CIVIC CENTER FOR EDUCATION & CULTURE 2017 PROGRAM

BOISE PUBLIC LIBRARY | BOISE DEPARTMENT OF ARTS & HISTORY

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Executive Summary

Executive Summary

The purpose of this program document is to provide background information and a program to guide the design of the Boise Civic Center for Education and Culture, which at this time includes the Boise Public Library, the Department of Arts & History and a Performing Arts Theater.

This program document builds upon two past efforts to update and bring forth the current design approach or thought for this developing project. First, this document builds on the program that was developed for the library in 2014 adding in the Arts & History and theater portions of the program. Secondly, it builds upon the recent visioning outreach process that occurred in March 2017. The visioning effort produced the following statement that has become the focus of creating this project.

The executive summary of the 2014 Library Program document has been included in this program for reference (see Section 02 Visioning Summary).

Project Goals and Objectives for the project as set by the project steering committee are summarized as follows:

Design

- A landmark public space, an iconic gateway to the city, and an environment with striking presence
- An interactive, high-tech/high-touch space that engages the senses
- A facility that meets the parameters of capital and operational budgets, turning vision into reality

Create

- A local and regional destination, and an economic-development anchor

Look, Learn, Create, Collaborate !

This is the Library. This is Arts, History and Culture.

This is a place for all of Boise. For a growing Boise. And for growing beyond Boise.

It's the epicenter for a burgeoning Cultural District.

This is the future. And for us, this is right now.

The Civic Center for Education & Culture will be a world-class cultural center of activity, learning, history, and art for everyone. A true 21st century library. An Arts & History center that preserves the past and creates the future. A gathering place, whose striking presence will be an iconic gateway to the city.

This is our chance to create a facility that will outlive us all.

It's a bridge: to Downtown, the River, the Greenbelt, and the University. It's a bridge to learning, and the application of learning, and to greater things for those who need it.

The books will stay. The technology will stay. The meeting rooms, the public art – all that stays. But it gets bigger, and better, just like the city that surrounds it.

This is the new Library. It's the nexus of culture and education.

It's the stake in the ground marking Boise as a true regional city.

It's the facility that Boise and its citizens needs, wants and deserve.

01 Executive Summary

- A place-based culture, and an environment that provides "an inspirational experience for all"

Connect

- To the Boise River and Greenbelt by creating strong indoor/outdoor relationships
- Learning with application, through a combined, collaborative Library and Arts & History
- Form with function; where form responds to the operational function of spaces as a community catalyst

Sustain

- A facility that meets city energy goals, and demonstrates a commitment to sustainable building practices, community health, and public involvement.

PROJECT DESCRIPTION

The Boise community has developed a clear and comprehensive vision for the future of The Boise Public Library and the Boise City Department of Arts & History. Much more than a repository for books, this project will catapult both the main branch of the Public Library and the City of Boise to the forefront of public library services for decades to come.

The City of Boise will create a place for civic and cultural engagement, a family destination and a vital community center. The expansion will increase the capacity and efficiency of the existing library, but more than that, it envisions the Boise Public Library as a hub for education and culture, a downtown anchor and gathering place.

SITE ANALYSIS

The new building will be located on the site of the existing main branch of the Boise Public Library, which extends from the Boise River to River Street and from 8th Street to Capital. A soils analysis has been completed. This document contains an analysis of the site from several different perspectives. The design of this site is critical to the overall success of the project with connections to the river and the greenbelt, out into the community, and providing outdoor gathering spaces for programs or informal gathering space.

SPACE LIST

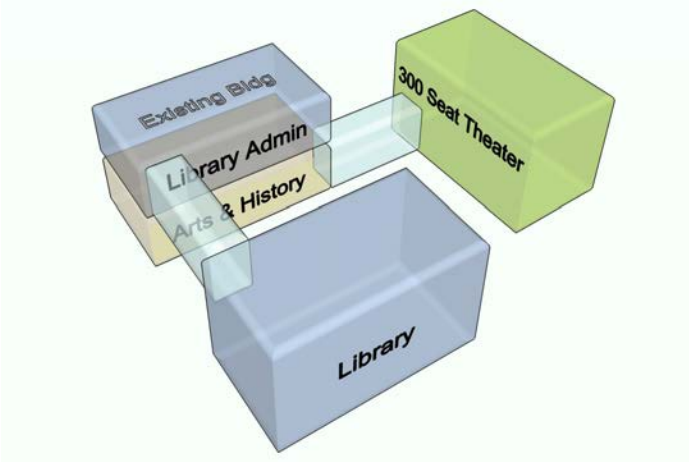
The space list is reflective of an option with an off-site parking garage and reuse of the existing four-story portion of the existing library.

ADJACENCIES

There are many options for how this building(s) is planned and sited on the project site. Adjacency diagrams showing the potential shared relationships as well as the individual program relationships that are necessary for the functional operation of the building(s).

SPACE DIAGRAMS

The program does not include space diagrams or room data sheets for all spaces. It does however provide space diagrams for program spaces that have some unique requirements that are important to understand when laying out the spaces in the design solution.



Adjacencies Combined Bubble Diagram

ZONING & CODES

The zoning and codes have been researched and resource information about applicable codes and ordinances have been included. It should be noted that the strong connection to the river has some stringent guidelines that are under review and discussion of the best way to allow the public to engage with the river.

NARRATIVES

The breadth of the project has grown from a library to a civic cultural center. Narratives have been provided to further explain the intent, vision and requirements for the building(s). This includes details about each organization and detailed direction on sustainability, theater, acoustics and audiovisual components to critical portions of the project.

The Boise Civic Center for Education and Culture has the potential to be a world-class facility on a variety of fronts. The innovation and creative process that has developed the project thus far is culminating in a great cultural attribute that will serve the city by creating ongoing experiences of discovery and connections at this newly envisioned cultural hub.

SPACE LIST SUMMARY

EXISTING BUILDING SUMMARY

Demolition of one story portion of existing library building

Four story existing library building to remain.

- Arts & History Space to be renovated (Portions of Level 1 & 2)
- Library Space to remain as is with a possible future phase renovation

LIBRARY New Building and Existing Building	SQUARE FEET
LEVEL 1 New Building	23,010
LEVEL 2 New Building	22,097
LEVEL 3 New Building	23,160
New Building Total GSF	**68,267**
Existing Building	40,400
TOTAL LIBRARY GSF (GF INCLUDED)	**108,667**

ARTS & HISTORY Existing Building Levels 1 & 2	SQUARE FEET
ARTS & HISTORY DEPARTMENT	7,275
GALLERY	3,100
ARCHIVES	6,121
GROSSING FACTOR	4,124
TOTAL ARTS & HISTORY GSF	20,620
LIBRARY / ARTS & HISTORY SHARED SPACE	**SQUARE FEET**
TOTAL SHARED GSF	2,980
TOTAL EXISTING BUILDING GSF	64,000

THEATER New Building	SQUARE FEET
LOBBY	1,500
AUDIENCE CHAMBER	4,768
FRONT OF HOUSE	1,717
PERFORMANCE AREAS	3,170
TECHNICAL / BACKSTAGE AREAS	2,814
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TOTAL GSF	**18,160**
TOTAL PROGRAM SPACE GSF	**150,427**

SUMMARY BY BUILDING	SQUARE FEET
Existing Building Renovation	64,000
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Theater	18,160
TOTAL GSF	**150,427**

PARKING STRUCTURE	STALLS
LIBRARY	350
ARTS / HISTORY	25
THEATER	175
SUBTOTAL	**550**
SHARED PARKING TIME ANALYS	**-250***
TOTAL MINIMUM PARKING STALLS NEEDED	**300**

see page 68 for shared parking information

Indicates opportunity to share space to maximize utilization and efficiency.

01 Executive Summary

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02

Visioning Summary

The City of Boise has embarked on a mission to create a world class “Civic Center for Education & Culture” as the central core anchor to the Boise Cultural District. The project looks to capture the existing library site which sits center to and connects with many of Boise’s cultural amenities such as the library, the green belt and river, the art museum, the university, the history museum, downtown, and large open space parks, just to name a few.

The visioning report provides a vision and recommendations based on the information gathered through seven stakeholder outreach workshops. The workshops were designed around collecting input from a wide cross section of users and community members about proposed uses for the library site. The proposed uses presented to the stakeholders included a main library, arts and history department, archives, gallery spaces, performing arts space and outdoor spaces for public gathering and use.

Boise Cultural District Map

The City of Boise organized and invited members of the community from the following groups providing them options to attend a morning, afternoon or evening event.

- Library stakeholders: Members of the Board of Trustees, Library Foundation, Friends of the Library and City Council
- Teenagers/young adults
- Senior citizens
- Business leaders from the downtown corridor and Downtown Boise Association entrepreneurs
- Educators from the public schools, private schools, charter schools, home-schoolers and immigrant/refugee service agencies
- Boise State University and other higher education institutions
- Young families and young professionals
- Visual arts, performing arts, history and cultural community leaders as identified by the Arts & History department, including leadership of cultural organizations, individuals in the creative sector and people well-versed in the need for collaborative space to be used for cultural programs, activities, exhibits and City Archives

02 Visioning Summary

WORKSHOPS

Each workshop included the same activities for all of the users. The workshops were designed as “think” exercises to encourage the stakeholders to be creative and visionary with their ideas about this place based culture.

The main objective of the workshops was to help stakeholders understand the proposed program elements, the context of the proposed site and potential activities or experiences that they may want to have at the site. This presentation was in preparation for the experience activity that was to follow where smaller groups would collaborate to create experiences and imagine what they and others would like to have/do at this public place and its surrounding cultural neighborhoods.

Stakeholders provided background information and a list of programmatic requirements at the beginning of each session.

PUBLIC INTEREST DESIGN

The following are Social, Economic and Environmental issues that need to be considered as part of the programming and design of the project.

SOCIAL ISSUES

- Homelessness
- Equality – Access for all to education and arts
- Accessibility
  - Parking
  - Strollers
  - Pedestrians
  - Bicyclists
  - ADA
  - Seniors
- Civic Engagement
- Cultural Heritage
- Education
- Gathering Spaces
- Recreation / Play
- Strengthening Community

ECONOMIC ISSUES

- Access to Services – small business access to databases and networking with other businesses and incubation start up services
- Business Training
- Education – return on investment from child education
- Employment – Resumes and Job Search services
- Entrepreneurship – business incubation – emerging artists gallery and performance space

ENVIRONMENTAL

- Access to Nature – Greenbelt / Rooftop Garden
- Alternative Energy – solar power – geothermal heat
- Environmental Education
- Local Sourcing (buy local)
- Preservation of Nature – Greenbelt / Rooftop Garden
- Public Transportation – “The Circulator”

Upon review of all of the data, notes, discussions with stakeholders and discussions with the project leadership the following common themes were recommended to be included in the development of the design concept of the project.

Top Reoccurring Themes:

- **The River**
- **Bicycle and Pedestrian Connectivity**
- **Reading Areas and Collections**
- **Indoor - Outdoor Connections**
- **Roof Top Garden**
- **Food and Drink**
- **Multiple Activities**
- **Art Displays**
- **Versatile Performing Arts and Activity Space**
- **Gateway to the City**
- **Parking**

PROJECT VISION STATEMENT

The Civic Center for Education & Culture

IMAGINE! Imagine a place . . . a place that is Boise, that is culture, that is learning. Imagine a place that creates inspirational experiences.

This is your place, our place . . . "The Place" to be.

The Civic Center for Education & Culture will be a world-class inspirational cultural center of activity, learning, history and art for all. A 21st Century Library built on innovation, knowledge acquisition and application. An Arts & History Center that preserves the past and creates the future. A place based cultural center whose inspirational striking presence will be an iconic gateway to the city, a landmark public space of activity and experience integrated with the serendipitous flow of river.

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03

Project Goals & Objectives

Goals & Objectives

The Civic Center for Education & Culture will be a world-class inspirational cultural center of activity, learning, history and art for all. A 21st Century Library built on innovation, knowledge acquisition and application. An Arts & History Center that preserves the past and creates the future. A place based cultural center whose inspirational striking presence will be an iconic gateway to the city, a landmark public space of activity and experience integrated with the serendipitous flow of the river.

Design:

- A landmark public space, an iconic gateway to the city, and an environment with striking presence
- An interactive, high-tech/high-touch space that engages the senses
- A facility that meets the parameters of capital and operational budgets, turning vision into reality

Create:

- A local and regional destination, and an economic-development anchor
- A place-based culture, and an environment that provides “an inspirational experience for all”

Connect:

- To the Boise River and Greenbelt by creating strong indoor/outdoor relationships
- Learning with application, through a combined, collaborative Library and Arts & History
- Form with function; where form responds to the operational function of spaces as a community catalyst

Sustain

- A facility that meets city energy goals, and demonstrates a commitment to sustainable building practices, community health, and public involvement.

Context / Environment

The environment and context of the project site has a formal urban edge along Capitol Boulevard, 8th and River streets and has an informal more recreational edge along the river and the green belt. The 8th Street corridor is a major pedestrian and bicycle connector between Boise State University and downtown. Capital Boulevard is a major automobile corridor into downtown. These different edges should be taken into consideration in the design of the project as it reaches out to downtown and connects with the river. The environment from the exterior should be addressed and taken into the interior to blur the lines between inside and outside as the building becomes an integral part of its surrounding environment.

Opportunities

The complex yet exciting nature of the project provides numerous opportunities. As a 21st century library the creative process vs creativity of knowledge acquisition and application must be more than what goes in the building, it must become the building. Knowledge must be explored, discovered and embraced. Opportunities for connections to the community, for a striking design, for a multi-generational and multicultural experience must be explored. New opportunities must be found and capitalized on to create the environment for experiences to happen.

03 Project Goals & Objectives

Iconic Landmark Design

The building or complex of buildings, while responding to the urban and recreational context, must create an iconic gateway to downtown Boise. The striking architecture will need to create a landmark while simultaneously remaining integrated with its context and response to the city, the park, the greenbelt and the river. A successful design will become a part of the context without mimicking or copying the context. The design will need to be fresh, new and striking, while remaining responsive to its surrounding environment. This civic center should also stand the test of time. While it should not feel “dated” after a decade or two because of trendy patterns or styles, “timeless” architecture should be achieved. It’s materials, proportions, aesthetics and systems should be durable, rational, beautiful and sustainable. They should endure and remain relevant, both physically and socially, for many years. This civic center will preserve our past and create our future and should outlive its designers and creators.

Outdoor Relationships

Every opportunity should be embraced to connect the indoor spaces to the outdoor spaces. Ideas from having the greenbelt trail start inside the library to roof top gardens and views of the river and the foothills must become a part of the exploration and solution.

Unifying Form and Function

The program identifies function and adjacencies of spaces. The form of the building, while being conscious of budget and a landmark design, must integrate the function in a unique but usable way that allows the operation of the cultural facility to maximize the visitor’s experience while maximizing the operational efficiencies for all spaces, departments and agencies involved.

Pre-Design Sustainability

At this early stage of project development, the project aspires to a low EUI and to certify with ILFI Net Zero, SEED and with USGBC under LEED BD+C: New Construction (NC) v4 Silver (minimum). Each time the USGBC issues a new version of rating system the bar is raised; this is very true of the move from v3 to v4. Generally speaking, a building that would have achieved Gold under v3 is likely to achieve Silver for the same investment in terms of time and money. This is due primarily to market forces that are beginning to adjust to the new ideas encapsulated in the rating system, such as those related to building material ingredient transparency. The building looks to be 2030 Challenge compliant and will implement the Health Impact Assessment as a part of the design process.

Interactive and Engaging Space

This project is very much about the user or customer experience. The experience must be interactive and engaging from the time one comes into view of the site, to the opportunity for experiences with knowledge, programs, performance, art and history. In order to create inspirational experiences there must also be pause, reflection and quiet that build up to the excitement and interaction.

Destination Experience

The experience created on this site through a collaborative combination of design, function and operational programming must be so engaging that this cultural center becomes a destination where there are main draws to bring you there as a place based destination but once you arrive you find yourself in a world of exploration and discovery.

Cultural District Epicenter

Geographically this site is the center hub of the City of Boise’s Cultural District. This project has the potential to become the cultural experience epicenter within the district.

Designing Within a Budget

As with every project there is a budget and although the vision for this project is grand the funding is defined and the budget must remain in tact. A constraint that a creative mind will use to the advantage of the experiential design.

04

Project Description

Project Description

INTRODUCTION

The Boise community has developed a clear and comprehensive vision for the future of The Boise Public Library and the Boise City Department of Arts and History. Much more than a repository for books, this project will catapult both the main branch of the Public Library and the City of Boise to the forefront of Library Information Science for decades to come. The City of Boise will create a place for civic and cultural engagement, a family destination and a vital community center. The expansion will increase the capacity and efficiency of the existing library, but more than that, it envisions the Boise Cultural Center as a hub for education and culture, a downtown anchor, a gathering place within the city and an incubator for the arts and technology.

CONTEXT

The existing Main Branch of the Boise Public Library is located at 715 South Capitol Boulevard, in downtown Boise. The site sits between two primary one way roads, South Capitol, which allows traffic in a northerly direction and South 9th Street which allows traffic in a southerly direction. Capitol Boulevard terminates at the Idaho State Capitol building to the north and the Boise Depot, to the south. The site is just north of the Boise River with direct riverfront access. To the East, across South Capitol Boulevard sits the Boise Art Museum in historic Julia Davis Park. West River Street defines the northern edge of the site. 8th Street, which is directly to the west of the site is a major pedestrian and bicycle corridor that connects Boise State University to downtown. An existing single story office building to the west, on the other side of 8th Street from the library, shares a riverfront memorial dedicated to Anne Frank. This park provides connectivity to other nodes along the river via a riverfront bike and walking path including Boise State University and Ann Morrison Park via a footbridge.

The existing Boise Public Library is a 4 story brick, stone and concrete building with a single story addition on the south. One option, to enlarge the Library, considered keeping and renovating the existing 4 story building while removing the single story addition. Through a cost analysis process it was discovered that it would actually be most cost effective to demolish the entire existing Library building and start a new building from a cleared site. The existing Library building is surrounded by single story buildings on most sides. New development diagonally across the intersection of 8th and River Street is a mid-rise, mixed use housing project. Current parking for the library is located on the site accessible from West Capitol and River Street as well as a surface lot across River Street.

LIBRARY SYSTEM

The Boise Public Library consists of the main branch plus five satellite locations, including one at the airport. Boise Community members use the library for internet access, obtaining resources for medical, job, career, non-profit information, do-it-yourself projects and a variety of creative endeavors. The library is also a resource for innovation and entrepreneurs and provides state-of-the art 3-D printing, virtual reality, database resources for business and research as well as a variety of digital information services.

As a part of this project, additional Library programing will include: a new lobby, a ground floor popular library, cafe, tiered seating area, retail space for the Friends of the Library store, staff and catering areas, children's library, teen library, Learning Lab, adult area, group study rooms, shipping and receiving spaces and toilet rooms. A new Automatic Storage and Retrieval System (ASRS) will be a part of this project and should be integrated into the design as a visible element. Outdoor spaces

should be integrated into the project and should include a rooftop garden, outdoor plaza and amphitheater. River access and the greenbelt is to be celebrated.

A portion of the library's collection will be housed in the ASRS. The existing library archives are being augmented to expand the scope and depth of the library's collection as well as size, ensuring better access to library collections and information for the public. The Library expansion will provide the space for archival studies where research is conducted and the stories of the past are held and told. This part of the project contains collections, archival storage, research archives and research rooms.

Included in the Library will be a Maker Lab. Encouraging future entrepreneurs, through a Maker Lab, with knowledge acquisition and application space, group collaboration and more intimate study rooms. The Maker Lab will provide the community with access to 3-D printers, classes, collaborative spaces and workshops. The Maker Lab is seen as a place to not only learn through reading but through doing, a place for hands on learning. On each floor there will be Maker Collaboration Pods. These pods are similar to the lab but at a smaller scale. They integrate book stacks, collaborative meeting space, and lab space to allow individuals or groups to not only find learning material but to also have the opportunity to apply it without leaving this part of the Library.

ARTS & HISTORY DEPARTMENT

In addition to the knowledge and information based resources, at the Library this civic center will also include the cities Arts and History Department. This space will include gallery space, a versatile performance venue, a municipal collection facility for art, archives and artifacts and office space for the Arts and History Department staff as well as studio space for a resident artist(s). In addition to its role as a cultural hub and arts incubator, the Arts and History Department will provide amenities and collaborative opportunities for residents, visitors, creative professionals and emerging makers. It will enhance public understanding of the role that art, history and culture play in creating a dynamic community. The Arts and History Department will give residents and visitors the opportunity to engage directly with the cultural heritage of the Boise region and integrate the Boise Arts and History Department's mission based-programming. Through the centralization of multiple cultural functions, including administering public art, grants, cultural sites and history programs the Arts and History Department component of the Library will be a starting place for art within Boise and a venue through which Boise will connect to creative programs throughout the country.

Arts & History Collections

These archives will serve as a cultural interpretive center for the region. The Arts and History archives will be available to the public to research and use as a resource. The project will include research rooms where items can be removed from the archive and handled or examined by members of the public in a secure area.

Exhibition Gallery

A place for art to be seen and shared and for artists to grow. Nothing is more important for an emerging artist than a place to show their work, receive feedback and gain exposure. A gallery space, provided by the community for the community, without the economic pressures of the commercial art world is a gift a community gives to itself. The program for the Arts and History Department includes a generous gallery space with curation room and storage.

THEATRE

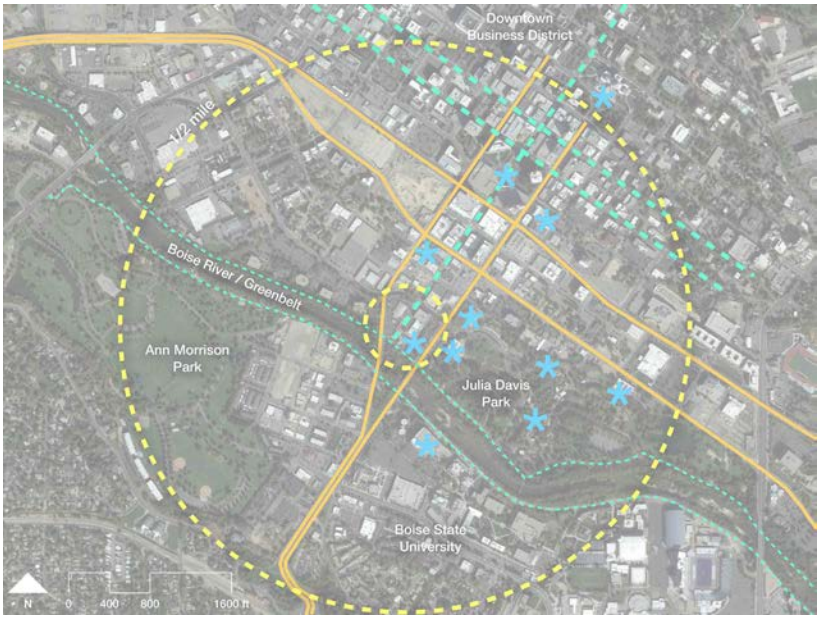
Imagine a theatre where emerging writers and performers can come together to see and be seen. A venue for spoken word, music and dance. A place to experiment, test, develop and perform. Imagine a place that looks to the past and the future, for all of the performing arts. The theatre component of the Civic Center will be a place for history to come alive. A place to make history.

05

Site Analysis

Site Analysis

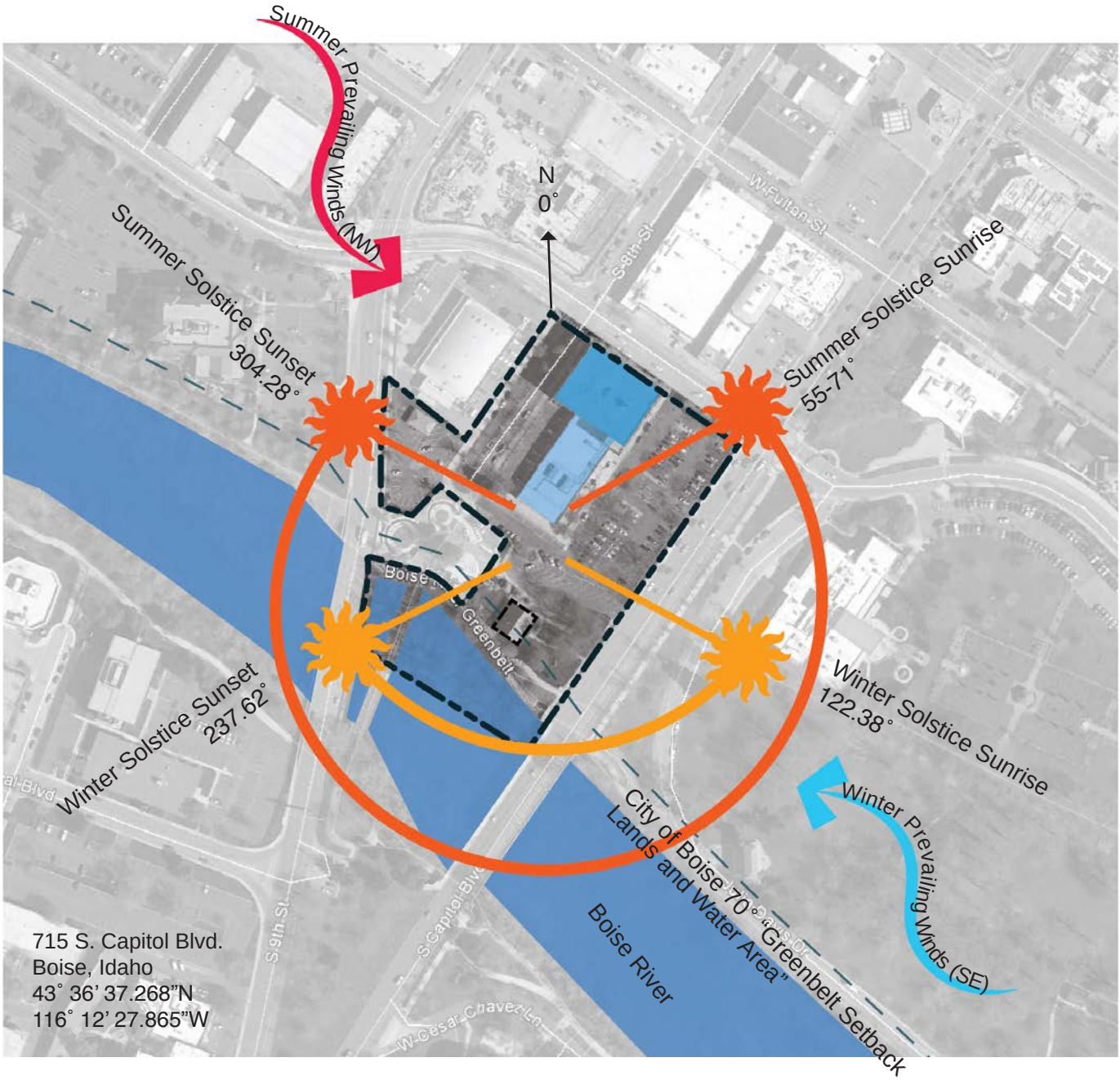
The following pages include site analysis diagrams as a part of the program document which help identify the parameters of the site and provide information by which the design should be responsive. These diagrams identify the important information that should be used in the evaluation of the site during the design process and should be used as a guide by which to measure elements of presented design concepts.



