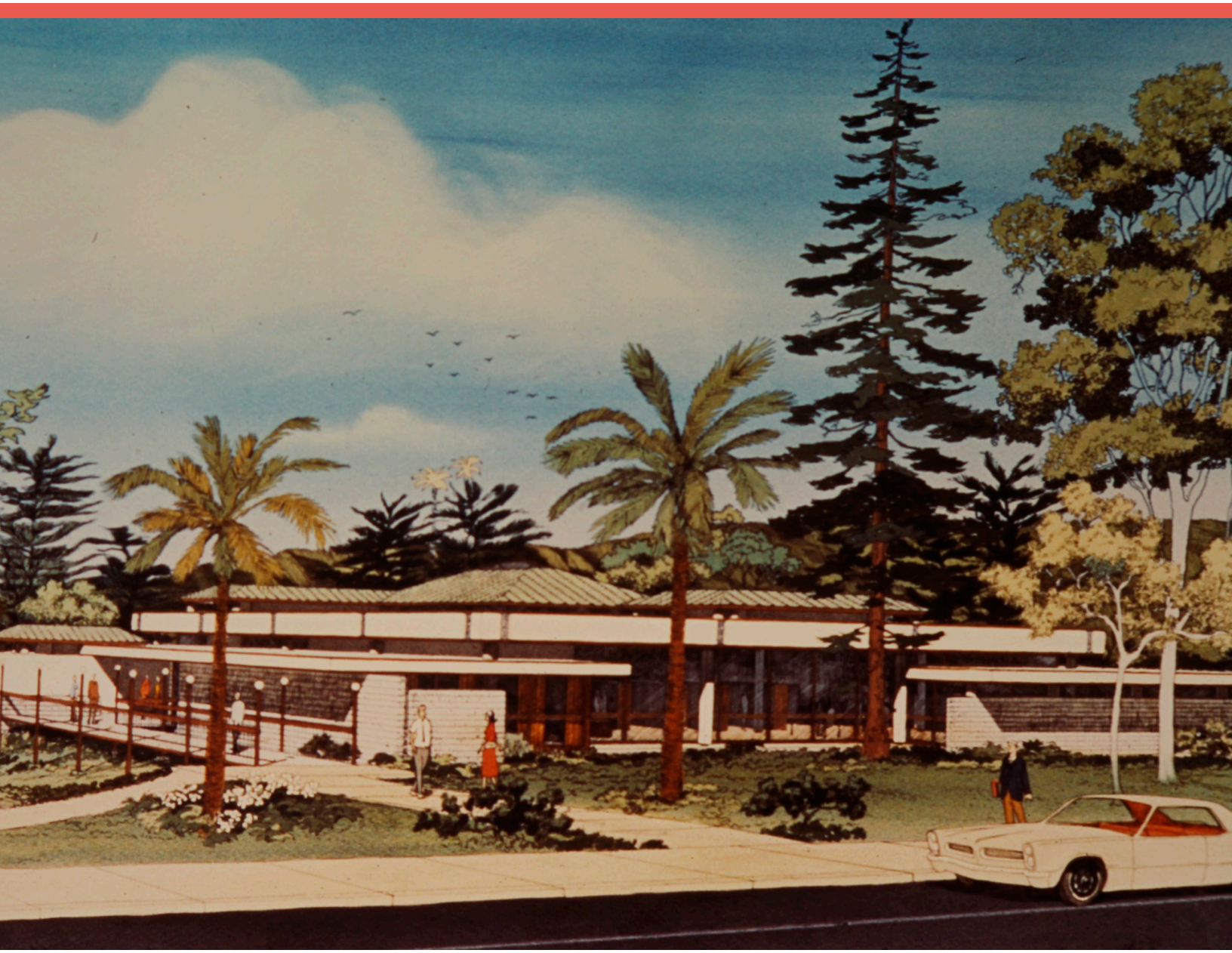
MASTER PLAN

ALTADENA MAIN LIBRARY

ALTADENA LIBRARY DISTRICT | April 2020



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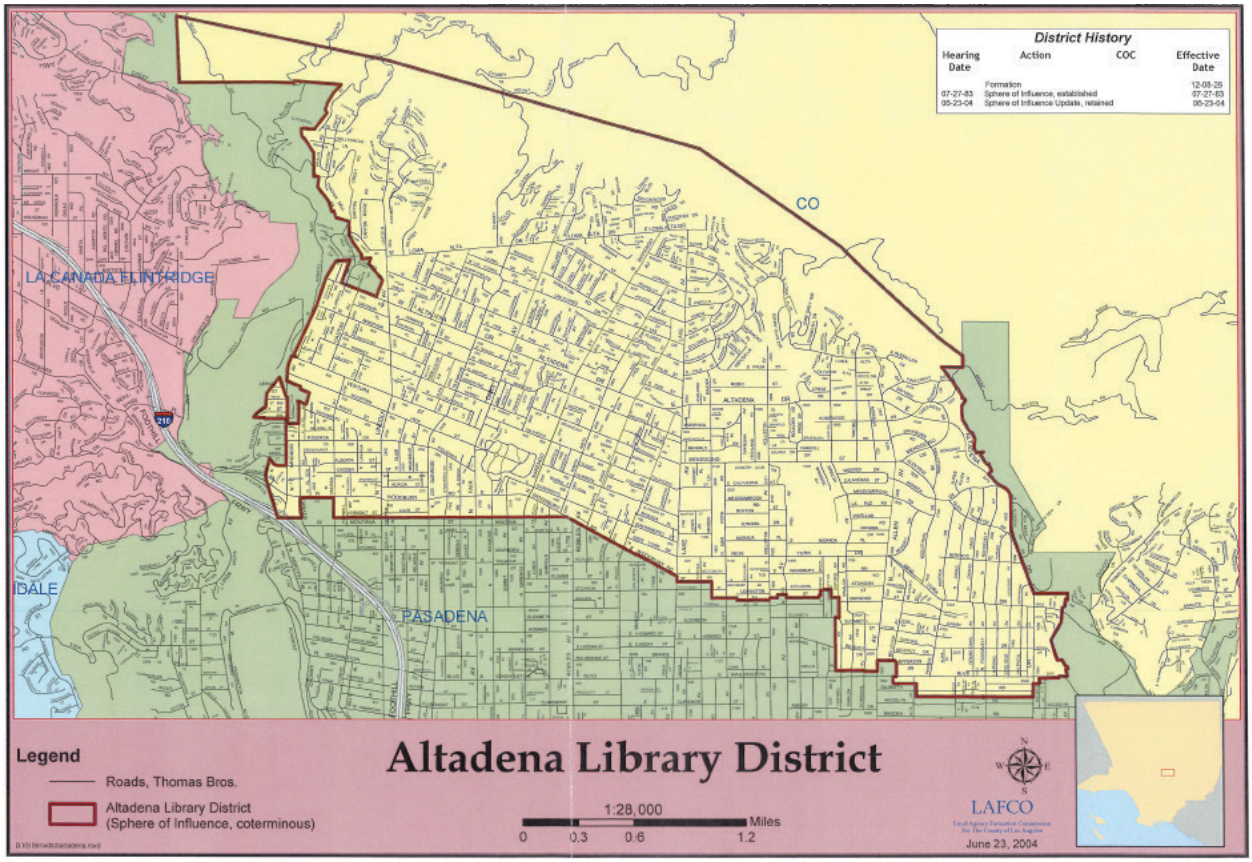

Altadena Library District Map, 2004

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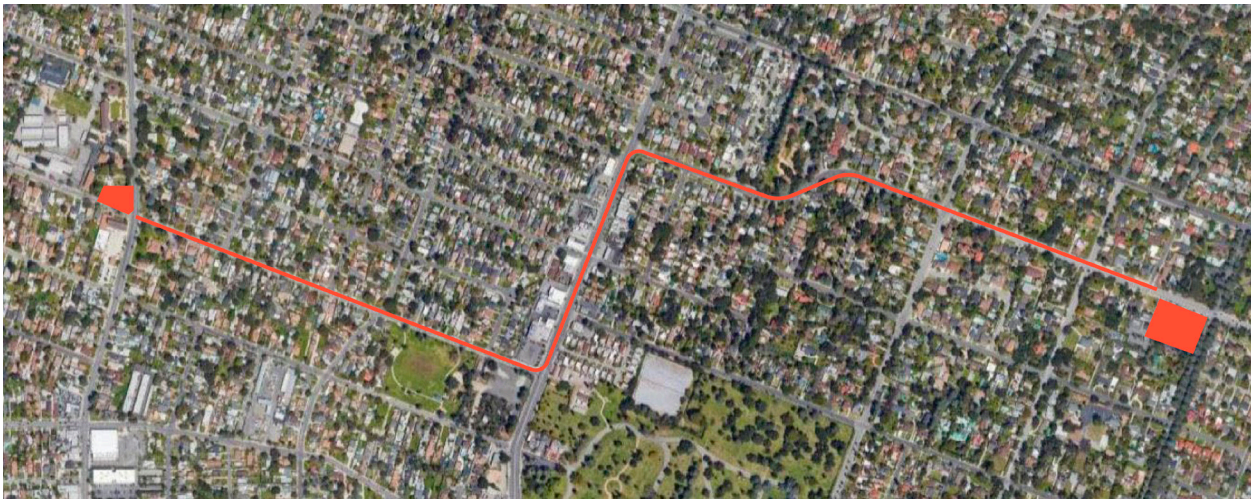
Opposite: Reading Court photograph by Julius Shulman, ca. 1967

Part I

Introduction



Bob Lucas Memorial Branch & Main Library locations, Google Maps

Introduction

1.1 Project Overview

Architectural Resources Group, Inc. (ARG) has prepared this Master Plan to guide the Altadena Library District (ALD) in facilities stewardship for the Altadena Main Library (Main) and the Bob Lucas Memorial Branch Library & Literacy Center (Branch). The ALD operates as an independent special use district within the city of Altadena, an unincorporated area of Los Angeles County. This study was undertaken at the ALD's request, with support and direction by the Facilities Committee.

The ALD recently completed a strategic planning process, to set the framework and priorities for the district's future. Both the Main Library and the Branch are important assets to the local community and the ALD identifies its institutional goals as follows:

Vision Statement

The Altadena Library District provides free, public, and equal access to information, ideas, technology, and experience, designed to educate, empower, and celebrate the diversity of our community.

Mission Statement

The Altadena Library District provides free, public, and equal access to information, ideas, technology, and experience, designed to educate, empower, and celebrate the diversity of our community.

