Emeryville Art Center

Feasibility Study

City of Emeryville

LMSA ART IS J. Johnstone Consulting City of Emeryville CALIFORNIA

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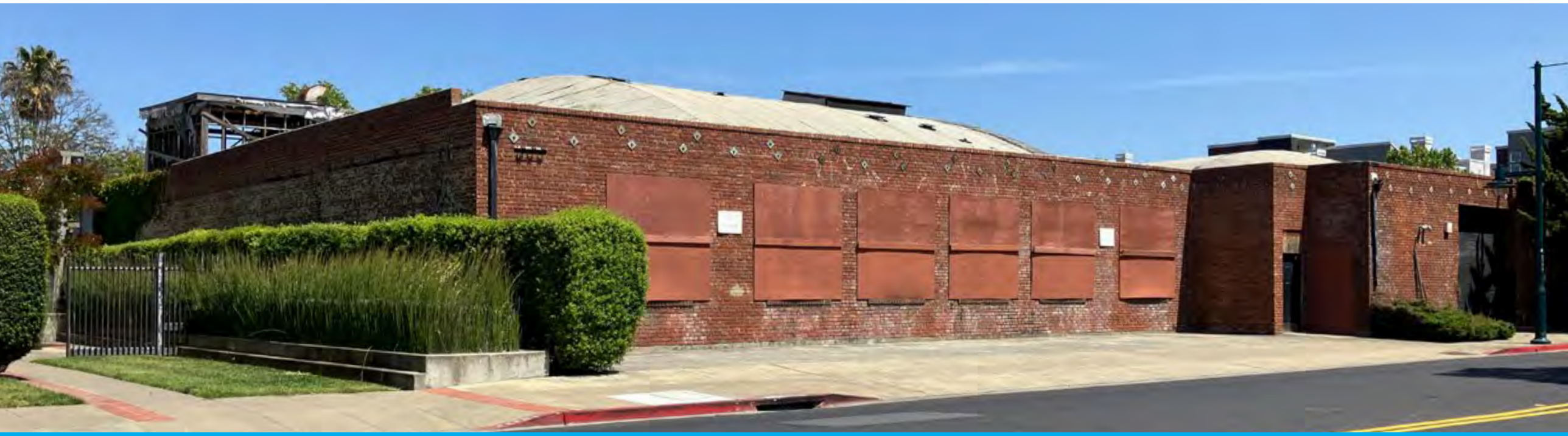


01 Introduction

EXECUTIVE SUMMARY

PROJECT BACKGROUND (excerpted from City of Emeryville 2023 staff report)

In March 2006, the Emeryville Redevelopment Agency ("Agency") purchased 4060 Hollis Street, a property located immediately south of Old Town Hall, northeast of the Hollis Street and 40th Street intersection. The property is 33,697 square feet and is almost completely occupied by a one-story brick building constructed about 1942, and formerly occupied by the United Stamping Company. The Agency purchased this site for the purpose of adaptive reuse of the existing building to provide space for the annual Emeryville Celebration of the Arts Exhibition as well as year-round performing arts uses.

Since the 2006 purchase of 4060 Hollis Street, there have been several planning and design iterations (years 2006, 2011, 2012, and 2018) which included robust community engagement efforts and analyses of potential operational models. In February of 2018, the City released an RFP, which resulted in the election of Orton Development, Inc. ("ODI") as the City's development partner for the Art Center.

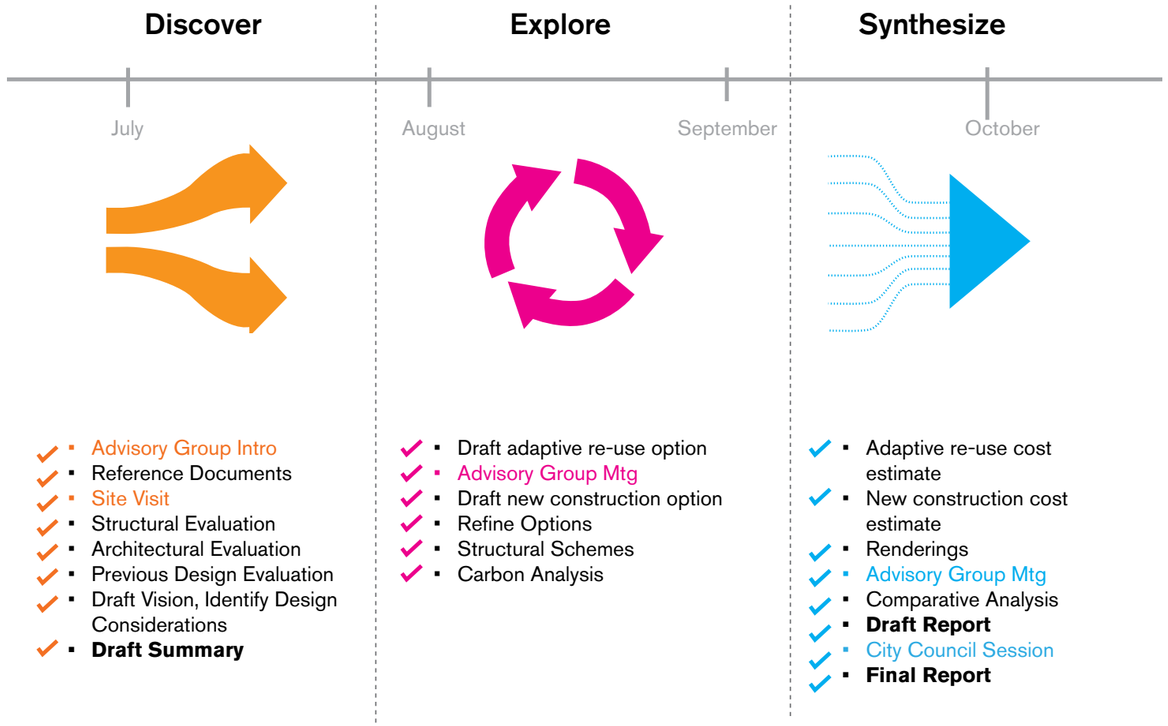
In September, 2020, the City Council authorized the execution of the Lease Disposition and Development Agreement (LDDA) and Ground Lease with ODI for the Art Center. The LDDA required the submission of a Financing Plan that demonstrated the Total Development Costs would not exceed $12,900,000 or, if Total Development Costs exceeded that amount, that grants or philanthropic donations sufficient to fund costs more than $12,900,000 had been secured. However, in December 2020, ODI considered the impact of the COVID-19 pandemic on the project, as well as the impact of rising construction costs, which led to a value engineering exercise and design changes. These changes were significant and exceeded the then $12.9 mil project budget. As a result of the potential budget exceedance and the City's concerns regarding the subsequent financing plan, the City provided notice of termination under Section 7.2 of the LDDA on October 11, 2022.

In April 2023, City Council requested a study session to evaluate the feasibility of the project, as there is currently insufficient capital funding to support the capital requirements of constructing the Art Center as previously envisioned. In response, City staff released an RFP to solicit a firm/s that would lead an updated visioning, operational model and funding evaluation, and feasibility study of constructing a new art center either by repurposing the existing building structure and/or the footprint only at 4060 Hollis St. In February of 2024, City Council approved the selection of Art Is Luv (AIL) and Jean Johnstone Consulting (JJC) to lead this effort.

FEASIBILITY STUDY

The following feasibility study represents one aspect of the broader visioning effort and has been completed by Leddy Maytum Stacy Architects (LMSA) with the assistance of Tipping Structural Engineers and TBD Consultants, under the guidance of AIL, JJC, the Art Center Advisory Group (ACAG), and city staff in order to help determine the best approach for realizing the project. The main goal of this study is to compare and evaluate an adaptive re-use of the existing building at 4060 Hollis Street versus new construction on the same site. These two options, depicted in the images to the bottom right, will be expanded upon further in the pages that follow.

In an effort to build off of the journey the Emeryville Art Center project has undergone so far, while also re-visiting it with fresh eyes, this feasibility study and cost analysis exercise was developed incrementally, in three phases that built upon each other: Discover, Explore, Synthesize (see image to the right for more detail). This approach focused on building off of previous efforts and visions that had been already developed for the art center, while allowing for new thinking and considerations to emerge. The process was grounded in consultation and collaboration with stakeholders in order to ensure a final vision and approach that best suits the multi-faceted needs of the City and the community.



Adaptive reuse option, view of north west corner

New construction option, view of north west corner

FEASIBILITY STUDY GOALS & CRITERIA FOR EVALUATION

The primary objective of this feasibility study is to assess the best approach for finally delivering on the long-standing goal of providing an economically viable art center for the City of Emeryville, one that responds to community needs and provides a space for continued celebration and growth of the visual and performing arts. This building evaluation and cost analysis, in conjunction with the visioning, operational, and funding research Art is Luv (AIL) and Jean Johnstone Consulting (JJC) are undertaking, is an important step in creating a path forward for a sustainable, inclusive, and technologically adaptable art center.

The main goal of the study is to compare and evaluate two options: adaptive re-use of the existing building 4060 Hollis Street or new construction on the existing site. In an effort to build off of the work that has already been completed, the study begins with an evaluation of the previous design proposal and an assessment of the existing building conditions culminating in a refreshed project vision and goals. This will then be followed by more detailed descriptions and development of the two options — adaptive re-use and new construction —and a high-level cost estimate for each. The final section of this report will focus on a comparative evaluation of these two options based on a set of criteria that has been developed in collaboration with the City and its community stakeholders translating into a set of recommendations that will hopefully allow the City to take important steps towards realizing this project.

The criteria for evaluation include:

- **Cost effectiveness** - What is the most cost effective approach to delivering the art center project?
- **Project duration** - What is the most expedient approach for delivering the art center project from an approval and construction timeline perspective? Can the project be phased from both a programmatic and construction standpoint to facilitate moving the project forward?
- **Community needs** - Which approach best responds to current and potential future community needs and desires for the art center? Which approach improves access to the arts for the residents of Emeryville and best celebrates the city's spirit of innovation?
- **Environmental Sustainability** - Which approach is most environmentally sustainable? Which generates the lowest carbon footprint?
- **Building Resiliency/Lifespan** - Which approach delivers the longest building lifespan and is most resilient? Which approach is most adaptable and flexible over time?
- **Use of Existing Site** - Which approach best utilizes the existing site and best responds to the existing site context?
- **Programmatic & Operational Alignment** - Which approach best facilitates and/or supports the desired operational model? Which approach allows for the best programmatic alignment with community needs?

The Art Center Advisory Group (ACAG) was also asked to rank the criteria for evaluation from the highest to lowest priority. These results are shown below:

CRITERIA FOR EVALUATION:

- Cost Effectiveness
- Project Duration / Expediency
- Community Needs
- Environmental Sustainability
- Building Resiliency / Lifespan
- Use of Existing Site / Responsiveness to Site Context
- Programmatic & Operational Alignment

ACAG RANKING:

1. Programmatic & Operational Alignment
2. Community Needs
3. Cost Effectiveness
4. Building Resiliency / Lifespan
5. Environmental Sustainability
6. Project Duration / Expediency
7. Use of Existing Site / Responsiveness to Site Context

02 Project Background

PRIOR VISION & GOALS

The following summarizes prior vision and goals for the art center project gathered through past community engagement and an early conceptual design that was developed in conjunction.

Emeryville Arts & Cultural Center Strategic Plan 2009-2011

Mission Statement:

The Emeryville Arts and Cultural Center inspires artistic expression and advances cultural literacy. The Art Center honors Emeryville's rich, diverse, and creative heritage through active community engagement and hands-on participation in the visual and performing arts.

Core Values:

- We support creativity and experimentation
- We have a broad and inclusive definition of art
- We are accessible, responsive, and welcoming to all
- We are committed to creating opportunities for the appreciation of cultural differences
- We seek innovative ways to collaborate with artists and organization throughout the region
- We pursue excellence and distinction in all aspects of programming and operations
- We are fiscally responsible

Visioning Workshop (October 2008)

- Group exercises revealed that a "Community Center "model ranked as most ideal -- well suited to Emeryville's small, close-knit, and diverse community. Focus on community access and participation. Need for a strong exhibition space.
- Tenant model not desired.
- Program being considered included: offices, exhibits, studio/ classrooms, rental space, food service, other.

Key Findings from Focus Group Report (July 2009)

- Art centers are perceived as community-based, hands-on, and accessible
- The Art Center has potential as a destination in Emeryville
- Participants want a dynamic Art Center with unique offerings
- Participants gravitate toward programs and exhibitions that include socializing
- All aspects of the Art Center, from personnel to programs, should be high quality
- Artists want the Art Center to serve the artist community

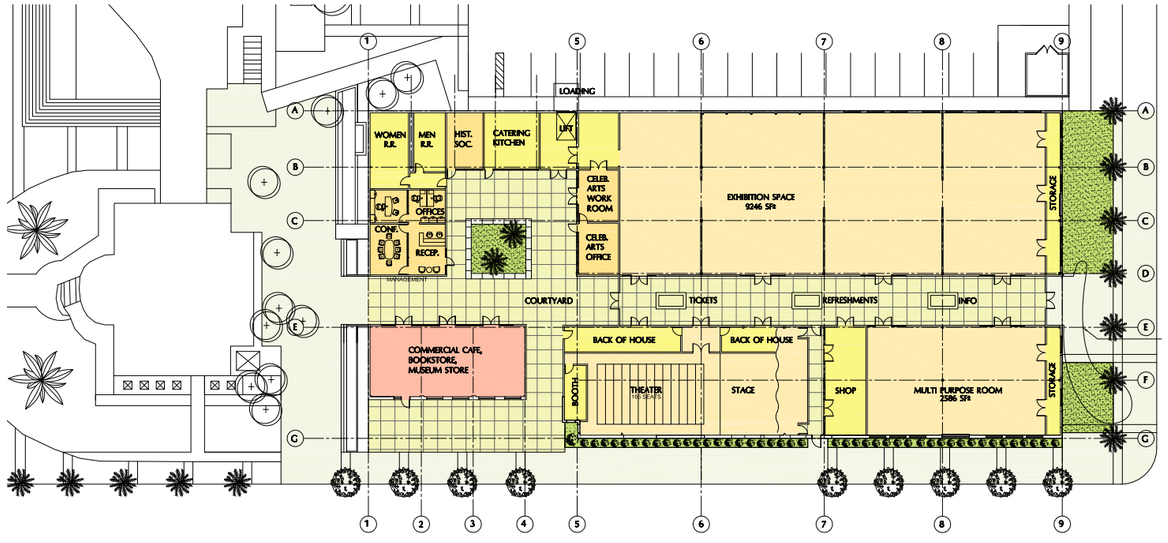
"Participants of all groups were excited about the idea of building an art center in Emeryville to create a gathering place for the community, a place to socialize, and a place to see and learn about the visual and performing arts."

Listening Session (May 2018)

Floor Plan and Use Types:

- Assembly/open spaces, area for gathering prior to entrance
- Revenue generating uses
- Low-income artist housing, artist live-work space
- Storage, separate for various uses
- Outdoor space for gathering, contemplating, sculpture garden
- Office space—dedicated for staff and rentable
- A home for the Celebration of the Arts
- Diversified (large & small) exhibit and event/performance spaces. Mobile walls for dividing spaces?
- Space for installing large art pieces
- Gallery, theater, cafe, office, etc
- Consider access and entry locations—separate entrances for school or large groups
- Do not design only open space that is so diversified it is not useful for specific needs
- Consider future expansion—build higher, or expand into parking lot
- Community meeting area and event space
- Kitchen
- Studios for classes
- Maker space / art production space / artist incubator space —messier workspace
- Space that can be completely dark for black box theater or photo development
- Resource Center / Education Center
- History room, space dedicated to the history of Emeryville, storage for Emeryville Historic Archives

2009 Conceptual Design — Architect: Marcy Wong & Donn Logan. The design proposed the greatest modifications to the northernmost section of the existing building, where an interior courtyard is carved out and wrapped in administrative functions. The four structural bays to the south are dedicated to exhibition, theater, and multipurpose space with the insertion of a tall theater volume along Hollis St.



2009 Conceptual Design — Architect: Marcy Wong & Donn Logan. Program included: gallery space for the Emeryville Celebration for the Arts Exhibition, exhibit and storage areas for Emeryville Historical Society, classroom space for the Pacific Center for the Photographic Arts, flexible exhibit and performance space, museum gift shop and classrooms.

PREVIOUS DESIGN PROPOSALS (2011-2022)

PRIOR CAPITAL PROJECT (2011)

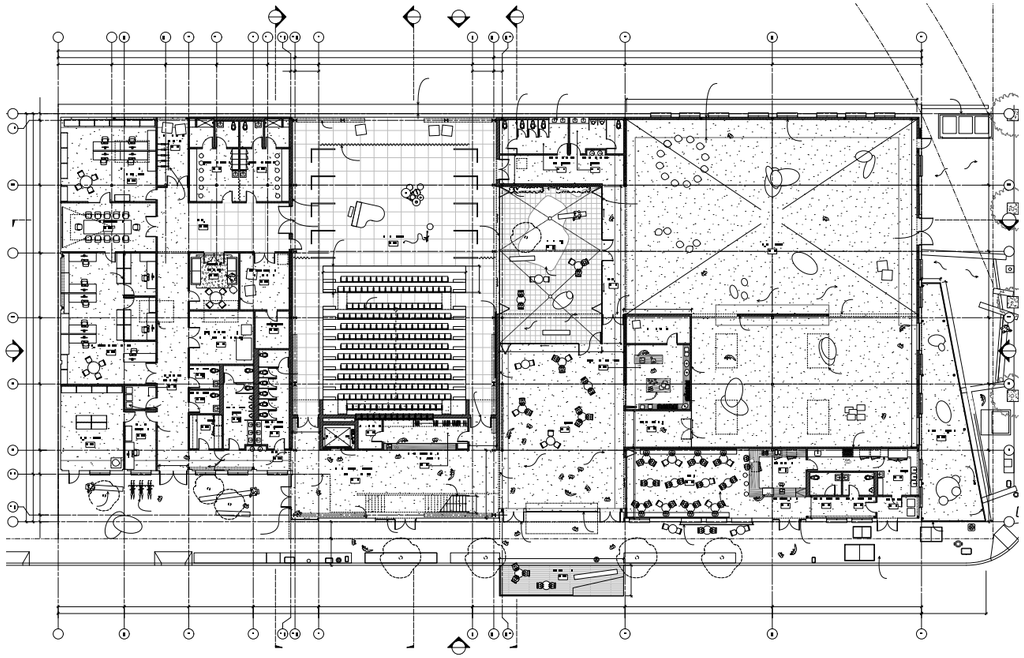
The 2011 proposal for the project was developed in coordination with a non-profit entity created to operate the art center—the Emeryville Center for the Arts (ECA). A Conditional Use Permit and Design Review application was approved by the Planning Commission. The plan included a theater, gallery, office space, exterior courtyard, cafe, retail store and support spaces. The design proposed two large new volumes within the existing footprint in the middle and southern bays to accommodate the theater and gallery programs, creating a new vertical presence from the street and bringing in daylight. An open-air courtyard between them provides indoor outdoor connections and spill-out space. Administrative and support functions were located at the north side and an "art vitrine" and landscaped open space at the south side were intended to enliven the 40th street frontage.

The proposal responds well to prior community vision and goals for the project with a "community art hub" approach to the layout of the program and a strong architectural presence for the building that would reinforce the center as a premier arts destination in the City of Emeryville.

