The Matrix of Delusion
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The matrix diagram is a series of boxes connected like a maze. Each contains an explanation of a particular subject. One box leads to another with the purpose of giving a detailed explanation of that subject. Some are very simple, yet some get complicated going off the path with arrows and footnotes. I have noticed these matrix diagrams being used more frequently, apparently someone at the state level has a penchant for them. That does not make you a bad person, just a person who likes matrix diagrams. Personally I don’t have anything against them as long as they are kept simple. Once they start going up, down, sideways, and back, not many will bother with them, and will just read the code.

Recently one of these matrix diagrams caught my attention. It was titled “Handicapped Requirement Guide.” The only thing it was a guide to was the continued confusion for handicapped toilet facilities started by a person or persons that have deluded themselves and apparently others into false beliefs. So I shall break down this maze of deceit, and once again explain the truth about handicapped toilet facilities.

The first box lists the code section in 248 C.M.R. that will dictate the requirements for handicapped toilet facilities 10.10, 18, m. In the code it states, Handicapped Toilet Facility Requirement. Facility for the physically handicapped person. The second box explains paragraph #1, or 10.10,18,m,1. Keep in mind there are seven (7) other rules in this section not listed or mentioned in the matrix. 1. Plumbing fixtures shall be installed in conformance with 521 C.M.R. 30.0, public toilets (for fixture dimension requirements only) Now you must read that very carefully, especially for fixture dimension requirements only. Think about it and hold that thought.

Now go down the matrix to box #3 paragraph #2. The wording in the matrix is not accurate. This is how it is worded in the code. 2. When public toilet facilities are to be installed, handicap plumbing fixtures shall comply with the requirements of 248 C.M.R. 10.10, 18, m. Down to box #4 the Matrix Man tries to explain what the term public means using a very brief definition in Webster’s Dictionary (open to all persons). The Matrix Man must have forgotten that we 248 C.M.R. have our own definition of public or public use, and private or private use right in the definition section of our code. So here they are in black and white.

Private or Private Use. In the classification of plumbing fixtures, private shall apply to fixtures in residences, apartments, condominiums and to private guest rooms in hotels and motels.

Public or Public Use. In the classification of plumbing fixtures, public shall apply to every fixture not defined under Private or Private Use.

It is crystal clear. Our definition of public or public use is anything not listed in private or private use. That would be fixtures in residences, apartments, condos, etc. All others are public for the purposes of our code 248 C.M.R. Now read #2, When public toilet facilities are to be installed, handicap plumbing fixtures shall comply with the requirements of 248 C.M.R. 10.10, 18,m. And again #1 Plumbing fixtures shall be installed in conformance with 521 C.M.R. 30.0, public toilets (FOR FIXTURE DIMENTION REQUIREMENTS ONLY). Remember I asked you to hold that thought.
Our code is telling us we do not abide by anything in 521 C.M.R. except plumbing fixture dimension requirements. That includes any reference to their or anyone else’s definition of public. In other words, handicapped toilet facilities are required by our plumbing code 248 C.M.R. in all uses except those listed under our definition of private or private use.

Before I continue with the Matrix Man, I must explain the reason I am proclaiming that my version of these rules are correct. I was there during their inception. This section of our code was drastically changed in 1994. It was nick named potty parity. Changes included more toilets for women, more toilets overall, places of assembly started at one instead of twenty, and many other important changes. Soon after the regulations came out Plumbing Inspectors and many others in the industry had many questions and needed clarification. We attended meetings, formed committees, and broke down the new regulations. One of the main questions was the handicapped facility requirement, and why it was worded in our code like that. It was determined by all involved including the Plumbing Board that due to the multitudes of different uses, where according to handicapped codes some areas did not require handicapped facilities yet some others did. Some areas shared common spaces for customers and employees. And according to our code many uses like retail sales only require toilet facilities for employees, yet many allow the customers to use them and in fact build them for the customers also, like the large home centers. So it was difficult if not impossible to decipher what places should have handicapped toilets, and how to control non-handicapped toilet rooms. The Board and all committees and Inspectors involved agreed to require handicapped toilet facilities in all uses except under our definition of private. We spread the word through many association meetings and seminars.

