

Belmont Public Library

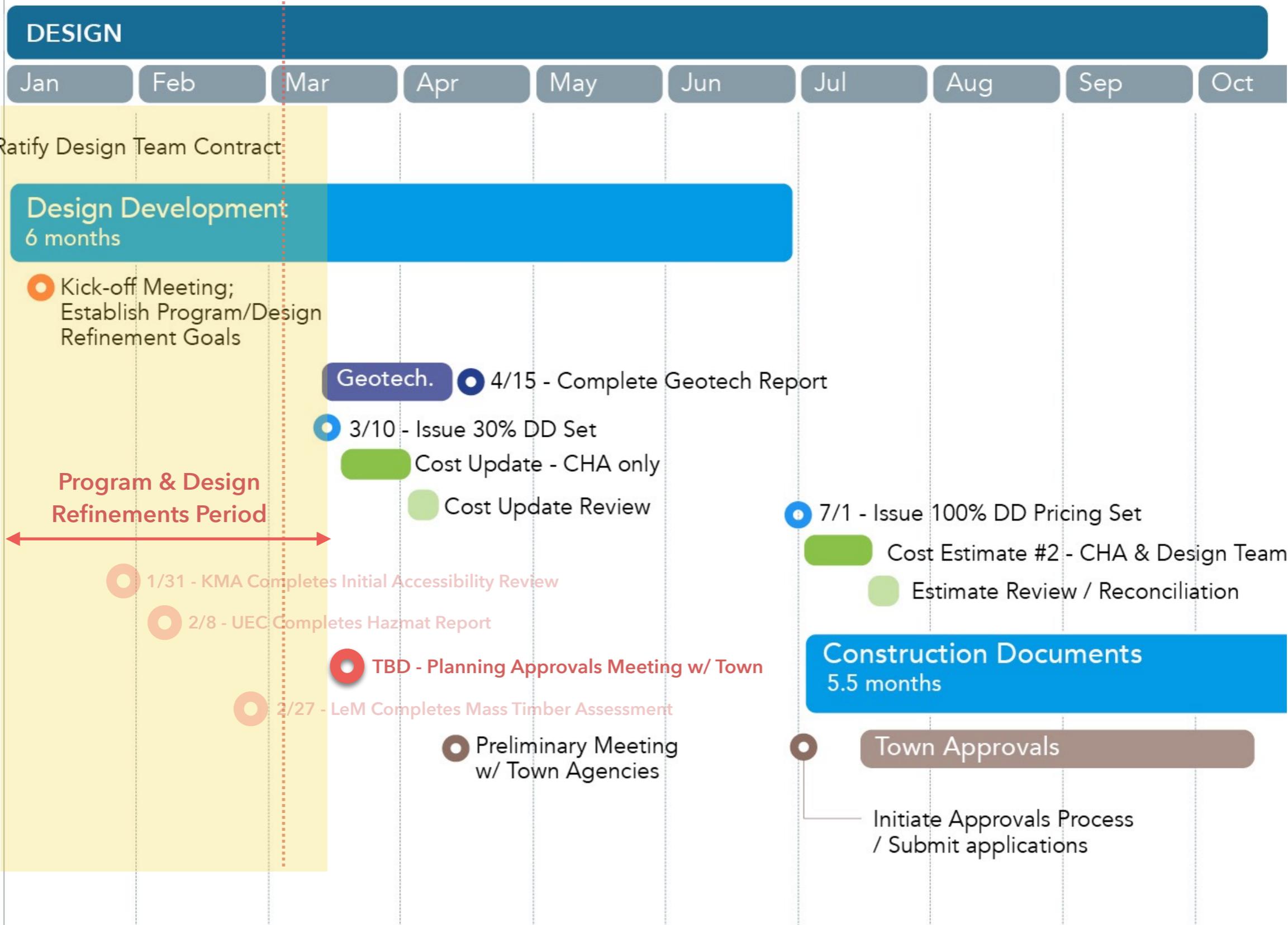
Library Building Committee Meeting #5
February 28, 2023



Agenda

1. Welcome Public
2. Approve 2/14/2023 Meeting Minutes
3. Invoices
4. Update
 - a. Contracts
5. Design Update
 - a. Commons Stair - 4 options
 - b. Second Floor Layout - 4 options
 - c. Reading Porch
 - d. Mass Timber Study
6. Public Comment
7. Adjourn

