

#### **Technological University Dublin** ARROW@TU Dublin

Students Learning with Communities: All of these projects were undertaken in collaboration with community partners and supervised by academic staff members

DIT Access and Civic Engagement Office

2015

#### Universal Design Project St. Michael's House 1.

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Universal design is to cater for a wide range of people. These designs could be for products and spaces so it is not limited to specific users. Universal Design has stemmed out from Accessible Design that applies the needs for people with disabilities. Everyone can benefit from Universal Design. It is a user friendly and functional process for everyone. It caters for people with conceptual, cognitive and physical (dis)abilities. Universal Design can be applied to any product/ building, public or private, public transportation and urban planning.



- 1. Equitable Use: Design is functional for all users regardless of their mobility
- 2. Flexibility in Use: Practical for a wide range of users
- 3. Simple and Intuitive Use: Easy design that a user that may have language difficulties, poor concentration levels or little knowledge can understand
- **4.** Perceptible Information: Easy communication between the design and the user
- 5. Tolerance for Error: Minimum hazards for unintended accidents
- **6.** Low Physical Effort: Easy design that doesn't use up too much energy
- 7. Size and Space for Approach and Use: Appropriate height and space for all users regardless of their mobility, height etc.







## THE PERCEPTION

#### **Dementia and Vision problems**

- 1. Difficulty re-adjusting one's spatial orientation when moving around.
- 2. High-stepping over carpet rods or shadows, thinking they signify a change of level (depth) difficulty problem solving visual illusion effects
- 3. Resisting walking on shiny flooring because it looks wet or slippery
- 4. Walking on the darkest patterns (or shadows) of flooring to try to avoid falling
- 5. Difficulty in positioning oneself accurately to sit down in a chair, on the bed, on the toilet
- 6. Inability to find objects or places because of a lack of colour contrast

#### **Categories of visual mistakes**

**Illusions-** a 'distortion of reality' resulting from some physical property or characteristic of the image. This may result from a particular characteristic of the object, such as its surface being shiny or it being the same colour as the wall behind. An example might be seeing a face in a paterned curtain.

**Misperceptions** – what the person sees is a 'best guess' at the inaccurate or distorted information the brain has received from the eyes. This is usually the result of damage to the visual system due to diseases such as glaucoma.







#### CLIENT BACK-

According to www.smh.ie, St Michael's House was founded by a woman whose son had down syndrome. She wished to change how people with intellectual disabilities were seen within society. So she posted an ad in the local newspaper in 1955 asking for anyone interested to contact her so as to set up an 'Association for parents of mentally backward children'.

State-Funded Michael's is an organisation which developed new community services for many like patr cias' son. They cater to both children and adults providing 1,663 people with intellectual disabilities and their families around the Gda and navan co. meath with their service. St Michaels is one of Ireland' largest providers of these community-based services and have lead their development within the country for 57 years.







#### PROJECT OVERVIEW

This project is to help the people of St Michael's house renovate their canteen/dining area and their patio to make it all look more welcoming and habitable. We have faced many problems and our job was to fix them all.

The aim of the project is to create a perceptually beneficial area with block colour, which will easily distinguish objects for users. Modular and multifuntional funiture will be incorporated for a dynamic use of the room. This should result in more diverse social situations. This project will entail brinign colour, calmness and positivity to the environment in order to keep mood levels up and encourage users to be social or engage in activities. The proposal will create a wide s election of low budget items and solutions the organisation can choose from to benefit their environment.

