# allcove Beach Cities Construction, Wellness & Sustainability Update

## Mission

To enhance community health through partnerships, programs and services for people who live and work in Hermosa Beach, Manhattan Beach and Redondo Beach.

## Vision

A healthy beach community.

# Presentation Overview

- Funding Opportunities Update
- Project Pillars
- Youth Feedback
- Design, Sustainability & Wellness
- Cost Considerations
- Schedule

# Project Pillars

## Health

- Build a center of excellence focusing on wellness, prevention & research
- Leverage the campus to expand community health programs & services

## Livability

- Focus on emerging technologies, innovation & accessibility
- Create an intergenerational hub of well-being, using Blue Zones Project principles

## Community

- Actively engage the community & pursue partnerships
- Grow a continuum of programs, services & facilities to help older adults age in their community

| allcove Beach Cities | | |
|---|---|---|
| allcove center | LEED | Young people accessing allcove |
| allcove Accelerator | WELL | allcove Youth Advisory Group |
| HCAI3 | Blue Zones | allcove Service Providers |

# Intersection of the environment and mental health

Climate anxiety — an intense worry, fear, sadness, or stress about climate change — is widespread among young people. A recent study found that around 90 percent of young people nationally reported feeling some level of worry about climate change, with over 40 percent feeling very or extremely worried.

*"Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey"*
*- Lancet Planet Health 2021*

# Intersection of the environment and mental health

California youth are acutely aware of climate change's impact given their location and express even greater concern about its effect.

80% of California youth say they have experienced at least one mental health-related issue as a result of consuming climate change-related news, including feeling anxious, stressed, or overwhelmed.

- *Blue Shield of California's second annual NextGen Climate Survey 2022*

# Goal

Create a healthy and sustainable center of excellence that encourages innovation and emerging technologies, demonstrates the “space as therapy,” and prioritizes inclusivity and accessibility for young people utilizing allcove Beach Cities

BCHD
A Public Agency
Beach Cities Health District

ForStrategy Consulting, Inc.

# Updates on Initiatives and Funding Opportunities

# Where we left off:
# “Accomplishments and Future Deliverables”

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# Examples of New Ideas

- **Partnerships and grants can fill a financing void - and reduce operations and maintenance costs**
- **Strategy and communications around decarbonization = health impacts and grant monies**
- **All Type 1 construction vs some Type 3 and 5 construction = possibility for cost savings and modular construction**

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# Seed Consulting Report

## Next Steps for Beach Cities

| | |
|---|---|
| **Partnerships** | Adapt pitch deck, and begin discussions with potential partners. |
| **Stakeholders** | Implement website recommendations and begin pitching stories to local media. |
| **Grants/Credits** | Apply for key grants and rebates set out in the report and identify key tax credits to reduce costs. |
| **Cost Benefit** | Detailed cost benefit analysis: calculate the energy and water savings from specific technologies as well as investment costs and identify where and to who savings accrue. |

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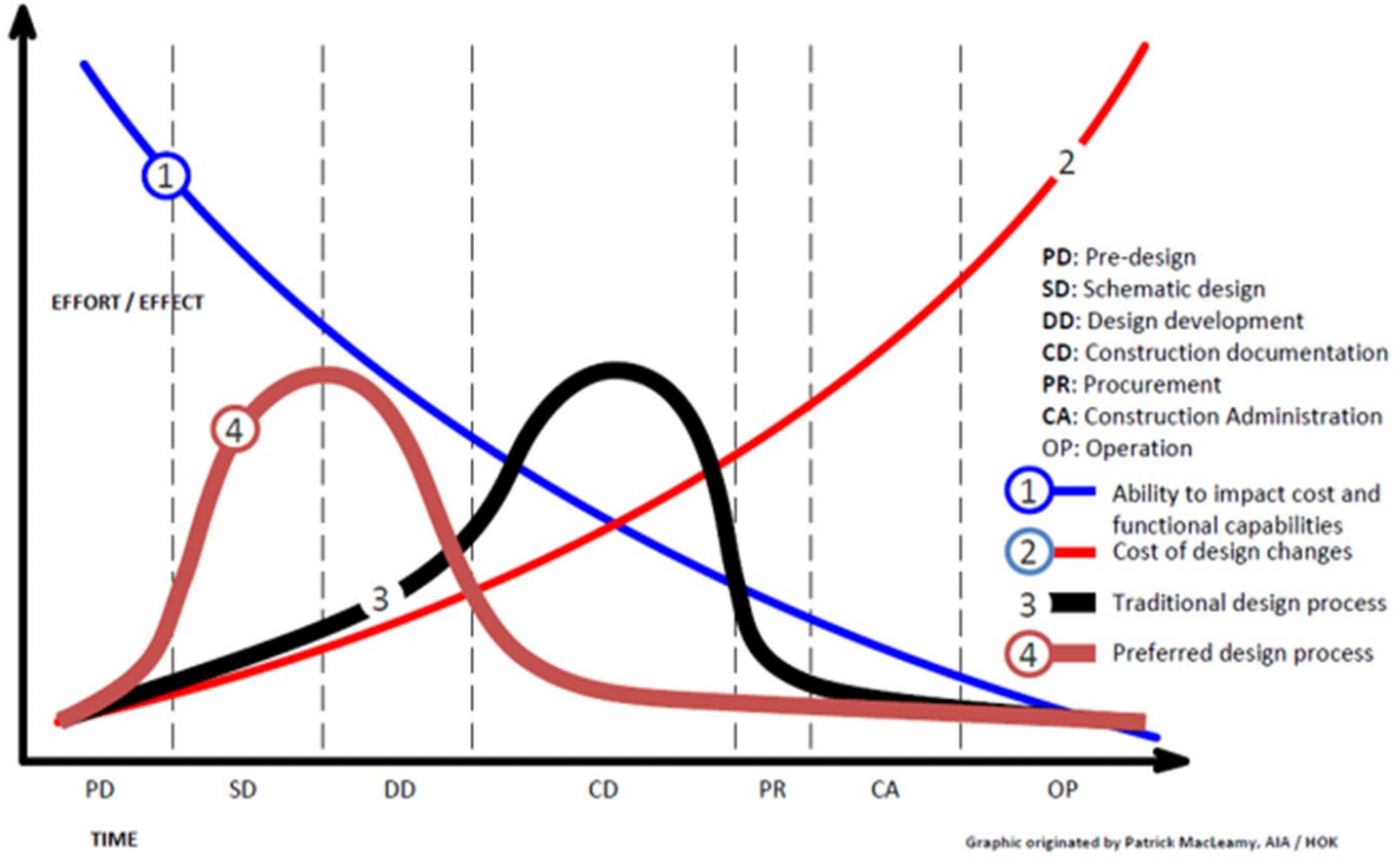
# How Do We Do That?

