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A Minority-Owned Business



Accessibility: **Everything you wanted to know** **...and more**

Joshua Klyber
Code Unlimited LLC

Public Bathrooms

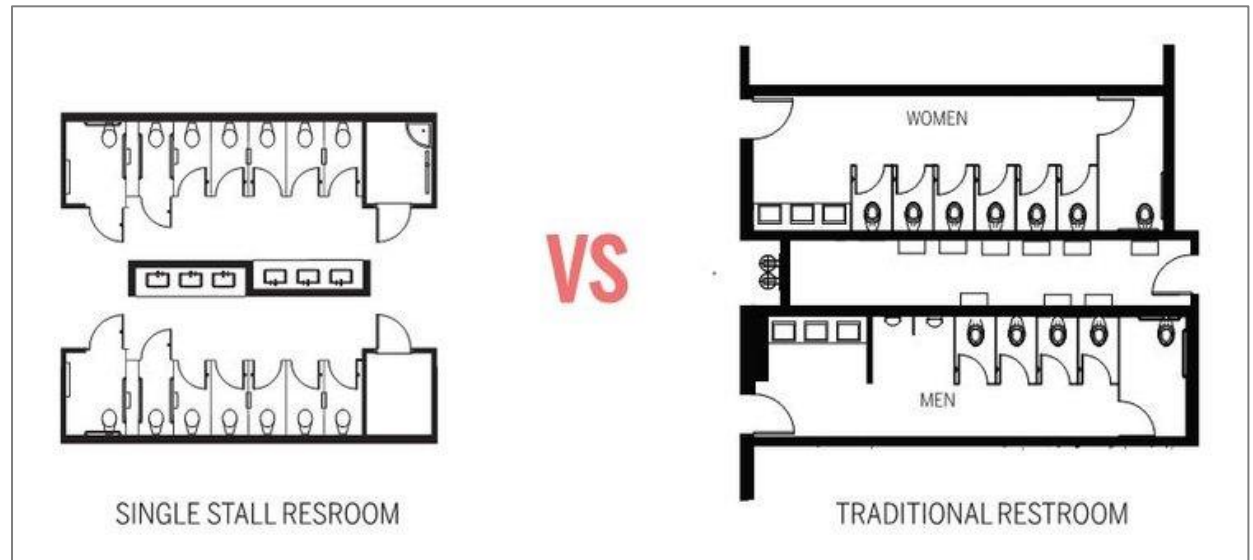
PUBLIC BATHROOMS

- Types of public bathrooms
- Accessible toilet compartments
- Ambulatory stalls
- Urinals
- Locker rooms
- Steam rooms and saunas
- Drinking fountains



PUBLIC BATHROOM TYPES

- Standard multi-user sexed bathrooms (At least one stall, 5% of lavatories)
- Single user unisex bathrooms in Clusters (50% of bathrooms)
- Multi-user unisex bathrooms (At least 1 compartment, 5% of lavatories)
 - Bathroom contains at least one lavatory and one toilet
 - Compartment contains toilet only



FAMILY / ASSISTED USE

- Assembly and Mercantile where 6 or more toilets are required.
- Recreational facilities



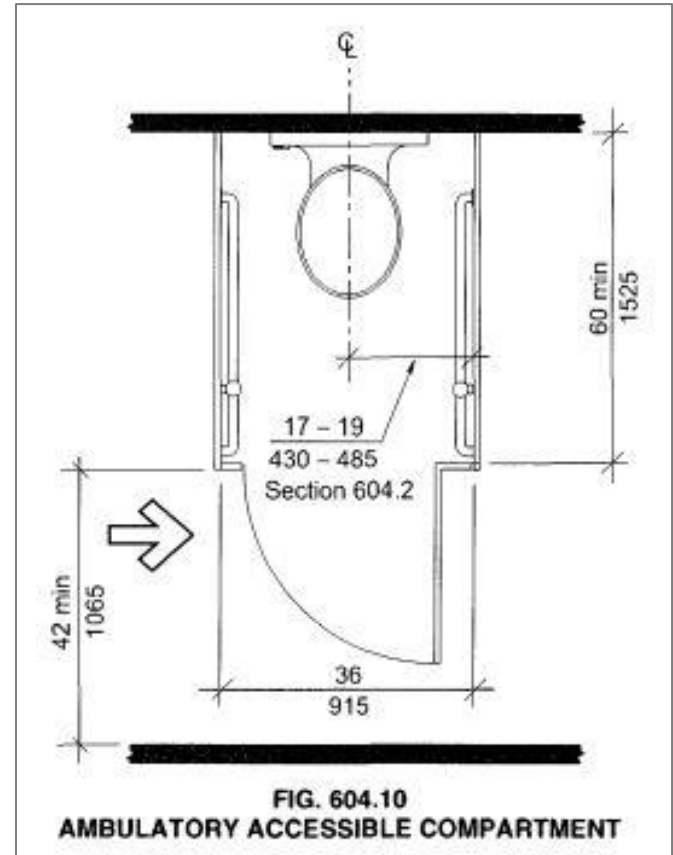
ACCESSIBILITY EXCEPTIONS

- Bathrooms on non-accessible routes
- Private office bathrooms
- Critical care and intensive care patient sleeping rooms
- Children's bathrooms (Reach Ranges under Play Components)

Advisory Specifications for Water Closets Serving Children Ages 3 through 12			
	Ages 3 and 4	Ages 5 through 8	Ages 9 through 12
Water Closet Centerline	12 inches (305 mm)	12 to 15 inches (305 to 380 mm)	15 to 18 inches (380 to 455 mm)
Toilet Seat Height	11 to 12 inches (280 to 305 mm)	12 to 15 inches (305 to 380 mm)	15 to 17 inches (380 to 430 mm)
Grab Bar Height	18 to 20 inches (455 to 510 mm)	20 to 25 inches (510 to 635 mm)	25 to 27 inches (635 to 685 mm)
Dispenser Height	14 inches (355 mm)	14 to 17 inches (355 to 430 mm)	17 to 19 inches (430 to 485 mm)

AMBULATORY STALLS

- Required with 6 or more fixtures
- Grab bars on both side walls including vertical
- No rear wall grab bar
- Intended for people using crutches

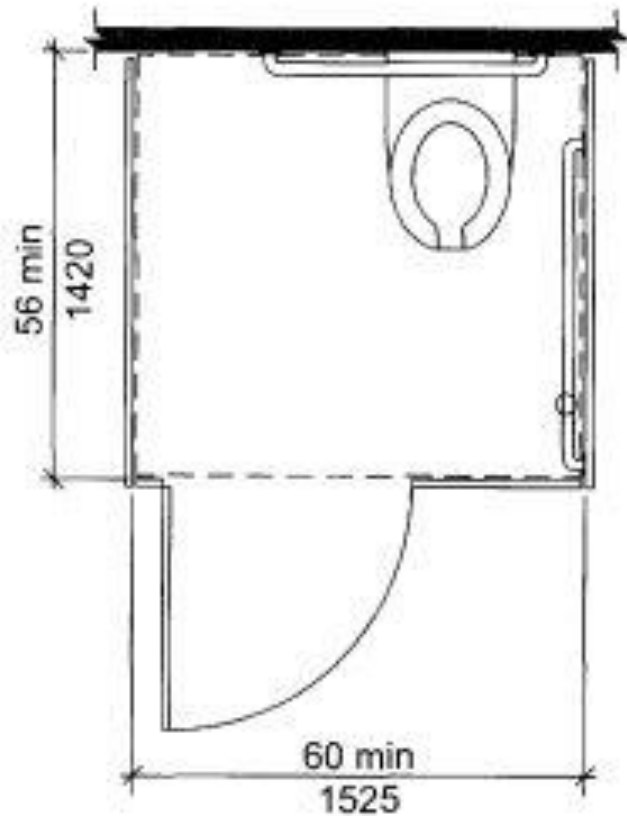


TOILET CLEARANCE

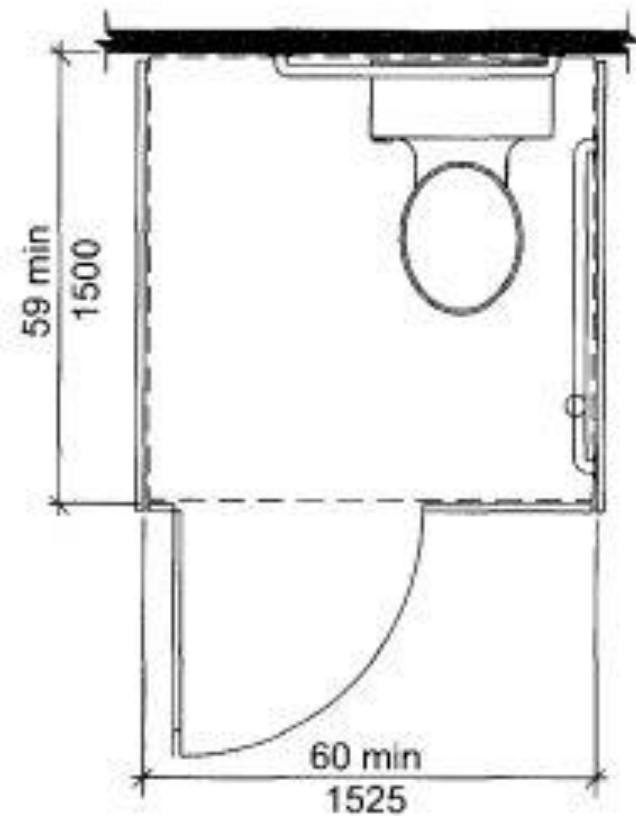
- 60 inches wide x 56 inches deep
- No fixtures, including diaper changing
- Grab bars, dispensers, receptacles, hooks, and shelves are OK



TOILET STALL SIZE



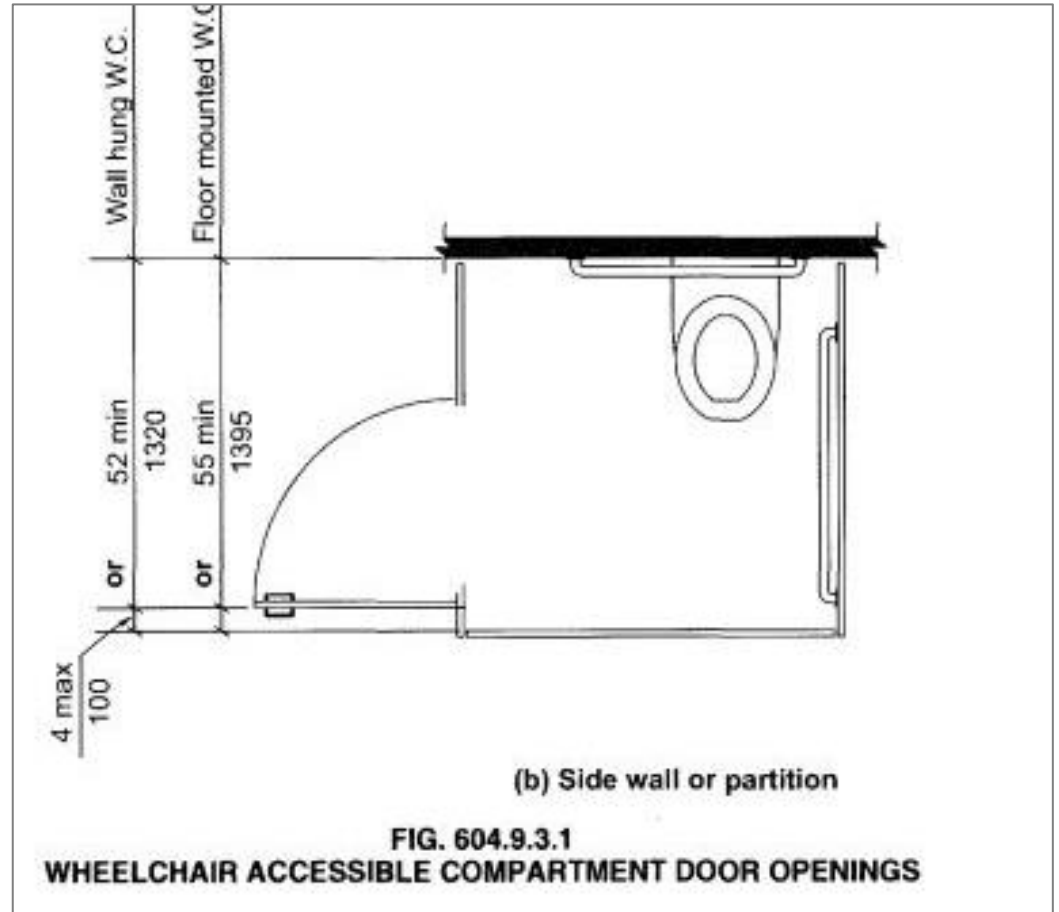
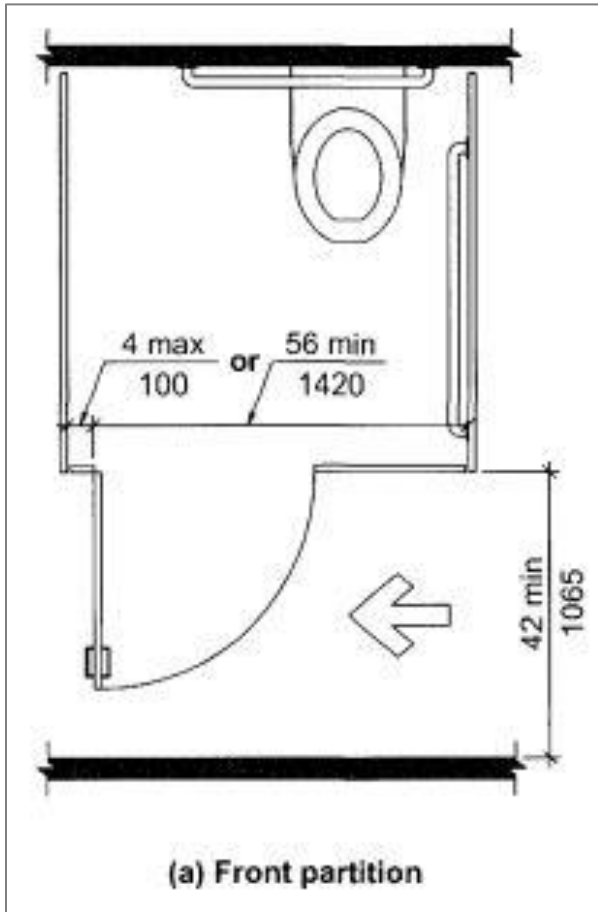
(a) Wall-Hung Water Closet – Adult



