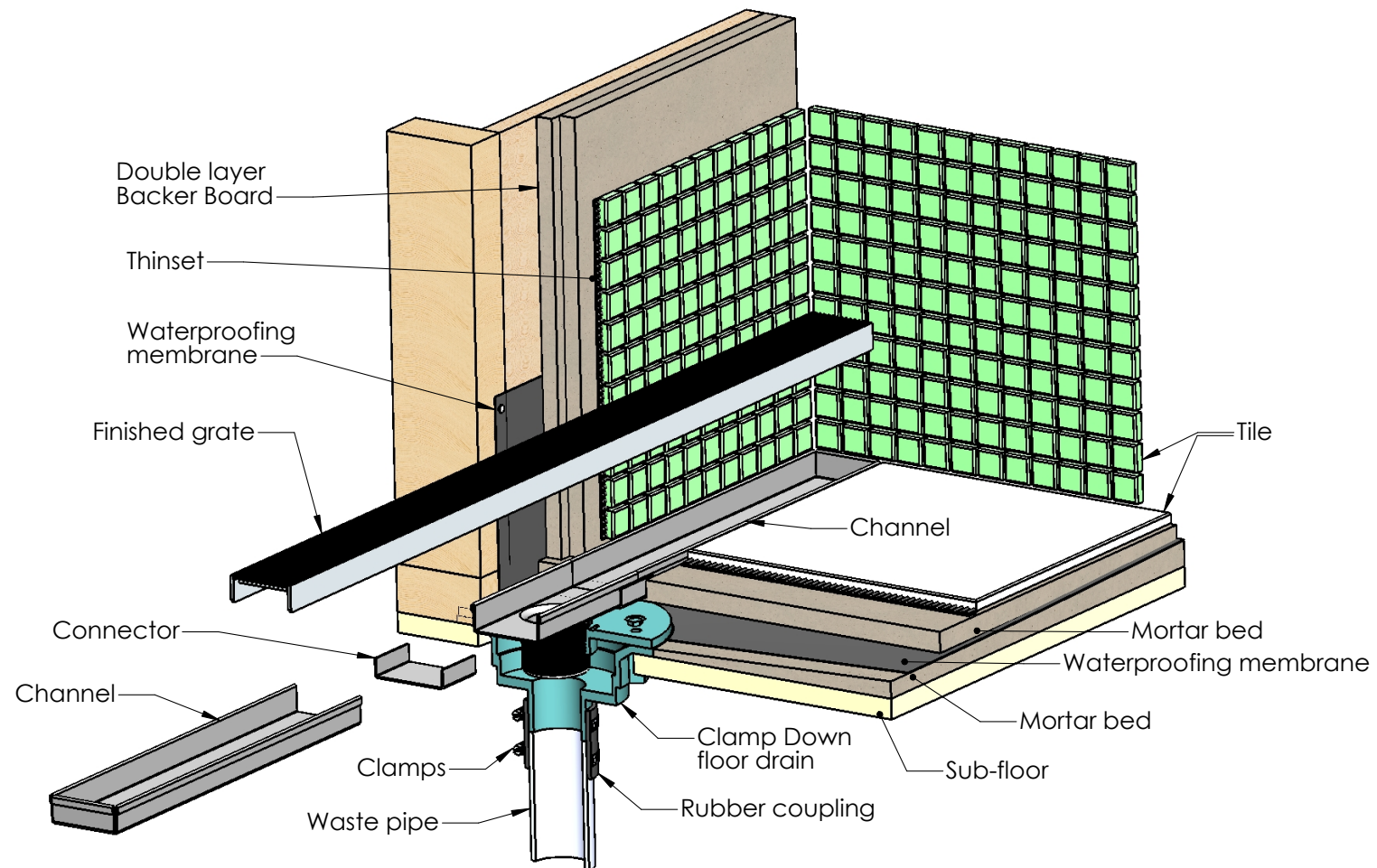
# Site Sizeable

## Clamping Flange – PVC Against the Wall



# Site Sizeable

Clamping Flange – All Stainless, Against the Wall



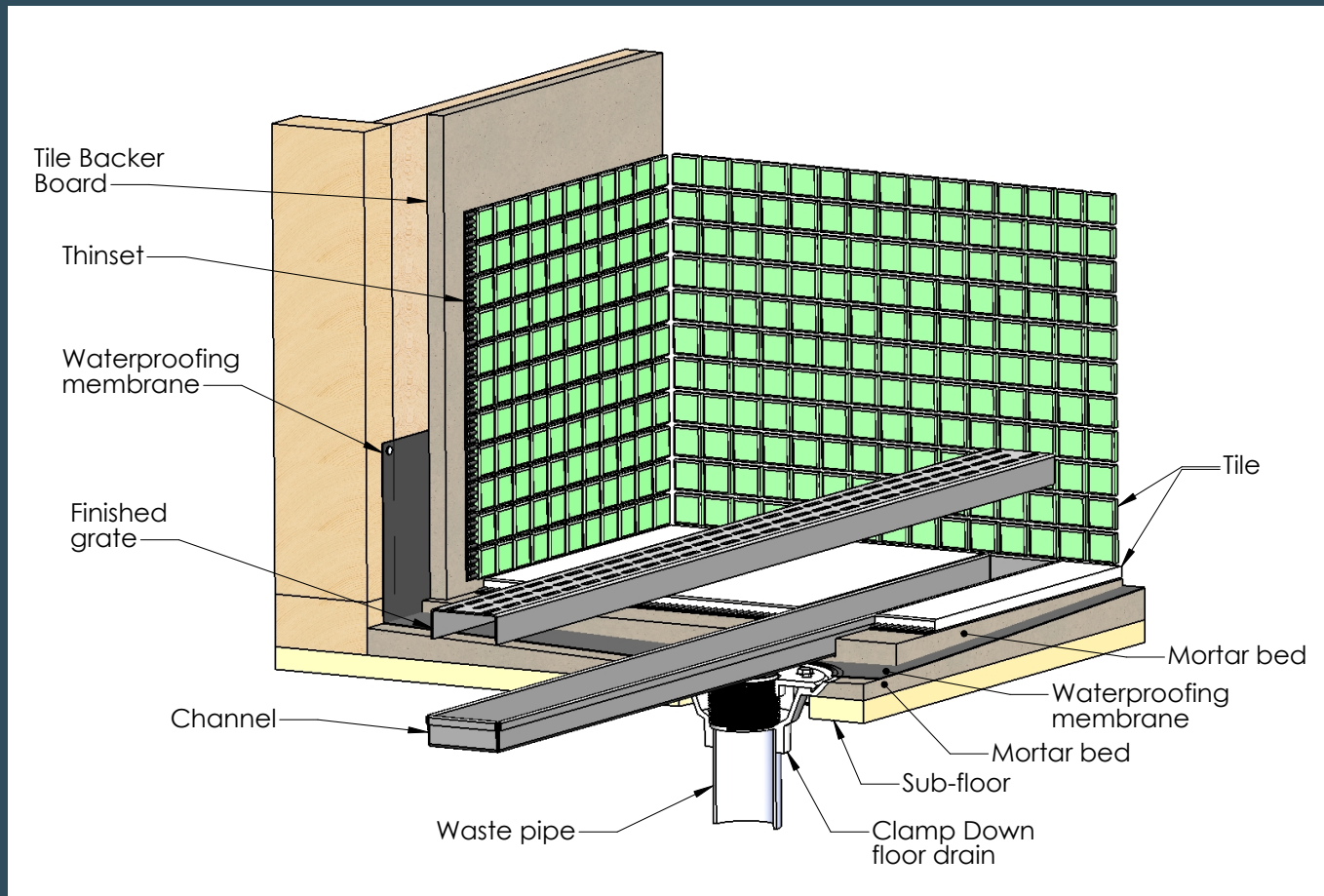
# Fixed Length Linear Drain Systems

- Fixed Length grate and channel
- Set center outlet location
- Pre-pitched channel
- Stainless steel grate and channel
- Custom sizing available
- Challenges in wall-to-wall installation



