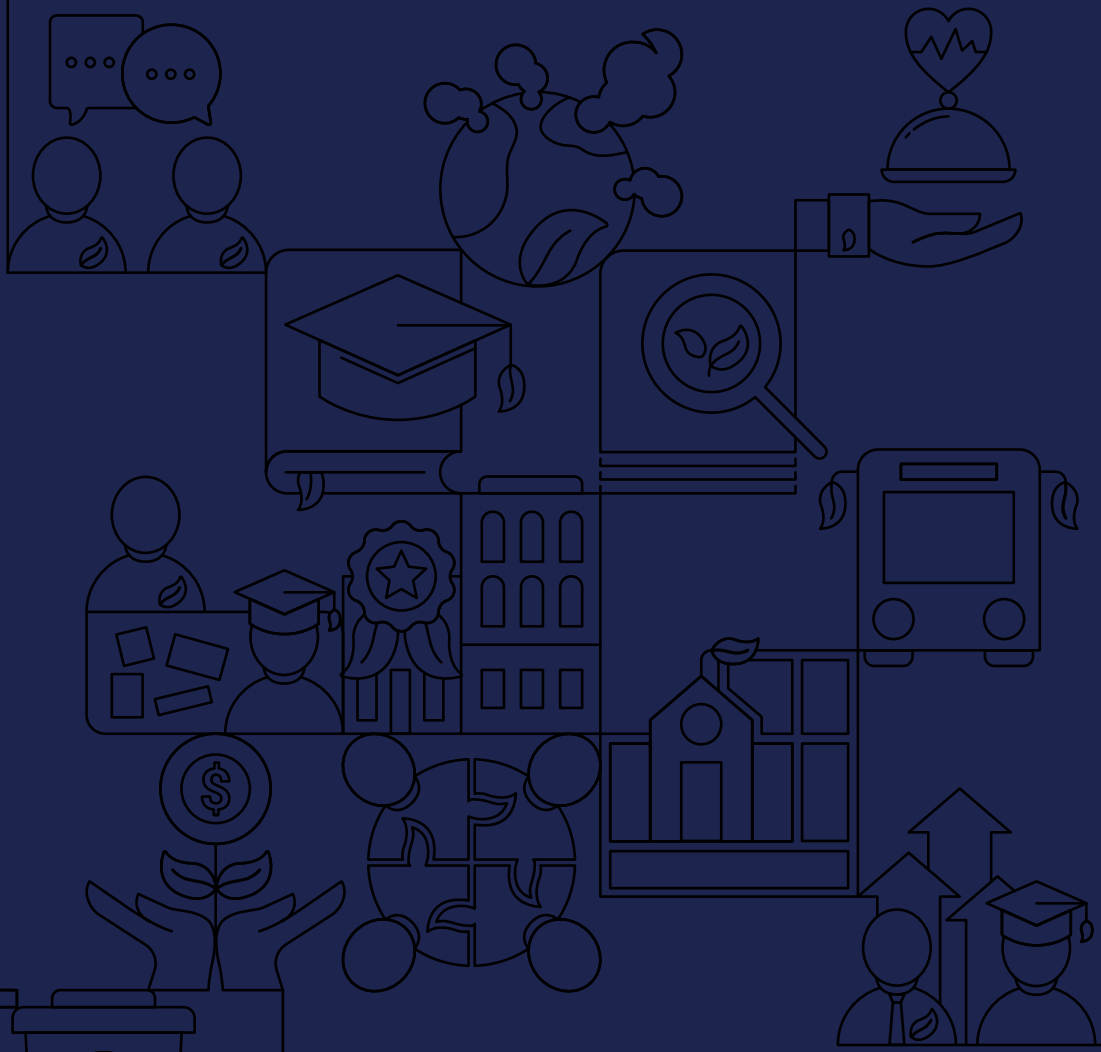


**2021**

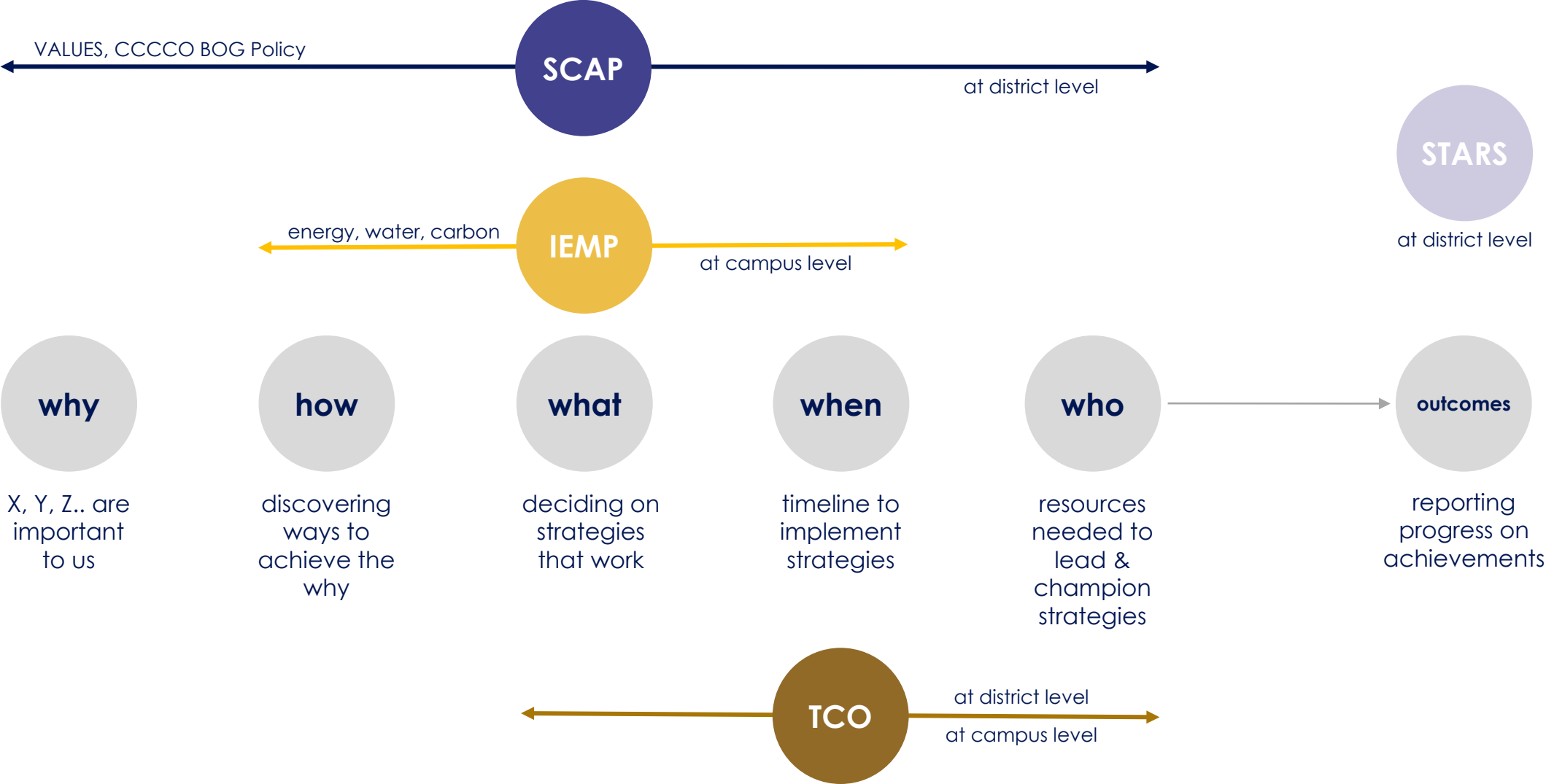
**SUSTAINABILITY  
AND CLIMATE  
ACTION PLAN**



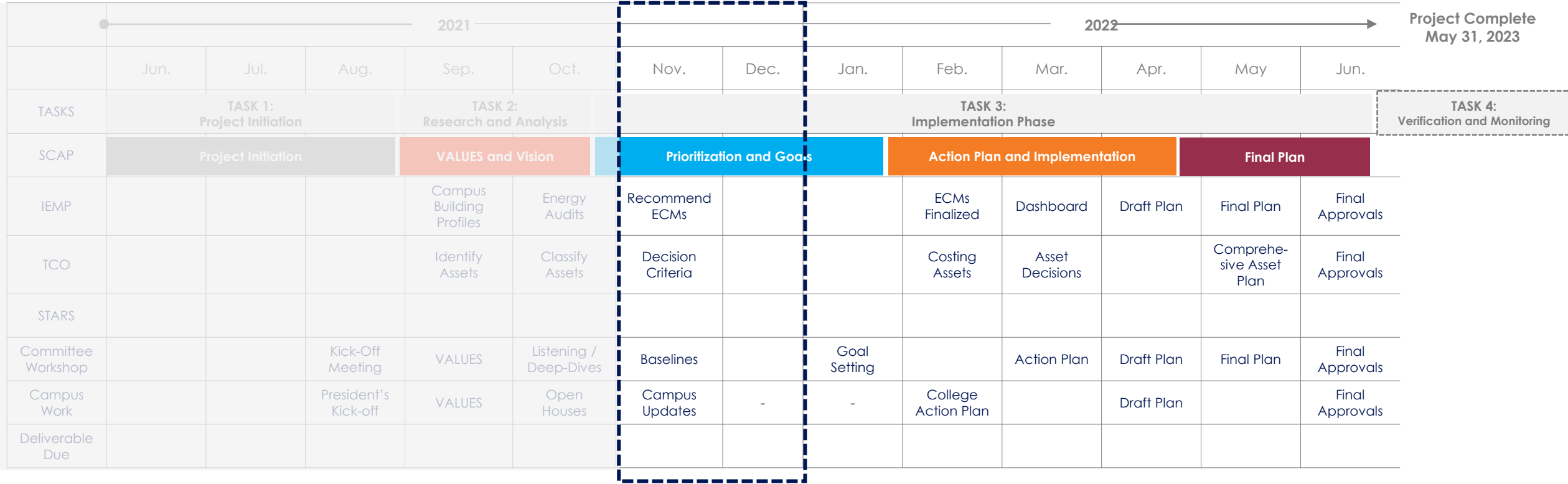
One goal of the Sustainability and Climate Action Plan is to identify ways for **environmental, social and financial sustainability** to be fostered at each campus in the district.