(b) Floor-Mounted Water Closet – Adult
Wall-Hung and
Floor-Mounted Water Closet – Children

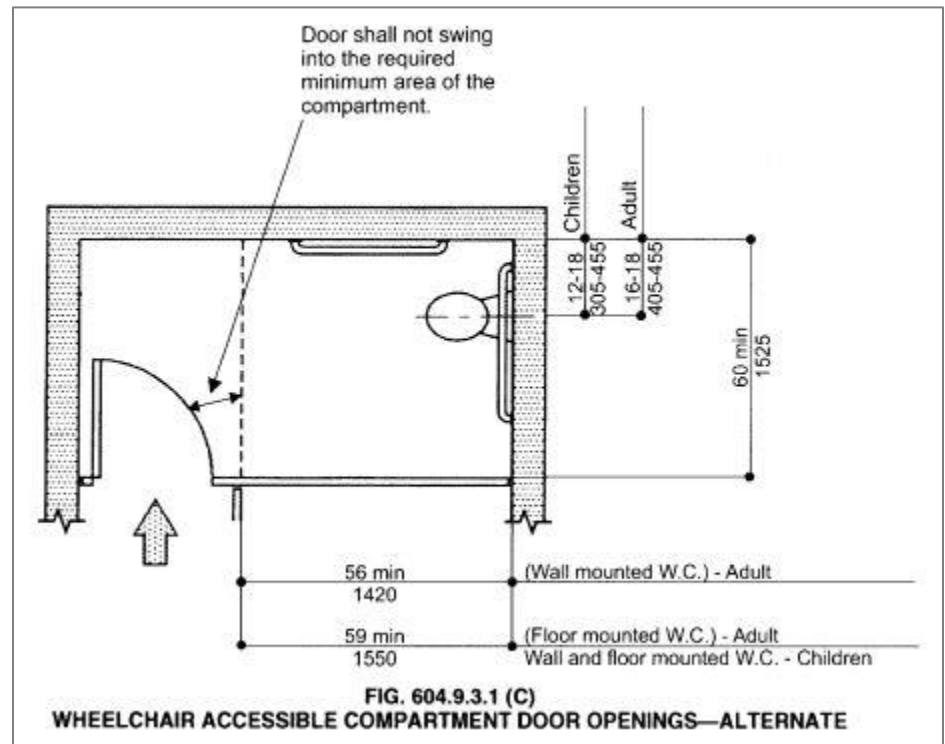
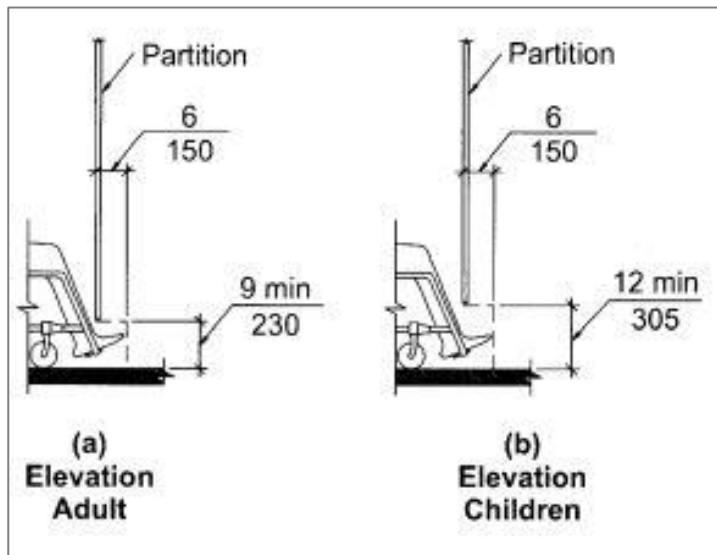
FIG. 604.9.2
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS

TOILET STALL CONFIGURATIONS



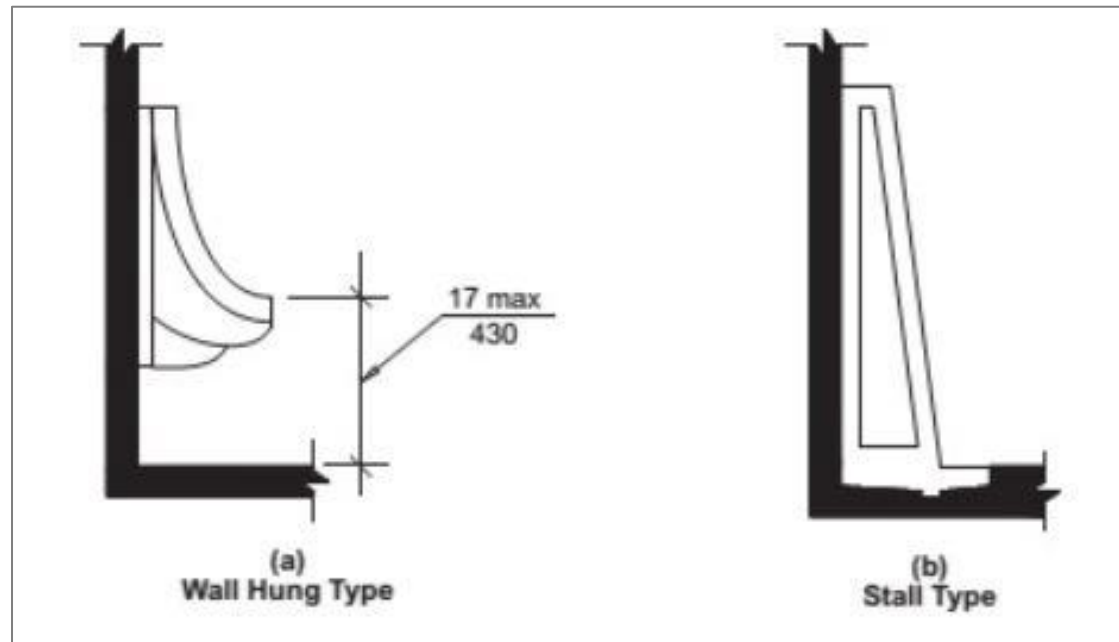
COMPARTMENT TOE SPACE

- Toe clearance on front and one side unless this alternate is used
- At least 9 inches



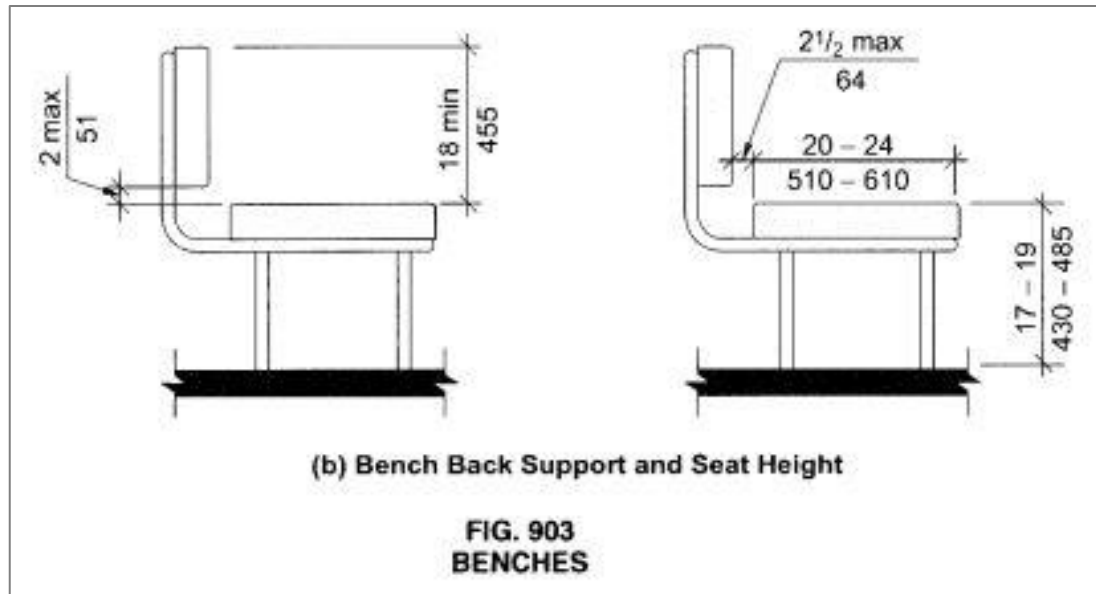
URINALS

- Accessible urinals only required if two or more



LOCKER ROOMS

- Package Lockers vs. Clothes Lockers
- Lockers within the accessible reach range (15"-48")
- Accessible bench with a back



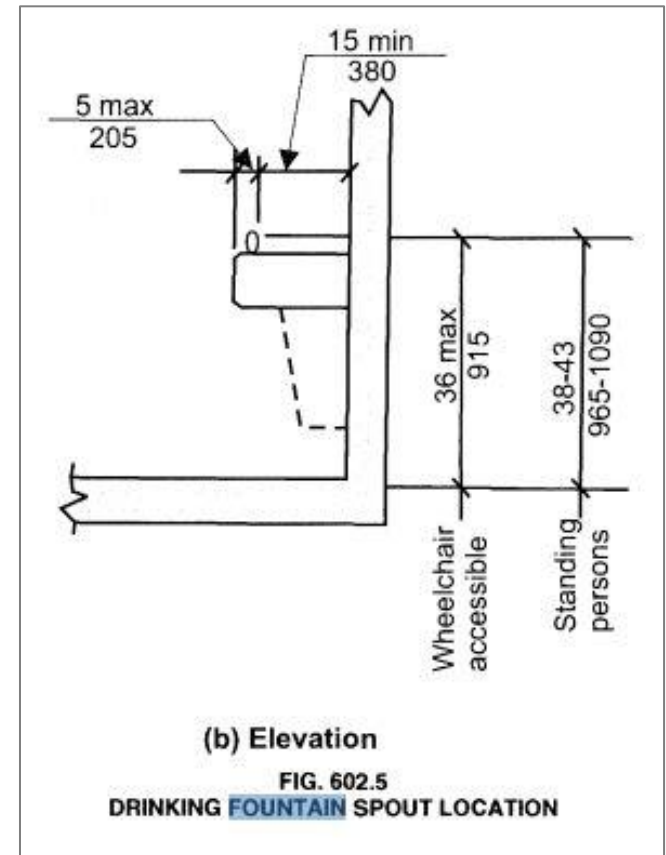
SAUNA AND STEAM ROOMS

- Accessible bench
- Turning space
- Floor drain



WATER FOUNTAINS

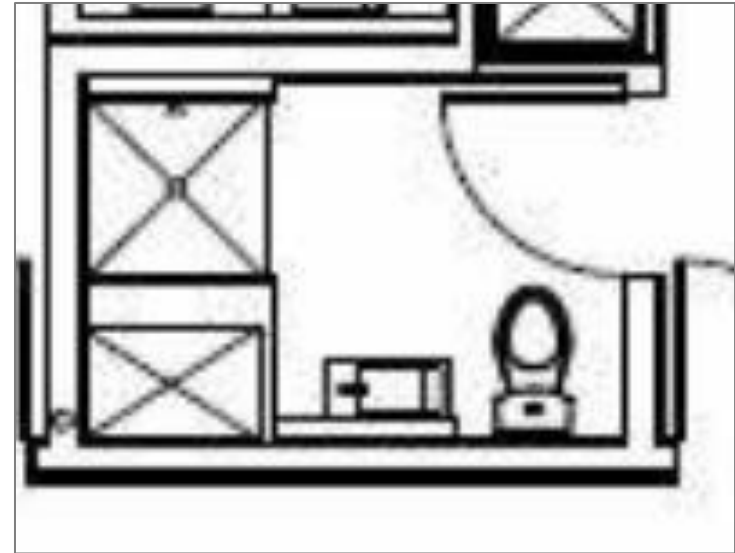
- Where there's one, there's two
- Forward or parallel approach
- Alcove condition
- Obstruction



Residential Bathrooms

RESIDENTIAL BATHROOMS

- Unit Type Review
- Option A / Option B
- Doors
- Bathing Fixtures
 - 4 types
 - Dimensions
 - Grab bars
 - Controls
 - Clear floor space
- Toilets
- Lavatories
- Laundry
- Putting it all together