# Fixed Length

## Clamping Flange – Straight Edge Channel, Zero-Threshold



# Modern Waterproofing

## No-Hub Connection

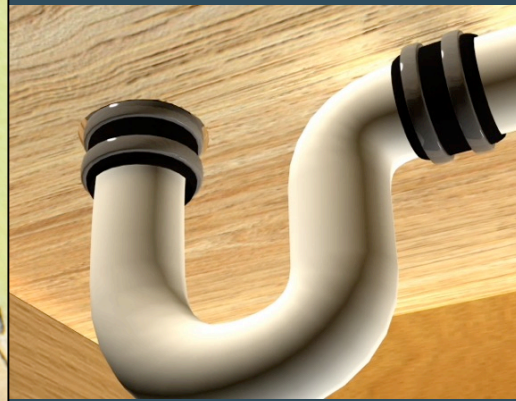


### Liquid Membrane

Laticrete – Hydro Ban

“Paint on” waterproofing allows for direct application of tile

Easily waterproof the entire bathroom



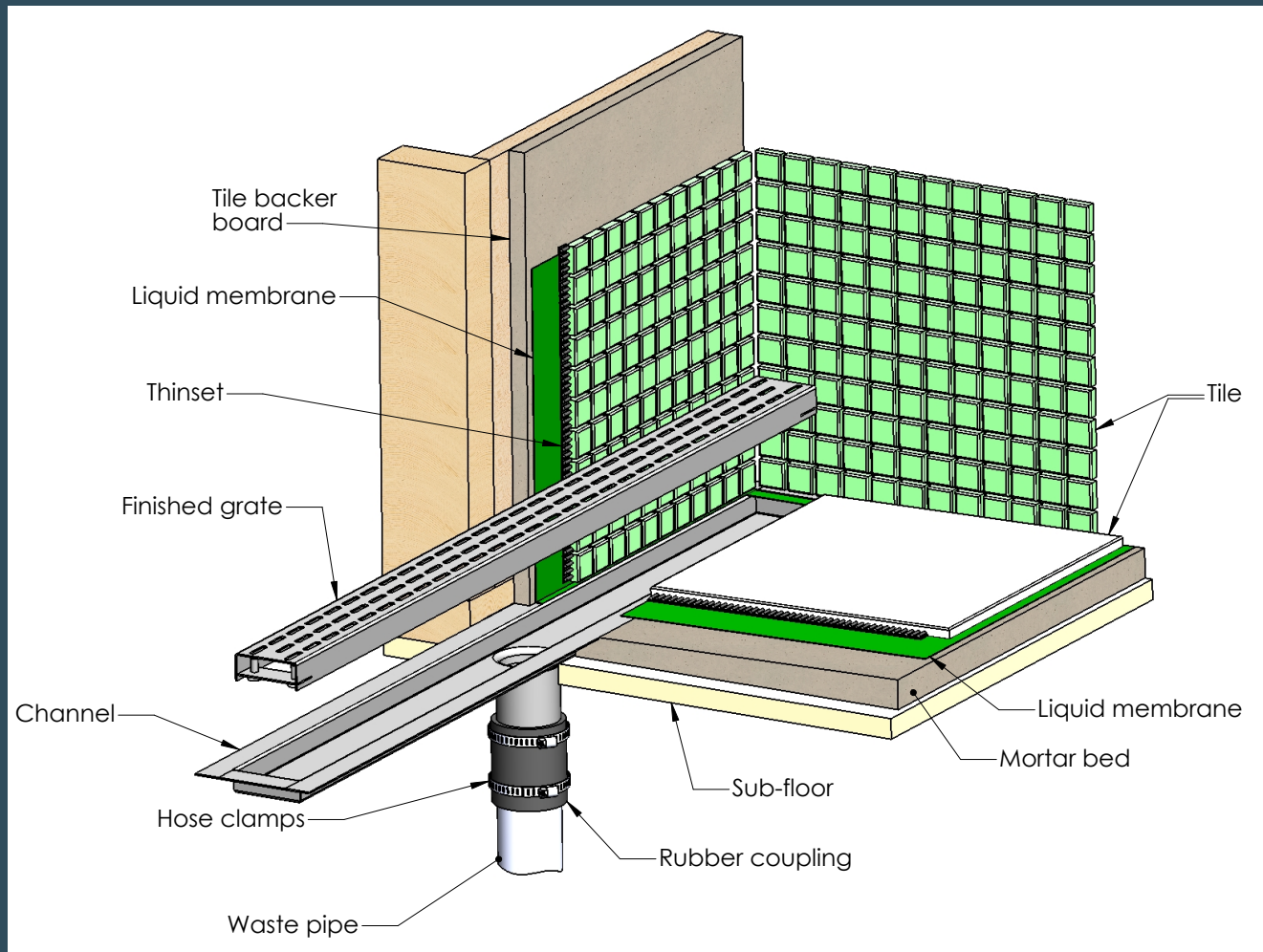
### Fabric Sheet

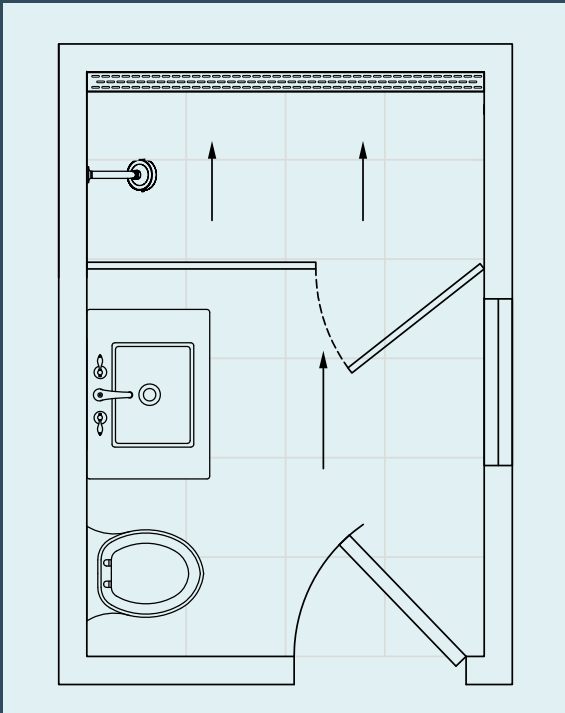
Schluter – Kerdi

Adheres to the substrate with thin-set mortar or other adhesive.  
Allows for direct application of tile

