

Finishes, Furniture and Equipment

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Klitgord Building

The building's program will focus on the three following masses:

- 1) Atrium space
- 2) Gymnasium/Auditorium Space.
- 3) Academic Lab Building

ATRIUM

ENTRANCE

One of the most important areas in every space is its entrance, it establishes a first impression that first time visitors will associate with that space. The entrance also serves as a threshold that creates a transition between the exterior and interior of a building. The entrance also prepares occupants for any visual stimuli in which they may part take onwards.

The best way to achieve this is, aside from careful design and planning is through the use of selective materials, finishes and equipment that are not only appealing but also durable and functional.

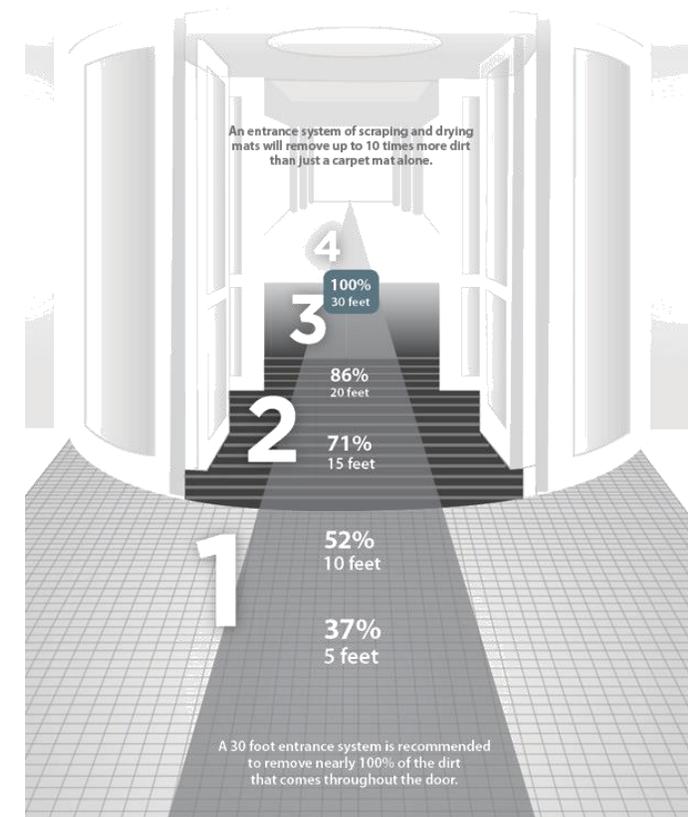


ATRIUM SYSTEMS

The best entrance performance can be achieved with a customized, three-part walk off system which provides effective walk-off performance from the exterior of a building (Zone 1), through the vestibule (Zone 2) and into the lobby (Zone 3).