#### Obstacles:

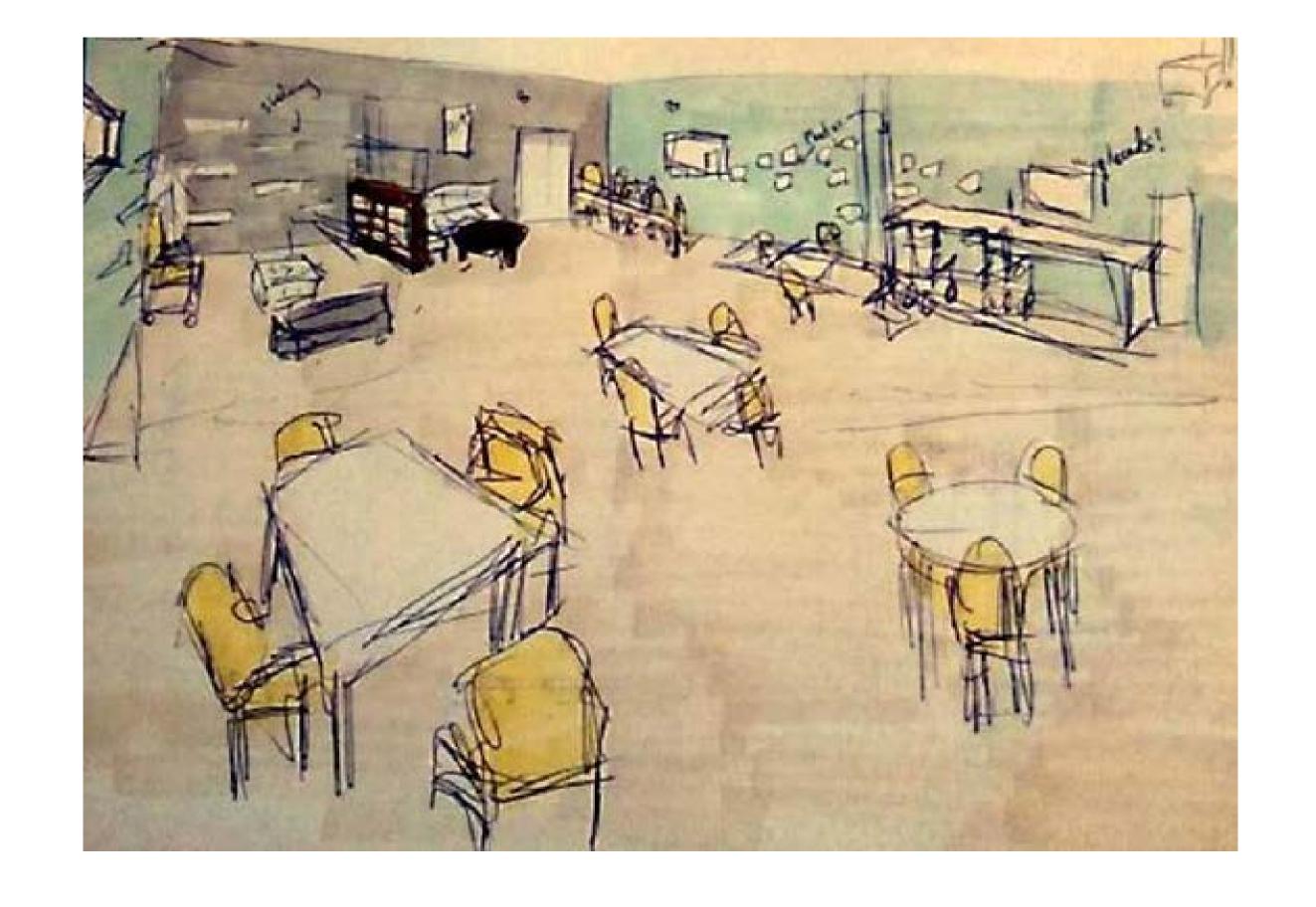
- Redesigning the layout to improve the life of the occupants without overwhelming them.
- Keeping their daily routines in mind and imporving it without hindering their habits or favourite leisure activities.
- Considering users who may not like change.
- Keeping within a low budget while seeking quite unique furniture for such a space and our clients needs.