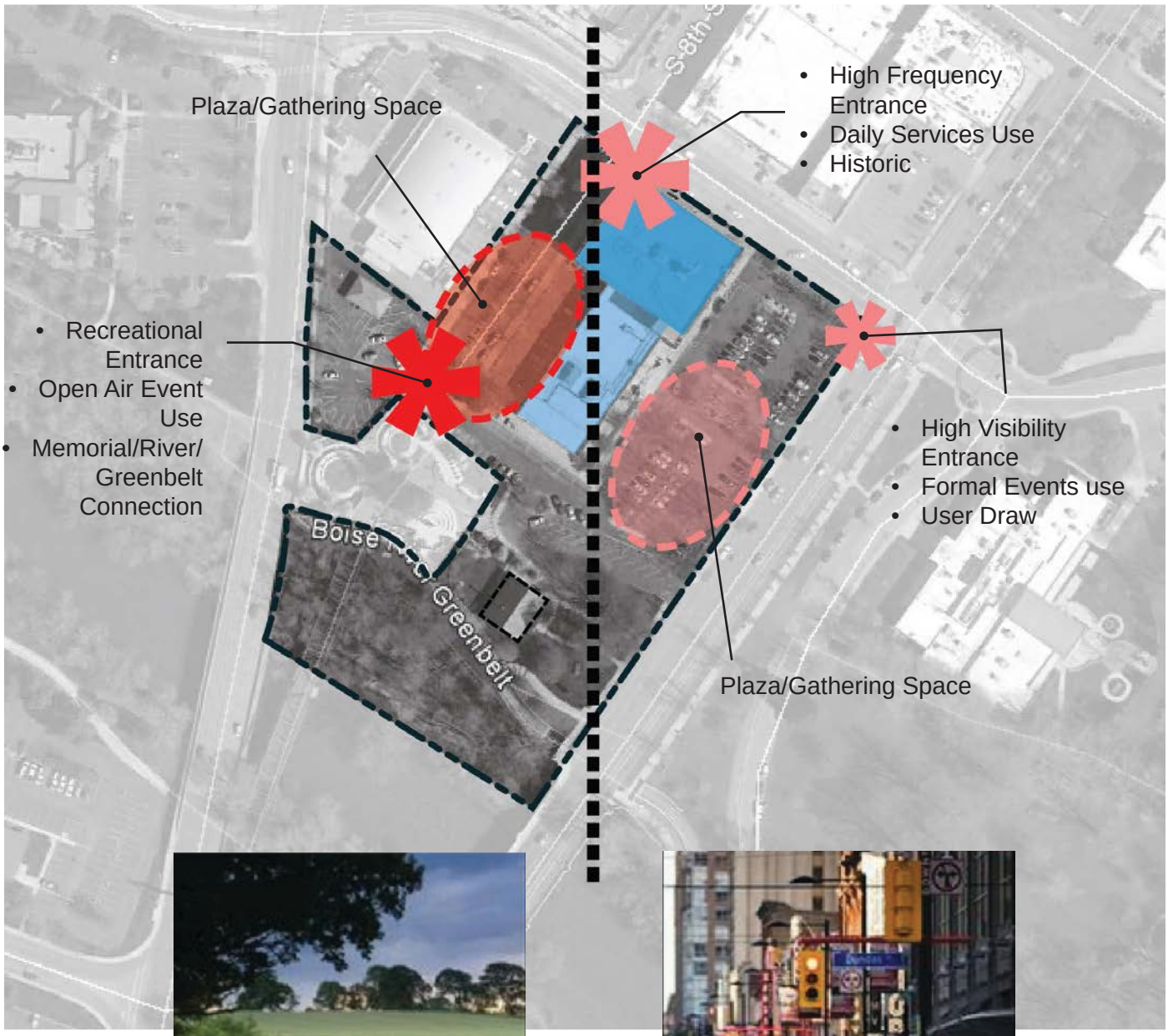
Boise Cultural District Map

Site Section

CLIMATE DIAGRAM



FORMAL / INFORMAL DIAGRAM

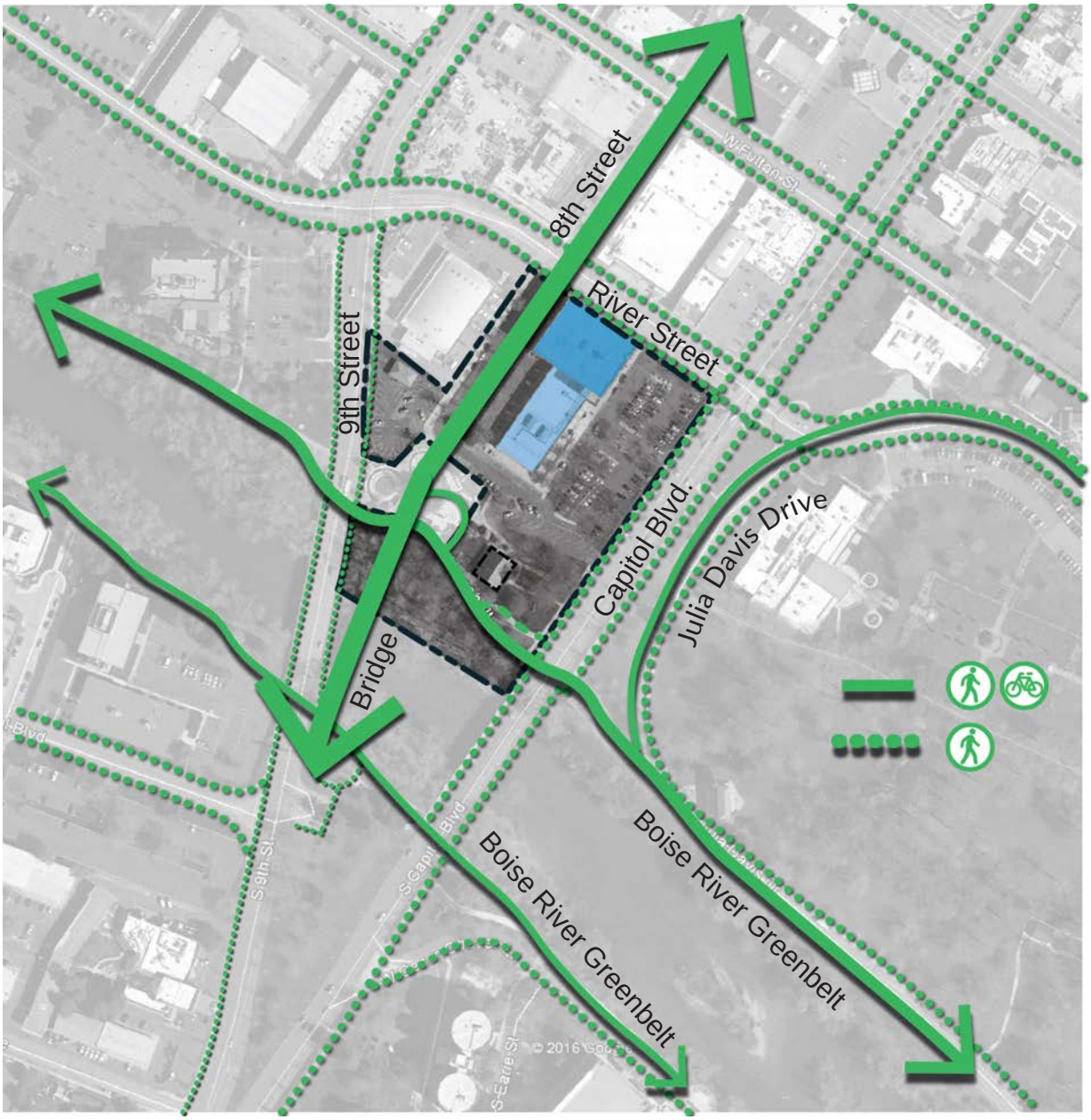


Informal

Formal

05 Site Analysis

PEDESTRIAN CIRCULATION DIAGRAM



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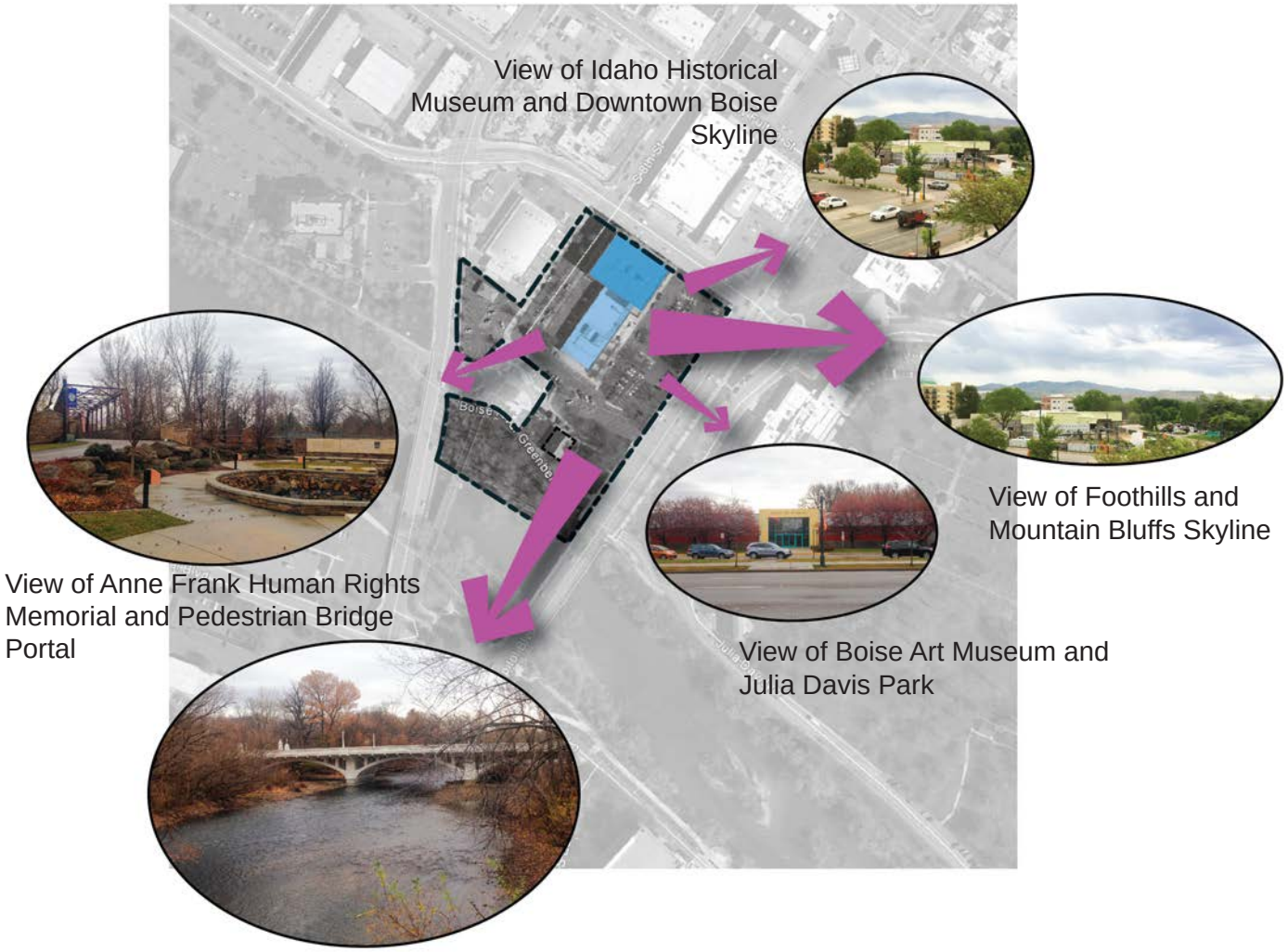
VEHICLE CIRCULATION DIAGRAM

TREE PATH DIAGRAM

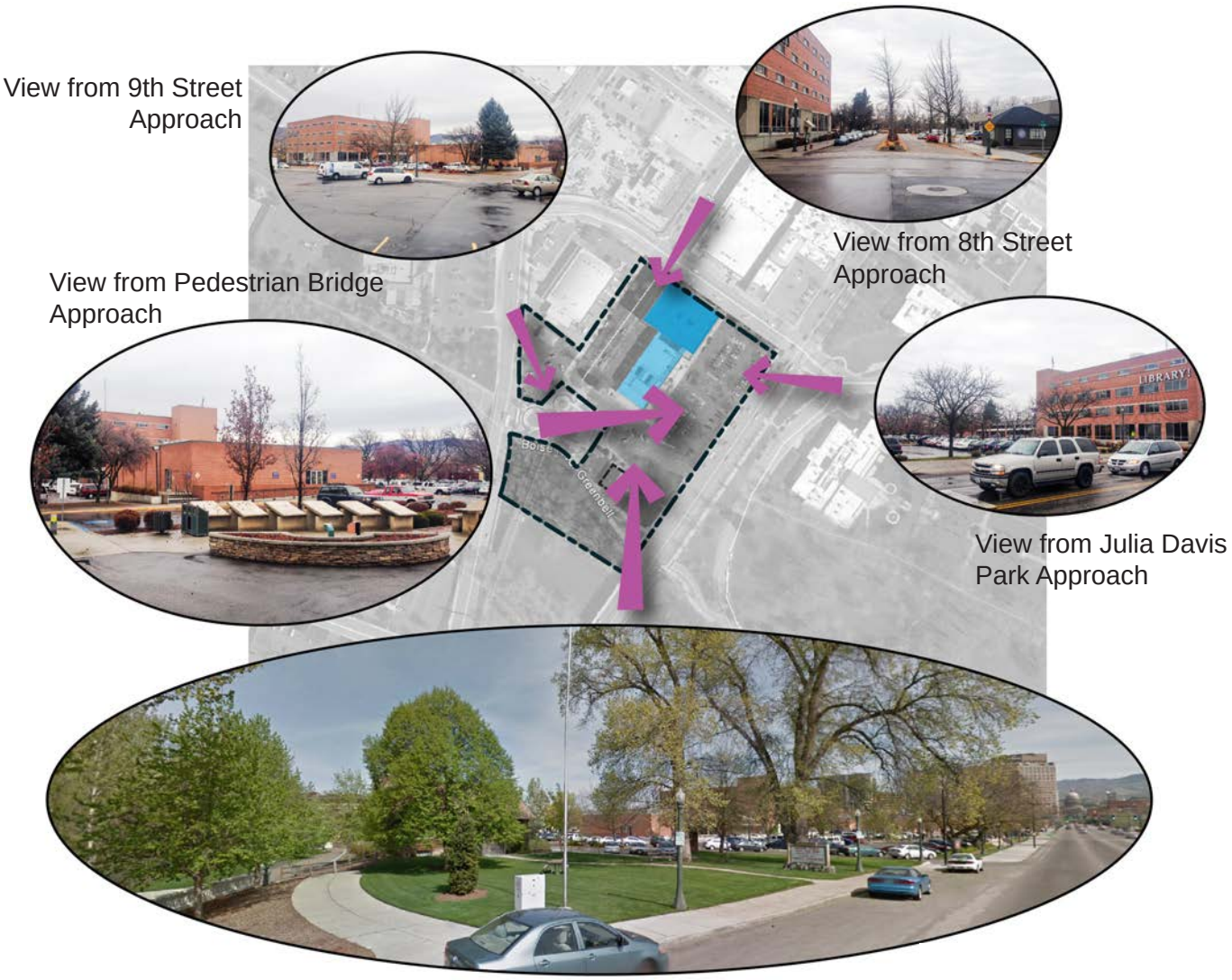
CRITICAL VIEWS FROM THE SITE



**Current view from site is obscured. There is potential for new zoning to allow view and connections to the greenbelt and the river.*

05 Site Analysis

CRITICAL VIEWS OF THE SITE



06

Space List

EXISTING BUILDING SUMMARY

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06 Space List

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** see page 68 for shared parking information*

2017 BOISE LIBRARY PROGRAM

EXISTING BUILDING LEVEL 1	SF 9,490	USERS
ATS	4,000	10 Staff
Extension Services	420	2 Staff
Staff Work Room / Office	1,500	see ATS
Shared Shipping / Receiving - Dock - Storage	800	
Mail Room	200	1 Staff
Courier	420	1 Staff
Maintenance	1,500	4 Staff
Friends Store	650	12 Customers

EXISTING BUILDING LEVEL 2	SF 6,000	USERS
Friends Sorting/Storage (could be upper)	3,500	
Staff Work Room / Offices	1,500	8 Staff
Classrooms (dividable) (could be upper Level)	1,000	50 Customers

EXISTING BUILDING LEVEL 3	SF 14,380	USERS
Maker Space		1,550
Level 4 Maker Collaboration Pod	1,550	8 Customers
Administration		11,130
Administration Services	3,600	6 Staff
FISH Tank	450	14 Staff
Training Lab	1,000	28 Staff
Staff Room w/ Wellness Center	800	12 Staff
Supply / Storage (for system - doesn't need to be 4th floor, to be distributed throughout all levels where staff needs require it.)	4,800	1 Staff
Lactation Room	80	2 Customers
Staff Toilet Room and Showers	400	
Gathering / Multi-purpose / Maker Spaces		1,100
Divisible Classroom / Meeting Room	800	40 Customers
Group meeting Rooms	300	12 Customers
Toilet Rooms		600

Indicates opportunity to share space to maximize utilization and efficiency.

06 Space List

EXISTING BUILDING LEVEL 4	SF 8,864	USERS
Existing Library Training Room (to be divisible)	7,364	
Learning Lab / Literacy	8,636	
Learning Lab / Literacy	6,896	20 Customers
Classrooms (2)	1,040	52 Customers
Tutorial Rooms (4)	400	14 Customers
Group Study Room	300	12 Customers
EXISTING BUILDING TOTAL LIBRARY PROGRAM		**38,734**

NEW BUILDING LEVEL 1	SF 23,010	USERS
Lobby	3,090	
Entrance Lobby / Exhibition Space / Cafe	1,500	8 Customers / 52 Customers in Cafe
Circulation Kiosks	90	
Popular Library (Mini Branch)	1,500	28 Customers
Gathering	1,500	
Program Room	1,500	75 Customers
Toilet Rooms	2,220	
Men's	800	
Women's	1,200	
Family (2)	160	
Lactation Room (public)	60	2 Customers
ASRS	1,700	
ASRS	1,700	
Automated Materials Handling System	600	
Chidren's Area	9,360	
Children's Services w/ Service Kiosk	8,500	
Service Station	80	2 Staff
PACs	40	4 Customers
Children's Area Family Toilet Rooms (2)	160	
Childrens' Area Changing / Lactation Room	80	2 Customers
Story Time Area	500	100 Customers
Tiered Reading Area / Gathering space		136 Customers
Teen/Children		Combined
Teens	4,540	
Tweens / Teens with Service Kiosk (2 staff)	4,200	50 Customers
PACs	40	2 Customers
Teen Study Rooms (2 at 150 SF each)	300	12 Customers

NEW BUILDING LEVEL 2 NEW BUILDING	SF 22,097	USERS
Adult	11,547	
Adult Fiction w/ Reader's Advisory Kiosk (1 Staff)	11,387	24 Customers
Service Station	80	2 Staff
PACs	80	4 Customers
Tech Area	2,500	
Computer Lab/Office-Wrk Rm / Storage	1,463	20 Customers
Group Meeting Rooms	400	14 Customers
Open Comfortable Seating	240	5 Customers
Classroom	375	10 Customers
IdahoRoom	3,700	
Idaho Room (2 Staff)	3,700	20 Customers
Gathering Space	1,800	
Group Study Rooms	800	32 Customers
Gathering Spaces	1,000	50 Customers
Maker Space	1,550	
Maker Collaboration Pod	1,550	16 Customers
Toilet Rooms	1,000	
Men's	440	
Women's	440	
Family Toilet Room	80	

NEW BUILDING LEVEL 3	SF 23,160	USERS
Adult	17,235	
Adult Non-Fiction (partial)	17,080	32 Customers
Self-Check Stations	75	
Readers Advisory Kiosk	80	2 Customers
Maker Space	4,550	
Main Maker Space	1,500	6 Customers
Maker Collaboration PodS	1,550	12 Customers
Staff Work Room / Offices	1,500	8 Staff
Service Point	775	
Funding Information Center	500	4 Customers
Reference	150	2 Customers
Service Station	80	1 Staff
Self-Check Stations	25	
PACs	20	2 Customers
Toilet Rooms	600	
Men's	300	
Women's	300	
TOTAL NEW LIBRARY BUILDING GSF*	**68,267**	

**GSF has grossing factor already accounted for per Godfrey's Associates work*

06 Space List

2017 ARTS & HISTORY PROGRAM

Existing Library Building Portions of Level 1 & 2

ARTS & HISTORY DEPARTMENT ENTRANCE - LEVEL 1	SF	USERS
Entrance	2,650	
Lobby	500	2 Customers
Retail	500	2 Customers
Welcome Desk	150	1 Staff
Coat Room	80	
Toilet Rooms		
Men	400	
Women	800	
Family (2)	160	
Lactation Room	60	2 Customers

STAFF - LEVEL 2	SF	USERS
Staff	3,675	
Break / Catering	400	
Rest Area	75	
Lactation Room	50	1 Customers
Office	1,800	6 Staff
Team Work Space in the middle	200	4Staff
Print / Work Area	250	2 Staff
Large Conference Room 30 people	600	30 Customers
Small Conference Room 8 people	200	8 Customers
Recording Room	100	2 Customers

WORK ROOMS - LEVEL 1	SF	USERS
Work Rooms	950	
SHOP / LAB	750	3 Staff
MATERIAL PAINT STORAGE	200	1 Staff
Shared Shipping / Receiving - Dock - Storage - SEE LIBRARY PROGRAM		

GALLERY - LEVEL 1 Grossing Factor 25%	SF	USERS
Gallery	3,100	
Gallery	2,000	12 Customers
Curation Room	300	2 Staff
Moveable Wall Storage	400	
Chair & Table Storage	400	

COLLECTIONS - LEVEL 2 Grossing Factor 25%	SF	USERS
Collections	6,121	
COLLECTIONS / ARCHIVES STORAGE	5,171	
PROCESSING ROOM	450	
PUBLIC READING ARCHIVE RESEARCH	200	
Sub-Total	**16,196**	
GF 25%	**4,049**	
TOTAL	**20,245**	

Indicates opportunity to share space to maximize utilization and efficiency.

06 Space List

2017 300 SEAT BLACK BOX THEATRE

300 Seat Black Box Theater	SQUARE FEET	
Lobby	GSF	1,500
Audience Chamber	GSF	4,768
Audience Seating Level 1	2,243	
Audience Chamber Circulation	1,380	
Public Circulation	1,035	
Seating & Program Storage	110	
Front of House		1,717
Lobby Level 1	3,300	
Restrooms - public female	420	
Restrooms - public male	151	
Restroom - Family	67	
Concessions	72	
Check Room	220	
Custodial	29	
Show Merchandise Sales	48	
Storage - FOH Equipment	110	
Ticket - Sales Walk-up & Will Call	40	
VIP Room	450	
VIP Room - Catering	110	
Performance Areas		3,170
Apron	176	
SL Ante Proscenium	88	
SL Wing	604	
SR Ante Proscenium	88	
SR Wing	604	
Stage	1,610	
Technical / Backstage Areas		2,814
Control - Audio	138	
Control - Lighting	115	
Dressing / Make-up - Chorus	405	
Dressing / Make-up - Chorus	640	
Restroom & Shower - Chorus	239	
Restroom & Shower - Chorus	170	
Wardrobe	132	
Performer's Lounge	250	
Office - Technical Manager	110	
Rack Room - Audio & Video	110	

RELAY PANELS NOT DIMMER RACKS FOR LED LIGHTS Rack Room - Dimmers	110	
Restroom - Crew	67	
Storage - Stage Chair, Stand	165	
Storage - Lihting, Audio, Video	110	
Loading Dock	53	
Sub-Total		**13,969**
Circulatuion as 15% of GSF		2,095
Mechanical & Electrical as 13% of GSF		1,816
Inaccessible Spaces as 2% of GSF		279
TOTAL		**18,160**

Indicates opportunity to share space to maximize utilization and efficiency.

06 Space List

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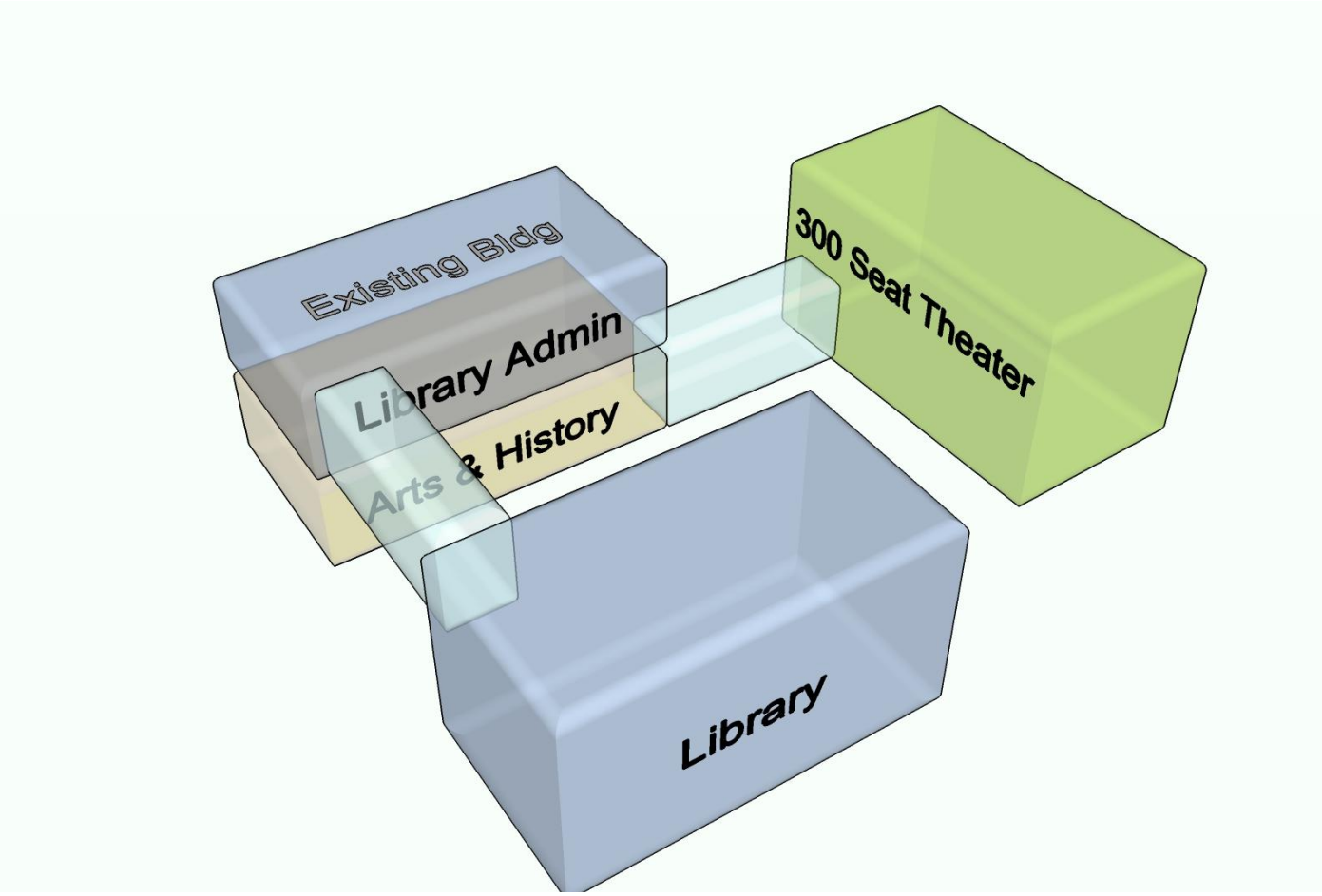
07