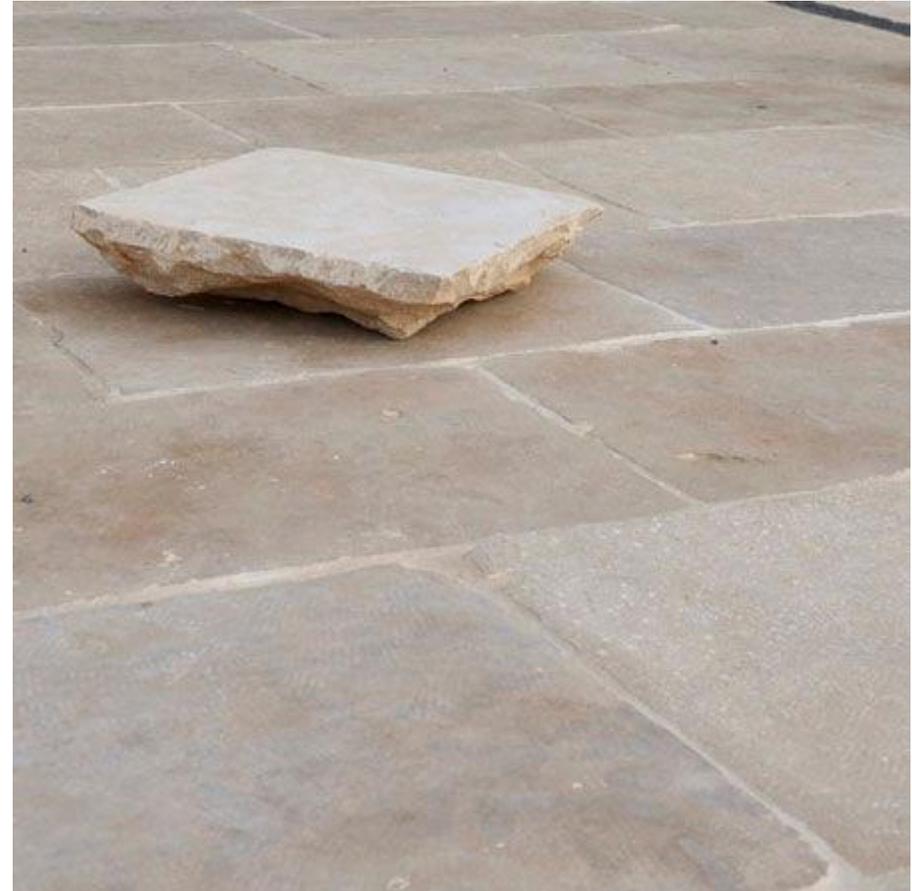
LEED Certification

An effective entrance system will help contribute to LEED IEQ Credit 5. One of the requirements necessary to achieve this credit is to employ permanent entryway systems that are at least 10 feet long in the primary direction of travel to capture dirt and particulates entering the building at regularly used exterior entrances. Acceptable systems include permanently installed grates, grilles and slotted systems that allow for cleaning underneath. The intent of this credit is to minimize building occupant exposure to potentially hazardous particulates and chemical pollutants.



ATRIUM EXTERIOR

Since the entrance of a building is an area of heavy traffic, the flooring must be made of durable materials. Exterior flooring should have a coarse finish to provide an anti-slip surface. The transition of materials is important as they establish the separation between spaces. Considerations for easy maintenance should also be made.



ATRIUM VESTIBULE

Mats inc. offers many different systems, however the design track (top) and the grade mat (bottom) are among the most popular. All systems offer the ability to be maintained periodically.

The grade mat is a more popular choice because it offers a smoother more comfortable ground to step on and its strips of carpet traps more dirt at the entrance. Considerations should be made when these materials are repeatedly wetted by leakage or condensation as this leads mold and mildew growth in carpets and more importantly cause acute respiratory distress in many people.



ATRIUM LOBBY

The most common materials for turnstiles include stainless steel, aluminum and glass.

Turnstiles: Besides being used for security purposes, turnstiles can be used to improve the flow of traffic during rush hours.

By knowing students programs and assigning floor bound elevators to students upon check in, a more efficient way of travel can be reached.



ATRIUM

OPEN SPACE

Light originates from windows and electrical lighting fixtures and is propagated by successive reflections off the interior surfaces of the building. Lighter colored material raise interior level of illumination. Patterns and textures of interior finish materials are important in bringing the building down to a scale of interest.

The strategic use of high ceilings, transparency, reflective surfaces and light colors can maximize day lighting potential and views to the exterior.

