

Portsmouth Square Improvement Project

Report

Prepared by SWA + MEI Joint Venture
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San Francisco
Planning



swa
MEI

Purpose of Report

This report provides a complete record of the Portsmouth Square Improvement Project design and process. Included are illustratives and narratives defining the final approved improvement plan, as well as documentation explaining the community process and feedback throughout the design period.

This project was commissioned by the City of San Francisco Parks and Recreation Department in collaboration with San Francisco Planning Department. The design team included SWA Group and MEI Architects as a joint venture, SOHA Engineers, MLee Corporation Cost Estimators, Telamon Civil Engineering, and Interethnica Outreach Consultants.

Thanks

This project would not have been possible, nor the final design as compelling and well considered, without the participation and support of thousands of San Francisco residents, and dozens of local Chinatown organizations, non-profits, and businesses.

Special thanks go to the following individuals and organizations for assisting with community participatory design process and providing advice and guidance:

Chinatown Community Development Center
Committee for Better Parks and Recreation in Chinatown
Self Help for the Elderly
Chinatown Chamber of Commerce
Portsmouth Square Parking Corporation
Asian Improve Arts
Chinatown Congregation United Church of Christ
Chinese American Community Foundation
Chinese Culture Center
Community Youth Center
Manilatown Heritage Foundation
City College of San Francisco
Allan Low, Parks Commissioner
Aaron Peskin, District 3 Supervisor

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Executive Summary

The community living-room

This report is for the Portsmouth Square Improvement Project, a community participatory design process to envision a comprehensive update to the Portsmouth Square Park, in San Francisco, California.

The scope of the redesign includes the full park at 733 Kearny, approximately 65,000 SF of urban park including public sidewalks, planters, shade structures, walls terraces, playgrounds, custom furnishings, biofiltration basins, hardscape, wayfinding, signage, exercise equipment, ramps, fences, railings, lighting, and site utilities. The project also includes an approximately 7,500 SF new community clubhouse facility, including related garage structural upgrades to support the facility, a new core and shell structure, interior program spaces, a new skin around the existing garage elevator, and solar roof.

All of the landscape and architecture is built on top of the existing Portsmouth Square Garage, which will maintain operations throughout construction. The only existing element in the park to remain is the new restroom located at the southeast corner of the lot. The removal of an existing pedestrian bridge is included in this project. The removal of the existing clubhouse, shade structures, and landscape are included, as well as the replacement of the entire waterproofing of the garage except at the new restroom.

The project's overall goal is the provision of an enhanced park and public space and a new enlarged clubhouse for the Chinatown community.

The Improvement Planning process was strategically developed to enable listening-based and iterative design. This process was broken into a listening phase, five community workshops, and a refinement / agency approval phase at the end. Included in the process was a period of costing and design refinement between workshop 4 and workshop 5, to make sure that the final design was able to fit within the City's budget.

The project goals that drove the design and process were:

- The project site shall be viewed in the context of the overall Chinatown Neighborhood: the renovated park and streetscape should seamlessly integrate with the community context and reflect the needs of the Chinatown neighborhood.
- Provide an integrated and open park that maximizes usable space, removes barriers, and gracefully connects to the surrounding neighborhood.
- Provide a safe pedestrian experience.
- Create spaces that are comfortable, safe, and welcoming for all age groups and abilities.
- Create flexible spaces that can accommodate daily recreation activities as well as events.

Through the design process, intercept surveys, stakeholder meetings, and community participatory design workshops, the design team identified the following broad categories and desires from the community for the preferred design:



Portsmouth Square Improvement Project Community Priorities

- Provide a larger, flexible outdoor event space
- Include a stage so community groups don't need to rent a temporary stage
- Provide power to the stage to support events
- Provide a new larger clubhouse (accommodating 200+ people)
- Include new lighting to enable evening use and improve safety
- Provide generous shade structures
- Provide trees for shade
- Include a new, larger, consolidated playground
- Provide fitness equipment for seniors near the playground
- Remove the existing bridge
- Include perimeter fencing so park can be closed at night (10 pm to 6 am)
- Enhance the connection to Walter U. Lum
- Enhance universal accessibility

These key priorities were used to develop the design presented on January 14, 2018, at workshop 4, as well as presented in workshop 5 on July 11th, 2018. In the period between the workshops, the design team worked with the City team to maximize the provision of these priorities within a realistic budget slated for the 2019 Parks Bond.

The final design presented in this document reflects the reconciled design presented in July 11th, 2018. The cost estimate for this concept plan is attached in Appendix A.



Chapter 1

Approved Improvement Plan

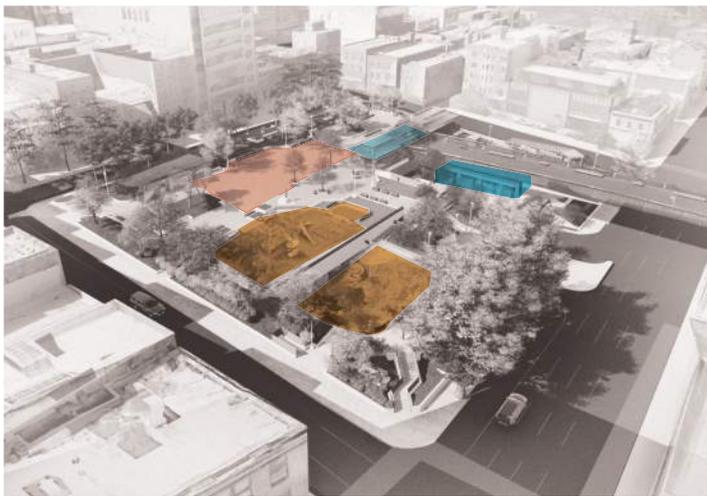
The final improvement project vision reorganizes the park to make the most efficient use of the existing structure to provide the enhanced facilities desired by the community. The key goals of increased visibility, larger event space, a larger clubhouse, and an improved playground and fitness experience are accomplished through consolidating programs into a series of rooms & courts.

The lower terrace is broadly opened up on the south, with a grand playground and fitness space. On the north, the clubhouse makes use of the existing elevator core and extends fully across the terrace, providing a large community building while removing the hidden corners of the existing park. The clubhouse opens up onto porches at the upper and lower terraces, allowing interior programs to spill out into the park and vice versa.

At the northwest corner of the park, a garage court entrance is provided outside of the park fence - this is a wayfinding hub open 24-7 orienting visitors to the park and Chinatown. The main plaza is doubled in size to better support events, reoriented toward a new terrace stage on the western side of the park. Flanking this stage is a series of terraces, planters, and stairs that connect to Walter U. Lum. On the eastern edge of the plaza is a large shade structure and diverse seating opportunities for day-to-day use—preserving and enhancing Portsmouth Square as Chinatown’s outdoor living-room.

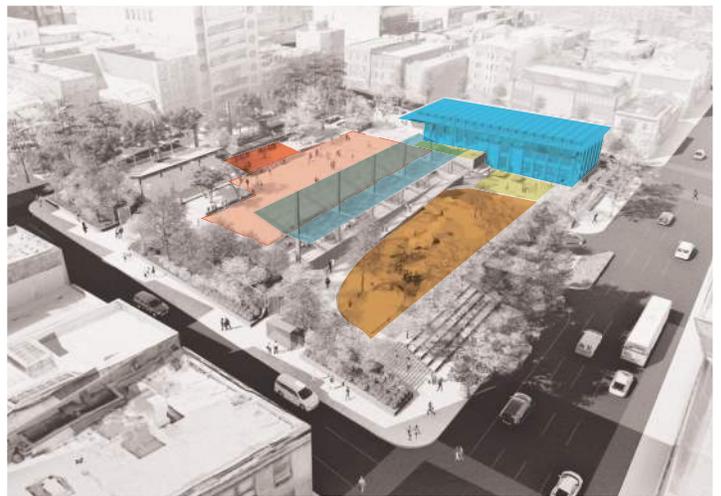


Existing Park



- CLUBHOUSE - 1,600 SF**
- PLAZA EVENT SPACE - 4,000 SF**
- PLAYGROUNDS (COMBINED) - 5,500 SF**
- SHADE STRUCTURE - 1,600SF**

Current Design



- CLUBHOUSE - 7,500 SF**
- PLAZA EVENT SPACE - 8,500 SF**
- PLAYGROUND AND FITNESS AREA - 6,500 SF**
- SHADE STRUCTURE - 3,500SF**
- ELEVATED STAGE TERRACE - 1,200 SF**

LEGEND

- Event Space
- Stage
- Shelter
- Playground
- Clubhouse
- Clubhouse Porch

Inspiration: Treasure Box

The organizing concept of the treasure box comes from traditional Chinese box design—where the compartment is perfectly scaled for the content. Since Portsmouth Square is so heavily used, scaling and framing the outdoor rooms is key for program success. Activity and program preferences were solicited from the community in intercept surveys and at workshop 1. The community was invited to test fit site program into a diversity of park frameworks in workshop 2. The final design showcases a park proportioned and scaled to maximize the effectiveness of key outdoor programmatic spaces, while making the transition zones between the spaces areas of comfort and occupation - seating, shade, and planting.



Illustrative Plan

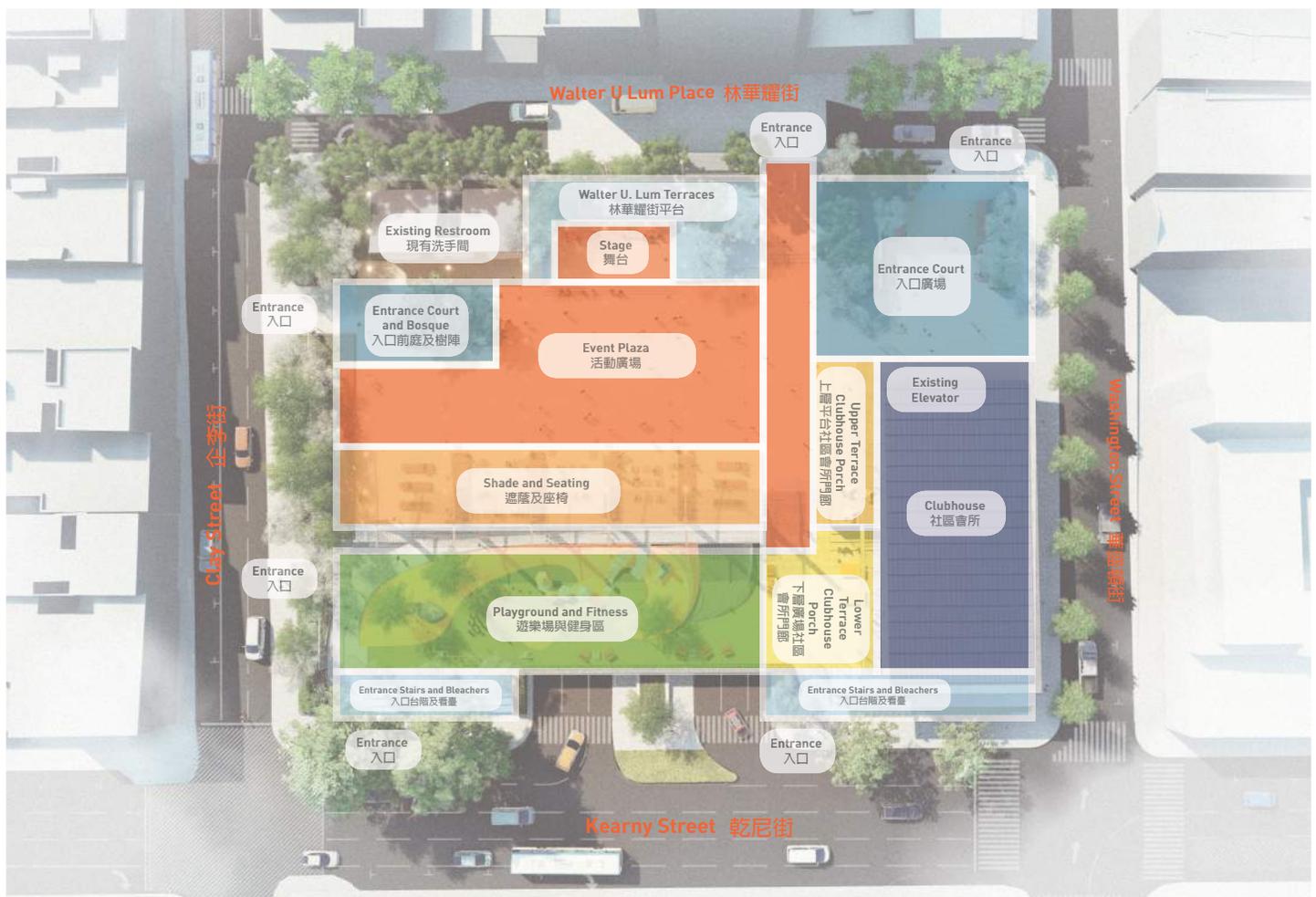


Design Framework

The design is broken up into a few key outdoor rooms: the Upper Terrace for events, the Garage Court for the northwestern corner access to the garage elevator, the Lower Terrace for play and fitness, and the clubhouse. Supporting these larger spaces are a series of smaller moments on the edges and thresholds - seating under the shade structure, bleachers overlooking Kearny Street, and landscaped terraces and stairs connecting to Walter U. Lum Place. Together, this arrangement enables the community both flexibility of use and the capacity to support multiple simultaneous activities within the 1.5 acre park.



Exterior Program Rooms



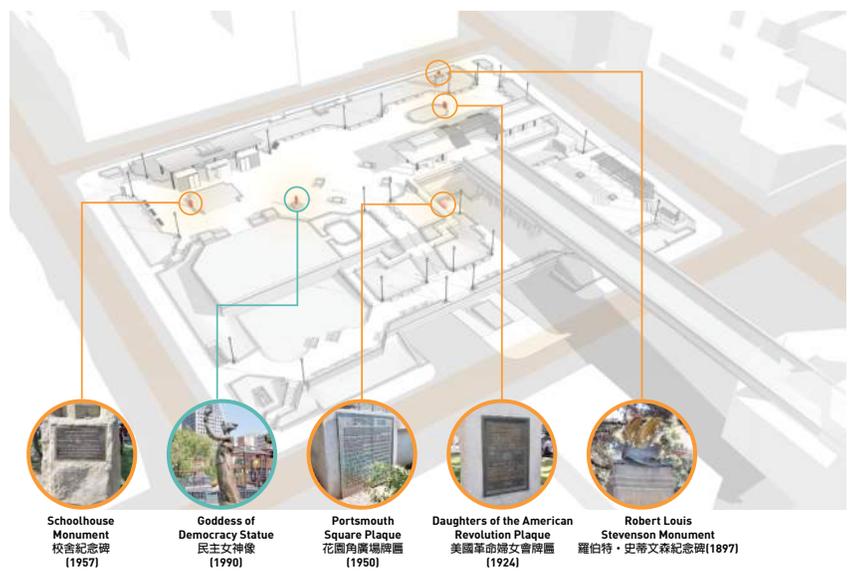
Historic Monuments Relocation



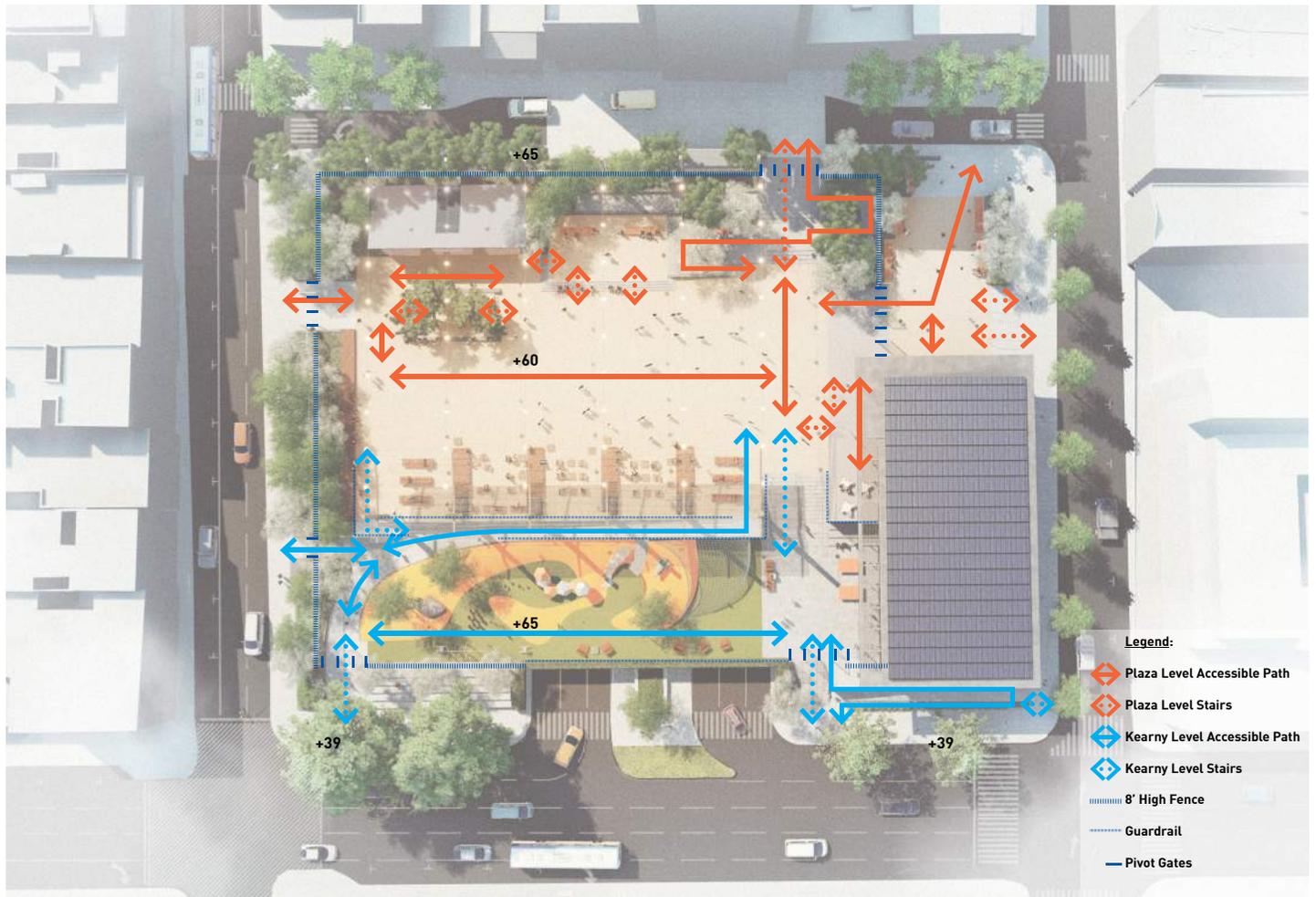
Within the existing park, four statues and monuments were found to be historically significant. In addition, in stakeholder interviews, it was found an additional statue, the Goddess of Democracy, was culturally significant, if not historically.

This diagram relocates these five monuments within the new park. The Robert Louis Stevenson Monument is located at the southwestern entrance to the park, enhancing the corner identity. The Schoolhouse Monument is maintained in approximately the existing location, as this was found to be significant to the location of the original schoolhouse. The Goddess of Democracy is moved to the Garage Court, creating a focal point. The Daughters of the Revolution Monument is relocated near the northeastern gate to the park. The large Portsmouth Square Plaque is relocated to the Clubhouse entry on Washington Street.

Current Conditions

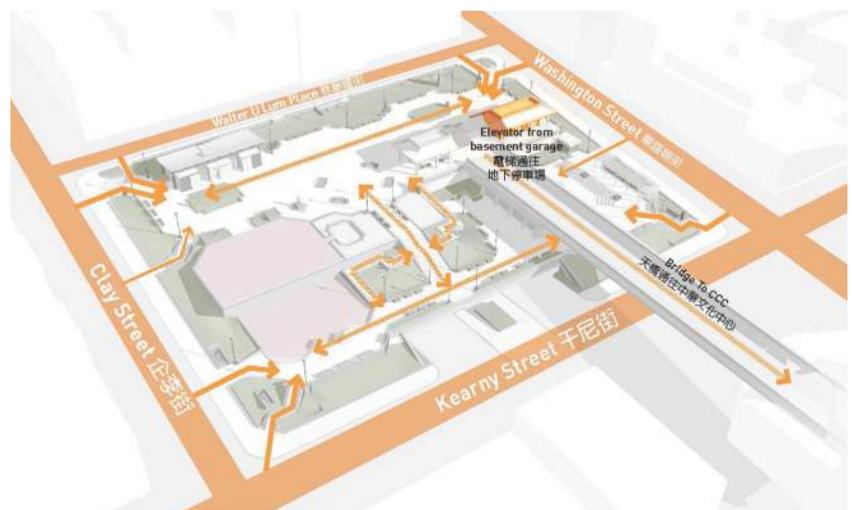


Circulation



Through the rearrangement of the terraces and the removal of the bridge, the circulation internal to the site is simplified and clarified, with one long ramp connecting the two open terraces. The edges of the park are revised to provide more connections to the street while allowing for visible gated entrances.

Current Conditions



Garage Coordination

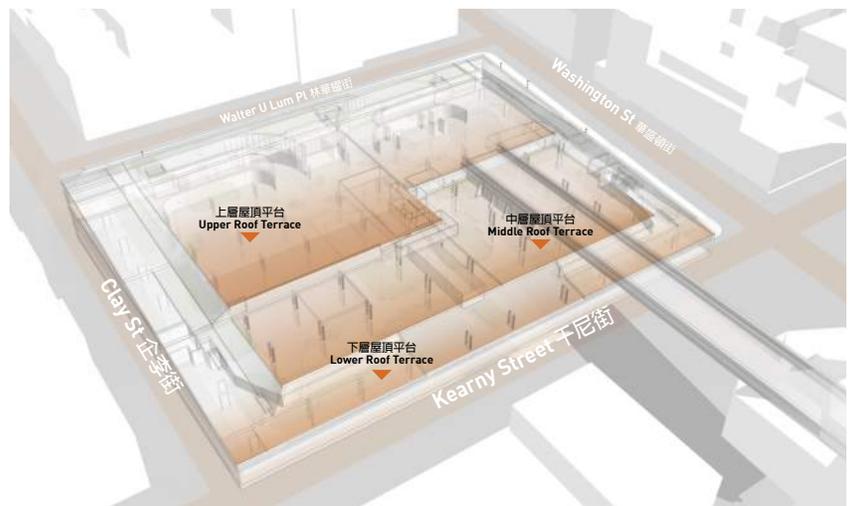


The final design was developed in consideration of the existing garage constraints, as well as the current planned garage improvements.

The garage structure provides a series of sloped roof slabs that this park and clubhouse is designed above. Note, this design proposes no revisions to the garage structure beyond structural upgrades to support the new park and clubhouse design.

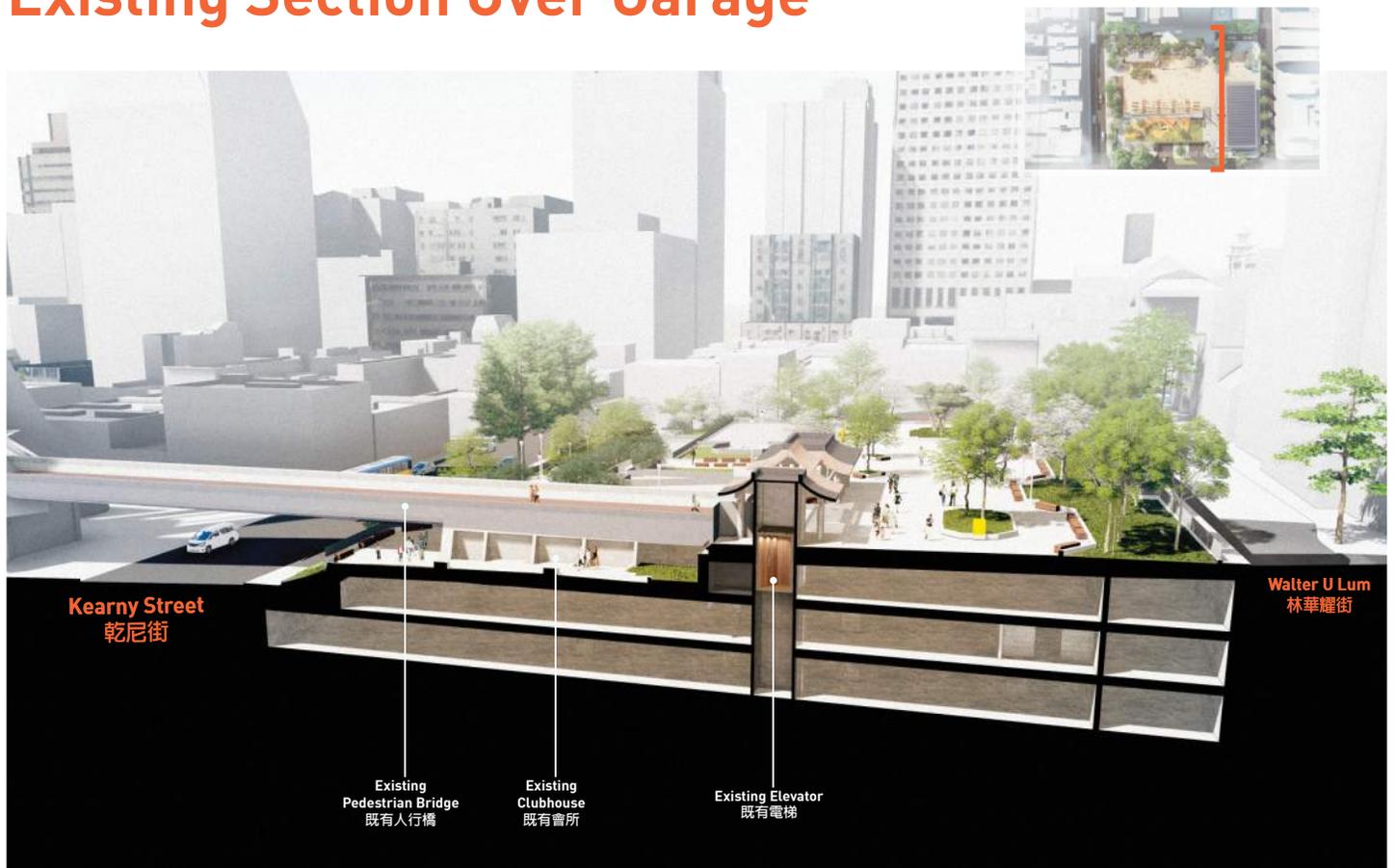
As much as possible, the new vent structures and stairwell shelters are preserved, however at a few key locations coordination and revision will be necessary to accommodate the new improvement plan.

Garage Structure

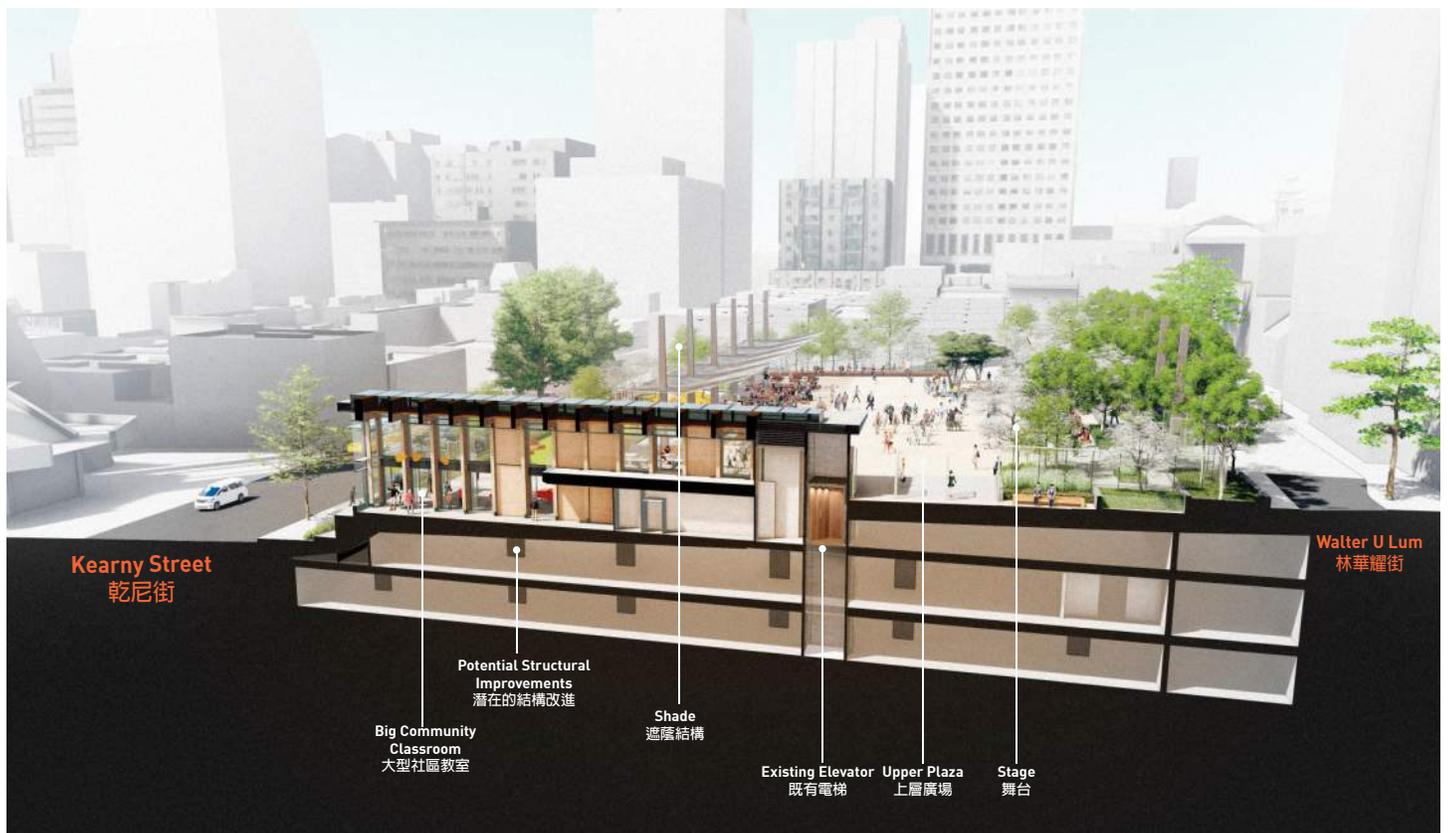


Existing Section Over Garage

Key Plan 索引平面



Proposed Section Over Garage



Workshop 5 Improvement Plan Overall



The final workshop improvement plan presented a Portsmouth Square with an expanded clubhouse and larger event & play terraces.

