

# WORK SESSION AGENDA

CITY COUNCIL WORK SESSION  
TUESDAY  
MAY 11, 2021

STAFF CONFERENCE ROOM  
SECOND FLOOR - CITY HALL  
211 WEST ASPEN AVENUE  
3:00 P.M.

## ATTENTION

**IN-PERSON AUDIENCES AT CITY COUNCIL MEETINGS HAVE BEEN SUSPENDED UNTIL FURTHER NOTICE**

The meetings will continue to be live streamed on the city's website  
(<https://www.flagstaff.az.gov/1461/Streaming-City-Council-Meetings>)

## PUBLIC COMMENT PROTOCOL

**The process for submitting a public comment has changed and public comments will no longer be read by staff during the Council Meetings.**

All public comments will be taken either telephonically or accepted as a written comment.

**Public comments may be submitted to [publiccomment@flagstaffaz.gov](mailto:publiccomment@flagstaffaz.gov)**

If you wish to address the City Council with a public comment by phone you must submit the following information:

First and Last Name  
Phone Number  
Agenda Item number you wish to speak on

If any of this information is missing, you will not be called. We will attempt to call you only one time. We are unable to provide a time when you may be called.

All comments submitted otherwise will be considered written comments and will be documented into the record as such.

If you wish to email Mayor and Council directly you may do so at [council@flagstaffaz.gov](mailto:council@flagstaffaz.gov).

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## AGENDA

### 1. Call to Order

#### NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

*Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this work session, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).*

**2. Pledge of Allegiance and Mission Statement**

**MISSION STATEMENT**

*The mission of the City of Flagstaff is to protect and enhance the quality of life for all.*

**3. ROLL CALL**

*NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.*

MAYOR DEASY

VICE MAYOR DAGGETT

COUNCILMEMBER ASLAN

COUNCILMEMBER MCCARTHY

COUNCILMEMBER SALAS

COUNCILMEMBER SHIMONI

COUNCILMEMBER SWEET

**4. Public Participation**

*Public Participation enables the public to address the council about items that are not on the prepared agenda. Public Participation appears on the agenda twice, at the beginning and at the end of the work session. You may speak at one or the other, but not both. Anyone wishing to comment at the meeting is asked to fill out a speaker card and submit it to the recording clerk. When the item comes up on the agenda, your name will be called. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone to have an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.*

**5. Review of Draft Agenda for the May 18, 2021 City Council Meeting**

*Citizens wishing to speak on agenda items not specifically called out by the City Council may submit a speaker card for their items of interest to the recording clerk.*

**6. Proclamation: Teacher Appreciation Week**

**7. 2021 Wildland Fire Preparedness Briefing**

**8. Forest Biomass Definitions, Amounts, Markets and Emerging Utilization Efforts**

**9. Carbon Dioxide Removal Information and Discussion**

**10. Proposed amendment to the Zoning Code to modify the existing Accessory Dwelling Unit (ADU) and accessory structure requirements (Case No. PZ-21-00066)**

**11. Update/Discussion on the City of Flagstaff Downtown Library ADA Entrance Project**

**12. Public Participation**

**13. Informational Items To/From Mayor, Council, and City Manager; future agenda item requests**

**14. Adjournment**

CERTIFICATE OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on \_\_\_\_\_, at \_\_\_\_\_ a.m./p.m. in accordance with the statement filed by the City Council with the City Clerk.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2021.

\_\_\_\_\_  
Stacy Saltzburg, MMC, City Clerk

**CITY OF FLAGSTAFF  
STAFF SUMMARY REPORT**

**To:** The Honorable Mayor and Council  
**From:** Paul Oltrogge, Wildland Fire Manager  
**Date:** 05/04/2021  
**Meeting Date:** 05/11/2021



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**TITLE**

**2021 Wildland Fire Preparedness Briefing**

**STAFF RECOMMENDED ACTION:**

No action required.

**EXECUTIVE SUMMARY:**

Along with other local partners, Wildland Fire Management will present a description of local preparedness efforts and planning for the upcoming 2021 wildfire season. Available resources and community outreach will also be discussed as a means to compliment annual planning efforts.

**INFORMATION:**

The presentation will cover preparedness level activities of potential suppression of unplanned wildland fire events.

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**Attachments:** [Presentation](#)

# 2021 Wildland Fire Preparedness

May 11, 2021

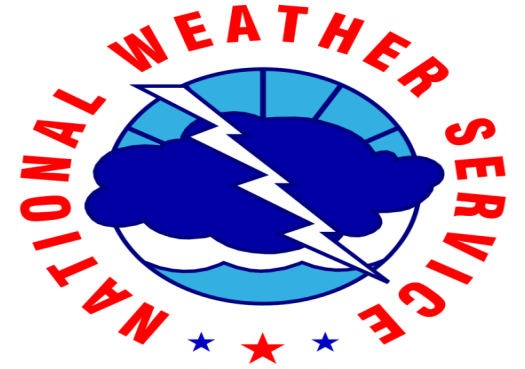




# Partners and presenters:

## Presenters:

- *Paul Oltrogge*: City of Flagstaff Wildland Fire Manager
- *Tony Merriman*: Meteorologist, National Weather Service
- *Jeremy Human*: Deputy Fire Staff, Coconino National Forest
- *Lucas Minton*: Chief of Fire and Aviation, Grand Canyon, National Park



# 2021 Fire Season Outlook

**Tony Merriman**  
**National Weather Service - Flagstaff**

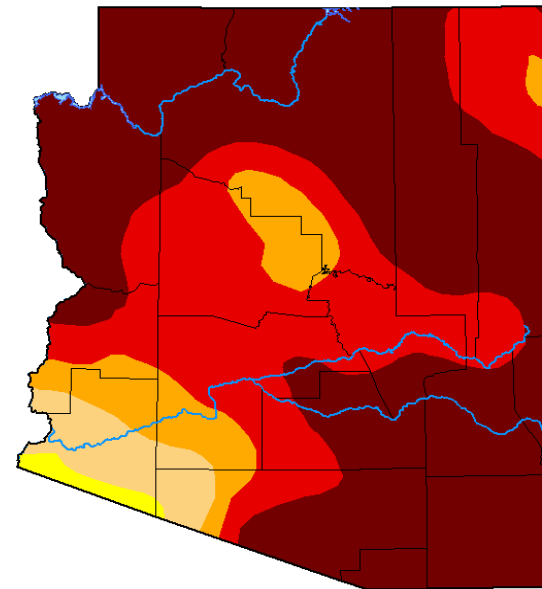
# Drought Monitor

NWS Flagstaff



## U.S. Drought Monitor Arizona

**April 20, 2021**  
(Released Thursday, Apr. 22, 2021)  
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	0.00	100.00	99.02	94.62	86.56	57.79
<b>Last Week</b> 04-13-2021	0.00	100.00	98.90	94.66	86.56	57.79
<b>3 Months Ago</b> 01-19-2021	0.00	100.00	100.00	98.32	93.86	72.69
<b>Start of Calendar Year</b> 12-29-2020	0.00	100.00	100.00	98.34	93.86	72.69
<b>Start of Water Year</b> 09-29-2020	0.00	100.00	100.00	93.97	69.95	3.37
<b>One Year Ago</b> 04-21-2020	80.59	19.41	13.45	6.77	0.00	0.00