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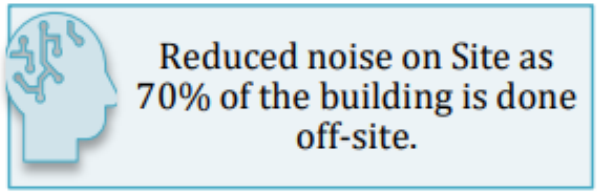
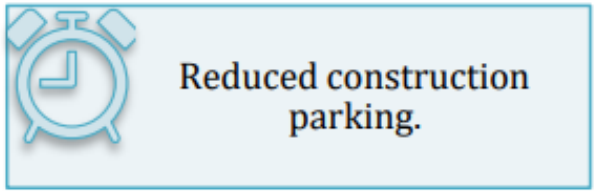
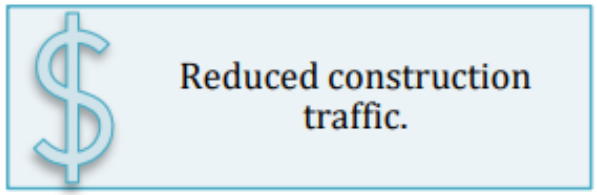
# Introduced/Investigating Modular Construction

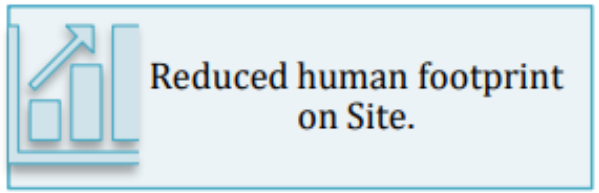
- Innovation
- Reduced time in Precon
  Reduced time on site
- Cost Savings
- Time Value of Money
- Less Reliance on Hard-to-Find Labor
- Learn Something New
- Media Attention
- Progressive Construction Method
- Reduce Inefficiencies
- Use of Smaller and More Competitive Sub-Trade Companies
- Less Material Cost Fluctuation
- Better Quality Assessment & Quality Control
- More Security During Construction Processes
- Less Noise on Site
- Less Congestion on Site
- Less People Needed on Site
- Less Subject to Weather Related Construction Issues

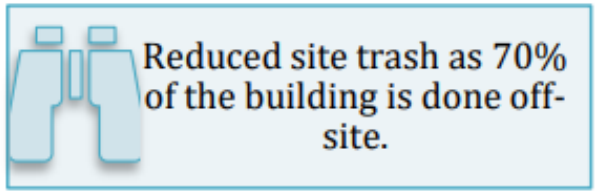
# Community Benefits of Modular Construction