Spaces designed with exposed structures and without ceilings save materials



Drexel University

ATRIUM

OPEN SPACE

Vegetation as a finishes material

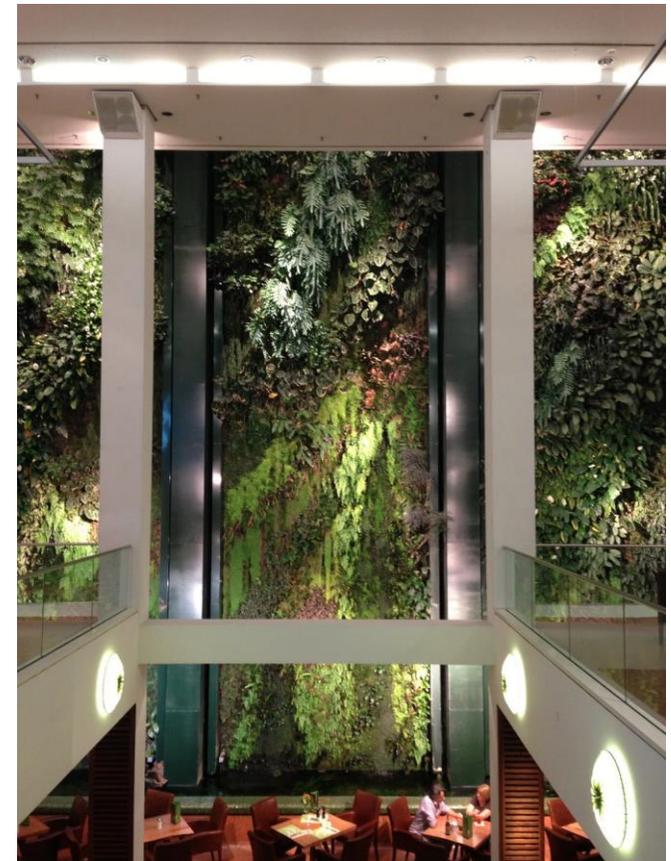
Improving air quality: Air conditioning is used to circulate air, but no fresh air is brought in from outside.

Reducing sickness: Research has shown that plants can help to reduce Sick Building Syndrome.

Increasing productivity: Both men and women were more productive in plant-filled offices, demonstrating more innovative thinking, and coming up with more ideas and original solutions.

Regulating temperature: Plants release moisture to create a humidity level that perfectly matches the recommended levels of 30% to 60%.

Improving aesthetics: Plants can help to create a more aesthetically pleasing space for students and visitors.



"Dussmann the Culture Department Store"

ATRIUM OPEN SPACE

Translucent Concrete

A concrete based building material with light-transmissive properties due to embedded light optical elements - usually Optical fibers. Light is conducted through the stone from one end to the other. Therefore the fibers have to go through the whole object. This results into a certain light pattern on the other surface, depending on the fiber structure. Shadows cast onto one side appear as silhouettes through the material .



Lab Building

An academic Laboratory building will contain the following spaces:

- Research Laboratories
- Teaching Laboratories
- Standard Classroom with movable seating
- Lecture halls with fixed seating

Each type requires different *furniture, finishes and equipment.*

Finishes

Epoxy resin considered to be best choices, is composed of epoxy, silica, hardener and other filler materials. Besides the fact that its considered to be the best the reason why Epoxy countertops are so popular is because of its resistance to Heat, moisture and bacteria.



Stainless Steel a more expensive choice is common in a environment where the use of chemicals and heavy physical abuse would take place. But thanks to its superiority to moisture and chemicals makes it another popular choice.

Finishes continued

Another common choice you might see in a lab is a Phenolic resin finish. Its composed with multiple layers of craft paper and Phenolic resin. Although similar in appearance to the epoxy finish, phenolic finishes don't have the amount of resistance when it comes Handling extreme heat.



Plastic Laminated not as expensive as Epoxy and phenolic resin, more budget friendly but with less resistance to Heat physical impact.

Finishes continued

In Labs Its Common that you'll find many Different types of Equipment.

Fume Hoods are enclosures (usually cupboards or cabinets) that are shielded from 5 sides to prevent over exposure to Fumes Vapors and ducks that can be harmful if inhaled. They also prevent spillage of chemicals and protect the environment around the area as well.



Equipment continued

Another important piece of equipment that you'll usually find in a lab is an emergency eye wash/ or Emergency Showers. These are used when body parts are exposed to hazardous chemicals and need to be treated immediately.



