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Art is Luv

# Mosswood Park Community Center & Park Master Plan

City of Oakland
Department of Public Works
Project and Grant
Management Division









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## **Participants & Contributors**

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Parks, Recreation & Youth Development
Public Library
Human Services
Planning and Building
Economic & Workforce Development
Police
Public Works Facilities Services
Public Works Parks & Tree Services

Community Stakeholders: Mosswood Recreation Advisory Council Oakland Parks & Recreation Foundation

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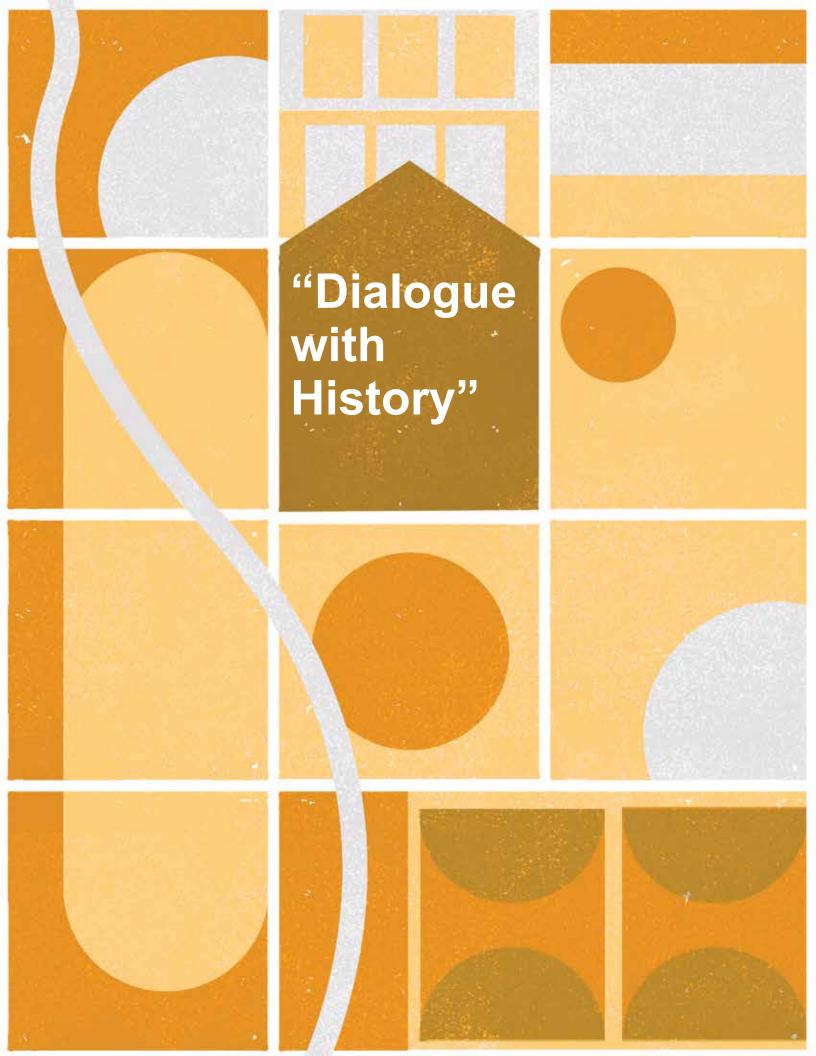
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## Park Master Plan & Concept Design

The early design process is a period of exploration and refinement. Opinions that we gathered from the community, patterns that we observed during site analysis and relevant regulatory information were synthesized into ideas about physical space. These ideas were presented back to the Mosswood Park stakeholders at workshops and meetings. The team then took this feedback and continued to refine the design.

In the following chapter we'd like to show how these ideas, information and feedback evolved into the master plan proposal. We tested many building locations and configurations before landing on the combination of location, size and budget that most closely aligned with the needs and goals of the project.

## Preliminary Site Plans & Building Options

The community engagement process and site analysis showed us that people come to Mosswood Park for many types of activities that require unique spatial features. A grassy field for baseball, a shady meadow for picnics, or a paved surface for basketball are all examples of site features at Mosswood Park that have very different qualities. To preserve as many of the existing park amenities as possible, we began by determining where the building should *not* be located.

We identified "no-build zones" based on technical reports, surveys and stakeholder feedback. These zones included:

- The northwest corner of the park due to poor soils
- The basketball courts
- 3 The Moss House
- The meadow and the area around the underground creek
- 5 The amphitheater
- The easement through the existing parking lot at the southwest corner of the park
- Notable and significant trees according to the arborist report
- Baseball field was added after workshop 5 due to strong community input

This exercise revealed three areas where the new community center building could be located: at the north of the park along West MacArthur Boulevard, on the current baseball field and where the temporary facilities are located. The baseball field was eventually removed as a possible location for the new building due to strong objections from the community and city departments.

We presented three building options at workshop 5, one in each of the three locations listed above. The opportunities and constraints of each location were incorporated into the distinct architecture of each option. Option 1 "Nature Pavilion" was nestled into the trees and was highly visible from MacArthur Boulevard. Option 2 "Dialogue with History" activated the Moss House and acted as a backdrop to other activities at the park. Option 3 "Community Beacon" was on the existing baseball field and presented a welcoming face to the residential neighborhood.

All of the options were two stories tall, contained the same program and had roughly the same total interior floor area. Since each building location was so different, the site plans varied in their layout and program. The following pages explain each option that was presented at workshop 5.



"NO-BUILD ZONES" ARE HIGHLIGHTED IN RED. THESE ARE AREAS OF THE PARK WHERE THE BUILDING SHOULD NOT BE LOCATED DUE TO STAKEHOLDER FEEDBACK OR CHALLENGING SITE CONDITIONS.

Here are some of the things we heard...

## OPTION 1 NATURE PAVILION

#### **OPPORTUNITIES**

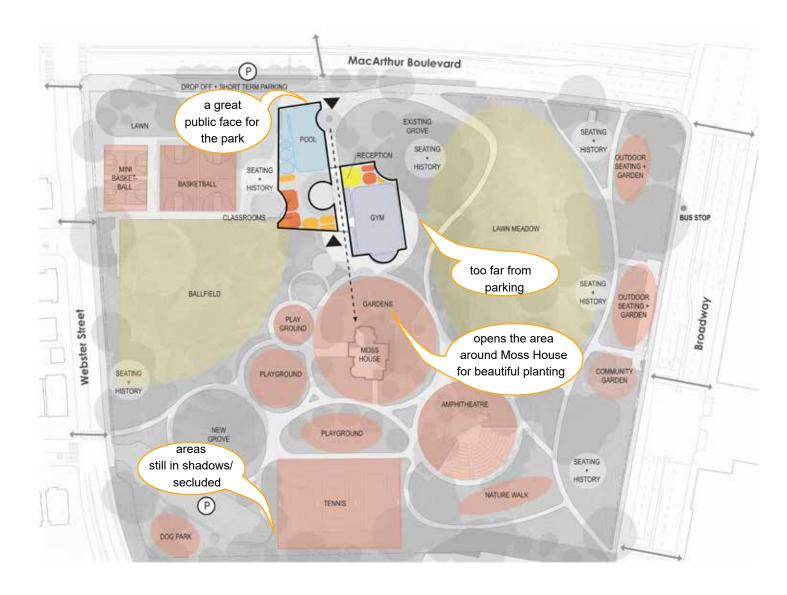
- Central location that can function as a bridge between active and passive sides of park
- Visibility from MacArthur Blvd
- Adjacency to basketball courts
- Integrated with the trees
- Improved pedestrian access to Moss House

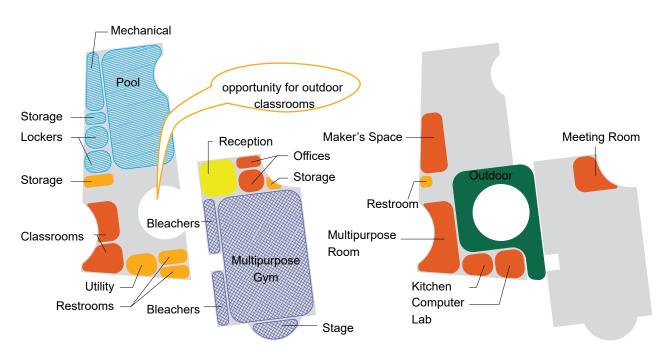
#### **CONSTRAINTS**

- Does not activate park features to the south
- Some non-significant trees and trees in marginal health will need to be removed
- Requires additional parking and vehicle access









**FIRST FLOOR PLAN** 

**SECOND FLOOR PLAN** 

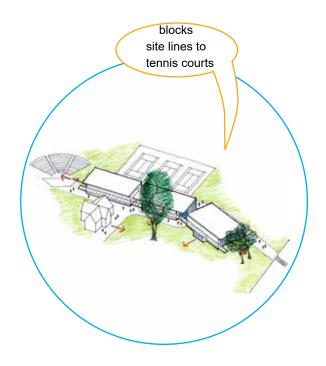
## OPTION 2 DIALOGUE WITH HISTORY

#### **OPPORTUNITIES**

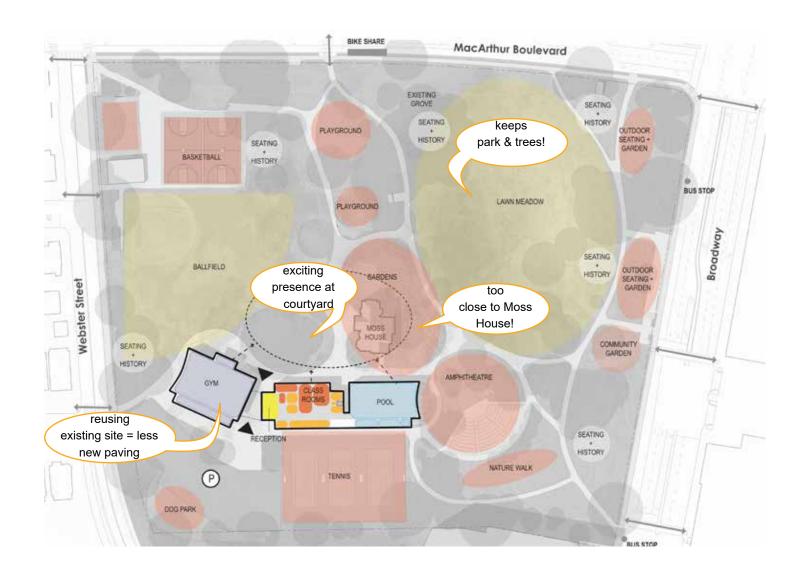
- Minimal impacts to the site
- Opportunity to activate Moss House, amphitheater and tennis courts
- Reuse of existing parking lot
- Relationship to notable eucalyptus tree
- Opportunity to open up circulation path from west to east side of park
- Improved pedestrian access to Moss House

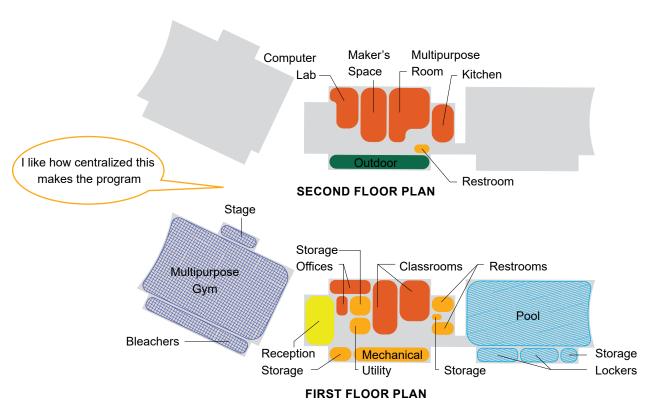
#### **CONSTRAINTS**

- Displacement of current temporary Recreation Center during construction
- Does not activate park features to the north









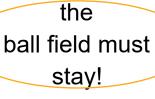
## OPTION 3 COMMUNITY BEACON

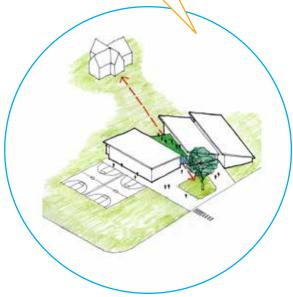
#### **PROS**

- Central entry with reception area
- Minimal impacts to trees
- Gym has possible connection to basketball courts
- High visibility of building from MacArthur and Webster Streets
- Faces the neighborhood and community

#### **CONS**

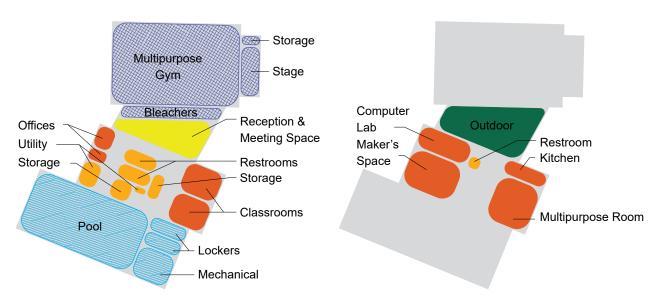
- Eliminates ball field
- Requires additional parking and vehicle access
- Does not activate park features to the south and east
- Limited connection to the Moss House











#### **FIRST FLOOR PLAN**

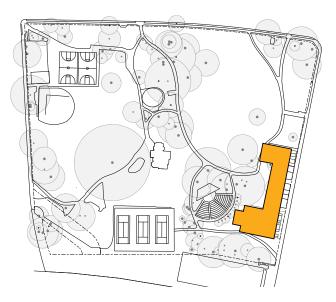
#### **SECOND FLOOR PLAN**

Based on community comments from workshop 5 and from conversations with the city, it was decided that the building should be located on the south side of the park. We tested many configurations for the building on the south side. These studies lead to the development of the park master plan.



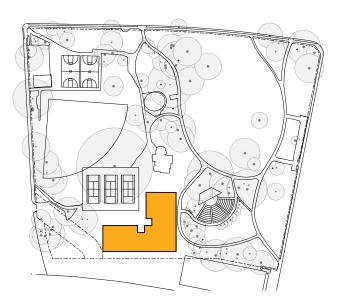
#### **THREE LINKED BUILDINGS**

The building becomes a pleasant backdrop for the park, but it is too long and separates the tennis courts from the rest of the park.



#### **SHIFT TO BROADWAY**

This option activates the amphitheater and is very visible from the street. Parking and drop off from Broadway would be challenging. The pergola would be displaced and the meadow would be impacted.



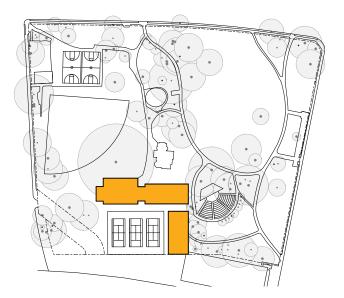
#### **BUILDING TO THE SOUTH AND MOVE TENNIS**

The building provides a barrier between the park and the freeway. The tennis courts are moved into a more central location, but the tall fence that must surround the courts interferes with park views.



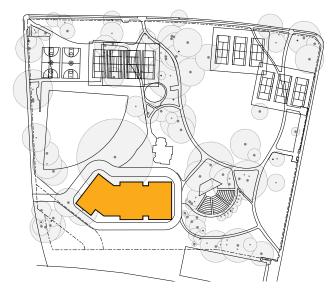
#### **BIG BUILDING ON ONE FLOOR**

All of the program is conveniently located on one floor and no space is required for an elevator or stairs, however the building footprint is too large. The tennis courts would have to be relocated.



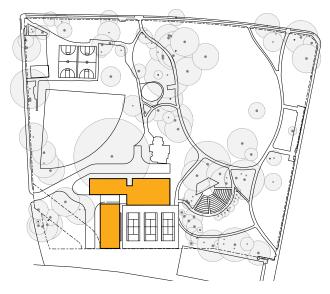
#### **POOL BETWEEN TENNIS AND AMPHITHEATER**

This option has a strong relationship between the Moss House and community center. The tennis courts must be shifted slightly which is costly. The pool blocks views from Broadway to the tennis courts and must be staffed separately since it is a different building.



#### ONE FLOOR AND MORE SPACE TO THE SOUTH

Program is all on the same floor with no elevator or stairs. While there is more space to the south for parking, there is no good alternative location for the tennis courts.



#### **POOL BETWEEN TENNIS AND PARKING**

The building activates the tennis courts through visual and physical connections. The pool must be staffed separately since it is a different building. The pool also blocks views from Webster Street to the tennis courts.

## Master Plan and Landscape Site Plan

The value of parks in our cities has been underscored by the public health crisis of the Covid-19 pandemic. Mosswood Park's unique location between major Oakland hospitals highlights its role in the city as a place that is central to community health. Fitness, community gathering, and connection to nature have long been traditions at Mosswood Park and it is underscored by the pandemic how important those uses will continue to be in the future.

The Master Plan for Mosswood Park protects and preserves the existing richness of the park while improving function and securing future generations enjoyment of the park. The community strongly stated a collective desire that all programs in the park remain. The proposed design maintains all of the existing programs, but also revitalizes some of the historic programs that have fallen away.