The physical characteristics of both libraries have remained relatively unchanged over the last 50 years, but require structural, MEP systems, and accessibility upgrades to bring it up to current fire life safety, code, and operational standards. The conceptual design for the Main anticipates using the California Historical Building Code (CHBC) to meet project goals. ALD's primary goals in addressing future upgrades are:

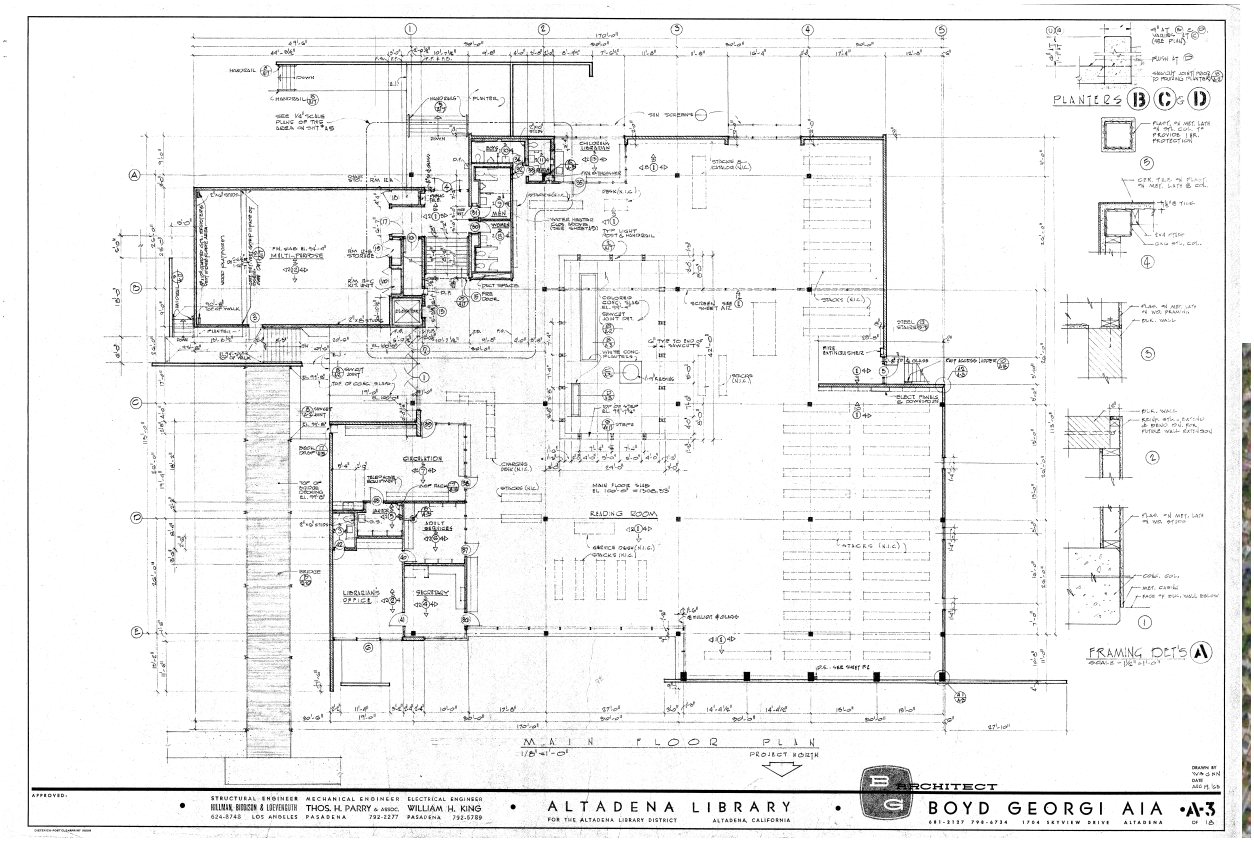
Altadena Main Library

- Provide a conceptual plan with potential to be implemented as resources allow.
- Retain the historic value of the Main Library.

Bob Lucas Memorial Branch Library & Literacy Center

- Space planning to maximize use, improve user experience and support literacy.
- Activate outdoor space to increase visibility and engagement.

This document focuses on the Main Library and relies upon previous facility condition assessments, accessibility reports, and where appropriate, makes alternative recommendations for a conceptual design based on additional feedback gathered from stakeholders. This analysis is meant to provide a framework for ALD's decision making, both near- and long-term.



Construction Drawing by Boyd Georgi, 1966

1.2 Existing Conditions Overview

The Library was designed by noted local architect Boyd Georgi, AIA, and completed in 1967. The building's distinctive Mid-Century Modern design was complimented by a landscape designed by Eriksson Peters and Thoms, Landscape Architects.

Since its construction, there have been minimal changes to the building and site's physical characteristics.

It is ARG's professional opinion that the building is eligible for local, state, and federal designation for its architectural distinction. The ALD has requested that ARG prepare the appropriate documentation to get consensus from County staff that the building is an eligible historic resource, and thus subject to the CHBC.

The primary benefits of designation available to the Library District are the ability to utilize the CHBC and eligibility for grant funding as well as recognition of its cultural value to the community.

The Altadena Main Library is approximately 22,000 square feet and, along with the Bob Lucas Memorial Branch Library & Literacy Center, the ALD serves approximately 43,000 residents of Altadena.

The library's main level is accessed from Mariposa Avenue by a wooden bridge, a progressive design for a time when accessibility was not required by code. The library is highly permeable with an abundance of natural light. The main level is highlighted by a sunken interior reading court, framed by light posts and a wood-paneled partition. Support areas on this level include administrative offices, passport services and the circulation room.

Located approximately six feet below the main level is a mid-level including an entrance lobby (accessed from the south parking lot via stairs), restrooms, and a large community room with a stage at the east side.

A partial lower level which sits at grade on the south side of the parcel and contains additional workspaces, a staff lounge,storage spaces, and mechanical rooms. The elevator equipment room supports the original elevator which stops at the lower level and main level, but not the mid-level.

1.3 Scope

This document relies upon assessments of existing conditions and makes recommendations for improvements in the form of a conceptual plan and corresponding cost estimate. The analysis is meant to provide a framework for decision making as ALD moves forward.

ARG's scope for this study included the following:

Altadena Main Library

- Review existing documentation
- Rely upon the Facility Conditions Assessment (2018) for evaluation of physical condition of materials, assemblies and systems
- Analyze the extent of applicability and incorporation of the ADA requirements
- Participate in a series of investigative meetings with the stakeholders (staff, community, and Facilities Committee)
- Provide two alternative approaches, with visualization sketches, that address the issues identified above
- Present alternatives to community, staff and Facilities Committee for feedback
- Provide a cost estimate for the conceptual master plan preferred by the Facilities Committee
- Develop recommendations for phasing and identify potential funding sources
- Provide a Historic Resource Assessment Report (HRAR)

Summarize into a final report and present to the Board

1.4 Methodology

This document synthesizes previous reports, site

Altadena Main Library, image from News Notes of California Libraries, Fall 1969

assessments, and preferred proposals for future work that have been developed with input and insights from ALD's community, staff, Facilities Committee and Board of Trustees.

ARG has reviewed the following background information in the preparation of this report:

"Altadena Library Original Drawings", dated August 19, 1965. Prepared by Boyd Georgi Architect, & Associates

"Specifications for Altadena Library", dated June 1, 1966. Prepared by Boyd Georgi Architect, & Associates

"Altadena Library Landscape Drawings", dated December 30, 1966. Prepared by Eriksson, Peters & Thoms Landscape Architects

"Asbestos Project", dated December 28, 1988. Prepared by Associated Safety Consultants

"ADA Site Assessment", report dated September 9, 2006. Prepared by National Access Consultants

"Altadena Library Main Bridge Replacement", dated September 22, 2016. Prepared by WJE Associates

"Facility Condition Assessment (FCA)", report revised June 14, 2018. Prepared by ISES Corporation

The 2018 Facility Condition Assessment cited above was prepared for the ALD to examine the extent of upgrades needed at the library.

Key issues identified by the FCA include:

- Site (pavement maintenance, sidewalk repair, bridge upgrades and restoration)
- Exterior structure (roof replacement, skylight restoration, access ladders, repainting/cleaning of exterior surfaces)
- Interior finishes/systems (ceiling tile, selected flooring, and lighting replacement)
- Accessibility (signage, parking, and access to restrooms, public entrances and spaces within the interior)
- Health (testing, and abatement if needed)
- Fire/life safety (modern fire detection & suppression)
- HVAC, Electrical, Plumbing, Vertical Transportation (end of life replacements)
- Sustainability/energy efficiency

Members of ARG's architecture staff visited the site to review the current programmatic layout of the library, while considering the upgrades recommended in the report. ARG found that many of the recommendations in the FCA that relate to accessibility, can be achieved through more holistic approaches which meet those same needs, yet respect the historic nature of the building. The structural subconsultant also visited the site over the same period to examine the Main for their evaluation.

In addition to site visits, multiple town hall meetings were held with the community, staff and Facilities Committee.

Key goals identified by the stakeholders include:

- Clear accessible routes that provide universal access for all
- Visual/acoustical separation of teen area
- Acoustical separation of staff area
- Increased floor outlets
- Additional meeting spaces
- Enhanced community room
- Activation of outdoor space