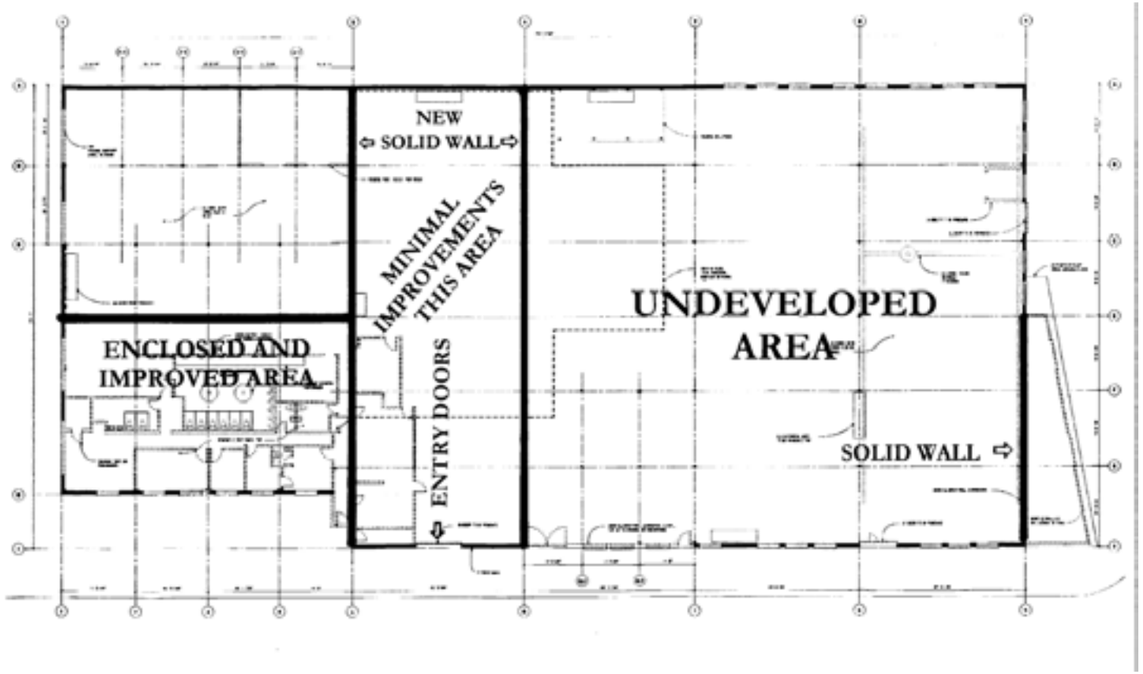
In 2012, the State of California dissolved all redevelopment agencies and put the funds for the project at risk. In an attempt to move the project forward but greatly reduce the scope and cost the ECA board explored an alternate design for the center that involved use of only 13,000 SF of the existing building, leaving the balance of the space for future redevelopment.

2011 Proposal — Architect: Jensen. The design proposed two large new volumes within the existing footprint in the middle and southern bay to accommodate the theater and gallery programs creating a presence from the street.

2011 Proposal — Architect: Jensen. The proposal responds well to prior community vision and goals for the project with a "community art hub" approach to the layout of the program and a strong architectural presence for the building that would reinforce the center as a premier arts destination.



2011 Proposal — Architect: Jensen. Program included: theater, gallery, office space, exterior courtyard, cafe, retail store, support spaces



2012 Proposal — ECA Board. Alternate design to reduce scope and costs by only developing 13,000 SF of the existing building.

2018 RFP for Design-Build-Operate Proposals

The City of Emeryville initiated an RFP process in 2018, soliciting proposals to design, build, and operate the art center as an approach to ideally expedite completion of the project. Submissions by CAST, MSL, and Orton Development Inc (ODI) were made and considered in response to the RFP. These proposals are summarized and depicted in the following text and images.

The stated objectives for the Art Center included:

- Minimize City subsidy while ensuring fiscal sustainability of operations
- Maximize civic and community arts-based uses of the facility
- Expedite completion of the project
- Utilize robust community engagement in developing programing for the facility

The following key elements were required to be part of the proposals:

- Dedicated space for the annual Emeryville Celebration of the Arts
- Dedicated and managed gallery space for artists
- Dedicated flexible use space suitable for performing arts and other community events

Other stated goals:

- Including spaces/programs that provide revenue to support operations and maintenance (such as co-working, retail or office space, cafe, etc.)
- Celebrating the City's culture of innovation through innovative approaches to sustainability and architectural excellence

The ODI proposal was selected through the RFP process. As stated in their proposal, ODI's main critiques of the prior capital improvements project were:

- Proposal raises the roofline without adding square footage. ODI proposal maintains the existing roofline in response.
- New glass storefronts along Hollis Street were not necessary. ODI proposal reduces exterior glazing in response.
- Large common areas and too large theater space take away from possible revenue generating programs. In response, ODI proposal reduces theater size, common area space and other elements. ODI also uses shared restrooms to improve efficiency, and utlilizes more economical fixtures and finishes.
- Too much focus on just supporting the Celebration of the Arts which is only a month-long program. Did not believe there was enough demand for performances and exhibition the rest of the year to program the space with. Could maybe evolve to have that kind of demand but would need supplementary uses to start with.

The main reasons for the selection of this option included:

- It demonstrated a financially sustainable approach for both construction and operations (completely supported by revenue from the events and commercial spaces). No outside capital or fundraising required, which would potentially allow existing capital funds to be endowed and used for operations.
- Focused on adaptive re-use of the existing building arguing that more preservation of the existing structure and footprint would reduce cost, simplify, and expedite the project.

The proposal focused more heavily on rentable, revenue-generating uses, such as co-working and individual artist studios, over the exhibition and performance programs. It seemed to follow more of the "tenant" model over the "community center" model in its approach and has less shared publicly accessible spaces. In contrast to the previous proposals, this layout compartmentalized and "privatized" the space through individual offices or studio spaces. It also argued for use of the California Historic Building Code (CHBC) in order to include the existing perimeter brick walls as part of the lateral system and reduce the overall structural scope.

ODI

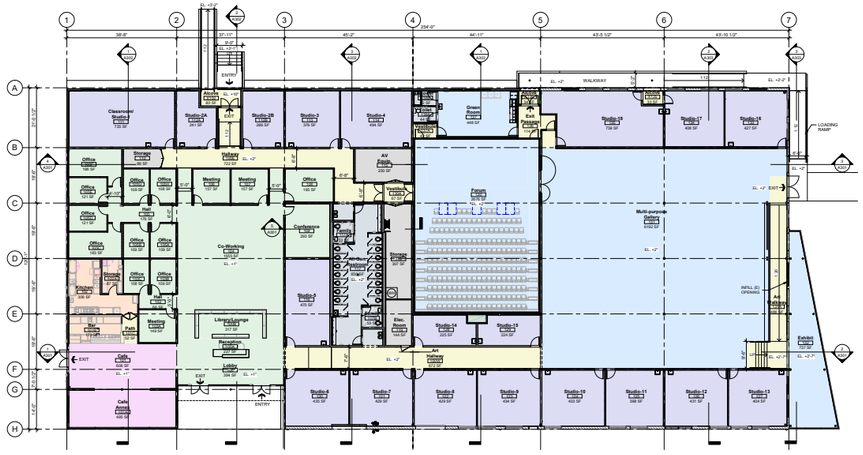
The ODI proposal included a shell and structural rehabilitation of the building at 4060 Hollis, interior improvements, and landscaping. The scope included:

- New cafe addition and main entrance on Hollis Street
- New entrance and walkway from the existing parking lot at the east side
- New "jewel box" exhibition space improvements off of 40th street
- New multipurpose gallery, forum, artist's studios, co-working spaces, classrooms, offices, conference rooms, & restrooms
- Site improvements and landscaping of the immediate site
- Replacement of utilities and infrastructure as needed

The design was also revised for value engineering reasons and the following adjustments were made: the cafe and commercial kitchen were removed, an outdoor gallery was put in their place; the co-working and flexible space programs were flipped, the overall exhibition space was reduced, while the co-working space was increased but revised to more communal spaces rather than individual offices; and the number of individual studio spaces was increased.

ODI proposal west facade

ODI proposal south west corner



ODI Proposal - Approved

CAST proposal

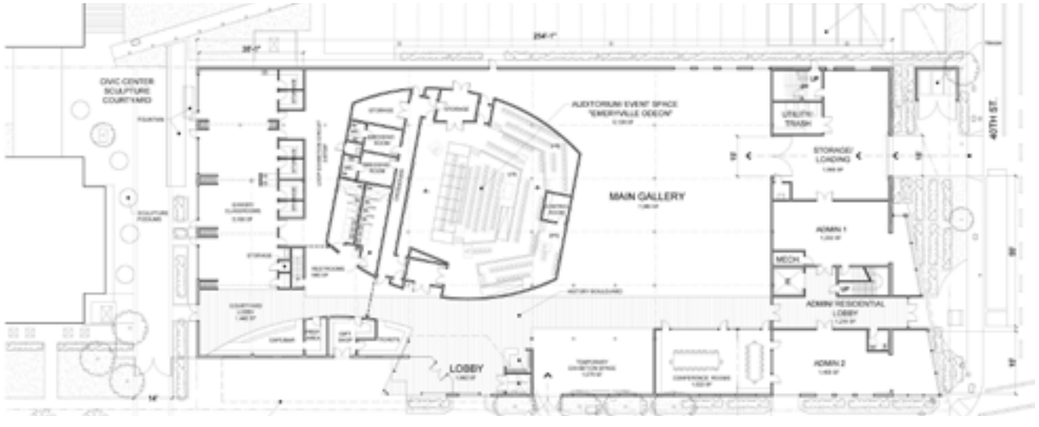
MSL proposal Hollis Street new storefronts and entry courtyard

2018 CAST

CAST's proposal approach was to retain as much of the previous structure as possible while accommodating new programs including exhibition, support spaces, and a new auditorium/ event space. Their approach to prioritize preservation targeted LEED Gold. This proposal incorporates a bold logo at the Hollis St. entrance canopy and a new geometric glass form that raises above the existing roofline.

The program includes a main gallery space, designated auditorium/event space located centrally. A courtyard lobby, cafe, and gift shop are located on the building perimeter with an emphasis on community access and visibility. There are four combinable multi-purpose rooms located along the north wall with access to the Civic Center Sculpture Courtyard, allowing for the space to extend to the outdoors. Skylights are proposed to be restored with daylight control through baffles and operable blinds in the main gallery. A line of sight is provided from the 40th Street entry to the landscaped Civic Center Courtyard, simplifying circulation for visitors.

In addition to the main Art Center program, CAST proposes a five-story affordable housing wing for artists at the south end of the facility along 40th Street, including 22 live-work units.



CAST proposal Floor Plan

MSL

MSL's approach to the 2018 proposal intends to preserve a majority of the building's structure but brings in a new saw tooth roof shape along Hollis Street to increase ceiling height, bring daylight into gallery spaces through north facing skylights, and accommodate a PV array. This addition creates a bold architectural presence for the Art Center at the 40th Street and Hollis Street intersection. MSL introduces two new courtyards at the existing locations of the two flat roofs, proposing to demolish these roofs in response to their compromised existing condition.

The main entrance is located through the new art courtyard along Hollis Street, where MSL proposes to demolish a portion of the existing structure, distinguishing the entrance with operable glass walls that can open to the courtyard space. North of the entrance along Hollis Street, sections of the existing brick façade are scheduled to be demolished to accommodate storefronts enhancing visibility and connection with the community.

This proposal incorporates co-living quarters at the north portion of the building with shared open living/dining/kitchen space and a central courtyard to bring in daylight, as there are no existing windows along the perimeter walls in this area of the building. Flexible event space maintains existing skylights and can open to the main art and digital art gallery programs, to the south.

Between the co-living quarters and the event/gallery spaces are designated theater, co-working, food market, and retail spaces.

MSL proposal Floor Plan

The table summarizes program area allocations of the various previous proposals for the project:

Program Space	Orton Scheme (Revised) Total Area (NSF)	Orton Scheme (Approved) Total Area (NSF)	CAST	MSL Art Space	Jensen (2011)	Marcy Wong (2009)
Studios	**9130**	**8020**	part of housing	part of housing	0	0
Office	**6590**	**4960**	**4870**	**3630**	**2440**	**1750**
Office	0	1470	0	240	0	1750
Co-Working/Meeting	6590	3490	0	3390	0	
Flexible Space	**9160**	**10050**	**19050**	**13220**	**18500**	**15300**
Performance	3010	3120	5130	7970	7650	6100
Exhibition/Classroom	6140	6930	13930	5250	10850	9200
Food/Drinks Consumption	**0**	**1100**	**1440**	**2980**	**1710**	**2000**
Café	0	1100	0	2440	1200	1500
Retail Store	0	0	0	540	510	500
Commercial Kitchen	**0**	**570**	**0**	**0**	**310**	**400**
Storage/ Utility	**160**	**770**	**2040**		**680**	**1170**
Restrooms	**960**	**840**	**640**	**850**	**1090**	**800**
Circulation	**2020**	**2300**	**1660**	**2100**	**3930**	**3500**
Outdoor Gallery/Courtyard	**1030**	**0**	**0**	**4790**	**1380**	**3500**
Affordable Artists Housing	**0**	**0**	**20910**	**4180**	**0**	**0**
TOTAL	**29040**	**28610**	**50620**	**31750**	**30030**	**28420**
Program Notes	• More studio space • More co-working but no indivdual offices • Less "flexible space" - less exhibition space • No café or commercial kitchen • Added outdoor gallery	• Smaller co-working but more individual offices • More exhibtion space • Café & commerical kitchen • No outdoor gallery	• Artist studio space integrated w/ housing • Less office space, not co-working, dedicated to art ctr operations/administration • Focus on performance and exhibitions space with better equipped theater and theater support facilities. • More flexible classroom space • Sizable artist housing component (5 stories)	• Artist studio space integrated w/ housing • Program split between co-living/working space for artists and performance/event/ehibition space	• Less office space, not co-working, dedicated to art ctr operations/administration • No individual studios • Focus on performance and exhibitions space with state of the art theater and theater support facilities. 250 sear theater with retractable seating. • Retail store	• Exhibition space dedicated to Celebration of the Arts • two types of performance space: theater with 165 seats + more flexible multipurpose space • Cafe and gift shop • Office space dedicated to Celbration of the Arts, Historical Society, and Art Center administration • Large outdoor courtyard

Studios/Exhibition/Classroom
Performance Space
Admin
Storage/Utility/Restrooms
Outdoor Courtyard
Office
Food/Drink/Retail

CODE CONSIDERATIONS

PROJECT DATA

APN: 049-0618-004 | Block and Lot: Block 15, Lot 6

Zoning District: Light Industrial / Park Avenue Overlay District

Significant Structure Status: Tier 2 - Architecturally Significant

Year Built: 1942

Existing Construction Type: III-B

- Floor - Concrete Slab on grade
- Exterior Walls - Unreinforced Brick Masonry (URM)
- Roof Structure - Wood truss & decking

Building Height / Stories:

- Existing: +- 24'
- Allowable: 30'/55' w/ Bonus

Setbacks:

- Existing: 5' (front), 0' (rear and side)
- Required/Allowable: 0' (all)

Use / Occupancy:

- Previous: Warehouse for United Stamping Company (F-2)
- Proposed: Visual & Performing Arts Facility (A-3, A-3, B)

Lot Area: 33,858 SF

Floor Area Ratio:

- Existing: 30,100 SF / 33,858 SF = 0.89
- Allowable: 1.2/1.6 w/ Bonus

Applicable Planning Codes/Standards

- City of Emeryville General Plan
- City of Emeryville Municipal Code, Title 8 Building Regulations
- City of Emeryville Municipal Code, Title 9 Planning & Zoning w/ Chapter 6 Interim
- City of Emeryville Park Avenue District Plan
- City of Emeryville Design Guidelines
- LEED Gold required

Applicable Building Codes

- Adaptive Re-use: CHBC or CEBC
- New Construction: 2022 CBC

Code Considerations

The ODI design proposed the use of the CHBC in lieu of the California Existing Building Code (CEBC). They argued that the upgrades required under the CEBC would "significantly obscure and impact the building's historic features and the project's intended uses." Additionally, in using the CHBC, that proposal took advantage of a reduced standard to which the structure would need to be upgraded which would translate to lower structural costs for the project (see structural narrative).

This approach seems viable as long as the building qualifies as historic but may not be the recommended approach from a life safety standpoint given the intended use of the building as a public assembly space. As noted above, the existing building at 4060 Hollis Street is currently listed as a "Tier-2- Architecturally Significant Building" in the Park Avenue District Plan and Chapter 9-5-Article 12 of the City of Emeryville Municipal Code, which also elaborates on the acceptable procedures and criteria for both the preservation and/or demolition of significant structures. The "significant structure" designation would have implications for both an adaptive re-use and new construction approach. Some of these include:

- The City's intent is to encourage the preservation of significant structures. A new construction approach which demolishes the building could be perceived as deviating from the Planning Code's intent.
- A preservation permit would be required in either scenario. In the preservation scenario the project needs to retain the features that make the structure significant. In the demolition scenario, the project needs to meet certain criteria outlined in Section 9-5.1206
- In the case of demolition, certain conditions of approval (see section 9-5.107) may be applied to the project.

Additionally, residential programming, as demonstrated in the CAST proposal, is not currently an allowed use under the planning code, but could potentially be incorporated through a general plan amendment.

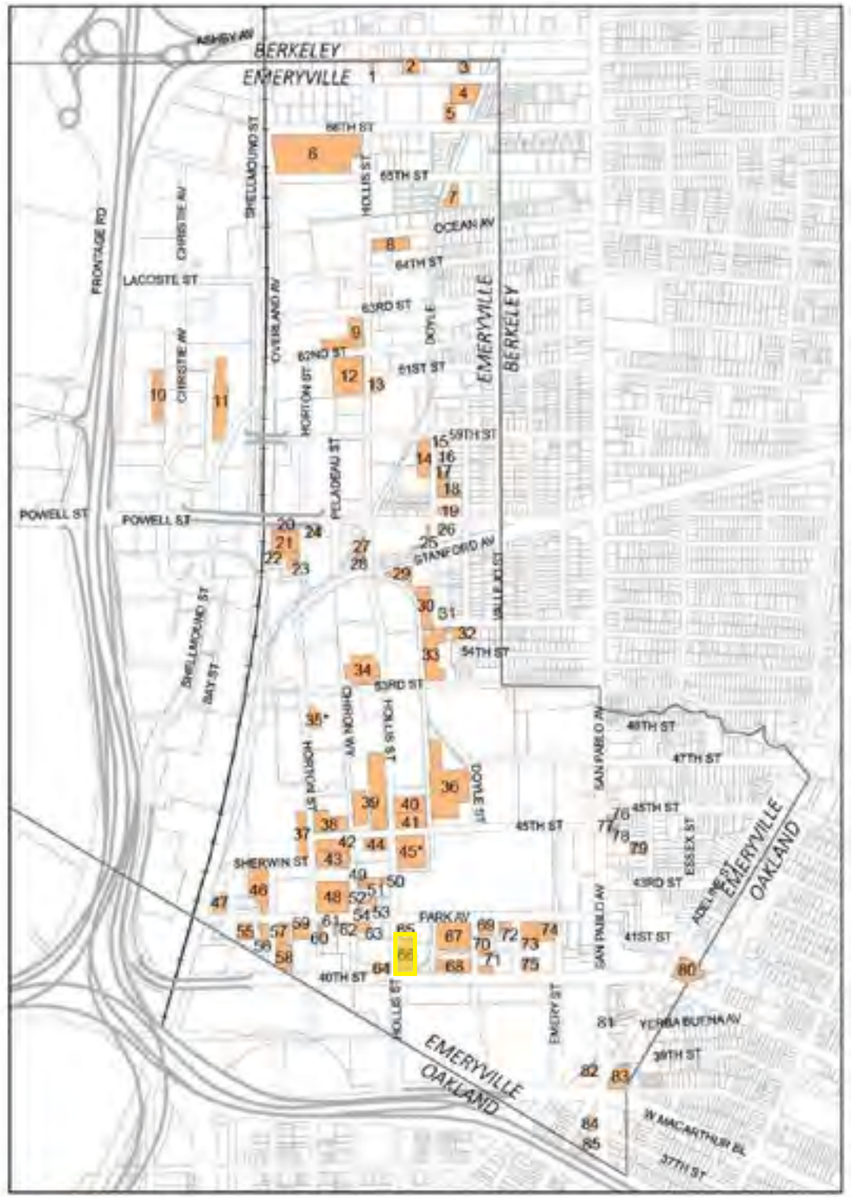


Diagram of significant structures from the Emeryville Planning Code [Chapter 9-5 Citywide Use and Development Regulations, Figure 9-5.120(a)] showing 4060 Hollis Street highlighted.