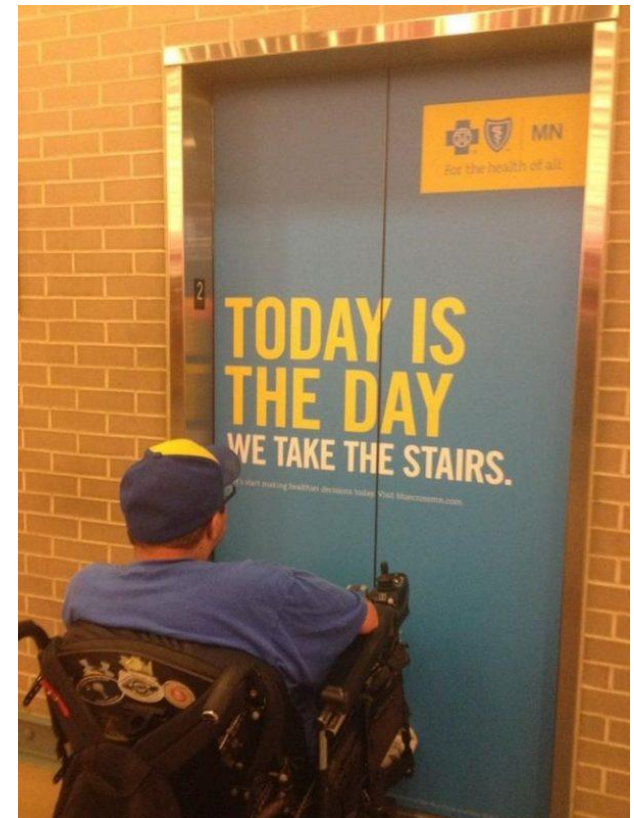
UNIT TYPES

Public areas

- Most states
 - Accessible units – R1 occupancies
 - **Type A units** – 2% in OR, 5% in WA
 - **Type B units** – all remaining units on an accessible route
 - Type C units – Visitable units
 - Non-accessible units
 - Live/work units – Mix of residential and non-residential areas
 - Mobility units – Similar to Accessible units
 - Units with communication features
- California
 - Adaptable units – A mix of Type A and Type B requirements

OPTION A / OPTION B

- Option A
 - All bathrooms must comply
 - Forward approach to bath/shower
 - 36” counters
- Option B
 - Only one bathroom must comply
 - Parallel approach to bath/shower
 - 34” counters
- Powder rooms are exempt



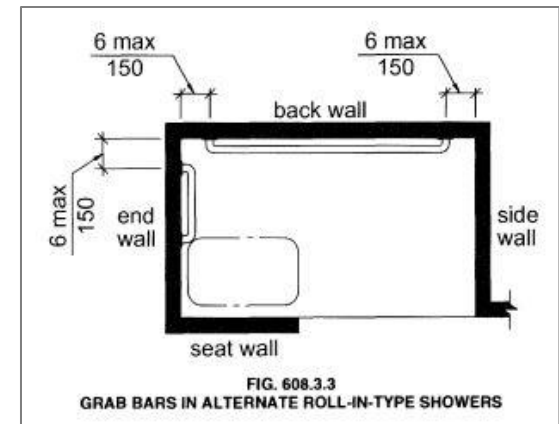
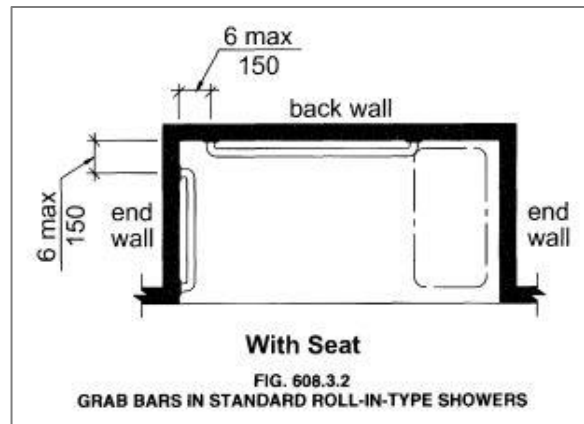
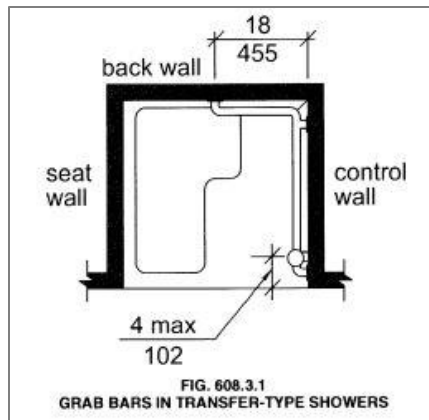
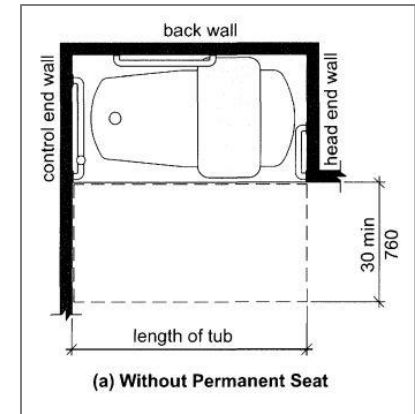
DOORS

Type A	Type B	FHADM
32" clear	32" clear	32" clear
Door maneuvering throughout	Primary entry both sides	Primary entry exterior
Hardware	None	None



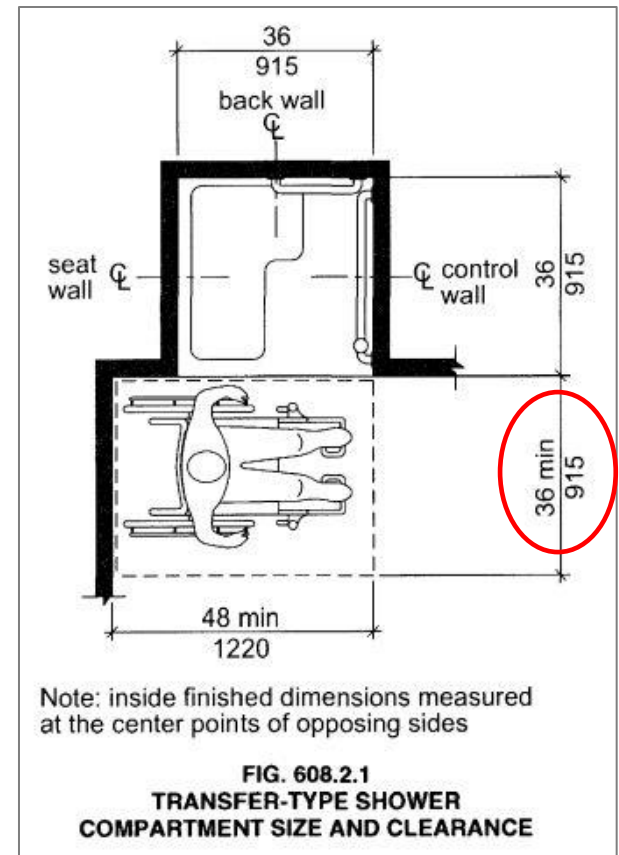
BATHING FIXTURES

- Transfer Showers
- Roll-in Showers
- Alternate Roll-in Showers
- Tubs
- Hand Showers in Accessible and Type A

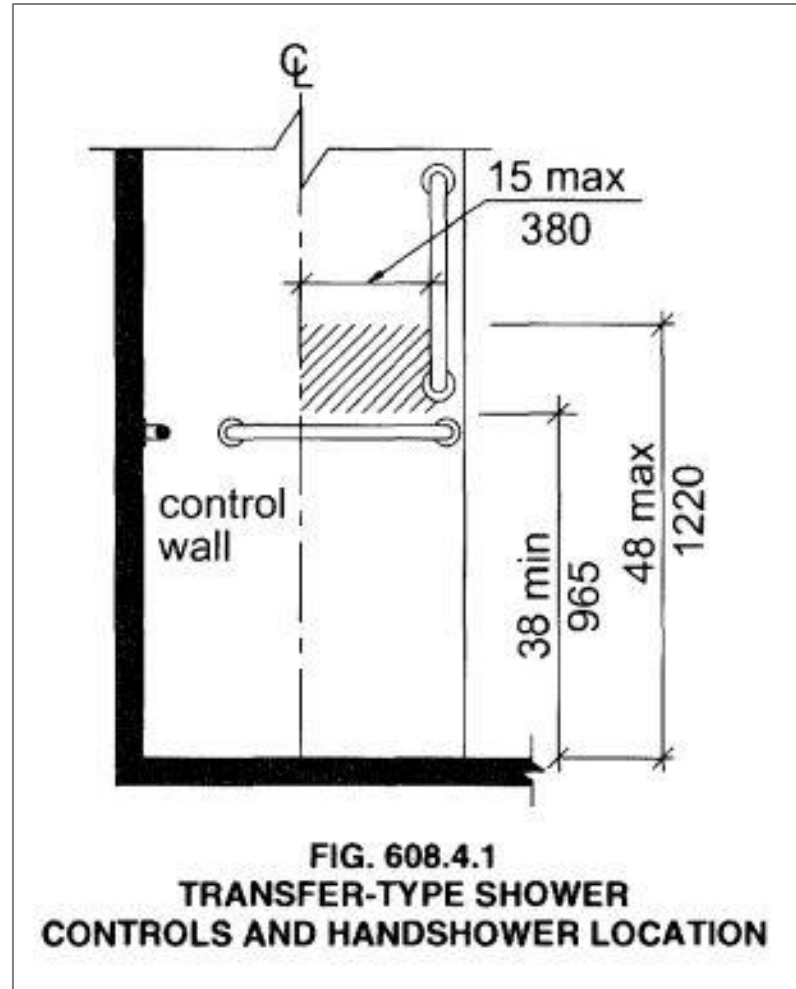


TRANSFER SHOWERS

Type A	Type B	FHADM
36" x 36"	36" x 36"	36" x 36"
Horizontal/ vertical grab bars	Horizontal/ vertical grab bars	Horizontal on three walls
Bench	Bench	None
Controls offset	None	None
CFS at control wall	CFS at control wall	CFS at control wall



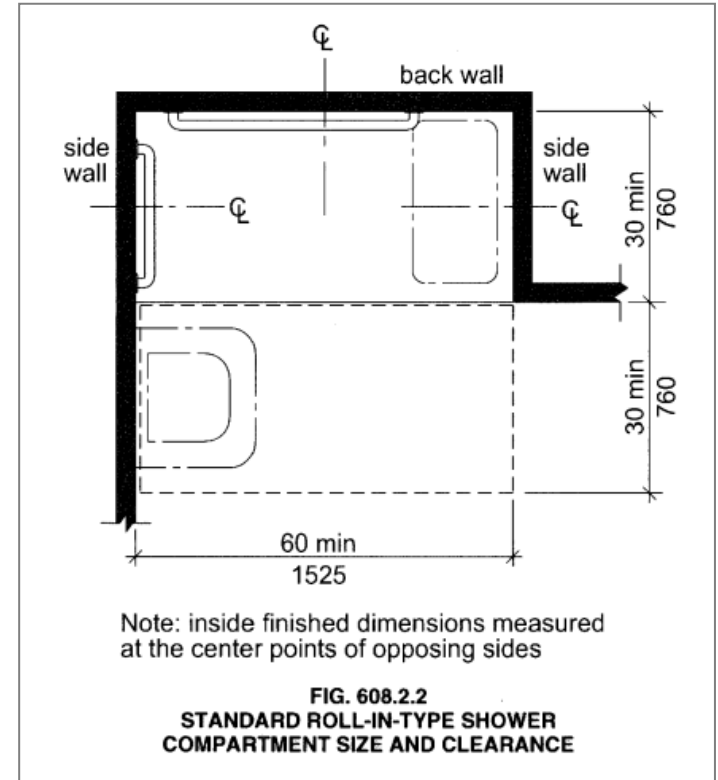
TRANSFER SHOWERS



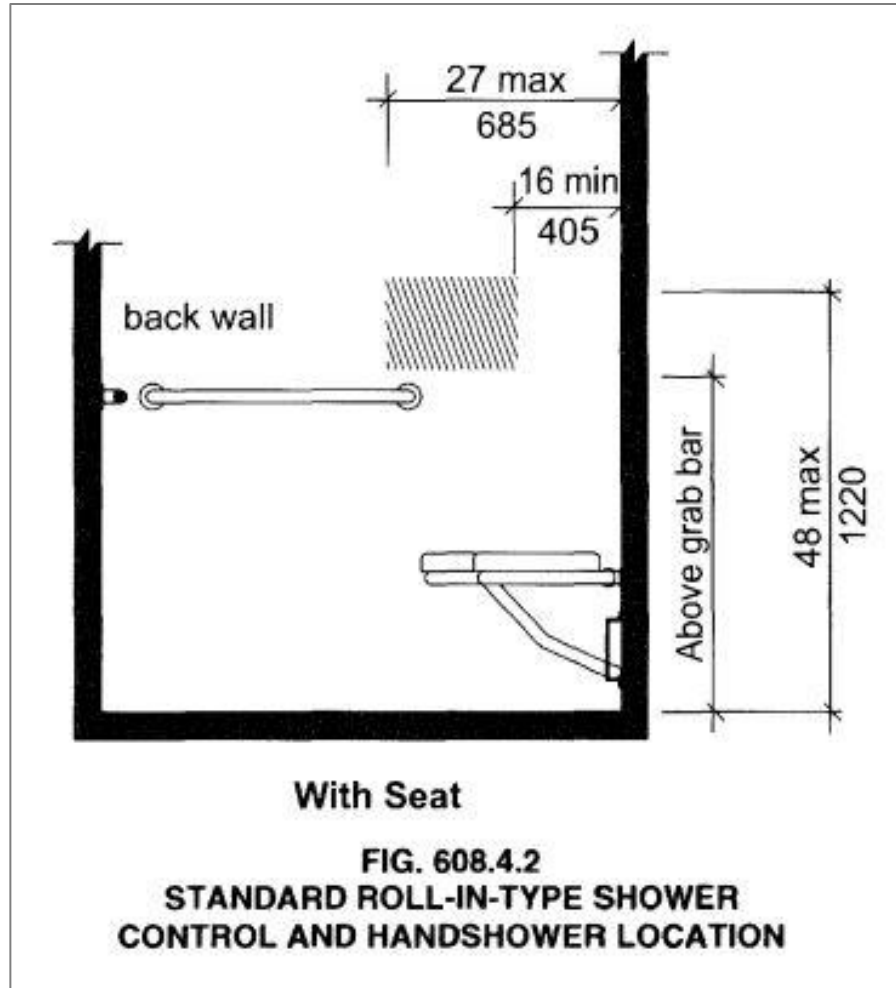
ROLL-IN SHOWERS

Type A	Type B	FHADDM
≥ 30" x 60"	≥ 30" x 60"	≥ 30" x 36"
Horizontal two walls	Horizontal two walls	Horizontal three walls
Bench optional	Bench optional	Bench optional
Controls at back wall	None	None
60" with sink	30" x 48" at control wall	30" x 48" at control wall