Performance and infrastructure for performance have been upgraded and modernized. The amphitheater was upgraded with ADA access for performers and the audience. The stage at the Gymnasium opens towards the amphitheater and provides a venue for smaller performances as well as space for outdoor education. The connection of the East and West sides of the park with a wider pathway also links to both these performances spaces and the Meadow. This broad pathway allows for ease in setting up for events with trucks and equipment as well as the use of food trucks at events.

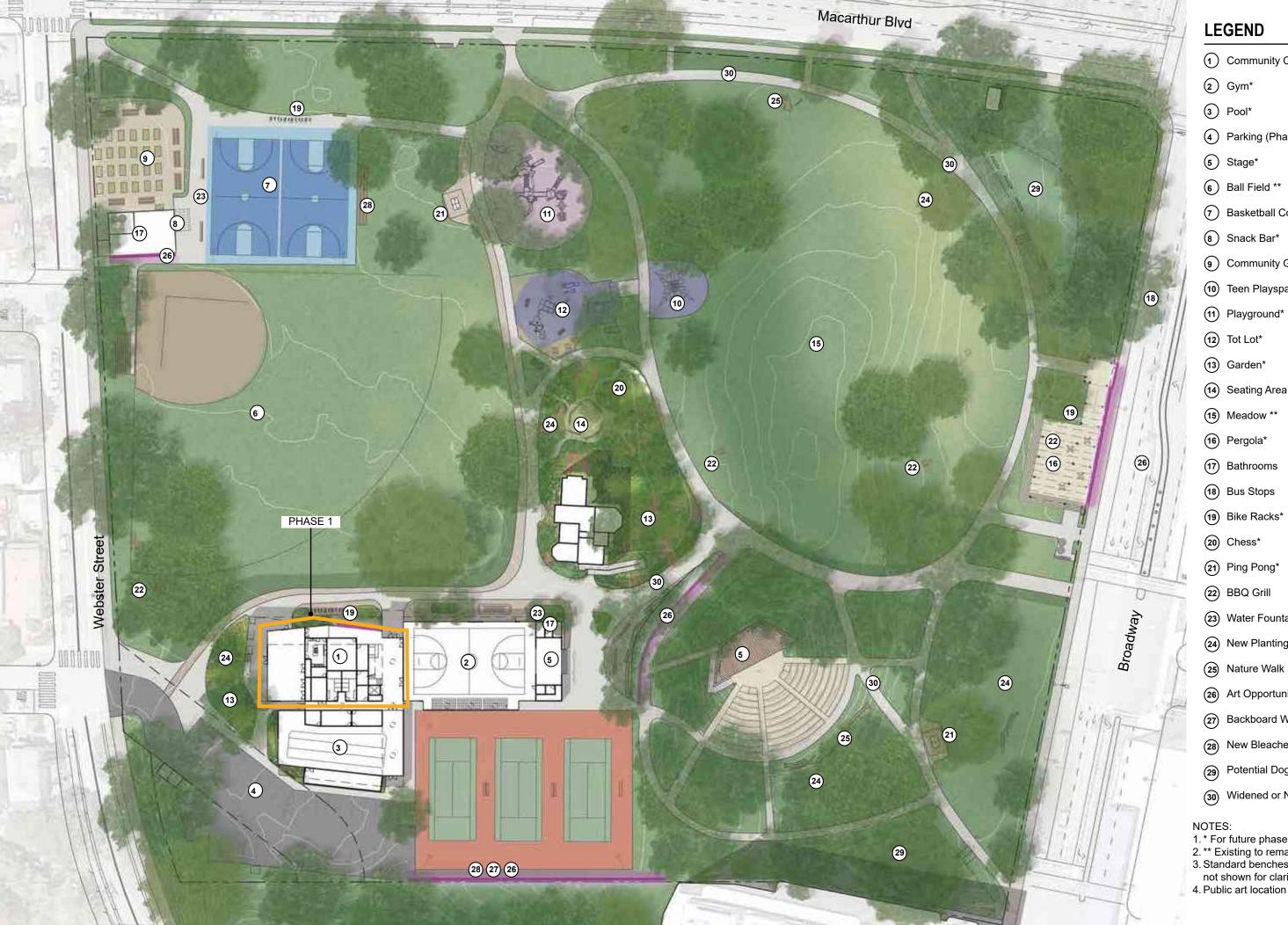
History became an important touchstone during the community engagement workshops. Learning the history of the park and the amazing stories of investment in community, perseverance, and ecology have inspired the design team to include multiple places in the park for sharing this history. Considering

overlapping histories in the same space will manifest as a series of trails that tell a thematic story of the park and interweave with other trails and themes. Interpretive elements are considered as part of the landscape experience and transcend plaques.

Ecology and the natural history of the park lands inspired a strong desire to foreground stewardship of the park in the future. All proposed park changes were evaluated in relation to existing trees and their critical root zones. Habitat for birds and other pollinators will also drive the planting selections. The most important planting goal will be to plant trees for the future to insure that Mosswood Park's tree canopy can be passed to the next generation. A newly enlarged space at the community garden is augmented by a tool shed that provides storage for the City of Oakland's park maintenance as well as the general public's community tools for work days.

Sports and fitness facilities mostly remain in their current locations, but are proposed for upgrades that will improve both user and viewer experiences. Better bleachers, water fountains, and adjacent bathrooms support the already popular and successful athletic uses. New ping pong tables, chess tables, and senior fitness equipment is added to augment the range of sports play in the park.

Gathering more than any other program proposed for the park feels precious and important as the communicy shelters in place. A central paved area the connects the Moss House, the New Community Center, the tennis courts, and the amphitheater will function as a kind of central town square. It is flexible in size for small and large events and will complement the ways community is already coming together at this park. All of the above changes will support the community, equity, and health.



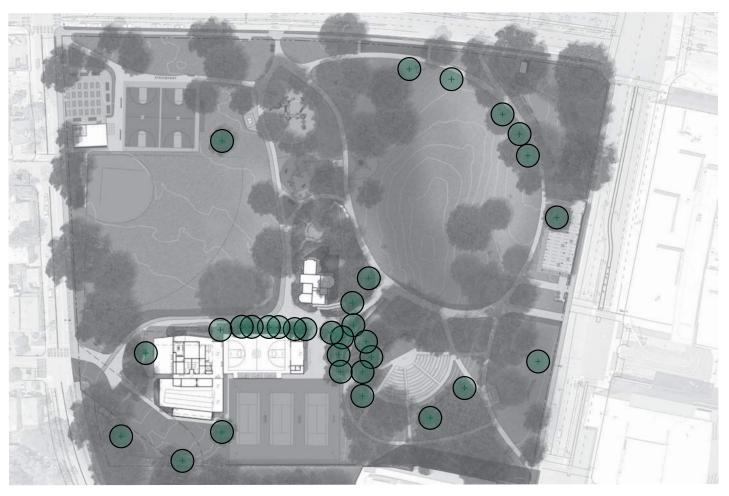
#### **LEGEND**

- ① Community Center (Phase 1)
- ② Gym\*
- 3 Pool\*
- 4 Parking (Phase 1)
- 5 Stage\*
- 6 Ball Field \*\*
- (7) Basketball Court\*\*
- 8 Snack Bar\*
- 9 Community Garden\*\*
- (10) Teen Playspace\*
- 11) Playground\*

- (15) Meadow \*\*
- (16) Pergola\*
- (17) Bathrooms
- (18) Bus Stops
- (19) Bike Racks\*
- (20) Chess\*
- (21) Ping Pong\*
- (22) BBQ Grill
- (23) Water Fountain\*
- (24) New Planting\*
- (25) Nature Walk Elements\*
- (26) Art Opportunity\*
- 27) Backboard Wall \*
- 28 New Bleachers\*
- 29 Potential Dog Park\*
- 30 Widened or New Path\*
- 1.\* For future phases
- 2. \*\* Existing to remain
- 3. Standard benches, trash cans and lights not shown for clarity
- 4. Public art location to be determined



## **New Trees**



PLAN WITH PROPOSED TREE LOCATIONS







SEQUOIA SEMPERVIRENS



ARBUTUS MARINA

## **Landscape Program: Art and Interpretation**



LOCATIONS FOR ART AND HISTORY INTERPRETATION

#### ART AND INTERPRETATION OPPORUNITIES

The importance of history and culture to the community was reiterated many times during the process. An extensive history of the park in different eras was developed and could serve as a starting point for the art and interpretation in the park. Many important legacies are tied to the park including modern dance, basketball, and social resistance. A few locations have been identified for potential enhancements. Art and interpretation is imagined as integrated with landscape experiences rather than stand alone objects or plaques.



OAKLAND MURAL BY JOSHUA MAYS

## **Landscape Program: Events**



DIAGRAM SHOWING EVENT USE



PUBLIC CELEBRATION AT MOSSWOOD PARK

#### **EVENTS**

Large events like Burgaboogaloo or Carnevale and small events ranging from birthday parties to dance in the park should continue to be promoted and supported with park infrastructure. New locations for circulation, access, and connection to existing resources at the Moss House and the Community Center should support and expand the potential range of events that could occur at the park.

## **Landscape Sitewide Masterplan Proposals**



PROPOSED MASTER PLAN

**EXISTING PARK** 

#### **PROPOSED**

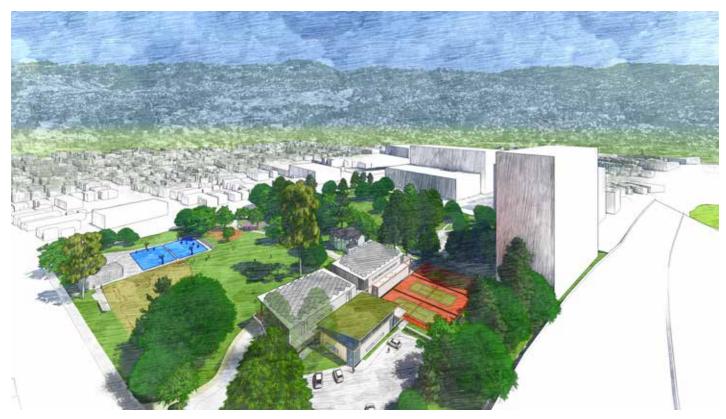
#### New

- New buildings
- · Improved ADA access
- Rehabilitated tennis courts
- · Improved circulation and wider pathways
- · Pergola transformation
- Improved community garden and tool storage
- Elements for teens
- Interpretive elements and art
- Modernized playgrounds
- · Garden at the J. Mora Moss House
- Improved lighting
- Bicycle transportation resources

#### **EXISTING**

#### Maintained

- Significant Tree Canopy
- ALL existing programs
- Flexible open space
- Existing parking spaces



BIRDS EYE VIEW OF THE PARK

The proposed Master Plan for Mosswood Park is organized first at a block level as a green oasis within the city fabric. Viewed street level, but also from hospital rooms and the 580 freeway above the park identity is made by the evergreen vegetation that defines its edges. The strong edge of planting acts as a gateway into the many programs found inside. Once inside the tree canopy serves as a backdrop for every other activity. Recently the community celebrated a nest of Red tailed hawks in a large Eucalyptus in the park. The ecological value of the urban forest and the trees is critical for many animals, but also supports other ecosystem services. The trees remove particular matter from the air, provide cooling, and create oxygen.

Though the specific park uses for athletics, performance, community gathering, and so on are often the requests made by community, the often unheralded backdrop of the trees is what makes the park a special place.

Strengthening and repairing the evergreen canopy for the park is a site wide goal for the Masterplan. Data from the arborist report will be used to guide decisions about tree maintenance, removal, and species selections for new plantings. The community center project will allow further development of plant lists and proof of concept for best practices working around existing tree roots.

Insuring the canopy is healthy and robust for the future will lead all other aspects of the Master Plan.

## **Landscape: Southwest Corner**





**KEY PLAN** 





**OUTDOOR LEARNING** 



**BICYCLE PARKING** 



**OUTDOOR SEATING** 



**BIOSWALE PLANTING** 



MATURE TREES

The new Community Center buildings are sited near the existing J. Mora Moss house and define a shared central outdoor gathering space focused on a large existing eucalyptus tree. Fire access to the buildings was transformed into an wide path linking the east and west sides of the park. The path allows vehicles to serve events, improves security and connects the new building to the tennis courts, the amphitheater and the meadow on the east side of the park. An outdoor classroom area connects to the stage doors at the east end of the gymnasium where there is a dedicated space for dance and performance. The existing parking lot and the tennis court are proposed to be upgraded. A new backboard wall for the tennis court is located to provide sound and visual protection from the freeway and to allow for solo practice. It may also be a location for a mural. The parking lot will maintain the same number of spaces, but will be organized more efficiently. Bicycle use will be encouraged with bike parking, bike repair, and water bottle filling stations.

## **Landscape: Northwest Corner**





KEY PLAN



SNACK BAR | TOOL STORAGE



**COMMUNITY TOOLS** 



**COMMUNITY GARDEN** 



PICNIC TABLES





SIGN BASKETBALL

The Courts of Legend's extraordinary history and beloved place in the community have been preserved in location as well as their immediate setting. The adjacent Community Garden has been improved and expanded to include more garden beds, ADA compliant garden beds, and picnic tables. A large Walnut tree that impeded the best use of the garden is proposed to be removed. The existing snack bar has been rehabilitated into an ecology building that includes a healthy snack bar, tool storage for the city and the community, restrooms, and water fountains. Nearby playground areas are proposed for rehabilitation and modernization and a ping pong table has been added. The existing ball field has been maintained and will be strengthen by the synergy of the ecology building snacks and restrooms. New trash cans and bike racks will be added to support other programs. The historic and charming Mosswood Playground will remain.

## Landscape: Moss House





**KEY PLAN** 



CHESS TABLES



**GARDEN** 



ADA RAMPING



HISTORIC VIEWS SAVED



**GRAVEL WALKS** 



MATURE TREES

Surrounding the J. Mora Moss house, the landscape has been designed to evoke the historic gardens of the house. A planted setting to accompany the extraordinary Gothic architecture of the Moss House itself, the gardens will require a partnership with the community for maintenance at a higher level of intensity than elsewhere in the park. A new ADA compliant entry into the house will be located on the South facade to preserve the entry stair. The new entry will be less than 5% so it does not require handrails. A smaller gathering area in the garden will be a calm place in the park and could be rented for an event located at the J. Mora Moss House such as a wedding. Chess tables add minimal program to the East side of the gardens. The garden will be designed to protect existing trees and will draw on the historic record of planting that originally were in the estate's planting. Opportunities to tell the story of Mrs. Moss and her love for music and plants may be integrated in this location as well.

### Landscape: West Side





Loop Tail

History Trail

**Nature Trail** 



**KEY PLAN** 



**PING PONG** 



LOOP TRAIL



**ENVIRONMENTAL** INTERPRETATION



NATURE WALK



FLEXIBLE USE LAWNS

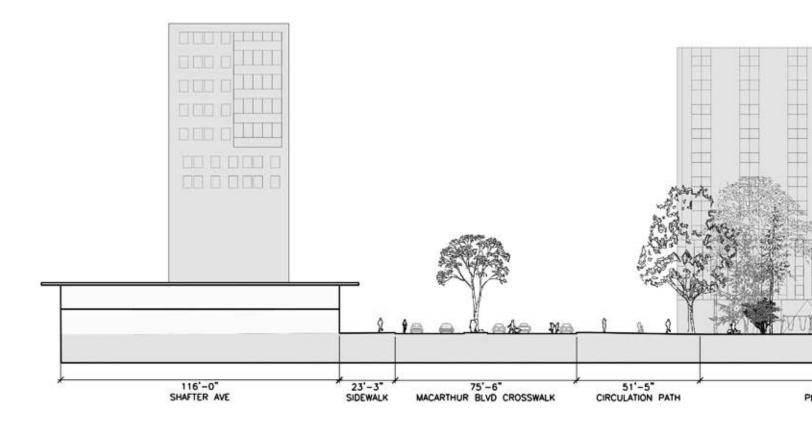


SPACE FOR PERFORMANCE

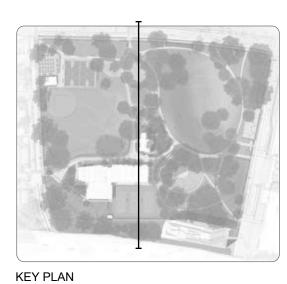
The gracious bowl of the meadow remains the star of the East side of the park. Overall more passive than the West side, the east has historically been home to performances and festivals as well as other large events. The broad expanse of the meadow and the amphitheater will remain and continue to support performance of all kinds. New passive uses are organized around trails which are themed for history, nature, and a simple loop circuit for walking or biking. Telling the story of this place with small interventions along the trails will bring richness to the edges of the meadow. New program elements would include a new gathering area by the Pergola for picnicking and small events, potential relocation of the dog park, ping pong, and sculptural log elements for exploration.