We are here



Project Schedule Design Development



Commons Stair Option 1: Social Stair



Commons Stair Option 1: Social Stair



Commons Stair Option 2: L-Shaped with Seating



Commons Stair Option 2: L-Shaped with Seating



Commons Stair Option 2: L-Shaped with Seating



Commons Stair Option 3: Straight Run



Commons Stair Option 3: Straight Run



Commons Stair Option 3: Straight Run



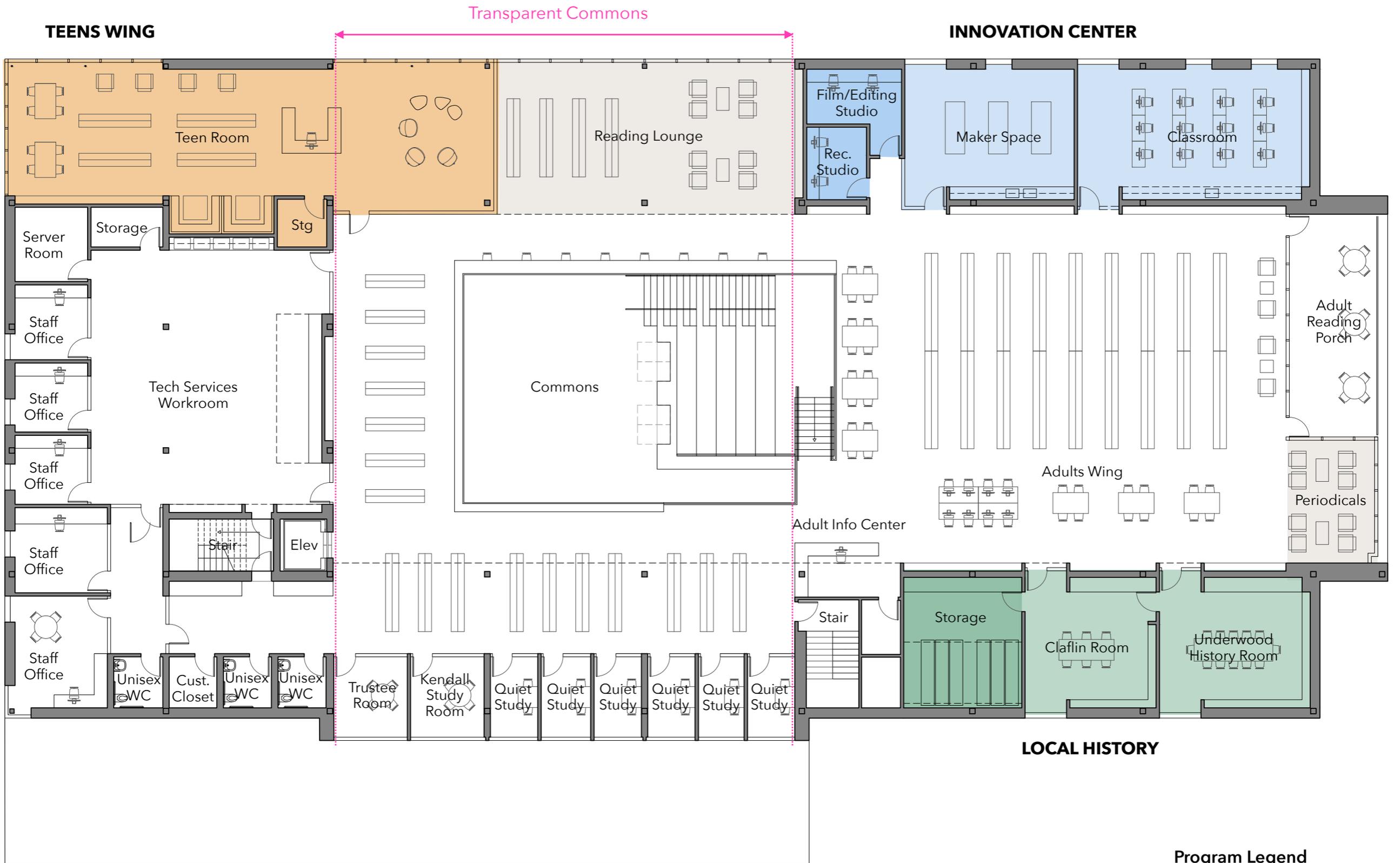
Commons Stair Option 4: Switchback



Commons Stair Option 4: Switchback



Commons Stair Option 4: Switchback



- Program Legend**
- Teens
 - Innovation
 - Local History
 - Reading Spaces

Second Floor Plan Original Layout

Teen Room

- Like the location of the teen room where it is currently situated. It is hived off enough to give that group dedicated space without being in a fishbowl.

Maker Space

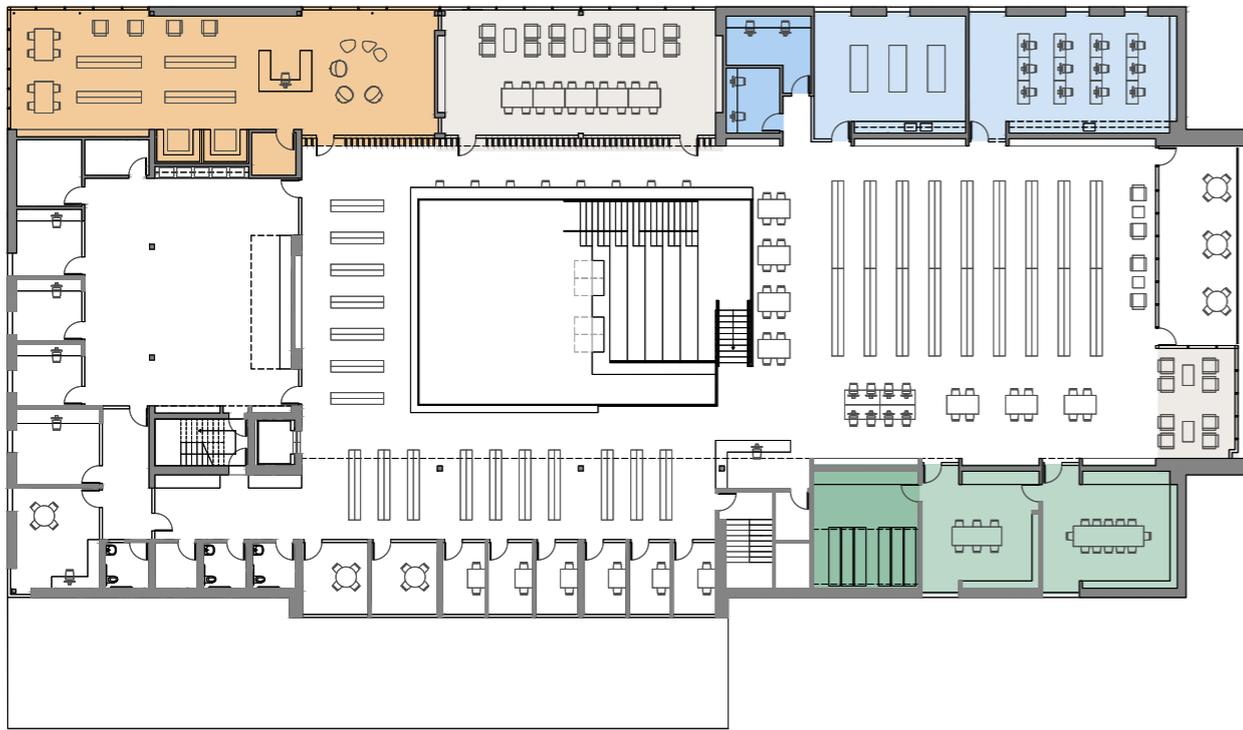
- Could the maker space be located in the “transparent commons” area?
- Could the quiet reading space be located in the “transparent commons area,” enclosed behind glass walls?
- Could the maker space and the classroom space be combined into one area?
- Can or should the studios be separate from the maker space area?