Note: no toilet allowed in clear floor space

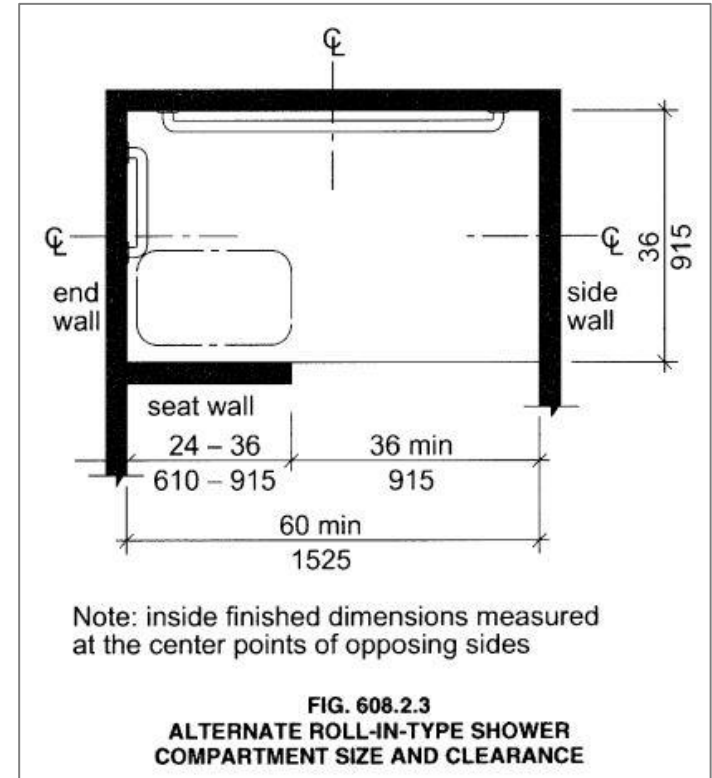


ROLL-IN SHOWERS

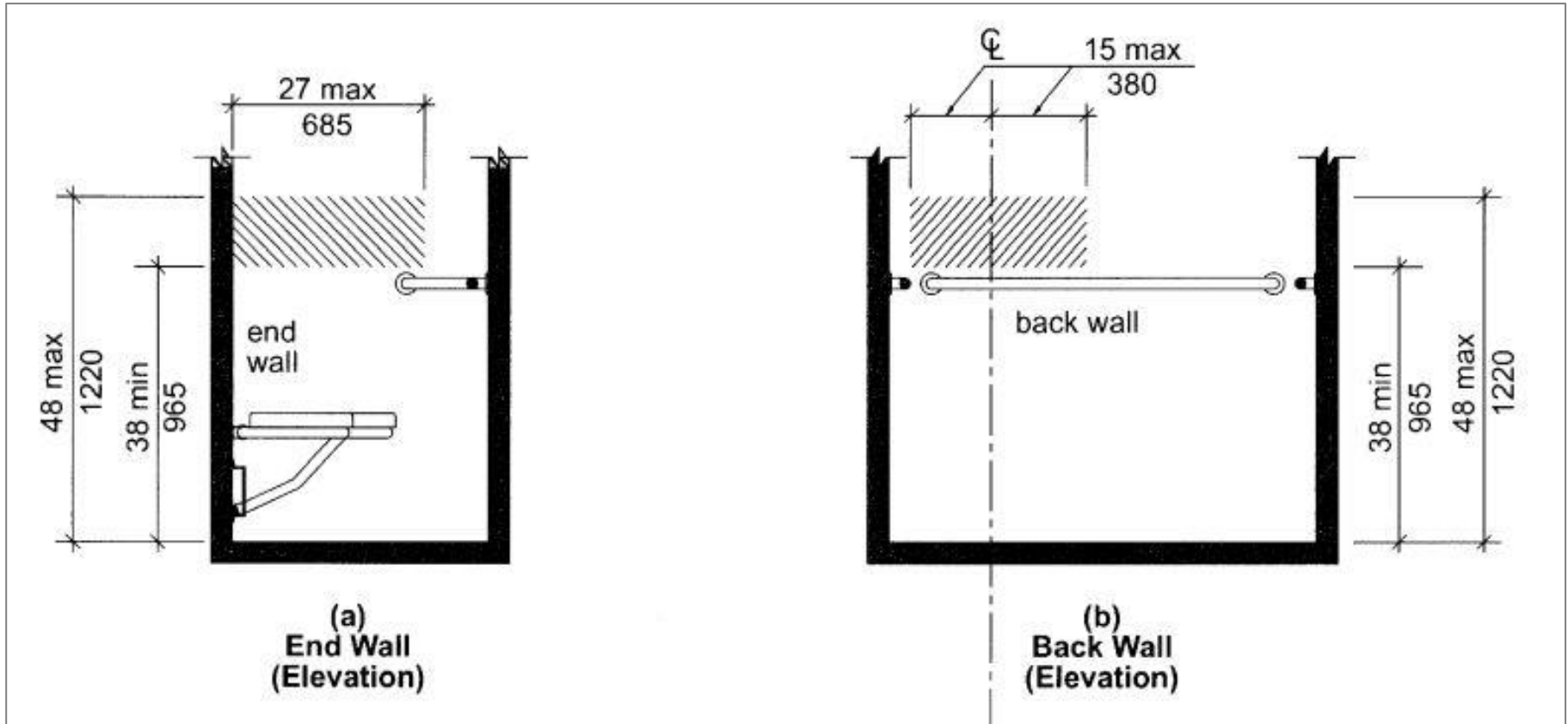


ALTERNATE ROLL-IN SHOWERS

Type A	Type B	FHADDM
36" x ≥ 60"	36" x ≥ 60"	≥ 30" x 36"
Horizontal two walls	Horizontal two walls	Horizontal three walls
Bench	Bench	Bench optional
Controls on side or back	None	None
No clear floor space	30" x 48" at control wall	30" x 48" at control wall

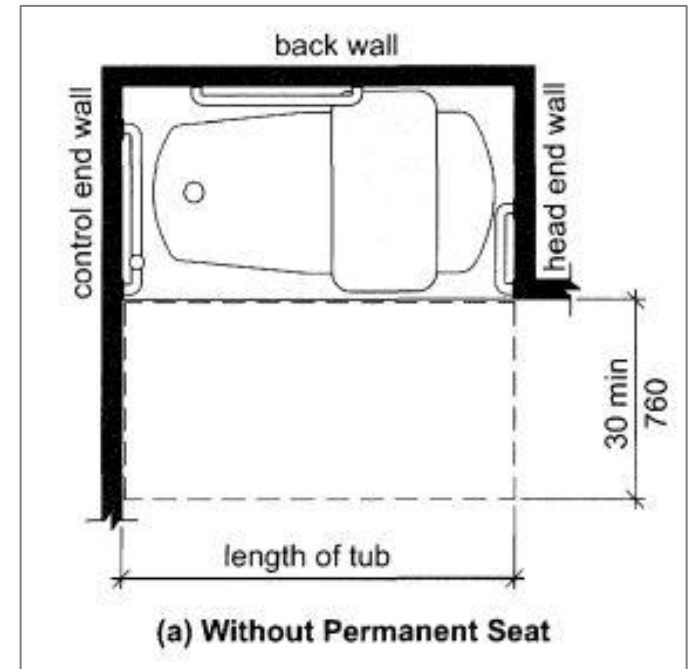


ALTERNATE ROLL-IN SHOWERS



BATHTUBS

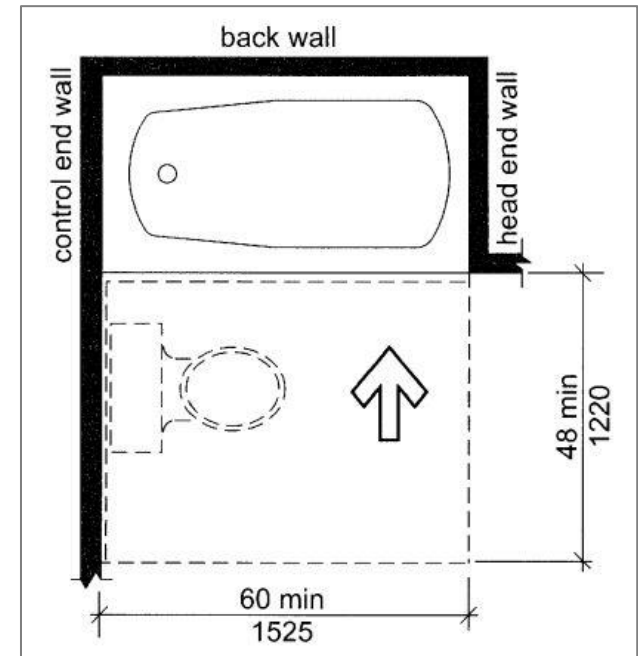
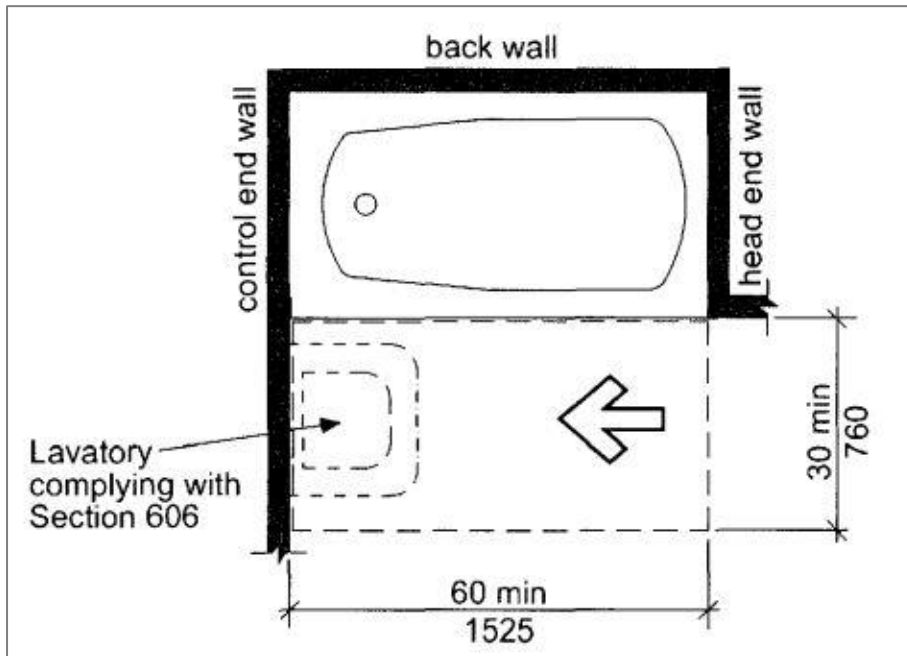
Type A	Type B	FHADDM
None	None	None
Double horizontal and vertical	Double horizontal and vertical	Double horizontal three walls
Controls offset	None	None
30" x length of tub	30" x length of tub	30" x 60"



