



THE COMMERCIAL FLOORING REPORT

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The Hidden ADA Risks for Flooring Contractors in the Sport Floor Industry

Our guest contributor this month is Mr. Timothy Vander Heiden J.D. He is currently CEO of SafePath Products and Van Duerr Industries with over 16 years experience in the industry of marketing and manufacturing products for the ADA compliance and specializes in green technology for the architectural market place. The information shared in his article is likely not common knowledge to most of you. We appreciate the opportunity to bring this information to light for you.



Proper installation of raised wood floors, especially in retrofit and replacement projects, can be problematic to flooring contractors when faced with interpreting federal and state ADA (Americans with Disabilities Act) access compliance laws. Problems occur around the proper treatment of vertical rises from variations of the new flooring material to the existing or old floor substrate. Vertical floor edge treatment is not only required to avoid tripping hazards, but also essential for disabled access code compliance.

Flooring materials produced today offer models with greater vertical height than those of the past because of high performance demands by the professional sport industry. Imagine, a new floor system that has increased the entire floor height of a gymnasium by two-inches? The change in elevation naturally would affect all access doors.

Traditionally when there were small variations in vertical heights in a new flooring project applying small floor reducers was left to the discretion of the flooring contractor or installer, because these reducers typically didn't impact the building code, but merely a finishing element of the flooring project. With the increased height for new performance sport floor systems subtly comes with it increased responsibility for design and construction standards for the flooring contractor because federal and state access codes apply.



Increasingly these conditions occur in construction of sports facilities, exercise gyms, dance floors, and in sports related exercise rooms. Federal, state and local access code compliance laws require flooring reducers to satisfy something more than just a beveled approach at the ending of a floor edge or at the door entrance threshold. Vertical rises greater than a 1/2", occur with new hardwood flooring materials

especially athletic sport floors that commonly exceed ½". This requirement is not typically demanded for nonpublic use of doors such as janitorial closets or supply rooms. However, every other instance when the vertical rise is greater than a beveled ½", especially adjacent to an access door entrance is when mistakes are made.

In almost every instance federal ADA and state and local access code laws will apply to the flooring professional whether it is a public or private project or even an exclusive club. Unless it is only involving a private residence, the regulatory standards will undoubtedly impact the project.

Often the uninformed phrase is uttered, "We are grandfathered in, and therefore the law doesn't apply to us". This is never the case, and it doesn't matter how old the building or facility is, while there may be some extremely limited tolerance exceptions for historical buildings, the obligation to follow model access code laws is never excused.

Public door entrances and exists to a new gym floor that has an elevation change, will require a greater universal design than a ramp or reducer to be compliant if greater than a ½". The requirement at door thresholds is often a level and clear area, referred to as a "maneuverable level clearance area"; one that allows a person to be on a level surface while accessing door systems and door hardware. The reasons for this are simple. When a disabled person is approaching a door entrance and they are on a ramped slope, they have difficulty maneuvering a wheelchair up a slope at the same time accessing hardware and keeping the door open while trying to enter or exit a room or building.

Therefore, ramps butting up to door entrances almost always violate access code laws with the exception being an automatic door opening system, a fixed opening or private residence. Failure to follow these disability access laws may subject the owner, tenant, architect, contractor and installer to federal "civil rights" litigation for violations of disability access code laws. When this occurs the contractor is almost always named a party in the pleadings. This type of litigation is often expensive and can occur years after the project has been completed. More shockingly, the person bringing the action does not have to be disabled themselves or have been personally denied access themselves.



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A typical code violation occurs when a ramp is placed at a door entrance as seen here in fig 1. In this instance vertical edge treatment has not been executed properly; notice there is the absence of a level surface area adjacent the door opening. Alarming, this occurs often in hardwood sport floor modernization projects. Which begs the question, why does this occur?