# Deliverables



# Our Project Schedule



**We are here.**

# Tracking Our Progress

## PHASE 01: VISIONING AND VALUES

September - October

- ✓ ~~Lead Sustainability VALUES Workshop~~
- ✓ ~~Host listening tours, focus groups and open forums with campus community~~
- ✓ ~~Benchmark Energy Data for all campuses~~
- ✓ Create Campus Building Profiles

## PHASE 02: PRIORITIES AND GOALS

November - January

- ✓ Synthesize the top VALUES for the District
- ✓ Establish priorities and discuss goals for short, mid and long-term
- ✓ Develop cost models around goals

## PHASE 03: ACTION PLAN AND IMPLEMENTATION

February - April

- ✓ Document long-term vision and goals
- ✓ Identify short-term, mid-term and long-term initiatives to meet district goals.
- ✓ Develop total cost of ownership cost models for each goal, including personnel needed
- ✓ Present Draft Of Deliverables

## PHASE 04: FINAL PLAN AND APPROVALS

May - June

- ✓ Final presentation adoption and approval
- ✓ Establish training needs for key district personnel
- ✓ Visualize Monitoring Dashboard of the Plans
- ✓ Fine tune and update the dashboard

# Integrated Energy Master Plan

- a long-term strategy of achieving significant reductions in energy, water, greenhouse gas emissions.



Discovery

## Data Points

- ✓ Electricity Bills
- ✓ Gas Bills
- ✓ Water Bills
- ✓ Facility Manager Interviews
- ✓ Site Walkthrough