The following pages provide a visual walk through this park.



Existing Conditions: Kearny & Clay

Key Plan 索引平面



Proposed Conditions:

The new approach opens up the corner along Kearny Street with a wide stair and grand seating bleachers overlooking the street. Pedestrians will have a view into the lower terrace playground beyond.



Existing Conditions: Kearny & Washington

Key Plan 索引平面



Proposed Conditions:

The clubhouse anchors the northeastern corner of the site with a presence on Kearny and Washington. A ramp provides ADA access to the lower terrace from Kearny.

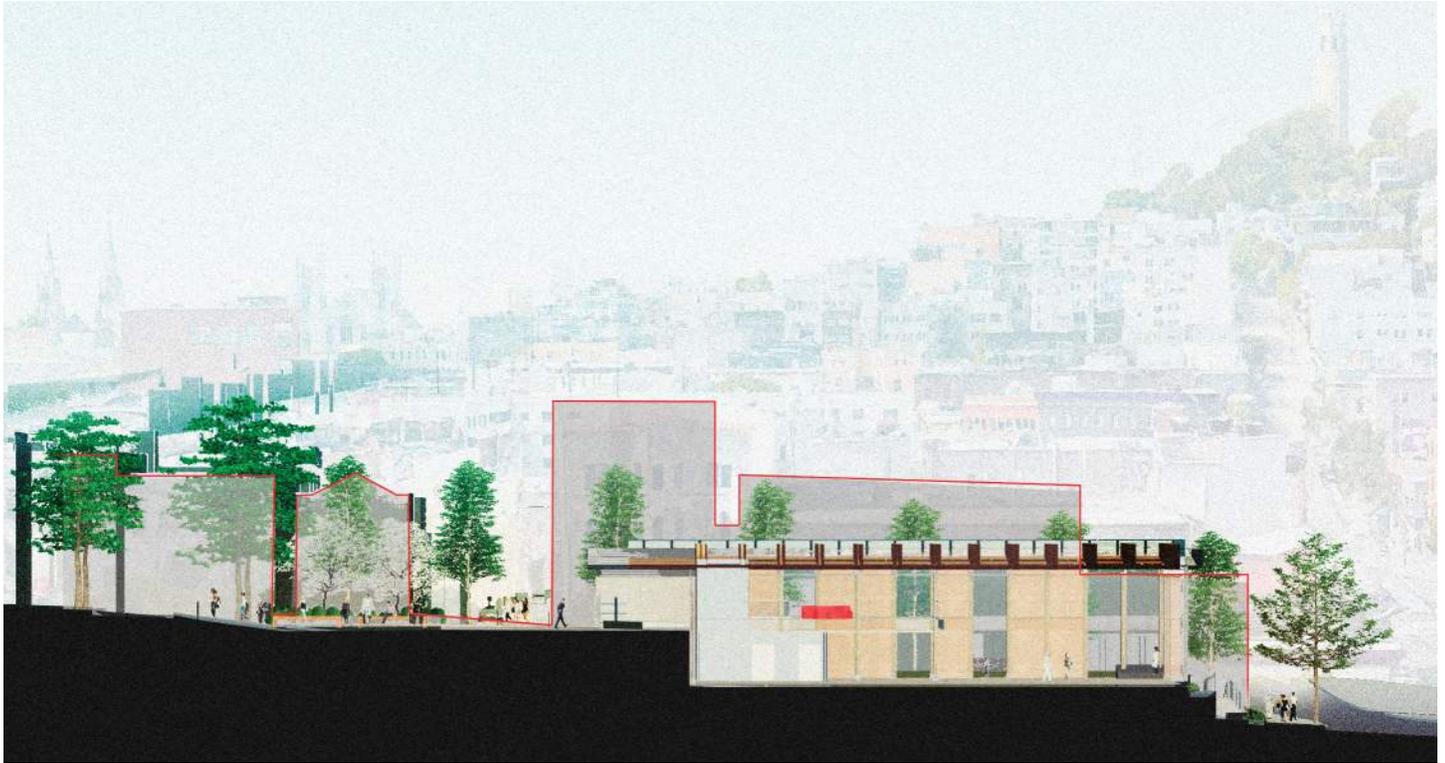


Scale Comparison: Clubhouse

Key Plan 索引平面



This diagram shows the building height through a section of the clubhouse in comparison with an elevation of the buildings across the street on Washington. The roof high point measured from the first floor is 27' - well within the context of the lower building heights on the west side of Kearny along Washington and Clay.

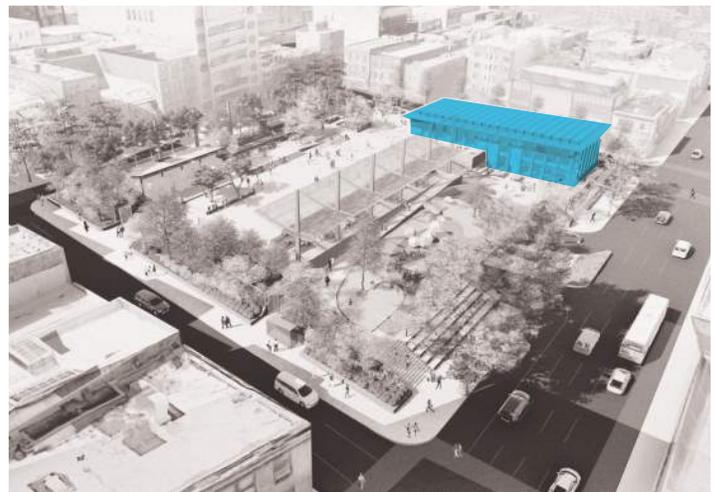


Existing Park 公園現狀



Clubhouse - 1,600 SF
原有社區會所 - 1,600 平方英尺

Current Design 設計改善



Clubhouse - 7,500 SF
新社區會所 - 7,500 平方英尺

Existing Conditions: Lower Terrace Looking North

Key Plan 索引平面



Proposed Conditions:

The lower terrace is dedicated to a larger playground and senior fitness area. This arrangement was driven by the expressed desire of seniors who take care of grandchildren to have fitness equipment and seating close to the playground.



Existing Conditions: Lower Terrace Looking North

Key Plan 索引平面



Proposed Conditions:

The clubhouse fills the current void under the bridge, and a grand stair connects the lower terrace to the upper. At each level a clubhouse porch allows indoor program to break out onto the terraces.



Existing Conditions: Lower Terrace Looking West

Key Plan 索引平面



Proposed Conditions:

There is a hidden space in the lower terrace between the garage L-1 emergency exit and the clubhouse. The new design uses this space as a break-out porch of the clubhouse, and fills the notch with stairs and a restroom.



Existing Conditions: Lower Terrace Looking South

Key Plan 索引平面



Proposed Conditions:

The new clubhouse is designed to accommodate ~200 people, to provide a flexible space for a range of community events, such as the type of public workshops conducted during this improvement plan process.



Architectural Narrative

Based on the collective community feedback, the mission of the Clubhouse design at Portsmouth Square was singular – to provide as much indoor space as possible within the constraints of the limited area and the available budget, and to do so as elegantly as possible.

Form

The form of the proposed Clubhouse is a lantern at the corner of the site. Placing the tallest component of the project at the lowest corner of the site makes the clubhouse clearly visible to pedestrians and drivers on Kearny and Washington Streets, without exceeding the height of the existing buildings on the Square. Glazing is maximized for multiple reasons – to allow daylight into the space, to strengthen the visual connection between the vibrant interior and the bustling neighborhood, to establish the building as a landmark when occupied after dark, and to keep eyes on the street and terraces to discourage antisocial behavior.

Taking advantage of the difference in height between Kearny Street and the Upper Plaza allows for two interior levels – a main floor and a smaller mezzanine – each accessible from outdoors.

The layout of the building is a simple rectangle to maximize the efficiency of the floor plate.

The roof is upturned in a subtly inverted V. This form is a nod to the upturned corners of traditional Chinese architecture, as well as to classic twentieth-century California modernist design – appropriate for a building and a project at the intersection of two cultures and geographies. The butterfly roof configuration also provides some pragmatic benefits – an ability to maximize both the interior height of the community room and the capture of daylight, a moment of grandeur at the perimeter overhangs which will shade the building and its entrance in the summer months, and a valley in which to locate photovoltaic panels and necessary rooftop mechanical equipment without telegraphing its presence at the street or plaza level.

The design proposes a wood structural system, in reference to traditional long-span community buildings - churches, temples, dining halls, and other assembly spaces, and in contrast with the structural steel or concrete systems typically associated with commercial or industrial spaces. The intent is to balance the visual 'heaviness' of the timber primary structural elements with 'lighter' elegant, exposed steel connectors. Counterintuitively, the use of timber columns and beams, with a closer spacing than might be achieved with steel, allows the buildings weight to be spread more evenly across the existing roof of the parking structure below, simplifying the structural design approach.

Function

The building comprises roughly 7,000 gross square feet. The major component is a double height Community Room – a 4,000 square foot space sized to accommodate up to 200 people in a wide range of activities, including seated assemblies, performances, and standing or ambulatory pursuits. The program may call for a sliding-folding partition to subdivide the

community room into two smaller spaces.

An internal elevator will be required to provide access to both floors. In addition, the new building will abut and partially envelop the existing three-elevator core serving the upper plaza and parking structure.

An open stair has been placed at the north corner of the building, adjacent Washington Street, further animating the façade and encouraging the building's occupants to use the stairs, taking advantage of light and views.

A kitchenette will be provided, to include space and equipment for storing and heating / re-heating food, as well as dishwashing and plating.

Restrooms are included at the lower level; a total of 10 fixtures, 4 male, 5 female, and 1 all gender restroom. One of each will be accessible.

Two Store Rooms are planned, one on each floor. The lower level store room is to support the community room, housing chairs, desks, audiovisual equipment, etc. The upper store room is to be accessible from the exterior and is set aside for RPD to use in maintaining the Square.

Materiality

The exterior of the building is to be clad in hard-wearing, durable materials. As much of the exterior as possible will be glazed, limited only by structural bracing and energy use requirements. Opaque elements of the façade will be composed of modular phenolic panels composite metal panel, particularly at the roof, where their satin reflectivity will compliment and contrast with the sky, changing appearance with the time of day and the weather. These materials have been chosen to require little maintenance, to facilitate graffiti removal, and to be economical.

The interior materials were chosen to withstand vigorous use without decay. A polished concrete floor will resist stains and impacts, while offering a finished appearance befitting a civic building. Interior partitions are to be faced with phenolic panels, to resist damage from moisture, impact, or graffiti.

The ceiling of the Community Room is intended to be an open wood slat system with an acoustic backing. This is a proven approach to attenuating unwanted sound in a space, offsetting the potential for reverberation posed by hard wearing surfaces at the lower level.

Existing Conditions: Upper Terrace Looking at Kearny

Key Plan 索引平面



Proposed Conditions:

The current upper terrace is separated from the lower terrace by winding ADA ramps and railings, and dense shrubs block the views of Kearny. The improvement plan opens up the edge as an overlook with a clear view of the playground and Kearny Street below, as well as clarifies circulation.



Existing Conditions: Lower Terrace Looking West

Key Plan 索引平面



Proposed Conditions:

The upper plaza event space is increased from 4000 SF to 8500 SF of open flexible space. A terrace that doubles as a permanent elevated stage anchors the west side of the plaza, and a grand shade structure is provided at the edge of the terrace with seating opportunities below.



Existing Conditions: Upper Terrace Looking North

Key Plan 索引平面

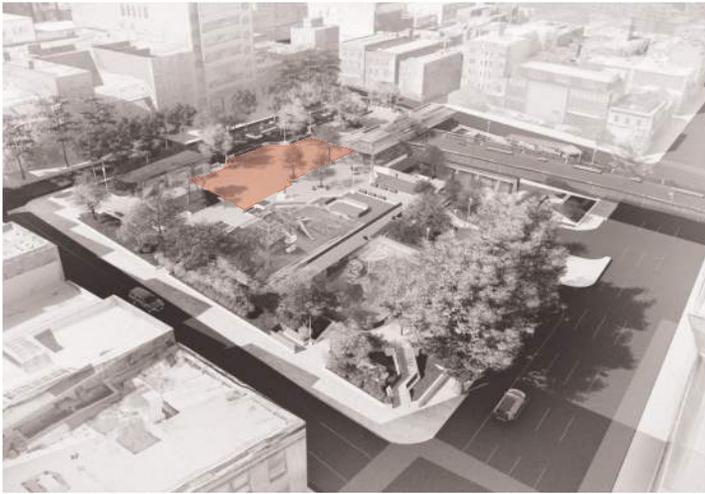


Proposed Conditions:

The shade structure and stage frame the event plaza, providing a diversity of occupiable edges around a large, open flexible event space designed to scale from small events like a Chinese Opera performance to large events, such as the Chinese Music Festival.

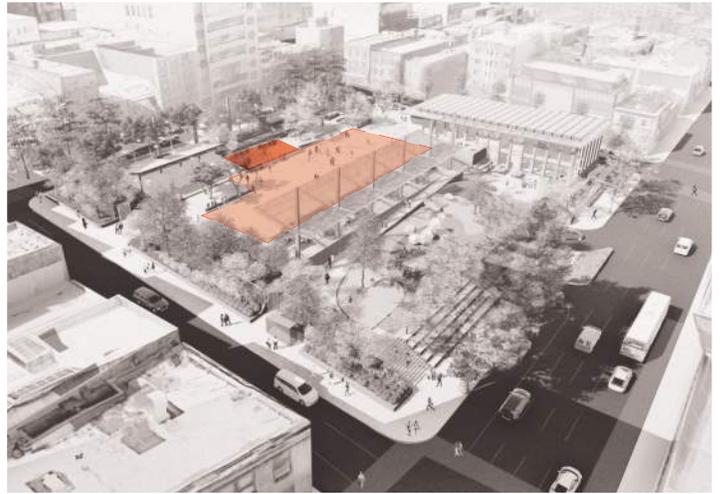


Existing Park 公園現狀



Plaza Event Space - 4,000 SF
現有主活動廣場 - 4,000平方英尺

Current Design 設計改善



Plaza Event Space - 8,500 SF
新主活動廣場 - 8,500平方英尺

Proposed Conditions:

This night view shows the enhanced lighting design, with a catenary system over the event plaza among other strategies. One possibility with catenary lighting is the option to add lanterns or other decorations at festival times.





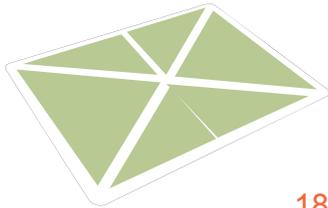
Chapter 2

Project Background: A Place for People

Portsmouth Square is the heart of the Chinatown community. As the largest public open space, approximately 65,000 square feet, with a central location and ease of access to transit, this park has become the outdoor living-room for many local residents. The history, culture, and context of this park make it unique. This study is part of the Portsmouth Square Improvement Project, a community participatory design process currently underway for the park. The results of this phase is a vision for the future of the park for the San Francisco Recreation and Parks Department to advance into technical phases, and ultimately to be constructed using funds from the 2019 Parks Bond Measure.

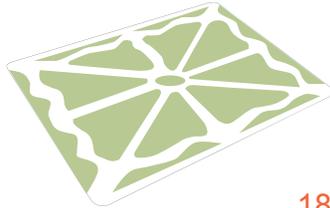
This project builds on the 2014 Historic Resources Report and Existing Conditions Report developed by MIG and Gensler with San Francisco Planning, SF RPD, ARUP, and CCDC.

Right: Evolution of Portsmouth Square since the founding of San Francisco. This project will be the next generation of park design, adapting to the current needs and uses of the San Francisco community. The full history of design is documented in the 2014 HRE report, available on SFRPD's website.



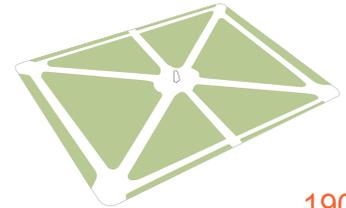
1855

O'Farrell Layout



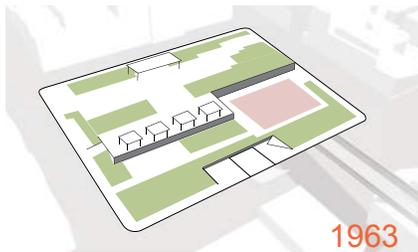
1865

Victorian era revision of pathways



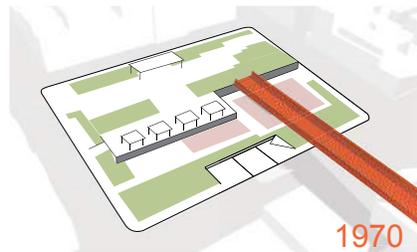
1905

Monumentation and Design update



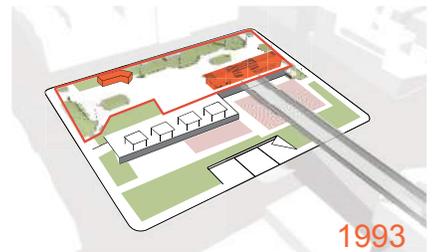
1963

RHAA Design over new Parking Garage



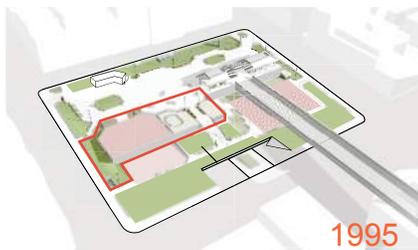
1970

Addition of Kearny Pedestrian bridge to new Holiday Inn Hotel (former Fed. building)



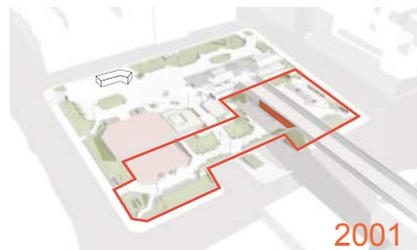
1993

Additional of pagoda shade structure and restroom



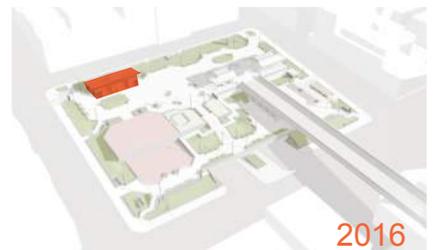
1995

Redesign of playground



2001

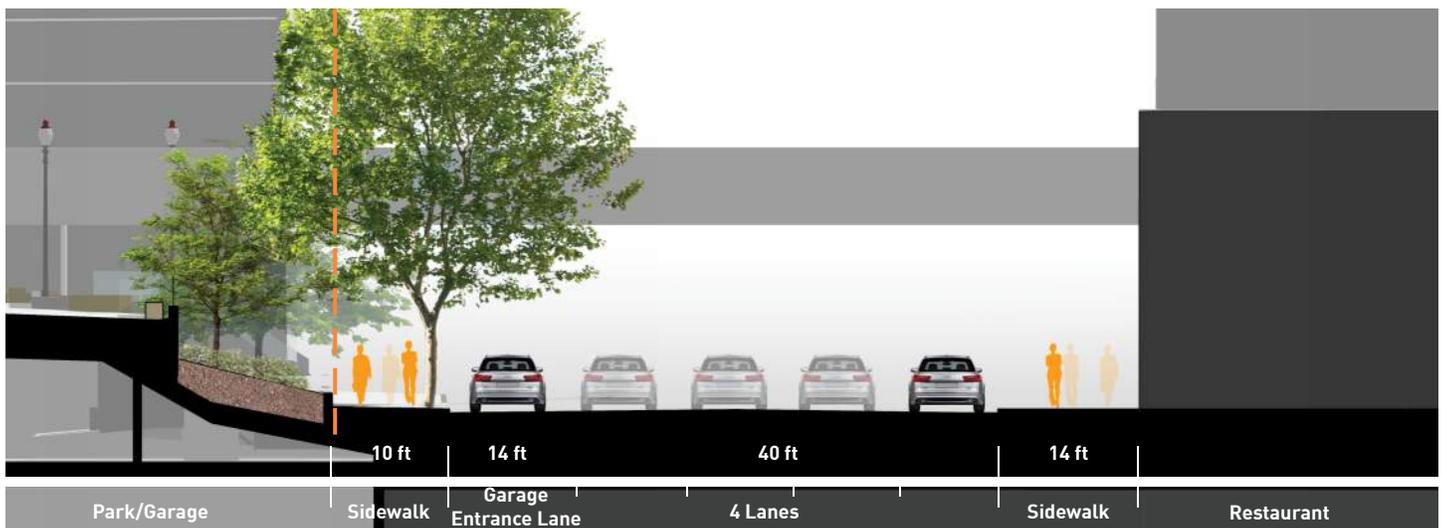
Addition of clubhouse

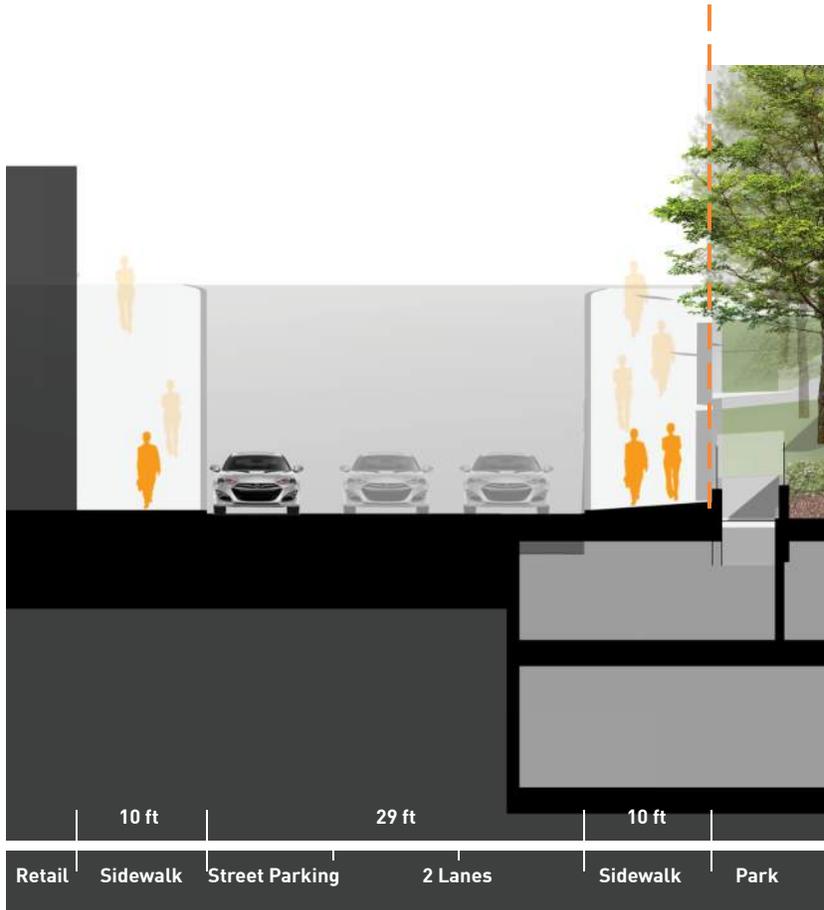
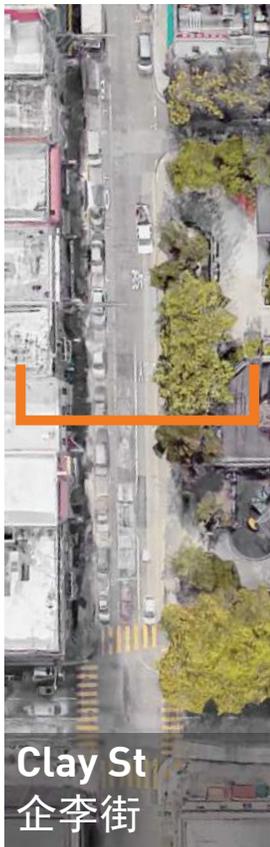


2016

New Restroom

Context: Surrounding Streets and Businesses





These pages show sections and plan views of the existing streets around Portsmouth Square. Kearny is a busy city artery that runs along the east side of the site, with the park terraces overlooking the relatively flat street. Clay is a one way street coming down a steep incline, with numerous bus routes and a relatively tight dimension. The existing garage actually extends under Clay, which is an important consideration for replacing of waterproofing of the garage. Washington is the former Embarcadero Freeway off-ramp - and used to be the primary route into Chinatown for many. Today, the street is a one way street going uphill along the north side of the site. Walter U. Lum Place is along the west side of the park, and provides the most natural connection into Portsmouth Square. All streets have diverse uses, restaurants, non-profits, family associations, hotel, and community services fronting on the park.



Portsmouth Square Placekeeping

In the design professions, the concept of 'Placemaking' has become a ubiquitous portmanteau. What differentiates placemaking from typical design is the implied intent on creating a space that has an impact on the collective memory of a community. The resulting constructed landscape is a 'place', a landmark, a destination, a location that is recognized and known. For Portsmouth Square, placemaking as a concept was rejected very early on in one-on-one stakeholder interviews. Portsmouth Square is already a place, it has been the center of this neighborhood since before the founding of San Francisco. Not only is it already recognized by the local and metropolitan population, but there is a strong concern that placemaking implies rebuilding the park to serve a new population. The redesign must be handled in an extremely sensitive way, to minimize risk of being an impetus for gentrification in the neighborhood.

In response to this concern, the design team adopted the strategy of placekeeping, as developed by the U.S. Department of Arts and Culture. Placekeeping recognizes the significance of an existing location and seeks to preserve its character and community relationships. The fine line between placemaking and placekeeping is the bulk of the work for the Portsmouth Square Improvement Plan process. The fundamental goal for this effort is to enhance the park for the local neighborhood. Thus the community process focused on local stakeholders and residents to develop priorities, participate in designs, and provide feedback and direction for the Improvement Plan.

As the team nears the end of the community process for this stage of the project, the key placekeeping strategies and ideas included in the Improvement Plan vision are:

Maintain and enhance Portsmouth Square as the Community Living-room

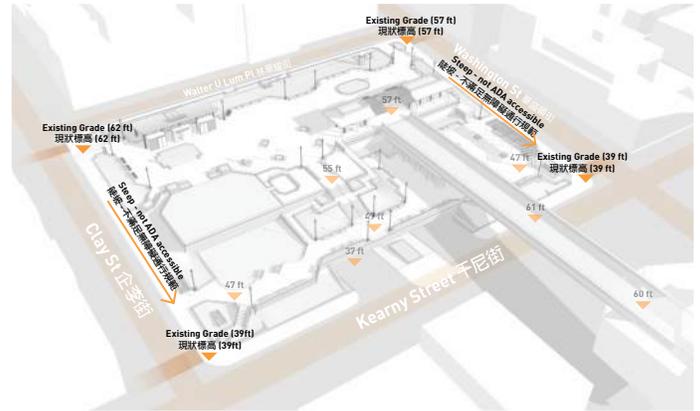
- Enlarge the community open space
- Provide a range of seating possibilities
- Provide more shade
- Provide clear views and remove hidden corners of park
- Improve accessibility to all park spaces

Improve the safety of Portsmouth Square

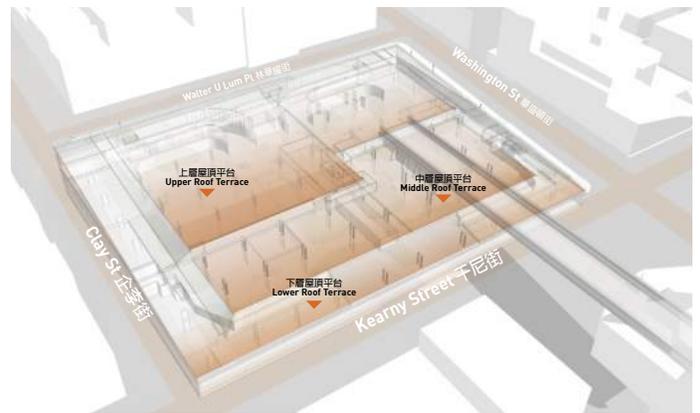
- Provide enhanced evening lighting
- Provide a fence around the park to be locked when the park is closed
- Remove hidden corners and rain shelters

Better support the diverse activities and community events

- Better enable events through improved sightlines and utility connections
- Provide a larger event plaza
- Provide a significant community clubhouse for small and large events, classes, and meetings.



