

**4.23 - BATHROOMS, BATHING FACILITIES, AND SHOWER ROOMS**

**TAS SECTION 4.23.8 - BATHING AND SHOWER FACILITIES**

- A. In addition to the requirements of 4.22, toilet rooms:
  - 1. If tubs and showers are provided, then at least one accessible tub that complies with 4.20 or at least one accessible shower that complies with 4.21 shall be provided.

**4.24 - SINKS**

**TAS SECTION 4.24.2 - HEIGHT**

- A. Sinks shall be mounted with the rim or counter surface no higher than 34" above the finished floor.

**TAS SECTION 4.24.3 - KNEE CLEARANCE**

- A. Knee clearance of 27" high minimum, 30" wide minimum, and 19" deep minimum shall be provided underneath sinks.

**TAS SECTION 4.24.4 - DEPTH**

- A. Each sink shall be a maximum of 6-1/2" deep.

**TAS SECTION 4.24.6 - EXPOSED PIPES AND SURFACES**

- A. Hot water and drain pipes under sinks shall be insulated or otherwise configured to protect against contact.
- B. There shall be no sharp or abrasive surfaces under sinks.

**TAS SECTION 4.24.7, 4.27.4 - FAUCETS**

- A. Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
- B. The force required to activate controls shall be no greater than 5 lbf.
- C. Lever-operated, push-type, and electronically controlled mechanisms are examples of acceptable designs.
- D. If self-closing valves are used the faucet shall remain open for at least 10 seconds.

**4.25 - STORAGE**

**TAS SECTION 4.25.1 - DEPTH (REFERENCE DETAIL 4.25.1)**

- A. Storage areas may be 36" in depth or less. If more than 36" in depth then area must allow 60" diameter of clear floor space for turning.

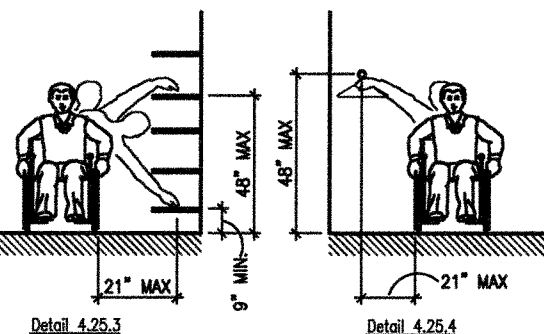
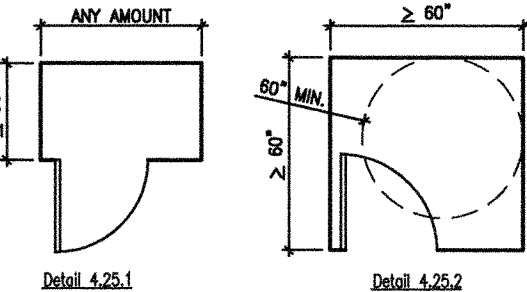
**TAS SECTION 4.25.2 - CLEAR FLOOR SPACE (REFERENCE DETAIL 4.25.2)**

**TAS SECTION 4.25.3 - HEIGHT (REFERENCE DETAIL 14.3 AND 4.25.3 & 4.25.4)**

- A. Where a forward reach is required, accessible storage spaces shall be 48" maximum and 15" minimum above the floor. If the forward reach is over an obstruction (with knee space equal to or greater than reach distance) 20"-25" deep, the maximum height shall be 44"; if the obstruction is less than 20", maximum height shall be 48".
- B. Where a side reach is provided, accessible storage spaces shall be 54" maximum and 9" minimum above the floor. Maximum height shall be 46" for side reach over an obstruction 34" maximum high and 24" maximum deep.
- C. Clothes rods or shelves shall be a maximum 54" above floor where a side reach is required.
- D. Where the distance from the wheelchair to the clothes rod or shelf exceeds 10" (as at closets with inaccessible doors) the following criteria shall be met:
  1. Shelves: Reach: 21" maximum; height: 48" maximum, 9" minimum.
  2. Clothes rods: reach 21" maximum; height: 48" maximum.