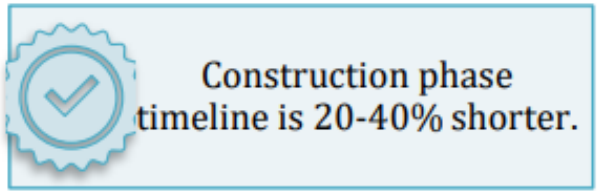


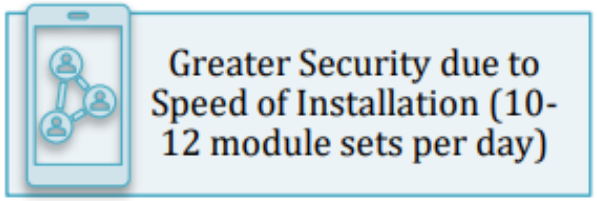



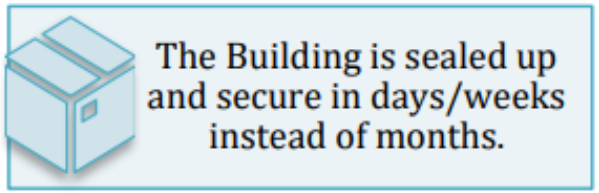



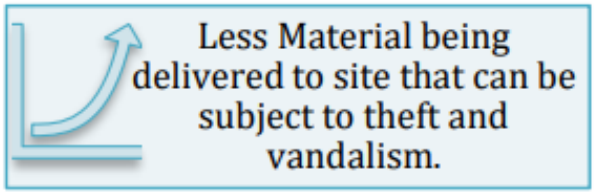



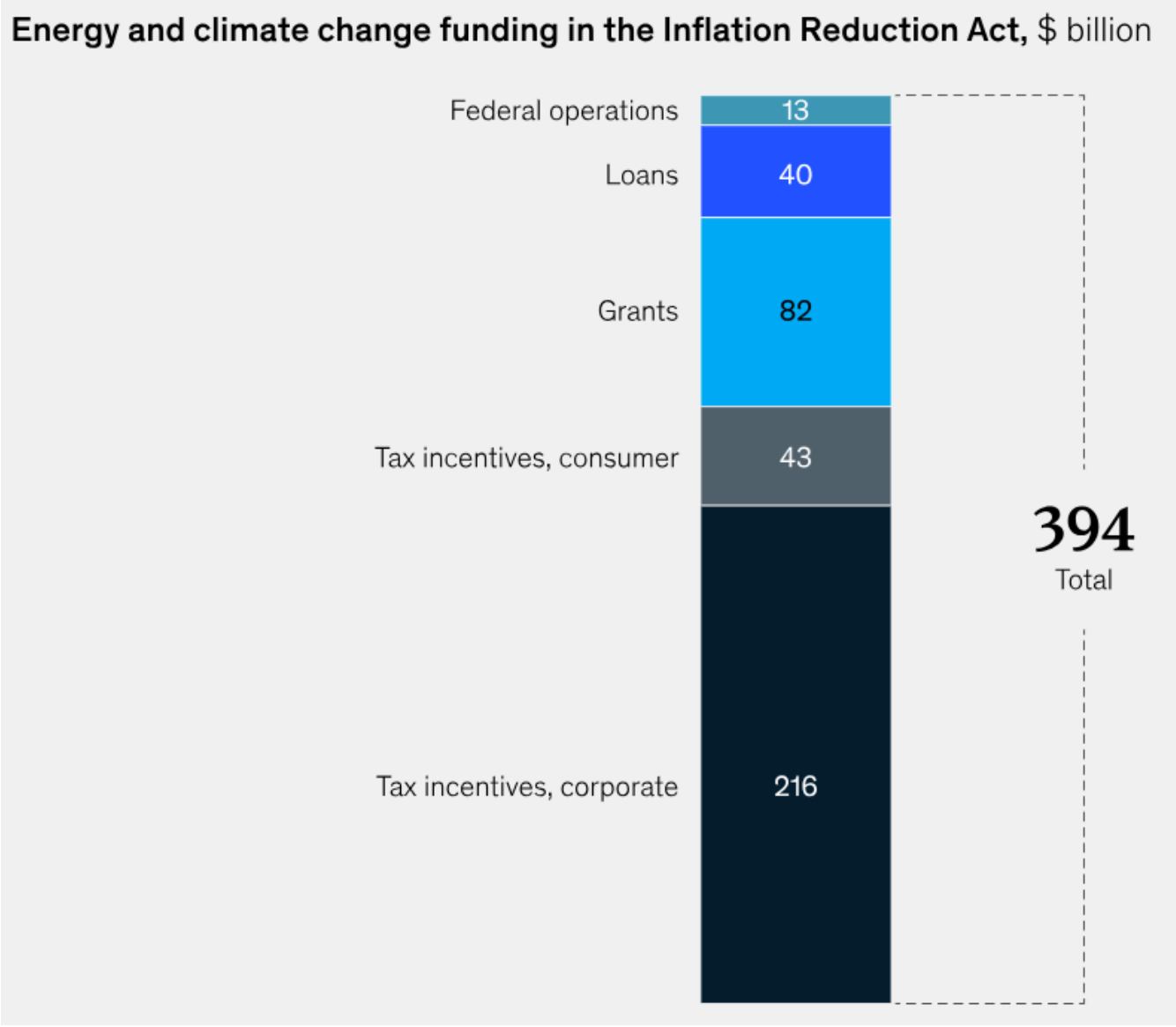



# Why Focus on Decarbonization Opportunities



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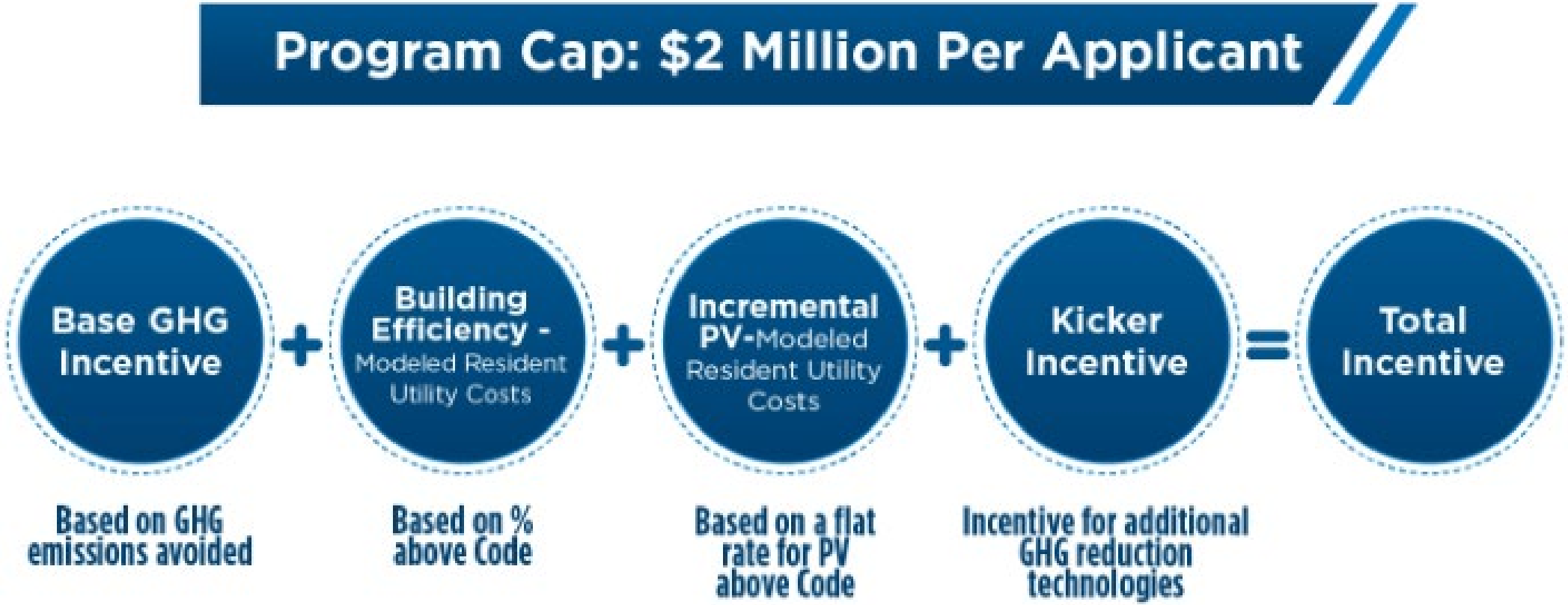