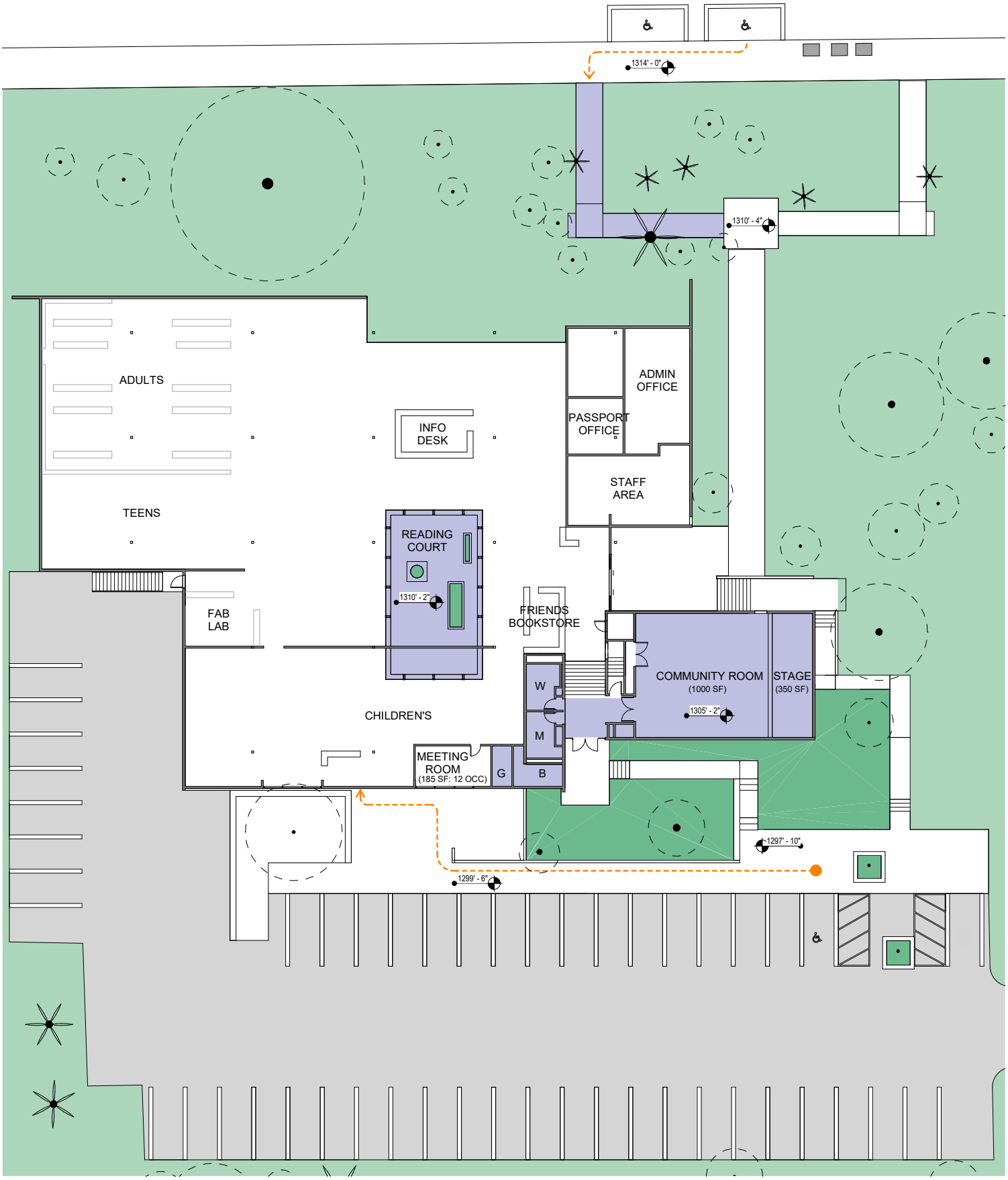
This conceptual option strives to merge the building's facility needs, accessibility requirements and stakeholder's hopes, while respecting the historic architectural value inherent in the Altadena Main Library.

ARG's recommendations, conceptual plans, and the findings of the structural engineer were compiled and analyzed by a cost estimator to inform the preliminary cost estimate included in this report.

Opposite: Reading Court, 2019

Part 2

Goals and Recommendations



Main Level - Existing Plan

existing path of travel

currently inaccessible areas

2.1 Overview

The following proposals for building upgrades are geared toward providing maximum positive impact without substantially changing the Altadena Main Library's physical characteristics. Almost all program uses are left in their current locations, and improvements take the form of strategic upgrades and surgical interventions.

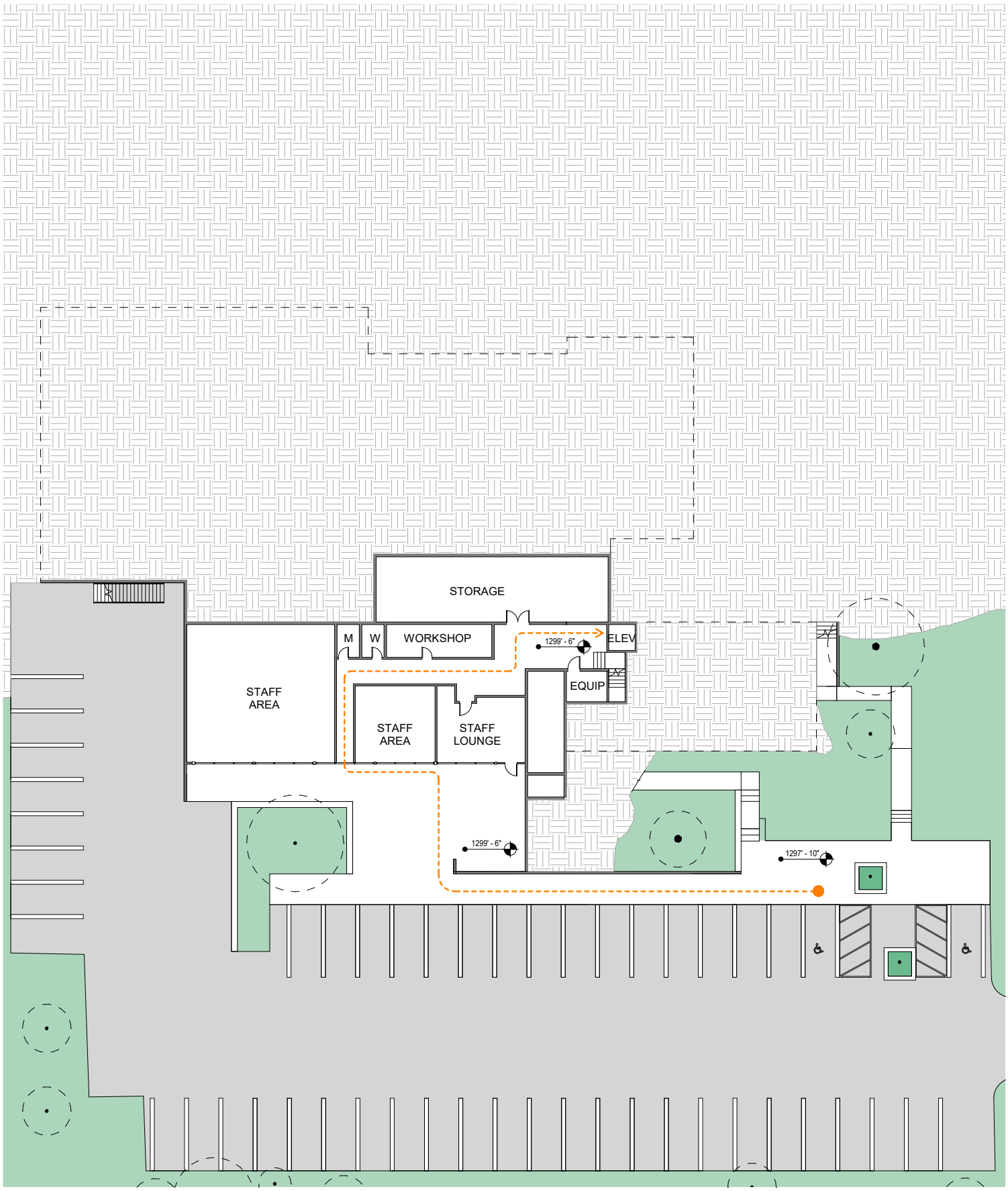
The most significant problem facing the Altadena Main Library is accessibility. The diagram to the left shows the areas which are currently inaccessible to the public based on current standards established by the ADA and required by California code.

The proposed approach to address the issues can be understood as a series of discrete, independent projects as presented here, with two caveats. First, the most effective sequencing of work should be carefully considered from both procedural and funding perspectives (see Section 4 for further discussion of implementation). Second, overall building systems such as electrical and fire-life safety are more suited to being addressed all at once, rather than space-by-space (see Section 4 for more on building systems).

The library includes historically sensitive interior spaces, some of which will be effected by the preferred conceptual option. Care has been taken to design these areas with as minimal impact as possible, while creating a clear and direct path of travel to benefit all users. See Appendix D, HRAR, for more detailed information on preservation requirements.

Note: The following recommendations are preceded by **numbers**.

When recommendations are tied to a specific area of the building, they are coordinated with keyed locations on the concept plans.



Lower Level - Existing Plan

existing path of travel

2.2 Site

GOALS:

- *Allow clear and apparent accessible entrances, while maintaining the building's historic character.*
- *Provide a direct, inclement-weather entrance at the lower level, in addition to a ramp to lead guests to the south entrance at the mid-level.*
- *Create sloped walkways, as opposed to ramps, to allow gentler paths of travel and avoid additional handrails which would detract from historic bridges.*
- *Repair concrete sidewalks where cracked and settled.*
- *Plan for separate landscaping projects to be implemented over time as separate projects, to connect north and south portions of the site with an accessible path and provide exterior reading opportunities.*

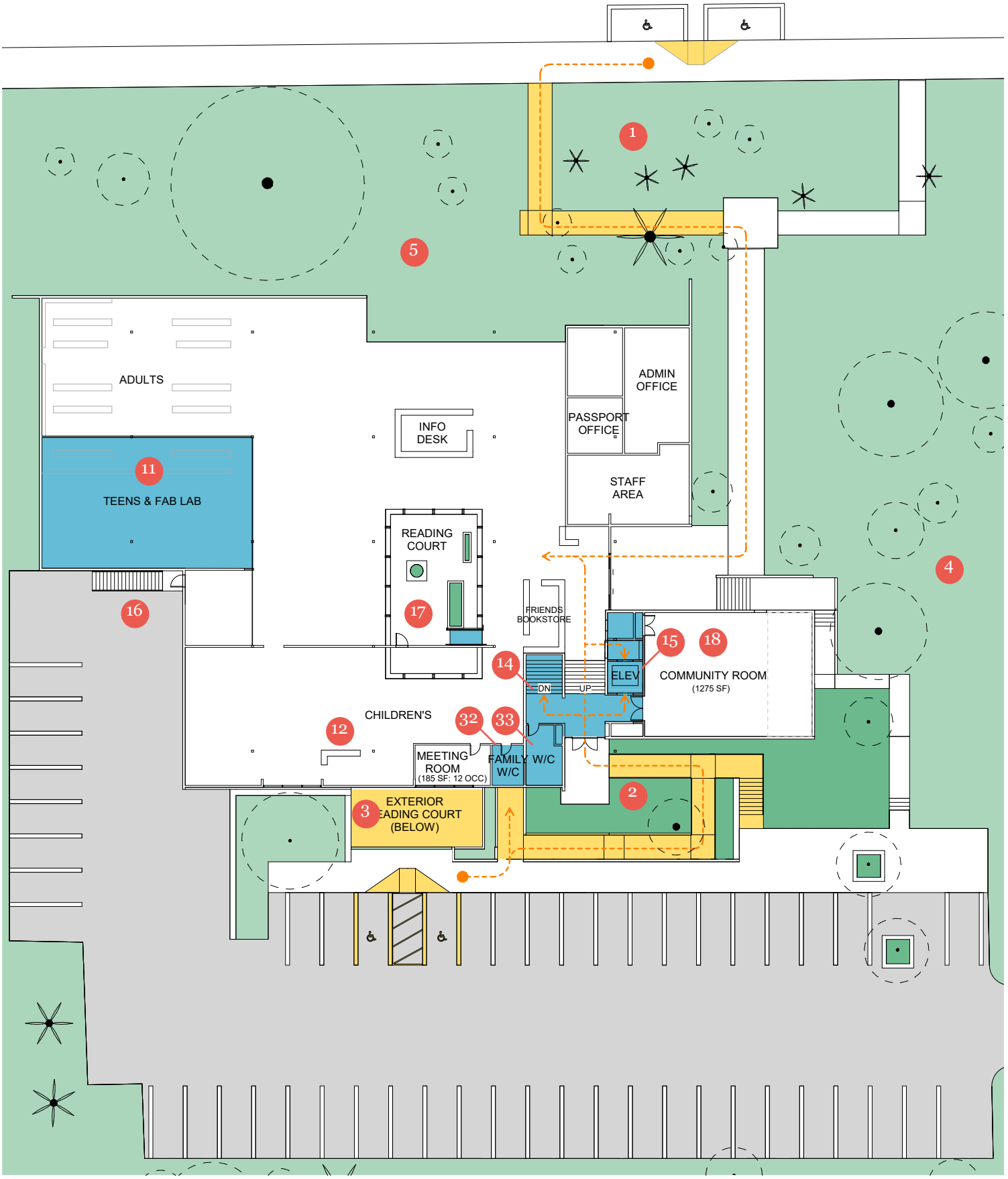
RECOMMENDATIONS:

