

MIT

Design Standards

Restrooms and Custodial Closets

T16 Thematic Folder

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1. CONCEPT

The key to efficient restrooms that provide a positive experience for the user begins in the design phase. The design team needs to focus on usage and volume as it relates to space allocation and resources, particularly with regard to reducing wait time at peak usage. With high-volume restrooms, the supply and exhaust air should be designed to handle maximum occupancy / plus.

Restrooms must be durable and easy to clean. The trend in user behavior is a reluctance to touch surfaces in a restroom. Due to this, we have moved towards providing battery-operated towel dispensers and allowing for space at the restroom door for a free-standing waste receptacle. Typical restrooms shall have a floor drain to handle overflow of water when there are plumbing issues, and a hose bib to facilitate cleaning. Mop sinks must be located straight ahead from the custodial closet door, not around a corner.

2. FINISHES

Flooring in restrooms should be a nonporous, hard surface, with as few grout lines or seams as is practical for the type of flooring. In cleaning restroom floors, grout cleaning is always the most difficult. From a safety and sustainability perspective, MIT does not use any type of caustic, acid grout cleaners. Custodial Services has recommended that epoxy grout always be used in restrooms on floors and walls, as it is not porous and can be cleaned more effectively. Grout sealers are not needed for epoxy grout, and shall not be used.

Sealed / glazed ceramic or terrazzo tile for flooring is preferred. Light colors are strongly preferred. Flooring that requires the application of floor finish is not acceptable. Vinyl or linoleum are not acceptable. Slip resistance of floor tile shall meet or exceed ADA recommended values.

Walls should follow the same guidelines as floors – light colors, non porous, as few seams and grout lines as practical. Again, ceramic products are preferred and are serviceable.

Toilet partitions and urinal screens should be made of a material that can be effectively cleaned with a minimum amount of labor. Phenolic partitions meet the criteria of cost effective cleaning. Stainless steel partitions are not acceptable, unless in an iconic architectural building where stainless steel is a better fit for the architecture (e.g. Kresge Auditorium).

Countertops around sinks should also be made of material that can be cleaned cost-effectively. The major issue with sinks / countertops is the splashing of water onto the countertops. The water either stands idle or goes on the floor. This may be a design / installation issue. Sinks need to be deep enough and faucets need to be designed to minimize splashing. The installer needs to make

sure the countertops are not installed with an angle toward the front of the countertop. MIT's recommendation is to have a mock-up constructed and use the faucet / sink before purchase.

Always install a waterproofing membrane in showers.

3. TOILET PARTITIONS AND TOILET ACCESSORIES

3.1 Toilet Partitions and Urinal Screens

Typical: Floor-mounted overhead-braced solid HDPE with homogenous color throughout, 1 inch thick, Class A fire rating and passing NFPA 286 (room corner test); The Mosaic Collection color range by Scranton Products has been used frequently on campus. Wall brackets shall be continuous at partitions, urinal screens and wraparound hinges. Visual gaps shall be eliminated to ensure privacy.

MIT Main Group Buildings Standards: Stainless steel, floor-mounted overhead braced, 0.032 inch thick stainless steel, AISI Number 4 satin finish, edge profile to block direct view into compartment.

3.2 Paper Towel Dispensers

Surface mounted paper towel dispensers are furnished by MIT for installation by the Contractor. Currently MIT is using GP EnMotion paper towels. Surface mounting allows for easier replacement of towels and replacement of a broken dispenser. In certain buildings there may be a preference for recessed roll towel dispensers which is acceptable.

3.3 Hand Dryers

Model HDR100#GY Surface-Mounted Clean Dry Hand Dryer by Toto USA.

Model HDR101#WH Clean Dry High Speed Hand Dryer by Toto.

Electric hand dryers may be considered for replacing paper towels or as a supplement in addition to paper towels, for those who do not want to use paper. For Custodial, the cleaning of hand dryers is simple and not very time consuming. There are a number of models on the market that control the issue water on the floor. Although water on the floor for hand dryers has never been a major problem at MIT, there is a perception the water blown of someone's hand could make the floor slippery. Noise level for those outside the restrooms is a real concern as many hand dryers produce sound levels of over 60dB.