## Data Gaps

- Meter Assignments
- Facility Manager Verification

# Total Cost of Ownership

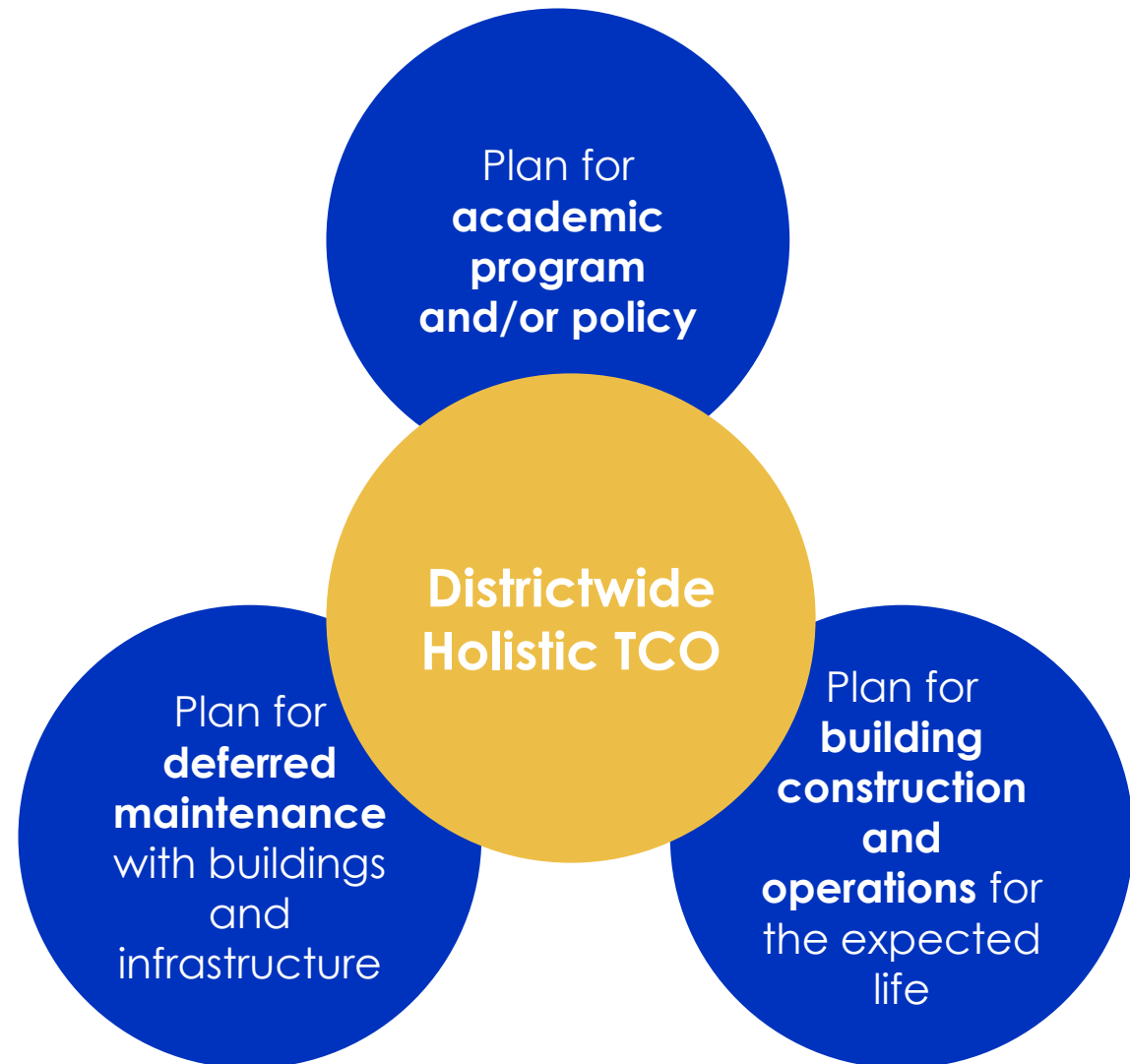
Initial Cost

+

Operational Cost

(including human resources  
and technology needed)

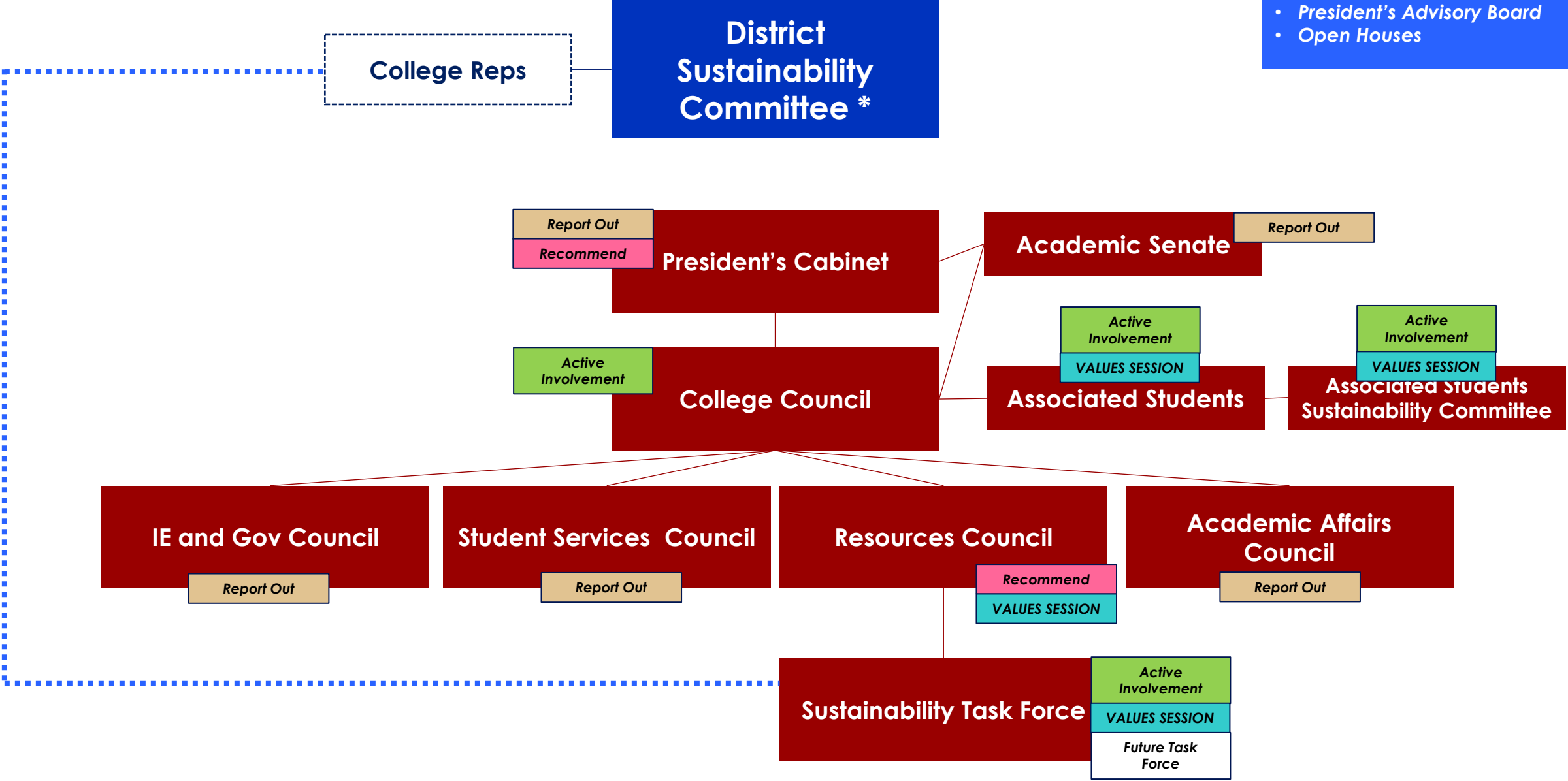
**TCO is a requirement for  
Accreditation as well as  
Bond Measures**