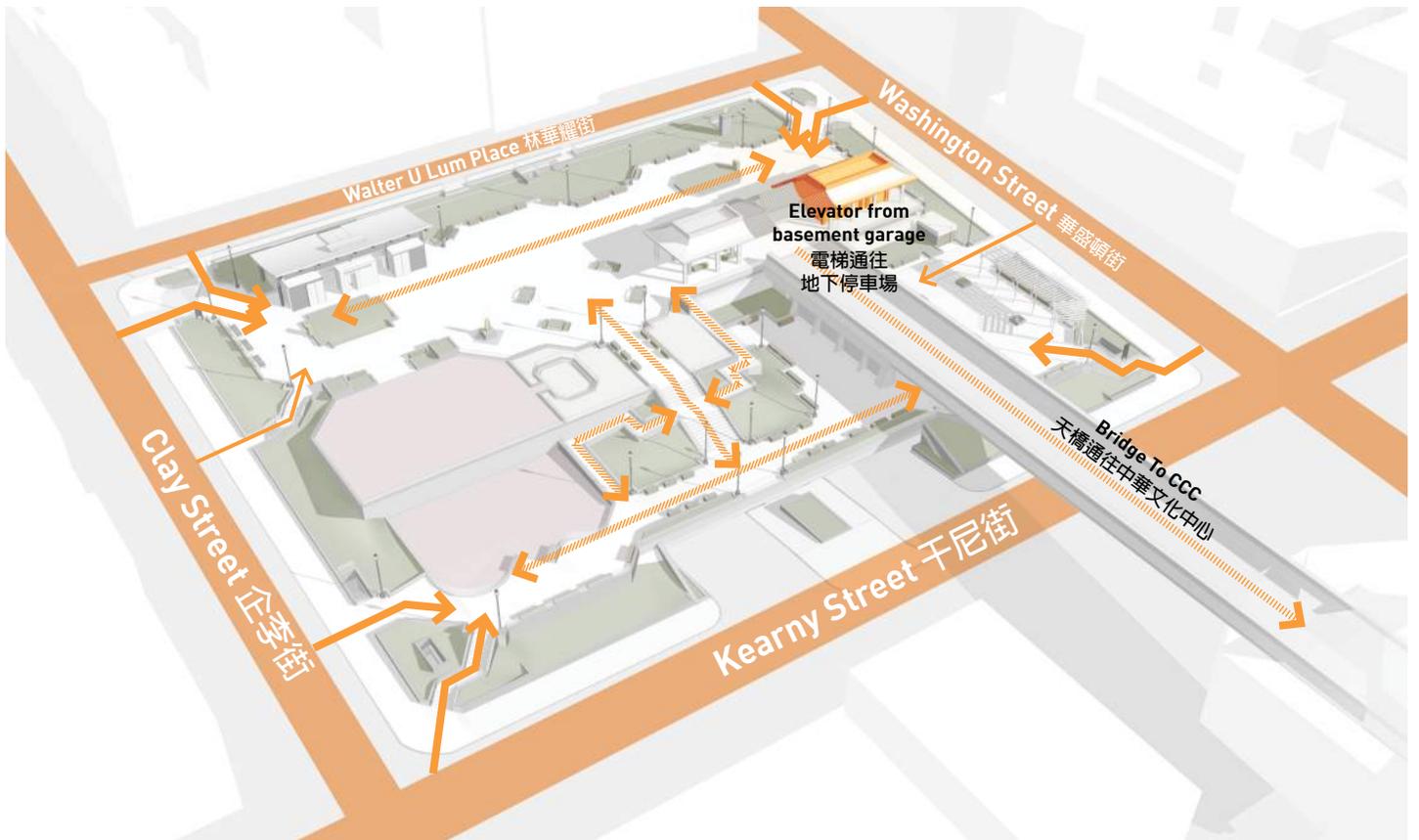
Existing topography.



Existing parking garage under park surface.



Visual barrier diagram.



Existing conditions circulation diagram.

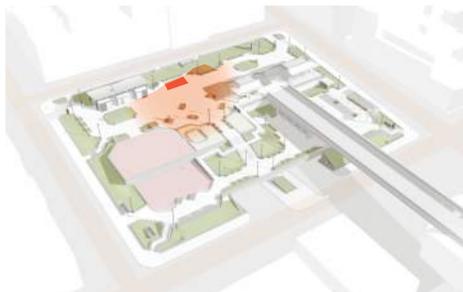
Current Uses



Existing programs.



Typical Informal Events 典型非正式活動



Music Concert/Rally 音樂會/抗議集會



Chinese New Year 春節



Events

A calendar of events and associated organization or community groups, averaging 5 years of data from SFRPD event permits.

-  Self Help for the Elderly
安老自助處
-  Community Resource Fair
社區資源集會
-  Community Meeting
社區會議
-  Ping Pong Festival
乒乓球節
-  SFPD Event
三藩市警察局活動
-  Chinese Traditional Music
中國傳統音樂
-  Walk-a-thon
長途競走
-  Night Market
夜市
-  Chinese New Year Run
農曆新年長跑
-  Protest / Rally
抗議/集會
-  Chinatown Safety Fair
中國城安全科普集會
-  Health Clinic
健康診所
-  Community Celebration
(General) 社區慶祝 (普遍)
-  Chinese Opera
戲曲演奏
-  Community Clean-up
社區清掃活動
-  Music Festival (General)
音樂節 (普遍)
-  Falun Gong Protest
法輪功抗議活動
-  Chinatown Music Festival
中國城音樂節
-  Theater or Dance Event
戲劇及舞蹈活動
-  Chinese New Year Parade
春節遊行
-  Community Food Drive
社區食物分派活動
-  Film Shoot
電影拍攝
-  Double 10 Day Parade
雙十節遊行
-  Church Service
教堂露天禮拜
-  Movie Screening
電影放映
-  Art installation / sale / tour
裝置藝術/售賣/觀光
-  District 3 Clean Team
第三區清掃團隊





Chapter 3

Community Process Plan

The design team is approaching the end of a community participatory planning process to envision this park for the next generation. The process is structured around five large public workshops, working with approximately 20 community groups and 30 key stakeholders, and coordination with six city agencies.

The team's goal with the process was to manage a deeply political community effort with transparency, consideration, inclusiveness, and kindness.

This chapter reviews the proposed and implemented community process plan for the Portsmouth Square Improvement Project. This process is broken into a listening phase, workshop phase, and a refinement / agency approval phase at the end. This process is guided by the project goals identified in the existing conditions report, and are restated here as they are the basis of this community participatory design process.

Project Goals

- The project site shall be viewed in the context of the overall Chinatown Neighborhood: the renovated park and streetscape should seamlessly integrate with the community context and reflect the needs of the Chinatown neighborhood.
- Provide an integrated and open park that maximizes usable space, removes barriers, and gracefully connects to the surrounding neighborhood.
- Provide a safe pedestrian experience.
- Create spaces that are comfortable, safe, and welcoming

for all age groups and abilities.

- Create flexible spaces that can accommodate daily recreation activities as well as events.

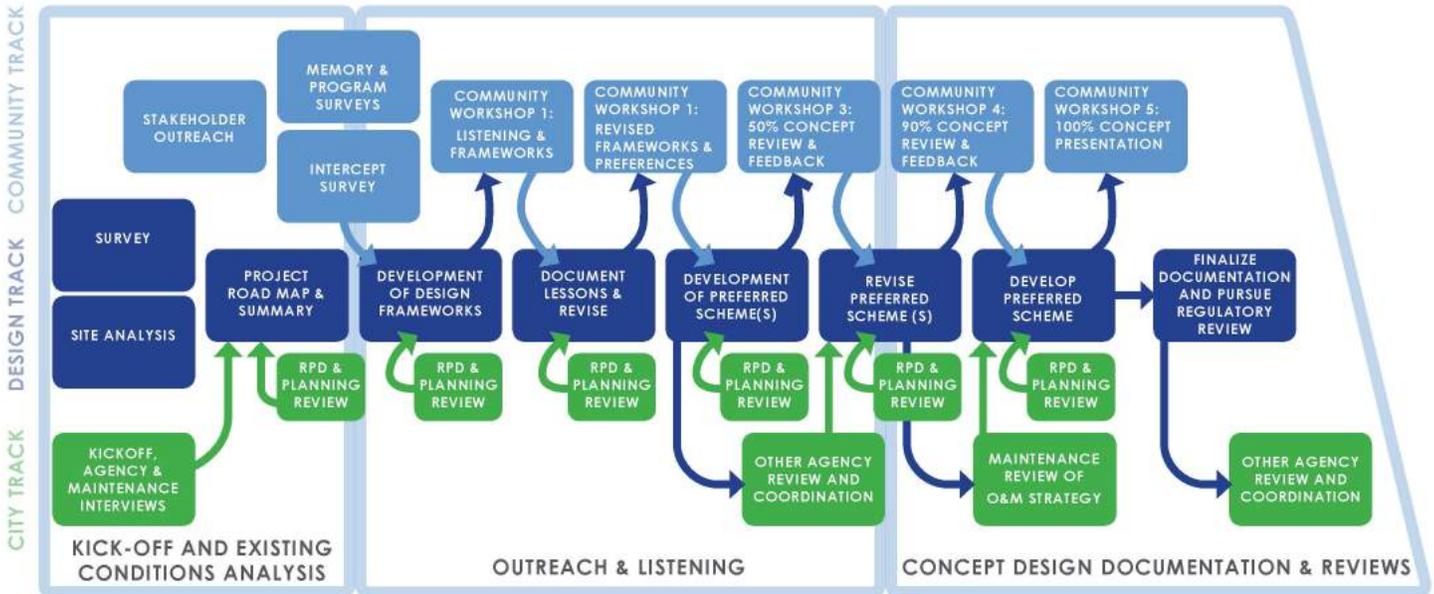
Introduction: Listening and Targeted Outreach

The following list of key stakeholder organizations targeted for one-on-one interviews:

- Chinese Culture Center
- Chinatown Community Development Center
- Charity Cultural Services Center
- Committee for Better Parks and Recreation in Chinatown
- Wu Yee (Childcare Resource & Referral Center) + Daycare providers
- St. Mary School (Chinese School)
- Chinese Education Center
- Self Help for the Elderly (Seniors)
- Chinese for Affirmative Action (Non Profit Users)
- Chinatown/North Beach Community College (Parents & New Immigrants)
- I-Hotel Senior Housing
- Ping Yuen Residents Improvement Association
- Chinatown Merchants Association
- Chinese Tenants Association
- Chinese Historical Society of America
- Yellow Jackets
- Chinese Opera Group
- Community Youth Center
- SRO Collaborative (through CCDC)
- Chinatown YMCA
- City College of SF



PROGRESSIVE, ITERATIVE LISTENING-BASED PROCESS



- Chamber of Commerce, Chinatown
- Garage Operators/Garage Board
- API Council (through Sarah Wan of CYC)
- Up to 5 Small businesses & church adjacent to the property, with a focus on those fronting on Walter U Lum.

In these conversations we collected information and documented the following:

- Personal memories and stories regarding the square
- Events that are currently held or were held on the site; logistic requirements and metrics of these events to help develop a calendar of activity
- Initial aspirations for the future of Portsmouth Square from their perspective
- Key programs desired to be supported by the park

At the end of each interview, our team personally invited them and their constituencies to participate in the public workshops. In addition to stakeholder interviews, during this period the design team conducted interviews with key personnel and maintenance crew, police officers, and others involved with the current management and maintenance of the site. In addition to stakeholder outreach, the community facilitator and design team conducted additional intercept surveys. These surveys matched and expanded upon the questions in the stakeholder interview, just collected from the general public using the square and online.

Community Workshop 1: Listening-based Charrette

At this workshop, we shared a summary of the results of what we heard from stakeholder groups and intercept surveys and provide an opportunity for community members to contribute their opinions in the same format. In addition, we shared site constraints, analysis, and history, following which we facilitated a community feedback charrette, where teams of participants would be able to interact with visual, program, and other preference survey posters and worksheets. This data was tabulated and presented at the next workshop.

Community Workshop 2: Frameworks

This included multiple client/team reviews of early drafts to determine the frameworks to be shown in the workshop. At this workshop, the design team revealed an array of potential design frameworks for Portsmouth Square to inspire and broaden community dialogue and critique.

These initial frameworks were presented visually, with traditional drawing tools and digital models, to show the big-picture range of possibilities for the site configuration. Our team worked with small groups to discuss the frameworks in a 'game-board' format and survey cards, and gather opinions, and invite community members to draw and explore their ideas. These frameworks were shared in print and online for feedback from those who could not attend the workshop.

After documenting the results of the process, we met with RPD and planning to review the workshop results and strategize the next steps. At a check-in with RPD and Planning, we presented 3 schemes based on program and framework feedback. Once three schemes were agreed to progress, we further developed the schemes graphically and in terms of structural review and preliminary cost estimates. These concepts were shared with other city agencies for initial feedback. Revisions were picked up, and the final schemes were presented to RPD before public presentation in Workshop 3.

Community Work Shop 3: Narrowing Down

This workshop revisited the conclusions of the framework meetings and program exercises. Based on the results of those meetings, three concepts were presented. Feedback was provided via survey tools. Questions targeted more detailed feedback including features, materiality, circulation, and character. These concepts and questions were also be shared in print and online for feedback from those who could not attend the workshop.

After documenting the results of the process, we met with RPD to review the workshop results and decide the key elements to be included in the preferred concept. This concept was then be developed, with agency reviews, operations and maintenance review, and cost estimation. Through successive refinements, the design team would work with the client to prepare the vetted preferred concept for public presentation.

Community Workshop 4

We checked in with the community at 90 % completion, to make sure the design team is on the right track and to share and receive feedback on any new developments. We presented first a summary of the public process, the resulting design that derived from that feedback. Comments were be solicited via Q&A, comment cards, and comment stations. After this meeting, the design team summarized the feedback, and met with the client team to decide on final revisions. After workshop 4, the design team worked extensively with the City team to take the priorities identified throughout the design process, and maximize the fruition of those priorities within the budget set for the park redevelopment.

Community Workshop 5

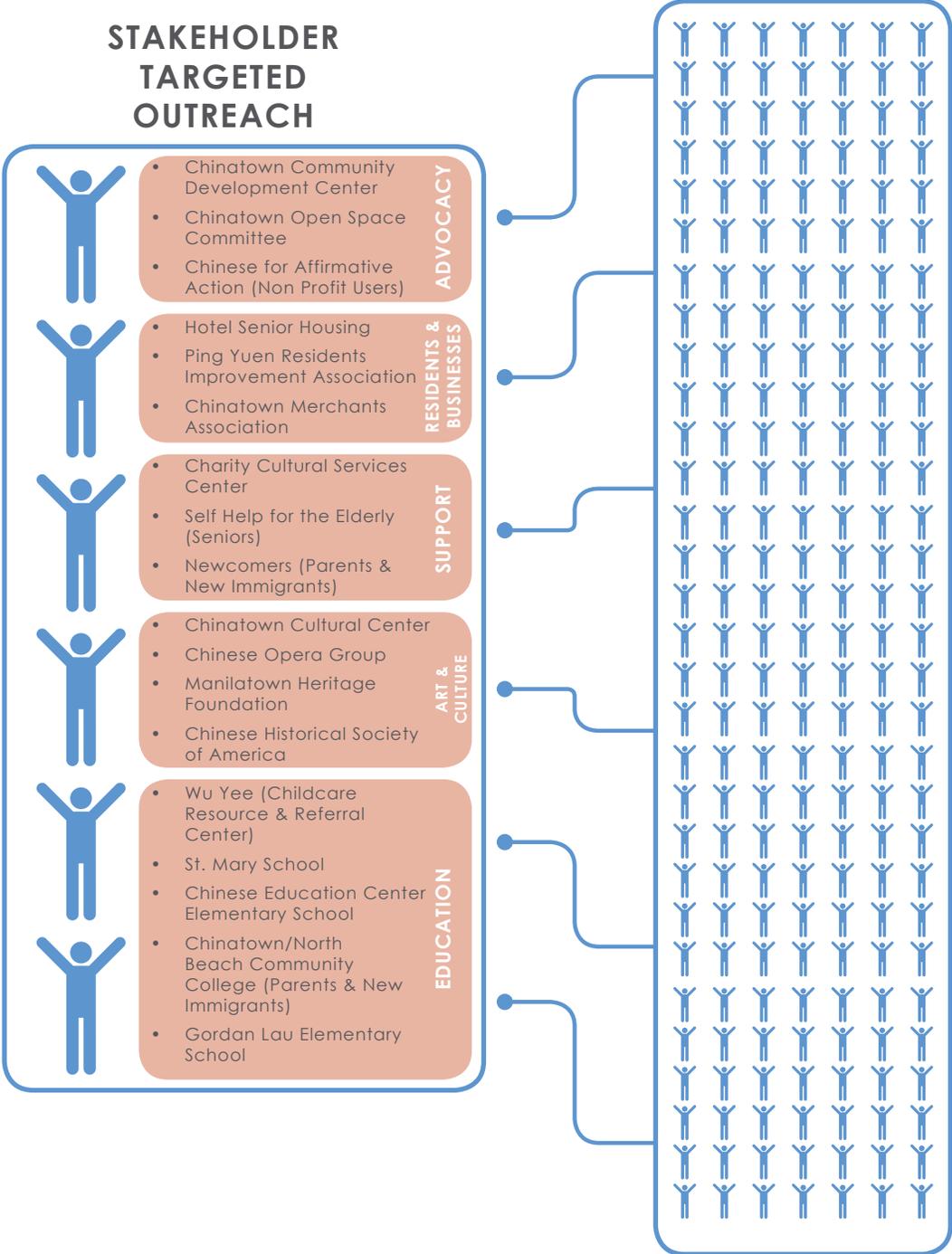
At the end of the process, the design team held a final workshop, unveiling the concept design and vision for Portsmouth Square with physical and digital models and visualizations, with poster stations available afterwards from comments, questions, and answers.

This final phase included the documentation needed to move to 100% Conceptual Design.

At the end of this process, this document represents a complete vision document with associated graphics, diagrams, and analysis, a final concept cost estimate, and a summary of the process. This document is the basis of design for pursuing CEQA and to inform the future Schematic Design phase.

MOBILIZE WIDE COMMUNITY PARTICIPATION

STAKEHOLDER TARGETED OUTREACH





Chapter 4

Stakeholder Feedback Summary

The following list of key stakeholder organizations participated in one-on-one interviews:

- Committee for Better Parks and Recreation in Chinatown, Phil Chin
- Chamber of Commerce, Kinson Wong
- Self Help for the Elderly, Annie Chung
- Community Youth Center (CYC) + API, Sarah Wan & Jackie Lee
- Wu Yee, Michael Neumann
- Kai Ming Headstart, Susanna Leung
- Chinese Culture Center, Abbey Chen and Lydia Han
- Portsmouth Plaza Parking Corporation, Peter Lee
- Chinatown Hilton
- RG Lounge
- Far east café, Lee Bill
- CAAM, David Lei
- Asian Improv aRts, Francis Wong
- District 3 Supervisor, Aaron Peskin
- Park Commissioner, Allan Low
- Executive director, CCDC, Rev. Norman Fong
- Deputy Directors, CCDC, Cindy Wu + Gordon Chin
- Icafe owner, Nobo
- Chinese Congregational Church, Rev. Sebastian Ong

In these conversations collected information and documented the following information:

- Personal memories and stories regarding the square
- Events that are currently held or were held on the site; logistic requirements and metrics of these events to help develop a calendar of activity and associated MEP needs.

- Initial aspirations for the future of Portsmouth Square from their perspective
- Key programs desired to be supported by the park

At the end of each interview, our team personally invited the interviewee and their constituencies to participate in the public workshops.

The key conclusions gathered from these conversations are as follows:

The future design must support and enable diverse events. Multiple stakeholders reiterated the importance of Portsmouth Square as the primary venue in Chinatown for outdoor gatherings, from protests to concerts, group dances to the Ping Pong Tournament. To better serve events, stakeholders requested the main plaza space to be enlarged, and requested a stage and better access to power for speakers and other equipment. Some stakeholders brought up memories of events held in the past, such as the festival, or the night market, that they would like to see again in the future.

The future design must provide diverse options for seating and shade. This direction was repeated in some form by almost all stakeholders - as the outdoor living-room of Chinatown, seating and shade are key for comfortably inhabiting the plaza on hot sunny days.

The biggest perceived challenge for Portsmouth Square as a quality public space is the homeless population, unsafe areas, and hidden corners - the design should focus on improving the lower terrace. There is a perception from a number of



stakeholders that the homeless population in the park pose a direct threat to seniors (including anecdotal accounts of muggings). Concerns about hidden corners and areas of the park that people take up residence in or engage in anti-social behavior were criticized, due to the nooks and crannies in the existing park design. A number of stakeholders mentioned that the bridge and chopped up lower terrace were contributing factors.

The future design must provide a better community clubhouse room. The current community room is too small for larger events, and configured in a way (set back from the street under the bridge) that feels insecure for visitors in the evening.

The park needs increased maintenance / enforcement. Numerous comments focused on litter, drug usage, and public defecation occurring within the park.

The future design must provide play and fitness.

The single most repeated comment across stakeholders was that the future design must preserve the role of Portsmouth Square as community living-room.



Interview Question:

Use three words to describe an ideal Portsmouth Square.



This diagram shows the hierarchy of repeated words with font size. The more a concept was repeated, the larger the font.

Interview Question (Super Quotes):

In your words, what is the significance of Portsmouth Square?

Portsmouth Square is the community's living-room.

Portsmouth Square is ... "the heart and soul of Chinatown, or should be."

Portsmouth Square is ... "a testament to the tenacity of the Chinese American people, there at the beginning of San Francisco and still here..."

Portsmouth Square is the historical heart of Chinatown and San Francisco.

Portsmouth Square is ... "the Portal to Chinatown."

Portsmouth Square is a place to get together, to socialize and catch up.

Collective Memory

Key personal memories of interviewees in the park

Primary Memories / Element to consider for the future

Visiting with parents or grandparents / **Intergenerational**

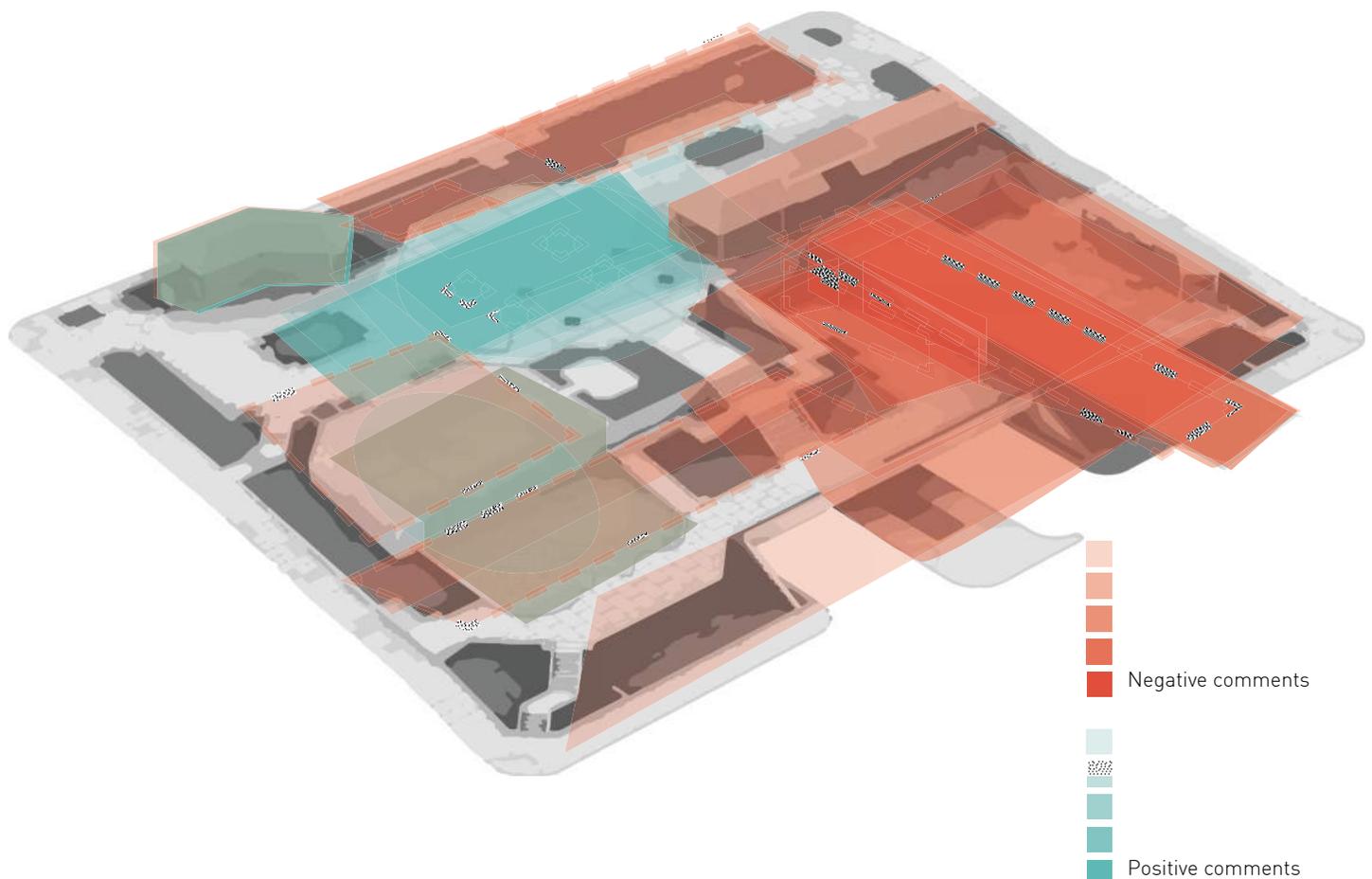
Attending political or community events / **Events**

Playing on playground / **Play**

Working meeting or visiting / **Meeting & Orientation**

This list is a distillation of memories shared from stakeholders, and the key concepts the design team should consider for the future improvement plan.

Aggregation of Place-Specific Comments





Chapter 5

Intercept Survey

The design team and Interethnica Community Outreach distributed intercept surveys in person for one weekday and one weekend day at Portsmouth Square, with interviewers represented throughout the day.

In addition, the survey was distributed online.

There was a clear documented survey bias - the intercept surveys in-person were skewed toward the local neighborhood population both in residence and demographic similarity.

The online survey was skewed towards a population that did not live locally, and were typically younger and more likely to be white males. This population also had a number of write in comments advocating for a skate park. After reviewing the results, the design team learned that the survey had been distributed through Trasher affiliated blogs and social media (the San Francisco skating community).

For this reason, we present the results separately and not as a combined aggregate.

Brief conclusions relevant for the park improvement plan for the local population are as follows:

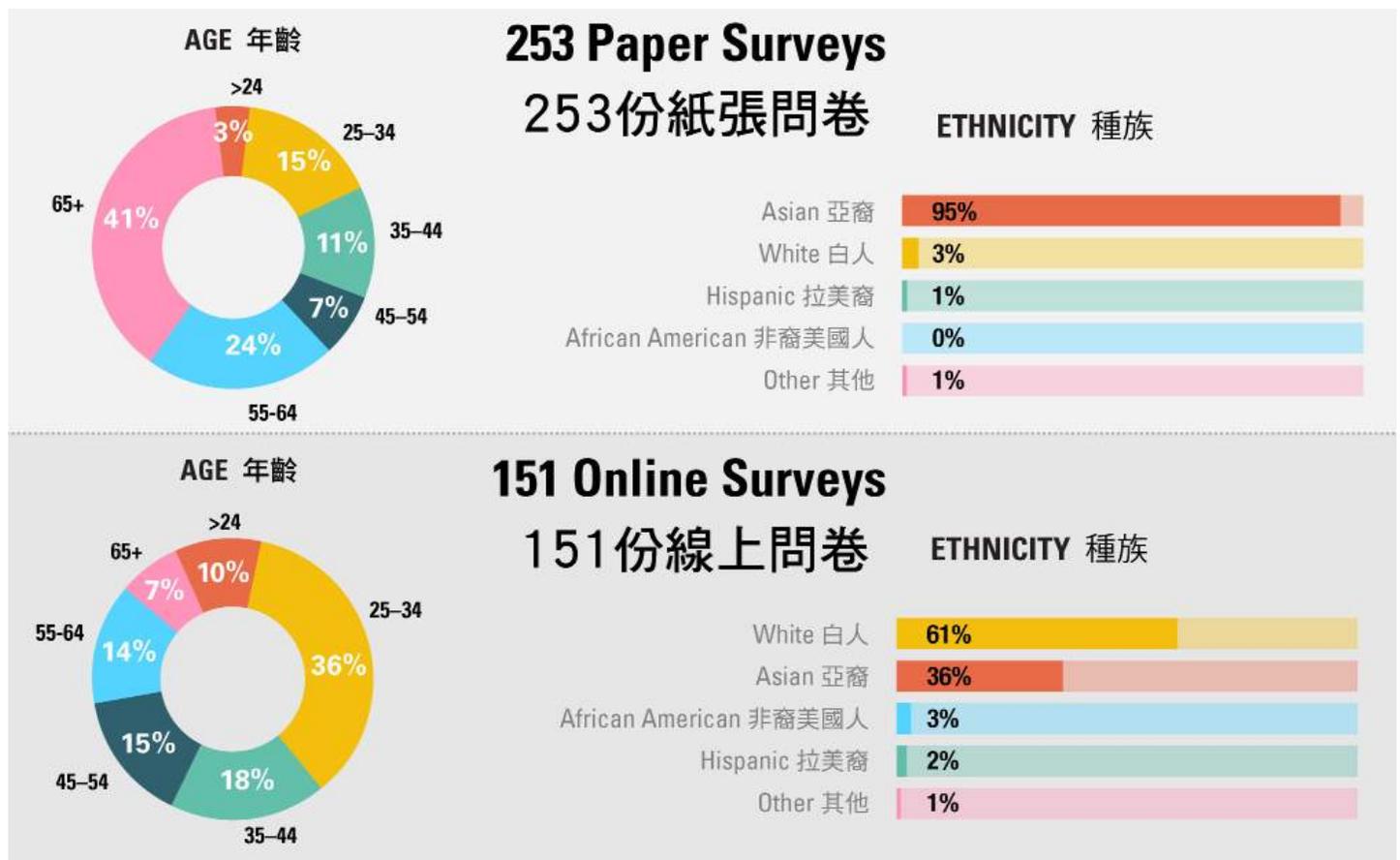
- The community would use a larger/improved clubhouse.
- Trees, benches, Fitness, Playgrounds, and shade are key programs for the future park.
- Most residents currently under-use the clubhouse.
- Participants support removing the bridge (written comments suggest it is detrimental to the lower terrace, and not user friendly).

Brief conclusions relevant for the park improvement plan for the online population are as follows:

- The online participants would not use a larger/improved clubhouse.
- Trees, benches, gardens, historic interpretation, and events are key programs for the future park.
- Most online participants currently under-use the clubhouse.
- Participants do not support removing the bridge (written comments suggest it is culturally significant because a cult skating film “The Search for Animal Chin” includes a key scene on this bridge).