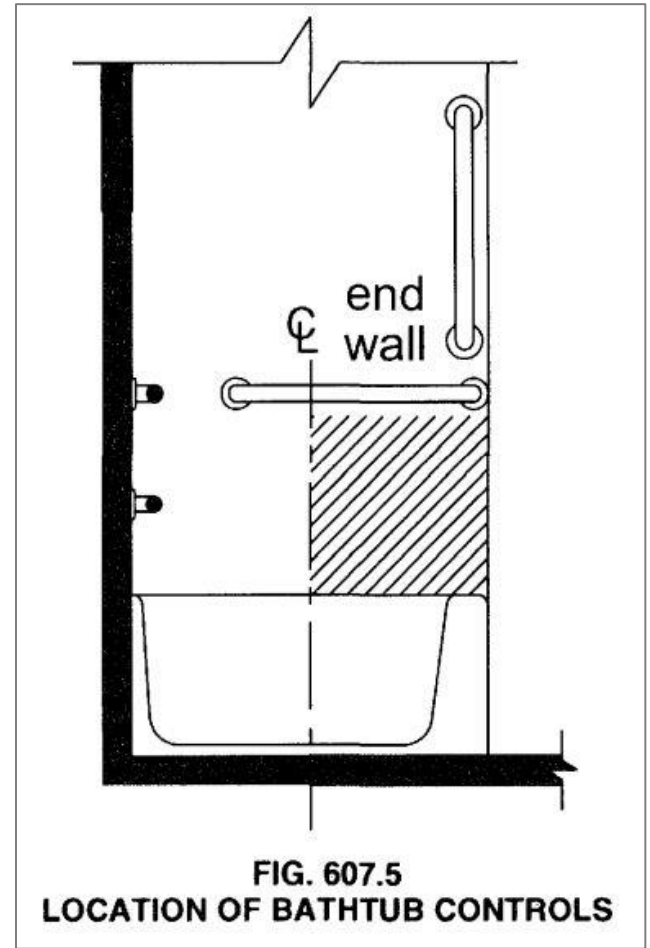
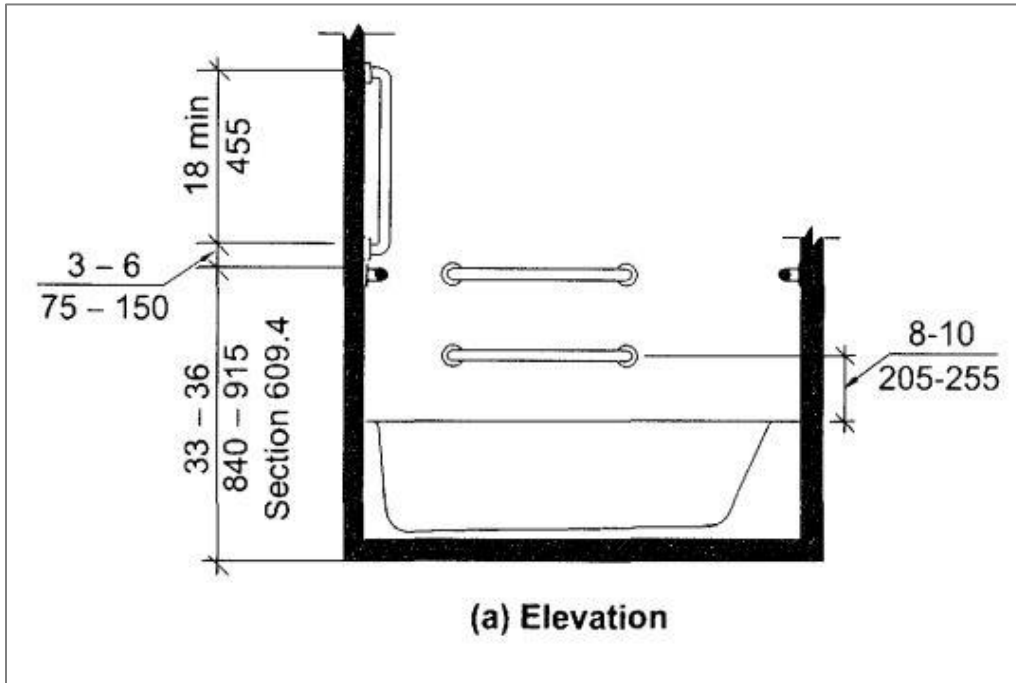
Note: May have permanent seat at the head wall

BATHTUBS

Type A	Type B	FHADM
Lavatory	Lavatory or toilet	Lavatory or toilet Option A

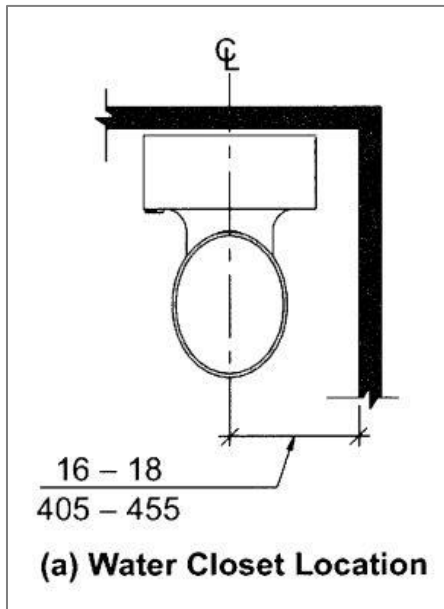


BATHTUBS

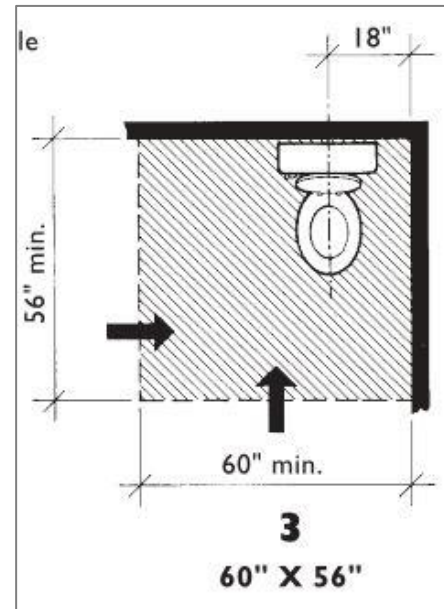


TOILET LOCATION

Type A	Type B	FHADM
16" – 18"	16" – 18" / $\geq 18"$	18" / $\geq 18"$
Open side	None	None



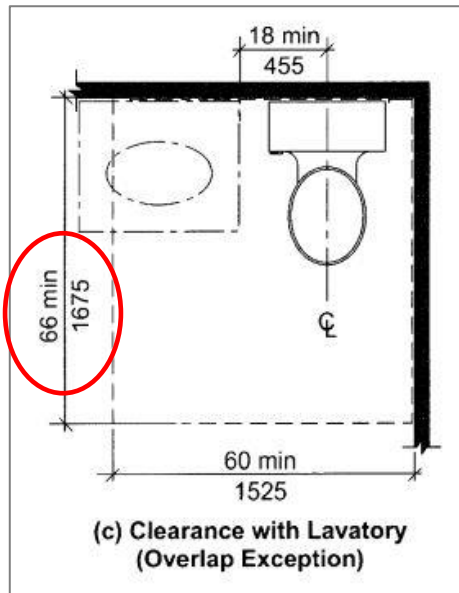
A117.1



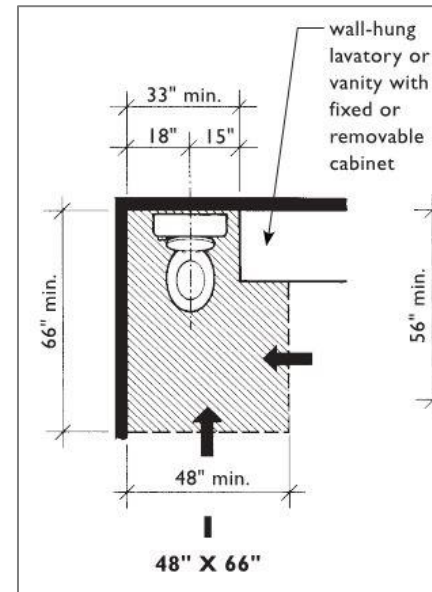
FHADM

TOILET CLEAR FLOOR SPACE

Type A	Type B	FHADM
60" x 56" 60" x 66"	48" x 56" - Side 48" x 66" - Forward	48" x 56" - Side 48" x 66" - Forward
≥ 18"	≥ 15"	≥ 15"

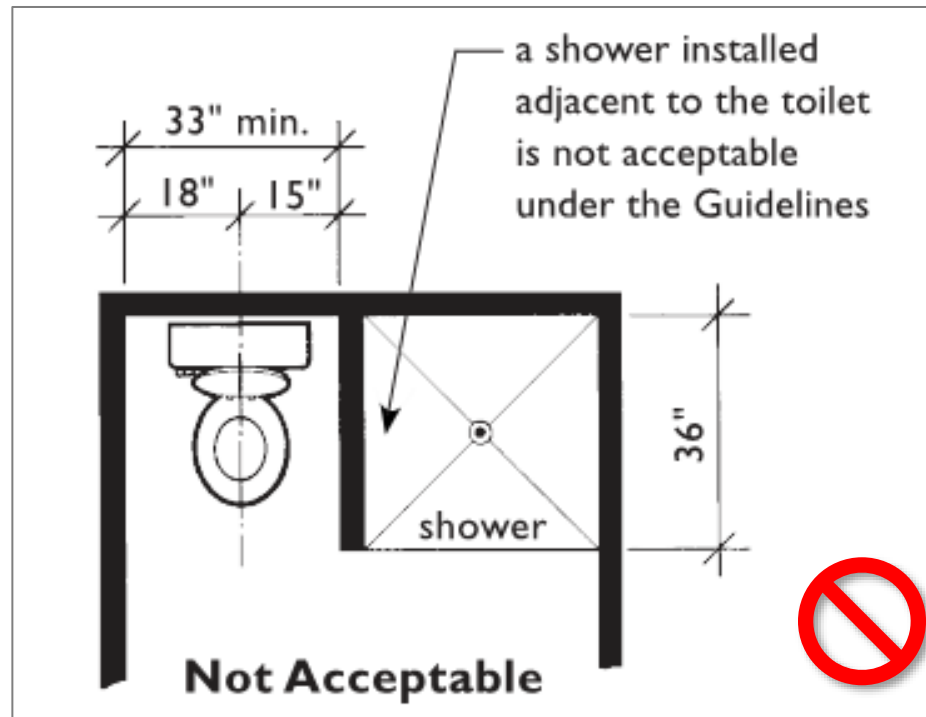


A117.1



FHADM

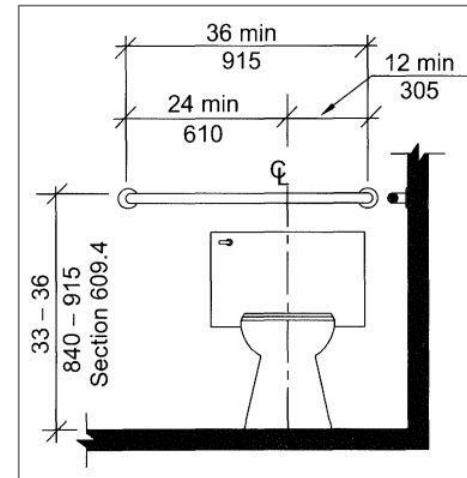
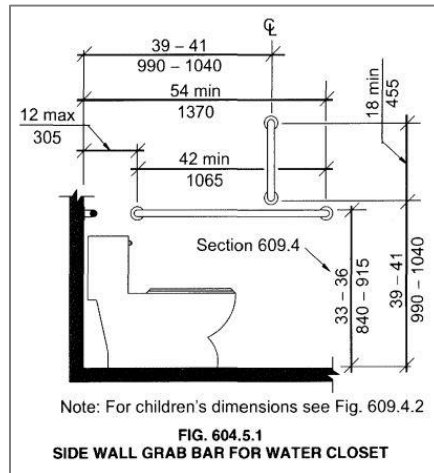
TOILET CLEAR FLOOR SPACE



***TOILET NEXT TO SHOWER
FORBIDDEN!***

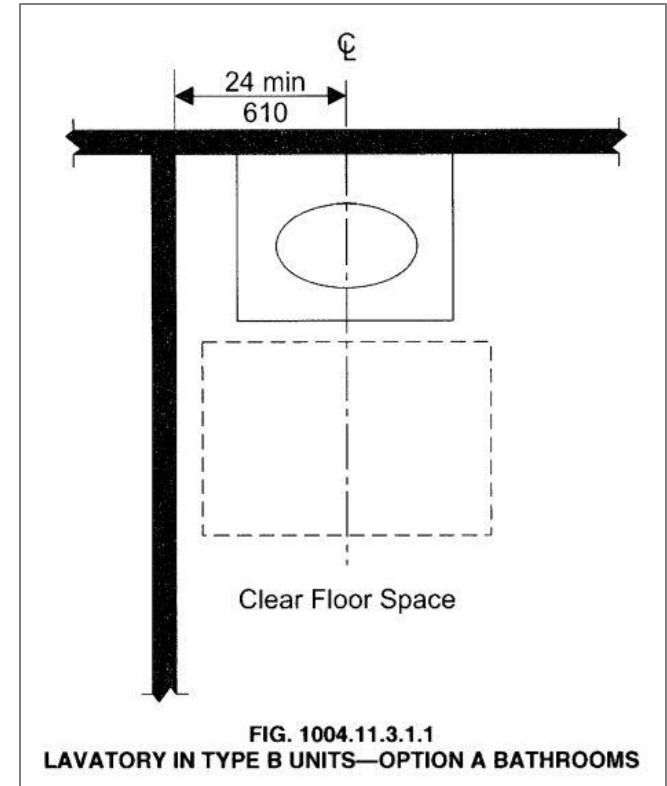
GRAB BARS

Type A	Type B	FHADM
Fixed	Fixed or Swing-up	Fixed or Swing-up
Full size	Reduced size	Reduced size



LAVATORIES

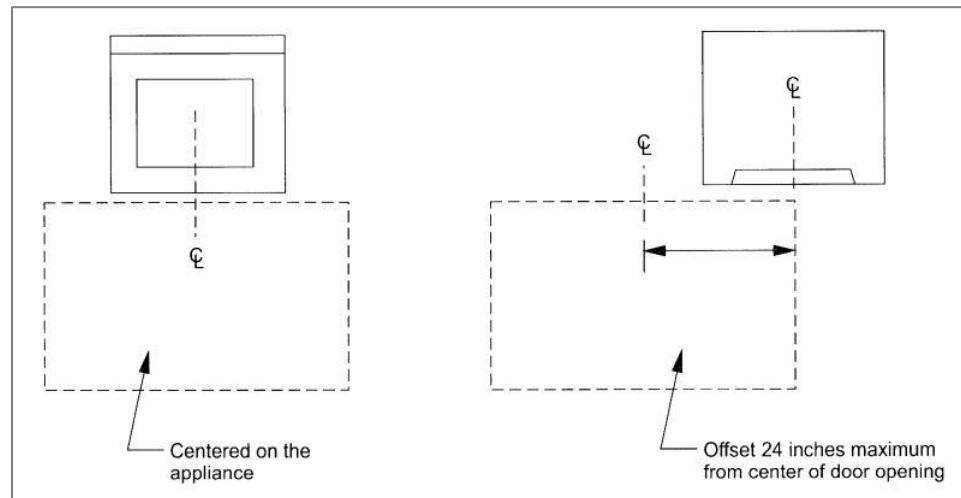
Type A	Type B	FHADM
Forward Approach	Parallel Approach	Parallel Approach
≥ 15"	≥ 24"	≥ 24"
Removable cabinet	Fixed or removable	Fixed or removable



