

# You Can **Fight** City Hall!



## Getting Beyond ADA Compliance Through Evidence-Based Bathroom Design

2016 LeadingAge NJ Annual Meeting & Exposition, Session 3B



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**Spiezle Architectural Group, Inc.**

A grayscale photograph of a modern bathroom. On the left is a shower area with a glass door and a showerhead. In the center is a toilet. On the right is a vanity with a white sink and a large mirror above it. A dark wooden cabinet stands between the toilet and the vanity. The text 'Learning Objectives' is overlaid on the top left of the image.

# Learning Objectives

- 1.** Identify bathroom design improvements that foster independence and safety for elders and care partners
- 2.** Highlight data supporting design changes and updates to ADAG compliance
- 3.** Gain understanding of process for gaining ADA Variations/equivalent facilitation





# PARKER

## Parker at Landing Lane



Nursing Care Residence (52)  
New Brunswick, NJ

## Parker at River Road



Nursing Care Residence (70)  
(incl. Evergreen Way Dementia Care Neighborhood)  
Piscataway, NJ

## Parker at Monroe



Long-term Living Community (96)  
Monroe Township, NJ

## Parker at Stonegate



Assisted Living Residence (80)  
Highland Park, NJ

## Parker at The Pavilion



Adult Day Center (60)  
Center for Healthy Aging (120)  
Child Development Center (55)  
Education & Research Center  
Highland Park, NJ

## Parker at McCarrick



Post-acute Rehabilitation  
Nursing Care Residence (120)  
Somerset, NJ



PARKER

## Parker at Monroe Long-term Living Community

### Small Home Model

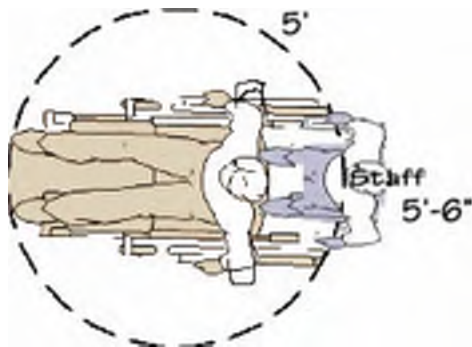
*Environment + Team = Optimal  
Resident  
Quality of Life*



# Who Uses These Bathrooms & How?

## Value of Statistical Snapshot

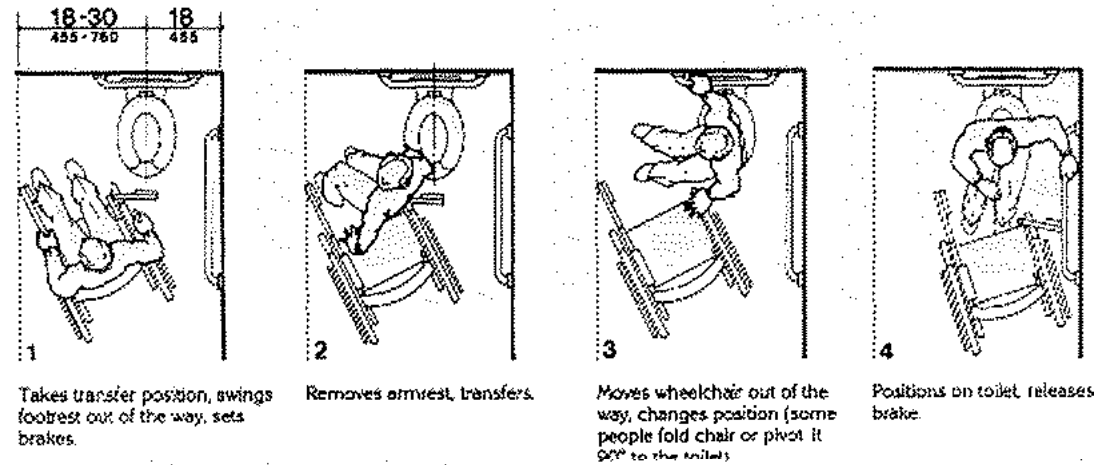
- Adept, unstable elders;
- To date, the majority receive assistance. This is a function of several factors
- Space requirements often overlook users' elbows and staff body movements.