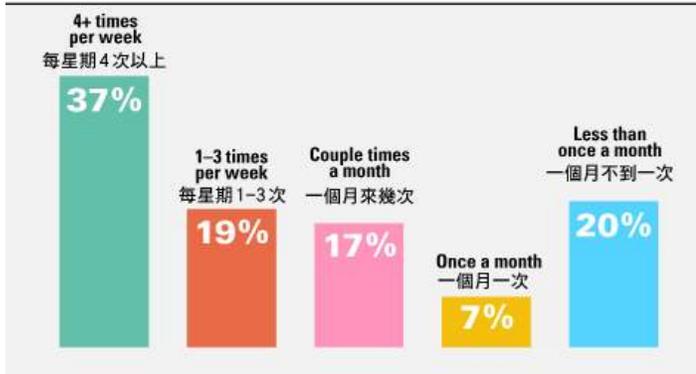


Comparative Demographics



Full Paper Survey Results

How often do you come to the park? 您多常來這座公園？

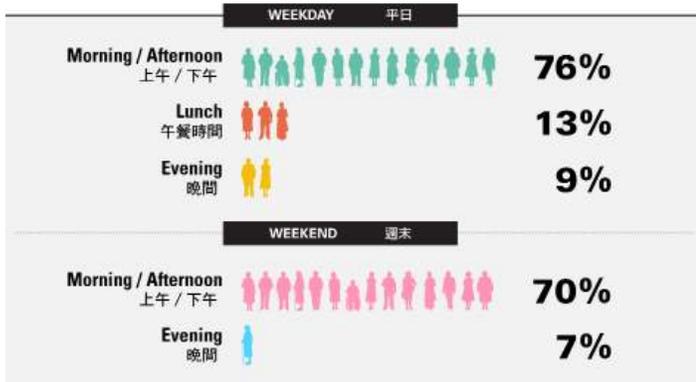


Do you participate in or attend events at Portsmouth Square? 您是否有參加或出席在花園角舉行的活動？

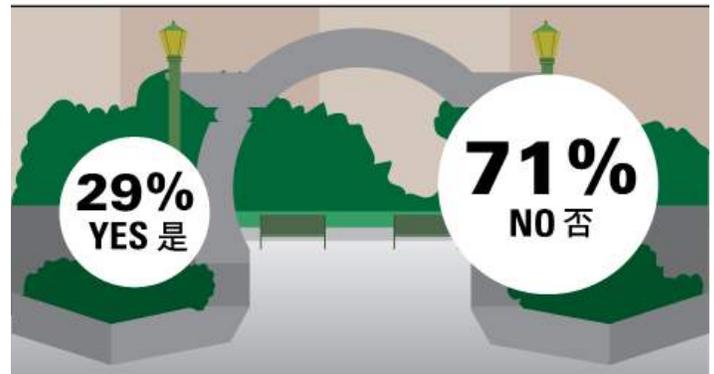
您是否有參加或出席在花園角舉行的活動？



Most popular time to visit 最熱門的造訪時間



Do you ever visit other parks in Chinatown? 您也去華埠的其他公園嗎？



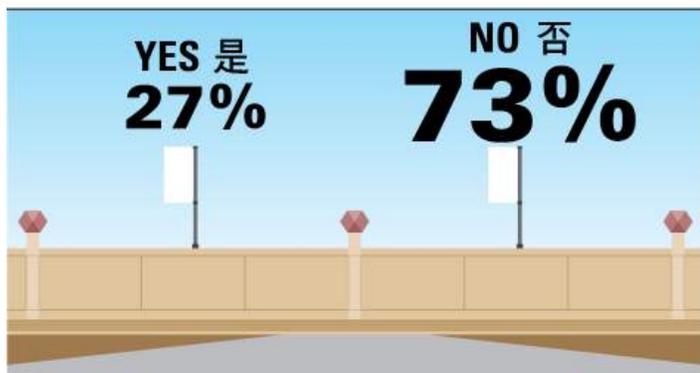
How long do you usually stay? 您在這座公園通常會待多久？



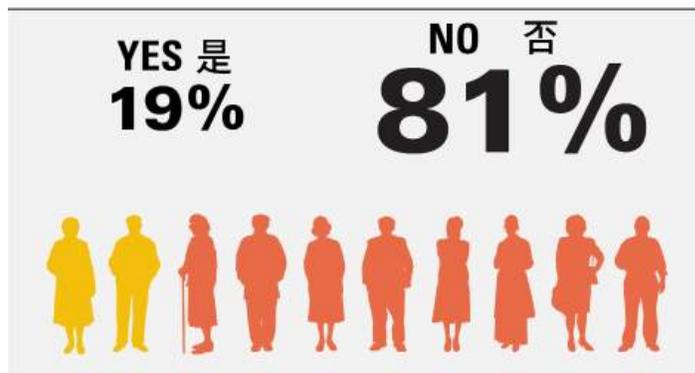
What activities do you participate in when you are at Portsmouth Square? 您在花園角時都做哪些活動？



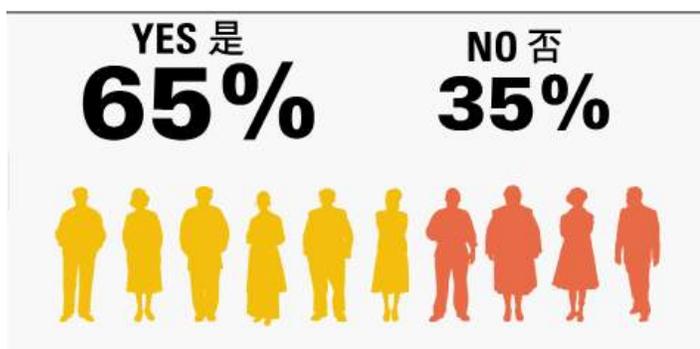
Do you ever use the bridge?
您是否有用過那座行人陸橋？



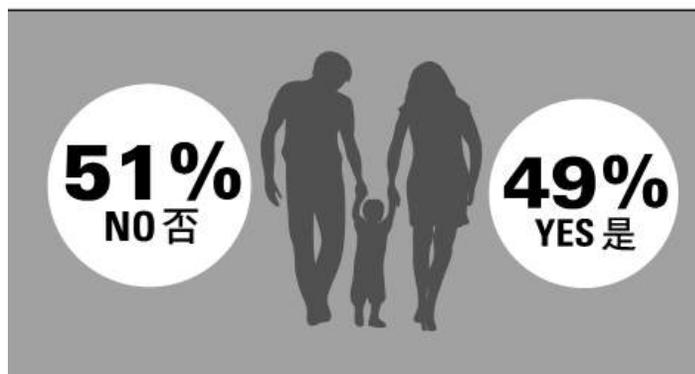
Do you ever use the clubhouse?
您是否有用過俱樂部？



If additional space and programming were available at the clubhouse, would you use it?
如果俱樂部提供更多空間和活動，您會去用嗎？



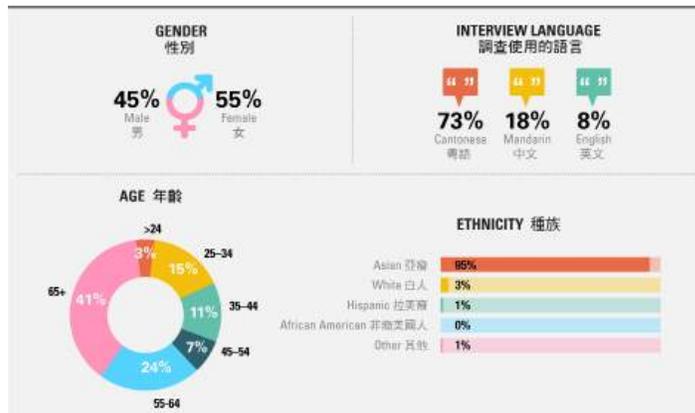
Do you ever come to the park with children?
您是否曾帶小孩來這座公園？



What amenities should Portsmouth Square have?
花園角應該要有哪些設施？

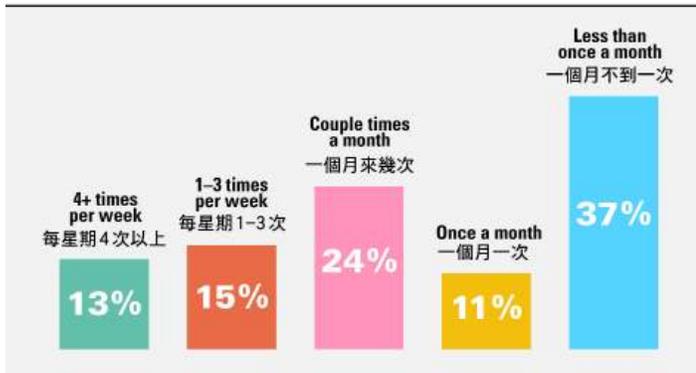


Demographics 人口統計資料



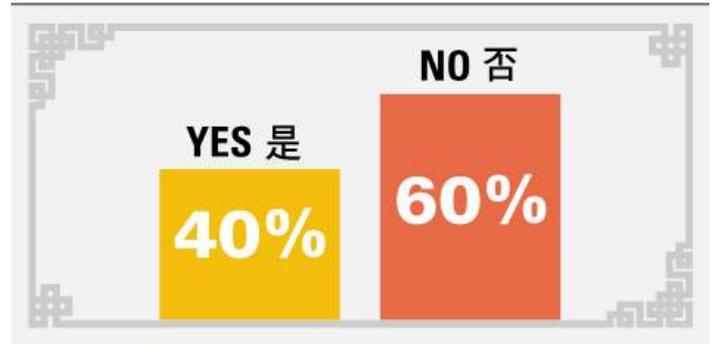
Full Online Survey Results

How often do you come to the park? 您多常來這座公園？

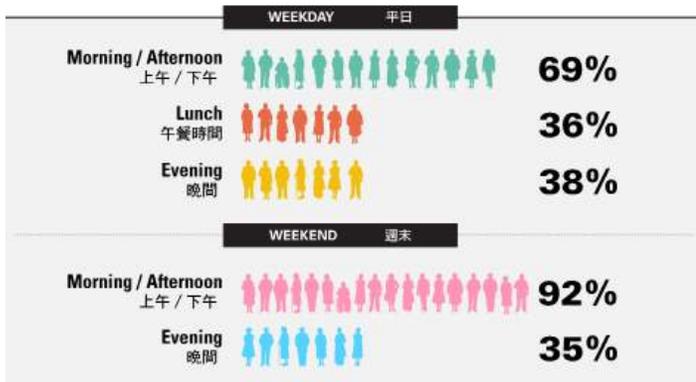


Do you participate in or attend events at Portsmouth Square? 您是否有參加或出席在花園角舉行的活動？

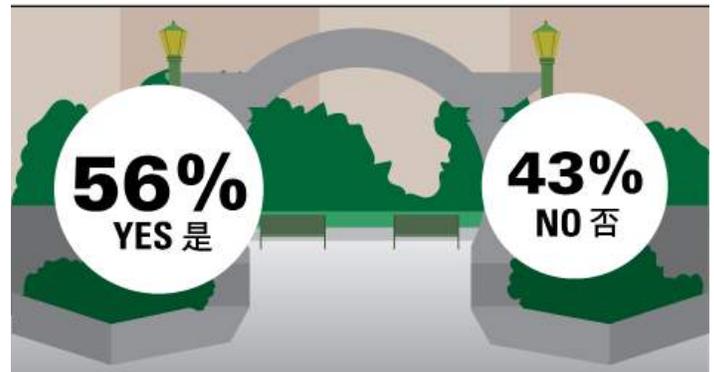
您是否有參加或出席在花園角舉行的活動？



Most popular time to visit 最熱門的造訪時間



Do you ever visit other parks in Chinatown? 您也去華埠的其他公園嗎？



How long do you usually stay? 您在這座公園通常會待多久？



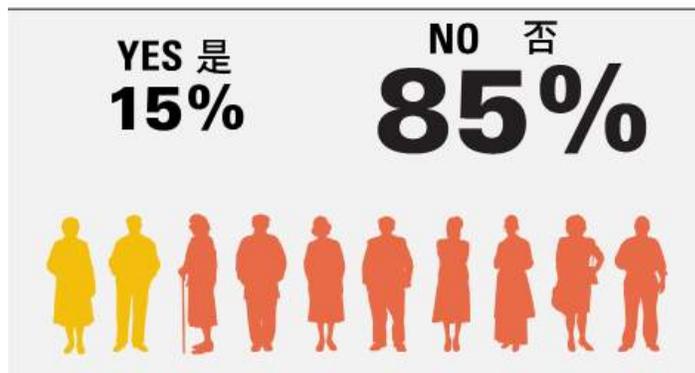
What activities do you participate in when you are at Portsmouth Square? 您在花園角時都做哪些活動？



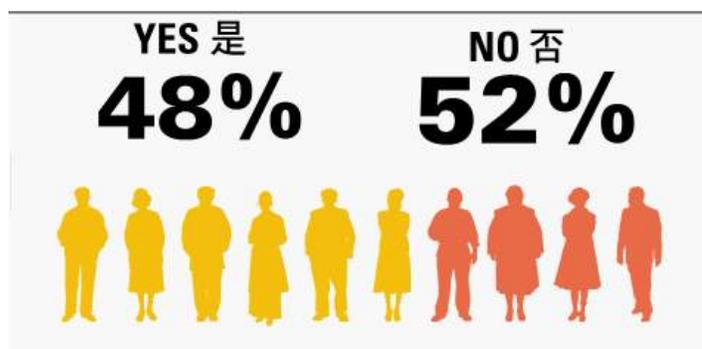
Do you ever use the bridge?
您是否有用過那座行人陸橋？



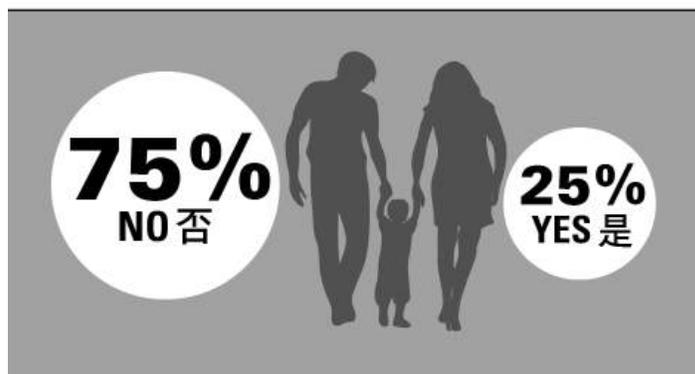
Do you ever use the clubhouse?
您是否有用過俱樂部？



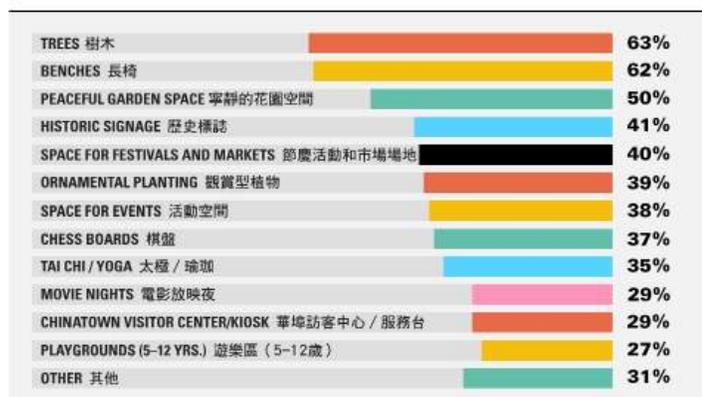
If additional space and programming were available at the clubhouse, would you use it?
如果俱樂部提供更多空間和活動，您會去用嗎？



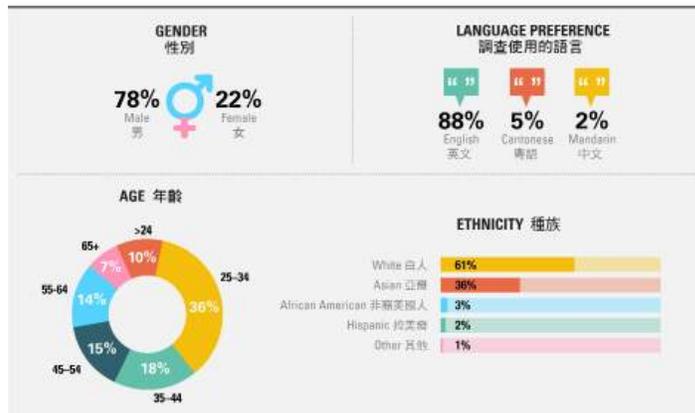
Do you ever come to the park with children?
您是否曾帶小孩來這座公園？



What amenities should Portsmouth Square have?
花園角應該要有哪些設施？



Demographics 人口統計資料





Chapter 6

Workshop 1: Listening

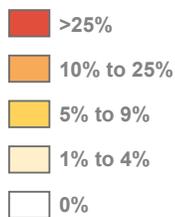
At workshop 1 we shared a summary of the results of what we heard from stakeholder groups and provided an opportunity for community members to contribute their opinions in the same format. In addition, we shared site constraints, analysis, and history, following which we facilitated a community program and visual preference survey, as well as other survey tools.

Sticky note comments, mapping, and dot preference survey tools were all curated throughout the workshop, both for the 4 pm and 6 pm sessions. The following information is the aggregated results.

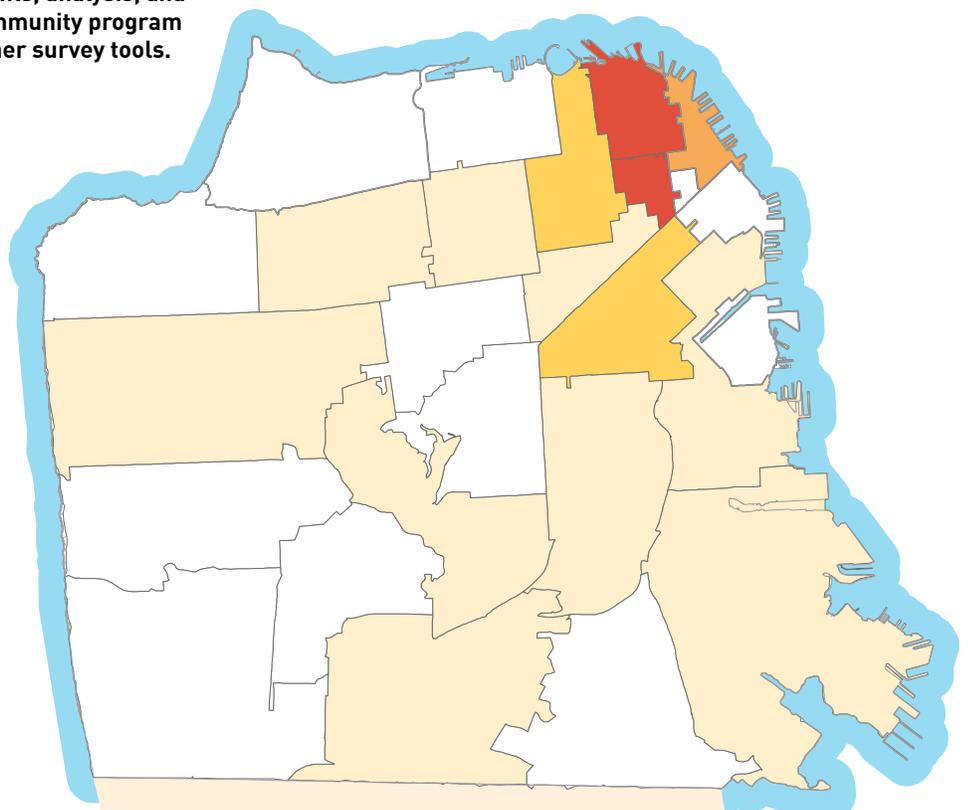
**Participant's home zip-code:
Local neighborhood targeted**

- 115 Registered Participants
- Observations of approximately 20-25 participants who did not sign in
- Map only reflects participants who signed in

% Attendees residence



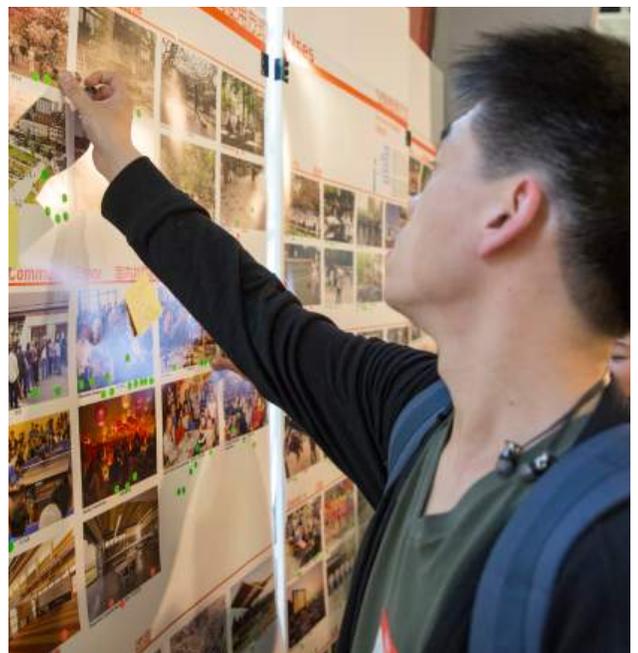
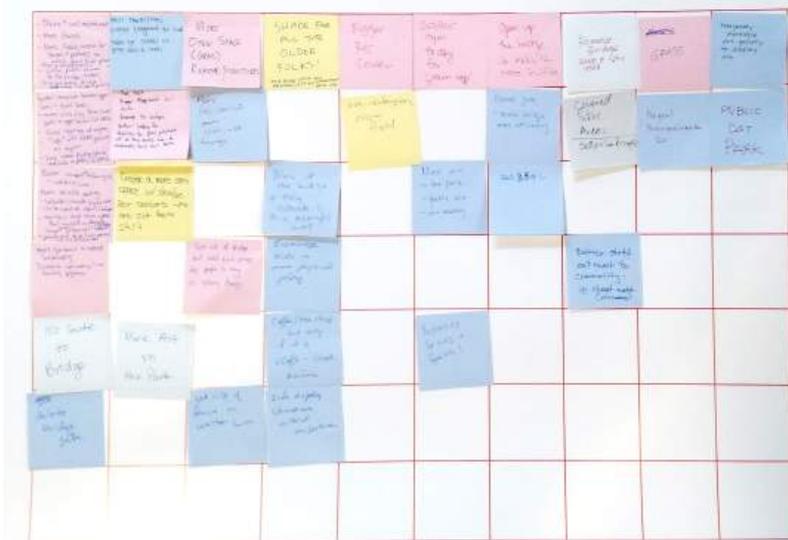
Regional Participants





Station 1: Memory/Hopes

Please share a hope or wish for the future of Portsmouth Square.
請分享對花園角廣場未來的一個期待或展望。

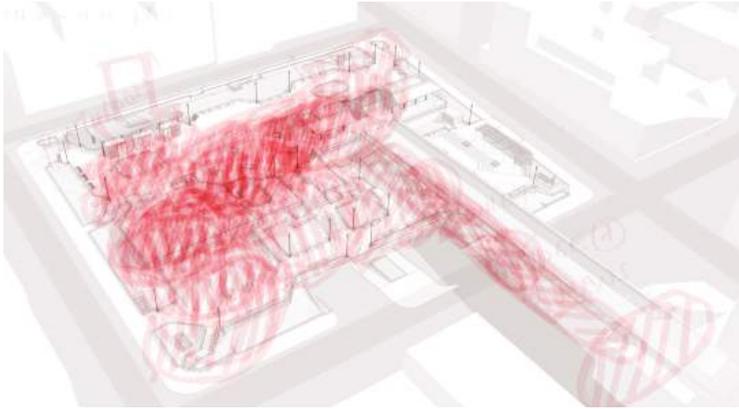


Key Themes

- Bigger rec center facility
- More open space
- Bigger playground
- Shade
- Remove or improve use of bridge
- More art

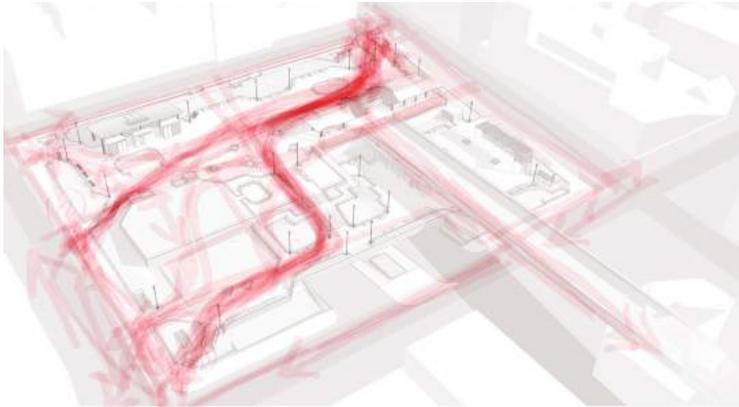
Station 2: Mapping

Favorite Places



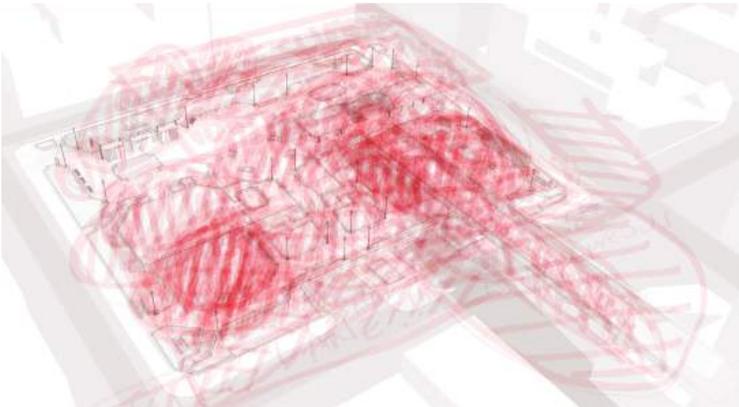
- Upper terrace open space
- Upper terrace playground
- Bathroom

Preferred Pathways



- Strong Clay & Kearny to Walter & Washington pathway
- Strong mid-block Clay to Walter & Washington pathway

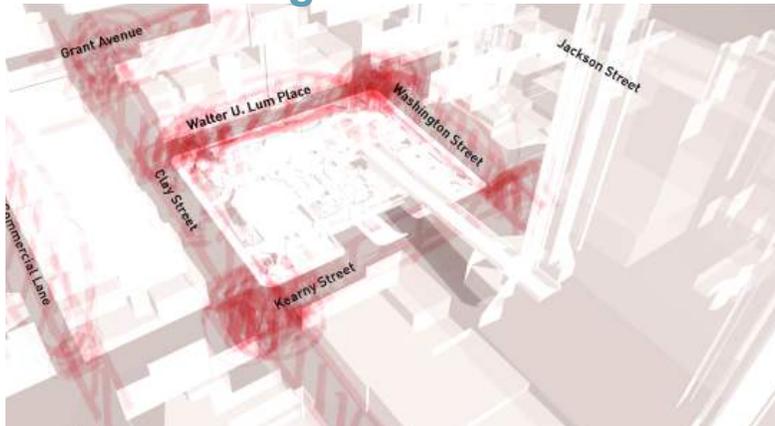
Spaces to be improved



- Lower Terrace
- Under bridge/community room
- Lower Terrace playground

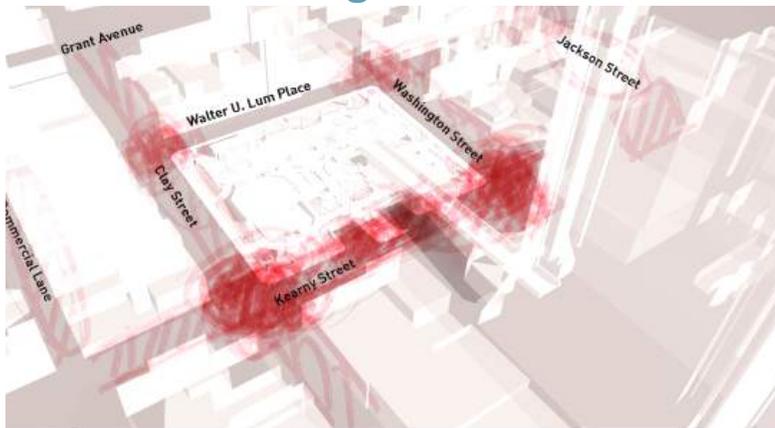
Participants drew on provided worksheets to provide feedback on the prompts above. These graphics show the cumulative feedback of the over 60 worksheets per item. The darker the color shows the increased number of participants drawing on the same spot - providing a collective heat map of feedback.

Safe Crossings



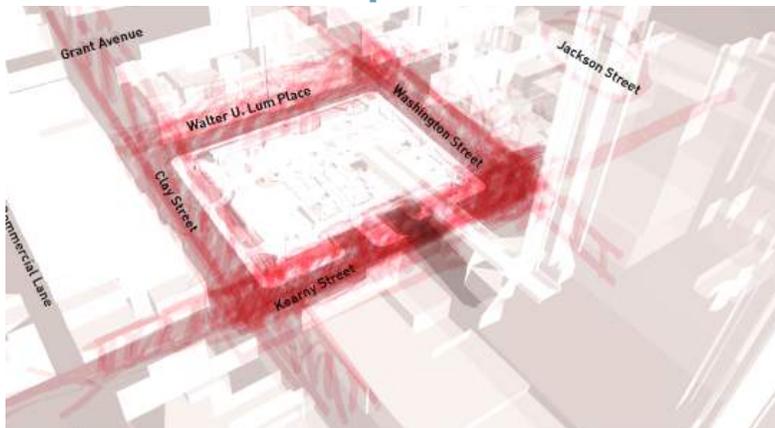
- Walter U Lum
- Clay and Kearny

Unsafe Crossings



- Focus on Kearny intersections

First street to improve



- Kearny

Station 3: Uses

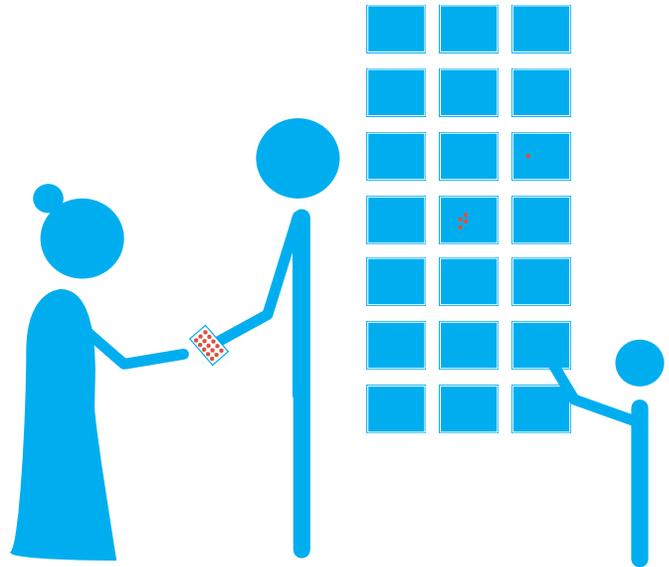
This station was a dot exercise for preferred park uses. Green dots were associated with positive feedback, red negative.