3.4 Soap Dispensers

Surface-mounted GOJO FMX-12 Foam Soap Dispenser, Dove Gray, are furnished by MIT for installation by the Contractor. MIT is not in favor of countertop pump style soap dispensers. The

look is fine and they do save wall space, but changing soap cartridges under the counter can be a safety issue for MIT staff. Many times the countertop is designed with a front panel that needs to be removed, or MIT staff need to lay on the floor to access the soap cartridge. Also there are times when the countertop pumps are installed too close to the sink and the sink drain, which leaves little room for the cartridge.

3.5 Toilet Paper Dispensers

Surface mounted GP Compact Vertical Dispensers for toilet paper are furnished by MIT for installation by the Contractor. Currently MIT is using GP coreless toilet paper. Dispensers come in two and four roll types, which should be coordinated with building occupancy and use.

3.7 Toilet Seat Covers

Custodial does not provide toilet seat covers. Some user groups purchase their own, and Custodial installs. If seat covers are used, there must be space for the dispenser.

3.8 Grab Bars

B-5806 Series by Bobrick, 1-1/4 inch diameter stainless steel grab bars with snap flange.

3.9 Framed Mirrors

B-290 Series by Bobrick, glass mirror with stainless steel angle frame.

3.10 Sanitary Napkin Dispensers and Disposals

B-47069C Series by Bobrick, ConturaSeries surface-mounted napkin/tampon vendor, free vending. Dispensers are typically located in the restroom public area. Disposals are located in the compartment.

3.11 Toe Door Openers

StepNpull.

3.12 Shower Rods, Hooks, and Curtains

B-207 by Bobrick, heavy-duty shower curtain rod with concealed mounting.

B-204-3 by Bobrick, vinyl curtains with nickel-plated brass grommets every 6 inches.

B-204-1 by Bobrick, stainless steel shower curtain hooks.

3.13 Shower Shelf and Hooks

B-295 by Bobrick, stainless steel shelf, above sinks and below mirrors.

B-6827 by Bobrick, surface-mounted hat and coat hook, satin-finish stainless steel.

3.13 Baby Changing Stations

Koala-Care, typically in handicap stalls, as applicable to anticipated building usage. Plastic or stainless steel units shall be used.

3.14 Hose Bibbs

Hose bibbs are required in each restroom, typically located under the sink counter, but easily accessible.

3.14 Electrical Outlets

A ground-fault electrical outlet at counter level is required in each restroom.

3.15 MIT Main Building Group Accessories

Toilet Tissue Dispensers: MIT furnished and contractor installed, roll type.

Automatic Paper Towel Dispensers: MIT furnished and contractor installed. Recessed-mounted electric sensor activated, with local “D” cell power supply, for standard 8 inch rolls. Georgia-Pacific Professional, Atlanta GA, “enMotion” brand, Model 59466 with 24 gauge Type 304 stainless steel cover, having vertical grain polish satin finish. Provide with manufacturer’s optional AC power kit and 24 volt converter.

Soap Dispensers: MIT furnished and contractor installed: Surface mounted for viscous free flowing soaps, Hospec 6-B6.

Soap Dishes: Surface mounted soap dish unit fabricated from type 304 stainless steel with satin polished finish. Shell and flange shall be drawn and beveled, one-piece, seamless construction.

1. A&J Model UX122.
2. ASI Model 7320.
3. Bobrick Model B680.
4. Bradley Model 9015.

Grab Bars: Stainless steel, minimum wall thickness 18 gage (Stub’s gage), with non-slip knurled, peened or striated surface; 1-1/4 inch diameter with polished ends and concealed mounting with snap-on flange.

1. A&J Model UGPS2.

2. Bobrick series B-550x30.
3. Bradley series 852-4.

Mirrors: Channel frame, one piece 1/2 by 1/2 by 1/2 inch type 430 stainless steel channel frame, with continuous integral stiffener on all sides. Brushed satin exposed finish. Mirror glass, 1/4 inch thick glass, ASTM C 1048 complying with Class 1 clear, quality q3 glazing select, conforming to ANSI Z97.1, with Class 1, standard commercial quality, electro-copper back-plating with a protective finish. Mirror corrosion resistant backing shall have minimum 10 year warranty. Mirror back shall be protected by full-size, shock-absorbing, water-resistant, non-abrasive 1/8" (3-mm) thick polyethylene padding.

1. A&J Model U711.
2. ASI Model 0620-B.
3. Bobrick Model B-165.
4. Bradley Model 781.
5. Meek Model 1510.

Towel Bars: Surface mounted 24 inches long with non-rotating 3/4 inch diameter bar, bright polished stainless steel.