03 Existing Building Assessment

BUILDING HISTORY

Emeryville's proximity to major rail lines and the San Francisco Bay Area sparked a hub for industry in the late 19th and early 20th centuries that has evolved into a modern urban community today. Today, the city's historic center is a blend of preserved and repurposed historical buildings and contemporary architecture.

4060 Hollis Street, a single-story brick building originally constructed in 1942 by the Albert Wright Screw Machine Products Company, is part Emeryville's Park Avenue District, located in the city's historic center. The Park Avenue District Plan completed in 1995 was a plan to revitalize and preserve the city's historic center and incorporate buildings that share the industrial character of the original district. The district is located in the historic center of Emeryville, and 4060 Hollis Street shares the same block as the city's Town Hall, built in 1903, which sits at the heart of the district.

4060 Hollis Street was originally established to manufacture metal components used in both World War II and the Korean War. It was later repurposed as a manufacturing facility for United Stamping before being acquired by the city of Emeryville in 2006 to be used as a community art center. Since then, parts of the building have been demolished leaving it exposed to the elements and in disrepair.

The Park Avenue District Plan categorizes historical structures as Tier 1 or Tier 2 based on their architectural value. The plan articulates:

The architectural value of the Tier 1 and 2 buildings lies in their distinctive style: they are made of brick or concrete building materials; they have a high level of symmetry demonstrated in repetitive bays, gables, windows and doors; and they are highly articulated in horizontal as well as vertical elements.

4060 Hollis St. is categorized as a tier 2 structure, with its defining features including brick materiality, repetitive and restorable window patterns, and horizontal elements such as concrete lintels over windows and doors. Tier 2 buildings consist of mostly newer concrete structures of moderate value.

The Park Avenue District Plan outlines urban design policies to be adhered by, including preserving buildings of moderate architectural significance (tier 2) and ensuring that new buildings are compatible with the architectural patterns of the older brick and concrete industrial buildings, to preserve the city's past.

The following pages include an assessment of the building in its current condition.

Interior loft | image source: (EHS) Photo Archive

Albert Wright Co. artillery shell booster operation line | image source: (EHS) Photo Archive

Historical character defining features depicted including brick facade, concrete lintels and horizontal repeating elements | image source: Emeryville Historical Society (EHS) Photo Archive

Restroom Interior | image source: (EHS) Photo Archive

Albert Wright Co. overhead pulleys transfer power to machinery on floor | image source: (EHS) Photo Archive

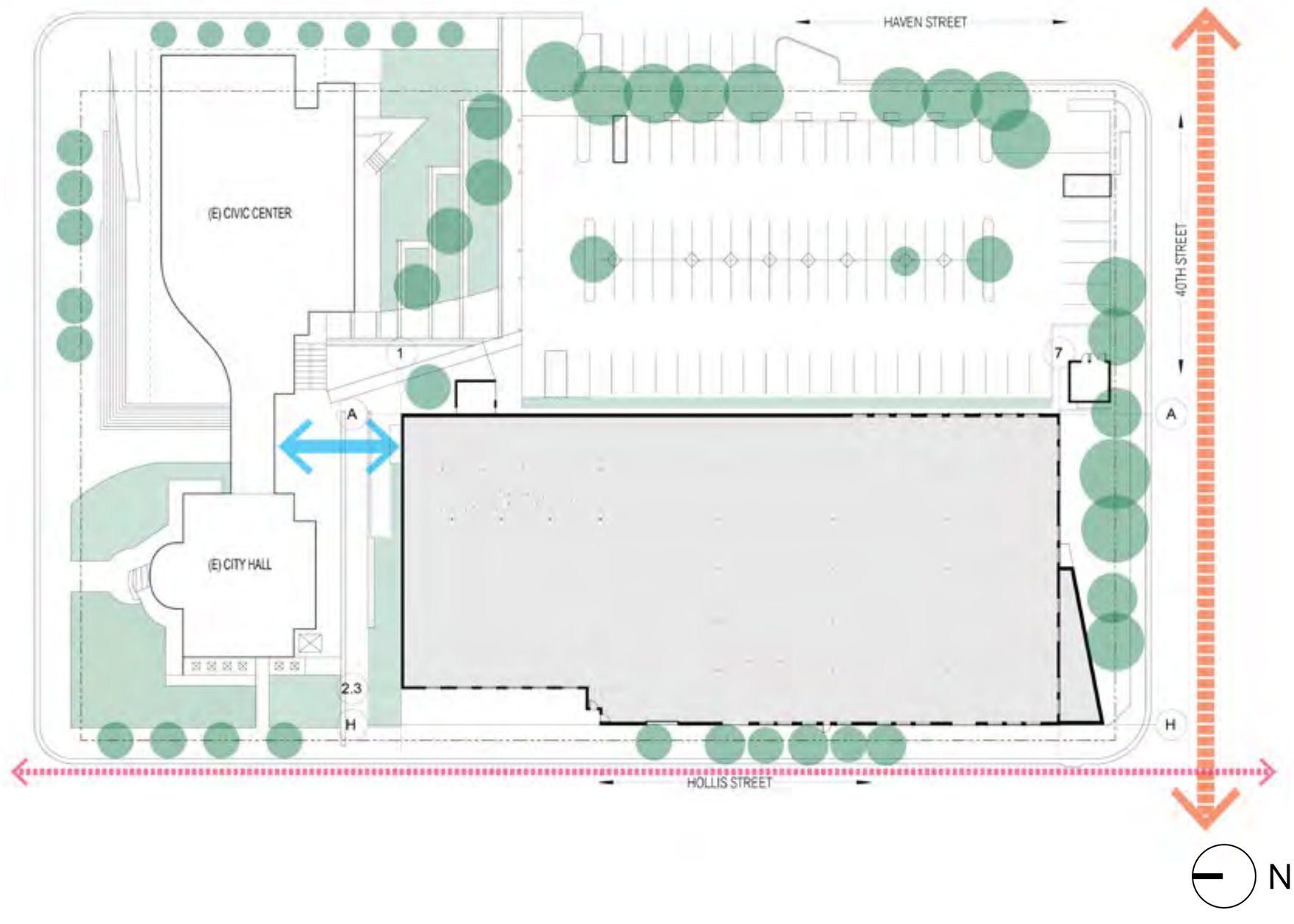
EXISTING SITE CONTEXT

4060 Hollis Street is located at the intersection of the two major streets in the Park Avenue District – Hollis Street and 40th Street. 40th Street is a major vehicular road with 5-foot-wide sidewalks while Hollis Street is more pedestrian friendly with 8 foot wide sidewalks.

Directly north of the project site is Emeryville's City Hall, a two-story neoclassic building with a copper dome. Outside of the City Hall is a sculpture garden with a water feature and a pedestrian passageway designed using brick pavers that connects to the Civic Center east of City Hall via stairs and the existing parking lot east of the project site via a paved ramp. The passageway is landscaped with grass and trees. This public parking lot is accessible from Haven Street and sits at a higher grade level than the project site and is shared by the Besler Building live-work condominiums to the East and the City offices. There is landscaping between the parking lot and project site as a visual buffer. The existing building entry is located on Hollis Street. The site is located within the Rotten City Cultural District (RCCD) which celebrates the creative economy of Emeryville.

The Park Avenue District Plan for Emeryville outlines design guidelines which include some of the following:

- Provide open space within development projects
- Use industrial building materials
- Provide awnings as part of the building
- Design signs to reinforce the character of the district
- Avoid large blank walls
- Conceal or integrate utilities
- Use industrial building patterns and massing
- Design setbacks as inviting spaces
- Place main entries on the street



ARCHITECTURAL SUMMARY

INTRODUCTION

The architectural summary describes and depicts, the existing state of 4060 Hollis Street. The building has deteriorated noticeably. The removal of windows and skylights has allowed for water intrusion, contributing to visible damages of the existing structure as indicated through photos on the following pages.

This section discusses existing conditions related to the exterior facade, exterior doors, windows, and openings, the roof and its supporting elements, and the concrete slab. Additionally, there are notes regarding suggestions for proposed work for an adaptive re-use of the structure.

Existing building observations are preliminary and are not intended to be comprehensive. Future in-depth investigations are recommended to develop a better defined scope of work. The Structural Summary that follows this section details more specific observations related to the structure not described in the architectural summary.

EXTERIOR FACADE

Existing: The building is an unreinforced masonry structure, with walls approximately 14' -9" high. The exterior south and east brick elevations appear to be in fair condition. The east brick elevation visible from the parking lot is in poor condition with what looks like grout or plaster on the face of the bricks. The North facade is solid brick with no windows or openings. The east facade is primarily a solid wall with openings at the south that have been boarded up. The south elevation has remaining windows and transitions to a loading dock which is elevated on a concrete plinth and clad in corrugated metal.

Architecturally significant features include concrete lintels above windows and door openings along portions of the north, west, and east facades.

Structural ties on the exterior of the brick walls are visible. The walls are not insulated and, on the interior, the brick walls are exposed and painted with paint peeling throughout.

Proposed: Architecturally significant features to be preserved or restored where possible in an adaptive re-use of the project include the horizontal repetition and symmetry of concrete lintels existing above windows and door openings.

Repointing of the brick facade assembly where compromised is suggested in order to restore the historic character of the building materiality. Previous proposals suggest to sandblast the brick which would be recommended to help restore its appearance. They also propose the demolition and replacement of the 40th street metal-clad facade which would be recommended as an opportunity to present as a more inviting street-facing facade.

Previous proposals intended to demolish sections of the brick facade along Hollis Street and install storefronts and courtyards. This would reasonably accommodate the creation of a visual connection to the community and a defined building entrance promoting community access. Demolishing sections of the brick facade would require structural reinforcement.

The interior would need to be repointed and repainted in order to expose the brick materiality.

1. Example of west facade brick condition and boarded window openings.

2. Example of east facade brick condition.

3. South brick facade meeting metal cladding.

4. East facade brick condition differs north and south of this point in elevation.

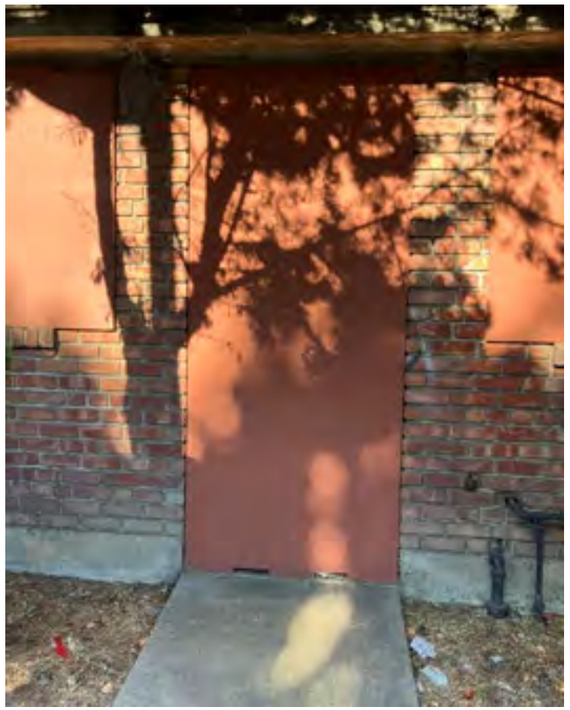
DOORS, WINDOWS, AND OPENINGS

Existing: The building's existing windows are single pane with metal frames and divided lights. Windows along Hollis Street between gridlines 1-3 remain but are in poor condition with rusted frames. Some glazing is broken and the windows and doors on the Hollis Street building face have been removed between Gridlines 4-7 with temporary wood frames placed appearing to be supporting the remaining window openings. The roll-up door on Hollis Street was scheduled to be demolished, however, it is still in place. The entry door on Hollis Street also remains.

Windows on east facade remain but are boarded up. They can be observed from the parking lot revealing broken glazing in some locations. Windows and doors between gridlines A-C on the south facade remain and are boarded up from the exterior.

Proposed: Previous proposals suggest preserving the existing roll-up door as it contributes to the character of the industrial building and neighborhood, so it is recommended to preserve this feature so long as future programmatic functions allow. They also suggest preserving the windows and existing door openings throughout which is recommended as they have qualities that contribute to the historic character that defines this building as significant. The rusted condition of the existing window frames may not be repairable, however, so windows may need to be replaced.

5. The door and windows along 40th Street remain.

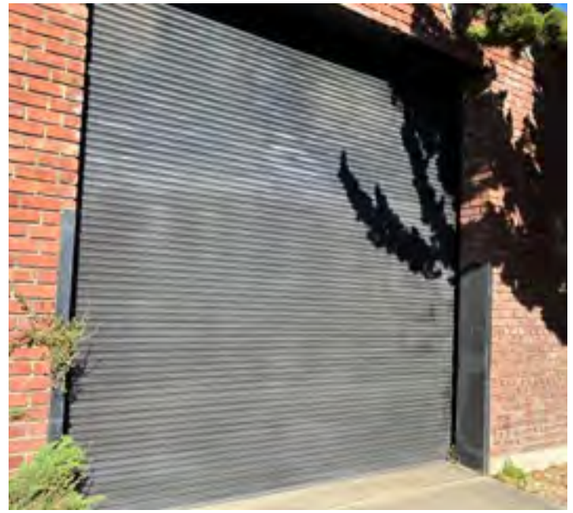


6. Previously demolished doors and windows within brick walls are boarded up.

7. Example of existing west facade window with historic concrete lintel.

8. Interior view of Hollis Street window. The windows on this west facade remain and are boarded from the exterior.

9. Previously demolished door with concrete lintel boarded up on Hollis Street.



10. Existing roll-up door on Hollis Street contributes to industrial character of building and neighborhood.

11. Some previously demolished skylight openings have been left uncovered.

13. Roof deterioration requires shoring in some locations.

ROOF

Existing: The roof is six bays north-south (roughly 40 feet each) by six bays east-west (roughly 20 feet each) and is supported by curved trusses, joists, and diagonal sheathing. The existing roofing above looks to be built up roof. However, the roofing condition was not observed up close. There is an existing rooftop structure outlined below with an opening to the building below, that does not appear salvageable.

Skylights and other equipment have been demolished and removed leaving large openings in the roof which have allowed for significant water intrusion that have compromised the condition of the roof throughout, though some areas appear to be in better condition than others. Generally, the roof structure appears to be in its worst condition between bays 1-3 and seems to improve towards the south. Given its domed shape, the roof is in worse condition at its low points, with some perimeter areas showing significant deterioration. The wood structure and sheathing are rotted in certain areas and temporary shoring has been installed to support the structure where most compromised.

The brick facade extends to form a low parapet which is supported with relatively closely spaced diagonal bracing, with some of those connections appearing to be broken.

See structural summary for a more in-depth analysis of the existing roof's structure.

Proposed: Most previous proposals demo portions of the roof to create taller volumes for theater and exhibit spaces, which may be recommended if it facilitate the accommodation of those programmatic needs. Previous proposals intend to demolish sections of the existing roof to create openings for courtyards which may be recommended to allow for greater access to daylight and the outdoors as it relates to the adjacent program. With all skylights having been demolished, it is recommended to replace with new skylights or patch and restore the remaining roof openings. It is recommended that the roof structure and sheathing be replaced wherever it has been compromised. It is assumed that the entire roof receive new roofing.

12. Roof deterioration at low point.

14. View of roof condition from the north. Generally, demolished skylights are covered. Some roof bracket supports are missing.

15. North roof view from upper level of adjacent Emeryville Civic Center.

FOUNDATIONS + SLAB

Existing: An exploratory pit reveals a relatively thin slab on grade - +/- 4" and shallow footings. Square footings exist at column locations and grade beams exist along the perimeter brick wall. Due to level changes, sections of foundation are exposed. A retaining wall exists at the east face of the building because the parking lot is at a higher grade level.

The residual effects of demolition leave uneven slab conditions throughout. There are several locations with holes in the existing slab. Existing timber columns are supported by concrete bases that are elevated above the concrete floor slab.

Proposed: It is recommended that infill and leveling be required to remediate the existing uneven slab condition.