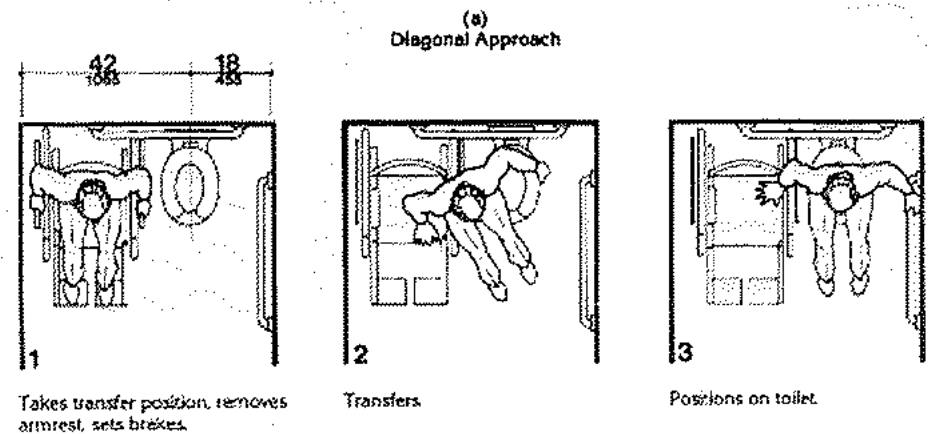
**GOAL:** One bathroom layout for nine styles of use!  
*100% not 50% functionally accessible.*

Bathroom Users	No Device for Walking	Walker, Wheeling Walker	Standard Wheelchair	Oversized Wheelchair: Electric or Wide Manual	Mobility Cart, Typically Battery Operated	Standing Lift	Seated Lift
Individual Elder	✓	✓	✓	✓	✓		
Elder + 1 Assistant	✓	✓	✓	✓	✓		*
Elder + 2 Assistants	✓	✓	✓	✓	✓	✓	✓

# Building the Case for Bathroom Improvements



## ADAG Compliant (American Disabilities Act Guidelines) Wheel Chair Transfers





# Primary Findings

- Bathroom assistance is prevalent.
- “Assistance” refers to “transfer”
- Devices used by residents differs from what’s depicted in ADA examples.





# INDIVIDUAL SAFETY and SEATED TOILETING: Observation, Re-enactment and Product Studies

- Shoulders and wrist strength
- “Low” center of gravity and balance
- Distance between two rails/arm rests.
- Learning from safe chair use.

**Findings:** Literal compliance with ADA missed resident potential, induced dependency and required notable staff time.



## ASSISTED CARE: Not Yet Addressed in ADAAG and Many Codes

- Space to stand and to bend on either side.
- This was needed by the majority of the elders.
- Francis Parker Homes could have addressed better features in 50%....  
But why stop there???

Care Partners Assist 60-75% of Elders in Health Care for Toileting . In some homes, notable numbers are not toileted due to space and safety.



Per ADA 1'-6" Center Line to Rail; 18" is insufficient for many to stand and most care partners to bend.

# SHOWER CHALLENGES

- Safety: Both Elder and Care Partners
- Primarily Seated and Occasional Standing Users
- “Bench” Complications vs. Well-Selected shower chair
- Fixed Seating Complicates Cleansing on Wall-Side, including Feet.
- Water Spill, Floor Safety
- Control Location Prefer Front vs. Back
- Zero Entry vs. Curbs or Collapsible “Rubber Dams”

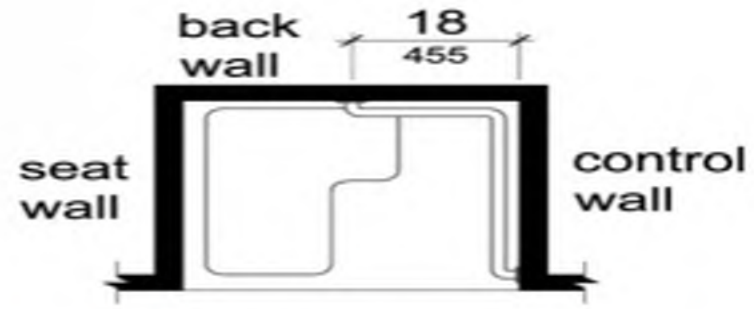
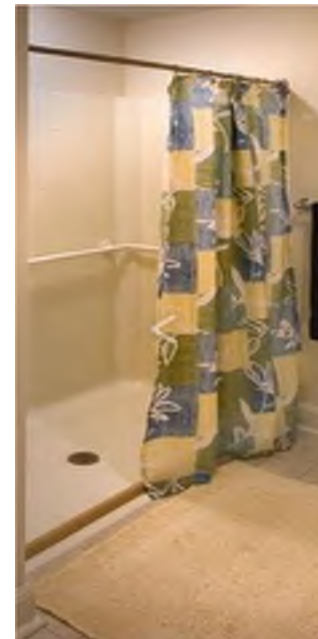