1. A&J Model UX132-24.
2. ASI Model 9065-24B.
3. Bobrick Model B-674-24.
4. Bradley Model 9055-24.

Robe Hooks: Surface mounted satin finish 11 gage stainless steel single robe hook, projecting nominally 3-1/4 to 3-9/16 inches, with concealed mounting.

1. A&J Model UB15.
2. ASI Model 0751.
3. Bobrick Model B-2116.
4. Bradley Model 9119.

Sanitary Napkin Disposal: Surface mounted feminine napkin disposal unit, fabricated of type 304 stainless steel, with one piece cover.

1. A&J, Model U591.
2. ASI Model 0852.
3. Bobrick Contura Series B-270.
4. Bradley Model 4781-15.

Shower Curtain Rods: 1-1/4 inch diameter, Stainless steel, minimum wall thickness 18 gage, with stainless steel 2-1/2 inch flange and concealed fasteners.

1. A&J Model UX2-A - 2-1/2 inch flange.
2. ASI Model 1204-2-1/2.
3. Bobrick Model B-6047.

4. Bradley Model 9539.

Shower Curtain and Hooks: MIT furnished and contractor installed.

Lavatory Shelf: Custodial shelf, stainless steel, 6 inches deep by 24 inches wide with 3/4 inch edge return. Mounting brackets, 16 gage welded to shelf.

1. A&J Model U776.
2. A.S.I. Model 0692-624.
3. Bobrick Model B-296x24.
4. Bradley Model 756.

Accessory Locks: All locks shall be keyed alike. Provide four keys, for lockable accessories.

4. TOILET FIXTURES

Refer to the Division 22 - Plumbing Specifications for the MIT Standard Specifications for toilet fixtures including the following:

Sinks, toilets and seats, urinals, flush valves, mop sinks, mop bases and faucets.

Prefabricated showers, with grab bars and fold-up seat at accessible units.

Water coolers and bottle filling stations.

5. TOILET ROOM MATERIALS

For information, the following materials have been used on recent projects successfully. The use of the particular items below is not mandatory.

Floor Tile: Unpolished 12x24 field tile, 6x12 cove base and trim including outcorners by American Olean.

Wall Tile: Empire 7x21 porcelain stone by Crossville Inc., full-height. Include bullnosed tile and not metal transition strips.

Vanity Countertops: Zodiaq by DuPont.

6. INTEGRATED PEST MANAGEMENT

Sewage is a common food source for roaches. Prior to starting work in any bathroom a pest inspection of the space should be conducted by the pest management vendor, to control or eliminate any pest and to seal any pest access points in to the space.

After the work is concluded a follow up a pest inspection of the space should be conducted, by the pest management vendor to ensure all pest access points have been blocked in a lasting way with suitable materials, and that any repairs to pipes have been carried out.

Focus for both inspections should be

- Conditions of the pipes that support the bathroom (evaluate top and bottom for cracks)
- Perimeter of the room
- Duct access points between spaces
- Floor drains
- Closets and cabinets
- Electrical systems
- Dropped ceilings
- Heating and cooling systems
- Conditions of tiles and possible gaps between tiles and between tiles and wall mounted waste bins