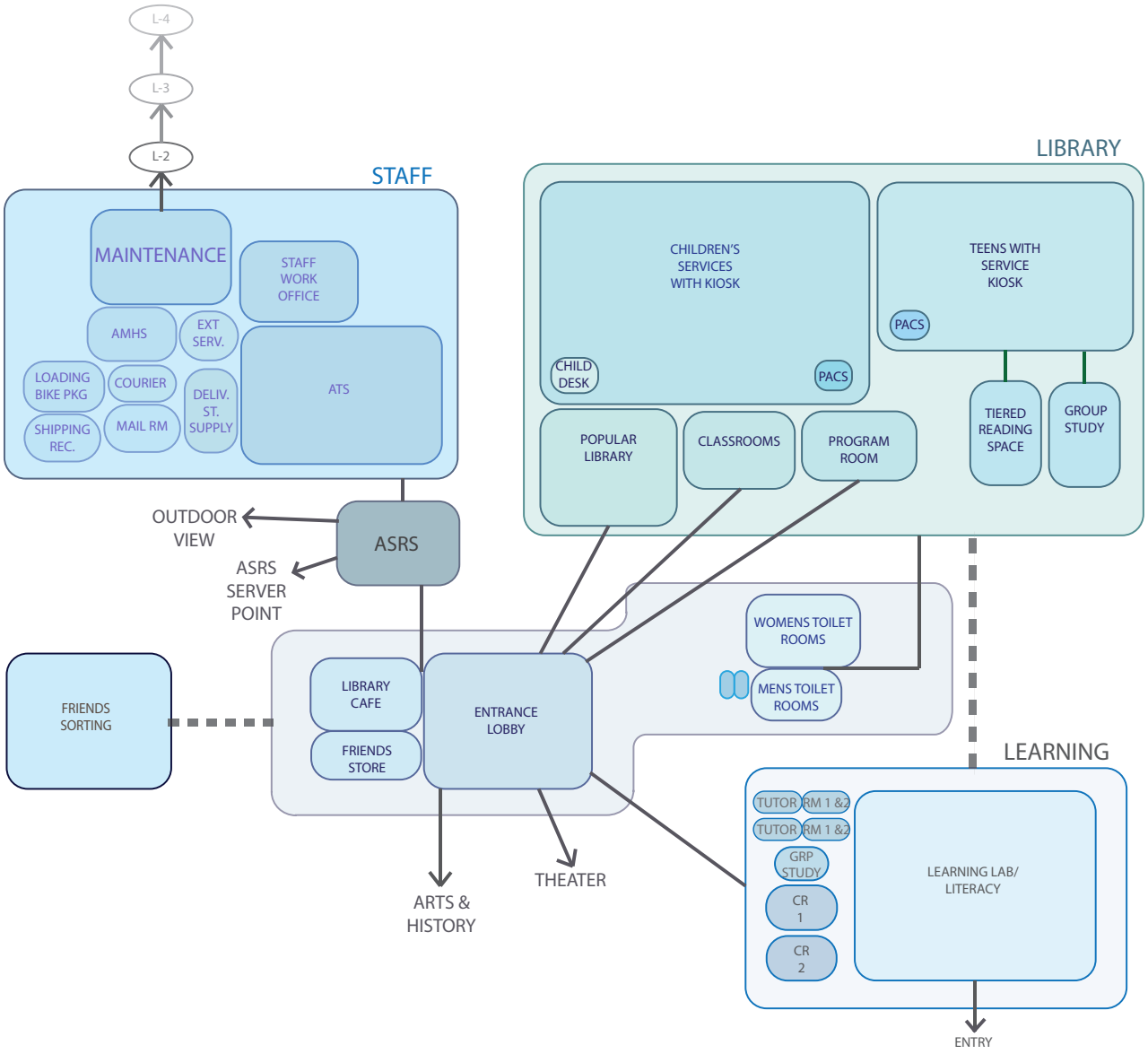
Adjacencies

COMBINED BUILDING BUBBLE DIAGRAM



07 Adjacencies

LIBRARY



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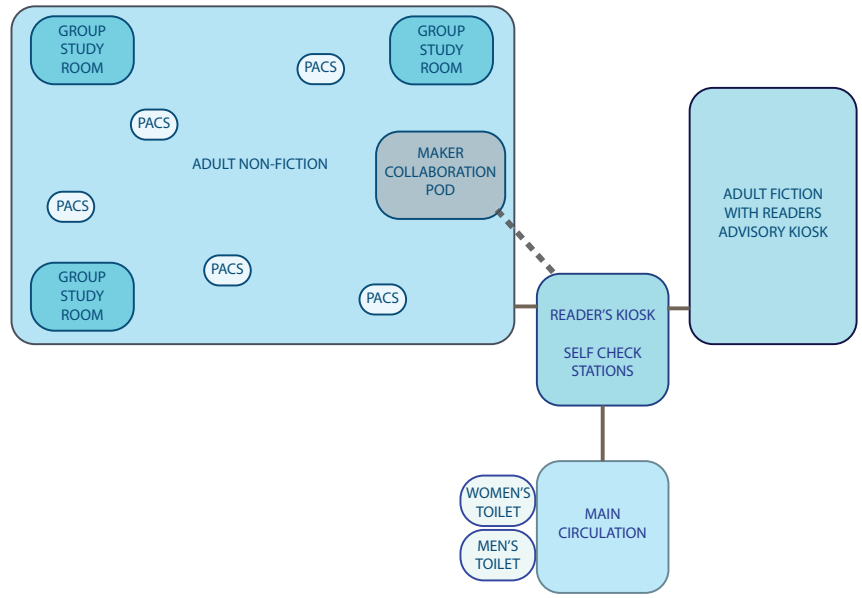
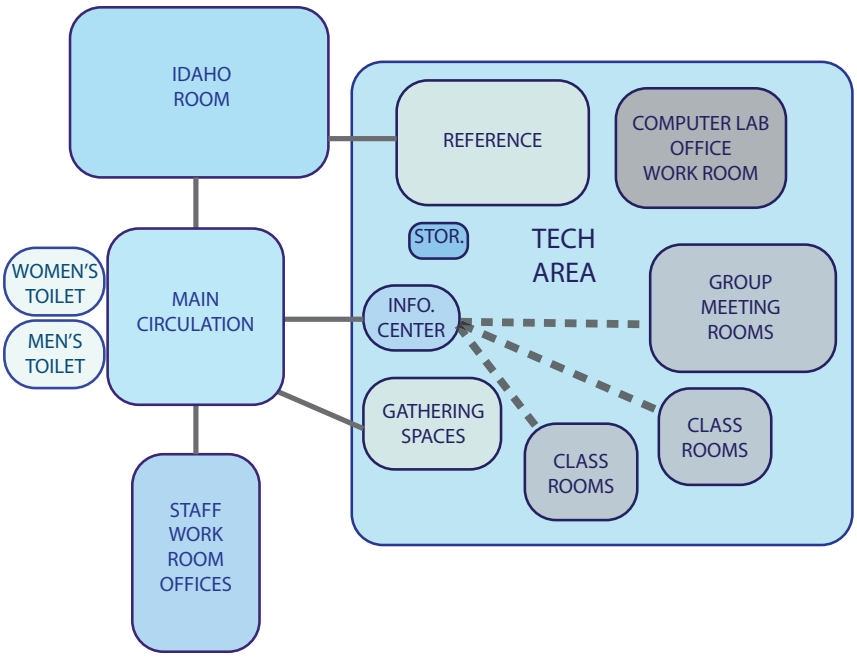
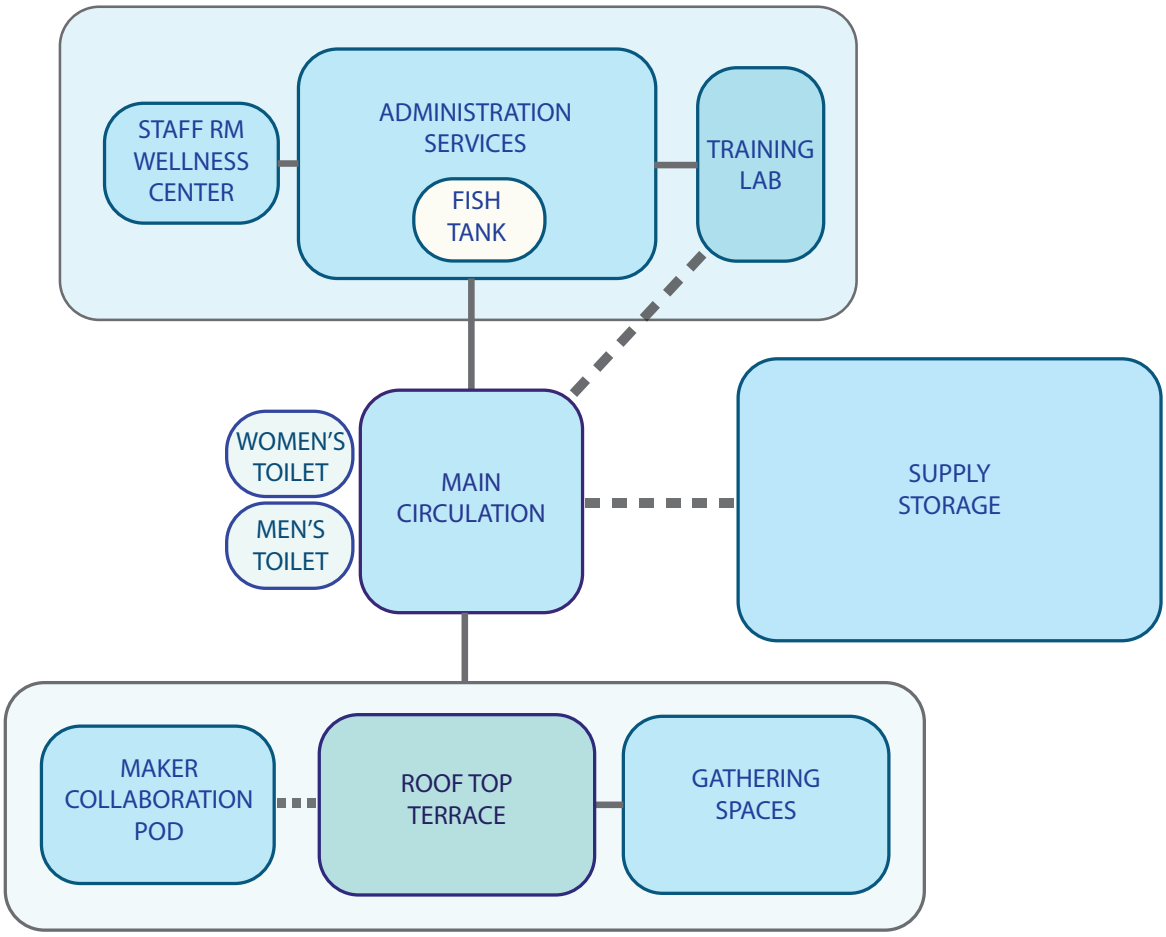
LIBRARY


GROUP STUDY ROOM
PACS
GROUP STUDY ROOM
PACS
ADULT NON-FICTION
MAKER COLLABORATION POD
PACS
ADULT FICTION WITH READERS ADVISORY KIOSK
PACS
GROUP STUDY ROOM
PACS
READER'S KIOSK
SELF CHECK STATIONS
WOMEN'S TOILET
MEN'S TOILET
MAIN CIRCULATION

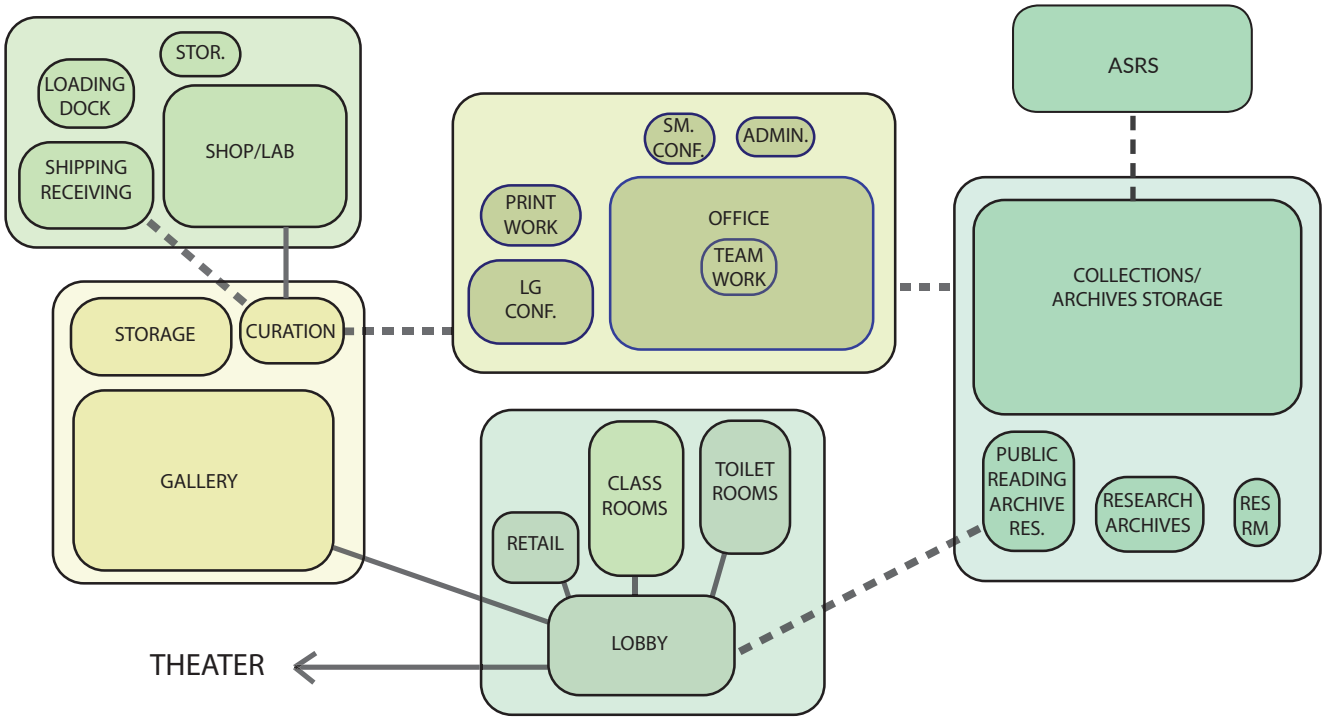

IDAHO ROOM
REFERENCE
COMPUTER LAB OFFICE WORK ROOM
STOR.
TECH AREA
WOMEN'S TOILET
MEN'S TOILET
MAIN CIRCULATION
INFO. CENTER
GROUP MEETING ROOMS
GATHERING SPACES
CLASS ROOMS
CLASS ROOMS
STAFF WORK ROOM OFFICES

07 Adjacencies

LIBRARY

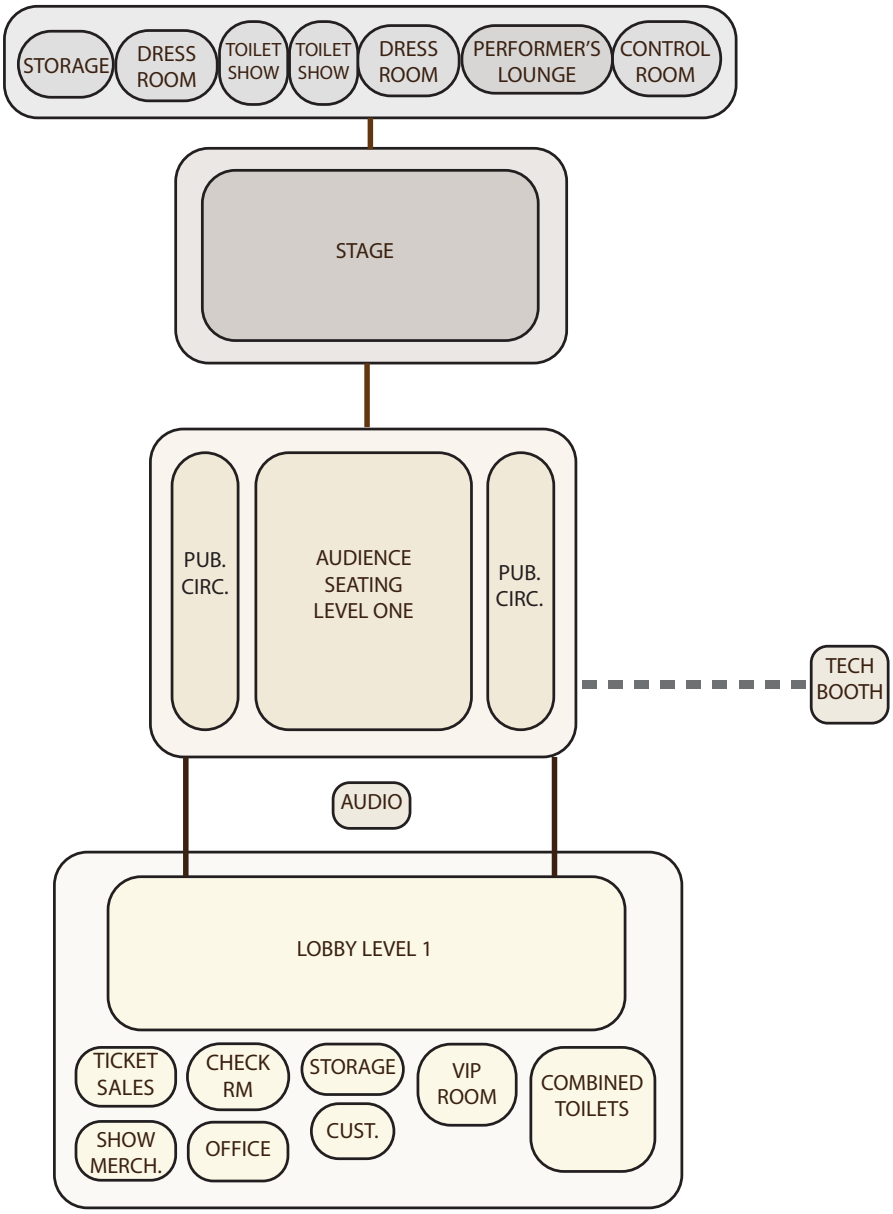


ARTS & HISTORY



07 Adjacencies

300 SEAT THEATRE BLACK BOX



ARCH | NEXUS

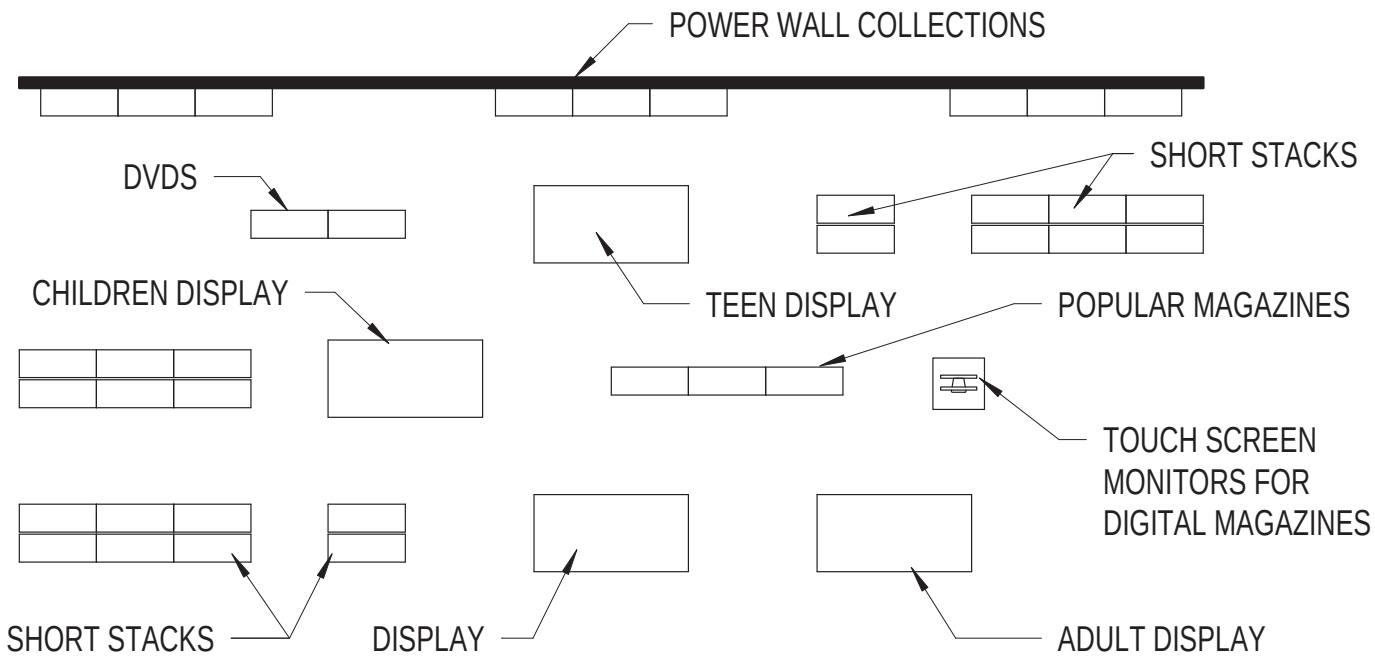
08

Space Diagrams

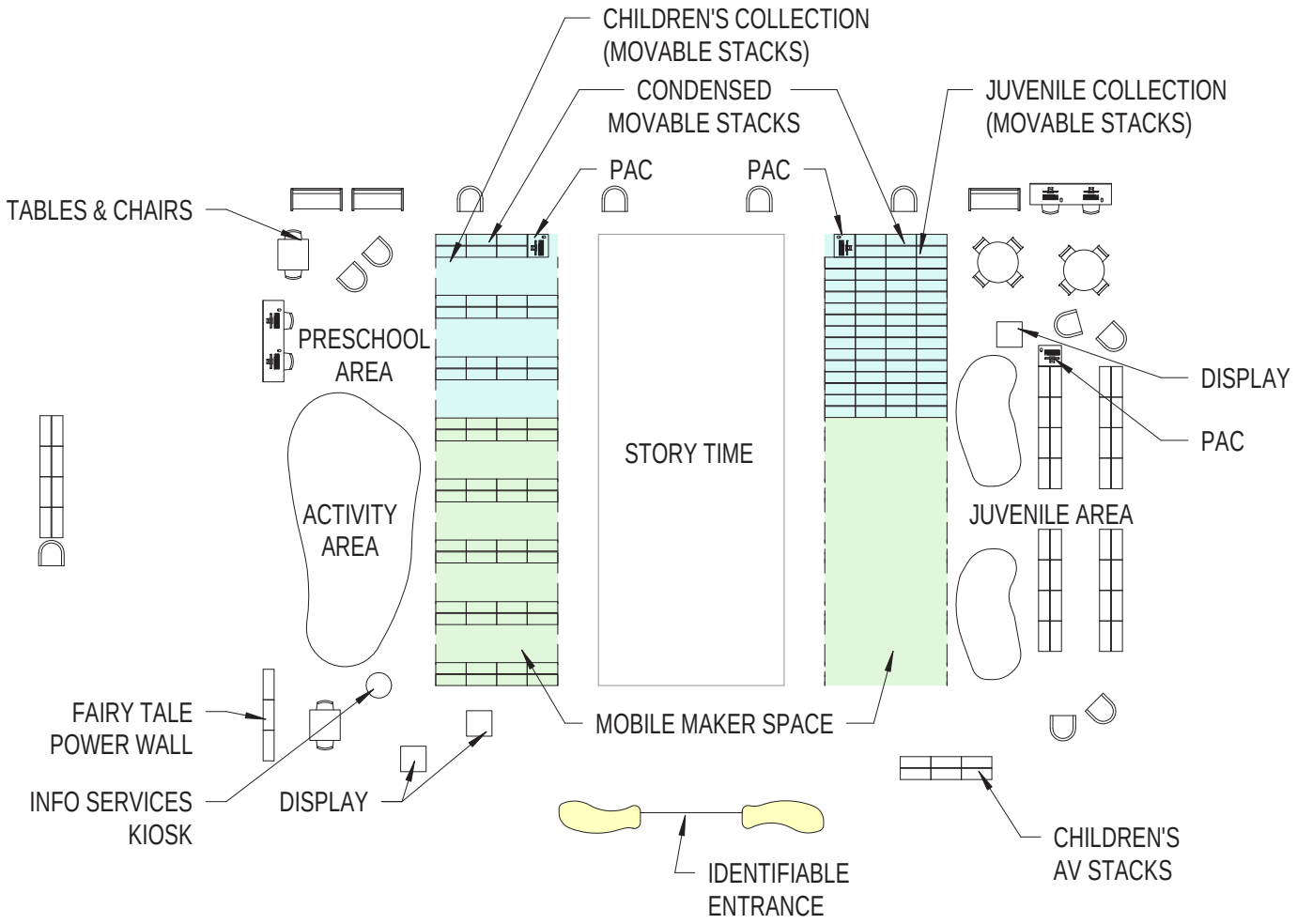
Space Diagrams

The following pages are diagrams of relationships within individual spaces or rooms. There is not a diagram for every room in the space list, only those that have unique elements that wanted to be captured as a part of the program to provide insight and desired outcomes of the functions of the spaces. These layouts are not final designs of decisions on furniture but are meant to convey a sense of organizations, utility, and function for the design to incorporate.

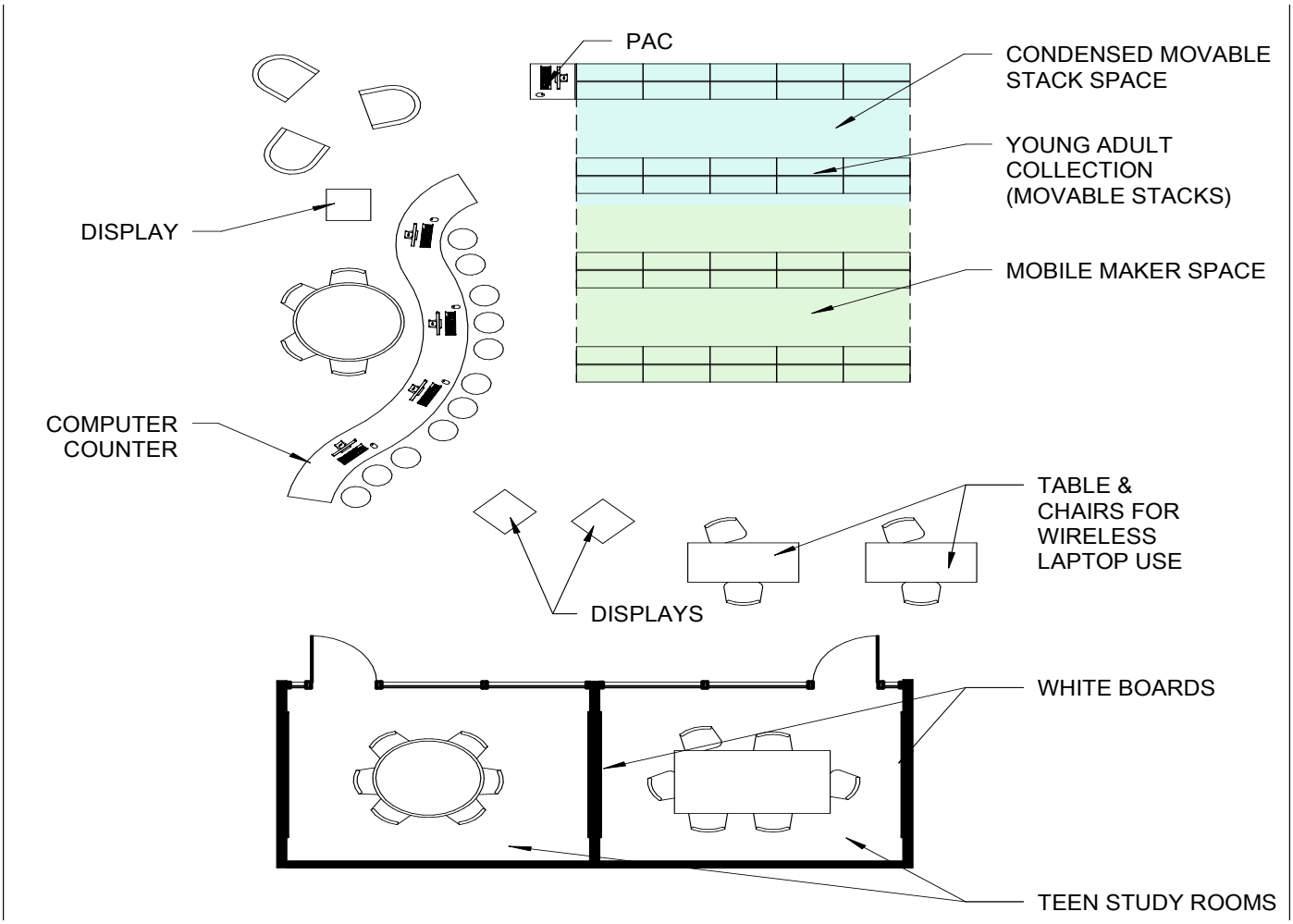
LIBRARY SPACE DIAGRAM
Popular Library (Mini Branch)



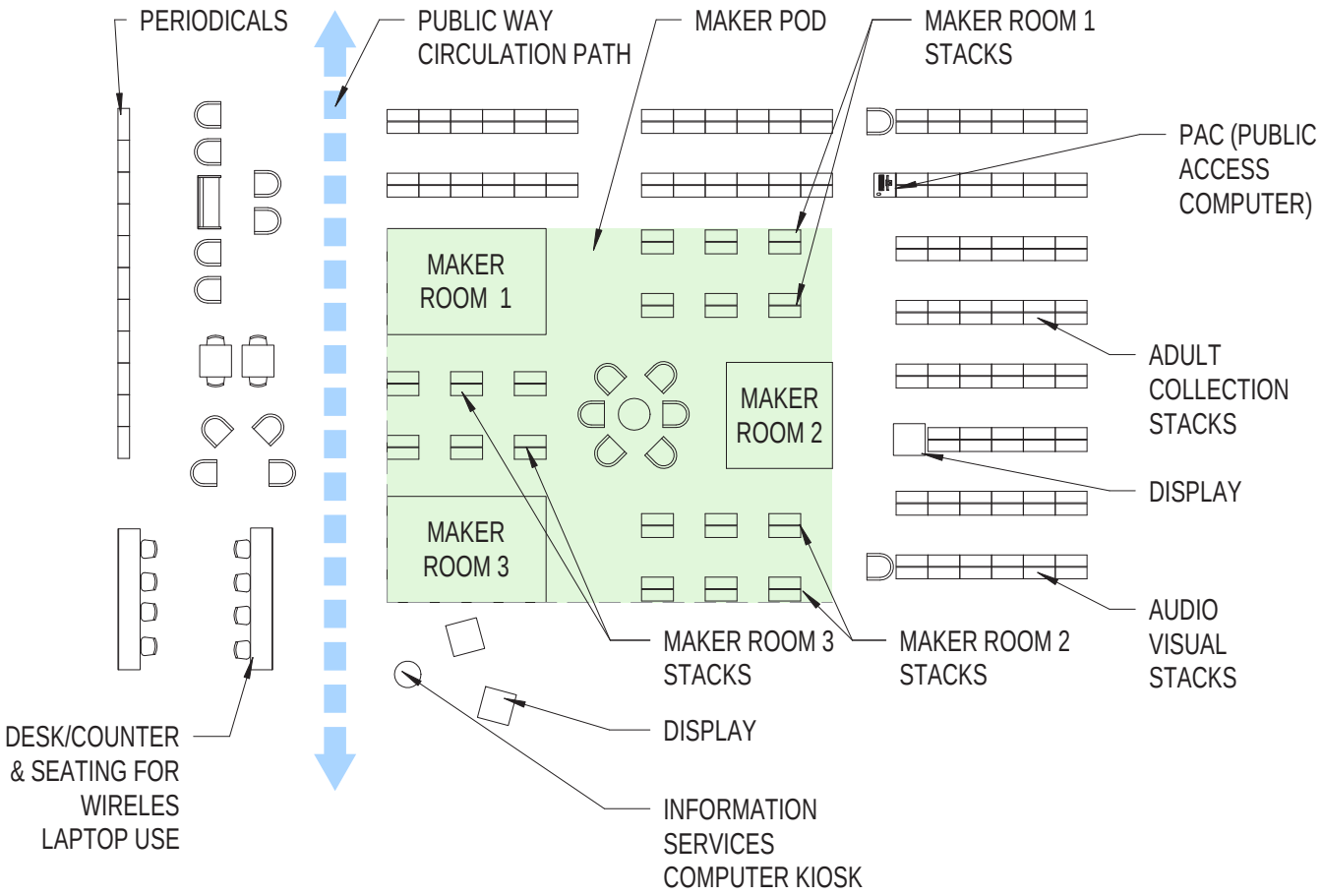
LIBRARY SPACE DIAGRAM
Children's Services