**Intensity:**

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>*

**Author:**

Richard Heim  
NCEI/NOAA

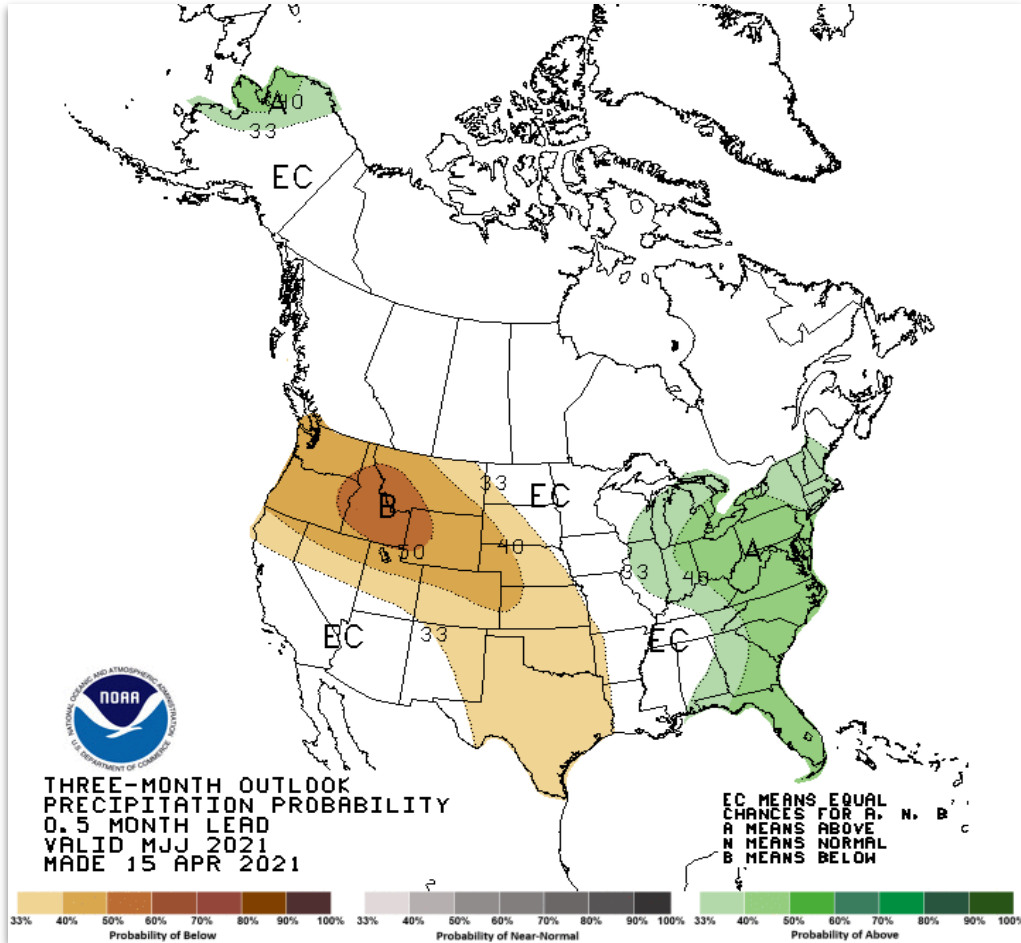


[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

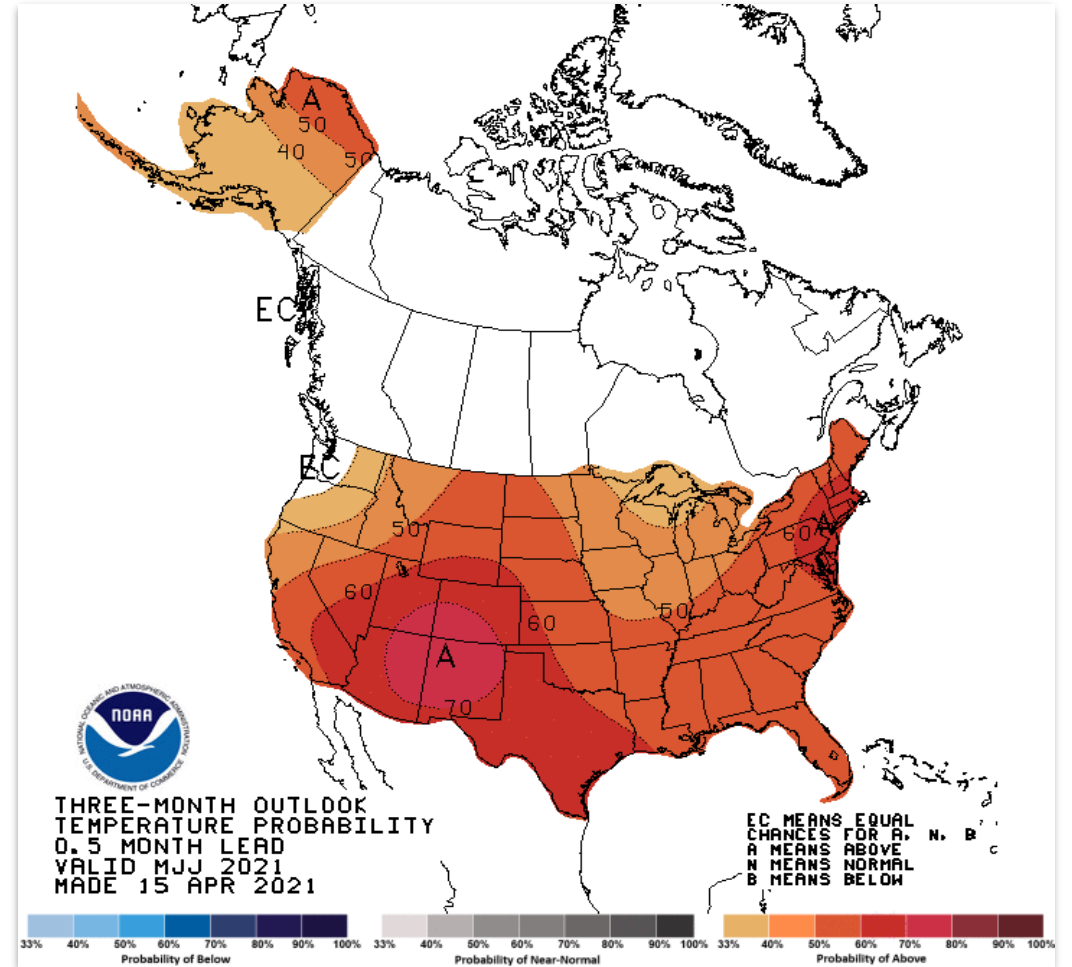


# 90-day(May – June – July)Outlook

## Precipitation Outlook



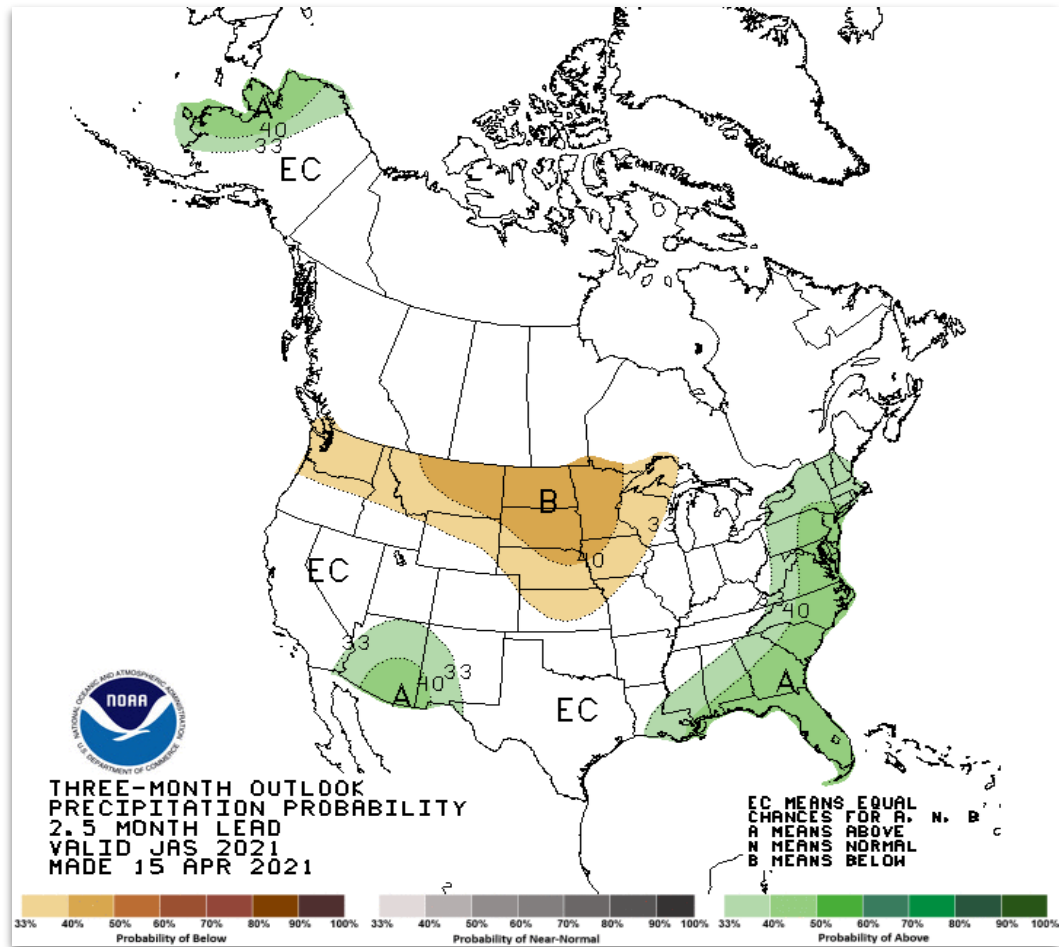
## Temperature Outlook



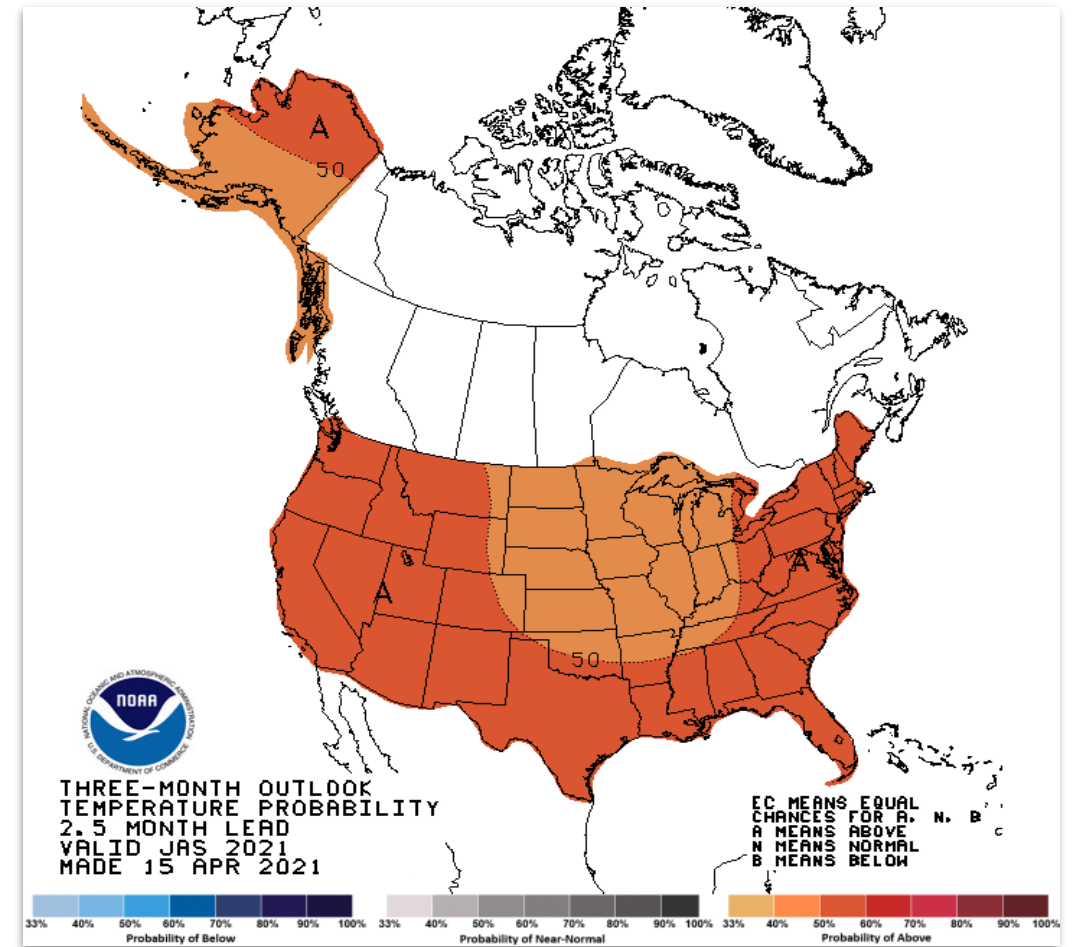


# Monsoon Season CPC Outlook

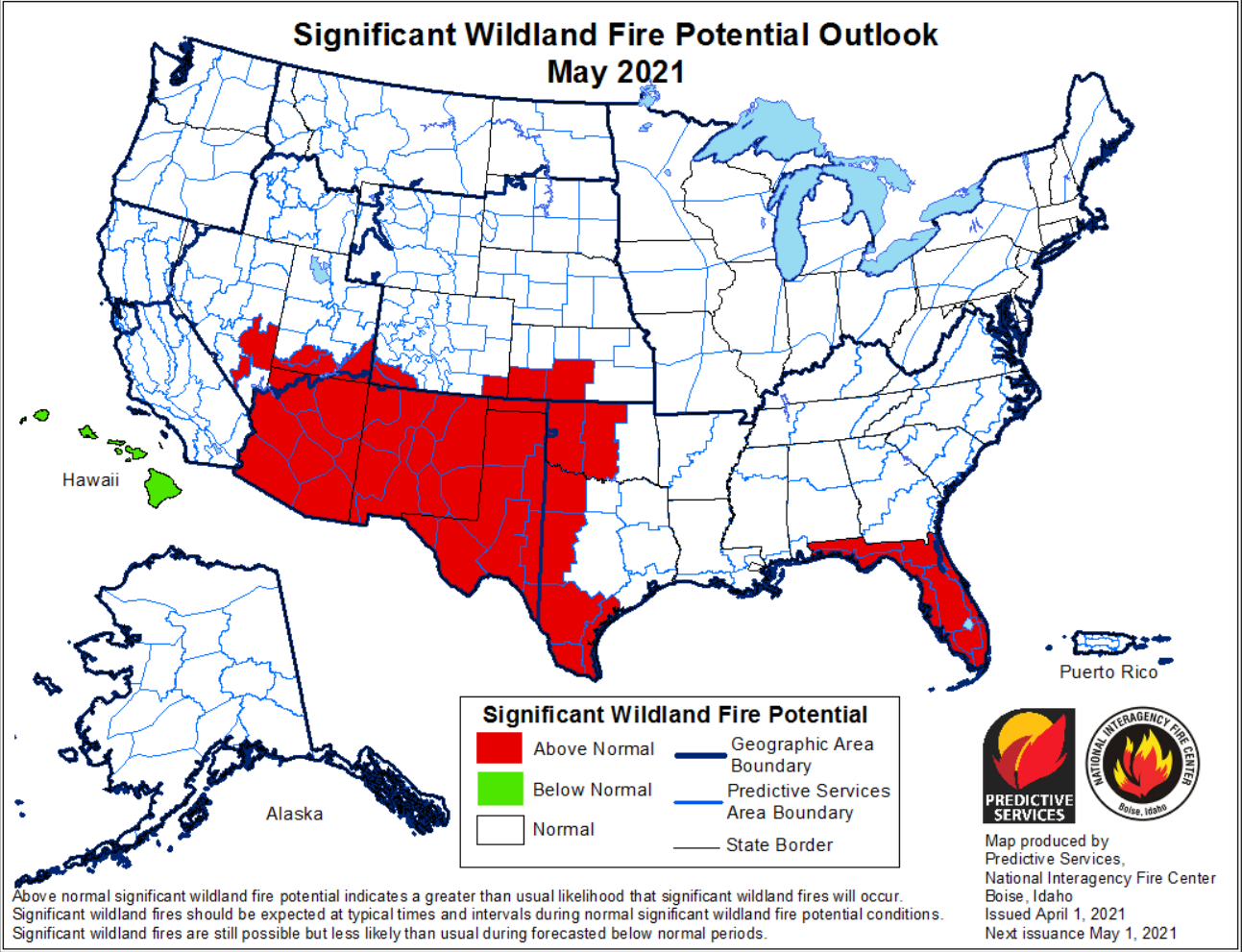
## Precipitation Outlook



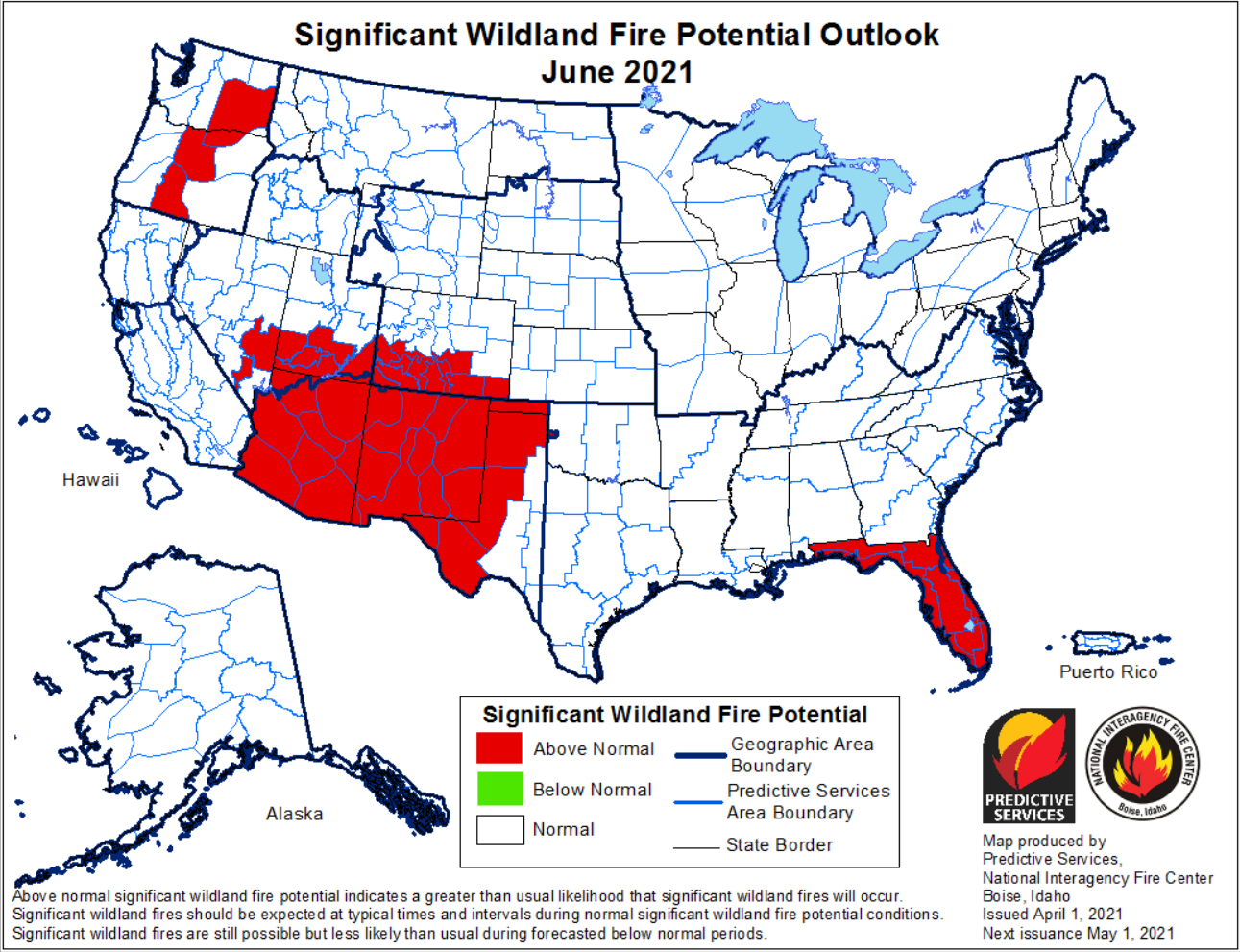
## Temperature Outlook



# Significant Wildland Fire Potential Outlook – May 2021

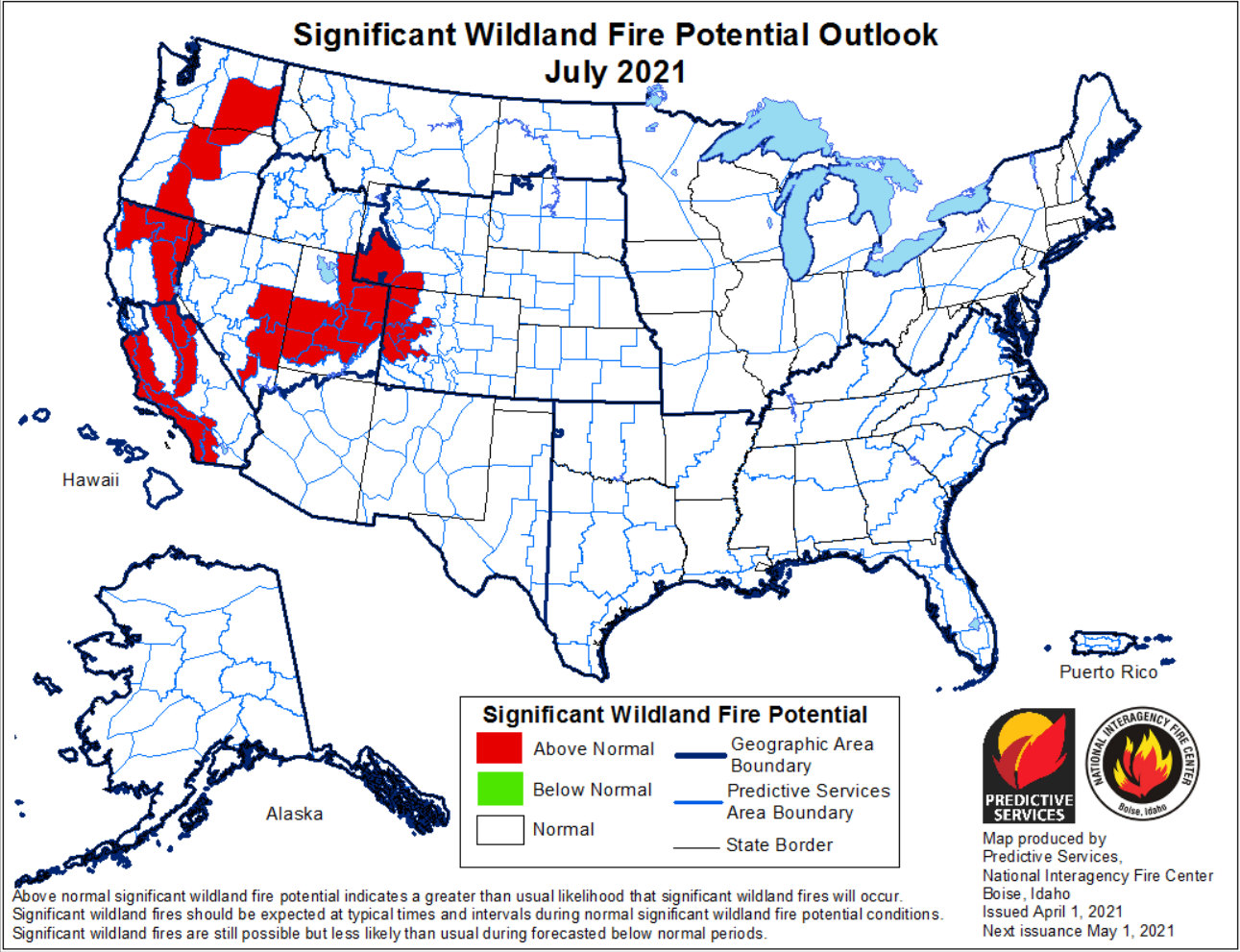


# Significant Wildland Fire Potential Outlook – June 2021



Above normal significant wildland fire potential indicates a greater than usual likelihood that significant wildland fires will occur. Significant wildland fires should be expected at typical times and intervals during normal significant wildland fire potential conditions. Significant wildland fires are still possible but less likely than usual during forecasted below normal periods.

# Significant Wildland Fire Potential Outlook – July 2021

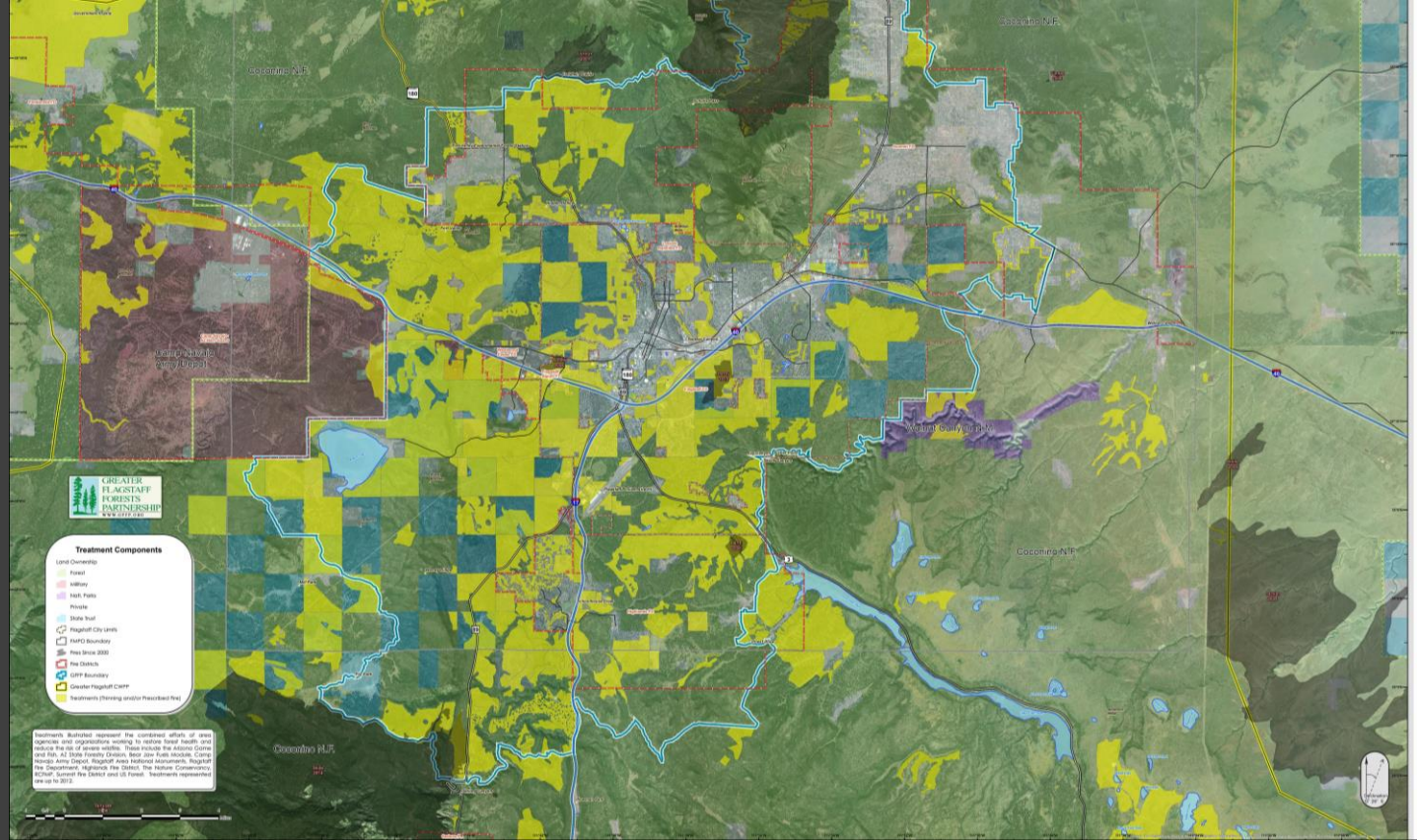
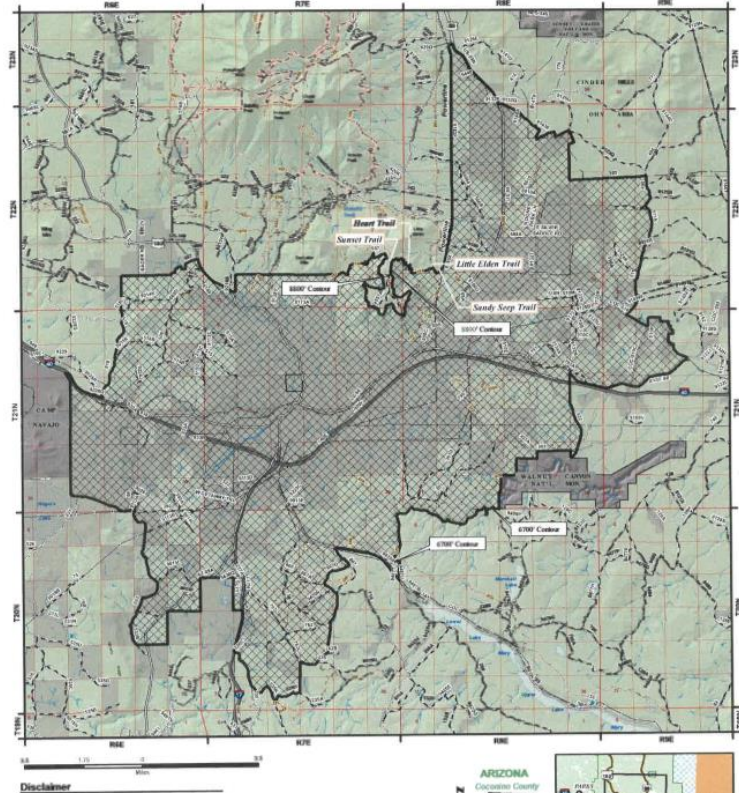


# Paul Oltrogge

Wildland Fire Manager  
City of Flagstaff Fire  
Department

Chair: Ponderosa Fire  
Advisory Council (PFAC)





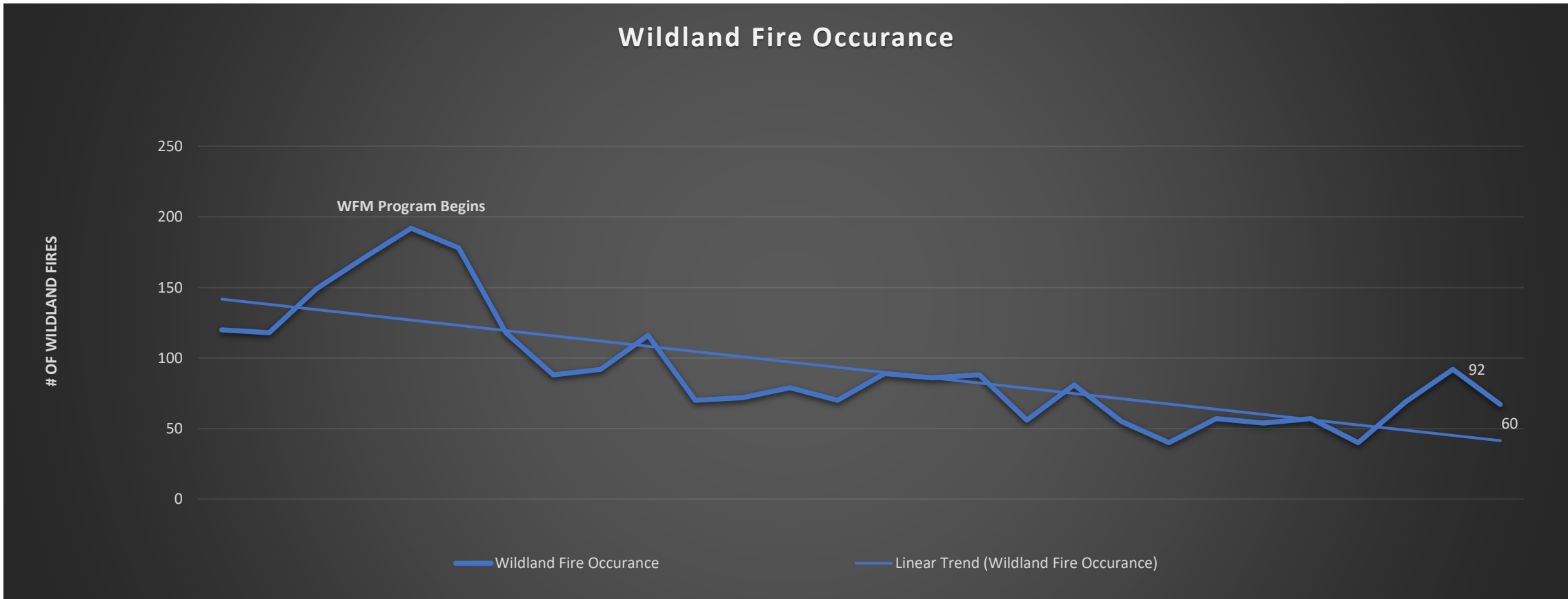
Camping and Campfire Restrictions

Greater Flagstaff Treated Areas



# Wildland Fires in City limits

**Timescale 25 years: 190 initial attack fires in late 90s, 60 initial attack fires in 2020.**





# Flagstaff Fire Department – Severity Staffing

- Preparedness based on weather indices:
  - Severity staffing, indicators:
    - Red Flag Warnings (Winds usually sustained above 25mph)
    - Available resources in region
    - Fire activity in region
- Severity staffing (1-3 units) would be on duty outside of their normal operating hours to increase staffing levels and decrease response times to a working wildfire event.

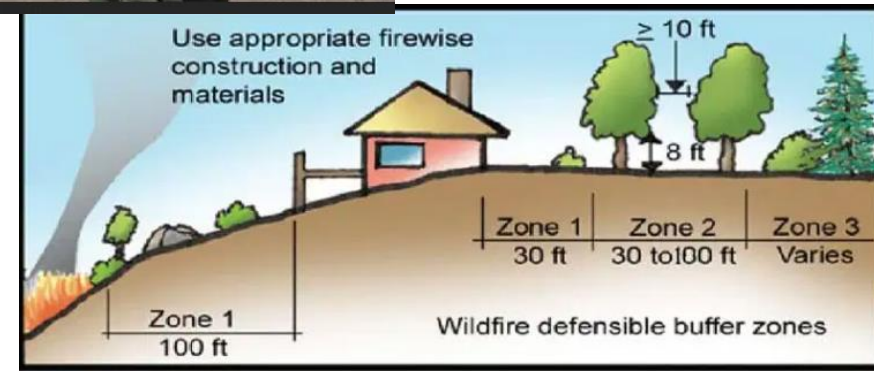
# Flagstaff Fire Department - Response

- Response Plan:
  - All operational/on-duty personnel go through annual refresher training
  - Partner agencies
  - Year-round planning, mitigation, preparedness, response, and recovery cycle



# Community Outreach

- Firewise:
  - Private property clean-up
  - Forest treatments: Thinning, prescribed fire



# Jeremy Human

Deputy Fire Staff,  
Coconino National Forest



# Coconino National Forest



## USFS Fire Fuels and Aviation Programs

- **Wildland Fire Suppression**
- **Management Of Natural Ignitions**
- **Prevention & Education**
- **Prescribed Fire**



# Coconino National Forest



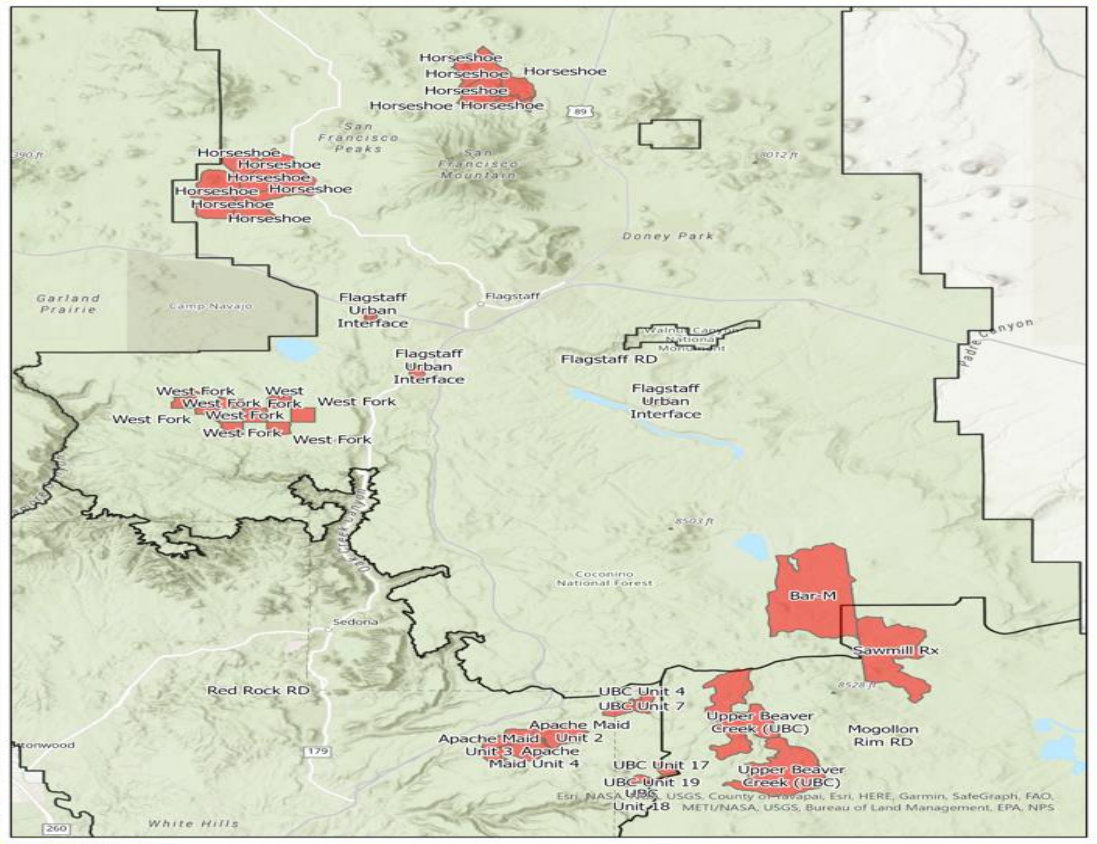
## Covid 19 fire response “What’s changed?”