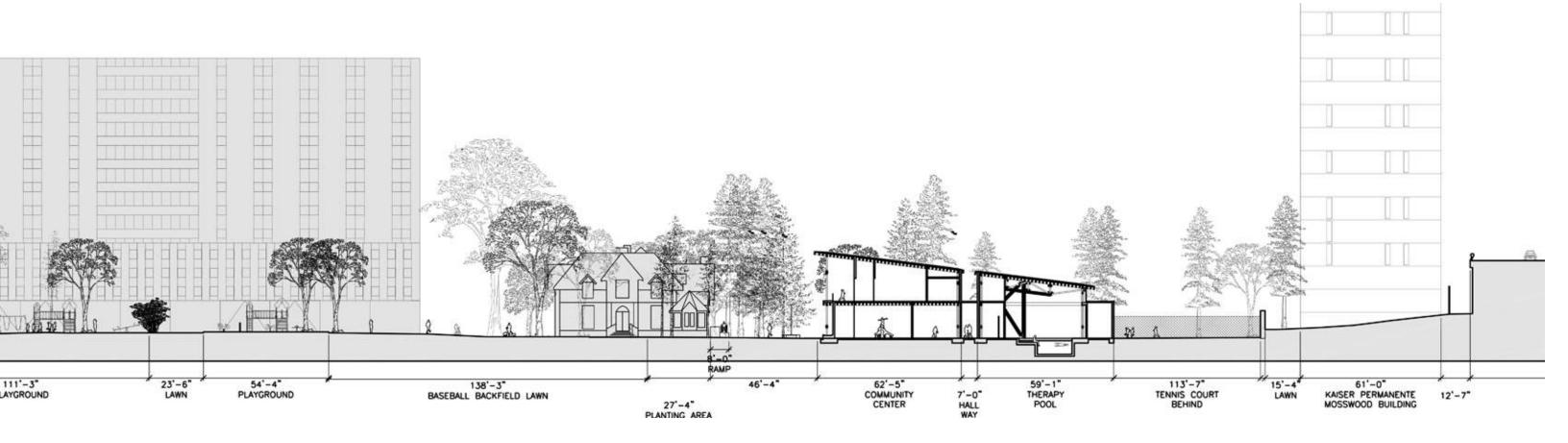
### **Site Sections**

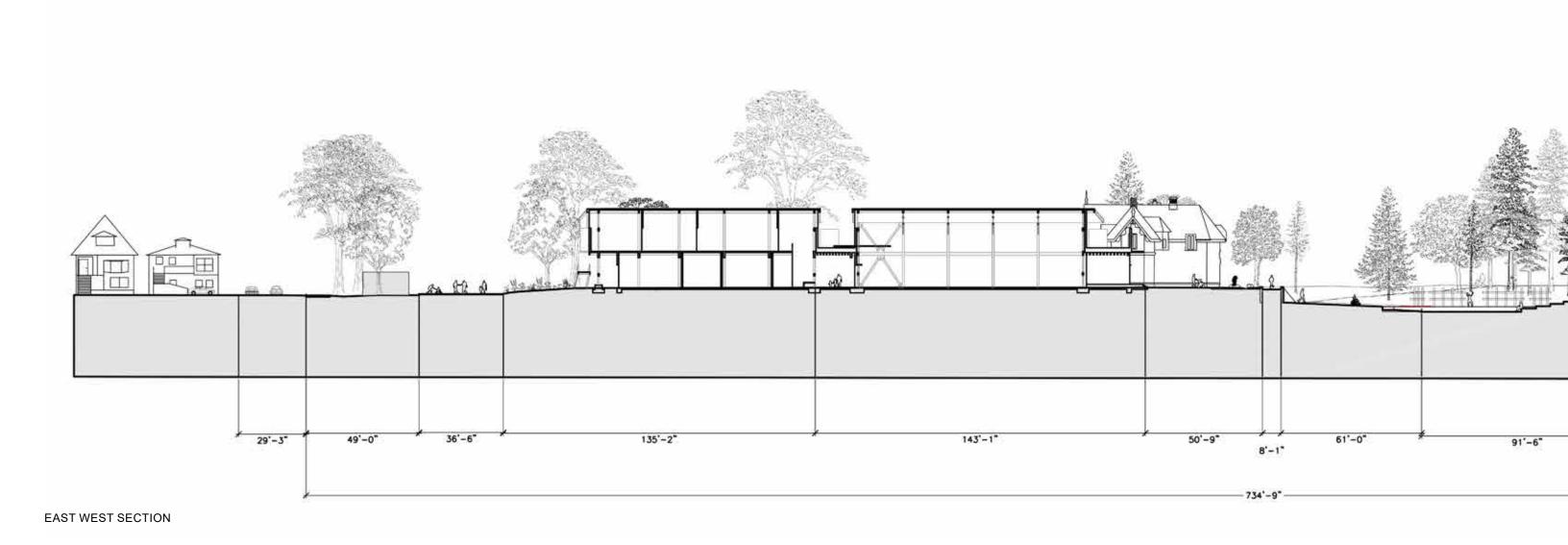
The sections presented here depict Mosswood Park with the proposed new buildings. The topography, nearness of the freeway, and the large buildings adjacent to the park are revealed in this view. The hard work of the tree canopy and lawn to create a verdant space is remarkable and important within this site context.



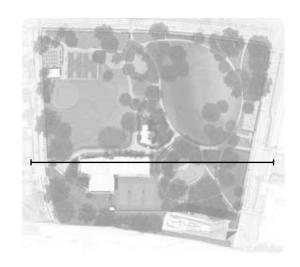
NORTH SOUTH SECTION



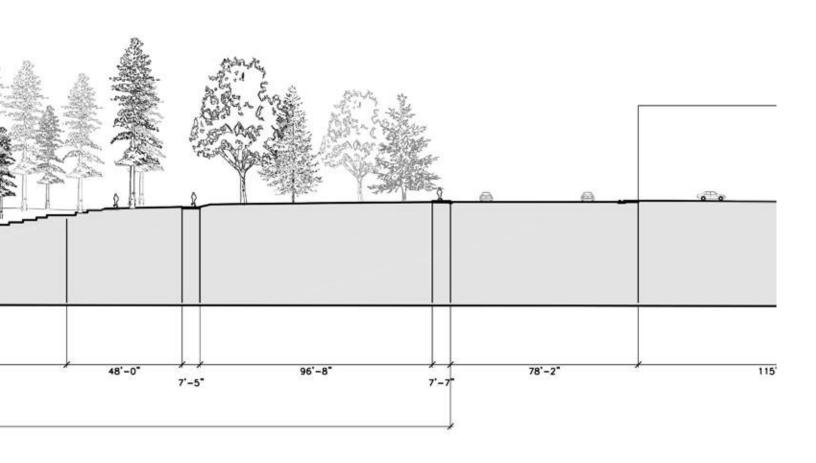




East West Section Cutting Through the Community Center Looking towards MacArthur Blvd



**KEY PLAN** 

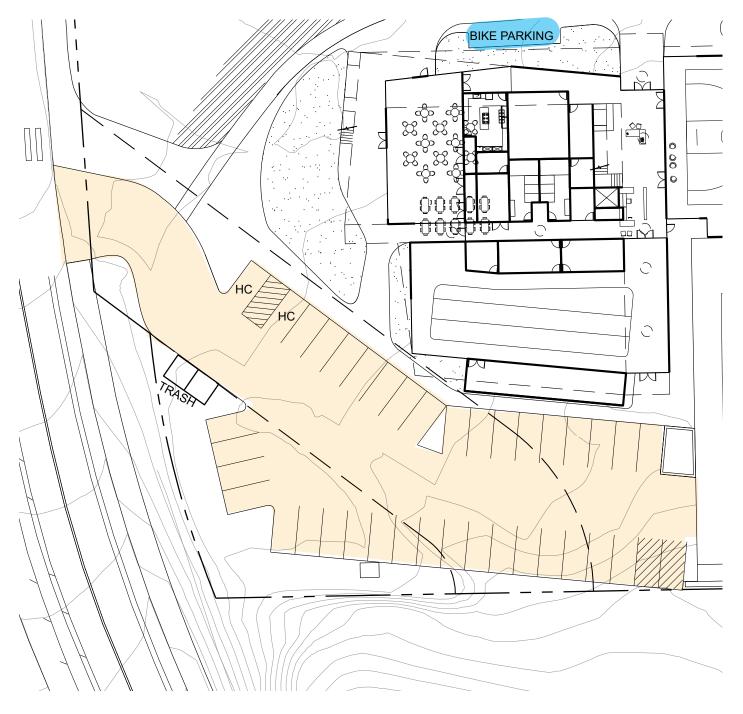


## **Community Center Parking Plan**

#### **PROPOSED**

#### New

- 39 Car Parking Stalls Total
- 2 ADA Parking Stalls, one is sized for an ADA van
- · Bike Parking given priority location near front door
- · Garbage located at west edge of lot
- Fire Access in the first half of lot approached from the street



## Improved Vehicular Access and Circulation

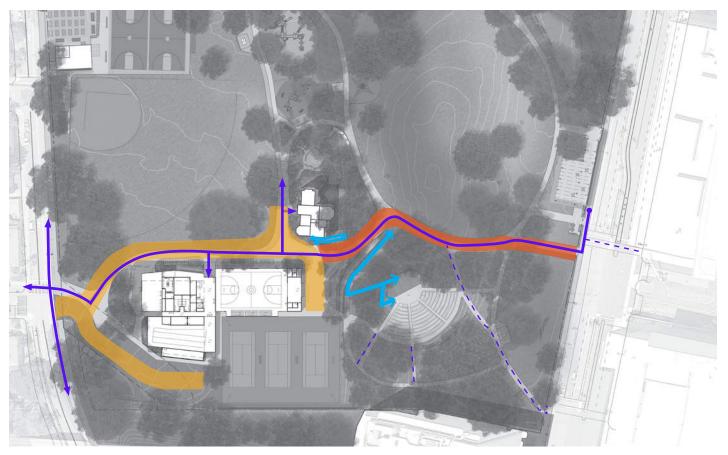


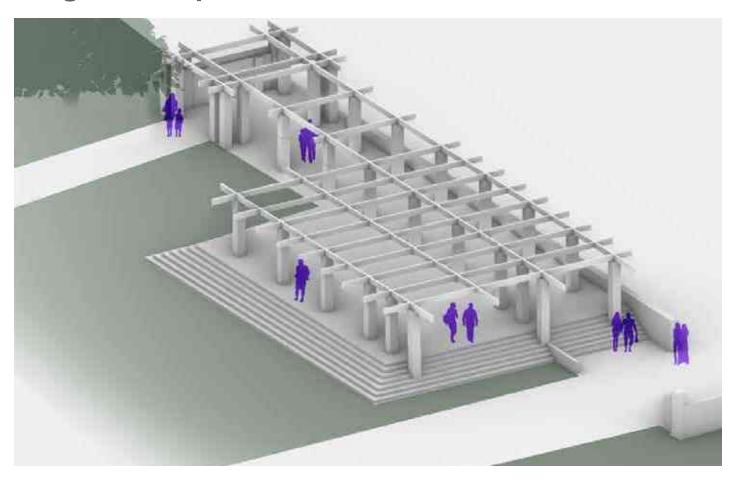
DIAGRAM OF NEW CIRCULATION

#### **REINFORCING ACCESS**

Widened pathways and new paths are proposed to connect more isolated areas of the park and to improve the flow of people and trails in all directions. New walks are designed to allow for small trucks to move about the park for maintenance and to promote access east to west.



## **Pergola Prospects**



BIRDS EYE: VIEW FROM PARK SIDE SLIPCOVER SCHEME

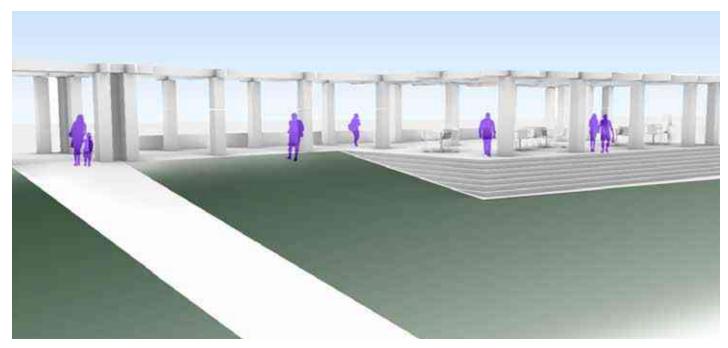
#### PERGOLA "SLIPCOVER"

This is the design proposal that was presented at the final community workshop. It raises the platform inside the wall by about 2 feet and widens it into a square at the south end that is wide enough for a small gathering, such as a birthday party. The new gathering area is set above the meadow to achieve prospect over and an address on the meadow. When not in use for birthday parties or family gatherings this space would be a nice place for Kaiser employees and others to eat lunch outside.

The community response to the proposed program was positive, but some asked if we could get rid of the pergola. A cost estimate indicating a high price tag for this proposal led to additional studies shown on the following pages.



VIEW FROM MEADOW



VIEW FROM THE PARK SLIPCOVER SCHEME



HISTORIC ENTRANCE: VIEW FROM BROADWAY SLIPCOVER SCHEME

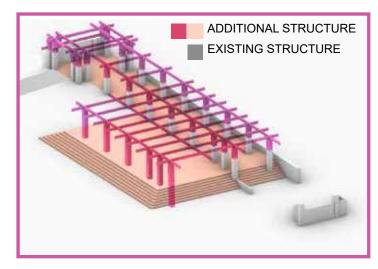


DIAGRAM OF OLD AND NEW SLIPCOVER SCHEME



VIEW FROM BROADWAY SIDEWALK



1911 PERGOLA



1911 PERGOLA



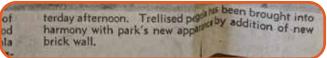
1947 MODERNIZED PERGOLA

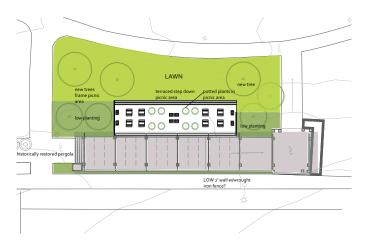
Following the final community workshop, the design team has been pursuing the pergola design further to investigate lower cost and potentially more historic options.

The Pergola is considered historic because it is more than 50 years old and was part of the original park design. The structure of the Pergola has been transformed in different park eras to meet the style of the park. Today the pergola is derelict and underutilized. It also limits clear site lines from Broadway. The Pergola viewed from Broadway in 1911 was open to the street and provided a space to wait for the streetcar or a friend at the edge of the park. The Pergola was modernized in 1947 and a tall brick wall was added facing Broadway. The change was made to bring the trellis into harmony with the new more modern Rec Center Building.

The decision to preserve the history of the pergola must first evaluate the different histories and recommend which should be maintained or restored. Given the siteline issues, the design team has studied a series of options that may allow both the reactivation of a picnic and gathering program at the pergola as well as better views into the park.





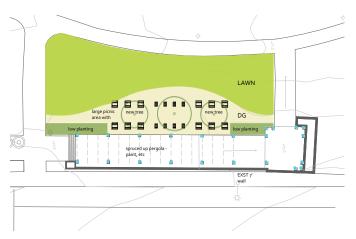


STUDY 1: REMOVE WALL AND RESTORE HISTORIC 1911
PERGOLA LOWER WALL WITH IRON FENCE
EXTEND ADJACENT PICNIC AREA

\*\*\*AT THE PUBLISHING OF THE DRAFT MASTER PLAN
THIS IS STILL A WORK IN PROGRESS\*\*\*

#### STUDY 1 REMOVE WALL

Removing the 1947 brick wall and opening the Pergola up to the east would vastly improve site lines. Expanding the picnic area would promote use.



STUDY 2: REFRESH EXISTING PERGOLA WITH ADJACENT LANDSCAPE IMPROVEMENTS EXTEND ADJACENT PICNIC AREA

DG picac area

Low Definition

DG picac area

Low Definition

Describes

Fame picac

DG picac area

DG picac ar

STUDY 3: RESTORE 1911 HISTORIC PERGOLA WITH STEPS AND PLANTERS FACING BROADWAY EXTEND ADJACENT PICNIC AREA

\*\*\*AT THE PUBLISHING OF THE DRAFT MASTER PLAN THIS IS STILL A WORK IN PROGRESS\*\*\*

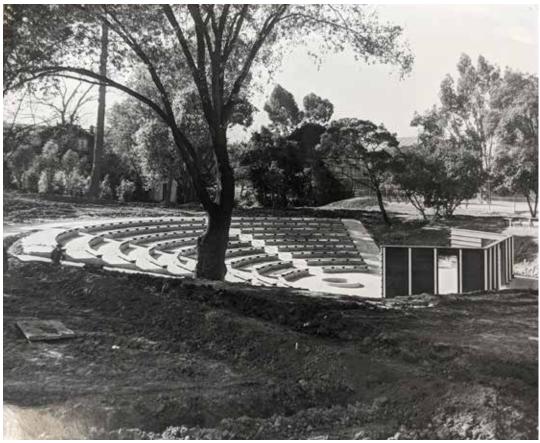
#### STUDY 2 ADD NEW PROGRAM ADJACENT

Expanding the picnic area would promote more use. This could also be a phase "zero" improvement to test the location for picnic use.