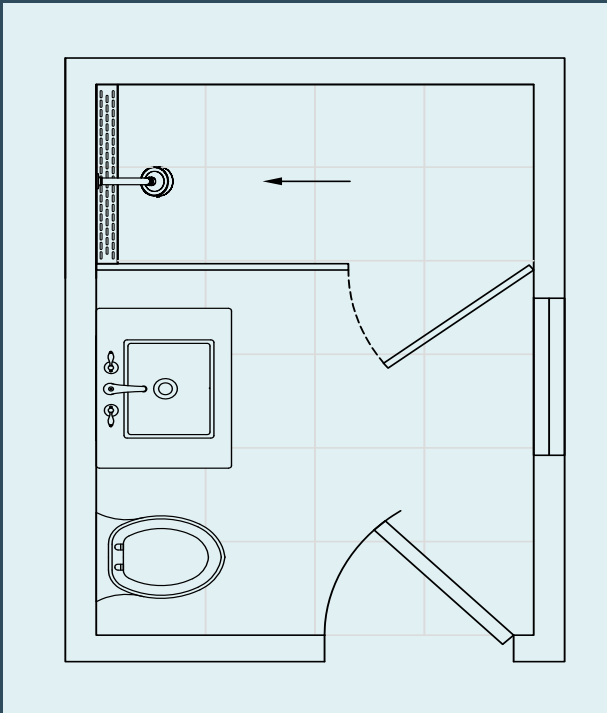
# Fixed Length

Direct Connect – Flanged Channel, Against the Wall

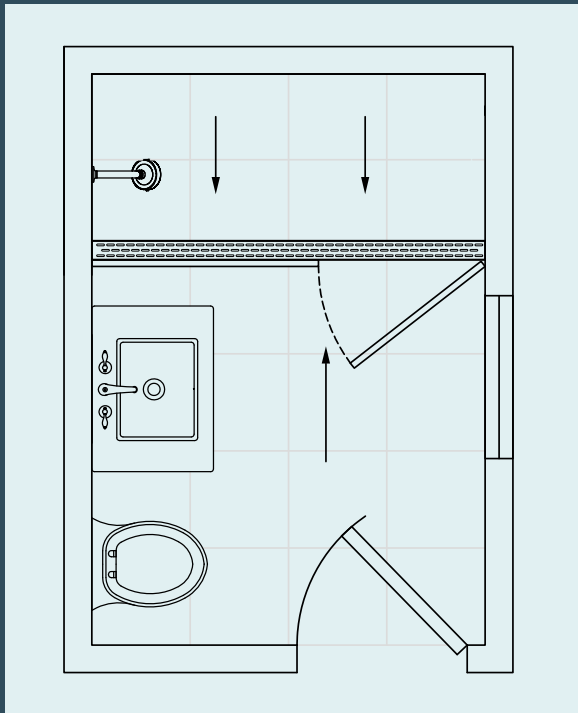




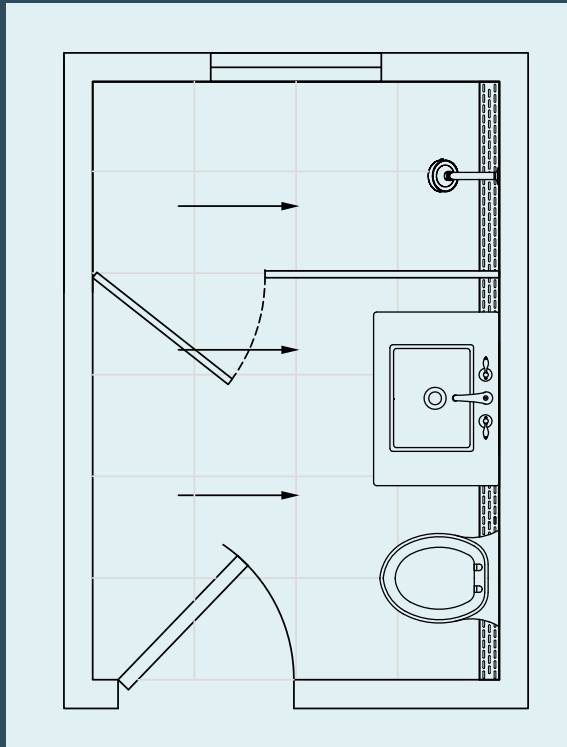
Recommended Drain Placement



# Recommended Drain Placement



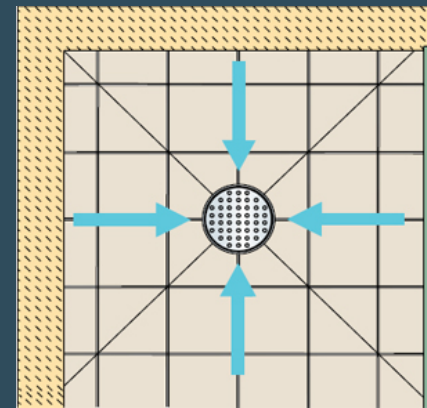
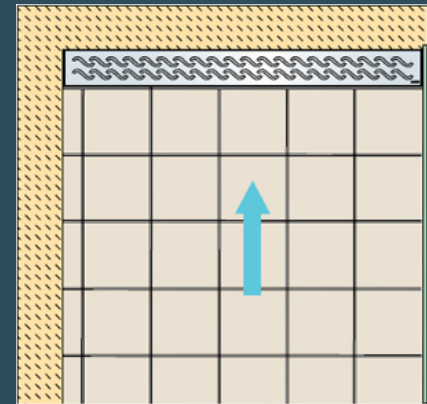
Recommended Drain Placement



Recommended Drain Placement

# Floor pitch and ADA requirements

- Transfer Type Shower Compartments
- Standard Roll-In Type Shower Compartments
- Alternate Roll-In Type Shower Compartments