Shelving

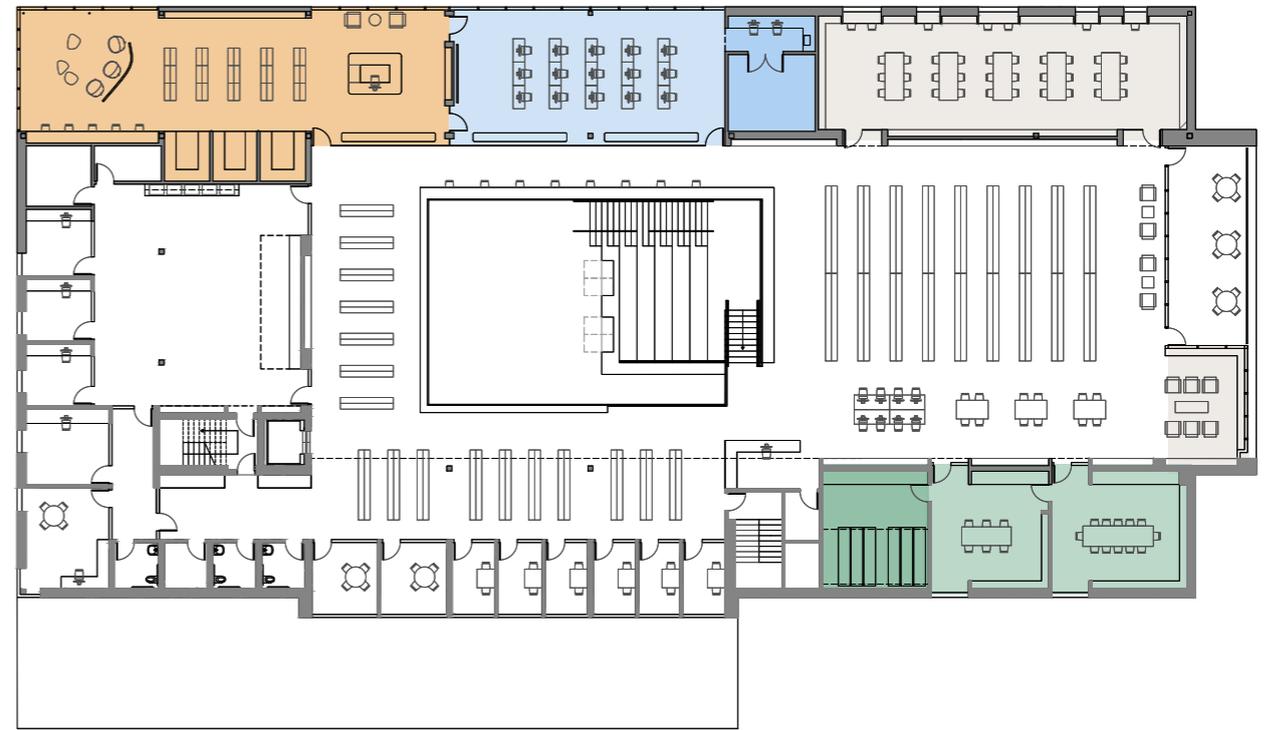
- How do we make up for book shelf space? If we combine the maker and classroom space do we pick up some space there?