FIGURE 608.3.1 GRAB BARS FOR TRANSFER TYPE SHOWERS



# A Mission

Design one **fully** accessible bathroom capable of serving a range of elder users, staff and equipment





# Desired Outcomes

## For Residents

Increased toilet use

Decreased episodes of incontinence and skin breakdown

Comfortable toilet mounting and dismounting

Safer transfer

Reduced bathroom falls

Increased shower safety

Improved compliance with hand washing

Enhanced resident dignity

Improved environment with flushed waste vs. use of incontinence products

# Desired Outcomes

## For Caregivers

Resident self-transfer, reduced lifting

Staff and resident balance

Safer transfer, wheeling, repositioning and shower use

Confidence of personal safety

Streamlined toileting

# Documented Evolution



ADA Compliant



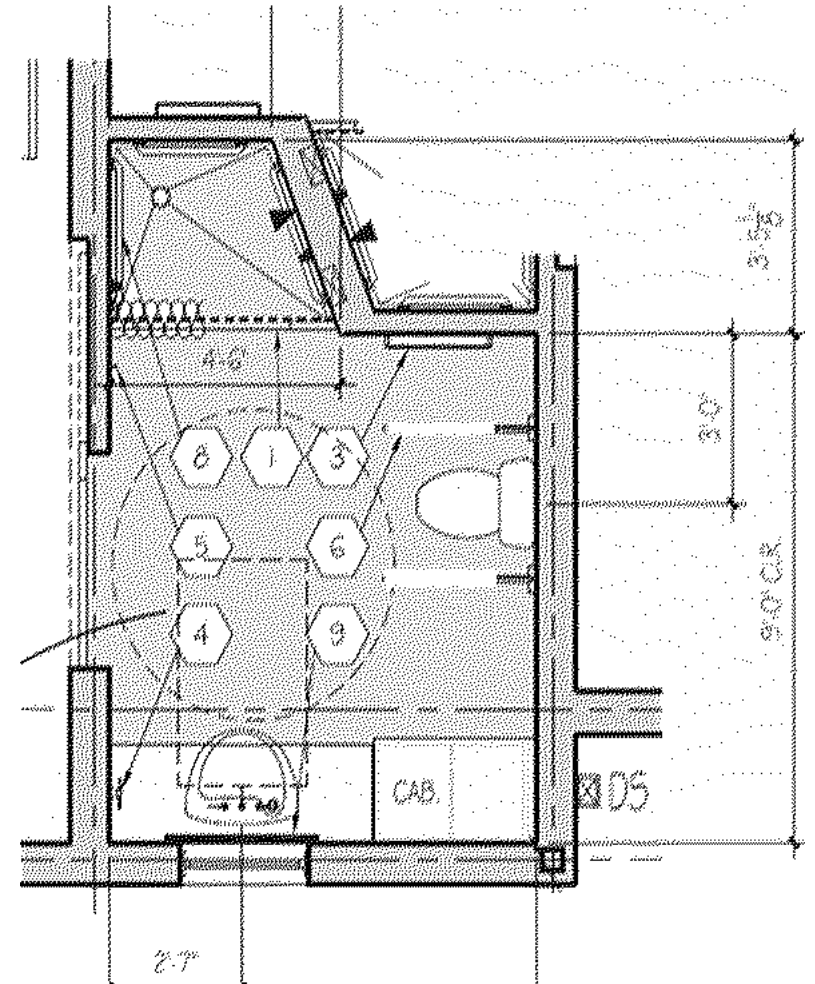
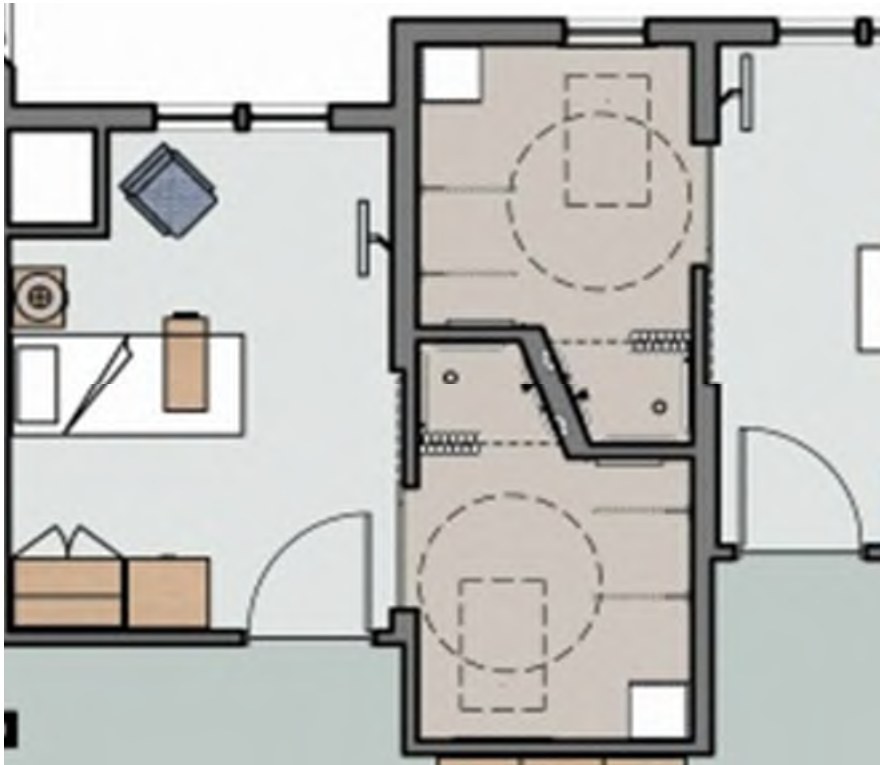
NOT ADA Compliant