Landscape Preferences

- Trees
- Planting
- Benches
- Tables and Chairs
- Fitness Equipment
- Playground
- Flexible Event Space
- Stage
- Additional event seating
- Shade structures
- Ping Pong
- Martial Arts Space
- Chinese Chess

Architecture Preferences

- Lease-able space for community organizations (Preschool/Self Help)
- Rentable space for occasional events
- Indoor 'Shared Living-room' (4 season)



Sports 運動



Tai Chi 太極



Ping Pong 乒乓球



Informal Dancing 休閒舞



Outdoor Martial Arts Training Space 戶外武術訓練場



Badminton 羽毛球



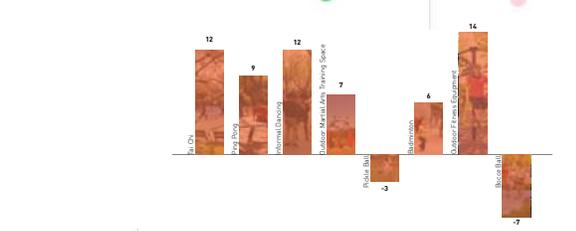
Pickle Ball 匹克球



Badminton 羽毛球



Outdoor fitness equipment 室外健身設施



Play 遊樂



Compact Vertical Playground 垂直式遊樂場



4 mos.-2 yrs Playground 4月-2歲兒童遊樂場



2-5 yrs Playground 2歲-5歲兒童遊樂場



5-12 yrs Playground 5歲-12歲兒童遊樂場



Grand Slide 大滑梯



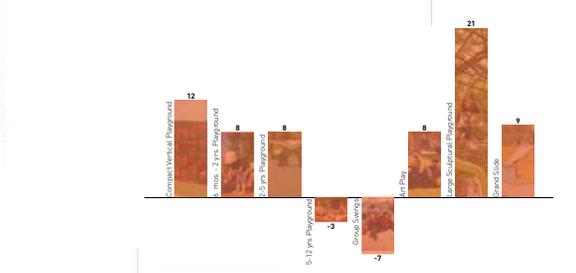
Group Swings 多人鞦韆



Art play 藝術遊戲互動



Large Sculptural Playground 大型雕塑式遊樂場



Events 活動



Informal Concerts 非正式音樂會



Open Performance Space 開放表演空間



Open performance space with seating 開放表演空間 (設有座)



Terraced seating at stage 梯田座在樓閣舞台



Shaded performance space 遮陽表演空間



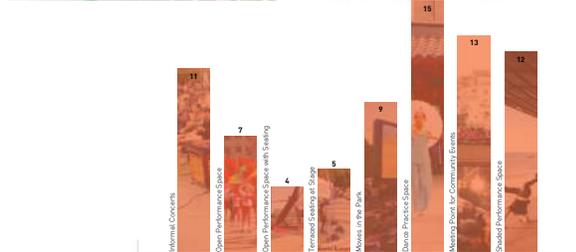
Movies in the Park 戶外電影



Dance Practice Space 舞蹈練習場地



Meeting Point for Community Events 社區活動匯合點



Gathering 聚集



Seating Terraces 座位梯台



Chinese Chess / Chess 中國象棋



Night Market 夜市



Playing Cards 撲克牌局



Social Seating 社交活動的座位



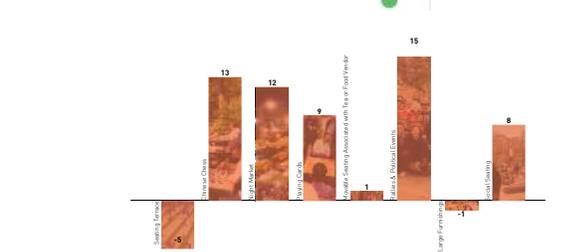
Movable seating associated with tea or food vendor 移動式茶桌配座區



Rallies & Political Events 集會及其他政治活動



Large furnishings, can be moved out of the way for events 大型傢俬, 有以動線可移開



Park Amenity

公園服務設施



Cherry Grove 櫻花林



Planters 綠植池



Shade Structures 遮陽結構



Tasty Food Concession 美食區



Calligraphy Pavilion 繪畫樓閣



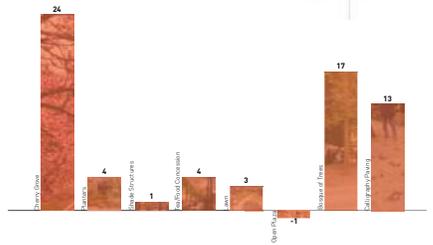
Lawn 草坪



Open Plaza 露天廣場



Bois de trees 樹陣



Indoor Community Space

室內社區服務空間



Clinics 診所



Citizenship Classes 公民課程



Art Classes 藝術課程



Yoga 瑜伽



Classroom / Leasable Space 課室/可出租空間



Ping Pong 乒乓球



Family Celebrations 家庭聚會



After-school Clubs & Activities 課外班 & 課外活動



Community Meetings & Presentations 社區會議



Classroom / Leasable Space 課室/可出租空間

Open Shade Structure

遮蔭



External - Recreation Space 室外娛樂空間



Vine Pergola 藤架廊架



Artistic Shade Structure 藝術遮蔭架



Simple Shade Structure 簡易遮蔭裝置



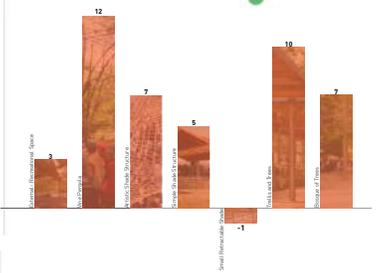
Bois de Trees 樹陣



Small Retractable Shade 小型伸縮式遮蔭

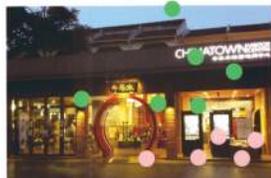


Trellis and trees 藤架與樹



Other Architecture

其他建築



Chinatown Visitor Center 中國城遊客中心



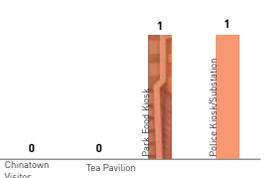
Tea Pavilion 茶亭



Park Food Kiosk 公園食物亭



Police Kiosk/Substation 警務站



Streetscape Social Areas

街道活動區域



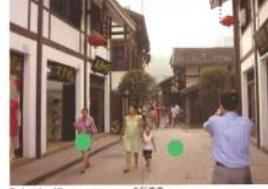
Dining area at curb 沿街餐飲



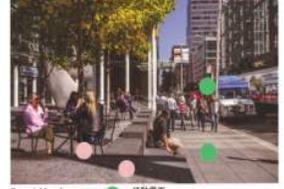
Traffic calming island & seating 交通緩衝島與座位



Wide sidewalks 寬敞人行道



Pedestrian Alley 步行巷弄



Occupiable edges 活動界面



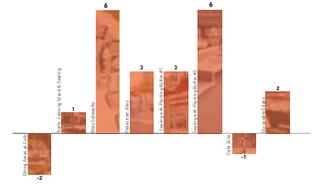
Seating with planting buffer 種植架椅座位



Seating with planting buffer 種植架椅座位



Cafe zone 餐飲區



Lighting

燈光



Chinatown Historic Lighting 中國城傳統燈柱



Dense catenary lighting 密集懸掛式照明



Simple catenary lighting 簡約懸掛式照明



Pedestrian scale lighting 人行道尺度和照明



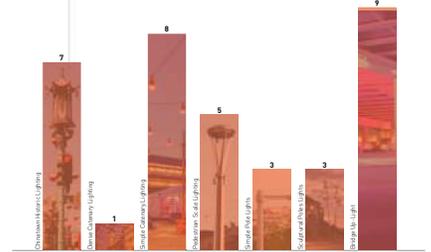
Bridge Up-Light 橋面照明



Simple pole light 簡約式燈柱



Sculptural Pole Light 雕塑式燈柱



Streetscape Planting

街道種植



Biosiltration Basin 生態過濾種植池



Street trees 行道樹



Street trees with garden beds 行道樹與花池



Wide sidewalk with rows of trees 寬敞人行道與樹陣



Streetscape Traffic Calming

街道交通緩衝



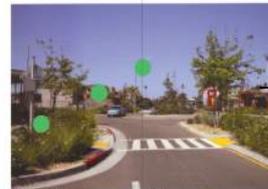
Shared pedestrian street 人車混行式街道



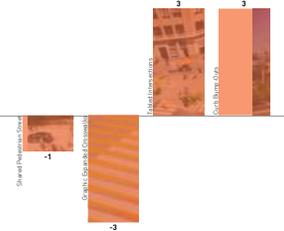
Graphic expanded crosswalks 傳統伸式人行橫道



Tabled intersections 交叉口降高抬島

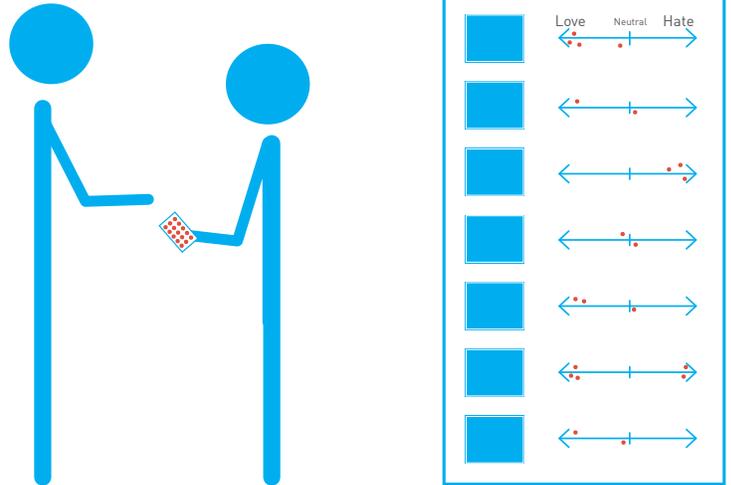
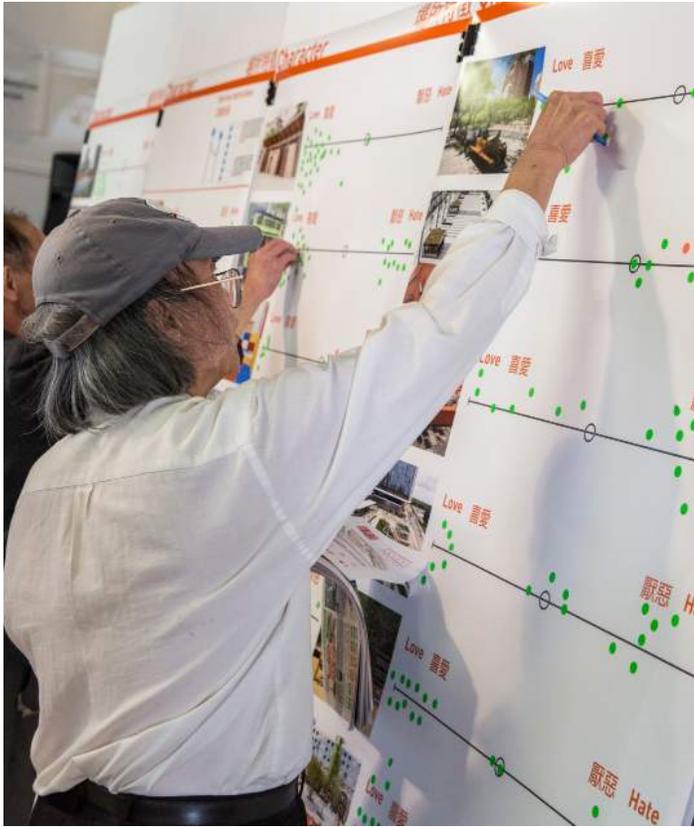


Curb bump-outs 邊角收窄



Station 3: Character

This station was a dot exercise for preferred park character. Participants were asked to vote on spectrum from love to hate how they felt about the aesthetic represented in the visual preference precedent image provided. The team found a fairly even distribution of results, leaning toward a combination of contemporary and traditional features.



Most Loved Images & Key Elements



- Movable furnishings
- Sports courts
- Seating
- Trees
- Synthetic turf



- Seating
- Open Plaza
- Trees



- Shade structure with vines



- Bosque
- Movable seating



- Garden
- Flowering trees
- Benches



- Contemporary Chinese garden



- Existing bathroom



- Contemporary Chinese Architecture, seating



- Contemporary Chinese architecture
- Screen with traditional motif



- Traditional Chinese Architecture

Most Hated Images & Key Elements



- Bright colors
- Sports



- Integrated ramp and terraces



- Open plaza no trees
- Minimalist contemporary



- Union Square



- Contemporary landscape architecture
- Bright color seatwall
- Stone seats



Chapter 7

Workshop 2: Frameworks

At this workshop, the design team revealed an array of potential design frameworks for Portsmouth Square to inspire and broaden community dialogue and critique.

These initial frameworks were presented visually, with traditional drawing tools and models, to show the big-picture range of possibilities for the site configuration. Our team worked with small groups to discuss the frameworks, gather opinions, and invite community members to draw and model their ideas. These frameworks were also shared in print and online for feedback from those who could not attend the workshop.

After documenting the results of the process, we met with RPD and planning to review the workshop results and strategize the next steps. At this time we also met with the Sustainable Chinatown Committee to develop the first round of a sustainability matrix that would have options depending on the schemes chosen.

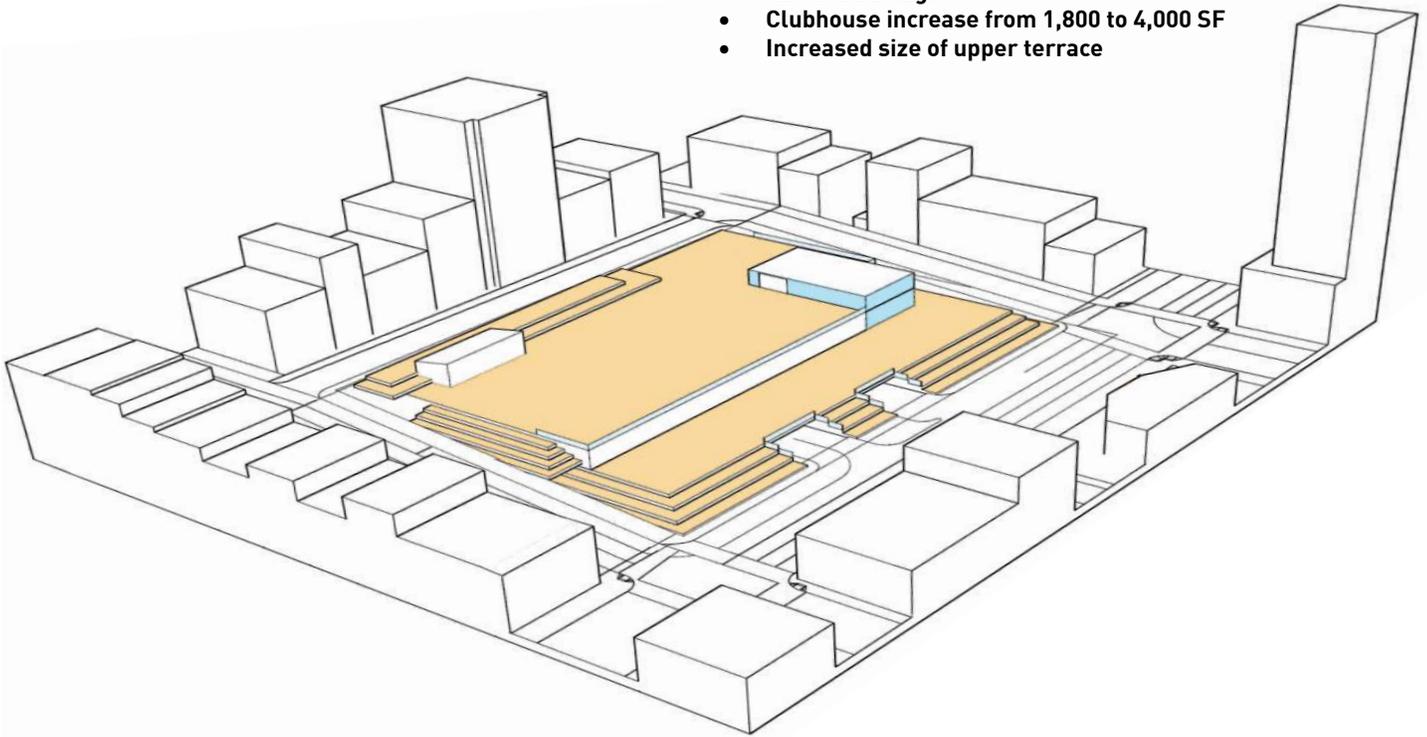




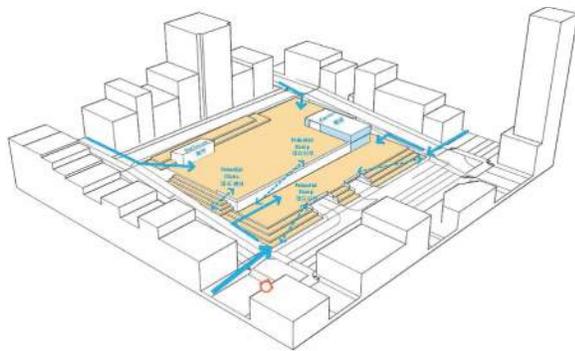
Framework 1

Framework one, evaluated through the game-board and survey, was developed by the following key moves:

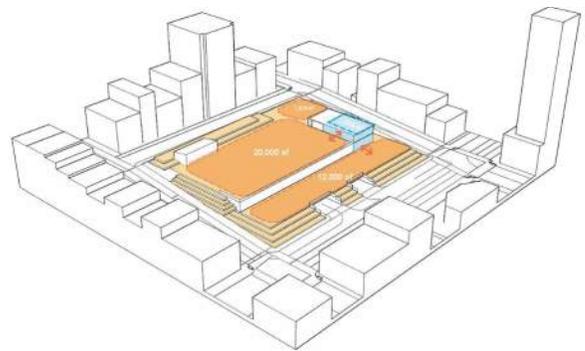
- Provide separate space for key programs
- Removes bridge
- Clubhouse increase from 1,800 to 4,000 SF
- Increased size of upper terrace



Circulation



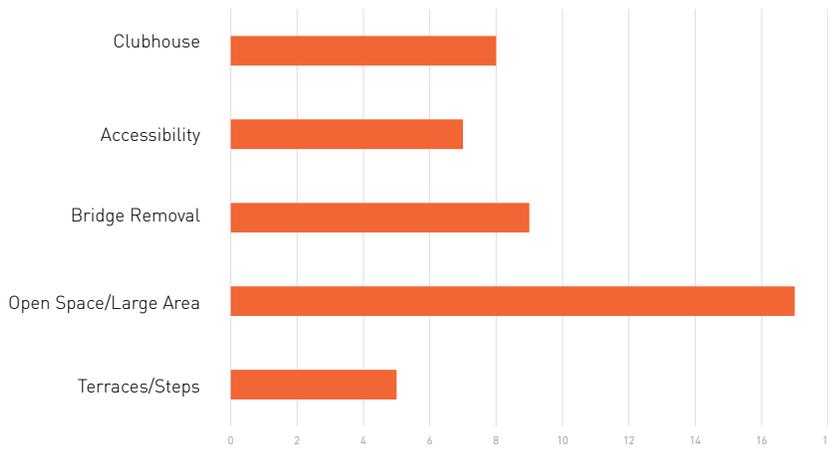
Spaces



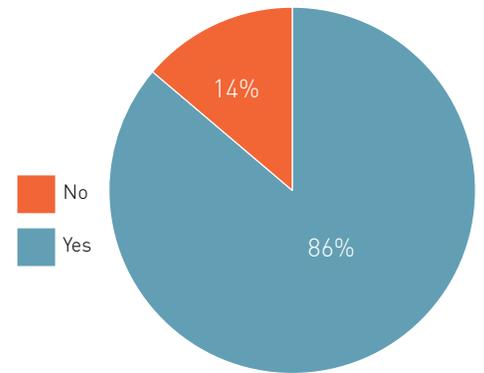
Overlay of Game Pieces Summary



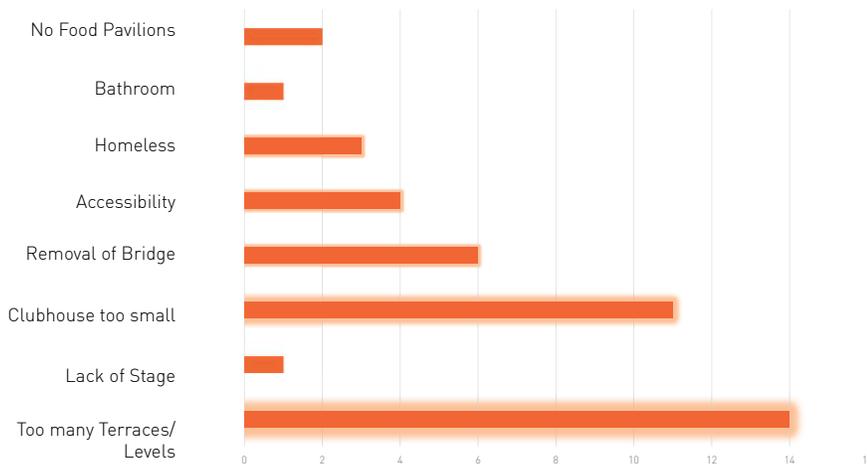
Liked Characteristics



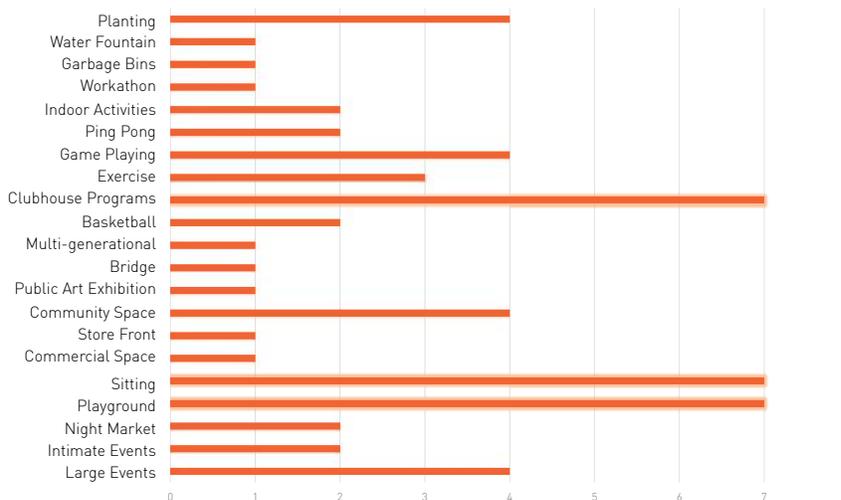
Is this a improvement?



Concerns with this design



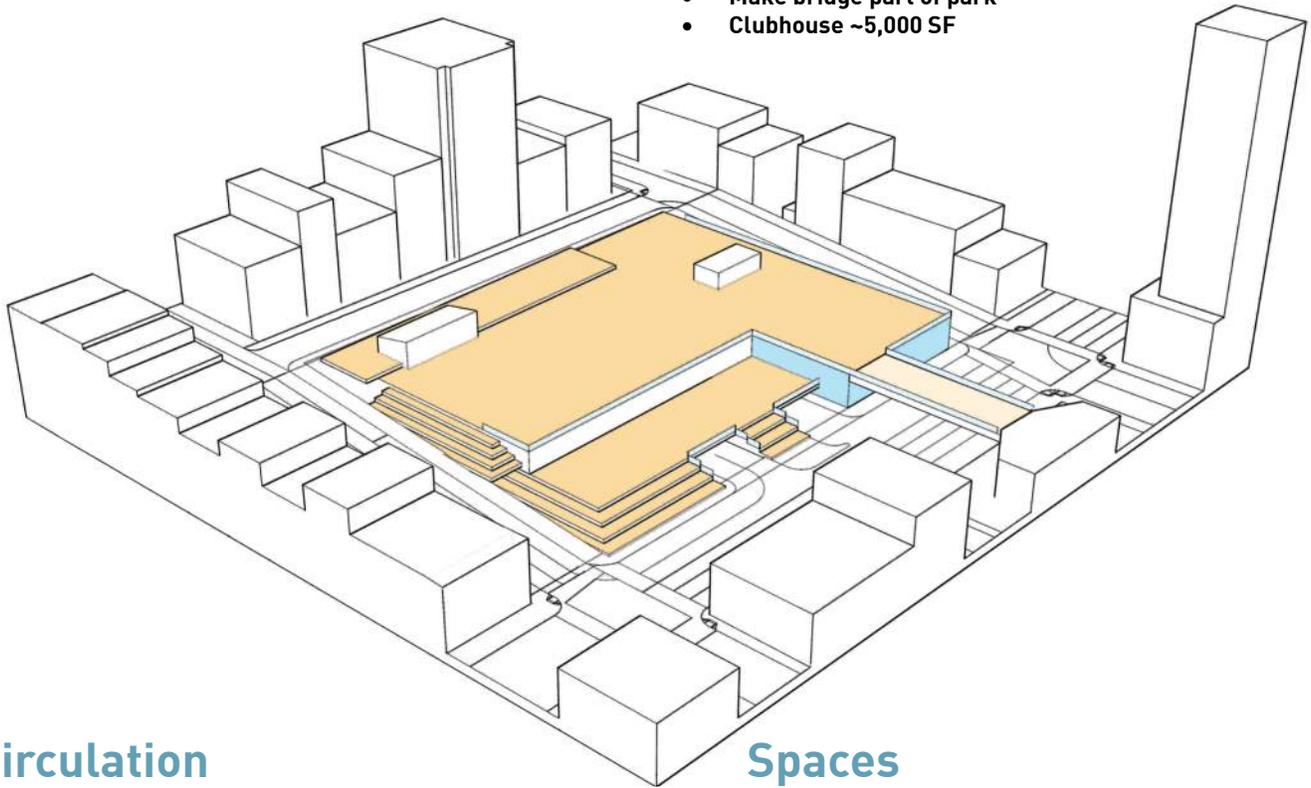
Key Activities



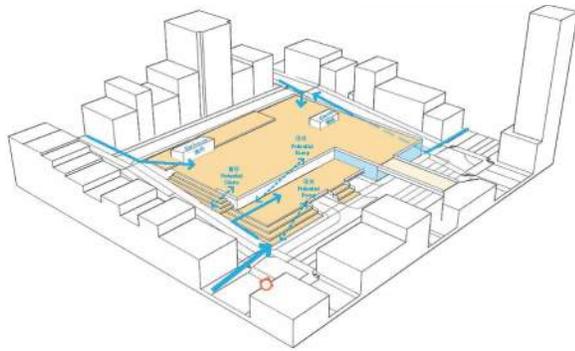
Framework 2

Framework two, evaluated through the game-board and survey, was developed by the following key moves:

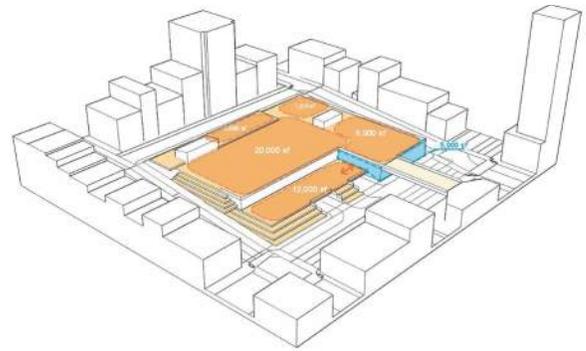
- Increase size of upper terrace
- Provide separate space for key program
- Make bridge part of park
- Clubhouse ~5,000 SF



