HEALING IN THE CITY

A blend of innovation and evidence-based design for a rooftop garden in Houston Methodist hospital

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Site Analysis

Site Location

Site Surroundings

SWOT Analysis

Strengths:
- Easy access
- Part Shade

Weakness:
- Heat island effect
- Need for privacy
- No sunken slab
- Planting limitations

Opportunities:
- Healing spaces
- View for floors above

Threats:
- Health hazards
- No exterior view
- Wind tunnel
- Reflection of sunlight from glass
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Mission Statement:
To propose a series of comfortable spaces always accessible in Houston Methodist Walter and Centennial tower rooftop gardens which would provide a healing environment by using evidence-based design strategies for faster recovery and wellbeing of patients, relief from stress, visitor and staff satisfaction, and promote a healthy lifestyle with innovative design and natural environment.

Healthy lifestyle promotion and education
- Outdoor physical therapy
- Interactive activities
- Horticulture therapy
- Positive distraction along walking pathways

Flexibility and sense of control
- Flexible furniture and interactive elements
- Multipurpose area for activities and events
- Flexible spaces

Welcoming and sense of arrival
- Aesthetical entry
- Wayfinding
- Inclusive and accessible
- Use of natural local materials at entrance

Active and useful 24X7
- Interactive light elements
- Native plants
- Comfortable microclimate
- Creating a robust calendar with activities

Emotional resilience and stress reduction for all users
- Mental refuge spaces and elements
- Positive distraction with art sculptures
- Sensory awakening
- Recreational spaces for caregivers, family members and visitors
- Sense of home for long-stay patients
Design Proposal

Healthy lifestyle promotion and education:
1. Horticulture therapy
2. Raised planter
3. Outdoor space to hold events
4. Canopied pathway (200 ft long)

Flexibility and sense of control:
5. Movable furniture
6. Temporary food & beverage kiosk
7. Social plaza with movable furniture
8. Variety of resting and sitting spaces

Welcoming and sense of arrival:
9. Welcome signage
10. Ramp
11. Steps
12. Entrance plaza
13. Flowy hardscape pattern

Active and useful 24X7:
14. Tensile shade structure
15. Blue polycarbonate shade structure
16. Lighting fixtures
17. Native plantation

Emotional resilience and stress reduction for all users:
18. Water feature with green wall
19. View garden
20. Isolation pods
21. Embracing dome
22. Berm with living walls
23. Wind sculpture
24. Color therapy with interactive art
25. Multifunctional event lawn
26. Hope canopy
27. Secondary staircase entry/exit
28. Maintenance storage
29. Maintenance area
Healthy lifestyle promotion and education, evidence-based benefits:

1. Horticulture therapy:
   - Reduces the risk factors for dementia
   - Improves brain activity such as memory and cognition
   - Reduces depression and promotes emotional growth

2. Benefits of Elevated Planter:
   - Allows people to stretch their arms
   - Gives privacy

3. Benefits of Sensory garden:
   - Stimulates the patient’s sense of texture
   - Relieves stress and pain through pleasant natural aromas
   - Reduces eye fatigue and gives motivation

4. Benefits of Pathways:
   - Allows patients to do physical therapy in natural environment

Sources:
Seasonal Variation

Trees

- Rhus lanceolata, Flameleaf Sumac
  - Maintenance: Medium
  - Light Needs: Partial to full

- Magnolia grandiflora, Southern Magnolia
  - Maintenance: Medium
  - Light Needs: Part shade

- Cercis canadensis, Eastern Redbud
  - Maintenance: Low
  - Light Needs: Part shade, shade

- Laurus nobilis, Sweet Bay
  - Maintenance: Medium
  - Light Needs: Partial to full

- Callicarpa americana, American Beautyberry
  - Maintenance: Low
  - Light Needs: Partial to full

- Sophora secundiflora, Texas Mountain Laurel

Seasonal color change
- Rhus lanceolata, Flameleaf Sumac
- Magnolia grandiflora, Southern Magnolia
- Cercis canadensis, Eastern Redbud
- Laurus nobilis, Sweet Bay
- Callicarpa americana, American Beautyberry
- Sophora secundiflora, Texas Mountain Laurel
Design Ideas

- Flexible furniture
- Isolation pods
- Embracing Dome
- Social Plaza