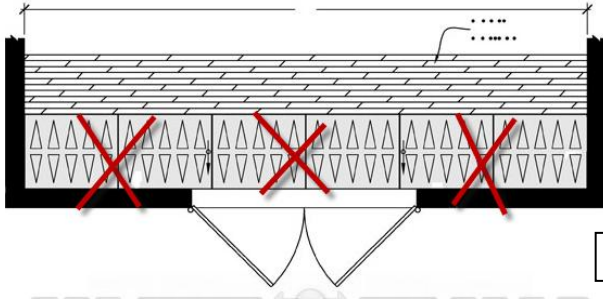


Fig 1

It is speculated that the interest of installing as much flooring product as possible supersedes the concern for disability access at entrances because it is desirable for the customer and the installer. Absent specialized access compliance training and code interpretation and knowledge, flooring contractors assume the risk for disability access design not contemplated in the contract, but attach the responsibility and liability through their performance. The phrase, "ignorance is no excuse for the law" applies here and pleading ignorance will not save you.

An entire volume of federal access code regulations apply to door entrances interpreting door openings and clearance areas with vertical rises greater than 1/2". Modified or enhanced codes can incorporate state, local and regulatory agency rulings that may be more restrictive than the federal standards. A large sector of the flooring industry has unwittingly taken on this exposure for complying with disability access laws with all the risk and none of the reward.

On average, sport floor modernization projects with vertical floor height issues are one of two types; 1) where the design professional carefully considered and planned for access compliance on the project; or 2) where a customer has gone out to bid for a new high performance sport floor system, absent contemplation or expenditure of access code

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compliance and design and the flooring contractor has accepted the project not recognizing the potential risk. Unfortunately, this contractor is left with a potential ticking time bomb that can go off anytime in the future when exacting access codes are enforced.

Naturally, all code compliant elements should be addressed in the planning stage of each project by an access design professional. Different configurations of door openings, the hardware, door swing, interior and exterior use, and strike-side clearance will determine the depth and the width of the level maneuverable clearance area at each door and reducer configuration needed.

There are standard elements to what the model access codes require, the following will provide a better understanding of these basic elements. As shown in drawings fig 2 and 3 you will notice that there is a double door and a multiple door entrance where a maneuverable clearance area is identified.