# Norco College: Engagement Structure

**Other Outreach and Engagement:**

- President's Advisory Board
- Open Houses





# Norco College: Engagement to Date

## KICK-OFF

### KICK-OFF MEETINGS

**President's Cabinet**  
September 1, 2021

**Campus Site Visits**  
September 14, 2021

## WORKSHOP 01

### VALUES WORKSHOPS

**Associated Students**  
September 27, 2021

**Resources Council**  
September 23, 2021

## WORKSHOP 02

### OPEN HOUSE

**Open to all Students,  
Faculty, and Staff**  
October 7, 2021

## WORKSHOP 03

### REPORT BACK AND BENCHMARKING

**Resources Council**  
November 18, 2021

**President's Cabinet**  
December 1, 2021

**College Council**  
December 8, 2021

**Sustainability Task  
Force\***  
November 30, 2021

*\* 60-min workshop*

# WORKSHOP 01: VALUES



**ACCESS + MOBILITY**

How can your project advocate and celebrate transit-oriented design, connections between transit hubs, and walkable communities?

- Decarbonization: Transportation
- Multi-Modal Transportation
- Walkability and Safety



**COMMUNITY CONNECTOR**

How can your project support its surrounding community, build community partnerships, and connect residents to shared resources?

- Community Access
- Community Partnerships
- Neighborhood Vitality
- Transparency: Decision-Making



**CULTURE + IDENTITY**

How can your project celebrate its history and cultural context to develop a strong sense of place that speaks to the identities of occupants and surrounding communities?

- Beauty & Inspiration
- Historical Context of Place
- Inclusion
- Individual vs. Collective Placemaking
- Multi-Cultural Relevance
- Organizational Transformation



**OUTDOOR ENVIRONMENTAL QUALITY**

How can your project's outdoor spaces restore ecology, build community, and create a strong sense of place?

- Building Ecology
- Decarbonization: Sequestration
- Ecosystem Services
- Public Space
- Site Ecology



**EQUITABLE DEVELOPMENT**

How can your project promote affordability, provide access to opportunity, and advocate for those in need?

- Climate Justice
- Economic Development Programming
- Equitable Development
- Siting
- Equity
- Land Use
- Social Justice



**HEALTH + WELL-BEING**

How can intentional design features actively promote users' emotional and physical well-being and encourage them to make healthier choices?

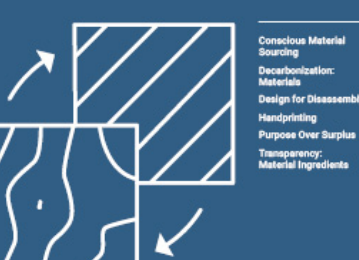
- Active Spaces
- Biophilia
- Evidence-Based Modalities
- Nourishment
- Play



**INDOOR ENVIRONMENTAL QUALITY**

How can your project support user comfort and productivity?

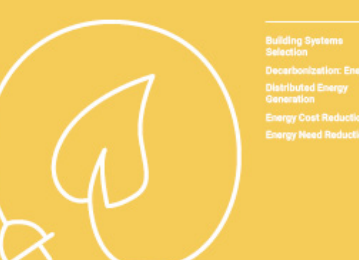
- Acoustic Comfort
- Air Quality
- Thermal Comfort
- Visual Comfort



**MATERIALS IMPACT**

How do your materials choices support healthy ecology, communities, and economies?


- Conscious Material Sourcing
- Decarbonization: Materials
- Design for Disassembly
- Handprinting
- Purpose Over Surplus
- Transparency: Material Ingredients



**ENERGY**

How can changes in energy infrastructure support your broader mission, reduce costs, and build a healthier planet?

- Building Systems Selection
- Decarbonization: Energy Generation
- Distributed Energy Generation
- Energy Cost Reduction
- Energy Need Reduction



**RESILIENCY**

How can your project help its users and community adapt to and recover from unexpected situations?


- Building Resiliency
- Community Resiliency
- Economic Resiliency
- Emergency Planning
- Emotional Resiliency
- Risk Adaptation & Mitigation



**PROCUREMENT + OPERATIONS**

How can procurement, building operations, and management practices support your broader project goals?

- Conscious Cleaning & Upkeep Goods & Supplies
- Operational Optimization
- Regulatory Partnerships
- Safety & Security
- Transparency: Building Performance
- Waste



**WATER**

What connections to water are important to your users and neighboring communities?

- (Storm) Water Management
- Hydrological Balance
- Potable Water Quality
- Water Context of Place
- Water Self-Sufficiency

# WORKSHOP 01: NC Top VALUES

Norco College

## DECARBONIZATION (LEADS TO CLIMATE JUSTICE)

**CLIMATE JUSTICE**  
How can your project mitigate the effects of climate change to ensure that no single community or group of people is unjustly affected by the project's environmental burdens or benefits?

**DECARBONIZATION: ENERGY**  
How can your project utilize clean, renewable energy to reduce its carbon footprint?

**DECARBONIZATION: MATERIALS**  
How can your project utilize low-carbon, recycled, or locally sourced materials to reduce its carbon footprint?

**DECARBONIZATION: TRANSPORTATION**  
How can your project encourage or provide low-carbon transportation options for users?

