



DESIGN AS A CATALYST

*Using Universal Design to Create
Equitable Public Space*

Katy Kirkpatrick | Capstone Studio | Summer 2022
Instructors: Meg Rushing Coffee & Jim Pickel

TABLE OF CONTENTS

Introduction

Acknowledgments.....	1
Personal Statement.....	3
Project Statement.....	3
Project Justification.....	5-8

Background

Design Methodologies.....	9-10
Site Location.....	11-12
Site Selection.....	13-14
Existing Conditions.....	15-16
Users & Demographics.....	17-20
Case Studies.....	21-24

Analysis

Context.....	25-26
Adjacencies - Images.....	27-28
Site History.....	29-34
Site Military History.....	35-36
Existing Accessibility Issues.....	37-38
Preliminary Site Analysis.....	39-40
Site Analysis.....	41-42
Parcel Info.....	43
Zoning.....	44
Opportunities & Constraints.....	45-46
Site Sound.....	47
Grade & Stairs.....	48
Able-Bodied Pedestrian Circulation.....	49
Limited Mobility Pedestrian Circulation.....	50
Existing Tree Canopy.....	51
Site Use - Active vs. Passive.....	52
Existing Tree Canopy - Images.....	53-54
Problematic Surfaces.....	55
Adjacencies - Diagram.....	56
Solar.....	57-58

Design Process

Goals & Objectives.....	59-64
Design Metaphor.....	65
Early Concept Ideation.....	66-68
Concept Diagrams.....	69-76

Solutions

Illustrative Master Plan.....	77-78
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Large Interventions

Images of Existing Playground + Proposed Site.....	79-80
Inclusive Playground Enlargement.....	81-82
Inclusive Playground Sections	83-88
Inclusive Playground Perspective.....	89-90
Images of Existing Veterans Memorial.....	91-92
Images of Proposed Site - Veterans Memorial Garden.....	93-94
Veterans Memorial Garden Enlargement.....	95-96
Veterans Memorial Garden Perspective.....	97-98
Veterans Memorial Garden Sections.....	99-102
Veterans Memorial Garden Perspective-Reflection Pool...103-104	

Smaller Interventions

Community Garden Enlargement.....	105-106
Community Garden Perspective.....	107-108
Main Entry Enlargement.....	109-110
Main Entry Sections.....	111-114
Main Entry Perspective.....	115-116
Southern Entry Enlargement.....	117-118
Southern Entry Perspective.....	119-120

References

Sources.....	121-122
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Pamela Palmer, principal of Artecho Architecture and
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Lastly, my amazing wife, Maria. There are no words to
describe her patience, support and encouragement.



For My Dad:
1LT MARK A. KIRKPATRICK
US ARMY, AIRBORNE
JAN 20, 1945 - DEC 30, 2021

PERSONAL STATEMENT

I have had a lifelong interest in accessibility and mobility. In a previous life I was a prosthetist/orthotist, helping others regain lost mobility. I feel passionately about equitable access to all spaces, particularly public space. I believe it is as a civil rights issue.

In November 2020 I became seriously ill and became a wheelchair user. This firsthand experience forever changed my perspective on the difference between access and inclusion. Entrances, facilities and equipment used exclusively by those with differences are often difficult to access, attract unwanted attention and can be otherizing. I want to use the principles of universal design to create a space where all can not only access its amenities but enjoy them in the same way. This kind of exposure to others with different abilities and life experiences is what builds communities and creates understanding.

During my illness I was welcomed by a warm and supportive disabled community. This is a community of incredible people facing mammoth obstacles daily, but who find the time to support each other and fight for a better world. They taught me to find strength in small places and joy everywhere else. It was humbling and inspiring and I'm grateful for the experience.

Through nothing short of a miracle, I healed significantly and suddenly and am now out of my wheelchair. But I will carry the lessons of that year and a half with me as long as I live and I hope that I can turn that difficult experience into positive change for a world that desperately needs it.

PROJECT STATEMENT

This project aims to redesign an existing 17-acre recreational public park that was initially designed for able-bodied users without cognitive differences.

This redesign aims to create an open and active space that can be accessed and enjoyed by users of all physical and cognitive abilities. The removal of physical access obstacles and the use of multi-sensory wayfinding elements create a community space that can be equitably used and enjoyed.

“ INCLUSION
ELEVATES
ALL.”

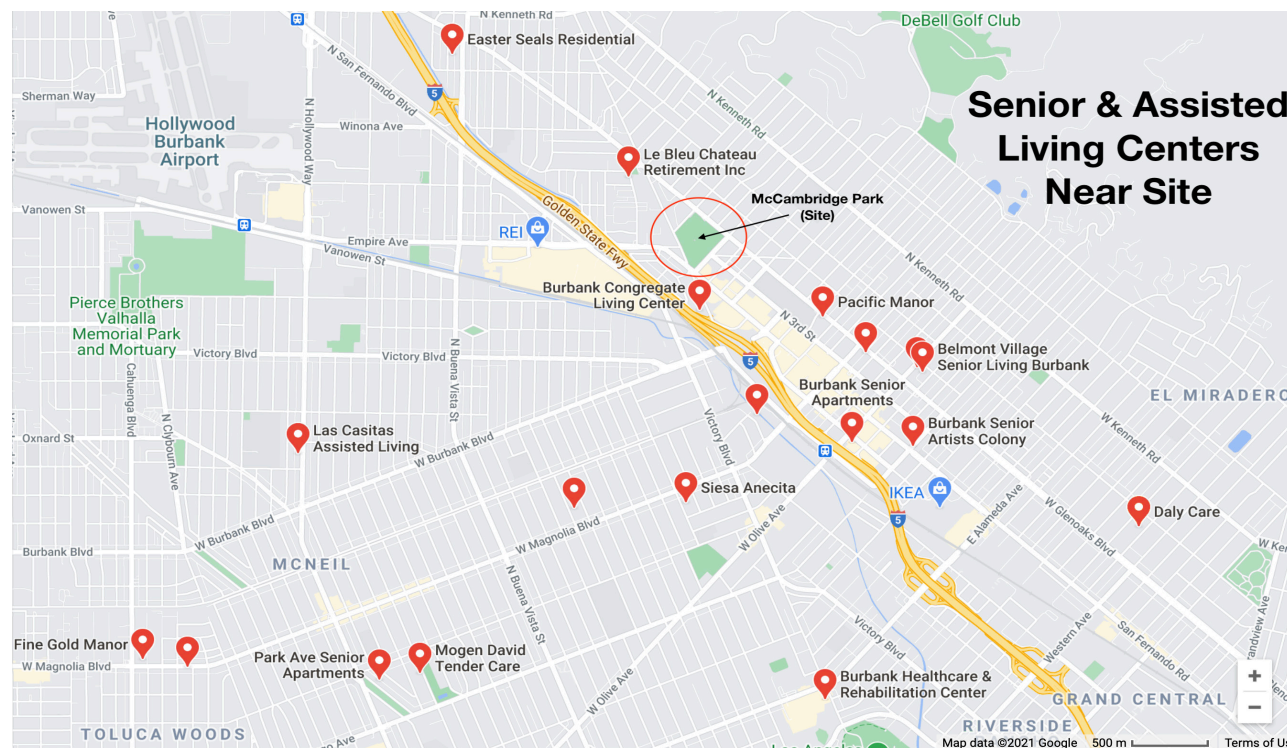
ELAINE HALL

PROJECT JUSTIFICATION

Why This Project?

There is a large, yet often **neglected population**, that could greatly benefit from greater access to many activities in public spaces. Locally, **18.8% of adults** in the San Fernando Valley can be classified as “disabled”. This amounts to 266,000 individuals (<http://publichealth.lacounty.gov/wwwfiles/ph/hae/ha/Disability02.pdf>) While the City of Los Angeles has a population of over 25,000 children ages 0-17 who have what can be classified as a “major disability” (one or more serious difficulties in hearing, vision, cognitive ability, ambulatory ability, self-care, or independent living). Source: U.S. Census Bureau, American Community Survey, Jan. 2020 The area surrounding the site also has a large senior population, and those in later life cycle often use spaces differently.

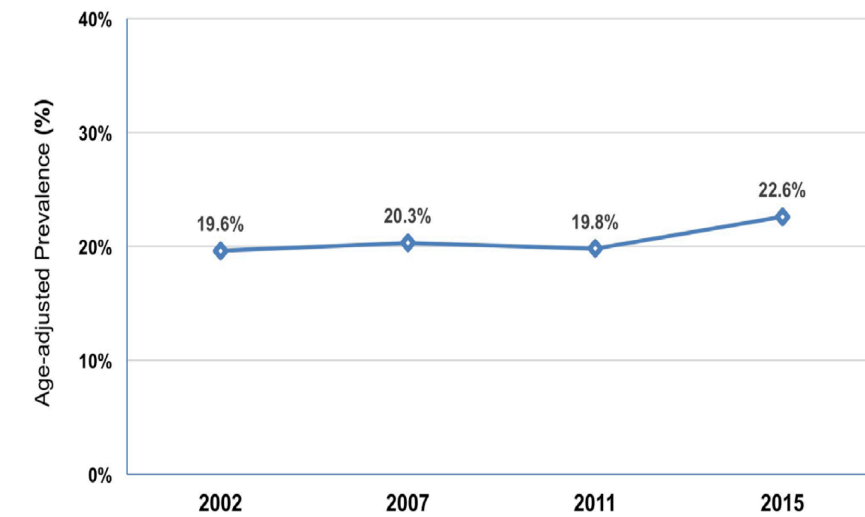
Inclusive spaces are often dismissed as merely for “the disabled”. However, when public spaces fail to acknowledge humans’ natural **multimodal perceptions**, all users suffer. Designing a space that implements all senses is a more holistic, **immersive experience**. This approach is often called **phenomenology** and has been described as “promot[ing] the integration of sensory perception as a function of a built form.” For those with all senses intact the experience is enhanced and for those with deficits in any areas, the space provides guidance and enjoyment through other sensory pathways.



Sources:
 'Senior & Assisted Living Centers Near Site' <https://www.google.com/maps/search/senior+living+near+McCambridge+Park/@34.1897281,-118.322225,15z/data=!3m1!4b1>
 'Adult Disability in Los Angeles County' <http://publichealth.lacounty.gov/wwwfiles/ph/hae/ha/Disability02.pdf>
 'Disability Among Adults in Los Angeles County' http://publichealth.lacounty.gov/ha/docs/2015LACHS/LA_Health_Briefs_2019/LA_HEALTH_DISABILITY_FINAL_PRINTED_19.pdf
 'Children with Major Disabilities' (mapped in GIS) <https://www.census.gov/data/tables/2010/demo/disability/p70-131.html>
 'Multi-Modal Perception' <https://nobaproject.com/modules/multi-modal-perception>
 'Architecture and the Senses' <https://medium.com/@holos.design/architecture-and-the-senses-35b7dc1c0a82>
 'Senses of Place: Architectural Design for the Multisensory Mind' <https://cognitiveresearchjournal.springeropen.com/articles/10.1186/s41235-020-00243-4>
 'Theory of Phenomenology: Analyzing Substance, Application, and Influence' <https://cte.ku.edu/sites/cte.drupal.ku.edu/files/docs/portfolios/kraus/essay2.pdf>

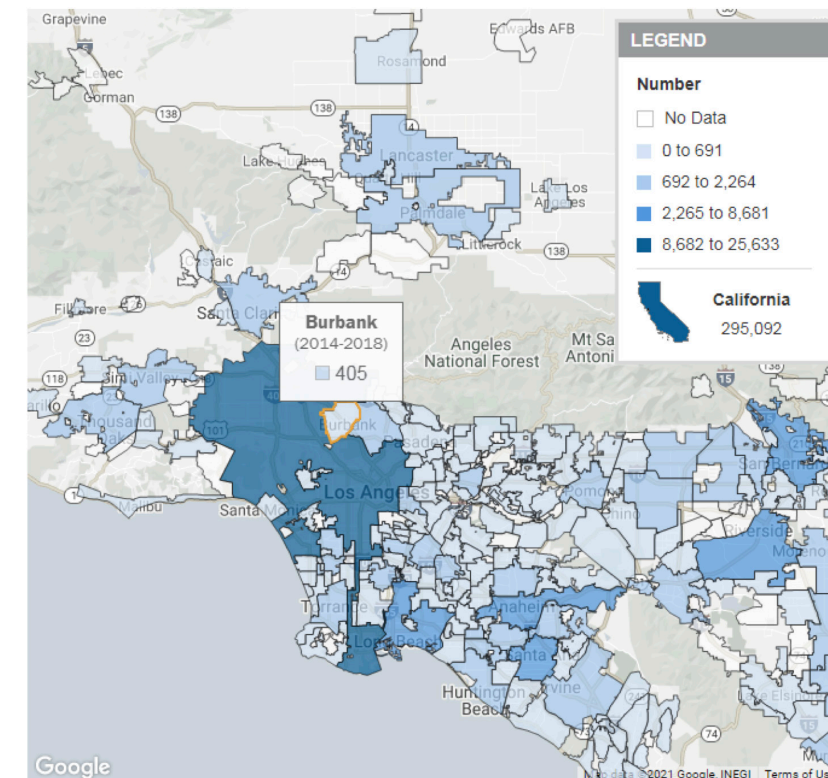
While the area is fortunate to have inclusive playgrounds in nearby cities, it lacks a fully inclusive park for all ages and abilities. Burbank is centrally located within the San Fernando Valley and the site boasts 3 metro stops and close freeway access.

Trend in Prevalence of Adults with Disability, 2002 - 2015

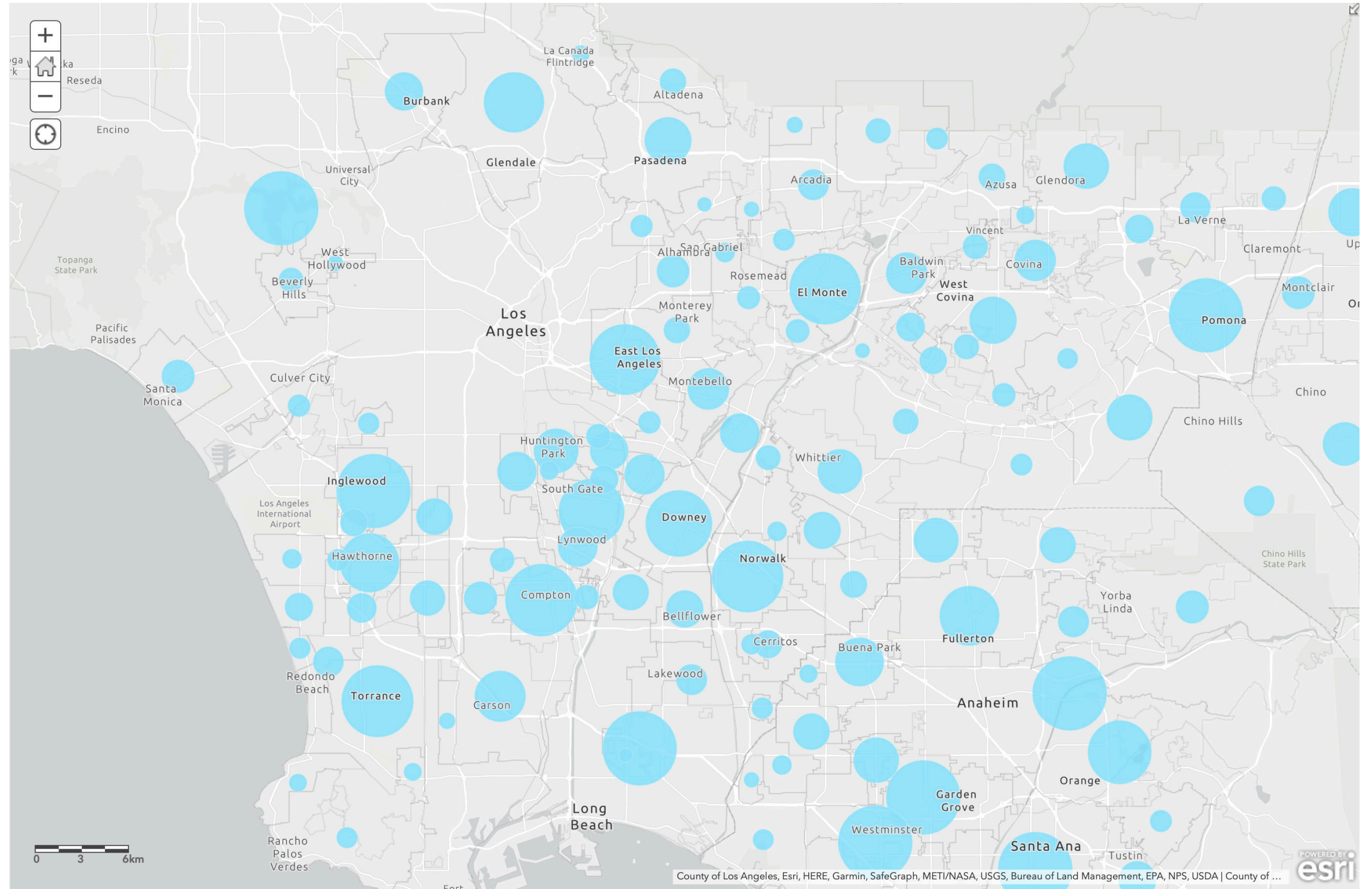
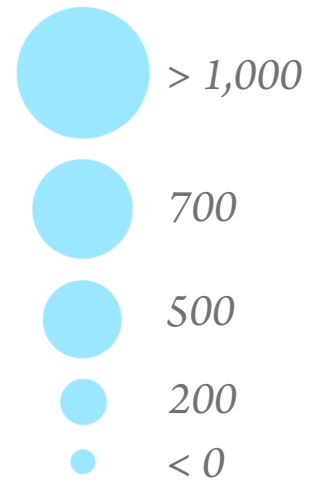


Data Source: Los Angeles County Health Survey, 2002-2015.
 Age-adjusted prevalence among adults (18+ years old)

Children with Major Disabilities
 (Regions of 10,000 Residents or More)



CHILDREN WITH MAJOR DISABILITIES



Sources:
 'Children with Major Disabilities' (mapped in GIS) <https://www.census.gov/data/tables/2010/demo/disability/p70-131.html>

DESIGN METHODOLOGIES

Universal Design Principles

This is the big idea of my site and will be the greatest guide in concept. The 7 principles are outlined below:

Principle 1: Equitable Use

Principle 2: Flexibility in Use

Principle 3: Simple and Intuitive Use

Principle 4: Perceptible Information

Principle 5: Tolerance for Error

Principle 6: Low Physical Effort

Principle 7: Size and Space for Approach and Use

Inclusive Playground Principles

I've found a wealth of sources on this topic but those below offer the best guidelines I've found. My aim is to create inclusivity at every level of a play experience not simply the installation of accessible equipment. The sources help guide in play patterns and design strategies to benefit as many children as possible

<https://www.asla.org/universalplaygrounds.aspx>

“Creating Outdoor Play Environments

To Support Social Interactions Of Children With Autism Spectrum Disorder; A Scoping Study”

<https://thecela.org/wp-content/uploads/CHRISTENSEN-ROMERO.pdf>

Sensory/Dementia Garden Principles

ASLA has an excellent resource for sensory gardens, pointing to the importance of tactility, contrast in texture, path layout, etc. I'm finding a lot of crossover in design for the visually impaired and for those with dementia and sensory issues

<https://thefield.asla.org/2016/10/25/sensory-gardens/>

Design For The Visually Impaired

“Landscape Architecture Planning Proposal for Visually Impaired in Cluj-Napoca”

<http://journals.usamvcluj.ro/index.php/promediu/article/viewFile/12521/10169>

ADA - Americans with Disabilities Act

It's important that I meet ADA standards at a minimum so this will be a good starting point for path width, wheelchair turning radius, ramp slope, guardrails, etc.

<https://www.ada.gov>

Post-Traumatic Stress Disorder (PTSD) in Combat Veterans

Combat veterans face unique challenges when reintroduced to society. The methodology consulted indicated my design needed to do the following to prevent triggers in those afflicted:

- Minimize visual stimuli & environmental complexity
- Minimize sudden loud noises
- Reduce cognitive load of the environment
- Create position of control
- Face towards openings
- Back towards secured area
- Minimize “fields of fire” (areas where gunfire could occur and rounds could potentially hit the user)
- Minimize threats from above

Several sources consulted but primary source for methodology:

‘*Posttraumatic Understanding: The Connections Between Posttraumatic Stress and Environmental Design*’ https://static1.squarespace.com/static/586cf7b2be659472709cd98a/t/59f8cc9310952631f619f90f/1509477523905/PosttraumaticUnderstanding_2014.pdf

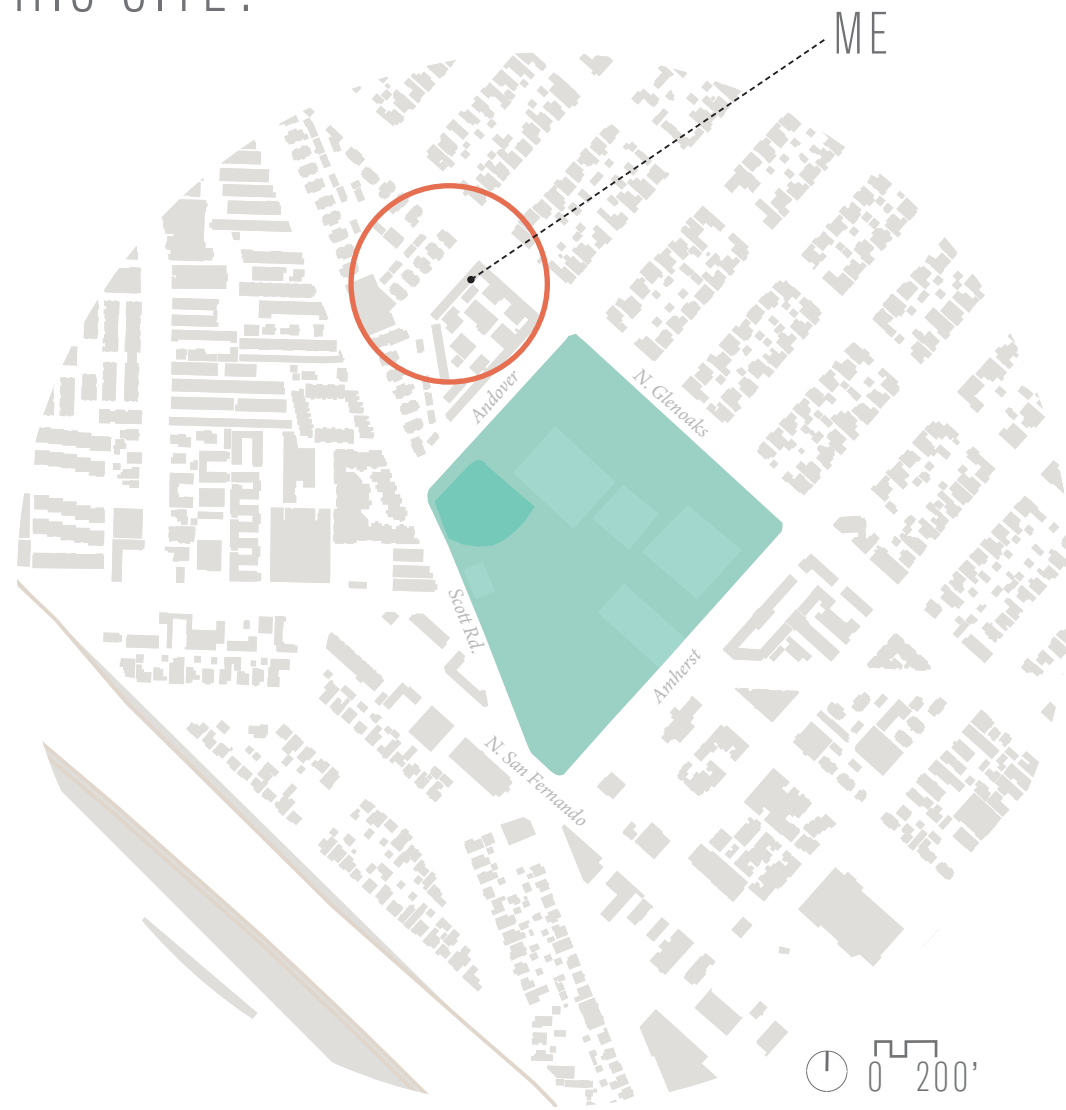
SITE LOCATION



McCambridge Park - Burbank, CA

0 200'

WHY THIS SITE?

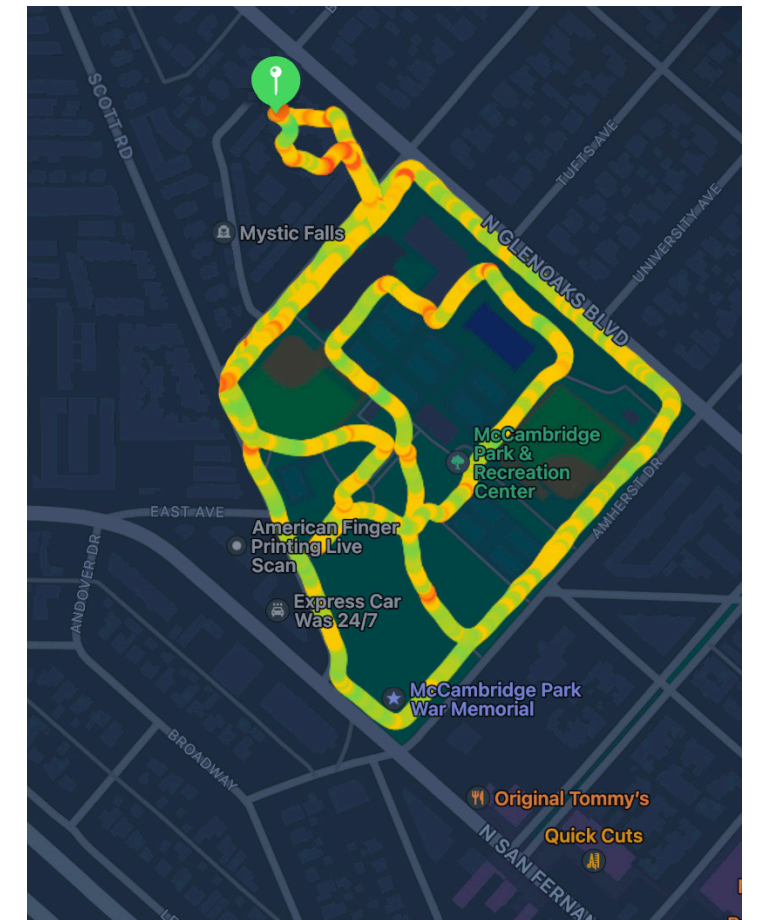


During a hospital stay - September 2021

- *Despite great precautions, I contracted Covid from my wife when she worked the election polls in November 2020, surrounded by many unmasked voters.*
- *What began as a mild illness progressed and became a severe case of Long Covid.*
- *I became a wheelchair user with intimate knowledge of this park's inaccessibility.*
- *I needed an accessible site to my home across the street due to wheelchair use and my inability to drive.*
- *My main goal while ill was to walk to the park. Happy ending -- I'm out of the wheelchair!*



Me & Scooter on my first walk to the park - Spring 2022



GPS data map from Apple Watch showing new ability to walk around and through park - Summer 2022

EXISTING CONDITIONS



Image Sources:
All photos by Katy Kirkpatrick

USERS

Population Focus

The crux of universal design is the creation of space that can be enjoyed equally by all users, regardless of physical or cognitive difference. Given that, focus has been placed on these users as they are the most likely and usability for these groups indicate usability for a high percentage of the general population.



People with Dementia



Combat Vets w/PTSD



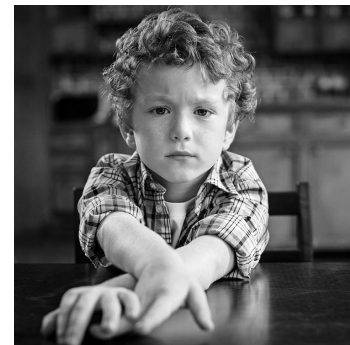
Mobility Issues*



Visually Impaired

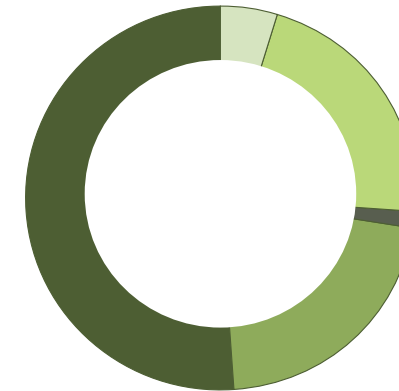


Adults & Children on Autism Spectrum



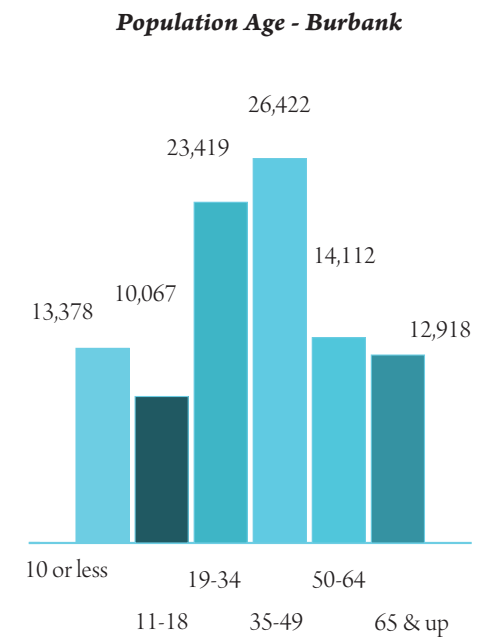
Cognitive Difference**

Burbank Population 100,316 (as of 2019)
17.34 square miles



Race & Ethnicity Percentage - Burbank

White	58.8
Latino	24.8
Asian	9.2
African American	1.6
Other	5.6



*percentage of residents 65 & older are among county's highest

- **147,000** Angelenos w/**Alzheimers**
- 10% overall among those 65+ & **50% of those 85+**
- 4.5 million sufferers in U.S. - **expected to double by 2030**

**due to congenital conditions and/or injury, age-related weakness. Wheelchair and walker users are in this group.
*due to dementia, congenital difference, head injury

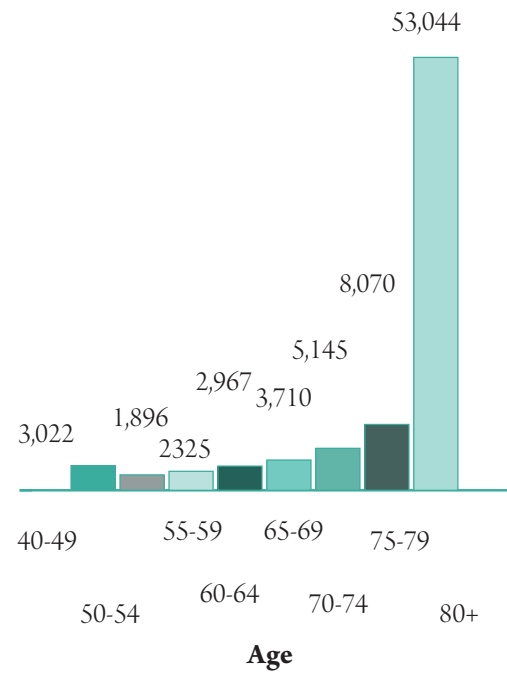
Image Sources:

'Don McCullin (b. 1935) 'Shell Shocked Marine', 1968' <http://www.sothebys.com/en/auctions/ecatalogue/2007/photographs-107431/lot.126.html>
'Dementia Treatment Options, Therapies, and Supportive Care' <https://www.aplaceformom.com/caregiver-resources/articles/dementia-treatment>
'The 30 Top Thinkers Under 30: Eddie Ndopu' <https://psmag.com/social-justice/the-30-top-thinkers-under-30-eddie-ndopu>
'Guide dog helping blind woman in park' https://stock.adobe.com/search/images?k=blind+person&asset_id=172295538&
'Little child drawing with colorful chalk on asphalt' <https://stock.adobe.com/search>

Sources:

'United States Census Bureau | Quick Facts: Burbank, California' <https://www.census.gov/quickfacts/fact/table/burbankcitycalifornia/PST045219>
'Census Reporter | San Fernando Valley CCD, Los Angeles County, CA' <https://censusreporter.org/profiles/06000US0603792785-san-fernando-valley-ccd-los-angeles-county-ca/>
'Mapping L.A. > San Fernando Valley Burbank' <http://maps.latimes.com/neighborhoods/neighborhood/burbank/>
'United States Census Bureau | American Community Survey' <https://www.census.gov/acs/www/about/why-we-ask-each-question/disability/>
'LA Health | Alzheimer's Disease: An Emerging Public Health Concern' http://www.publichealth.lacounty.gov/ha/reports/LAHealthBrief2007/Alzheimer's_Disease.pdf
'Disability Among Adults in Los Angeles County' http://www.publichealth.lacounty.gov/ha/docs/2015LACHS/LA_Health_Briefs_2019/La_health_disability_final_printed_19.Pdf