16. Slab condition from demolished restroom lavatories.

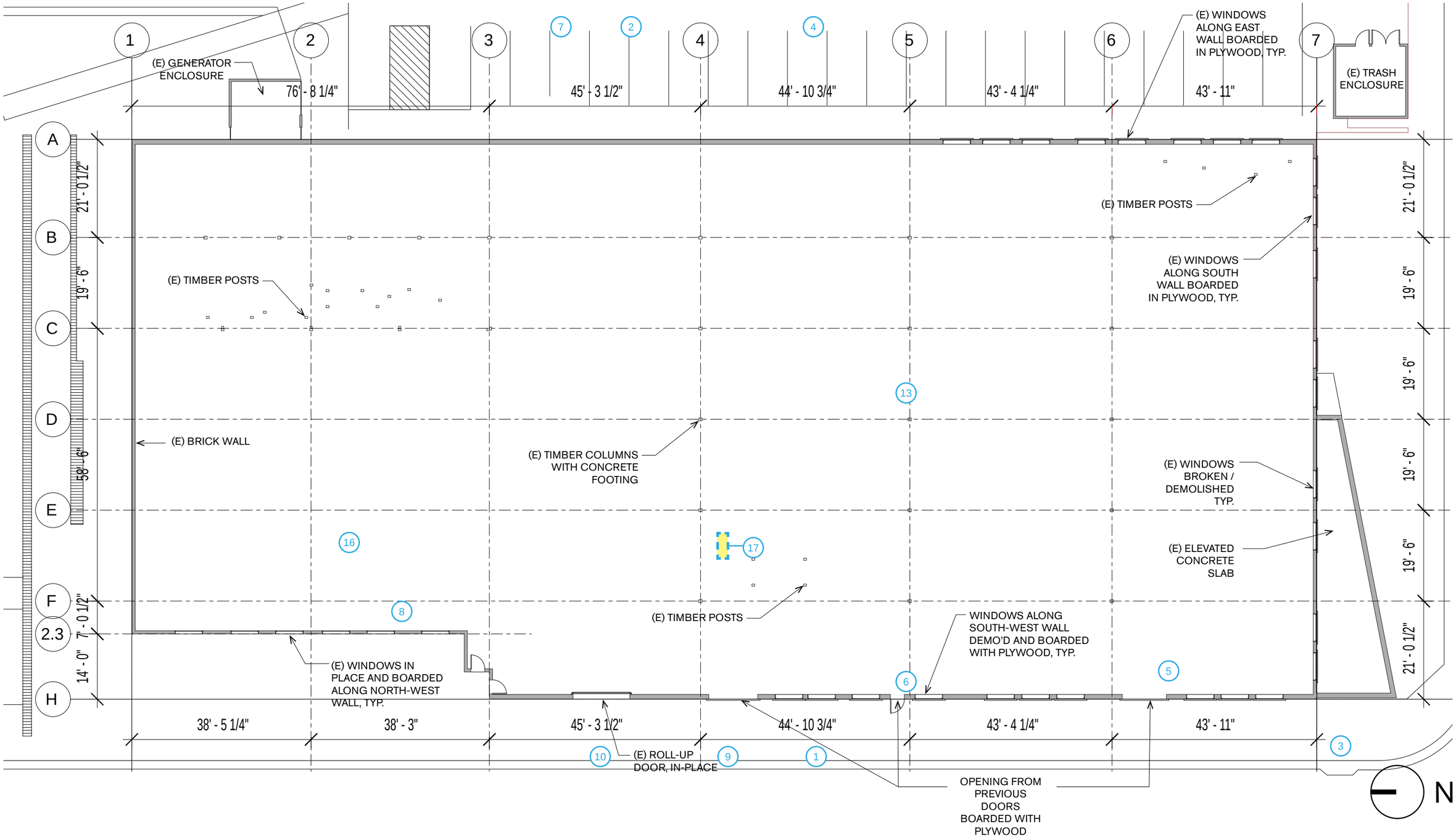
17. Concrete slab is approximately 4" thick.

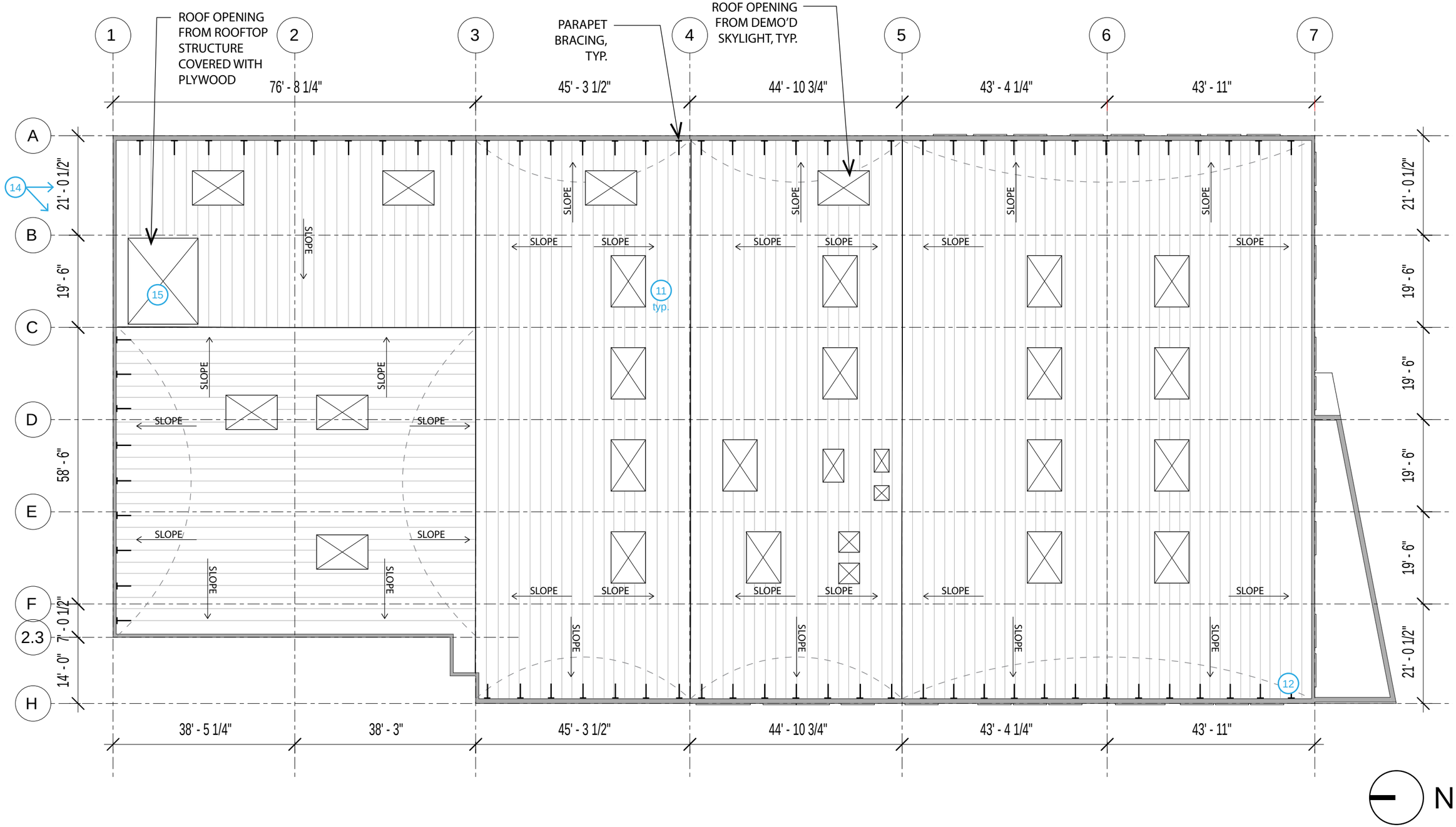
18. Previously demolished interior walls leave existing concrete slab damaged.

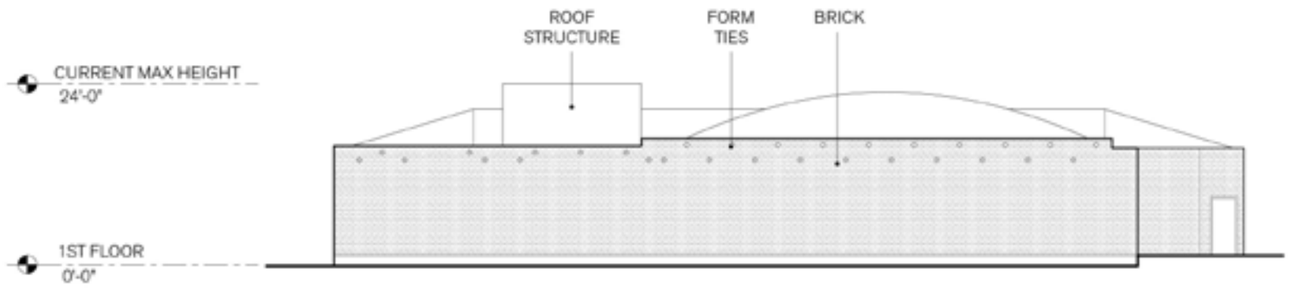
19. Concrete slab condition at perimeter brick wall.

20. Existing holes in concrete slab from demolished toilets.

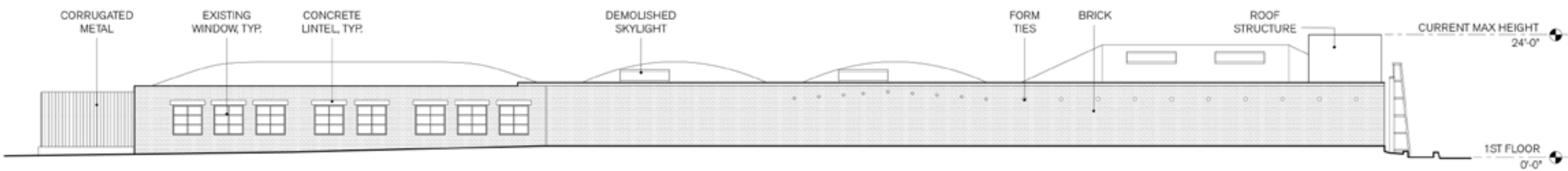
21. Existing concrete column base elevated above concrete slab in several locations.


1
2
3
7
2
4
4
5
6
7
(E) GENERATOR ENCLOSURE
76' - 8 1/4"
45' - 3 1/2"
44' - 10 3/4"
43' - 4 1/4"
43' - 11"
(E) WINDOWS ALONG EAST WALL BOARDED IN PLYWOOD, TYP.
(E) TRASH ENCLOSURE
A
B
C
D
E
F
2.3
H
21' - 0 1/2"
19' - 6"
58' - 6"
7' - 0 1/2"
14' - 0"
(E) TIMBER POSTS
(E) TIMBER POSTS
(E) WINDOWS ALONG SOUTH WALL BOARDED IN PLYWOOD, TYP.
(E) BRICK WALL
(E) TIMBER COLUMNS WITH CONCRETE FOOTING
(E) WINDOWS BROKEN / DEMOLISHED TYP.
(E) ELEVATED CONCRETE SLAB
(E) TIMBER POSTS
WINDOWS ALONG SOUTH-WEST WALL DEMO'D AND BOARDED WITH PLYWOOD, TYP.
(E) WINDOWS IN PLACE AND BOARDED ALONG NORTH-WEST WALL, TYP.
13
16
17
8
6
5
38' - 5 1/4"
38' - 3"
45' - 3 1/2"
44' - 10 3/4"
43' - 4 1/4"
43' - 11"
10
9
1
3
(E) ROLL-UP DOOR, IN-PLACE
OPENING FROM PREVIOUS DOORS BOARDED WITH PLYWOOD
N

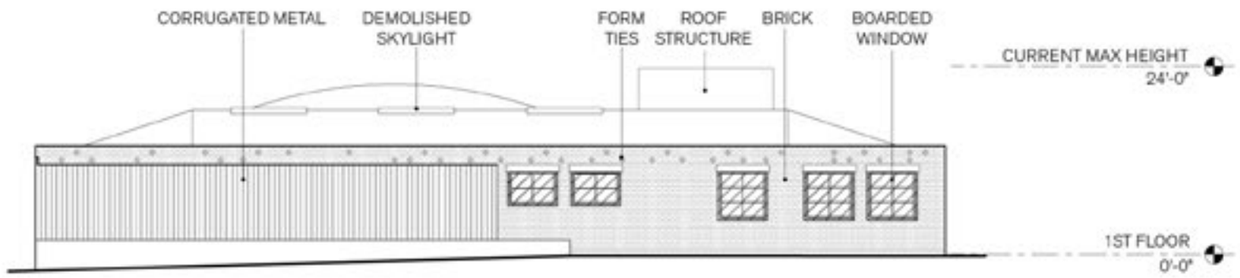

ROOF OPENING FROM ROOFTOP STRUCTURE COVERED WITH PLYWOOD
PARAPET BRACING, TYP.
ROOF OPENING FROM DEMO'D SKYLIGHT, TYP.
1
2
3
4
5
6
7
A
B
C
D
E
F
2.3
H
14
15
11
typ.
12
SLOPE
76' - 8 1/4"
45' - 3 1/2"
44' - 10 3/4"
43' - 4 1/4"
43' - 11"
21' - 0 1/2"
19' - 6"
58' - 6"
7' - 0 1/2"
14' - 0"
38' - 5 1/4"
38' - 3"
N



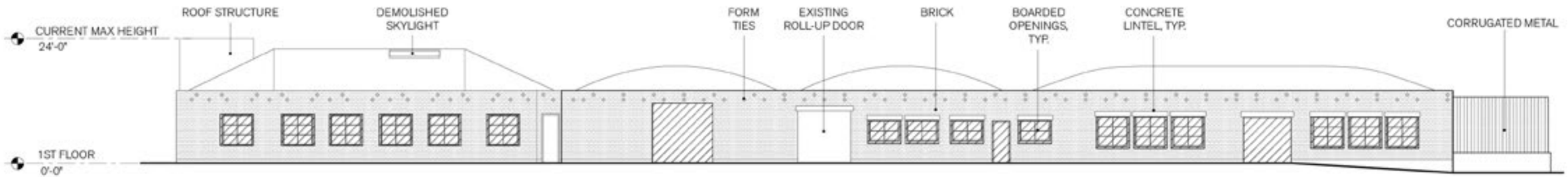
NORTH ELEVATION - EXISTING BUILDING



EAST ELEVATION - EXISTING BUILDING



SOUTH ELEVATION - EXISTING BUILDING



WEST ELEVATION - EXISTING BUILDING

STRUCTURAL SUMMARY

INTRODUCTION

We understand that the property was purchased for the purpose of "adaptive reuse of the existing building to provide space for the annual Emeryville Celebration of the Arts Exhibition as well as year-round performing arts uses." With this in mind, we have completed a thorough review of existing building documentation and have performed an initial site visit to assess the current condition of the structure. We also reviewed various building code provisions related to adaptive reuse.

The site visit highlighted several areas of concern including failed structural members and partial collapse of the roof structure. Based on our findings, we have determined that the existing structure is deficient in its current state and will require repair/improvements to both the gravity and lateral elements to be safe for occupancy. While extensive, the anticipated repairs and improvements can be practicably integrated into an adaptive reuse solution.

BUILDING SUMMARY

The approximately 33,700 square foot, one-story, warehouse building in Emeryville was built in 1942. The building is rectangular in layout. The roof structure consists of 1x diagonal and straight sheathing supported by wood joists, timber trusses, and wood beams. Exterior walls consist of 13-inch-thick unreinforced masonry (URM). Trusses and beams span to URM pilasters at the perimeter of the building and interior timber columns. Columns are supported by isolated concrete footings, while the URM walls are supported by a continuous strip footing.

Seismic improvements implemented in the 1990s were limited to roof and parapet bracing. Our understanding is that no other retrofits have occurred, and at the time of the site visit, no other improvements were readily apparent.

PROGRAMMING CHANGES

The building will be converted from a warehouse to a multi-functional layout that may include offices and performing arts spaces such as galleries, studios, and theaters. Modifications to interior spaces will include the installation of non-bearing interior partitions and ceilings. Depending on the final architectural and programming needs, there may be localized demolition required at the exterior URM walls.

RISK CATEGORY

The change of use for the structure and the addition of several public assembly spaces triggers a change in building Risk Category. Per Table 1604.5 in the 2022 California Building Code (Code), increasing the occupancy load to greater than 300 people in public assembly areas results in a Risk Category increase from II to III, ultimately increasing the seismic forces on the building by a factor of 1.25.

SEISMIC CONSIDERATIONS

The existing lateral system consists of straight and diagonal sheathed roof diaphragms spanning to perimeter URM shear walls. The diaphragm spans are greater than 25 feet in both directions, which does not meet current detailing standards. Additionally, the connections between the existing diaphragm and URM walls appear to be inadequate to transfer seismic forces, both in-plane and out-of-plane. The structure will require seismic strengthening to support the new occupancy of the building.

CODE CLASSIFICATION

Another consideration for seismic strengthening is the use of the California Historic Building Code (CHBC) versus the California Existing Building Code (CEBC). A change of use is acceptable in both Code provisions.

The CEBC would require 100% of current Code seismic forces due to the increase in Risk Category. URM walls could not be considered part of the seismic force resisting system. In contrast, the CHBC would require 75% of current Code level seismic forces and URM walls would be considered part of the seismic force resisting system.

We understand that cost is a concern for this project. The CHBC will allow for a more cost-effective structural solution, and will provide the design team flexibility by utilizing the strength of the existing URM walls at the perimeter. In the City of Emeryville's 2006 Park Avenue District Plan, this building is identified as Tier 2 architecturally significant. Therefore, we believe there is a reasonable path forward to obtaining a "historic" classification by the City if the Client chooses to elect this design basis. We recommend engaging the City in a pre-approval meeting to explicitly confirm that the CHBC is an acceptable design basis.

Though the CHBC will provide a minimum design basis, we can design for higher seismic forces to enhance life safety. We will continue to have conversations with the client to determine the most appropriate seismic hazard level to design to, which may exceed the CHBC requirements, to provide a better overall building performance. An example would be to design to 100% Code level forces in lieu of 75% while utilizing the strength of the existing URM walls.

SUMMARY OF FINDINGS FROM SITE VISIT

We conducted a site visit to observe the general condition of the building with a primary focus on the gravity framing elements. At the time of the visit, the interior was completely stripped down to base structure. It is our understanding that the structure has been exposed to weather and natural elements for several years, which has caused some damage and deterioration. In general, the existing structure appears to be in fair to poor condition.

We observed the following:

- A couple portions of the roof structure have collapsed, likely due to overstressing of the main members. This has caused the remaining primary structure to be exposed to weather over time. Temporary shoring was installed to support the structure surrounding the collapsed areas.
- The 1x sheathing generally appears to be in fair condition, though there were several locations where daylighting has occurred.
- The existing joists vary in condition. Some joists appear to be in good condition while others have deteriorated or failed due to overstressing.
- Several trusses have failed due to overstressing as shown by the splitting of bottom chords. Temporary shoring has been installed to support the failed truss members.
- The timber wood columns appear to be in generally good condition. Wood checking is visible on several columns. Additionally, several connections between the roof truss members and columns have failed.
- The perimeter URM walls appeared to be in generally good condition. At some locations, excess mortar was visible at the exterior of the building, likely due to an exterior finish that has been removed. Paint covered a significant portion of the interior walls. Localized areas showed minor deterioration.
- Out-of-plane anchors at the roof level were visible at the interior and exterior of the building. Our understanding is that the anchors were installed during the retrofit in the 1990s. The anchors showed signs of severe rust, and they appeared to not have adequate connections to the diaphragm due to rotting at the wood members.
- Foundation elements were not visible at the time of the visit and their condition is unknown.

If the building is to be retrofitted instead of demolished, we recommend a more comprehensive and detailed survey to identify compromised elements and develop recommendations for necessary strengthening and repairs. At minimum, we recommend protecting the existing structure by covering holes in the roof and minimizing further water intrusion.

STRUCTURAL REPAIRS AND MODIFICATIONS

Functional Improvements:

Several structural framing members have deteriorated or have failed, as described in the site visit summary above. Repair of the gravity supporting members will likely include the following:

- Repair collapsed portions of the roof structure by installing new floor framing and sheathing.
- Replace deteriorated portions of diagonal and straight sheathing.
- Replace and/or strengthen existing truss members, joists, beams, and posts where required.
- Repair existing connections where required.

- Repair deteriorated portions of unreinforced masonry where required.
- Repair and/or strengthen foundation where required.

In addition to the repairs for the existing structure, modifications may be required to facilitate the new programming. This would likely include installing new beams to support heavy equipment or mechanical systems. New partition walls would be required, and new headers may be needed to support new openings in the exterior walls.