# A Fresh New Look at Every Detail





# Designing From Data



# Evaluating It Pre-Construction



# Build a Mockup and Test It





# IMPROVED SAFE SELF TRANSFER

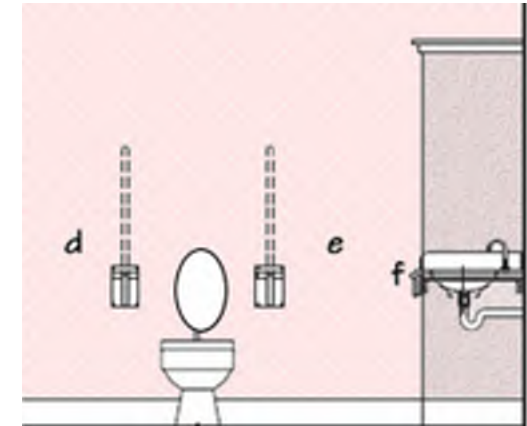
Goal: Rails Close Enough to Keep Arms Under Shoulders, Rather than Outside

Insights from Peer Designs: Dual rails at 30" ADA



Parker at Monroe:

- 2 Rails; fold-up/down
- Beveled top to bottom
- 25" rather than 30" apart.



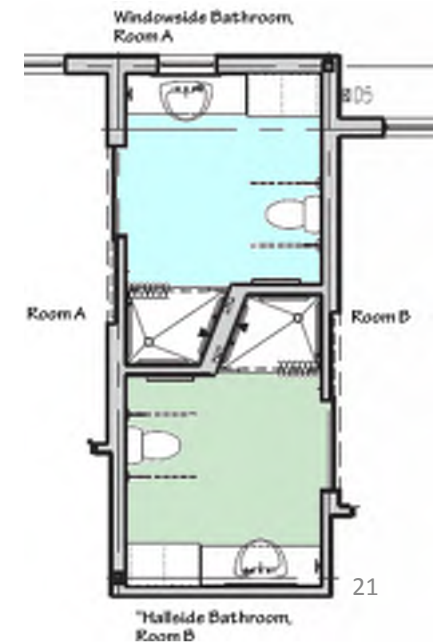
Note: Consistent with 2004 Published Research



