

The Rise of Luxury Vinyl Flooring in Healthcare Design

1 INTRODUCTION

To best understand the cause for rise in the popularity of luxury vinyl flooring in the healthcare specification, we must first understand healthcare design. The modern reform of vinyl flooring is a combination of 1) a return to human-centric evidence-based design, and 2) a need to be efficient and competitive in a consumer-driven marketplace.

Today's design in healthcare aims to support:

- The healing of the patient
- Staff and productivity
- Engagement of family visitors
- The budget of the facility

LVT and Vinyl flooring supports today's healthcare design by:

- Positively contributing to the overall aesthetics
- Positively contributing to the indoor atmosphere (noise, air quality, soft underfoot)
- Contributing to cleanliness
- Reducing costs, both at purchase and throughout the lifecycle
- Added bonus: LVT can contribute to Green Design

2 THE HISTORY OF DESIGN & A HEALING ENVIRONMENT

Throughout history, and proven by study, it is widely accepted that positive environment has an impact on the wellness of a patient. Mind-body connection is an understanding as old as civilization.

- Ancient Greek and Roman hospitals were also temples to the gods of healing, and later, the first facilities of healing (churches) eventually had wards that faced the effigies. (*The History of Hospital and wards, Healthcare Design, Tim Gormley, March 11,2011*)
- In the late 1700's a re-evaluation of the hospital form was prompted by Louis XV in Paris, who developed a committee charged with creating standards for fundamental reform of the basic hospital typology. This sea change was prompted in part by the new recognition of clean air and hygienic conditions as agents of health, especially within hospital environments. The reformers believed that health primarily came, not from medical solutions, but from creating a pure, natural environment that provided clean air. (*History of Healthcare Architecture, Heather Burpee, Integrated Design Lab Puget Sound (2008)*)
- Florence Nightingale (1820-1910) during the Crimean War recognized that the cleanliness of a hospital and the environment that surrounded directly correlated with the mortality rate of

patients. By enhancing their environment Nightingale noticed a significant decrease in the death rate from 60% - 2% (*Strauss, 2006 (Burpee, History of Healthcare Architecture, 2008)*) In the 20th century, a departure from this line of thinking occurred after WWII. “*Designers and builders maximized the machine-like efficiencies of hospitals without evaluating how these changes in form related to human health, stress and comfort.*” (*History of Healthcare Architecture, Heather Burpee, Integrated Design Lab Puget Sound (2008)*).

TODAY

Over the past two decades, competition in the healthcare marketplace has increased due to a number of factors including federal and NGO influences. And though there are years of evidence to substantiate the health benefits of the interior environment in patient care and healing (EBD), interior design is also contributing to the hospital marketing strategy. "Patient demand correlates much better to amenities than quality of care" (Dr. John Romley, research professor at Leonard D Schaffer Center for Health Policy and Economics, U. of South California). ¹

There are three answers to this LVT and vinyl question:

- 1) EBD design/human health and function
- 2) Modern desire for the aesthetic
- 3) Budget

1 Is This a Hospital or a Hotel?, Elisabeth Rosenthal, Sept 21, 2013

3 THE HISTORY OF LVT AND VINYL FLOORING IN HEALTHCARE

During the post war hospital boom of the 1940s, the efficiencies of construction were of primary concern in design. Flooring such as terrazzo, VAT and “battleship linoleum” were the materials of choice.

- Terrazzo: in use today provides an expensive option best used for very long term design plans
- Asphalt tile 1920s – 1950s low initial cost, durable, style and patterns limited. ²
- VAT 1920s – 1950s, low cost, durable, style and patterns limited and poor air quality.
- “Battleship” linoleum offered a solution but demanded a high maintenance cost due porosity. It remained popular until after WWII when vinyl tile was introduced to the market in late 1940s²
- VCTs replaced VATs, and are inexpensive at the offset, but maintenance including stripping and waxing prove more costly over the lifespan of the floor and have been gradually replaced by LVT in many healthcare facilities.
- 1950s demand for vinyl grew due to superior performance characteristics including cushioned vinyl and no-wax floors.²

By the 1960s healthcare started to become a more competitive field. Designers looked for ways to provide a better and more comfortable environment while accommodating their budget.

A common hospital designscape during this time included carpet in the hallways and VCT in the patient rooms for an “at-home” feel. Carpet provided good for noise reduction and VCT offered a moderate spectrum of design options.

- Carpet did not provide the sanitary conditions sought after.
- Advancements continued in vinyl and by the 1980s LVT was introduced.
- Today, LVT and Vinyl fulfill the needs of healthcare design specifiers in nearly every room application, with a myriad of design option, low-cost purchase, low-cost life cycle and added value.

² Resilient Floor Covering Institute. (www.rfci.com/aboutus)

4 TODAY'S COMPLETE HEALTHCARE FLOORING: VINYL AND LVT

Due to the nature of the composition of Vinyl and LVT resilient flooring, advantages and advancements continue in this segment of the flooring industry, making the flooring a highly desirable trade for use in healthcare.

Vinyl and LVT answer the common goals of healthcare evidence based design teams:

Vinyl and LVT positively contribute to the aesthetics of design

- Vinyl has replicated authentic visuals, such as stone, wood grains, ceramic to a near flawless faux, further enhanced by textured surfaces. In addition, LVT is able to create flooring from nearly any image, enhancing the matrix of overall design.
- Sheet Vinyl, is flexible and comes in a variety of colors and patterns. It is flexible and can be heat welded allowing for greater design options.
- Flexibility through design combinations. Products can be offered at the same mechanical heights enabling water-jet cutting, the combination of different vinyl products, for room transitions, custom designs such as in children's wards and eldercare facilities, etc.
- Superior aesthetic performance and longevity

Vinyl and LVT positively contribute to the indoor environment

- Soft and warm underfoot, reducing leg and back fatigue increasing the comfort of the patient and caregiver
- Noise reduction: an important factor in the OR, patient rooms and surrounding areas
- Safety: Superior slip resistance
- Superior Air Quality: Very low VOC emission, requires less maintenance and gentler chemicals for cleaning.

Vinyl and LVT positively contribute to healthy and clean environments

- LVT and vinyl can incorporate anti-microbial and anti-bacterial technologies
- Easy to clean, resistant to stains
- Sheet vinyl can be flash coved for OR and rooms where complete sterility is required.

Vinyl and LVT positively contribute to the "bottom line"

- Relatively low cost of ownership
- Low maintenance costs, no stripping/waxing necessary = less maintenance supply expenditure and no floor downtime
- Faster installation times
- Durable and able to withstand high traffic, rolling equipment and resist indentation

- Wear layer promotes product performance over time
- UV stability adds to color retention
- Low lifecycle costs = increased value

Vinyl and LVT positively contribute to the environment

- Many vinyl floors are constructed using post-consumer recycled materials
- Vinyl flooring is 100% recyclable
- Vinyl flooring can be made with pre or post recycled material*

** Vinyl flooring can also be made with virgin vinyl. This addresses concerns a 1973 report linking vinyl flooring and PVC ingredient to health risks. It should be noted that when manufactured in a responsible way in factories that are ISO 9001 and ISO 14001 certified, vinyl is a safe choice in healthcare use.*

5 SUMMARY

LVT and Vinyl flooring continue to flourish in healthcare environments, simultaneously meeting the needs and desires of the healthcare design industry.

Contact:

Adore Floors

Director of Marketing: Mollie Tichy

5 Dubon Court

Farmingdale, NY 11735

Tel. 631-843-0900 x121

E. mollie@adorefloors.com