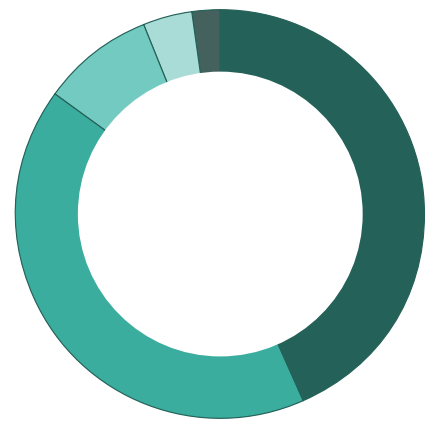
Estimated Number of Individuals with Low Vision by Age, in Los Angeles, County



87,960 Angelenos 40 & over have low vision

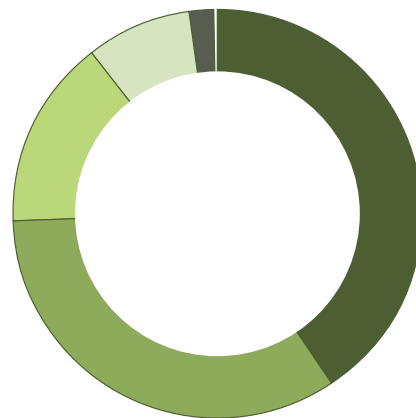
64,000 are legally blind

This number is **expected to increase 20% by 2030** to over 106,000 (due to aging Baby Boomers)



Language at Home, Children Ages 5-17 San Fernando Valley

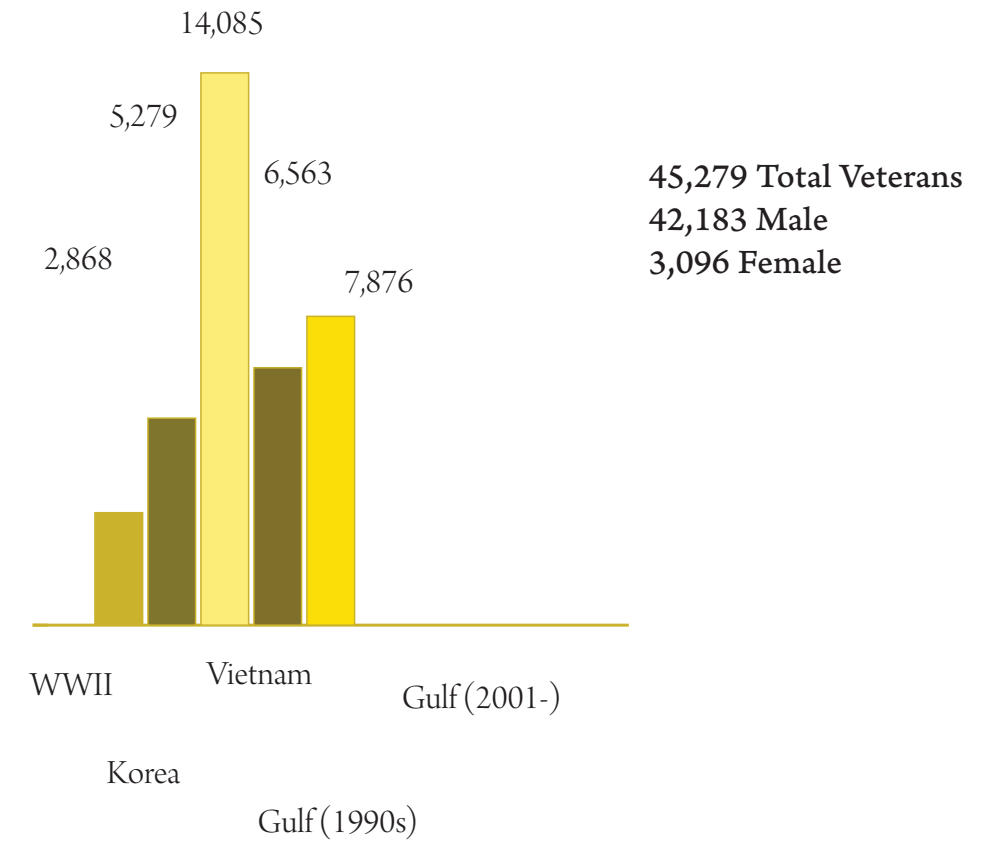
English Only	44
Spanish	42
Indo-European	9
Asian/Islander	4
Other	2



Language at Home, Adults 18+ San Fernando Valley

English Only	40.7
Spanish	34
Indo-European	15
Asian/Islander	8.4
Other	2

Veterans by Wartime Service - San Fernando Valley



National Combat PTSD Statistics

Operations Iraqi Freedom (OIF) and Enduring Freedom (OEF): **Approx. 11-20%** who served in OIF or OEF have PTSD in a given year.

Gulf War (Desert Storm): About **12% of Gulf War Veterans have PTSD** in a given year.

Vietnam War: About 15% of Vietnam Veterans were currently diagnosed with PTSD at the time of the most recent study in the late 1980s, the National Vietnam Veterans Readjustment Study (NVVRS). It is estimated that about **30% of Vietnam Veterans have had PTSD in their lifetime.**

Sources:
 'U.S. Dept of Veterans Affairs | National Center for PTSD: How Common is PTSD in Veterans?' https://www.ptsd.va.gov/understand/common/common_veterans.asp
 'Disability Among Adults in Los Angeles County' http://www.publichealth.lacounty.gov/ha/docs/2015LACHS/LA_Health_Briefs_2019/La_health_disability_final_printed_19.Pdf
 'Mapping L.A. > San Fernando Valley Burbank' <http://maps.latimes.com/neighborhoods/neighborhood/burbank/>
 'United States Census Bureau | American Community Survey' <https://www.census.gov/acs/www/about/why-we-ask-each-question/disability/>
 'Low Vision and Blindness Among Adults in Los Angeles County' <http://publichealth.lacounty.gov/aging/docs/LowVisionBrief.pdf>

Sources:
 'U.S. Dept of Veterans Affairs | National Center for PTSD: How Common is PTSD in Veterans?' https://www.ptsd.va.gov/understand/common/common_veterans.asp

PRECEDENT 1

Can Morral- Abrera, Barcelona, Spain

Javier Zaldívar – Landscape Architect;
Dolors Feu – Agricultural Engineer & Landscape Architect
10,350 sq m
2009



- Uses earthen berms for mitigation of noise from nearby busy road and visual screening
- Berms also address rainwater infiltration using porous surface of turf
- Drainage conduits at base of berms channel surface water to gravel-filled infiltration channels
- Use of berms applies directly to goals at McCambridge Park and sculptural treatment creates interesting geometry on site

Sources:
'Multifunctional Park in Abrera' <http://www.batlleiroig.com/en/landscape/noise-control-berm-in-abrera-barcelona/>



PRECEDENT 2

Elizabeth and Nona Evans Restorative Gardens Cleveland, Ohio

Dirtworks Landscape Architecture
12 acres
1998



- Reflects architecture firm's motto: "to provide opportunity for everyone to connect with nature on their own terms in their own way and at their own pace, regardless of their capabilities, a setting that expresses the restorative powers of nature."
- Consists of 3 gardens: the Contemplative Garden, the Horticultural Therapy Garden and the Demonstration/Exploration Garden
- Sensory stimulation heightened as people with range of abilities and health conditions work with and enjoy carefully selected plant materials with a choice of planter sizes and heights.
- Care was taken to offer seated visitors the same sensory experiences at eye and nose levels.
- Plants cascade over a wall and grow in niches and are deliberately designed to encourage exercise and the development of motor skills while visitors explore.
- Water is an important therapeutic element

Sources:
'Elizabeth and Nona Evans Restorative Garden' <https://universaldesigncasesudies.org/outdoor-places/parks-gardens/elizabeth-and-nona-evans-restorative-garden>

PRECEDENT 3

Kids Together Playground - Cary, North Carolina

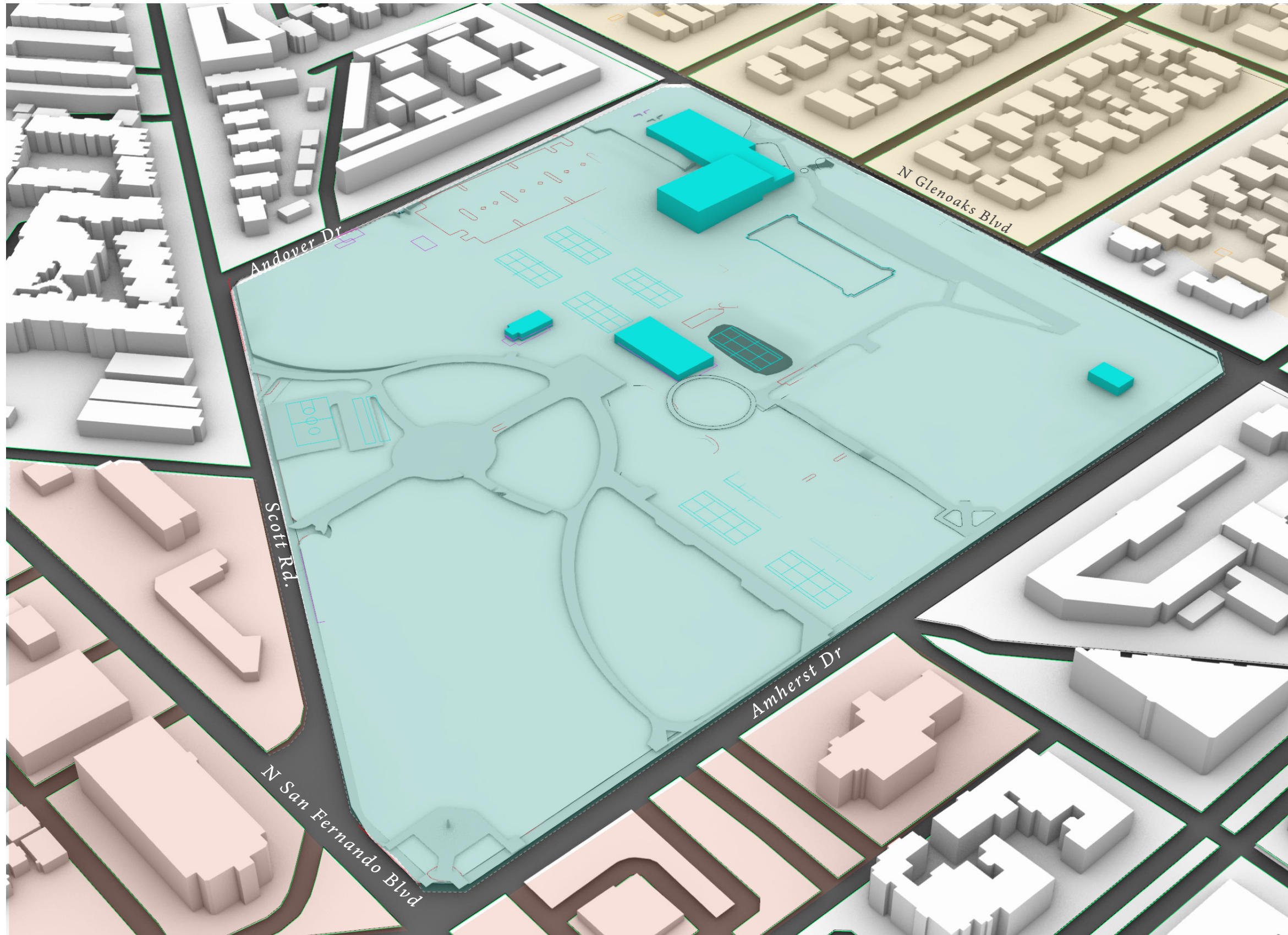
Little & Little Landscape Architecture
16 acres
2000



- 16-acre site with preschool and school-age playground
- Fully incorporates principles of universal design
- Used as research site in collaboration with Center for Universal Design at North Carolina State University at Raleigh
- Some specific examples of universal design on the site:
 - Entrance plaza includes simple, engraved granite map that provides clear points of reference that can be 'read' by finger-tracing, as well as visually.
 - Ten foot (10') wide walking paths afford easy movement throughout the park
 - A variety of swinging opportunities: accessible swings, (molded plastic swing seats) are interspersed with belt swings within a quiet, natural setting; a spring-based platform for multiple users; and toddler bucket swing seats.
 - A play structure accessible for wheelchair users via the inclusion of ramps and sloping surfaces.

Sources:
'Kids Together Playground' https://www.universaldesigncasesudies.org/outdoor-places/playgrounds/kids-together-playground#design_user

SITE CONTEXT

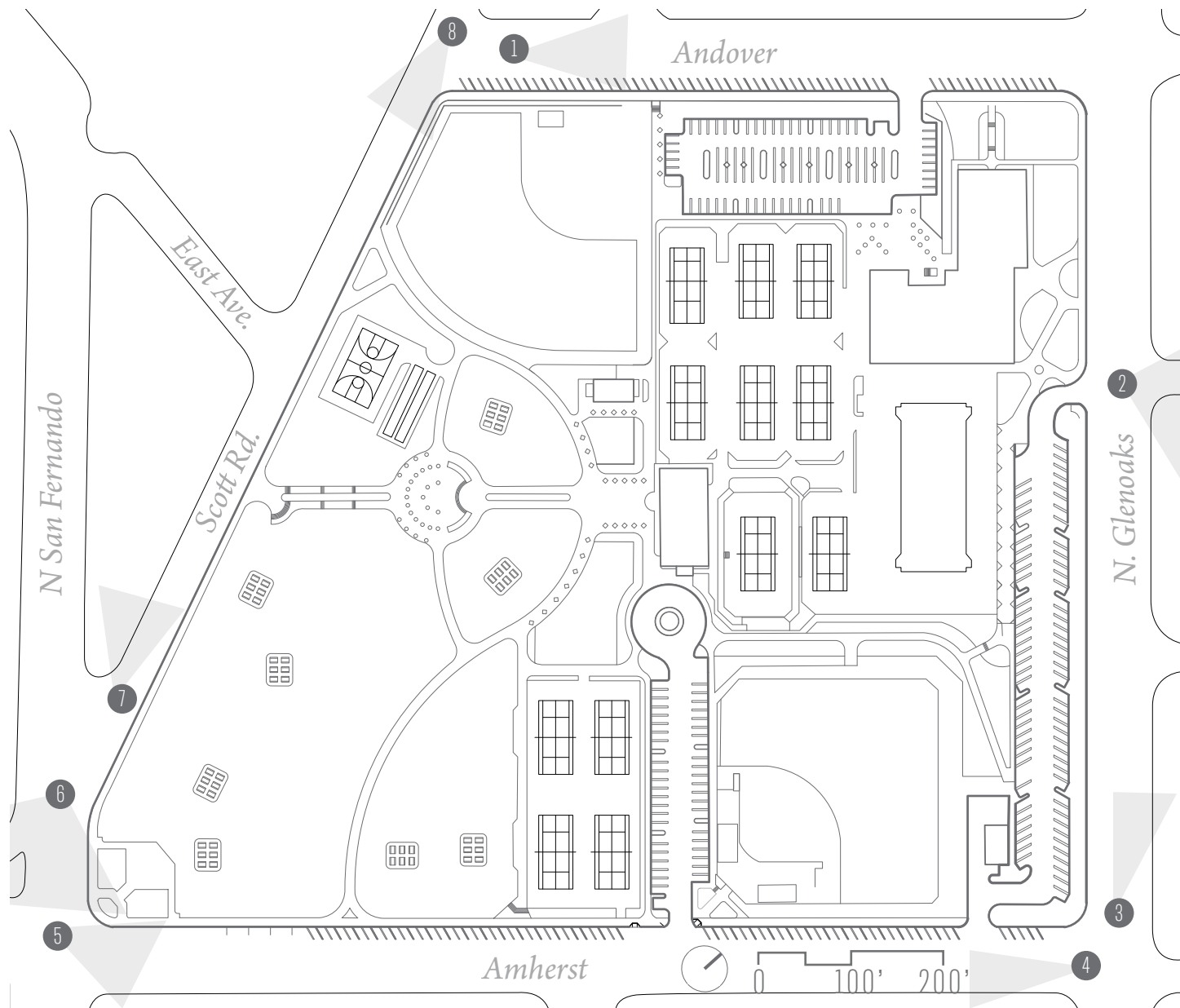


SITE CONTEXT

- Site
- Commercial
- Single-Family Residential
- Multi-Family Residential



ADJACENCIES



3 Looking NW at corner of N. Glenoaks & Amherst - Homes



4 Looking SW at corner of Glenoaks & Andover - Apartments



5 Looking NE at corner of San Fernando & Amherst - Comm



6 Looking SE on San Fernando - Comm. surrounds memorial



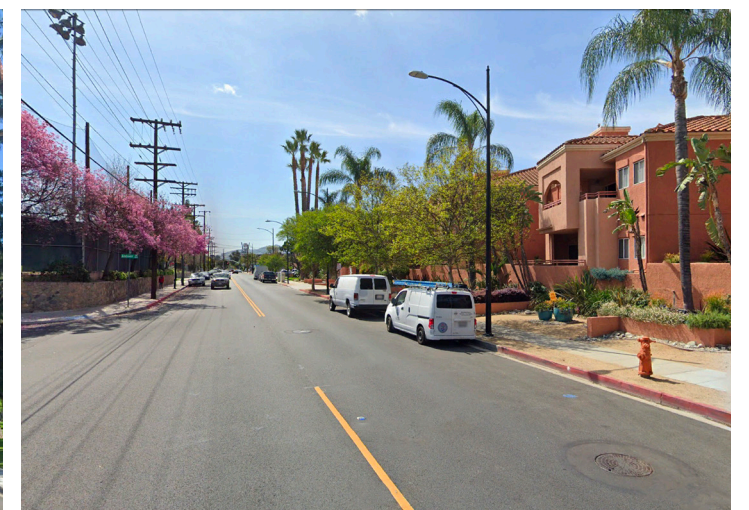
1 Looking NE on Andover - Apartments



2 Looking SE on N. Glenoaks - Single Family Homes



7 Looking North on Scott Rd. - Commercial

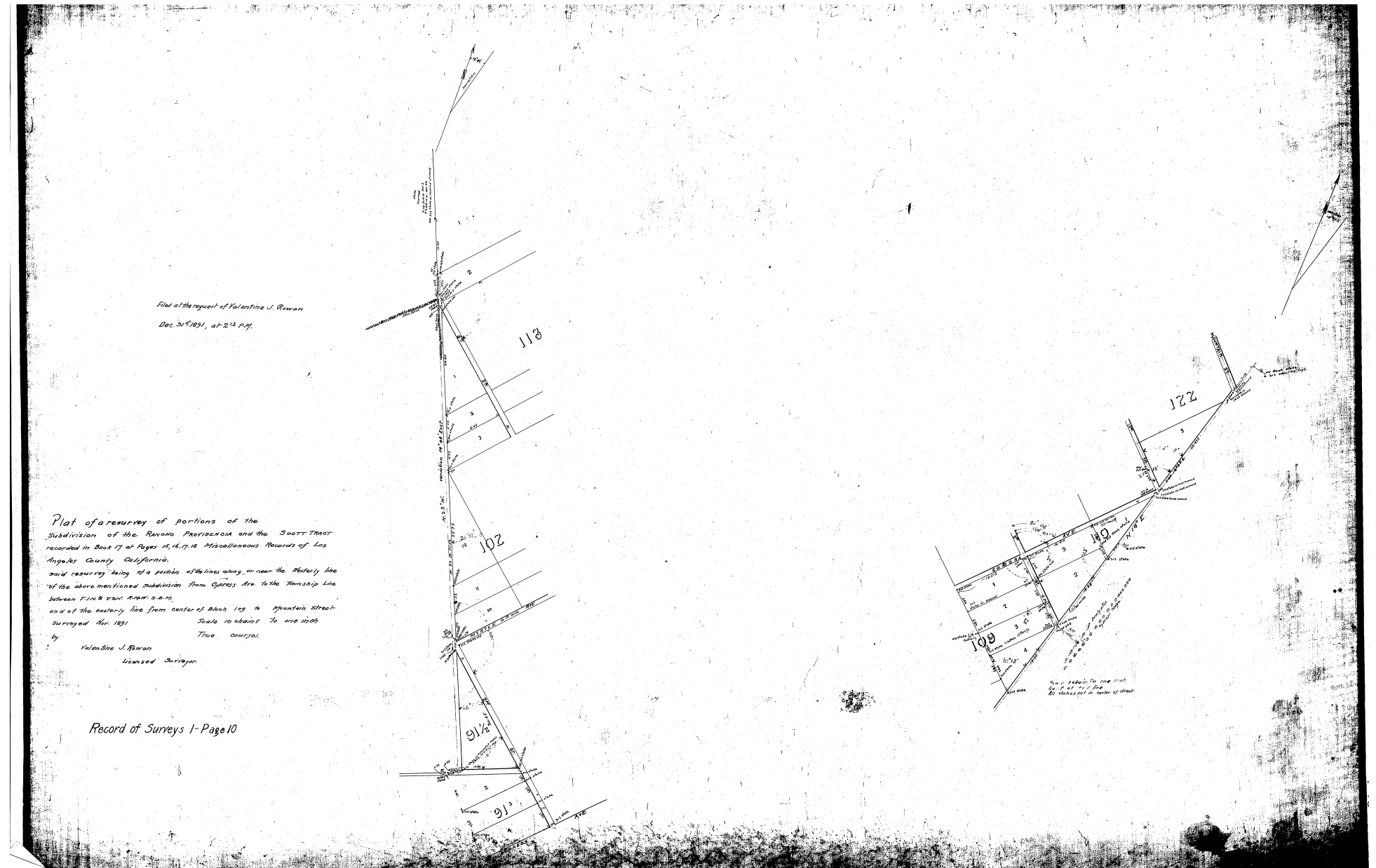


8 Looking S near corner of Andover & Scott Rd. - Apartments

SITE HISTORY



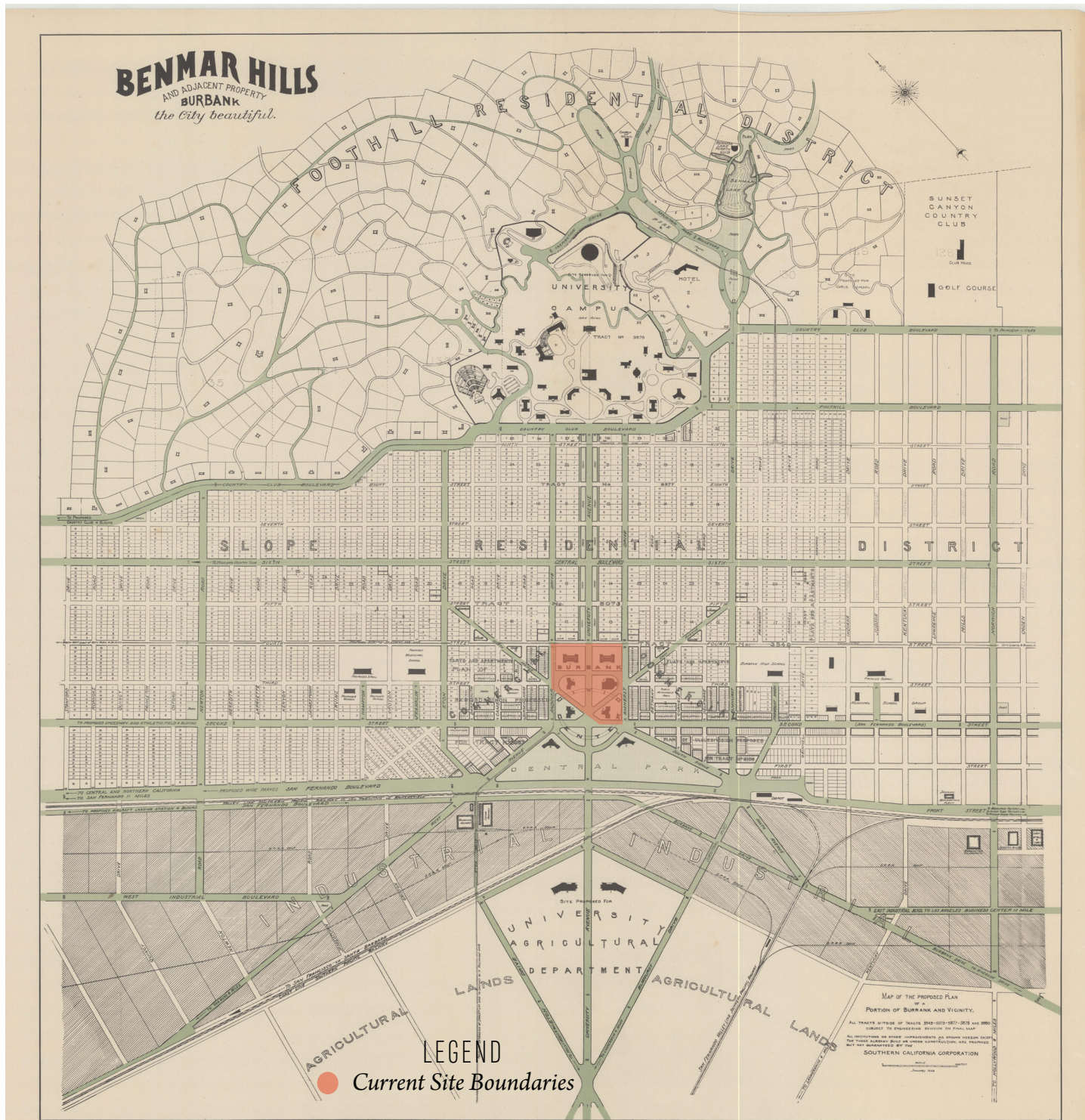
Original ranchos of southern California - site was part of Rancho San Rafael



1891 survey of site within Scott Tract - portion of original purchase by Dr. Burbank

Sources:
 'Los Angeles Ranchos' <https://www.loc.gov/resource/g43631.la000023/?r=-0.566,-0.093,2.132,1.379,0>
 'Scott Tract Survey 1891' https://upload.wikimedia.org/wikipedia/commons/2/2f/Scott_Tract_Burbank.png

OLMSTED BROTHERS & BENMAR HILLS - 1923

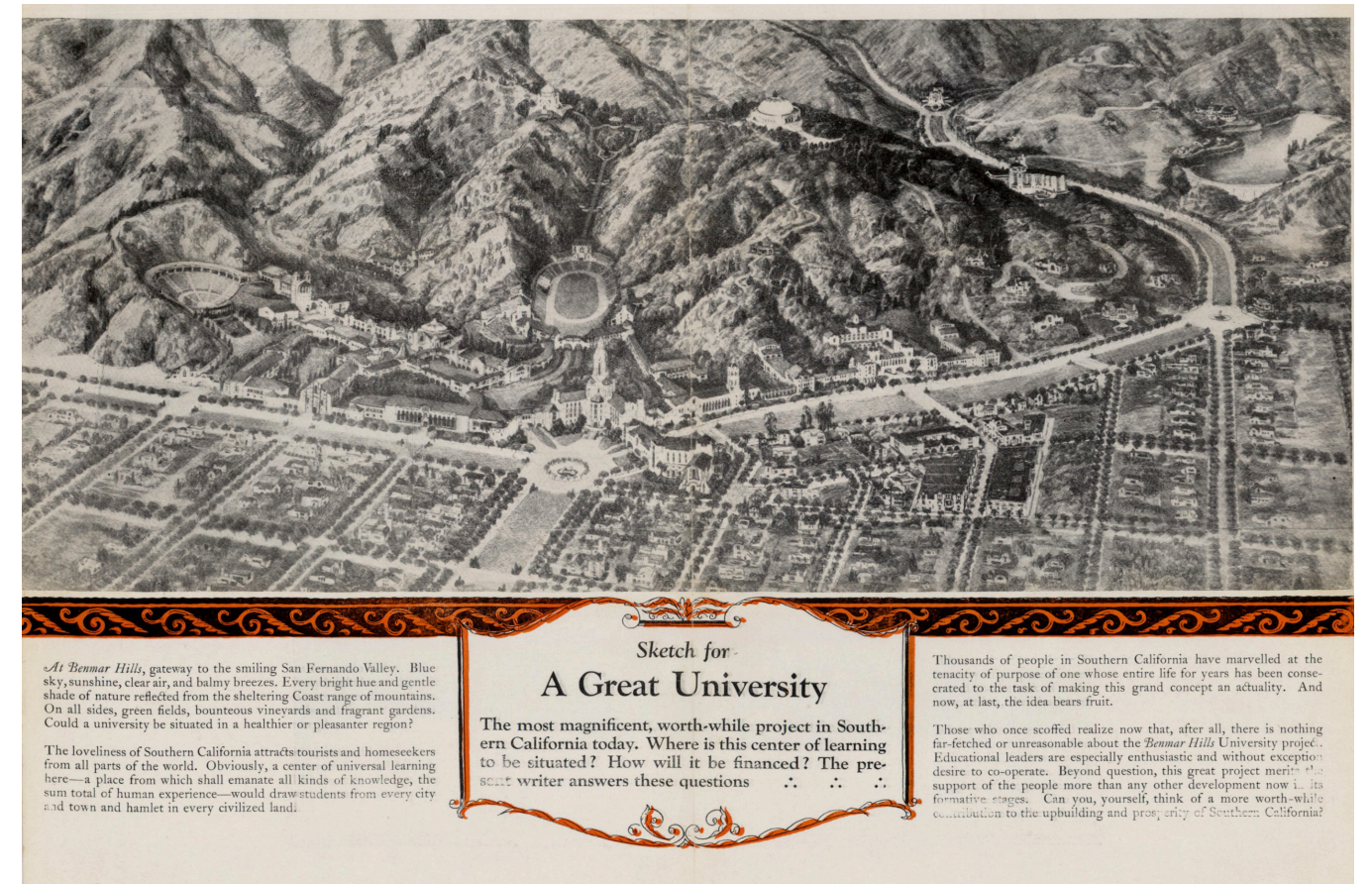


Proposed master plan for Ben Mar Hills development including university campus in foothills

Sources:
 Courtesy of the United States Department of the Interior, National Park Service, Frederick Law Olmsted National Historic Site https://www.flickr.com/photos/olmsted_archives/36615615765/
 'Los Angeles Metropolis of Knowledge' <https://www.raremaps.com/gallery/detail/29944/los-angeles-metropolis-of-knowledge-promotional-brochure-anonymous>
 'The Ben Mar Development' <http://wesclark.com/burbank/benmar.html>

In 1923 Olmsted Brothers Landscape Architects were hired by Ben W. Marks, a Hollywood real estate promoter, to design a master plan for a subdivision in Burbank, including the existing site of this project.

Marks donated the present site of McCambridge Park to the city for a municipal center and hoped that the southern branch of the University of California (now UCLA) would be located in the Benmar Hills residential area. The once-favored Burbank site was rejected when the Janss Investment Company donated the land in what is now Westwood to the University and UCLA was built in Westwood.