- ▶ Appropriate fire management response
- ▶ Restarting our prescribed burn programs
- ▶ Vaccinations
- ▶ Best management practices
- ▶ Incorporating COVID Lessons Learned from last year into our management practices this year.

# Coconino National Forest



## 2021 prescribed fire FY21 target – 38,000 acres



# Wildland Fire Dispatch



## Wildland Fire Dispatch

- ▶ **FDC – Flagstaff Dispatch Center**
- ▶ **BIA - Hopi, Hualapai, and Navajo tribes**
- ▶ **GCNP, Flagstaff and Verde Valley Monuments**
- ▶ **PFAC serving all of Northern Arizona**



# Lucas Minton

Chief Fire and Aviation,  
Grand Canyon National  
Park

Chair: Northern Arizona  
Fire Board

Northern Arizona  
Aviation



# Grand Canyon Helitack - Aviation



## Grand Canyon Helitack

The Grand Canyon National Park hosts two helicopters. Both are used for Search and Rescue, Short Haul, Utility work, and wildland fire operations.

The MD 900 pictured below operates year-round out of the South Rim of the Grand Canyon.

The Astar (top picture) primarily supports wildfire operations and emergency short-haul support, also based out of the South Rim with a 90-day plus contract.



Picture can't be displayed

## Fire Aviation Resources Northern Arizona



**Rotor Wing Missions**  
3 Type 3 Helicopters, NPS  
Short Haul GRCA, Pittman  
Valley USFS



**Short-Haul Medivac**



**Fixed Wing Missions**  
Patrols, Aerial Observer,  
Air-tack Supervisor

# Aviation Resources



## Preposition of Aircraft During Fire Season

- Local Federal and Partner Agencies work with the Southwest Coordination Center (SWCC) to move Aviation resources to Northern Arizona.
- Aviation Resources will stage at local airport: Pullman Airport, Sedona Airport, or other designated bases as needed.
- Nearest Airtanker bases: Prescott and Winslow. These bases will host a range of different types of airtankers for support



# Fire Aircraft Near Flagstaff



## Flagstaff Airport

Flagstaff Airport is used to position Rotor and Fixed wing aerial firefighting resources.

- Pictured top King Air is an example of an Aerial Supervision Module, which can be used as a Lead plane, Air Tactical Group Supervisor or both.
- Pictured on the bottom is an Aero Commander. Primarily used as an Air Tactical Group Supervisor.
- Both platforms are used to Supervise Aerial firefighting operations within complex fire traffic areas



## Sedona Airport

The South West Coordination Center Works with Coconino National Forest, Flagstaff Interagency Dispatch and Fire and Aviation Leadership to preposition Helicopters at Sedona Airport.

- Top picture Chinook Ch-46 uses external bucket for water and retardant delivery
- Bottom Blackhawk UH-60 internal tank with snorkel for drafting in shallow waters. Used for water and retardant delivery.





# Questions?



**CITY OF FLAGSTAFF  
STAFF SUMMARY REPORT**

**To:** The Honorable Mayor and Council  
**From:** Neil Chapman, Forest Health Supervisor  
**Co-Submitter:** Nicole Antonopoulos  
**Date:** 03/29/2021  
**Meeting Date:** 05/11/2021



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**TITLE**

**Forest Biomass Definitions, Amounts, Markets and Emerging Utilization Efforts**

**STAFF RECOMMENDED ACTION:**

This is an informational update.

**EXECUTIVE SUMMARY:**

Staff will provide an update to City Council on forest restoration based biomass, including:

- Product Definitions
- Amounts
- Current Markets
- Emerging utilization efforts within the City and at NAU
- Community comments from the Flagstaff Water Group

**INFORMATION:**

This agenda item supports the following Key Community Priorities:

1. High Performing Governance
2. Safe and Healthy Community
3. Inclusive and Engaged Community
4. Environmental Stewardship
5. Sustainable, Innovative Infrastructure

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**Attachments:** [Presentation](#)

# 2021 Report on Forest Restoration Biomass Products





# Biomass Discussion



- Biomass 101
  - What is it?
  - How much is out there?
  - Current markets
  - Why does it matter?
- Landfill Pilot Project
- NAU Efforts (Erik Neilsen)
- Flagstaff Water Group (Robert Vane)





# 140 years of Fire Suppression Based Forest Management



Top: Walker Lake 1875 taken by John Hillers  
Bottom: Walker Lake 2004 taken by Neil Weintraub

Top: Fern Mountain 1888 Unknown Photo Credit  
Bottom: Walker Lake 2004 taken by Neil Weintraub



# Biomass 101



## What is it?

1. **Non-Merchantable Product:** Green tree stem tops cut at 4-inches in diameter, tree branches, any size tree stem segment under 8 feet long
  - Anything that you cannot make into a 2x4x8 board
2. **Pulp Wood:** Green tree stems that are 5 – 9 inches in diameter. Not currently considered biomass but USFS contracting specifications are evolving
3. **Whole Tree Chips:** Entire tree put through a chipper or grinder
  - Clean chips: No bark or needles
  - Dirty Chips: Includes bark and needles
4. **Hog Fuel:** Mix of everything
5. **Other Sawmill Residuals:** Wood chips, slabs, bark and sawdust created as a result of the milling process



# Biomass 101



How much is out there?

At 50K acres per year of thinning = **2 million green tons/yr**

Equal to the amount of Saw Logs





# Slash and Pulp Wood Pile





# Needles and Branches





# Pulp, Stems <6 inch, Tops, Branches, Needles





# Current Biomass Markets



## **Novo Biopower, Snowflake**

300,000 green tons per year (14K acres)

27 MW/Hour Electricity (20K homes)

Will take all forms of biomass

## **Forest Energy, Show Low**

100,000 green tons per year (2,000 acres)

Wood Fuel Pellets & Logs, Animal Bedding

Will take Logs and Clean Chips

## **Gro-Well, Phoenix**

65,000 green tons per year (1,300 acres)

Soil, Soil Amendments, Ground Cover,  
Fertilizer, Playground Chips, Absorbent

Will take Clean Chips and Bark

## **Scotts Miracle-Grow, Maricopa**

Lawn and Garden Care Products

50,000 green tons per year (1,000 acres)

Will take Clean Chips and Bark

## **Cinder Lake Landfill, Flagstaff**

4,000 green tons per year

100% Used as soil amendment

## **Additional Markets Needed!!**

Increase current market capacity

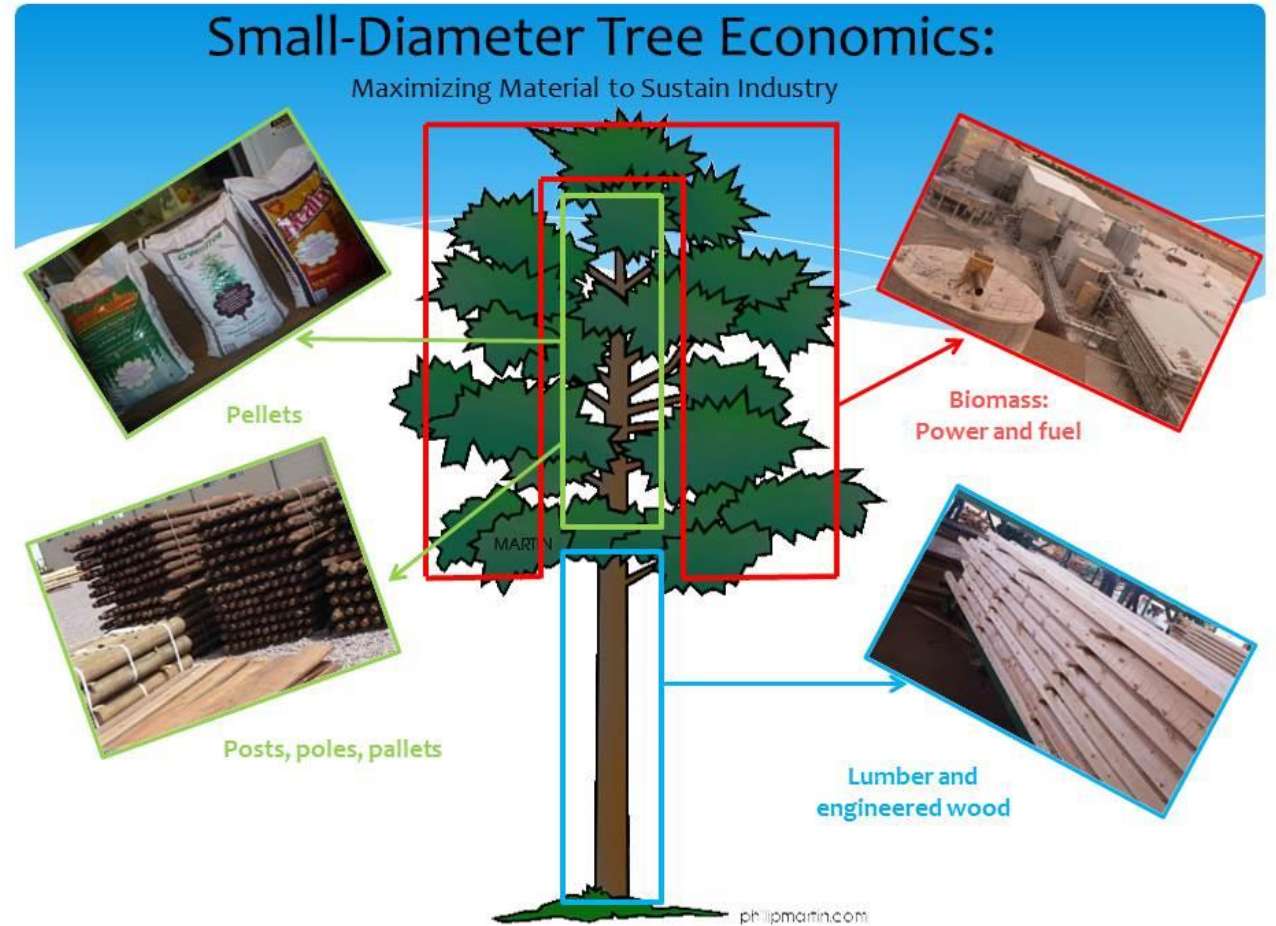
New power generation facilities

Emerging technologies – Biochar, Torrefaction

Increase community firewood programs

# Why does it matter?

- Forest biomass will burn one way or another
- Comprehensive economic solutions for biomass will accelerate wildfire risk reductions
- Increase Fire Staff capacity





# Cinder Lake Landfill



## **Opportunity:**

Investigate emerging waste consumption technologies that include biomass, municipal solid waste and biosolids

## **Goals:**

- Continue efforts that extend the life of the Landfill
- Try to consume current waste materials in a way that provides beneficial outputs
- Develop Feasibility Studies, Request for Proposals and Feedstock Supply Plans (Solid Waste, Sustainability, Water Services and Wildland Fire Management)



# Northern Arizona University



Erik Nielsen

Associate Professor, School of Earth & Sustainability

Biomass Utilization Efforts at NAU



# NAU Climate Action Heating Options

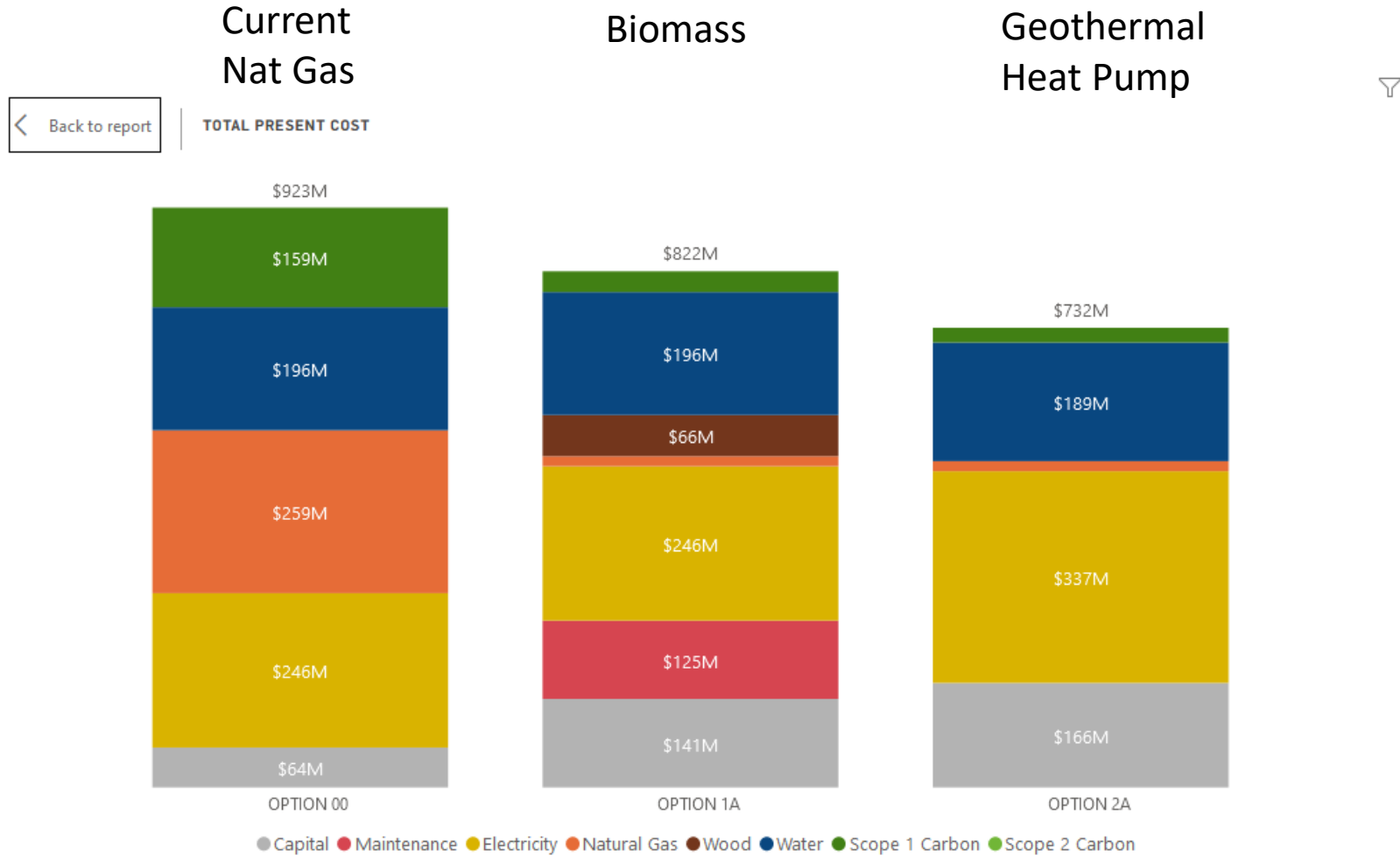
- Biomass heating (+potential electricity)-CHP
- 30,000 Bone Dry Tons/year--displace natural gas usage
- 45-60 trucks per week delivering fuel to south campus



# Preliminary NAU Heating Analysis

NAU CAP

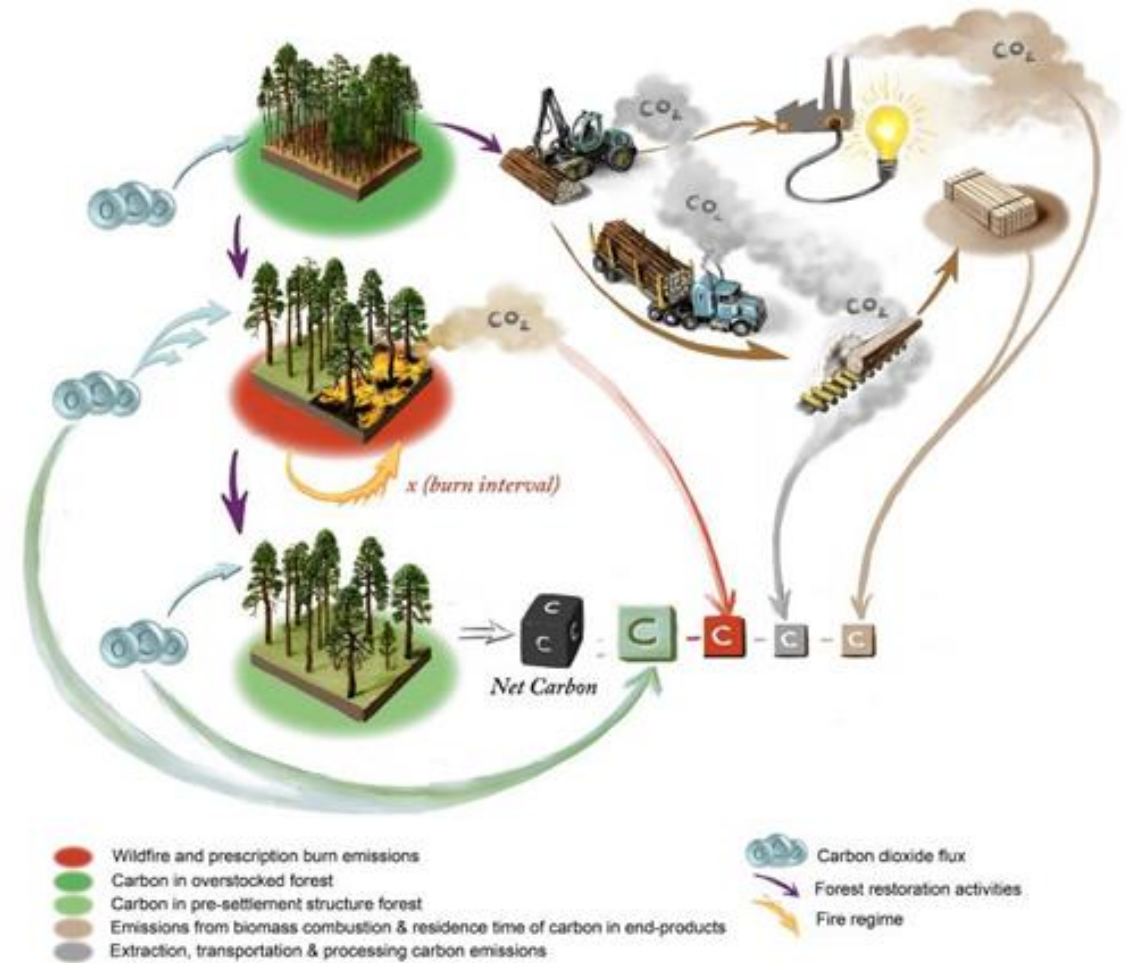
## Quantitative Criteria



# Carbon Neutral? It's complicated



**BASELINE**



**TREATMENT**

# Air Quality- biomass plant v. pile burn

- Reduced emissions
  - Particulates (PM)--96%
  - NO<sub>x</sub>—54%
  - VOC—99%
  - CO—97%
  - CO<sub>2</sub>e-17%

Source: Springsteen et al. (2011)



# Opportunities and Challenges

## Opportunities

- Contribute to regional forest climate resiliency efforts (1-2K acres/year)
- NAU research and microgrid
- Carbon capture potential
- Carbon offset credits

## Challenges

- Status of 4-FRI contract
- Need 20-30 year supply guarantee
- Localized traffic
- Public perception
- Emissions from forest operations and NAU



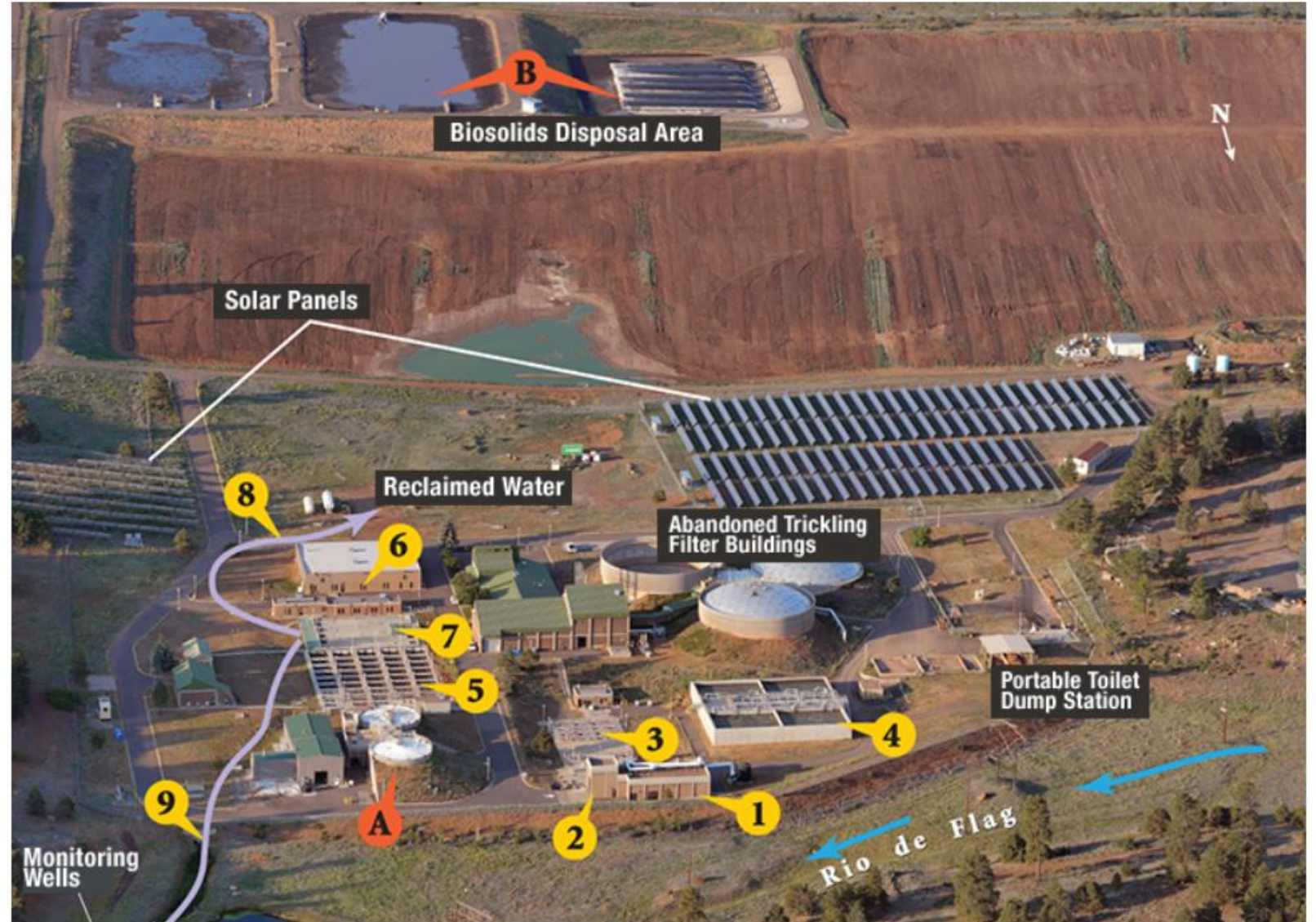
# Flagstaff Water Group



Robert Vane

Safe Disposal of Sewage Sludge:  
A Potential Additional Benefit of a Bioenergy Facility


For ~40 years, Flagstaff's sludge from wastewater treatment has been dewatered and then "plowed under" at a 40 acre "Dedicated Land Disposal" (DLD) site adjacent to the Wildcat WRP



- This present land disposal system for sludge is unique in Arizona and is likely unsustainable
- It could be shut down due to chemical contamination:
  - Declaration as a hazardous waste site
  - Percolation of hazardous chemicals to the Coconino Aquifer

Representative Categories of Manmade Chemicals, Most of Which Are Not Regulated or Removed by Conventional Wastewater Treatment Processes

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Pharmaceuticals</li><li>• Discarded Medications</li><li>• Personal Care Products</li><li>• Herbicides</li></ul> | <ul style="list-style-type: none"><li>• Pesticides</li><li>• Flame Retardants</li><li>• Industrial Cleansers</li><li>• Industrial Solvents</li></ul> |
|---|--|



U.S. Environmental Protection Agency  
Office of Inspector General

19-P-0002  
November 15, 2018

## At a Glance

**Why We Did This Review**

We conducted this audit to determine whether the U.S. Environmental Protection Agency (EPA) has and implements controls over the land application of sewage sludge that are protective of human health and the environment.