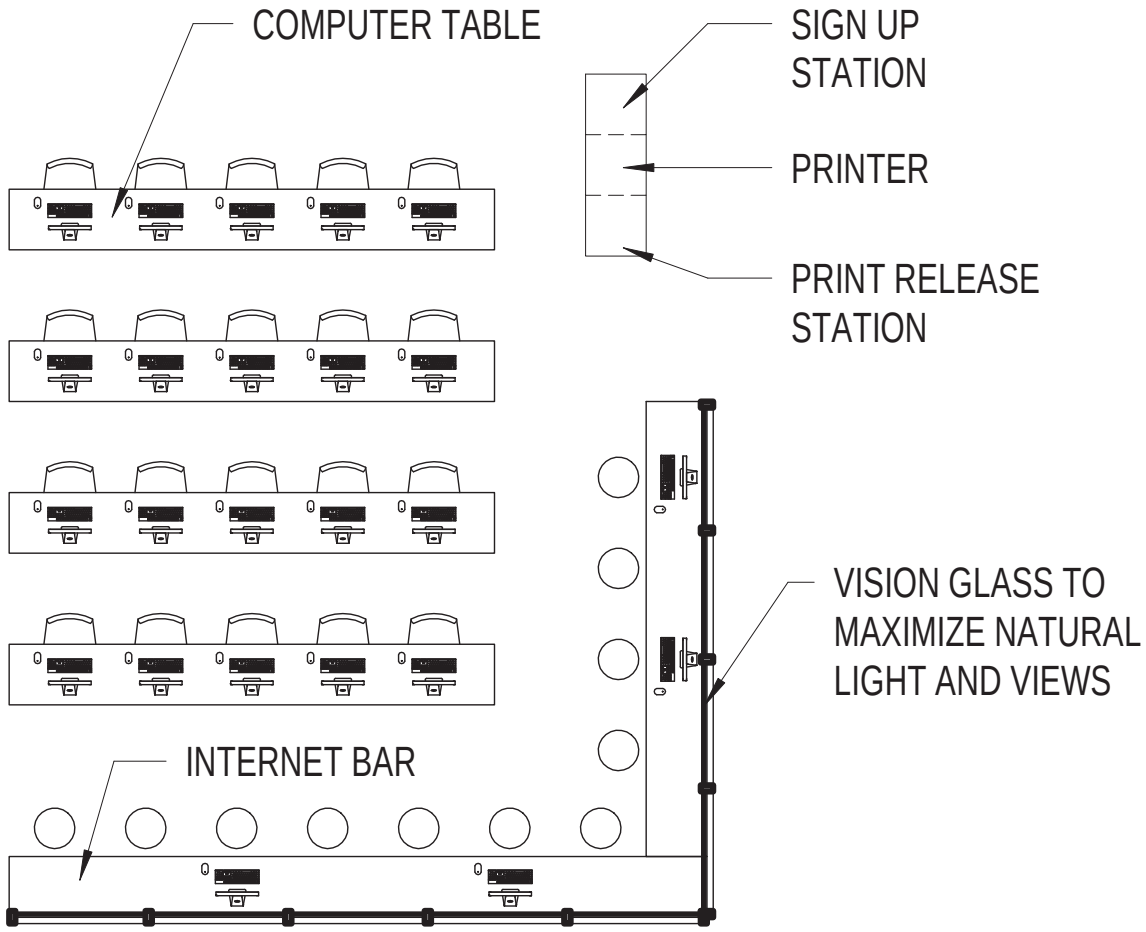
LIBRARY SPACE DIAGRAM
Teen Services



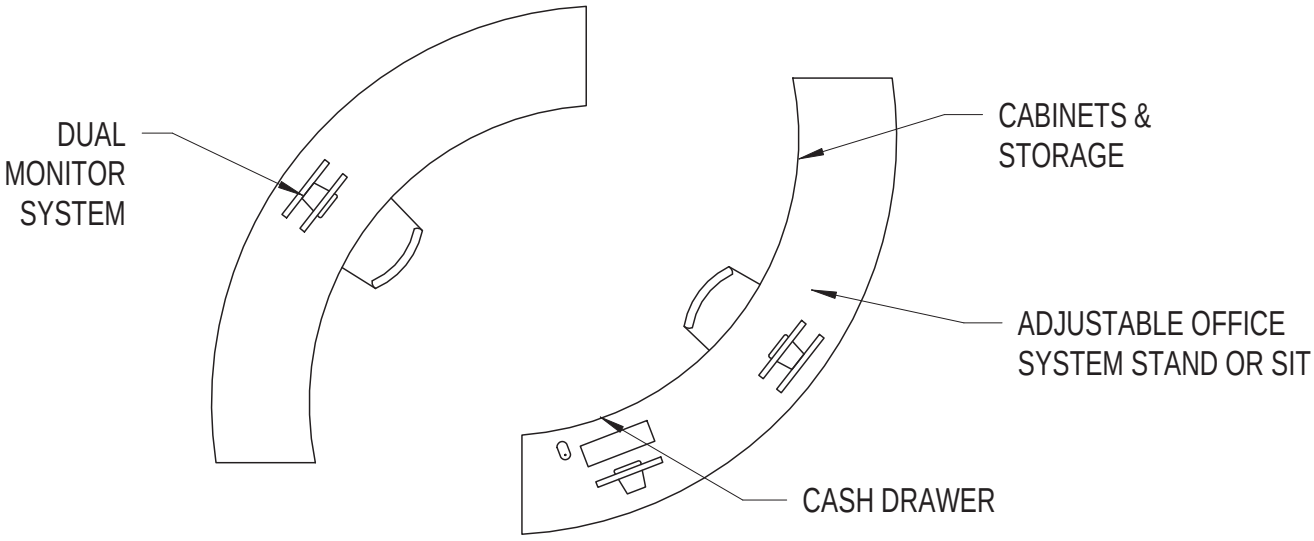
LIBRARY SPACE DIAGRAM
Adult Services



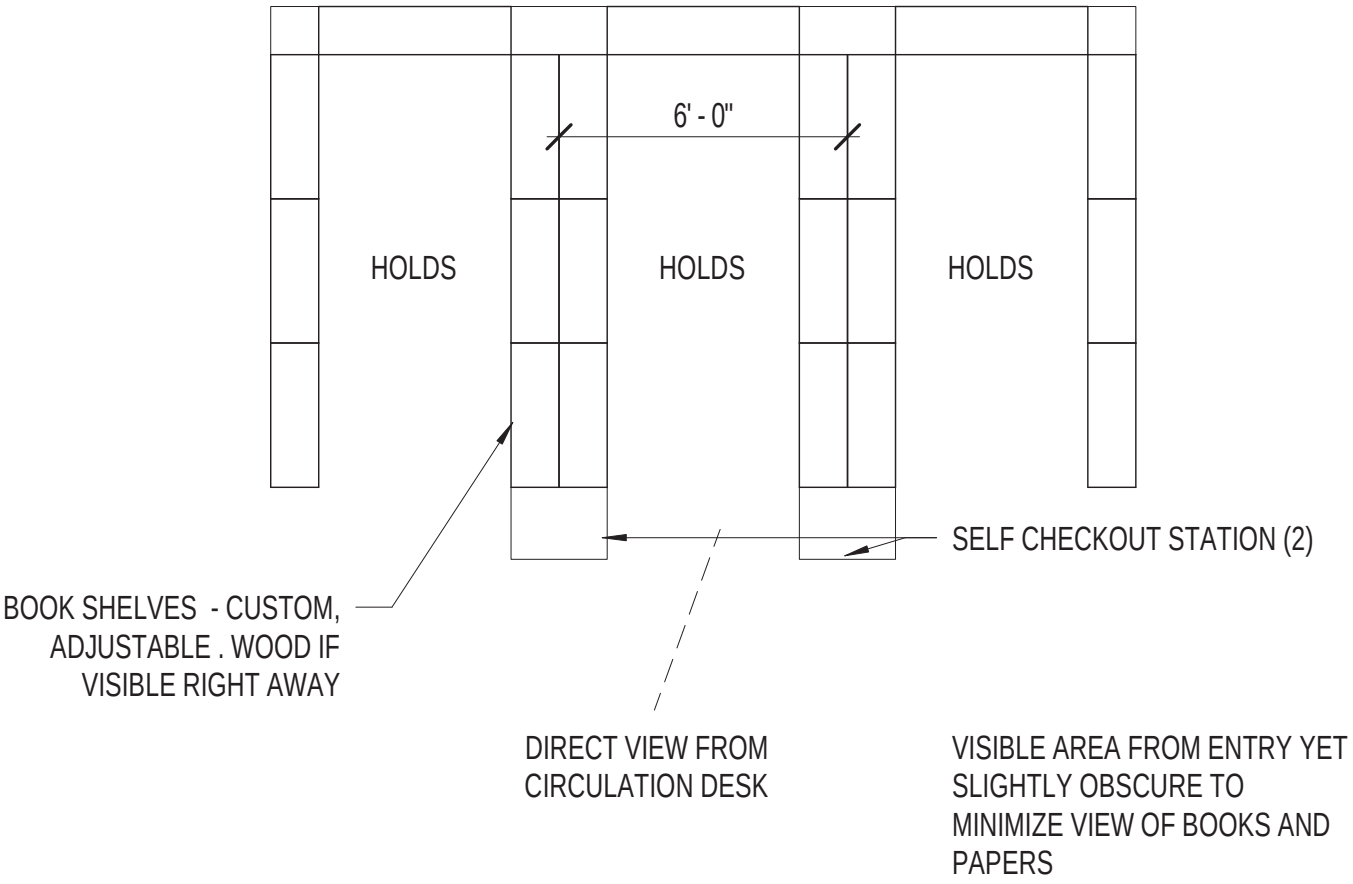
LIBRARY SPACE DIAGRAM
Computer Commons



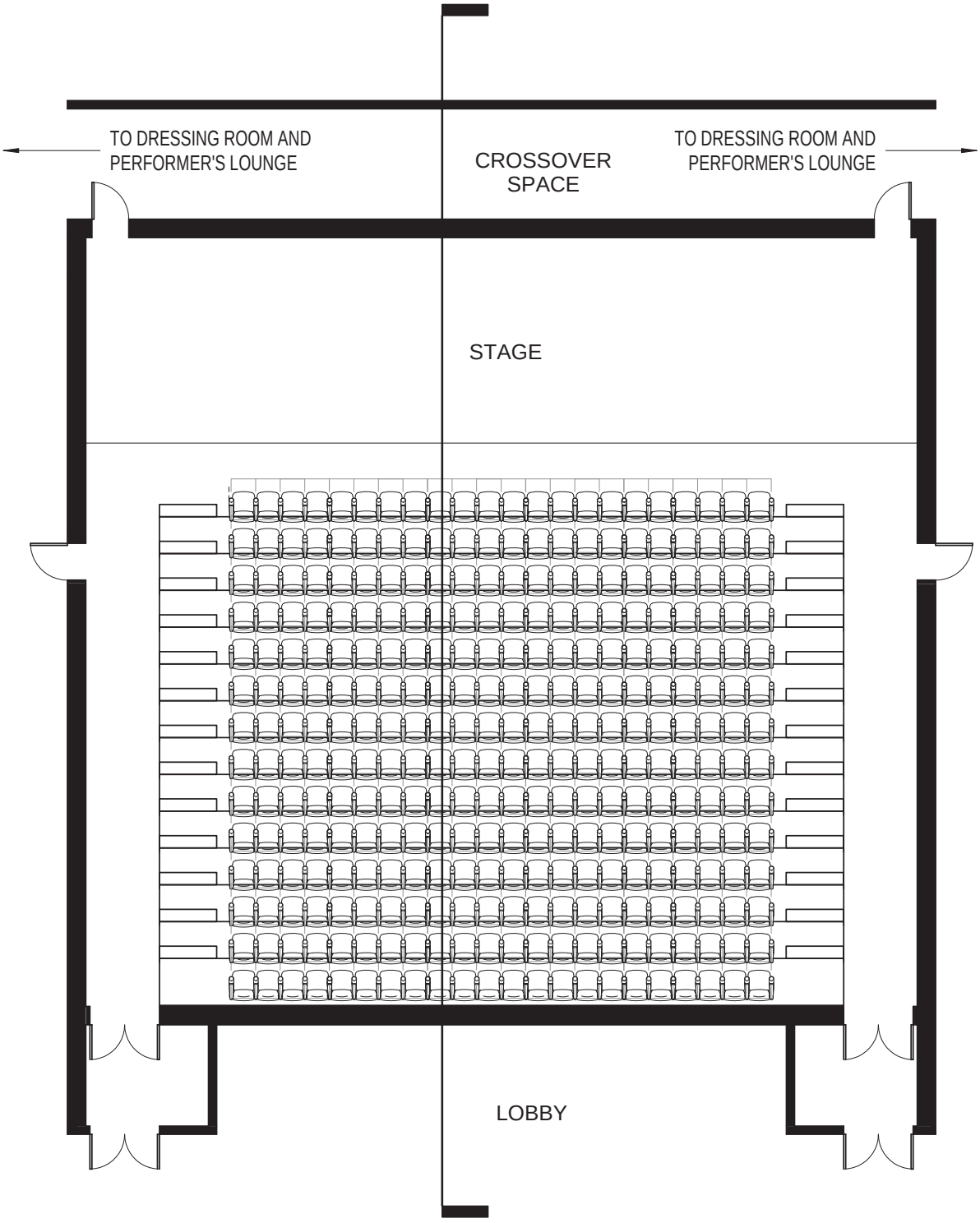
LIBRARY SPACE DIAGRAM
Circulation / Information Desks



LIBRARY SPACE DIAGRAM
Holds

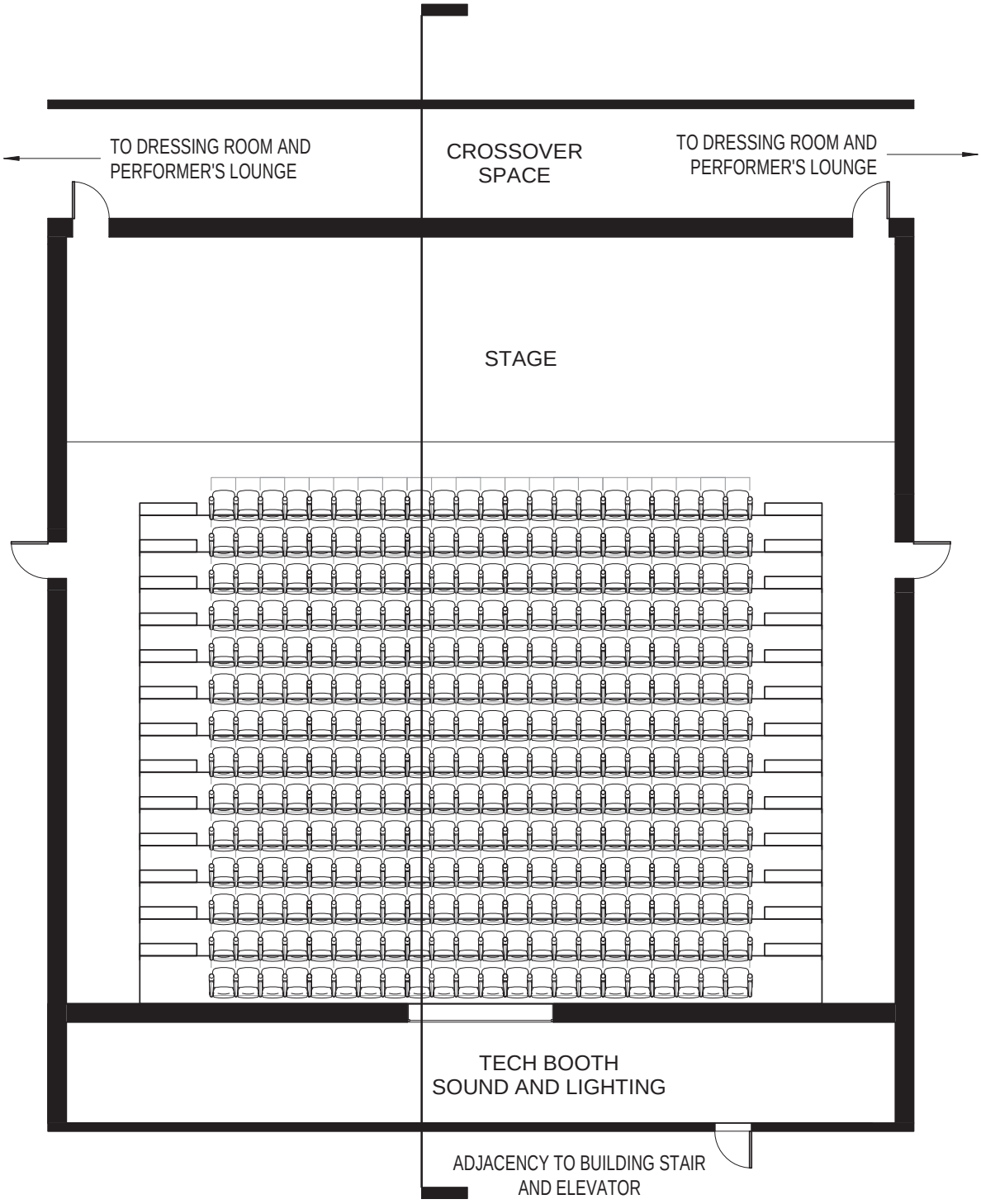


BLACK BOX - 300 SEAT THEATRE
Typical Configuration

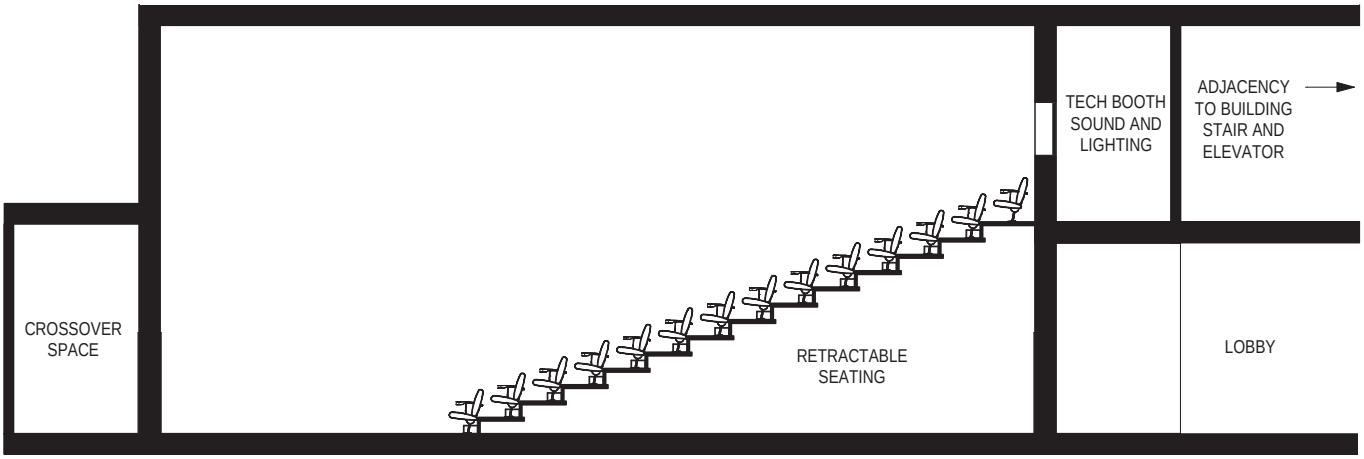


08 Space Diagrams

BLACK BOX - 300 SEAT THEATRE
Typical Configuration 2nd Floor

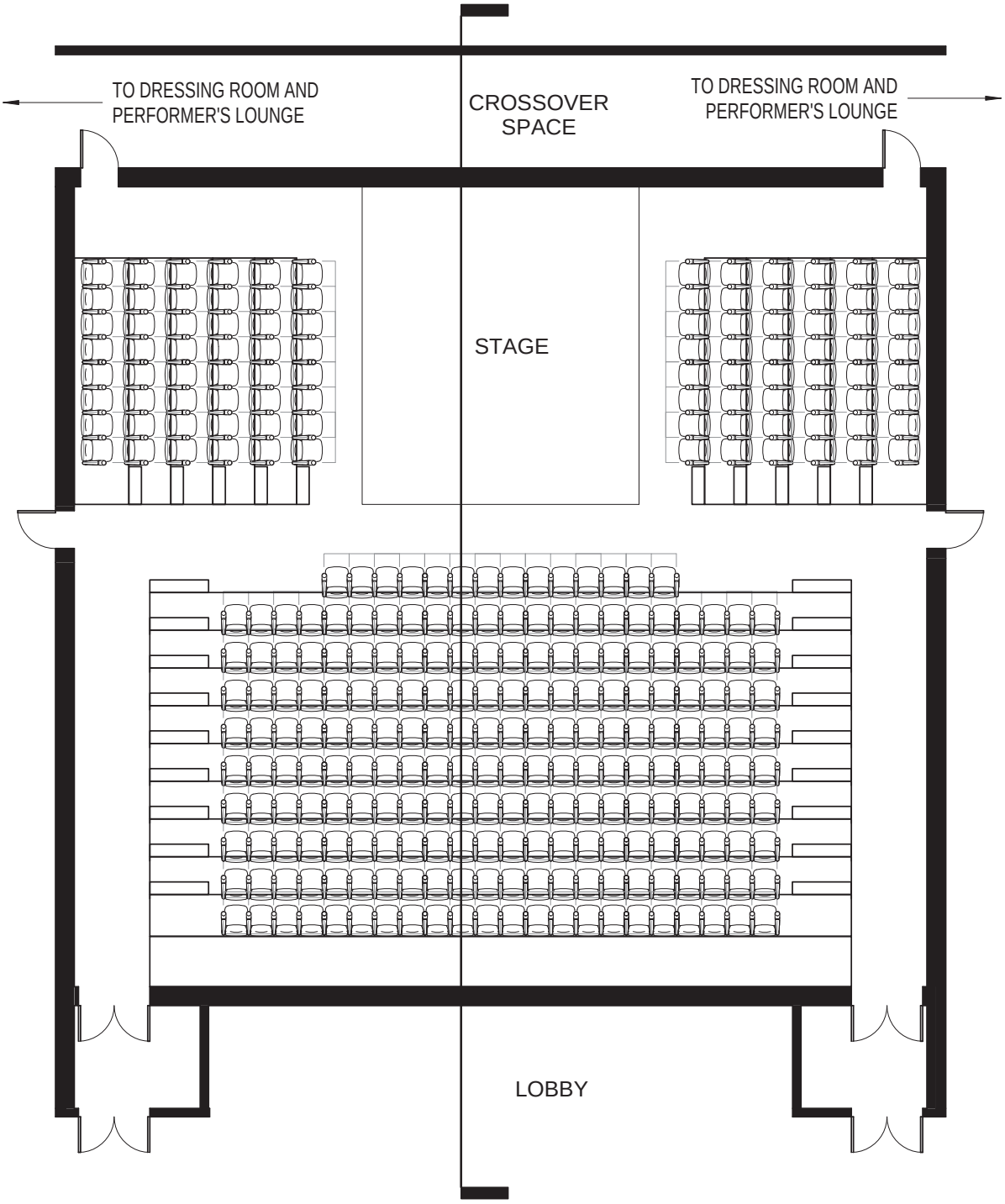


BLACK BOX - 300 SEAT THEATRE
Typical Configuration - Section

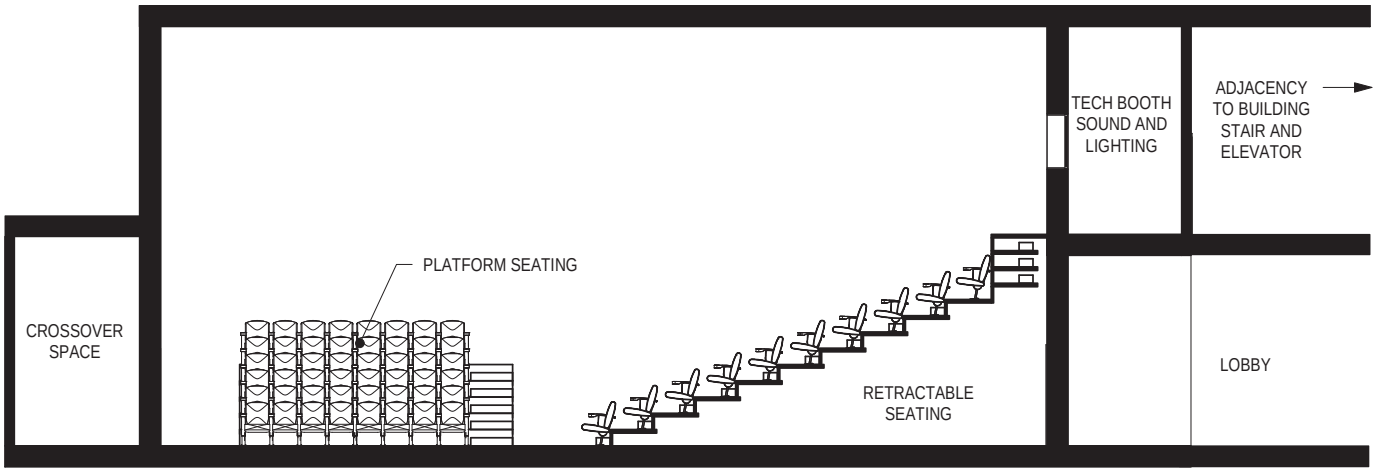


08 Space Diagrams

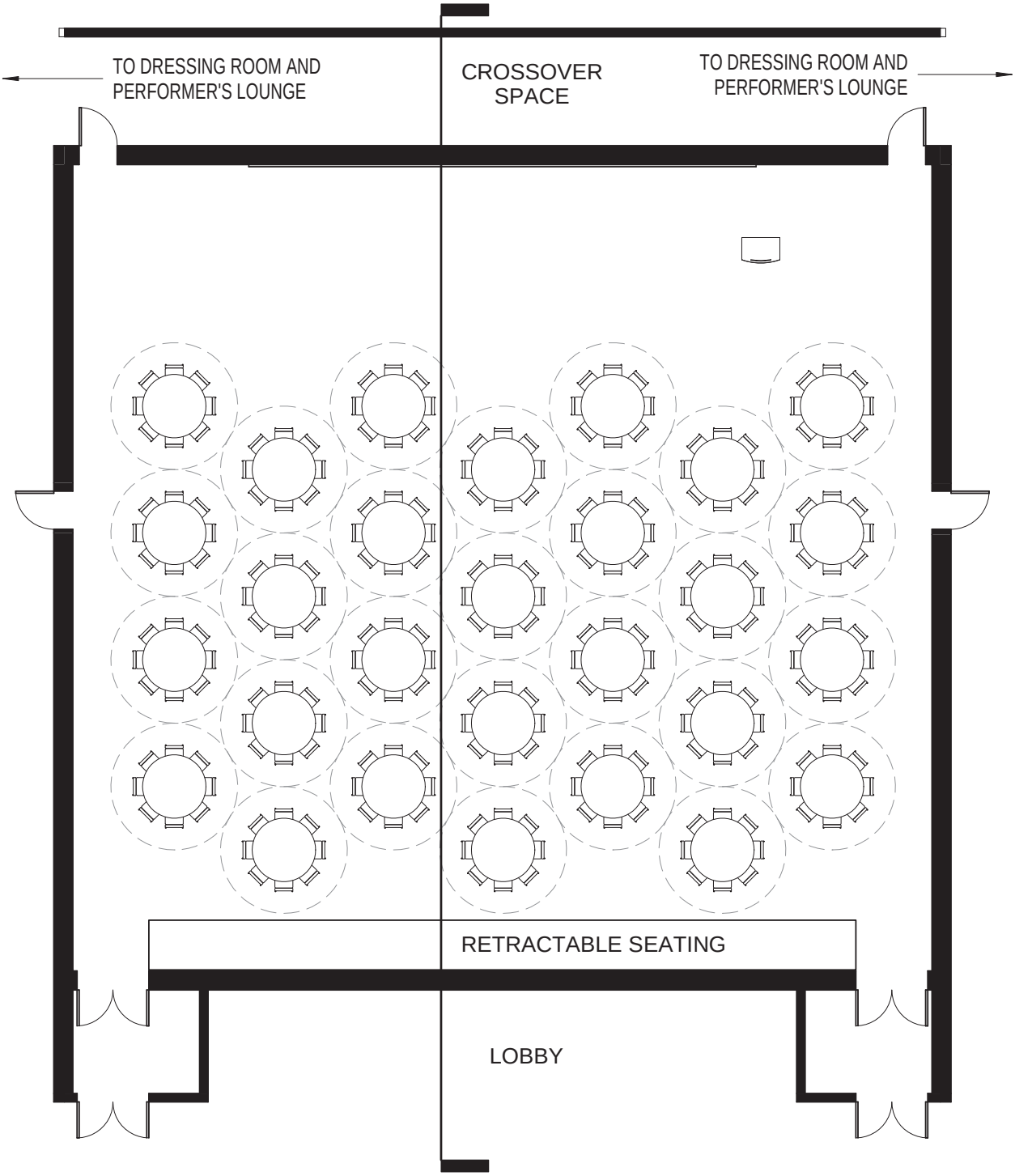
BLACK BOX - 300 SEAT THEATRE
Thrust Configuration



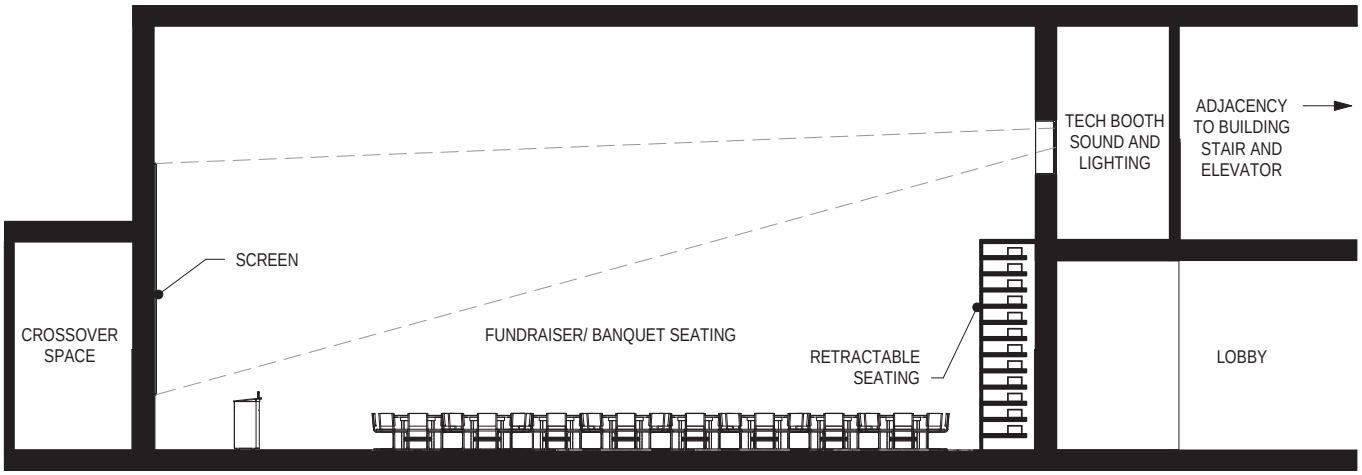
BLACK BOX - 300 SEAT THEATRE
Thrust Configuration - Section