Storage

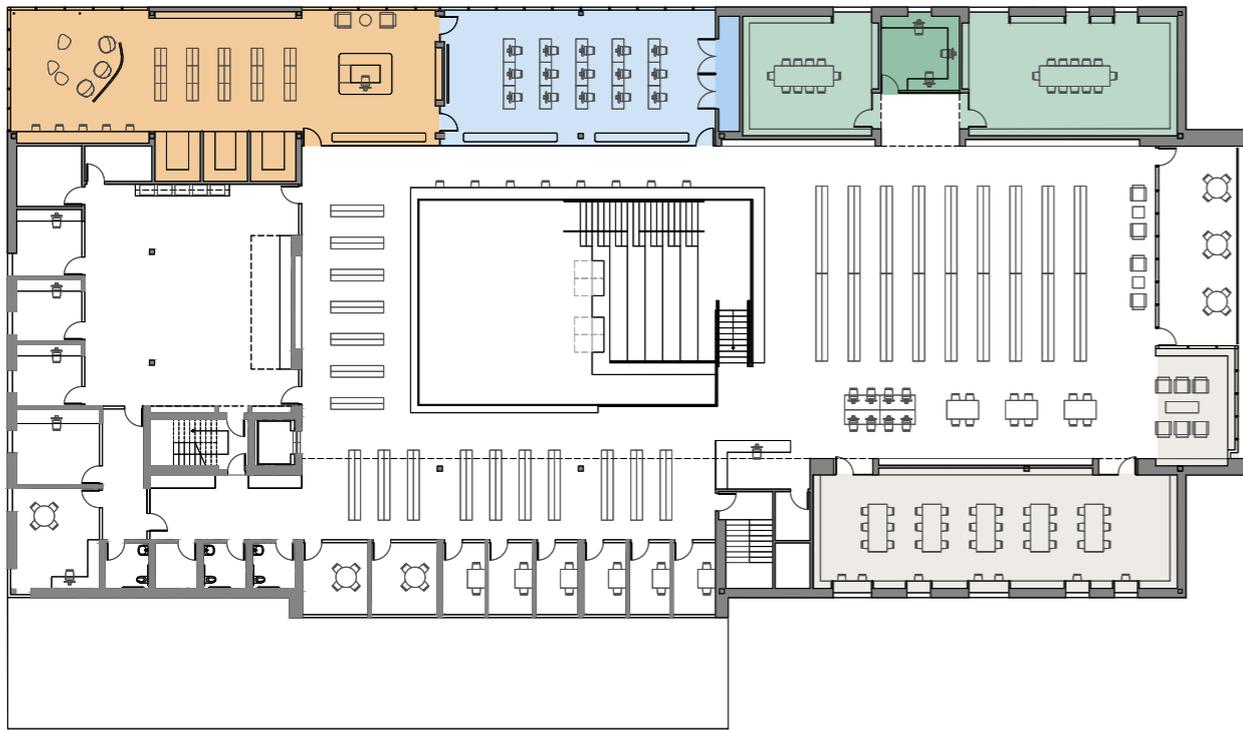
- Do we have enough storage space for the core library on the second floor or should we have a dual storage area with the Claflin Room?