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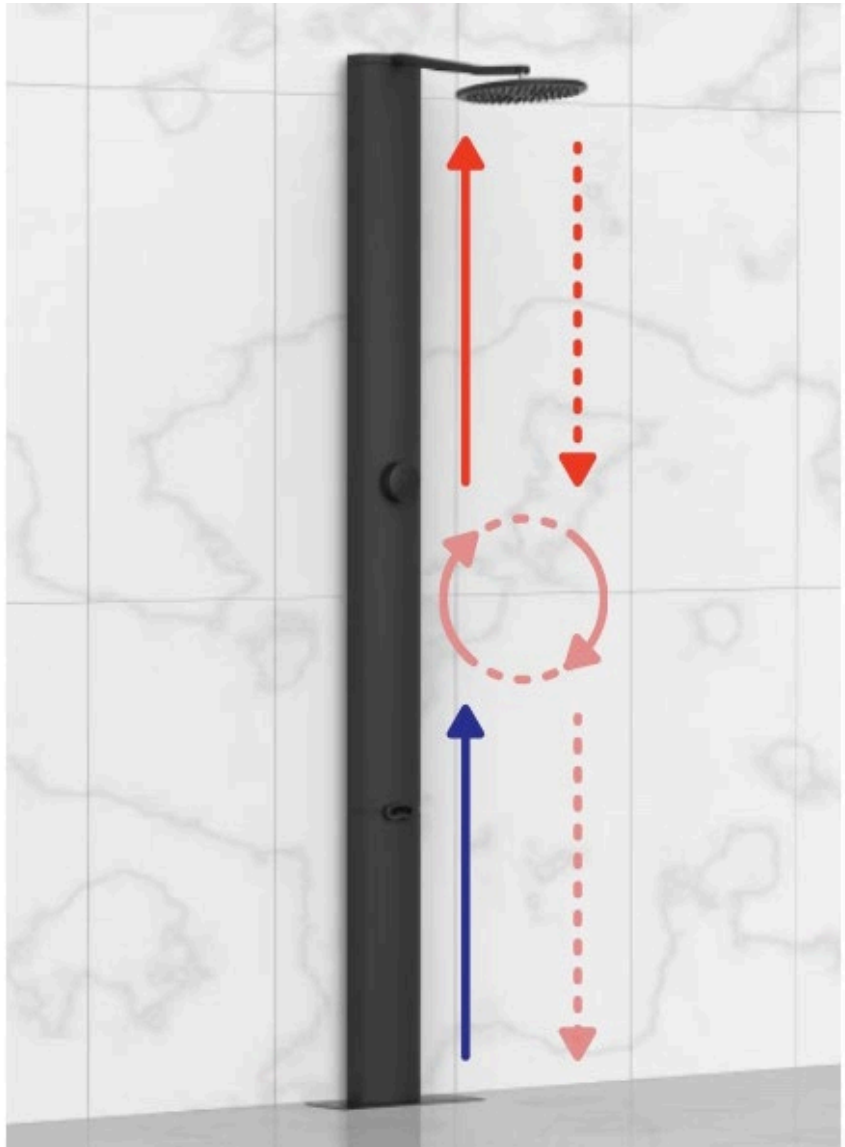

# Why Focus on Decarbonization Opportunities


| | |
|---|---|
| **Pollution Burden:** | **70** |
| **Population:** | 6724 |
| **CalEnviroScreen 4.0 Percentile:** | 21 |
| | |
| **Ozone:** | 27 |
| **PM 2.5:** | 73 |
| **Diesel PM:** | 56 |
| **Pesticides:** | 0 |
| **Toxic Releases:** | 94 |
| **Traffic:** | 35 |
| **Drinking Water Contaminants:** | 20 |
| **Lead in Housing:** | 30 |
| **Cleanups:** | 64 |
| **Groundwater Threats:** | 53 |
| **Hazardous Waste:** | 70 |
| **Impaired Water:** | 72 |
| **Solid Waste:** | 70 |

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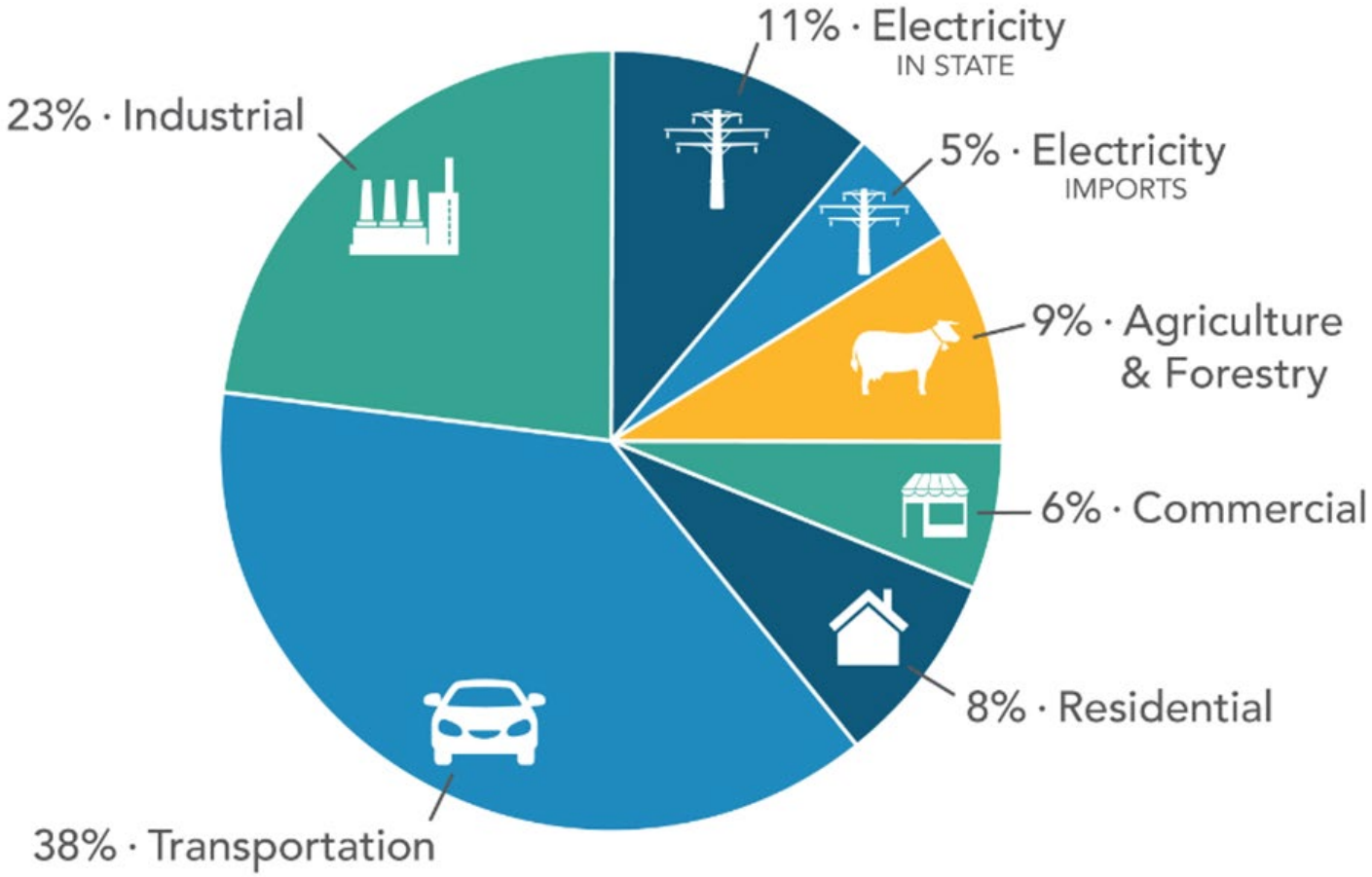