BLACK BOX - 300 SEAT THEATRE
Banquet Configuration

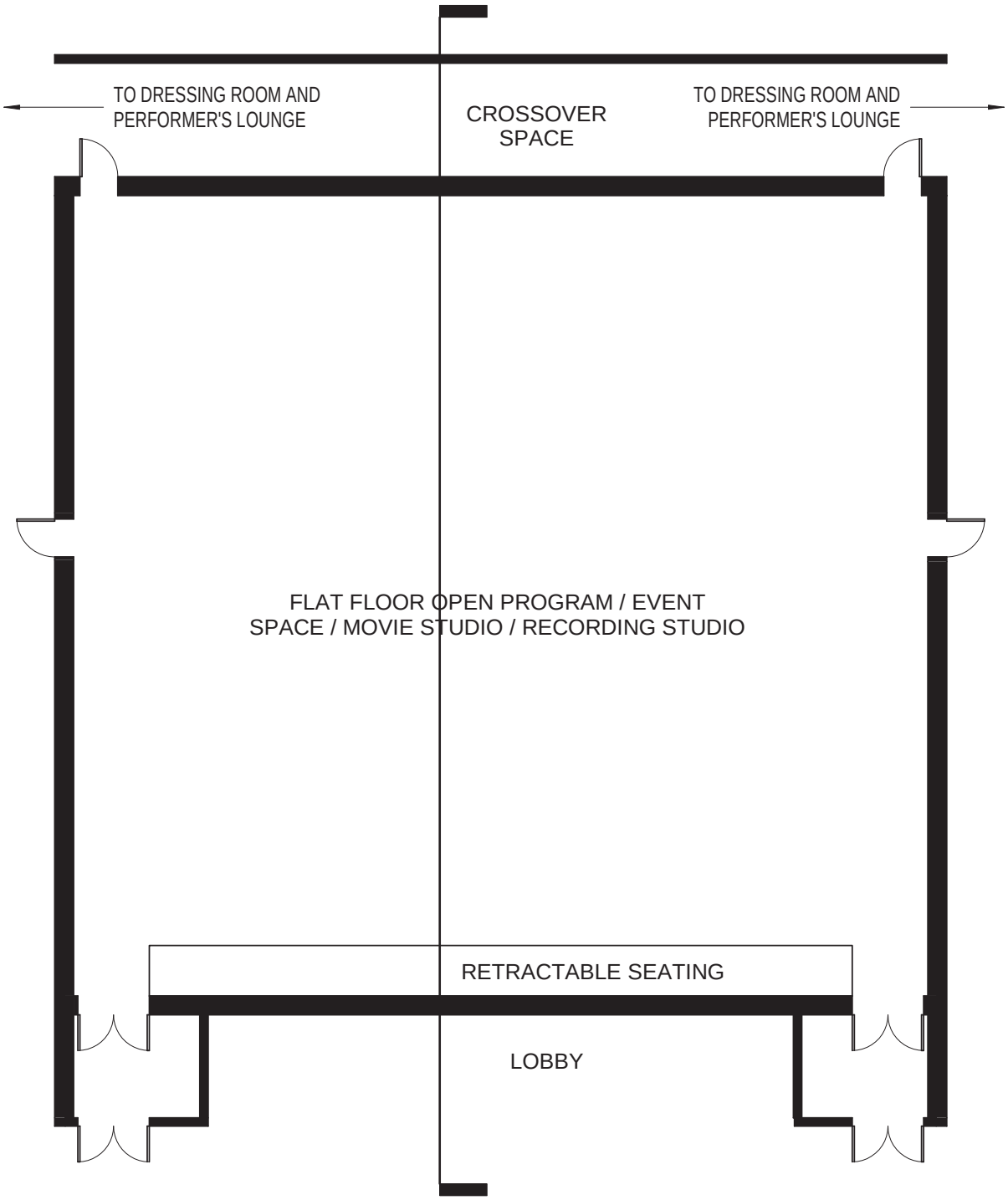


BLACK BOX - 300 SEAT THEATRE
Banquet Configuration - Section

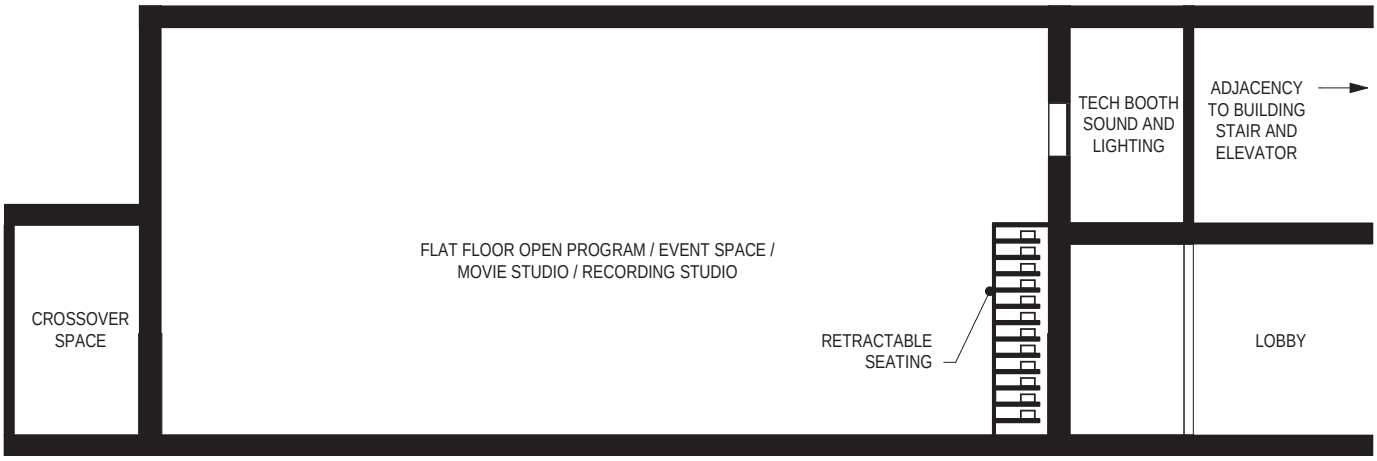


08 Space Diagrams

BLACK BOX - 300 SEAT THEATRE
Flat Floor Configuration



BLACK BOX - 300 SEAT THEATRE
Flat Floor Configuration - Section



08 Space Diagrams

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09

Zoning & Codes

Property Review Summary

VISION / OPPORTUNITIES

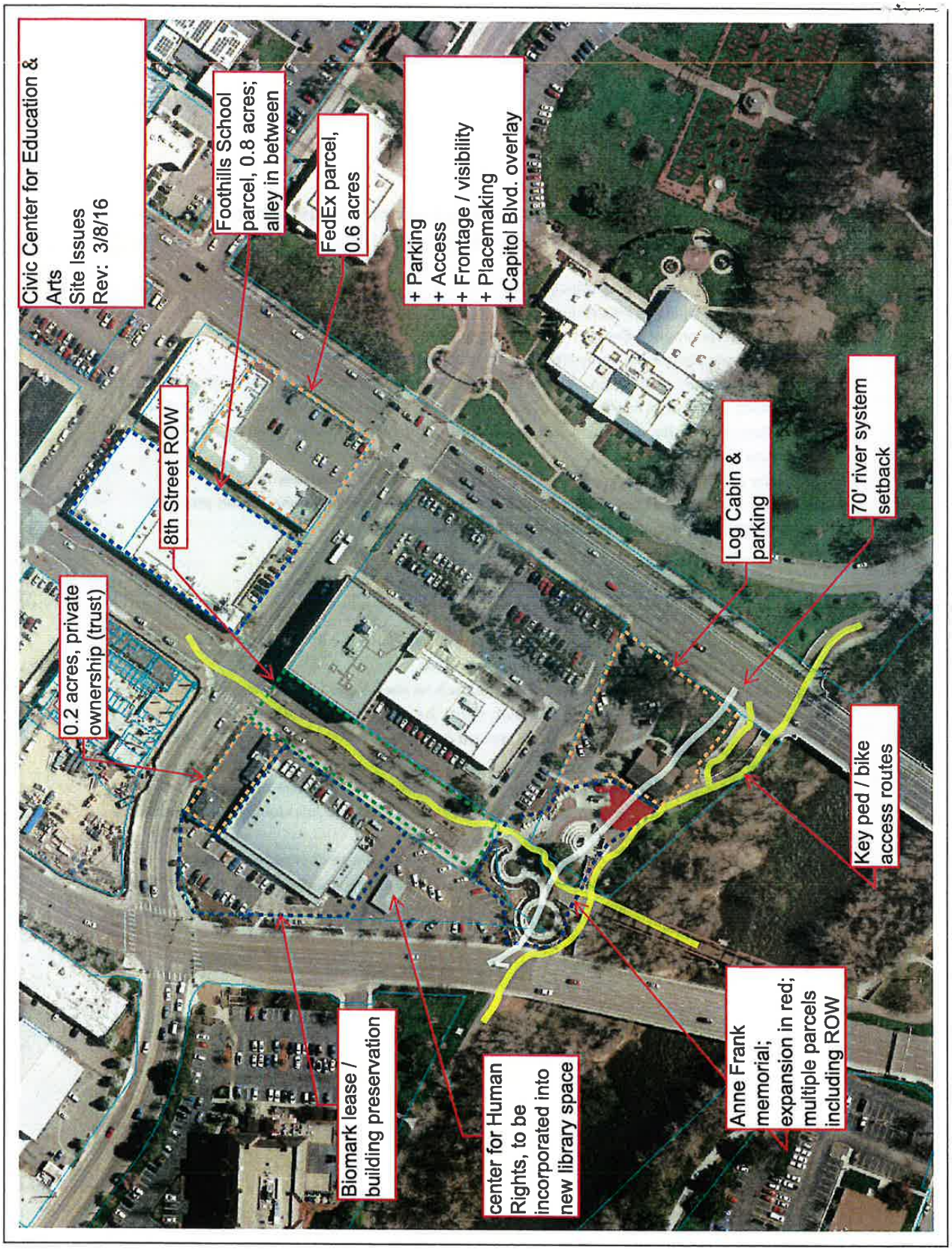
- Align with the City vision of making Boise the most livable city in America; the project should result in sustainable and lasting facilities, be innovative and support commerce, and increase activity in the surrounding area
- Align with downtown guiding principles:
  - People + Ideas= Innovation
  - Entertainment + Energy= Celebration
  - Connectivity + Convenience = Transportation
- Recognize and honor the unique characteristics of the site situated on Capitol Boulevard at the Boise River and central to a number of downtown destinations including the cultural district, Boise State University, the downtown business core, the Idaho Statehouse and a number of downtown neighborhoods
- Consider green street concept along 8th Street (akin to Broad St. Improvements)
- All three intersections (River at Capitol, 8th & 9th) should support and enhance the project
- Physical and view access to the river should be evaluated

CONSTRAINTS

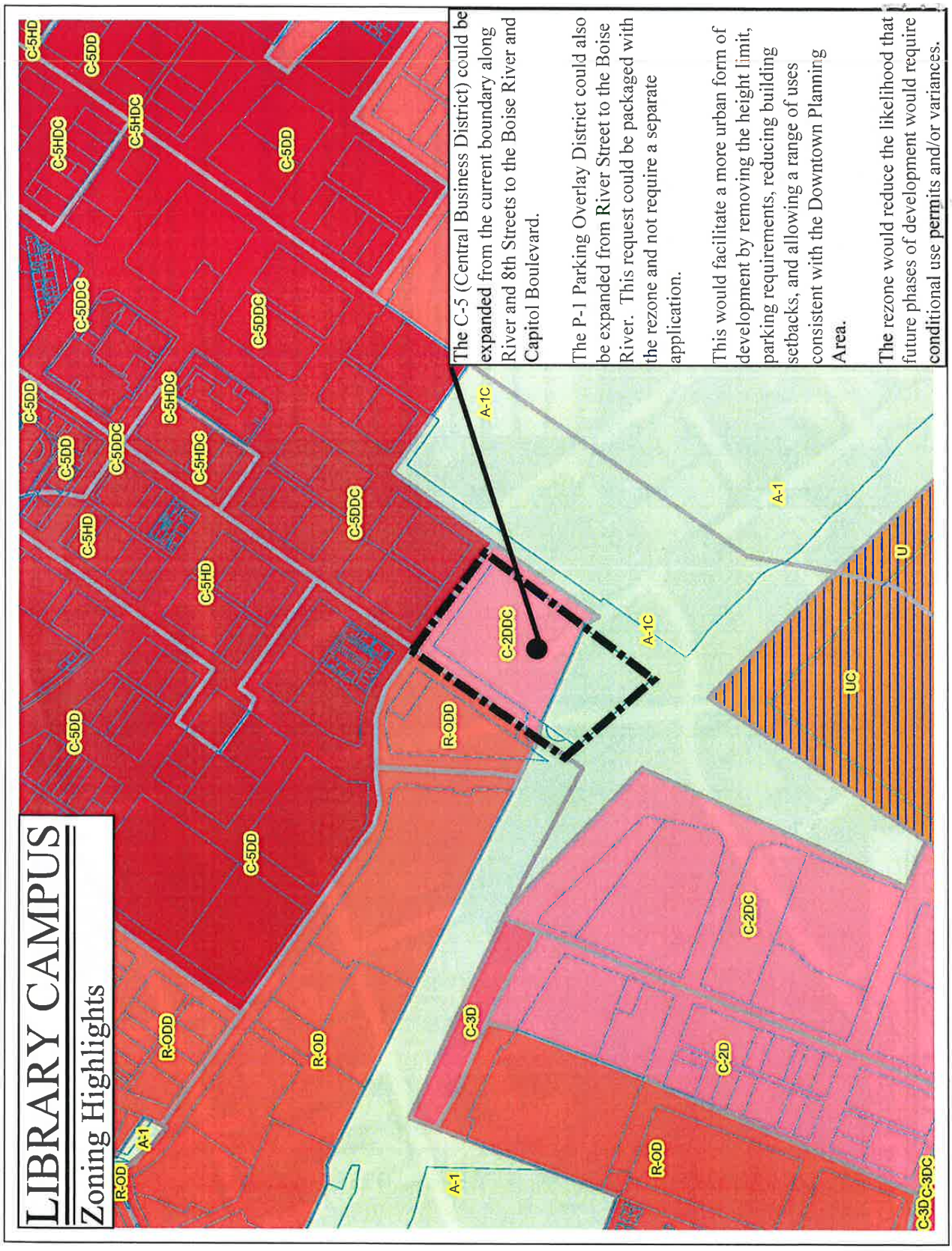
- Maintain / improve good bike & pedestrian connectivity along the 8th street corridor
- Anne Frank Memorial will remain and expand in some form
- Relocation of the Log Cabin center is in play but will be challenged by considerations such as equivalent access to the greenbelt and lawn space; it is considered a historical structure
- The Biomark building must remain intact; tenant relocation and/or construction around/above is in play
- Land acquisition south of Fulton Ave. is in play but consider risk, schedule and cost
- Options to place facilities within Julia Davis Park can be considered but would be constrained by deed restrictions and public acceptance
- Rezone and parking overlay changes in play but must comply with Capitol Blvd. overlay standards and downtown design review guidelines (streetscape standards, zero setback, service access in the rear, height steps back, river system ordinance etc.); should front both Capitol Blvd. and River St. (and 8th Street?); see permit issue summary from PDS staff

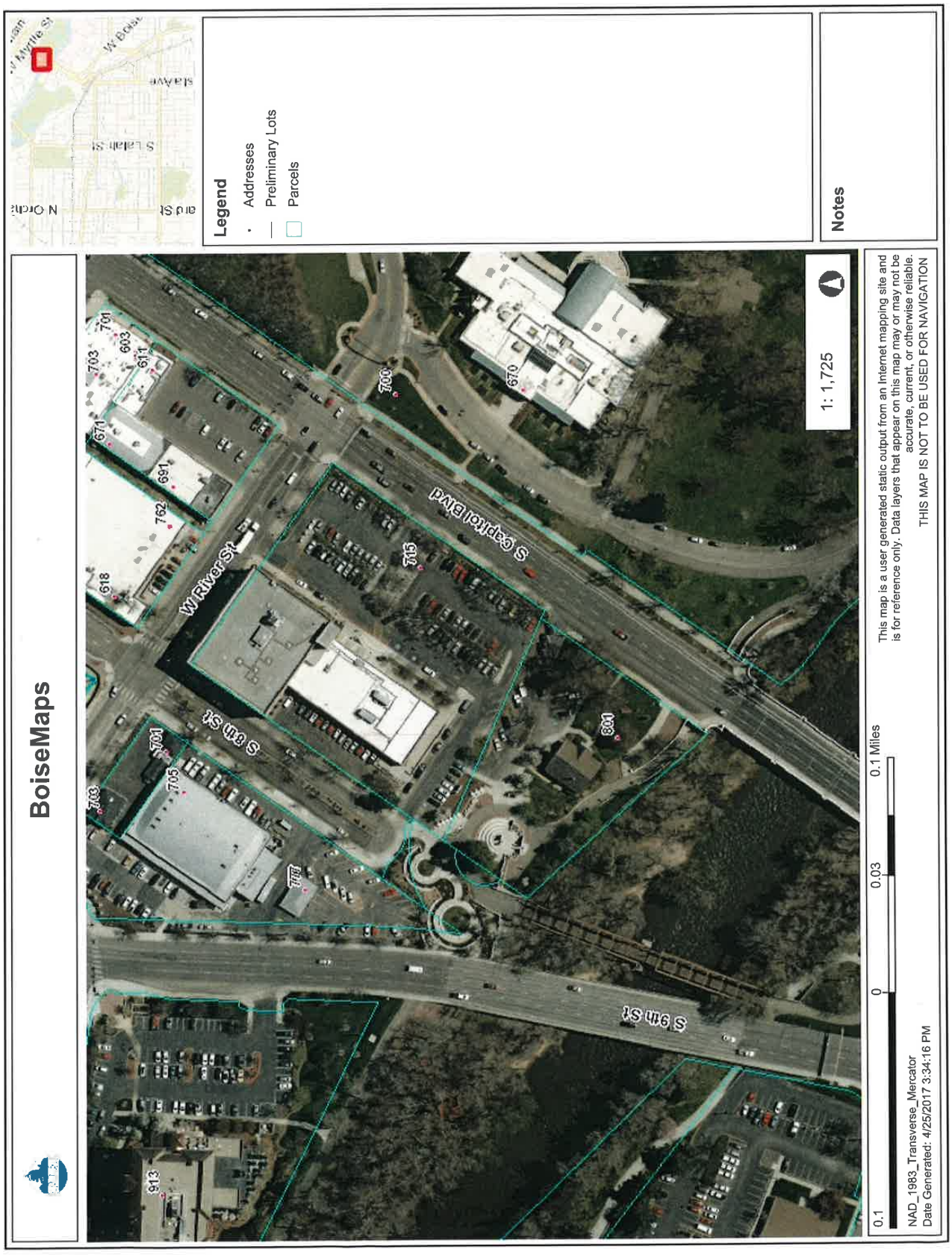
ATTACHMENTS

PDS permit issue summary


Civic Center for Education & Arts
Site Issues
Rev: 3/8/16
Foothills School parcel, 0.8 acres; alley in between
FedEx parcel, 0.6 acres
+ Parking
+ Access
+ Frontage / visibility
+ Placemaking
+Capitol Blvd. overlay
8th Street ROW
0.2 acres, private ownership (trust)
Log Cabin & parking
70' river system setback
Key ped / bike access routes
Biomark lease / building preservation
center for Human Rights, to be incorporated into new library space
Anne Frank memorial; expansion in red; multiple parcels including ROW


LIBRARY CAMPUS
Zoning Highlights
ZONING HIGHLIGHTS & CONSIDERATIONS
Current Zoning (Library Site): C-2 (General Commercial)
Recommended Zoning: C-5 (Central Business District)
REQUIRED APPLICATION
Design Review (5 Weeks)
Required for any exterior improvements to sites/buildings.
POTENTIAL APPLICATIONS
Rezone (3-4 Months)
The use allowances and dimensional standards of the C-5 zone are more consistent with the overall vision for the library site. A rezone will simplify the review process for future expansions and modifications.
Boise River System Permit (2 Weeks to 3 Months)
Only required if impacting the floodplain along the Boise River. Minor projects can be reviewed administratively (2 weeks). Major projects require Commission approval (3 months).
Floodplain Permit (2 Weeks)
Only required if impacting the floodplain along the Boise River.
Conditional Use Permit/Variance (6 Weeks)
More likely if the property is not rezoned. This review could address a height exception, parking reduction and any setback challenges.
Right-Of-Way Vacation
Only required if 8th Street is to be vacated. This application is filed with the Ada County Highway District.
Note: The required applications can be reviewed concurrently, or the rezone could be pursued prior to completion of specific development plans.
S 6th St
W Broad St
S Capitol Blvd
W Myrtle St
W Fulton St
W River St
W Miller St
W Lee St
S 10th St
S 9th St
S 8th St
S Capitol Blvd
W Cesar Chavez Ln
S Earle St
W Royal Blvd
S Lusk St
W Island Ave
S La Pointe St
S Dale St
W Sherwood St


LIBRARY CAMPUS
Zoning Highlights
C-5HD
C-5DD
C-5HDC
C-5DDC
C-5HD
C-5DD
C-5HDC
C-5DDC
C-5DD
C-5HD
C-5DDC
C-5HDC
C-5HDC
C-5DDC
C-5HD
C-5DD
C-5DD
R-ODD
R-OD
A-1
R-OD
A-1C
C-2DDC
A-1C
R-ODD
A-1
U
UC
C-3D
C-2DC
C-2D
R-OD
C-3D
C-3DC
The C-5 (Central Business District) could be expanded from the current boundary along River and 8th Streets to the Boise River and Capitol Boulevard.
The P-1 Parking Overlay District could also be expanded from River Street to the Boise River. This request could be packaged with the rezone and not require a separate application.
This would facilitate a more urban form of development by removing the height limit, parking requirements, reducing building setbacks, and allowing a range of uses consistent with the Downtown Planning Area.
The rezone would reduce the likelihood that future phases of development would require conditional use permits and/or variances.

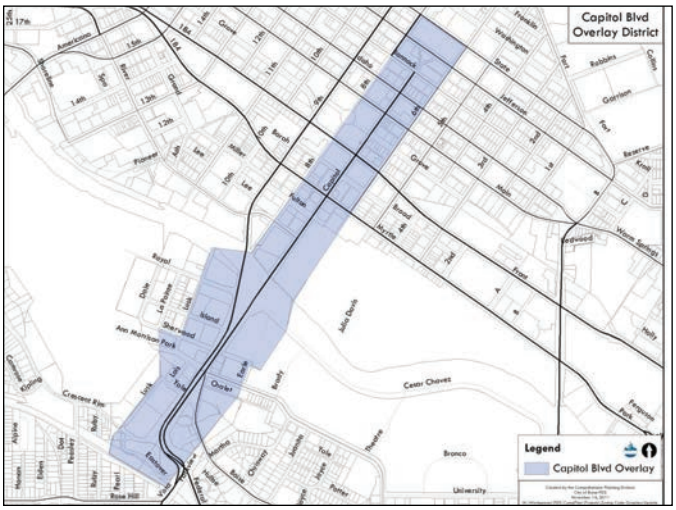

BoiseMaps
Legend
Addresses
Preliminary Lots
Parcels
Notes
1: 1,725
S Capitol Blvd
W River St
S 8th St
S 9th St
700
679
701
603
611
703
671
691
762
618
715
705
711
801
913
0.1
0
0.03
0.1 Miles
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION
NAD_1983_Transverse_Mercator
Date Generated: 4/25/2017 3:34:16 PM

Capitol Boulevard Standards

CAPITOL BOULEVARD SPECIAL DESIGN (C) DISTRICT

The City recognizes the importance of Capitol Boulevard and desires to protect and enhance its special character. Capitol Boulevard is one of the principal gateway streets in the State of Idaho. It links two of the most important historic buildings in the city - the State Capitol and the Boise Depot. In between these buildings lie a variety of uses that are of importance to the community, including cultural centers and parks, Boise State University, hotels, retail establishments, and restaurants.

MAP



Boundary of Capitol Boulevard Special Design District

- North of the Boise River to, and including, the State Capitol: Properties located wholly or partially within one block of Capitol Boulevard to the east and west, or 350 feet from the curb line of Capitol Boulevard where no streets exist;
- South of the Boise River to and including the Depot;
- East side of Capitol Boulevard: Properties located wholly or partially within 500 feet of the curb line of Capitol Boulevard, and as projected in a straight line south to the railroad tracks at the Depot; and
- West side of Capitol Boulevard: Properties located wholly or partially within the area west of Capitol Boulevard from the Boise River southeast along the centerline of Lusk Street, 1,275 feet, more or less, to the centerline of Sherwood Avenue, thence southwest along the centerline of Sherwood Avenue, 325 feet, more or less, to the centerline of LaPointe Street, thence Southeast 600 feet, more or less, to a point that is 500 feet from the curb line of Capitol Boulevard at the extension of the centerline of Yale Street, thence south along a line that is 500 feet from the curb line of Capitol Boulevard to the centerline of Crescent Rim Drive, thence southeast 198 feet, more or less, along the centerline of Crescent Rim Drive to the centerline of Eastover Terrace, thence south along the centerline of Eastover Terrace 368 feet, more or less, to the railroad tracks at the Depot.

DISTRICT SUBAREAS

The District is divided into four areas:

1. Downtown Corridor: Both sides of Capitol Boulevard from centerline of Front Street north to the centerline of State Street.
2. Central Corridor: Both sides of Capitol Boulevard from centerline of Front Street south to the Boise River.
3. Entrance Corridor: East side of Capitol Boulevard from the Boise River to the Depot.
4. Exit Corridor: West side of 9th Street and Capitol Boulevard from the Boise River south to the Depot.

Subareas Map of Capitol Boulevard Special Design District

DESIGN REVIEW PERMIT

Design is required for the following:

1. Increase in building size by 10 percent or in parking lot size by 25 percent.
2. Replacement of more than 25 percent of a building.
3. Any new building or parking lot.

4. A facade remodel that utilizes different materials and design features (A color change or the addition of non-permanent features such as fabric awnings are not subject to design review.)

STANDARDS

Streetscape Requirements

Streetscape improvements for Capitol Boulevard shall comply with the adopted Capitol Boulevard Streetscape Master Plan.

Applicability

The streetscape improvements shall be required and shown on the development plans when:

- Constructing a new building or parking lot;
- Constructing an addition greater than 30 percent of the original square footage of the building, provided the addition is greater than 2,500 square feet gross floor area;
- or Constructing a parking lot addition along Capitol Boulevard that is greater than 50 percent of an existing parking area.

Standards

Downtown Corridor from Jefferson Street to Front Street

For each section of the Corridor, required improvements include, but are not limited to:

- Brick streetscape shall remain along the west side of Capitol Boulevard from Bannock Street to Front Street.
- Streetscape upgrades consistent with the "Urban Sidewalk – Brick" prototype in the Capitol Boulevard Streetscape Master Plan along the east side of Capitol Boulevard from Bannock Street to Front Street shall be considered at the time of application review.
- Ten-foot wide detached sidewalk and nine-foot wide landscape strip adjacent to the street, with street trees, shrubs, and historic street lights along both sides of Capitol Boulevard from Bannock Street to Jefferson Street.

Central Corridor Front Street to Fulton Street

- Relocated curb to form a 52-foot wide road section measured curb to curb.
- Sidewalks with brick dry-laid pavers.
- Planters with street trees, shrubs, and low steel fencing, as shown in the Capitol Boulevard Streetscape Master Plan.
- Furnishing zone with historic street lights as shown in the Capitol Boulevard Streetscape Master Plan.
- Benches, litter receptacles, movable planters, bicycle racks, & newsstands as shown in the Capitol Boulevard Streetscape Master Plan.
- Kiosks, public art, and transit stops may be considered.

Central Corridor Fulton Street to the Boise River

- Relocated curb to form a 52-foot wide road section (curb to curb).
- Concrete sidewalks.
- Landscape strips with lawn and street trees.
- Historic street lights.

Entrance and Exit Corridors

- Concrete sidewalks.
- Landscape strips with lawn, shrubs, or street trees.
- A second row of deciduous trees.
- Historic street lights.
- Bus stop shelters at select locations.

Building/Structure Setbacks

Downtown Corridor

The setbacks of the underlying zone shall apply, except a 25-foot setback from the property line is required along Capitol Boulevard for any portion of a structure that is 45 feet or higher.

Central Corridor

Minimum setbacks shall be as follows:

- 45 feet from the centerline of Capitol Boulevard for structures up to 45 feet in height.
- 75 feet from the centerline of Capitol Boulevard for any portion of a structure that is higher than 45 feet.
- Only approved awnings, canopies, or similar projections may encroach into the public right-of-way.

Entrance and Exit Corridors

Minimum setbacks shall be as follows:

- 20 feet from the property line along Capitol Boulevard for structures less than 45 feet in height.

- 35 feet from the property line along Capitol Boulevard for any portion of a structure that is higher than 45 feet.

Required Improvements within Entrance and Exit Corridor Setback Areas

At-grade setback areas shall include landscaping, and one or more of the following:

- An extension of the streetscape, such as a pedestrian space or a plaza utilizing benches, pavers, and other design elements;
- Sculptures, public art, or architectural design features;
- Canopies and other external decorative features, provided they do not encroach more than 30 percent into the setback;
- Sign(s; and
- Low decorative masonry walls of three feet or less (see also Section 11- 07-06.2.E(2)(d) Landscaping, Fences, Walls, and Screening).

Parking Lot Setbacks and Requirements

New Structures/Lots

New detached structures and parking lots along Capitol Boulevard shall comply with the following:

- **Downtown Corridor**
  Parking lots shall be located below or behind buildings facing Capitol Boulevard.
- **Central, Entrance, and Exit Corridors**
  Parking is allowed along the sides of the building provided the width of the parking area does not exceed 50 percent of the site frontage along Capitol Boulevard. Parking may not be located closer to Capitol Boulevard than the building, and shall not be allowed closer than 20 feet from Capitol Boulevard.
- **Parking Lot Screening**
  Parking lots shall be screened using one or more of the following, unless otherwise approved by the DRC.
  - Decorative masonry screen walls – that may include wrought iron fencing. The maximum length without modulation may not exceed 30 feet.
  - Landscaping plantings that will provide year-round screening.

Building Design

Buildings shall be designed to the highest standards with consideration of the following:

- All building facade materials should be high quality to enhance the appearance of Capitol Boulevard. The same facade materials or other architecturally compatible facade materials should be used for all exposed building walls and other architectural features.
- Architectural style is not to be restricted, however the appearance of the building will be reviewed based on the use of materials and color, the quality of design, use of architectural details, and compatibility with the overall Boulevard development.
- Blank walls facing Capitol Boulevard are not allowed.
- Buildings located on corner sites that can be viewed from Capitol Boulevard should be given significance through the use of architectural elements, special materials, or height.
- Distinctive roof or other termination of the building facade.
- Windows, doors, eaves, and parapets should be proportional to one another.
- New buildings and any modifications to historic buildings shall comply with the “Design Guideline for Boise City’s Historic Commercial Districts” and the Secretary of the Interior Guidelines.
- Canopies and awnings at street level should not be illuminated and should be functional for purposes of pedestrian use.
- Mechanical equipment should be well screened from public right-of-way with materials that are harmonious to the building.
- Utilities shall be installed underground, except for transportation facilities.

Lighting

Low pedestrian/landscape lighting is encouraged and street lighting shall conform to the Capitol Boulevard Streetscape Master Plan.

Vehicular Access

- Curb cuts shall be limited to encourage pedestrian activity.

- Access points shall be defined with landscaping or other decorative elements.

Restrictions along Capitol Boulevard

The following shall not front on to Capitol Boulevard:

- Off-street service/loading areas;
- Trash dumpsters;
- Outdoor storage areas;
- Fuel pumps; and
- Drive-up windows.