Finishes continued

There are also many other Safety equipment's that you'll find a lab to Ensure Safety

Fire Blankets

Goggles

Fire Extinguisher

First Aid kits



Research Laboratory's

There are Different ways to set up Research labs and depending on what the main use of the lab will be different equipment or spaces will be available.



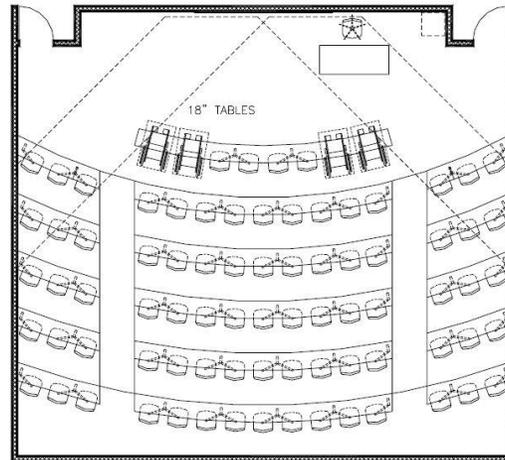
Teachings Laboratory's

These Differ from research laboratory because the intended space will most likely compensate for Many more people and much more equipment. Such as computer's, projectors, Microscopes, Scales etc.



Classrooms And Lecture Halls

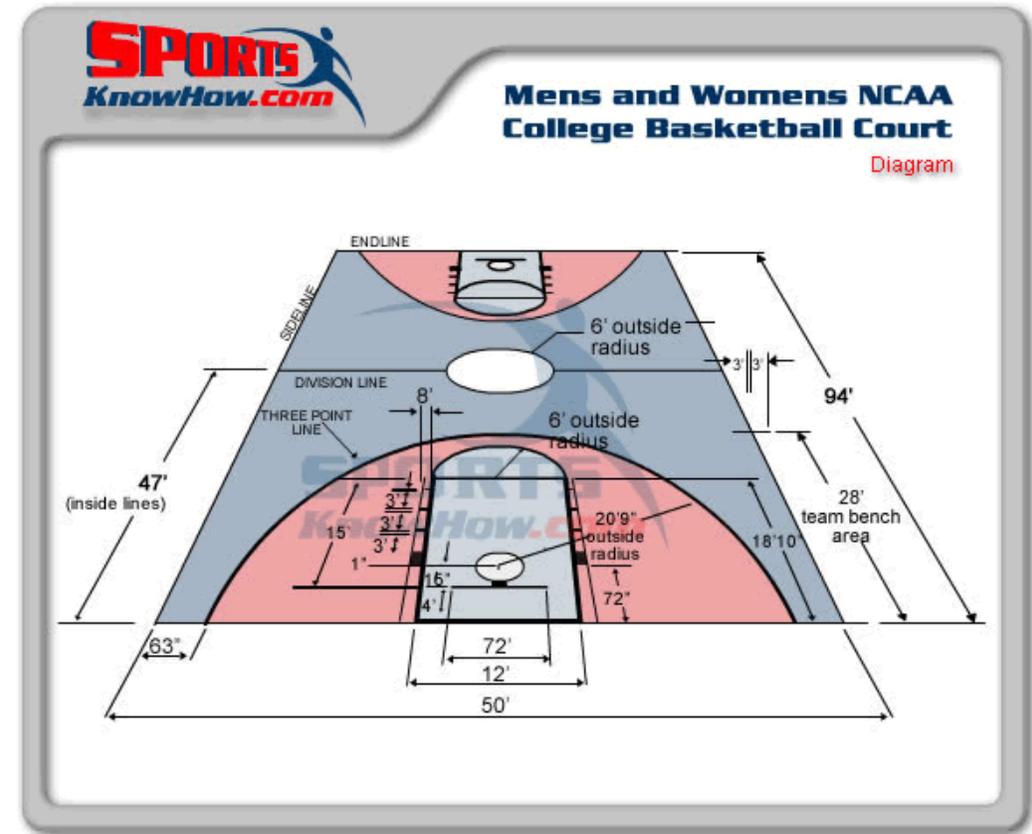
Classrooms and Lecture halls often have Different Furniture. While Classrooms may have movable Seats and chairs and tables, lecture halls usually tend to have Fixed seating.