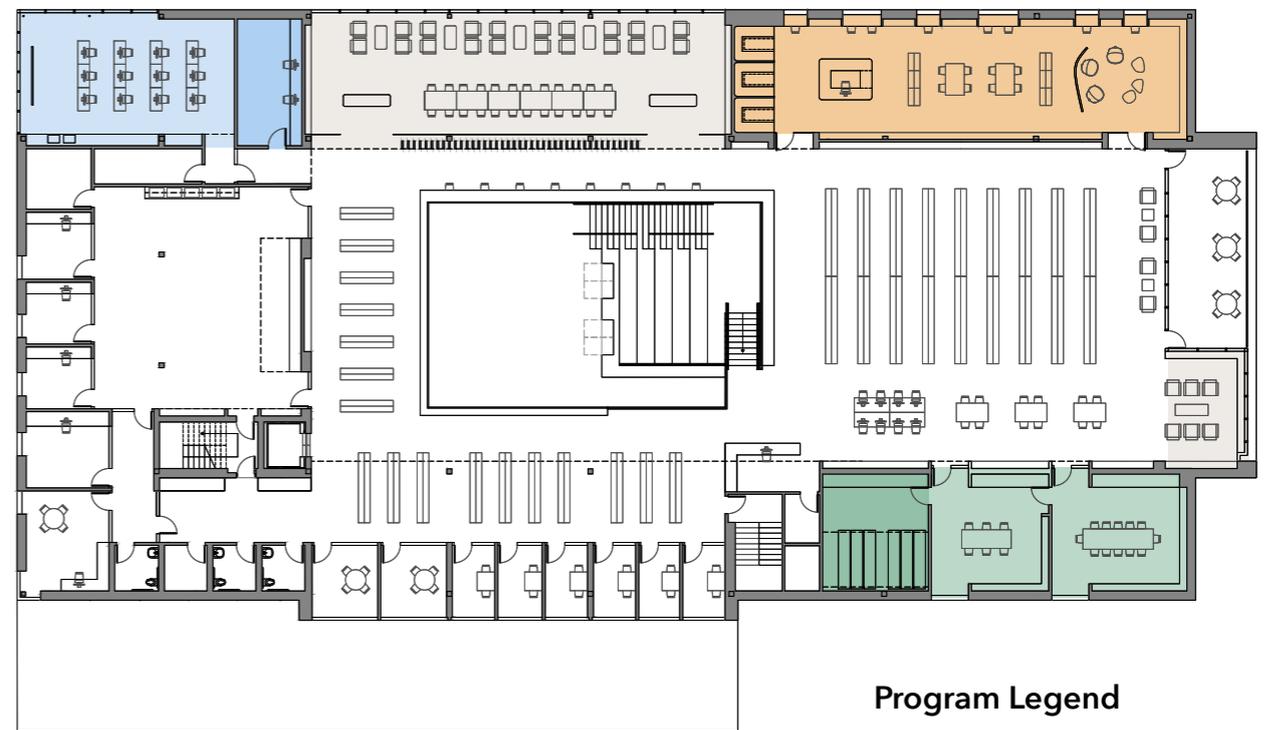
Option 1



Option 2



Option 3



Option 4

Program Legend

- Teens
- Innovation
- Local History
- Reading Spaces

Second Floor Plan 4 Options

TEENS WING

QUIET READING

INNOVATION CENTER



Program Legend

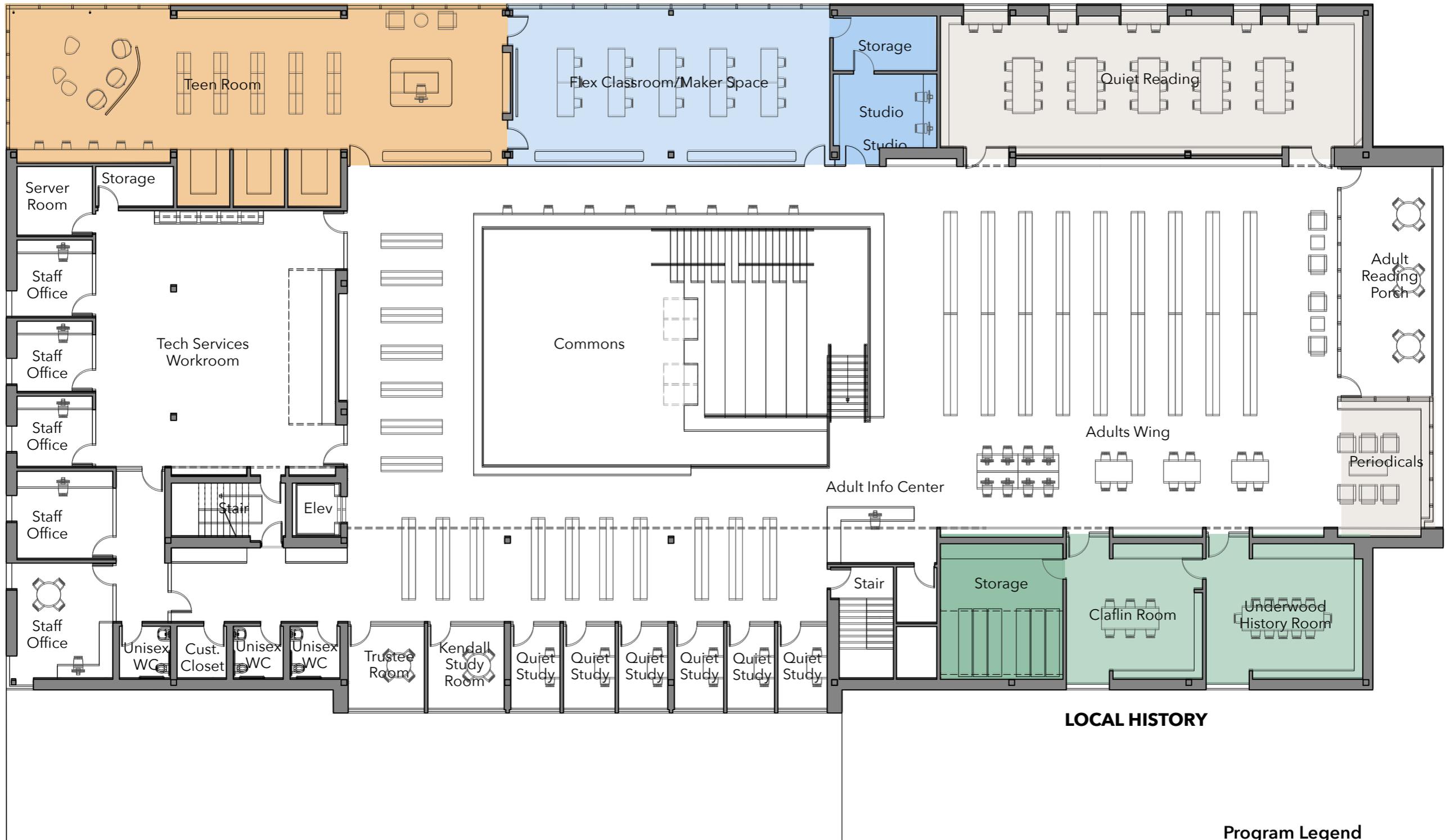
- Teens
- Innovation
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Second Floor Plan Option 1