Excerpt of pamphlet selling the virtues of Burbank location & Ben Mar Hills development as next UC campus

OLMSTED BROTHERS & BENMAR HILLS - 1923

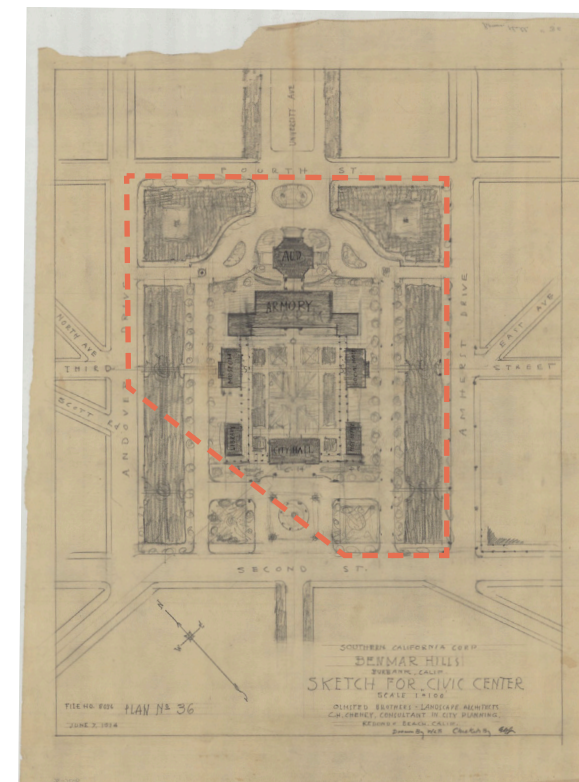


Architects sketch visualizing an idea for a future City Hall for Burbank in the Civic Center, Benmar Hills



Suggested design for Burbank Museum Building in Civic Center, Benmar Hills

Sources:
 'The Ben Mar Development' <http://wesclark.com/burbank/benmar.html>

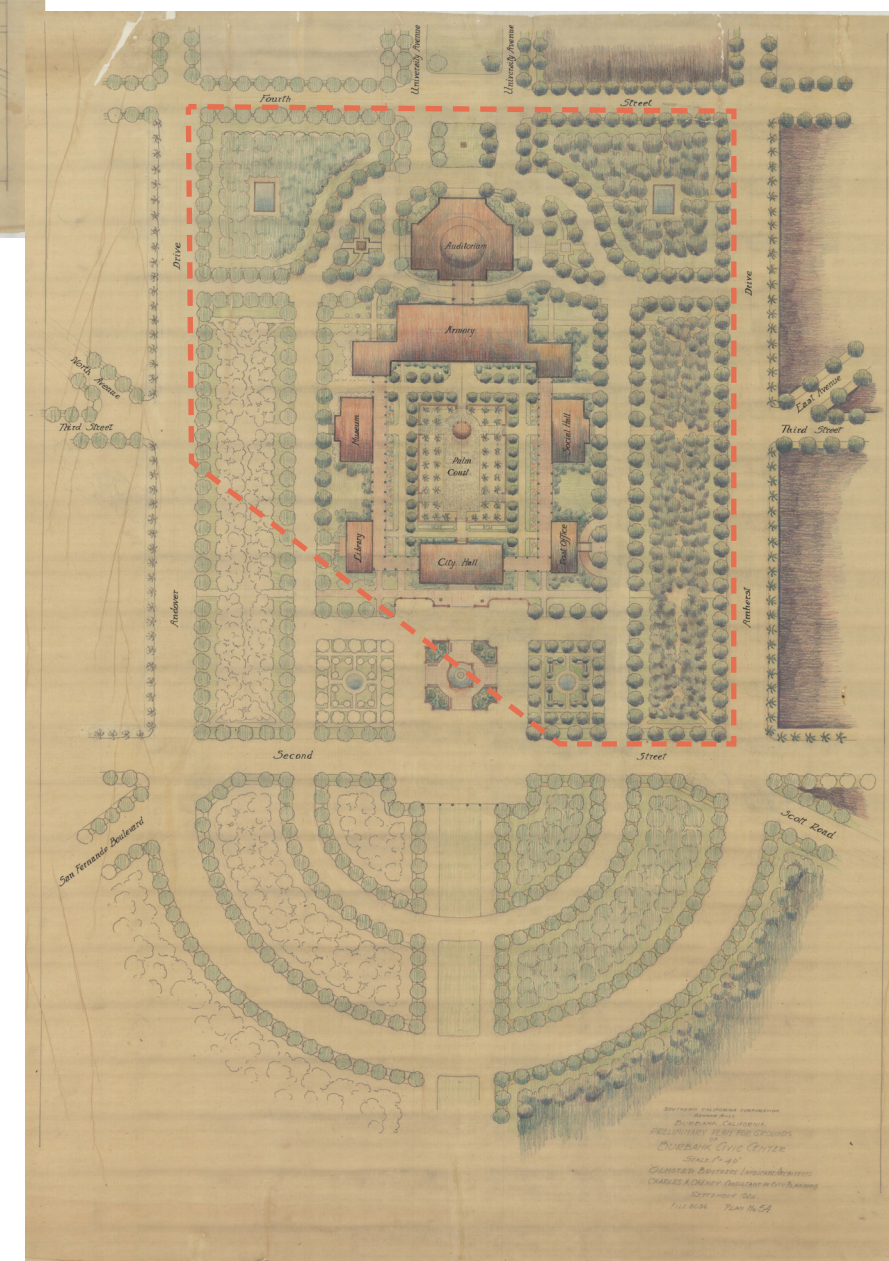


Original Olmsted Brothers' 1924 sketches for civic center on site
 * "Fourth St." now N. Glenoaks Blvd.
 * "Second St." now N. San Fernando Rd.

LEGEND
 - - - - - Current Site Boundaries

Original Olmsted Brothers' 1924 illustrative plan for civic center on site

LEGEND
 - - - - - Current Site Boundaries



Courtesy of the United States Department of the Interior, National Park Service, Frederick Law Olmsted National Historic Site https://www.flickr.com/photos/olmsted_archives/36615615765/

SITE MILITARY HISTORY

121 FA and 1946 Gold Star Mother memorial rose garden



1942-1945

121st Field Artillery anti-aircraft battalion stationed in barracks on site duration WWII. Located at site to protect nearby Lockheed from aerial attack.

1946

Burbank Gold Star Mothers plant memorial rose garden in honor of sons lost in WWII

1969

Rose garden moved to current location. Obelisk monument constructed.

Image Sources:
'McCambridge Park and the 121st Field Artillery' https://wesclark.com/burbank/121st_fa_barracks.jpg
'Rose Garden Ceremony' <https://myburbank.com/flashback-friday-mccambridge-war-memorial-and-rose-garden/>
'McCambridge Park and the 121st Field Artillery' <https://myburbank.com/flashback-friday-mccambridge-park-and-the-121st-field-artillery/>



EXISTING ACCESSIBILITY ISSUES

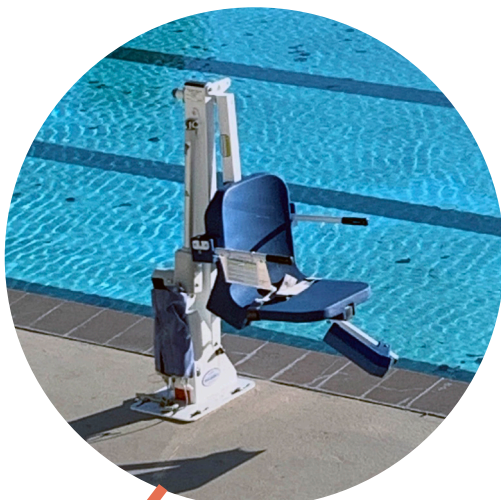
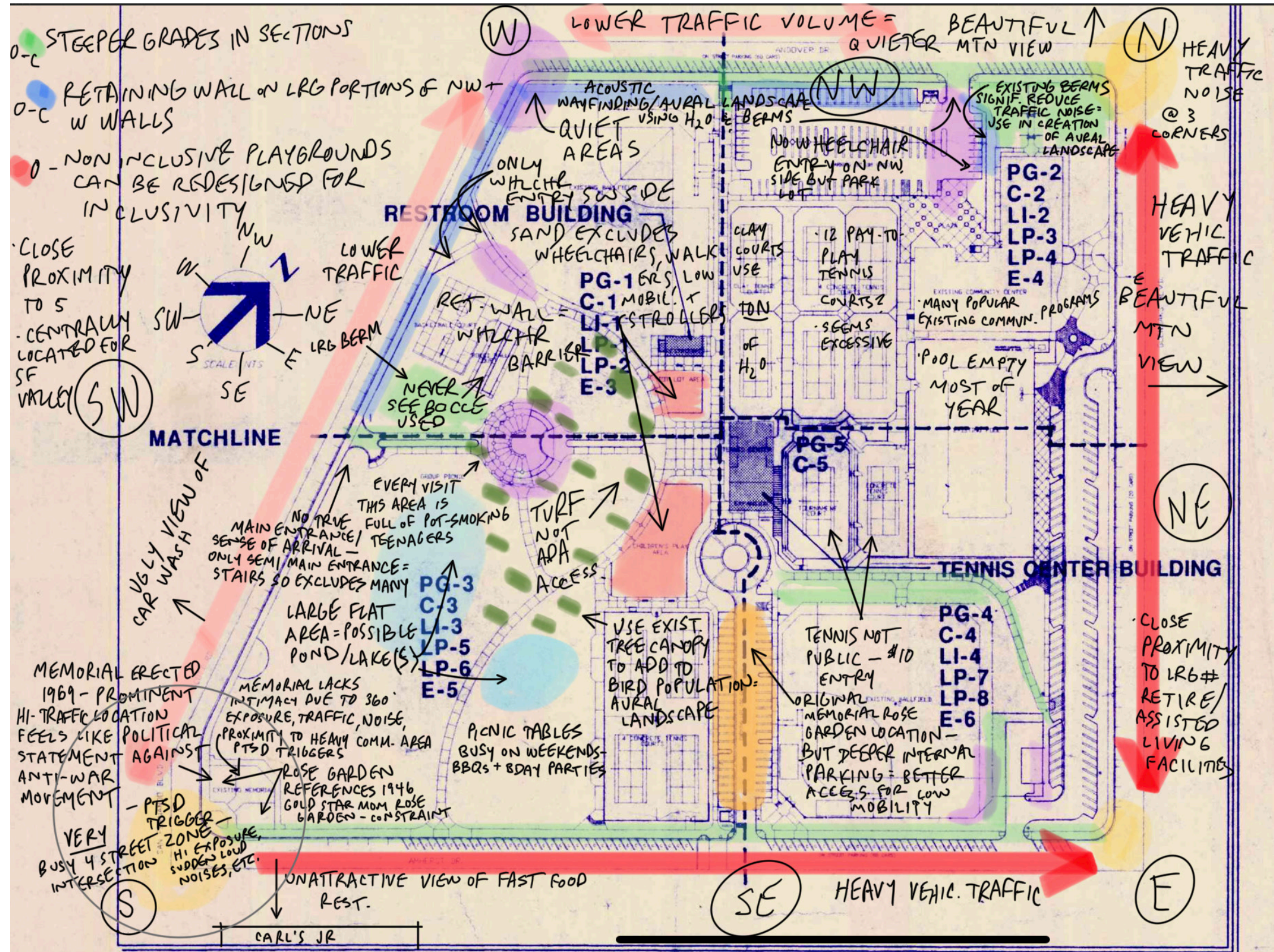


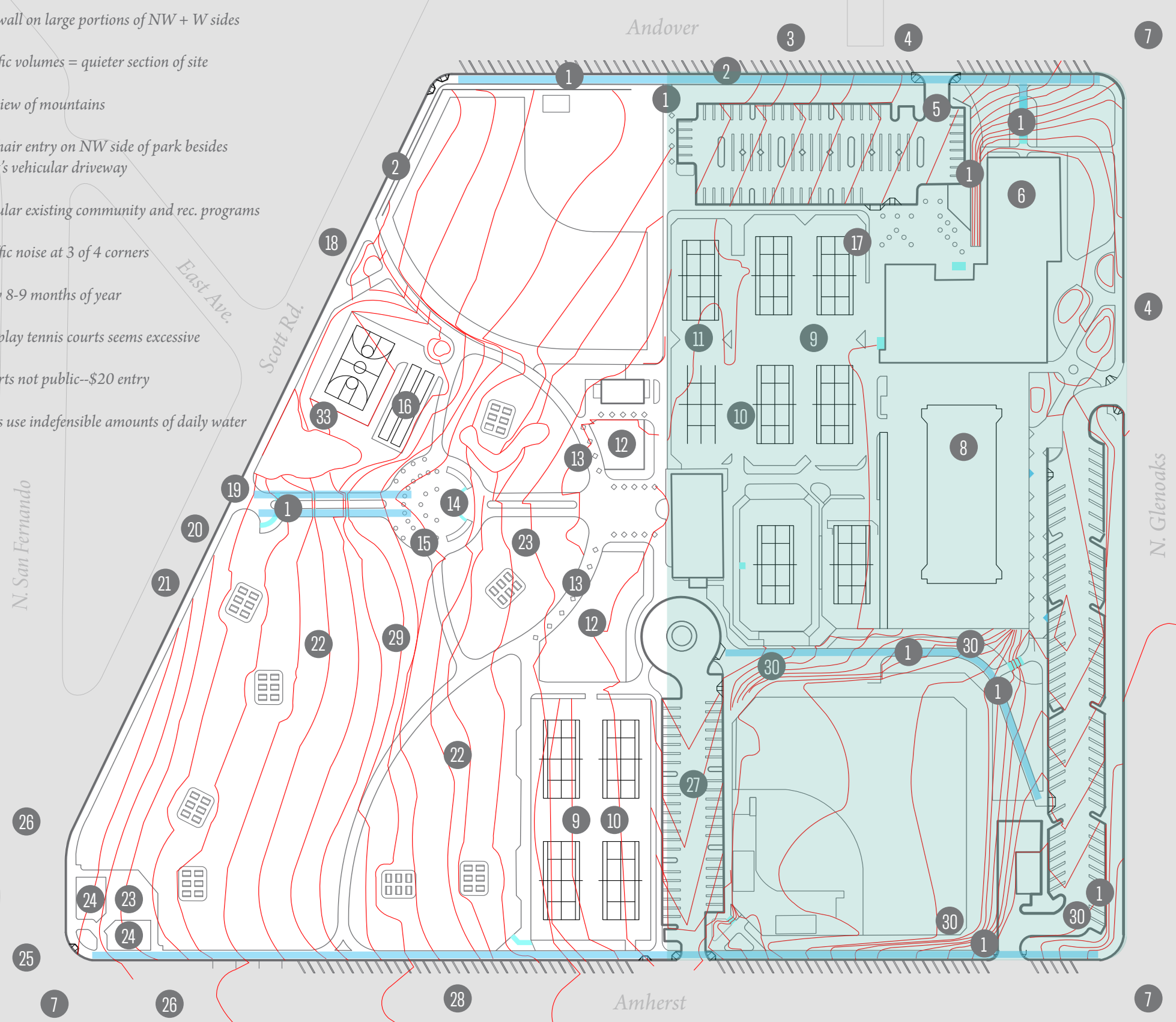
Image Sources:
All photos by Katy Kirkpatrick



SITE ANALYSIS

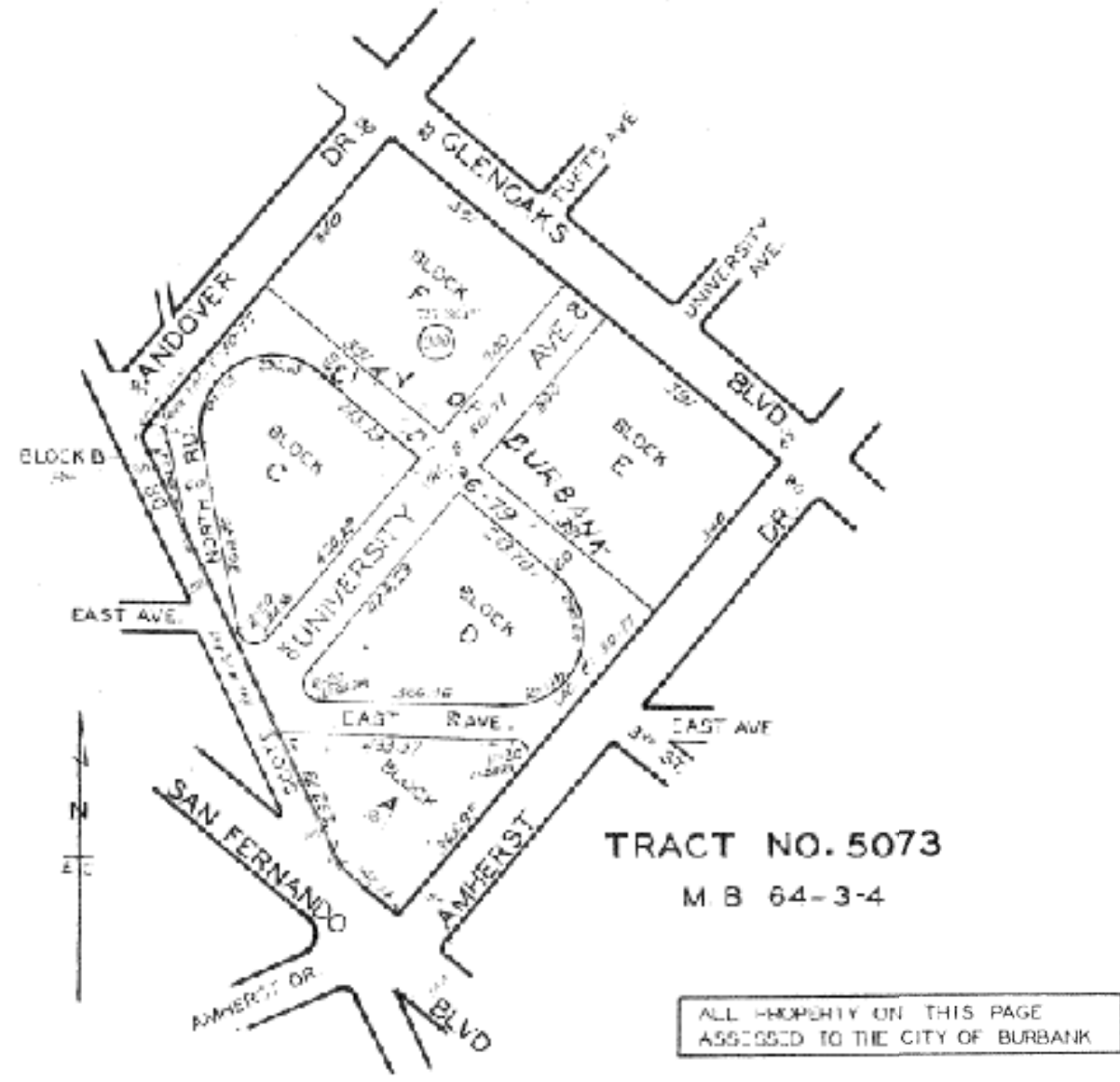
- 1 Steeper grades in some sections - up to 12%
- 2 Retaining wall on large portions of NW + W sides
- 3 Lower traffic volumes = quieter section of site
- 4 Beautiful view of mountains
- 5 No wheelchair entry on NW side of park besides parking lot's vehicular driveway
- 6 Many popular existing community and rec. programs
- 7 Heavy traffic noise at 3 of 4 corners
- 8 Pool empty 8-9 months of year
- 9 12 pay-to-play tennis courts seems excessive
- 10 Tennis courts not public--\$20 entry
- 11 Clay courts use indefensible amounts of daily water

- 12 Sand in playground excludes wheelchairs, walkers, users with low mobility, strollers
 - 13 Non-inclusive playgrounds offer opportunity for redesign & inclusivity
 - 14 Every site visit this area is full of teenagers smoking cannabis
 - 15 Quiet areas = potential area for memorial relocation/sensory garden
 - 16 Yet to see bocce court in use
 - 18 Only wheelchair entry on SW side
 - 19 No true main entrance/sense of arrival--only semi-formal grand entrance is staircase which excludes many
 - 20 Retaining wall serves as barrier to those with low mobility
 - 21 Unattractive view of car wash
 - 22 Turf is difficult to navigate for those with mobility issues
 - 23 Memorial erected in 1969 -- prominent high-traffic location leads to suspicion placement was political statement against anti-war movement
 - 24 Rose garden references 1946 Gold Star Mother rose garden -- must include in any redesign
 - 25 Memorial lacks intimacy due to 360° exposure, traffic, noise, proximity to heavy commercial area - high exposure would most likely trigger combat vets with PTSD
 - 26 Unattractive view of fast food restaurant, commercial area, especially intrusive on memorial which should be sacred, intimate space
 - 27 Original memorial rose garden location but deeper internal parking = better access for low mobility
 - 28 Close proximity to large number of retirement & assisted living facilities
 - 29 Possible location for water element--pond? Small lake?
 - 30 Existing berms mitigate traffic noise (as measured in decibel research)
- Location of WWII barracks for 121st anti-aircraft battalion stationed on site



PARCEL INFORMATION

2460 | 1



Site Address

239 Amherst Dr
Burbank CA 91504-0000

Parcel Type

Government Owned, Exempt

Size

755,922 Land Sq Ft

Legal Description

Tract # 5073 Lot bd on NE by Glenoaks Blvd on NW SE By Amherst Dr on SW by San Fernando Blvd And Scott Dr and on NW By Andover Dr Part of Vac Sts And part of blks A and B and all of blks C,D,E and lot blk

Parcel Number

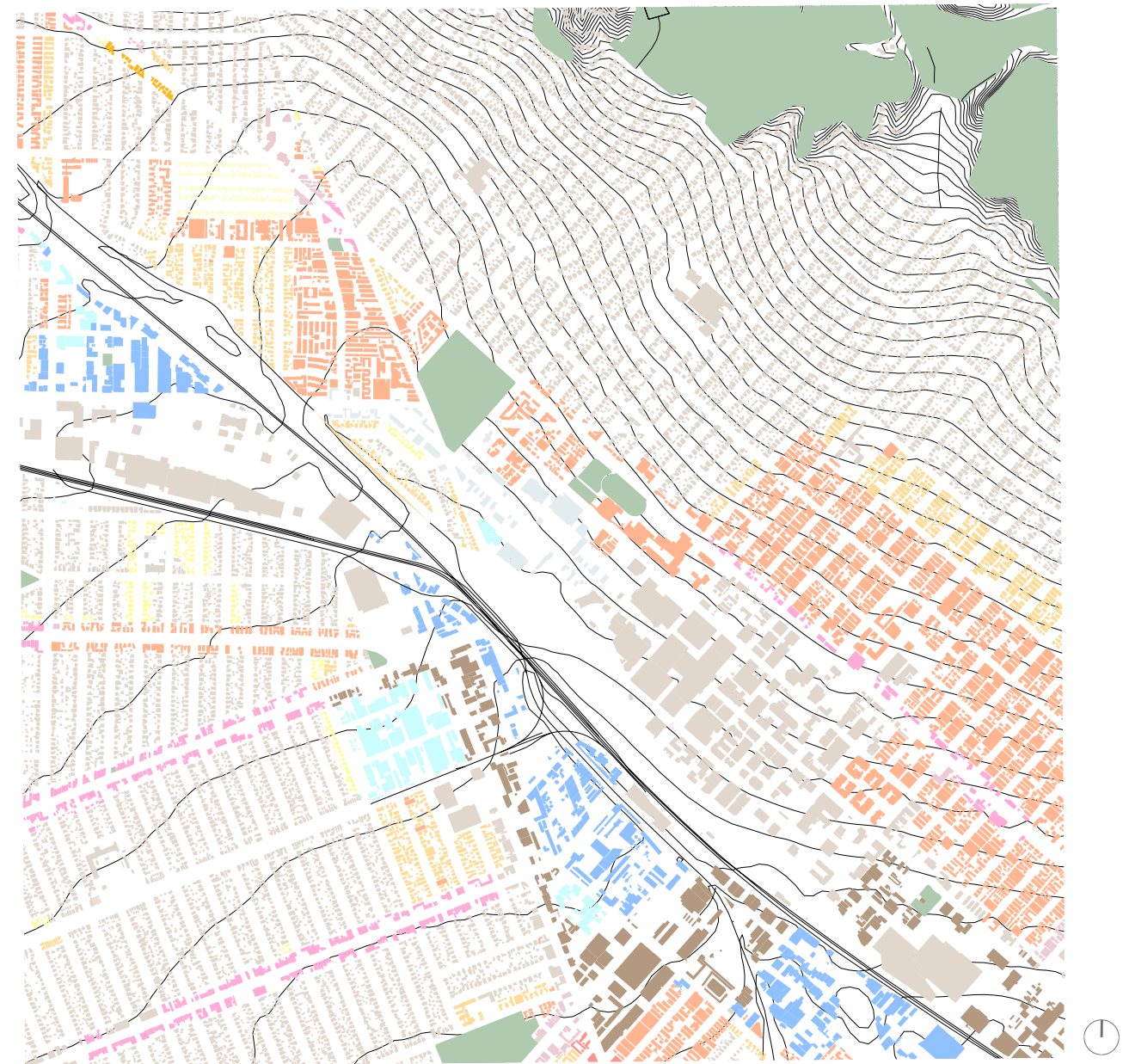
2460-001-900

Sources:

'Parcel Detail' <https://portal.assessor.lacounty.gov/parceldetail/2460001900>

'City of Burbank Zone Map' https://www.burbankca.gov/documents/173607/0/20210101_Zoning_Map.pdf/c8bc55ed-98cf-505d-3892-7e1657bca8f1?t=1618866483006

ZONING



Parcel Type

- R-1 Single Family Residential
- R-2 Low Density Residential
- R-3 Medium Density Residential
- R-4 High Density Residential
- OS Open Space
- NSFC - North San Fernando Commercial
- M-2 General Industrial
- C-4 Commercial Unlimited Business
- C-3 Commercial General Business
- BCC-3 Burbank Center Commercial General Business
- BCC-2 Burbank Center Commercial Limited Business

ZONING

OS-Open Space

*Bordered by NSFC (North San Fernando Commercial) on the SW; R-4 (High Density Residential) on the NW and SE; R-1 (Single Family Residential) on the NE

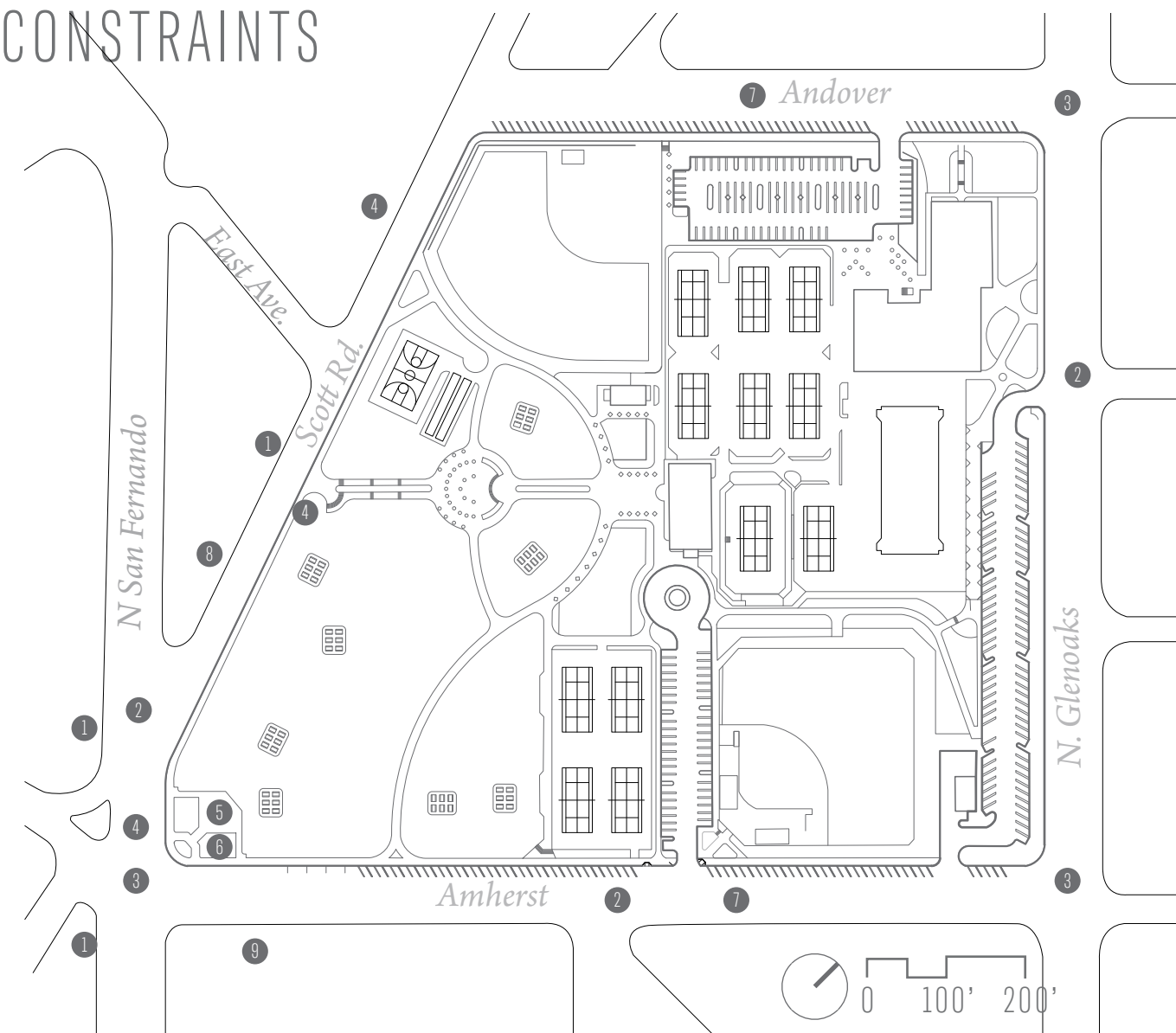
OPPORTUNITIES



OPPORTUNITIES

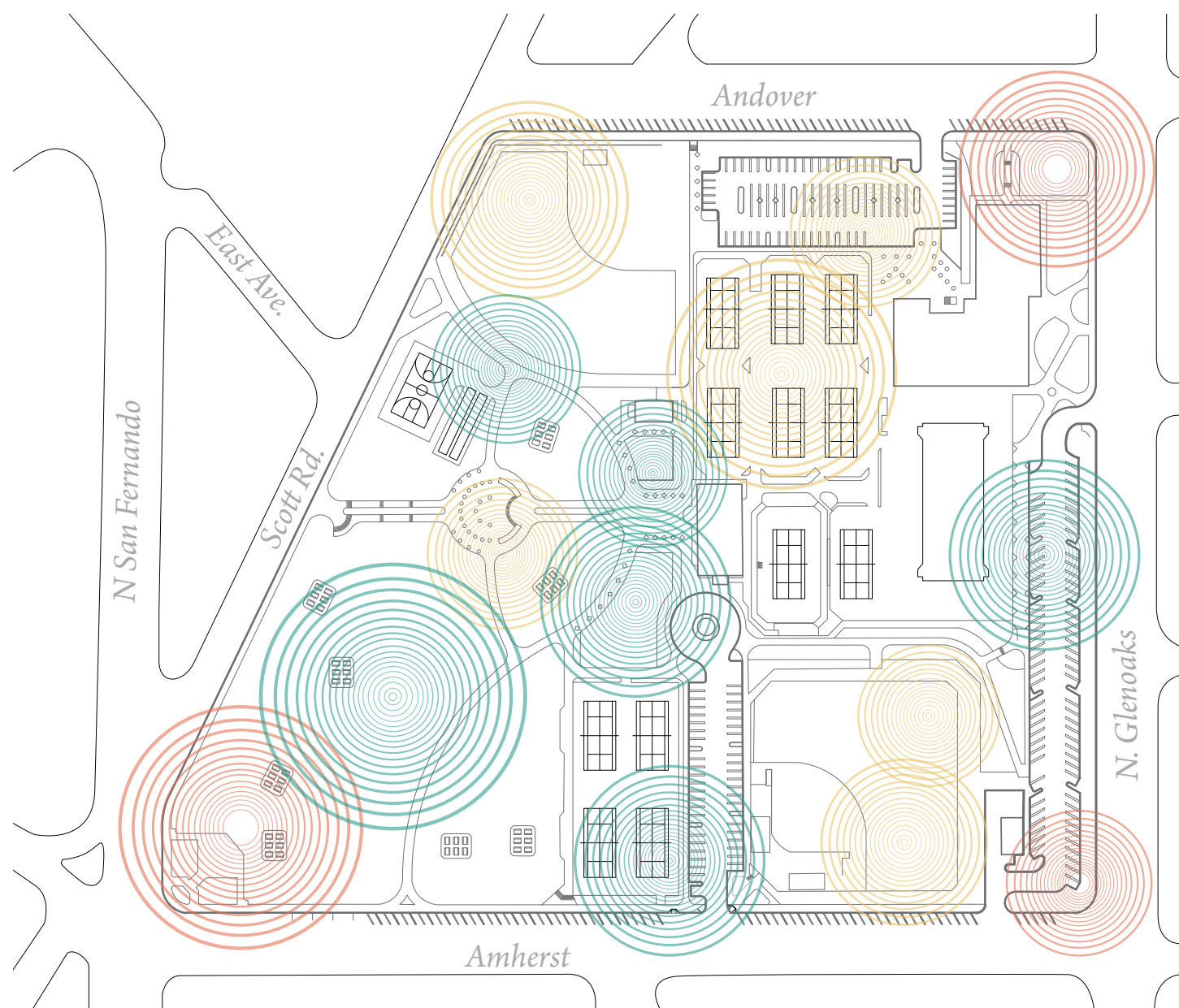
- 1. Existing trees provide shade & cooling
 - 2. Grade change - could use existing retaining walls as sound barriers or design elements
 - 3. Beautiful view of mountains facing north, NW & NE
 - 4. Several metro stops at park provide connectivity/accessibility
 - 5. Areas of low environmental noise create opportunity for healing garden/new memorial location
 - 6. Pool empty 8-9 months of year
 - 7. Non-inclusive playgrounds offer opportunity for redesign & inclusivity
 - 8. Turf difficult to navigate for those w/low mobility - replace?
 - 9. No true main entrance/sense of arrival--only semi-formal grand entrance is staircase which excludes many
 - 10. Memorial lacks intimacy due to 360° exposure, traffic, noise, proximity to heavy commercial area - high exposure would most likely trigger combat vets with PTSD
 - 11. Flatter/quieter area = opportunity for sensory garden and/or body of water (pond or small lake)
 - 12. Existing berms mitigate traffic noise (as measured by decibel meter)
- Close proximity to 5 freeway
Centrally located in SF Valley
Close proximity to large number of retirement & assisted living facilities