Gymnasium

NCAA Basketball Court Size

Area	
Length	94ft
Width	50ft
Rim height	10ft
Restricted arc radius	3ft
Center circle diameter	12ft
3 point distance from basket	20.75ft
Key width	12ft
Free throw line	15ft



Gymnasium

Purpose of Wall Pad

The primary purpose of wall padding is to provide a safe level of absorption for an individual making impact with an established object. Often these objects are walls (hence “wall padding”), but also these pads commonly protect bleachers, stage fronts, I-Beams, goal posts, columns, and fences.



Gymnasium continued

Wall Pad Standard Sizes

Typical indoor wall panels are 24” wide x 72” high. In recent history however many newly constructed schools and universities have made a push for 84” high padding in their basketball facilities, where athletes are often elevated in motion. In grappling and wrestling facilities pads are regularly 60” since most movement occurs on the ground.



Gymnasium continued

Wall Finishes

Composition

Standard quality indoor wall panel will begin with a 7/16” OSB (oriented strand board) backer. To that, a layer of foam will be laminated. For indoor panels the standard thickness of foam is 2”, but which type 2” foam is laminated to the backer is the most important part of the pad (see foam). After these steps have been completed a 16 oz. vinyl cover is stapled over the face and onto the back of the pad.

Foam

Foam used in manufacturing wall padding is typically a polyurethane based foam, but can vary based on a specification written, or simply customer preference.

Gymnasium continued

Gym Bleachers

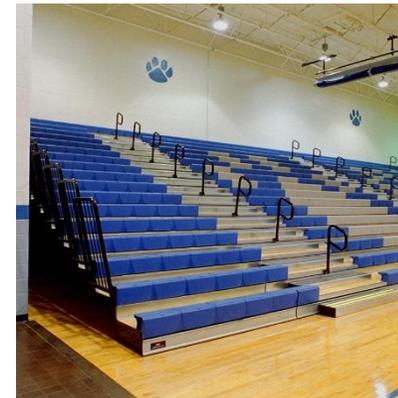
The retractable platform is a proven, reliable and safe System that is quick and efficient to operate at the touch of a Button.

Types:

Fixed -Wall and floor attached.

Recessed-Recessed into wall space.

Mobile -Mobile units for fully flexible positioning.



Gymnasium continued

Uses of floor space

- Sports Halls
- Arenas
- Multi-purpose venues

Features

- Automatic, row to row, safety locking.
- Row to row, parallel and vertical, column interlock.
- 125mm diameter x 40mm wide wheels as standard.
- Galvanized finish to front and rear beam



Gymnasium continued

Standard Dimensions

Row Rise-9.6", 11.6", 16"

Row Depth-22", 24", 26"

Row spacing of 22", 24", 26", 31", 32" and 33"

Row rises of 10", 12", 14" and 16"

System is available from rows of 3 up to 30

System length as required

Available with manual or power operation



Gymnasium continued

Gym flooring material

Beech and maple are the most popular types for Indoor use

- Attractive
- Versatile
- High level of bounce and resilience
- Expensive
- Hard to maintain – susceptible to scratching, dirt, and moisture



Gymnasium continued

Wood Finishes

Epoxy resin

- Thick, high-gloss, and transparent. Some formulations can cloud or yellow with UV exposure High level of protection
- Flexible and durable
- Safe when cured
- Easy pour-on application for flat surfaces, difficult to apply evenly on more complicated shapes
- Cleanable with acetone when liquid. Irreversible once cured
- Flexibility makes sanding difficult but possible



Gymnasium continued

Celling height

Minimum clearance of 25 feet (7.7m), although it is recommended a 27 feet ceiling height (8.3m).