# Transfer Type Shower compartments

## Dimensions

- 36" x 36" clear inside dimensions,
- 36" wide entry
- 36" x 48" clearance to entry
- Only configuration that allows a curb

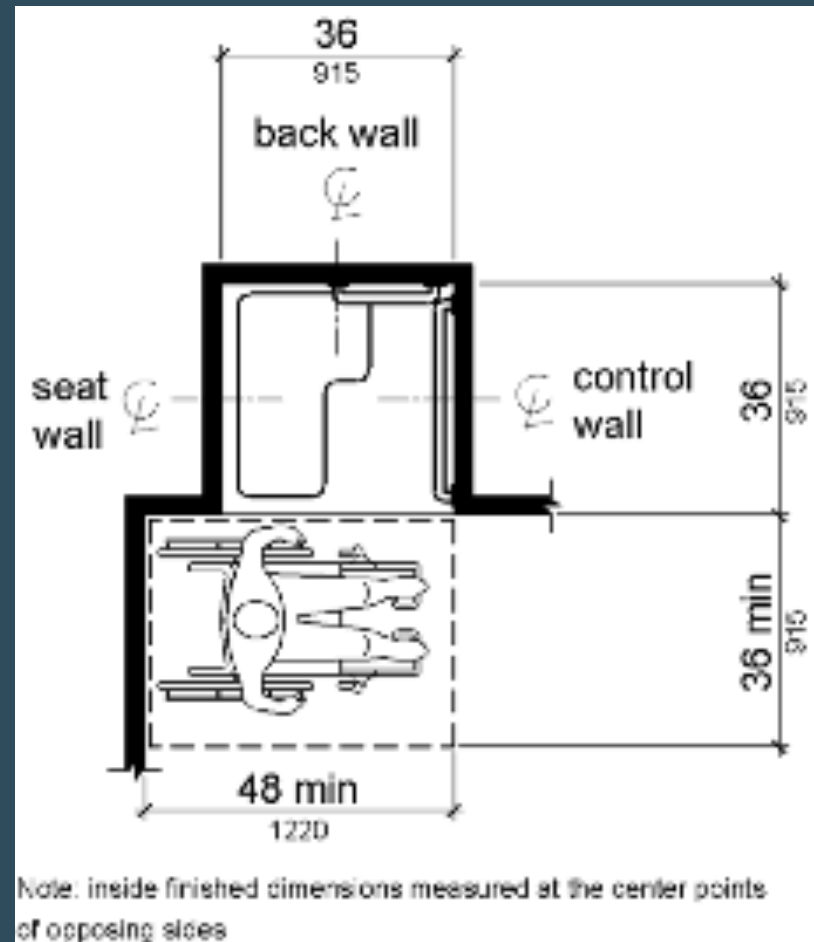


FIGURE 608.2.1

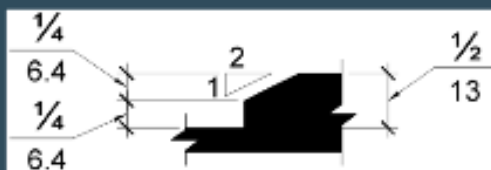
Per ADA 608.2.1, 608.7 & 303

# Standard Roll-In Type Shower compartments

# Dimensions

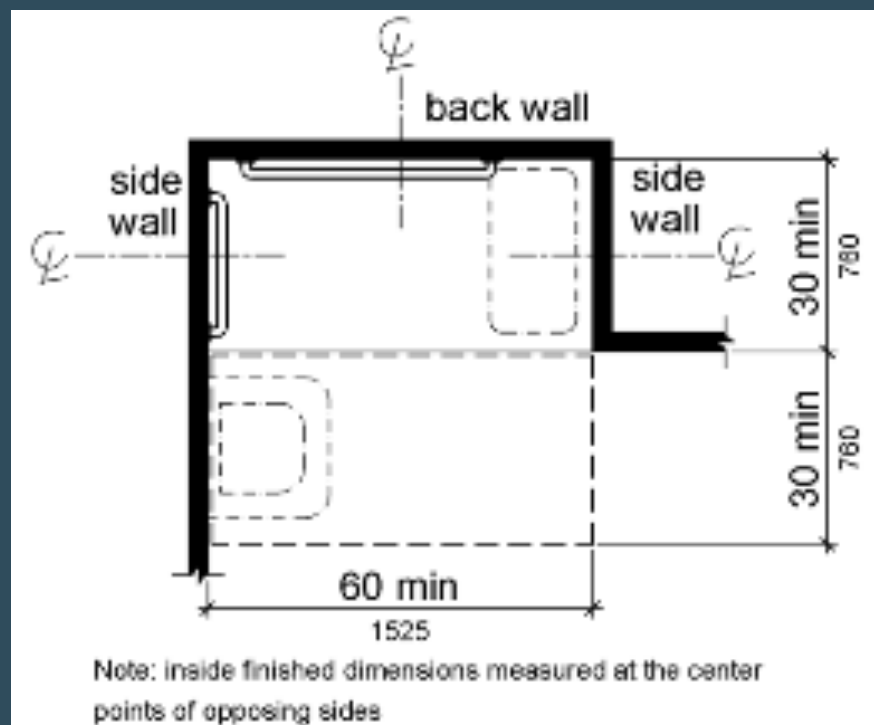
- 30" x 60" clear inside dimensions
- 60" wide entry
- 30' x 60" clearance to entry
- Exception of lav on one 30" clearance if not by controls or shower seat

Thresholds - 1/2" (13mm) high max