Sewage sludge is the solid, semisolid or liquid residue generated during the treatment of domestic sewage. When sludge materials go through additional processing steps and treatment to meet EPA standards for land

***EPA Unable to Assess the Impact of Hundreds of Unregulated Pollutants in Land-Applied Biosolids on Human Health and the Environment***

**What We Found**

The EPA's controls over the land application of sewage sludge (biosolids) were incomplete or had weaknesses and may not fully protect human health and the environment. The EPA consistently monitored biosolids for nine regulated pollutants. However, it lacked the data or risk assessment tools needed to make a determination on the safety of 352 pollutants found in biosolids. The EPA identified these pollutants in a variety of studies from 1989 through 2015. Our analysis determined that the 352 pollutants include 61 designated as acutely hazardous, hazardous or priority pollutants in other programs.

**The EPA identified 352 pollutants in biosolids but cannot yet consider these pollutants for further regulation due to either a lack of data or risk assessment tools. Pollutants found in biosolids can include pharmaceuticals, steroids and flame retardants.**

\* EPA Unable to Assess the Impact of Hundreds of Unregulated Pollutants in Land-Applied Biosolids on Human Health and the Environment, U.S. EPA Inspector General, <https://www.epa.gov/office-inspector-general/report-epa-unable-assess-impact-hundreds-unregulated-pollutants-land>, viewed 1-2-20

- In a properly designed bioenergy facility, de-watered sewage sludge could be burned safely along with forest biomass products to recover useful heat and/or electric power
- Combustion offers the surest way to destroy all the hazardous organics that are in the sludge
- There's plenty of precedent for sludge combustion, e.g., the Snowflake Novo Power Plant was originally designed to burn up to 30% paper sludge

Thank you.

Questions?



## CITY OF FLAGSTAFF

### STAFF SUMMARY REPORT

**To:** The Honorable Mayor and Council  
**From:** Ramon Alatorre, Climate and Energy Coordinator  
**Co-Submitter:** Nicole Antonopoulos  
**Date:** 05/05/2021  
**Meeting Date:** 05/11/2021




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#### TITLE

**Carbon Dioxide Removal Information and Discussion**

#### STAFF RECOMMENDED ACTION:

For information and discussion purposes.

#### EXECUTIVE SUMMARY:

A presentation to provide baseline information about carbon dioxide removal (CDR). Developing a portfolio of CDR initiatives will be required to meet the goal of carbon neutrality by 2030 set forth by Council in Res 2020-09. The goal of this presentation is to support informed conversations between constituents and to provide a baseline for evaluating future opportunities for CDR projects, funding, and collaboration.

#### INFORMATION:

Supports the Climate Emergency Declaration. Res 2020-09.

#### PBB:

Environmental Stewardship  
 Sustainable, Innovative Infrastructure

#### Regional Plan:

Goal E&C.1. Proactively improve and maintain the region's air quality.

- Policy E&C.1.2. Pursue reduction of total emissions of high-priority pollutants from commercial and industrial sources and area-wide smoke emissions.
- Policy E&C.1.3. Encourage strategies and partnerships to mitigate dust.
- Policy E&C.1.4. Maintain air quality through the pursuit of non-polluting industry and commercial enterprises.
- Policy E&C.1.5. Seek feasible alternatives to reduce the smoke produced through prescribed burns and slash pile

Goal E&C.2. Reduce greenhouse gas emissions.

- Policy E&C.2.1. Encourage the reduction of all energy consumption, especially fossil-fuel generated energy, in public, commercial, industrial, and residential sectors.
- Policy E&C.2.2. Promote investments that strengthen climate resiliency

Goal E&C.3. Strengthen community and natural environment resiliency through climate adaptation efforts.

- Policy E&C.3.1. Develop and implement a comprehensive and proactive approach to prepare the community for and to minimize the impacts of climate change induced hazards.
- Policy E&C.3.3. Invest in forest health and watershed protection measures.
- Policy E&C.3.4. Increase the region's preparedness for extreme climate events.

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**Attachments:**     [CDR Discussion](#)



# Carbon Dioxide Removal

MAY 11, 2021



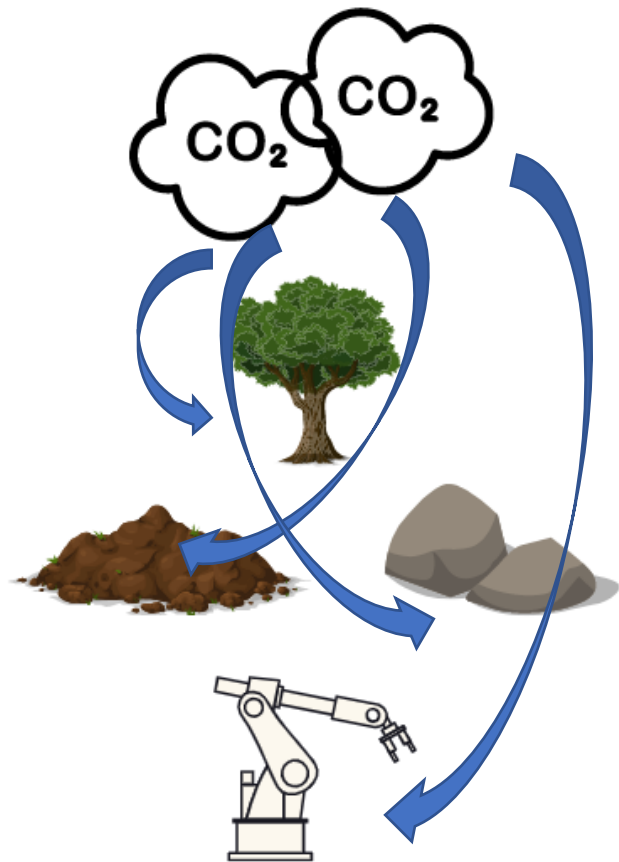
# Purpose and Agenda

To provide baseline information about carbon dioxide removal (CDR) in order to have more informed conversations between constituents, and for evaluating future investment and funding opportunities.

1. What is Carbon Dioxide Removal (CDR)
2. Why Carbon Dioxide Removal (CDR)
3. Leadership and market trends
4. Peer local and regional governments
5. What's next

# What is Carbon Dioxide Removal (CDR)?

Refers to the process of removing carbon dioxide from the atmosphere.



Processes associated with removing CO<sub>2</sub> from the atmosphere via

Biological and nature-based approaches

Geological approaches and

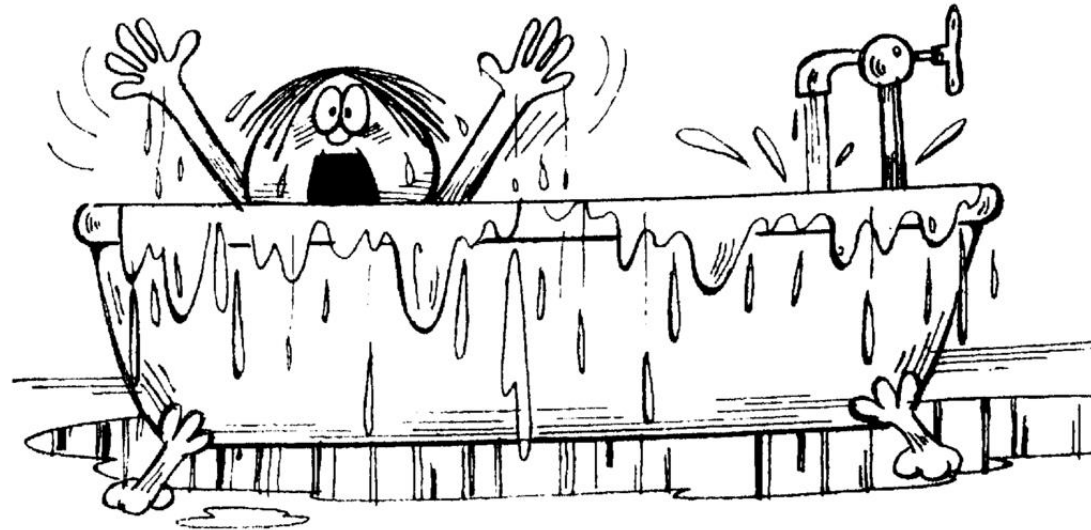
Technological approaches.



# Carbon Dioxide Removal (CDR)

## Necessary, but not a replacement for reductions

- Not a Silver Bullet
- Needs to be a BOTH AND approach
- Reductions need to be prioritized



# Biological and Nature-Based CDR

## Examples:

- Afforestation and reforestation
- Regenerative practices, especially on degraded lands

## Benefits:

- Maturity: High
- Cost: Relatively inexpensive
- Many co-benefits: cleaner air, preserving biodiversity, healthy ecosystems, heat abatement, etc.

## Limitations and Questions:

- Saturation and scalability: Mixed
  - Total available land mass likely insufficient
- Permanence: Risk of reversal is medium/high



# Geological CDR (and Storage)

## Examples:

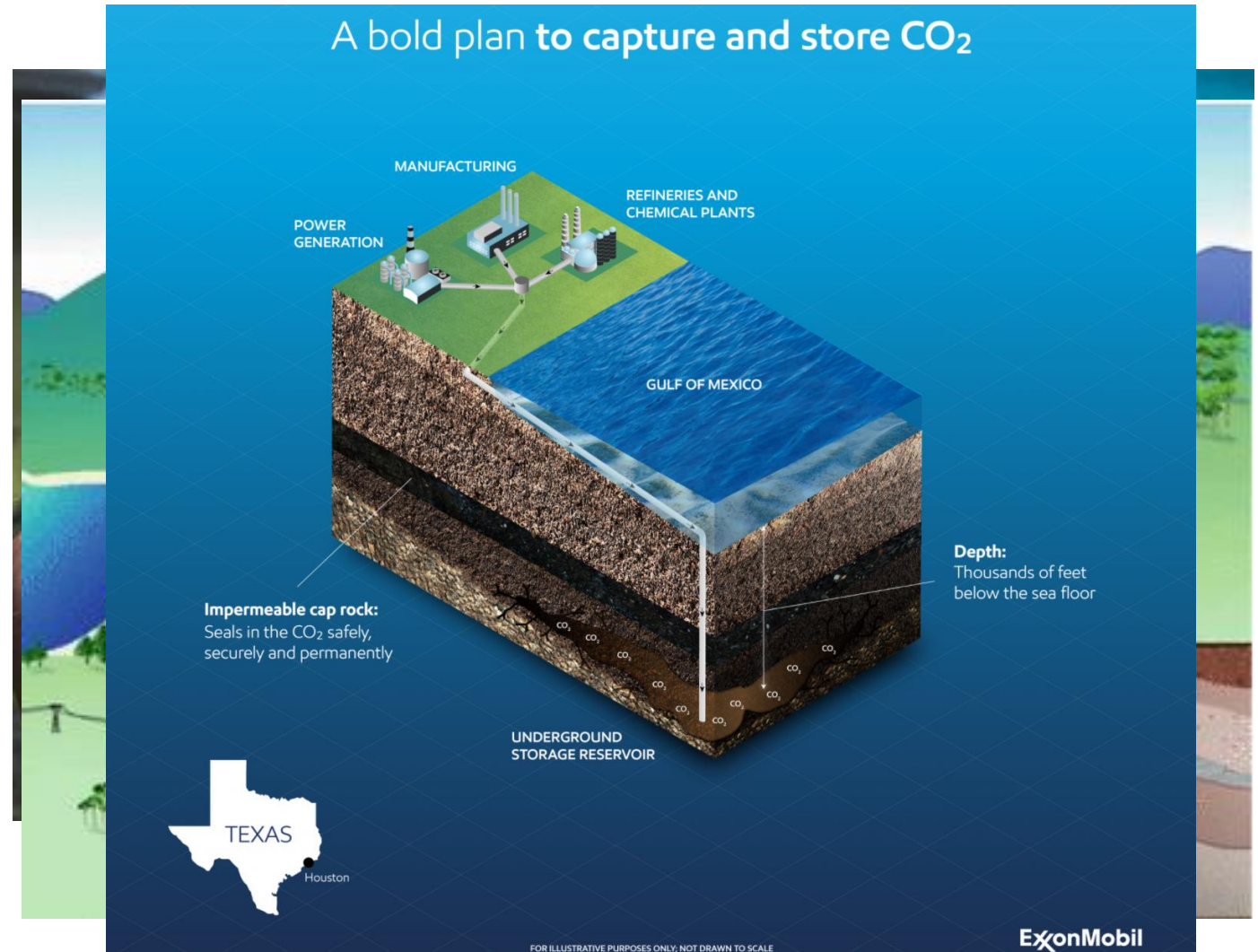
- Enhanced Rock Weathering
- Injection into geological formations (storage)

## Benefits:

- Permanence: High, low risk of reversal.
- Scalability: High, though many approaches are still emerging.

## Limitations and Questions:

- Maturity: Mixed
- Cost: Expensive (today)





# Technological CDR

## Examples:

- Point Source: Carbon Capture
- Non-Point Source:
  - Direct Air Capture [DAC]
  - Mechanical Trees

## Benefits:

- Scalability and Saturation: Less land/space

## Limitations and Questions:

- Maturity: Mixed
- Cost: Relatively expensive (today)
- Many can be energy intensive





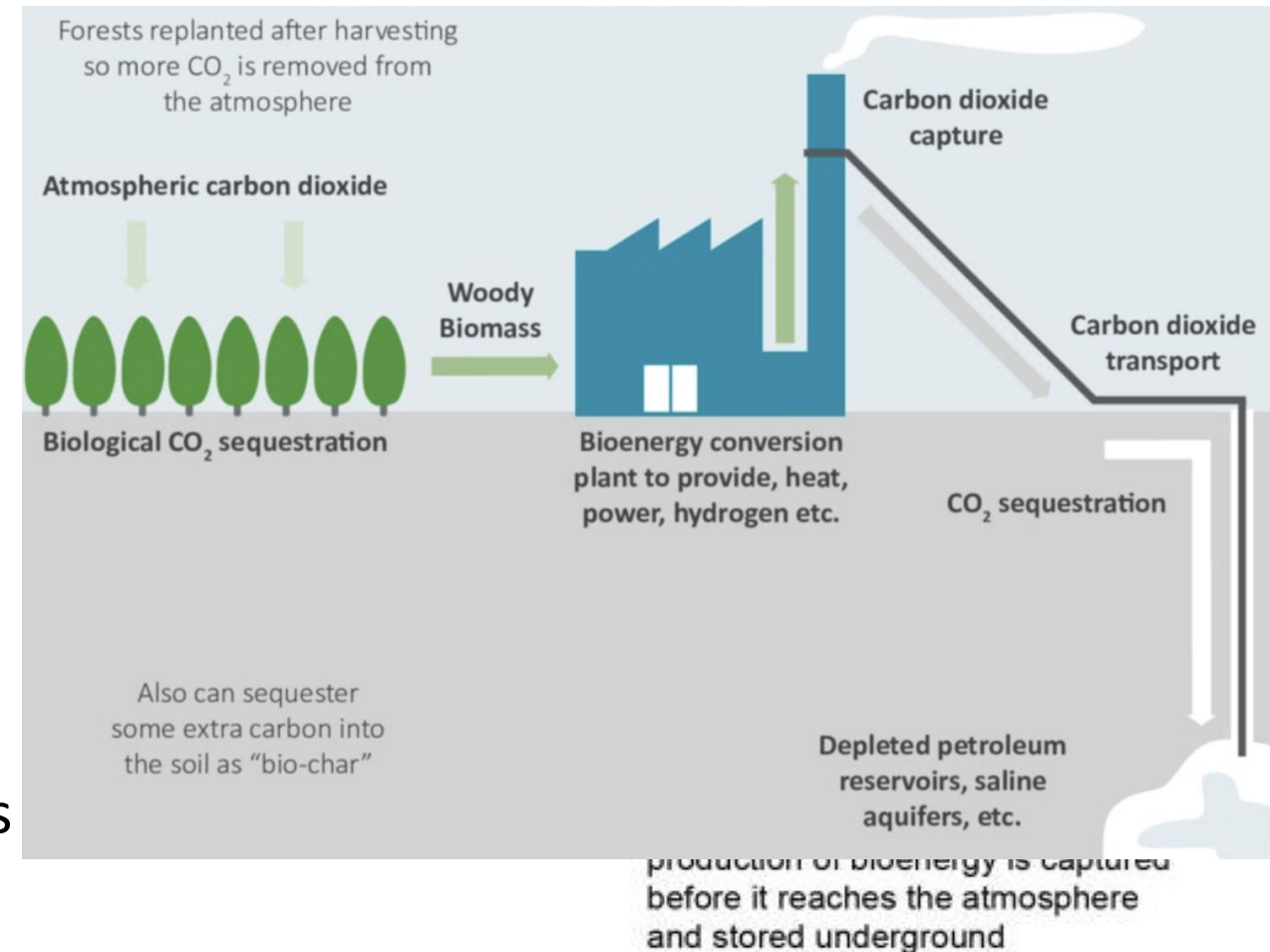
# Biology + Technology + Geology

## Benefits:

- Non-Fossil Energy + CDR
- Beneficial end use for waste/liability biomass
  - Potential fuels reduction in oversaturated forests

## Limitations and Questions:

- Requires sustainable management of biomass feedstock
- Maturity: Few industrial scale projects





# Biology + Technology: Biochar

Stable 'char' resulting from the burning of various biomass feedstocks under certain conditions.

## Benefits:

- Soil amendment
- Beneficial use for waste/liability biomass
- Waste management option
- Energy co-generation
- Mine site remediation

## Limitations and Questions:

- Requires management of biomass feedstock
- Maturity: Ancient. Few industrial scale projects
- Regional Market: Emerging





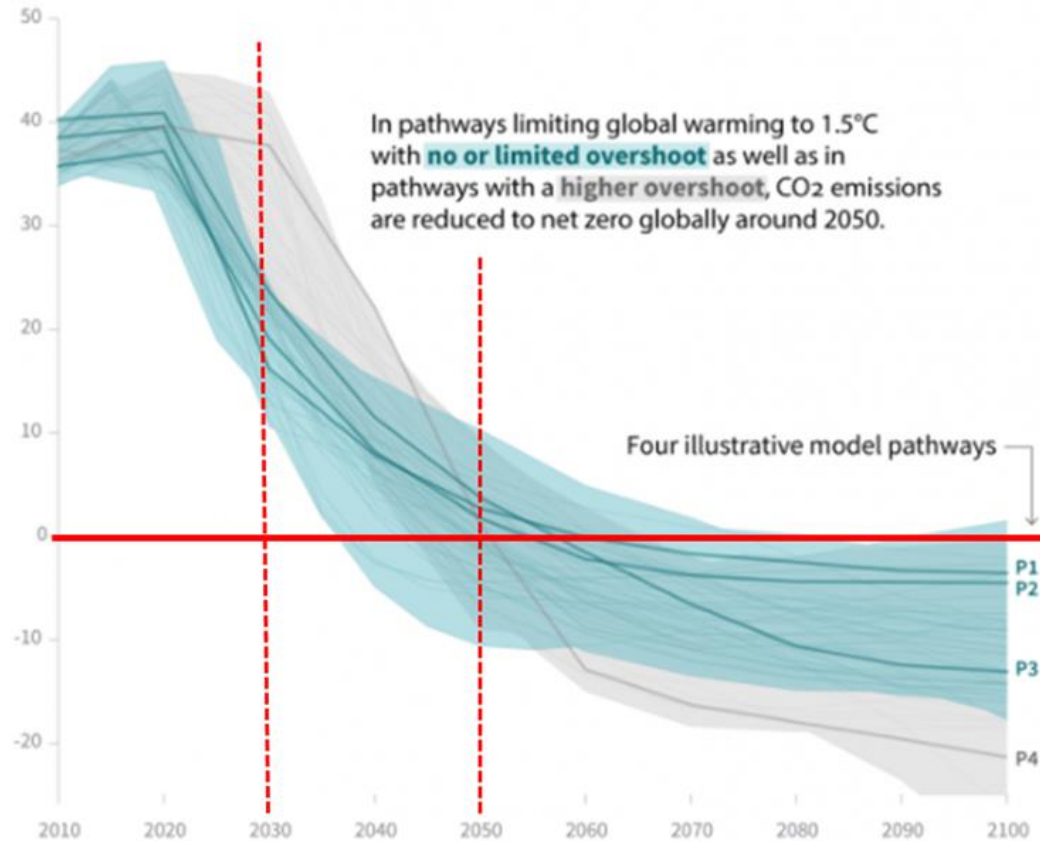
# Agenda Review

- 1) What is Carbon Dioxide Removal (CDR)
- 2) Why Carbon Dioxide Removal (CDR)**
- 3) Leadership and market trends
- 4) Peer local and regional governments
- 5) What's next

# Why Carbon Dioxide Removal - Global

## Global total net CO<sub>2</sub> emissions

Billion tonnes of CO<sub>2</sub>/yr



**Timing of net zero CO<sub>2</sub>**  
Line widths depict the 5-95th percentile and the 25-75th percentile of scenarios



“All pathways [that limit warming to 1.5C or 2.7F] use Carbon Dioxide Removal (CDR)....”