**369.2 MMT $CO_2e$**
2020 TOTAL CA EMISSIONS

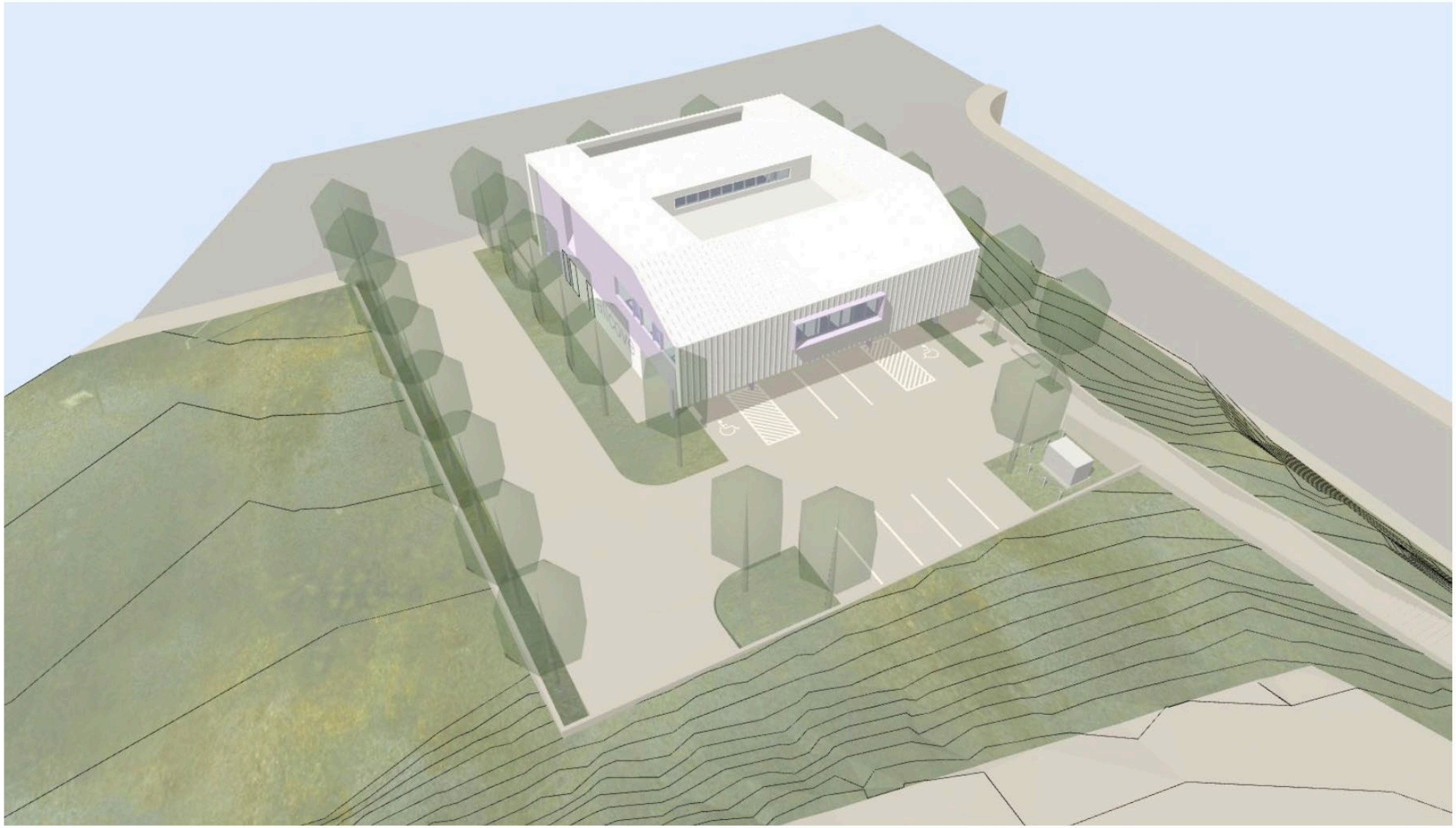
# Why Focus on Decarbonization Opportunities
# $3,500/port