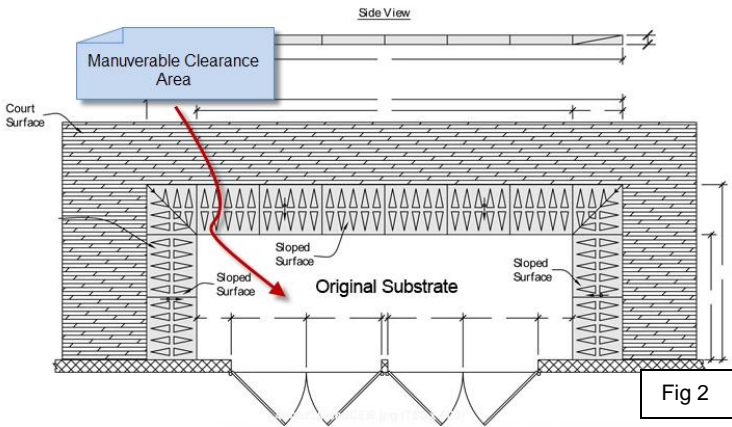


Fig 2

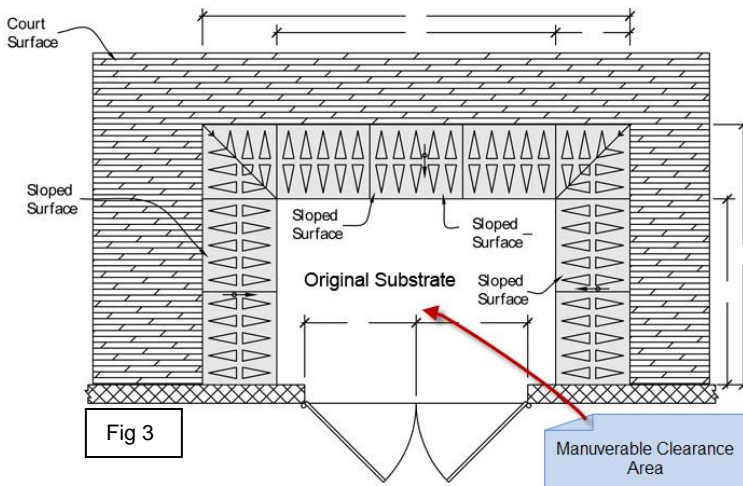
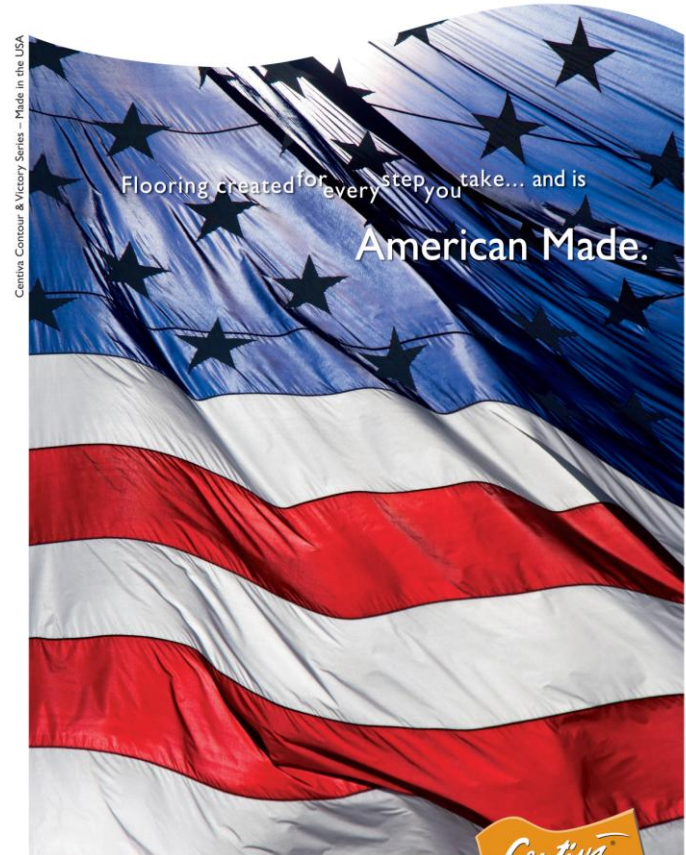


Fig 3



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This area is calculated by the type of door swing, its hardware and path-of-travel. In this instance, a maneuverable clearance area from the threshold to the beginning of the reducer is 60" and is required to extend 12" on each side of the door jamb. The width of the maneuverable clearance area is determined by the width of the door series.

In some instances, where a gymnasium floor area is limited an adjustment of the door height can be performed and the placement of an exterior landing can be installed. However, consideration of door frame and closer mechanism heights factor for compliance (See fig 4).



Fig 4

Where there is single door access "strike-side" clearance area is required, this allows the user to properly approach the latch side of the door without requiring an off balance approach for access.

Naturally, when a new floor is set on top of an existing floor and there is no door access affected then an entire reducer floor wrap is advisable as shown in fig 5. It is important to review your local codes for percentage of slope; some jurisdictions exceed the federal standards of 1:12 in these applications.

There are many more working drawings available for download at:
www.safepathproducts.com/courtedgereducers.html.