7. TYPICAL ELEVATIONS AND DETAILS

7.1 A-1 - Typical Vanity Plan

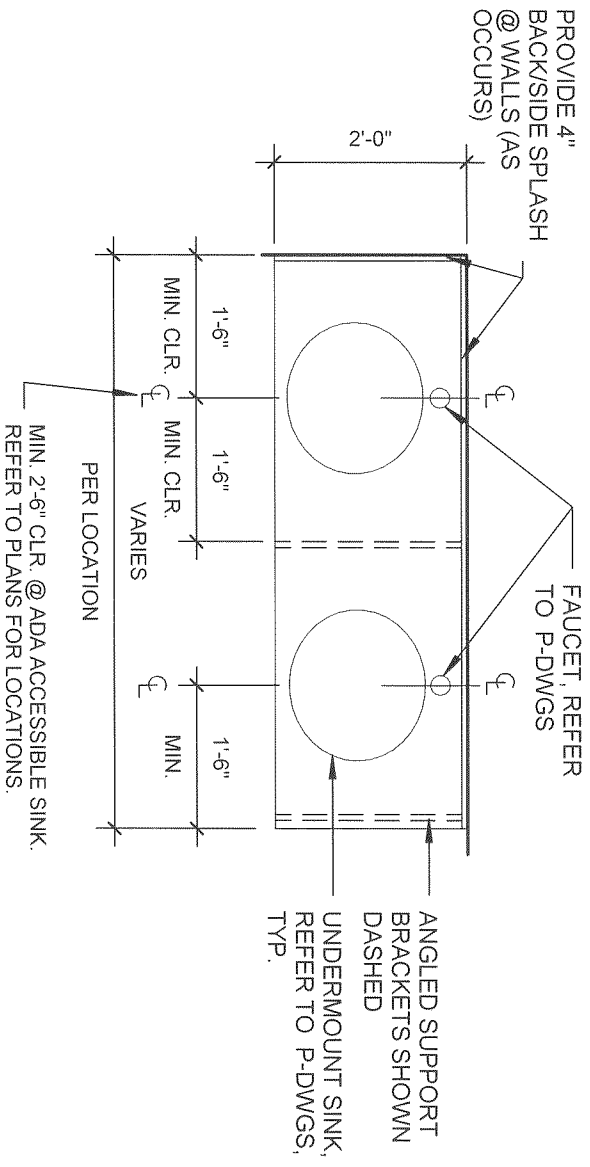
7.2 A-2 - Typical Vanity Detail

7.3 A-3 - Typical Accessory Heights

7.4 A-4 - Typical Uni-Sex Restroom Elevations

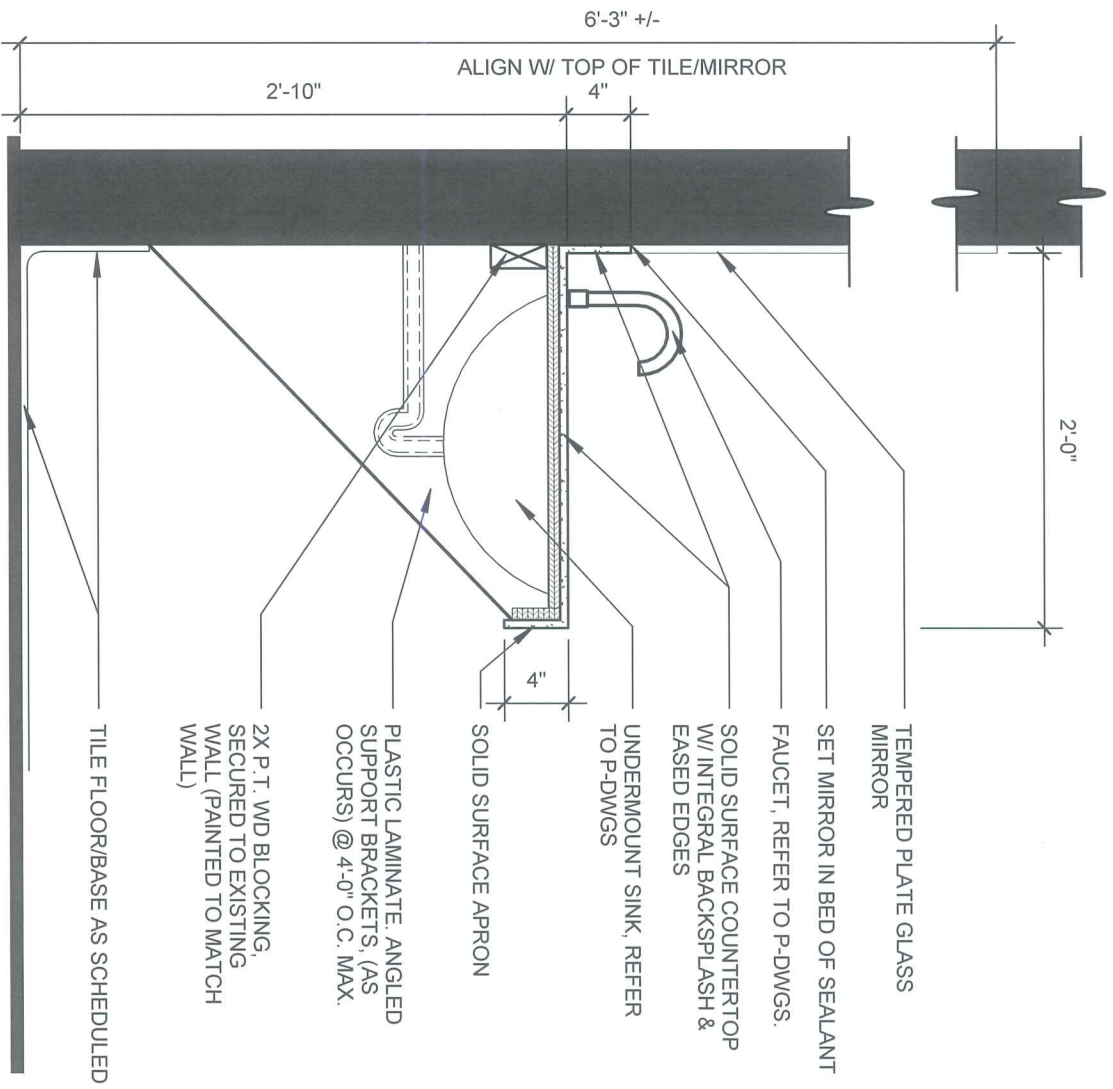
7.5 A-5 - Typical Men's and Women's Restroom Elevation