LAUNDRY

Type A	Type B	FHADM
Side by side	Stacked	None
Parallel approach	Forward or parallel	None

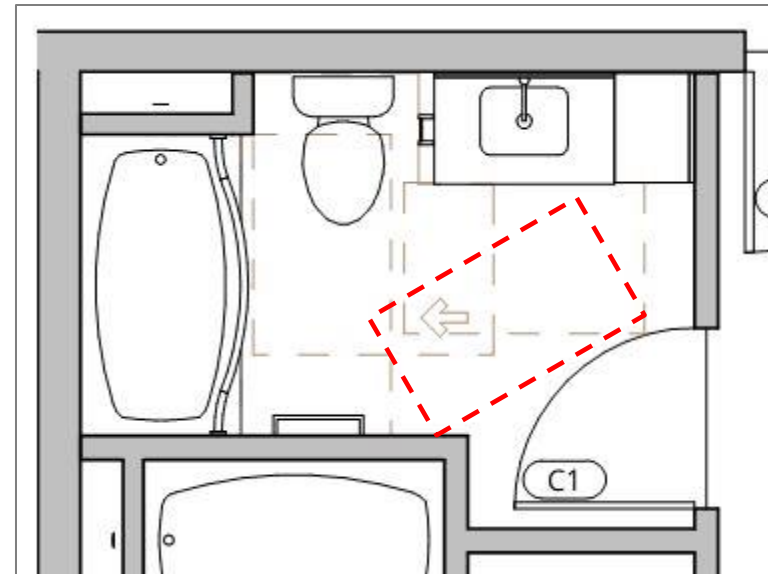
- Alcove conditions
- Reach ranges



CLEAR FLOOR SPACE

Type A	Type B	FHADM
Turning circle	Clear floor space	Clear floor space

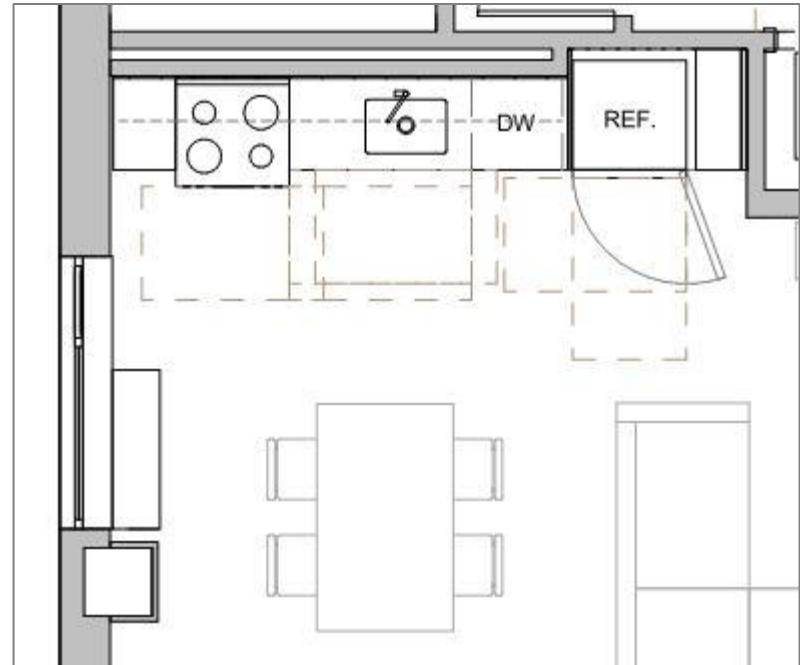
- Knee/toe space



Kitchens

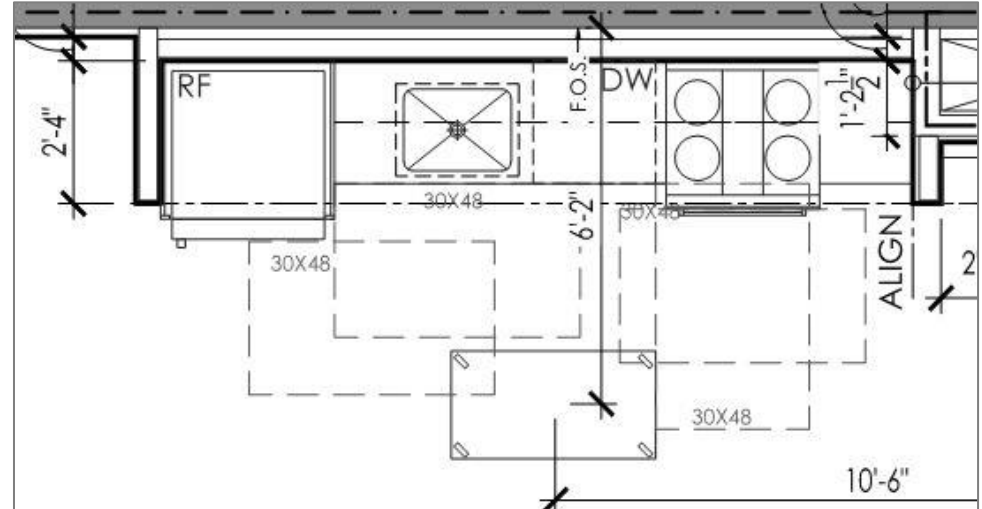
LINEAR KITCHEN

- Simplest of all kitchen layout
- Typically in small residential units
- Least complications
- Least common



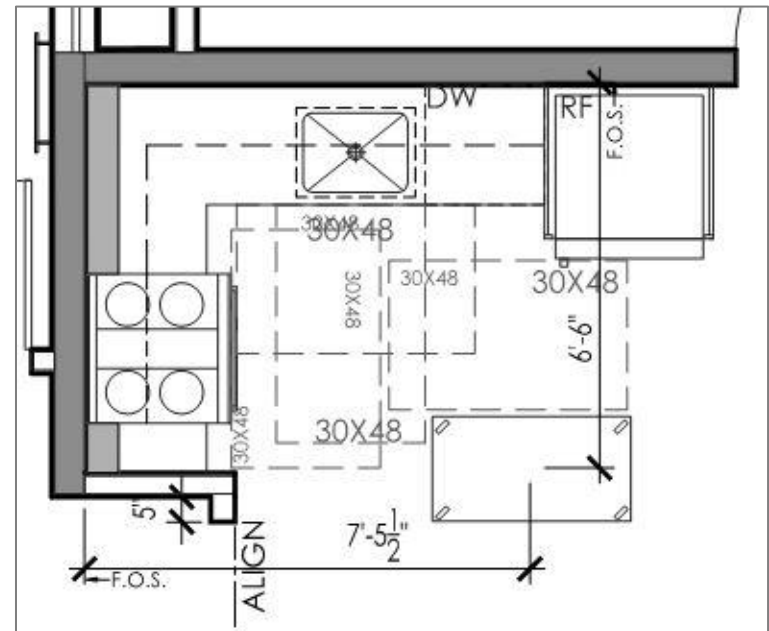
PASS-THROUGH KITCHEN

- Typically have islands
- Accessible routes at both ends
- 40" between opposing elements
 - Face of appliances
 - Countertops



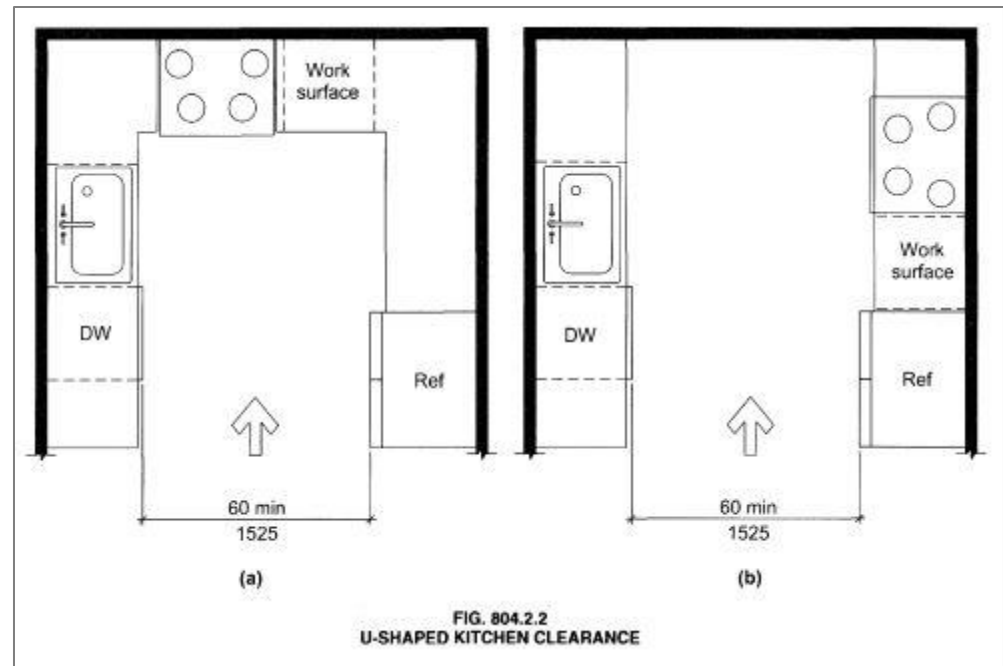
L-SHAPED KITCHEN

- Typically have islands
- Accessible routes at both ends
- 40" between opposing elements
 - Face of appliances
 - Countertops
- Outlets in corners

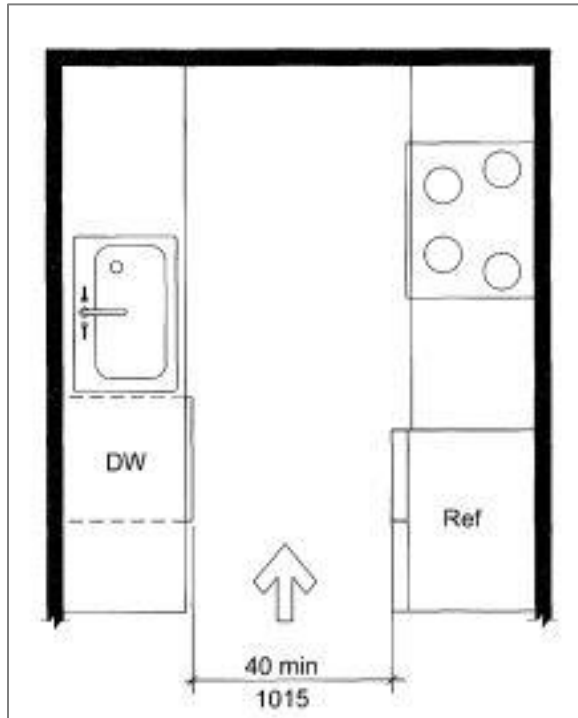


U-SHAPED KITCHEN - PUBLIC

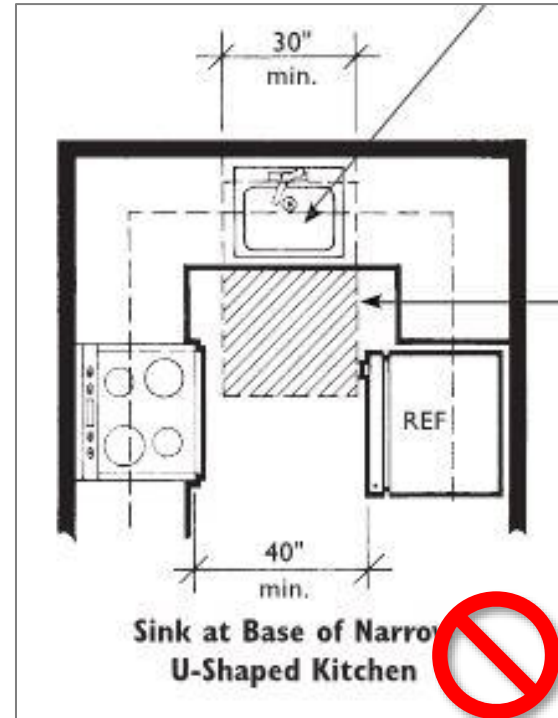
- 60" between opposing elements
- Outlets in corners