For further identification of maneuverable clearance areas at doorways and the newly released standards refer to:

<http://www.ada.gov/regs2010/2010ADASTandards/2010ADASTandards.htm>

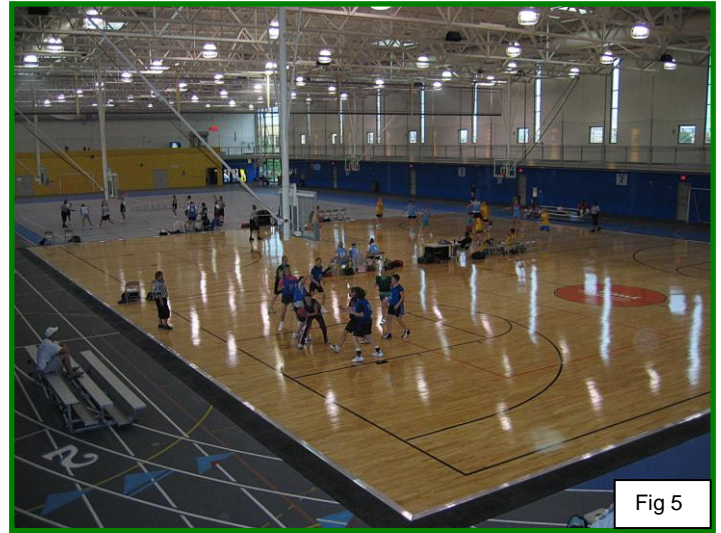
Systems like EnviroSTIX for hard surface and hard backed flooring materials and Bentley Prince Street Contact Release for carpet are systems that will help prevent the failure of flooring installations. There is more technology coming, most of which we are involved with. We'll keep you informed to help you. In the meantime understand that moisture, temperature and humidity have a profound effect on flooring materials and the integrity of their installation.

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Specifying Reducer Material

When considering selecting reducer materials there are several varieties available. Traditionally wood and metal are used, but recently various recycled rubber products have become available.

When selecting reducer material it is important to consider whether you are fastening these materials to the original substrate or to the new flooring material. The hygroscopic nature of wood floors often requires reducers to move with the flooring system. Also, look for load weight limitations, especially if heavy equipment is to be used on the new flooring.



The SCOF (Static Coefficient of Friction) rating of the reducer surface is also important; this is the slip-resistant surface properties of the reducer. This can have an impact on premises liability and life safety concerns. An upward rating of .7 or greater is always recommended. Another smart consideration is to have the reducer offer a distinguishing color differential than that from the new flooring material and/or the existing substrate, as this will help prevent accidental tripping and false stepping for the lack of a visual cue or notice of an impending change in grade.

Commonly when people walk up a carpeted ramped walkway one can briefly catch the front sole of their shoe, that's because they didn't see a visual cue as to the change in grade or slope. For the elderly or the disabled this same situation can present an even greater concern for injury.

Finally, consideration of durability and long-term use of the reducer material is important. The sport floor market now offers 100% recycled reducer products designed for the "green" builder and for projects requiring LEED certification.

There are firms that specialize in providing reducers pre-fabricated to specification for fitted inverted landings designed for compliance for all raised vertical edges, including mitered inside corners and strike-side clearance areas providing the necessary maneuverable clearance for door entrances. There are also professional ADA consultants that can provide expert opinions for a project layout as well as architectural firms that specialize in ADA access code compliance for sport floor modernization projects.

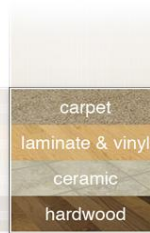
Most importantly, flooring contractors should not leave themselves or their clients at risk to the expense of access code violation litigation. Federal and state access code laws take precedent over local building code regulations. Most states and local jurisdictions have adopted national access codes to satisfy compliance, however, not all local jurisdictions may be up-to-date, so it is important to investigate that projects are reviewed for compliance before contracting for construction. Reliance on local code enforcement officials is never a defense to an access violation.

It is always wise to seek professional approval for your flooring project that involves vertical rise modification greater than $\frac{1}{2}$ ". As it has been said many times before, "anyone can do the job right the second time". But most importantly, "know what the job is before accepting it".

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