Refer to the attached elevations and details for the items listed above.



1 TYPICAL PLAN @ VANITY
 1/2" = 1'-0"

<h1 style="text-align: center;">VISION ARCHITECTS</h1>		DRAWN BY: SJA	MIT - BUILDING 35 RESTROOM RENOVATIONS
		CHECKED BY: SJA	TYPICAL VANITY PLAN
225 CHAPMAN STREET • PROVIDENCE, RI 02909 • TEL. (401) 461-7771 • FAX (401) 461-7772 • V@VISIONARCHITECTS.COM		DATE: 02/28/13	A-1
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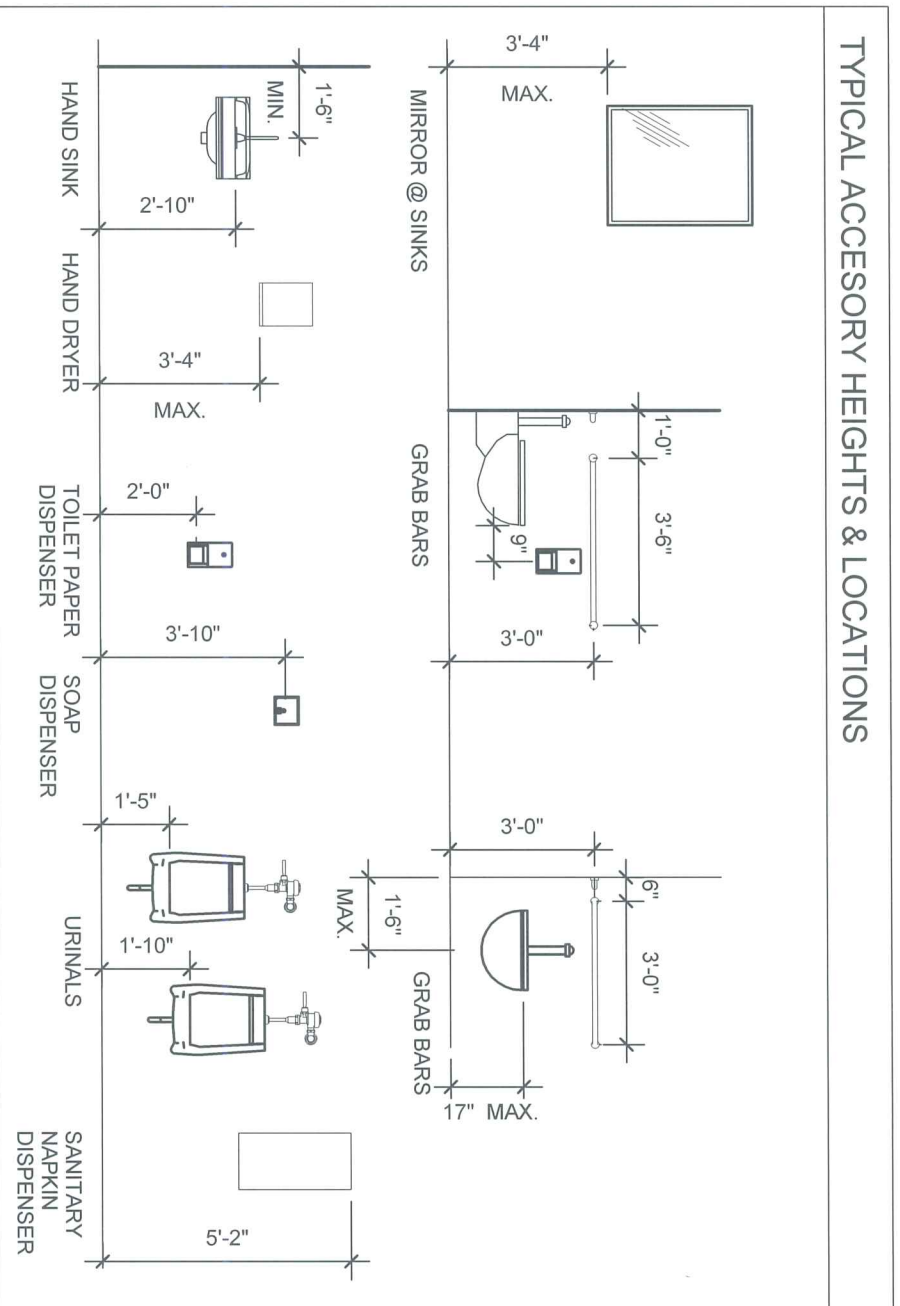