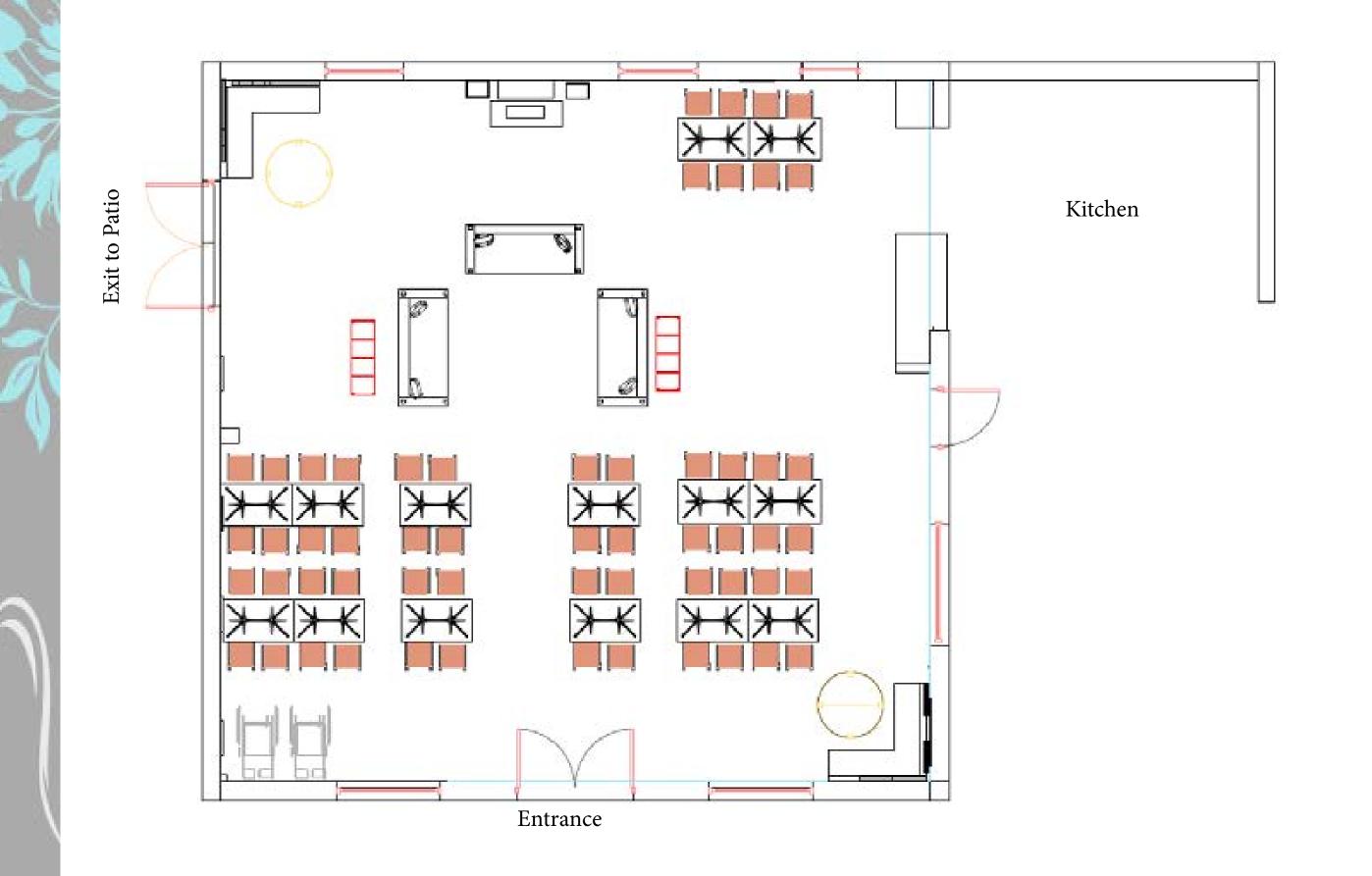
#### Problems:

- -The interior space was dull ad the colour scheme was reminiscent of a hospitals canteen.
- -There are no varying spaces for different types of group activities or individual leisure.
- -their current furniture is not multifuntional, which restricts them.
- -Noise levels can be stressful in the space, there isn't much implemented to absorb sound.
- There are no quiet areas for conversing or resting.
- -The table cloths are patteren, which does not promote ease of discernment.
- -The floor varies in colour, which can be distracting and hinder perspicity.