**TAS SECTIONS 4.25.4, 4.27.4 - HARDWARE**

- A. Hardware for accessible storage facilities shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.
- B. The force required to activate the hardware shall be no greater than 5 lbf.



**4.26 - GRAB BARS**

**TAS SECTION 4.26.2 - SIZE AND SPACING**

- A. Diameter or width of gripping surface shall be 1-1/4" to 1-1/2", or the shape shall provide an equivalent gripping surface.

**TAS SECTION 4.26.3 - STRUCTURAL STRENGTH**

- A. Grab bars and mounting devices shall meet the following requirements:
  1. Bending stress induced by maximum bending moment from application of 250 lbf shall be less than allowable stress for material used.
  2. Shear stress induced by application of 250 lbf shall be less than allowable shear stress for material used. If connection between grab bar and mounting bracket is considered to be fully restrained, then direct and torsional shear stresses shall be totaled for the combined shear stress, which shall not exceed the allowable shear stress.
  3. Shear force induced in a fastener or mounting device from application of 250 lbf shall be less than allowable lateral load of either the fastener or mounting device or the supporting structure, whichever is the smaller allowable load.
  4. Tensile force induced in a fastener by a direct tension force of 250 lbf plus the maximum moment from the application of 250 lbf shall be less than the allowable withdrawal load between the fastener and the supporting structure.
  5. Grab bars shall not rotate within their fittings.

**TAS SECTION 4.26.4 - ELIMINATING HAZARDS**

- A. Grab bars and adjacent wall surfaces shall be free of sharp or abrasive surfaces. (REFERENCE DETAIL 4.30.3)
- B. Edges shall have a radius of 1/8" minimum.

**4.27 - CONTROLS AND OPERATING MECHANISMS**

**TAS SECTION 4.27.3 - HEIGHT**

- A. Front approach - 48" max. to 15" min.
- B. Side approach - 54" max. to 9" min., except per below.
- C. Electrical & communication system receptacles shall be mounted no less than 15" above the floor.

**4.28 - ALARMS**

**TAS SECTION 4.28.1 - GENERAL**

- A. When required, visual alarms shall be provided in each of the following areas, as a minimum: restrooms and any other general usage areas (e.g., meeting rooms), hallways, lobbies, and any other area for common use.

**TAS SECTION 4.28.2 - AUDIBLE ALARMS**

- A. If provided, audible alarms shall produce a sound that exceeds the prevailing equivalent sound level in the room or space by at least 15 dba or exceeds any maximum sound level with a duration of 60 seconds by 5 dba, whichever is louder.
- B. Sound levels for alarm signals shall not exceed 120 dba.

**TAS SECTION 4.28.3 - VISUAL ALARMS**

- A. Visual alarm signal appliances shall be integrated into the building or facility alarm system. If single station audible alarms are provided then single station visual signals shall be provided. The visual signals shall have a minimum of 10% of max signal) Visual alarm appliances shall have the following features:
  1. The lamp shall be a xenon strobe type or equivalent.
  2. The color shall be clear or nominal white (i.e. unfiltered or clear filtered white light).
  3. The maximum pulse duration shall be two-tenths of one second with a maximum duty cycle of 40%. (The pulse duration is defined as the time the signal is on.)
  4. The intensity shall be a minimum of 75 candela.
  5. The flash rate shall be 1-2 flashes per second.
  6. The appliance shall be placed 60" above the highest floor level within the space or 6" below the ceiling, whichever is lower.
  7. In general, no place in any room or space shall be more than 50' from the signal (measured in a horizontal plane).
    - a. In large rooms and spaces exceeding 100' across, without obstructions 6' above the finished floor, such as auditoriums, 100' apart, in lieu of suspending appliances from the ceiling.
  8. No place in common corridors or hallways shall be more than 50' from the signal.