Signage

Sign standards for the C District shall be as indicated in Chapter 11-010, Sign Standards. *(ord-13-14, Amended, 4/2/2014)*

River Ordinanace

The Boise River is an integral part of the city and it's history, even the meaning of Boise connects to the river. A long time Boise River System Ordinance has been in place to protect the Boise River, Greenbelt Pathway System, and surrounding vegetation. However this ordinance has also blocked most of Boise from engaging with and even seeing the river. An alteration to this ordinance for a downtown overlay area that would allow careful development in some areas down to the river and opening up some strategically placed areas to the river.

Boise Municipal Code Chapter 11-16 currently dictates a 70' setback area from the 6500 c.f.s. setback line. It is recommended that it be studied to allow areas of access and sightlines down to the river within this 70' setback. Such development would need to have guidelines of how to deal with times of flooding, water level changes, safety, and environmental issues concerning the river.

As this directly affects the greenbelt pathways as well such a study should include how the greenbelt will remain continuous and intact and look at ways the greenbelt could be incorporated into such development opportunities.

As this would be a unique overlay section applying to this ordinance there should also be a specific approval process directly related to such an ordinance. It is recommended that such an overlay district be studied for an entire section of the downtown portion of the river and not just the CCEC site.

Boise Public Library Applicable Codes and Standards:

2015 International Building Code

2015 International Energy Conservation Code

2015 International Fire Code

2012 International Mechanical Code

2012 International Fuel Gas Code

Americans with Disabilities Act of 1990 with Department of Justice adopted amendments (2010 ADA standards for accessible design)

ASHRAE 90.1-2010

American Society of Mechanical Engineers (ASME)

American Society of Testing Materials (ASTM)

Associated Air Balance Control Council (AABC)

Boiler and Pressure Vessel Rules and Regulations

Boise City Code

Boise City Green Construction Code

Boise River System Ordinance

ICC/ANSI 117.1-2009 Standard for Accessible and Usable Buildings and Facilities

Idaho State Plumbing Code

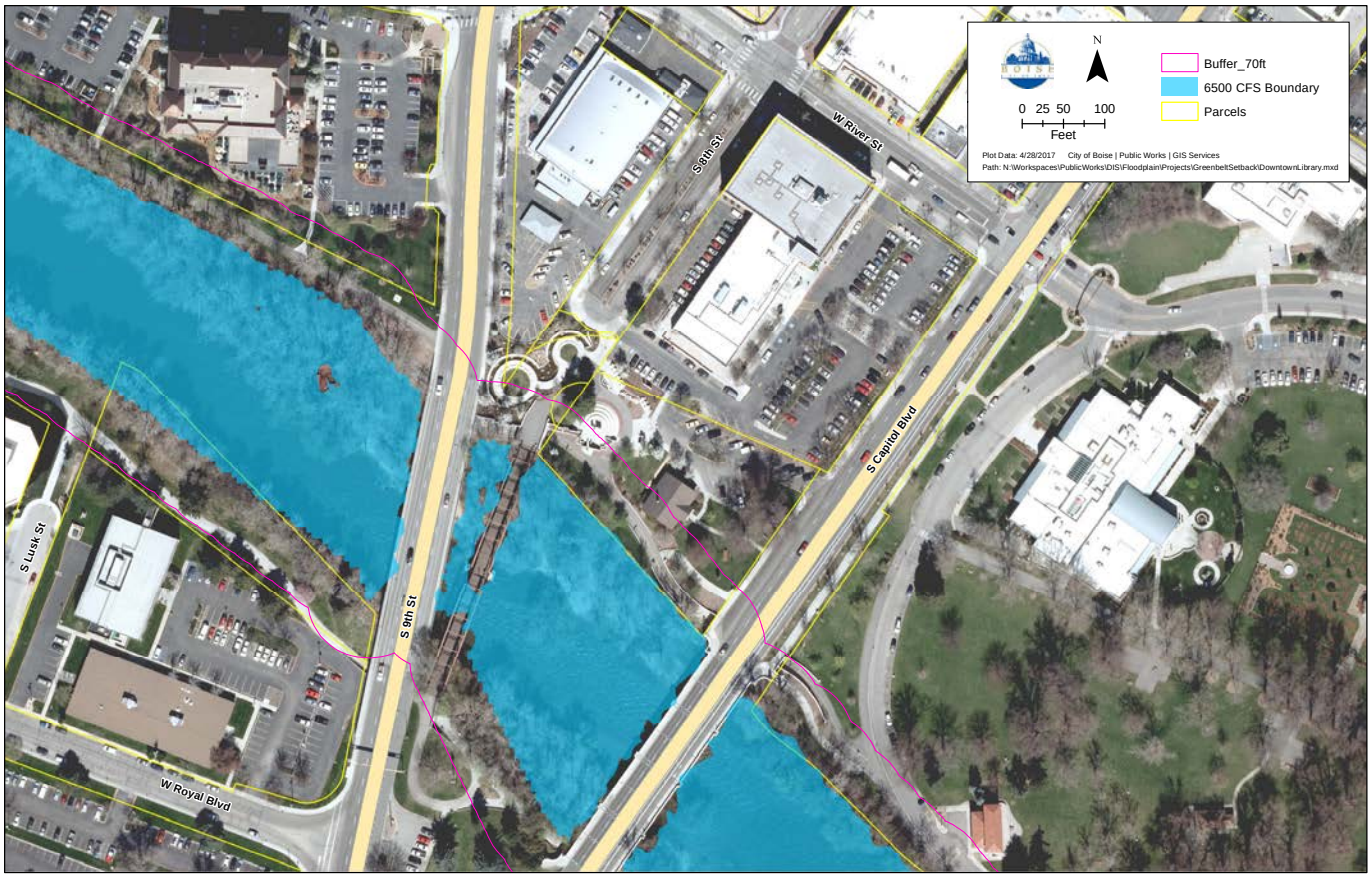
National Electrical Code (NEC) 2014

National Fire Protection (NFPA)

OSHA – Federal regulations

Sheet Metal and Air Conditioning Contractors National Association (SMACNA)

Underwriters Laboratories (UL)



RIVER SETBACK MAP For detailed zoning parameter see Boise Municipal Code Section 11-16-03 Boise River System Management District: Class A, B & C Lands & Waters; Use Regulations

10

Narratives

Civic Center for Education & Culture Narrative

PROJECT GOALS

The Civic Center for Education & Culture will be....

- A world-class inspirational cultural center of activity, learning, history and art for all;
- A 21st Century Library built on innovation, knowledge acquisition and application;
- An Arts & History Center that preserves the past and creates the future and;
- A place based cultural center whose inspirational striking presence will be an iconic gateway to the city, a landmark public space of activity and experience integrated with the serendipitous flow of river.

With this inspirational vision for the project it is imperative that the project components be collaboratively cohesive to create a comprehensive experience while simultaneously maintaining individual departmental identity, namely Library, Department of Arts & History and Theater.

Libraries are places that bring people and ideas together, opening up experiences and viewpoints beyond what is otherwise seen in other places. This is also the mission of performance art: allowing people a window into an alternate viewpoint, and having them experience it in a visceral way. While we don't often associate libraries and stages with one another, they are a perfect combination. The Boise Library is situated in a perfect location to include a performing arts venue because of its proximity to downtown as well as to the performing arts venues in the cultural district. Performing arts venues serve to extend the activity at the site through the evening and continue the mission of opening minds and creating new experiences.

It is a key goal that "the experience" at the Civic Center for Education & Culture begins as one approaches the site whether by automobile, as a pedestrian, or on a bike. The immediate impact and intrigue of what is seen and draws one in is the beginning of this important experience that is to be created on the site. Wayfinding on and through the site should be extremely intuitive. Using tools such as light, shadow, solid, void, and vertical space will make it clear how to get to one's destination while simultaneously creating a path of discovery. The paths should also connect natural and landscaped areas of the exterior with the interior both metaphorically and literally through the use of transparency, roof top gardens and connecting paths to the greenbelt.

The "Center" as a whole will act as the hub of the cultural district and the vibrant center of activity in the area. Each of the project's main components must integrate with each other.

FORMAL / INFORMAL SITE

The existing site context inherently creates two distinct site conditions (as shown in the site analysis diagram "Formal / Informal Diagram"):

1. The northeast corner of the site with its vehicular street frontage, one-way Capitol Blvd. traffic, and interface with a more urban infrastructure defines the more FORMAL end of the site. It has the opportunity to create a strong urban edge, a high visibility entrance, a strong visual gesture to the city as a landmark, and create urban plazas for formal events. Imagine taking a taxi, walking, driving, or arriving in a town car or limo as typical modes of accessing this entrance.

2 The southwest portion of the site tends to interface more with the casual and recreational aspects of its context. The pedestrian and bicycle paths of the greenbelt and the 8th street corridor as well as the connection to the river creates the opportunity for a more INFORMAL, rural, and outdoor experience. Imagine walking, bicycling, or kayaking as a typical mode of arriving at this end of the site.

Each of these approaches to the different faces of site context could start to influence both the exterior and interior of the new building. Formal event spaces, theater, gallery, and formal entries could be located near the formal northeast corner, while outdoor gathering plazas, patios, cafes, and amphitheater spaces could be located more toward the southwest and the river creating a synergy of activity as they start to connect through the civic center.

The Boise River has been identified as a critical connection for this project. The boundary between the river and the civic center should be blurred to create both a visual connection and even a plaza-like space at the water's edge that could link to the interior of the center, as if the river flowed through the space.

The site's location within the city also provides opportunities to make stronger connections to and through the site. The site for this new civic center is located at the intersection of multiple paths and multiple types of paths. It connects the greenbelt and river to the business district of the city, it connects Boise State with the arts and cultural districts of Boise, and it acts as a gateway to the city for visitors coming from the airport and freeways. Plazas, outdoor gathering spaces, and paths through the site should not only unite the context to the new civic center through place-making, but also use the space as a transitional hub connecting these other regional destinations to each other, resulting in the new center as a discoverable destination.

The greenbelt trails should connect onto the site and into the building. Finding ways to connect the greenbelt to the lobby and the library are great opportunities to open up facility and site to embrace the river

LIBRARY

As the largest component of the building program the library will by size and design create its own identity. The program elements of the library will serve all ages and all demographics. The target audience is Everyone! Partnering with public and private agencies to deliver lifelong learning and creative pursuits is critical to the mission of the library. Current uses at the library include internet access for medical information, job searches, writing, music creation, art creation, non-profit research, self education, innovation, small business research, traditional offerings, digital offerings, historical research, meeting spaces, civic forum and a venue for the exchange of ideas. The library is leading the way with innovators in knowledge acquisition and application.

There is opportunity for several of the library spaces to share with those of the Art & History spaces as well as some shared use with the Theater. The lobby, toilet rooms and classroom spaces can be a part of the shared portion of the building. The library's programming and multi-purpose room should align with the theater space so that larger events can utilize both rooms simultaneously. Classroom space should be accessed from the lobby as well as from the Library and Arts & History area to allow for individual events. The classrooms can also be used for pre-function spaces for the theater such as a donor's lounge or coat check. The library should be an inspiring and intriguing space filled with opportunity and engagement. Knowledge acquisition and application is the foundation of the library's innovative future.

ARTS & HISTORY

The Department of Arts & History was established in 2008. Its predecessor, the Boise City Arts Commission has a 30-year history in the area. The department provides in a number of services and functions including administering public art, grants, cultural sites and history programs. The Department has been recognized twice by Harvard University as innovators in government at all levels. They produced "BOISE 150" in 2013 commemorating the 150th anniversary of the city's founding. The "Boise 150" included hosting an array of exhibits and events for the 150th anniversary and the year following. Nearly 20,000 visited the sesqui-shop in the first year alone. The shop hosted 134 events and exhibits and 239 individuals and organizations participated in this collaborative effort.

We anticipated several elements for a new Arts & History facility: a year-round and fully programmed "sesqui-shop" (gallery space), a municipal collections facility for art, archives and artifacts, and an office for staff.
The gallery will:

- Connect people to place-based culture
- Encourage residents and visitors to experience local history, art and provide opportunities for cultural expression

- Enhance public understanding of the role art, history and culture play in creating a dynamic high quality community
- Integrate A&H mission-based programming
- Be relevant and accessible to people who want to learn and engage with place-based culture
- Tell the local story: be a resource for residents and visitors
- Be welcoming/comfortable in its architecture, flow and feel – we want people to know that all are welcome
- Provide amenities and collaborative opportunities for residents, visitors, creative professionals, and more

The Gallery space will be used for small performances and art exhibits. Exhibit space will host and support emerging artists at a beginning level. The theater will be there to support emerging artists and larger audiences.

THEATER

Performance spaces come in many shapes and sizes, and achieving the proper size for a venue is critical to its success. The project will include one theater. AMS has provided recommendations for what size theater should be incorporated into the project. A decision will need to be made as to which size is appropriate. An intimate space with room for a few performers and 100 audience members creates a very different experience than a great concert hall with 2,000 seats. Beyond size considerations, some spaces are more suited to dance, while others to instrumental work, and others to theatrical presentations. The arrangement of seating, stage set up and access and acoustics are all dependent on the intended use. The challenge is to create a flexible space that can adapt to serve as many needs as possible, without sacrificing the ability to create a quality performance for emerging and professional artists alike.

After discussion with the arts community, both established and new arts organizations, as well as the often underserved immigrant population, we have identified the performance space that would fill a void in the current Boise performing arts venues: a 300 seat 'black box' style space with maximum flexibility and technical capabilities built in to support a large range of activities.

ELECTRO-ACOUSTICAL FLEXIBILITY

Due to the wide variety of performances and events anticipated the project is considering an electro-acoustical system which would allow for a variety of types of experiences and a variety of performers to use the space for different acoustical needs from spoken word, to theater, to symphony or opera. One such system is the Constellation system.

"In acoustics, one size does not fit all. Constellation offers an elegantly simple way for venues to transform architectural acoustics with a finger tap, affording a level of sonic flexibility never before possible. Constellation can seamlessly integrate into an environment, meaning designers can now create an uncompromising, holistic experience for the ear and the eye." (https://meyersound.com/product/constellation/)

"Constellation provided architects and acoustical consultants the freedom to design state-of-the-art multi-purpose venues without the constraints and expense of room shapes, dedicated structures and added materials. The acoustical effectiveness, ease of control, and virtual invisibility of Constellation ultimately will enhance the success of venues." (Constellation Acoustic System; a revolutionary breakthrough in acoustical design, Meyer Sound)

300 SEAT THEATER

A venue accommodating 300 audience members can create a very intimate feel for both performers and attendees. The proximity to the action, with no proscenium between audience and performer, allow everyone to feel like they are part of the experience. This size of facility would serve many of the newer arts groups, who don't currently have a large following or name recognition, but have something important to offer, and having a fully equipped venue of this size would greatly improve their ability to create impactful art. This style can also be conducive to smaller professional performances geared toward younger audiences such as those in "Sound Box" in San Francisco where the symphony or opera create alternative performances and experiences to engage the younger generations with their art.

The flexibility of a black box style venue allows for multiple configurations of seating and stage areas, and thus adapts well to the user's needs. There is a balance between flexibility, ease of use, and cost: how quickly and easily is it to reconfigure the space from the typical arrangement of seats, to a thrust stage, to perhaps a full in-the-round configuration. While full flexibility is optimal, it can be either labor intensive to adjust, or cost-prohibitive to get equipment that helps automate reconfiguration. Based on the needs of the organizations we talked with, an optimal balance is to have built-in retractable seating along one wall, which is easily pulled out for the typical

configuration. It can easily be retracted to open up the full space to allow for a banquet setting (having tables stored on site then becomes a consideration), or partially opened with additional platforms brought in to create a thrust stage configuration. Additional labor is involved in creating set-ups beyond the typical, and who is allowed to perform this labor is a question that must be carefully considered. Technical capabilities of the theater also need to be adaptable for multiple user types, from a basic plug-and-play option for those without technical know-how, to a full light/sound system for more adept users.

COMMUNITY GATHERING

Envision a place where people of all ages in the community can gather, interact and socialize while also meeting their own needs and desires. The Civic Center for Education and Culture is where multiple cultural functions come together, share space and create cohesive programs for the community.

It is important for these services and functions within the Civic Center for Education and Culture to be integrated while also maintaining their own identity in the prominent cross-generational culture of Boise. Some of the considerations in bringing these entities together will include flexible divisible shared space, interior finishes, and the connection of exterior and interior spaces for functionality and aesthetics. A key space for this interaction and socialization is in the lobby. As patrons approach the building the strong indoor – outdoor connection gives them an indication of where the library is located as they see people reading and where the Arts and History Center is located they see displays and artwork through the transparent walls and openings. As they continue under a protective canopy into a higher volume of space, they will pause and look around. From this vantage point, the visual clues of transparent walls lead to the library's entry. A gathering space or lobby on the mezzanine indicates a community area. There are friends there eating lunch at the tables and chairs outside the café. Without much more than a pause, the first time visitor will then naturally flow to the desired area they are seeking.

PARKING

Parking is an important aspect of the site development plan. It is critical to ensure that patrons have the ability to get to the building in a convenient and safe manner. It is important that adequate parking and access is provided for each use within the building. Parking for each use has been calculated based on both Boise City zoning requirements and functional use requirements. Because of the very different uses anticipated for this site the opportunity to share parking became viable. Shared parking is defined by the Urban Land Institute as "the use of a parking space to serve two or more individual land uses without conflict or encroachment." The opportunity to share parking spaces is achievable when variations in building use occur at different times of the day, week, or season of the year.

Data gathered on time of day use and day of week use for the library and arts and history department were used to indicate peak times of day and day of the week for patrons and staff on site. Numbers for patrons and staff for the performing arts component were based on national data gathered from the Urban Land Institute. The data for the Library was factored up to account for the anticipated square footage of the new building. The data for the Arts and History department have been factored up to account for total staff in the new building and for the potential events that may take place.

In addition to the data regarding total people on site it is important to consider how people are coming to the site because this has a direct impact on the amount of parking required. Observations of the site, in addition to national data, account for estimates of patron and staff transportation mode. The transportation mode analysis indicates that roughly 75% of people will come to the center in a single occupant vehicle, 17% of people would come in a vehicle with two or more people, and the remaining 8% of the people would walk or travel by bicycle. The combined data indicates that peak numbers of patrons and staff (228 people) for the Library occur on Wednesday during the morning hours. It also indicates that peak numbers of patrons and staff (32 people) occur in the early evening hours on Friday when patrons are visiting or when events occur. This also indicates that the maximum number of patrons and staff (120 people) for the performing arts center occur on weekends during the late evening hours (8 pm time-frame).

The peak demand for each use occurs at very different times of day and days of the week. The maximum number of people on site for the Library during the early afternoon hours on a weekday is larger than the numbers for the other uses and so this becomes the driver for number of parking stalls required. Shared parking ensures that the parking demand for each use is still met, but accounts for the overlap of use by not building too much parking. By looking at the overlap of people on site for each use and time of day the data suggests that the maximum number of parking stalls needed is 300.

21st Century Library Narrative

We believe that public libraries are entering into a new age of exciting alternative resources and materials that citizens desire and need. Increased demand for 24/7/365 information services, collaborative tools and workspaces, and enhanced digital access all reinforce the concept of the public library as community center. Customers are transitioning from information consumers, to learners, to information producers.

THE MODERN LIBRARY

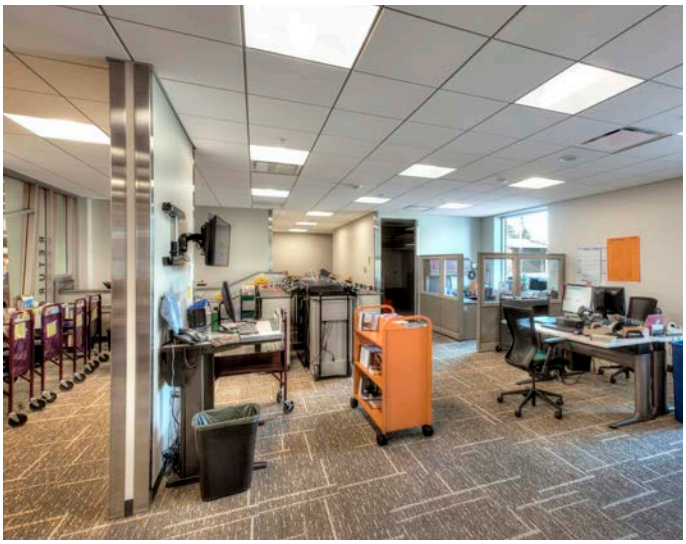
The Modern Library must carefully consider each of the following capacities in developing a state-of-the art customer experience with matching services for the communities it serves.

- Knowledge acquisition and application
- Experiential learning
- Vision Labs (Virtual Reality)
- Maker Pods
- Maker Spaces
- Age-specific spaces
- Public gathering spaces
- Adequate Staff Work Space
- Consideration of importance of staff wellness
- Efficient building infrastructure
- Highly maintainable building
- Transportation – parking, transit availability, biking, and walking
- Efficient building infrastructure
- Parking
- Bookstacks

This translates into more open space for an adaptable 21st century learning environments dedicated to collaboration, computing, programming, public meeting and multipurpose maker spaces.

Although many of these systems have utilities in academic libraries. The same principle applies to public libraries in regards to creating more collaborative community space. A lower percentage of books would be housed in the storage system than you would see at an academic library. This will allow for a broad browsable collection on the floor accessible to the public.

Browsing online is becoming increasingly common as well This also supports the concept of a high-density storage system that for segments of the library's print-on-paper collections. The primary reason is to create more space for programming, activities, learning, engagement and collaboration.



Salt Lake County Millcreek Library, Salt Lake City, Utah

AUTOMATION - SPACE & DOLLAR SAVING TECHNOLOGY

While the explosion of media and tech-savvy features in the library is obvious, it also comes with a less obvious perk – saved space, staff productivity and enhanced storage opportunities.

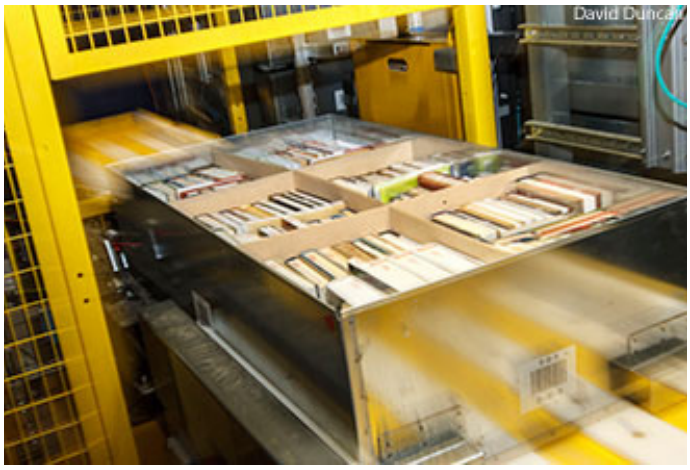
A state-of-the-art Automated Storage and Retrieval System (ASRS), now found in several libraries throughout the nation allows these libraries to house their expansive print-on-paper collections using just 1/7th of the space needed for traditional book storage.

This allows up to 60% of a library to be dedicated to individual and collaborative spaces, and as little as 10% dedicated to actual collection space.

In addition to space-saving benefits, the ASRS system can equally contribute to a customer service mantra. Which underscores the value of shared resources that are readily available and consumable, as opposed to tucked-away in hard-to-navigate stacks.

This translates into more open space for 21st century learning environments dedicated to collaboration, computing, programming, public meeting, and multipurpose maker spaces.

Although many of these systems have started out in academic libraries the same principle applies to public libraries in creating more collaborative community space at the library. A lower percentage of books would be housed in the storage system than you would see at an academic library. This will allow for a good browseable collection on the floor accessible to the public.



Browsing online is becoming more and more common as well which also supports the book storage system idea but the primary reason is to create more space for programming, activities, maker spaces, learning, engagement, and collaboration; space for knowledge acquisition and application.

RFID (radio frequency identification) enables the library to utilize an Automated Materials Handling System (AMHS) that speeds up the re-shelving of borrowed materials and requires less time further improving staff productivity. RFID also facilitates shelf scanning which facilitates customer browsing, and with the aid of Collection Hq (or similar), has a favorable impact on overall collection development.

Utilizing available technology can also result in the library providing 24/7 service for customers who may not always be able to come to the library during normal open hours.

ASRS GENERAL SPECIFICATIONS

- 600,000 items - 15 items per foot - 40,000 linear feet
- 500,000 items - 15 items per foot - 33,333 linear feet
- Max height is 50’
- 34 bays long 45 bins per side x 2 = 90 bins = about 800,000 items
- 56 bins, 50’ H x 147’ L = 504,000 items
- Estimate 2,000 - 2,500 sf will house 500,000 – 600,000 items depending on the size of the items. That is, a monograph will take of less bin space than a bound periodical – generally speaking.
- An ASRS of 2,500 NSF is estimated to cost approximately $2,000,000 but would create a savings of over $15,000,000 of building costs making approximately $13,000,000 in savings to the project. The ASRS system for a portion of the collection has been incorporated into the program and cost estimate so that such a savings is already realized in the planning of a new Main Boise Public Library.

Arts & History Narrative

VISION AND MISSION

Vision

The Boise Center for Arts & History is a community-based facility that connects people to place-based culture. It is a place where residents and visitors alike experience local history, art and culture. The Center enhances public understanding of the role arts, history and cultural awareness play in creating a dynamic high quality community.

Mission

This Center will support community-based exhibitions, performances, presentations, workshops and collaboration. Community members and visitors will have the opportunity to learn about Boise through the eyes of local artists, historians, educators, curators and others. This civic cultural space is essential for community gathering and municipal programming, collaboration and engagement, art and artifact restoration and repair, and more.

Ideally, the creation of a Boise Center for Arts & History will do what a commitment to arts and history have historically done in communities nationwide: revitalize neighborhoods, encourage economic activity, and enhance local identity and culture.

The Cultural Center will:

- Integrate A&H mission-based programming
- Be relevant and accessible to people
- Tell the local story – it will be a resource for residents and visitors
- Be welcoming and comfortable space in its architecture, flow and feel

- Provide amenities and collaborative opportunities for residents, visitors, creative professionals, and more
- Be a place to convene, solve problems, create and explore ideas
- Be a place for artistic expression and education
- Provide an opportunity for new creative sector business development by providing low-cost space for nonprofits and individual creative enterprise

THE NEED AND THE SEARCH

For nearly a decade – and for thirty years prior to the founding of the Department of Arts & History in 2008 – staff and volunteers have worked closely with the community to determine a variety of needs for enhancing the quality of Boise's cultural life. The result was several planning documents, including the City's Metropolitan Arts Plan to CCDC's Arts & Culture assessment, that all called for increased support for cultural infrastructure.

PRELIMINARY NEEDS ASSESSMENT

Through 2009 and early 2010, the Department of Arts & History held nearly ten civic engagement culture cafés with non-profit organizations, visual and performing artists, writers, historians and other humanities professionals. Throughout the meetings one consistent theme was expressed: an urgent need for collaboration. From that unifying voice, several areas where collaboration was most needed were identified: marketing, education (on many levels), business planning, and access to low-cost space…for collaborative efforts, meetings, workshops, idea/incubation, and more. The dearth of affordable and suitable space for small-to midsized creative endeavors is a challenge.

10 Narratives

A&H Guiding Principles – *The Boise Center for Arts & History puts these into practice:*

Are we visible? We will continue to improve communication strategies that result in successful engagement opportunities for residents and visitors

Are we accessible? Our programs - and those we support through our grant program - should be affordable and accessible.

Are we relevant? Our department should produce and support efforts that convey why arts and history matter within our community.

Are we inclusive? We strive for people to feel welcome and comfortable while engaging in cultural endeavors – for our programs as well as those we support.

Are we diverse? We will support a wide range of opportunities for various audiences, which is important for cultivating a healthy and vibrant community.

CULTURAL PLAN

From 2014 -2016 staff developed the first-ever citywide Cultural Plan. The staff spoke to over 1000 people to determine goals and objectives. Ultimately, the need for a low cost/no cost collaborative facility rose to the top, as a place for exploration, connection, and collaboration. See attachment for Goal 3, which addresses the facility need question.

EARLY STEPS

Staff of A&H has responded to the call for facility space by exploring and analyzing no more than ten possible locations since 2010, including the Armory, the Bon/Macy's building, Alexander Building, the Depot, the Gibson Funeral Home, and many more. They are looking for the type of space that will allow for exhibition, programming, and community-based workshops as well as adequate for space for staff offices, conference/meeting rooms, materials conservation and the City Archives.

BOISE 150 AND SESQUI-SHOP YEARS 1 AND 2

BOISE 150 gave the staff the opportunity to test their assumptions and make visible the community request for a collaborative space that focused on Boise history, art, and culture writ broadly.

BOISE 150 commemorated the 150th anniversary of the city's founding. To help residents and visitors learn about and celebrate Boise's past, present, and future, A&H presented opportunities to explore Boise through the themes of community, environment, and enterprise. Throughout 2013, BOISE 150 offered a variety of engagement opportunities. The mix included A&H-inspired events, lectures, legacy project, an innovative Merchant Program, and the vital and vibrant Sesqui-Shop. They proved the need at The Sesqui-Shop. What was it? The Sesqui-Shop served as BOISE 150 headquarters. This temporary storefront/ gallery/ interpretive center was home to all things BOISE 150. It quickly became a magnet for Boiseans and their guests. It offered people a chance to contribute to the conversation about Boise as seen through the lens of history and well as through contemporary snapshots and future aspirations for the city. The shop accomplished this through partnerships in which individual and organizational participation -- and made a significant contribution. Exhibitions, presentations, workshops, performances, tours, and community-partner produced events and projects only touched the surface of what the place accomplished. The Shop was located at 1008 Main Street. The strategic setting drew attention to the only block remaining intact with historic buildings and helped reinvigorate the neighborhood. By activating the space in a mixed use building, the Sesqui-Shop provided a cultural anchor for an area on the edge of central downtown.