1: North Entrance (Accessibility)

- Remove existing western portion of concrete sidewalk between Mariposa Avenue and upper pedestrian bridge. Replace with an accessible sloped concrete walkway at 5% maximum slope.
- Assume removal of trees and relocation of plants, where possible, or installation of new planting.
- Curb cut at Mariposa is not compliant, although under LA County jurisdiction, a compliant curb cut, striping and regrading should be included in the cost estimate.
- Assume restoration of upper bridge per 2016 report by WJE, “Altadena Library Main Bridge Replacement" including: cleaning of globe lights, replacement of wood decking, removal and replacement of existing and additional intermediate tie rods, restoration and protection of steel coating, regrading below, and investigation/repair and analysis of structure.
- Assume restoration of lower bridge per 2016 report by WJE, “Altadena Library Main Bridge Replacement" including: cleaning of globe lights, replacement of wood decking, removal and replacement of existing and additional intermediate tie rods, restoration and protection of steel coating, regrading below, and investigation/repair of structure.

2: South Entrance (Accessibility)

- Repair tile at south entrance landing to match existing historic tile.
- Create new accessible route to lower level south entrance and mid-level south entrance.
- Remove existing steps, ramp and garden walls. Install new accessible concrete ramp, at 8% maximum slope, along southern retaining wall to south entrance at split level. Existing south and west facing retaining walls to be split and mark new public entrance; include decorative header, exterior lighting, and new retaining wall along lower portion of ramp.
- Assume removal and new planting of trees and plants between of mid-level entrance walk and retaining wall.
- Replace cracked & settled concrete sidewalks at south entrance, between retaining wall and new accessible parking. Assume sidewalk panels to be replaced joint to joint.
- Relocate one van accessible parking space and install one additional accessible parking space; including compliant curb-cut with truncated domes and accessible parking signage. Assume minor regrading and repaving at location of new spaces, and restriping of entire northern aisle. Given the demographics of library guests, the library may want to consider adding additional accessible parking spaces beyond code requirements.
- Install pole-mounted site entrance signage, noting local law enforcement agency contact information and directional signage to accessible entrance.
- The estimate should include an allowance to sealcoat the



Main Level - Concept Plan

exterior upgrades

interior upgrades

path of travel

asphalt parking which was recommended within ~8 years by the FCA. Given this scope, it is reasonable to complete that work as a part of this scope.

3: Lower Level Entrance & Exterior Reading Court

- Exterior reading court at lower level to be bordered by a series of low concrete planters and metal screens/gates. The design of the eastern planter should consider framing the lower level public entrance with tall plantings. A visually permeable metal screen and gate on the south and west could also be incorporated on top low planters to provide public access and after hours security. Assume new concrete panels at that area with scoring to align with existing panels to the west. Given the area's adjacency to the meeting room, consider outdoor furniture which is flexible programming needs.
- Lower level public entrance path to be concrete sloped walkway; including exterior lighting, accessible and wayfinding directional signage.

4: Landscape - East

- Assume cracked & settled concrete sidewalks at other eastern portion of site to be removed as part of a separate landscaping project. Consider a combination of accessible sloped walkways/ramps to be reinstalled, and incorporating possible exterior reading spaces and areas for outdoor programs.
- Restoration of lower bridge is included concurrently with the upper bridge and North Entrance, 1.

5: Landscape - North

- Cracked & settled concrete sidewalks at other northern portion of site to be removed as part of a separate landscaping project. Upgrades should include accessible sloped walkways to be reinstalled. Previous studies included ideas for a family garden and donor's garden at this area.
- Assume a separate landscaping project for the northern portion of the site, including accessible sloped walkways. This excludes the northwestern walkway which may be complete earlier, due to priorities.

2.3 Exterior Structure

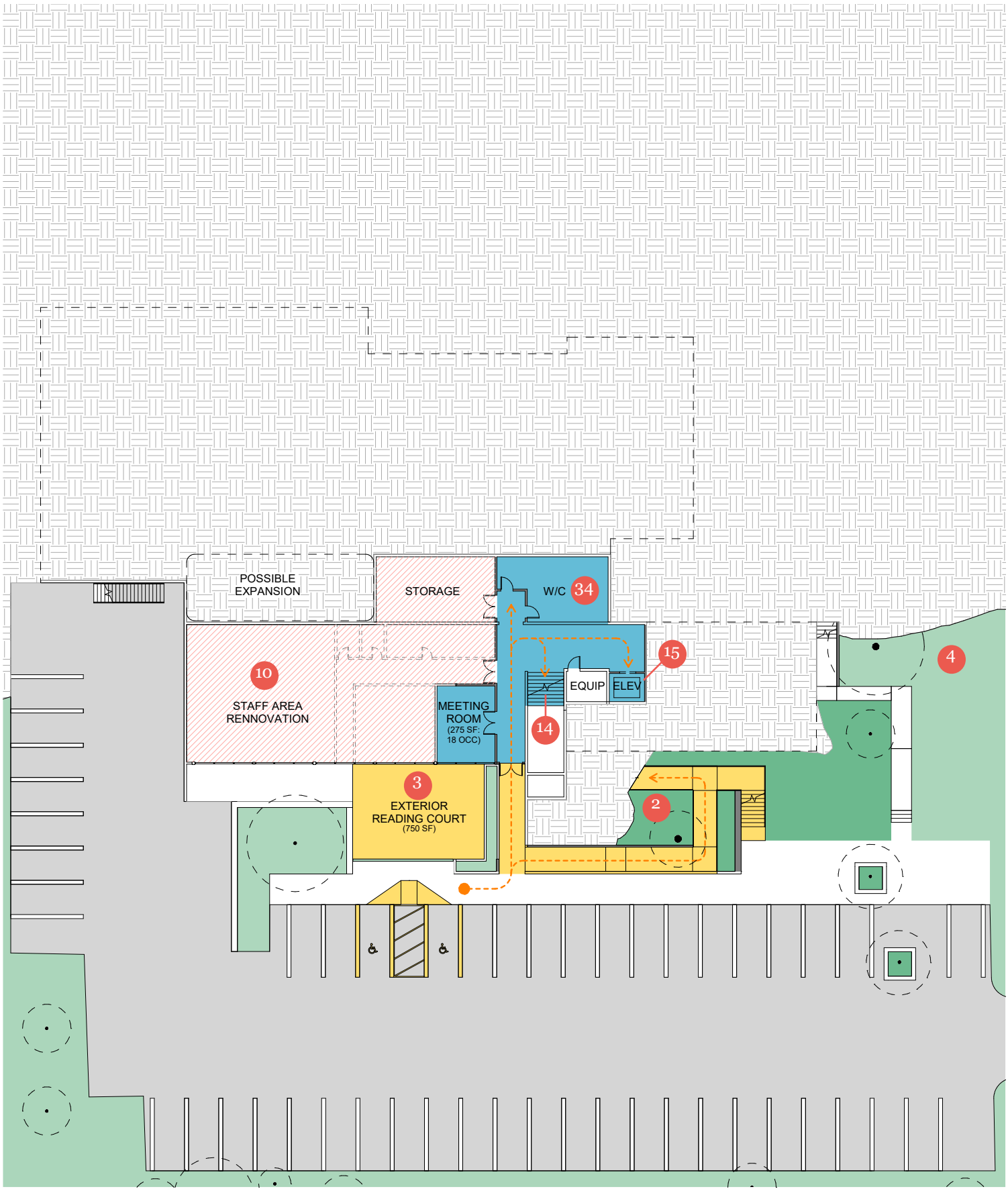
GOALS:

- *Replace roof and flashing.*
- *Evaluate the skylight for restoration needs, with the intention to preserve as opposed to replace.*
- *Incorporate skylights/light wells at circulation core, if possible.*
- *Install code-compliant roof ladders.*

RECOMMENDATIONS:

6: Roof

- The FCA states that the existing roofing appears to be over 22 years old as of 2018. However, the "Asbestos Project" from 1988 references removal of roofing material and flashing, which indicates the roof could be approximately 32 years old.
- The existing roofing should be evaluated, to determine if the original roofing was removed in its entirety during the 1988 project, or if the new roofing was installed on top of original roofing. (Per code, a roof is only allowed to be reroofed once, so this will effect the scope and costs associated with this work.)
- For cost estimation, assume installation of new modified bituminous roofing, 2-ply torch down application, and flashing. Assume removal of existing roofing and flashing to sheathing. The new roofing should have a weight equal or less than the weight of existing roofing.
- Repair and maintenance allowance for skylight. Needs further assessment, and possible plexiglass replacement, but intention is to preserve.
- Install two compliant rooftop access ladders.



Lower Level - Concept Plan

exterior upgrades

interior upgrades

path of travel

- Allocate a budget to evaluate a third existing ladder for compliance.
- Sand and repaint rooftop equipment screens when roof is replaced.

7: Exterior Walls

- Long-term maintenance budget includes pressure washing CMU exterior and preparation/priming/two coats of paint for exterior stucco within ten years. Care should be taken to grout or temporarily fill existing cracks and openings to prior to pressure washing. This scope should be completed concurrent with the Roof project, 6.

8: Exterior Doors

- Repair/adjust hardware at Director's Office exterior sliding door to allow for a convenience exit.
- The FCA recommended full replacement of all remaining metal doors and hardware. ARG suggests an add-alternate option for consideration:
  Repair/adjust all remaining exterior metal doors at lower level and community room as opposed to replacement. Adjustments include replacement of door thresholds, removal of door stops, adjustment of opening pressure/closing times, and at select locations (ex: Community Room) modifying the door swing to comply with clearance requirements.
  Note: most hardware appears to have already been replaced with code compliant lever hardware, but this should be confirmed in the next phase.
- Allowance for repair and/or replacement of south entrance power operated door should be completed with the South Entrance Accessibility, 2.
- Removal and replacement of exterior door to existing staff lounge will be completed with Lower Level Staff Area, 10.