# Why Focus on Decarbonization Opportunities

# Preliminary Design and Space Planning

PAUL MURDOCH ARCHITECTS

# 3D Perspective – Aerial



PAUL MURDOCH ARCHITECTS

3D PERSPECTIVE VIEW - ARIAL

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BEACH CITIES HEALTH DISTRICT HEALTHY LIVING CAMPUS

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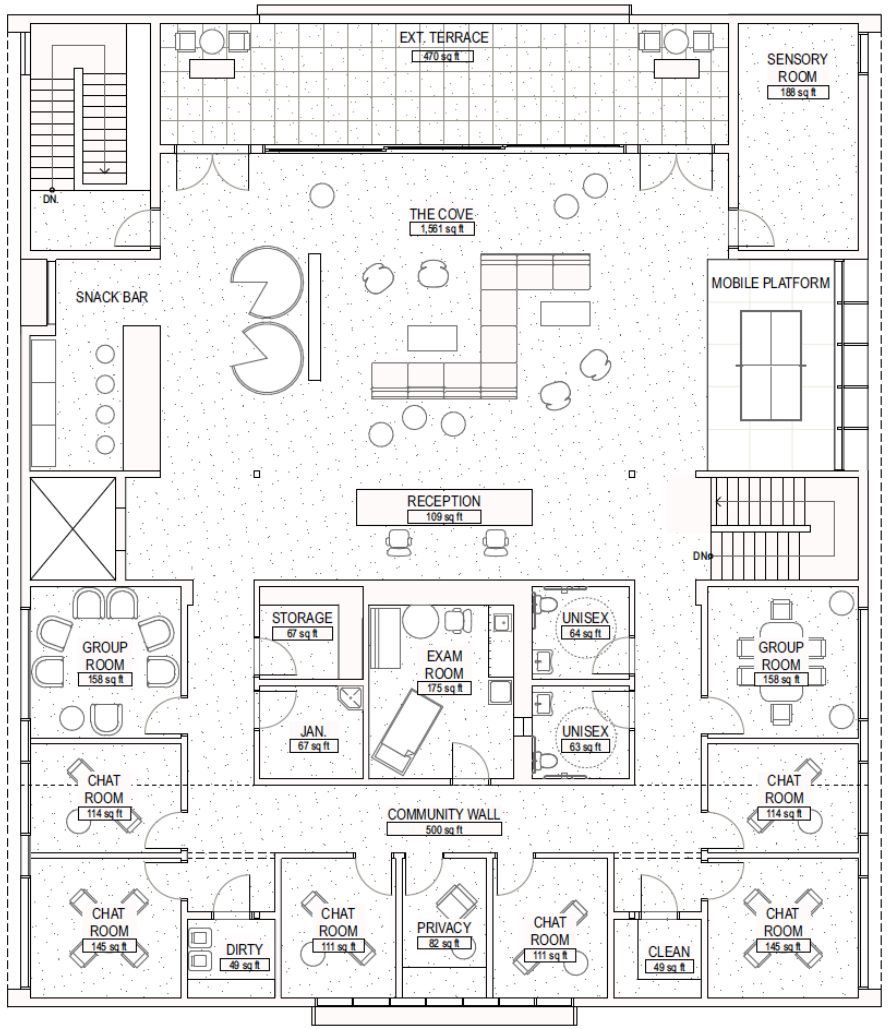
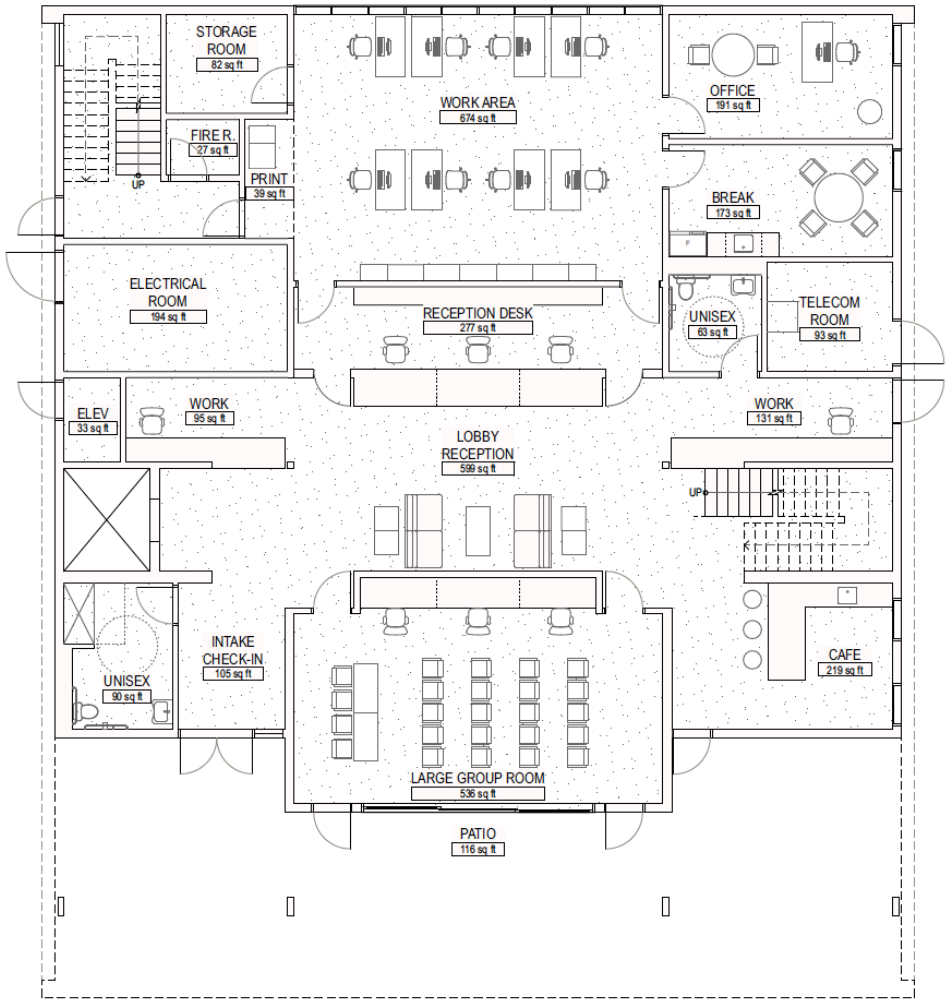
# Space Layout




SECOND FLOOR




FIRST FLOOR

# 3D Perspective – View 01


PAUL MURDOCH ARCHITECTS

3D PERSPECTIVE VIEW - 01

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# 3D Perspective – View 02

PAUL MURDOCH ARCHITECTS

3D PERSPECTIVE VIEW - 02

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# 3D Perspective – View 03


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3D PERSPECTIVE VIEW - 03

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# 3D Perspective – View 04

# 3D Perspective – Section

PAUL MURDOCH ARCHITECTS

3D SECTION PERSPECTIVE VIEW

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# Sustainability and Wellness