Seismic Strengthening:

The seismic strengthening will likely include the following:

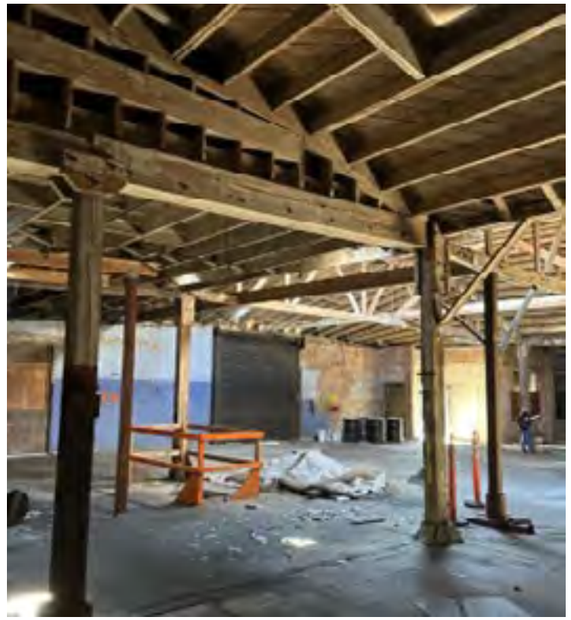
- Adding plywood to existing roof decking and installing new steel straps, blocks, and fasteners to tie into new bracing and existing walls.
- Anchoring and bracing existing URM walls and parapets.
- Installing new HSS strongbacks at perimeter brick pilasters.
- Installing new braced frames or shear walls to support seismic loading with new foundations and new roof collector straps. New partition walls to support building programming become an opportunity to locate these critical elements.

Under the CHBC, it is our hope that we could rely on the URM walls in areas for lateral resistance, thus minimizing the amount of work required at the perimeter. Still, in some areas with large windows at the exterior, the URM wall piers appeared to be slender. Localized strengthening of the wall piers will likely be required to prevent brittle failure of the pier.

22. Damaged portion of roof with shoring.

23. Failed connection at interior timber column.

24. Overstressed joint causing failure.



25. Collapsed portion of roof with shoring.

26. Example of daylighting.

27. Bottom chord failure at truss member with shoring.

04 Refreshed Project Goals & Vision

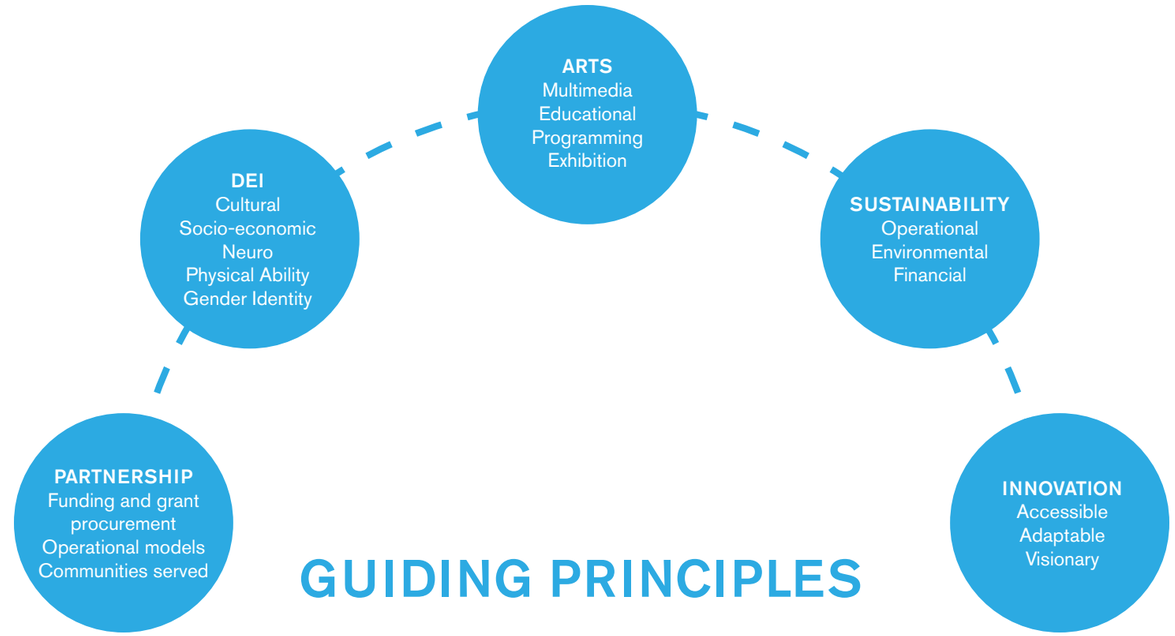
REFRESHED PROJECT GOALS & VISION

As an entry point into this feasibility study, the team embarked on some initial visioning for the project in collaboration with AIL, JJC, and the Art Center Advisory Group. This process does not represent a comprehensive visioning and set of refreshed project goals but was limited to providing only the information that was necessary at this time in order to complete the feasibility study. Much of this was grounded in the project's prior goals and visions (discussed in chapter 2), as well as initial input from the early stages of the broader visioning process currently underway and spearheaded by AIL and JJC. LMSA suggests that this feasibility study be reconciled with the more complete visioning and refreshed project goals at a later date. In addition to this feasibility study, the work AIL and JJC are conducting will also include the following: 1) refresh of Art Center visioning through community engagement programming, local context, and focused research with subject matter experts; 2) develop framework for organizational structure, operational models, and partnerships.

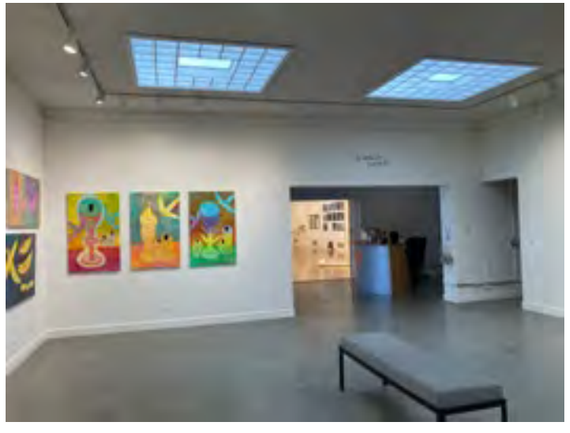
For the purposes of this study the visioning has been limited to a very high-level programming exercise to determine basic space needs and desired adjacencies of these program spaces. This is discussed and illustrated in more detail on the following page. In terms of broader visioning, including establishing guiding principles and core values, the team has included some initial ideas here that will continue to be expanded upon throughout the broader visioning process. These include a set of guiding principles developed by AIL and JJC which are illustrated in the image to the right, as well as a set of core values on the following page. As mentioned, many of the core values from earlier studies still ring true to the current project goals and vision, with some standout values, which can be viewed in the orange text of the 2009-2011 core values list on the following page. Additionally, more recent values have been added through this exercise of establishing this refreshed project vision. The development of these values is an ongoing process.

To expand upon these project goals and vision development process, Art is Love and JJ Consulting have embarked on a robust community engagement process including art center space tours, artist studio visits, and focus groups with subject matter experts. This process will provide insight into project guiding principles and potential operational models. Additionally, they are collaboratively mapping resources at a regional scale to gauge where redundancies may be occurring or where project resources should be focused.

Kala Art Institute



Ciel Creative Space, moveable gallery walls



Richmond Art Center, gallery space

CORE VALUES (2009-2011):

- We support creativity and experimentation
- **We have a broad and inclusive definition of art**
- We are accessible, responsive, and welcoming to all
- We are committed to creating opportunities for the appreciation of cultural difference
- **We seek innovative ways to collaborate with artists and organizations throughout the region**
- We pursue excellence and distinction in all aspects of programming and operations
- **We are fiscally responsible**

+2024 CORE VALUES:

- **We prioritize diversity and inclusion as it relates to our differences**
- **We are innovative in our approach to space planning and phasing as it relates to generating income**
- **We are approaching design and operations as symbiotic project elements**
- **We are intentional about prioritizing the workplace needs of future operating and maintenance staff**
- **We seek to provide scaffolding to support the regional community's needs**

ART CENTER SPACE NEEDS

The types of spaces to be considered for incorporation into the art center project is an evolving conversation and can range from the minimally essential elements to a more comprehensive vision encompassing a more complete version of the desired project. These programmatic spaces may continue to change as they reflect and are informed by the ongoing development of the project vision and goals. The diagram included on the following page tries to capture all the various program spaces that have been potentially considered as part of the art center space needs. However, these spaces are further grouped into "small," "medium," and "large" options to reflect how the art center project could potentially be reduced or expanded in response to budgetary needs. In consultation with AIL, JJC, and the ACAG, it was determined that the "medium" option most closely reflects current community needs and desires for a functional visual *and* performing arts center. Therefore, in developing the two comparative models for this study, both versions assume accommodating all the spaces outlined in the medium option.

The "small" category, as illustrated in the diagram on the following page within the inner gray dotted outline, is driven by prioritizing a permanent home for the Celebration of the Arts festival and therefore focuses only on providing a flexible gallery/exhibition space and necessary support spaces. This option would not fill the entire building footprint but would leave room for potential future phases to occupy the remaining space.

The "medium" category, as illustrated in the diagram on the following page within the red dotted outline, is assumed as the jumping off point for this feasibility study, as it most closely aligns with the refreshed project goals and vision. This category includes all program spaces outlined in the "small" category, plus a large theater space and related support functions, as well as an outdoor courtyard, commercial kitchen, and space for classrooms and art studios.

The "large" category, as illustrated in the diagram on the following page within the outermost gray dotted outline, includes additional program spaces that have been expressed but may or may not be considered an essential part of the current vision. These spaces could be incorporated into the current vision or preserved as part of a future development.

FLEXIBLE GALLERY/EXHIBITION SPACE

This space is at the core of the art center program and is intended to accommodate the annual Celebration of the Arts event, as well as smaller ongoing exhibitions throughout the year. Mobile walls allow for the larger gallery space to be subdivided, while sliding or retractable doors allow it to expand into the central flexible space. Large openings to the exterior are provided. The gallery space is envisioned as being adjacent to the Classrooms/Art Studios in order to allow for ongoing interaction between the two programs but important visual and acoustical separation is still provided. This space requires a flexible lighting grid for art display, acoustical panel ceilings, natural daylighting, a designated storage room, and an additional entrance.

CLASSROOMS/ART STUDIOS

(3) 650 square foot classrooms for dedicated art making or art studios will each be supported with a 300 sf acoustically enclosed specialty room. The classrooms should be separated with a medium acoustic/transparency barrier for connection with the flexible gallery/exhibition space while also having an option for high visibility or closing off the space entirely. The study assumed extra wide entry doors, more robust ventilation and power needs, as well as sinks, casework, a teaching wall, and tackable acoustical paneling at each classroom. Specific use for these rooms is still to be determined as part of the broader visioning process but options include a digital arts/photography studio, ceramics, painting/drawing, etc.

THEATER

This space is envisioned as a large, flexible black box theater with a flat stage that can accommodate a 250-300 person audience for performances but can also be transformed into a large open space for additional gallery/exhibition uses. Similar to the gallery space, acoustical sliding or retractable doors allow it to expand into the central flexible space. It requires a 30ft floor to ceiling height with an acoustic barrier. A sprung floor, elevated projection/control booth, flexible lighting grid, theater curtains, and retractable seating are also assumed. It should be adjacent to support spaces including a workshop/storage room designated for the theater, dressing rooms, and a green room. T

DRESSING ROOMS

A dressing area with a counter and mirrors, lockers, and separate restrooms for performers should be included in the dressing rooms. This space assumes adjacency to the theater.

GREEN ROOM

This space assumes lounge furniture, a kitchenette, and adjacency to the theater.

WORKSHOP/STORAGE

This space requires adjacency to the theater space and is designated for theater use, separate from general storage space.

COURTYARD

Outdoor courtyard space should be adjacent to the Theater, Gallery, and flexible space. This may require shading to control daylighting on the interior and provide sun protection outside. The outdoor space is meant to support indoor programs and allow for surplus exterior exhibition and performance space.

ADMIN

Reception, (2) office spaces, and (1) conference room are necessary for the admin program. This program is part of the supportive programs for the building and should be near both the theater and the gallery.

COMMERCIAL KITCHEN

A fully equipped commercial kitchen is assumed to support use of the art center as a rentable space for events. A grease interceptor would be required.

RESTROOMS

This program should be centrally located and easily accessed from the flexible space between the theater and gallery. Both gendered and gender-neutral restrooms have been provided.

STORAGE/UTILITY

This program should be adjacent to the loading dock and is separate from gallery and theater specific storage. Bike parking, electrical room, MPOE, janitor's closet, and other miscellaneous mechanical equipment is assumed to be accommodated.

LOADING DOCK

Should be adjacent to the storage/utility room and easily accessed from 40th street.

ARTIST STUDIOS

20 (400 sf) individual rentable artist studios have been included as a potential future program to be accommodated in a building expansion or addition.

OFFICE SPACE FOR OTHER ORGS

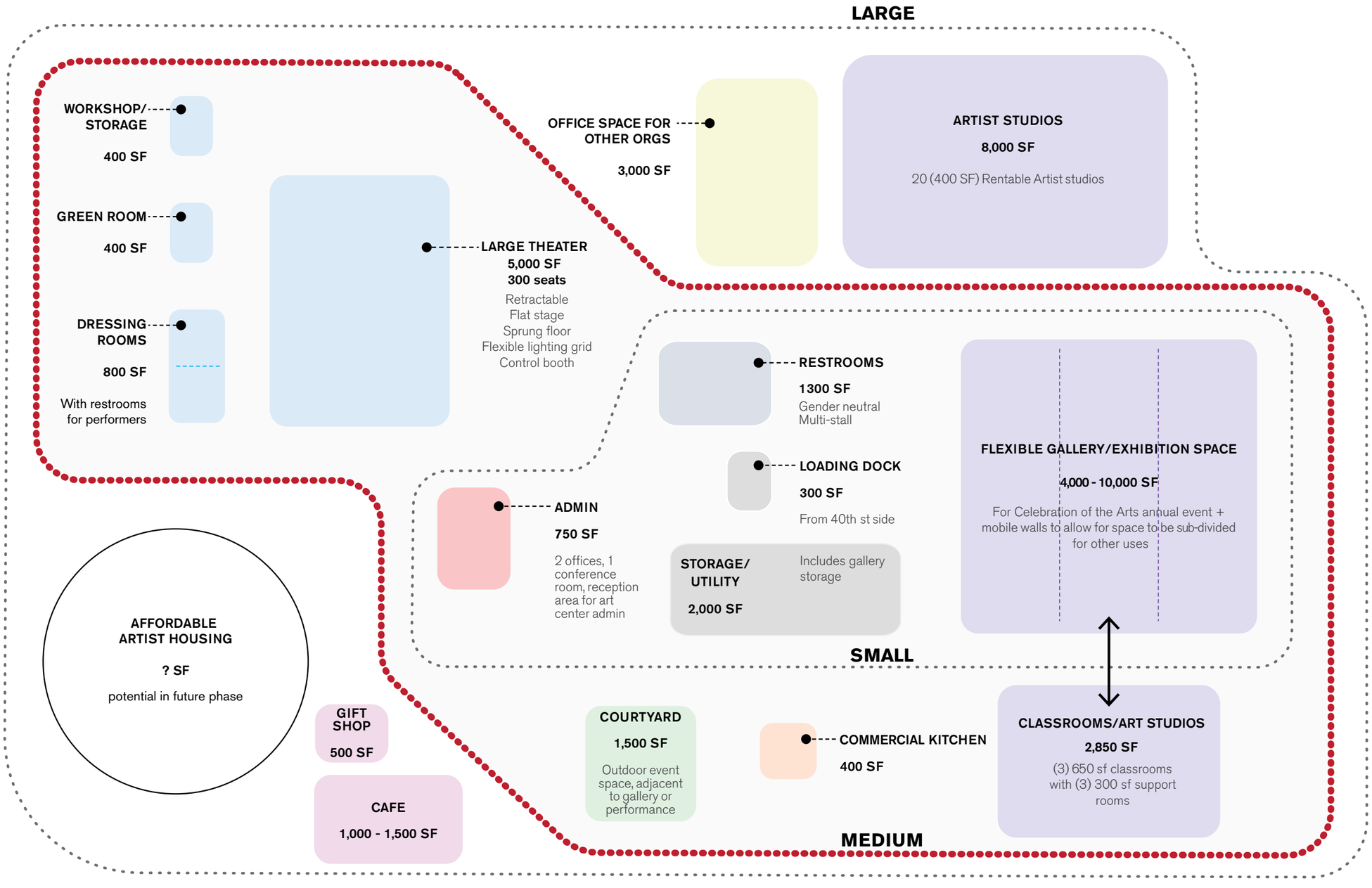
A building expansion or addition could also accommodate office space for other local organizations or non-profits.

GIFT SHOP/ CAFE

Although not central to the core vision for the art center, a gift shop and/or cafe have been included in previous versions of the project and could provide valuable revenue generating program. This program should be centrally located and could easily be accommodate within the current building footprint.

AFFORDABLE ARTIST HOUSING

Although not central to the core vision for the center, affordable artist housing represents a strong need for the community. This could only be accommodated as part of a future addition to the project, and likely only viable with new construction.


LARGE
WORKSHOP/ STORAGE
400 SF
GREEN ROOM
400 SF
DRESSING ROOMS
800 SF
With restrooms for performers
LARGE THEATER
5,000 SF
300 seats
Retractable
Flat stage
Sprung floor
Flexible lighting grid
Control booth
OFFICE SPACE FOR OTHER ORGS
3,000 SF
ARTIST STUDIOS
8,000 SF
20 (400 SF) Rentable Artist studios
RESTROOMS
1300 SF
Gender neutral
Multi-stall
LOADING DOCK
300 SF
From 40th st side
ADMIN
750 SF
2 offices, 1 conference room, reception area for art center admin
STORAGE/ UTILITY
2,000 SF
Includes gallery storage
FLEXIBLE GALLERY/EXHIBITION SPACE
4,000 - 10,000 SF
For Celebration of the Arts annual event + mobile walls to allow for space to be sub-divided for other uses
SMALL
AFFORDABLE ARTIST HOUSING
? SF
potential in future phase
GIFT SHOP
500 SF
CAFE
1,000 - 1,500 SF
COURTYARD
1,500 SF
Outdoor event space, adjacent to gallery or performance
COMMERCIAL KITCHEN
400 SF
CLASSROOMS/ART STUDIOS
2,850 SF
(3) 650 sf classrooms with (3) 300 sf support rooms
MEDIUM

05 Adaptive Reuse Vs. New Construction

DESIGN CONSIDERATIONS – EXISTING BUILDING & SITE CONTEXT

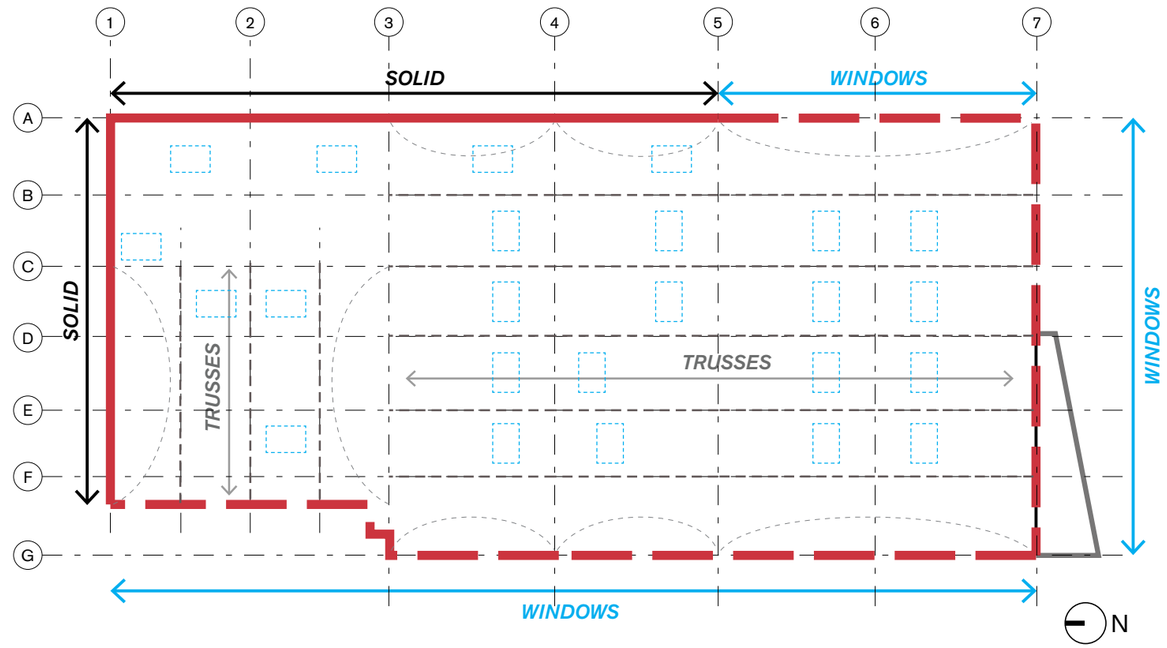
To evaluate and compare an adaptive reuse versus new construction approach for the art center the design team began by looking at the existing building and site context. With a better understanding of the space needs and project goals described in the previous chapter, the team was able to assess the opportunities and constraints presented by both. The high-level conclusion is that the site itself seems quite conducive to the art center program and vision, while the existing building creates some constraints, especially as it pertains to accommodating a performing arts program.