**Figure 303.3**  
**Beveled Change in Level**

Per ADA 608.2.2, 608.2.2.1, 608.7 & 303



### FIGURE 608.2.2

# Alternate Roll-In Type Shower Compartments

## Dimensions

- 36" x 60" clear inside dimensions
- 36" wide entry along long side

Thresholds in roll-in type shower compartments shall be  $\frac{1}{2}$ " high max

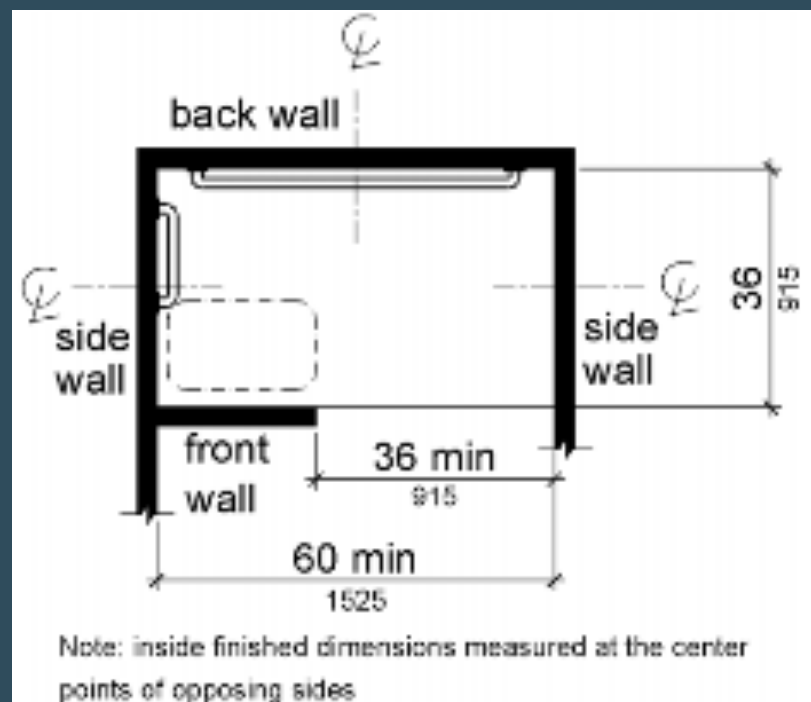


FIGURE 608.2.3

# Open Shower





# Outdoor Architectural Trench Drains

design & application

# Storm Drainage & Landscape



# Driveways



# Balconies



# Patio & Deck





## Pool Surrounds

Use as a wet edge pool detail

# Questions?