## LEED

Leadership in Energy and Environmental Design

U.S. Green Building Council

*Focuses on environmental impact and sustainability*

- Air Quality
- Lighting & Energy
- HVAC Efficiency
- Construction
- Environmental & Social Impact*
- Materials & Resources
- Water Management
- Site Location*
- Wellness

**Unique to LEED*

## WELL

WELL Building Standard

International WELL Building Institute

*Focuses on the overall impact to human health and well-being*

- Air Quality
- Lighting & Energy
- HVAC Efficiency
- Construction
- Materials & Resources
- Water Management
- Sanitation*
- Wellness
- Food & Nourishment*

**Unique to WELL*

# allcove Beach Cities – Capital Investment Budget

| Funding Sources | Budget |
|---|---|
| Grant Funding – State | $6,336,702 |
| Grant Funding – Federal | $500,000 |
| BCHD Match | $532,498 |
| **TOTAL FUNDING SOURCES** | **$7,369,200** |

# Modular vs. Traditional Cost Comparison*

**TOTAL FUNDING SOURCES: $7,369,200**

| | Modular Construction | Conventional Construction |
|---|---|---|
| **Base Building Cost** | $5,780,000 | $6,800,000 |
| **Site Development** | $950,000 | $950,000 |
| **Schedule**** | 14 Months | 19 Months |
| **TOTAL** | **$6,730,000** | **$7,750,000** |

* Rough cost figures are preliminary and will be refined further after preliminary design milestone is completed

** Based on start of final design date of 11/1/23

# Cost Comparison* with Design, Sustainability and Wellness

| | Modular Construction | Conventional Construction |
|---|---|---|
| **Base Building Cost (LEED Gold)** | $5,780,000 | $6,800,000 |
| **Site Development** | $950,000 | $950,000 |
| **Schedule** | 14 Months | 19 Months |
| **TOTAL** | **$6,730,000** | **$7,750,000** |
| **Design Upgrades** (Terraces, Equipment Well, Overhangs) | $500,000 | $500,000 |
| **HCAI3** (MEP Systems and Soft Costs) | $650,000 | $650,000 |
| **EV, PV & Other LEED Platinum Elements** (Assessing) | $1,100,000 TBD? | $1,100,000 TBD? |
| **WELL** | TBD | TBD |
| **Blue Zones** | TBD | TBD |
| **Project Feasibility** | Currently Assessing | Review Complete |
| **TOTAL WITH OPTIONS** | **$8,980,000** | **$10,000,000** |

* Rough cost figures are preliminary and will be refined further after preliminary design milestone is completed

# Modular Construction Summary

## KEY ADVANTAGES

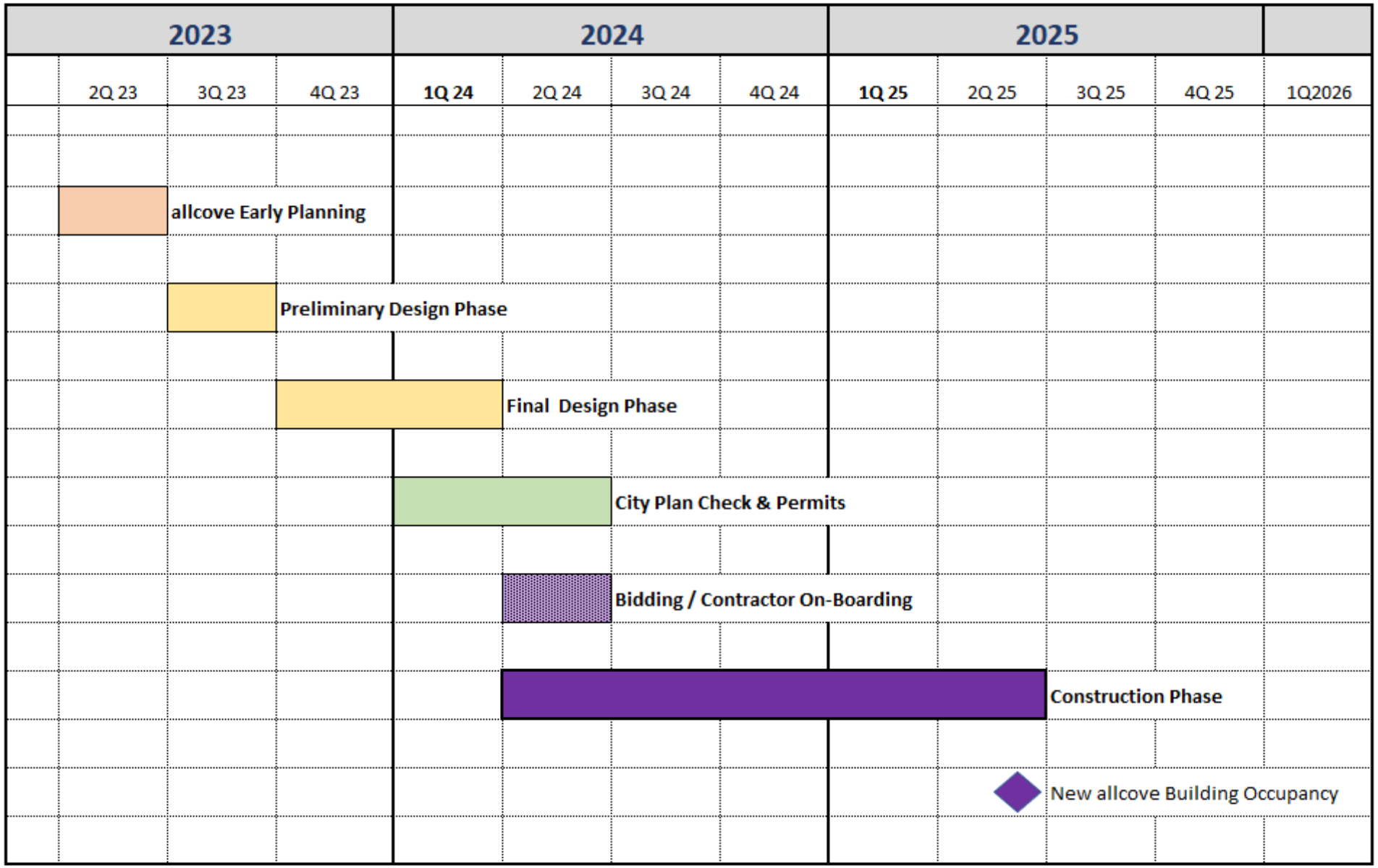
*Project would focus on delivering a simple cost-efficient space for the allcove team to quickly get up and running in a new facility.*