CONSTRAINTS



CONSTRAINTS

- 1. Unattractive commercial area on Amherst, intersection, San Fernando & portions of Scott Rd.
 - 2. Heavy traffic volume/noise on surrounding streets
 - 3. High level of traffic noise at 3 of 4 intersections
 - 4. High level of visual exposure at southern corner of site where 4 Wstreets intersect & vet memorial located
 - 5. Rose garden at Memorial originally established in 1946
 - 6. Memorial honors local fallen soldiers from all major U.S. conflicts since WWI
 - 7. Andover and Amherst each have 4% grade entire length of site
 - 8. Unattractive view of car wash
 - 9. Unattractive view of fast food restaurant, commercial area, especially intrusive on memorial which should be sacred, intimate space
- High summer temperatures
-Current programming popular with many users

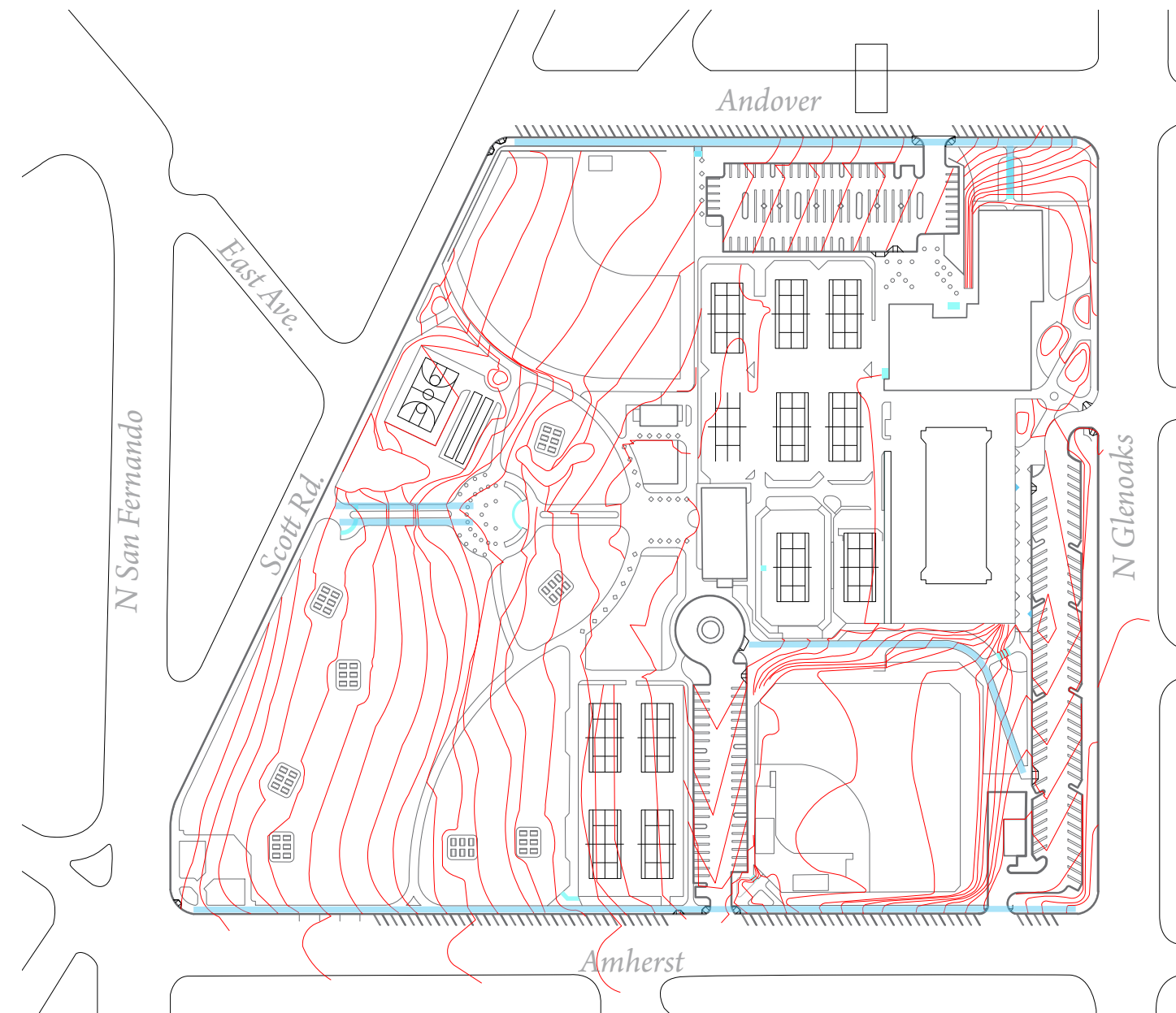


SITE SOUND LEVELS

- 70 + decibels
- 50 - 60 decibels
- 30 - 40 decibels

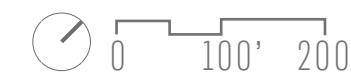
DECIBEL REFERENCE

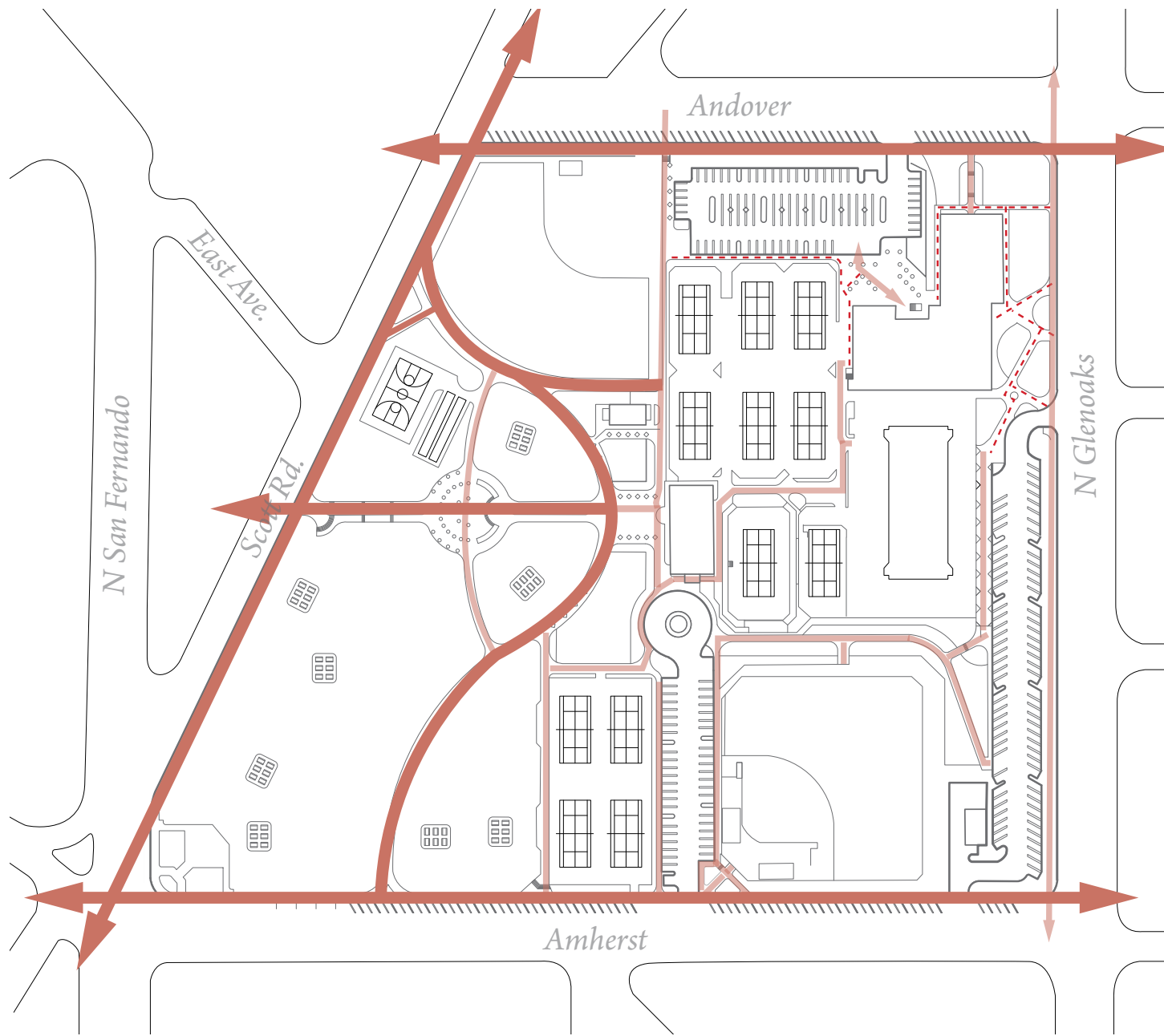
- | | |
|------------------------------|-------------------------------|
| 30 db -- <i>Whisper</i> | 80 db -- <i>Lawn Mower</i> |
| 40 db -- <i>Light Rain</i> | 90 db -- <i>Hairdryer</i> |
| 50 db -- <i>Conversation</i> | 100 db -- <i>Helicopter</i> |
| 60 db -- <i>Dishwasher</i> | 110 db -- <i>Chainsaw</i> |
| 70 db -- <i>City Traffic</i> | 120 db -- <i>Police Siren</i> |



STEEPER SITE GRADES - DIFFICULT FOR THOSE WITH MOBILITY ISSUES

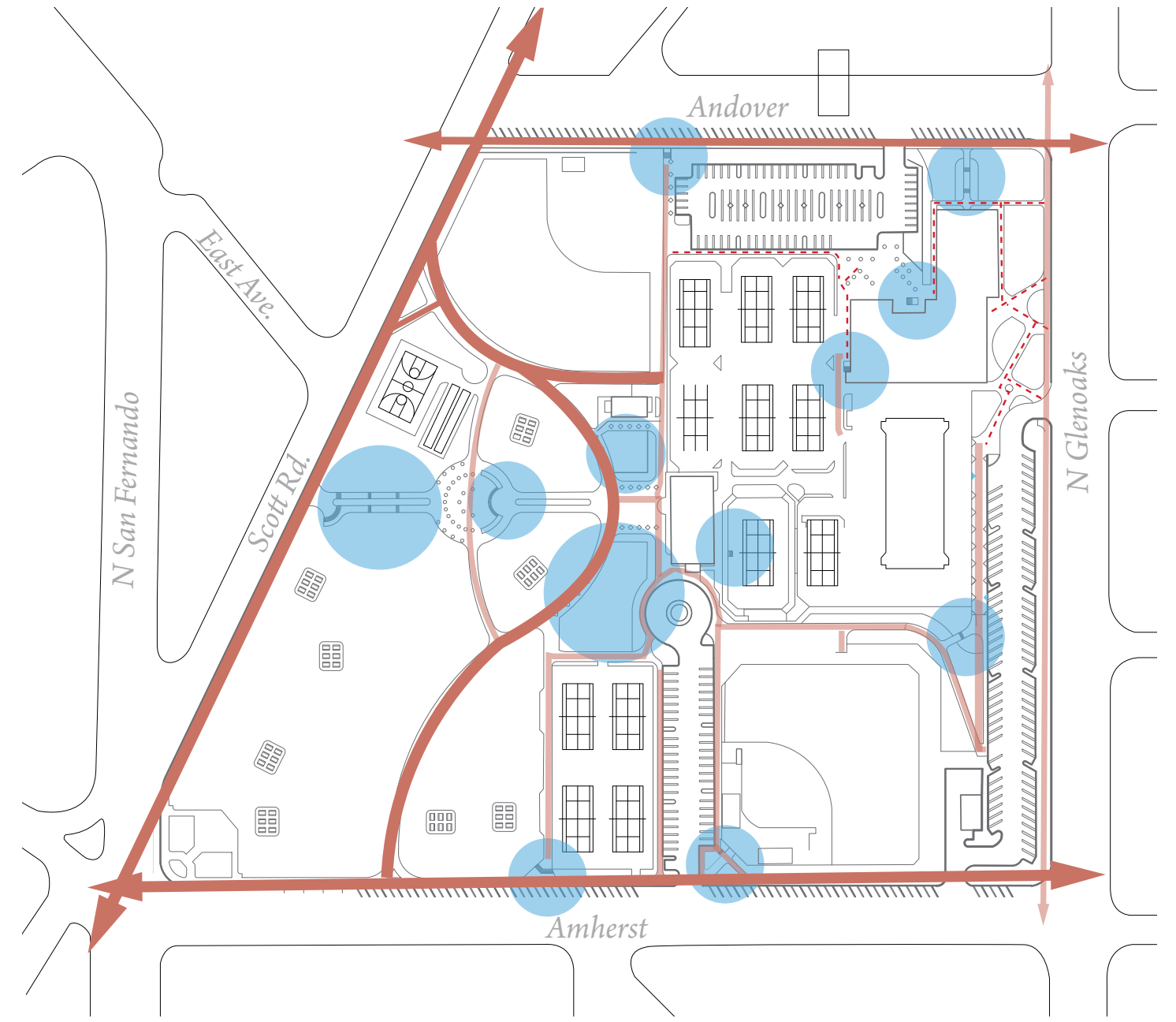
- *Stairs*
- *Paths with grade of 4%*
- *Paths with grade of 6% +*





ABLE BODIED PEDESTRIAN CIRCULATION

- Primary Pedestrian Circulation
- Secondary Pedestrian Circulation
- Tertiary Pedestrian Circulation

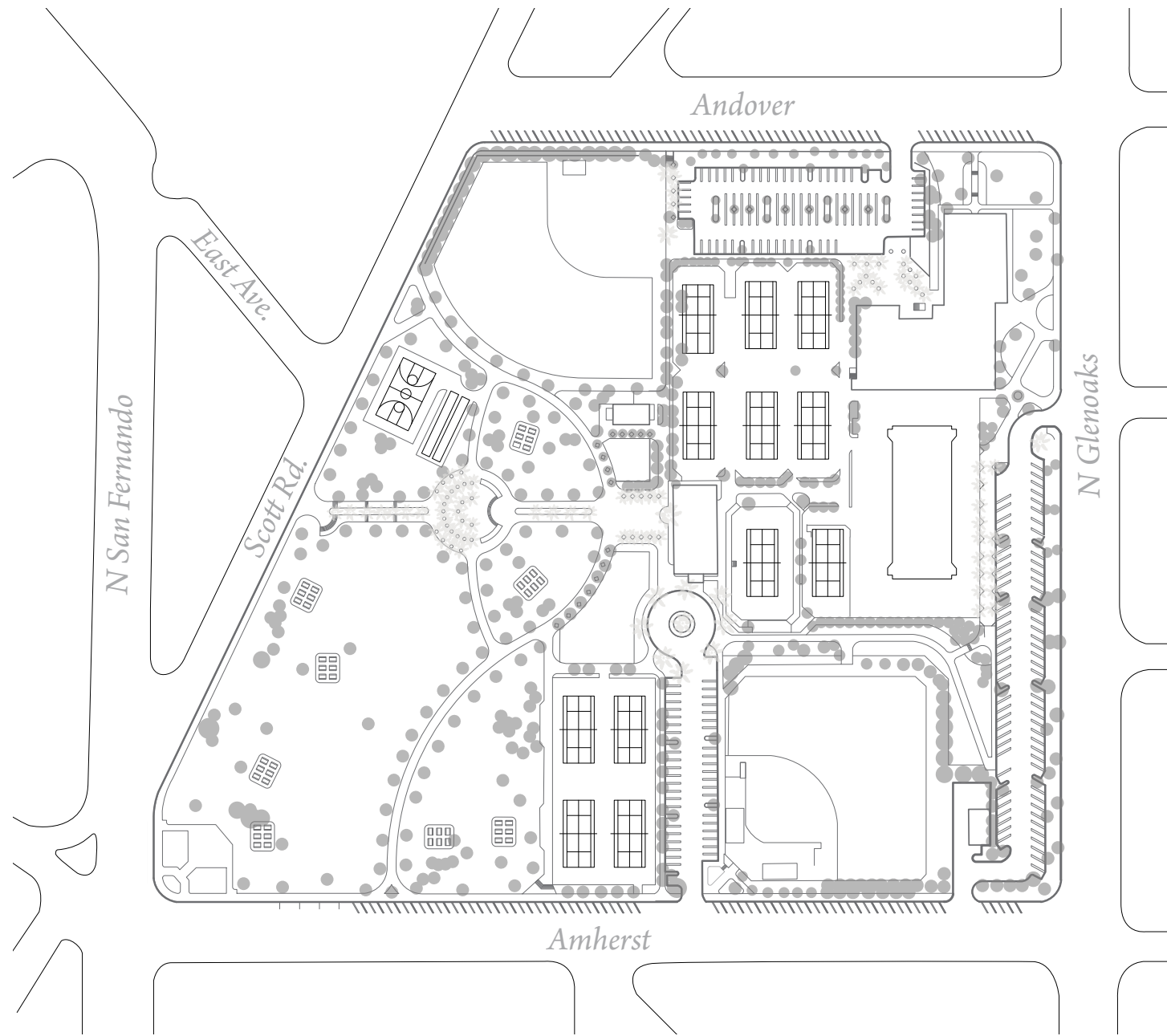


**Andover and Amherst sidewalks technically accessible but steep grades difficult for many users with limited mobility*

LIMITED MOBILITY PEDESTRIAN CIRCULATION

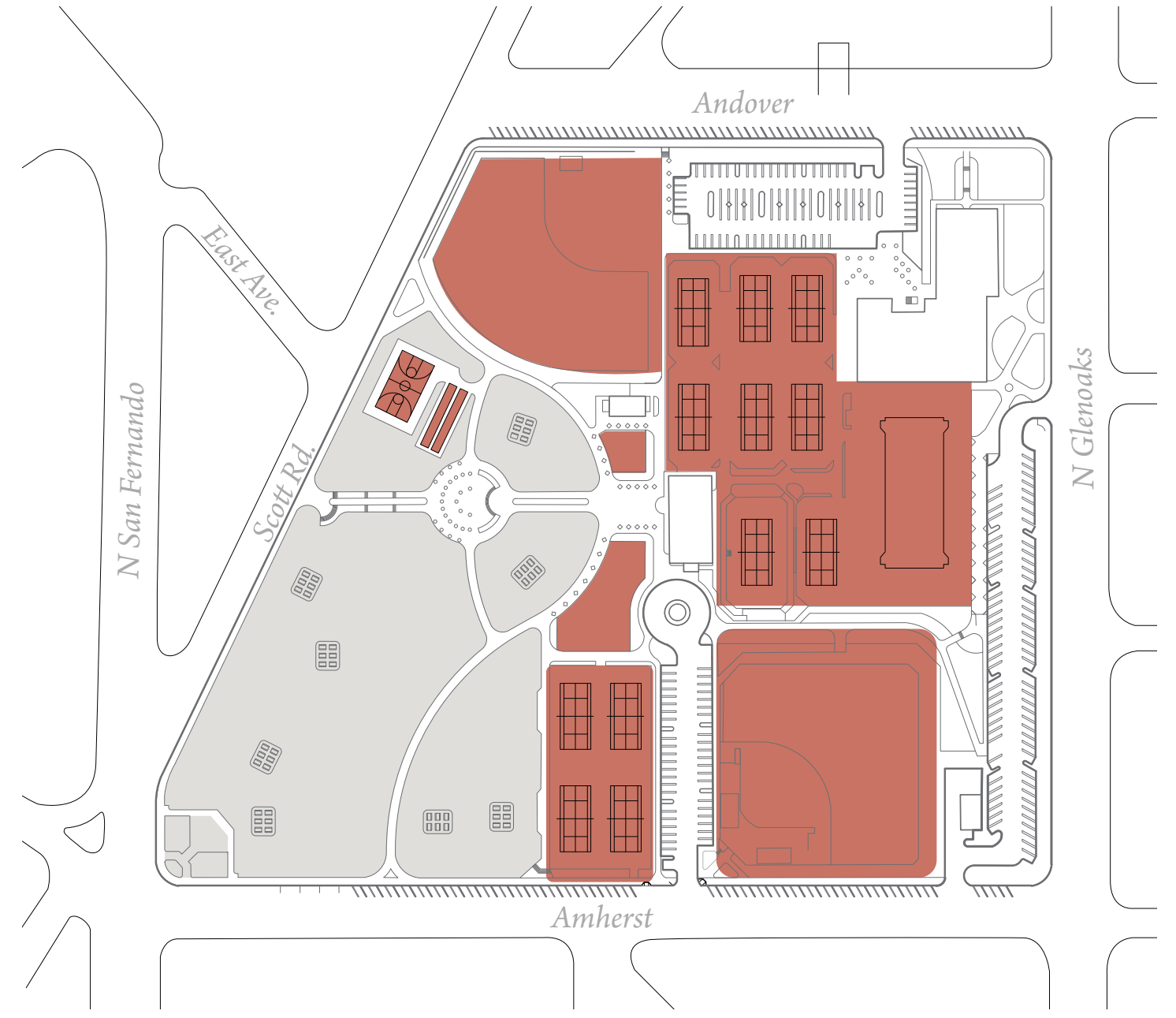
- Primary Pedestrian Circulation
- Secondary Pedestrian Circulation
- Tertiary Pedestrian Circulation
- Stairs or sand - not navigable in wheelchair or for many w/limited mobility





EXISTING TREE CANOPY

- *Deciduous & Evergreen*
- *Palms*



SITE USE

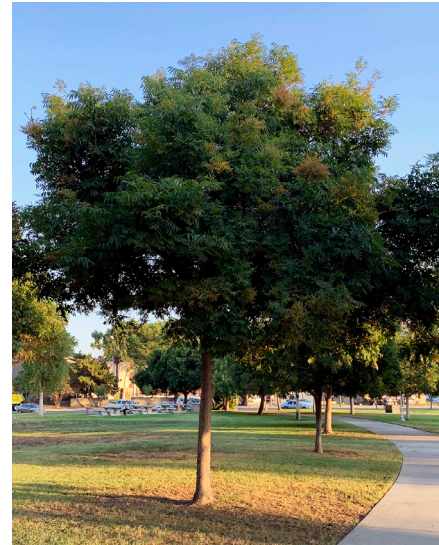
- *Active Recreation*
- *Passive Recreation*



EXISTING TREE CANOPY



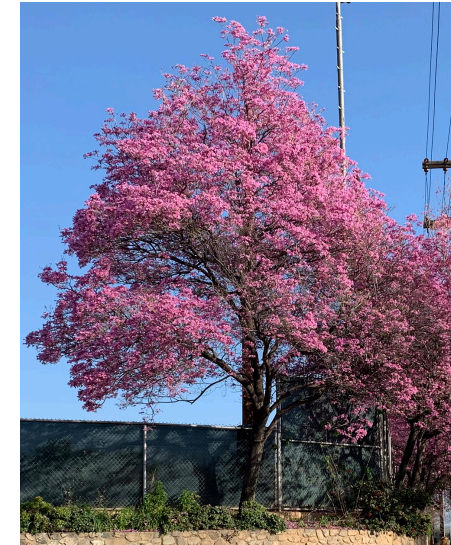
Schinus molle
California Pepper



Pistachia chinensis
Chinese Pistache



Lagerstroemia indica
Crape Myrtle



Tabebuia avellanedae
Pink Trumpet Tree



Callistemon viminalis
Weeping Bottlebrush



Pinus canariensis
Canary Island Pine



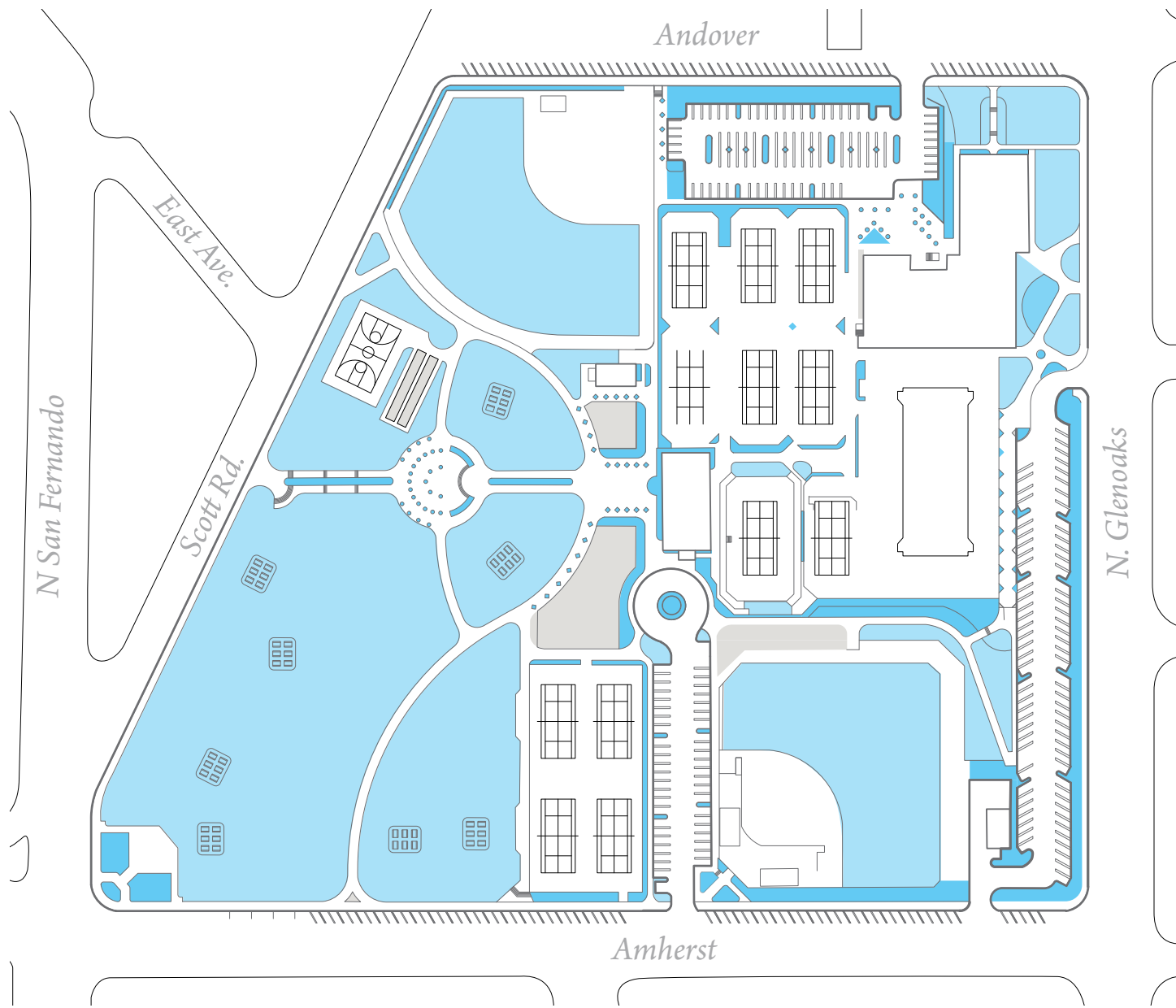
Pinus halepensis
Aleppo Pine



Washingtonia robusta
Mexican Fan Palm

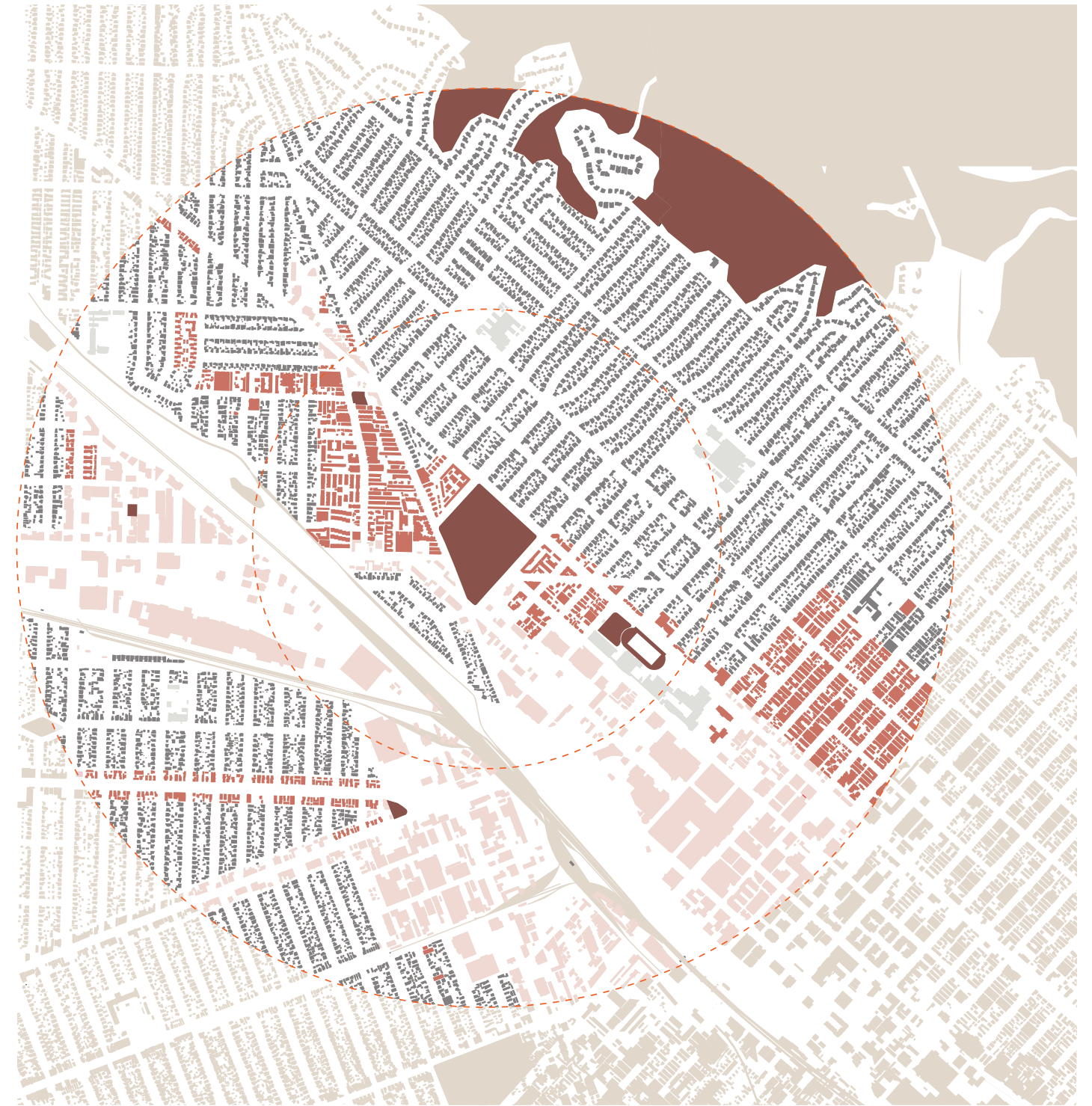


Pistachia chinensis provides significant shade along existing paths



PROBLEMATIC SURFACES FOR LIMITED MOBILITY USERS

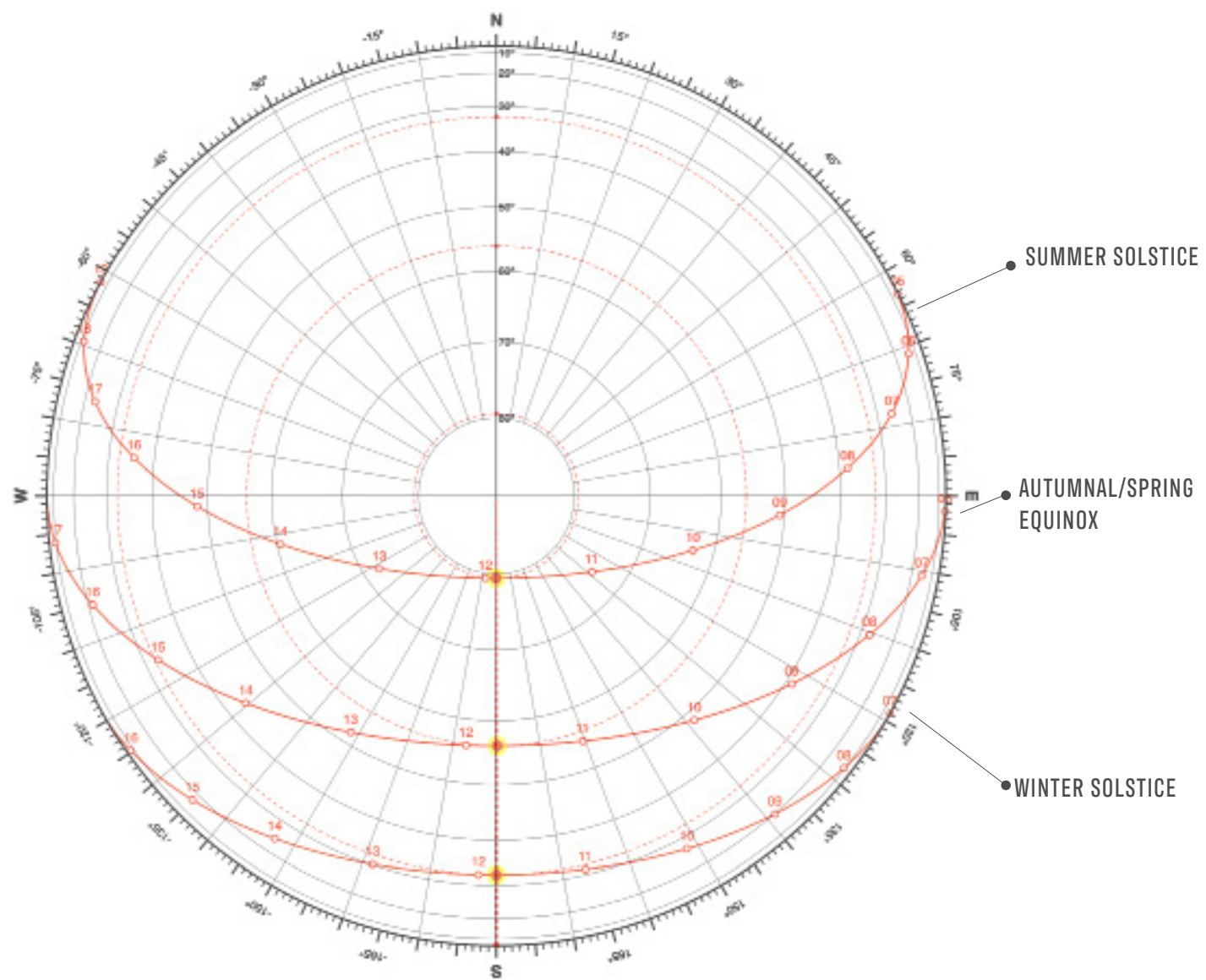
- *Planted Area*
- *Turf*
- *Sand*



ADJACENCIES

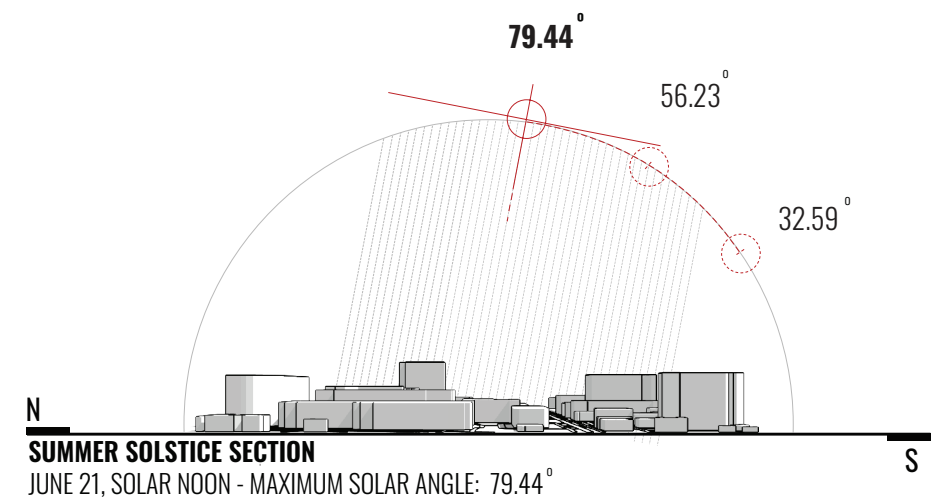
- *Green Space*
- *Single-Family Residential*
- *Multi-Family Residential*
- *Commercial*
- *School*
- - - *1/2 & 1 Mile Radius*