\*\*\*AT THE PUBLISHING OF THE DRAFT MASTER PLAN THIS IS STILL A WORK IN PROGRESS\*\*\*

## STUDY 3 RESTORE 1911 PERGOLA WITH STEPS

Demoing the 1947 wall and opening up the Pergola towards Broadway with steps increases use, circulation choices, and clear site lines. Expanding the picnic area would promote more use. The pergola would function as both civic furniture facing Broadway and a park amenity on the meadow.





Originally developed for children's theatre, the 500 seat amphitheater at the Southwest end of Mosswood Park has become a lesser known treasure. Still beloved by many who attend larger festivals and events such as Burger Boogaloo the amphitheater has been visually surrounded with large trees and is somewhat hidden from the rest of the park.

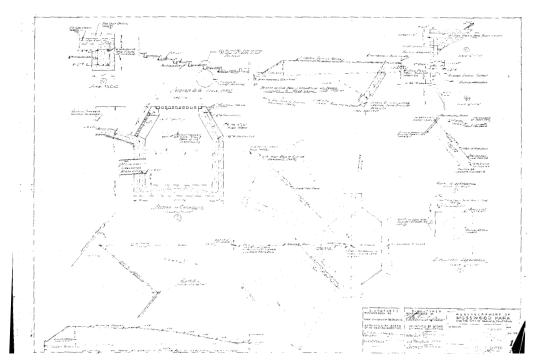
The community desire to reinvigorate performance in the park has led to a design for the amphitheater that upgrades its ADA access and visibility while preserving its historic structure and charm. Consultations with both the community and event producers were considered in the proposed design modifications.

GRACE ALBRITTON
Children's Theater Chief
New Theater
In Oakland
For Children
Being added today to Oakland's
sytractions is a new outdoor thealife for presentation of greative
drumatin plays by children for
children.
The new theater for young peopile from 6 in 11 years of use is
being constructed under auspices
of the Oakland Recreation Department in a wooded glen in the
rear of the tennis courts at Mosswood Park, Broadway and MatArthur boulgward.
NATURAL BACKGROUND
Spanning a shallow creek hed,
an 15 by 30 foot stage permits a
rotural background of trees and
strubs. There of weats in amphitheater pattern will accommodate
inp to 500 youngsters a performance.
Opening performance will be a
play based on the Pied Piper
theme presented by children from
North Oakland Recreation Center

AMPHITHEATER STORY



**EXISTING CONDITIONS** 



AMPHITHEATER CONSTRUCTION DRAWINGS



VIEW OF STAGE SET MADE OF INFLATABLE ELEMENTS



EXISTING FRAME IS IMPORTANT INFRASTRUCTURE



VIEW FROM STAGE



VIEW FROM TOP OF AMPHITHEATER

# **Amphitheater Renovation**









LOOKING OUT

**ECOLOGY WALL** 

NATURAL PLAY





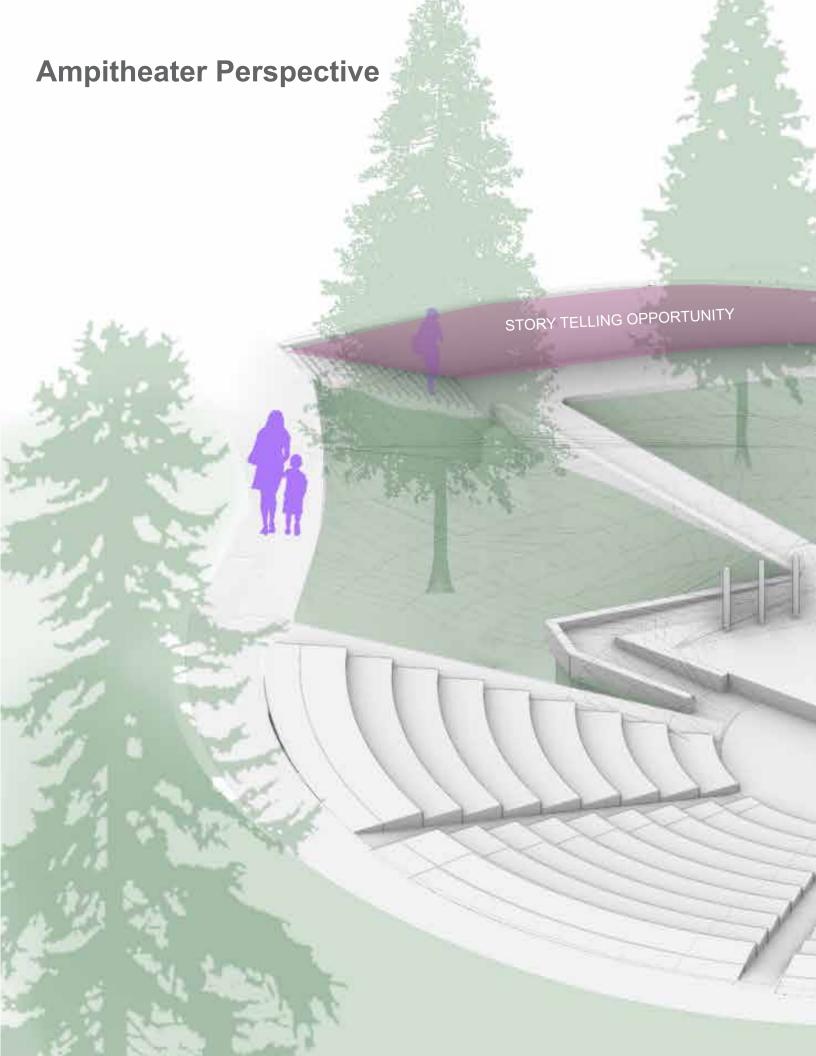


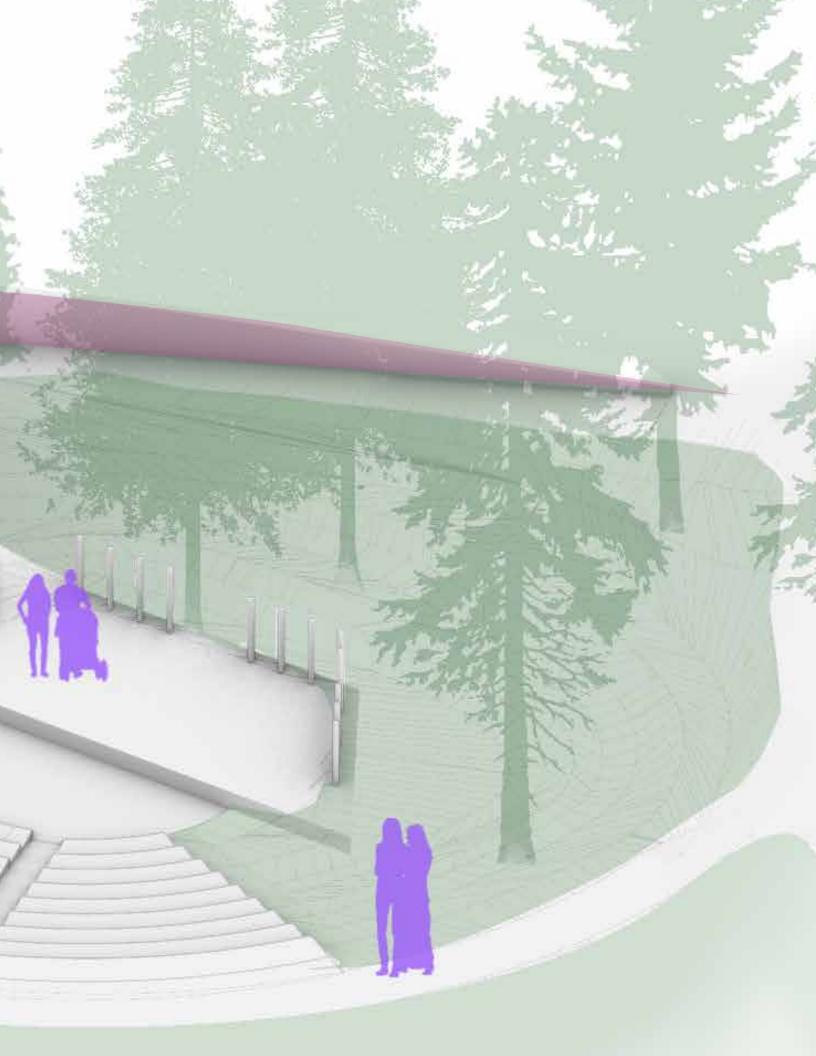
LOOKING IN NEW PATHS MATURE TREES

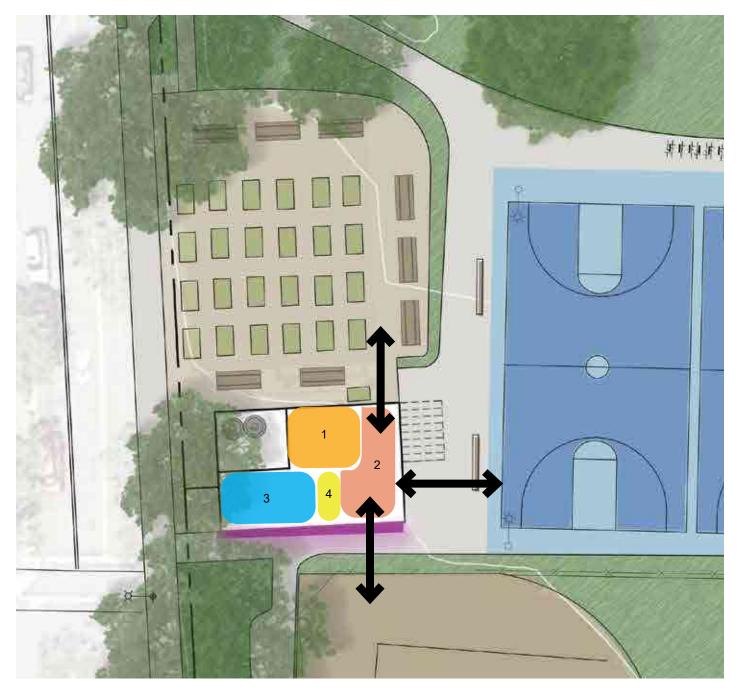
#### **ACTIVATING THE AMPHITHEATER**

Improving the audience and performer experience at the amphitheater is the highest priority. A ramp that serves for ADA compliant connection to both the stage and the audience was designed to enhance the story telling of the park. Cutting into the ground with a large retaining wall, a story of the underground creek in this location could be revealed and augmented with other important natural history and ecology. Numerous new pathways connect to all sides of the amphitheater to drive more people to and through this location. Small quotidian activities including nature play, ping pong, and potentially a dog park are also recommended. New multidirectional pole lights are also recommended. In addition to these new elements, the preservation and rehabilitation of the stage backdrop structure, removal of the fire pit, and limbing up of trees is also recommended.

This is one of two possible locations being explored for the small dog park that may need to be relocated. Additional study is needed to determine if the dog park would conflict with the performances and or the adjacent office building.





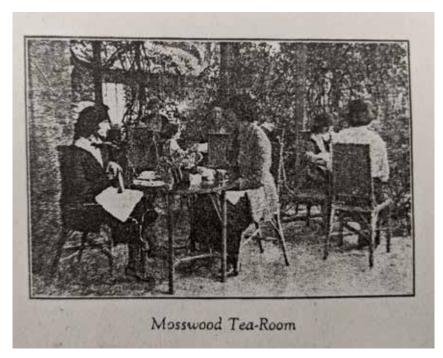


## **ECOLOGY BUILDING FOR HEALTHY SNACKS**

Located adjacent to the basketball courts, community gardens, and ballfield, the field house is an ideal location to bring together uses that could amplify the success of each of these existing elements. Restrooms partnered with active daily uses. A healthy snack bar could serve baseball games and basketball games, but could also use some of the garden beds. Tool storage for Oakland Parks Maintenance as well as community stewardship days. A bottle filling station and

water fountain for sports and health.
Locating the new snack shack in
the ecology building reinforces the
relationship of food to the gardens.
Linking park stewardship and
maintenance as well as bathrooms
insures active uses and eyes on the
garden and healthy snack shack when not
in use.

- 1. Tool Storage
- 2. Snack Bar
- 3. Restrooms
- 4. Office



MOSSWOOD TEA ROOM



MOSSWOOD SNACK BAR



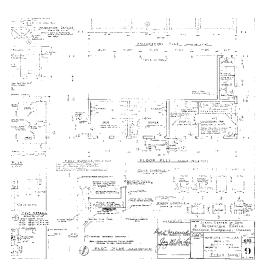
MOSSWOOD FIELD HOUSE BUILDING TODAY

MOSSWOOD PARK COMMUNITY CENTER & PARK MASTER PLAN



MOSSWOOD TEA ROOM MENU

MOSSWOOD PARK HAS A HISTORY OF A SMALL FOOD CONCESSION. THE TEA ROOM, THE SNACK BAR, AND THE FIELD HOUSE ALL PROVIDED SMALL FOOD CONCESSIONS AT DIFFERENT ERAS OF PARK HISTORY.



ORIGINAL ARCHITECTURE FOR THE FIELD HOUSE

# **Landscape Materials**



TURF BLOCK



CONCRETE



**ASPHALT PATHS** 



**DECOMPOSED GRANITE** 



STAMPED ASPHALT



PAVERS AS FIRE ACCESS ROAD

## **PAVEMENTS**

The palette of materials used in the landscape must be durable, repairable, and humble. The use of simple and well proportioned pavements is one of the most important aspects of the park design. In recent Rec Center projects we have seen both materials that are too fancy (granite slabs) and too plain (sidewalk concrete with brushed finished and no color.) Finding the right balance of intentional, well detailed, and ideally darker colored pavements will insure a timeless and affordable park environment.

The design team is recommending turfblock, decomposed granite, asphalt, stamped asphalt, colored concrete, and concrete unit pavers as possible material choices.

# Turf Block and Alternate Paving for EVAC



TURF BLOCK OR ALTERNATIVE PAVE OPTIONS OCATIONS



CURVING GRASSCRETE



CONCRETE TURF BLOCK



COMBINING MATERIALS TO CREATE STRIPES FRAMED BY CONCRETE BORDERS



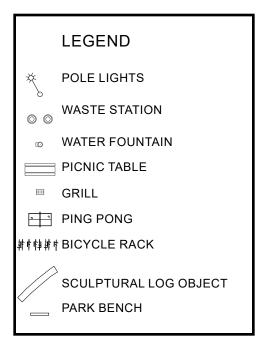
COMBINATION OF GRAVEL OR DECOMPOSED GRANITE AND CONCRETE

## **EMERGENCY VEHICLE ACCESS**

Providing the required aerial fire access to the new community center and gymnasium buildings will necessitate wide areas of fire truck accessible pavement. Because there is a strong desire to keep the pavements in scale with the park trails, the design team proposes the use of multiple stripes of material that combine into the required width. For one of the stripes the team recommende using grasscrete or other durable turfblock materials that will be permeable and green.







# **Landscape Site Furnishings**







**BIKE RACKS** 



WASTE AND RECYCLING STATION





PING PONG TABLE

**GAME TABLE** 

**OUTDOOR LEARNING SEATING** 

## **MATERIALS**

The palette of furnishings and materials used in the landscape will be durable, repairable, and easy to replace to ensure a cohesive park identity over time. By unifying the material palette, the park experience will be much improved. The utility of materials such as metal and concrete lend themselves to a high quality design that will guarantee longevity.

# **Landscape Planting Concepts**





**BIOSWALES** 



MATURE TREES



INDOOR OUTDOOR VIEWS

**GARDEN** 

## **PLANT PALETTE**

Mosswood Park has a rich ecological history. The proposed planting will be referential to the natural undeveloped history and the social legacy of the Moss House Gardens. While celebrating the local history, the plant palette will embrace the modern practices of efficient water use and promotion of climate health.

With the intention of best serving this public park, the planting will be durable, low maintenance, and proven to perform well locally. Taking cues from the park history, color, texture, scent, scale, and quality of light will inform plant choices as well.

# **Tree Species**

CALIFORNIA LIVE OAK

Quercus agrifolia

Height: 20-70'
Spread: 20-70'
Exposure: Part shade

Moisture: Moderate

CA Native: Yes Bioswale: No



VALLEY OAK Quercus lobata

Height: 35-75'
Spread: 30-50'
Exposure: Part shade

Moisture: Moderate

CA Native: No Bioswale: No



MONTEREY PINE Pinus radiata

Height: 50-80' Spread: 20-35'

Exposure: Part shade Moisture: Moderate

CA Native: No Bioswale: No



CALIFORNIA SYCAMORE Platanus racemosa

Height: 30-80' Spread: 20-50'

Exposure: Part shade Moisture: Moderate

CA Native: Yes
Bioswale: No



JAMES ROOF SILKTASSEL Garrya elliptica 'James Roof'

Height: 8-15' Spread: 8-12'

Exposure: Part shade

Moisture: Moderate

CA Native: No Bioswale: No



COASTAL REDWOOD

Sequoia sempervirens

Height: 40-300'
Spread: 25-100'
Exposure: Full sun
Moisture: High
CA Native: Yes
Bioswale: Yes



MARINA STRAWBERRY TREE Arbutus marina

Height: 40-50'

Spread: 25-40' Exposure: Full sun

Moisture: Low

CA Native: No Bioswale: No



TORREY PINE
Pinus torreyana

Height: 40-55'
Spread: 30-40'
Exposure: Part shade
Moisture: Moderate

CA Native: No Bioswale: No



# **Understory Species**

PACIFIC MIST MANZANITA Arctostaphylos 'Pacific Mist'

Height: 2-3'
Spread: 3-10'
Exposure: Full sun
Moisture: Low
CA Native: No
Bioswale: No



DOUGLAS IRIS

Iris douglasiana

Spread: 2-4'
Exposure: Part shade
Moisture: Moderate
CA Native: Yes
Bioswale: No

Height: 9-36"



SPICE BUSH Calycanthus occidentalis

Height: 6-12'
Spread: 6-12'
Exposure: Part shade
Moisture: Moderate

CA Native: No Bioswale: No



CALIFORNIA FUSCHIA

Zauschernia spp.