U-SHAPED KITCHEN – UNITS



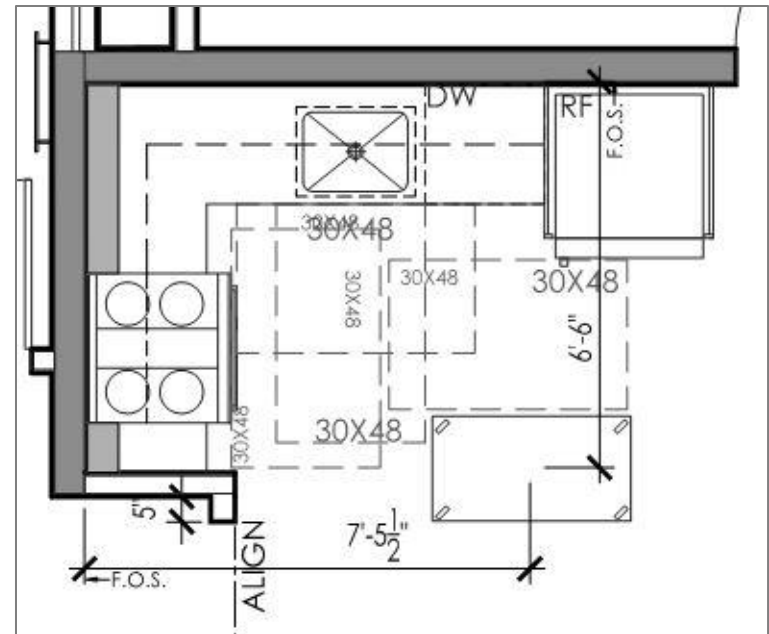
Not a U-shape
A117.1 Type A



Skinny U-shape
FHADM only

CFS AT APPLIANCES

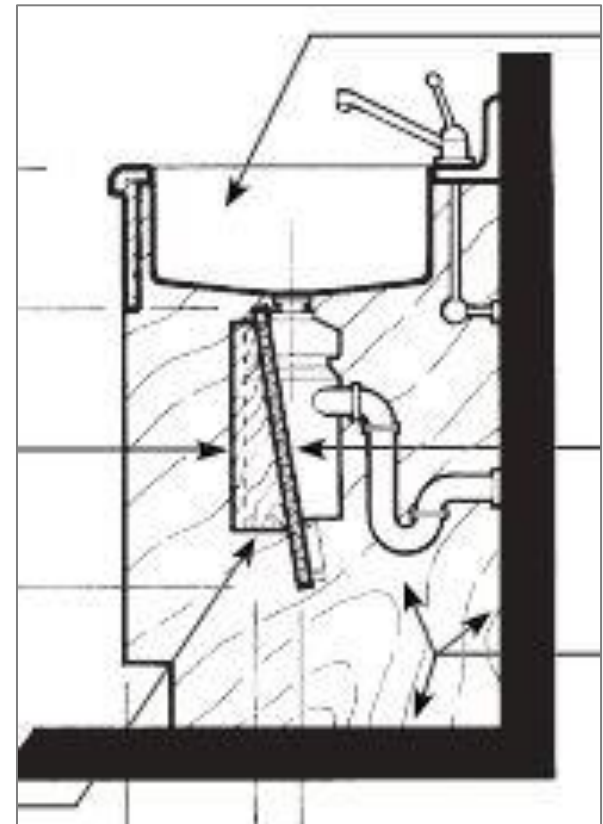
- 30" x 48"
 - Forward or parallel
 - Offset or centered
-
- Sink
 - Range/ cooktop
 - Oven
 - Dishwasher
 - Work surface
 - Other items



KITCHEN SINK

Type A	Type B	FHADM
Forward	Parallel*	Forward or Parallel
Centered	Centered	Centered
30" width	48" width	30" or 48"

- Garbage disposal in Type A units?



RANGE / COOKTOP

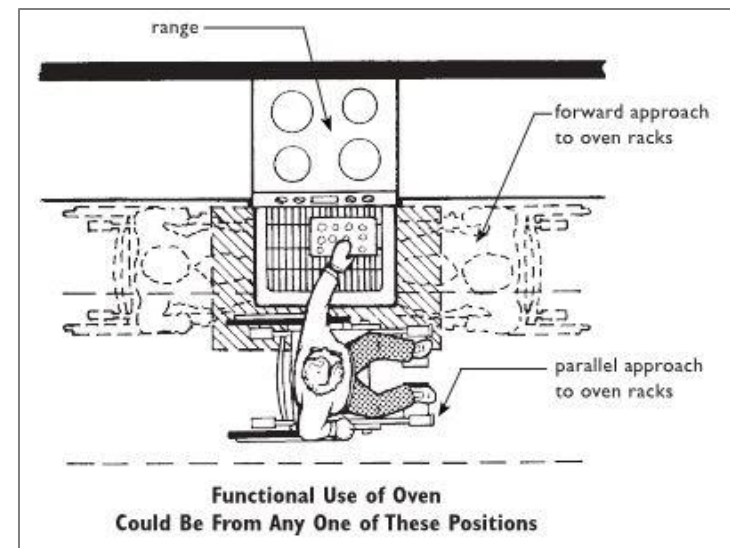
Type A	Type B	FHADM
Parallel	Parallel	Parallel
Centered	Centered	Centered
48" width	48" width	48" width
Front controls	None	None

- Cooktops allow a forward approach



OVEN

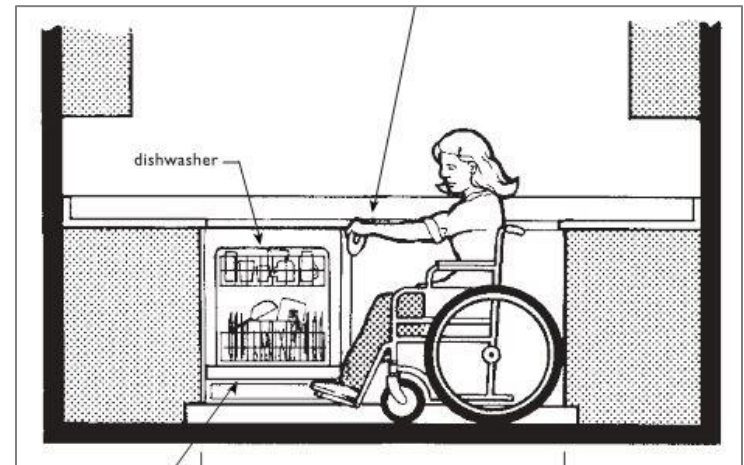
Type A	Type B	FHADM
Forward or parallel	Forward or parallel	Forward or parallel
Offset	Offset	Centered
30" or 48"	30" or 48"	48" width



DISHWASHER

Type A	Type B	FHADM
Forward or parallel	Forward or parallel	Parallel
Offset	Offset	Centered
30" or 48"	30" or 48"	48" width

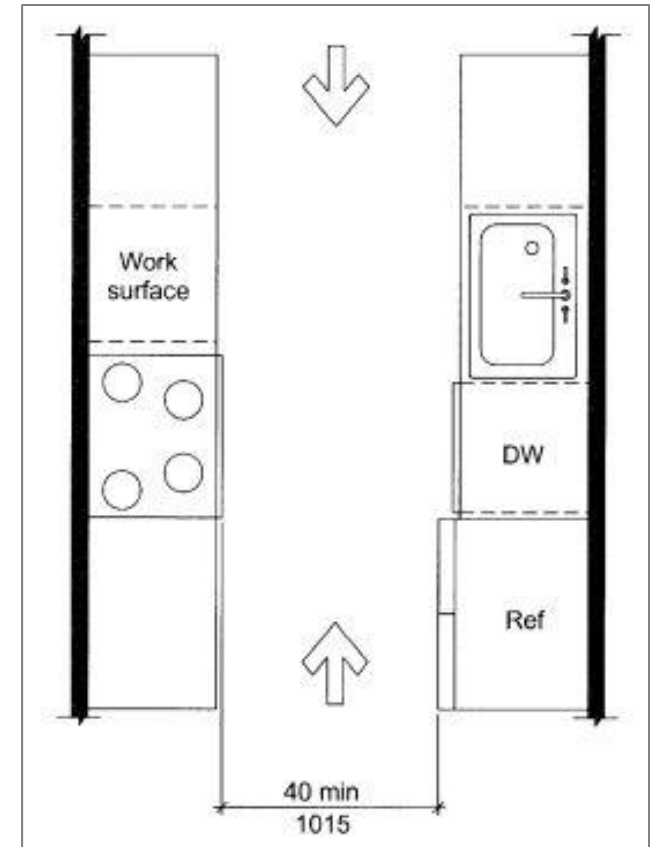
- Dishwasher door cannot overlap sink clear floor space



WORK SURFACE

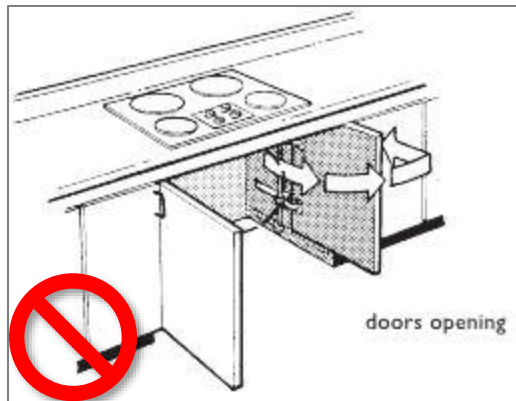
Public	Type A	Type B	FHADM
Required	Required	None	None
Oven	Kitchen	None	None
Knee/toe space	Removable cabinet	None	None

- 30" wide
- Required in Mobility Units
- Breadboards in Adaptable Units (CA)

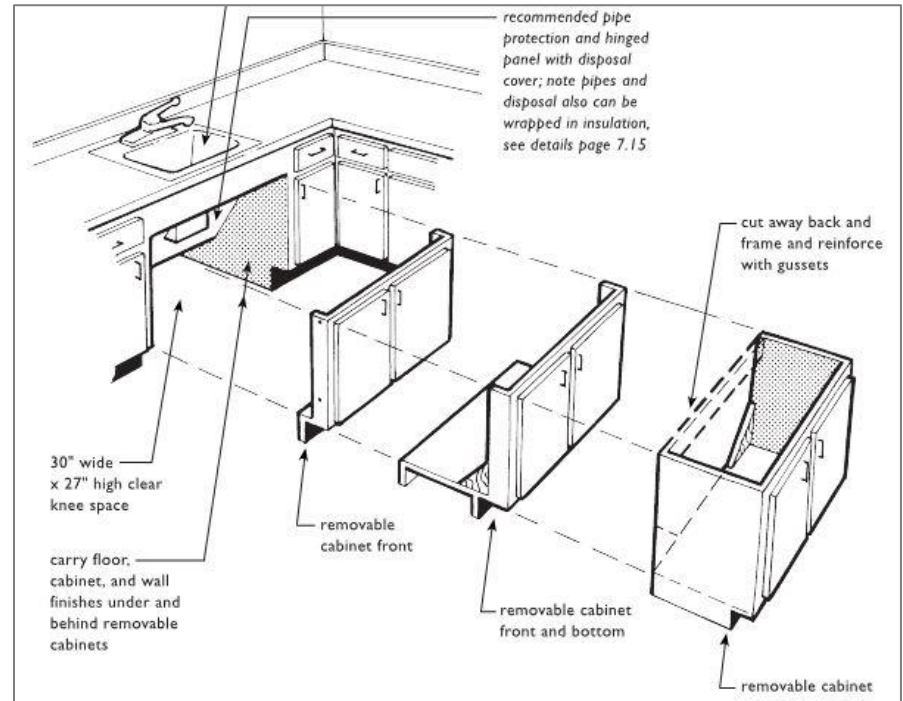


REMOVABLE CABINETS

- Type A units
- Adaptable Units
- Sinks/Lavatories
- Work surfaces
- Where parallel approaches can't be used.

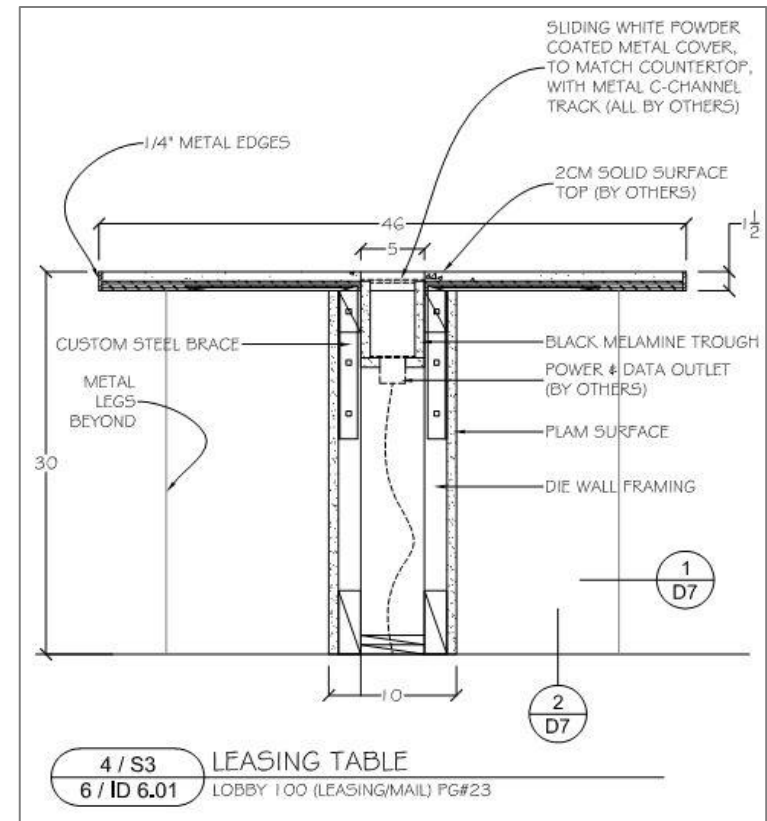


Not state compliant



DINING SURFACES

- Public spaces
- 5% accessible
- Obstructions
 - 4" overhang
 - Waterfall edge
 - Foot rest

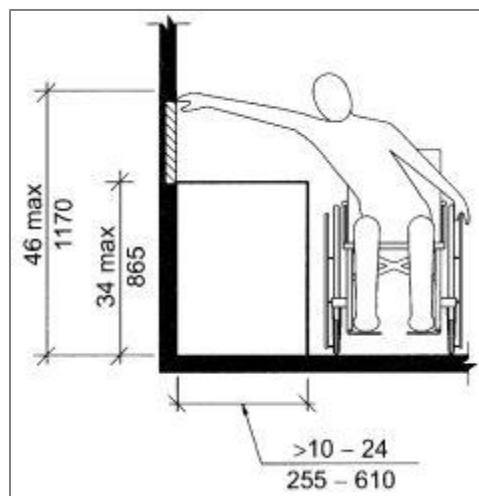


Not compliant

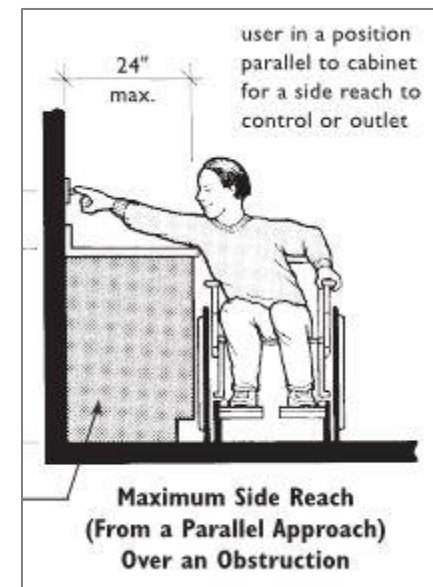
CABINET / COUNTER DEPTH

	Public/ Type A	Type B	FHADM
Cabinets	22 ½"	24"	24"
Countertop	24"	25 ½"	25 ½"

- Handles?
- Cabinet doors?