**4.30 - SIGNAGE**

**TAS SECTIONS 4.1.2(7), 4.1.3(16)(a) - WHERE APPLICABLE**

- A. Signs which designate permanent rooms and spaces shall comply with the requirements listed below for:
  1. Raised and Braille Characters, and Pictograms
  2. Finish and Contrast
 Exception: Employee name signs are not required to comply.

**TAS SECTIONS 4.1.2(7), 4.1.3(16)(b) - WHERE APPLICABLE**

- A. Signs which provide direction to, or information about, functional spaces of the building shall comply with the requirements listed below for:
  1. Character Proportion
  2. Character Height
  3. Finish and Contrast
 Exception: Building directories, menus, and all other signs which are temporary are not required to comply.

**TAS SECTION 4.1.2(7) - WHERE APPLICABLE (REFERENCE DETAIL 4.30.1)**

- A. Element and spaces of accessible facilities which shall be identified by the International Symbol of Accessibility are:
  1. Parking spaces designated as reserved for persons with disabilities.
  2. Accessible passenger loading zones.
  3. Accessible entrances when not all are accessible (inaccessible entrances shall have directional signage to indicate route to nearest accessible entrance).
  4. Accessible toilet and bathing facilities when not all are accessible.

**TAS SECTION 4.30.2 - CHARACTER PROPORTION (REFERENCE DETAIL 4.30.2)**

- A. Letters and numbers on signs shall have a width-to-height ratio between 3:5 and 1:1, and a stroke-width-to-height ratio between 1:5 and 1:10.

**TAS SECTION 4.30.3 - OVERHEAD SIGNS**

- A. Characters and numbers on overhead signs shall be sized according to the viewing distance from which they are to be read.
  1. For signs higher than 80" above the finished floor, character size shall be 3" minimum.
  2. The minimum height is measured using an upper case X.
  3. Lower case letters are permitted.

**TAS SECTION 4.30.4 - RAISED AND BRAILLE CHARACTERS AND PICTOGRAMS**

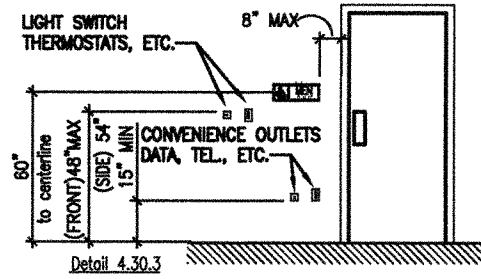
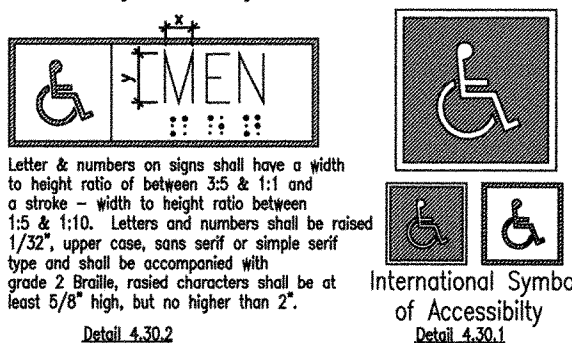
- A. Letter and numerals shall be raised 1/32", upper case, sans serif and shall be accompanied by grade 2 Braille.
  1. Raised character height: 5/8" minimum, 2" high maximum
  2. Pictograms shall be accompanied by the equivalent verbal description placed directly below the pictogram.
  3. The border dimension of the pictogram shall be 6" minimum

**TAS SECTION 4.30.5 - FINISH AND CONTRAST**

- A. The character and background of the signs shall be eggshell, matte, or other non-gloss finish. Characters and symbols shall contrast with their background (either light characters on a dark background or dark characters on a light background).

**TAS SECTION 4.30.6 - MOUNTING LOCATION AND HEIGHT (REFERENCE DETAIL 4.30.3)**

- A. Where permanent identification is provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door.
- B. Where there is no wall space to the latch side of the door, including at double-leaf doors, signs shall be placed on the nearest adjacent wall.
- C. Mounting height shall be 60" above the finished floor to the centerline of the sign.
- D. Mounting location for such signage shall be so that a person may approach within 3" of signage without encountering protruding objects or standing within the swing of a door.