Height: 1-3' Spread: 1-3'

Exposure: Part shade Moisture: Moderate

CA Native: Yes Bioswale: No



FAR HORIZONS CEANOTHUS Ceanothus 'Far Horizons'

Ocanolinas Tai Honzons

Height: 4-6' Spread: 6-10'

Exposure: Part shade Moisture: Moderate

CA Native: No Bioswale: No



CALIFORNIA BEE PLANT Scrophularia californica

Height: 2-5' Spread: 1-3'

Exposure: Mostly shade

Moisture: Moderate

CA Native: Yes
Bioswale: No



ROCKROSE Cistus spp.

Height: 2-4'
Spread: 4-5'
Exposure: Full sun

Moisture: Low
CA Native: No
Bioswale: No



BEE'S BLISS SAGE Salvia 'Bee's Bliss'

Height: 1-2'
Spread: 6-8'
Exposure: Full sun
Moisture: Moderate

CA Native: Yes
Bioswale: No



## **Concept Design**

The proposed building plan organizes and orients the main program functions in relationship to the existing site elements at the South side of the park. The two story community center and double height gym and pool frame the Northwest corner of the existing tennis courts with a main entry opposite the eucalyptus tree. The new building, visible from Webster Street, forms a campus with the historic Moss House, the tennis courts and amphitheater to the east. A new wider east west path to the north of the new building connects both sides of the park and connects to existing circulation paths at North and East side of the park, leading park users into the building.

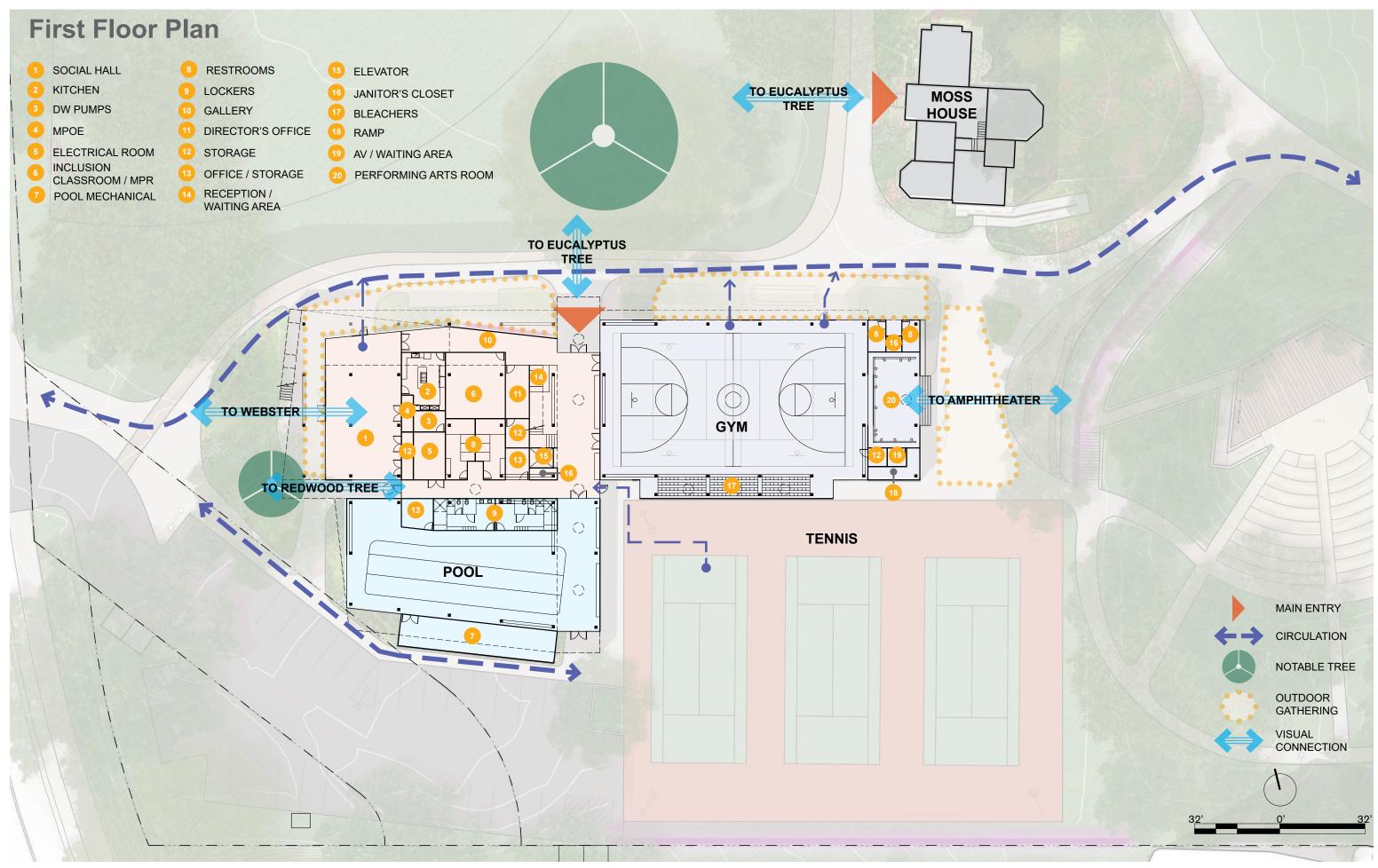
The community center is conceived of as the 'central' program and is flanked by the gym on the East and the pool at the South. Entrances to both of these functions are visible from the main reception desk located in the Community Center opposite the main entry. This north-south axis holds all the major circulation, not only providing access to both the gym and pool, but also to the second level of the community center via the main stair and elevator.

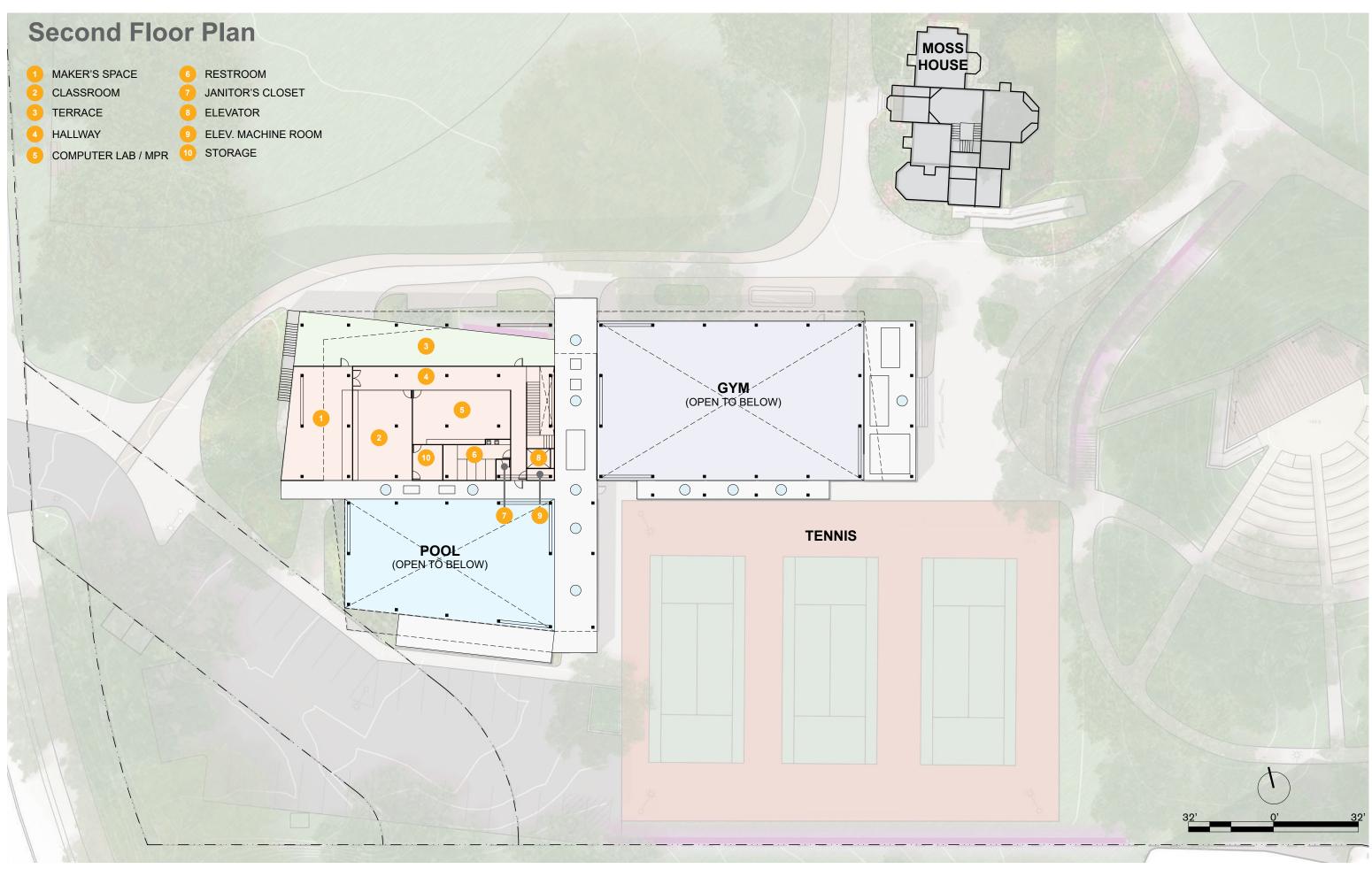
The first floor of the community center is conceived of as the more public facing, community oriented level. Here, the community center functions are pushed to the center to allow for the circulation to exist along the perimeter of the space creating abundant access to daylight and allowing for the activity within to be constantly on display. The circulation path at the North side, which leads to the main ground floor function -- the social hall -- functions as a gallery space and

becomes a flexible display and possible popup program area. Along this path are located the director's office, inclusion classroom, and commercial kitchen. The social hall, at the end of the gallery, anchors the entire west end of the first floor and features opportunities for indoor/outdoor connections at both the North and West sides. Outdoor programs and spaces are meant to support the activity within. The commercial kitchen is also accessible from the social hall and easily supports the activities in that space. The South side is home to back of house and support spaces such as the restrooms, electrical rooms, and a secondary office.

The second level of the community center offers a level of privacy for the OPRYD afterschool care and youth programs. With the maker's space and computer lab located at this level, it functions as an "innovation lab" and has a dedicated classroom for the afterschool programs. These spaces are supported by a generous North facing terrace that overlooks the park and allows for dedicated and protected outdoor space. A gender neutral restroom at this level also offers an alternative to the restrooms at the first level.

The gym volume to the East houses a high school size basketball court with four additional half courts in the North-South direction. Designed as a multiuse space, it is equipped with athletic flooring and retractable bleachers allowing for recreational uses and large community gatherings. Sliding doors on the north side open directly out to the park. A raised performing arts room on the east side can be used for dance classes and rehearsals, and doubles as a stage for performances. This

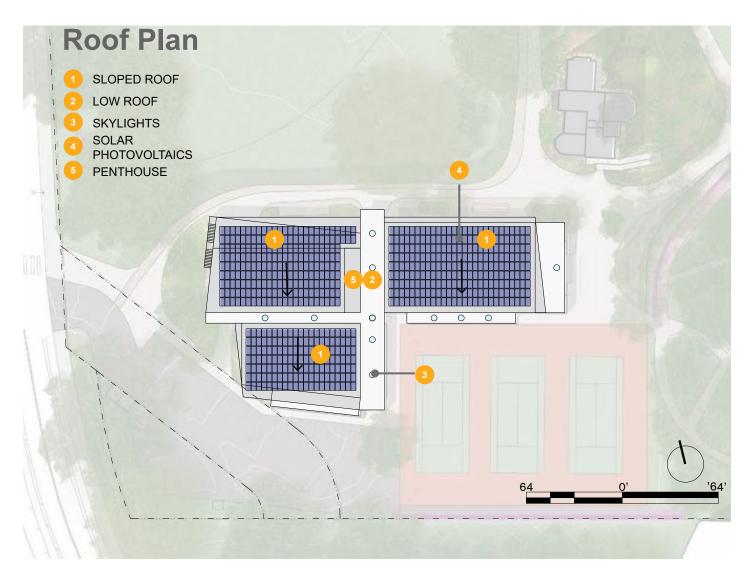




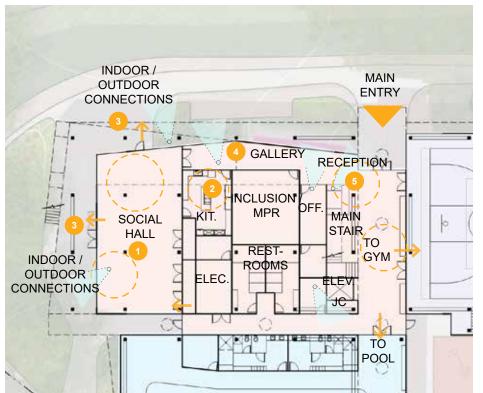
room opens both towards the gym and towards an outdoor gathering area adjacent to the amphitheater. The North East corner features two unisex restrooms accessible from the outside to support possible future use of the Moss House.

An accessible warm water pool may be added south of the community center during a future phase. This pool would be the first publicly accessible warm water pool in the East Bay. The warm water makes this pool unique because it could be used for physical therapy in addition to swim lessons and general recreation, providing a comfortable environment for people of all ages and abilities. The pool volume houses locker rooms, an office/storage space, and pool mechanical functions in addition to the pool itself.

The roofscape is conceived of as three high sloped roofs over the three volumes with lower roofs over the circulation spaces forming a quadrant like arrangement. The high sloped planes on the North side direct rainwater towards the lower roofs where it can be captured and redirected for other uses. The three roofs, over the community center, gym, and pool are strategically oriented for a possible solar photovoltaic array. The lower roofs are also well positioned to house mechanical equipment and vents.



# **Community Center: Level 1**



Reflecting what we heard during the community outreach process -- the spaces on Level 1 of the community center are well suited to accommodate the following activities and/or programs:

- Resources and information
- Dance classes
- Health + Wellness classes
- Cooking classes
- Art display
- Connections to the outdoors
- Support groups
- Community meetings
- Pop-up libraries
- and more...









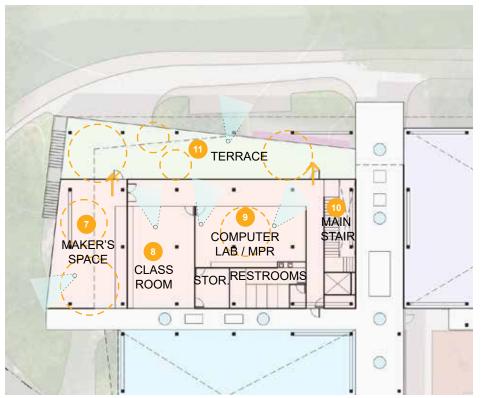








# **Community Center: Level 2**



Reflecting what we heard during the community outreach process -- the spaces on Level 2 of the community center are well suited to accommodate the following activities and/or programs:

- Tech innovation and STEM programs
- Maker classes
- Visual art classes
- Computer classes
- Homework help
- Protected play area
- Environmental education
- Teen spaces
- · After school care
- and more....









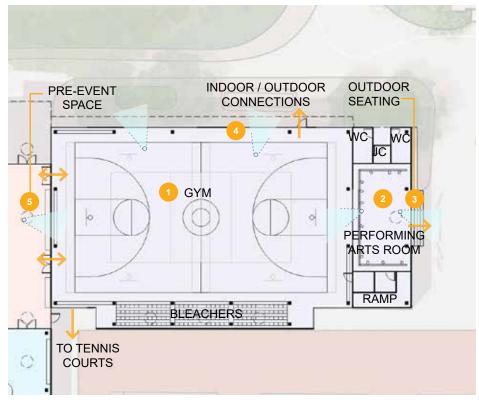








# Gym



Reflecting what we heard during the community outreach process -- the spaces in the gym are well suited to accommodate the following activities and/or programs:

- Sports and Recreation
- Large community gatherings
- Performances
- Support for park uses
- Outdoor learning
- Concerts
- Viewing
- Connections to the Moss House
- · Activate the amphitheater
- and more...