# PROPOSED SKETCHES CANTEEN/DINING AREA



#### PROPOSED FLOOR PLAN

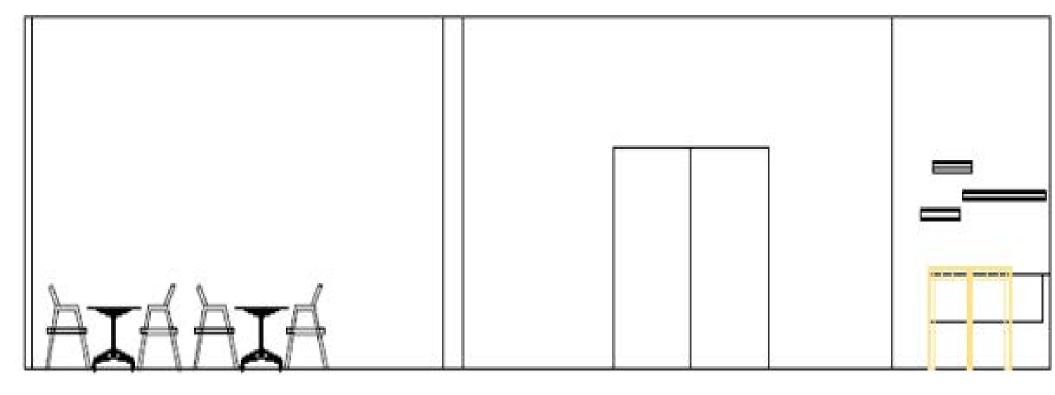


#### PROPOSED ELEVATIONS



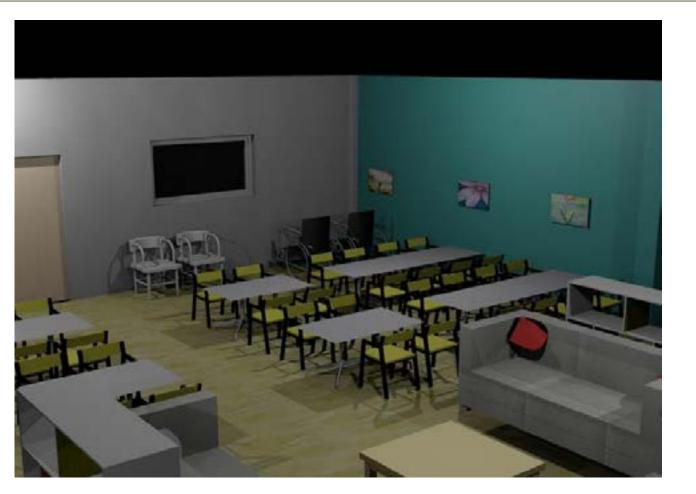
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# NORTH ELEVATION