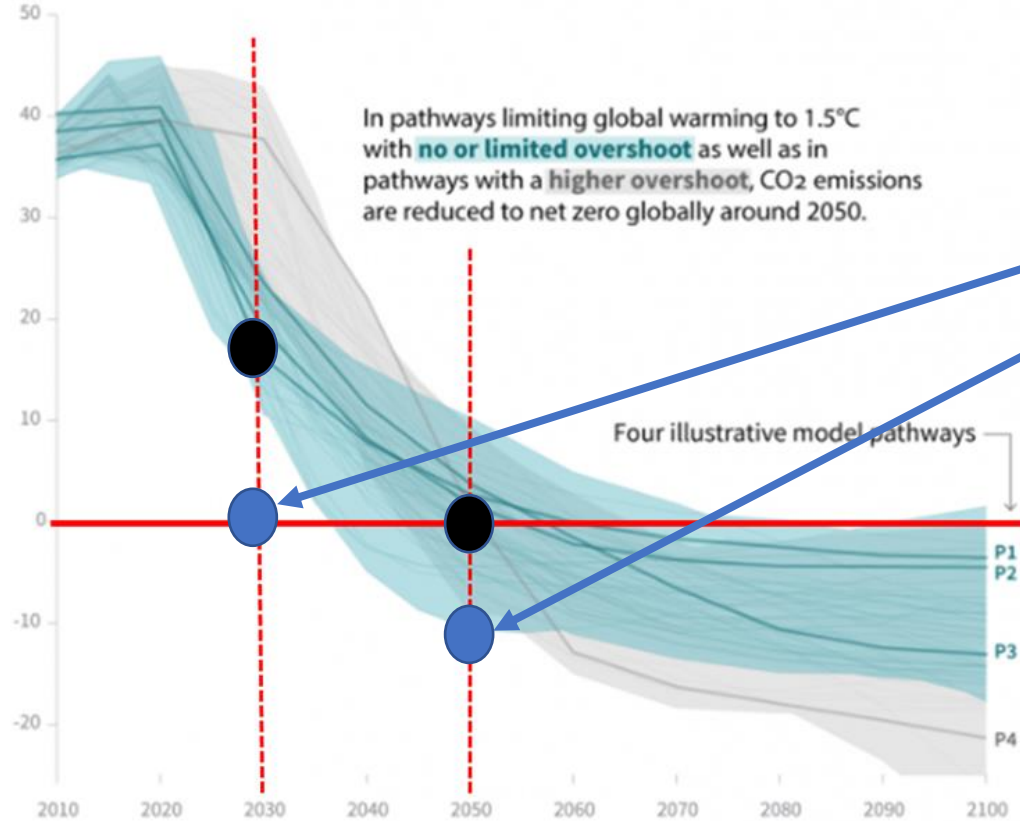
“Unless affordable and environmentally and socially acceptable CDR becomes feasible and available at scale well before 2050, 1.5°C [or 2.7F] -consistent pathways will be difficult to realize...”



# Why Carbon Dioxide Removal - Global

## Global total net CO<sub>2</sub> emissions

Billion tonnes of CO<sub>2</sub>/yr



Timing of net zero CO<sub>2</sub>  
Line widths depict the 5-95th percentile and the 25-75th percentile of scenarios



## Leadership Needed

“...we can be a **leader** in addressing climate change issues and at the same time invest in the mitigation and adaptation strategies outlined in our City’s existing CAAP, thereby reducing future risks and costs.”  
Flagstaff RES 2020-09



# Leadership Required



Climate emergency declarations in 1,933 jurisdictions and local governments cover 826 million citizens

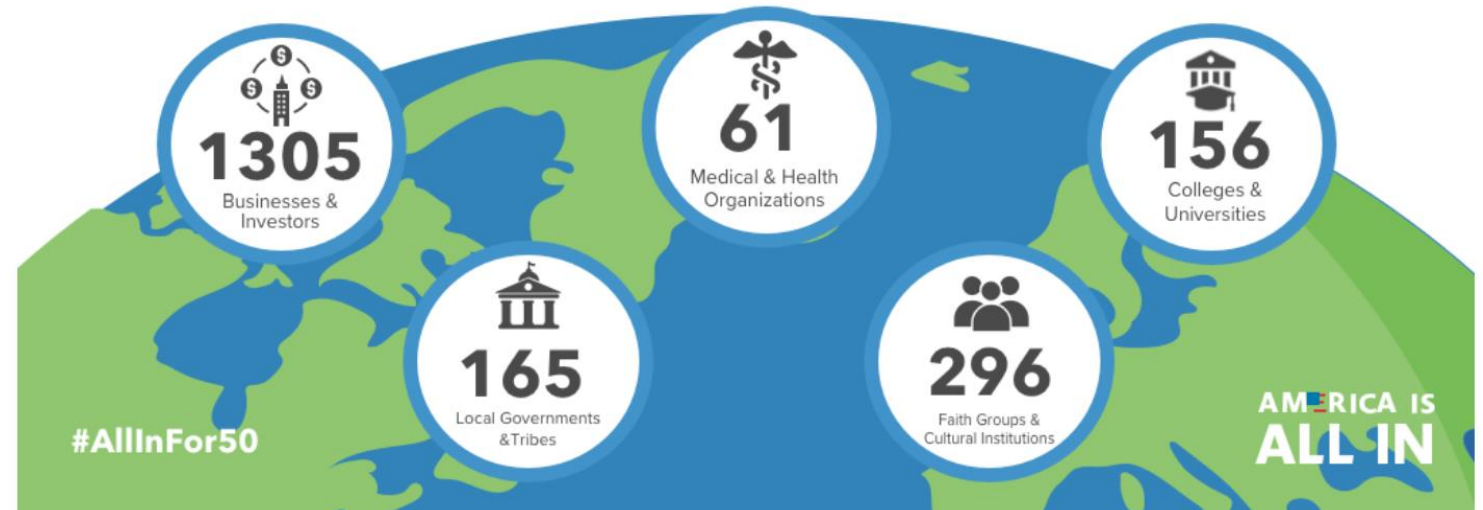
Posted on 23 April 2021



**WE MEAN BUSINESS**  
**COALITION**

**AMERICA IS ALL IN TO REACH AT LEAST 50-52% EMISSIONS REDUCTIONS BY 2030**

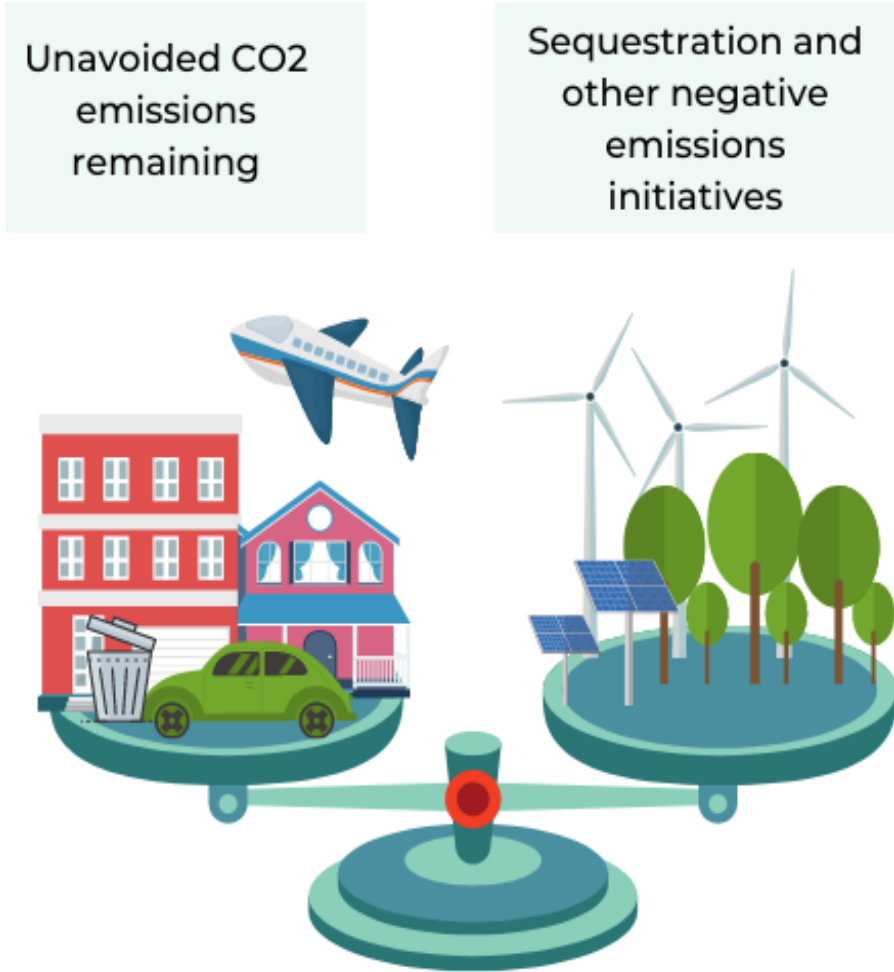
Leaders from America Is All In support the United States federal government in pursuing the newly announced national climate target of 50-52% emissions reductions by 2030.





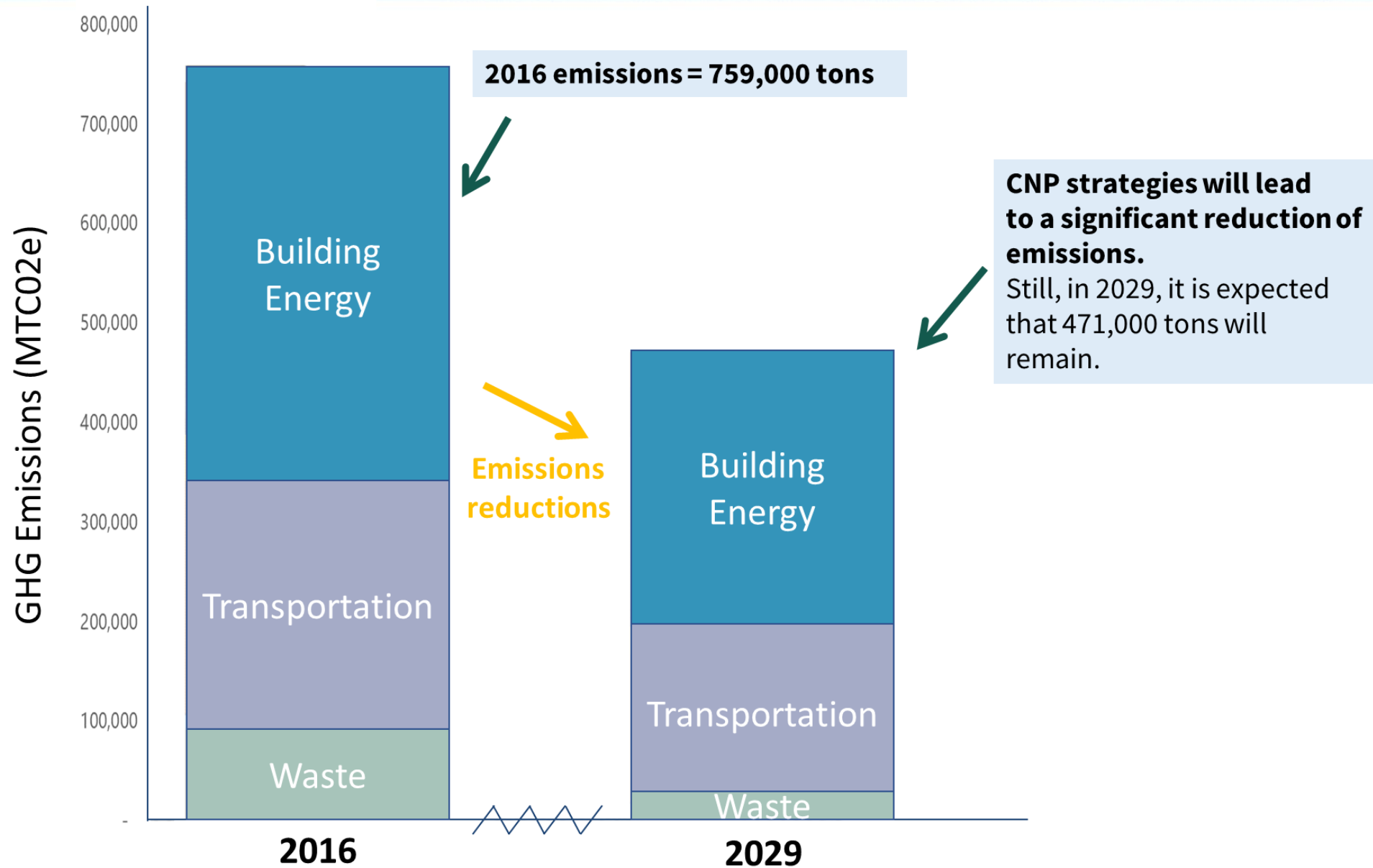
# Why Carbon Dioxide Removal – Flagstaff

- Climate Emergency Declaration (RES 2020-09)
- Commitment to achieve Carbon Neutrality by 2030
- CDR is the ‘counterbalance’ to address the unavoided emissions still produced each year
  - The amount of CDR required each year will depend on the emissions reductions achieved
  - Emissions reductions must be the first step



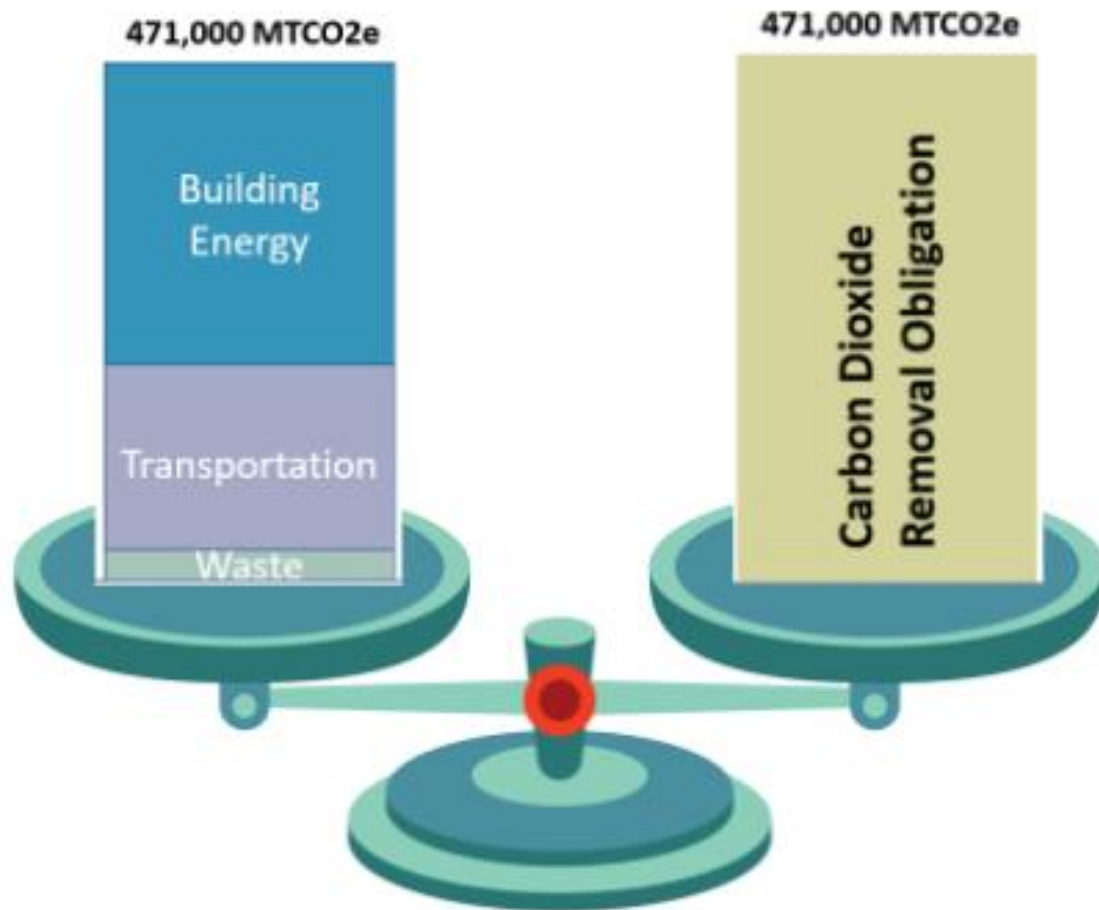


# Why Carbon Dioxide Removal – Flagstaff





# Why Carbon Dioxide Removal – Flagstaff



**101,757**

Passenger vehicles driven for one year

A blue silhouette icon of a car is positioned to the left of the text.



# Agenda Review

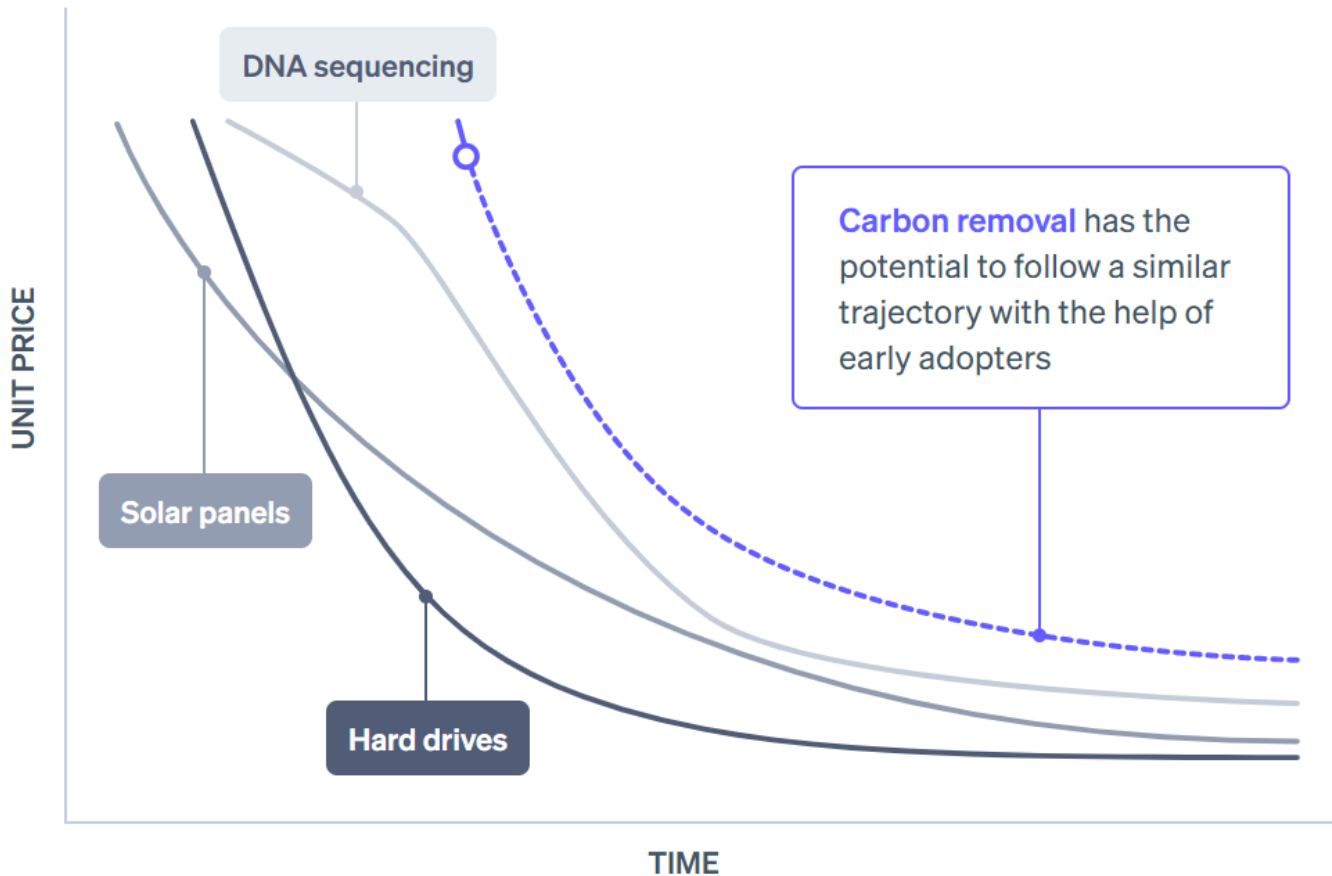
- 1) What is Carbon Dioxide Removal (CDR)
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# Examples of Corporate Leadership



## Experience curves



2:1 Investment Ratio  
Carbon Removal: Offsets



\$1 billion over the next  
four years into new  
(CDR) technologies



# Federal Incentives and Investments

## 45Q Tax Credit

- Began in 2008
- Updated in 2018
- Credit Available for a 12-year period once equipment put in service
  - \$50/ton for capture + secure geologic storage
  - \$35/ton for capture + utilization



[Home](#) » DOE Invests \$24 Million to Advance Transformational Air Pollution Capture

*Removing CO2 from the Atmosphere will Help America Achieve Net-Zero Emissions, Create Jobs*

“There is no question that investment from the federal government helped to make solar and wind the cheapest and cleanest energy sources for today’s grid, and the government has the opportunity to do the same now with carbon removal.”



# Example of Foundation Leadership

**XPRIZE**

**\$100M PRIZE FOR CARBON REMOVAL**

PHASE Registration

**XPRIZE CARBON REMOVAL** | MUSK FOUNDATION

The advertisement features a dark blue background with a view of Earth from space. The XPRIZE logo is in the top left. The main headline is "\$100M PRIZE FOR CARBON REMOVAL" in large, bold, white letters. Below it, "PHASE Registration" is written in a smaller font. At the bottom, the XPRIZE Carbon Removal logo and "MUSK FOUNDATION" are displayed.

“Any carbon negative solution is eligible: nature-based, direct air capture, oceans, mineralization, or anything else that achieves net negative emissions, sequesters CO2 durably, and show a sustainable path to achieving low cost at gigatonne scale.”



# Agenda Review

- 1) What is Carbon Dioxide Removal (CDR)
- 2) Why Carbon Dioxide Removal (CDR)
- 3) Leadership and market trends
- 4) Peer local and regional governments**
- 5) What's next

# Example of Local Government CDR

## 6

### local food & agriculture

- Work with local universities and other agencies to understand and pilot carbon sequestration practices on Boulder County lands.



March 23, 2017

New climate change pilot project to begin with analysis of carbon sequestration feasibility



Colorado State University

Carbon Sequestration Pilot Project  
Feasibility Study



# Example of Local Government CDR



GOALS

net-zero  
carbon  
+  
100%  
renewable electricity

2022  
for city operations

2030  
community-wide

Our high level strategies are:



Energy efficiency



Electrification



100% Renewable  
Electricity



Regeneration

“Regeneration - The emissions that Park City cannot eliminate will be balanced by removing carbon from the atmosphere and storing it in soils and biomass.”



# Example of Local Government CDR



## MARIN CARBON PROJECT

Search >>>

- ABOUT
- CARBON FARMING
- SCIENCE
- POLICY
- NEWS & EVENTS
- CONTACT US
- KEEP IN TOUCH

### CARBON FARMING LAUNCHES IN MARIN



#### MEMBER ORGANIZATIONS

The Marin Carbon Project is an at-will consortium of agricultural agencies, nonprofits and producers.