## **Pool**



Reflecting what we heard during the community outreach process -- the spaces in the pool are well suited to accommodate the following activities and/or programs:

- Intergenerational programs
- · Senior activities
- Health + Wellness classes
- Movie nights
- Access to all
- Youth swim lessons
- and more...















## **Elevations**

The building "elevation," meaning the view of a building as seen from one side, allows us to focus on each building face and start to consider how we want glazing arranged and materials to be introduced. We focus on each building face individually but the ultimate goal is for them to work together and relate to one another as a whole.

## **WEST ELEVATION**

The West elevation faces Webster street and the parking lot. The maker space, with full height windows, and outdoor terrace at Level 2 are visible from this side of the building. The full height windows at the maker space displays the energy of innovation. The social hall is located below, featuring sliding glass doors to create an indoor-outdoor connection. The cantilevered second floor provides a covered outdoor space for the social hall between the building and the redwood tree. A secondary entrance and corridor breaks up the community center and pool volumes. At the pool face, windows are strategically located up high and at the corners to allow light to come in but mitigate glare at the level of the pool. The roofs of the community center and pool slope down to a lower roof over the secondary corridor -- this low roof provides a protect area for mechanical systems to be located and hidden from view.

## **NORTH ELEVATION**

The North elevation will be the most prominent face of the building. The gym and community

center are mirrored across the main building entrance. Clerestory windows run along the top of the building to provide indirect northern light. Exterior materials such as shiplap siding will reference the Moss House. Timber posts and beams supporting the terrace and roofs celebrate the trees of Mosswood Park. A "memory wall" will be located opposite the main entrance and is intended to be a canvas for a public art piece celebrating the history and legacy of Mosswood Park.

## **SOUTH ELEVATION**

Sustainability strategies influenced the design of the south elevation. Horizontal sunshades reduce glare, minimal glazing reduces solar heat gain and photovoltaic panels face south to be the most effective. The back of the bleachers doubles as a practice wall for the tennis courts. The reception area and tennis courts are connected through doors between the pool and gym.

#### **EAST ELEVATION**

The east elevation engages with existing site features including the tennis courts and amphitheater. Storefront glazing provides a connection between the pool and tennis courts. Sliding doors in the performing arts room allow activities to spill outdoors onto a stage. Performances can be watched from a plaza between the stage, amphitheater and Moss House.









SHIPLAP SIDING SIM. TO MOSS HOUSE



**ENTRY CANOPY** 



SOLAR PHOTOVOLTAICS



ROOF DECK



STOREFRONT GLAZING



MASS TIMBER STRUCTURE



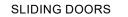
EXTERIOR STAIR



METAL SUNSHADE









SHIPLAP SIDING SIM. TO MOSS HOUSE



**ENTRY CANOPY** 



SOLAR PHOTOVOLTAICS



ROOF DECK



STOREFRONT GLAZING



MASS TIMBER STRUCTURE



EXTERIOR STAIR



METAL SUNSHADE

# **South Elevation**

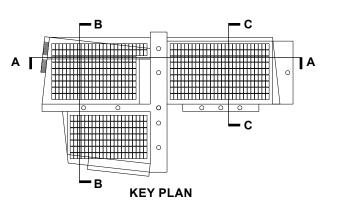


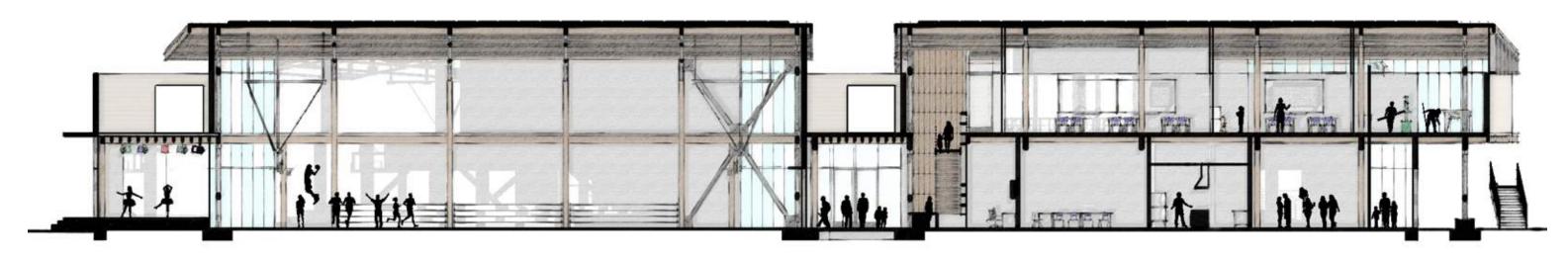
# **East Elevation**



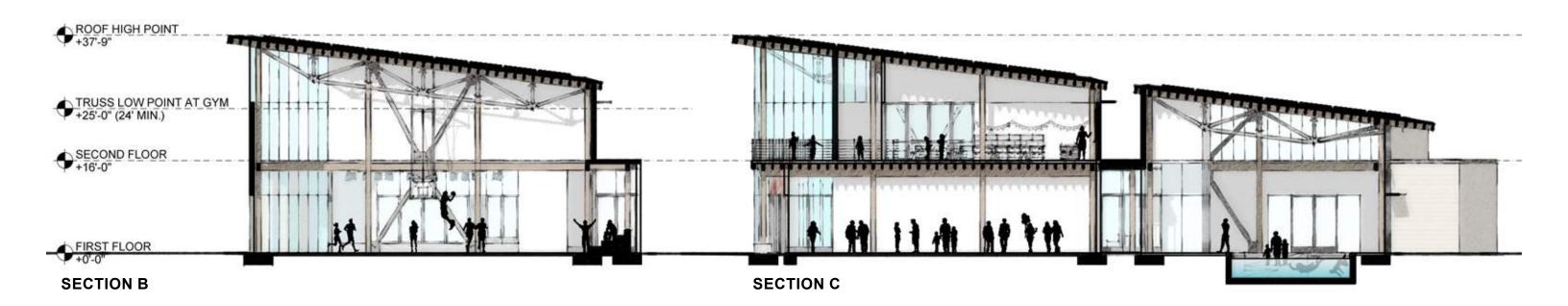
## **Sections**

"Sections" represent a cut through the building, revealing the interior volume and relationships between horizontal levels. The two drawings shown here represent a section through the community center and pool building, at the bottom, with the Moss House in the background, and a section through the gym above. These drawings allows us to understand the relationship of our building roof lines to the existing Moss House roof. They show us how the Community Center has two levels with more interior compartmentalization and circulation, while the gym and pool take advantage of their high sloping roofs to create double-height spaces much more suitable to their programs. Sections also allow us to understand the relationship of the body in space and evaluate where we want light to come from -- they are important tools in the design process.





## **SECTION A**



# Moss House Legacy & Historic Standards

We heard from the community that celebrating the rich history of the park is important. The new community center provides an opportunity to engage with architecture of the historical Moss House that is adjacent to the building site. The floor plan, construction type and massing are referenced in the new community center design. There are also building guidelines that should be considered due to the proximity of the building to the Moss House.

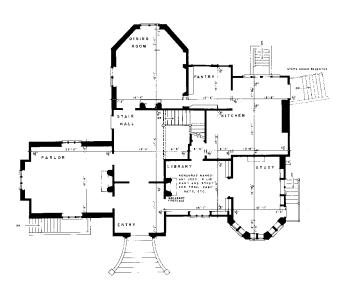
The National Park Service provides requirements for historical structures through the Secretary of the Interior's Standards for Rehabilitation including:

 New construction needs to be built in a manner that protects the integrity of the historic building and the property's setting

- New construction placed at the side or rear of historic buildings and avoid obscuring or destroying character-defining features of the building.
- Protecting the historic setting and context of a property.
- New construction should also be distinct from the old and must not attempt to replicate historic buildings elsewhere on site and to avoid creating a false sense of historic development.
- Historic landscapes and significant view sheds must be preserved.



HISTORIC LANDSCAPE AT MOSSWOOD PARK

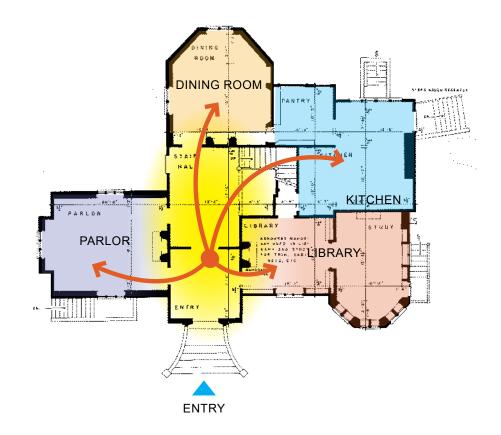


FLOOR PLAN OF MOSS HOUSE

## FLOOR PLAN COMPARISON

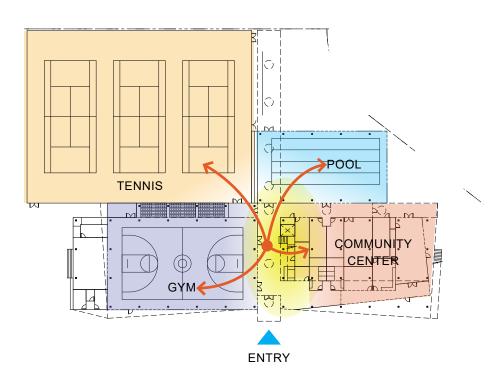
## **MOSS HOUSE**

The Moss House floor plan is organized around a central entry hall. The four main spaces are accessed from the entry hall: the parlor, the library, the dining room and the kitchen.

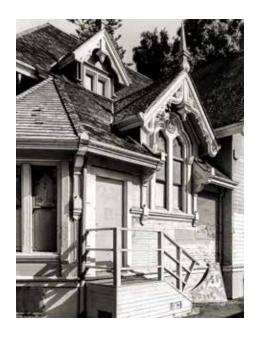


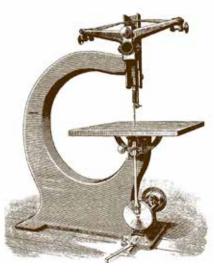
## **COMMUNITY CENTER**

Similarly, the main spaces at the community center are reached from the central reception area: the gym, the pool, the tennis courts and the community center. A series of large sliding doors give indoor-outdoor access between the park and the building interiors. The sliding panels can easily slide out of the way to create a seamless transition while also offering views from the exterior of activity within.



## **BUILDING TECHNOLOGY**





## **MOSS HOUSE**

Scroll saws had recently been invented when the Moss House was built. The intricate ornamentation, wood paneling and casework all highlight the "new" technology in woodworking at the time.







## **COMMUNITY CENTER**

The community center will celebrate wood in a different way through the use of mass timber. This construction technology reduces the carbon footprint of the building. The wood structure also acts as a finished surface which reduces material use. Structural wood beams, columns and braces races are natural materials sometimes displayed on the exterior, showcasing the building's resilience and teaching about how it resists gravity and natural forces.

## **FACADE AND ROOF LINE ARTICULATION**

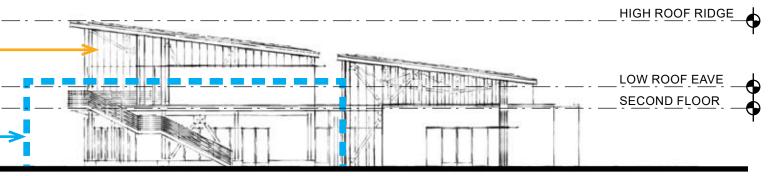
The height of the roof and eaves of the community center align with those of the Moss House. The primary building material is a durable and economical painted fiber cement shiplap siding. shiplap siding creates a horizontal rhythm of shadow lines that reference the historic Moss House. The new building is also further south of the Moss House than the original recreation center from 1953. The increased space can be used as a plaza.



MOSS HOUSE WEST ELEVATION

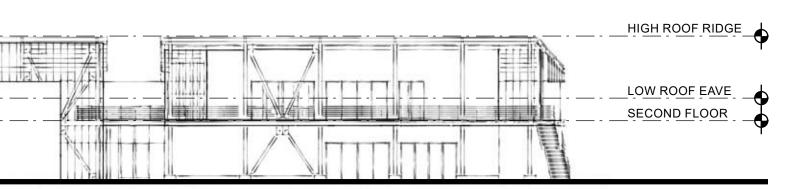


MOSS HOUSE SOUTH ELEVATION



1953 REC CENTER FOOTPRINT (BLUE)

#### **COMMUNITY CENTER WEST ELEVATION**

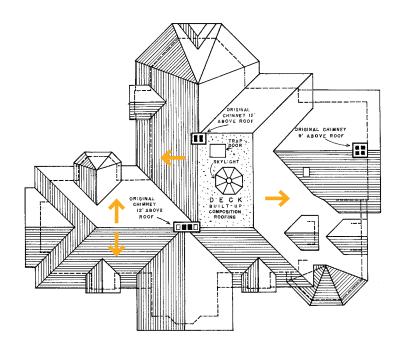


**COMMUNITY CENTER NORTH ELEVATION** 

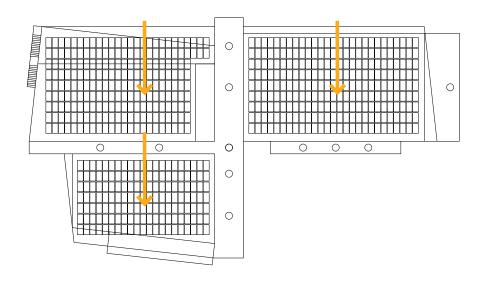
## REACHING FOR LIGHT AND FRAMING VIEWS

The roof form and glazing placement can be compared to the Moss House. Rather than having many roof pitches, the roof at the community center are simple sheds sloped down to the south. This allows the possibility of rainwater capture and re-use and is optimized for renewable energy.

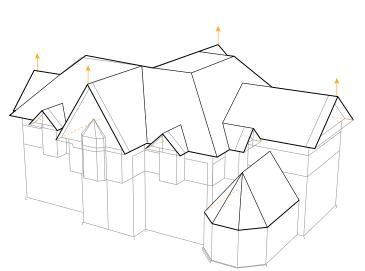
The Moss House drew attention to windows by using bays, dormers and ornament. At the community center, glazing is concentrated at the corners and at high clerestory locations - maximizing daylight into the interior of the space, drawing one's focus to nature, accommodating natural ventilation, and minimizing excess solar radiation. It is composed of a simple storefront system utilizing a combination of translucent and clear glazing filter light and display changing shadows.



MOSS HOUSE ROOF PLAN



**COMMUNITY CENTER ROOF PLAN** 

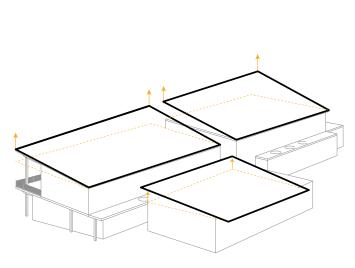


SOME SELECTION OF STREET, STRE



**MOSS HOUSE ROOF SHAPE** 

**MOSS HOUSE GLAZING** 







**COMMUNITY CENTER ROOF SHAPE** 

**COMMUNITY CENTER GLAZING** 

### **Physical Model**

In the design process it is good to explore a variety of ways to represent a project. Each offers its own advantages and disadvantages. For the Mosswood project, the design team decided to add physical model building to their palette of representational explorations.

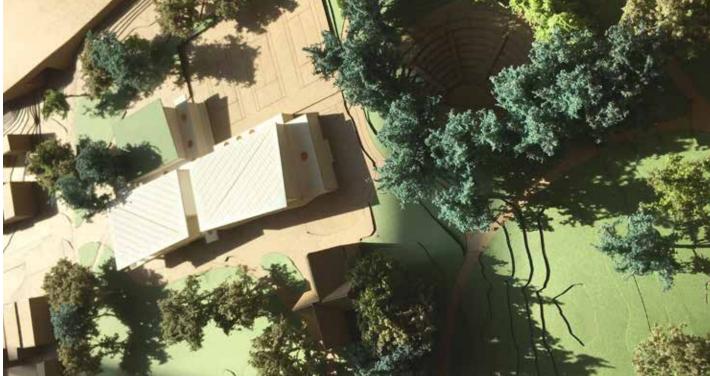
They built a scaled model of Mosswood Park that could be easily transported in the trunk of a car! It became a very useful tool for them in their own design process, but was also especially useful for PAC meetings and community workshops. It helped everyone visualize the project in ways that two-dimensional drawings and perspective views could not. The model includes a scaled version of the Moss House, shows the surrounding neighborhood context and buildings adjacent to the site, including the highway, and most importantly accurately

depicts the significant tree canopy that gives the park its unique character. All 200 trees were individually built by hand -- modeled to match their actual species and stature.

As different building locations and designs were being explored, the design team was able to produced physical models of these multiple options to place within the site model to help others understand how they would fit, or not fit, within the greater park context. It was a useful tool for community members, both young and old, as it provided a hands on way to engage with the options and consider them on a more holistic level. One could easily asses the impacts to the existing tree canopy, the relationship to existing park functions and amenities, and relationships to the surrounding neighborhood and circulation paths. Many productive conversations occurred as a result.