TEENS WING

INNOVATION CENTER

QUIET READING



Program Legend

- Teens
- Innovation
- Local History
- Reading Spaces

Second Floor Plan Option 2

TEENS WING

INNOVATION CENTER

QUIET READING



Program Legend

- Teens
- Innovation
- Local History
- Reading Spaces

TEENS WING

INNOVATION CENTER

QUIET READING



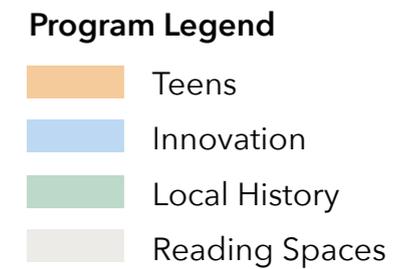
Program Legend

- Teens
- Innovation
- Local History
- Reading Spaces

TEENS WING

INNOVATION CENTER

LOCAL HISTORY

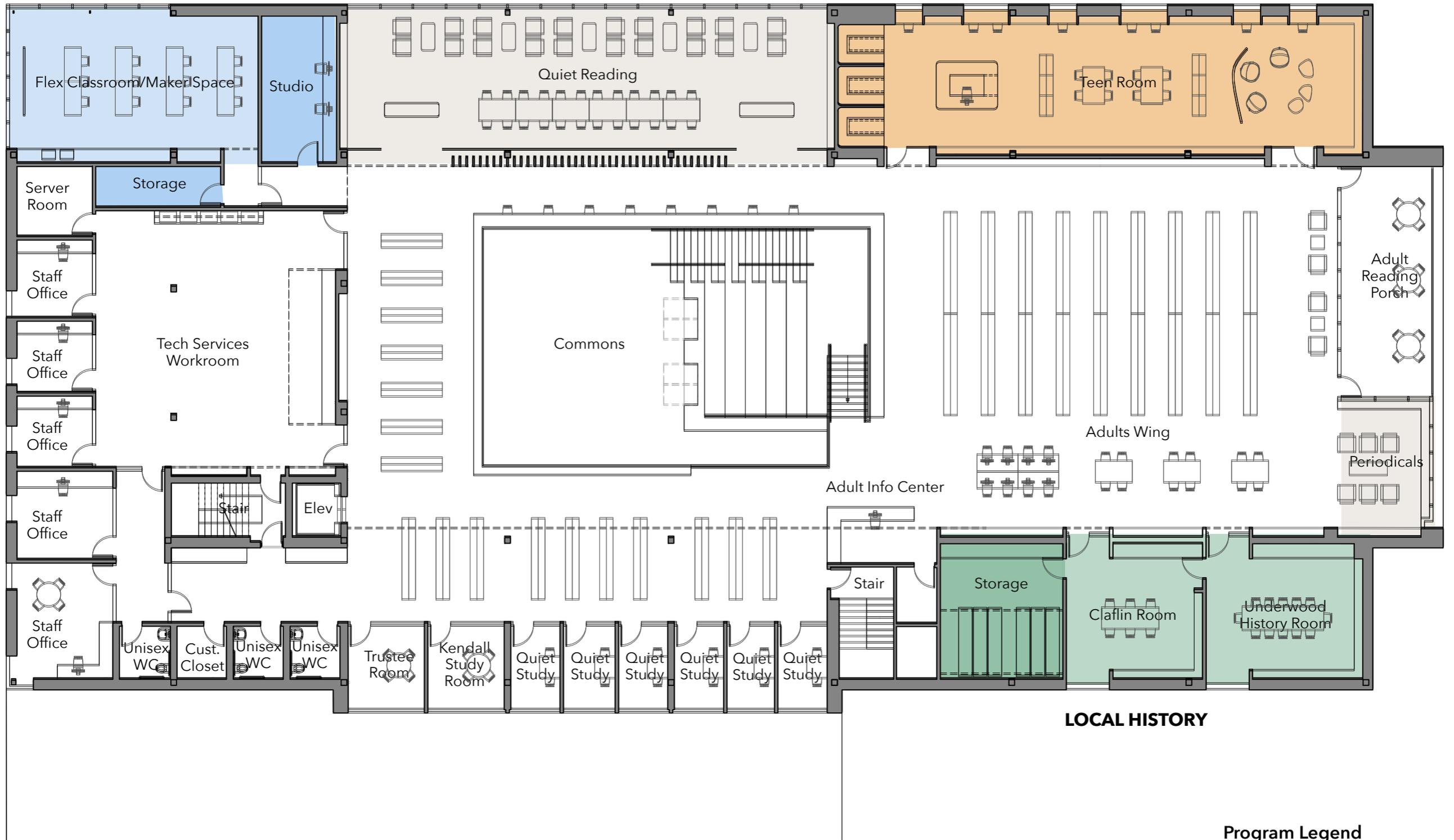


Second Floor Plan Option 3

INNOVATION CENTER

QUIET READING

TEENS WING



Program Legend

- Teens
- Innovation
- Local History
- Reading Spaces

Second Floor Plan Option 4



Outdoor Reading Porch 100% SD



Outdoor Reading Porch Proposed Periodicals Room



Outdoor Reading Porch 100% SD

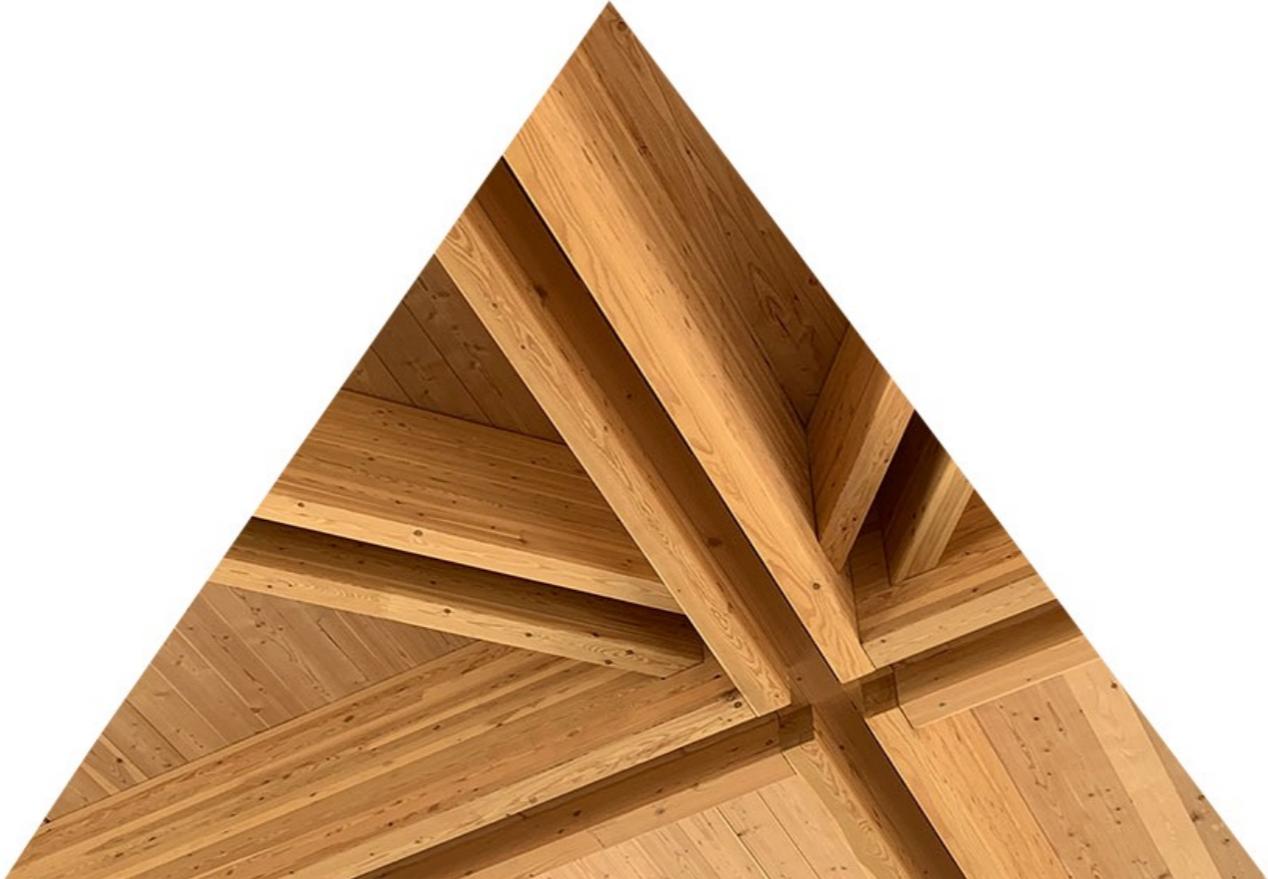


Outdoor Reading Porch Proposed Periodicals Room



Outdoor Reading Porch Proposed Periodicals Room

Cost



Schedule

Carbon

Cost

Option	Superstructure \$/SF	Total Cost	Added Cost
Baseline Steel Framing & Metal Deck	\$58.5/sf	\$2,427,750	—
Mass Timber Timber Framing & CLT	\$90/sf (low)	\$3,735,000	\$1,307,250 6.5%
	\$100/sf (high)	\$4,150,000	\$1,722,250 8.6%

Schedule

Procurement Timeline (10 months)

6 months estimated for shop drawing development and approval

4 months production and delivery

Recommended Delivery (CM with Design Assist or Early Release Package)



Engage with supplier and detailers at schematic design

Sizing and details can be optimized for manufacturer product and schedule

Coordinate and develop design with regular cost checks

Belmont Library Procurement (Design-Bid-Build)