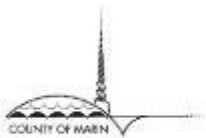
#### ABOUT MARIN CARBON PROJECT

##### MISSION

In response to the rapid pace of global climate change, the Marin Carbon Project (MCP) seeks to enhance carbon sequestration in rangeland, agricultural, and forest soils through applied research, demonstration and implementation in Marin County.

##### VISION

Our vision is for landowners and land managers of Marin's agricultural ecosystems to serve as stewards of soil health and to undertake **carbon farming** in a manner that can improve on-farm productivity and viability, enhance ecosystem functions, and stop and reverse climate change.





# What's Next?

- May 25<sup>th</sup> – Staff will update City Council on the Draft Climate Emergency Plan and host a community conversation
- Develop regional partnerships and identify opportunities for CDR projects, funding and collaboration
- Conduct feasibility study
- Deploy pilot projects with an eye towards scaling



Thank you

## CITY OF FLAGSTAFF STAFF SUMMARY REPORT

**To:** The Honorable Mayor and Council  
**From:** Dan Symer, Zoning Code Manager  
**Date:** 04/28/2021  
**Meeting Date:** 05/11/2021



### TITLE

**Proposed amendment to the Zoning Code to modify the existing Accessory Dwelling Unit (ADU) and accessory structure requirements (Case No. PZ-21-00066)**

### STAFF RECOMMENDED ACTION:

Hold a work session to allow the City Council and the public to ask questions, seek clarification, have discussions, offer comments, and provide direction on the proposed amendment.

### EXECUTIVE SUMMARY:

The proposed Zoning Code Text Amendment (Attachment 1) is a request by the City to amend the Zoning Code to incorporate provisions to allow a Detached Accessory Dwelling Unit to encroach into a property's required interior and rear setback, provided that the maximum height of the structure does not exceed 16 feet. In addition, the proposed amendment includes modifications to allow the first floor of a garage that exists within the required setbacks to be converted to a Detached Accessory Dwelling Unit, and the height of an Attached and Interior Accessory Dwelling Unit to be the same as the maximum building height permitted by the property's zone. Also, the proposed amendment includes modifications related to the allowed encroachments of an Accessory Dwelling Unit's features (Bay Windows, Open Eaves, Cornices, Fireplaces and Chimneys, and Window Sills) into the setbacks, and the provisions pertaining to the allowed encroachments into setbacks have been consolidated into one table.

In addition to the above Zoning Code Text Amendment, in accordance with the March 16, 2021, City Council request, Staff is seeking City Council direction to remove barriers to homeowners building Accessory Dwelling Units on their property – particularly whether to remove the requirements related to the property owner occupying either the single-family dwelling unit or the Accessory Dwelling Unit as their principal residence and the associated restrictive covenant provisions. The purpose of eliminating these requirements is to allow a property owner to construct an Accessory Dwelling Unit on the same lot as a single-family dwelling unit and rent both units.

### INFORMATION:

#### I. City Council Questions:

For your reference, below is a general overview of the questions on which staff is seeking the City Council's comments and direction.

- Does the City Council have any recommended modifications or considerations on the proposed Zoning Code Text Amendment?
- Does the City Council desire to incorporate modifications to the proposed amendment to remove the existing provisions requiring a property owner to occupy the single-family dwelling unit and the

restrictive covenant pertaining to owner occupancy and leasing provisions?

## **II. Overview of Proposed Amendment:**

The proposed amendment (Attachment 1) includes multiple changes to the Zoning Code. New provisions are being added, and several existing regulations are being modified. The most significant of the modifications include:

- Allowing Detached Accessory Dwelling Units to be located in the required setbacks of a property zone;
- Allowing detached garages constructed prior to February 16, 2016 that are within the required Detached Accessory Dwelling Unit setbacks to be converted to an Accessory Dwelling Unit;
- Establishing a maximum building height (16 feet) of a Detached Accessory Dwelling Unit that encroaches into the required setbacks of a property's zone; and
- Modifying the allowed building height of an Attached and Interior Accessory Dwelling Unit to be the same as the maximum building height permitted by the property's zone.

### *Summary of the Staff Revisions to the Zoning Code:*

The proposed amendment includes:

#### **1. Accessory Structures (Section 10-40.60.020):**

- Table 10-40.60.020.B.7.d.: Allowed Accessory Structure Encroachments into Setbacks has been deleted, and the related provisions have been incorporated into Table 10-50.40.020.A.: Allowed Encroachments into Setbacks and Heights.
- The reference to Table 10-40.60.020.B.7.d. for encroachments into the required setbacks has been modified to refer to Table 10-50.40.020.A.

#### **2. Accessory Dwelling Units (ADUs) (Section 10-40.60.030):**

- Table 10-40.60.030.C.: Accessory Dwelling Unit Design, Development and Exceptions Standards has been modified as follows:
  - Minimum setbacks have been established that would allow a Detached Accessory Dwelling Unit to encroach into the required setbacks of a property's zone;
  - The required setbacks of a property's zone have been maintained and clarified for Attached and Interior Accessory Dwelling Unit. The allowed building height (currently 24 feet) of an Attached and Interior Accessory Dwelling Unit has been modified to be the same as the maximum building height permitted by the property's zone;
  - Encroachments (awnings, bay windows, canopies, fireplaces and chimneys, open eaves, window sills, etc.) allowed in combination with Attached, Detached, and Interior Accessory Dwelling Units have been modified; and
  - The existing provisions pertaining to a detached garage constructed prior to February 16, 2016 have been modified to allow the garage to be converted to a Detached Accessory Dwelling Unit.

#### **3. Encroachments into Minimum Required Setbacks (Section 10-50.40.020):**

- Table 10-50.40.020.A.: Allowed Encroachments into Setbacks and Heights has been modified to incorporate the provisions of Table 10-40.60.020.B.7.d. for accessory structures. In addition, a cross-reference to the walls and fence encroachments has been included in Table 10-50.40.020.A.

## **III. Findings:**

At the June 15, 2021 City Council meeting, the City Council will be requested to approve the proposed Zoning Code Text Amendment and that the required findings specified in the Zoning Code have been met. For your reference and discussion purposes, the required findings are specified below.

- The proposed amendment is consistent with and conforms to the objectives and policies of the General Plan and any applicable specific plan;
- The proposed amendment will not be detrimental to the public interest, health, safety, convenience, or welfare of the City; and

- The proposed amendment is internally consistent with other applicable provisions of this Zoning Code.

#### **IV. Barriers to Homeowners Building Accessory Dwelling Units**

At the March 16, 2021 City Council meeting (Agenda Item 13.B.), in-lieu of a separate Future Agenda Item Request (F.A.I.R.), the City Council requested to have a discussion pertaining to removing barriers that prohibit homeowners from building Accessory Dwelling Units on their properties at the time the above referenced Zoning Code Text Amendment would be discussed. Based on discussions with a member of City Council that brought forth the Future Agenda Item Request (F.A.I.R.), the particular regulations that were identified are related to the requirements that the property owner shall occupy either the single-family dwelling unit or the Accessory Dwelling Unit as their principal residence and the associated restrictive covenant provisions. These provisions are:

- Table 10-40.60.030.C. Accessory Dwelling Unit Design, Development and Exceptions Standards.

##### (12) Required Occupancy.

(a) The property owner, which includes title holders and contract purchasers, shall occupy either the primary residence or the ADU as their principal residence. The residence or ADU that is not occupied by the property owner that is rented or leased shall be for a period of no less than 30 days.

- 10-40.60.030 Accessory Dwelling Units (ADUs)

##### E. Restrictive Covenant.

1. The property owner shall sign before a notary public a restrictive covenant that runs with the land on a form prepared by the City affirming that the property owner shall:
  - a. Occupy either the primary residence or the ADU; or
  - b. If the property owner rents or leases a property with both a primary residence and an ADU to a third party, then neither the primary residence nor the ADU shall be sub-leased.
2. The restrictive covenant shall be submitted to the City prior to the issuance of a building permit for the ADU. The City shall record the restrictive covenant after the building permit has been issued.

The purpose of eliminating these requirements is to allow a property owner to construct an Accessory Dwelling Unit on the same lot as a single-family dwelling unit and rent both units. There are potential benefits and drawbacks to eliminating the property owner occupancy and restrictive covenant requirements. The potential benefits include:

- Allowing a property owner to construct an Accessory Dwelling Units that may also be rented in addition to a single-family dwelling unit rental on the same lot; and
- Increasing the number of rental dwelling units that may contribute to the availability of affordable housing options.

The potential drawbacks include:

- Creating an increased number of Accessory Dwelling Units that may be utilized as vacation/short term rentals; and
- Having two separate rental units connected to one utility meter for each source (water, electric, gas, etc.).

Rather than allow a property owner to rent the both the primary and accessory units as right, impacts to the neighborhood could be mitigated and housing availability to residents increased by instead incentivizing the rental of both the primary and accessory units upon owner agreement not to rent either unit for less than 30 days. This agreement would be recorded as a restrictive covenant on the property. No owner would be required to comply with this rental restriction in order to construct an ADU as the existing right to construct an ADU with owner-occupancy requirement would remain in place.

It also should be noted that the single-family dwelling unit and the Accessory Dwelling Unit must be connected to the same water meter. This requirement is intended to minimize the cost of constructing the Accessory Dwelling Unit since separate meter installation costs for each dwelling unit would not need to be paid. Therefore, the potential savings could allow the property owner to rent the Accessory Dwelling Unit at a lower cost. For example, Water Services staff estimates the cost of installing a separate water meter for an accessory dwelling unit to be approximately \$13,000.

Having two separate rental units connected to one utility meter source may be a drawback because the property owner may require the renter of one of the dwelling units to pay the monthly utility cost and collect utility fees from the other dwelling unit renter. If the renter that contracts with the utility for the service fails to pay the utility provider, utility services may be disconnected. In that case, the other dwelling unit's renter that does not hold the utility contract will be left without utility service.

**V. Community Involvement:**

At the time that this report was written, staff has received one public comment (Attachment 2) on the proposed amendment and the discussion topic indicated in Section IV.

**VI. Conclusion:**

As indicated above, the purpose of the work session is for staff to present an overview of the Zoning Code's proposed amendment and allow interested individuals, residents, and business owners to provide comments. The work session also allows the Commission to ask questions, seek clarification, have discussions, and offer comments on the proposed amendment. No formal recommendation or action by the Commission to the City Council is to occur at the work session. Additional opportunities for discussion, public comment, and action by the Commission will occur at a future public hearing.

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**Attachments:**     1. Draft Zoning Code Text Amendment  
                          2. Public Comment  
                          Staff Presentation

Case No. PZ-21-00066 Updates to Zoning Code 2021 – Accessory Dwelling Unit and Accessory Structure Encroachments Requirements

Amendment for Adoption into the Flagstaff Zoning Code

**HOW TO READ THIS DOCUMENT**

Unless otherwise stated, provisions that are being deleted are shown in bold red strikethrough text, like this: ~~Provisions that are being deleted are shown with a bold red strikethroughs text.~~

Provisions that are being added are shown in bold blue text, like this: **Provisions that are being added are shown in bold blue text.**

Section 1. Amend Title 10 Flagstaff Zoning Code, Division 10-40.60 Specific to Uses:, 10-40.60.020 Accessory Structures, Subsection B. Approvals and Standards., paragraph 7, list d., as follows:

**B. Approvals and Standards.**

7. All other accessory structures shall comply with the property development standards of the property’s zone, except as specified below:

- d. ~~Allowed~~ Encroachments into the required setbacks ~~in addition to Section 10-50.40.020.A nonhabitable structure (e.g., garage, workshop, carport, shed, greenhouse, etc.) may encroach into the property’s required zone setbacks in accordance with Table 10-40.60.020.B.7.d.~~ **are allowed in accordance with Table 10-50.40.020.A.**

Section 2. Amend Title 10 Flagstaff Zoning Code, Division 10-40.60 Specific to Uses:, Section 10-40.60.020 Accessory Structures, Table 10-40.60.020.B.7.d., to delete the table, as follows:

<del>Table 10-40.60.020.B.7.d.</del>	
<del>Allowed Accessory Structure Encroachments into Setbacks</del>	
<del>Yard of Encroachment</del>	<del>Minimum Setback</del>
<del>Rear yard abutting a public alley right of way or private alley tract:</del>	<del>0 feet.</del>
<del>Rear yard abutting another lot or parcel:</del>	<del>5 feet.</del>
<del>Interior side yard:</del>	<del>5 feet.</del>

<del>Table 10-40.60.020.B.7.d.</del>	
<del>Allowed Accessory Structure Encroachments into Setbacks</del>	
<del>Yard of Encroachment</del>	<del>Minimum Setback</del>
<del>Street side yard:</del>	<del>No encroachment allowed.</del>
<del>Front yard:</del>	<del>No encroachment allowed.</del>
<del>Notes</del>	
<del>1. Refer to Section 10-50.50.030, Siting and Building Standards, regarding the locations and heights of walls and fences.</del>	

Section 3. Amend Title 10 Flagstaff Zoning Code, Division 10-40.60 Specific to Uses:, Section 10-40.60.030 Accessory Dwelling Units (ADUs), Table 10-40.60.030.C., rows (5) through (17), as follows:

Table 10-40.60.030.C. Accessory Dwelling Unit Design, Development and Exceptions Standards	
(5) Building Form and Property Development Standards	<p>(a) <del>Setbacks. An ADU shall comply with the setback requirements of the property's zone and as allowed in (d) and 14 of this table.</del> Setbacks.</p> <p>(i) A Detached ADU structure may be located in the rear and interior side setbacks, provided that the following are maintained:</p> <p>(i.1) Minimum rear setback abutting a public alley right-of-way or private alley tract: 0 feet.</p> <p>(i.2) Minimum rear setback abutting another lot or parcel: 5 feet.</p> <p>(i.3) Minimum interior side setback: 5 feet.</p> <p>(ii) An Attached or Interior ADU shall comply with the required setbacks of a lot's or parcel's zone.</p> <p>(iii) Alternative setbacks and placements are allowed in accordance with Section 10-40.60.030.D.</p> <p>(b) (i) Detached ADU Encroachments. Only the encroachments in subsection (7) of Table 10-50.40.020.A. are allowed in the setbacks of subsection (5)(a)(i) of this Table. The other encroachments of Table 10-50.40.020.A. are not allowed as part of a Detached ADU.</p> <p>(ii) Attached and Interior Encroachments. The encroachment of Table 10-50.40.020.A. are allowed.</p> <p>(iii) A detached garage constructed prior to February 16, 2016 that is in the minimum setback(s) of subsection (5)(a)(i) of this Table or in the street side setback may be converted to an ADU or have an ADU above the garage as a second floor, provided that no exterior additions or an increase in building height is developed to accommodate the ADU.</p>

**Table 10-40.60.030.C.  
Accessory Dwelling Unit Design, Development and Exceptions Standards**

- ~~(b)~~ (c) Building Height. ~~The maximum height of an Attached and Detached ADU, measured in accordance with Section 10-50.30.030: 24 feet~~
  - (i) Attached and Interior ADU: Maximum height allowed by the lot's or parcel's zone.
  - (ii) Detached ADU within the required setbacks of a lot's or parcel's zone: 24 feet.
  - (iii) Any portion of a Detached ADU that encroaches into the required setbacks of the property's zone: 16 feet.
- ~~(c)~~ (d) Lot Coverage. The lot coverage requirements of a property's zone shall:
  - (i) Not apply to Attached and Detached ADU; and
  - (ii) Apply to a dwelling unit containing an interior ADU.
- ~~(d)~~ **Encroachment into setbacks.**
  - ~~(i) The encroachments specified in Section 10-50.40.020 are allowed.~~
  - ~~(ii) The development of a Detached ADU on the second floor of a garage that was developed prior to February 16, 2016, and is in the required setback(s), shall be allowed, provided that no exterior additions or an increase in building height was developed to accommodate the ADU.~~

Section 4. Amend Title 10 Flagstaff Zoning Code, Division 10-50.40: Encroachments, Section 10-50.40.020 Encroachments into Minimum Required Setbacks, Table 10-50.40.020.A., as follows – including table format and shading:

<b>Table 10-50.40.020.A.: Allowed Encroachments into Setbacks <del>and</del> Heights</b>	
<b>(1) Arbors, Awnings, Canopies, Court Yards, Decks, Patios, Pergolas, Porches, Stoops, Trellis, Hooded Entries, Carports and <del>Balconies</del><sup>1,2,3</sup> Balconies</b>	
<b>Standard</b>	<b>Maximum Encroachment in Setback</b>
Front, Rear, Street Side Setback <del>(max.)</del>	<b>5 feet<sup>1,2,3</sup> <del>5 feet</del></b>
Interior Side Setback <del>(max.)</del>	<b>3 feet<sup>1,2,3</sup> <del>3 feet</del></b>
<b>(2) Accessory Dwelling Units <del>(ADUs)</del><sup>1</sup> (ADUs)</b>	
See Section 10-40.60.030	
<b><del>Accessory Buildings and Structures</del><sup>1</sup></b>	
<b>(3) Accessory Buildings and Structures, Excluding Walls and Fences</b>	
<del>See Section 10-40.60.020</del>	
<b>Standard</b>	<b>Minimum Setback from Property Line</b>

**Table 10-50.40.020.A.: Allowed Encroachments into Setbacks and Heights**

	<b>Rear setback abutting a public alley right-of-way or private alley tract</b>	<b>0 feet</b>
	<b>Rear setback abutting another lot or parcel</b>	<b>5 feet<sup>2,3</sup></b>
	<b>Interior side setback</b>	<b>5 feet<sup>2,3</sup></b>
	<b>Street side setback</b>	<b>No encroachment allowed</b>
	<b>Front setback</b>	<b>No encroachment allowed</b>
<b>(4) Walls and Fences</b>		
	<b>Refer to Section 10-50.50.030, Siting and Building Standards, regarding the allowed locations of walls and fences.</b>	
<b>(5) Ground Mounted Solar Panels</b>		
	<b>Standard</b>	<b>Maximum Encroachment in Setback</b>
	Front, Rear, Street Side Setback <del>(max.)</del>	5 feet
	Interior Side Setback <del>(max.)</del>	3 feet
<b>(6) Open Stairways</b>		
	<b>Standard</b>	<b>Maximum Encroachment in Setback</b>
	Rear and Exterior Side Setback	5 feet <sup>2,3</sup>
	Interior Side Setback	3 feet <sup>2,3</sup>
<b>(7) Bay Windows, Open Eaves, Cornices, Fireplaces and Chimneys, and Window Sills</b>		
	<b>Standard</b>	<b>Maximum Encroachment in Setback</b>
	All Setbacks <del>(max.)</del>	2 feet
<b>End Notes:</b>		
1. In no case shall the permitted encroachment exceed 50 percent of the required setback.		
2. Refer to applicable Building Code sections for permitted projections into setback areas and ensure that a 3' space is maintained between an open stairway and the property line.		
3. Refer to applicable Building Code sections for construction less than 5' from a property line.		

## Daniel Symer

---

**From:** Duffie Westheimer <dwestheimer@gmail.com>  
**Sent:** Monday, April 26, 2021 8:50 AM  
**To:** Jim McCarthy  
**Cc:** Daniel Symer  
**Subject:** proposed ADU revision

Good morning Jim,

I understand the idea to not require owner-occupancy in one of the units on a property with an ADU is an idea you have put forth.

I have witnessed the influx of ADUs into my neighborhood over the 33 years we've lived in our house. With two exceptions (which I'll get to) every time an ADU is developed on a neighborhood property the owner leaves and we end up with both being rentals. Nowadays, they are short-term rentals which should not be encouraged as they are terrible for neighborhoods.

With owners present there is a better chance they will require tenants to be more considerate of neighbors. And the people affected are not just next door. Party lights from a short-term rental deck on Santa Fe shine in our house all night long, more than a block away. This means we have to have curtains or shades closed at night even in the summer when it is hot which cuts down on air circulation.

With owners present there is someone to be accountable to neighbors--someone neighbors can talk with about any issues.

ADUs with alley access add traffic where it is most dangerous. In my neighborhood, the alleys are only 16' wide, and often there is a garage built ON the property line where the alley and street meet. Then because there is not sufficient parking on properties there are always vehicles parked next to the alleys. This results in horrible visibility and dangerous exits from the alleys.

In Townsite the alleys are required to remain unpaved to preserve the rural feel. Many people walk in the alleys. More traffic is not safe.

Neighborhoods are not commercial zones and short-term rentals are, honestly, a commercial endeavor.

There are two exceptions to the owner moving away. In one they did move away leaving us with two money-makers for them. Eventually because their historic house was about to fall down they embraced the rehab and made it a house where they wanted to live. Recently the ADU in back is reserved for their guests--no more tenants. My takeaway is that people really don't want to live with someone in their yard, and especially when the building is two stories.

The other example of the owner still on the property is probably because he is an extreme introvert and seems happy to live in his "shop." But, meanwhile he is probably raking in the bucks with his two (legal) short-term rentals.

This opportunity is mostly available to people with the resources to build more. That turns more of our neighborhoods into investments. Then when the properties are built out to the max that means

more impermeable land, more heat. Also, when properties are built out to the allowed entitlements the value is increased, making them too expensive for most Flagstaff residents.

The people with the money to build ADUs won't put them where they live. They will buy in my modest (yet expensive) neighborhood. This is partly because there is a myth that people who live downtown won't drive. That is untrue--most of my neighbors are in and out of their vehicles all day long. This is legal for them to do, and I will defend their right to do so.

Lastly, once an entitlement is provided to property owners, good luck taking it away even if it proves to create other or bigger problems. Prop 207...they only need to claim a financial loss not prove it.

**Please require property owners with ADUs to live on site full-time--that it be their primary residence.**

I am happy to discuss further if you'd like. (I cc'd Dan Symer.)