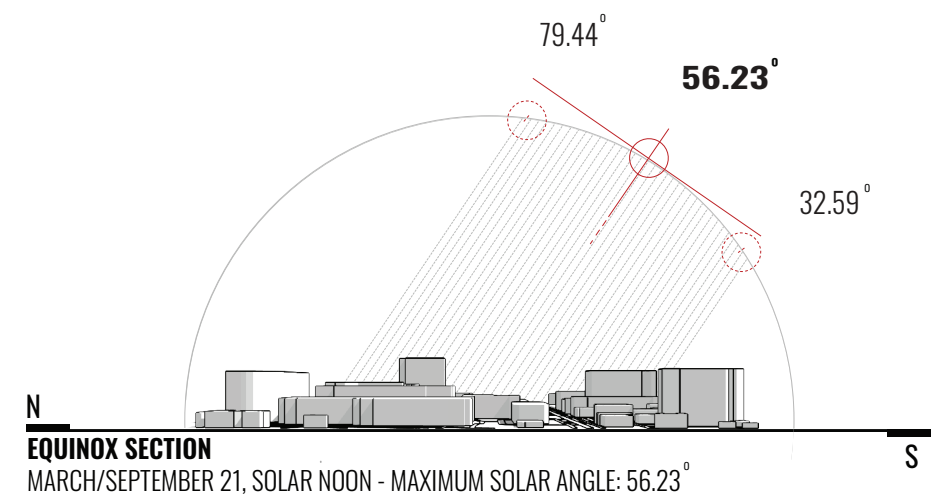


SUN PATH DIAGRAM

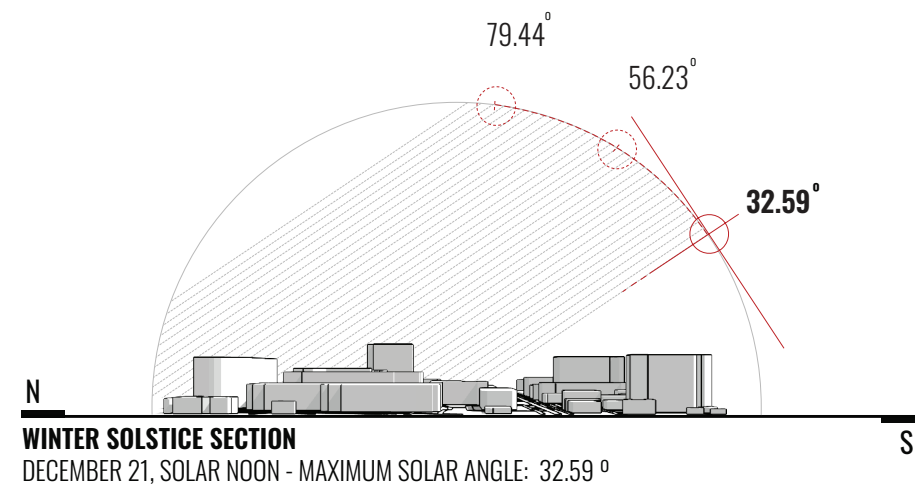
SUN PATH SECTION



SUMMER

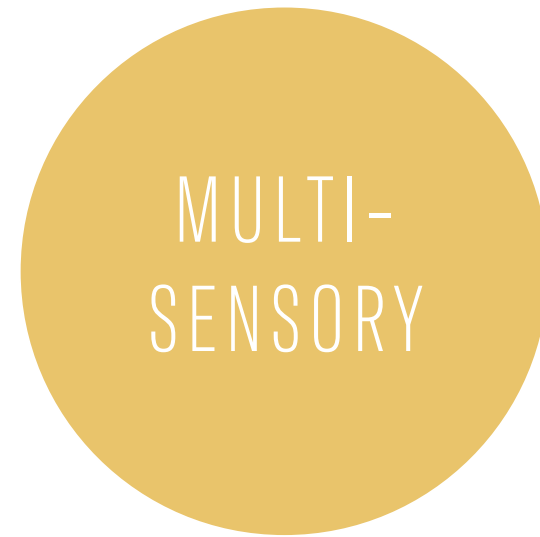


EQUINOX

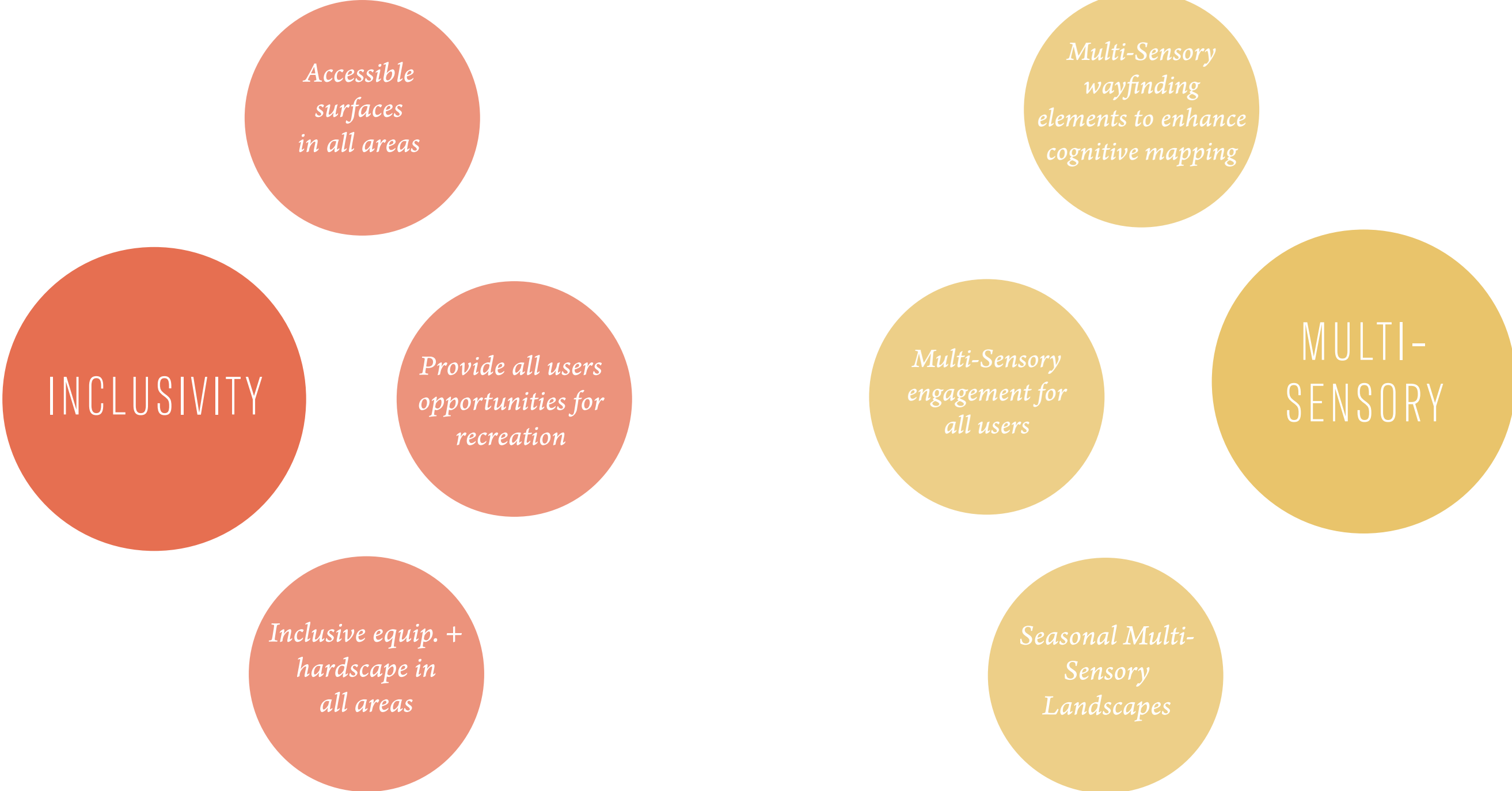


WINTER

GOALS



GOALS + OBJECTIVES

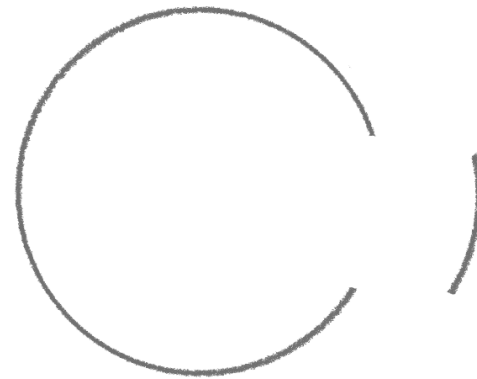
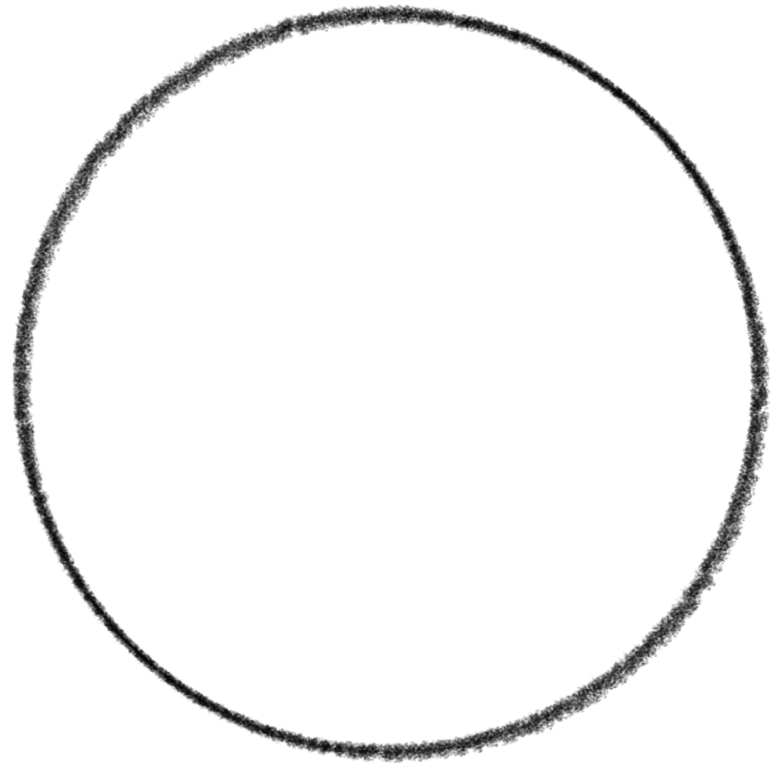


GOALS + OBJECTIVES

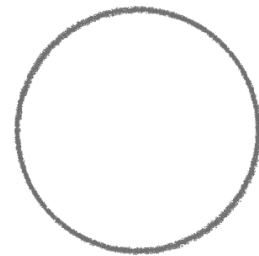


THEORETICAL DESIGN CONCEPT

We are all part of a larger whole



A circle is incomplete if any portion is missing, no matter how small

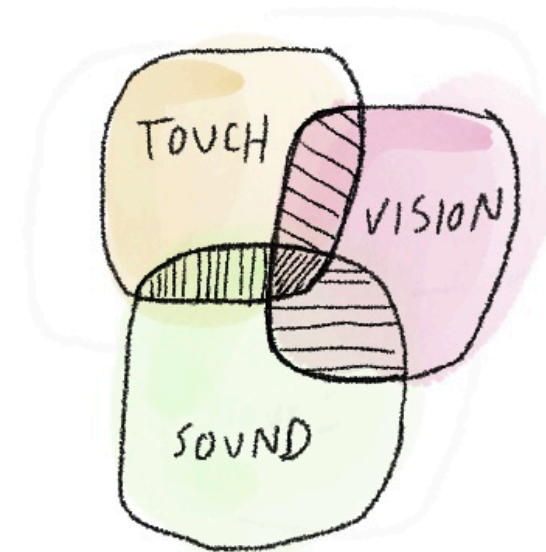


Inclusivity and accessibility makes us all more complete

The missing portion represents users with difference, who are often missing from public spaces due to lack of inclusion

EARLY CONCEPT IDEATION

"OVERLAP" AREAS = SECTIONS WHERE 1 SENSE IS TRANSLATED INTO ANOTHER
EX: SOUND BECOMES VISION
SOUND BECOMES TOUCH

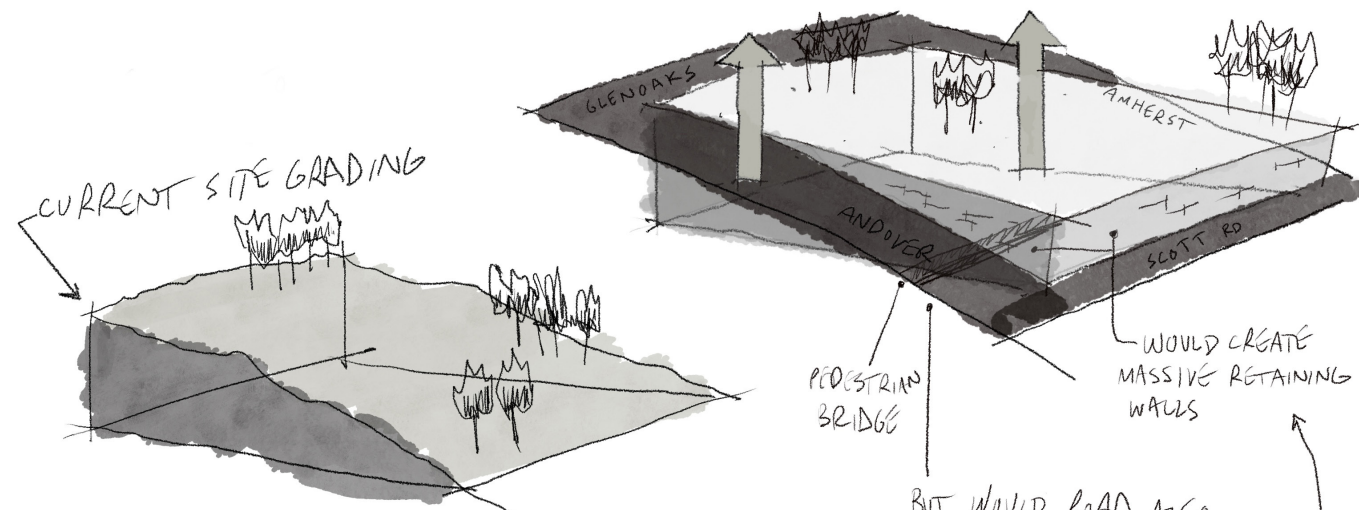


- = SOUND ↔ TOUCH
- = SOUND ↔ VISION
- = VISION → TOUCH
- = SOUND ↔ TOUCH

EARLY CONCEPT IDEATION

ELIMINATION OF STEEPER GRADES WITHIN SITE WOULD REDUCE OBSTACLES FOR THOSE W/MOBILITY ISSUES

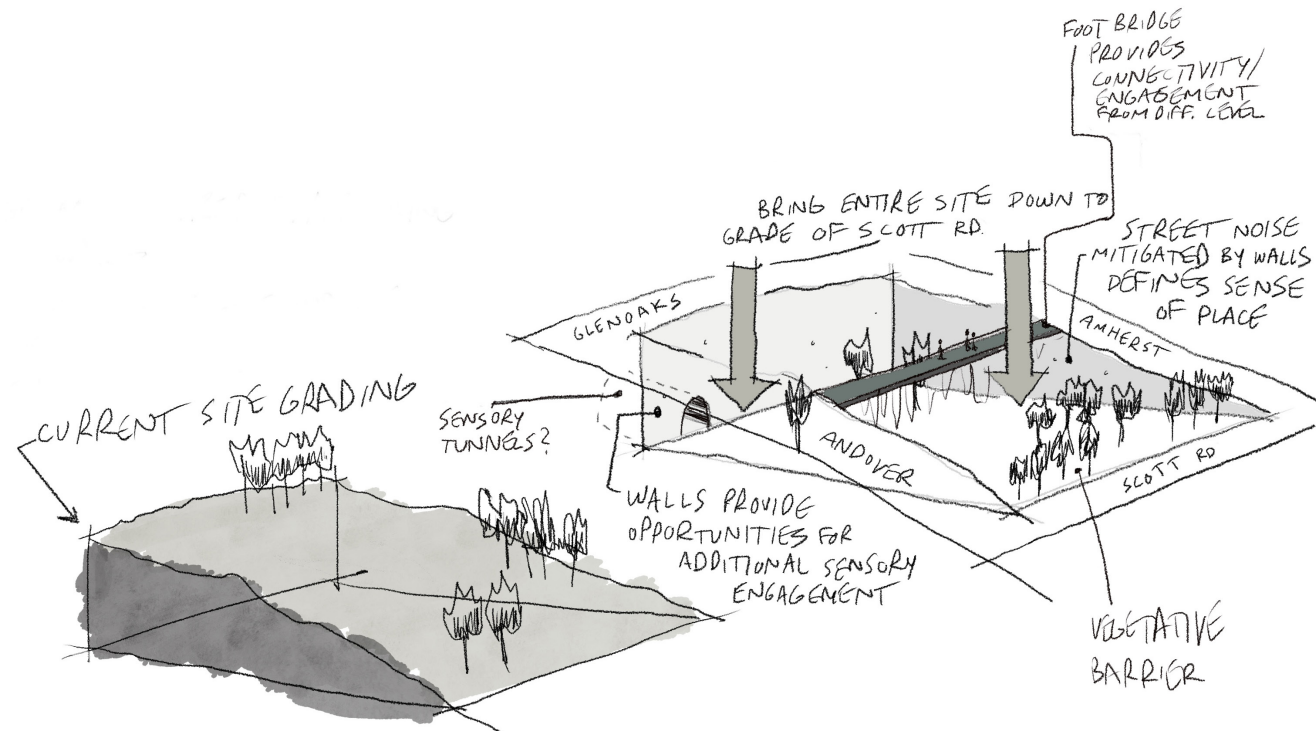
BRING SITE UP TO LEVEL GRADE AT GLENDALES



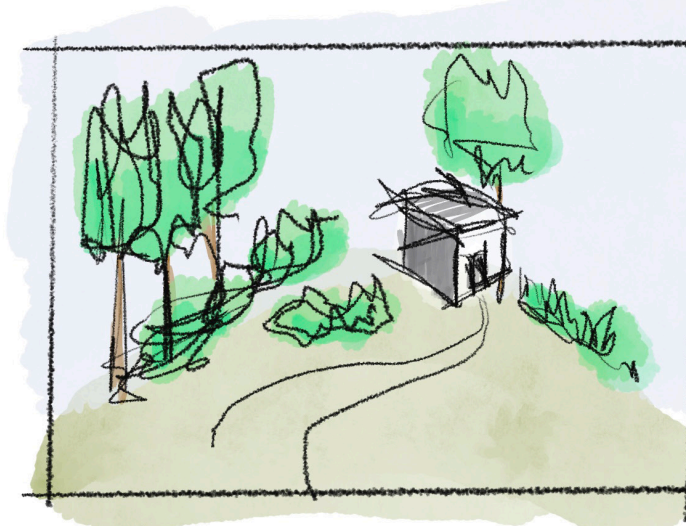
BUT WOULD ROAD ALSO NEED TO BE REGRADED? NO

FOOT BRIDGE PROVIDES CONNECTIVITY/ENGAGEMENT FROM DIFF. LEVEL

BRING ENTIRE SITE DOWN TO GRADE OF SCOTT RD.



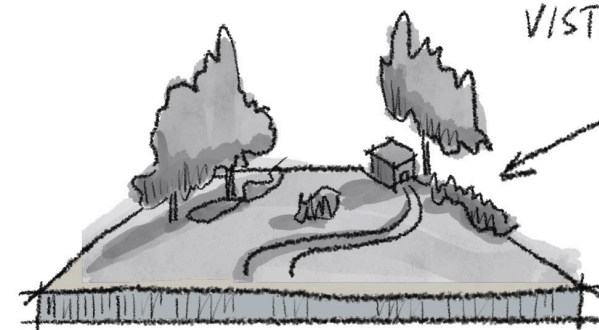
VISTA AS SEEN VISUALLY



INTERACTIVE TACTILE EXPERIENCE

TACTILE MAP
 • MAYBE MORE ABSTRACT?
 • MAYBE CAST METAL?
 • MAYBE MATERIALS RESEMBLE REALITY?
 - PLANTS, H₂O, ETC.
 MORE LIKE 'MINI LIVING MODEL'

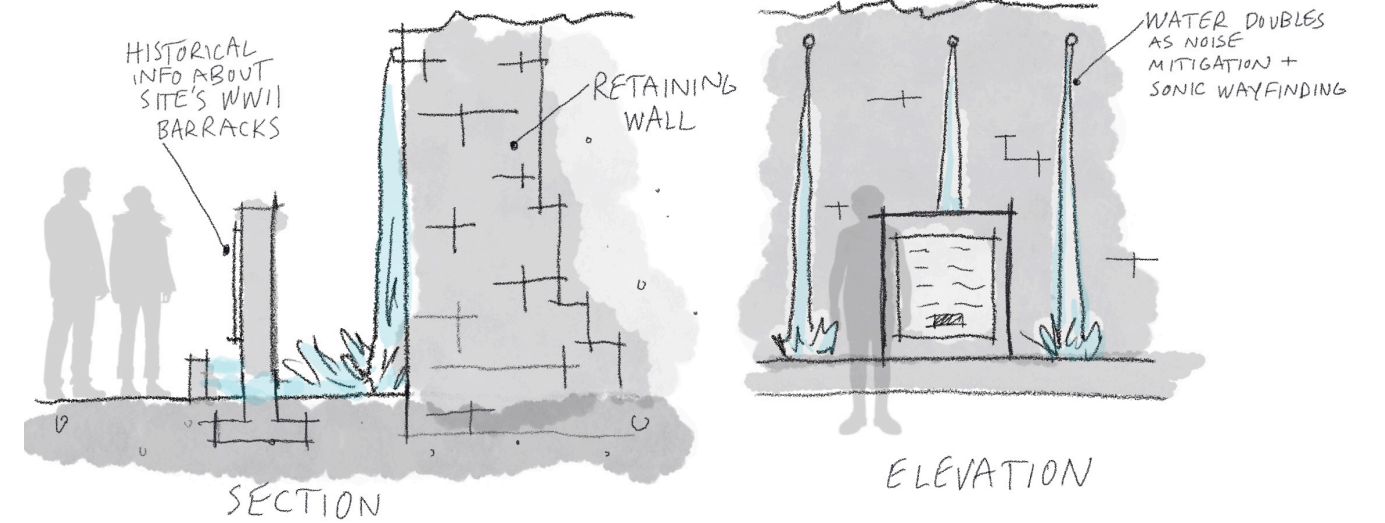
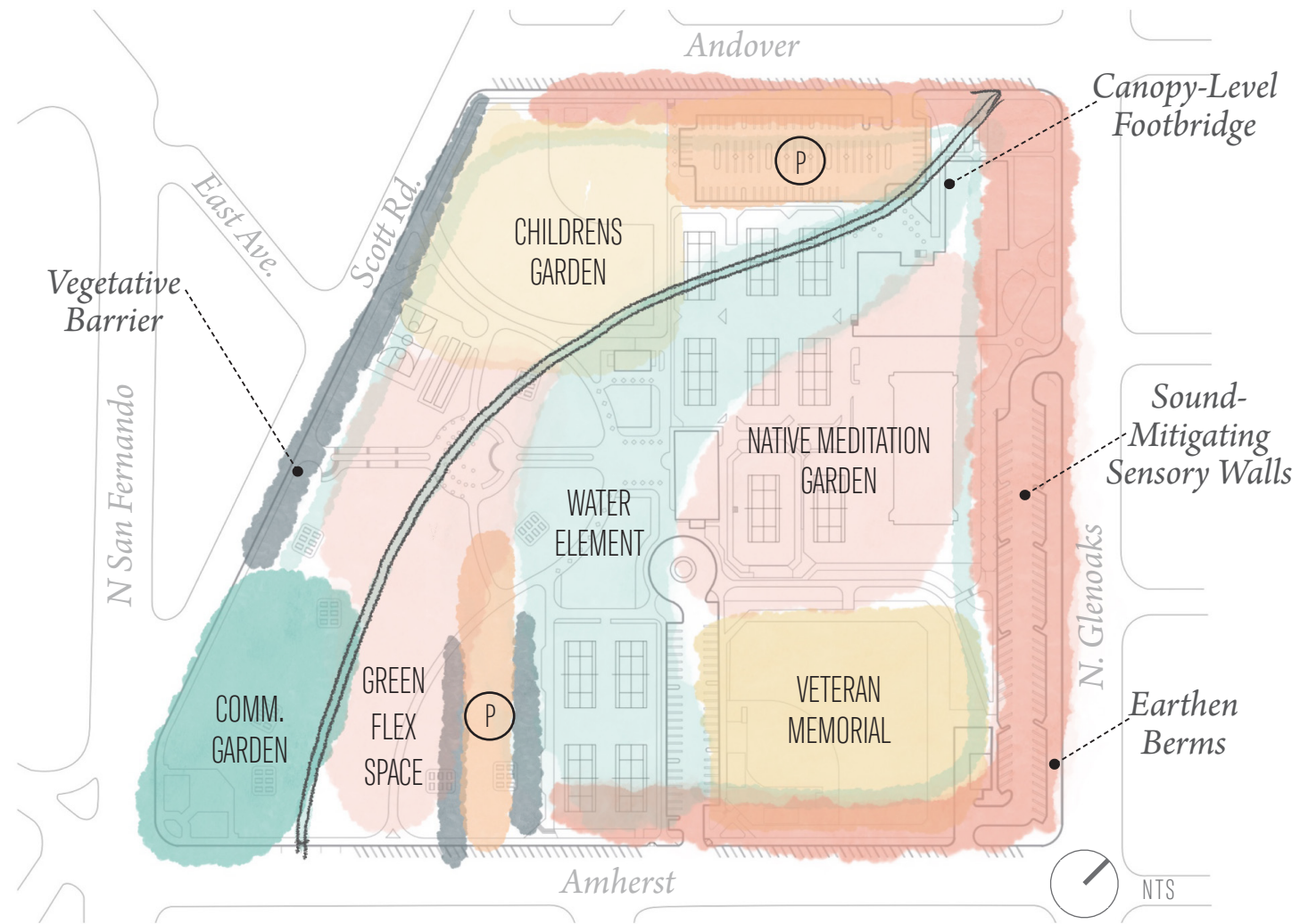
VISTA AS SEEN TACTILELY