**DECARBONIZATION: VEGETATION**  
How can your project utilize vegetation to reduce its carbon footprint and improve air quality?

## HEALTH AND WELLBEING

**AIR QUALITY**  
What pollutes the indoor air that occupants breathe? How can pollution be avoided or treated?

**THERMAL COMFORT**  
What environmental factors impact thermal comfort? How can your project ensure thermal comfort for all users?

**WELLNESS**  
How can your project ensure that occupants have access to natural light, fresh air, and other wellness-related amenities?

## BOLSTER COMMUNITY PARTNERSHIPS

**COMMUNITY PARTNERSHIPS**  
How can your project connect with local organizations, governments, businesses, and thought leaders to exchange ideas and services for mutual benefit?

**TRANSPARENCY: BUILDING PERFORMANCE**  
What aspects of building performance can be transparent and communicated to users?

## EQUITABLE & INCLUSIVE EXPERIENCE FOR ALL

**EQUITY**  
How can your project allocate services, resources, and opportunities in a just and equitable manner, and protect marginalized groups?

**INDIVIDUAL FULFILLMENT**  
How can your project support the ability of individuals to grow and achieve social, emotional, and mental well-being? How can your project help to create meaningful, rewarding experiences for users?

**MULTI-CULTURAL RELEVANCE**  
How can your project reflect the values, beliefs, needs, and cultures of its diverse and changing communities? How can your project explore the cultures of its users and welcoming in new perspectives?

**INCLUSION**  
How does your project look beyond its base program to provide opportunities for groups that may be marginalized? How can it create a sense of belonging for individuals of all backgrounds and abilities?

## ECOSYSTEM SERVICES

**ECOSYSTEM SERVICES**  
How can natural infrastructure become a resource to mitigate flooding, filter pollutants, mitigate the heat island effect, and improve mental and physical well-being?

## RESILIENCY

**ECONOMIC RESILIENCY**  
How can your project create a supportive balance of uses and revenue sources to ensure continued economic vitality in the face of unexpected events?

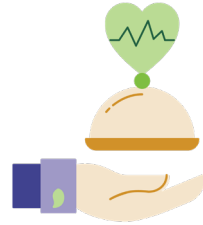
# OUR PLANNING FRAMEWORK: Organizing the VALUES (Our Why)

## Included

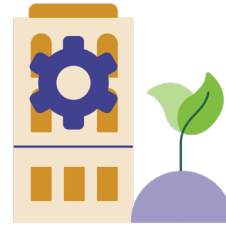
*Includes the creation of goals and metrics within the S-CAP*



Decarbonization and Climate Justice



Health and Well-being



Eco-systems / Water



Waste / Procurement



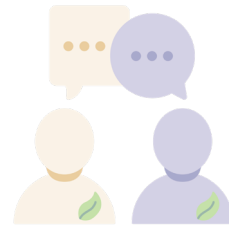
Resiliency

## Influenced

*Would be included in an update with a sustainability lens / new plan*



Academics



Engagement



Trust and Transparency

## Reinforced

*Planning and metrics already exist in other plans*



Community Partnerships



Equity and Social Justice

# WORKSHOP 02: Norco College – OPEN HOUSE!

## NORCO COLLEGE SUSTAINABILITY OPEN HOUSE

### 0 INTRODUCTION

#### WELCOME!

#### NORCO COLLEGE SUSTAINABILITY OPEN HOUSE

Welcome, from Hussain Agah, RCCD Associate Vice Chancellor, Facilities Planning & Development

**2021 SUSTAINABILITY AND CLIMATE ACTION PLAN**

**Building Sustainability**

TODAY WE WILL BE ASK YOU TO CHAT WITH US ABOUT FOUR TOPICS:

- Energy Use and Decarbonization
- Recycling and Waste Reduction
- Water and Eco-Systems
- Health and Well-being

THESE TOPICS WERE IDENTIFIED AS MOST IMPORTANT BY YOUR PEERS.

WE WILL SWITCH TOPICS AFTER 15 MINS!

PLANT SOMETHING  
REDUCE VEHICLE EMISSIONS  
SWITCH IT OUT

### 1 DECARBONIZATION AND CLIMATE JUSTICE

#### Energy Use, Decarbonization and Climate Justice 15 MINS

WHAT DO YOU THINK NORCO COLLEGE'S LARGEST ENERGY USE IS?


WHAT BARRIERS KEEP YOU FROM USING A MORE SUSTAINABLE COMMUTING OPTION?

Barriers:

Cost of electric vehicles	Public transportation is not available during the time I need	Incentive/loans?
Distance and location		Tax breaks?
There's not a lot of charging stations	dedicated bike lanes, place to store bikes	
Changing availability for electric vehicles		

WHAT ARE WAYS THAT YOU AS AN INDIVIDUAL CAN REDUCE THE AMOUNT OF ENERGY YOU USE?