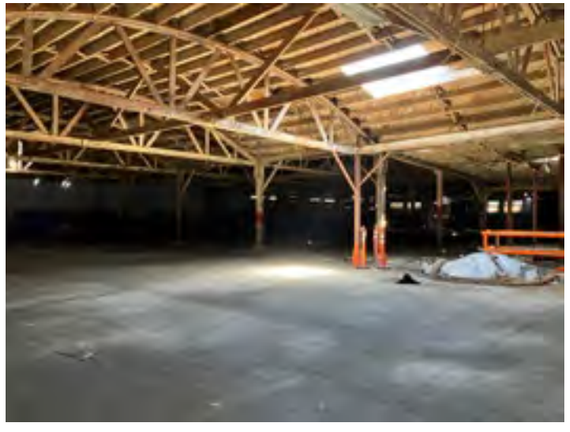
The diagram to the right illustrates some of the inherent qualities of the existing brick building at 4060 Hollis that need to be considered and negotiated to accommodate the art center program. The existing brick facade has symmetrical punched window openings facing Hollis and 40th street and largely opaque, windowless facades facing City Hall and the parking lot to the east. The art center program has very specific needs when it comes to daylight access and opacity, as well as visual and physical connection to the exterior and adjacent programs. The gallery program specifically benefits from balanced daylight from above in the form of skylights and/or clerestory windows, as well as strategically placed large openings for indoor/outdoor connections and transportation/installation of large artworks. With the existing building, both the expansion and infill of existing windows would be required to accommodate this.

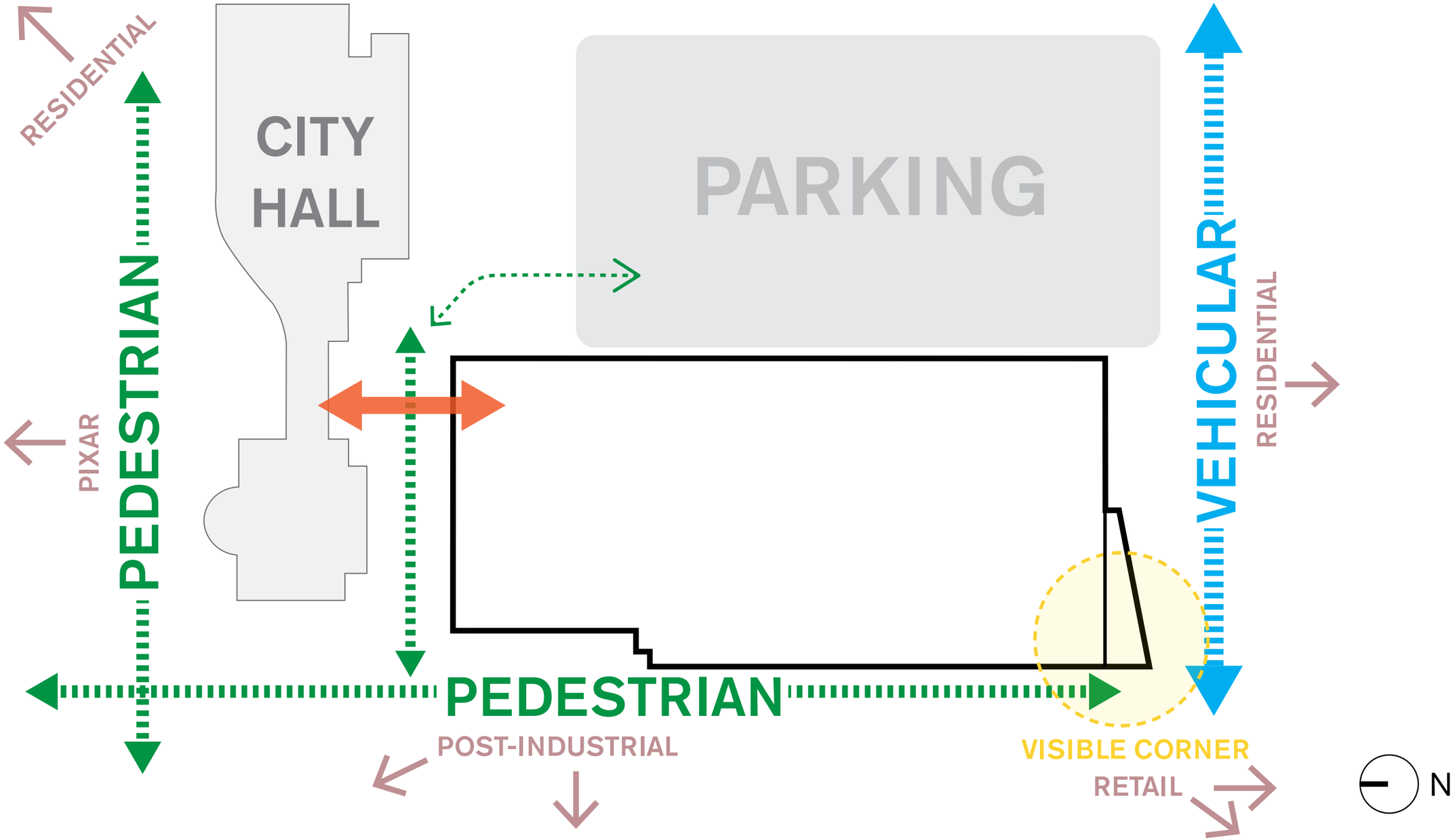
As noted in Chapter 3, the existing structural layout divides the building into separate bays of different sizes. The northern part of the building has trusses running east west and a flat roof area at the northeast, while the middle and southern section of the building are divided into identical bays with trusses oriented in the north south direction. Each bay has structural columns that support the roof structure. In an adaptive reuse approach the art center program needs to work with rather than against the existing structure. This is more successful and viable with the gallery/exhibition program and its associated support spaces. However, to incorporate the theater program, a larger volume with an open floor plan is required, meaning that a portion of the existing building must be demolished.

Additionally, the existing skylight openings support the desired daylight but may not always exist in locations that align well with the programmatic layout. Some existing skylight openings may be useful to keep while others may want to be infilled or added.

In contrast to the actual building, the site at 4060 Hollis Street seems inherently conducive to the art center program and creates some great opportunities to reinforce and bolster the project's broader goals. The pedestrian thoroughfares and vehicular heavy paths surrounding the project help to inform the programmatic layout and the appropriate location of building entrances. There is an important connection to City Hall just north of the project site that should be considered in relationship to the project layout and creates wonderful opportunities for shared programming and connections. The intersection of Hollis and 40th street is a very prominent and heavily trafficked street corner that provides opportunities for the center to establish a visible, regional presence and highly visible facade for publicizing programs or exhibiting large public art works. The site sits at the convergence of a varied and diverse neighborhood fabric and seems aptly located as a destination point for the City of Emeryville. Lastly, the adjacent parking lot on the east side seems like a well-positioned asset for accommodating a large influx of visitors to the center.






RESIDENTIAL
CITY HALL
PARKING
PEDESTRIAN
PIXAR
VEHICULAR
RESIDENTIAL
PEDESTRIAN
POST-INDUSTRIAL
VISIBLE CORNER
RETAIL
N

DESIGN CONSIDERATIONS – PROGRAM & ADJACENCIES

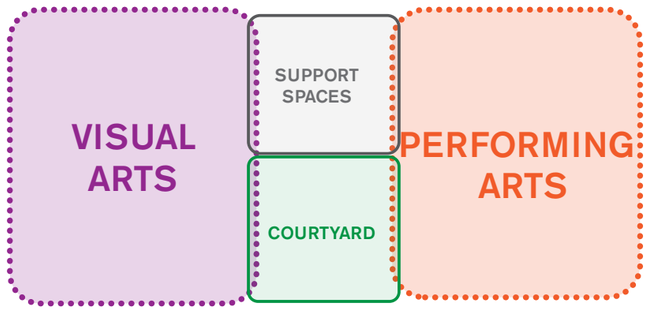
The qualities and characteristics of the existing site context as outlined in the previous section help to inform design decisions regarding the programmatic elements and their adjacencies within the building. A few options were evaluated to study and develop the strongest relationship between programmatic spaces and the surrounding site. These design iterations are shown to the right and led to the development of a more nuanced diagram on the following page, depicting the high-level program layout that most successfully enhances the building and contextual relationships, and is used as a basis for the more detailed design approaches on the following pages.

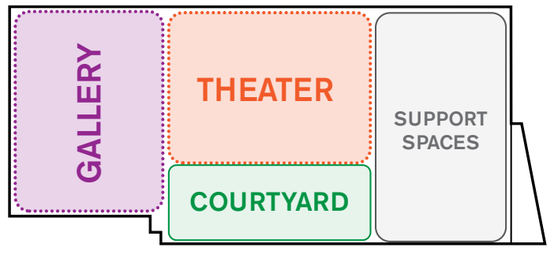
The idealized layout for the art center is focused on its two main programs, visual and performing arts, which each encompass the two main nodes for the building and are located on opposite ends of the site. Support functions and outdoor space are sandwiched between these two main nodes and are meant to serve either program. This initial layout was further refined into the diagram depicted on the following page which envisions the building as two parallel bars — an active, large bar in the foreground with the two core programs and a central courtyard and flex space; and a slimmer support bar at the east side that serves both the specific and shared functions of the active bar.

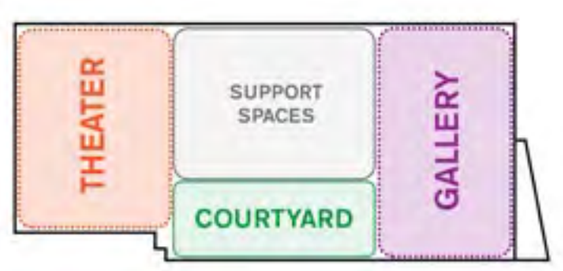
Given that there are various pedestrian friendly streets at the north side of the site, the visual arts program within the building is recommended to be located here, adjacent to the pedestrian corridor between the site and City Hall. In the adaptive reuse approach, this is also the section of the building where the existing structure is in the best condition and could be viably preserved to accommodate the gallery program. Situated closer to the pedestrian zones, the visual arts center space can have greater transparency and be easily accessed by the public. A more robust daily engagement with City Hall and the surrounding neighborhood community is envisioned — the gallery/exhibition and classroom/art studio elements create a more local, daily, community focused engagement for the art center.

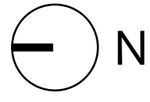
The performing arts program, as noted previously, requires a taller building volume to house its required functions. Given this, the southern portion of the site seemed like a more appropriate location for this program. The heavy vehicular road on 40th Street that intersects Hollis, exposes the south west corner of the project site, allowing for a distinguished corner element, visually establishing the art center to the public. The performing arts program, located at this prominent corner, is envisioned as a beacon element for the art center, broadcasting its programs at a more regional scale.

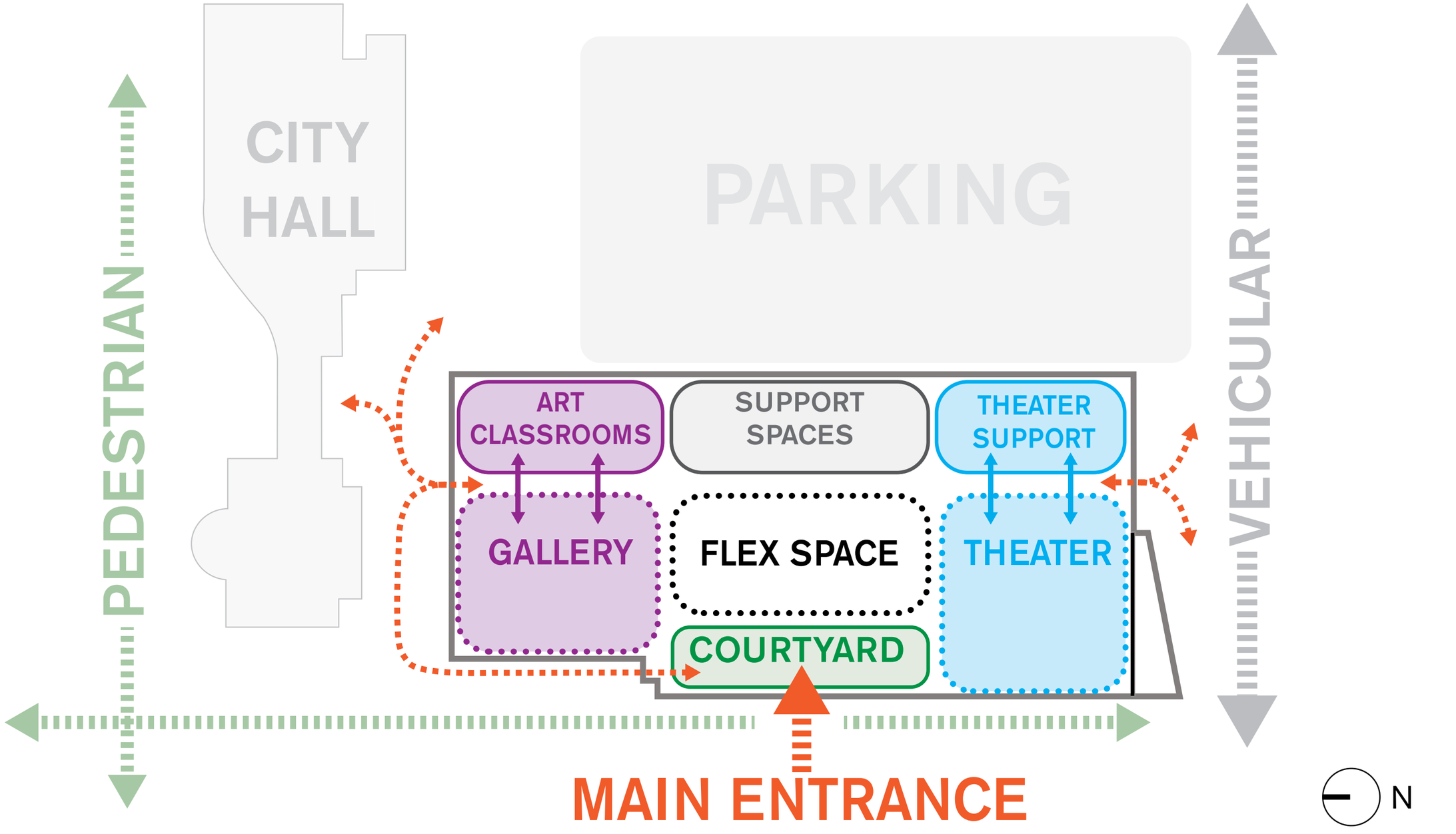
Between the two major programmatic functions of the building and adjacent to the main entry, support spaces should be located to serve both core programs. To create an evident building entry and connect the visual arts and performing arts spaces to the exterior, while corresponding with the existing pedestrian pathways, an outdoor courtyard along Hollis Street can soften the transition from the exterior to the interior and signify a clear entry point. Most of the previous iterations of the design located the main entry off Hollis Street. This assumption is maintained here as Hollis Street continues to seem like the preferred entry point for the building. Additional, program specific entries are provided at the north and south, with a clear circulation axis running north-south and bisecting the active and support bar.










PEDESTRIAN
CITY HALL
PARKING
VEHICULAR
ART CLASSROOMS
SUPPORT SPACES
THEATER SUPPORT
GALLERY
FLEX SPACE
THEATER
COURTYARD
MAIN ENTRANCE
N

BUILDING APPROACH – ADAPTIVE REUSE

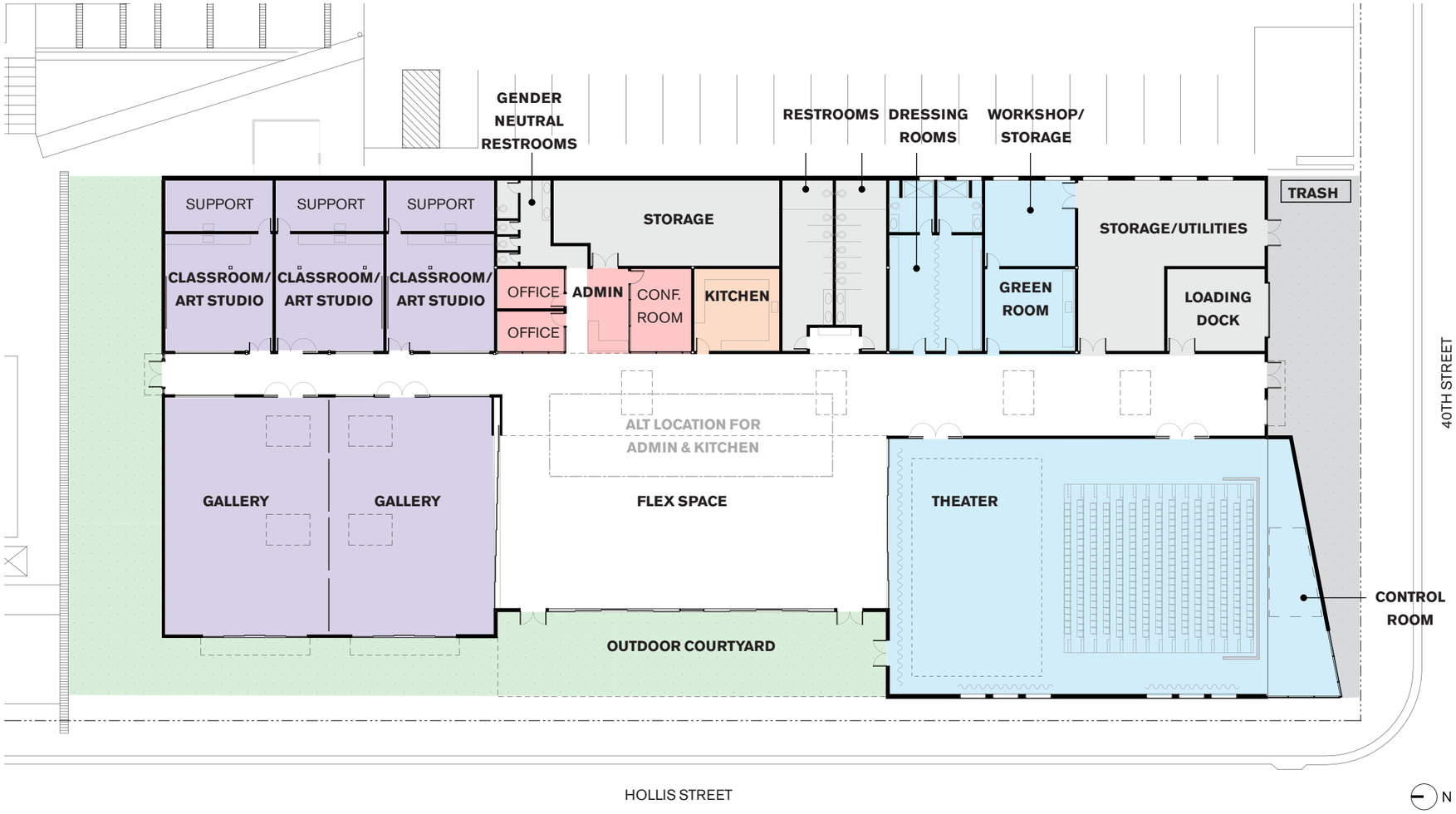
The adaptive re-use base case design for the purposes of this study builds off previous iterations of the project. As discussed in the previous pages, the program layout is intended to work with rather than against the existing structure, locating demising walls along existing structural grid lines as much as possible. In an adaptive re-use approach, the design goal is to celebrate existing elements to remain, such as the brick facade and the wood trusses.