TACTILE "MAPS" OF VISTA POINTS FOR ADDITIONAL/SUBSTITUTION SENSORY INPUT OVER VISION

CONCEPT 1

Sound Mitigation via Grade Change

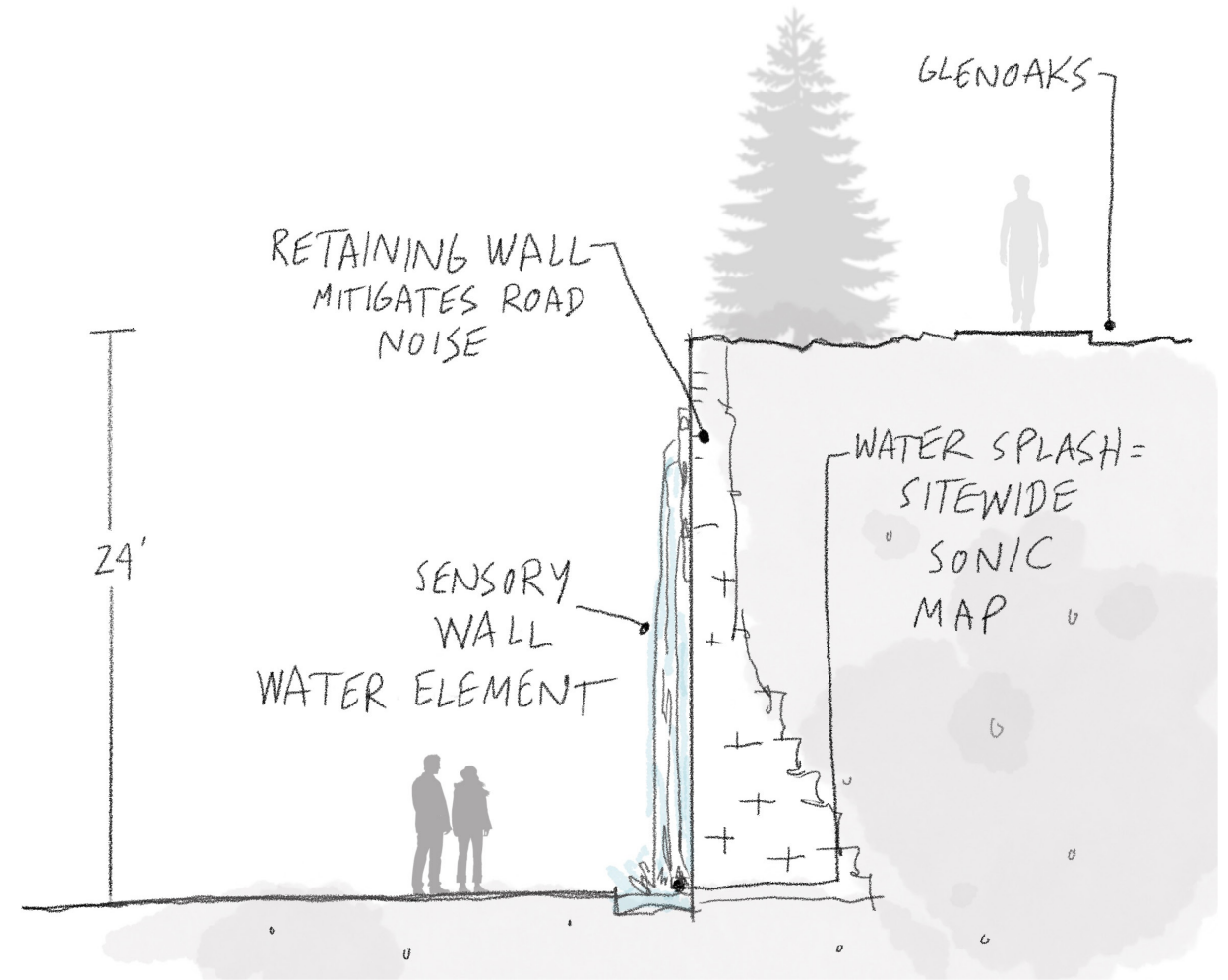
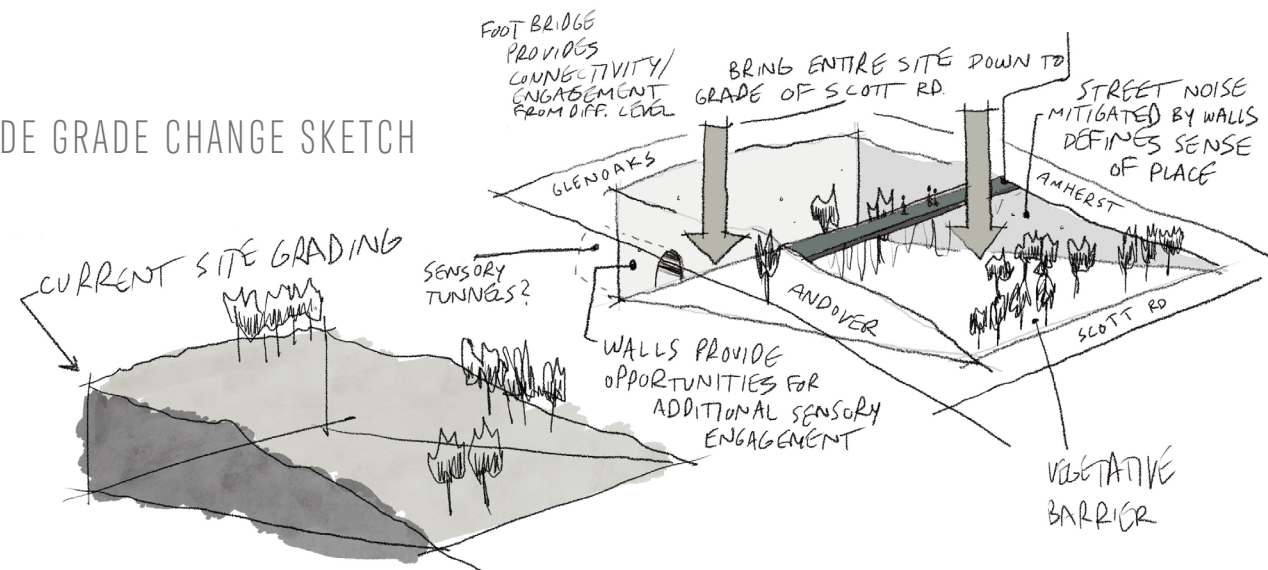


- ACCOMMODATE HYPERVIGILANCE -
 • 2 WALLS PROVIDE SENSE OF SECURITY. W/BACK TO WALL
 • OPEN VIEWS PREVENT TRAPPED SENSATION

VETERAN MEMORIAL WALLS

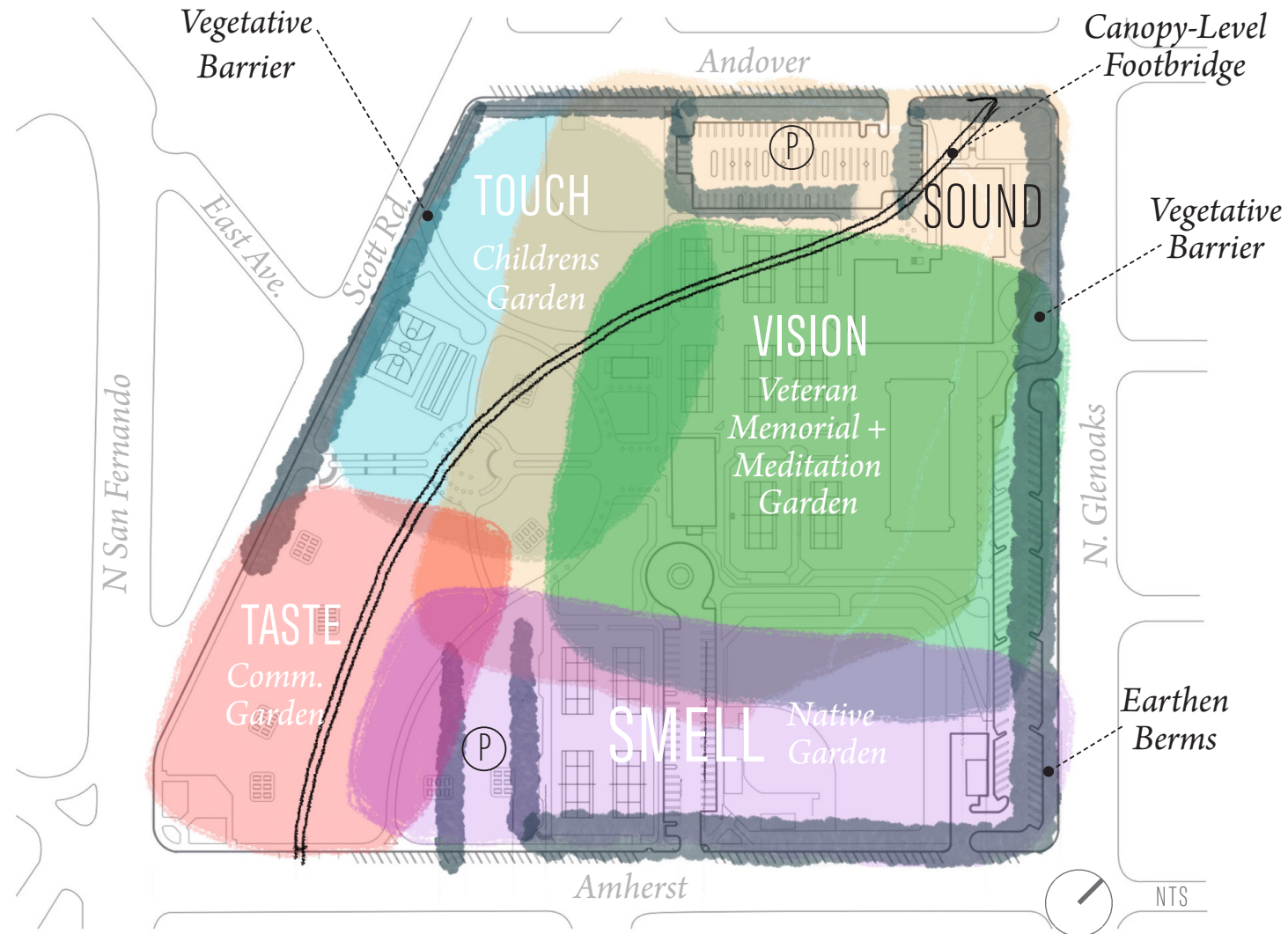
GRADE CUT CREATES OPPORTUNITY FOR SENSORY-MITIGATING RETAINING WALLS

SITEWIDE GRADE CHANGE SKETCH



CONCEPT 2

Sensory Zones + Overlap

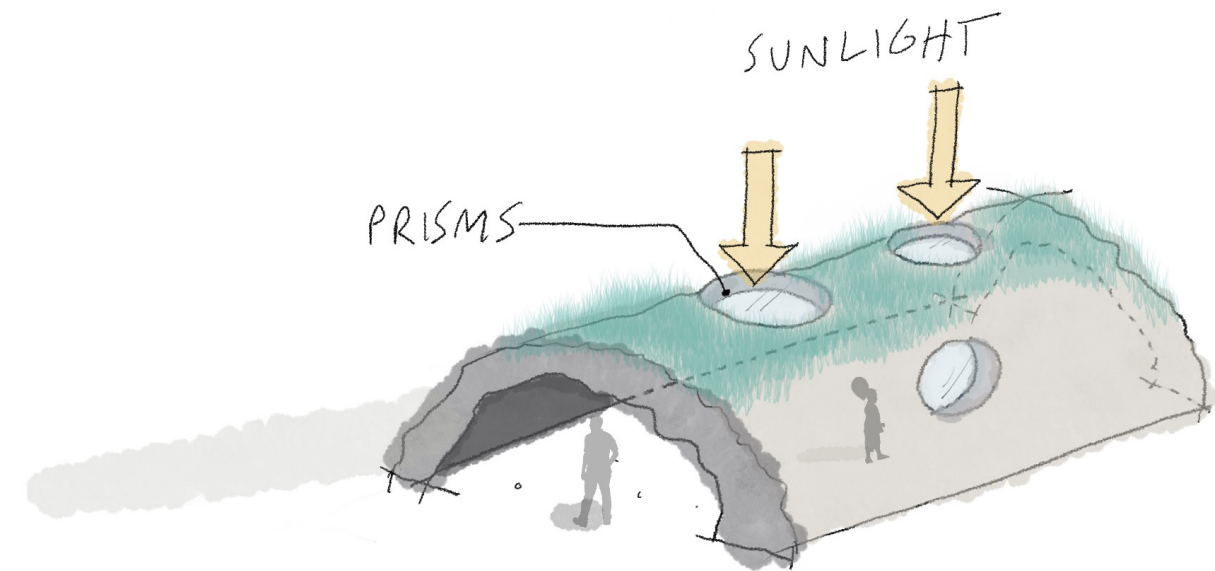


PROS

- Mitigates street noise
- Eliminates steep grade as mobility obstacle
- Enhances sense of space via auditory isolation
- Footbridge in tree canopy provides connectivity to adjacencies

CONS

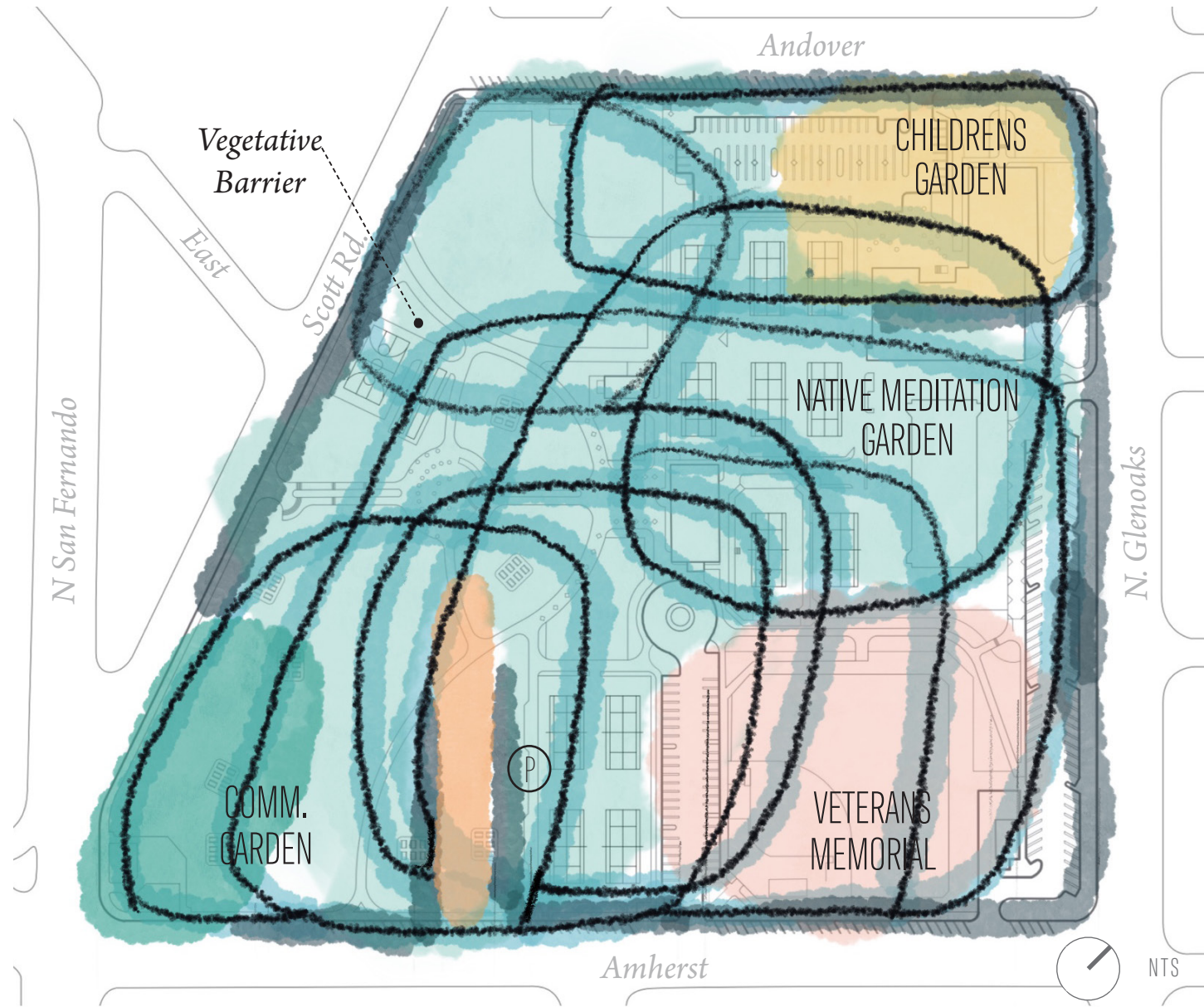
- Prohibitive cost
- Massive soil cut
- Existing infrastructure must be moved to lower grade



EARTHEN BERM SENSORY TUNNEL

CONCEPT 3

Sensory Retreat + Walking Meditation



PROS

- *Seamlessly blends into cohesive sensory landscape*
- *Safe location for pedestrian engagement free of cars*

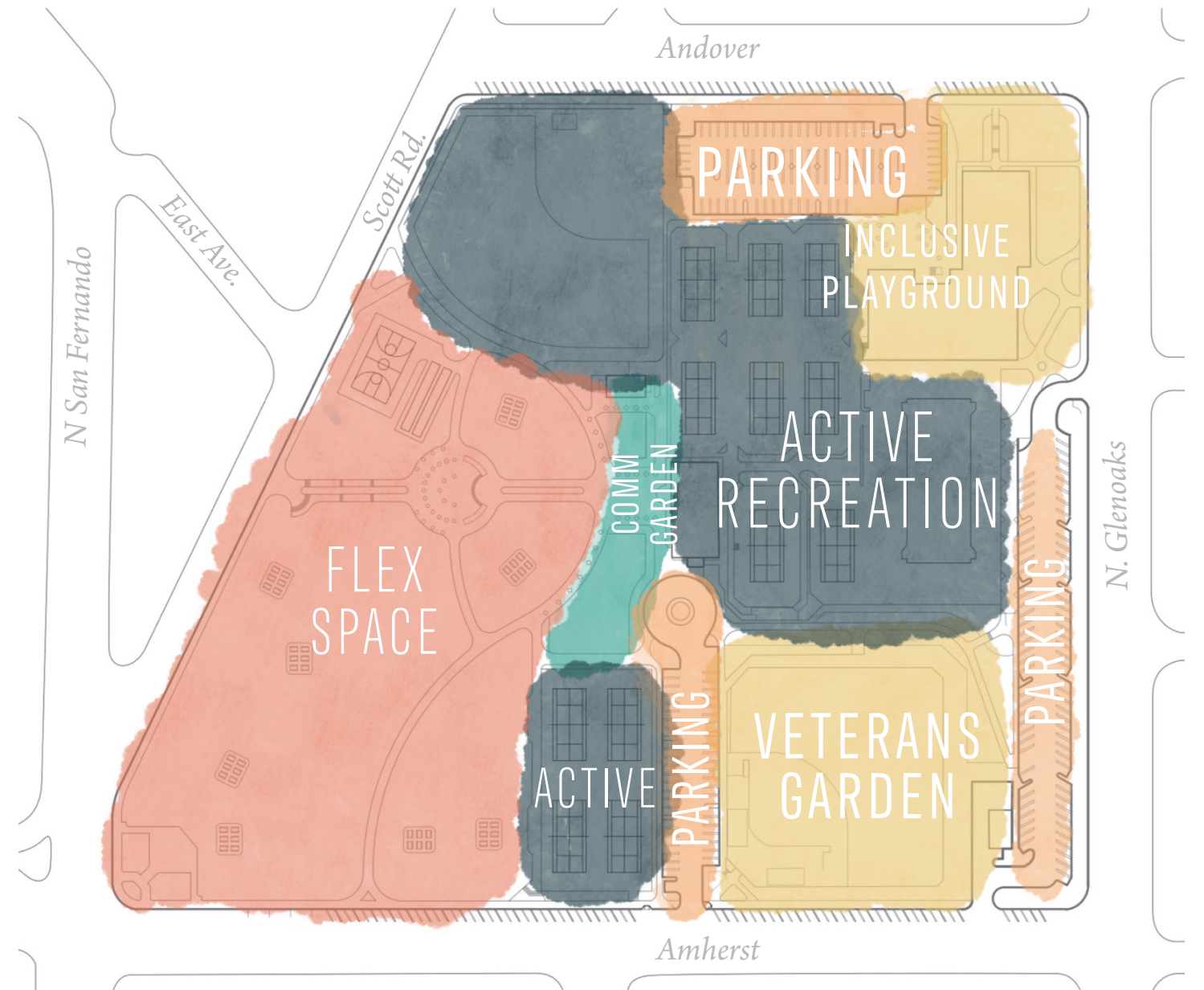
CONS

- *Paths may be too prescriptive*
- *Users with cognitive issues may get disoriented*
- *Removes majority of parking*

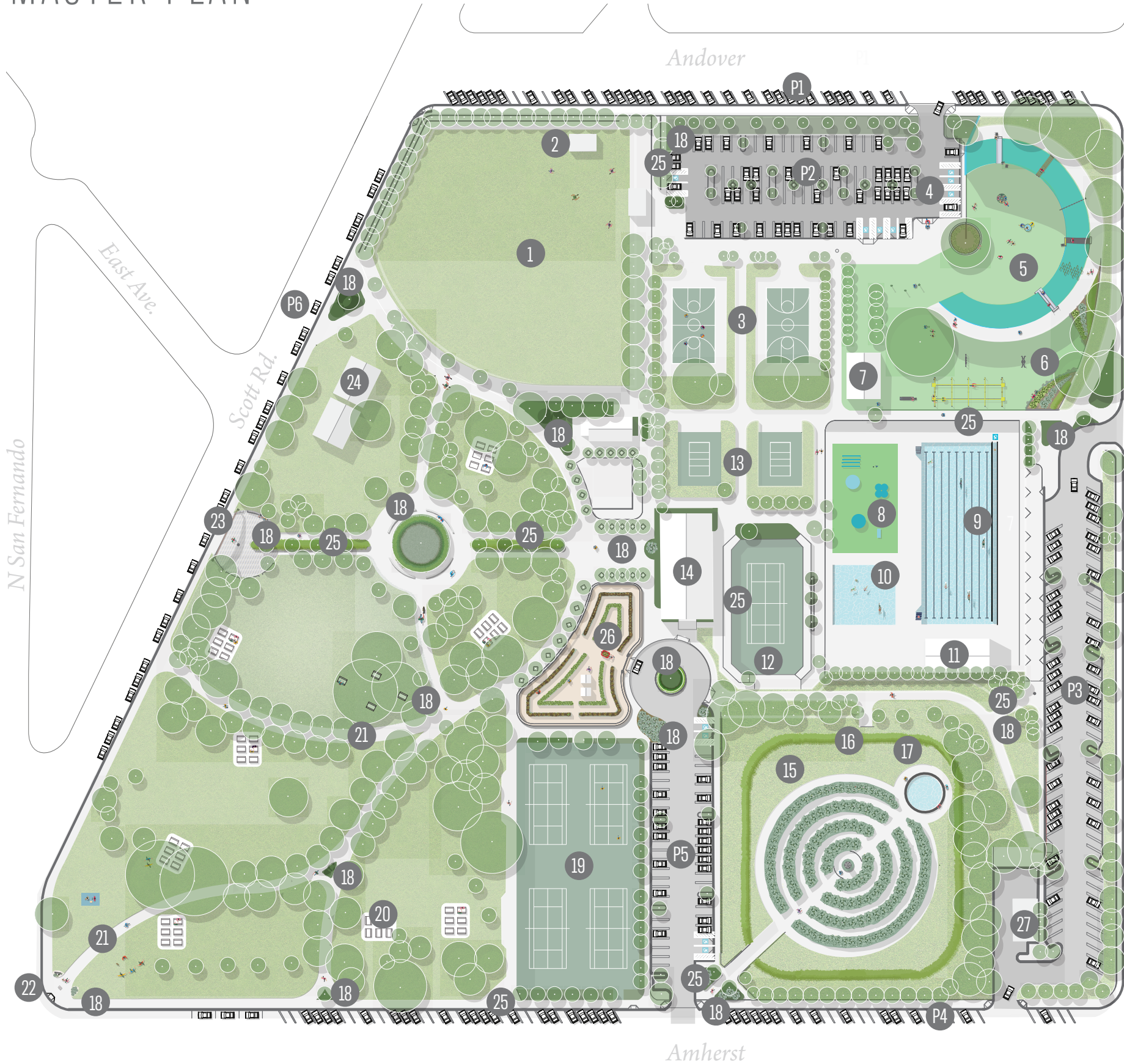
FINAL REVISED CONCEPT DIAGRAM

SUMMARY

- Adaptive reuse of popular existing site programming --
 - preserves popular elements via updates for accessibility
 - significant cost savings
 - preserves mature tree canopy
 - adaptation of existing elements limits environmental impact/waste
- Provides active recreation for all users
- Isolated grade cuts take advantage of existing topography for sensory mitigation
- New veterans memorial garden and inclusive playgrounds are created in areas of low sensory stimuli
- Provides sensory elements for inclusive wayfinding
- Preserves all existing parking - providing all users access to site elements via accessible lots and street parking



MASTER PLAN



LEGEND

- | | |
|---|-----------------------------------|
| 1 BEEP BASEBALL DIAMOND
*TURF AREA OFFERS MULTIPURPOSE SPACE FOR OTHER SPORTS/ACTIVITIES | 17 MEMORIAL REFLECTION POOL |
| 2 COVERED BLEACHERS | 18 SENSORY PLANTINGS AT JUNCTIONS |
| 3 BASKETBALL COURTS | 19 TENNIS COURTS |
| 4 ADDITIONAL DISABLED PARKING | 20 PICNIC TABLE PADS |
| 5 INCLUSIVE PLAYGROUND | 21 NEW PATHS |
| 6 ADAPTIVE CLIMBING WALL | 22 NEW SOUTHERN ENTRANCE |
| 7 PLAYGROUND-ONLY RESTROOM | 23 NEW MAIN ENTRY W/RAMP |
| 8 INCLUSIVE SPLASH PAD | 24 PICNIC SHELTERS |
| 9 INTERNAL ACCESS POOL RAMP | 25 STAIRS CONVERTED TO RAMPS |
| 10 ZERO-ENTRY POOL | 26 COMMUNITY GARDEN |
| 11 LOCKER ROOM/SHOWERS | 27 FACILITIES BUILDING |
| 12 TENNIS STADIUM | P1 STREET PARKING - 50 CARS |
| 13 SIT VOLLEYBALL COURTS | P2 PARKING LOT - 90 CARS |
| 14 CAFE & REC CENTER (EXISTING) | P3 PARKING LOT - 95 CARS |
| 15 VETERANS MEMORIAL GARDEN | P4 STREET PARKING - 66 CARS |
| 16 PERIMETER BIOSWALE | P5 PARKING LOT - 50 CARS |
| | P6 STREET PARKING - 30 CARS |



EXISTING PLAYGROUNDS + PROPOSED PLAYGROUND SITE



1 Existing playground



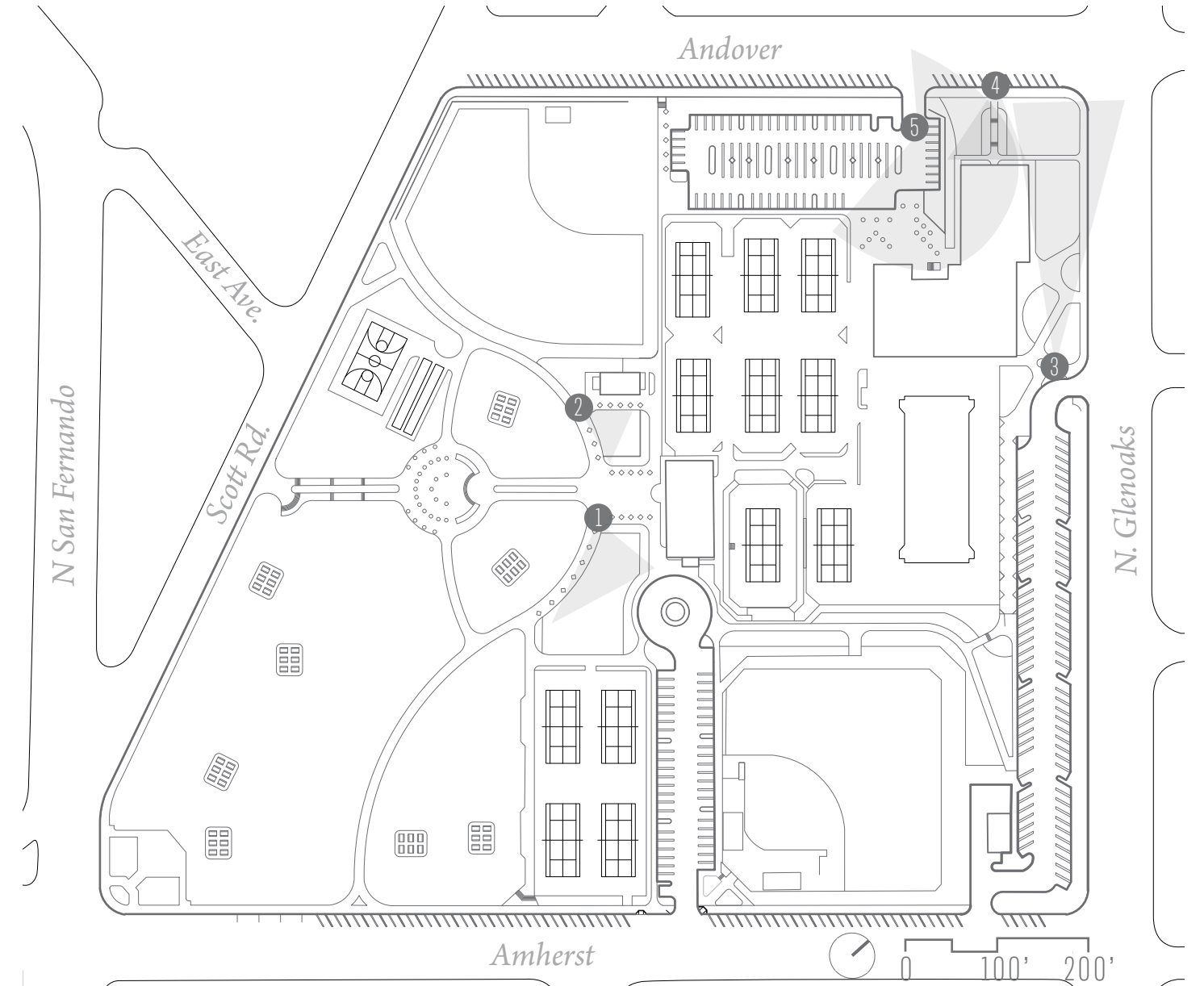
2 Existing tot lot



3 NW along N Glenoaks - proposed site of new playground



4 Looking NE at topo & existing community center - proposed site



5 Panorama Looking NE from parking lot of existing community center -- structure will be removed & 7' cut will be made in grade to create inclusive playground within earthen berm

ENLARGEMENT - INCLUSIVE PLAYGROUND

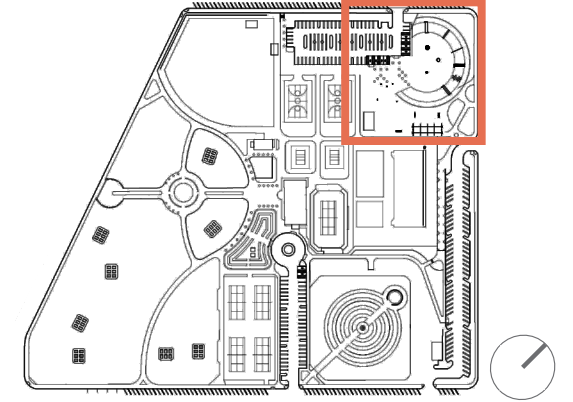
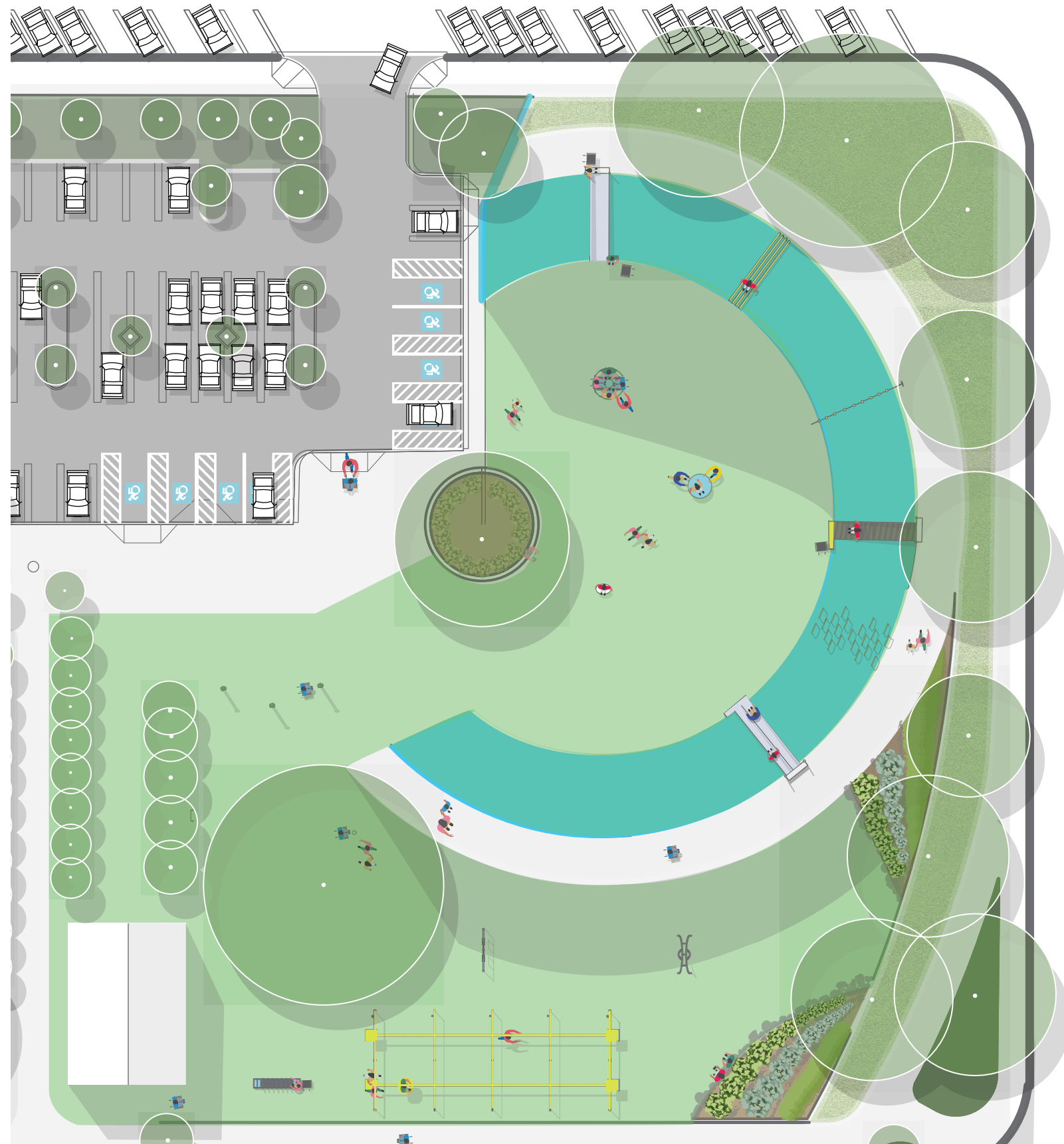
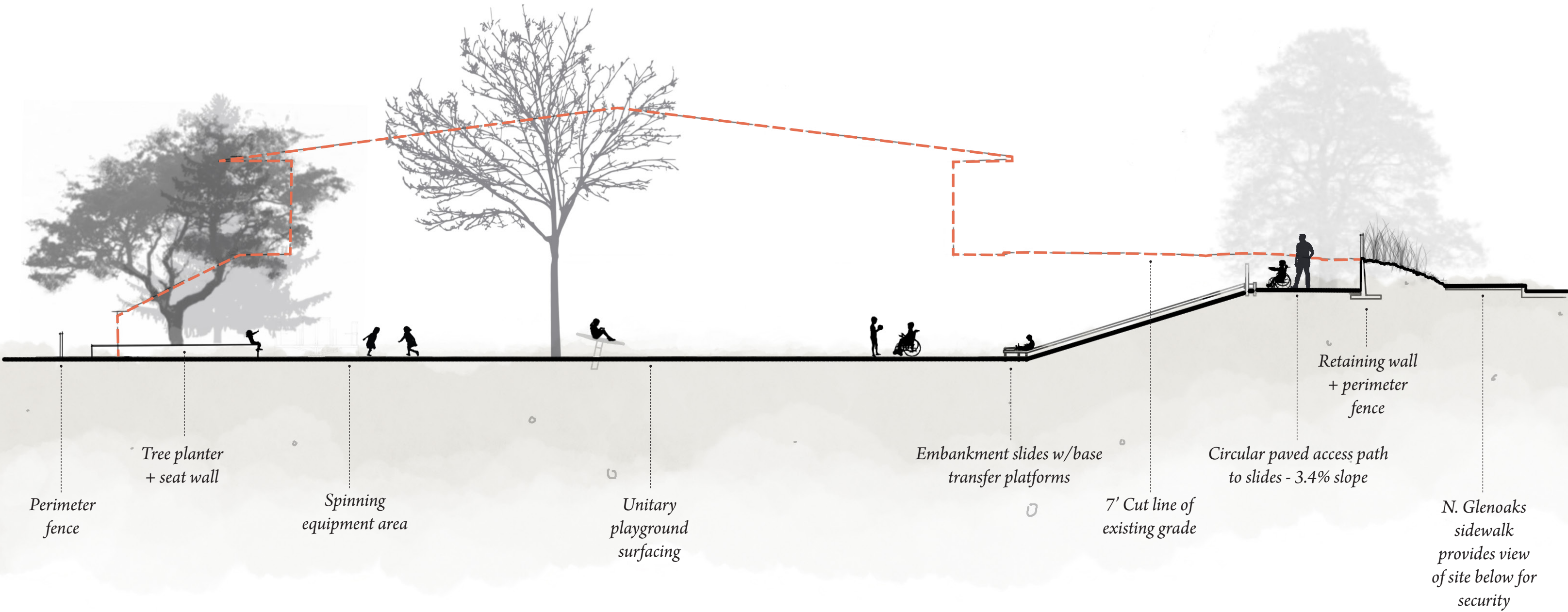
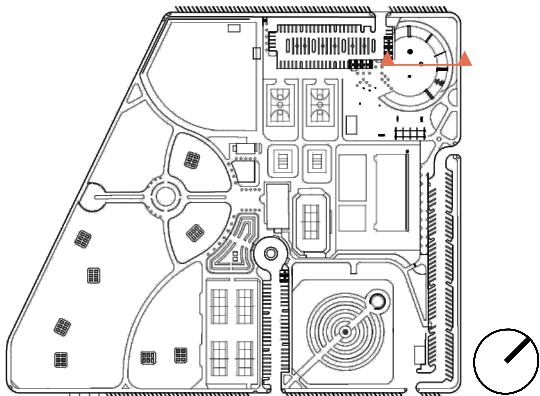


