

## Case Study of JL Apartment

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JL lives in an apartment that is supposed to be equipped for a person with disabilities. Right from the start, upon entering the building, the hall shows signs that the apartment may present many problems for such people. This is a two-bedroom apartment. Some alterations have been made to better service JL

This case study will include pictures of some problematic areas with some potential solutions. First we will look at the bathroom



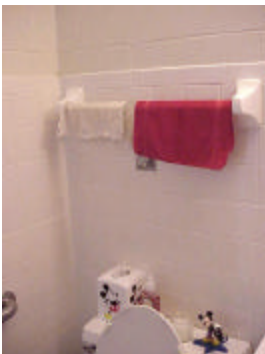
This is a picture of the Sink in JL's bathroom. It is noted that the sink holds enough clearance for her to roll underneath the sink. The problem with this picture is the mirror. The mirror is too tall for her height; it is non functional. This type of error is so frustrating. This apartment housing claims that people with disabilities will have wheelchair access. The simple solution to this problem is to lower the mirror. This adjustment would cost very little, but the mirror should have been installed lower when the apartments were constructed or renovated for accessibility. Also, a longer mirror should be installed, so JL could see her reflection at her height, and so could taller people who may visit or live with her in the future.



This is a picture of JL's shower handle. It has been installed at the appropriate height for her reach just underneath the rail bar. The negative side to this hardware is that is not really a handle; it is a knob. This type of knob makes it difficult for JL to adjust the temperature and pressure. It would be more appropriate and easily adjusted with a lever type of handle.



This is a picture of the roll in shower. The center drain is preferable, but the drain has very little of a dip. JL says that the water usually ends up all over her bathroom because the drain slope is not deep enough. The simple solution is to re-install the drain with a deeper slope, especially where the shower area ends.



This is a picture of JL's towel rack. The picture already illustrates the problem. The towel rack is too high, and it is in an area that she could not reach. The solution to this problem would be to relocate the towel rack at a lower height on another wall that could easily be accessible for a wheelchair user.

In the following pictures, we will look at JL's office area.



This is a picture of JL using her filing cabinet. The top cabinet is at a good height, but the bottom drawer is useless because she cannot reach that low. This is not part of the built apartment; rather it is a purchased piece of furniture. There may not be a perfect filing cabinet for universal design. However, there could be a file cabinet made specifically for wheel chair users. The bottom drawer could have a high handle that pops up to the higher cabinet's height when pulled.



This is a picture of a window in the office area. The window is too high for JL to reach to crank open or to look outside. We also talked about how the deep ledge would obstruct her reach, even if it were a little bit lower. The handle is a lever type that opens and closes the window with rotation. We thought that might be ok for her to use if she could reach it, but she has never had a chance to try. The window needs to be installed at a lower level with perhaps more investigation of the opening mechanism.

The following picture are of JL's bedroom.



These two pictures illustrate the problems and difficulties of the closet. First of all, the doors are acceptable but not ideal for JL's use. However, the track at the bottom that guides the door stops JL from being able to access the closet. In addition, the shelves are too high to reach, as is the hanging bar. She really has little access to either of her two closets in her apartment. A more ideal design would be pocket doors with handles. A simpler solution would be to place shelving and hanging bars at various levels so that she could reach hanging items and shelved items. The ideal situation would be to install shelving and bars that could move up and down on a rotation. A suggestion might be a dry-cleaner storage mechanism that rotates the clothing and still gets the full height of storage space.

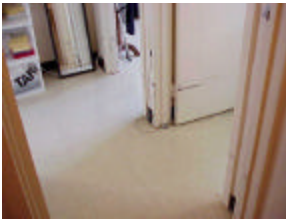
The next pictures show some general overall items in the apartment.



These next two pictures illustrate the problems with JL's doorknobs and a solution that she has used to modify her apartment. The standard turn knob is not accessible for her. She prefers handle knobs to open and close doors. The lower picture shows an attachment that is drilled on to the original handle. The attachment is affordable, but not entirely aesthetically pleasing. This attachment is only on her front door; the doors to her bathroom and bedrooms remain open at all times. The solution to this problem is to install lever handles on all of her doors, which will be more pleasing to the eye.



This is a picture of the light switch. It is too high for comfortable reach. JL had some of her switches installed at a lower height. The switches that have been replaced have a connection through a conduit from the original switch to the new switch. A more universal design would be to put the switch at counter height; more groups of people could reach that height. An ideal switch for a better, universal design would be perhaps an invisible laser placed through the lower doorway. When the laser was broken, the lights would come on automatically. This may be tricky, because two lasers would need to be installed for entry and exit with a counting mechanism of the amount of people entered and exiting.



These two pictures show the lack of total organization of this apartment. This shows a small hallway. This small hallway accesses all entries to the bathroom and bedrooms. The door that shows JL is an illustration of the angle she must make to return to her living room, but her chair always hits the side. Even if the doors were equipped with proper handles, she could not turn around in this hallway to shut the door. The bathroom door does not shut when she enters the bathroom with an attendant. Her chair is usually occupying the door area. There is poor space planning and general lack of space. A better plan would be perhaps a more open space plan. No hallways would be required, and all the doorways could be accessible from the larger kitchen/dining room area. This can be tastefully done, and would probably create more space in the apartment with the elimination of the hallway.