Use of LED Lighting	Turn off lights and computers	Improved infrastructure	Update home electrical panel	Smart thermostat
Drive or walk to work	Remote work and classes	Use of renewable sources	Do not use my personal space heater	Use natural light when possible at home

### 2 RECYCLING AND WASTE REDUCTION

#### Recycling and Waste Reduction 15 MINS

WHAT IMPROVEMENTS WOULD YOU MAKE TO NORCO COLLEGE'S RECYCLING PROGRAM?

Identify the size of campus waste disposal	More recycle bins and picked up timely	more water bottle refill stations	Set up an office for profits if we become our own recycling center
Transparency if the waste materials are being recycled, we have a trash recycling system	Green waste Biofuel systems	We can create a mulching system to possibly create a community garden	

WHAT WAYS CAN YOU BE MORE INTENTIONAL ABOUT REDUCING THE AMOUNT OF WASTE ON CAMPUS?

Reduce water bottle use by more water bottle fill stations	QR codes instead of flyers, brochures, general handouts	Reduce my paper waste by not printing unnecessarily	Maybe have more better supplies when purchasing paper, reuse, recycle, reuse, etc. for the campus
Use digital boards to replace paper ads/fliers	Also, having peer assistants or questionnaires for students, using google forms	Syllabus on Canvas instead of printed	Bring own dish for takeout food?

HAVE YOU TAKEN ANY COURSES THAT HAVE ADDRESSED WASTE MANAGEMENT?

It's a chapter in the Environmental Science class	How to infuse this into turning campus into a LIVING LAB?		
Other courses offer a degree program in Urban renewal and sustainability major on the SS level			

### 3 WATER AND ECO-SYSTEMS

#### Water and Eco-Systems 15 MINS

HAVE YOU TAKEN ANY COURSES / ENGAGEMENT THAT HAVE ADDRESSED WATER AND ECO-SYSTEMS?

roof top gardens, and rain water catch via Cleopatra and pumps	Native Landscape in Biology	bee keeping class =)	

WHAT ARE WAYS THAT YOU AS AN INDIVIDUAL CAN REDUCE THE AMOUNT OF WATER YOU USE?

Use of water friendly plants	Don't water the driveway	Vegan and vegetarian food options	limit meat consumption, native landscapes	Change out lawn to rocks, etc.
Use of water friendly plants	Don't water the driveway	Use of water friendly plants	Use of water friendly plants	Use of water friendly plants

WHAT SHOULD NORCO COLLEGE DO TO REDUCE THE AMOUNT OF WATER USED?

more water bottle refill stations	Rain water collection for landscape irrigation use	update irrigation system to drip system instead of sprinklers	fixing leaks	Water saving toilets
REBATES/ Grants!				

### 4 HEALTH AND WELL-BEING

#### Health and Well-being 15 MINS

WHAT ARE WAYS THAT YOU DE-STRESS ON CAMPUS TODAY? WHAT ARE IDEAS TO IMPROVE?

Tend to the Garden?	Rose Garden!!!	Informational signage	Water feature is a good distressing tool	The alternative chair, something that all day long will not be uncomfortable and all students will want to sit on.
Designated walking path with outdoor exercise stations like at some parks	Herb garden, mint and the like?	aromatherapy/ candles are good for that too!	If we want to start an Ag program, then a small farm with animals	Use the new... will not be... something that some walk on

WHAT ACTIVE SPACES DO YOU USE ON CAMPUS TO FEEL PHYSICALLY WELL?

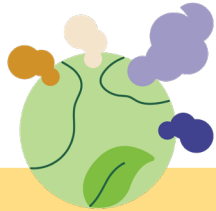
And how it can help food insecurity	someone mentioned adding exercise machines on a walking trail	Stairwell signage!!!		
students using the shades in the amphitheater				

ARE THERE PLACES ON CAMPUS THAT YOU FIND 'COMFORTABLE'? WHAT MAKES THEM FEEL COMFY?

If we ever got a new library, comfy spaces would be a good addition				

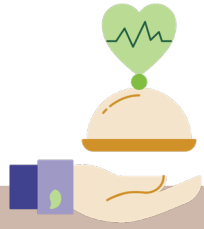
- Solar parking
- build with the Norco community
- Movie style Popcorn at the cafeteria
- Offering internships to students in sustainability
- Wind Turbines???
- Some more art in common spaces that change every few months
- at UC Davis they have hammocks

# OPEN HOUSE Takeaways



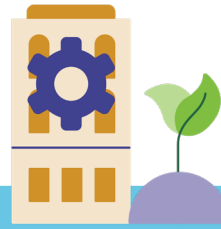
## DECARBONIZATION AND CLIMATE JUSTICE

- Public transportation is lacking or inconvenient;
- Biking can be dangerous
- Energy Efficiency within campus buildings and systems
- Provide Solar Cover and EV charging stations
- Human behavior changes impact energy use



## RECYCLING AND WASTE REDUCTION

- Create a consistent recycling program
- Focus on reduction – paperless courses, less dining packaging, etc.
- Composting
- Trust in the system!