Image Sources:
 'Zipkrooz' <https://www.playlsi.com/en/commercial-playground-equipment/playground-components/zipkrooz-assisted/>
 'Magical Bridge Playground' <http://siliconvalley.apwa.net/EventDetails/25209>



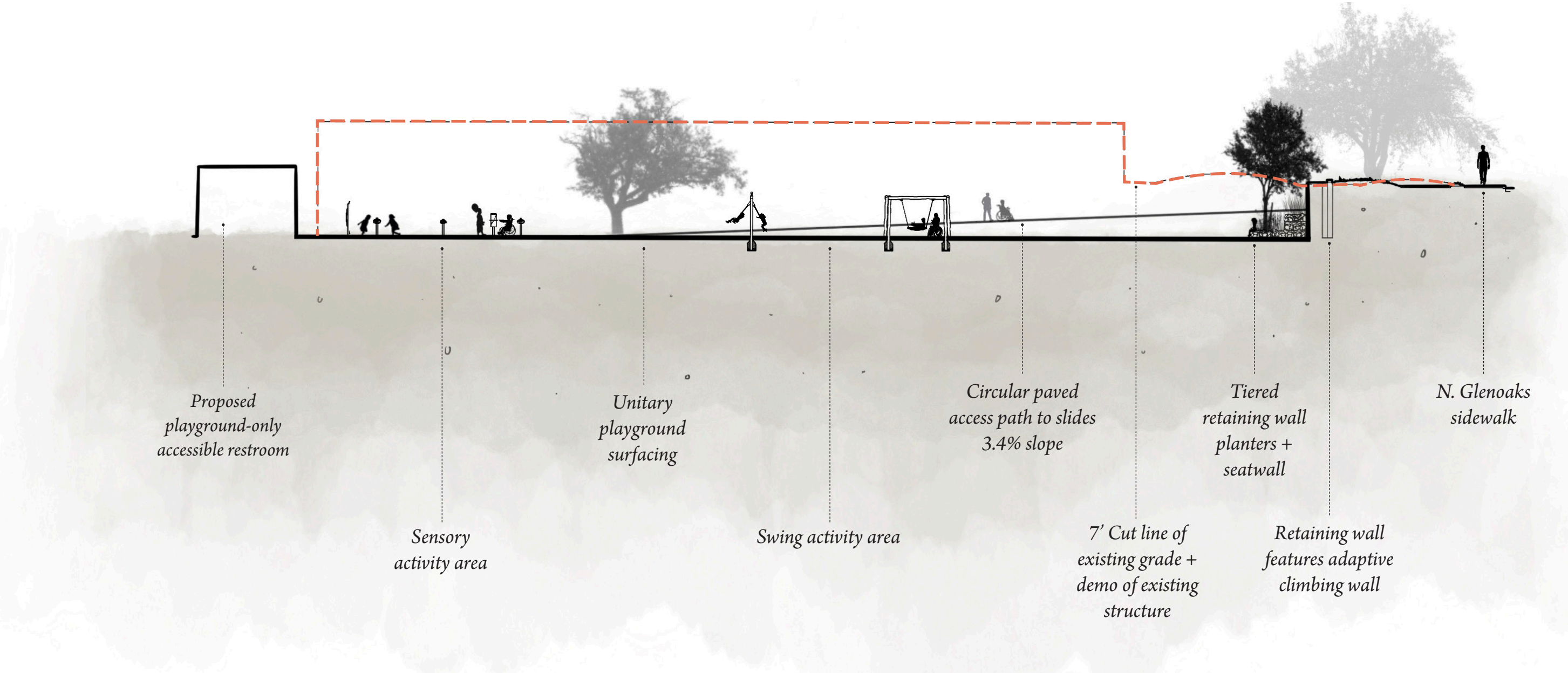
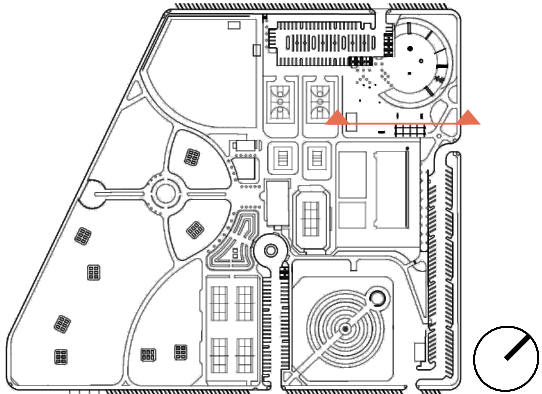
SECTION - INCLUSIVE PLAYGROUND

Sound/Stimuli Mitigation via 7' Contour Cut



SECTION - INCLUSIVE PLAYGROUND

Swing Area + Section of Circular Ramp



Proposed
playground-only
accessible restroom

Sensory
activity area

Unitary
playground
surfacing

Swing activity area

Circular paved
access path to slides
3.4% slope

7' Cut line of
existing grade +
demo of existing
structure

Tiered
retaining wall
planters +
seatwall

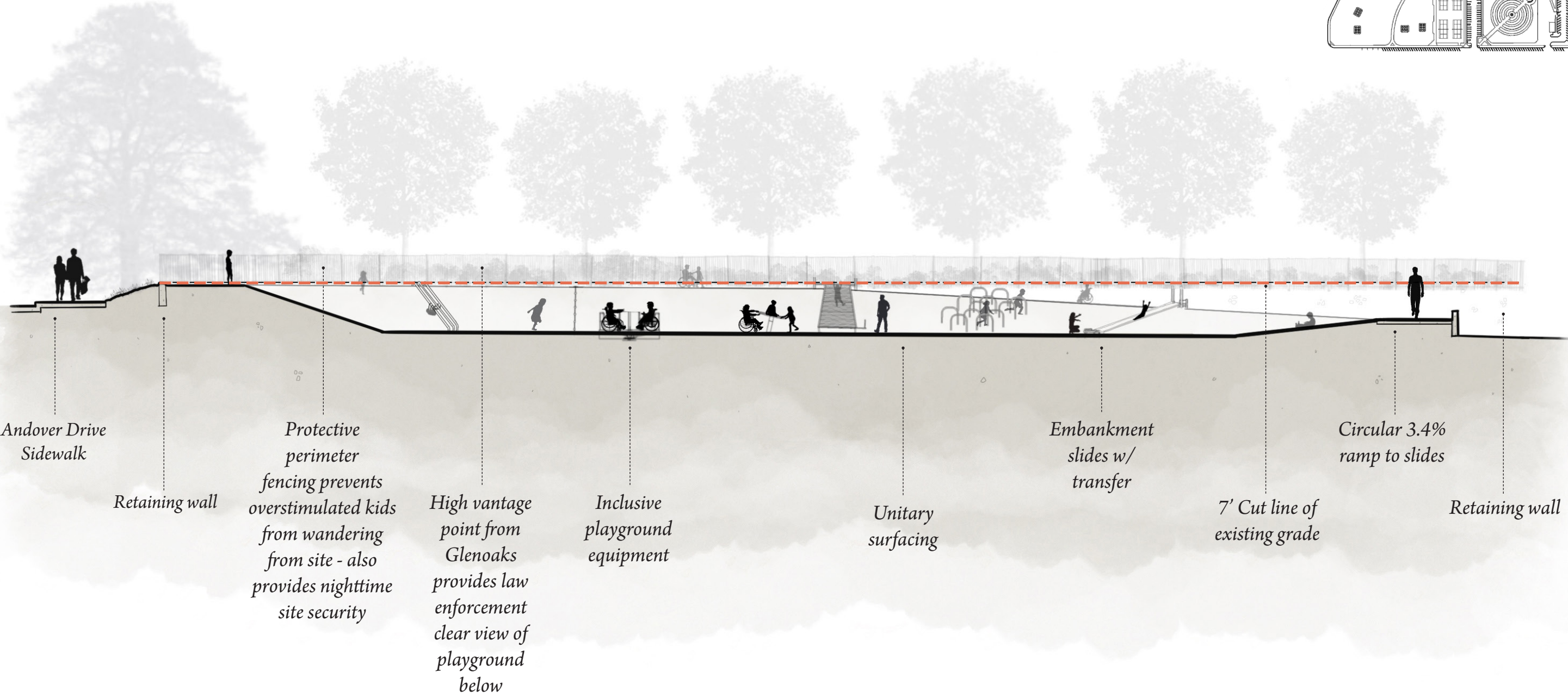
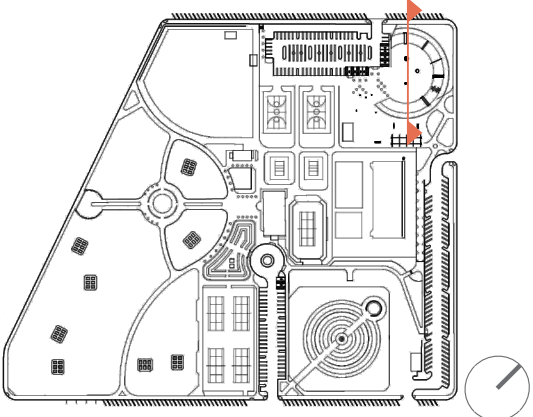
Retaining wall
features adaptive
climbing wall

N. Glenoaks
sidewalk



SECTION - INCLUSIVE PLAYGROUND

Section of Circular Ramp



Andover Drive Sidewalk

Retaining wall

Protective perimeter fencing prevents overstimulated kids from wandering from site - also provides nighttime site security

High vantage point from Glenoaks provides law enforcement clear view of playground below

Inclusive playground equipment

Unitary surfacing

Embankment slides w/ transfer

7' Cut line of existing grade

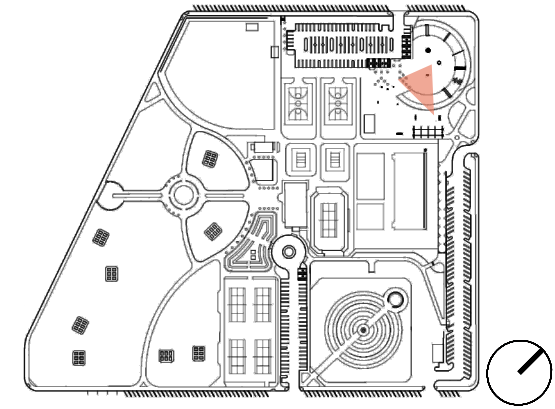
Circular 3.4% ramp to slides

Retaining wall



PERSPECTIVE - INCLUSIVE PLAYGROUND

Sound Mitigation via 7' Contour Cut



- ◆ *Inclusive playground equipment throughout*
- ◆ *Areas of retreat for overstimulated users*
- ◆ *Embankment slides accessible by circular ramp*
- ◆ *Law enforcement has full visibility of playground from parking lot--at grade & from above on N. Glenoaks*
- ◆ *Perspective shows view to playground below from N. Glenoaks*

EXISTING VETERANS MEMORIAL

Monument Surrounded by Traffic & Sensory Stimuli



1 Panorama of existing veterans monument and Gold Star Mothers Roses at corner of Amherst Dr. & N. San Fernando



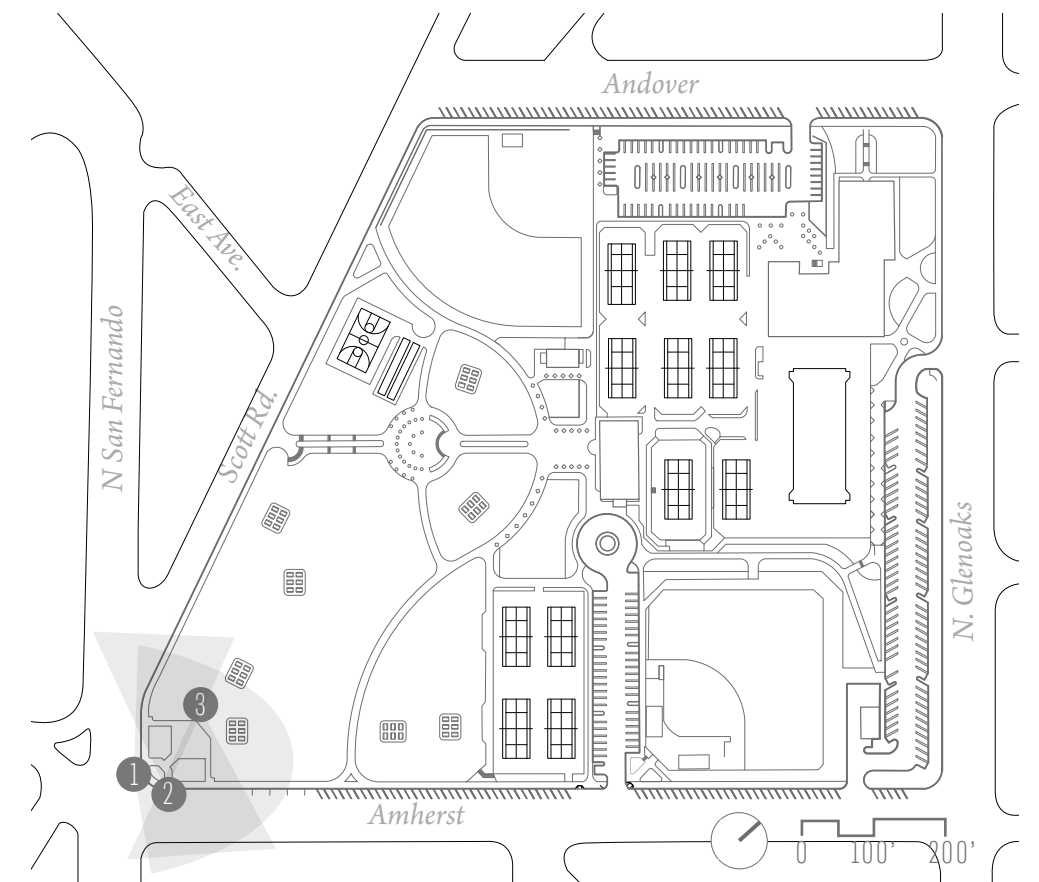
2 View of monument with car wash at corner of N San Fernando & Scott Rd



3 View of monument w/commercial zone behind at Amherst & N San Fernando

EXISTING VETERANS MEMORIAL ISSUES

- Significant traffic noise at busy intersection - can trigger PTSD
- Full exposure for visitors of memorial - can trigger PTSD
- No fallen soldiers listed from gulf conflicts
- Lack of privacy for visitors
- Exposure to traffic, sensory stimuli, commercial zone betray honor earned by sacrifices of the fallen



PROPOSED SITE OF NEW VETERANS MEMORIAL GARDEN

*Existing Softball Diamond to be Replaced by
New Memorial Garden w/5' Grade Cut*



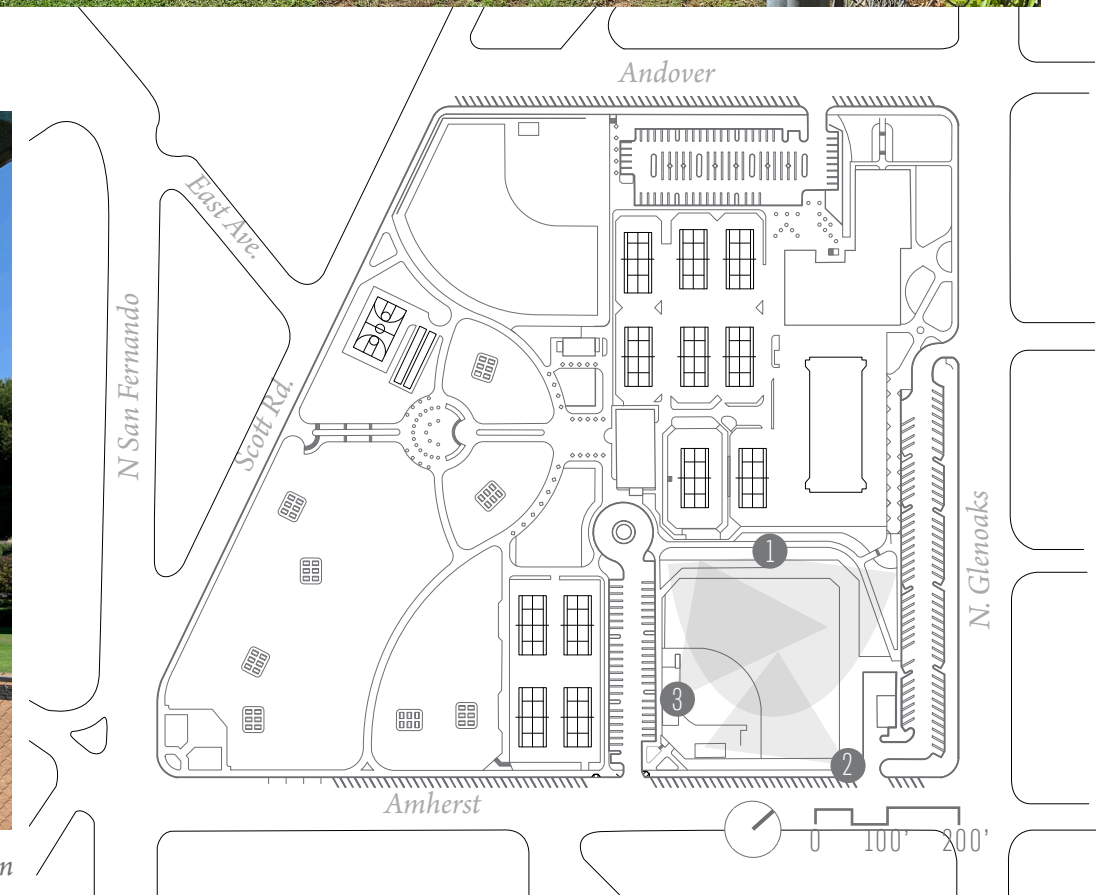
1 Panorama of existing softball diamond looking NE toward Amherst - 5' grade cut will be made to provide further mitigation of sensory stimuli



2 Looking W from Amherst sidewalk onto proposed memorial site below - law enforcement will have clear view of site



3 Looking N at existing softball diamond below, which will become memorial garden



ENLARGEMENT - VETERANS MEMORIAL GARDEN

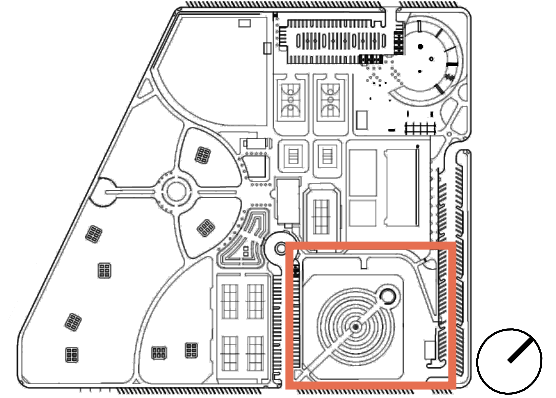
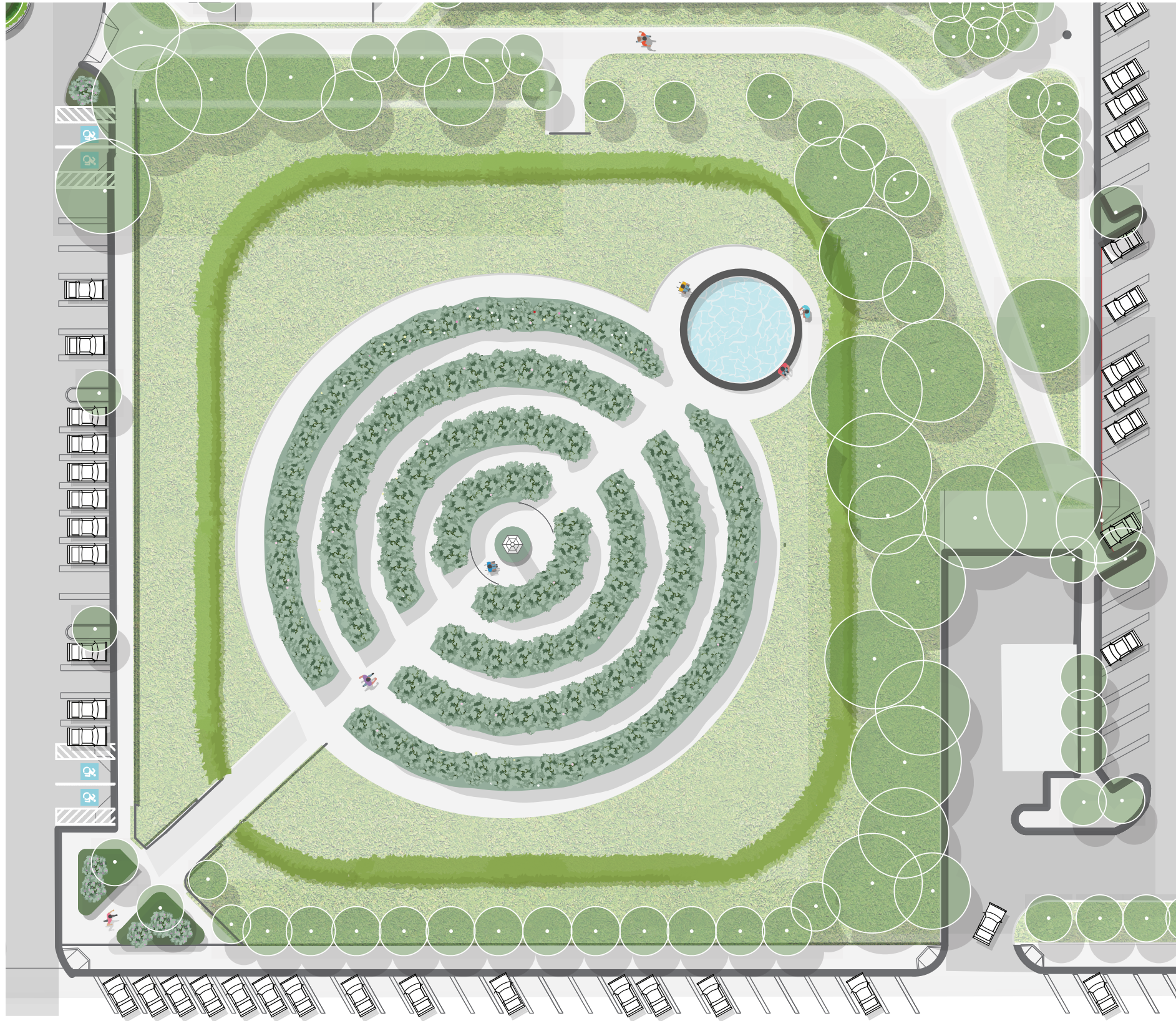
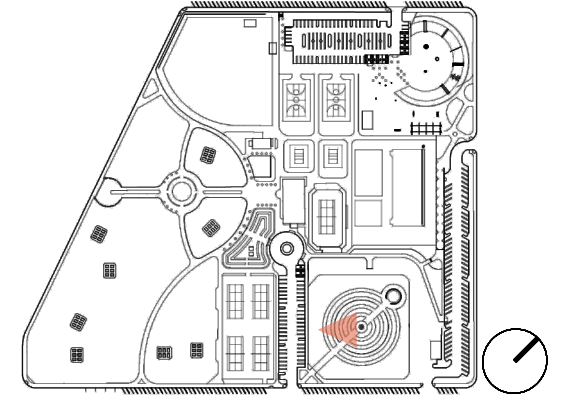


Image Sources:
 'Spiral Sunken Garden' <https://www.opb.org/artsandlife/series/vietnam/oregon-veteran-memorial-history/>
 'Labyrinth Maze Garden' <https://www.westend61.de/en/imageView/WDF001353/luxembourg-view-of-labyrinth-maze-garden>



PERSPECTIVE - VETERANS MEMORIAL GARDEN



- Existing obelisk monument and Gold Star Mother roses relocated to new memorial garden

- To mitigate PTSD triggers and ease hypervigilance (a heightened state of awareness and perpetual engagement of the sympathetic response in PTSD sufferers) the following design elements were incorporated:

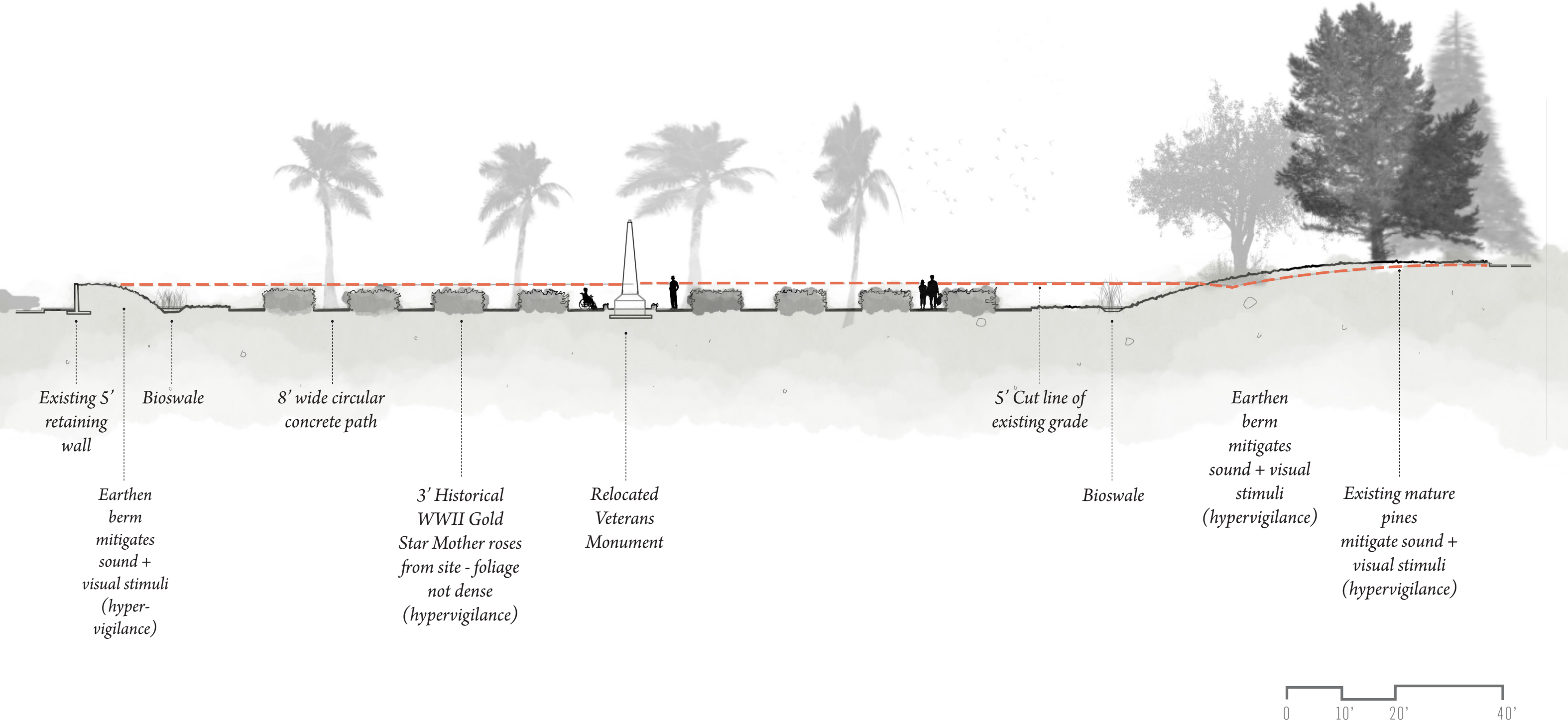
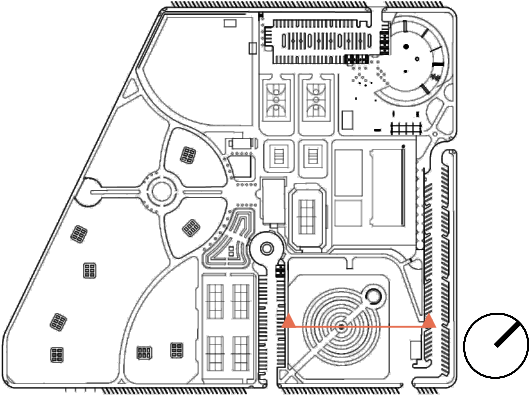
- Presence of only 1 entrance to allow users' backs to face solid surfaces and not entrances, which can feel vulnerable

- Open view across entire field, prevents concern an enemy may be hiding (including pruning of roses to keep foliage more open)