Hope you're staying well,  
Duffie

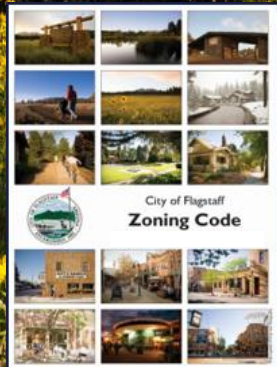
# Updates to Zoning Code 2021 – Accessory Dwelling Unit and Accessory Structure Encroachments Requirements

City's Request to  
Amend the Zoning Code

Case PZ-21-00066



Dan Symer, AICP  
Zoning Code Manager



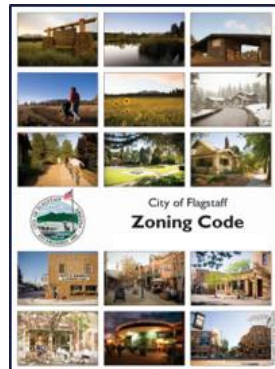


# Accessory Dwelling Units and Accessory Structure Encroachments Requirements



## Work Session Objectives

- **To inform the public and allow for their suggestions and concerns to be heard**
- **To inform the City Council and allow for their suggestions, questions and discussion**
- **No action will be taken by the City Council at their work session**





# Accessory Dwelling Units and Accessory Structure Encroachments Requirements

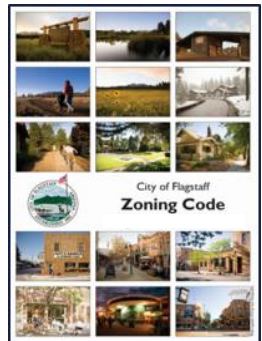


## City's Proposed Zoning Code Text Amendment

### *Purpose:*

Amend the Zoning Code to

- **Modify the existing Accessory Dwelling Unit provisions to address the location and height allowances for Attached, Detached, and Interior Accessory Dwelling Units**
- **Consolidate the accessory structure encroachments provision into one table**





# Accessory Dwelling Units and Accessory Structure Encroachments Requirements

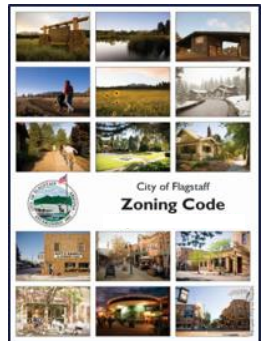


## City's Proposed Zoning Code Text Amendment

***Purpose:***

**Discussion Topic**

- **Hold a discussion pertaining to removing barriers that prohibit homeowners from building Accessory Dwelling Units on their property**





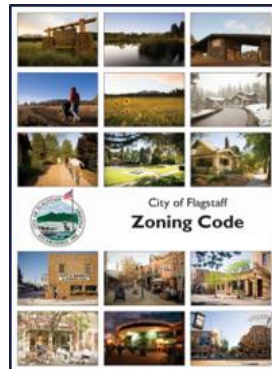
# Accessory Dwelling Units and Accessory Structure Encroachments Requirements



## City's Proposed Zoning Code Text Amendment

### *Questions for Consideration:*

- Does the City Council have any recommended modifications or considerations on the proposed Zoning Code Text Amendment?
- Does the City Council desire to incorporate modifications to the proposed amendment to remove the existing provisions requiring a property owner to occupy the single-family dwelling unit and the restrictive covenant pertaining to owner occupancy and leasing provisions?

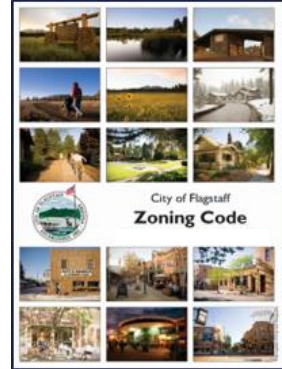
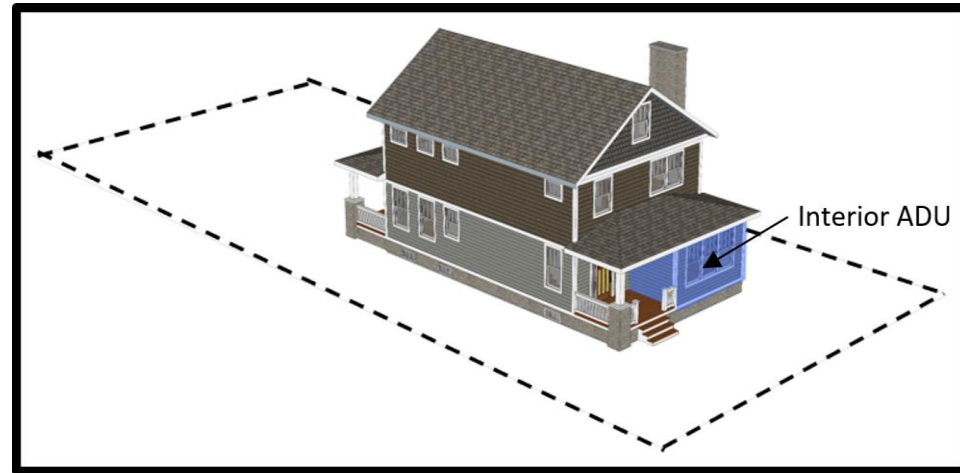
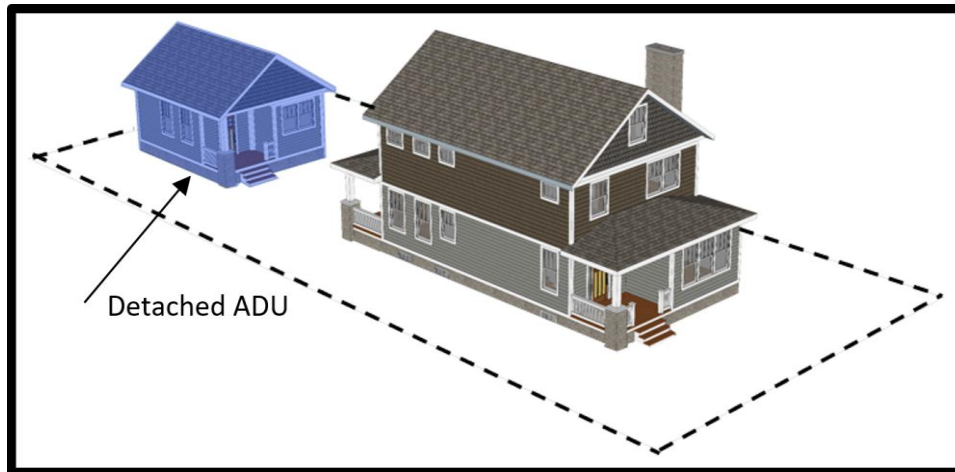
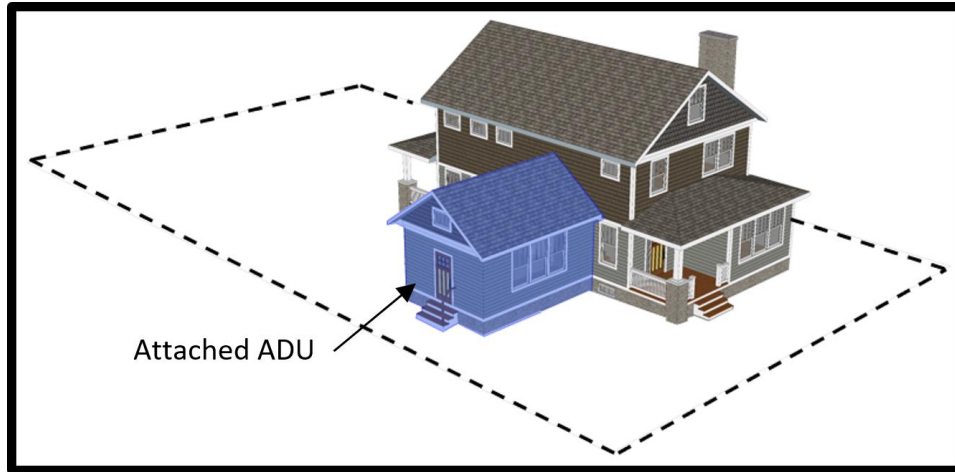




# Accessory Dwelling Units and Accessory Structure Encroachments Requirements



## Types of Accessory Dwelling Units





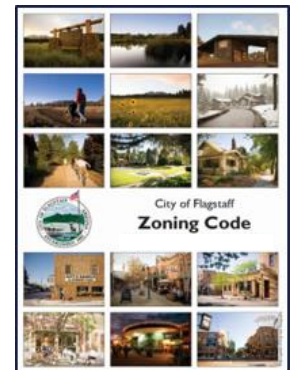
# Accessory Dwelling Unit and Accessory Structure Encroachments Requirements



## City's Proposed Zoning Code Text Amendment

### *Overview of Proposed Amendment:*

- **Detached Accessory Dwelling Units to encroach into the required interior and rear setback**
- **Proposed Allowance**
  - **Five foot setback from interior side property**
  - **Five foot setback from rear property line, except allow a zero foot setback adjacent to public or private alley**
  - **Sixteen foot building height allowance**
  - **Allow the first floor of a existing garages to be used in as Detached Accessory Dwelling Unit**





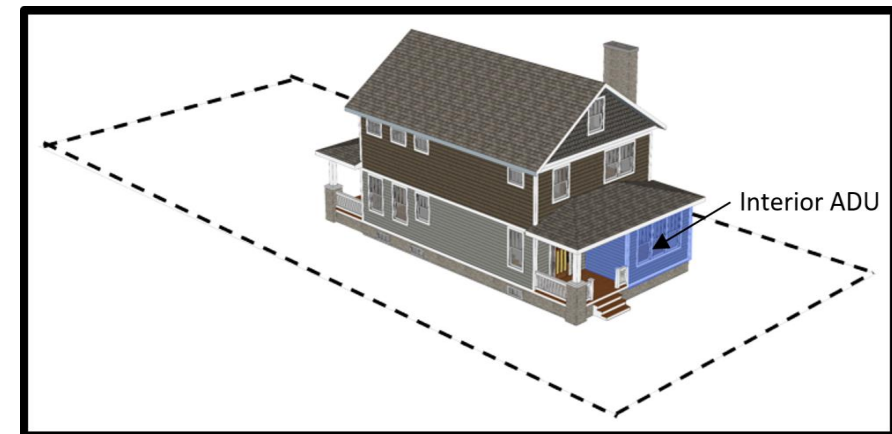
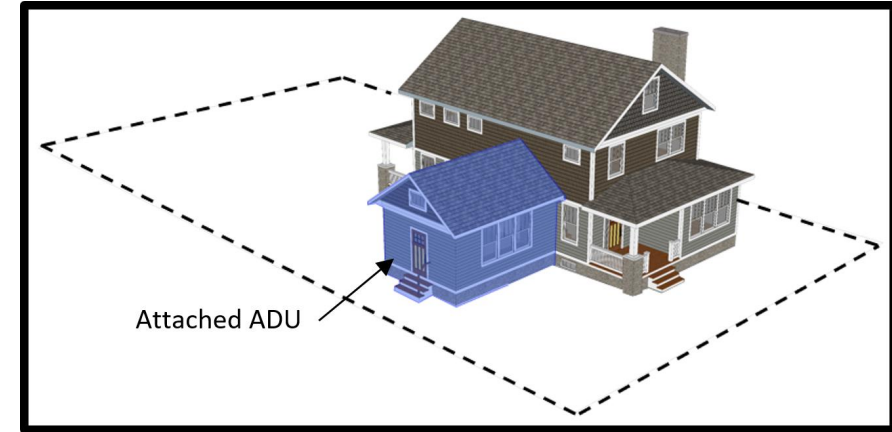
# Accessory Dwelling Unit and Accessory Structure Encroachments Requirements



## City's Proposed Zoning Code Text Amendment

### *Overview of Proposed Amendment:*

- **Interior and Attached Accessory Dwelling Unit**
  - Maintain the existing setback requirements
  - Proposed to allow Interior and Attached Accessory Dwelling Unit to be constructed to the height allowed by the property's zoning
  
- **Consolidate the accessory structure encroachments provision into one table**

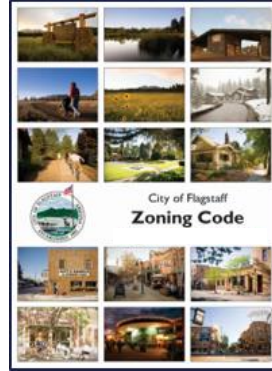




# Accessory Dwelling Unit and Accessory Structure Encroachments Requirements



## City's Proposed Zoning Code Text Amendment



### *Discussion Topic:*

- **Hold a discussion pertaining to removing barriers that prohibit homeowners from building Accessory Dwelling Units on their properties**
  - **Incorporate modifications to the proposed amendment to remove the existing provisions requiring a property owner to occupy the single-family dwelling unit and the restrictive covenant pertaining to owner occupancy and leasing provisions**



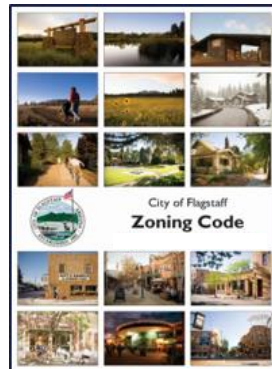
# Accessory Dwelling Unit and Accessory Structure Encroachments Requirements



## City's Proposed Zoning Code Text Amendment

### *Provisions:*

- **Required Occupancy**
  - **Property owner shall occupy either the Single-family Dwelling Unit or the Accessory Dwelling Unit as their principal residence**
  - **Single-family Dwelling Unit or the Accessory Dwelling Unit that is not occupied by the property owner that is rented or leased shall be for a period of no less than 30 days**





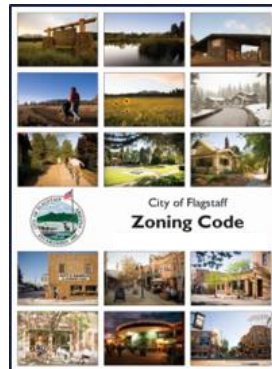
# Accessory Dwelling Unit and Accessory Structure Encroachments Requirements



## City's Proposed Zoning Code Text Amendment

### *Provisions:*

- **Restrictive Covenant**
  - **Property owner shall occupy either the Single-family Dwelling Unit or the Accessory Dwelling Unit as their principal residence**
  - **Single-family Dwelling Unit or the Accessory Dwelling may not be separately rented/leased or subleased**





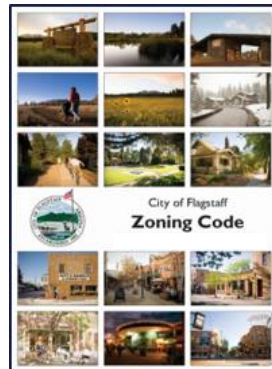
# Accessory Dwelling Unit and Accessory Structure Encroachments Requirements



## City's Proposed Zoning Code Text Amendment

*The potential benefits include:*

- **Allowing a property owner to construct an Accessory Dwelling Units that may also be rented in addition to a single-family dwelling unit rental on the same lot**
- **Increasing the number of rental dwelling units that may contribute to the availability of affordable housing options**





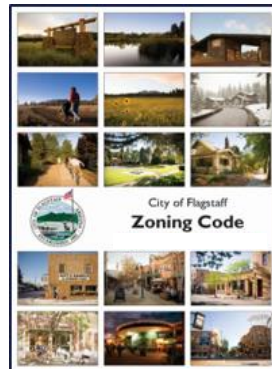
# Accessory Dwelling Unit and Accessory Structure Encroachments Requirements



## City's Proposed Zoning Code Text Amendment

*The potential drawbacks include:*

- **Creating an increased number of Accessory Dwelling Units that may be utilized as vacation/short term rentals**
- **Having two separate rental units connected to one utility meter for each source (water, electric, gas, etc.)**





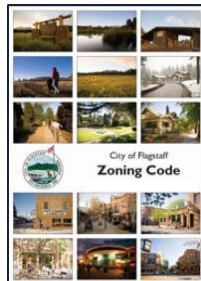
# Accessory Dwelling Unit and Accessory Structure Encroachments Requirements



## City's Proposed Zoning Code Text Amendment

### *The potential solution:*

- **Incentive the development of an Accessory Dwelling Unit by allowing the property owner to lease both the Accessory Dwelling Unit and the Single-Family Dwelling Unit if they agree to restrictive covenant or agreement prohibiting the units from being leased as vacation/short term rentals**





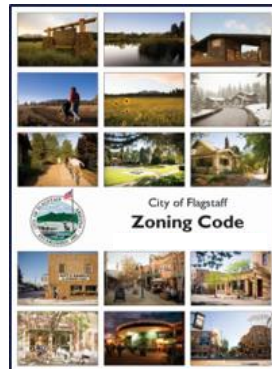
# Accessory Dwelling Units and Accessory Structure Encroachments Requirements



## City's Proposed Zoning Code Text Amendment

### *Questions for Consideration:*

- **Does the City Council have any recommended modifications or considerations on the proposed Zoning Code Text Amendment?**
- **Does the City Council desire to incorporate modifications to the proposed amendment to remove the existing provisions requiring a property owner to occupy the single-family dwelling unit and the restrictive covenant pertaining to owner occupancy and leasing provisions?**

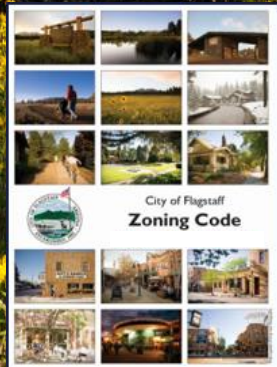


# Updates to Zoning Code 2021 – Recreational Marijuana

City's Request to  
Amend the Zoning Code  
Case PZ-21-00056



Dan Symer, AICP  
Zoning Code Manager



## CITY OF FLAGSTAFF STAFF SUMMARY REPORT

**To:** The Honorable Mayor and Council  
**From:** Jeremy DeGeyter, Project Manager  
**Co-Submitter:** Jana Weldon  
**Date:** 03/24/2021  
**Meeting Date:** 05/11/2021



### TITLE

**Update/Discussion on the City of Flagstaff Downtown Library ADA Entrance Project**

### STAFF RECOMMENDED ACTION:

This item is for discussion only (see attached presentation).

### EXECUTIVE SUMMARY:

The Library Entrance ADA project will replace the current non-ADA compliant library entrance and plaza at the Downtown Flagstaff City-Coconino County Public Library with a new ADA compliant entrance including ramps/sidewalks and plaza. The project team has developed numerous conceptual ramp designs, engaged in a robust stakeholder and public outreach effort, and incorporated this feedback to create the conceptual designs now presented for consideration. Close coordination with the Commission on Inclusion and Adaptive Living and striving to achieve Universal Design goals, which include creating spaces and resources that can be used equitably by all, regardless of their ability, has been a guiding light.

On December 1, 2020, City Council approved a contract, in the amount of \$75,000, for a public art component in relation to this project with Jones Studio. The artist, Maria Salenger, has been incorporated as an important member of the design team and has prepared preliminary art concepts that have been vetted by focus groups and the Beautification and Public Arts Commission (BPAC).

This project is in the conceptual design phase and it has been identified that there are existing conduits and fiber connections to the Library, however we will continue to coordinate with the Information Technology Team as we finalize the design to ensure the fiber optic system is compatible with future needs.

The current project budget includes \$370,000 in FY 21 funding from Bed, Board and Beverage (BBB) revenues and new FY 22 monies in the amount of \$150,000 in additional BBB funds and \$100,000 in Library funding. Additionally, \$75,000 in FY 21 funding from BBB was authorized for the inclusion of public art within the project.

### INFORMATION:

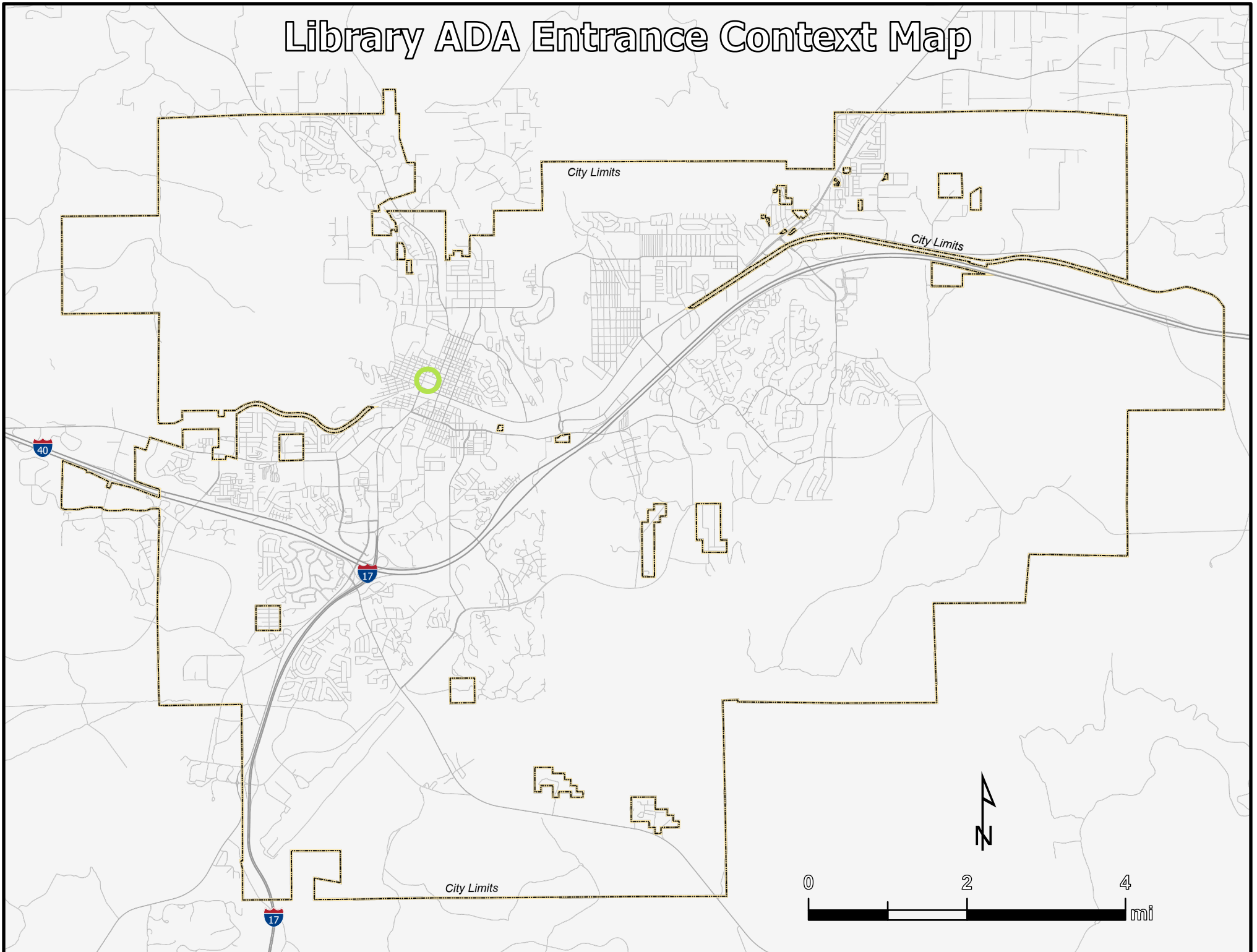
The City of Flagstaff Downtown Library ADA Entrance Project presentation will provide information including:

- Project Background and History
- Final Concepts
- Alternatives Under Consideration
- Next Steps
- Preliminary Art Concept