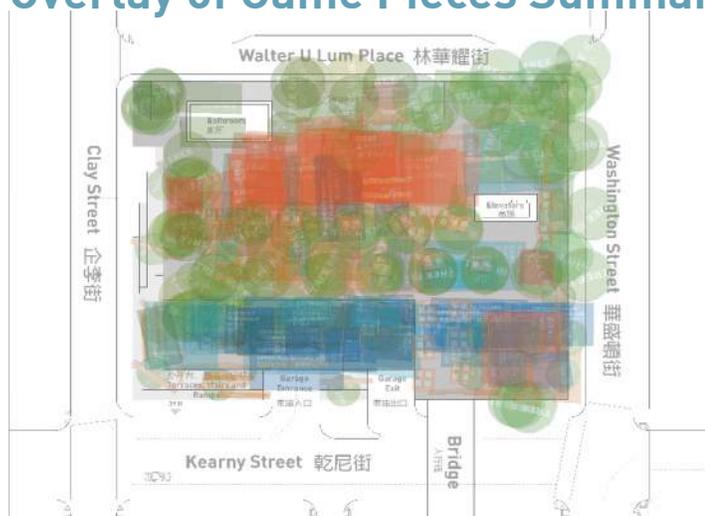
Circulation



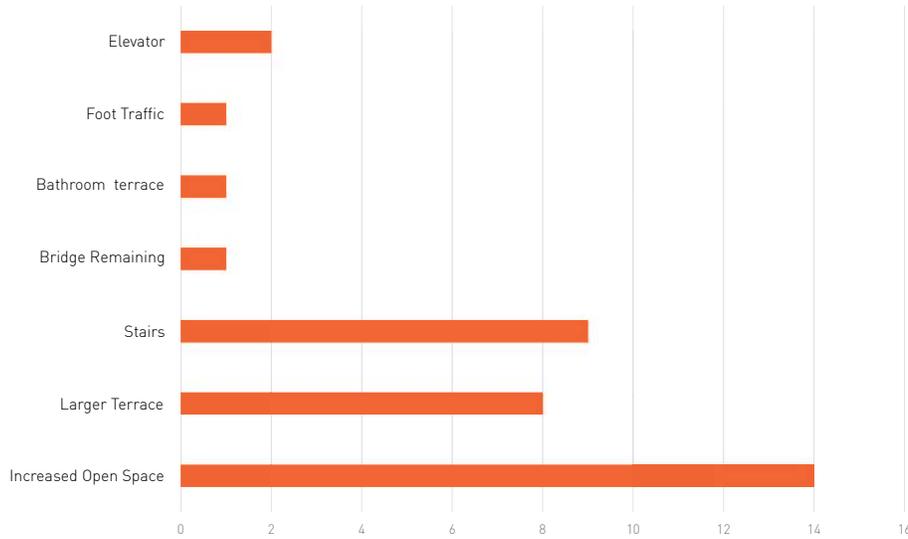
Spaces



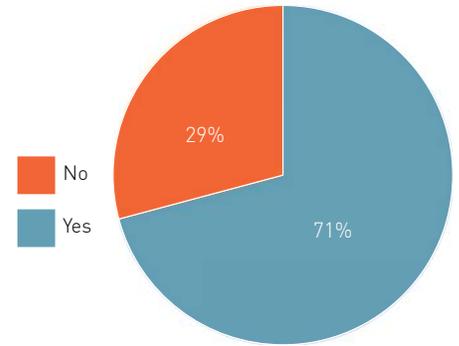
Overlay of Game Pieces Summary



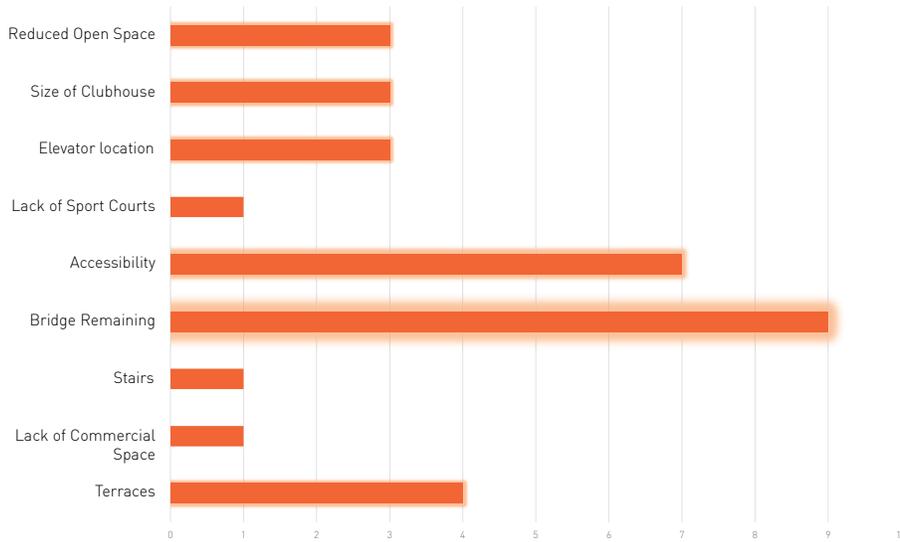
Liked Characteristics



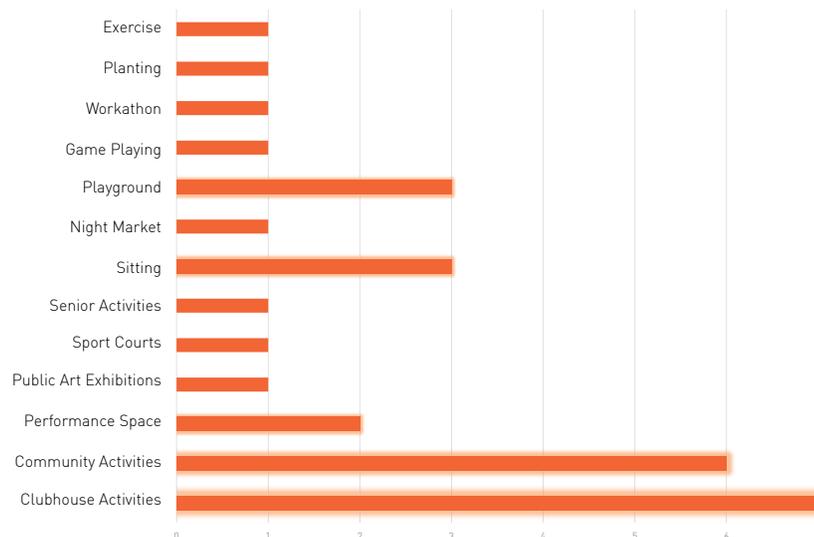
Is this a improvement?



Concerns with this design



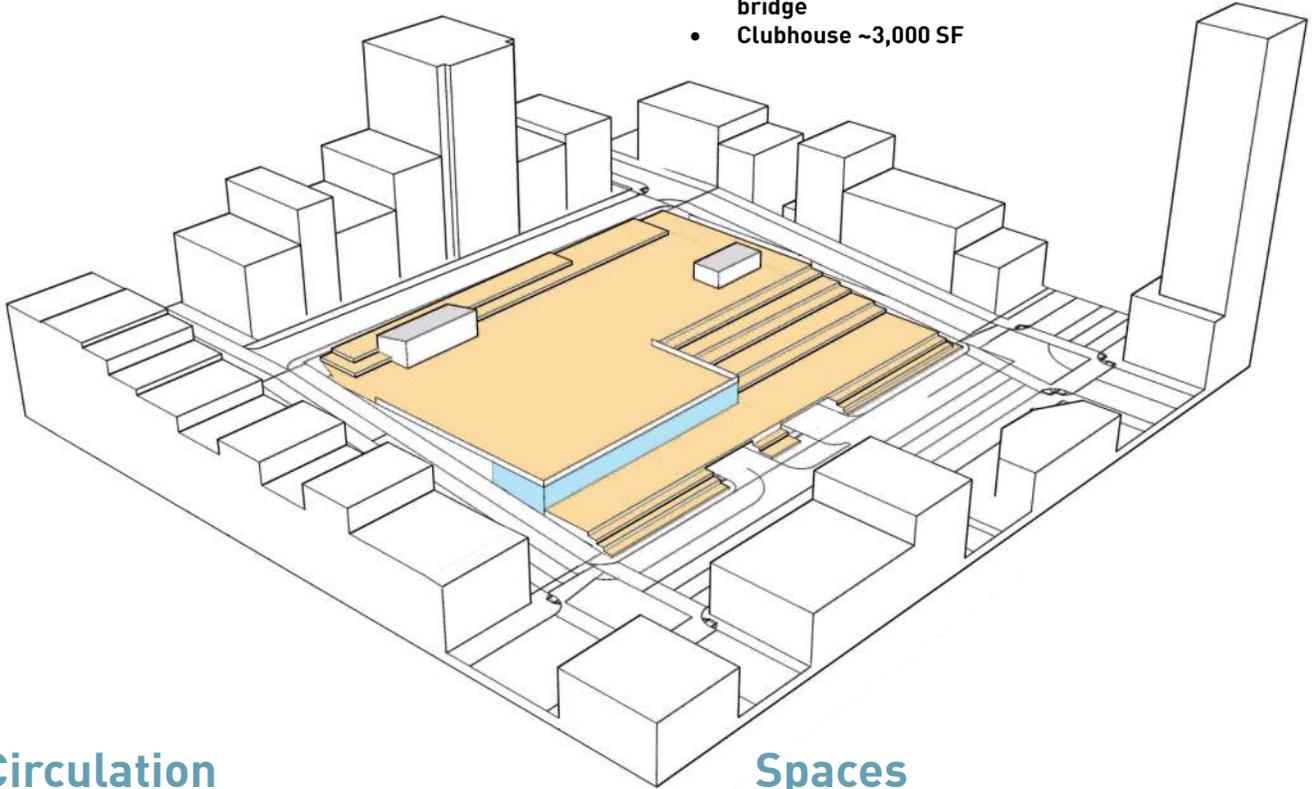
Key Activities



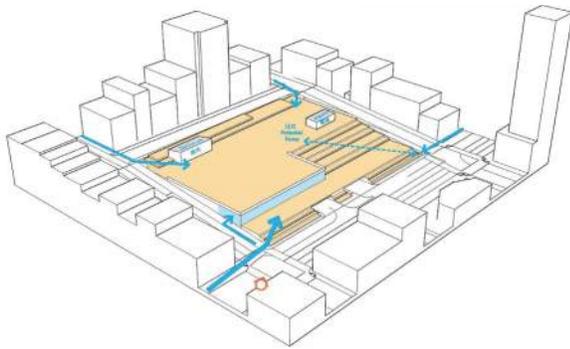
Framework 3

Framework three, evaluated through the game-board and survey, was developed by the following key moves:

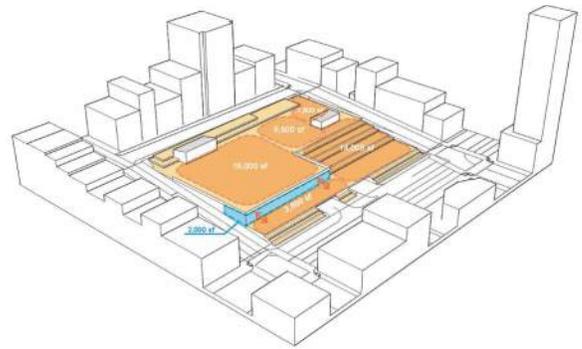
- Increase size of upper terrace
- Includes amphitheater as a secondary event space Removes bridge
- Clubhouse ~3,000 SF



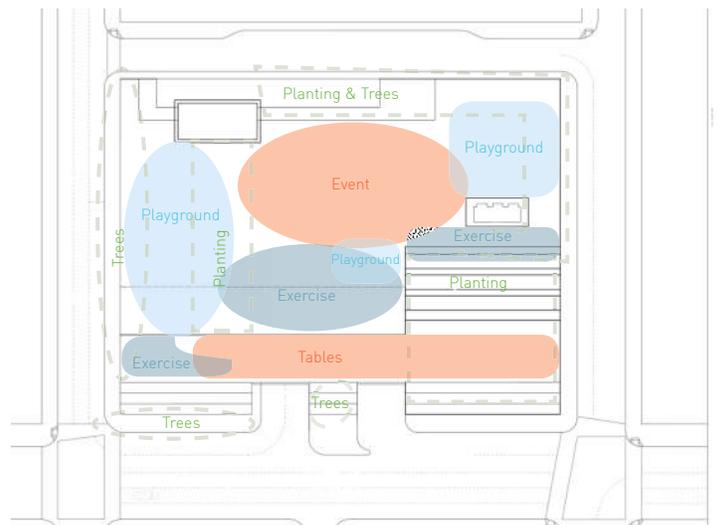
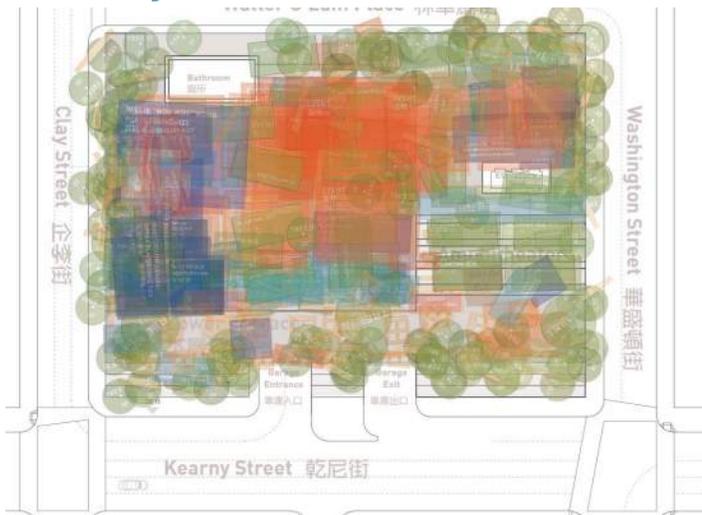
Circulation



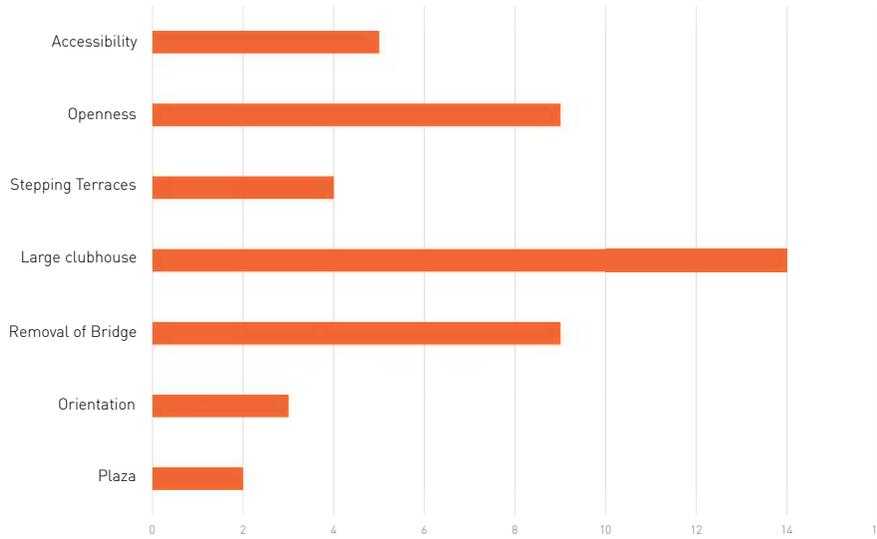
Spaces



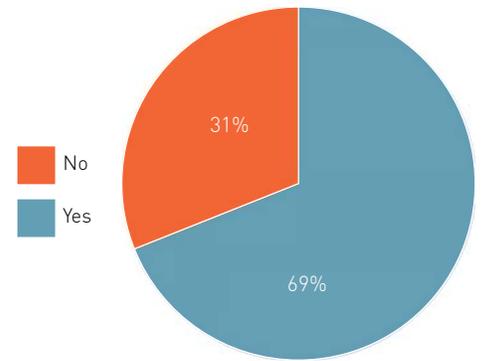
Overlay of Game Pieces Summary



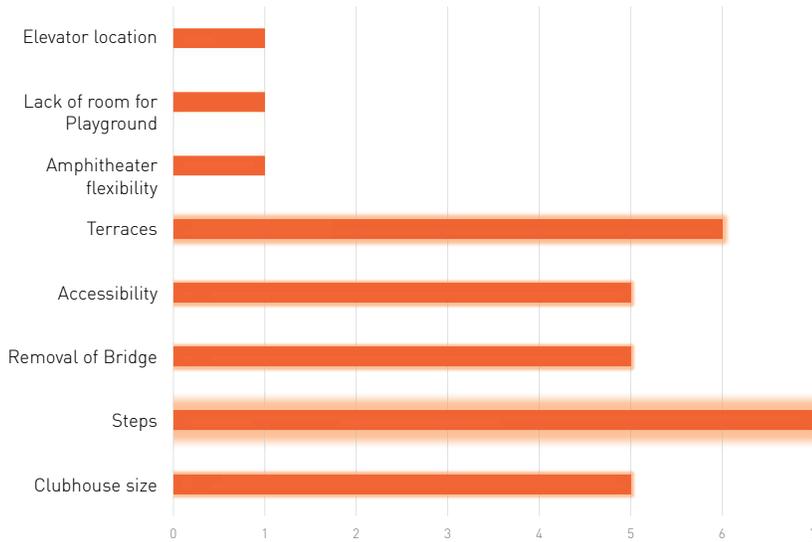
Liked Characteristics



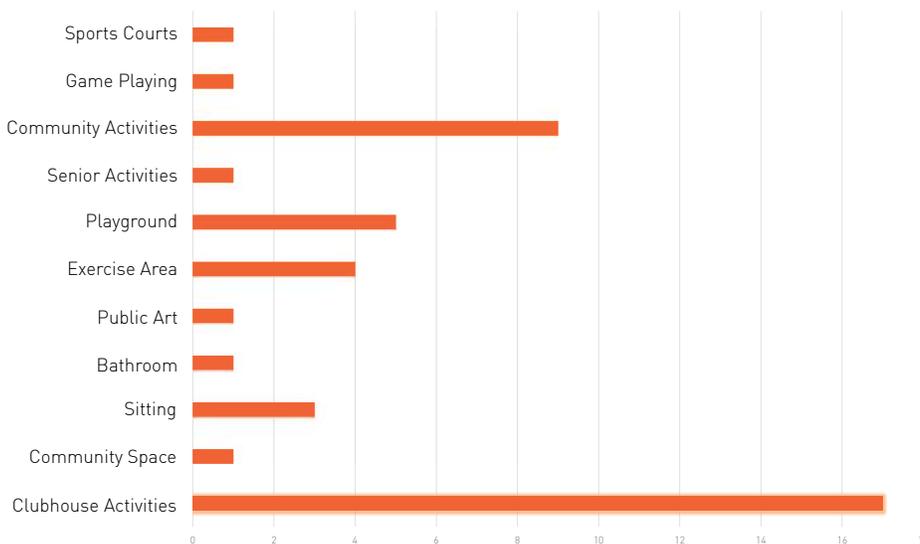
Is this a improvement?



Concerns with this design



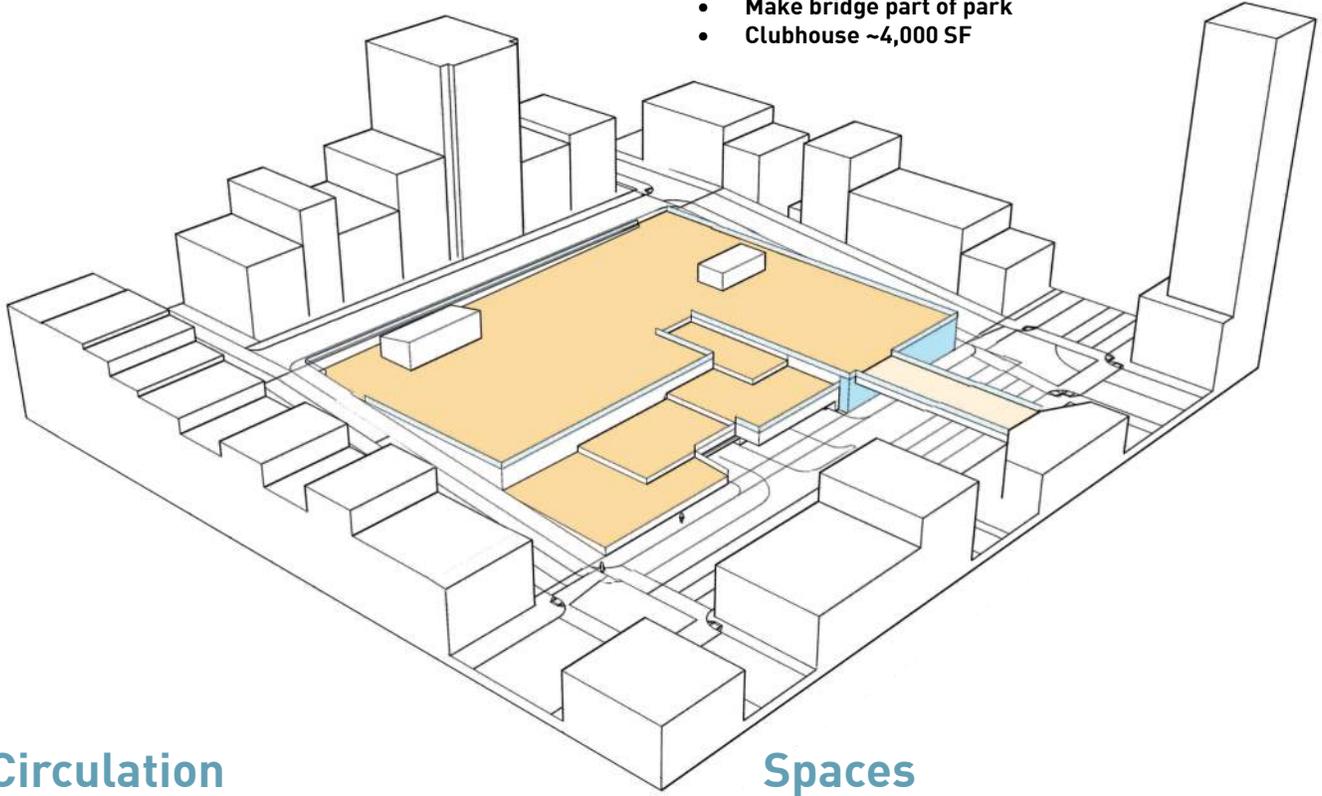
Key Activities



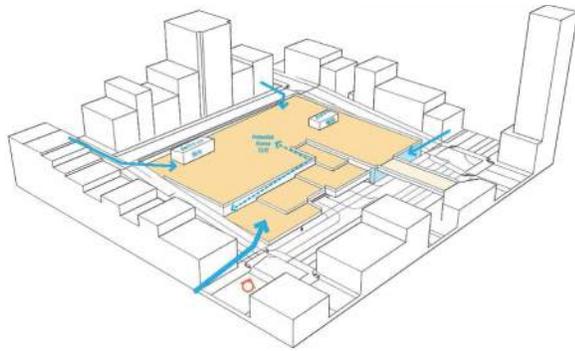
Framework 4

Framework four, evaluated through the game-board and survey, was developed by the following key moves:

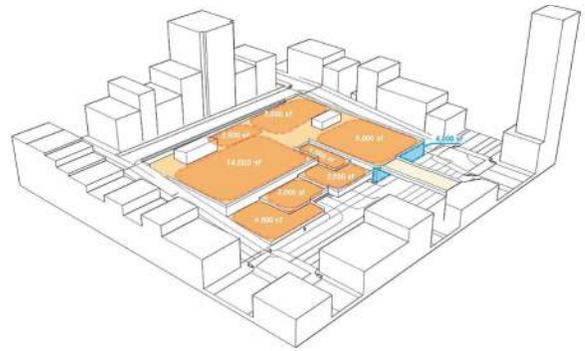
- Increase size of upper terrace
- Provide separate space for key programs
- Make bridge part of park
- Clubhouse ~4,000 SF



Circulation



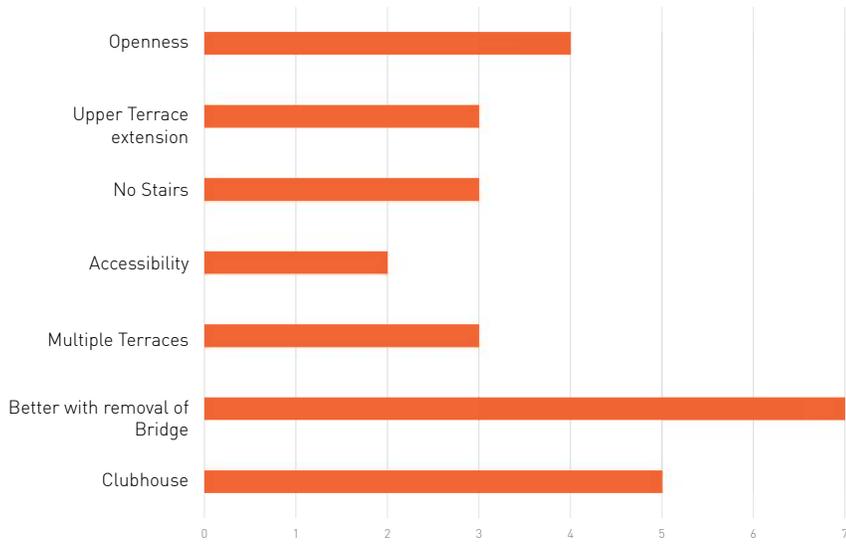
Spaces



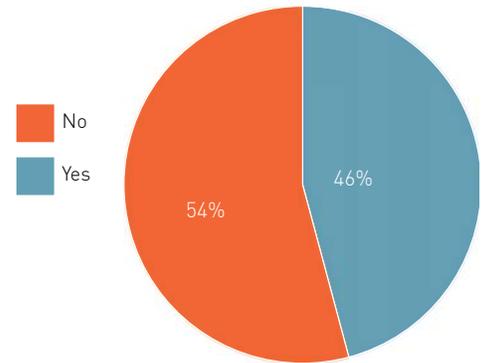
Overlay of Game Pieces Summary



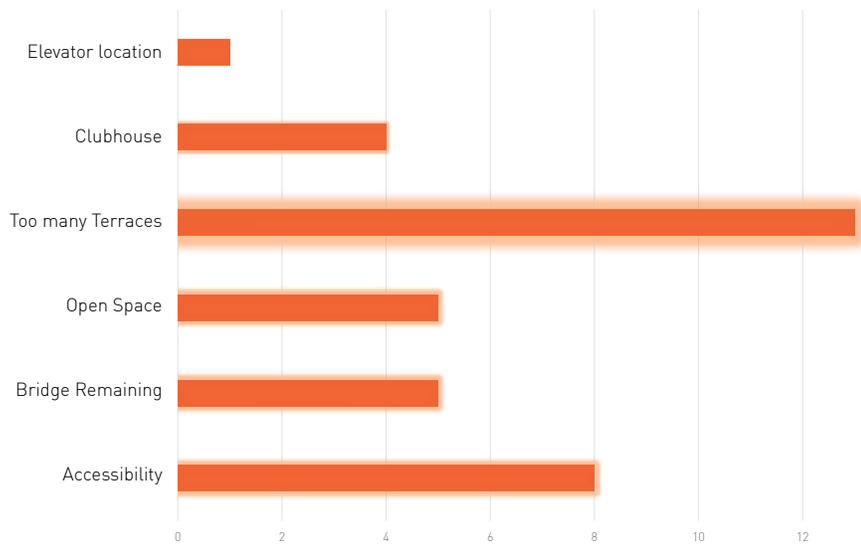
Liked Characteristics



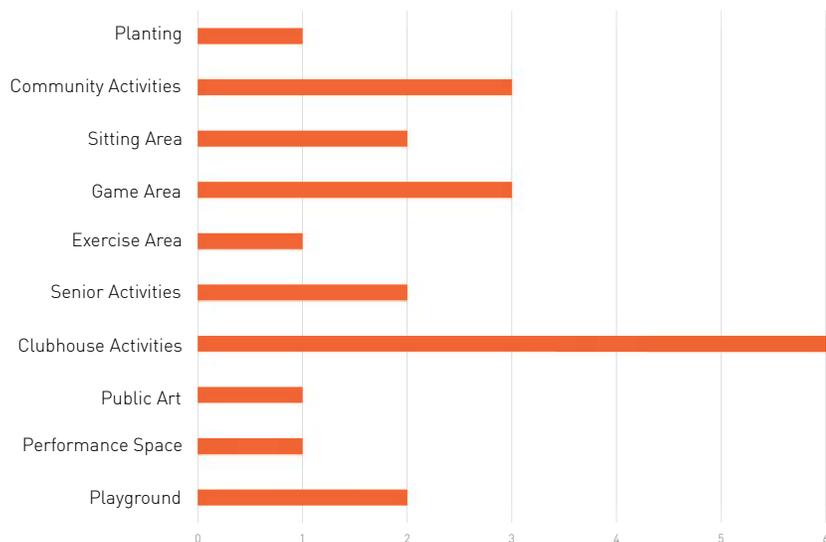
Is this a improvement?



Concerns with this design



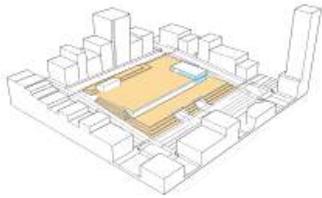
Key Activities



Conclusions

Design for Workshop 3 should include:

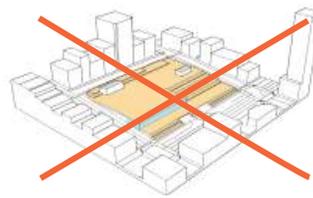
- Framework 1 & 3 were preferred
- Framework 2 was split feedback, bridge was pivotal
- Framework 4 was not preferred
- Bridge generally negative save for a small group who were advocates for keeping it (CCC representatives)
- Large open spaces for community events is critical
- Preference for access from all corners
- Keeping a simple circulation throughout the park is preferred
- Large clubhouse, the bigger the better
- Multi-generational friendly, especially for 10-18 years old age group and elderly
- Playgrounds and exercise areas are preferred more than sports courts
- In split terrace schemes, upper terrace generally preferred for events, lower terrace for program areas (play, exercise, etc.)