1 VANITY DETAIL
1" = 1'-0"

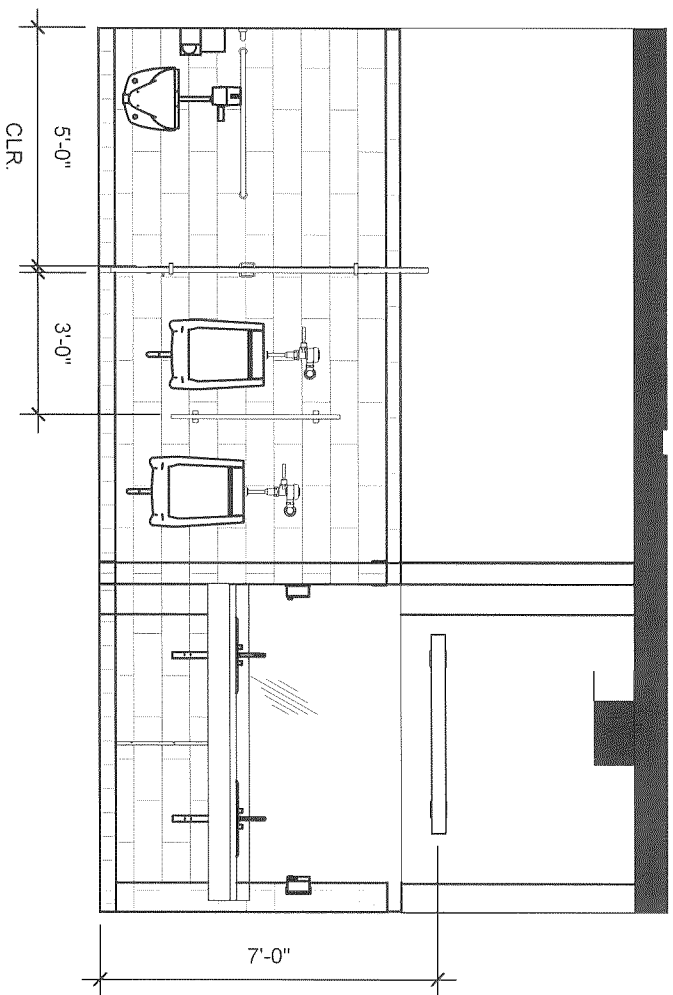
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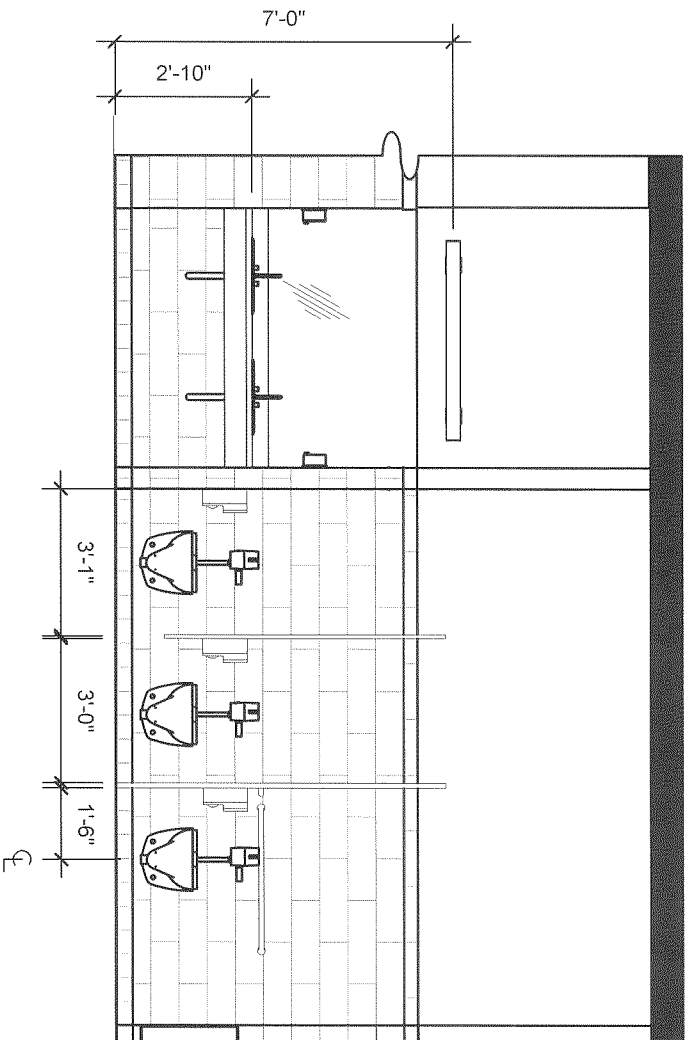
TYPICAL ACCESSORY HEIGHTS & LOCATIONS