### 3D Views

Three-dimensional views allow us to start conceptualizing how the building might look and feel on the ground level from the human perspective.

#### **VIEW FROM BALL FIELD**

The roofs of the community center and gym follow the high ridge line of the Moss House. A new plaza between the Moss House and the gym activates the Moss House and creates an opportunity for shared facilities.

#### **BIRDSEYE VIEW**

The south facing roofs are covered with a photovoltaic array that will supply a large portion of the electricity required for the building. Parking is conveniently located to the south of the building.

#### **VIEW FROM WEBSTER STREET**

The new community center will be very visible from Webster Street. Sliding glass doors at the social hall on the first floor will allow people to gather outside which creates an even more active and welcoming presence on Webster street.

#### **VIEW FROM THE TENNIS COURTS**

The performing arts room opens to an outdoor stage and viewing plaza to the east. Storefront windows and doors provide visual and physical connections from the building to the tennis courts.

#### **VIEW FROM MOSS HOUSE**

Sliding doors connect the gym to the park. Bathrooms for the Moss House and park are located on the east side of the gym.











### **Building Structure and Systems**

#### **BUILDING STRUCTURE**

#### **Option 1: Mass Timber**

The proposed structural system includes a concrete slab on grade with spread footings; and gluelam columns and beams, steel brace frames with buckling restrained braces.

The level 2 floor assembly at the community center is a concrete topping slab over mass timber floor panels. Traditional stick frame will be used at low roof areas with joists and post/beam framing and a seismic joint will be required between the gym and pool.

The roof structure will be composed of steel or wood trusses at the pool and gym to accommodate long spans, with plywood sheathing over mass timber panels above.

#### Option 2: Hybrid Wood & Steel

An alternate structural system is also being considered where the level 2 floor assembly would be replaced with gypcrete over tongue and groove plywood over composite steel and engineered wood open web trusses.

At the roof, tongue and groove plywood over engineered wood or steel trusses would replace the system noted above.

#### **BUILDING SYSTEMS**

The engineer's highest priority is to design systems that serve the building occupants' needs and maintain a predictable, enjoyable, and healthy indoor environment.

Their second priority is to push the traditional boundaries of cost-effective energy efficient design. Designing such energy efficient buildings is a two-tiered integrated design team approach which requires input from all design parties and early coordination and collaboration. The key steps to this holistic approach are summarized below:

- Minimize building energy requirements through optimized passive design such as the building orientation, envelope/ fenestration design, heavy mass structures, and low-flow plumbing fixtures.
- Meet the building energy demands efficiently using low energy systems. This includes utilizing strategies such as passive ventilation, high efficiency equipment, and heat recovery.

First, considerations will be given to reducing thermal loads through thoughtful and practical envelope design and building orientation. Leveraging daylighting opportunities while mitigating solar loads is another critical early step in optimizing efficiency and creating a comfortable and welcoming indoor environment. The mechanical and plumbing systems will be selected and optimized to meet peak building loads while utilizing minimal amounts of energy. Where feasible and effective, renewable sources of energy will be considered and utilized (such as photovoltaic electricity or solar hot water heating) to further reduce the building's impact.

The project will showcase the importance of responsible design and how our buildings impact our daily lives and greater environment. This will enable the buildings to be used for educational purposes, where staff and community can use the buildings, their systems, and associated data as an instructional tool.

#### **MECHANICAL**

The HVAC systems will provide best-in-class thermal comfort, healthy indoor air quality, and high levels of user controllability while operating with exceptional efficiency. These goals will be achieved through thoughtful and collaborative envelope design and selection of HVAC systems that will operate efficiently at both peak and part loads.

The baseline system is a four-pipe Air-to-Water Heat Pump providing heating hot water and chilled water for space conditioning. Options for ventilation and zone-level space cooling/heating include:

- Radiant floor or hydronic perimeter radiators for heating and cooling with ceiling fans and operable windows
- Ventilation from dedicated outside air energy recovery ventilators or recirculating air handling units.

#### **PLUMBING**

The focus of the plumbing system design will be to reduce domestic water consumption and the resulting wastewater production. Low-flow fixtures will be used in all the domestic water spaces and will reduce the domestic water demand significantly.

The plumbing systems will be also be designed around dependability. All plumbing fixtures will be commercial grade fixtures designed to withstand the rigors of frequent use by the building occupants.

The project is also exploring options for recycling and treating rainwater or greywater

for restroom flushing fixtures and irrigation. The domestic hot water system shall be provided with central air source heat pumps and storage tank. Air source heat pumps provide hot water with significantly higher efficiencies than conventional electric resistance and natural gas, while also being carbon free.

#### **ELECTRICAL**

The electrical design will strategically implement a sensible, sustainable system that provides ease of maintenance, flexibility, and capacity for future modifications.

Energy efficiency will be accomplished within the design through responsive lighting controls, daylighting elements, and sensitivity towards equipment selection. The electrical engineer will work closely with the design team and owners to optimize specifications of the most energy efficient equipment and energy saving type devices for office, furniture, and kitchen applications. Every effort will be made to ensure that the electrical system for the building utilizes efficient, sustainable design strategies for progressive green building practices while keeping costs in line with traditional construction and provisions for future capacity.

Every effort shall be made to ensure that designs and equipment used within the building are replicable for deployment into future buildings. This building can serve as a notable example of feasible sustainable design strategies.

Daylight harvesting shall be designed and specified to reduce energy where natural daylight occurs in abundant and sufficient

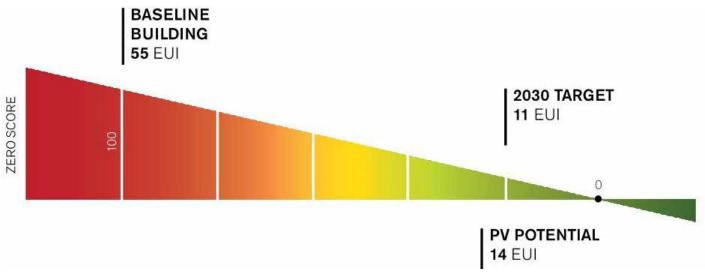
### **Sustainability Strategies**

The Mosswood community center project presents a great opportunity for integrating simple, high-impact sustainable design strategies to ensure this new Oakland based building is playing its part in combating climate change and other environmental and societal challenges we face today. As a City sponsored project, the Mosswood center has a chance to set an example for other future projects and pave the way for more sustainable development across Oakland.

When asked what values should guide the park master plan and the design of the new community center, the 300+ community members that responded to our public survey noted Sustainability as their #1 priority. There are many ways to define sustainability and through deeper engagement we learned that for Mosswood this means: preserving and celebrating the natural ecology of the park and maintaining the existing tree canopy; thinking of ways to collect and re-use water on site to

minimize impact on municipal water sources; setting an example for access and inclusion for people from all walks of life and providing resources and support to those in need; and thinking of how this site could function as a gathering space in the event of an emergency. Health and Wellness were a recurring theme during the community process and in response the project will be exploring ways to address indoor air quality, thermal, visual, and acoustical comfort for the building users by installing healthy materials, providing access to daylight, the outdoors, and fresh air. Simple passive strategies can go a long way.

To align with City of Oakland goals, the project will also be exploring ways to eliminate natural gas use and pursuing all-electric alternative systems. By designing a high performance building envelope and efficient systems we can reduce energy demands and make an all electric goal that much more achievable.



PLOTTING THE BASELINE ENERGY USE INTENSITY OF A TYPICAL COMMUNITY CENTER BUILDING AGAINST THE GOALS FOR THIS PROJECT.









OPERABLE WINDOWS



MASS TIMBER STRUCTURE



RAINWATER
COLLECTION + REUSE



HEALTHY MATERIALS



VIEWS TO THE OUTDOORS



RESILIENT LATERAL RESISTING FRAME



8 ACCESSIBLE POOL + FACILITIES

SUSTAINABILITY STRATEGIES ARE ALREADY INCORPORATED INTO THE ARCHITECTURE OF THE COMMUNITY CENTER. HOW CAN WE TAKE THESE FURTHER?

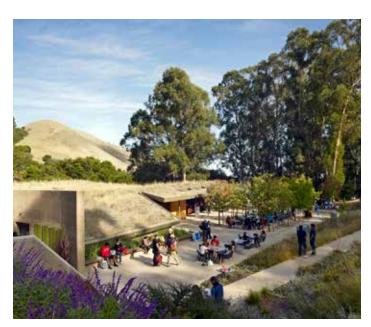
### **EIGHT THEMES AND QUESTIONS THAT HAVE**

# 1 HABITAT

How can the park celebrate the natural ECOLOGY of the site?

## 2 COMMUNITY

How can the park provide equitable access to the COMMUNITY?



THE LIVING ROOF AT THE CALIFORNIA SHAKESPEARE THEATER IN ORINDA, CA PROVIDES A HABITAT FOR NATIVE SPECIES.



PEOPLE WITH ALL ABILITIES ARE WELCOMED AT THE ED ROBERTS CAMPUS IN BERKELEY, CA WITH AN ICONIC HELICAL RAMP.

### **GUIDED OUR SUSTAINABILITY APPROACH.**

# 3 WATER

What are the park's opportunities for WATER conservation and to lower the impact on municipal water sources?



How can the design of the park and community center consider ECONOMY and make the most from the least?



THE NUEVA HILLSIDE LEARNING COMPLEX IN HILLSBOROUGH, CA USES 50% LESS WATER THAN A TYPICAL NEW SCHOOL FACILITY.



THE PLAZA APARTMENTS IN SAN FRANCISCO, CA USES SIMPLE MATERIALS ARE USED IN THOUGHTFUL WAYS TO PRIORITIZE ECONOMY.

# 5 ENERGY

How can the park be designed to reduce emissions and reliance on the ENERGY grid?



What are the park's opportunities to design for WELLNESS by providing restorative, healthy spaces?



SOLAR PHOTOVOLTAIC PANELS ARE ESTIMATED TO PRODUCE 91% OF THE BUILDING'S COMMON AREA ELECTRICAL ENERGY AT THE EDWIN M. LEE APARTMENTS IN SAN FRANCISCO, CA.



ENHANCED AIR QUALITY VENTILATION SYSTEMS CONTRIBUTE TO A HEALTHY INTERIOR ENVIRONMENT FOR DISADVANTAGED CITIZENS AT THE RENE CAZENAVE APARTMENTS IN SAN FRANCISCO, CA.

# RESOURCES

How can the design of the park and community center spaces' use of RESOURCES minimize environmental impacts?



How can the park and community spaces anticipate CHANGE over time?



THE TRANSFORMATION OF FORT BAKER TO CAVALLO POINT LODGE IN SAUSALITO, CA POWERFULLY DEMONSTRATES THE INTER-RELATIONSHIP BETWEEN PRESERVATION AND SUSTAINABLE DESIGN.



FIREHOUSE NO. 1 IN SAN FRANCISCO, CA IS A RESILIENT EMERGENCY SERVICES FACILITY.

#### SUSTAINABILITY CHARETTE

April 29, 2020 | Zoom Video Conference Attendees: OPW, OPRYD

The Design Team facilitated a Sustainability Charette to better understand the opportunities and constraints of some of the strategies from the City of Oakland's perspective. We presented four sustainability themes with strategies to achieve each goal. The four themes that were presented included water, energy, health and wellness and change.

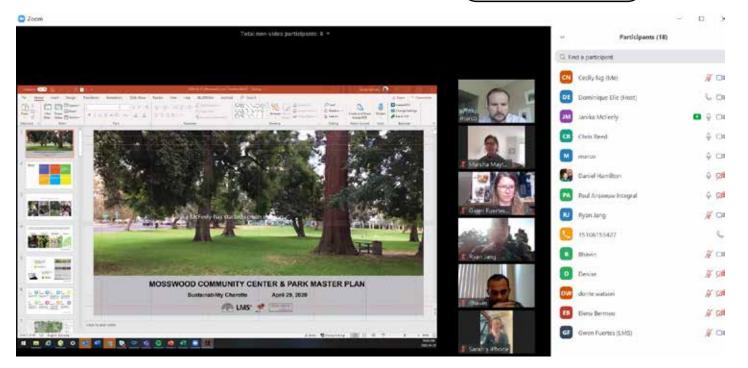
A lively discussion occurred, some of which is captured here in speech bubbles.

Maintenance, operations and project phasing questions were discussed. It was also noted that adaptation is a top priority for the city and the city's goals need to be considered

in addition to the community's goals. As the design progresses, the Design Team will work to unite the sustainability goals of the city and the community.

Comments from the City of Oakland representatives are in blue.

Comments from the Design Team are in grey.



THE SUSTAINABILITY CHARETTE TOOK PLACE ON ZOOM.





PARTICIPANTS PLACED SYMBOLS NEXT TO THE GOALS AND STRATEGIES THEY THOUGHT SHOULD BE PRIORITIZED.



WATER REUSE AND CONTROLLED IRRIGATION AT THE NUEVA SCHOOL AT BAY MEADOWS, SAN MATEO, CA.

### Water

**One Water** integrated water management approach leading to exemplary potable water conservation, **no potable water being used for non-potable demands**, site hydrology modeled after pre-development natural hydrology, and improved water quality.

Storm drain capacity not determined yet, will look into more during schematic design

#### **KEY STRATEGIES**

Low-flow fixtures

On site storm water treatment and infiltration

Alternative water source for toilet flushing and irrigation



LIVING MACHINE BLACKWATER TREATMENT AT THE SAN FRANCISCO PUBLIC UTILITIES COMMISSION HEADQUARTERS, SAN FRANCISCO, CA.

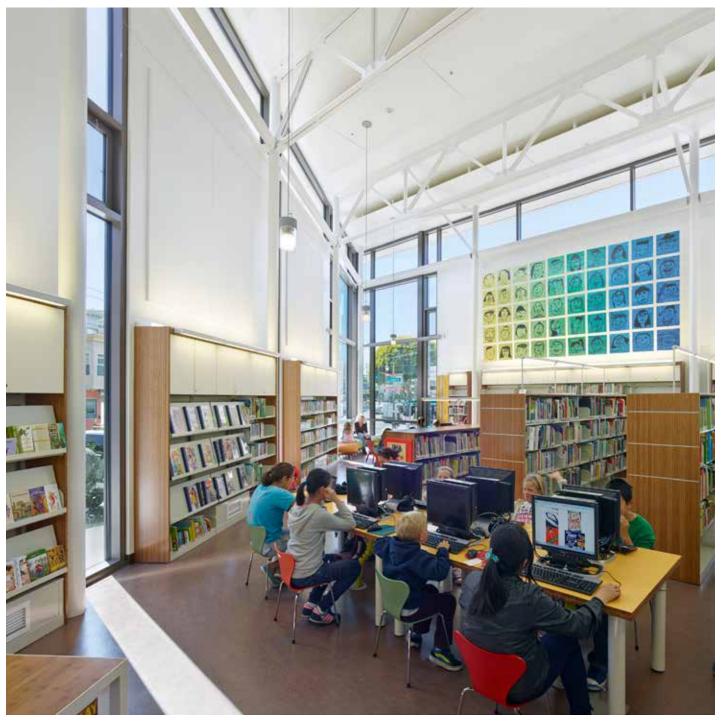
No, the water would be clear. Grey water would need to be filtered and cleaned to be used for anything.

Will using grey water to flush toilets cause staining?

There are great
examples of using grey
water for irrigation in other cities, it
is low maintenance, I don't have as much
experience with blackwater. Using pool
wastewater is a great source, interested in
this idea but concerned about expense of
removing chemicals like chlorine.

We would need to analyze the pool filtration. Storm water could also be used for pool make up.

When
we drain pools it
causes lots of problems
for neighboring buildings and
municipal system. We need
to consider this from the
start.



DAYLIGHTING SIMPLE AND ACCESSIBLE SPACES AT THE NORTH BEACH BRANCH LIBRARY, SAN FRANCISCO, CA.

### **Health and Wellness**

The building design and operation **maximizes occupant health** through healthy material selection, excellent indoor air quality, and thermal and visual comfort.



CEILING FANS PROVIDE AIR MOVEMENT THAT SIGNIFICANTLY IMPROVES THERMAL COMFORT.