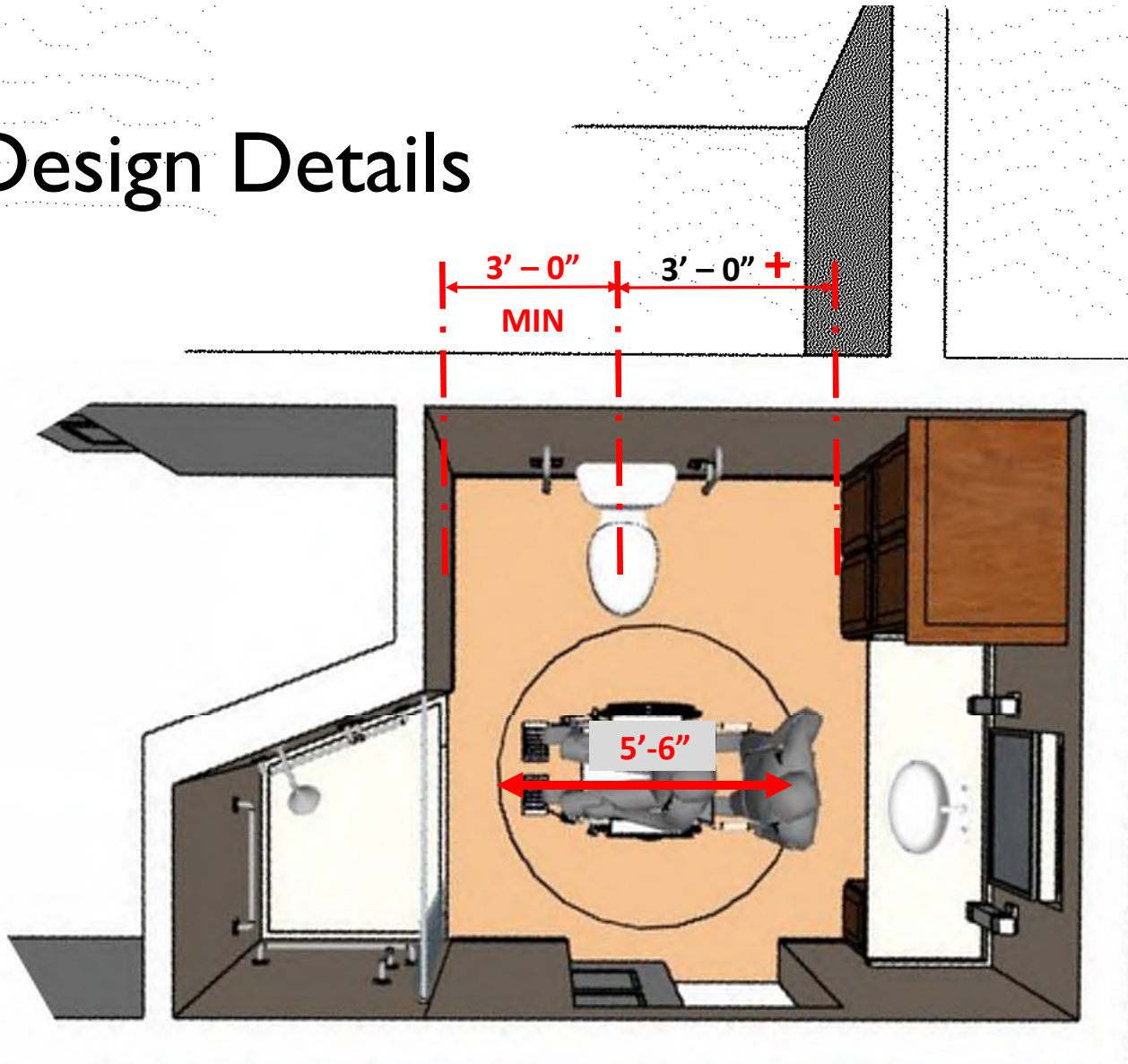


## Streamlining Bathroom Care/Time Use

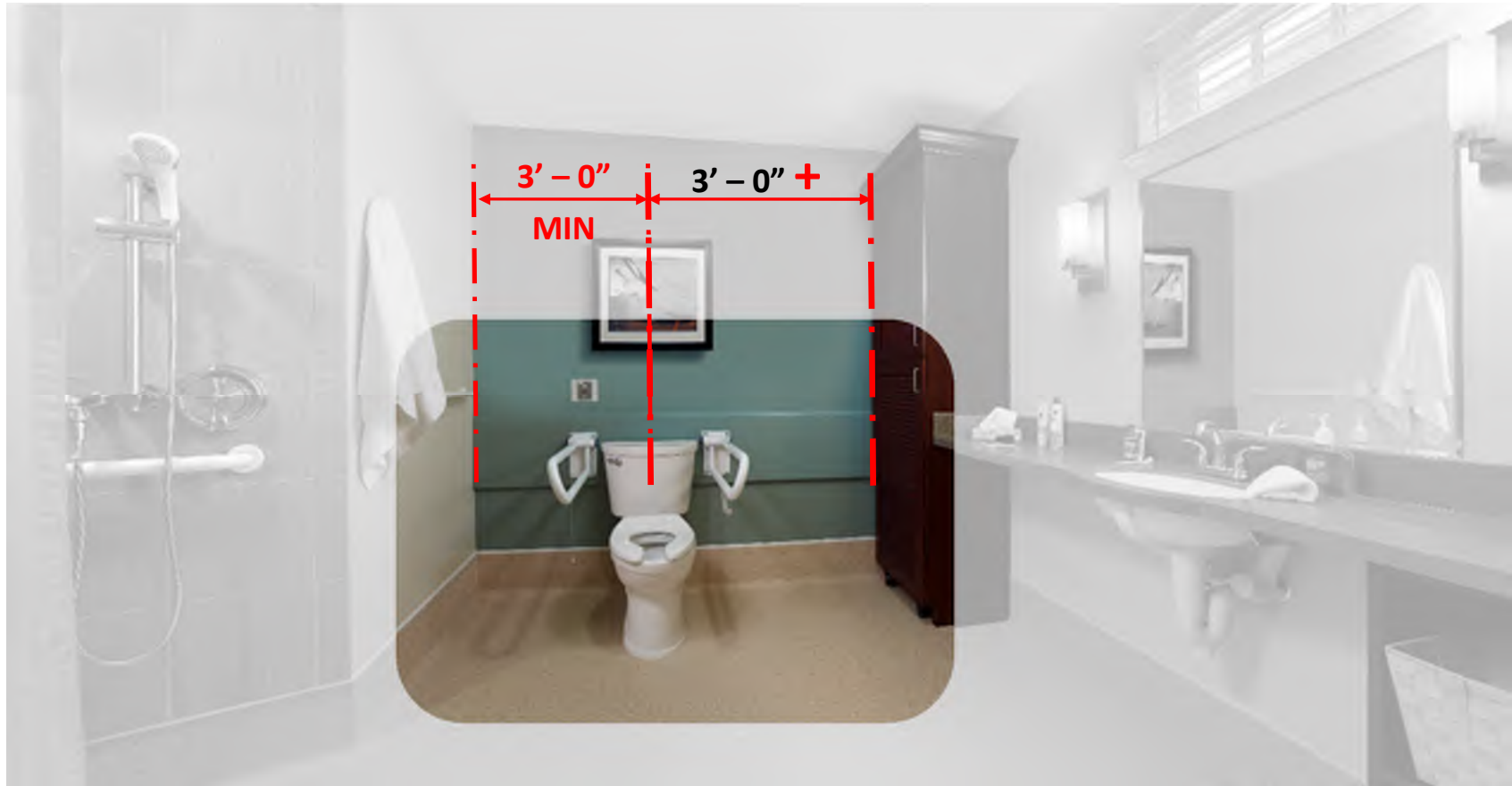
- Wider Entry, Swifter Access: Elder and Assistant
- Fixtures Face Entry; Minimize Wheelchair Maneuvers; Convenient, “Diagonal” Fixture Approach
- Space to Set Wheelchair; Room for Safe Elder/Staff “Foot Work”
- Well-mounted, Surface Sliding Doors Maximize Bathroom and Bedroom Usability.
- “Nested” Bathrooms Pairs maximizes door space and minimizes room intrusion. (Nesting also foreshortens hallway length.)
- In Room Clean and Soiled Storage