		MIT - BUILDING 35 RESTROOM RENOVATIONS	
		TYPICAL ACCESSORY HEIGHTS	
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1
1/4" = 1'-0"
TYPICAL MENS



2
1/4" = 1'-0"
TYPICAL WOMEN'S

VISION ARCHITECTS

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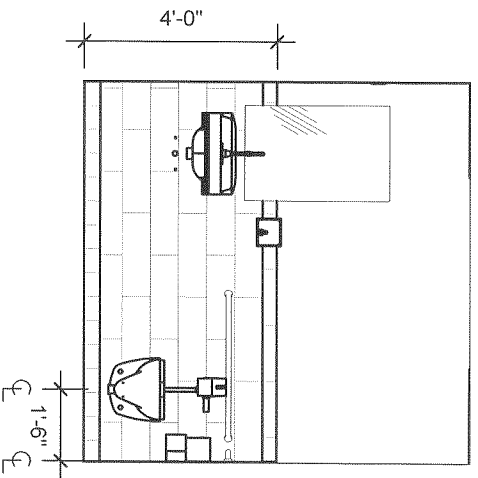
RESTROOM

DATE: 02/28/13

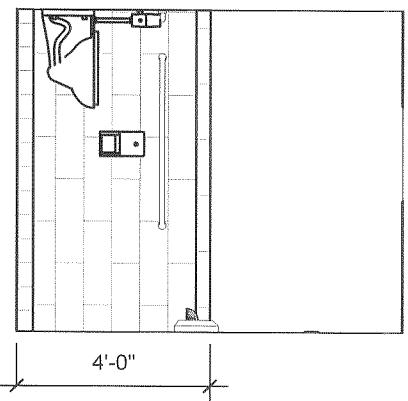
TYPICAL MEN'S &
WOMEN'S ELEVATIONS

PROJECT NO: 12058a

A-4



1
 TYPICAL UNI-SEX
 1/4" = 1'-0"



2
 TYPICAL UNI-SEX
 1/4" = 1'-0"

<h1 style="text-align: center;">VISION</h1> <p style="text-align: center;">ARCHITECTS</p> <p style="font-size: small;">228 CHARMAN STREET • PROVIDENCE, RI 02905 • TEL. (401) 461-7771 • FAX (401) 461-7772 • V3@VISIONARCHITECTS.COM</p>		DRAWN BY:	SJA	MIT - BUILDING 35 RESTROOM RENOVATIONS	TYPICAL UNI-SEX RESTROOM ELEVATIONS
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