#### **KEY STRATEGIES**

Daylighting and views

Ceiling fans and operable windows

100% filtered outside air

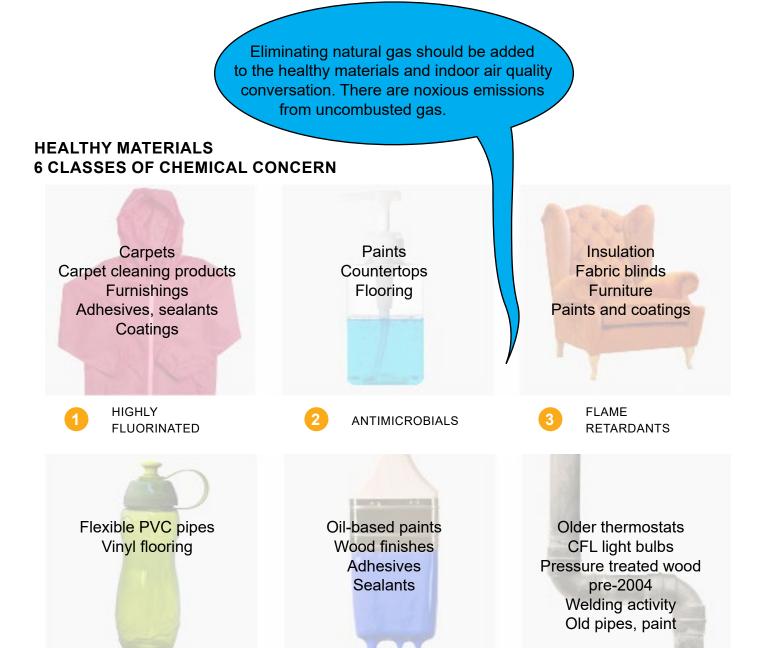
Healthy materials

Natural ventilation and air quality testing

Access to nature

Will there be mechanical cooling? How can a passive system provide humidity control especially with climate change?

We would start with passive measures, then hybrid measures, then mechanical measures if needed.



"The City of Oakland shall reduce or eliminate its use of products that contribute to the formation of dioxins and furans. Purchases shall be consistent with the City's resolution establishing policy on dioxin, public health and the environment."

SOME SOLVENTS

**CERTAIN METALS** 

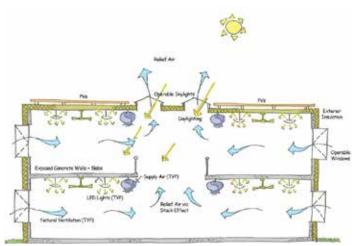
City of Oakland Environmentally Preferable Purchasing Policy July 17, 2007

**BISPHENOLS +** 

**PHTHALATES** 

Either of these can be combined with zonal heating and cooling systems such as chilled beams, radiant systems or local fan coils.

## THERMAL COMFORT AND AIR QUALITY STRATEGIES

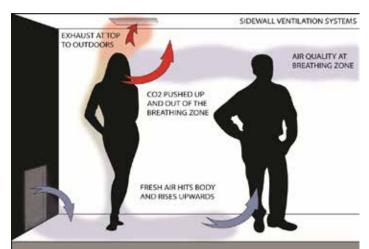


#### **NIGHT COOLING**

The building could take advantage of the diurnal temperature swings in Oakland and open the windows at night to cool the building. Since Mosswood Park is adjacent to the freeway, this strategy would use automatic window controls that are tied to indoor air quality monitoring.

We could also use an earth tube to bring cooler outside air into building if can't open windows due to noise or pollutants.

I like it all! This seems very in-line with the goals of the City of Oakland.



#### DISPLACEMENT VENTILATION

Hot air and carbon dioxide naturally rises above the occupied area and fresh, cooler air is brought in at the level of the occupants. The building would use a Dedicated Outside Air Systems (DOAS) for to bring in 100% outside air. DOAS are fundamentally healthier buildings and more resilient to indoor contaminants.

We should anticipate smoke and sheltering from fires. How do you cool a facility that is full of people when there is smoke outside?



THE VETERANS MEMORIAL SENIOR CENTER IS A NET ZERO ENERGY BUILDING IN REDWOOD CITY, CA.

## **Energy**

Net Zero goal is fantastic. Resilience and battery storage is complicated and needs to be accommodated early.

Design and operate the community center to **generate zero carbon emissions.** 

Good points were made from a building operation perspective for some of these technologies. However we need to temper maintenance difficulties of the past with cost benefits for the future. Building technologies will continue to improve. This is the direction that the city is heading.

#### **KEY STRATEGIES**

High performance envelope (Passive House)

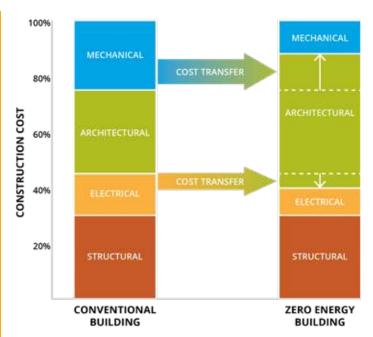
Passive design strategies (daylighting, natural ventilation, exterior shading)

Net Zero Energy all-electric design

On site energy generation and battery storage

Low-carbon materials (mass timber)

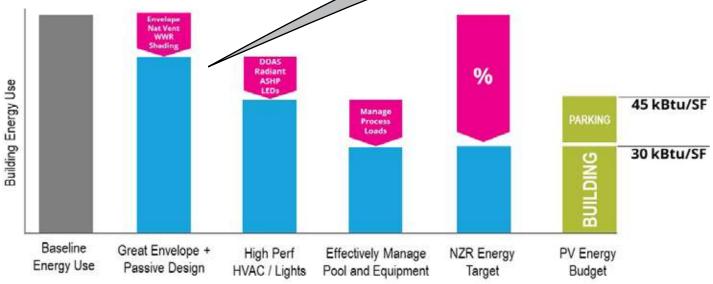
There may be grant funding sources for some of these strategies such as the WoodWorks Wood Products Council California Mass Timber Grant.



A HIGHER PERFORMANCE ENVELOPE REDUCES MECHANICAL SYSTEM SIZES WHICH IS REFLECTED IN LOWED ENERGY USE AND OPERATING COSTS.

From
Public Safety Power
Shutoff experience, a generator
can sustain an entire facility. We
could consider a transfer switch and a
portable generator.

GETTING TO ZERO STRATEGIES TO REDUCE ENERGY USE A very tight building envelope at the pool would decrease the energy load for heating water



#### RADIANT HEATING AND COOLING

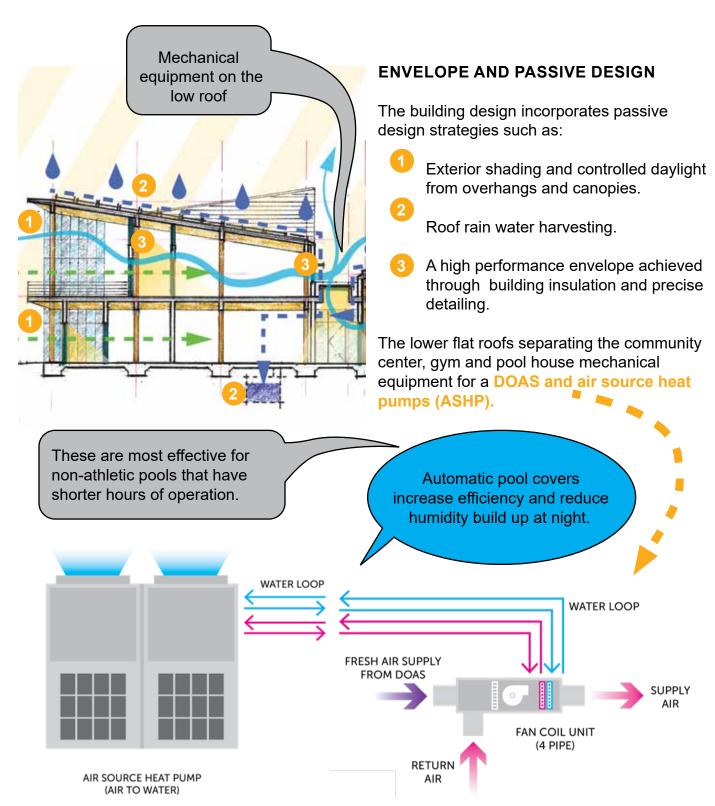
In slab radiant heating and cooling is an effective way to provide thermal comfort that has been widely used. A follow up meeting will be held to discuss the life cycle of this system.

At Rainbow Rec we have no issues with the system but we don't have technical know how to maintain the system also many of the parts can't be sourced locally.

Once it
begins to fail it is a
nightmare. But otherwise if its
serviced properly then its
great.



THE RAINBOW RECREATION CENTER IN OAKLAND, CA HAS AN IN-SI AB RADIANT SYSTEM.



POOL REFRIGERATION AND HEAT RECOVERY WITH ASHP AND DOAS YIELDS ENERGY SAVINGS AND EXCELLENT INDOOR AIR QUALITY.



AN ABANDONED GREYHOUND BUS STATION WAS ADAPTED INTO A SCHOOL AT THE CALIFORNIA COLLEGE OF THE ARTS IN SAN FRANCISCO, CA.

## Change

Create an adaptive and flexible building design that is durable and maintainable and **provides the community with a resiliency hub** during a disaster.

I sense that this is already a site for resiliency. At an urban planning level Mosswood is uniquely located next to Kaiser and Sutter hospitals and resiliency could look very different here than other places. could the whole park be used?

The 3-day FEMA guideline seems right. We should engage with other city departments to see if there are special needs and expectations.

#### **KEY STRATEGIES**

Resiliency Hub

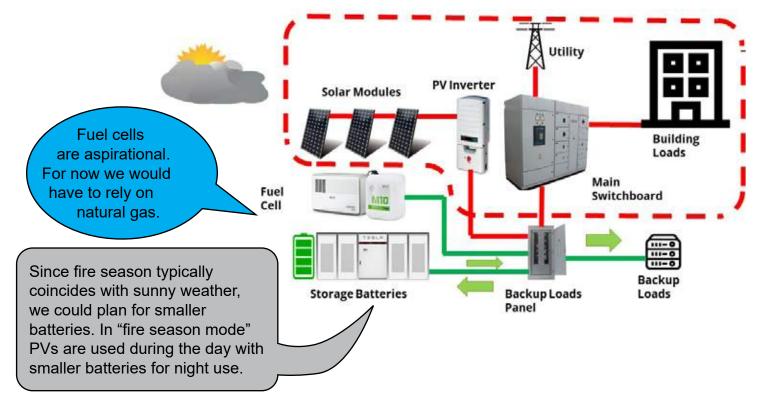
3-day storage of potable water as well as sewage and battery backup

#### **ENERGY, WATER AND SEWAGE STORAGE**

Resiliency measures overlap well with zero carbon strategies. For example, the backup power microgrid includes photovoltaic power which is a strategy to reduce carbon. An underground water cistern could be used for potable water storage. A 3,000 gallon tank provides water for 200 people for 3 days. An underground peat moss biofilter, composting toilet or portable restrooms could be used to treat and store sewage.

The pool could be another storage source.

#### **BACK UP POWER MICROGRID**



# Landscape Sustainability Goals and Strategies

The Master Plan is a document that has a strong responsibility to lead by example in the fight against climate change and the development of a more sustainable society. Mosswood's elegant tree canopy already is valued by the community for its natural character. The park has a unique opportunity to educate and lead the community to expand their value of the natural world and sustainable practices. The Master Plan is targeting the following areas for leadership:

#### TRANSPORTATION

Making the arrival at Mosswood park by biking, walking, and public transit easy and wonderful is an overall goal of the Master Plan. Placing bike racks, bike repair stations, and adequate width of paths to accommodate casual bike users will support and encourage bike use. The re-design of the Pergola along Broadway will be an amenity that defines a gateway and a civic scaled bench for those arriving by bus. New paths and better connections will make walking easier and more intuitive. A loop trail will be added for promoting the use of the park trails as a circuit for exercise

#### **GREEN INFRASTRUCTURE**

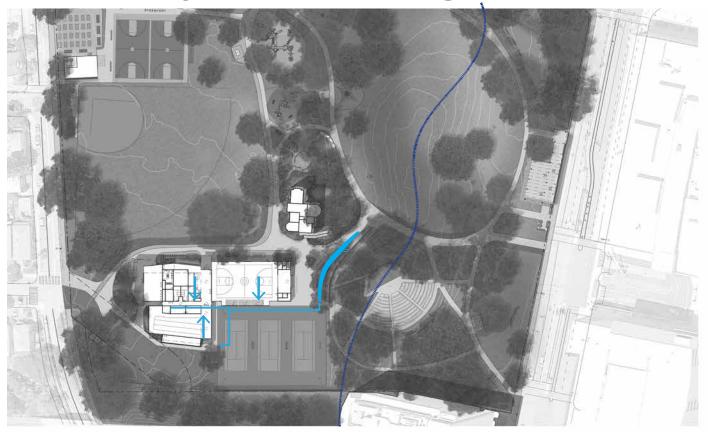
Demonstrating the value of ecosystem services informs the overall planning for the design. Protecting and providing future proofing for stewardship of the urban forest is the highest valued goal. The forest helps to mitigate heat islands, produces oxygen, reduces particulate matter in the air, and contributes to community wellness. Water from pavements and roofs will be treated in new bioswales that help tell the story of the historic landscape and its now undergrounded creek. The treatment of water will be celebrated and feature native plants.

Other planting will comply with water efficient landscape standards and feature durable, low water plants. Selections of native plants that work in plant communities to create habitat and provide places for native pollinators will also drive planting selections. Recent sightings of Red Tailed Hawks nesting in the large Eucalyptus tree have spurred a naming contest for their four chicks. Building on the presence of these animals and others, it is recommended that more interpretation of the ecology of the park is integrated into a nature trail on the East side of the park.

#### COMMUNITY RESILIENCE

With the recent Covid-19 epidemic, the importance of our parks, trails, and open spaces has been brought into sharp focus. Many people are walking or visiting with social distance at the park and it has become a symbol of being together while apart. The park has historically been a central gathering place for emergencies and should continue to do so. It is uniquely located between two hospital campuses and could serve as overflow for emergency tents or more likely as a place for health care workers to refuel and relax as they tackle difficult challenges at the hospital. The importance of supporting community members has long been a part of the park and following the division of the neighborhood by the 580 freeway the park has had a long history of community resistance and resilience. This powerful legacy will be part of the history walk trail, but also should continue in the park practices.

## **Sustainability Goals and Strategies**



STORMWATER TREATMENT



RED TAIL HAWK



STORMWATER PLANTING

### **Master Plan & Building Phasing**

MASTER PLAN - MARCH - MAY 2020 COMMUNITY CENTER DESIGN & ENTITLEMENTS - JUNE - DECEMBER 2020

## PHASE IA COMMUNITY CENTER CONSTRUCTION JANUARY 2021 - MARCH 2022

- 11,600 SF COMMUNITY CENTER
- LANDSCAPE IMPROVEMENTS
- NEW PEDESTRIAN PATH & FIRE LANE
- EXISTING PARKING LOT IMPROVEMENTS
- MAJORITY OF TEMPORARY REC CENTER REMAINS GENERALLY OPEN

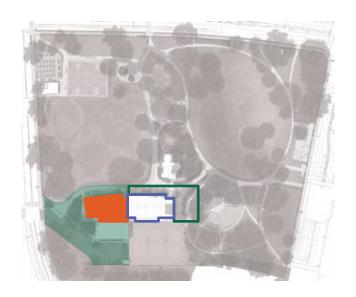
#### PHASE IB - INTERIM USE MARCH 2022 - PHASE II

- DEMOLITION OF TEMP. REC CENTER.
- INTERIM USE EAST OF COMMUNITY CENTER

## PHASE II GYM CONSTRUCTION DATE: TBD PENDING FUNDING

- 7,700 SF GYMNASIUM
- LANDSCAPE IMPROVEMENTS
- NEW PEDESTRIAN PATH & FIRE LANE





COMMUNITY CENTER
DESIGN PHASES &
ENTITLEMENTS
June - December 2020

PHASE I

Community Center Construction January 2021 - March 2022 (For funding requirements) PHASE II

Gym Construction

Date TBD pending funding

**DEVELOP MASTERPLAN**March - May 2020

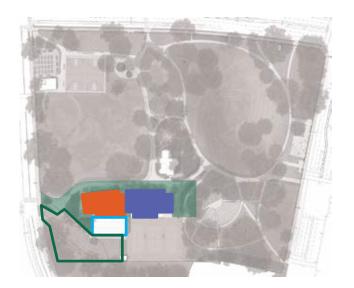
## PHASE III POOL CONSTRUCTION DATE: TBD PENDING FUNDING

- 5,100 SF POOL
- LANDSCAPE IMPROVEMENTS
- NEW PEDESTRIAN PATH
- PARKING LOT REPLACEMENT & EXPANSION
- RELOCATE DOG PARK

- AMPHITHEATER
- PERGOLA
- ROCK CLIMBING
- COMMUNITY GARDENS
- SNACK BAR
- MOSS HOUSE GARDEN
- NATURE WALK
- ART OPPORTUNITY
- IMPROVED CIRCULATION, SEATING, & LIGHTING

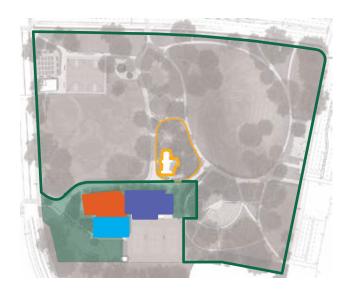
OTHER PARK MASTER PLAN IMPROVEMENTS
DATE: TBD PENDING FUNDING

MOSS HOUSE REHABILITATION DATE: TBD PENDING FUNDING





Pool Construction
Date TBD pending funding



OTHER PARK MASTER
PLAN IMPROVEMENTS
TBD pending funding

MOSS HOUSE
REHABILITATION
TBD pending funding