9: Exterior Windows & Glazing

- The FCA recommended replacement of all exterior glazing. ARG suggests an add-alternate option for consideration:
  The CHBC will allow the existing historic glazing to remain in place, and not be subject to current energy conservation requirements. However, it is unlikely that existing exterior glazing is tempered. Windows should be evaluated, and given their expanse, safety film should be considered as a potential alternative to replacement with single-pane glazing. A ceramic window film, similar to Huper Optik C50 Shield, could serve as safety film while also providing enhanced energy efficiency. Exact film specifications can be verified in future phases. (Carry an allowance in the estimate for new windows to match existing, with dual-paned glazing.)
- New openings at Community Room are recommended in Community Room project, 18.

2.4 Interior Finishes/Systems

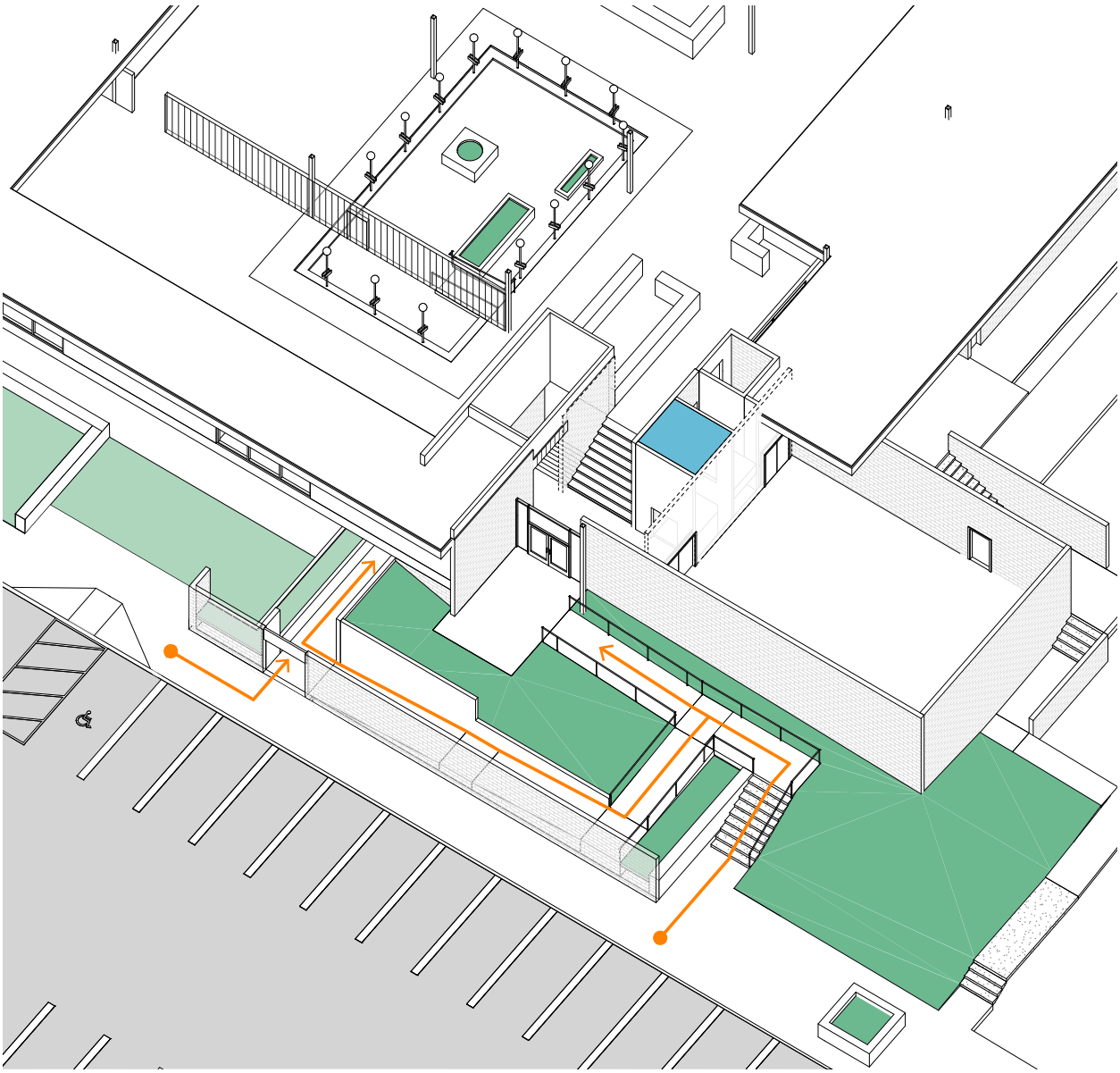
GOALS:

- *Renovate lower level to provide more efficient layout. Care should be taken to design storage and workspaces in a way which leaves hallways unencumbered by storage, book donations, etc.*
- *Enhance acoustical separation between main level and southern portion of staff area.*
- *Provide additional meeting space/rooms*
- *Modify Children's administration desk to prevent guests from passing through behind the desk.*

RECOMMENDATIONS:

10: Lower Level Staff Area

- Remove vinyl tile throughout lower level and elsewhere in building, if present. It is believed that this is an asbestos-containing material, so an allowance should be included for evaluation and abatement.
- Install 1" resilient channels and gypsum board from ceilings at southern portion of staff area; wrapping



South Entrance, proposed ramp and circulation core

around existing beams if possible.

- Install new flooring; consider carpet tiles or luxury vinyl tile (LVT, similar to Parterre Canvas) for pricing.
- Allowance for 12 workstations , relocated lounge (new cabinetry and accessible kitchenette), relocated storage room, facilities workshop and two staff restrooms. Three workstations may need enhanced privacy, which should be considered when laying out the space.
- Remove/replace exterior door at existing staff lounge with accessible power-operated door. This will serve as the new accessible lower level public entrance from south parking lot.
- Extension of staff area storage is possible sub-grade. This will require some excavation, retaining wall construction, and underpinning of existing foundations. This additional area would not likely cause a change to existing parking requirements given it would not increase the occupants in the building.

11: Teen Area

- Relocate Fab Lab; consider placement in terms of acoustics and access for other user groups separate from teens.
- Replace furniture.
- Install administration desk to maximize view of teen area and Fab Lab.
- Additional outlets per Electrical, 26; assume new carpeting will have to be installed.
- Allow for some acoustical separation, but minimal visual separation, between the teen area and reading room to the east. Assume east wall to be glazed system with double doors.
- Enhance acoustic separation between teen area and adult (quieter) area to north. Install full height wall running east to west, and assume new lighting at this area. Consider rulon panels for enhanced acoustic wall panels to reduce sound transmission.

12: Children's Desk

- Incorporate a swinging door at west end of existing administration desk to prevent users from passing through staff space.
- Consider installing additional cabinetry on east end.

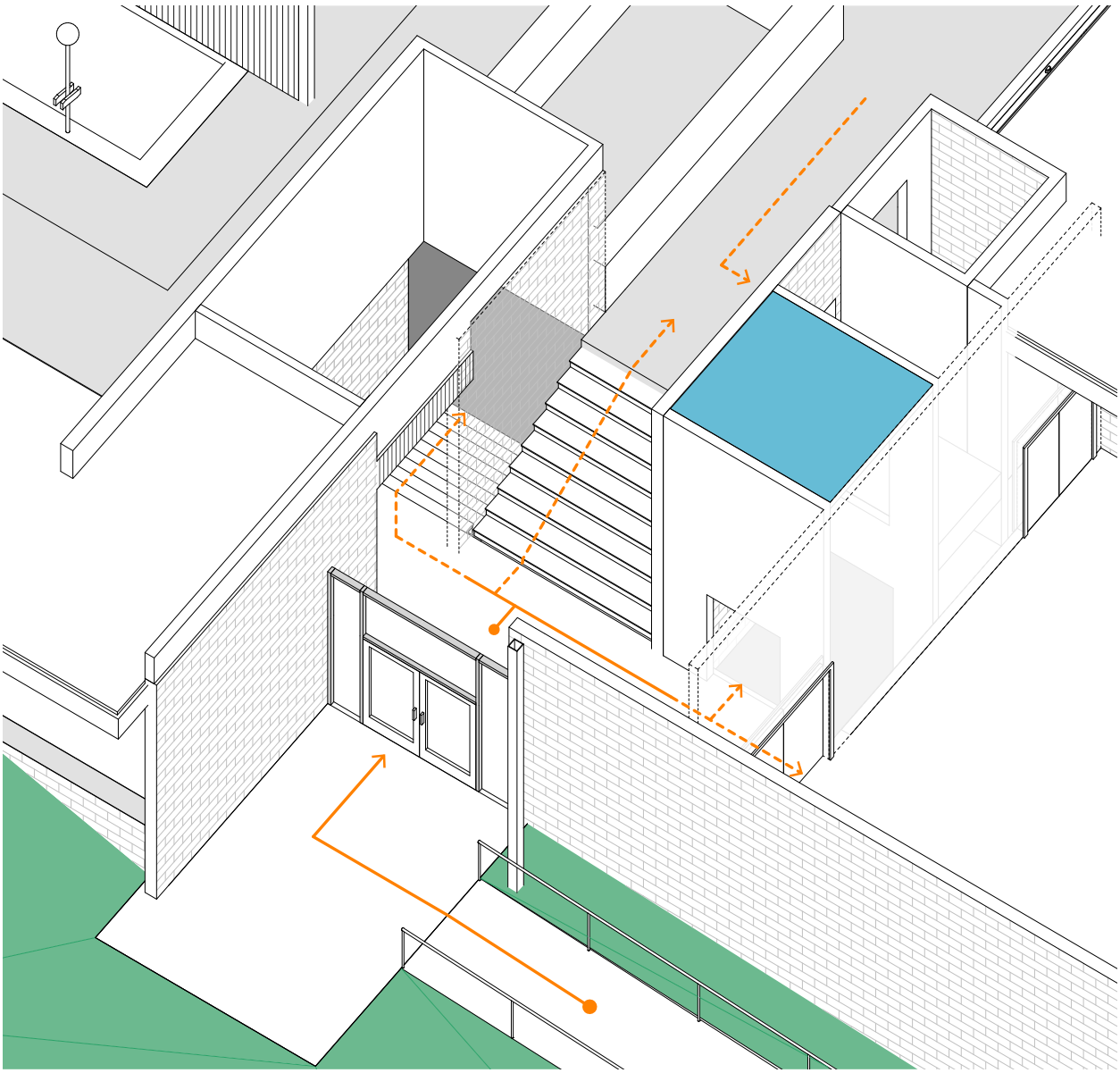
13: Building-wide Finishes/Systems

- Replacement of ceiling tiles to be completed concurrently with installation of fire suppression system, see Electrical.
- Replacement of interior carpet to be completed concurrently with new floor outlets during area-by area upgrades, See Electrical.
- Repainting of interior during area-by-area work, and remainder within ten years.