**4.31 - PUBLIC TELEPHONES**

**TAS SECTION 4.1.3(17)(a) - WHERE APPLICABLE**

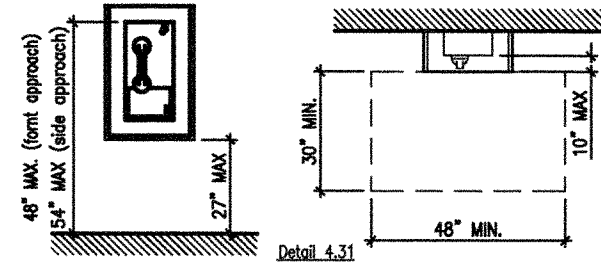
- A. If public pay telephones, public closed circuit telephones, or other public telephones if provided, then they shall comply with this section in the quantities below:
  1. If one or more single unit of a type of public telephone is provided on a floor, then at least one of those phones shall comply with this section.
  2. If one bank (defined as two or more adjacent public telephones, often installed as a unit) of a type of telephone is provided on a floor, then at least one of the telephones at the bank shall comply with this section.
  3. If two or more banks of a type of public telephone are provided on a floor, then at least one telephone per bank shall comply with this section. The accessible unit may be installed as a single unit in proximity (either visible or with signage) to the bank. At least one public telephone per floor shall meet the requirements for a forward reach telephone.
 Additional public telephones may be installed at any height. Unless otherwise specified, accessible telephones may be either forward or side reach telephones.

**TAS SECTION 4.1.3(17)(b) - WHERE APPLICABLE**

- A. All telephones required to be accessible shall be equipped with a volume control.
- B. In addition, 25%, but never less than one, of all other public telephones shall be equipped with a volume control and shall be dispersed all type of telephones, including closed circuit telephones, throughout the building or facility.
- C. Signage displaying the International Symbol of Access for Hearing Loss shall be provided at each telephone equipped with a volume control.

**TAS SECTION 51.3 - MOUNTING HEIGHT (REFERENCE DETAIL 4.31)**

- A. The highest operable part of the telephone shall be 48" maximum above the floor where a forward reach is required, and 54" maximum where a side reach is required.
- B. If the forward reach is over an obstruction (with knee space equal to or greater than reach distance) 20"-26" deep the maximum height shall be 44"; if the obstruction is less than 20", maximum height shall be 48".
- C. Maximum height shall be 46" for side reach over an obstruction 34" maximum high and 24" maximum deep.



**4.32 - SEATING AND TABLES**

**TAS SECTION 4.32.2 - SEATING**

- A. If seating spaces for people in wheelchairs are provided at fixed tables or counters, clear floor space of 30" x 48" shall be provided. Floor space shall not overlap required knee space by more than 19".