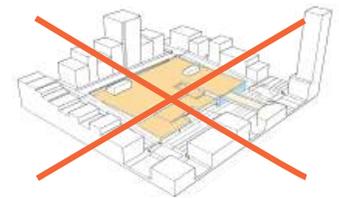
FRAMEWORK 1
架構 1



FRAMEWORK 2
架構 2

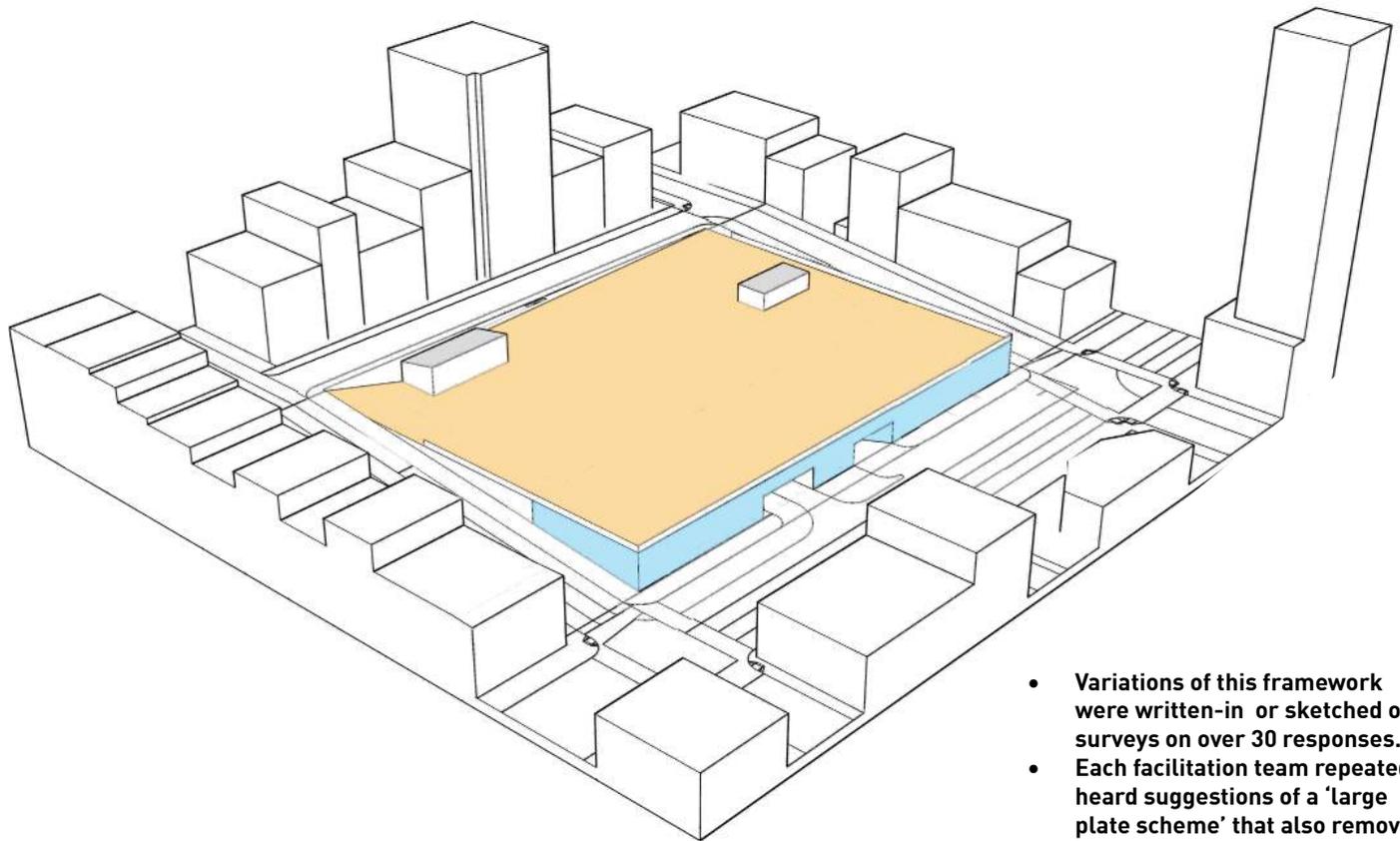


FRAMEWORK 3
架構 3



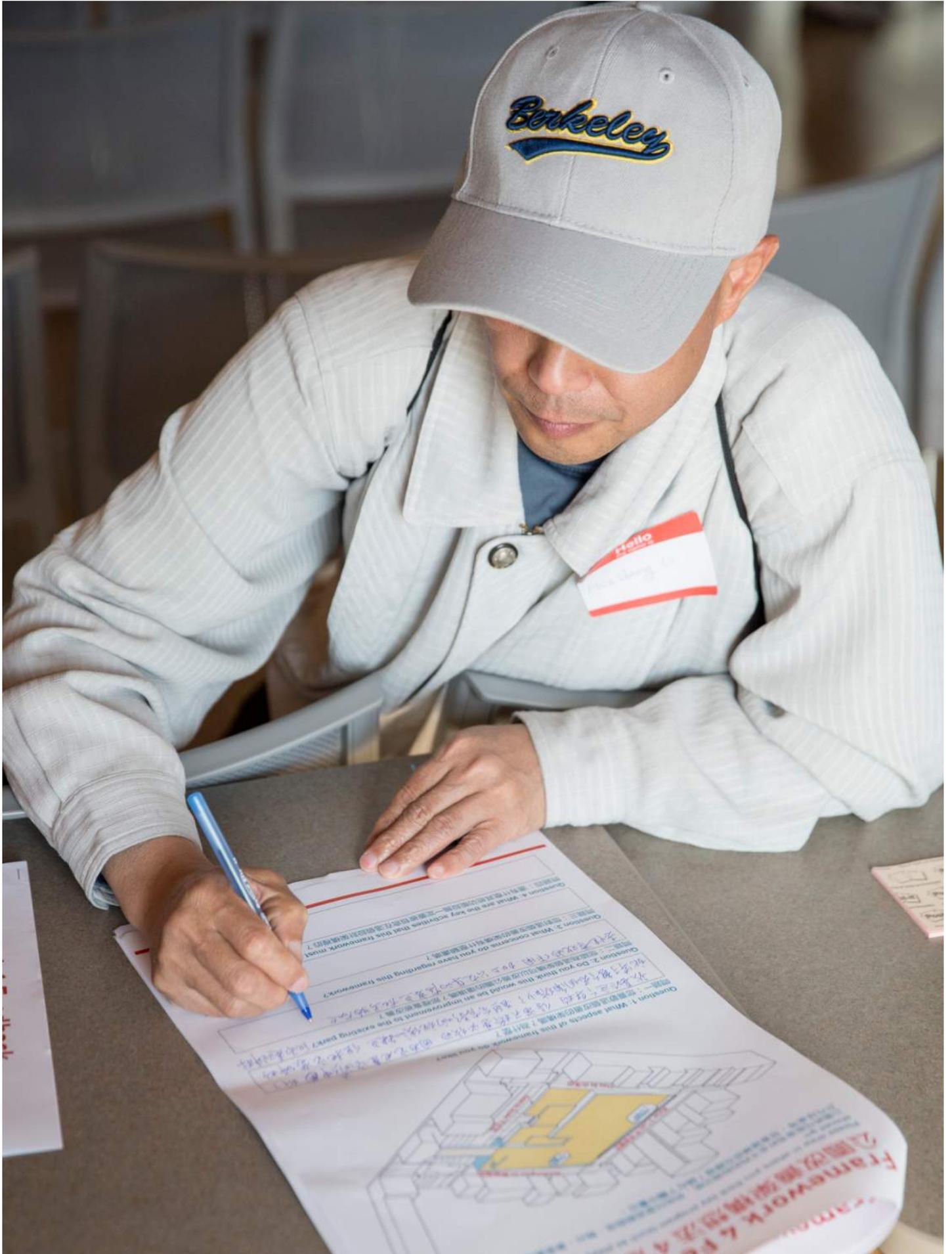
FRAMEWORK 4
架構 4

Write-in Suggestion



***NEW: FRAMEWORK 5**
架構 5

- Variations of this framework were written-in or sketched on surveys on over 30 responses.
- Each facilitation team repeatedly heard suggestions of a 'large plate scheme' that also removed the bridge.
- For the next workshop, revisions of Frameworks 1&3 were advanced, and this new framework was added.





Chapter 8

Workshop 3: Alternatives

For this workshop, the design team prepared three alternative visions based on the feedback from workshops 1 & 2. Each scheme was based both on separate frameworks as well as different aesthetic approaches and concepts.

Feedback was collected both through written survey cards as well as verbally through teams staffing stations for each scheme after the presentation.

The questions and direction to the participants solicited feedback on specific moves and ideas within each scheme—with the idea that the final scheme would create a blend maximizing the preferences. The resultant feedback, however, became much more about voting for one scheme than any more nuanced feedback. As a result, the design team had a clear mandate going into workshop 4.

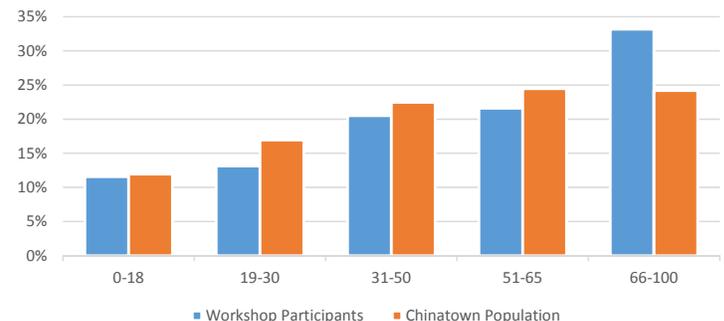
Workshop 3 Attendance

Total Attending: +300
Completed Surveys: 258

Margin of Error based on this sample size: 6%
(95% Confidence interval)

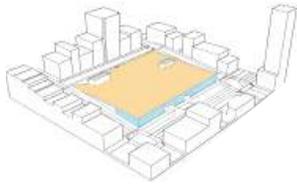
T-test: 95% confidence sample population reflects age distribution representative of Chinatown (slight bias toward >65 population)

Age Distribution





Workshop 3: Schemes



FRAMEWORK 5
架構 5



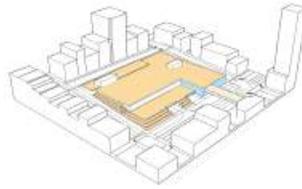
Scheme A 方案

Inspiration: Treasure Box
設計靈感：百寶盒



Scheme A created a series of outdoor rooms with program scaled to the rooms on a single enlarged terrace. Below the terrace a large (19,000 SF) clubhouse and leasable space created a continuous facade on Kearny Street.

Aesthetically, this scheme used a series of tectonic and orthogonal gestures to organize the space, as well as a higher ratio of hardscape. Catenary lighting and a grand shade structure define and frame the enlarged event plaza.

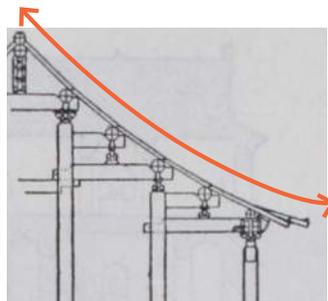


FRAMEWORK 2
架構 2



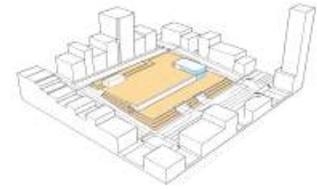
Scheme B 方案

Inspiration: Dougong Upturned Roof
斗拱曲脊



Scheme B tied the upper and lower terraces together through a large (9,000 SF) double height clubhouse. The terraces were broken into three spaces, an event terrace, a play/fitness terrace, and an Art terrace. This scheme focused on more occupiable edges, terraces, and seat walls to better connect to the surrounding streets.

Aesthetically, this scheme took inspiration from a interpretation of the tea garden and tea pavilion, with crenelated moves derived from traditional architecture in a contemporary language.



FRAMEWORK 1
架構 1



Scheme C 方案

Inspiration: Calligraphy
毛筆劃



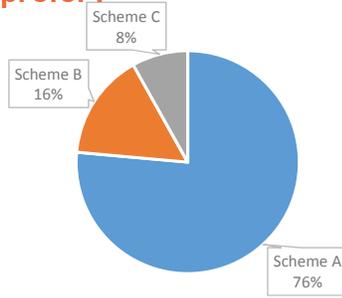
Scheme C focused on opening up the terraces to be more flexible, while providing a strong framework of strokes of garden space moving through the programmed terraces. This clubhouse is split into two levels - a lower leasable level opening into the playground, and a smaller clubhouse level opening onto the upper plaza (total 7,000 SF).

Aesthetically this scheme is the most contemporary, with clean modern materials and simple moves tying the terraces together and to the streets.

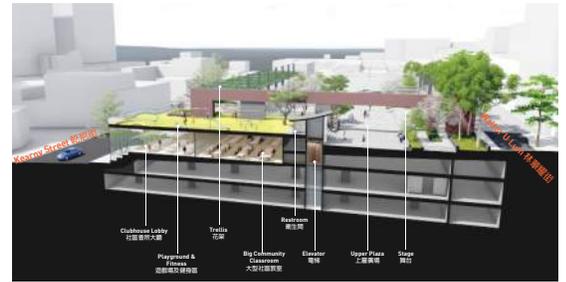


Workshop 3: Feedback

Q1. TERRACES: Which scheme for plaza terraces do you prefer?

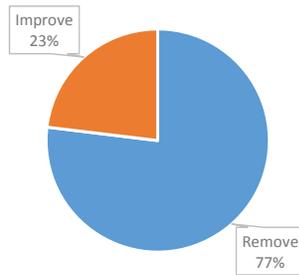


Recommendation:
Use terrace massing of Scheme A



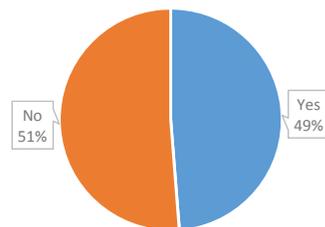
Q2. BRIDGE: Please select which statement best reflects your opinion below:

- a. The Kearny Bridge should be removed.
- b. The Kearny Bridge should be kept and integrated with the new plaza.



Recommendation:
Remove Bridge

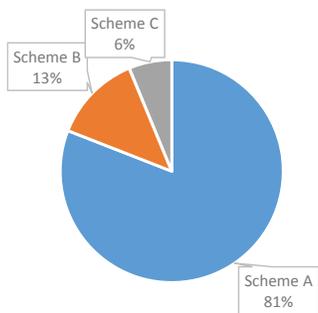
Q3. FENCE: How do you feel about a fence to close the plaza during late night hours to help with maintenance?



Recommendation:
Provide fencing options for further feedback

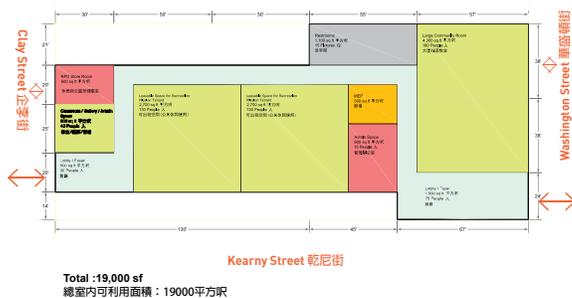


Q4. INDOOR SPACE: Which size of enclosed building space (for clubhouse & leasable space) do you prefer?

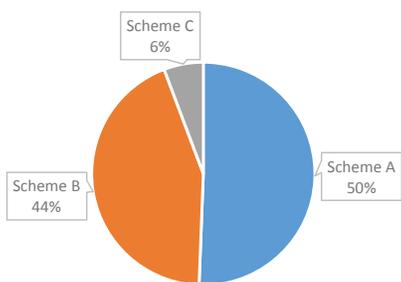


Recommendation:
Use Scheme A as the starting point for multiple layout options

*Plan is a possible layout showing program fit.
此處平面僅是一種可能的排法，並非最終定稿



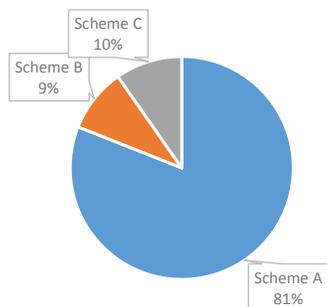
Q5. ARCHITECTURAL STYLE: Which architectural style of enclosed building space do you prefer?



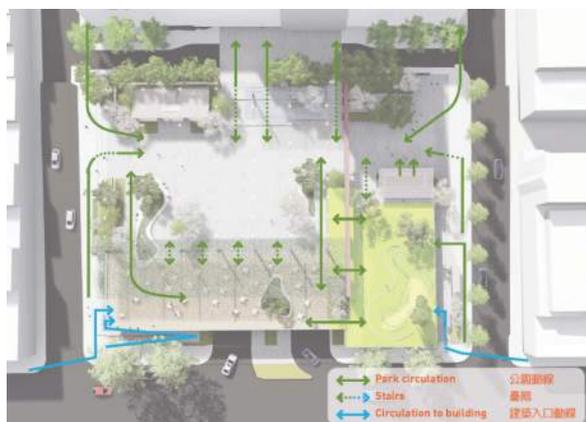
Recommendation:
Use glazing curtain of Scheme A for building, use style of Scheme B for shade structures/pavilions.



Q6. CIRCULATION: Which circulation scheme do you prefer?



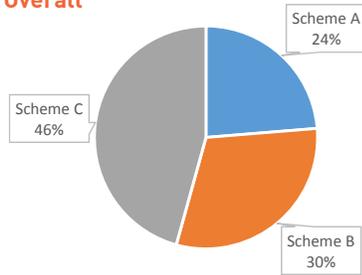
Recommendation:
Use circulation of Scheme A



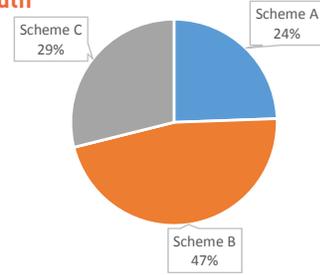
Workshop 3: Feedback

Q7. PLAYGROUND: Which playground elements do you prefer?

Overall



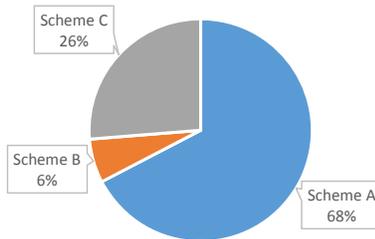
Youth



Recommendation:
Develop playground options
combining elements of schemes
B&C



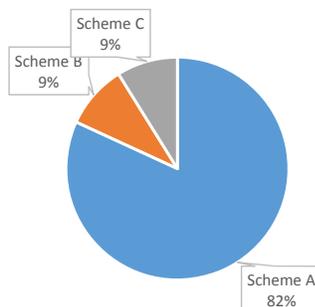
Q8. EXERCISE EQUIPMENT: What layout of exercise equipment do you prefer?



Recommendation:
Use equipment layout of Scheme
A with equipment from Scheme C



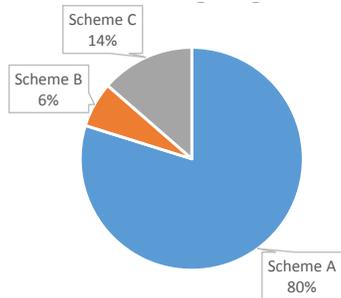
Q9. PLANTING: What type of planting do you prefer?



Recommendation:
Use planting of Scheme A



Q10. LIGHTING: What type of lighting do you prefer (please choose all that apply)?



**Recommendation:
Use lighting of Scheme A**



Conclusions

Design for Workshop 4 should include:

- Scheme A as a basis of design
- Revise playground to combination of Scheme B & C
- Revise exercise equipment to include a full outdoor gym, but arranged around the periphery of the playground like Scheme A
- Revise the trellis structures of Scheme A to have the architectural style of Scheme B
- Provide alternatives for fencing - panel system with historic interpretation, panel system with graphic patterning, maximum transparency option, post and gate system.
- Provide alternatives for material preferences
- Provide alternatives for furnishings
- Provide alternatives for planting palettes
- Provide alternatives for sustainability features



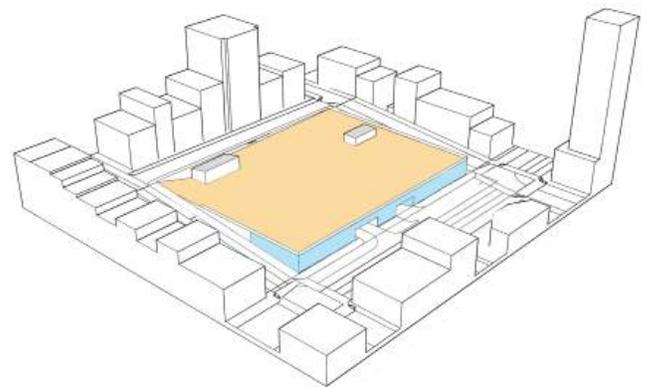
Chapter 9

Workshop 4: Preferred Option

The design team checked in with the community at Workshop 4 with a unifying concept based on Scheme A, to make sure the design team was on the right track and to share and receive feedback for any new developments. We presented first a summary of the public process, the resulting design that derived from that feedback. Comments were be solicited via Q&A, comment cards, and comment stations.

The feedback was targeted to determine community priorities within the design to inform the design development through improvement planning review and value engineering with city agencies. The feedback also answered key program questions regarding play and fitness equipment, the sustainability program, and fencing.

Scheme A



***NEW: FRAMEWORK 5**



Inspiration: Treasure Box



Key Plan 索引平面



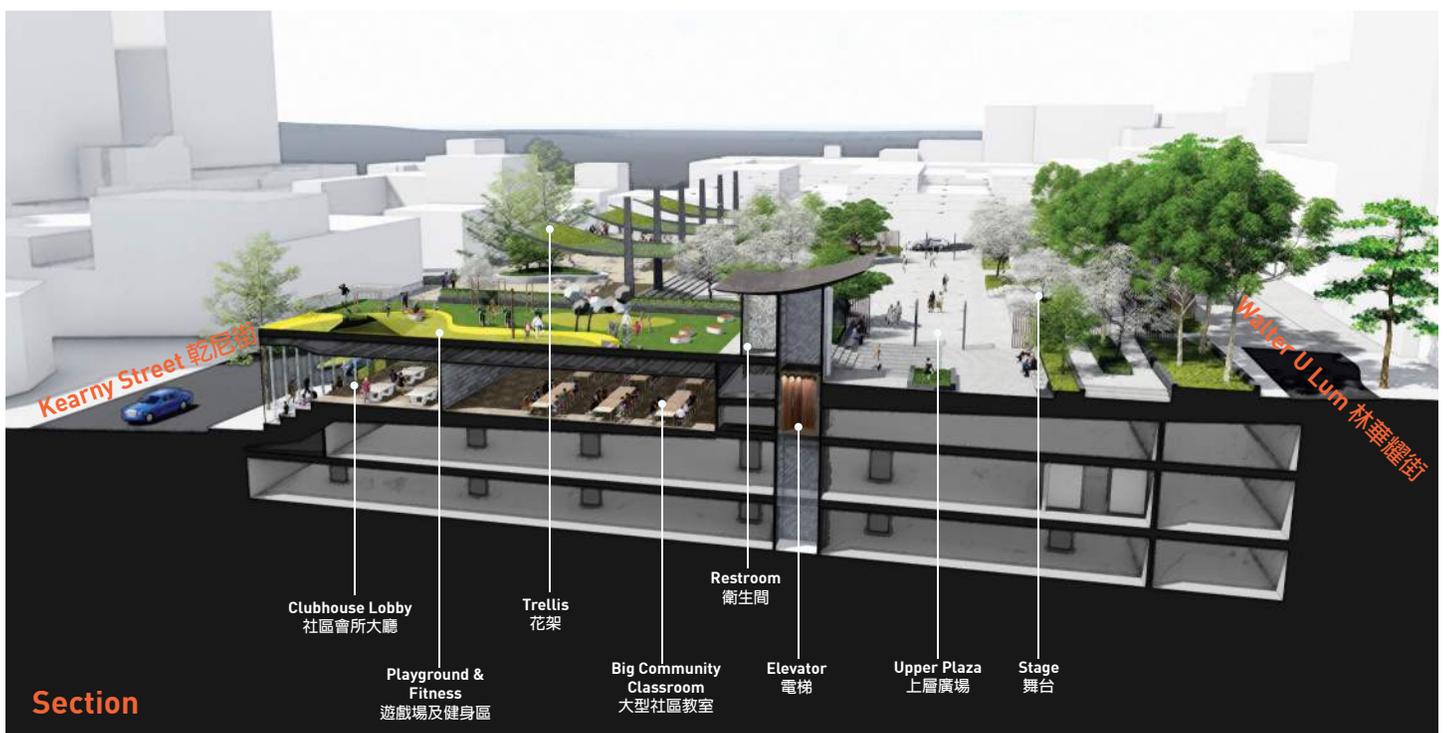
Existing Conditions 現況



Workshop 4:



Plan



Section

Key Plan 索引平面



Existing Conditions 現況



View from Kearny & Clay



Playground Options



Fence Gates Open



Fence Gates Closed

Workshop 4 Feedback

Portsmouth Square Workshop 4 Survey

Demographic Questions
 Age: _____
 Do you live in Chinatown? Yes No
 Ethnicity: Chinese American Other

Are you affiliated with any particular organization or nonprofit (e.g. CCDC, Self-Help for the elderly, etc.)? _____

Sample Checkmark - please be clear.

1. Program: Please pick your favorite program for the park. Please only pick one.

Playground  Stage area for events 

Fitness Area  Historic Interpretation 

2. Elements: Please pick your favorite element of the park. Please only pick one.

Shade Structures  Catenary Lighting 

Artistic fencing  Seating elements 

3. Interior Spaces: Please pick your favorite interior spaces of the park. Please only pick one.

200+ Person Clubhouse Space  New Family Restroom at playground 

Classroom space  New Elevator Enclosure 

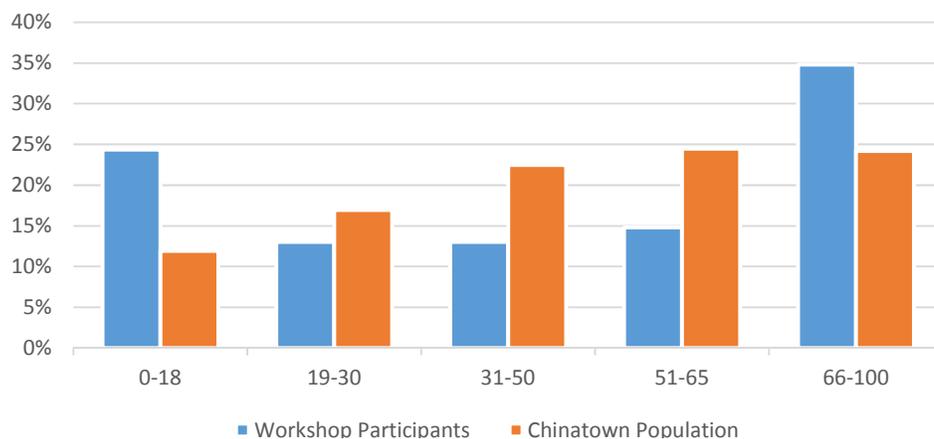


Workshop 4 Attendance

Total Attending: +300
 Completed Surveys: 243

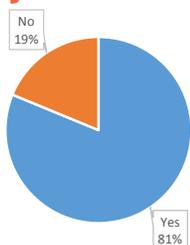
Margin of Error based on this sample size: 5%
 (95% Confidence interval)

Age Distribution*

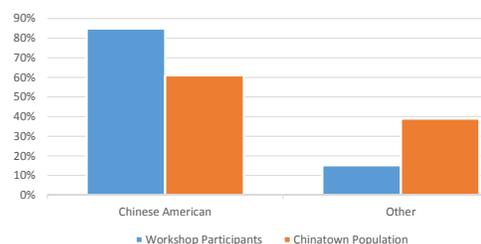


T-test: 80% confidence
 sample population
 reflects age distribution
 representative of
 Chinatown
 (Bias toward >65
 population)

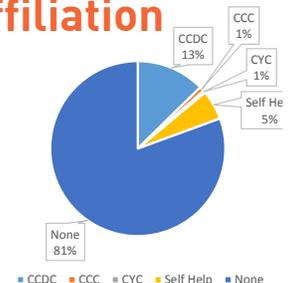
Do you live in Chinatown?



Ethnicity



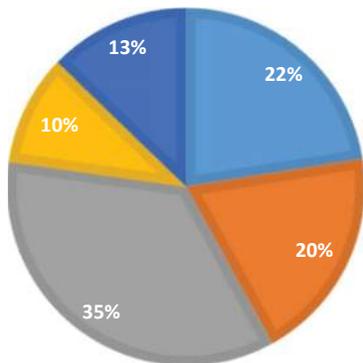
Affiliation



Q1. Which park area is most important to you?

PARK PROGRAM TOTAL VOTES

■ Playground ■ Fitness ■ Clubhouse ■ Stage Area ■ Restroom



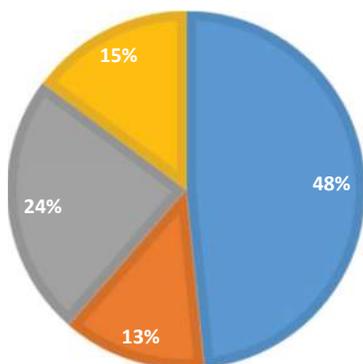
Priority Ranking:

- 1st = Clubhouse
- 2nd = Playground/Fitness
- 3rd = Restroom
- 4th = Stage

Q2. Which park feature is most important to you?

PARK ELEMENT TOTAL VOTES

■ Shade Structures ■ Fencing ■ Lighting ■ Seating



Priority Ranking:

- 1st = Shade Structures
- 2nd = Lighting
- 3rd = Fencing / Seating

Q3. Vote for preferred playground



Recommendation:

- Gold Mountain is the preferred concept for further development
- Note, turn out for this, as well as the specific materials boards, was too low to be considered a significant sample size

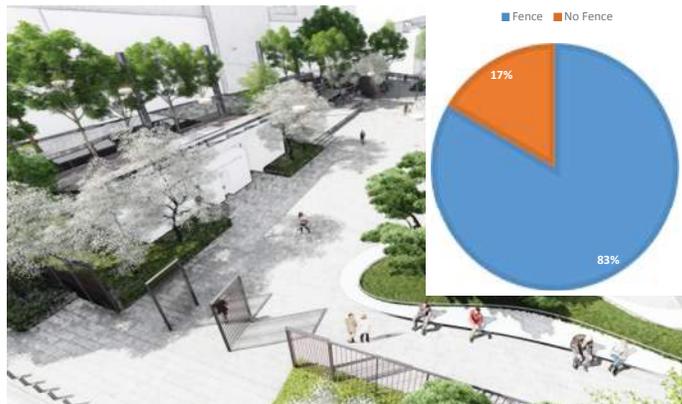
Q4. Vote for the statement you agree with.

