

Problem Definition & Introduction

The Lakeland neighborhood in College Park, Maryland, once a thriving African American community, experienced significant displacement during urban renewal in the 1970s, when over two-thirds of its homes were demolished and many families were unable to return. This disruption erased cultural landmarks and weakened community cohesion, with impacts still felt today. Our project responds by transforming a vacant lot into a sustainable, accessible park for memorialization, education, and community healing.

Design Priorities

- Promote community healing and cultural remembrance
- Integrate educational storytelling throughout the site
- Prioritize universal accessibility and inclusive designs
- Incorporate sustainable, low-maintenance landscape elements

68.8%

of respondents rank safety and lighting as a high priority

of respondents said they would most like to see memorial plaques or storytelling signs

71.9%

*Data from 32 responses

75.0%

of Lakeland residents believe accessibility for all ages and abilities is of utmost importance

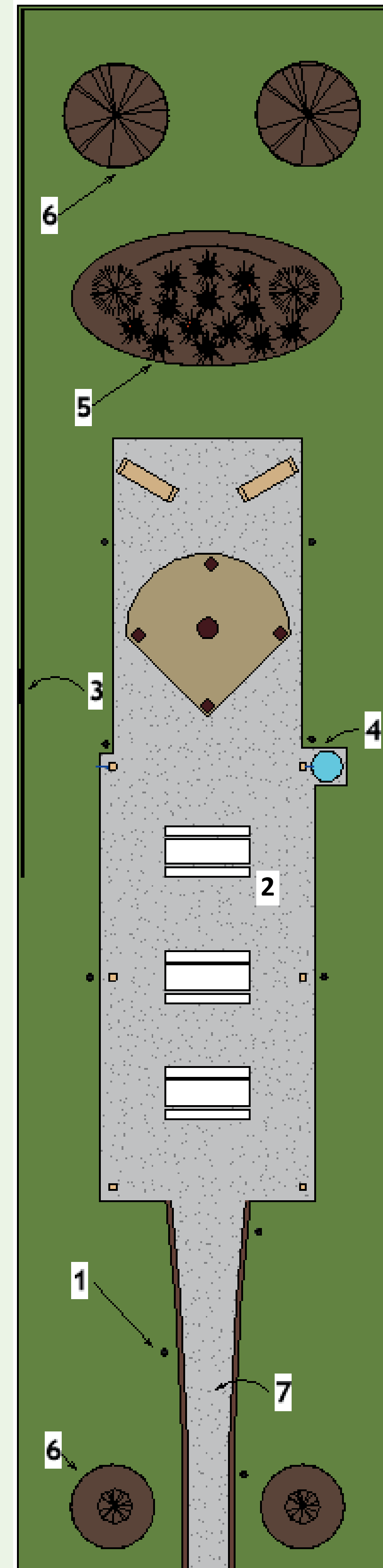


Figure 1: Site Plan

Final Design Elements

1. 250 lumen solar bollards that light entry pathways for safety
2. 3, 8-ft benches that can accommodate over 20 people, one being ADA accessible
3. Wood fence that covers 50% of site boundary to maintain privacy
4. Rain barrel to provide water for garden
5. Garden that includes 5 different types of native, low maintenance shrubs and plants
6. Ornamental and major shade trees
7. ADA accessible sidewalks and pathways throughout

Final Design Rendering



Structural Work

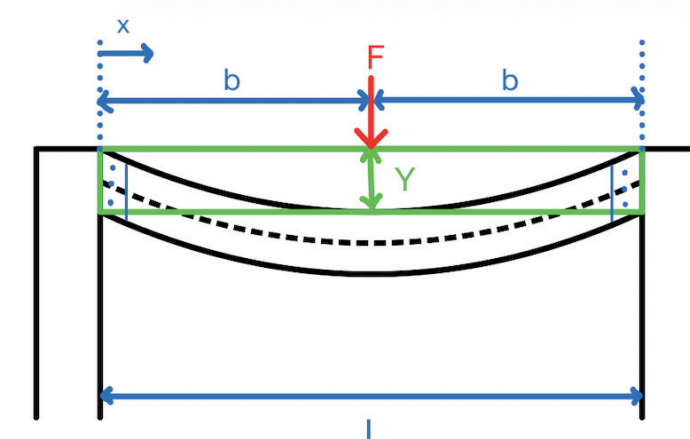
- Performed structural analysis on joists to ensure beams are properly supported
- Deflection analysis, showing that without proper support the beam deflects far beyond tolerance under the roof load

Max Allowable Deflection	$Y_{max} = L/240 = 0.9 \text{ in}$
Actual Deflection	$Y = \frac{-Fbx}{6LEI_z} (L^2 - x^2 - b^2) (12^3)$

$I_z \text{ (in}^4\text{)}$	111.15
$E \text{ (psi)}$	510000

System 1		System 2	
L (ft)	18	L (ft)	10
b (ft)	9	b (ft)	5
x (ft)	9	x (ft)	5
F (lb)	750	F (lb)	750
Y (in)	-2.7778	Y (in)	-0.4763

1



2

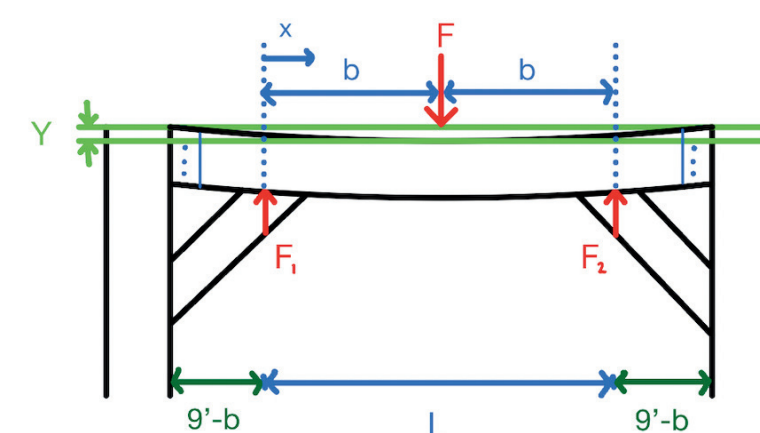


Figure 2: Deflection Analysis

Memorial Elements

- A. Stained-glass lotus in truss, the symbol of the Lakeland Community Heritage Project
- B. Lined brick entrance sidewalk with engraved names of important members, both past and present, of the Lakeland Community
- C. Baseball diamond patio paying homage to the 1950s Lakeland Baseball Team, the White Sox
- D. Mural wall in the garden celebrating the history of Lakeland

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