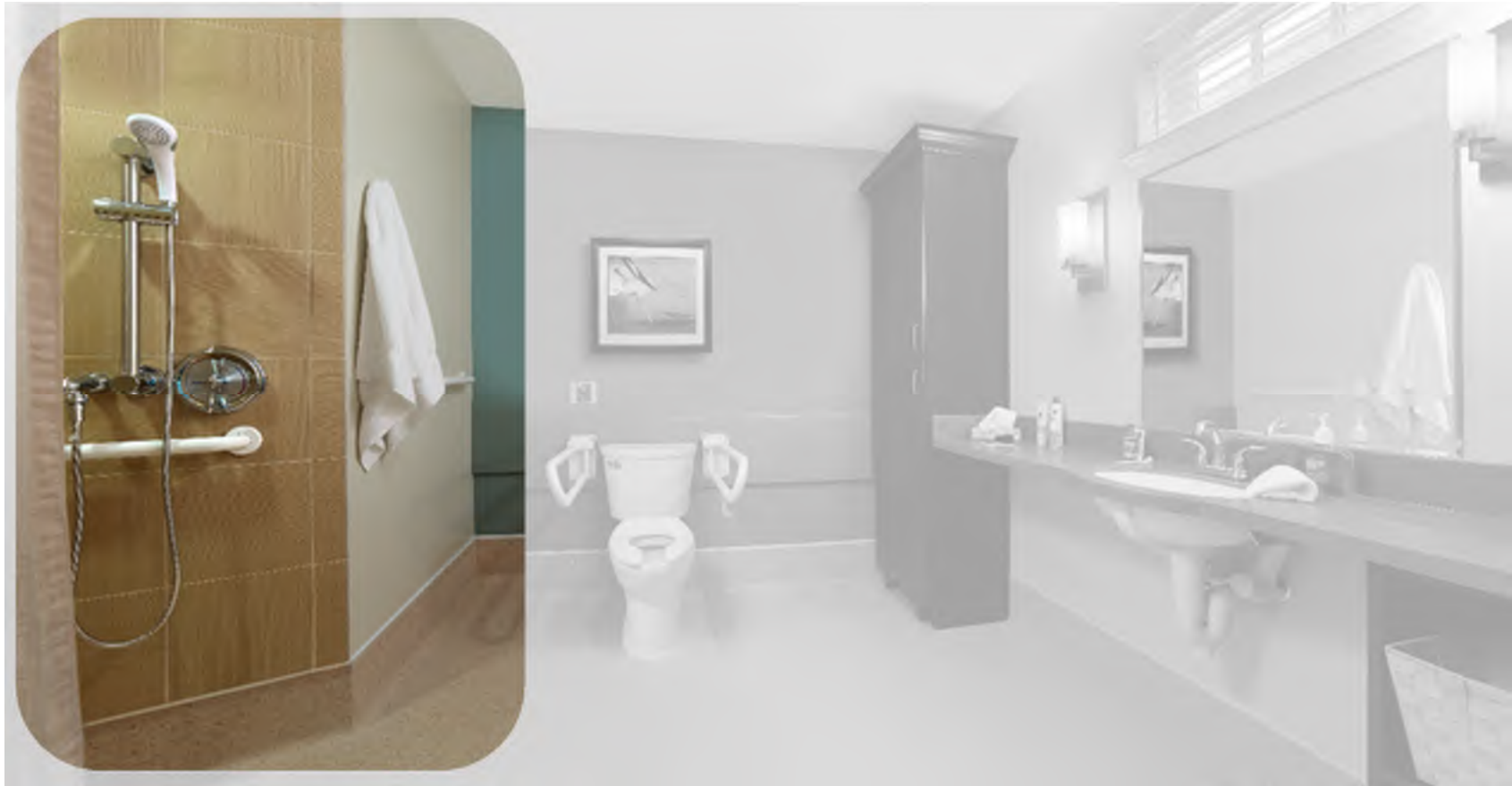
# Design Details



# Design Details



# Design Details





# Evidence & Outcomes



# You CAN Fight City Hall



Request for New Jersey Department of Community Affairs (DCA) Approval of Parker Assisted Bathroom Design  
 Re: DCA Comment Letter Parker at Monroe, Piscataway, NJ DCA Ref. #0287-1, February 17, 2012  
 DRAFT FOR DISCUSSION 9-18-12

**Request**

The Francis E. Parker Memorial Home, Inc. (Parker) seeks approval of a functionally accessible bathroom and shower design for Parker skilled nursing home and assisted living residents and their caregiver nursing staff consistent with current research and application of "fully handicapped accessible bathroom" for assisted transfers in Nursing Homes and Assisted Living.

Parker is motivated by its responsibility toward the safety of both residents and staff. We are open to the best means of advancing our plans, while investing in the future safety of our constituents.

**Background**

This request is in response to State of New Jersey, Department of Community Affairs, Bureau of Construction Project Review responses specific comments #0 and #10 in DCA comment letter Parker at Monroe, Piscataway, NJ DCA Ref. #0287-1, dated February 17, 2012.

- Comment 9. All resident/patient bathrooms are shown as the same design, which is not a fully handicapped accessible bathroom. A minimum of 50% of all patient bedrooms, including toilet and bathing facilities that serve the bedrooms, must be fully handicapped accessible, as per NJAC 5:23-7.1(d)(4).
- Comment 10. All resident/patient bathrooms are shown as the same design, which is not fully handicapped accessible nor an "adaptable" bathroom. Note that 100% of all patient bedrooms, toilet and bathing facilities, and kitchens (and/or counters with sinks) must be fully handicapped accessible, OR "adaptable" as per NJAC 5:23-7.1(d)(5)(A). For adaptable requirements, refer to Chapter 10 of ICC/ANSI A117.1, and follow section 1002, which describes "Type A Units" ("Type B Units", section 1004 was deleted from the Uniform Construction Code).