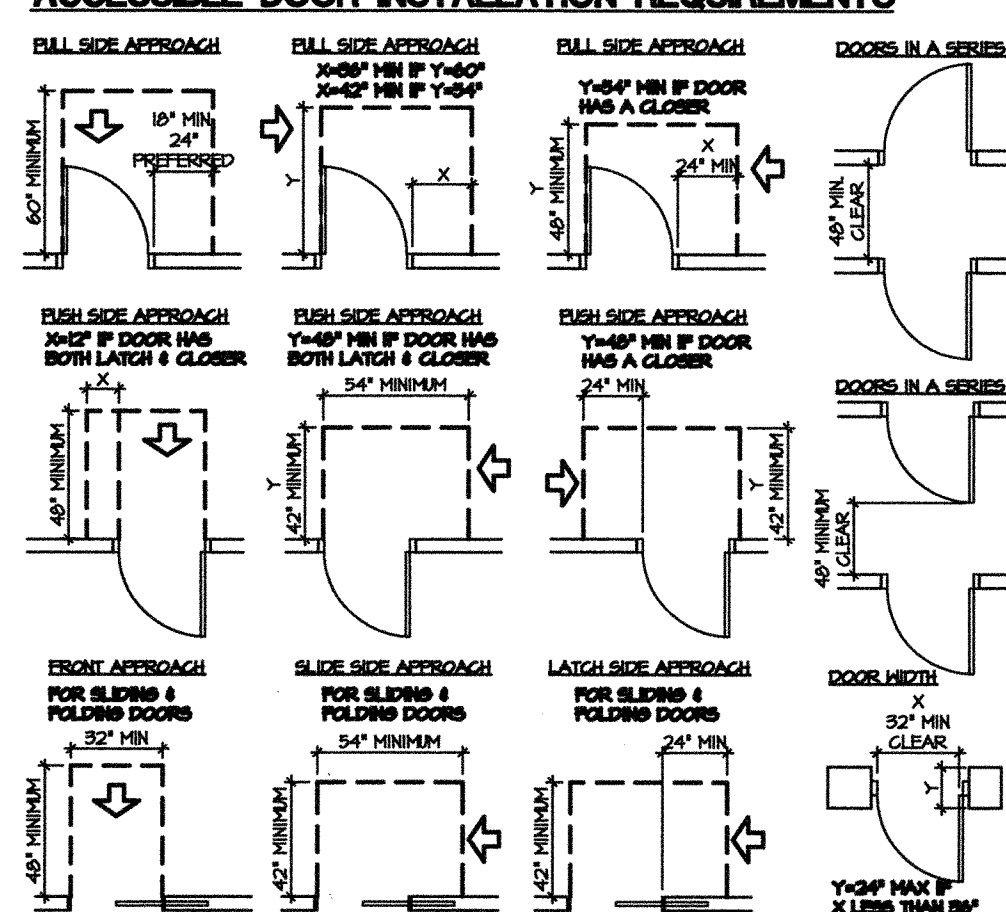
**TAS SECTION 4.32.3 - KNEE SPACE**

- B. If seating for people in wheelchairs is provided at fixed tables or counters, knee space at least 27" high, 30" wide and 19" deep shall be provided.

**TAS SECTION 4.32.4 - HEIGHT OF TABLES OR COUNTERS**

- C. The tops of accessible tables and counters shall be 28" minimum, and 34" maximum, above the finished floor.