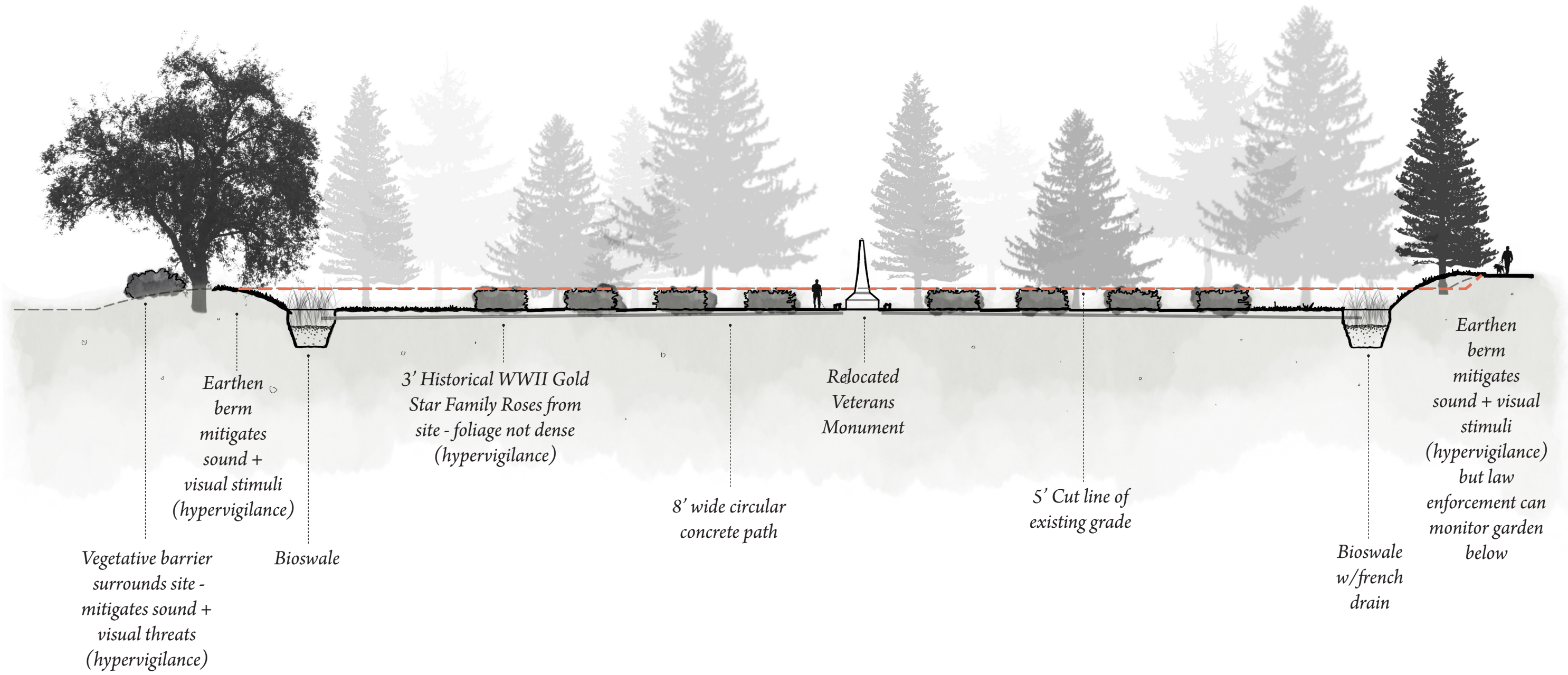
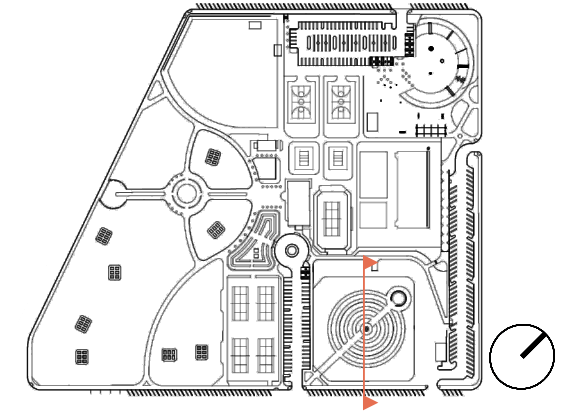
- Earthen berms mitigate sound and visual stimuli, of vehicular traffic and pedestrians, specifically

- Design is intentionally visually simple to prevent visual cognitive complexity which can enhance negative response to an area

SECTION - VETERANS MEMORIAL GARDEN

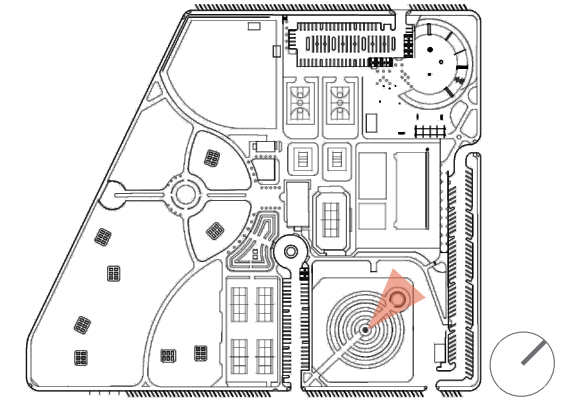


SECTION - VETERANS MEMORIAL GARDEN



PERSPECTIVE - VETERANS MEMORIAL GARDEN

Memorial Reflection Pool + Seatwall with Braille



Braille Perimeter
Seatwall Ring Detail

- Honors local service members -- internal wall lists fallen soldiers WWI to present
- Doubles as seatwall w/perimeter ring listing fallen soldiers in braille
- Water only few inches deep = operable during water restrictions

ENLARGEMENT - COMMUNITY GARDEN



Existing playground location - site of proposed community garden

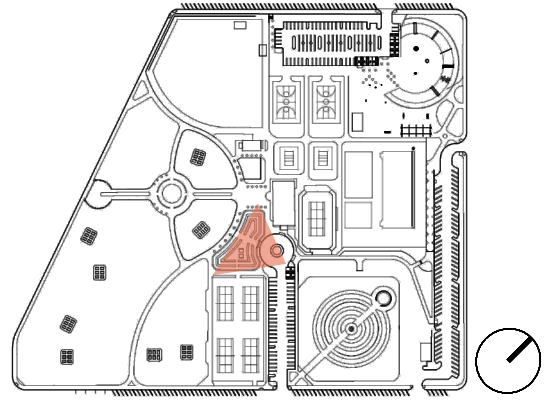


Example of wheelchair-accessible planters in use

Image Sources:
 'Uniquely Designed Gardens for Those with Disabilities' <https://blog.gardeningknowhow.com/garden-sponsorship/diga/>



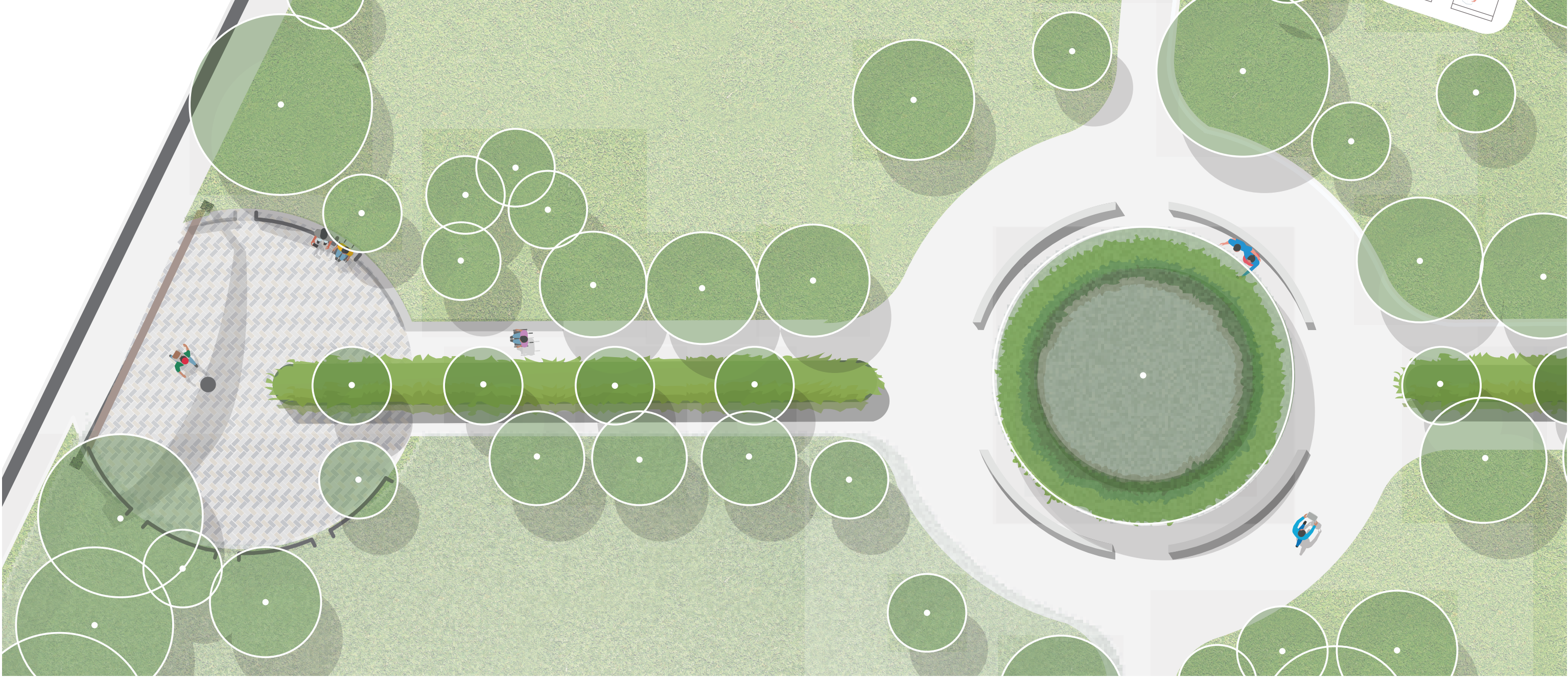
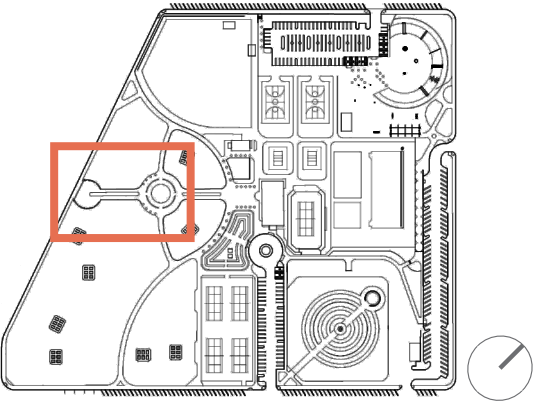
PERSPECTIVE - COMMUNITY GARDEN



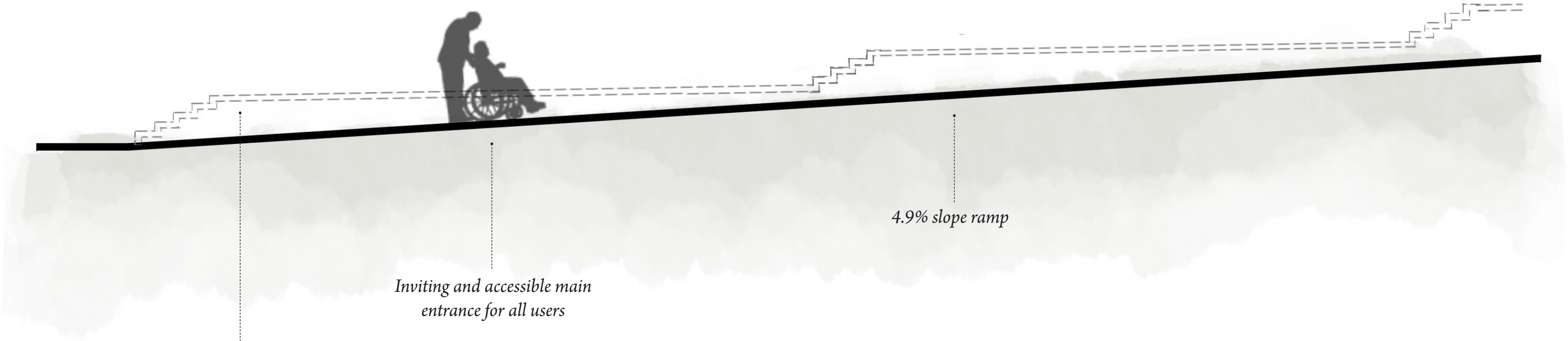
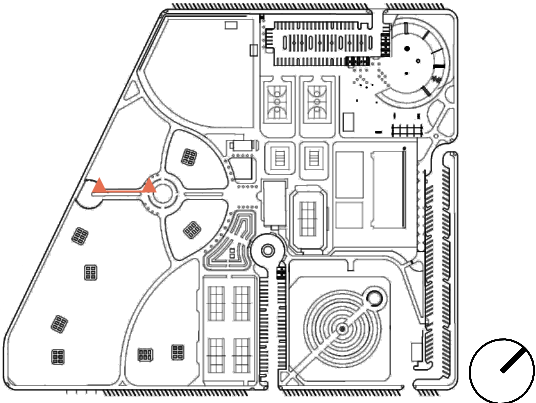
- Community Garden placed at site of existing playground
- All planters wheelchair-height also accessible to standing users
- Area of high sun exposure
- Therapeutic for all users
- Circle drive access aids in transport of produce/materials to & from garden

ENLARGEMENT - NEW AXIAL MAIN ENTRY

New Arch + Existing Main Stairway Replaced w/4.9% Ramp



SECTION - NEW AXIAL ENTRY RAMP



Existing stairs

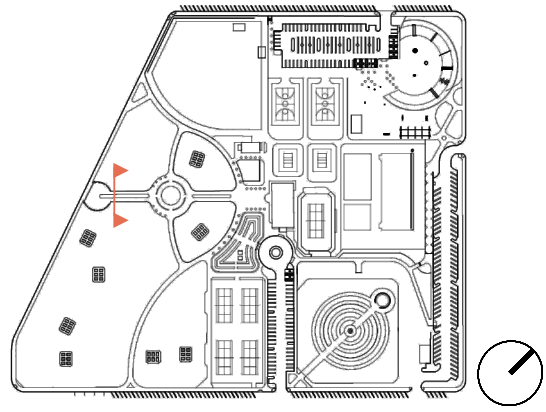
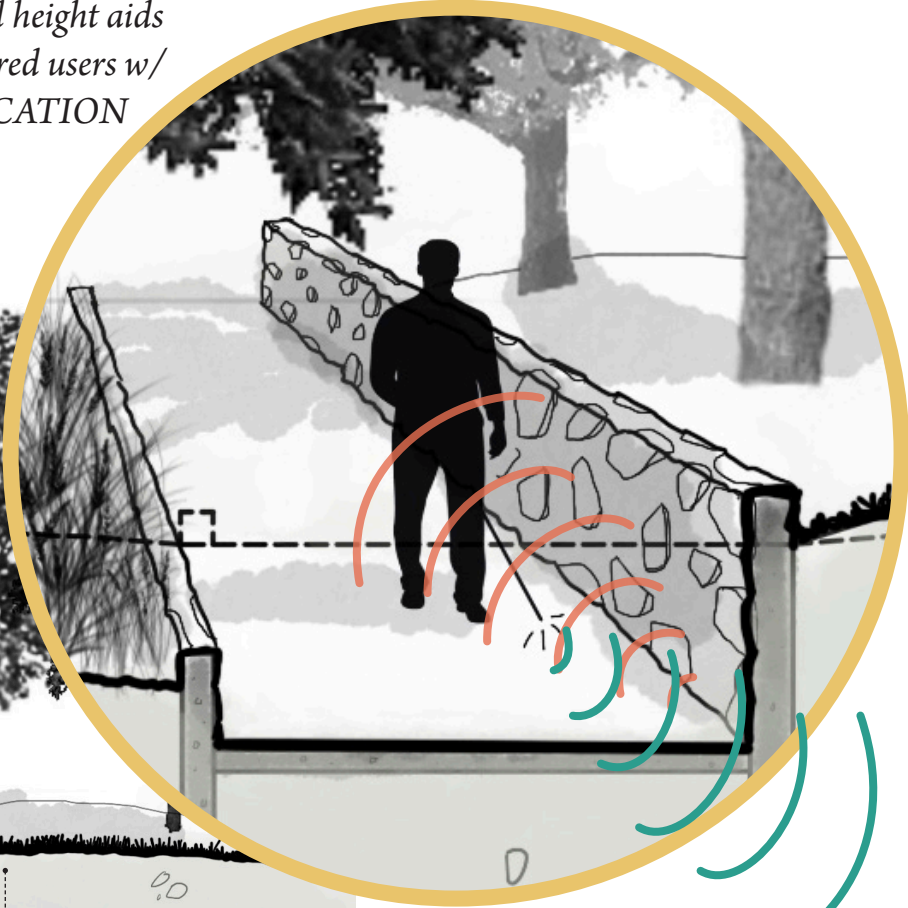
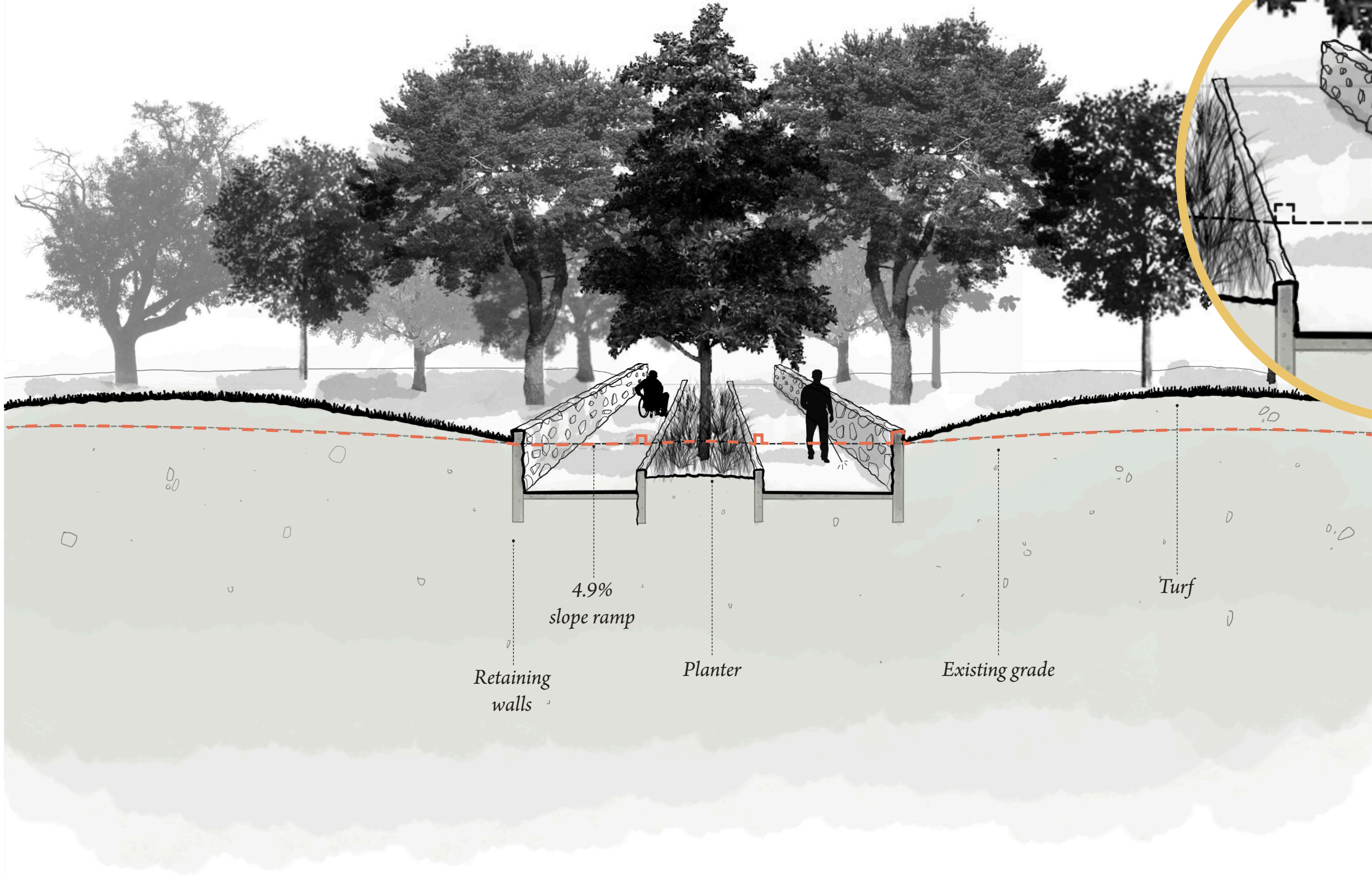
Inviting and accessible main entrance for all users

4.9% slope ramp



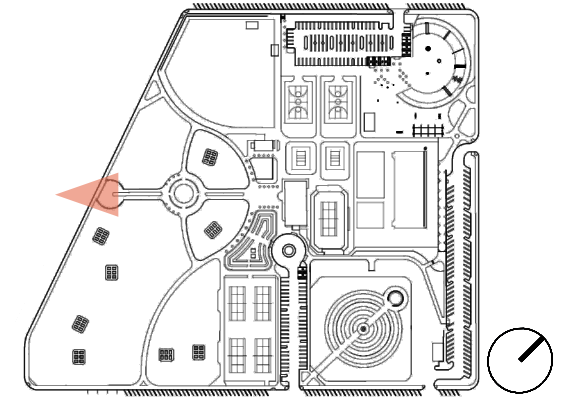
SECTION - NEW AXIAL ENTRY RAMP

Retaining wall height aids visually impaired users w/ ECHOLOCATION



PERSPECTIVE - NEW MAIN ENTRANCE

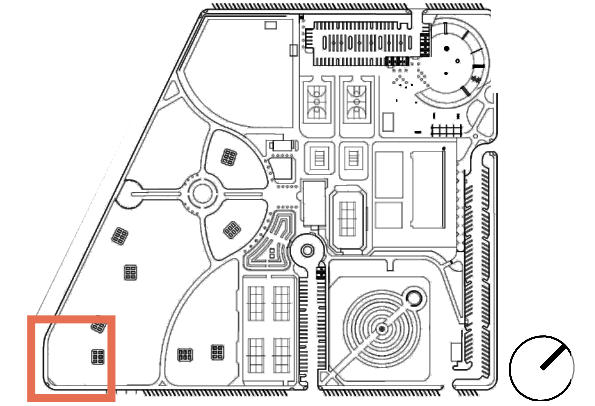
Existing Main Stairway Replaced w/4.9% Ramp



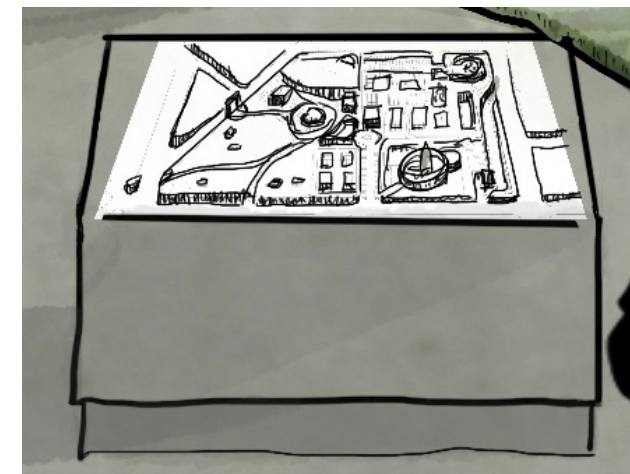
- *New signage arch aids in wayfinding, creates threshold*
- *New bench seating w/ cuts for wheelchair users to enable sitting beside able-bodied users*
- *New axial ramp allows all users to equitably use same main entrance*
- *Salvia clevelandii in central main planter aids in cognitive mapping/ wayfinding*

ENLARGEMENT - NEW SOUTH ENTRANCE

Signage + Entry Tactile Map



Existing veterans memorial - site of proposed southern entrance

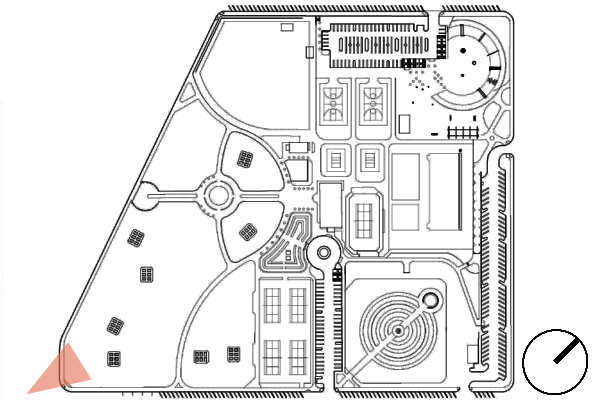


TACTILE MAP DETAIL

3-dimensional map located centrally in path provides wayfinding for all, specifically visually impaired users



PERSPECTIVE - NEW SOUTH ENTRANCE



- Relocation of existing veterans memorial provided opportunity for additional southern entrance
- Additional path gives access to users from busy corner, provides closer paved access to picnic areas
- Existing signage reused & relocated
- Tactile map located centrally in path
- *Salvia clevelandii* plantings aid in cognitive mapping/wayfinding

REFERENCES

SOUND

‘**Topography and Sound Propagation**’ <https://www.youtube.com/watch?v=GtNPBgeQvyI>

‘**Doctoral Thesis 2017:91 | Sound in Landscape Architecture: A Soundscape Approach to Noise**’ https://pub.epsilon.slu.se/14586/3/cerwen_g_170927.pdf

‘**Acoustic Ecology: Designing for the Ear**’ <https://www.buildinggreen.com/primer/acoustic-ecology-designing-ear>

‘**Movement, Memory & The Senses in Soundscape Studies**’ <http://www.sensorystudies.org/sensorial-investigations/%20movement-memory-the-senses-in-soundscape-studies/>

‘**Movement, Memory & The Senses in Soundscape Studies**’ <http://www.sensorystudies.org/sensorial-investigations/%20movement-memory-the-senses-in-soundscape-studies/>

‘**Movement, Memory & The Senses in Soundscape Studies**’ <http://www.sensorystudies.org/sensorial-investigations/%20movement-memory-the-senses-in-soundscape-studies/>

PLAYGROUNDS

‘**ASLA Professional Practice | Universal Design: Playgrounds**’ <https://www.asla.org/universalplaygrounds.aspx>

‘**Planning playgrounds for children with disabilities**’ <https://ajot.aota.org/article.aspx?articleid=1881551>

‘**Public Playground Safety Checklist**’ <https://www.cpsc.gov/safety-education/safety-guides/playgrounds/public-playground-safety-checklist>

‘**Creating Outdoor Play Environments to Support Social Interactions of Children with Autism Spectrum Disorder; A Scoping Study**’ <https://thecela.org/wp-content/uploads/CHRISTENSEN-ROMERO.pdf>

‘**Public Playground Safety Checklist**’ <https://www.re-thinkingthefuture.com/designing-for-typologies/a2660-10-great-examples-of-architecture-for-the-blind-around-the-world/>

‘**Designing A Playground For Children With Autistic Spectrum Disorders: Effects On Playful Peer Interactions**’ <https://pubmed.ncbi.nlm.nih.gov/17063401/>

‘**Planning Tool / ADA Checklist: Make Sure Your Playground is Compliant**’ <https://www.gametime.com/resources/ada-checklist>

‘**The Universal Playground: A Planning Guide.**’ https://www.google.com/books/edition/The_Universal_Playground/_de0PZm3UMC?hl=en&gbpv=1&printsec=frontcover

‘**An Architecture For Autism: Concepts Of Design Intervention For The Autistic User**’ <https://s3.us-east-1.amazonaws.com/media.archnet.org/system/publications/contents/5107/original/DPC1837.pdf?1384788342>
‘**U.S. Consumer Product Safety Commission Public Playground Safety Handbook**’ <https://www.cpsc.gov/s3fs-public/325.pdf>

VISUALLY IMPAIRED

‘**Odors Can Serve as Landmarks in Human Wayfinding**’ <https://www.cpsc.gov/safety-education/safety-guides/playgrounds/public-playground-safety-checklist>

‘**Dimensional Maps**’ <https://segd.org/dimensional-maps>

‘**Rethinking ADA signage standards for low-vision accessibility**’ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5433805/>

‘**X**’ <https://www.enablingenvironments.com.au/outdoor-accessibility.html>

‘**Low Vision Design Committee: Design guidelines for the visual environment**’ https://www.nibs.org/files/pdfs/NIBS_LVDP_Guidelines_20
‘**Multidisciplinary assessment of the state of the art of signage for blind and low vision persons: Final Report (No. D-48-618)**’ https://smartech.gatech.edu/bitstream/handle/1853/32224/d-48-618_290339.pdf?sequence=1&isAllowed=y

‘**Biomechanics for inclusive urban design :effects of tactile paving on older adults’ gait when crossing the street**’ https://usir.salford.ac.uk/id/eprint/12651/2/Clean_Copy_Revision_3_Dec_17.pdf

‘**Gait analysis of people walking on tactile ground surface indicators**’ <https://www.semanticscholar.org/paper/Gait-analysis-of-people-walking-on-tactile-ground-Kobayashi-Takashima/3c3c8078e20be819e0a22e03ba73e7272691907c>

WAYFINDING/DEMENTIA

‘**Can different colors influence a person with dementia? Here’s what to know**’ https://www.theadvocate.com/baton_rouge/entertainment_life/health_fitness/article_922b136a-84d5-11e6-8c00-fbc8ac72b472.html

‘**Dementia Enabling Environments - Design Guidance for Gardens**’ <https://www.enablingenvironments.com.au/care-environment-garden.html>

‘**Wayfinding and dementia: Some research findings and a new look at design**’ <https://www.semanticscholar.org/paper/Wayfinding-and-dementia%3A-Some-research-findings-and-Passini-Rainville/acf5c6facb655490e3799463bfd1948fd66025b5#paper-headerdo?customersID=atyponcel&smartRedirect=yes&mode=FullRecord&IsProductCode=Yes&product=CEL&Init=Yes&Func=Frame&action=retrieve&SrcApp=literatum&SrcAuth=atyponcel&SID=8Ekaxri65QXJ8hYSZQD&UT=WOS%3A000074641900003>

‘**Wayfinding & Dementia: How Design Can Improve Navigation Among Older Adults in Assisted-Living Facilities**’ <https://scholarworks.gvsu.edu/cgi/viewcontent.cgi?article=1071&context=spnhareview>

‘**The Field | ASLA | Sensory Gardens**’ <https://thefield.asla.org/2016/10/25/sensory-gardens/>

PTSD

‘**Designing for invisible injuries: An exploration of healing environments for posttraumatic stress**’ <https://www.aiaa.org/pages/22356-designing-for-invisible-injuries-an-explorat?tools=true>

‘**Posttraumatic Understanding: The Connections Between Posttraumatic Stress and Environmental Design**’ https://static1.squarespace.com/static/586cf7b2be659472709cd98a/t/59f8cc9310952631f619f90f/1509477523905/PosttraumaticUnderstanding_2014.pdf

‘**How Common is PTSD in Veterans?**’ https://www.ptsd.va.gov/understand/common/common_veterans.asp

‘**PTSD and Veterans: Exploring the Statistics**’ <https://www.hillandponton.com/veterans-statistics/ptsd/>

‘**Designing for Calm**’ <https://www.nytimes.com/2013/01/13/opinion/sunday/building-a-space-for-calm.html>

‘**Collaborative design: outdoor environments for veterans with PTSD**’ https://www.healthdesign.org/sites/default/files/article-pdfs/Wagenfeld-et%20al-2013-CHD-KPS_0.pdf

‘**Intrinsic sensory disinhibition contributes to intrusive re-experiencing in combat veterans**’ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6976606/>

SITE ANALYSIS/HISTORY

‘**Adult Disability in Los Angeles County**’ <http://publichealth.lacounty.gov/wwwfiles/ph/hae/ha/Disability02.pdf>

‘**Universal design: Moving beyond accessibility accommodations to a more inclusive environment for everyone**’ <https://www.apa.org/pi/disability/resources/publications/newsletter/2013/11/inclusive-environment>

‘**Parcel Detail**’ <https://portal.assessor.lacounty.gov/parceldetail/2460001900>

‘**Metro | Regional Maps: San Fernando Valley**’ http://media.metro.net/riding_metro/maps/images/san_fernando_valley.pdf

‘**121st FA Barracks**’ http://wesclark.com/burbank/121st_fa_barracks.jpg

‘**Official map of Los Angeles County, California : compiled under instructions and by the order of the Board of Supervisors of Los Angeles County**’ <https://www.loc.gov/resource/g4363l.la000023/?r=-0.566,-0.093,2.132,1.379,0>

‘**Scott Tract Burbank**’ https://upload.wikimedia.org/wikipedia/commons/2/2f/Scott_Tract_Burbank.png

‘**City of Burbank Public Records Request - March 23, 2021**’ Master Plan - Heimberger Hirsch & Associates, Inc., 1996