**Considerations per Governor Christie's Executive Order No. 2 "Common Sense Principles"**

1. New Jersey nursing homes meet current ADA bathroom requirements, a Federal guideline which was originally developed based on Paralyzed Veterans of America ability to self-transfer, individuals with upper body strength.
2. The ADA guidelines require only one grab rail and the toilet required to be close to wall (e.g., 18" from center line of any toilet) and stipulate use in a maximum 50% of the bathrooms.
3. ADA was issued as a guideline, allowing for substantial compliance. Many States, including New York, use ADA as a guideline and accept performance criteria variations.
4. Currently 75% of Parker nursing home residents are in wheelchairs, of which 90% get scooped transfers. Staff and residents are at risk for injury when transferring residents in bathrooms designed to current ADA guidelines.
5. Parker is requesting the use of two-sided fold-up grab rails that provides performance that exceeds ADA guidelines. This design accommodates new types of nursing home and assisted living bathroom use and transfer needs (devisive/care variations) and improves staff safe handling (back spines), as supported by current research.
6. Similarly, Parker is requesting that the ADA shower dimensions be adjusted to improve wheelchair or shower chair (vs. bench) assistance for the shower showers. Shower size and shape improvements are based on empirical research to increase resident safety (wet floors, falls) and staff safety (safe handling).
7. Parker would like to extend the assisted-transfer toilet and shower design configurations to all Parker assisted care nursing home and assisted living residential bathrooms. Public, primary care restrooms would be designed to traditional ADA compliant.
8. In the assisted-transfer toilet and shower design configurations, individuals who are able to self-transfer, as originally conceived (not tested) by ADA, are also accommodated.
9. Several nursing home facilities in other states have already been constructed and opened with these assisted-transfer design features. Plan, the Veterans Administration has been an early adopter of these features, incorporating into VA State Homes and Extended-Care IMAAC's.
10. The Veterans Administration, Federal Guidelines Institute (code making), American Institute of Architects, and Culture Change/Power Network are collaborating with Access Board on recommendations for 2010 ADA guideline changes to accommodate assisted transfers.
11. Parker is seeking to construct and open a new facility 2-3 years prior to these new ADA guidelines and would like to incorporate this substantial improvement to assisted transfer toilet and shower design features.

Request for New Jersey Department of Community Affairs (DCA) Approval of Parker Assisted Bathroom Design  
 Re: DCA Comment Letter Parker at Monroe, Piscataway, NJ DCA Ref. #0287-1, February 17, 2012

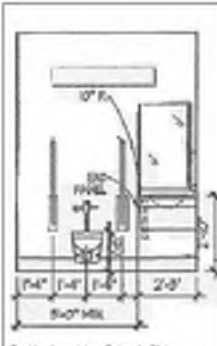
**EXHIBITS**



Grab-Rails Meeting ADA Full Accessibility



Parker at Monroe, Bathroom Layout with Dimension, Submitted by Spinix Group Architects, Inc.  
 5'-0" Turning area and two-sided access, dual side fold-up rails flanking the toilet



Shuller Associates, Colorado State Veterans Home, Fortsummers (2008) Evolution of Toilet Success Rating Guide Tools 2005 IA Design Guide



Rockwell Memorial Assisted Memory Care, Sellersville, PA, Open 2012

State of New Jersey  
 Department of Community Affairs  
 100 State Street  
 P.O. Box 817  
 Trenton, NJ 08646-0817

PROJECT # 1117-12  
 EXHIBIT # 10-24-12

LOCATION 01 South Broad Street  
 Trenton, NJ 08646  
 as # 800-984-7000

MAILING ADDRESS P.O. Box 817  
 Trenton, NJ 08625-0817  
 732-989-6337 x40

**BUREAU OF CONSTRUCTION PROJECT REVIEW**  
**ACCESSIBILITY TO GRAND VARIATIONS**  
 Pursuant to N.J.A.C. 5:23-6 and 5:23-7

PROJECT NAME Parker Home at Monroe  
 LOCATION 391 Suburban Rd., Monroe, NJ

OWNER'S NAME & ADDRESS Francis E. Parker Memorial Home  
 1411 River Rd., Piscataway, NJ 08854

ARCHITECT'S NAME & ADDRESS Spinix Architectural Group  
 170 Madison St., Trenton, NJ 08611

Pursuant to the Uniform Construction Code Act, N.J.S.A. 52:27D-117 et seq.) reception to Section 523-5.11 of the New Jersey Uniform Construction Code and the New Jersey Administrative Code (N.J.A.C. 5:23-6 et seq.) is:

GRANTED  DENIED

24 October, 2012  
 DATE

*[Signature]*  
 David E. Usher, P.E.  
 Chief - Bureau of Construction Project Review

Should you wish to discuss the above decision further, please contact David E. Usher, Chief at (609) 984-7000. The applicant has the right to appeal the above decision pursuant to N.J.A.C. 5:23-2.30.

New Jersey State Equal Opportunity Program - Approved Request Open and Available

**Assisted Bathroom Design  
 Waiver Request (9-18-12)  
 DCA Authorization (10-24-12)**

# What It Took





# Contact Us!

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