Soon after, adjustments were made to this section. I was personally responsible for writing several revisions in this section, including rewording 10.10,18,m,3,a. that brought the unisex handicapped toilet room in line with the description in 521 C.M.R. I also wrote the definition of unisex in our code, eliminated the loop hole in section i, employees toilets, where it used to state (when both men and women worked together). I was later named chairman of the code review committee, and worked on many other revisions in the late 90’s. I am not bragging these are facts, I was there, Matrix Man was not.

So what are these fixture dimension requirements we are supposed to abide by in 521C.M.R. First if you do not have a copy you must purchase one. They are available at the State House book store, same place you get your plumbing code. It is The Rules and Regulations of the Architectural Access Board. Not to be confused with The Americans with Disabilities Act, or A.D.A. The A.D.A. is a federal regulation not enforced by local authority. The A.A.B. rules are State handicapped regulations, hence the C.M.R. that are definitely enforced by local authority, Plumbing, Building and Electrical Inspectors. Section 30.0 is filled with a multitude of very important information, not limited to just dimensions, but all relative to the correct way to build, and the proper function of toilet facilities all plumbers and inspectors must know and understand. I would pass this section out to all of my students and we would thoroughly review them. Without this information it would be virtually impossible for a plumber to properly build handicapped toilet facilities. Following is just a sample of some of these important code requirements.
• The Minimum dimensions of a single toilet room
• The set clearance of 18” from the near wall to the center of the water closet
• The minimum distance of 42” from the center of the water closet to a wall or other fixture, this is known as the “wide side”
• The fact that the toilet handle must be on the wide side
• The height of the toilet handle
• The height of a water closet
• The minimum dimensions of an accessible toilet stall, and how the door arrangement works
• The minimum dimensions of an alternate accessible stall, and when it can be used
• The required clear space on the pull side of the door to a toilet room
• The clear space required in front of a lavatory
• The height of a lavatory
• The minimum dimensions of a lavatory
• The knee clearance required under a lavatory
• The height of a urinal
• The type of urinal, “elongated”
• The clear space required in front of and to the sides of urinals
• The height of the flush handle for a urinal
• The height of a drinking fountain
• The type, height and location of the toilet room sign
• All dimension requirements contained in the Children’s section. When dealing with schools and day care centers.

These are just some of the very important regulations all Plumbers and Inspectors must know and understand. For it is the Plumber that builds, owns and takes credit for all toilet facilities, that’s ours right down to light, ventilation, signage, and the proper function of all toilet rooms. In fact our code demands it, Basic Principle #19, Principle No. 19- Fixtures Shall Be Accessible. All plumbing fixtures shall be installed in a manner with respect to clearances for spacing and accessibility for their intended use and cleansing. Key words “intended use.”

Incredibly The Matrix Man says we have nothing to do with handicapped toilet facilities, and these regulations have nothing to do with the plumbing code. I will never forget some years ago during deliberations concerning code revisions, a lawyer spoke up and said, “I thought plumbers just dealt with the veins of the system.” In other words, putting pipes together. I cleared the room. This is just what Matrix Man is saying, in the last box of his diagram, “248 C.M.R. deals with plumbing only,” even emphasizing it with an arrow “we do not.” I see, plumbers are too stupid to figure out dimensional requirements, and layout bathroom designs. Someone else much smarter has to tell them where to put the toilet. Plumbers are too stupid to cross reference another code. And
Plumbing Inspectors have no business doing plan reviews, and calculating proper and adequate toilet facilities, that’s much too complicated for them. Only smart people like architects should interpret the code. Plumbers should only worry about putting pipes together, so they don’t leak.

Thanks a lot Matrix Man, next time you draw one of your diagrams use a crayon.

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