The existing building can easily accommodate the art center program from a building footprint perspective, however, there is not always the strongest relationship between the interior and exterior spaces. Due to the existing facade characteristics, there are some limitations in terms of transparency and access to the building. To incite greater community connection for a pedestrian experience through transparency and access, we recommend portions of the existing brick facade be demolished to expand and create new openings, particularly at the gallery space and the flex space.

Existing wood trusses may be reused in the gallery space, working within the limitations of the existing structure. While the existing structure may accommodate the gallery space, the trusses are too low to accommodate the theater space, so we recommend demolishing that portion of the structure to build a taller volume.

With a taller theater volume, there is an opportunity to extend this volume to the flex space between the theater and gallery and frame the exterior outdoor courtyard and main entry. This enhances the building presence from the pedestrian and vehicular point of view, creating a stronger, more obvious building entrance.

The structural needs in an adaptive re-use option are quite substantial given the need for a new lateral system, separate from the building's brick exterior, as well as substantial strengthening and repair of the existing structure. For further detail, refer to the structural narrative at the end of this chapter.



Aerial view of the south-west corner where Hollis Street and 40th Street intersect. Full height glazed walls at this corner provide a glimpse into the performing arts space and serve as a beacon to the broader art center regionally. Sculptural art south of the performing arts space activates this outdoor area as a pedestrian friendly zone along an otherwise vehicular heavy road.

Aerial view of Hollis Street at the north-west of the site adjacent to City Hall. The visual arts program is closest to city hall, with increased porosity in the existing, reused brick facade along Hollis Street to enhance visibility and access into the space along the pedestrian routes.

Ground level perspective of pedestrian experience along Hollis Street and the main building entry. Increased proportions of glazing and a large overhang identify this main entry point. Art sculptures displayed at this entry increase opportunities for community engagement with the art center.

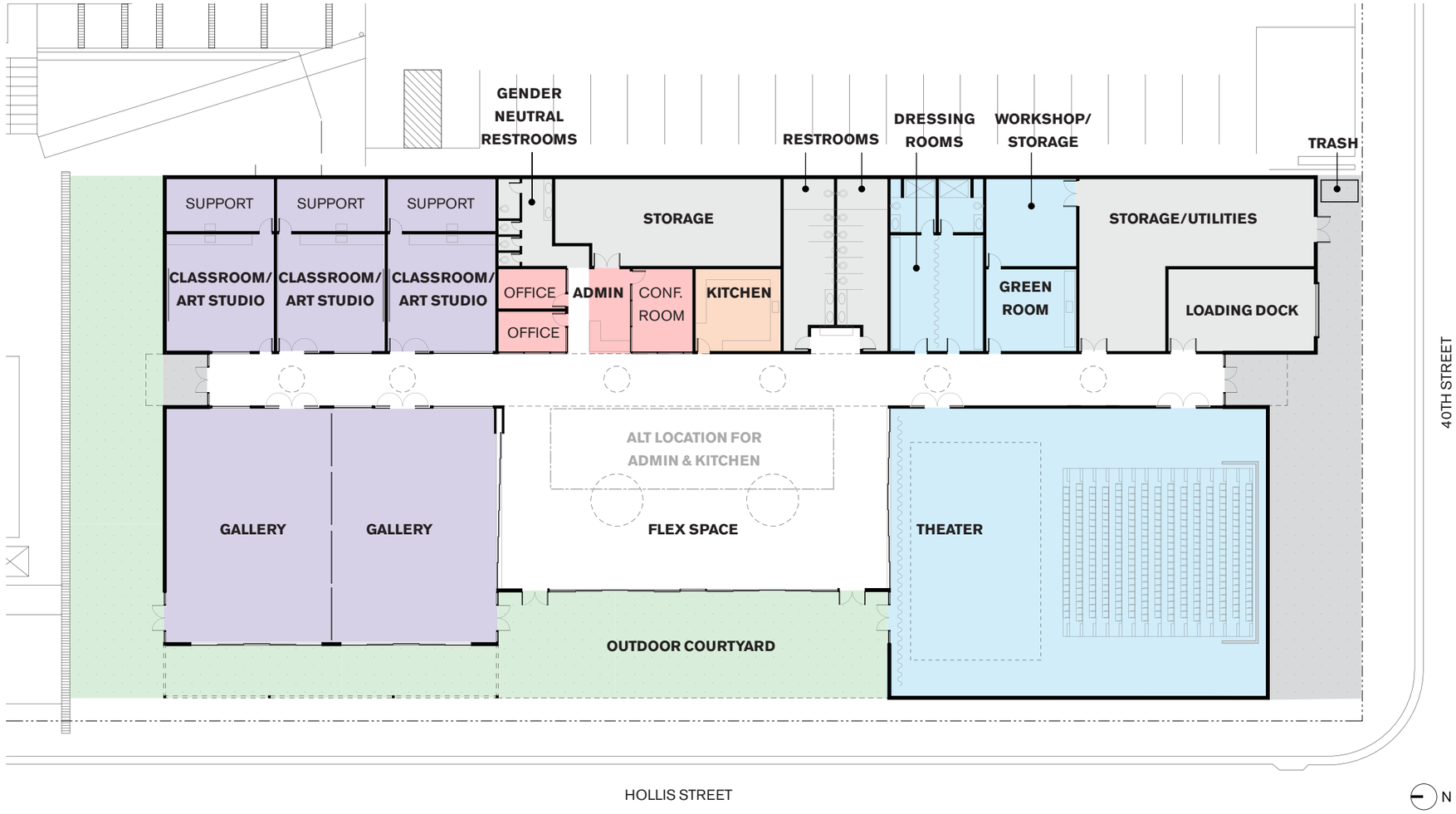
BUILDING APPROACH – NEW CONSTRUCTION

Demolishing the building at 4060 Hollis and rebuilding a new structure allows for greater flexibility in terms of the art center's footprint and height.

A new construction approach allows for increased height for not only the theater program, but also the gallery/exhibition space. Given that the maximum allowable height for the site is 30' and 55' with bonus — this represents valuable additional floor to ceiling space that can be captured beyond the existing building's capacity. The higher limit also creates an opportunity for a potential addition to accommodate other programs (such as housing) in future phases. The site's limited setbacks allow for strategic articulation of the perimeter facade to better support internal programs, connect to the exterior context, and gain additional floor area where it makes the most sense. Building entrances can be defined more clearly through recessed volumes and overhangs; an indoor/outdoor gallery walk creates an exciting opportunity for public art display and sidewalk activation; a more generous courtyard at the entry better supports outdoor events and provides a valuable public open space.

Although the internal program layout is maintained relatively similar to the adaptive re-use option in plan, the real advantages with new construction lie in the facade and roof articulation which are no longer constrained by the existing brick and wood trusses. An asymmetrical butterfly roof scheme is proposed for the purposes of this study and illustrated in the renderings on the following pages. This formal articulation creates a strong presence for the two core programs, while clearly demarcating a central convergence point and main entry off of Hollis Street. Wrap around clerestory windows allow for balanced daylight that best supports the programs within. The new building can still relate to the industrial and historical context of the site through materiality such as corrugated Corten steel and a facade composition that redraws a vertical datum at the height of the previous brick facade.

From a structural standpoint, a new structure also provides more flexibility and resiliency -- similar to the architecture, the structure can be leaner and more intentional. For further details on the structural approach for the new construction scheme, reference the structural narrative at the end of this chapter.



Aerial view of the south-west corner where Hollis Street and 40th Street intersect. The taller performing arts volume at this corner establishes the art center at a regional scale, tapering down towards the building entry to relate to the pedestrian scale along Hollis Street. Sculptural art south of the performing arts space activates this outdoor area as a pedestrian friendly zone along an otherwise vehicular heavy road.

Aerial view of Hollis Street at the north-west of the site adjacent to City Hall. A new construction approach allows for greater flexibility and improvement of the pedestrian experience at this corner, enhancing community connection with public art between the indoor visual arts space and the exterior public walkway. Large skylights over the flex space provide natural daylight in the flex space, creating a welcoming entry.

Ground level perspective of pedestrian experience along Hollis Street at the main building entry. Large sliding glazed walls allow for flexibility between the interior and exterior courtyard relationship. The courtyard connects to the pedestrian path through the exterior public art display adjacent to the visual arts program. A porous canopy frames this entry and provides shading of sunlight. Art sculptures displayed at this entry increase opportunities for community engagement with the art center.

STRUCTURAL APPROACH – NEW CONSTRUCTION & ADAPTIVE REUSE

ADAPTIVE REUSE STRUCTURAL APPROACH

A combination of the existing structural grid, the condition of the existing structure, and future programming needs guided the structural approach to the adaptive reuse scheme. While much of the existing structure can be maintained at the east half of the structure, the taller theatre roof height, which extends to the flex space, requires around 1/3 of the roof be demolished and replaced. At the same time, this presents an opportunity to substantially reframe the space to avoid columns disrupting the programming in these areas. Long, open spans can be accommodated by open-web steel joists, and structural steel above the flex space allows for a cantilevered canopy above the outdoor courtyard. Given that this area would be demolished, repairs need not be considered here, but are still required in areas of roof structure collapse or where joists or trusses show signs of stress. We note that the building is limited in its ability to expand vertically by the current framing and layout without extensive and potentially prohibitive strengthening at the roof, columns and foundations.

The seismic approach can vary depending on the code basis selected and the underlying philosophy regarding building performance, but in all cases, the amount of repair and new buildings work is such that a comprehensive retrofit is required. In all cases, new plywood and extensive nailing and strapping would be required to strengthen the roof, and steel holddowns and rods would be added to connect the brick walls to the roof framing. At the theatre space, additional support would be required in the form of steel tube columns (strong backs) and beams at the interior face of brick to support it up to the roof.

The building will require an importance factor commensurate with that of a public gathering space due to the theatre occupancy and size. Additionally, through conversations with the team and our understanding of the client's goals, the base study for the retrofit is based on the California Existing Building Code, which does not consider the brick walls as lines of seismic resistance. To maintain fairly open interior spaces and to protect the brick walls in the event of an earthquake, steel brace frames are the recommended lateral force resisting system. While the Code may allow for wood shearwalls, they would be far more numerous and yet still more flexible than a steel brace system. The combination of flexible walls and stiff brick exteriors means a higher likelihood of concentrated damage in the brick walls. Requiring more frequent structural walls also limits future flexibility.

The goal in the foundation system was to simply expand the existing concrete shallow spread footing system. This utilizes the existing system and ideally minimizes demolition, while simultaneously avoiding an additional trade for deep foundations. The scheme provides additional concrete shallow spread footings as ballast for seismic systems and to receive downward loading. To attach to (E) footings, new concrete would be connected via epoxy dowels, though we note that transfer for flexural forces across such interfaces is highly limited. Deeper or wider foundations may be needed to adjust for those weak connection points.

One unique opportunity of the existing building would be to explore alternate means of compliance with the building code via analysis to show the brick walls at the east and north end of the structure contribute substantially to seismic resistance. This would reduce the size and possibly frequency of the steel braces and shotcrete overlay needed.

NEW CONSTRUCTION STRUCTURAL APPROACH

In the new construction scheme, structure can be uniquely tailored to the specific programmatic and architectural needs of the space, as well as account for future expansion, should that become a goal of the project. Given the desire for open and flexible spaces, particularly at the Hollis Street half of the structure, the programming lends itself to a steel gravity and steel brace frame seismic scheme. Open web steel joists were chosen for their cost-effective ability to create large open spans in the theater space. Structural steel is used elsewhere to support updated MEP systems and cantilevered canopies. A greater amount of roof articulation both in plan and section is easily provided in new construction. Hanging and moveable partitions can be accounted for in the design of the new steel roof, and their deflection requirements are readily accommodated in steel members.

We would recommend buckling restrained brace (BRB) frames as the primary seismic resisting system. The California Building Code recognizes their controlled, ductile response by lowering the seismic forces to be designed for, potentially resulting in fewer frames and lower forces on foundation elements. The BRB frames are ideally located at exterior walls to control any twisting motions in an earthquake, and preserve the open spaces of the interior. They can be located to avoid doors and fenestration shown in the architectural studies. By providing central corridor braces, and some dispersed frames, we are able to control and limit the forces on the roof diaphragm, a corrugate metal deck, and the foundation. Keeping foundation forces low also allows for shallow concrete strip footings, saving money on excavation and the expense of deep foundations.

New construction allows for the greatest flexibility of architectural expression, and may be able to accommodate future vertical expansions more readily than adaptive reuse through careful planning and increased sizing of select beam, column and foundation elements.

06 Comparative Analysis & Recommendations

EVALUATING THE OPTIONS

As outlined in Chapter 1, the primary goal of this feasibility study is to compare and evaluate an adaptive reuse and a new construction approach as two potential avenues for realizing the Emeryville art center project. In collaboration with AIL, JJC, and the ACAG, the team developed a set of criteria along which these two approaches have been evaluated. These criteria were further prioritized from most to least important. The resultant ranking and high-level comparison of the two options are shown on the following page.

To summarize the chart on the following page, both options may support the art center, however, the adaptive reuse has greater limitations in a majority of the criteria categories. Regarding programmatic and operational alignment, the new construction option provides greater flexibility for alignment than the adaptive reuse approach, which is limited by the existing structural grid and brick facade. Community needs are likely to be met more fully by a new construction approach as there is improved opportunity to create more visual connections and access to the building's interior programs, without needing to work within the constraints of the existing building. The new construction approach is slightly more costly than the adaptive re-use but the difference between the two options is marginal. Increasing the existing building's resiliency and lifespan in the adaptive reuse approach comes at a greater cost, while a new building can integrate these elements from the beginning. Embodied carbon is not substantially reduced through an adaptive reuse approach given the substantial structural upgrades required and a new construction approach creates more opportunities for operational carbon reductions. The new construction approach has a marginally longer construction timeline, estimated to be five months longer than an adaptive re-use approach. Overall, the adaptive reuse approach has more constraints as it responds to the site conditions than the new construction.

OPPORTUNITIES & CONSTRAINTS

The adaptive reuse and new construction building approaches present both opportunities and constraints. Refer to the diagrams on the following pages for graphic illustrations.

The most significant opportunities for the adaptive reuse option include an increased volume for the theater program at the intersection of Hollis and 40th Street with exterior space for public art to the south. The large flat roof of the new theater volume presents an opportunity for a PV panel array to capture renewable solar energy. There are opportunities for new indoor/outdoor connections at the gallery space by creating openings in the brick facade. An expanded courtyard in this scheme can support outdoor exhibits and events.

Some of the drawbacks of the adaptive reuse option are that the existing windows are in poor condition and do not always align in a desirable way with the programmed interior spaces, as well as having poor daylight access at the existing north and east facades. The existing roof is in poor condition throughout many parts of the building, needing substantial repairs.

The existing skylight openings and exposed wood trusses provide both opportunities and constraints depending on their locations and how it relates to the desired internal program.

The new construction approach assumes full demolition of the existing building and therefore presents many opportunities for the art center. Like the adaptive reuse option, there is space for public art and outdoor signage along 40th Street, contributing to a positive pedestrian experience, adjacent to the theater program. The gallery volume may benefit from clerestory windows for balanced daylight access. The overall building in this scheme can benefit from a higher performing exterior wall assembly. There is increased potential for a PV array as there is significant roof area to accommodate it in the proposed new construction scheme. Skylight placement can be integrated in the overall design to support interior programs as desired. New construction creates an opportunity for a taller volume for the gallery space in addition to an indoor/outdoor gallery "walk" that connects the art center to the City Hall courtyard. There is an opportunity to create an even larger outdoor courtyard for exhibits and events.

CARBON & SUSTAINABILITY

Both building approaches were compared in terms of carbon levels to capture a more holistic understanding of the benefits and drawbacks of both options in regard to environmental impact. This text discusses the takeaways from the evaluations and comparisons of the two building approaches, and the graphs illustrating this in detail can be seen on the following pages in this chapter.

The comparison between the options regarding embodied carbon shows that new construction has higher embodied carbon than the adaptive reuse as expected, due to the demolition of existing materials and using fully new materials to construct the building. The adaptive reuse inherently has a lower embodied carbon level as it assumes greater reuse of the building, however these carbon savings are much less than expected due to substantial structural upgrades and poor condition of the existing building. Operational carbon has the opposite relationship relative to the two building options. The adaptive reuse approach would most likely translate to a higher operational carbon level than the new construction, determined from both building's energy use intensity calculations. The new construction approach assumes an improved building envelope and comfort controls as compared to the adaptive reuse, contributing to a lower assumed energy use.

Overtime, it is determined that there is a relatively similar level of overall carbon emissions between the adaptive reuse and new construction options, as the operational carbon from the adaptive reuse begins to level out with the embodied carbon from the new construction approach.

COST ESTIMATE SUMMARY

Cost estimates were developed to gauge overall construction costs for both options in order to provide a high-level evaluation for consideration. Rather than providing a fixed cost for each option at this early phase, the study focused on a potential range (from low to high) for each option based on meeting program and project goals described in the previous chapters. The two options assume very similar interior fit outs with the biggest scope differences being associated with the exterior envelope and structure. The cost estimate shows that there is a marginal cost difference between the adaptive reuse option estimated at $38M-$45M and the new construction option estimated at $41M-$46.5M. High cost items include HVAC, electrical, superstructure and exterior enclosure, with the greatest variances between the options being associated with the superstructure and exterior enclosure.