Sesqui-Shop by the numbers, Year 1

Total Visitors: 20,000
Total Events: 134
Total Exhibits: 14
Total Merchandise Sold: $30,000
Total Community Partner Collaborations: 239

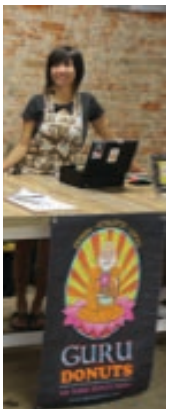
As a City government we have a unique opportunity to address this need and to help our artists, organizations and cultural programs become more cohesive, layered, in-depth, and integrated into our city.

Due to the success of the Shop during BOISE 150, the Mayor and Council provided funding for a second year of activities. Programming ran from February through September, 2014 (when we "lost the lease"). The second year of the Sesqui-Shop proved that residents and visitors continued to seek access to a comfortable space where they can learn about – and participate in -- the art, history, and general cultural life of their community. Staff had daily requests for use of the space for presentations, film screenings, community meetings, temporary exhibits, receptions and more.

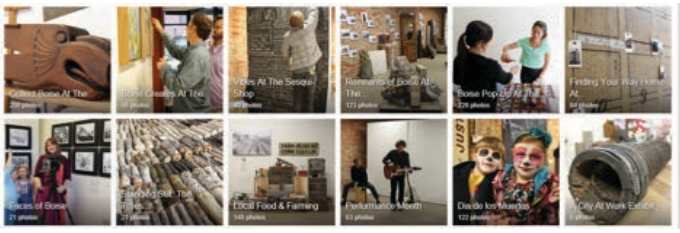
This is clearly the type of facility the community wants; the response was overwhelmingly positive.

Sesqui-Shop By the Numbers, Year 2

Total visitors: 10,000
Total events: 84
Total Exhibits: 6
Total Merchandise Sold: $6,000
Total Community Partner Collaborations: 52



Maintain and Develop Cultural Assets

Care for and Develop Facilities Where Culture is Preserved, Accessed and Experienced

1. Implement goals from Taking Care of Boise's Art and Cultural Heritage: A Plan for Boise's Art, Artifacts, and Archives (May 2015), including developing a comprehensive City Cultural Collections and Records Center to collect, preserve, and provide access to Boise's municipal records, artifacts, and art and to collect on behalf of Boise residents.
2. Develop a City-managed cultural center with space for exhibitions, workshops and public gatherings.
3. Identify opportunities for public or non-profit investment in places to preserve the unique character of neighborhoods. Promote exhibitions, workshops and public gathering spaces in City-owned facilities and partnership locations.
4. Develop a mid-sized performing arts facility as a public-private partnership in downtown Boise.
5. Encourage private investment and public/private partnerships in facility development throughout the city.
6. Strengthen partnerships between the departments of Arts & History, Planning and Development Services, Parks and Recreation, and the Historic Preservation Commission in stewardship of Boise's important landmark structures, facades, and other historic resources.

Sustainability Narrative

PROJECT GOALS

At this early stage of project development, the project aspires to certify with USGBC under LEED BD+C: New Construction (NC) v4 Silver (minimum). Each time the USGBC issues a new version of rating system the bar is raised; this is very true of the move from v3 to v4. Generally speaking, a building that would have achieved Gold under v3 is likely to achieve Silver for the same investment in terms of time and money. This is due primarily to market forces that are beginning to adjust to the new ideas encapsulated in the rating system such as those related to building material ingredient transparency.

Arch Nexus has successfully delivered a LEED v4 Platinum at the time of this writing, and has charted the path to certification proof that the upper limit of the rating system remains achievable with proper commitment, planning and execution.

The project is also pursuing Social Economic Environmental Design (SEED) Certification through the SEED Network and Design Corps. SEED uses design strategies to further define to social, economic, and environmental justice through all the design fields: architecture, industrial design, communication design, landscape architecture, and urban planning.

Using the framework of the International Living Future Institutes (ILFI) Living Building Challenge (LBC) the following implementation strategies and design recommendations for the project are provided in order to meet the project goals relative to sustainability:

STRATEGIES + RECOMMENDATIONS

Place

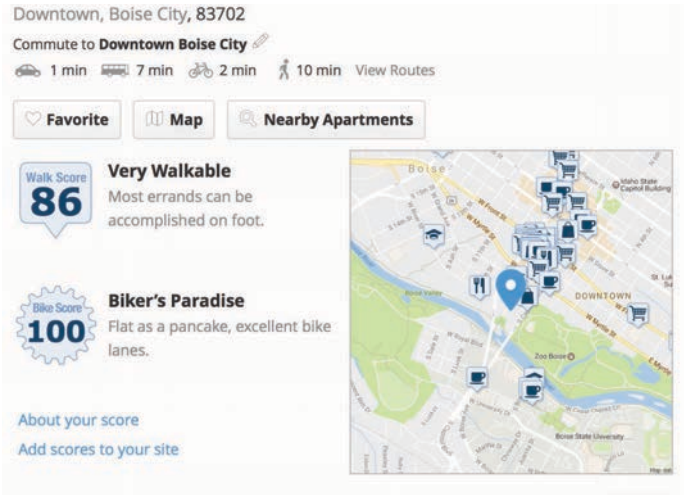
Both site selection (location) and site composition are factors for consideration in meeting the projects sustainability goals. The City of Boise has selected a greyfield site that will maximize the opportunity for sustainable development by avoiding the consumption of existing undeveloped open space. By locating public functions within and among the community-at-large rather than at the edge of the community the project is off to a great start.

Sustainable site development shall carefully consider the nature of the pre-development condition of the property. By mimicking the natural ecosystems that existed on-site before grading, paving and building, the project can leverage “ecosystem services” and minimize municipal services (and the cost of extensions to those services) to the greatest extent possible.

Instead of planting non-native or adaptive specimens, landscaping should follow the patterns of diverse local ecosystems in order to provide habitat for insects and birds (pollinators). Irrigation beyond the establishment period is not needed for such strategies, and water use is greatly reduced as a result.

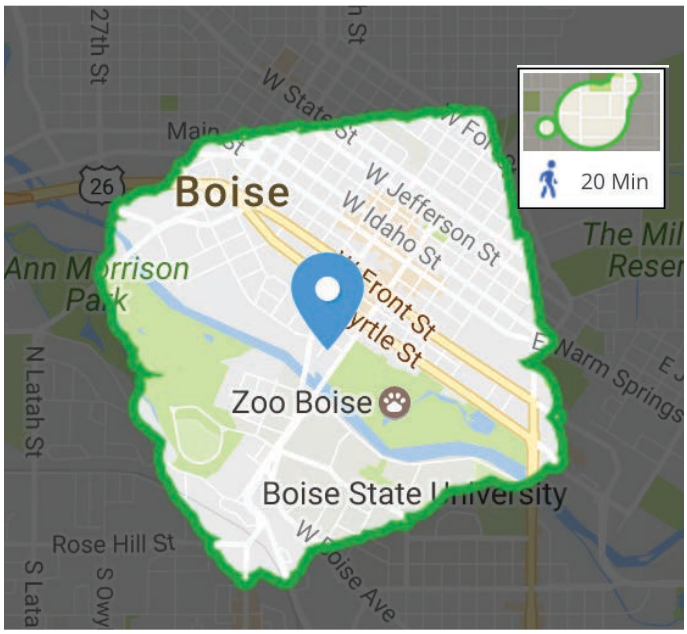
While automobiles are a fact of life in any American city, Boise in general and the project site more specifically enjoy a number of opportunities relative to human-powered living. The riparian corridor along the river is well served by the Boise River Greenbelt, an urban trail that threads its way through the city and increasingly serves as an alternative to commuting by car. The roadway bicycle infrastructure is tremendous, and many diverse functions are within walking distance of the site. As a result, the site enjoys a very good Walk Score and an unbeatable Bike Score according to walkscore.com.

Additionally, consideration for making 8th Street more pedestrian oriented will further enhance the walkability of the site, serve to attract more people and revitalize redevelopment of the area.



Building and operational infrastructure that will serve to further enhance human-powered living includes:

- Secure bicycle storage
- Showers & lockers
- Campus bicycles
- Fleet car access
- Transit subsidy



Travel Time Map (Explore how far you can travel by car, bus, bike and foot from 715 South Capitol Boulevard)

WATER

Indoor and *Outdoor Water Efficiency Issues* (water reuse regulation unknown in Idaho).

In addition to more typical strategies explored by LEED such as outdoor irrigation efficiency (drip systems), indoor water efficiency (low-flow fixtures), appropriate building level metering, system sub-metering, cooling tower management, etc., a deeper look at appropriate uses for water is suggested given the semi-arid nature of the Boise climate.

Innovative strategies include alternatives to flushing toilets and urinals with potable water. Waterless urinals should be a given as the technology has moved far beyond early models with which most owners are familiar. A detailed water reuse study is recommended in order to fully assess the state of regulation in Idaho as well as the water balance potential for on-site sources to the extent they are allowed by law.

ENERGY

The table to the right highlights energy efficiency and conservation strategies that are recommended for Boise's climate zone:

ENVELOPE	Roof	Insulation entirely above deck	R-36
	Wall	Steel framed	R-25
		Mass	R-15
		Below grade	R-10 c.i.
	Floor	Mass	R-14.6 c.i.
		Steel joist	R-30
	Slab-on-Grade	Unheated	R-15 for 24"
		Heated	R-20 for 48"
	Opaque Doors	Swinging	R-4
		Nonswinging	R-4 Min.
	Window-to-Wall Ratio		30% Max*
	Window	SHGC	0.40
		U-Value	0.42
		Thermally broken frame	Yes
		VT/SHGC	1.10
	Skylight-to-Roof Ratio		3% Max*
	Skylight	SHGC	0.40
		U-Value	0.50
		Insulated curb	Yes
	Infiltration	Pressure differential of 0.3 in. w.g.	0.25 CFM/SF Max.
	This will change if natural ventilation is recommended		
LIGHTING	Interior	LPD (100% LED)	0.5 W/SF
		Controls	Vacancy Sensors
			Daylighting
		Surface reflectance	90/75/20
		Furniture height	42" Max.
		Localized lighting	Task Lights
	Exterior	100% LED	
		Controls	Occupancy Sensor
HVAC	Equipment	Depends on Boise Priorities and Maintenance Staff training	
	Controls	Expanded deadband	9°F
		Nighttime temperature setback	5°F
		Natural ventilation	Where applicable
		Server Room economizing	In Winter
		Server Room temperature	80°F
		Demand Control ventilation	In assembly areas
		Three or four stage cooling	IDEC w/ Heat Exchanger
		Utilize transfer air in non-occupied spaces	

PROCESS	Equipment	Energy Star rated
		Virtual desktops
		Vampire switch
	People	Occupant Engagement Program

A key metric for measuring and comparing energy use in buildings is Energy Use Intensity (EUI). This unit of measure expresses a building's energy use as a function of its size and is calculated by converting all forms of energy consumed annually to a common unit (kBTU) and then dividing by the gross floor area (outside face of building envelope including all conditioned space but excluding overhangs and canopies). The following table represents research regarding national average EUI's for each of the primary building functions according to the US EPA's Energy Star Portfolio Manager. A recommendation for an energy use reduction target is also provided on both a function-by-function and weighted average (whole building) basis. Please note that a 50% reduction is a challenging but achievable goal.

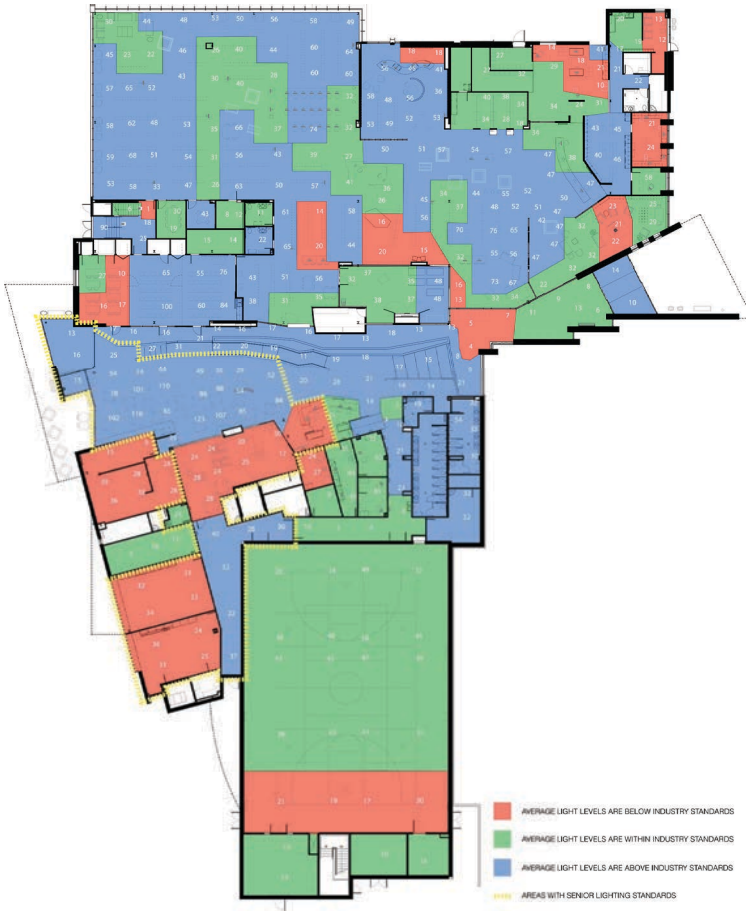
BLDG TYPE	AREA [SF]	SITE	
		Average EUI	Goal EUI*
LIBRARY (New Building)	111,918	91.6	20
ARTS & HISTORY (Remodel)	27,826	45.3	46
ARTS & HISTORY (New Building Mixed-Use)	27,826	45.3	17
PERFORMING ARTS (New Building)	23,625	45.3	10
Total Average EUI			38.5

*Area weighted EUI (50%)

This targeting method does not directly translate to the LEED rating system. For informational purposes, a 50% reduction from national average roughly translates to a 20 – 30% reduction under ASHRAE 90.1 2010, the third-party standard currently used by LEED v4. This level of energy performance is congruent with a LEED Silver pursuit.

HEALTH + HAPPINESS

A concept that encapsulates much more than indoor environmental quality, health and happiness takes on the fundamental connection that humans have (and crave) with nature. Daylighting is an essential, form-giving strategy that must be analyzed on an ongoing basis during the design process. Cubicle walls need to be held to no more than 42" AFF in order to avoid shading, to increase access to quality views, and to promote good airflow (mechanical or otherwise) through multi-occupant spaces. Occupants must be given the opportunity to open windows as controllability of systems is a key aspect of occupant comfort (and can improve energy savings). Air-testing should be conducted prior to occupancy in order to provide the ultimate incentive for performance on the part of the design team and the contractor – proof.



Millcreek Library Daylighting Analysis

If it is of interest to key stakeholders, the WELL Building Standard could also be explored for this project. This relatively new rating system focuses on occupant health and well-being as the key outcome, rather than green building itself. More information is available upon request.

MATERIALS

Indoor air quality and human health can be further protected by specifying healthy construction materials (low VOC, known

toxin avoidance, etc.). This project will take place at a critical time in the development of new transparency standards for the AEC industry. Aided by the Declare Label (a nutrition label for materials), C2C certification, and a variety of HPD and EPD sources, the design team will be able to make healthy choices for the citizens of Boise in order to ensure that these buildings are an asset to their community.

Where a product comes from matters as well. LEED v3 regional sourcing credits are no longer present in the rating system, but this does not erase consideration for building up local and regional economies through thoughtful material selection and specification. The goal of the project should be to source 100% of products and materials from on the continent, with the majority of those coming from the Western US (if not the Northwest and Intermountain Regions). Based on Nexus' experience, as much as 20% of materials by cost may need to come from outside these radii, but having a lofty goal is the first step toward avoiding the common pitfall of sourcing planet wide.

A final note on materials relates to waste – an inherently human concept that does not actually exist in nature. It is recommended that a materials conservation plan be developed during programming, as opposed to the traditional construction waste management plan. By assuming that materials can be conserved and reused, the paradigm on waste is shifted and very high recycling rates can be achieved: a diversion rate of 90% is the recommended aggregate target for all materials. An existing building(s) should be viewed as materials shopping centers and, to the extent that the budget allows, portions should be carefully deconstructed for reuse rather than pursuing wholesale demolition. If the design team catches themselves saying "it's just easier to tear this down", they have not adopted the correct philosophy regarding materials conservation.

REGENERATIVE STRATEGIES

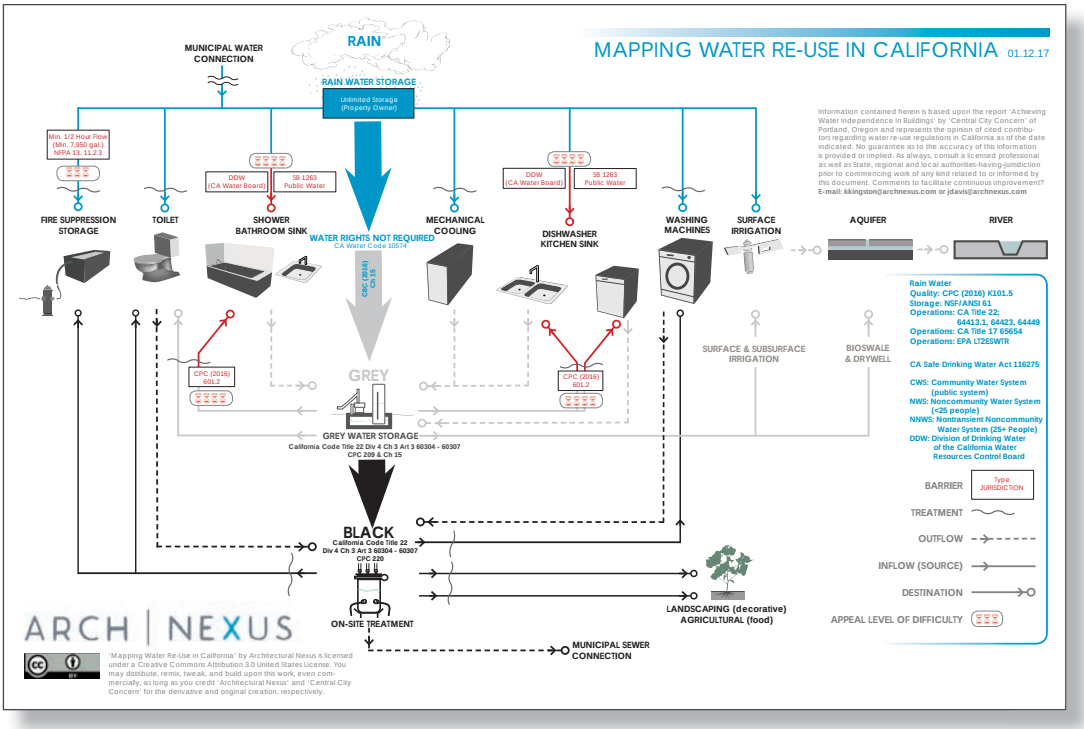
Sustainability, by definition, is about merely achieving balance (e.g. net zero energy). Regenerative design, on the other hand, is about seeking the upper limit of what has been achieved in terms of high-performance design, construction and operations. In order to achieve enhanced results, consideration early on in project development should be given for the following ideas:

LEED Platinum Implementation Strategies

Maximizing site and energy credits will be key. This includes on-site renewable energy production. All building systems should be designed to be PV ready. Consider adding urban agriculture to the site design process. This effort is as much a social equity effort (on-site food production that can be used by those experiencing homelessness) as it is a resiliency strategy.

Net Zero Implementation Strategies

ILFI's certification requires that combustion be eliminated from the building. Planning early for this requirement is a must. There are many examples of energy-efficient and comfortable structures that do not use natural gas. Where Boise has a district hot water system, it will be less of a challenge for this project than most to eliminate combustion.



Water Re-Use Map Demonstrating the Process of Net Positive Water Implementation

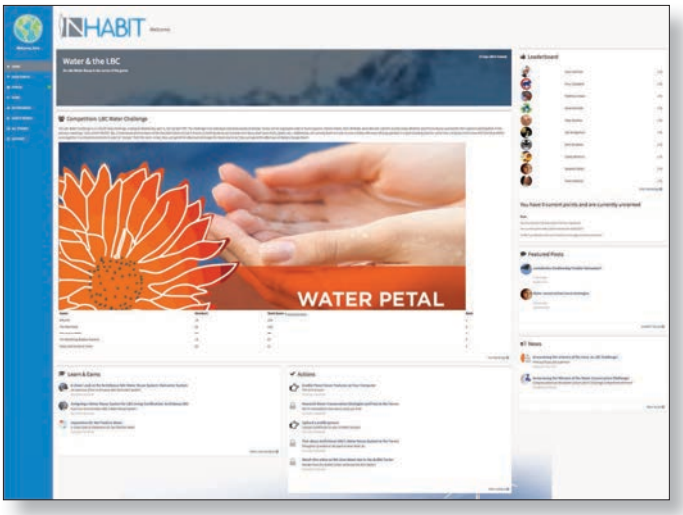
10 Narratives

Net Positive Water Implementation Strategies

Commission the development of the Idaho Water Reuse Road map – a tool that will not only help the City of Boise and the project-at-hand, but all projects to follow. Understanding the legal limits of reuse and the path to advocacy for change is a key first step to making buildings water independent.

Net Positive Waste Operational Strategies

Waste audits should be conducted during pre-design in order to better understand purchasing preferences, consumption patterns, and waste volumes that are unique to each function. Optimization can be had once benchmarks are established.



InHABIT is a version of the portal designed around advanced building certifications such as: LEED, LBC and NZEB

Occupant Engagement

Deploy an occupant engagement program in order to build a culture of conservation prior to occupancy. InHABIT is a program that Nexus has developed in partnership with Sustain3, a technology company that has pioneered an online, social media based training portal. As much as a 25% reduction in plug loads has been achieved by asking passive occupants to become active inhabitants of the spaces that they work in each day.

Theatrical Narrative

Libraries are a place that bring people and ideas together, opening up experiences and viewpoints beyond what you could otherwise see. This is also the mission of performance art: allowing people a window into an alternate viewpoint, and having them experience it in a visceral way. While we don't often associate libraries and stages with each other, they are a perfect combination, and the Boise Library is situated in a perfect location to include a performing arts venue because of its proximity to downtown as well as to the performing arts venues on campus. It serves to extend the activity at the site through the evening, and continue the mission of opening minds and creating new experiences.

Performance spaces come in many shapes and sizes, and achieving the proper size for a venue is critical to its success. An intimate space with room for a few performers and 100 audience members creates a very different experience that a great concert hall with 2000 seats. Beyond size, some spaces are more suited to dance, while others to instrumental work, and other to theatrical presentations, depending on the arrangement of seating, how the stage is set up and accessed, and what the acoustics are like. The challenge is to create a flexible space that can adapt to serve as many needs as possible, without sacrificing the ability to create a quality performance.

After discussions with the arts community, both well established and new arts organizations, including the often under-served immigrant community, two alternatives for the performance space were explored to fill the void in current Boise performing arts venues: a 300 seat 'black box' style space, and a 700 seat performance space, both with maximum flexibility and technical capabitlites. After completion of the arts study by AMS it was determined that the 300 seat space was the most valuable to the community, and thus has been included in our programming study.

300 SEAT THEATRE

A venue accommodating 300 audience members creates a very intimate feel for both performers and attendees. The proximity to the action, with no proscenium between audience and performer, allow everyone to feel like they are part of the experience. This size of facility serves many of the newer arts groups, who don't currently have a large following or name recognition, but have something important to offer, and having a fully equipped venue of this size would greatly improve their ability to create impactful art.

The flexibility of a blackbox style venue allows for multiple configurations of seating and stage area, and thus adapts well to the users needs. There is a balance between flexibility, ease of use, and cost: how quickly and easily is it to reconfigure the space from the typical arrangement of seats, to a thrust stage, to perhaps a full in-the-round configuration. While full flexibility is optimal, it can be either labor intensive to adjust, or cost-prohibitive to get equipment that helps automate it. Based on the needs of the organizations we talked with, an optimal balance is to have built-in retractable seating along one wall, which is easily pulled out for the typical configuration. It can easily be retracted to open up the full space to allow for a banquet setting (having tables stored on site then becomes a consideration), or partially opened with additional platforms brought in to create a thrust stage configuration, as shown in the space diagram drawings. More labor is involved in creating set-ups beyond the typical, and who is allowed to perform this labor is a question that must be carefully considered. Technical capabilities of the theatre also need to be adaptable for multiple user types, from a basic plug-and-play option for those without technical know-how, to a full light/sound system for more adept users.

The program also includes a full complement of front-of-house and back-of-house supporting spaces for the theater. As a full-service performing venue catering to professional performers and savvy patrons, ticket space, concessions and coat checks are expected in the front lobby. The back stage areas would include dressing rooms for individuals and groups, a performer lounge, and office/storage space for technical elements. As the design is developed, and the exact needs of the performance space are tailored to the users and audience, there are many ways that these elements can be combined with library program elements. The lobby is expected to be shared, and ticket and concession areas can be temporary moving carts, rather than built-in spaces. While some dedicated performer back-stage space is needed, many groups would not make full use of large chorus dressing rooms, so placing meeting spaces nearby that can double as changing space for larger groups coming to perform would make more efficient use of space.

300 SEAT FLEXIBLE THEATRE STAGE EQUIPMENT

Catwalk Systems

Advisory Drawings series "SK" (Advisory drawings initiated by Schuler Shook, final engineering and detailing by structural engineer and architect).

Procurement: Procure within the General Construction contract.

A series of catwalks for various functions will be provided. Lighting catwalks will be provided in the audience chamber and over the stage for the mounting and maintenance of stage lighting. Access catwalks will provide technicians access to these catwalks as well as access to audience chamber house lights and other equipment, such as variable acoustic curtains.

Stage Rigging, Adjustable Acoustics, and Curtain Systems

Specification 11 61 33, Drawings series "TR" (Acoustic Curtains & Track, series TRA)

Procurement: Procure within the General Construction contract as an Allowance to allow latitude in subcontractor selection and coordinated installation.

The theatre's stage rigging system will consist of dead-hung battens between stage catwalks. These battens are provided for masking curtains, scenery, and general purpose (utility) use. The structural capacity will be designed for the maximum number of battens, mounted on 8" centers on average. Battens will be a single-pipe configuration. Masking legs will be on track allowing for adjustability in performance area width from stage level. Batten payload capacity will be approximately 800 lbs. Performance lighting will be from the over-stage catwalks.

The main curtain will be heavy velour bi-parting traveler. An upstage bi-parting traveler will also be provided to allow for varying the stage background. A cyclorama will be provided upstage of this traveler.

An assortment of curtains for the stage will be provided for masking. These will include the main house curtain and valance, masking legs and borders, an upstage traveler and cyclorama. The house curtain and upstage traveler will have horizontal movement and be hung on track suspended from battens. These will be cord operated from stage level. Masking legs will be on walk-a-long track to allow for width adjustment of the performance area form the stage level. Borders, and cyclorama curtains will hang directly from their respective battens. The house curtain will be sewn with 100% fullness. The upstage traveler will be sewn with 50% fullness. Legs, borders, and cyclorama will be sewn flat so that they may be hung flat or have tied-in fullness. An anticipated drapery list is as follows:

DRAPERY TYPE	USE/LOCATION	QTY	FABRIC
Traveler A	House Curtain	1	25 oz IFR Velour, color compliment to-ing room, 100% Full
Border A	House Valance	1	25 oz IFR Velour, Color of cut to match house cut in
Border sB	As required	3	25 oz IFR Velour, black Flat
Traveler B	Up-Stage	1	25 oz IFR Velour, black
50% Full			
Legs	As required	3 pr	25 oz IFR Velour, black Flat
Cyclorama	As required	1	Sample submission black white

Adjustable Acoustic Draperies – (series TRA drawings)
A system of absorptive draperies will be provided about various levels of the audience chamber. Curtains will be sewn with 100% fullness, single-sided, and fabricated of 25-ounce inherently flame resistant (IFR) velour, per the recommendations of the acoustic consultant. The acoustic consultant will also determine the total square feet of fabric face required for the desired absorption level. It is anticipated that two (2) horizontally tracking draperies will deploy from storage nesting alcoves along the audience chamber side walls and rear wall. Additional horizontal tracks may be located behind the FOH lighting catwalks. All curtains will be manually operated.

Performance and House Light Power and Control System
Furnish equipment and supervise installation of control panels and consoles, dimmers, signal distribution, high voltage outlets, relay panels, company switches, and portable dimmer strips. Specification 11 61 63, Drawings series "TL"

Procurement: Procure within the General Construction Contract as an Allowance to allow latitude in equipment selection and coordinated installation.

The stage lighting system in the theatre will be controlled through an Ethernet based digital network. The network will be run throughout the theatre and appropriate support spaces for connection of virtually all stage lighting control

components. The primary control console for the Theatre will be a microprocessor-based memory control console similar to an ETC ION 1000 with 10 x 2 fader wing.

A wireless hand-held control device will be provided for remote control and focusing of lighting instruments at multiple locations including the stage, catwalks and side lighting positions.

An LCD touchscreen control station will be provided on stage of the theatre to allow recall of certain pre-programmed stage and houselight scenes. This will allow non-technical personnel to recall specific lighting presets for activities not requiring complicated lighting cues.

Training in the use of the control system will be provided by the contractor.

The stage lighting system will be a power control system for solid-state lighting consisting of DMX controlled relay panels. In addition, portable dimmer strips and individual fixture dimmer packs for incandescent production lighting will be provided. Each individual dimmer is capable of dimming up to 750 watts of incandescent load via IGBT technology with 450 or 800 micro-second rise time for quiet operation. Each pack has DMX512 In and Out for daisy-chain operability, and plugs into any of the switched power receptacles being provided.

Side lighting for dance production lighting will be accomplished via portable dimmer strips that plug into receptacles on the stage lighting catwalks. These dimmer strips are attached to vertical lighting booms for the control of dance side light. Each portable dimmer strip is powered by a 20A, 208V, 3-phase power receptacles. Dimmer strips contain three (3) 2,400W dimmers outputting discretely to six (6) output receptacles. Each output is controlled via DMX512 protocol delivered over the lighting network. A total of six (6) dimmer strips will be provided. Additional strips can be added later if needed. Power receptacles for portable dimmer strips will also be located at various positions around the theatre, house and catwalks for use at those locations.