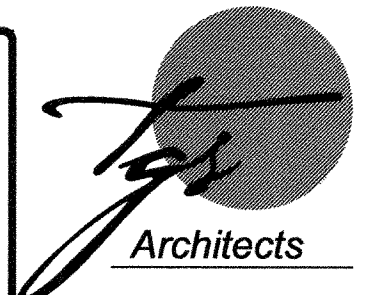
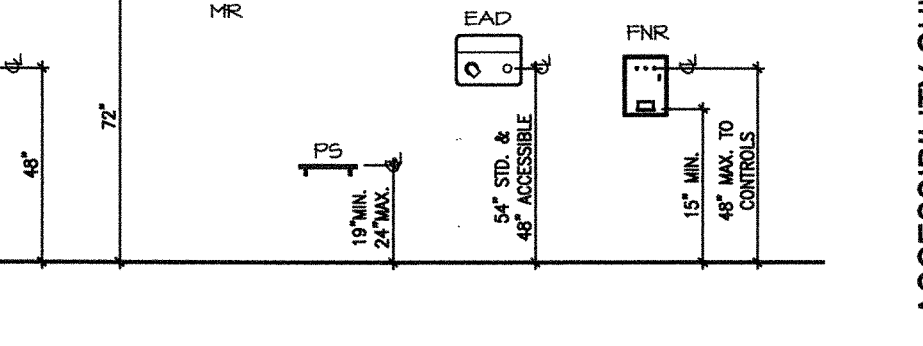
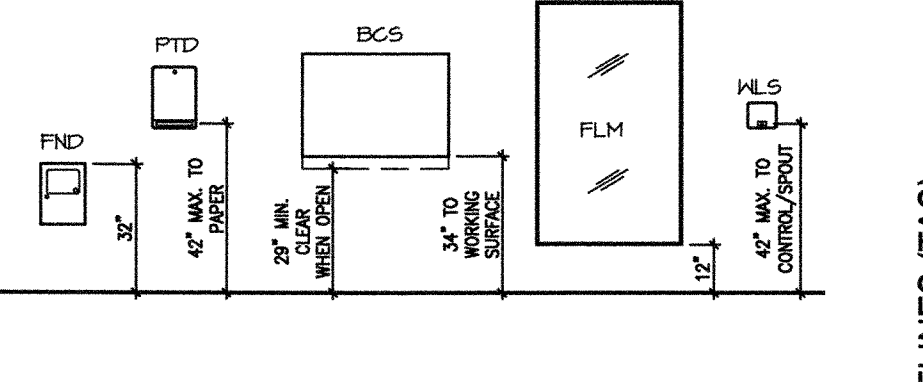
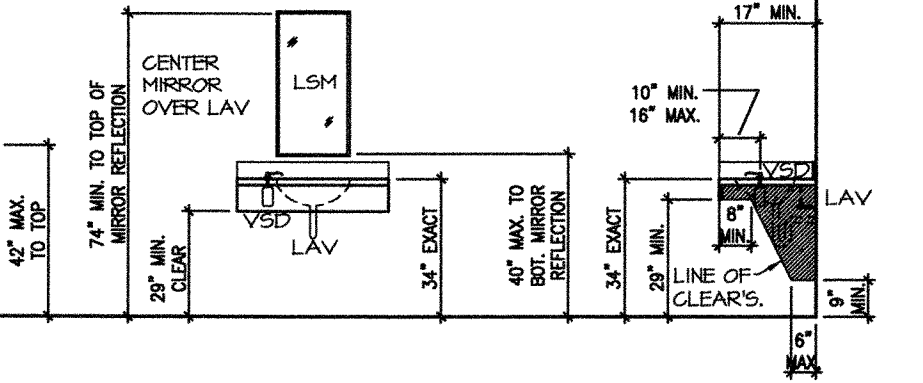
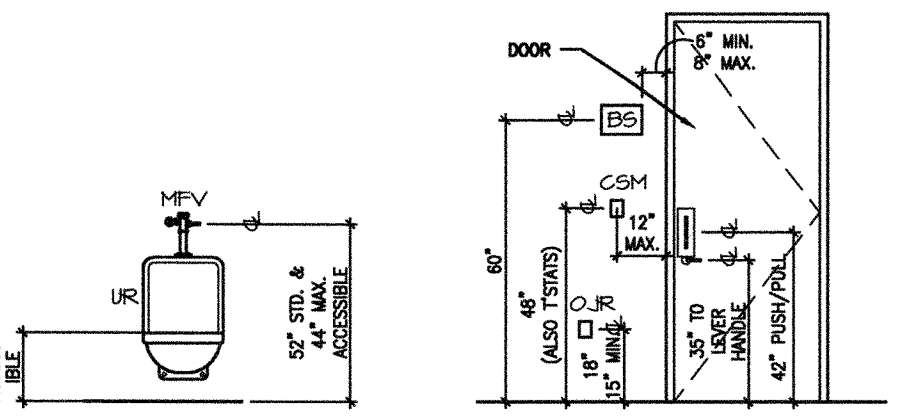
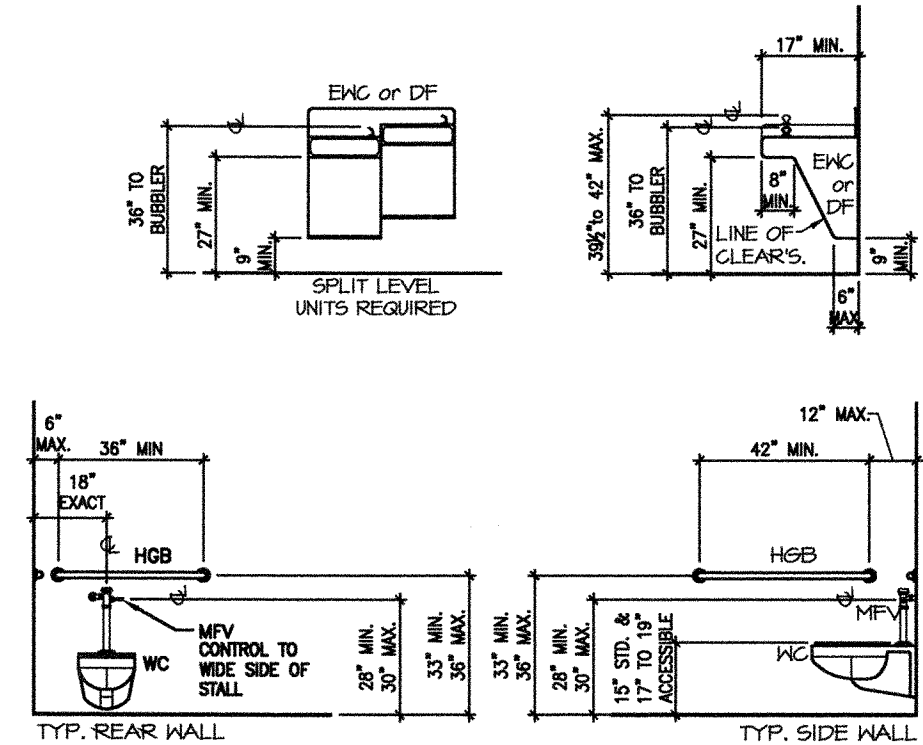
**ACCESSIBLE DOOR INSTALLATION REQUIREMENTS**