Fence:

I think the park gates should be locked when the park is closed (10pm to 6 am) to better assist with maintenance and reducing vandalism.

No Fence:

I think the park should have no fence or gate, and be open to the public at all hours.



Recommendation:

- Provide Fence
- Close when park is closed, from 10 pm to 6 am.

Q6. Vote for your preferred fence style

Recommendation:

- Requires further study - too low voter participation

6 Votes



6 Votes



Conclusions

Community Priorities (In descending order)

- Large, flexible outdoor event space
- Provide new large clubhouse
- Improved Lighting (enable evening hour use, safety)
- Provide generous shade structures
- New, consolidated playground
- Eliminate bridge
- Perimeter fencing
- Fitness Equipment
- Stage
- Enhanced connection to Walter U. Lum
- Enhanced accessibility

Note: Sustainability program poster was reviewed and positively commented on, but was not part of the preferential survey questions. In the open comment, no negative opinions were forwarded for the sustainability poster.



Chapter 10

Sustainability

Chinatown has the highest population density per square mile than any other community in the United States west of the Hudson River. The community has preserved its ethnocentric character: in the 2010 census over 75% of the residents were Asian descent, with 65% of the population being foreign born. The neighborhood is also lower income, with a median household income less than \$40,000 a year in a city where the current average studio apartment rental is now over \$2,400 per month. Because of the high costs of living, many in Chinatown (estimates vary, with different sources ranging from 20% to 40% of the population) live in Single Room Occupancy (SRO) apartments. In some cases, multi-generational families will share an SRO. Through numerous meetings with stakeholders, the Sustainable Chinatown Community, and CCDC, the design team has evolved regarding the priorities for sustainability goals for this park.

The local population density is the single most important characteristic of Chinatown from a sustainability perspective. Population density has been correlated with lower carbon footprints in numerous studies, primarily due to lowered consumption per dwelling unit and higher use of mass transportation. Chinatown San Francisco meets and exaggerates these factors due to the SROs and being a high ridership neighborhood for the San Francisco MUNI bus system.

However, Chinatown's population is under threat. The reason the population density persists is a combination of the relatively affordable housing and the diverse social, community, and retail services targeting the Chinese and Asian immigrant populations. Portsmouth Square plays a vital

role for this community as the public living-room, a shared common break-out space from SRO living. Though making the neighborhood more livable, Portsmouth Square supports and helps enable high density living.

Because of this, the design team shifted priority from typical BMPs of design, to first focus on how Portsmouth Square can better support the quality of life for the Chinatown population. For the purpose of this report, we will refer to these strategies as 'Placekeeping' Strategies. With this focus, key objectives were developed through stakeholder and community meetings.

Portsmouth Square Placekeeping Objectives:

- To maintain and enhance Portsmouth Square as the Community Living-room
- To improve the safety of Portsmouth Square
- To better support the diverse activities and community events

The design team is in the process of designing the facility to be as low impact as possible within the operations and existing conditions constraints. As a redevelopment project on an existing parking garage, nuisances for each strategy will need to be rigorously explored in the technical phases of the project.

Portsmouth Square Low Impact Development Objectives:

- Minimize water consumption
- Minimize and/or offset energy consumption
- Reduce impact on local urban heat island effect

Portsmouth Square Placekeeping

In the design professions, the concept of 'Placemaking' has become a ubiquitous portmanteau in recent years. What



differentiates placemaking from typical design is the implied intent on creating a space that has an impact on the collective memory of a community. The resulting constructed landscape is a 'place', a landmark, a destination, a location that is recognized and known. For Portsmouth Square, placemaking as a concept was rejected very early on in one-on-one stakeholder interviews. Portsmouth Square is already a place, it has been the center of this neighborhood since before San Francisco was incorporated as a city. Not only is it already recognized by the local and city-wide population, but there is a strong concern that placemaking implies rebuilding the park to serve a new population. The redesign must be handled in an extremely sensitive way, to minimize risk of being an impetus for gentrification in the neighborhood.

In response to this concern, the design team adopted the strategy of placekeeping, as developed by the U.S. Department of Arts and Culture. Placekeeping recognizes the significance of an existing location and seeks to preserve its character and community relationships. The fine line between placemaking and placekeeping is the bulk of the work for the Portsmouth Square Improvement Plan process. The fundamental goal for this effort is to enhance the park for the local neighborhood. Thus the community process focused on local stakeholders and residents to develop priorities, participate in designs, and provide feedback and direction for the Improvement Plan.

As the team nears the end of the community process for this stage of the project, the key placekeeping strategies and ideas included in the Improvement Plan vision are:

- **Maintain and enhance Portsmouth Square as the**

Community Living-room

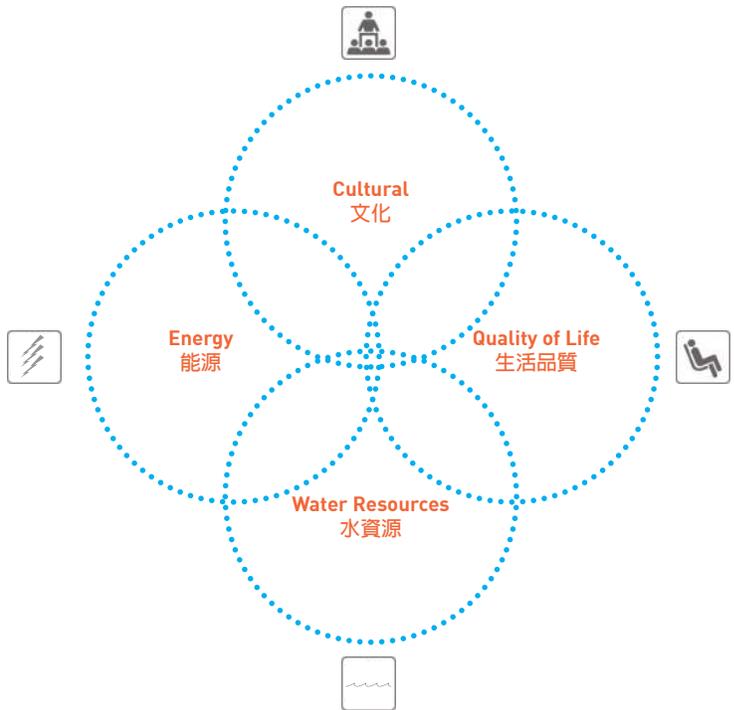
- Enlarge the community open space
- Provide a range of seating possibilities
- Provide more shade
- Provide clear views and remove hidden corners of park
- Improve accessibility to all park spaces
- Improve the safety of Portsmouth Square
- Provide enhanced evening lighting
- Provide a fence around the park to be locked when the park is closed
- Remove hidden corners and rain shelters
- Better support the diverse activities and community events
- Better enable events through improved sightlines and utility connections
- Provide a larger event plaza
- Provide a significant community clubhouse for small and large events, classes, and meetings.

Portsmouth Square Low Impact Development

Low Impact Development (LID) strategies have been developed since the early 1990s to minimize the ecological impact of new site development. For greenfield sites, this could include concepts such as protecting the existing watershed and site hydrology. Since Portsmouth Square is an existing facility, on a parking structure, in a dense and complex urban system, the LID goals for the design team are to minimize the ecological costs of the future operations of the facility. The current park does not have a stormwater treatment system, or a low water use irrigation system. The electrical system for the clubhouse is now dated, and existing site lighting uses low pressure sodium fixtures. The new restroom, opened in 2015, is to be preserved throughout the construction, and is not included in any energy or water systems for the new project.

There are additional complexities to be considered for LID strategies for Portsmouth Square. The Portsmouth Square Improvement plan includes the complete redevelopment of the park and the community clubhouse on top of the existing Kearny Street Garage. As a baseline scope, the project requires new waterproofing for the garage structure, the removal of the materials on top, improvements to the garage structure to support the new park and program, and the maintenance of garage operations throughout construction. Because of this, the LID scope will be relatively narrow, primarily focused on water and energy resources used to operate the new facility.

At workshop 4, the design team shared a range of LID strategies with the community for feedback. These strategies, and many more, were also vetted with the Chinatown Sustainability Committee, SFRPD, SF Planning, SFDPW, and SFDE. The strategies current undergoing review are:



Minimize water consumption

- Planting design will require low-water-use plant materials, following the standards set by the Model Water Efficient Landscape Ordinance and WCOLS III
- Water efficient fixtures will be used in the new clubhouse facility, meeting the Chapter 7 municipal green building codes.
- All stormwater on site will be captured and filtered through biofiltration planters, approximately equaling a total site area of 4% of all hardscape surfaces.

Minimize and /or offset energy consumption

- All site lighting will be replaced with low-energy LED light fixtures.
- The new architecture will comply with the Chapter 7 municipal green building codes.
- If the final footprint of the clubhouse is 10,000 SF or more, the entire structure will achieve LEED Gold certification. If the final footprint of the clubhouse is less than 10,000 SF, during Schematic and Design Development phases, the design team will develop a LEED scorecard and target all credits that are relevant and feasible for SFRPD. Included in both scenarios would be energy efficient architecture. Included in the 10,000 SF structure, and possibly in the smaller structure, would be energy monitoring and building commissioning.
- Solar panels on new clubhouse – scale and potential battery systems to be developed in technical phases.
- Extended eaves on the south elevation and louvers to reduce solar gain.
- Min. 23 R factor insulation and min. 0.30 U-factor for glazing.

Reduce impact on local urban heat island effect

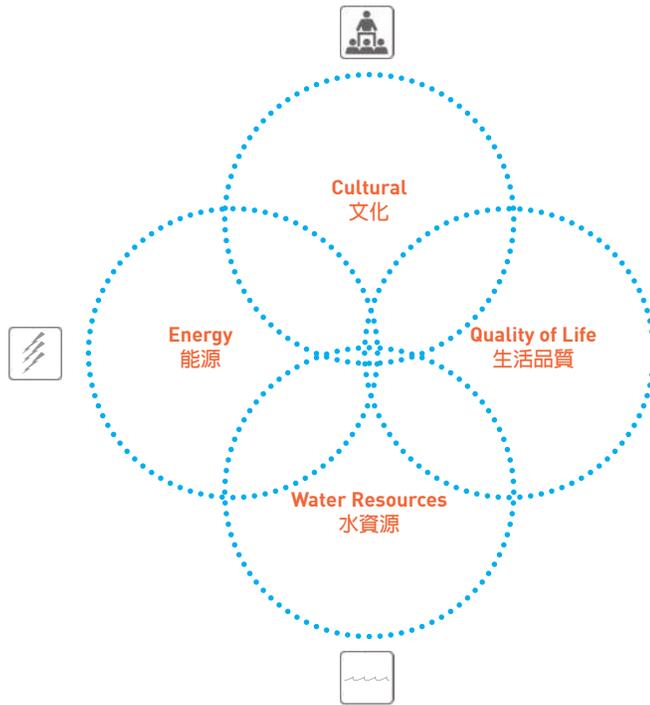
- The existing hardscape of Portsmouth Square is a low albedo exposed aggregate paving. The proposed project will have a paving SRI value of over 28, a high albedo paving, which will reflect more light and keep the pavement surface cooler.
- The existing trees of Portsmouth square, while generally are mature, are all undersized for their species partly due to the lack of adequate soil volume. In the proposed park, all new trees will be provided a minimum of 700 CF of soil each to be able to provide for a larger and more robust canopy.
- In areas with planting over structure, these areas will all be treated as intensive green roofs.



Precedent projects presented to the community. Above, stormwater treatment systems from Guthrie Green, an SWA designed park in downtown Tulsa, Oklahoma. Below, California Academy of Sciences, an SWA designed green roof in Golden Gate Park, San Francisco.



Workshop 5: Sustainability Poster Content



Sustainability Strategy 永續策略說明

The Portsmouth Square Improvement Plan Sustainability Strategy addresses four key areas: Energy, Water, Cultural, and Quality of Life aspects of sustainability. For energy, the goals are to build an energy efficient park and clubhouse which complies with Chapter 7 Requirements of the San Francisco Environment Code. The water strategy focuses on treating all water that falls on the site, as well as using low water use landscaping to reduce water demands. Cultural and Quality of Life aspects of sustainability are focused on how to best sustain the Chinatown residents.



Quality of Life 生活品質

Portsmouth Square is an important part of creating a good quality of life for many residents, functioning as an outdoor living-room for many in the community. As a result, the most important sustainability strategy for this project is to protect and enhance Portsmouth Square's capacity as the community living-room.



Trees for Shade 樹蔭



Event Infrastructure 活動基礎設施



High Albedo Paving 高反照率鋪面



Additional Restroom 新增洗手間



Seating and Shade 座椅及遮蔭



Play 遊戲



Water Resources 水資源

Biofiltration Basins 4% of DMA
生態濾淨區域- 4%雨水管理區域



Intensive Green Roof
集中式綠屋頂



Cultural 文化

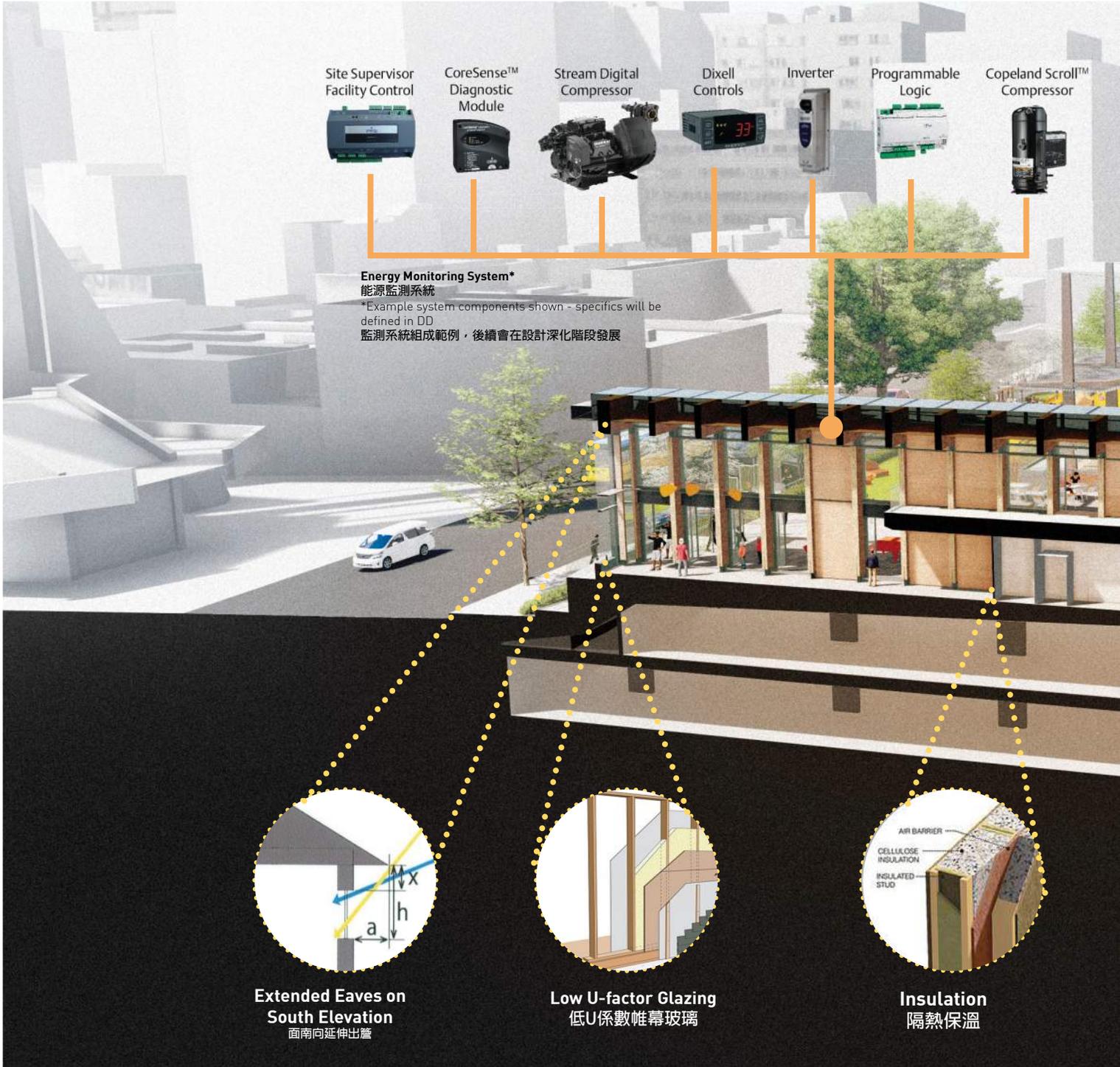
- Interpretive displays
- Supporting events & cultural activities

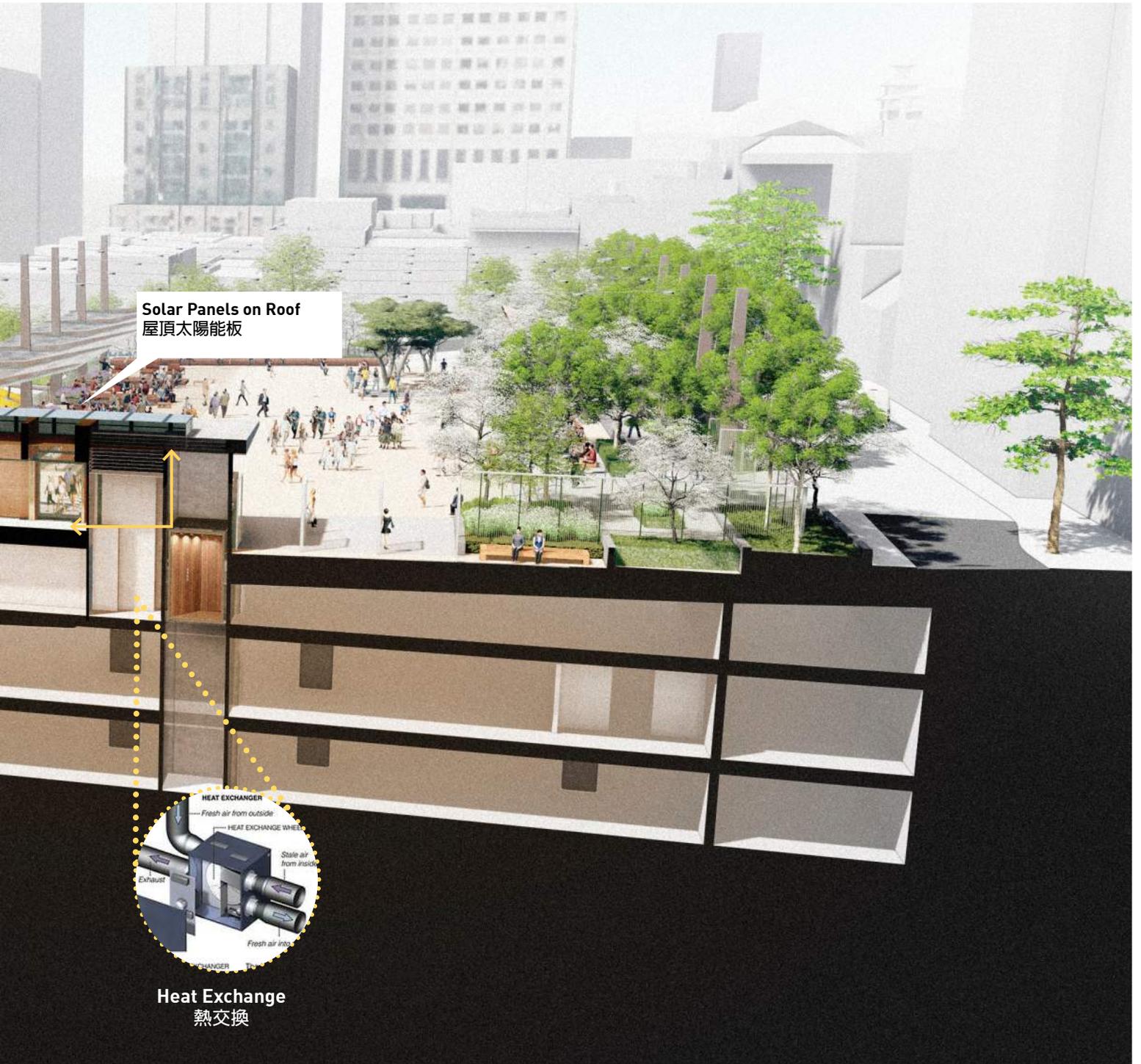




Energy 能源

- Solar Panels on Roof
- Energy Efficient Architecture
- Energy Monitoring and Commissioning





Solar Panels on Roof
屋頂太陽能板



Heat Exchange
熱交換

Sustainability Matrix

Throughout this process, the design team has been meeting with the Sustainable Chinatown Committee and City Agencies to develop the Sustainability Matrix, to pitch and evaluate what sustainability strategies are viable for Portsmouth Square.

These discussions are on-going, and will conclude with the Green Charrette, where together the design team, the City, and the Sustainable Chinatown Committee will work to determine how to get inter-agency participation to deliver on specific matrix strategies. Part of this analysis is determining on-going commitment to maintenance, jurisdiction, and cost implications.

RPD feedback Y/N	Ideas	Description	Category	Pros	Cons	Regulatory Agencies
Y	Interpretive displays on Chinese American History	Show case Chinese American History - part of cultural resiliency	Educational	Chinese American History is conspicuously absent from any existing interpretive monumentation or signage at PS. Celebrating this history, either formally through monumentation or interpretation, or informally, such as curating personal stories, helps sustain community consciousness.	The plaza is small, and the more 'stuff' that is added to the plaza can begin to clutter the function of the plaza as the community living room.	Possible SF Historic Preservation Commission, Possible Art Commission
Y	Interpretive displays on ecological history	Former shoreline along Montgomery; native ecology, current urban ecology	Educational	The historic ecology of the site is gone, telling the story of what this site was raises consciousness beyond the limits of the neighborhood. Including educational elements for the proposed urban ecology and function of green infrastructure can spread awareness of the functional aspects of green urban streetscapes.	The plaza is small, and the more 'stuff' that is added to the plaza can begin to clutter the function of the plaza as the community living room.	Possible SFPUC
Y	Solar Panels in Shade Structures	Photovoltaic glass (tempered or polycarbonate like the muni shelters) or panels	Energy	This could be a good synergy between power production and desires for shade. Probably most effective ROI if just connected to the grid and not requiring any battery investment.	Higher investment, hard to create shade without also creating shelter, would require careful design to avoid increasing occupation by itinerant population.	SFDE?
Y	Energy Efficient Design	Using low energy fixtures and features, and designing to accommodate high use and low use loads to match the park performance and design intent.	Energy	Matches contemporary best sustainable practice standards. Opting in for low energy fixtures (Lighting, on-demand hot water, thermally driven AC, sound system), and clubhouse design has more potential for next energy savings per Kw/hr that on site power production could offset due to the scale of the site.	Usually requires higher capitol investment - double pained glass and higher end hvac for conditioned spaces, LED fixtures, and perhaps RPD owned sound equipment to better control loads for events.	
Y	Energy Monitoring & Commissioning	Using energy analysis software and controllers to enhance facilities management awareness of production, consumption, and waste.	Energy	Can be part of LEED Gold accreditation. High performance systems are often only as efficient as they are managed, these tools enable more effective operations and management.	May required dedicated staff training. Would be ideal if entire park and garage was managed under one system, the scale of just the clubhouse would be a little small for this investment.	
Y	Street/Plaza Trees	Increase of street trees at and around Portsmouth Square	Human Habitat	Provides shade, water transpiration, assists with mitigating heat island effect, and particulate deposition helps reduce PM pollution - a contributing agent to asthma .	Space requirements and coordination with existing utilities and agency rules	SFDFU, SFPW, SFPUC, MTA
Y	High Albedo Surfaces	Using reflective surfaces to reduce heat island effect	Human Habitat	Relatively cheap way of keeping cool.	Can cause glare & visual discomfort	
Y	Seating and Shade	Provide a variety of high-quality, comfortable, social seating spaces, and shade, for the community to occupy	Human Habitat	Due to the lack of open space in Chinatown, the contribution of PS as the community living is important for serving and maintaining this highly dense ethnocentric community.		
Y	Community Amenities	Provide additional restrooms, play and exercise program, and other amenities to better serve the comfort and health of the community	Human Habitat	Due to the lack of open space in Chinatown, the contribution of PS as the community living is important for serving and maintaining this highly dense ethnocentric community.		
Y	Community Event Amenities	Provide better infrastructure to support events, include relevant MEP and spatial design considerations	Human Habitat	Due to the lack of open space in Chinatown, the contribution of PS as the community living is important for serving and maintaining this highly dense ethnocentric community.		
Y	Alleyways and engaging park peripheries	PSQ's greater connection to the alleyways, neighborhood, transit services	Human Habitat	Increases pedestrian safety & increases occupiable public space through potential use of sidewalks, bumpouts, and lane reductions.		MTA, SFPW, SF Planning Dept.,
Y	Stormwater Filtration/Infiltration Basins	The use of vegetation and soil media to filter and slow stormwater before going into the combined sewer system.	Water	Reduces load on water cleaning infrastructure and helps prevent combined sewer overflow events.	Potential spatial and grading constraints	SFPUC, SFPW, MTA
Y	Intensive Green Roof	The use of deep soil and vegetation (including trees) to both store and slow stormwater, reduce heat island effect, and also provide an amenity for visitors.	Water	Reduces load on water cleaning infrastructure and helps prevent combined sewer overflow events. Reduces heat island effect.	Potential structural considerations & costs, maintenance	

I	Rainwater Harvesting & Garage Cistern	Collection of Rainwater during rainy season to offset irrigation use	Water	Can dramatically reduce potable water use for irrigation, also with more water available, planting types could be used that would not need to go dormant, providing green benefits throughout the year.	Expense and maintenance, as well as issues of location and structural concerns	SPDPH, SFPUC
I	Garage Waste Water Capture	Using sump water as a water source for irrigation and/or grey water uses. Depends on the quality of water collected at the sumps for both plant and human health concerns.	Water	Can dramatically reduce potable water use for both interior and exterior uses. Uses current waste water and pumps.	Property may be too small for this to be cost effective. Also increased maintenance concerns, and long term predictability of water contamination may be impossible to forecast given the urban condition and likelihood of LUSTS. Alternative would include potential on site treatment before use, but that would require a higher cost.	SPDPH, SFPUC
N	Refuge Zone Power Supply	Providing a battery and associated infrastructure for uses such as medical equipment charging (targeting seniors, those on equipment at home; as well as triage EMT), phone charging, and other uses when the grid is down.	Disaster Resiliency	SFDE support, potential financial resources	Increases energy load during non disaster times to maintain battery charge, lifespan of battery, net reduces ROI on sustainable power generation for providing the refuge amenity. Note, official refuge zones may require backup generators in addition to any battery system - the cost/benefit may value generators over batteries.	SFDE, SFDEM, FEMA
N	Refuge Zone Shelter	Designing clubhouse facilities to assist with deployment of temporary shelter, distribution of food and aid.	Disaster Resiliency	This is in line with how the park functioned in 1906. Primarily requires kitchen and bathroom services, and a flexible layout to accommodate aid workers to set up their equipment and services.	Some limitations on interior design and program requirements of clubhouse facilities. Potential requirements from SFDEM on supply requirements, however it may be possible to have that managed by DEM.	SFDE, SFFD, SFDEM, FEMA
N	Refuge Zone Water Supply	Providing a potable water cistern and associated infrastructure for water distribution in case of systemic damage to water supply.	Disaster Resiliency	SFPUC support, existing funded program - potential financial resources	Increased complexity of maintenance, space and volume, structural considerations of garage. Potential that SFPUC take on maintenance.	SFPUC, SFFD, SFDEM, FEMA
N	Extensive Green Roof	The use of shallow soil and vegetation to both store and slow stormwater, reduce heat island effect, and also provide an amenity for visitors.	Water	Reduces load on water cleaning infrastructure and helps prevent combined sewer overflow events. Reduces heat island effect. Relatively light, good for inaccessible roofs.	Thin, can only support specific species, less benefits than intensive roof, can't support trees, maintenance	
N	Cooling Elements	Misters or foggers for cooling feature	Human Habitat	Helps make the space more comfortable through evaporation. Can double as a play element	Uses potable water. If water is recycled, requires significant MEP investment. In all cases, requires a significant maintenance commitment.	SFDPH
N	Refuge Zone Power Supply - Anthropogenic generators	Human-powered dynamo generators built into landscape furnishings. A particular product under development from Market Street Urban Prototyping from the Urban Risk Lab at MIT, "the Market Street PREPHub is a prototype for a new kind of infrastructure designed to increase disaster resilience. By activating neighborhood spaces with useful functions in everyday life, hubs become a community focal point for critical needs in the case of an emergency." Kinetic energy production and reserve.	Disaster Resiliency	SF Planning Dept. support, potential financial resources? Pros, could be used at all times and not just during disaster. Also, could be deployed as an alternative to formal disaster resiliency requirements.	New strategy, likely not to comply with FEMA or SFDEM requirements due to load and accessibility requirements. Likely to be in addition to any other disaster resiliency efforts. Unknown maintenance requirements, durability.	SF Planning Dept., ?
N	Kinetic Energy Production	Peizoelectric pavements (Pavegen), generator exercise equipment (Human Dynamo), etc.	Energy	Relatively cutting edge, only been on the market for 5-10 years. Human powered generators can have both a great impact, especially in high traffic locations, and educational component. Definitely charismatic, noticeable, and 'fun'.	Relatively expensive per installation, usually technically relatively complex.	
N	Greywater	Duplicative plumbing system where greywater is recaptured and reused for non-potable uses.	Water	Can dramatically reduce potable water use for both interior and exterior uses.	Property may be too small for this to be cost effective. Also increased maintenance concerns. Purple Pipe Irrigation may be too difficult in a dense community like this.	SPDPH, SFPUC