## WATER AND ECO-SYSTEMS

- Building Plumbing Systems
- Native and Drought Tolerant Planting = Less Irrigation
- Eat less meat
- Invest in recycled water infrastructure



## HEALTH AND WELL-BEING

- Formalize pathways and trails on-campus
- Use gardens on campus to promote learning, healthy eating, socializing, rejuvenation, etc.
- Social Equity and Inclusion are key links into our planning



## RESILIENCY

- Addressed in all VALUES
- Support policies and partnerships that advocate for community health
- Continue to be a resource to the community (housing, food, etc.)
- What is the cost of inaction?

# What is next for us?

Nov - Jan

**Prioritization and Goals**

## TASKS

**Finalizing College Profiles**

**Establishing Benchmarks**

**Setting Goals – short-term  
and long-term**  
Where, When

**Dashboard Development  
(IEMP and TCO)**

Feb - April

**Action Plan and Implementation**

## TASKS

**Action Planning**  
Who, What, How

**Monitoring**

**Dashboard Development  
(IEMP and TCO)**

**First Read – April 2022**



## RECYCLING AND WASTE REDUCTION

***IMPACT AREAS*** are the top ***VALUES*** as created collectively by the District and Colleges.





## RECYCLING AND WASTE REDUCTION

Achieve zero waste to landfill.

**IMPACT AREAS** are the top VALUES as created collectively by the District and Colleges.

**GOALS AND OUTCOMES** establish long-term milestones that the **District and Colleges will work toward**. These were established by cross-referencing System and Stars frameworks with Impact Areas.



## RECYCLING AND WASTE REDUCTION

Achieve zero waste to landfill.

Reduce the total weight of non-construction waste.

Tons of non-construction waste generated

-20%

By 2025

Increase diversion rates for non-construction waste.

Tons of non-construction waste diverted

+55%

By 2030

Increase construction waste diversion rate.

tons of construction waste diverted

+80%

By 2040

**IMPACT AREAS** are the top VALUES as created collectively by the District and Colleges.

**GOALS AND OUTCOMES** establish long-term milestones that the District and Colleges will work toward. These were established by cross-referencing System and Stars frameworks with Impact Areas.

**OBJECTIVES** outline measurable actions were established by from District and Campus engagement, System mandates, and HiEd best practices.

**MEASURES** align with the objectives to manage what success will look.

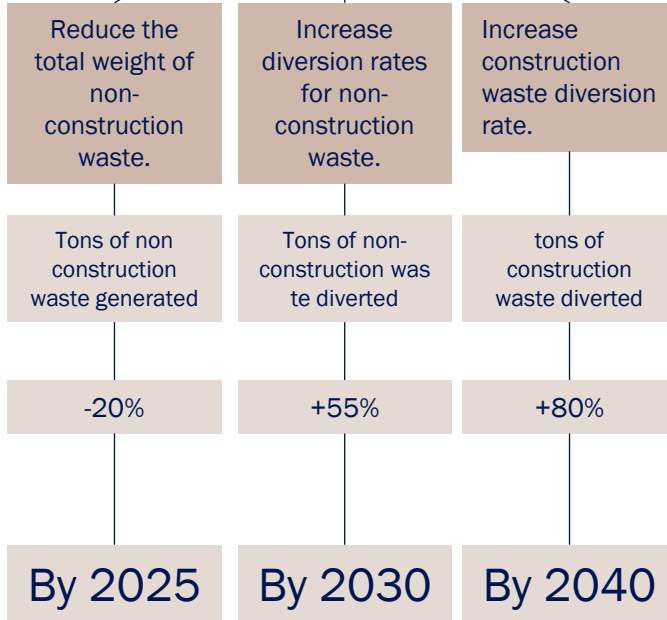
**METRICS** outline how the objective will be measured based on the data available or data required.

**MILESTONES** represent the timeline associated with each objective. These outline short-, mid-, and long-term strategies.



# RECYCLING AND WASTE REDUCTION

## Achieve zero waste to landfill.



**ACTIONS** are the initiatives that it will take to get meet your goal / outcome

### *Actions (per objective)*

- ✓ **Complete an annual waste audit**
- ✓ **Implement a campus-wide recycling program paired with educational signage**
- ✓ **Continue paperless courses**
- ✓ **Create a district wide supply and furniture swap program**
- ✓ **Etc.**
- ✓ **Etc.**
- ✓ **Etc.**

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# RECYCLING AND WASTE REDUCTION

Achieve zero waste to landfill.

Reduce the total weight of non-construction waste.	Increase diversion rates for non-construction waste.	Increase construction waste diversion rate.
--	--	---

Tons of non-construction waste generated	Tons of non-construction waste diverted	tons of construction waste diverted
--	---	-------------------------------------

-20%	+55%	+80%
------	------	------

By 2025	By 2030	By 2040
---------	---------	---------

Five Dimensions of Resiliency

**ACTIONS** are the initiatives that it will take to get meet your goal / outcome

### Actions (per objective)

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**METRICS** outline how the objective will be measured based on the data available or data required.

**MILESTONES** represent the timeline associated with each objective. These outline short-, mid-, and long-term strategies.

**RESILIENCY** overlays risk-management and the five dimensions of resiliency (Ecosystem, Financial, Human Health, Infrastructure, Social) into each Impact Area

# THANK YOU!