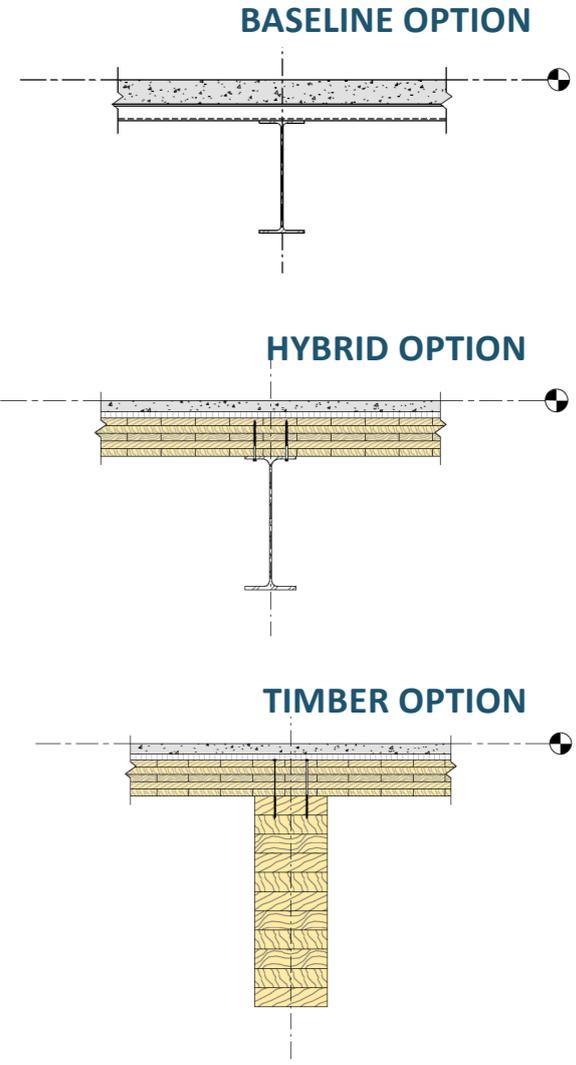
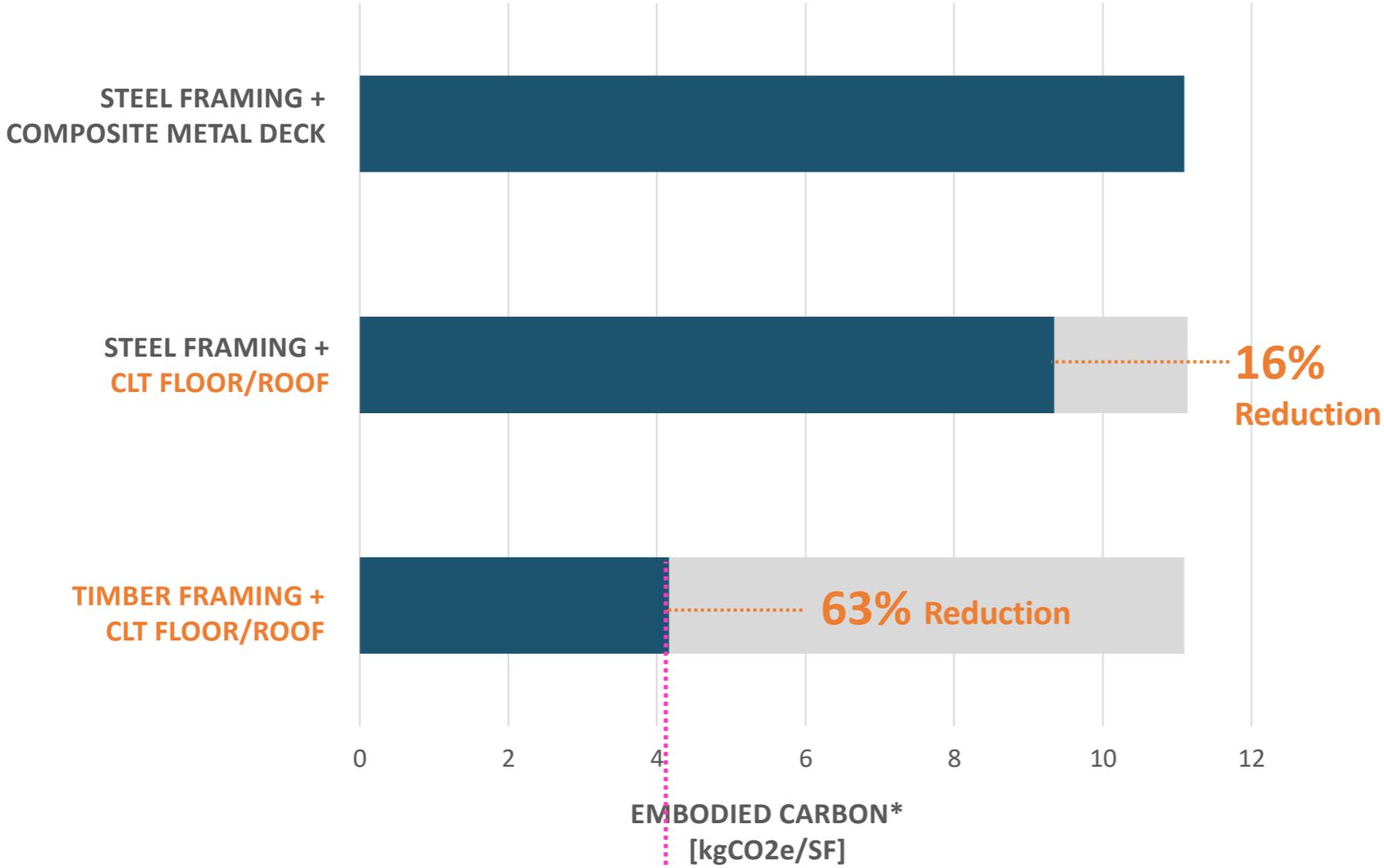
Cannot engage with supplier until post-bid

Delayed arrival of material to site

Limited cost certainty during design

Carbon

BELMONT LIBRARY: MASS TIMBER OPTIONS



CLT = CROSS-LAMINATED TIMBER
*embodied carbon of superstructure only, excludes foundations

LeMessurier.

Equivalent to 290,500 kgCO2e

Carbon

Equivalent to 290,500 kgCO₂e

62.6 gasoline-powered passenger vehicles driven for one year 	721,081 miles driven by an average gasoline-powered passenger vehicle 
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This is equivalent to CO₂ emissions from:

32,688 gallons of gasoline consumed 	28,536 gallons of diesel consumed 
321,412 pounds of coal burned 	3.8 tanker trucks' worth of gasoline 
36.6 homes' energy use for one year 	56.5 homes' electricity use for one year 
1.6 railcars' worth of coal burned 	673 barrels of oil consumed 
11,862 propane cylinders used for home barbeques 	0.0001 coal-fired power plants in one year 
0.0007 natural gas-fired power plants in one year 	35,337,189 number of smartphones charged 

This is equivalent to greenhouse gas emissions avoided by:

101 tons of waste recycled instead of landfilled 	14.4 garbage trucks of waste recycled instead of landfilled 
12,574 trash bags of waste recycled instead of landfilled 	0.079 wind turbines running for a year 
11,010 incandescent lamps switched to LEDs 	

This is equivalent to carbon sequestered by:

4,803 tree seedlings grown for 10 years 	344 acres of U.S. forests in one year 
2 acres of U.S. forests preserved from conversion to cropland in one year 	



Oudens Ello Architecture