Power for solid-state lighting fixtures, including house lighting, will be provided by a series of relays that will provide switched power for these lighting fixtures and other possible effects such as automated lighting fixtures, arc source fixtures, motors, fog and smoke machines, and the like. Relays will be 20A, 120VAC, and the panels will be connected to the lighting control network so they can be actuated from any control device within the network. It is anticipated that seventy-two relays will be provided for production lighting and twenty-four relays will be provided for house lights, worklights and running lights.

Houselight Control

Houselight control will be accomplished through programmable control stations located on stage, near the stage lighting control, audio control, and at strategic entrances to the audience chamber of the theatre. Toggle on/off control with keyed enable/disable will be provided at audience chamber entrances. Multiple-scene preset control will be provided at other locations. Scene presets will be configured during commissioning and then recorded to the houselight system. Houselight fixtures will be solid-state lighting (SSL) fixtures requiring switched power and control signal. Power will be provided via relay panels connected to the lighting control network. Control signal to the fixtures will be via an architectural lighting processor also connected to the lighting control network.

Worklight and Running Light

The stage will have dedicated non-dim worklight outlets on the lighting catwalks for connection of incandescent or SSL floodlights. Over-stage, galleries and catwalk work lights will have local and remote control from locations on stage and in the control booth. Non-dimmed solid-state lighting will be provided for work lighting in the catwalk areas and for general room task lighting. Final engineering of work lighting will be by the electrical engineer. Control will be by DMX-controlled relays tied into the lighting control network.

A series of low light level fixtures will be provided in various backstage and technical locations. These running lights are for use during performances. They provide a low level of area light that does not interfere with the stage lighting but allows enough light for actors and technicians to move about backstage and in technical areas.

Stage Lighting Instruments and Portable Equipment

Specification 11 61 53; No drawings

Procurement: Procure as Owner Direct Purchase

In the theatre, a beginning inventory of approximately 40 portable incandescent lights, 12 LED cyclorama lights, 20 LED wash lights, two follow spots, and accessories including cable, and hardware appropriate for this facility and its users will be provided. Instruments will be manufactured by ETC, Strand, Lycian, Strong Lighting and other manufacturers as appropriate.

All lighting instruments will be provided with lamps, safety cables, heavy-duty yoke, heavy duty C-clamp and appropriate plug. All electrical fixtures and equipment in this section shall be listed by a Nationally Recognized Testing Laboratory. All instruments shall be 3-wire grounded type with leads encased in 36" long black sleeving and have a matte black, high-heat resistant finish. Each LED fixture will have two data connections for DMX512 control signal. One each for input and output.

The contractor will be responsible for unpacking of fixtures, lamp, and plug installation and storing on stage electric battens. Owner will be responsible for hanging and focusing of instruments. Anticipated equipment may include:

- Ellipsoidals – incandescent and LED
- LED wash lights
- LED cyclorama lights
- Follow spots
- Ellipsoidal iris assembly, pattern holders
- Barn doors and snoots
- Jumper cables, two-fers
- Boom bases and pipes
- Side arms

Theatre Seating

Specification 12 70 00; Drawing series "TC"

Procurement: Procure within the General Construction Contract as an Allowance to allow latitude in product selection and coordinated installation.

Tiered theatre seating will be provided by a retractable seating system. The system will have motorized deployment and include integrated railings, steps, side infill curtains or panels, and aisle lighting. The decks will have a honeycomb inner structure to deaden footfall and echo noise. The system will be rated for 125 psf when deployed and will allow partial deployment of front rows. The system will store at the rear of the house. The system will be a fixed, rear mount. Closure panels will be provided for a clean look when closed.

Approximately 300 fixed, fold-down seats will be provided with the retractable system. The seats will be mounted to the platforms and manually fold down to allow the platform system to retract. Seats will have the same salient features as the fixed seating. Seat quality will be appropriate for a performing arts theatre environment.

All seats will be standard, self-rising theatre chairs with arm rests, padded back and seat pan, and mid-range upholstery. End seats will have aisle end panel with integral aisle light. Some aisle seats will have movable end panels/arms for transfer seating.

Electrical for Theatrical Lighting

Drawings series SKE, Specification Division 26 (Documents are initiated by Schuler Shook with final engineering and documentation by electrical engineer.)

Procurement: Procure as part of base General Construction Contract.

Furnish and install standard back boxes, conduit and high-voltage wiring; install equipment furnished under Section 11 61 63.

Loose Theatre Equipment

Procurement outside of construction contract Furniture, Fixtures & Equipment

Loose equipment for daily operation of the theatre may be required. These items should be procured outside of the construction contract to avoid unnecessary contractor mark-up. Items include:

- Portable dance floor and storage cart
- Personnel lift, ladders
- Tools and hardware
- Storage cabinets for tools, color media, wardrobe supplies and make-up
- Desks, tables, chairs (control booths, technical offices)
- Choral risers Music stands, chairs, light

Theatre Acoustical Narrative

PROJECT GOALS

The narrative in the following sections offers general and specific criteria and guidance to achieve good acoustics within the practical spaces of the 300-seat Black Box Theater and its support spaces. The purpose of this narrative is to characterize the acoustical features sufficiently for planning and initial budgeting.

The venue will be used mostly by small theater, music, and arts groups in the Boise area. There may also be the occasional smaller special performance of the ballet, opera, or symphony as an alternative venue and not their main menu. There will be retractable seating that could be used in several different configurations.

Since the dominant sound absorption in the space is normally provided by the audience, with only 300 seats, it becomes easy to overwhelm patrons with sound from even a medium-sized band or orchestra. Presumably, orchestra sizes of more than 60 might be rare but even a 20-piece stage or swing band would "want" to be surrounded by additional sound absorption around and above the stage in such a small room. Areas around the stage will need to accommodate significant shaping and/or sound absorption. Such treatments should be removed/deployed with relative ease as deemed appropriate. Also, rooms of this size/shape normally do not need an orchestra shell (towers and ceiling), as would be the case for a room of even 400 seats or more. Some modest accommodations should be considered for acoustic reinforcement to a small orchestra.

Expect that easily movable "recital screens", approximately 4ft wide and 10-12ft tall should be available to position as required to provide sound reflection to the audience and assist in the musician's ability to hear themselves (i.e. control balance, attack, etc.) Plan for initial storage of 5 screens.

Because of the truly versatile uses, plan for considered variability in the room's inherent acoustical response. An appropriate range for the room's variable acoustics reverberation time (T60), when fully occupied, should be designed to extend between approximately 0.6 sec and 1.6 seconds, as a preferable maximum. Speech and amplified music prefer short reverberation times (emphasizing loudness control and clarity), whereas unamplified music, especially much classical repertoire, prefers relatively long reverberation times (emphasizing lushness and blending). In the latter case especially, design and selection of surface finishes and forms (both absorptive and reflective) should promote several clear, strong early reflections to each patron for acoustical clarity.

Following is a discussion about the two primary approaches to provide variable acoustics, "Passive" and "Active," and their pertinence to the main performance space use and design.

PASSIVE VARIABLE ACOUSTICS

Reverberation control is achieved by deploying (or not), highly-efficient sound absorptive materials of substantial quantity into the space to cover otherwise sound-reflective surfaces and/or to occlude relatively large acoustic volumes. These systems are referred to as "passive" because no additional processing is required electronically, to achieve the desired reverberance. The room is designed for the longest desirable reverberation time (appropriately large volume is also needed to set the maximum desired T60), and movable sound absorptive draperies, banners, baffles, etc. are deployed to reduce reverberation times. These are retracted (fully extracted from the room's acoustic volume) to re-introduce reverberance.

- A good design target for room volume to achieve appropriate unamplified music reverberation and loudness is approximately 400cu.ft./person (or an approx. clear ceiling height of 38 ft. given 3150 NSF total for the audience chamber area). This 400cu.ft figure should not be further reduced by the presence of ductwork or similar construction elements.
- The room volume above the catwalk or tension grid level should be kept free & clear, with minimal obstructions insofar as possible. The room's reverberation time will be very sensitive to the presence volume consumed by the usual myriad of "elements" there to serve non-acoustical functions – as well as their exposed surfaces. These include ductwork mains, branches and diffusers, catwalks, lighting elements, and other (possibly) exposed structural elements to support these. The elements typical of a black-box theater (and their resultant added sound absorption) necessitates a relatively high ceiling for the room to work well for un-amplified music including opera.
- Variable acoustics in the form of sound absorptive materials will be required at most wall surfaces. The absorptive material should be hidden from the rest of

the room volume when not required for reverberation control - either by being entirely out of the hall or in well-concealed stiff-walled “boxes.” Partial extension of the material permits intermediate “tuning.” To serve the multitude of anticipated uses, fine “tuning” is highly desired. If using drapery, plan for 6000 sq. ft. of 32oz/sq. yd. theatrical drapery in either a double-thickness flat (2” airspace between) or single thickness in 100%-folds. This means 12000 sf of fabric in either case. Other means of varying the reverberation time can be considered, but these parameters are appropriate to establish design approach and budget. The theater consultant will design for either manual or motorized operability – or a combination. It is not uncommon for Black Box theaters to provide “theatrical effect” (actor entrance/exit) soft goods around the perimeter of the lower room level, at least, but such treatment should not be fixed/permanent given the acoustical variability requirements for this venue. Further, it should be understood, that maximal absorption efficiency is provided by soft goods when their tracks run no closer than about 10-12” from whatever wall surface they are intended to cover.

- Early-on, allocate space in areas immediately adjacent to the audience chamber to retract and store the variable acoustics drapery when not in use. If necessary, this space could be within the audience chamber, but best to provide its volume outside the chamber footprint. Storage regions for 100% fold, 32oz/yd soft goods, should be 16”-18” wide, smooth-surfaced on their inner faces to prevent fabric damage and their inner, tracked length at one-fourth of the length of the track carrying the soft goods to be stored.

- The theater inner surfaces and forms should not be thought of as thoroughly flat and planar, but rather, as having somewhat irregular, sound-diffusing surfaces on most important and sizable boundaries. The specific locations of these surfaces would be determined as design unfolds (entry/exit regions, control room, etc. are located, etc.). The purpose is to soften most sound reflections by spreading them to product a more uniform listening conditions. Forms that include “bumps on bumps” are best; for instance, a convexly-curved cylindrical form with a 10ft radius with its surface broken by flutes or corrugations of up to 3” in scale will diffuse sound over a very wide frequency range. These diffusing elements would be approximately 6-8ft across in plan. It can substantially benefit sidewall reflections of unamplified music to provide at about 10ft – 13ft A.F.F., a protruding ledge about 10”-14” deep along any or all of these curved wall elements.

- Resist paring away at the envelop that would adversely squeeze the depth required for diffusing elements. For budgetary and spatial planning, the overall planned thickness of the side walls of the room must be considerably thicker than conventional wisdom would infer. Plan on providing at least 12”-18” for the above-described sidewall shaping and ensure that sufficient circulation, ADA, and otherwise, is separately accommodated.

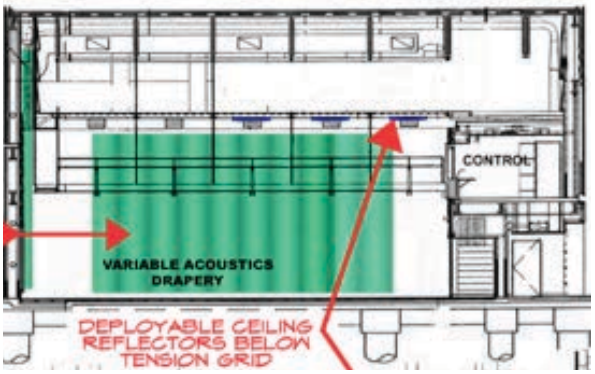
- While variable acoustics in the form of tracked absorptive materials can also be motorized to operate from a push of a button, it can take up to 5 minutes to deploy such systems (unlike “instant” for Active) and maintenance would eventually be required on such motors to maintain operation. The time it takes to achieve such changes in room acoustics with a traditional, passive approach is often viewed as too excessive to engage (even when it would be best) mid-way through a performance as it can adversely interrupt the flow of a performance and provide a bit of noise distraction as well.

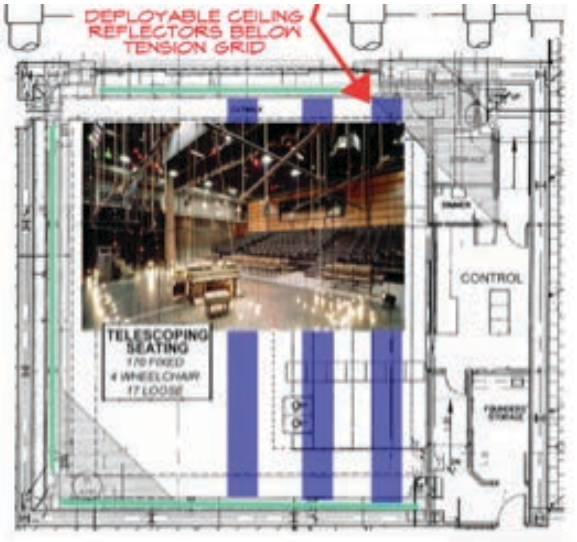
- The floor should be a sprung wood floor on sleepers and/or resilient pads – to be determined by the theater consultant in consideration of dance and other requirements. The sprung wood floor also provides acoustical support benefiting larger string instruments such as celli and double-basses.

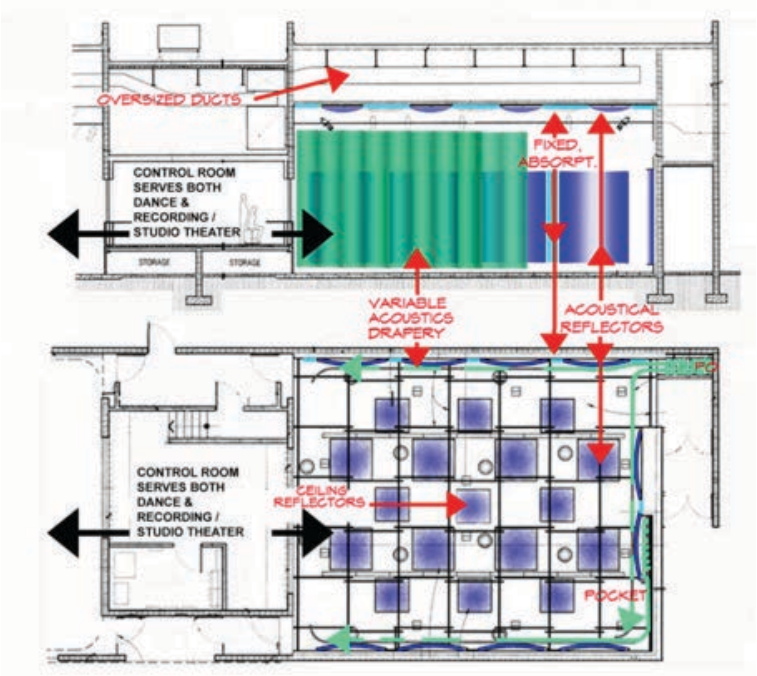
- Non-absorptive wall and ceiling finish materials need to be heavy and stiff to support (retain) bass sound in support especially of unamplified classical music. All walls should be highly rigid and considerably more massive than gypsum board (1” plaster on wood or 18gage steel studs is fine. Multiple layers of GWB and/or plywood may suffice for curved sound-reflecting or diffusing surfaces). Poured concrete and/or grout-filled, reinforced CMU provides excellent mass and stiffness (beneficial for sound isolation as well as stiff support for lighter, sound-diffusing forms that may be “plant-ons”. An acoustically-good choice for roof/ceiling assembly may be 55 psf composite construction (typically

concrete and metal deck with a total system depth of 6”, with polyisocyanurate rigid insulation and 2 layers of 5/8” DensDeck above). This specific construction is pending further examination of environmental noise studies.

- It will be necessary to provide a sense of acoustic intimacy, by minimizing the distance between audience and performers, while still providing beneficial reflections regardless of a performer’s position in the room or on stage. Side and rear row seating should have no less than 4ft distance between any patron’s seat and the nearest wall surface to maintain optimal reflection pattern for music.
- Plan for 25-35% ceiling coverage of doubly- (i.e. compound-) curved, 5ftx5ft sound-reflective panels uniformly spaced in an array pattern TBD. These panels may be plywood, acrylic, resin or GRG and should be suspended in semi-checkerboard fashion. Consider as well, a sound-reflecting ceiling at the catwalk/tension grid level to help direct acoustic energy to the audience for any of the intended uses. It is acoustically critical that any ceiling-region, sound-reflecting element be positioned either at, or below, the plane of any lighting pipe grid or tension grid – and not above lighting instruments.







ACTIVE VARIABLE ACOUSTICS

Reverberation variability in an active design is achieved with an electro-acoustic enhancement (EAE) system. Design the room for low reverberation time (smaller volume, permanent absorption on majority of wall surfaces and portions of ceiling surfaces), and use a dedicated, permanently-installed system of microphones, distributed loudspeakers, and electronic processing to increase reverberation times.

- A design target to achieve appropriate unamplified music reverberation and loudness is approximately 250 cu. ft. /person. (or an approx. ceiling height of 25ft given 3150 NSF total for the audience chamber footprint).
- A 0.6 second reverberation time range is appropriate for an active acoustics system. This would be the room response when the system is off. This allows the room to achieve a suitably short reverberation time needed for dramatic performances or amplified music while reducing construction costs associated with achieving the larger room volume demanded by non-Active rooms that need rather long reverberation times.
- Several EAE systems manufacturers also provide "Voice Lift" capability. The ideal target T60 for this system to work would be 0.5 seconds. "Voice lift" essentially frees most actors and spoken-word performers from carrying or wearing speech reinforcement microphones and if so-designed, permits audience "participation" as well.
- Achieving and maintaining a low background noise level in the room is at least as critical as for natural acoustics. Special care must be taken at the upper region of the room where microphones would be located. Supply diffusers will need to be carefully located away from potential microphone locations. The ductwork can be exposed in the room, presuming adequate sound isolation, and slow airflow velocities. Environmental noise control is also especially important with such systems.
- From a user/owner perspective, the operation of an Active system can allow for a greater range room-acoustics variability and performance and programming types, instantaneously, at a push of a button. Additionally, Active loudspeakers can normally be pressed into service as creative "surround" loudspeakers by show Sound Designers.
- Room finishes will necessarily be much more sound-absorptive than for passive variable acoustics, at rear and sidewalls, and at the ceiling. These finishes would be permanently mounted, avoiding the inherent complexity of movable sound absorptive elements to achieve "passive" variable reverberation.
- Shaping of non-sound absorptive surfaces is just as important with an active system as with a passive system. Proper shaping and good diffusion (as described for the passive approach) permits regenerative processing of an active system to sound its best.
- Plan for 6000 sf of 2"-4" (min.) thick fixed sound absorbing glass fiber treatment – specific thickness, density and various locations TBD as design develops. "Straight-forward" finishes are fabric-wrap or 1/4" x 1/4" hardware cloth over faced duct liner board to protect the glass fiber. Other facing options (e.g. Tectum or perforated metal) can be entertained to fit visual aesthetics, so long as whatever the selected facing provides a minimum 23% net free area to the sound-absorptive treatment. Cost for "architectural" facings would increase the cost of the sound-absorptive material three-fold, at least.
- To support good natural, acoustic music, but without the expense of the dense materials required for passive systems, anticipate two layers of MDF board on walls unless construction methods dictate a higher surface weight density material anyway. This typically allows for greater design flexibility, creativity, inventiveness, etc. Except as sound-isolation issues may dictate (adjacency planning, exterior noise control, etc.), the caveats regarding mass and stiffness for structure supporting interior surfaces is much relaxed. That is, there is usually minimal need to provide heavy gage studs, heavy plaster or multiple layers of GWB or plywood to regain bass energy. This relaxation in construction, in conjunction with the room's lesser volume (compared to passive variable acoustics) can often offset much of the total construction cost as well as that of the EAE system itself.
- Active systems, since they are electronic and not part of the physical building or the normal in-house audio production system, can sometimes be targeted in cost reduction exercises during construction, but it is important to understand that a room designed for Active

will be seriously minimized in function, performance, and flexibility if the system is not fully installed.

- Recital screens may still be necessary, or some manufacturers can provide “electronic shells.” These electronic shell systems are more suited for enhancing inter-stage communication between performers than projecting sound out into the audience area.

GENERAL HVAC NOISE CONTROL REQUIREMENTS

The following HVAC noise & vibration control provisions will apply to both “passive” and “active” approaches to the theater design:

- The audience chamber HVAC should be designed achieve a background noise level (Noise Criterion) no greater than NC-20.
- Ductwork runouts should extend no less than 15ft from the nearest served grilles/diffusers. Especially important is the proximity of any audience or performer to either a supply or return air register, or in the case of an active system, the proximity of a microphone from a supply or return air register. They should be at least 12ft away from each other, and this may become more restrictive as design unfolds.
- It is imperative that the M.E.P. rooms be carefully considered acoustically with respect to their location and provision of sufficient supply and return air ductwork length between the M.E.P. rooms and the regions of air registers serving both the stage and 300 seat audience. Mechanical equipment rooms should be no closer than 30ft to any stage or house wall or floor/ceiling assembly.
- DO NOT place any AHUs over the audience chamber or stage house. This issue raises the question(s) of location of restrooms, green room, dressing rooms and lobby to serve the black box. Commonly, AHUs are placed above, or nearby, these spaces. Exhaust fan types and locations must be similarly scrutinized.
- Plan for 40ft (min,) of internally lined ductwork and 7ft silencers (such as RD-MV-F1 silencer by Vibro-Acoustics) for each main return and supply air system serving the theater.
- If VAV Terminal boxes are used, anticipate 20 ft. (min.) of internally lined ductwork plus one horizontal elbow downstream of all VAV terminals before entering boundary of space served. VAV boxes should not be located or exposed within in the area served.
- For initial pricing, planning and mechanical room layout assume that each of the supply and return systems serving any space with a Noise Criterion of less than NC-20 will require an internally-lined plenum on the order of 7ft x 10ft x 12ft.
- Diffusers serving the audience should be selected for NC-15 max.

Appropriately sized ductwork to accommodate the following airflow velocity criteria:

	NET VELOCITY THRU TERMINAL DEVICE	WITHIN 10'O F TERMINAL DEVICE	WITHIN SPACE	WITHIN 20'O F SPACE	MAX IN SYSTEM
Airflow Velocity not to exceed NC-20	300	500	600	800	1,000

GENERAL SOUND ISOLATION REQUIREMENTS

Considerable attention should be paid to any subterranean parking structure. Any vertical transition between floors of the parking structure should be positioned outside the footprint of the audience chamber. Limit subterranean to one and only one level. Plan for sound-isolating ceiling at parking level, should be resiliently suspended drywall 6” below the underside of the deck, with R-11 batt insulation full depth. Plan for broom finish pavement to minimize tire squeal.

The project’s location in relation to The Boise River, S Capitol Blvd, and other busy streets will require highly sound-isolating exterior construction. Roof and exterior wall constructions may require STC 65 performance as a minimum. In-depth vibration measurements should be performed at the site to establish necessary isolation criteria. Daylight into the theater can be achieved, but through substantial means (i.e. 7” min. curtain wall assemblies with 5” airspace).

Depending on the specific adjacency, the theater will require a sound-lock vestibule or acoustically-rated doors. The floor/ceiling and wall assemblies to sensitive adjacency should

meet or exceed STC 65, in so much as no wall is immediately adjacent to the exterior. This requires double wall construction, batt insulation in both stud cavities, three layers of 5/8" drywall one side, and two layers of 5/8" drywall on the other. Plan for batt insulation in all stud cavities. And that all sound isolating and/or fully-gasketed doors will require cam lift hinges.

Depending on adjacencies, several doors may require STC50 ratings. Alternatively, careful gasketing of tandem doors, especially for oversized load in/out doors. Planning for noise-sensitive/noise-generating adjacencies is key.

PROVISIONS FOR AV / DIMMER/ CONTROL ROOMS

Room Acoustics of Dimmer, Audio Rack and Control Rooms

Depending on the location of the AV power amplifiers and dimmers, these room(s) may require 2" thick coated, glass fiber duct liner board direct-attached for noise control emissions through the room walls and door. Because the control rooms will be frequently occupied (and expecting that much will be either racks or glass), plan for acoustical lay-in ceiling tile, distributed wall panels (NRC 0.80 min.) on available wall surfaces and carpet.

Ambient Noise

Keep audio power amplifiers and dimmers isolated in a separate room if adjacent to the Control Room. Be very careful to providing excessive air volume (and velocity) to these rooms via ductwork that may pass, exposed to the audience chamber of the Black Box Theater. Avoid VRF, active chilled beams and other inherently noisy air handling devices or terminals in any control rooms.

Sound Isolation

Locate the AV power amplifiers remote from the theater proper. If they must have direct access by the Control Room, they should be in an adjacent 'closet' area and not share the same space as the Dimmer Room. The dimmer room should similarly not be located within the confines of the Control Room. Depending on its adjacencies, the dimmer room door may require an STC45 rating as a minimum. Expect STC55 walls around the dimmers depending, again, on adjacencies. All equipment should be select for appropriately quiet operation.

Projector and follow spot fans, as well as other support function equipment can generate high noise levels. Plan to spec very quiet equipment to achieve NC-20 goals. Do not leave these elements exposed to the room; rather, plan for sound-isolating room construction including STC-rated dual-glazed assembly for the control room window. Specifics of this window location, type and size to be provided by the project AV consultant. Plan on door access via remote or tortuous path to/from Black Box theater itself to avoid high cost of proprietary STC-rated door. For now, plan that the demising wall between the control room and the Black Box will be a double-stud (2 rows of stud tracks) assembly.

Audio Visual Narrative

300 SEAT BLACK BOX THEATER

Programmed uses for Audiovisual Systems

The Black Box Theater would function as a performance venue for dramatic, music and arts productions. There may also be the occasional smaller special performance of the ballet, opera, or symphony as an alternative venue and not their main menu. There will be retractable seating that could be used in several different configurations. Performances would generally be un-amplified, but a sound reinforcement system would be provided to support reinforcement of speech, music and recorded effects. The fixed audio-visual system would be designed to accommodate the following functions: speech reinforcement, program audio playback, and recording and ADA compliant hearing assistance. Infrastructure support would be provided for other productions including AC power for equipment and conduit and wiring support for additional audio-visual equipment. The audio-visual requirements of the Theater can be envisioned in terms of several subsystems.

Main Sound Reinforcement Loudspeakers

Typically, to maximize flexibility, there would be no fixed loudspeaker system in the Black Box Theater. Rather, several portable loudspeakers would be provided for placement, where needed around the theater. The supplied loudspeakers are designed for mounting on tripods or the technical level piping to allow flexible configuration of the space. However, with the retractable seating yielding a more fixed orientation, it may be desirable to permanently install a small main loudspeaker array. There would also be loudspeaker outlets on each wall of the theater at floor level and on the technical level for connecting additional loudspeakers to the system.

System Inputs

There would be microphone and line level inputs, production communications receptacles, video and other system connections on large panels located on each wall of the theater at floor level and on the technical level. This would allow the greatest amount of flexibility in setting up the space. Audio and video inputs from the theater would allow this space to function in an overflow capacity for that venue.

Control Room

The AV mixing location for productions and recording position would be in the control room on the technical level. The equipment at this location would include a mixing board with a minimum of 12 faders and will have at least 32in/16 out, signal processing electronics, audio source gear, wireless microphone receivers and monitor loudspeakers. This location will require a large window open into the theater to allow the operator to get a good acoustic impression of what the audience is hearing. The mixing console system would be designed to be portable so that it may be moved out of the control room and plugged into any of several AV panels located around the Theater.

Source Equipment

Source equipment would be provided at the control position for playback of audio material in the theater. This equipment would include compact disc (CD) and flash storage recorder/player. Additionally, inputs for playback of MIDI program material could be included for use during shows and rehearsals.

Performance Monitor Sound

A backstage paging system would be included in the system design. Paging signals would be generated in backstage areas, dressing rooms green rooms and production areas. Local volume controls would be provided at each location.

Production Communications

The facility would be provided with 2 channels of production communication lines to link backstage and production locations together. The system may include a wireless beltpacks for roving use.

Audience Recall Sound

The lobby may see occasional use as a reception area. To support this function, input panels in the lobby will allow the connection of microphones to support announcements and small, simple performances within the space. The Box office will have the ability to page into the lobby. Loudspeakers will be provided in the lobby and other public areas for background music and audience recall announcements. Digital audio recorder/players will provide a flexible platform to store and recall chimes and other repeatable announcements.

Production Monitoring Video

A color video camera will be located at the technical level. This camera will be focused on the performance area to provide a constant video monitor signal for use by the performers and production staff. The video would be distributed throughout the facility to monitor the performance area and may be routed to the lobby to support latecomers' monitors.

Hearing Assistance System

To support patrons with hearing disabilities and to comply with the ADA, the Theater will require a hearing assistance system. This would consist of a wireless transmission system with a pool of receivers for the audience. This transmission system could be either FM or Infrared. The ADA act specifies providing 4 percent of the seating area with receivers. Additionally, a second channel may be utilized to provide audio description to visually impaired patrons.

Infrastructure

In addition to the fixed equipment noted above, the design of the Black Box Theater would include infrastructure support for other uses of the space with temporary equipment. The infrastructure would include the following: video, data, fiber and audio tie lines.

Technical Power Requirements

Wiring for all system components should be run in ferrous metal conduit from the equipment racks to the remote equipment locations, including embedded and underground runs. This protects the cables from damage and, in the case of microphone and line level cables, is essential to shield the system from electro-magnetic and radio frequency induced interference that can introduce noise into the system.

We recommend that the sound system be powered through a dedicated, electrostatically shielded, K-13 rated, isolation transformer in conjunction with a dedicated, isolated technical grounding system. This will minimize the possibility of other equipment and services introducing noise into the sound and video systems via the AC power.

Technical (Isolated) Ground System

Because metal conduit often exhibits a great deal of electrical noise from neutral-ground wire reversals, lighting dimmers, refrigeration and chilled water pump systems and other equipment, the NEC allows that isolated ground receptacles can be installed for the reduction of electrical noise in sensitive equipment. An isolated ground is a sufficiently sized, insulated conductor, which is isolated from conduit and subpanel enclosures that contact other conduit.

HVAC

The mechanical systems for the building will need to provide cooling for the AV equipment racks.