SOUTH ELEVATION

## 3D RENDERED VIEWS OF CANTEEN









# PHOTOGRAPHIC SURVEY PATIO

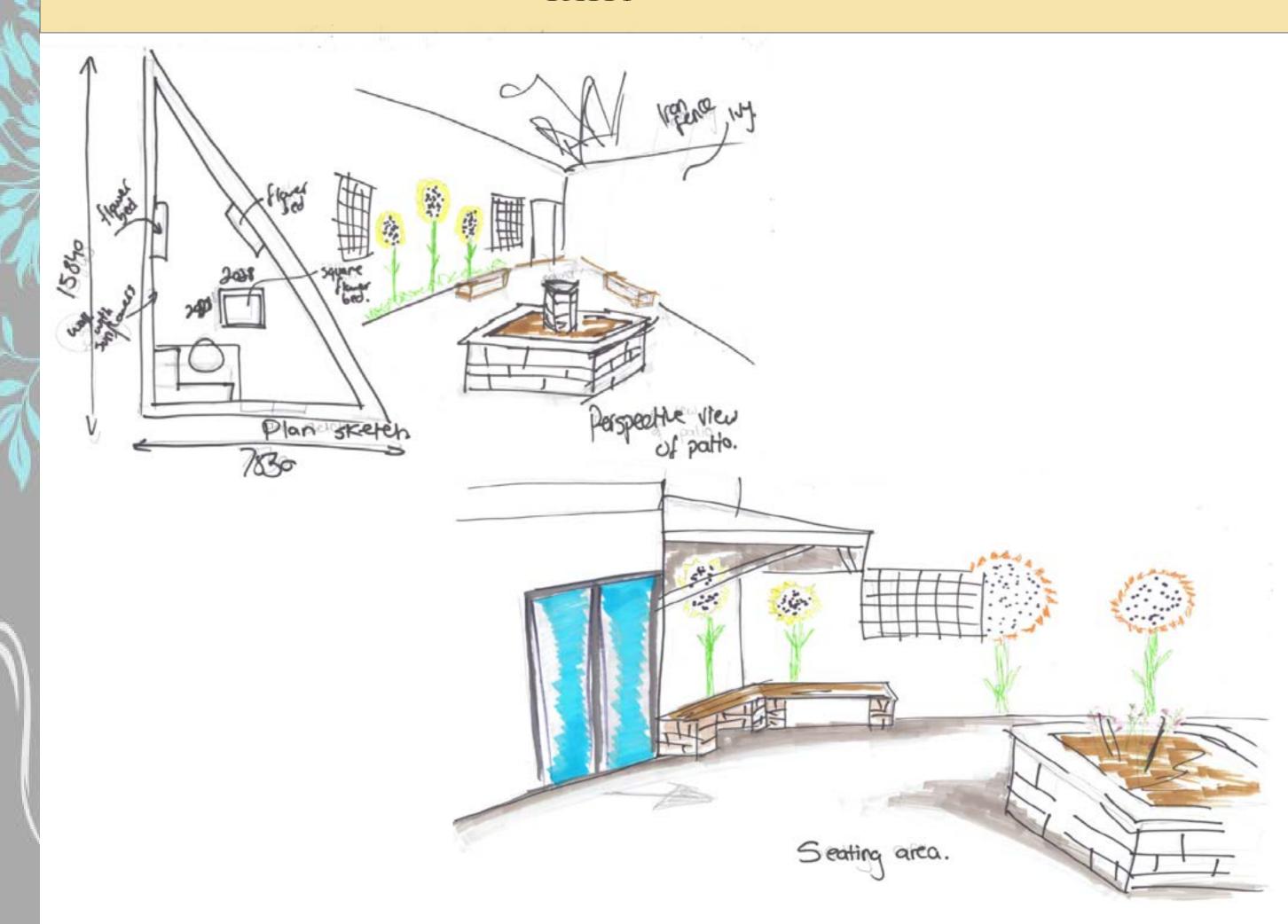




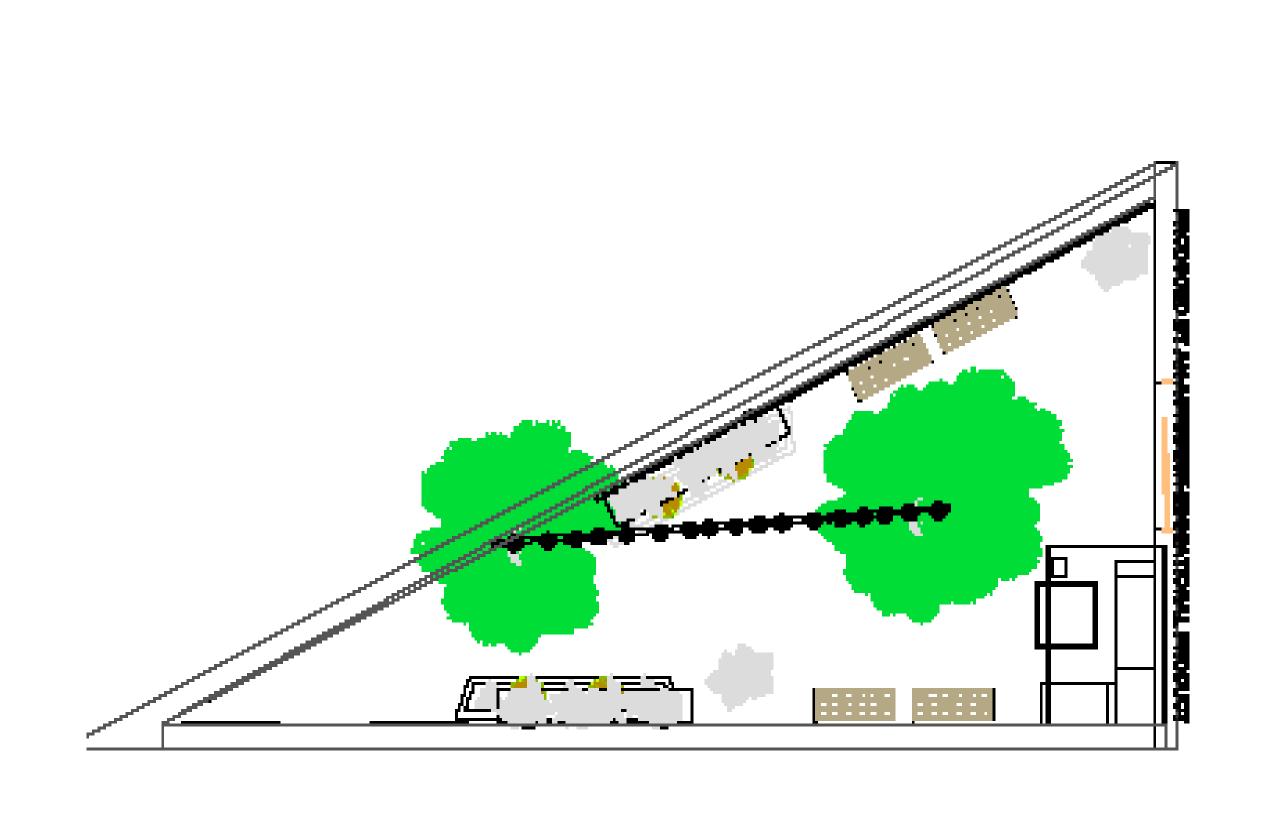




# SURVEY SKETCHES PATIO



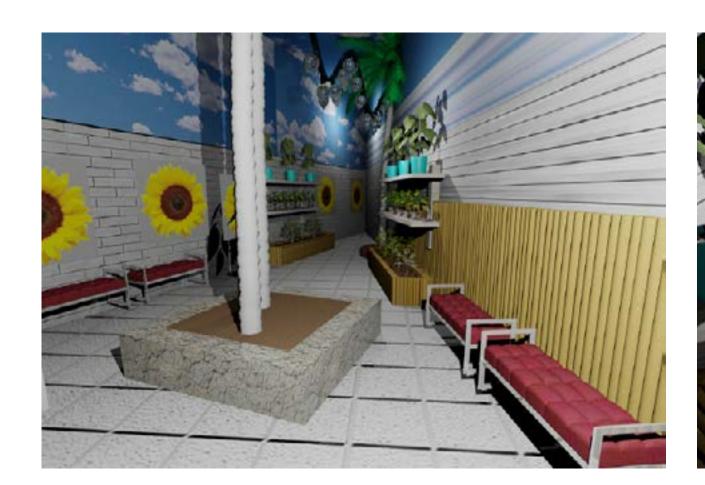
# PROPOSED FLOOR PLAN OF PATIO

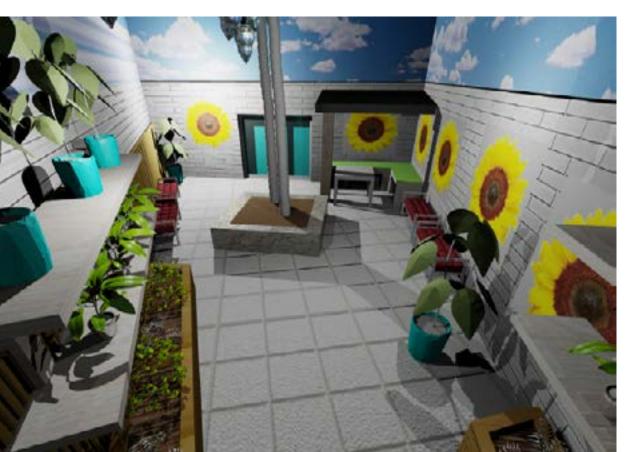


# 3D RENDERED VIEWS OF PATIO







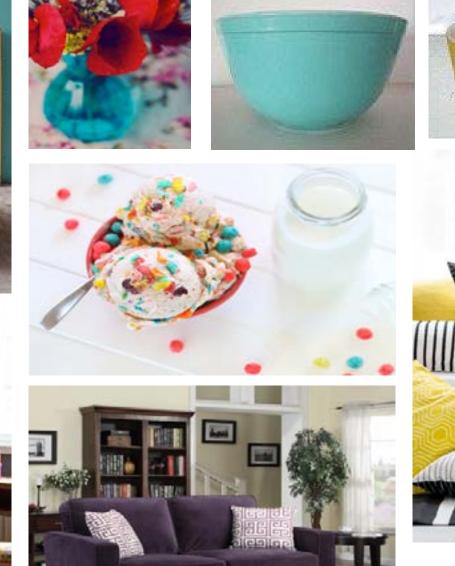


# MOOD BOARD





















# SAMPLE BOARD PATIO



# SPECIFICATIONS SHEET



HERCULES

Price:\$29.99

4less

Shop:stackchairs-

Hygena Merrick Storage Unit - Solid Pine with Oak Effect. €237.99

EverywhereOccasional Table

Shop: http://www.sit4life.

Price: \$459.00 (Free

Shipping)



sofa Link:ikea.com Price:€495.00

#### SPECIFICATIONS SHEET





Coffee table, white stain white € 130.00