- Cost - typically 15%-20% savings
- Timeline – 4-5 months earlier occupancy
- Base Building would be design-built
- Operations – all needed space and amenities for allcove program will be provided
- Long-Term Occupancy – Modular buildings can be in operation for many decades, just like conventional construction
- Environmental & Social Impacts
  - Less physical work is being performed on site, which reduces construction parking, traffic, and congestion & deliveries to site.
  - Reduced pollution, dust, disruption, noise on construction site (70% of build done off-site)
  - Reduced site trash (70% of build is off-site)
  - Shorting construction duration result in less impact to environment and neighborhood

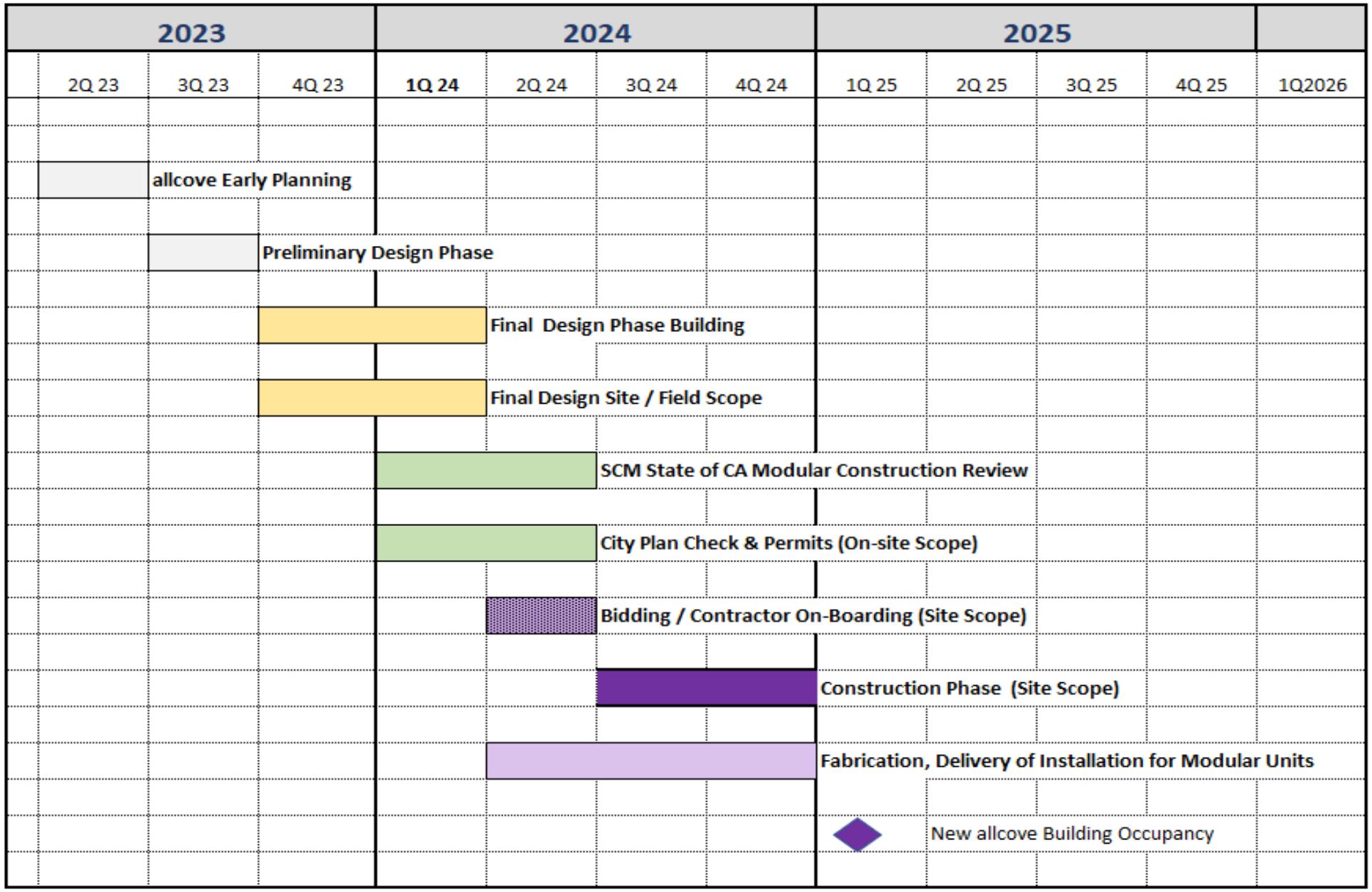
## KEY DRAWBACKS

- Sitework and some building elements would still be conventional construction (public bid) – adding risk and complexity
- Limits on design customization – modular unit dimensions set by the manufacturing process, not design team
- Assessing if sustainability and health priorities are possible through modular
- Architecture – modular building may not have the same level of ”curb appeal”
- BCHD will rely on the modular company to supply the entire building
- Modular buildings are historically thought of as “temporary buildings” not permanent facilities

# allcove Master Schedule – Conventional Construction



# allcove Master Schedule – Modular Construction



# Take-Away Discussion

- Modular vs. Conventional construction
  - Advantages
  - Disadvantages

- SEED Recommendations – Sustainability Considerations
  - Solar
  - EV Charging
  - Water
  - Façade
  - HVAC
  - Decarbonization (zero carbon)
  - Net zero energy