A117.1



FHADM

Outlets Over Counters

OUTLET REQUIREMENTS

- Outlet Required:
 - For each length of counter 12” or more – NEC 210.52 (C) (1)
 - Every 4 feet – NEC 210.52 (C) (1)
 - Within 24” of the end of the counter – NEC 210.52 (C) (1)
 - For every island/peninsula greater than 12” x 24” – NEC 210.52 (C) (2) and (3)
 - At least 36” from the corner – FHADM 5.8
- At least one outlet in each “area” must be accessible – FHADM 5.3
- If two or more outlets are provided for a length of counter, one inaccessible outlet is permitted – A117.1

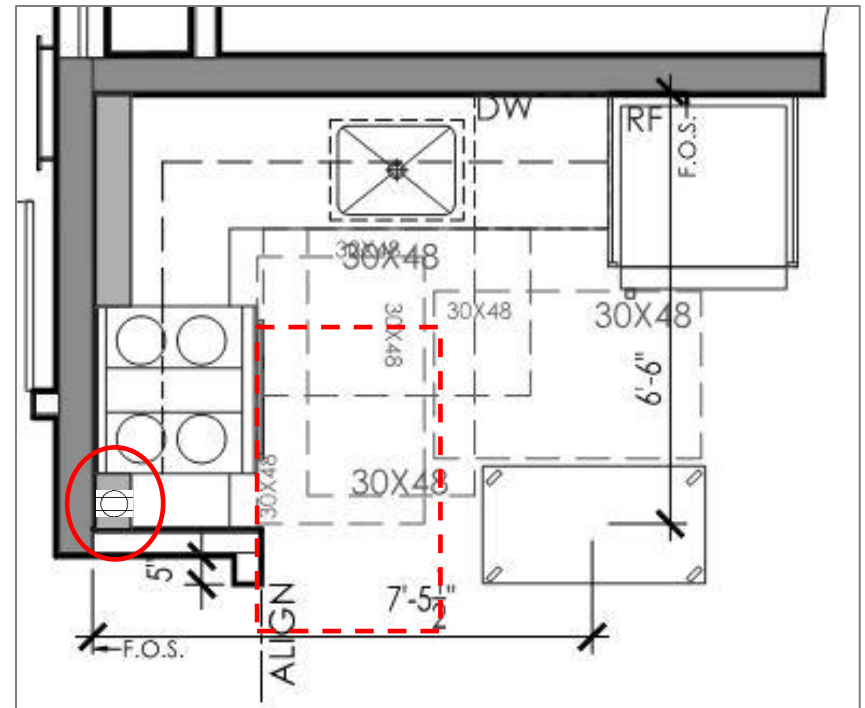
TYPICAL OUTLET ERRORS

Problem:

- Each length of Counter at least 12" in length requires an outlet.
- CFS is now more than 24" from the outlet due to the range and the wing wall.

Solutions:

- Put outlet in sidewall
- "Spice shelf"
- Tombstone outlet
- Outlet in countertop
- Outlet in face of the cabinet
- Make counter 11 1/2"



TYPICAL OUTLET ERRORS

Problem:

- Each length of Counter at least 12” in length requires an outlet.
- CFS is now more than 24” from the outlet due to the range and the wing wall.

Solutions:

- Put outlet in sidewall
- “Spice shelf”
- Tombstone outlet
- Outlet in countertop
- Outlet in face of the cabinet
- Make counter 11 ½”



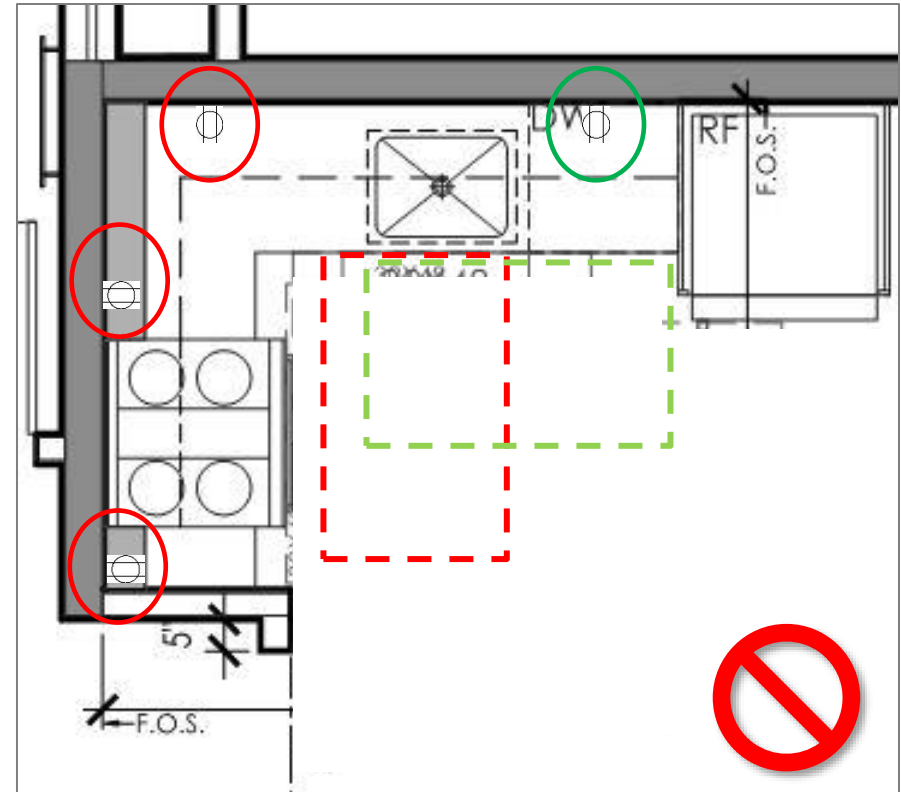
TYPICAL OUTLET ERRORS

Problem:

- One outlet must be at least 36" from the corner.
- CFS is now more than 24" from the outlet due to the range.
- More than one outlet is non-accessible

Solutions:

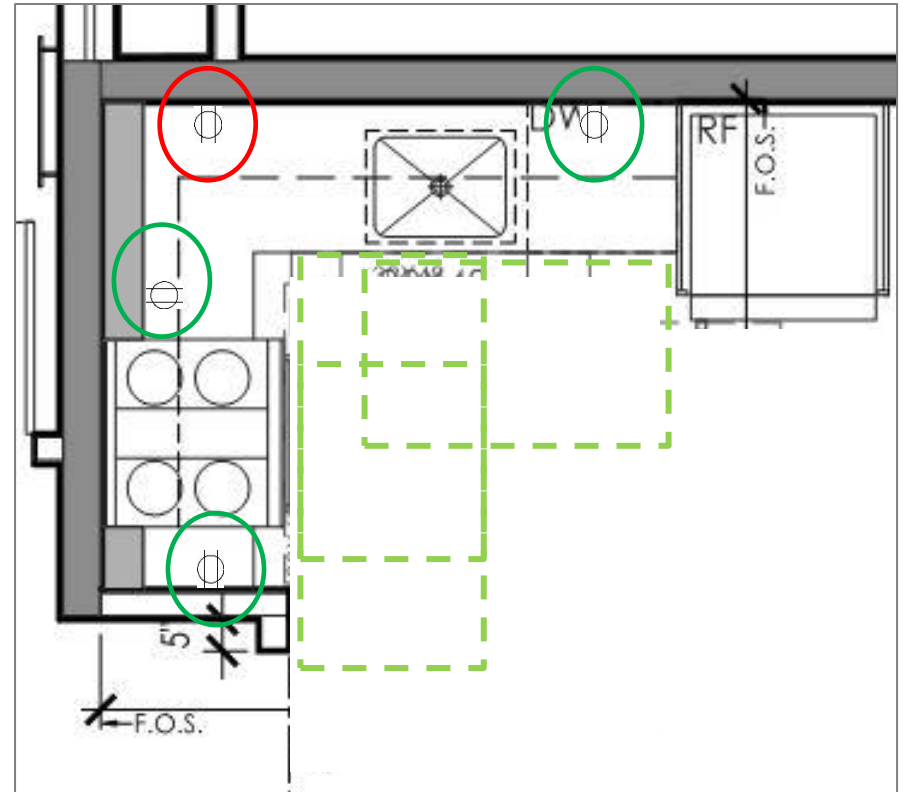
- Accept risk of interpretation of the FHADM
- Put outlet in sidewall



TYPICAL OUTLET ERRORS

Solutions:

- Put outlet in sidewall
- “Spice shelf”
- Tombstone outlet
- Outlet in countertop
- Outlet in face of the cabinet
- Accept risk of interpretation of the FHADM



Existing Buildings

Chapter 34 / ORS 247.441

- Up to 20% / 25% of the project valuation must be dedicated to removal of existing barriers to the area of primary function
- What is an area of primary function?
- What about areas outside the area of primary function?
- Is there a priority list?

OREGON PRIORITY LIST

1. Accessible parking
2. Accessible entrance
3. Accessible route to renovated area
4. Accessible bathrooms
5. Accessible telephones (?!)
6. Accessible water fountains
7. Other elements



EXISTING BUILDING EXEMPTIONS

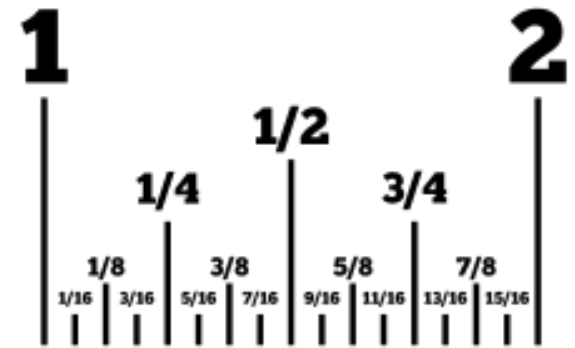
- No Type A units unless renovating at least 20 units
- No Type B units required in existing buildings
- Type B units required for additions
- Barrier removal not required if project:
 - Not a primary function
 - Accessibility upgrades only
 - Mechanical/Electrical/Fire Protection upgrades only
 - Renovation of Type B units only.
- Only 1 accessible entrance is required, if alterations.
- Historic buildings

Risk Assessment

MEASUREMENTS

Tolerances

- No tolerances if a range, minimum, or maximum is specified
- Industry standard if a specific measurement is specified
- Industry standards are not defined
 - Hallway width
 - Clear floor space beyond the swing of the door
 - Toilet/ lavatory/tub location
 - Counter heights
 - Outlet heights
 - Distance between opposing elements
 - Clear floor spaces, esp. in bathrooms



FEDERAL VS. STATE

Federal Codes

- 2010 ADAS
- 1998 FHADM (Safe Harbor)
- 2016 CBC Chapter 11A and 11B

Source

- Tenant
- Activist Group
- Investor
- Buyer

Result

- Federal Complaint
- Lawyers!

State Codes

- 2009 A117.1
- 2017 NEC

Source

- Plan Reviewer
- Inspector
- Tenant

Result

- State Violation
- AHJ

TYPE OF REMEDIATION

Structural Changes

- Door maneuvering clearance
- Accessible route width
- CFS beyond the swing of the door
- Major toilet location

Remodel

- Outlets
- Counter heights
- Minor toilet location
- Baseboard removal
- Bathroom cabinet clearances

Aftermarket

- Window hardware
- Door hardware

When to remediate?

PAPER TRAIL

Best practices for risk mitigation

- Early discussion regarding risk tolerance
 - Selling or owner operated?
 - Design or production focused?
- Track issues as they arise
- Document all decisions by the client
- Build in tolerances!



ADA/Accessibility Regulations Evaluation & Guidance
Atrium Guidance
Building Code Evaluation & Guidance
Code Interpretations & Letters
Code Training Seminars
Compliance Alternatives, AMMs, Appeals
Design Guidance
Engineering Judgement Letters
Electrical Code Evaluation & Guidance
Fire Code Evaluation & Guidance
Fire Detection and Alarm Guidance
Fire Suppression System Guidance
Hazardous Materials Inventory Statements (HMIS)
Hazardous Materials Management Plan (HMMP)
Hazardous Waste Management
Jurisdictional Negotiations
Land Use and Zoning Evaluation & Guidance
Life Safety Code Summary Drawing Sheets
Mechanical/Plumbing Code Evaluation & Guidance
Smoke Control Strategies & CFD Modeling



FACILITATING DESIGN AND MINIMIZING RISK... WITH AN EYE ON THE BOTTOM LINE.



THANKS!