Some high-level takeaways determined from the cost estimate summary show that building new will have a slightly longer construction timeline which contributes to some of the cost differential. However, some overhead costs are higher for the adaptive reuse approach because of the greater risks associated with unforeseen conditions. Additionally, the existing building structure is in poor condition and requires a high-level of structural upgrades to bring it up to current seismic codes and incorporate new building uses, adding cost. The existing building is not able to meet the needs of some programmatic elements alone, particularly for the theater program, resulting in a more substantial and costly remodel to accommodate new uses. The new structure, while slightly more expensive, provides more flexibility and resiliency and can be designed intentionally lean as to not drive up costs.

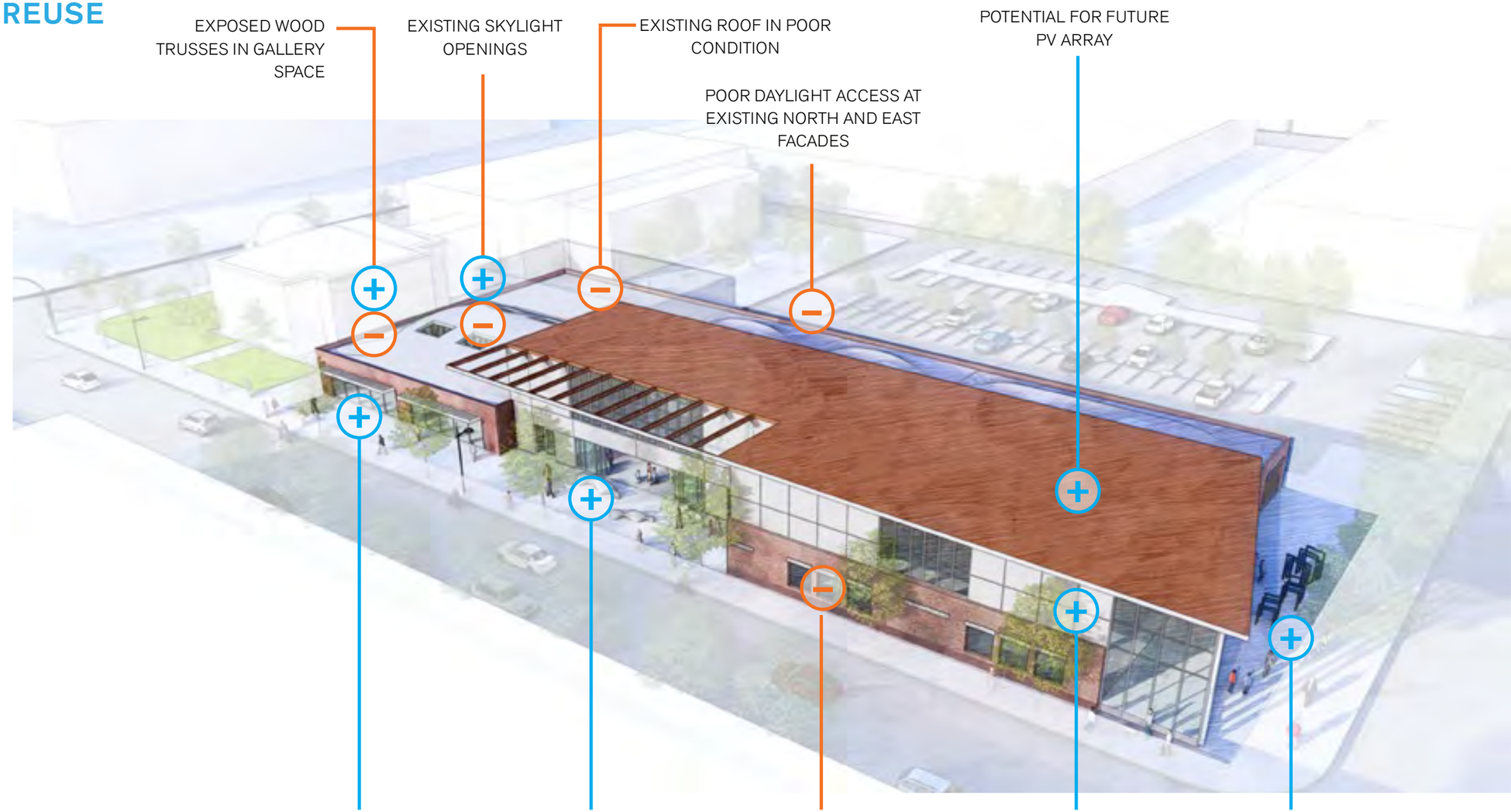
To see this information outlined in a chart, see the following pages in this chapter. For a more comprehensive outline of this information, view the full cost estimate summary in the Appendix.

EVALUATION MATRIX

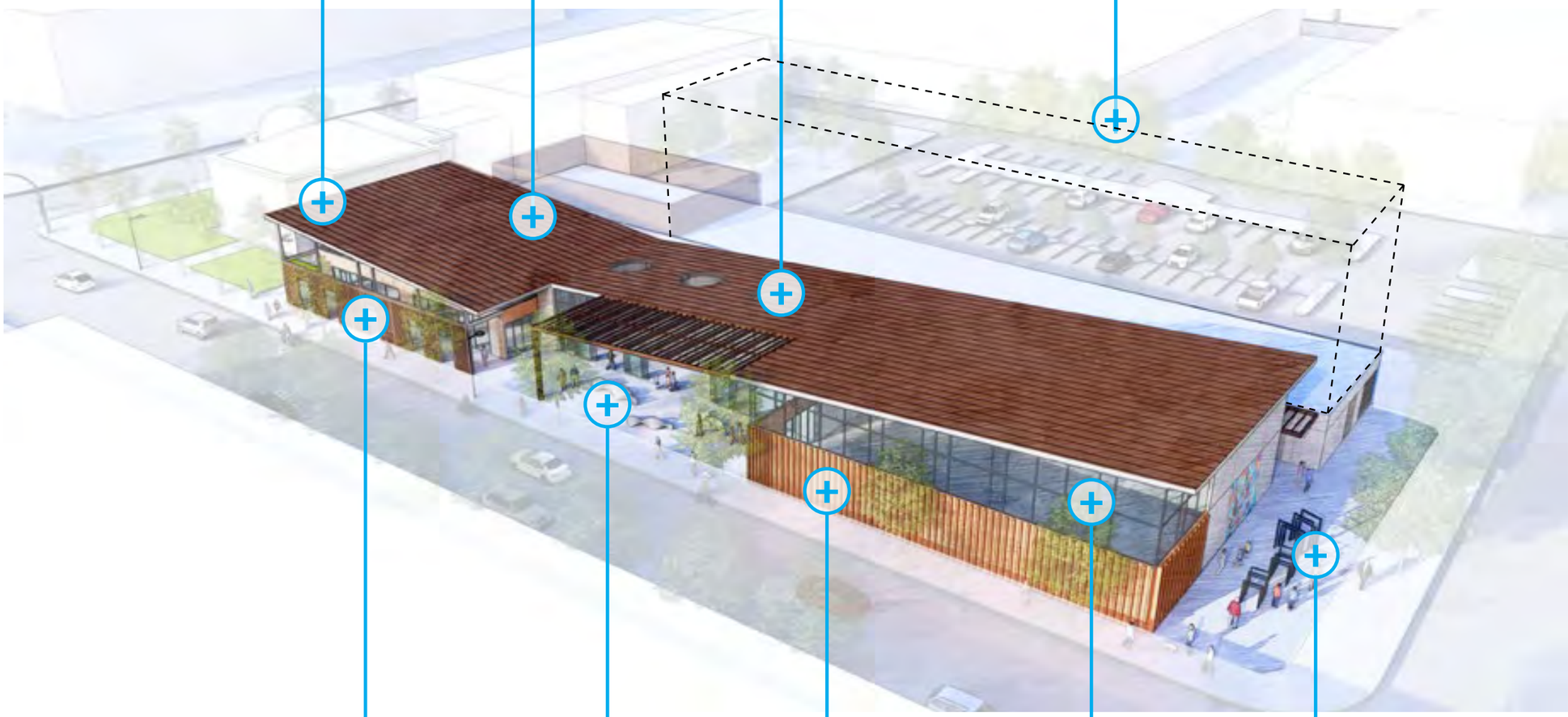
CRITERIA (RANKED)	ADAPTIVE RE-USE	NEW CONSTRUCTION
1. PROGRAMMATIC & OPERATIONAL ALIGNMENT	▪ Interior spaces mostly align with programmatic needs but existing structural grid and building configuration is sub-optimal for certain uses ▪ *Operational alignment TBD*	▪ Interior spaces and adjacencies align with stated programmatic needs ▪ Increase opportunity/flexibility for alignment ▪ *Operational alignment TBD*
2. COMMUNITY NEEDS	▪ Option generally responds to identified current community needs, although more difficult to create access and visual connections between building interior and the street ▪ Less flexibility to accommodate potential future needs	▪ Option responds to identified current community needs ▪ More flexibility to accommodate potential future needs
3. COST EFFECTIVENESS	▪ Marginally more cost effective than new construction	▪ Marginally more costly than adaptive re-use
4. BUILDING RESILIENCY/ LIFESPAN	▪ Increased resiliency and lifespan comes at greater cost	▪ More resilient, longer life
5. ENVIRONMENTAL SUSTAINABILITY	▪ Adaptive re-use does not represent a substantive embodied carbon reduction ▪ Areas of existing, lower performing, building envelope to remain likely translates to higher operational carbon	▪ Embodied carbon marginally greater than adaptive re-use ▪ More control over building performance likely translates to lower operational carbon
6. PROJECT DURATION / EXPEDIENCY	▪ 20 month construction timeline ▪ Building re-use is line with intent of Park Avenue District Plan	▪ 25 month construction timeline ▪ Building demo may create longer approvals process
5. USE OF (E) SITE / SITE RESPONSIVENESS	▪ More constraints in responding to site	▪ More flexibility to respond to site

OPPORTUNITIES & CONSTRAINTS

ADAPTIVE REUSE

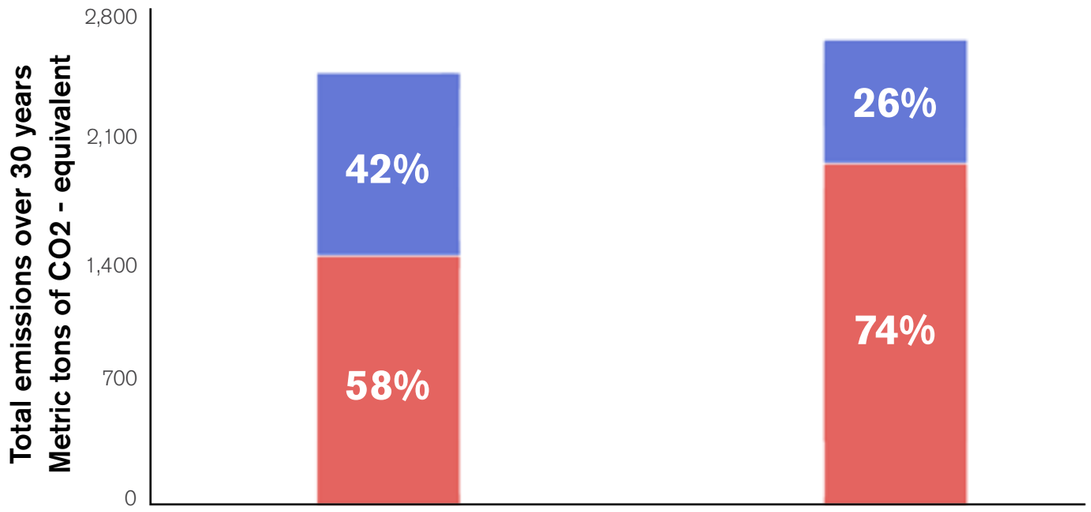


NEW CONSTRUCTION



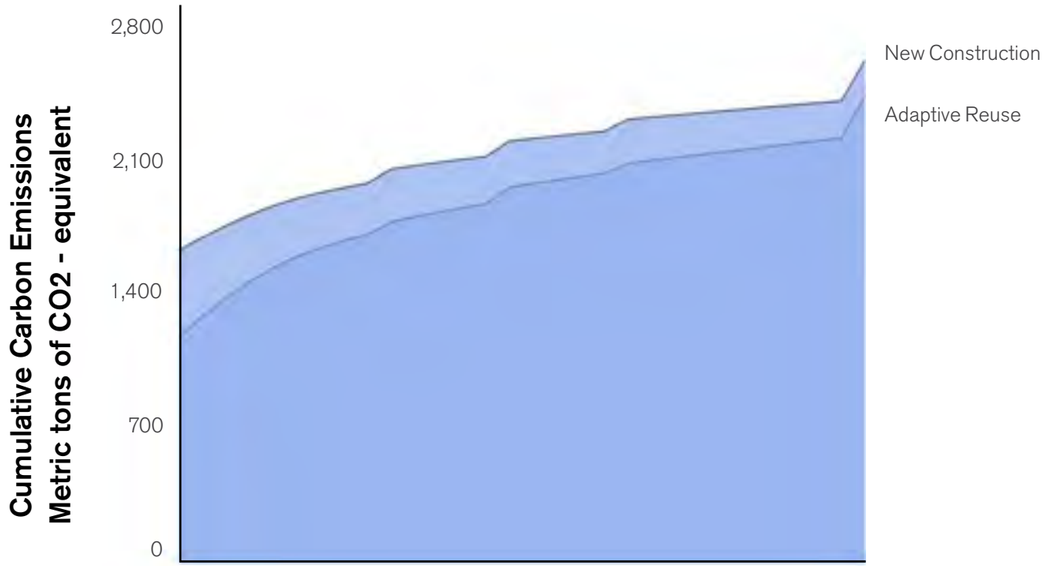
CARBON & SUSTAINABILITY

COMPARISON BY CATEGORY



	Adaptive Reuse	New Construction
Net Emissions	2,480 tCO2e	2,680 tCO2e
Embodied Carbon	1,430 tCO2e	1,960 tCO2e
Operational Carbon	1,050 tCO2e	710 tCO2e
Carbon Storage	0 tCO2e	0 tCO2e
EUI	78 kBTU/sf/yr	50 kBTU/sf/yr
Embodied Carbon Intensity	542 kgCO2e/m²	742 kgCO2e/m²

COMPARISON OVER TIME



HIGH LEVEL TAKEAWAYS

- New Construction has 30% greater **embodied carbon**
- Adaptive Reuse has 30% greater **operational carbon**
- Similar carbon emissions over 30 year time horizon

**Values are from a high level carbon approximation and should be used for relative comparative analysis between scenarios only*

COST ESTIMATE SUMMARY

	ADAPTIVE RE-USE	NEW CONSTRUCTION
TIMELINE	▪ Assumes March 2027 construction start ▪ 20 month construction duration	▪ Assumes March 2027 construction start ▪ 25 month construction duration
TOTAL CONSTRUCTION COST* (*low-high range*)	$38M - $45M	$41M - $46.5M
HIGH LEVEL TAKEAWAYS	▪ Certain overhead costs (i.e. insurance, fees, contingencies) are marginally higher in adaptive re-use because of higher risk and unforeseen conditions. ▪ Existing building structure is in poor condition and requires high level of structural upgrades to bring up to current seismic codes (CEBC assumed) and incorporate new uses. ▪ Existing building does not necessarily lend itself to some of the programmatic needs which results in a more substantive remodel to accommodate new uses, especially when it comes to theater program ▪ New structure provides more flexibility/resiliency -- better able to be lean and intentional with structure.	
HIGH COST ITEMS (TOP 5)	▪ HVAC ▪ Electrical ▪ Superstructure* ▪ Exterior Enclosure* ▪ Foundations	

*Hard costs only, excludes project soft costs such as design & engineering, permits & fees, owner's rep/PM, owner's contingency, etc.
*Scopes representing highest variance between options or low/high cost range

ADDITIONAL CONSIDERATIONS

The goal of this feasibility study was to conduct a high-level exploration in order to compare an adaptive re-use versus new construction approach for the art center project. The studies and analysis documented herein were developed only to the extent necessary to answer this basic question. More thorough analysis and exploration, whether pertaining to building and planning code, or existing building conditions is assumed and recommended depending on the decided upon direction for the project. Additionally, as noted throughout, project visioning and operational model development is still an ongoing process that is happening in parallel to this feasibility report and is yet to be completed. The design team recommends that this visioning process, once completed, be reconciled with the assumptions and recommendations of this study.

The team would also like to touch on some additional considerations that surfaced throughout the feasibility study process that may warrant further consideration based on the direction of the project and the outcomes of the broader re-visioning. These additional considerations are listed below.

MASS TIMBER

For the purposes of this study, steel and concrete structural systems were assumed for both the adaptive re-use and new construction projects as they represent the default, most cost-effective structural approach and seemed most appropriate for the purposes of a feasibility analysis. However, concrete and steel often require larger quantities of embodied energy in their production and may not be the most appropriate choice if sustainability is determined to be of highest priority for the art center project. Mass timber is a renewable resource and has low embodied carbon due to significantly less carbon emitted through its production process than concrete and steel and may want to be explored as a more sustainable structural alternative. Additionally, the City of Emeryville has added Mass Timber Construction as a community benefit eligible for development bonus points.

PHOTOVOLTAIC (PV) PANELS

For similar reasons as noted above, the base case projects in this study did not assume the installation of photovoltaic panels to provide onsite energy production to offset the project's operational energy use. However, it has been noted that both projects assume new roof areas that seem well positioned for PV arrays. We recommend further consideration of incorporting PV panels to support the use of clean, renewable energy. This system would support the building's functions by generating some, if not all, of its own energy, and potentially decrease energy costs. Given that the roof surfaces of this building are not currently shadowed by surrounding buildings and there is significant available roof area, PV panels could be a practical source of sustainable energy.

PHASING

The idea of phasing was only briefly touched on in Chapter 4 when discussing the art center space needs in terms of a small, medium, vs large project. For this study, it was decided that the "medium" version of the project best responded to currently articulated project needs and was assumed as the basis for further study. Reducing the initial project scope through phasing may provide the opportunity to execute the project more quickly and/or reduce intital costs. Conversely, planning for future phases may allow for additional programmatic elements to be added on to accommodate potential future community needs and desires. These may include a gift shop and/or cafe, which could easily be accommodated within the current project footprint, or extend to affordable artist housing, studios, and/or office space which would represent a more substantiative addition and require greater planning in advance. The best project delivery approach should be further explored in the ongoing visioning process. It should be noted that a potential downside of phasing the project would be the increased escalation on delayed future phases.

CHBC VS. CEBC

4060 Hollis Street is classified as a Tier 2 significant building in Emeryville's Park Avenue District Plan that identifies architecturally significant buildings. Some of the features that contribute to the building's classification as such include the brick facade, symmetrical punched openings, continuous linear elements, and the concrete lintels. Previous proposals for the project argued that this classification may enable the use of the California Historic Building Code (CHBC) rather than the California Building Code (CBC) or California Existing Building Code (CEBC). The use of the CHBC would likely translate to fewer or less stringent seismic code requirements than the CBC and less structural costs associated with the adaptive re-use project. However, this study assumed use of the CEBC when it came to determining the most appropriate lateral system given the public assembly program and associated risk level.

07 Appendix

(Available upon request)

STRUCTURAL APPROACH – ADAPTIVE REUSE

STRUCTURAL APPROACH – NEW CONSTRUCTION

COST ESTIMATE