2.5 Accessibility

GOALS:

- *Provide access to all levels of the library via an elevator with dual-side doors.*
- *Although the use of the CHBC would allow the installation of a LULA (Limited use/limited application elevator), the ALD prefers to install a full size accessible elevator to provide ample room for public and staff use.*
- *Consider impacts to structural system (hoistway width, depth & overhead clearance) and MEP routing when determining model during next phase.*
- *Repurpose original elevator shaft as light well with potential openings at split level and main level. Consider light well as a wayfinding tool to orient users as they travel from floor to floor.*
- *Allow access to Reading Court, which is the heart of the library, giving priority to the symmetry of pole-mounted lights and steps to sunken area. Consider a direct path of travel, unencumbered by potential locations of freestanding chairs and tables.*



Circulation core, detail view

- *Provide access to children's side of reading court, without detracting from the wooden screen, which provides some acoustical and visual privacy from the children's area.*

RECOMMENDATIONS:

14: Elevator

- Relocate elevator. Assume excavation for pit, underpinning of adjacent existing foundation walls, slab, structural hoistway walls & modification to existing infrastructure.
- Install accessible elevator with rear door for access at split level.
- Braille signage, audible signals and hands-free emergency call should be included.
- Reuse original elevator shaft as light well to bring light to lower level.

15: Stairs

- Remove existing women's restrooms.
- Install new stair to lower level, including compliant center handrail, and compliant wall-mounted handrails compatible with historic wall-mounted handrails.
- Replace center handrail with compliant center handrail at existing stair; historic wall-mounted handrails to remain.

16: Fire Escape

- No repair allowance is included to the west side fire escape which has non-compliant handrails and risers. Upgrades to this stair are subject to further review with the County to determine what is required by CHBC.

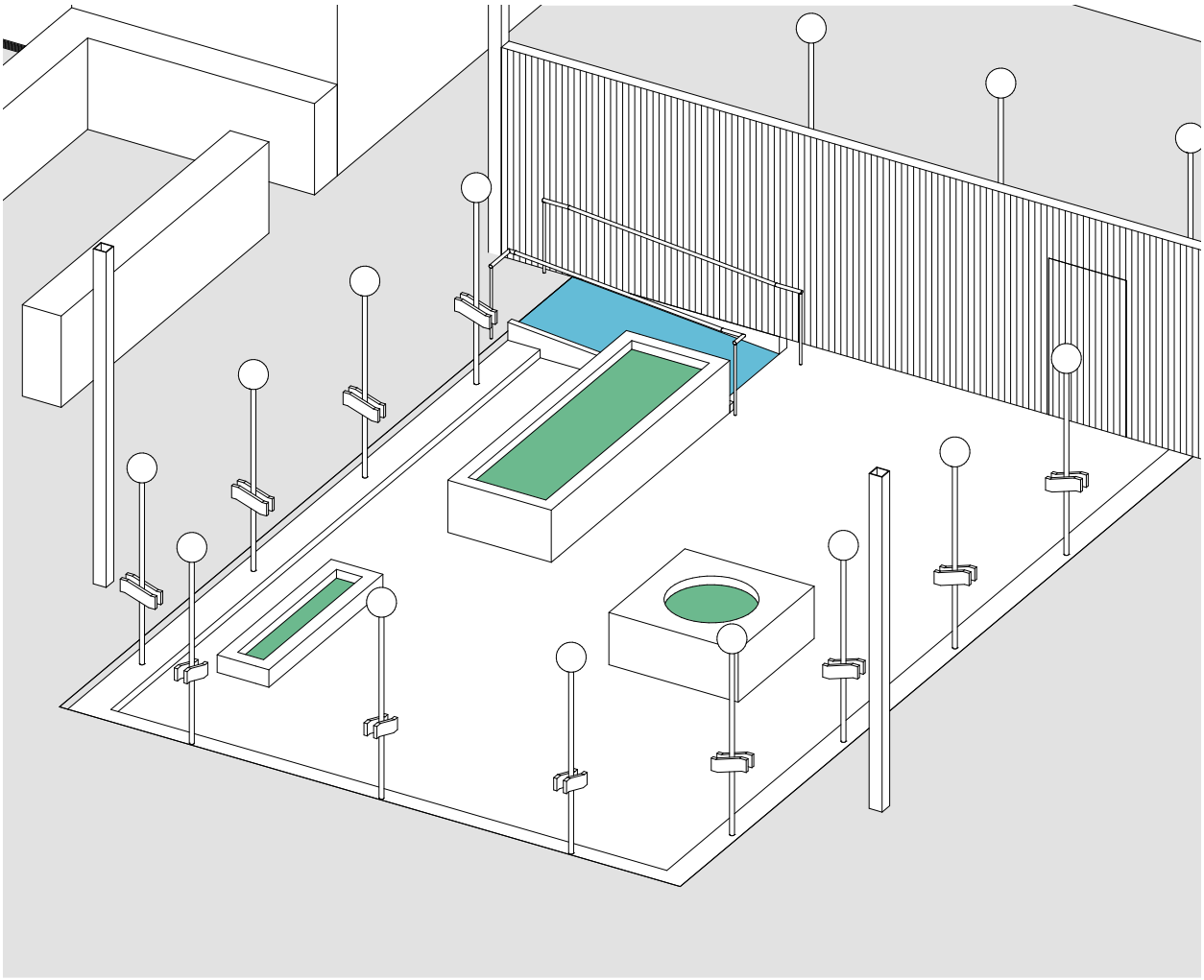
17: Reading Court

- Install 8% ramp along wooden screen. A portion of the concrete planter will need to be removed. Care should be taken to preserve planter walls to the north and south of ramp location, and two new planter walls should be built match and enclose the remaining portions. Assume floor mounted handrails to minimize impact to wooden screen and continue to allow art to be hung along screen wall.
- New opening to be concealed in wooden screen, assume invisible hinges, door to match historic panel, and accessible hardware.

18: Community Room

- Remove stage and associated step.
- Install new flooring at entire mid-level; consider luxury vinyl tile (LVT, similar to Parterre Canvas) for pricing at community room and lobby. Assume tile for pricing at restrooms.
- Replace hardware at double doors with compliant hardware, adjust opening pressure and closing time.
- Remove kitchenette.
- Relocate AV closet.
- Relocation of existing return air duct behind west wall.
- Assume 60 square feet of storage cabinetry along west wall.
- Investigate using interstitial space for relocated utilities, or additional storage.
- New projector at east or north wall.
- Replacement of acoustical ceiling tile, provide allowance for wood acoustical ceiling panels for pricing (consider Rulon Panel Grille).
- Openings to be punched above existing door opening at north, full-height window of matching width to be punched to mirror it on south wall. Assume two new openings at east wall, and power operated shades for all openings.
- Consider incorporating a fixed opening above cabinetry at west wall to allow light infiltration from original elevator shaft.

Note: It is assumed that building-wide HVAC upgrades, 24, will be implemented following accessibility upgrades. An allowance should be included to repair and relocate select air supply/returns during the initial priorities: accessibility



Reading Court, proposed ramp

scope.

Accessibility solutions pertaining to the elements below are included in separate recommendations, as noted:

- Main Level Accessibility: North Entrance, 1
- Split Level Accessibility: South Entrance 2
- Restroom Accessibility: Plumbing Fixtures, 32 -34
- Drinking Fountain Accessibility: Plumbing Fixtures, 33
- Public Telephone Accessibility: Install compliant accessible telephone cabinet and signage, to be completed with split level lobby work/Stairs, 15.

2.6 Health

GOALS:

- *Properly evaluate existing conditions for hazardous materials, and abatement of materials as required.*

RECOMMENDATIONS:

19: Hazmat Testing & Abatement

- Hazardous materials are suspected to be present in vinyl floor tiles, mastic and supply piping insulation. Materials should be tested and an allocation for abatement should be included in project scope.
- The "Asbestos Project" from 1988, p. 1, references that the acoustic material present on the interior of the library is an asbestos-containing material (ACM). The acoustic material on the ceiling by the main stairs was mentioned specifically in the 1988 document.
- Additional documentation from 2017 states that there is no asbestos in the ceiling texture or insulation, but does not indicate where samples were taken.
- Neither of these document were referenced in the FCA, but this issue should be revisited to determine if hazardous materials are present at areas of work. Materials should be tested at areas of potential work and an allocation for abatement should be included in project scope.

2.7 Fire/life Safety

GOALS:

- *Install fire detection and suppression system as recommended by FCA.*
- *Install additional emergency egress signage and lighting as recommended by FCA.*
- *Coordinate recommended seismic upgrades with other work, if possible.*

RECOMMENDATIONS:

20: Fire Detection System

- Install new fire alarm system, including a main addressable panel to local fire monitor, smoke detectors, heat detectors, manual pull stations, audible/visual strobes, wiring, conduit and cut and patching of historic materials.

21: Sprinkler System

- Remove two original unused sprinkler heads at lower level.
- The FCA recommended installing a modern fire sprinkler system throughout; assume standard wet pipe application, valves, piping, and sprinkler heads.
- Install range-top fire suppression system at new Staff Lounge kitchenette.
- A fire hydrant is located along Mariposa to the north. Additional site utilities were not described in the FCA and require further study to determine water pressure and water flow to the property. Provide allowance for fire line to building.

22: Occupancy Separations/Fire Ratings

- The following occupancy separations (fire resistance

rating in hours) are required per CBC Table 508.4:

Occupancy	*Separation*	
	Sprinklered	*Non-sprinklered*
A-3 to B* and M*	1	2
B to S-1	None	None

*The Group B and M occupancies on the main level qualify as accessory occupancies to the primary A-3 occupancy and do not require a separation per CBC 508.2.3 since they do not take up more than 10% of the main floor building area.

A preliminary assessment indicates the following:

- For existing building parts, CHBC Section 8-402.2 states that 1-hour-fire resistive construction and corridors will not be required in a qualified historic building, if an automatic sprinkler system is installed throughout.
- For new building parts, the library will be considered a nonseparated occupancy per CBC 508.3. The library contains A-3 (Assembly - Library), B (Business Areas) and M occupancies and therefore will comply with the more stringent occupancy requirements (A-3) for the provisions of Chapter 9 (fire protection and life safety systems) for the total nonseparated occupancy area.
- A continuous rated shaft should be included for the new elevator shaft.
- If a sprinkler is not installed, it appears that the mixed-use/non-separated building will still comply with allowable building area and separation requirements. This determination includes a few assumptions which need to be confirmed with the building department during the next phase.
  - Type III-B construction type, which the building most closely resembles per CBC Table 506.2
  - Frontage increase of .64 per CBC 506.3
  - Square footage of the mid-level is to be included with the lower level

23: Exit Signage/Emergency Lighting

- Install LED exit signage at west fire escape, lower level hallway and staff areas.
- Install twin beam emergency lights with internal batteries along egress paths.