**TYPICAL MOUNTING HEIGHTS**

NOTE: SOME FIXTURE TYPES SHOWN BELOW ARE NOT USED. REFER TO THE TOILET ACCESSORY SCHEDULE FOR EXACT DETAILS. NOTIFY ARCHITECT OF DISCREPANCIES WITH THIS DIAGRAM AND OTHER CD'S/SPEC'S.

ABBREVIATION SCHEDULE	
ALL PROVIDED AND INSTALLED BY G.C.	
BCS	BABY CHANGING STATION
BS	BRAILLE SIGN PER T.A.S. & A.D.A.
CH	COAT HOOK
CSM	CONTROLS/SWITCHES/MECHANISMS
DF	DRINKING FOUNTAINS
EAD	ELECTRIC AIR DRYER
ENC	ELECTRIC WATER COOLER
FEC	FIRE EXTINGUISHER CABINET
FND	FEMININE NPKIN DISPOSAL
FNR	FEMININE NPKIN DISPENSER
FLM	FULL LENGTH MIRROR
HGB	HANDICAP GRAB BAR
LAV	LAVATORY
LSM	LAVATORY SINK MIRROR
MFV	MANUAL FLUSH VALVE
MR	MOP RACK
OJR	OUTLETS/JACKS/RECEPTACLES
PS	PURSE SHELF
PTD	PAPER TOWEL DISPENSER
SKA	SINK ACCESSIBLE
TDW	TOWEL DISPENSER & WASTE COMBO
TTD	TOILET TISSUE DISPENSER
UR	URINAL LIP
WC	WATER CLOSET SEAT TOP
WLS	HALL MTD LIQUID SOAP DISPENSER
WR	WASTE RECEPTACLE
VSD	THRU VANITY SOAP DISPENSER



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Date: 04.01.10

QUEST  
DIAGNOSTICS

DENTON,  
TEXAS

DATE	ISSUED FOR
04.15.10	PRICING PLANS
04.23.10	PERMIT

TDLR - GENERAL  
ACCESSIBILITY  
GUIDELINES

PROJECT 09049  
SHEET A7  
PLAT BOARD

**ALL CONSTRUCTION WORK IN THE SCOPE OF THE PROJECT SHALL COMPLY WITH THE TEXAS ACCESSIBILITY STANDARDS GUIDELINES OUTLINED ABOVE.**

ACCESSIBILITY GUIDELINES (TAS)