24: Seismic Upgrades

- Please refer Appendix C.1, Tier 1 Assessment Report.

2.8 HVAC

GOALS:

- *Replace end of life HVAC equipment identified by the FCA.*
- *Install system which is remotely controllable by staff.*

Incorporate new equipment at rooftop within existing equipment screens, where possible.

RECOMMENDATIONS:

25: HVAC System

- Assume new HVAC equipment to be VRF heating and cooling system with ventilation and a series of units, new distribution and controls.
- As noted under accessibility section 1.5, it is assumed that building-wide HVAC upgrades will be implemented following accessibility upgrades. An allowance should be included to repair and relocate select air supply/returns during the initial priorities: accessibility scope.
- Complimentary ventilation system for fresh air intake.
- Locations and exact system to be specified in next phase by mechanical engineer. It is ARG's recommendation that all units be replaced at once, to maximize efficiency and controls.
- Install a dedicated zone for IT room.
- Electrical capacity should be confirmed and coordinated once equipment is identified.
- Replace exhaust fans at bathrooms and relocated staff kitchenette during corresponding projects.

2.9 Electrical

GOALS:

- *Replace end of life equipment identified by the FCA.*
- *Obtain further evaluation of electrical system considering proposed conceptual plans and phasing.*
- *Provide generator for backup power; to allow the library to perform as a community resource in the event of a blackout/emergency, and to avoid damage to mechanical equipment.*

RECOMMENDATIONS:

26: Electrical Distribution System

- New switchboard at exterior main electrical room.
- Conduit and wiring to remain in place where unaffected by upgrades.
- Electrical scope is an allowance at this time. The system described in the FCA mentions panel boards and breakers in various condition. This requires further study to determine extent of replacements required.

27: Power Distribution System

- Allowance for additional floor outlets and GFI outlets to be included in area-by-area upgrades (teen area, staff lounge, etc), and the remaining areas as a separate line items.
- For pricing, assume Steelcase "Thread" power system throughout.
- Assume carpet at areas of work will need to be removed, and new carpeting installed.

28: Interior Lighting

- Occupancy sensors to be installed, where required by code, and to provide energy efficiency.
- A further survey of lighting fixtures at main level is required to provide a more accurate budget regarding reusability. Provide budget for relamping and partial replacement allocation.
- Selected new lighting at areas to be remodeled Teen Area, Community Room, Stairs, Lower Level Staff Area, Lower Level Exterior Reading Court.
- Replacement of interior lighting with fixtures compatible with historic fabric. This work should be completed concurrently with installation of Sprinkler System, 21 and ceiling tile replacement.

29: Exterior Lighting

- Install new exterior lighting along new South Entrance ramp, 2.
- Install new exterior bollards during North Entrance project, 1.
- Repair and upgrades to existing bridge lighting to be complete during North Entrance project, 1.
- Allowance for repair and upgrades to existing site lighting to be incorporated into Landscaping projects, 4 and 5.

30: Generator

- Install generator for backup power to support facility's emergency lighting and other prioritized equipment. Ideally, the generator will be located close to the main service panel.
- Allowance for emergency generator, fuel tank, battery charger, exhaust, and connections. Automatic transfer switch and emergency power grid to be installed throughout the facility to support essential and non-essential loads, as described by the FCA.

2.10 Plumbing

GOALS:

- *Replace end of life equipment identified by the FCA.*
- *Provide additional restrooms, including accessible family*

restroom near Children's area and additional accessible restrooms elsewhere.

- *Provide a pump/breastfeeding space for public and staff use, preferably in close proximity to restrooms.*

RECOMMENDATIONS:

31: Plumbing System

- Install a backflow preventer, isolation valves, and piping.
- Provide allowance for site utilities upgrades (domestic supply, sanitary waste and stormwater piping) subject to further evaluation based on site inspections by MEP Engineer in next phase.
- Replace water heater.
- Allowance for abatement budget as noted in Health. 19:

32: Plumbing Fixtures: Main Level

- Remove existing boys and girls restrooms at children's area.
- Install (1) family accessible restroom.
- Consider incorporating pump/breastfeeding room adjacent to this location if space allows.

33: Plumbing Fixtures: Mid-Level

- Remove women's restroom as mentioned in Stair project, 15.
- Men's restrooms to be renovated to allow for (1) gender neutral accessible restroom, and an adjacent pump/ breastfeeding room at this location.
- Remove existing drinking fountain and install new compliant drinking fountain with bottle filler.

34: Plumbing Fixtures: Lower Level

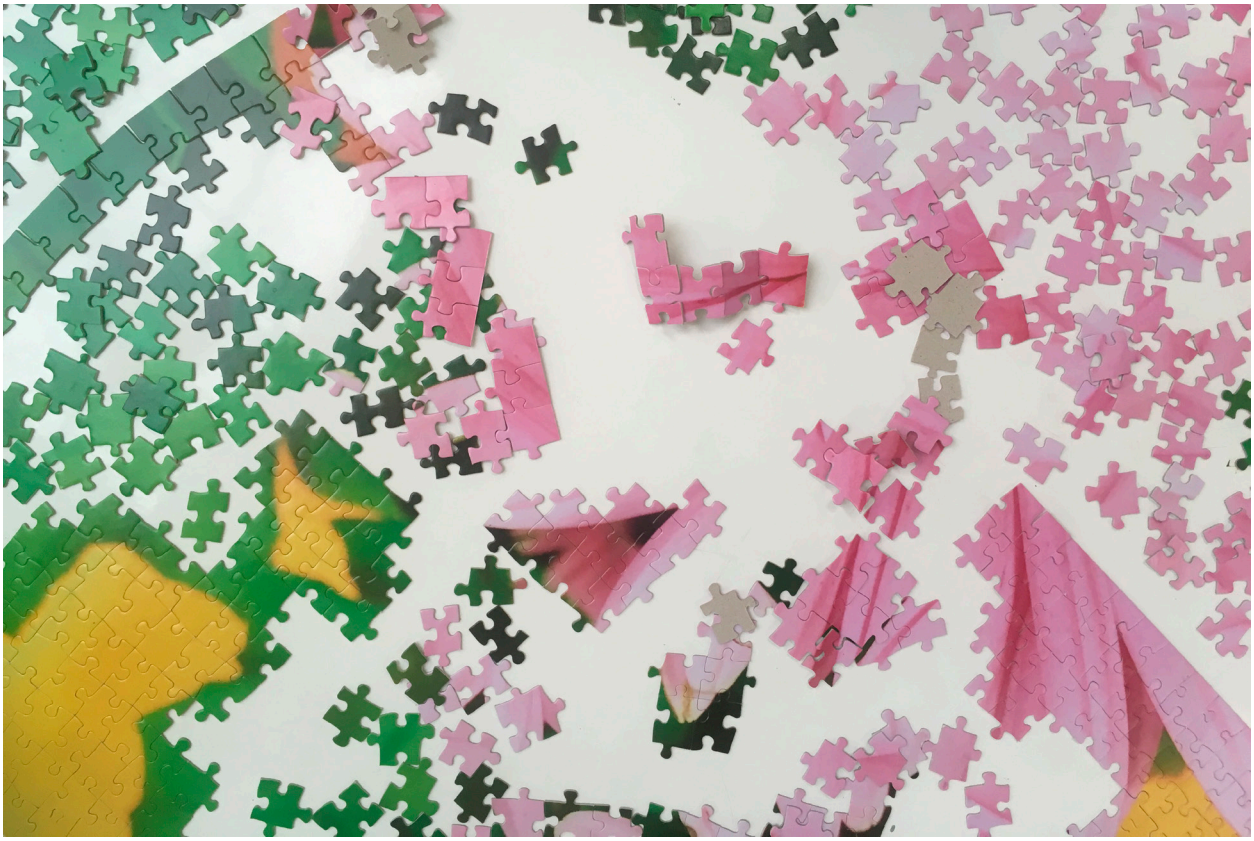
- Install (10) additional restrooms at lower level.

2.11 Vertical Transportation

- Vertical transportation upgrade is described in Elevator section, 15.

Part 3

Cost Projections



8.1 Overview

An outline cost projection for the scope described in the previous sections has been prepared by KPJ Consulting and is included in its entirety in Appendix B. This section distills the basic information in KPJ's report; please refer specifically to the full report for important framing information about the costing process and intent.

The proposed work at the library can be broken down into discrete projects, and therefore cost projections are presented *á la carte*, and in three categories:

"Area-by-Area": work that is confined to a specific area of the building, such as a gallery or workshop.
(This is the case for most projects, unless otherwise noted as described below.)

"Building-wide" (B-w): systems or efforts that are essentially building-wide, such as installing sprinklers or abating hazardous material.
(Select building-wide work can be implemented during area-by area projects.)

"Long-term Maintenance"(L-t): work that is expected within ten years.

It should be noted, the previous cost estimate included in the FCA was based on the RS Means/National Cost Data, which are combined values published in a book. These methods do not include a multiplier for the Los Angeles area or historic renovation labor pools. They are typically used for deferred maintenance or incremental improvements only, and not comparable to the holistic solutions provided in this Master Plan.

It is also important to keep in mind that all cost estimates in this report are based on conceptual design; they provide a preliminary framework for general budgeting purposes only. Development of more detailed plans and specifications will be needed to further refine these estimates.

8.2 Funding

Securing funding will be a major part of realizing the goals described in this report. The proposed projects tend to be suited to one of the following funding sources

Independent Special District annual budget (ALD): Maintenance, preservation, and capital projects such as MEP systems; back of house uses and code upgrades

Public bonds: specific public spaces of interest

Grants: Public reading areas and community rooms

Private donations/fundraising (Friends of the Altadena Library, Altadena Library Foundation): High-profile upgrades and outdoor spaces

Further study is required to match expected funding with selected projects.

8.3 Cost Adjustments

The cost projections prepared by KPJ are based on hard construction costs. In order to round out the budgeting picture, this section marks up KPJ's estimates to include soft costs, for example:

Collection-related costs, such as insurance, interim relocation, etc.

Project management

A/E design fees

Legal and regulatory expenses

Based on recent similar projects, we have used a 50% markup estimate (x1.5) to arrive at a project budget. If all work were to be completed in one phase, the markup estimate could potentially be reduced to 35% (x1.35).

8.4 Cost by Scope

The construction estimates shown on the following pages are sorted by scope and based on Appendix B.1 Cost Plan Report. ARG has included corresponding project budgets for each area of work.

Cost Projections

			Construction Estimate	*Project Budget*	
			KPJ Net	x 1.5 gross	SUBTOTALS
	SITE				
	North Entrance		see accessibility		
	South Entrance		see accessibility		
	Lower Level Entrance & Ext Reading Court		see accessibility		
	Landscape - East		172,532	258,798	
	Landscape - North		175,614	263,421	
		Subtotal	348,146		522,219
	EXTERIOR				
	Roof		662,704	994,056	
(L-t)	Exterior Walls		142,873	214,310	
	Exterior Doors (other than area-by-area)		6,455	9,683	
(B-w)	Exterior Windows & Glazing		21,126	31,689	
	Solar Panels		2,200,669	3,301,004	
		Subtotal	3,033,827		4,550,741
	INTERIOR				
	Lower Level Staff Area (Expansion)		221,534	332,301	
	Lower Level Staff Area (Renovation)		779,087	1,168,631	
	Teen Area		236,557	354,836	
	Children's Desk		1,027	1,541	
(B-w)	Building-wide Finishes/Systems (Int Paint: L-t)		82,767	124,151	
		Subtotal	1,320,972		1,981,458
	ACCESSIBILITY				
	North Entrance (includes bridges)		478,132	717,198	
	South Entrance		437,970	656,955	
	Lower Level Entrance & Ext Reading Court		71,742	107,613	
	Elevator		664,954	997,431	
	Stairs		162,996	244,494	
	Fire Escape		not included		
	Reading Court		25,051	37,577	
	Community Room		437,828	656,742	
		Subtotal	2,278,673		3,418,010
	HEALTH				
(B-w)	Hazmat Testing (owner doc - no mark-up)		15,000	15,000	
(B-w)	Hazmat Abatement		319,831	479,747	
		Subtotal	334,831		494,747

(B-w)	**FIRE/LIFE SAFETY**			
	Fire Detection System	537,843	806,765	
	Sprinkler System	855,767	1,283,651	
	Exit Signage/Emergency Lighting	7,336	11,004	
	Seismic Upgrades Priority 1 (see Att C.1, 8.1.1)	237,071	355,607	
	Add. Seismic Upgrades Priority 2 (see Att C.1, 8.1.2)	365,604	548,406	
	Subtotal	2,003,621		3,005,432
	BUILDING SYSTEMS			
(B-w)	HVAC System			
	Lower Level Staff Area	484,147	726,221	
	Circulation Core & Mid/Main WC	213,025	319,538	
	Remaining Areas	1,433,075	2,149,613	
	Subtotal	2,130,247		3,195,371
(B-w)	Electrical			
	Electrical Distribution System	70,788	106,182	
	Power Distribution - Lower Level Staff Area	173,853	260,780	
	Power Distribution - Circ Core & Mid/Main WC	114,065	171,098	
	Power Distribution - Teen Area	89,875	134,813	
	Power Distribution - Remaining Areas	469,259	703,889	
	Interior Lighting - Lower Level	225,392	338,088	
	Interior Lighting - Circ Core & Mid/Main WC	186,903	280,355	
	Interior Lighting - Remaining Areas	21,273	31,910	
	Exterior Lighting A - Site (N Entrance & bridges)	44,014	66,021	
	Exterior Lighting B - Site (S Entrance/LL Courtyard)	54,283	81,425	
	Exterior Lighting C - Site (E Landscape)	29,342	44,013	
	Exterior Lighting D - Site (N Landscape)	29,342	44,013	
	Generator	87,386	131,079	
	Subtotal	1,595,775		2,393,663
(B-w)	Plumbing			
	Plumbing System - Site Utilities	143,029	214,544	
	Plumbing Fixtures - Main Level	59,469	89,204	
	Plumbing Fixtures - Mid Level	114,419	171,629	
	Plumbing Fixtures - Lower Level	326,087	489,131	
	Subtotal	643,004		964,506
	TOTALS	13,689,096		**20,526,144**
		Construction Estimate		*Project Budget*

Part 4

Implementation

4.1 Overview

Much of the work proposed in this Concept Plan can be implemented as a series of more or less independent projects. This allows for incremental phasing as funding becomes available, and also raises the question of what order these projects should be done in. The primary considerations are:

- Urgency of need
- Extent of benefit, especially versus cost
- Keeping the library open to the public as much as possible
- Minimizing area affected by a project and impact on adjacent spaces

In addition, the actual order of projects will depend heavily on funding availability. We recommend ALD be proactive in seeking funding for work in a logical sequence.

4.2 Sequencing

The order in which work is done will depend heavily on available funding and evolving ALD priorities. However, given that some items are best scheduled earlier or later in the process, a potential sequence of projects is diagrammed to the right to guide further thinking. This diagram synthesizes input from the Facilities Committee into a logical progression of work.

Initial priorities are accessibility, including a new elevator with an additional stop at the mid-level, to serve as a backbone for public spaces, programs and circulation. Additional work to provide accesible restrooms has been included in initial priorities for two reasons: the library is sorely lacking barrier-free toilet facilities for visitors and staff, and the new elevator core will allow access to these restrooms from all levels. The lower level entrance would also be included in this phase. Building-wide scope pertaining to Fire/life safety is also included in the initial priorities.

Work following the initial priorities can be roughly divided into building wide systems/ back of house operational upgrades, and library user upgrades. Discussions with the Facilities Committee indicate that ALD hopes to focus primarily on accessibility from the south parking lot, roof work, and HVAC. ARG also recommends including fire/life safety upgrades to further its public mission.

In the Priority Summary, at teh end of this section, an optional category has been included for items which are not required to achieve initial priorities. Exterior

maintenance and landscaping work beyond the paths of travels required for accessibility, are included in this category since they can be executed over time by the ALD based on funding. The exceptions are areas effected by the new accessible paths of travels at the south split level entrance, which will require coordination with interior work.

The costs cited in the diagram are rough figures for assessing magnitude only. Refer to the estimates in Appendix C for more comprehensive information.

4.3 Coordinating Public Access

The Altadena Main Library intends to remain open to the public as much as possible throughout this work. However, some projects affect not just their own area but also access to other spaces. Please note that this is a preliminary concept plan, and depending on final decisions on project execution, different strategies may be necessary.

Certain building wide scope items including seismic upgrades, may have the potential to be completed on an area-by-area basis, in order to limit disturbance to every day operations.

Work affecting very limited areas, as is the case in the following projects, can take place at any point, but must be coordinated with library operations.

- Reading Court
- Teen Area
- Children's Area
- Exterior Doors

A: Initial Priorities

ACCESSIBILITY:

This project will provide an accessible path from the south parking lot (to all levels) and be sequenced to allow for the library to remain open.

- South Entrance
- Elevator/Stair Core
- Restrooms
- Community Room
- Lower Level Entrance

HEALTH:

- Hazardous Material Testing
- Hazardous Material Abatement (area-by area)

FIRE-LIFE SAFETY:

- Fire Alarm System
- Fire Suppression System / Ceiling Tiles / Interior Lighting
- Exit Signage / Emergency Lighting
- Seismic Upgrades

EXTERIOR/BUILDING-WIDE SYSTEMS:

- Roof
- HVAC Equipment / Distribution (Core)

B: Operational Upgrades

EXTERIOR:

- Exterior Doors
- Exterior Windows/Glazing
- Exterior Surfaces

INTERIOR:

- Lower Level Staff Area

BUIDLING-WIDE SYSTEMS: (A portion of systems will be included in Area-by-Area work.)

- HVAC Equipment / Distribution (Staff & Remaining Areas)
- Electrical Distribution / Power / Carpeting
- Plumbing System

LONG-TERM MAINTENANCE:

- Exterior walls
- Interior paint

C: Library User Upgrades

INTERIOR:

- Lower Level Staff Area
- Reading Court
- Children's Area Desk
- Teen Area
- Remaining Interior Finishes

SITE:

- North Entrance / Upper Bridge / Lower Bridge
- Landscape - East / Lower Bridge / Exterior Lighting
- Landscape - North / Exterior Lighting

Priority Summary	Priority 1	Priority 2	Priority 3	Optional
SITE				
North Entrance		see accessibility		
South Entrance	see accessibility			
Lower Level Entrance & Ext Reading Court	see accessibility			
Landscape - East				258,798
Landscape - North				263,421
EXTERIOR				
Roof	994,056			
Exterior Walls			214,310	
Exterior Doors (other than area-by-area)			9,683	
Exterior Windows & Glazing			31,689	
Solar Panels				3,301,004
INTERIOR				
Lower Level Staff Area (Expansion)		332,301		optional
Lower Level Staff Area (Renovation)		1,168,631		part optional
Teen Area				354,836
Children's Desk				1,541
Building-wide Finishes/Systems (Int Paint: L-t)			124,151	
ACCESSIBILITY				
North Entrance (includes bridges)		717,198		
South Entrance	656,955			
Lower Level Entrance & Ext Reading Court	107,613			
Elevator	997,431			
Stairs	244,494			
Fire Escape				
Reading Court		37,577		
Community Room	656,742			part optional
HEALTH				
Hazmat Testing (owner doc - no mark-up)	15,000			
Hazmat Abatement	479,747			

FIRE/LIFE SAFETY				
Fire Detection System	806,765			
Sprinkler System	1,283,651			recommended
Exit Signage/Emergency Lighting	11,004			
Seismic Upgrades Priority 1 (see Att C.1, 8.1.1)	355,607			recommended
Add. Seismic Upgrades Priority 2 (see Att C.1, 8.1.2)				548,406
BUILDING SYSTEMS				
HVAC System				
Lower Level Staff Area		726,221		
Circulation Core & Mid/Main WC	319,538			
Remaining Areas			2,149,613	
Electrical				
Electrical Distribution System	106,182			
Power Distribution - Lower Level Staff Area		260,780		
Power Distribution - Circ Core & Mid/Main WC	171,098			
Power Distribution - Teen Area			134,813	
Power Distribution - Remaining Areas			703,889	
Interior Lighting - Lower Level		338,088		
Interior Lighting - Circ Core & Mid/Main WC	280,355			
Interior Lighting - Remaining Areas			31,910	
Exterior Lighting A - Site (N Entrance & bridges)		66,021		
Exterior Lighting B - Site (S Entrance/LL Courtyard)	81,425			
Exterior Lighting C - Site (E Landscape)				44,013
Exterior Lighting D - Site (N Landscape)				44,013
Generator				131,079
Plumbing				
Plumbing System - Site Utilities		214,544		
Plumbing Fixtures - Main Level	89,204			
Plumbing Fixtures - Mid Level	171,629			
Plumbing Fixtures - Lower Level	489,131			
Subtotal	**8,317,622**	**3,861,359**	**3,400,055**	**4,947,110**
	Priority 1	Priority 2	Priority 3	Optional

Appendix A

Drawings

A.1 2020 Proposed Concept Plans

Appendix B

Cost Projection

B.1 2020 Cost Plan Report

Appendix C

Reports

C.1 2020 Tier 1 Assessment Report

C.2 2020 Historical Resource Assessment Report

C.3 2018 Facility Condition Assessment

C.4 2017 Asbestos Report

C.5 2006 ADA Facilities Assessment

C.6 2016 Bridge Report Preliminary Set for Pricing

C.7 1988 Asbestos Project

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