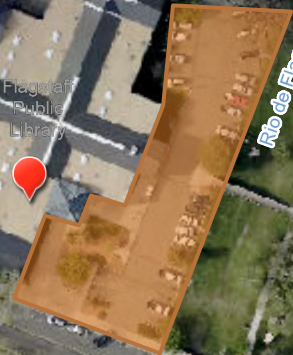
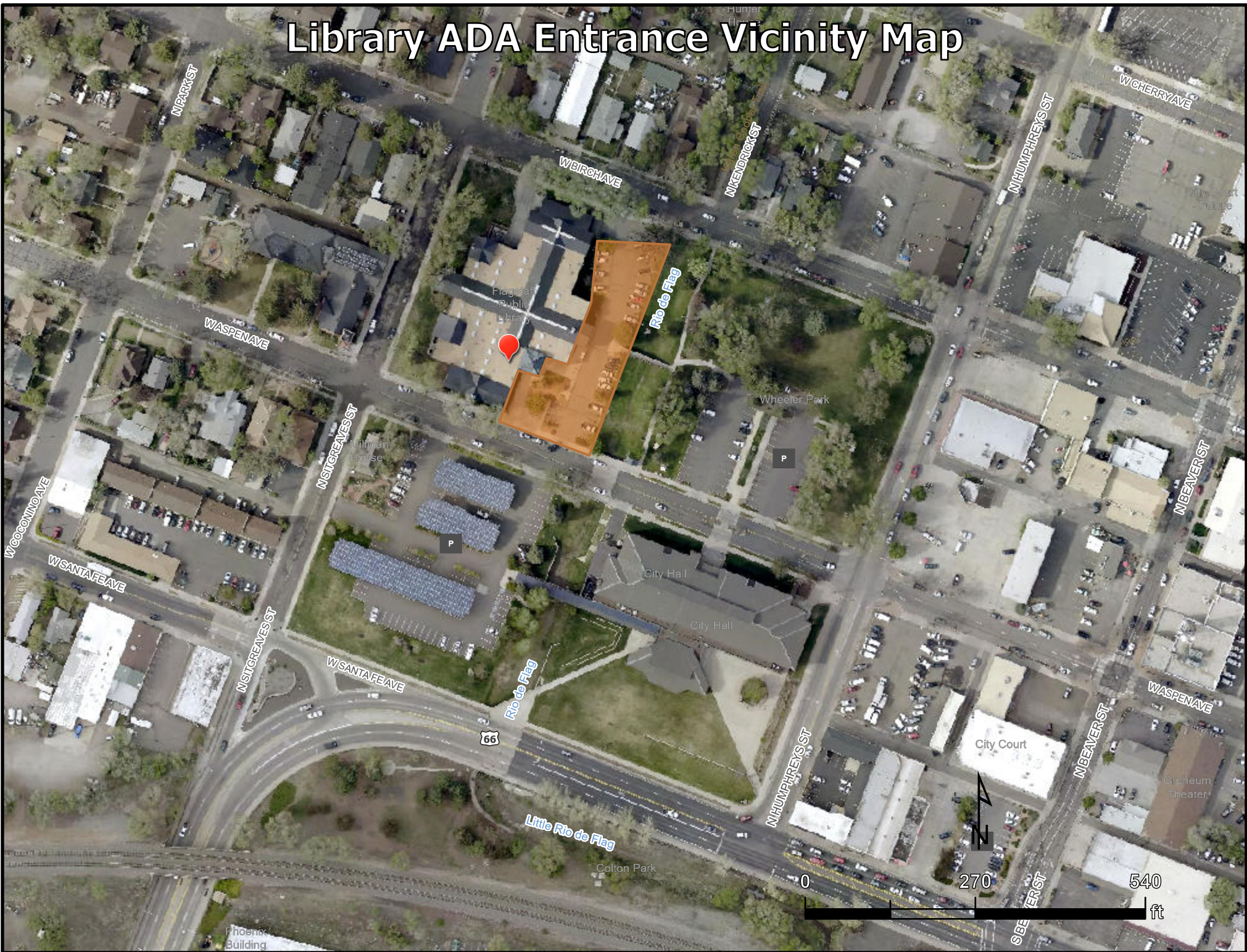
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**Attachments:**    [Context Map](#)  
                          [Vicinity Map](#)  
                          [Presentation](#)  
                          [Preliminary Art Concept Presentation](#)

# Library ADA Entrance Context Map



# Library ADA Entrance Vicinity Map



66



0 270 540

ft

# Library ADA Entrance

May 11, 2021



# Presentation Outline:

1. Project Background and Approach
2. Concept Plans
3. Parking/Tree Considerations
4. Renderings
5. Feedback on Designs
6. Preliminary Art Concept Presentation and Discussion



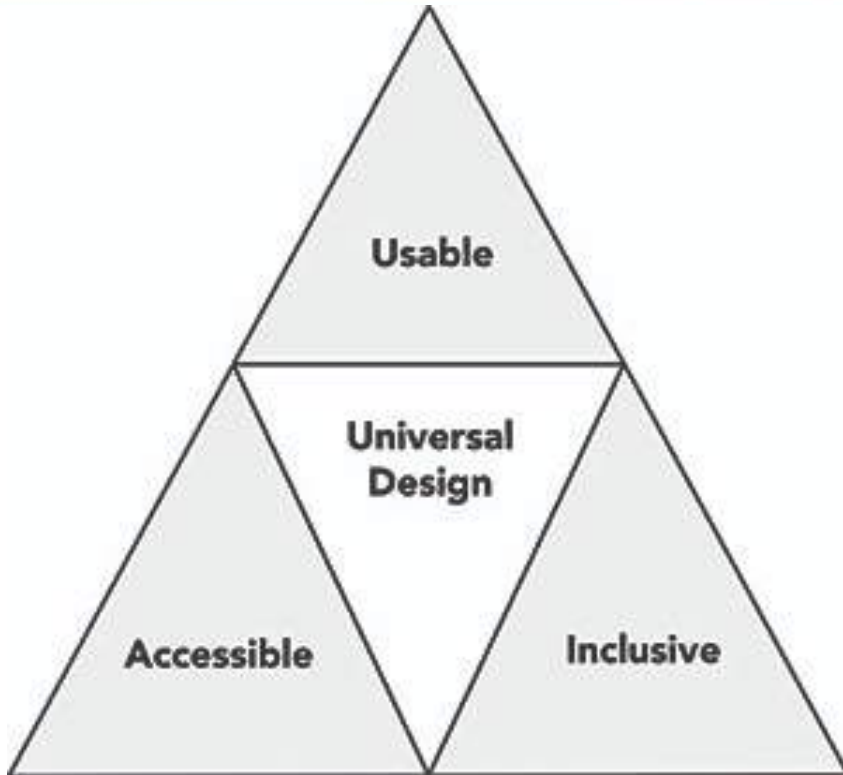
# Project Background

- Project Reset in 2020
- Guiding Light- Inclusive Design
- Stakeholder Engagement





# Universal Design



<https://www.washington.edu/doit/universal-design-education-principles-and-applications>



<https://knowledgeone.ca/universal-design-for-learning/>



# Stakeholder Engagement

- **Commission on Inclusion and Adaptive Living**
  - Six meetings and updates. Presented and discussed designs
- **Community and NAU Experts on Universal Design**
  - Virtual meeting and tour of local examples, including NAU Campus
- **Beautification and Public Art Commission**
  - Presented concepts twice, and got approval and recommendations on current designs
- **Library Board**
  - Updated Board twice
- **Public Survey-Library Entrance Art Component-176 responses**

# We Want Your Input

- Select a preferred concept
- Provide feedback on parking options
- Stair alternative

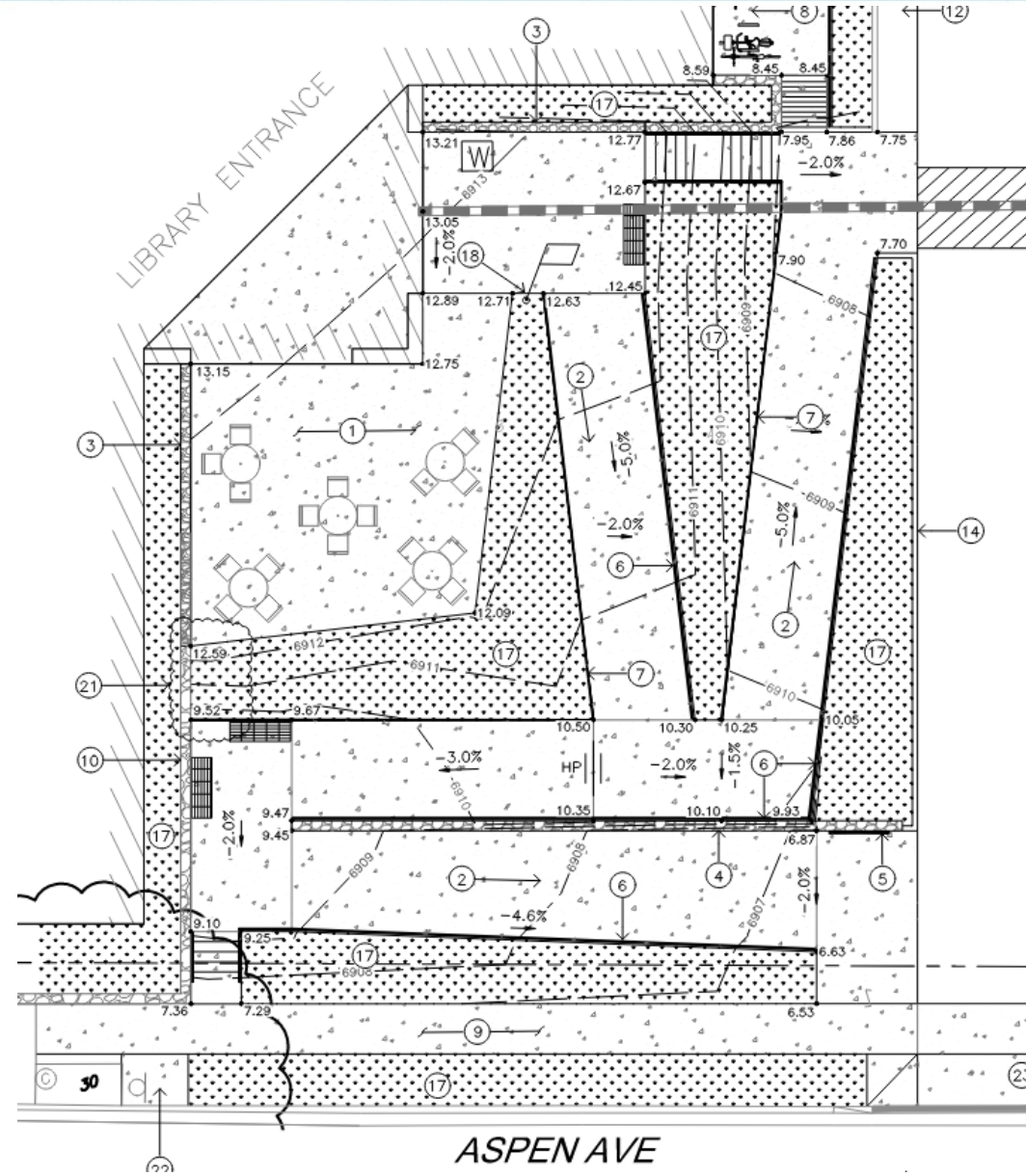




# Library ADA Entrance



Concept 1





# Library ADA Entrance



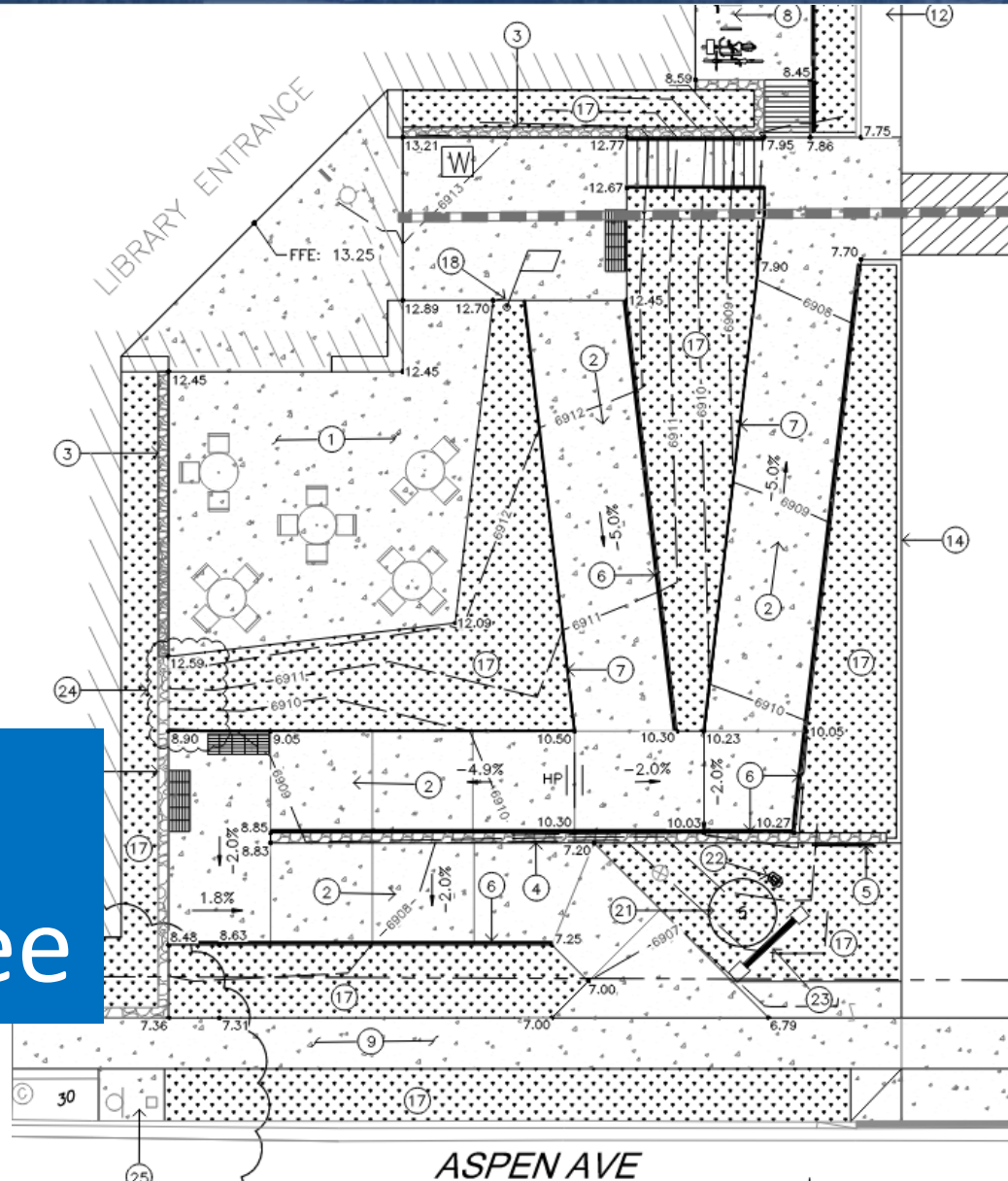
Concept 1



# Library ADA Entrance



Concept 2  
Memorial Tree





# Library ADA Entrance



Concept 2  
Memorial Tree



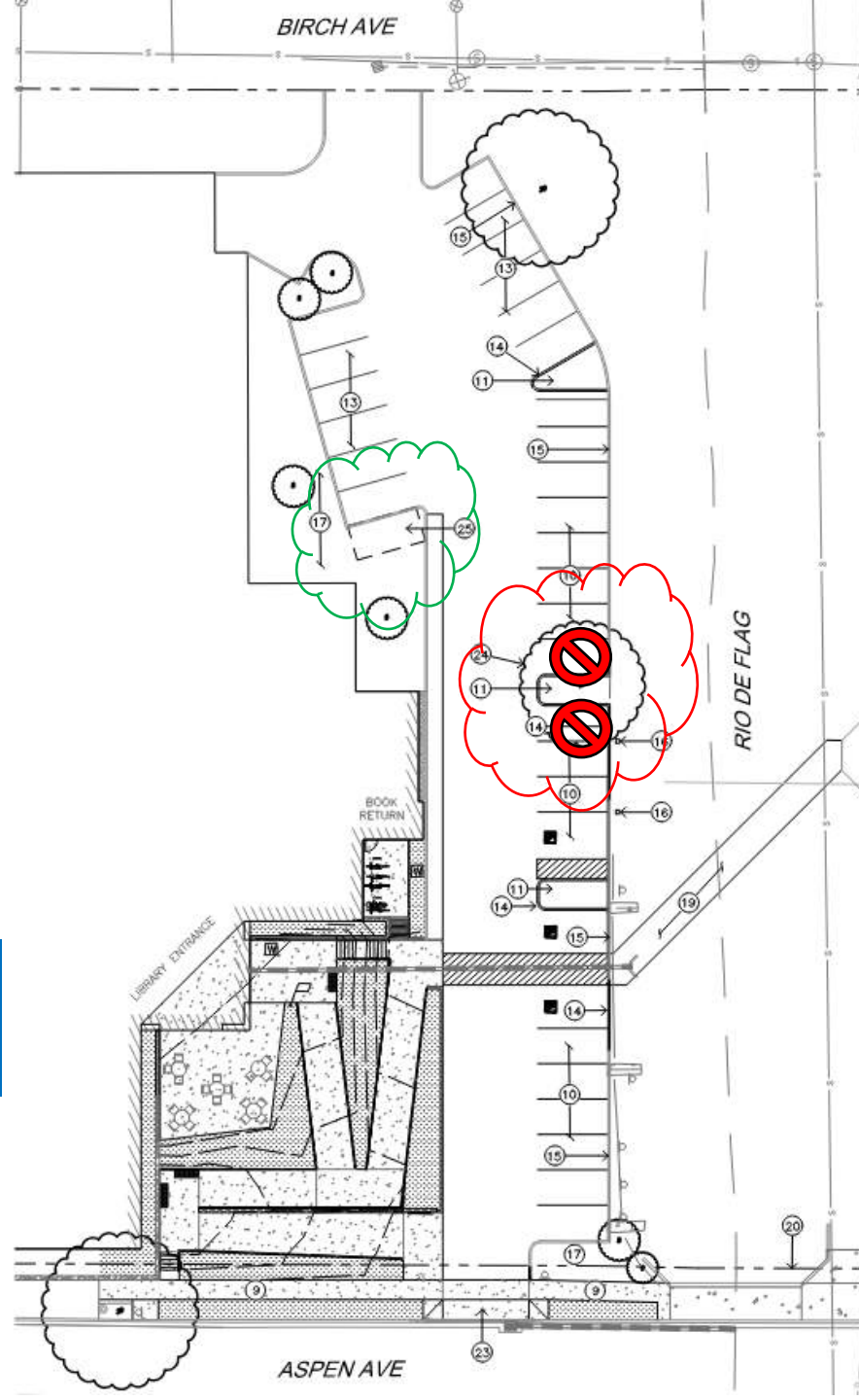
# Library ADA Entrance



## Existing Conditions



# Library ADA Entrance



Parking/Trees





# Library ADA Entrance



Concept 1



# Library ADA Entrance



Concept 2



# Library ADA Entrance



Concept 1



# Library ADA Entrance



Concept 2



# Library ADA Entrance



Concept 1



# Library ADA Entrance



Concept 2



# Library ADA Entrance



Concept 1



# Library ADA Entrance



Concept 2



# Library ADA Entrance



Concept 1



# Library ADA Entrance



Concept 2



# Library ADA Entrance



Concept 1  
Add Stairs



# Library ADA Entrance



Concept 2  
Add Stairs



# Library ADA Entrance



Concept 2



# Library ADA Entrance



Concept 2  
Remove Tree



# Library ADA Entrance



Concept 2  
Remove Tree



Concept 1



Concept 2

NO  
SKATEBOARDING ON  
LIBRARY SIDEWALKS  
DRIVEWAYS OR  
PARKING LOT

PARKING FOR  
LIBRARY ONLY  
ADA PARKING EXEMPT

OVERNIGHT  
PARKING  
OR  
CAMPING  
PROHIBITED

# Next Steps:

1. Fill in the details-Concept Plan
2. IDS Concept Plan Approval Process
3. Commission on Inclusion and Adaptive Living updates
4. Beautification and Public Art Commission updates
5. Library Board



# Feedback Needed:

## 1. Preferred Concept

1. Concept 1
2. Concept 2-Memorial Tree
  - Concept 2-Remove Tree

## 2. Parking Alternatives

## 3. Add Stairs?





# Questions and Discussion



Preliminary Art Concept  
Artist Maria Salenger,  
Jones Studio  
Library ADA Entrance

Beautification, Arts and Sciences  
Jana Weldon





# Agenda



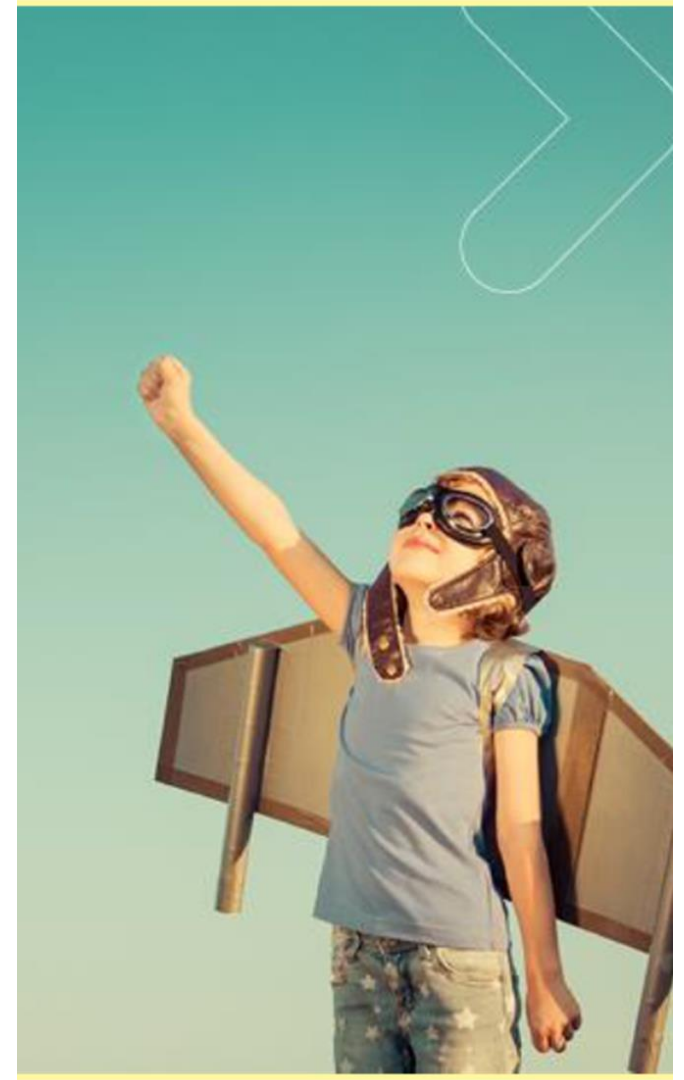
- **Public Art Process Overview to Date**

- Design Team
- Community/Stakeholder Input
- Responses to date

- **Preliminary Art Concept**

- Artist Process and Inspirations
- Scope and locations
- Materials and Color

- **Next Steps in Design Development**





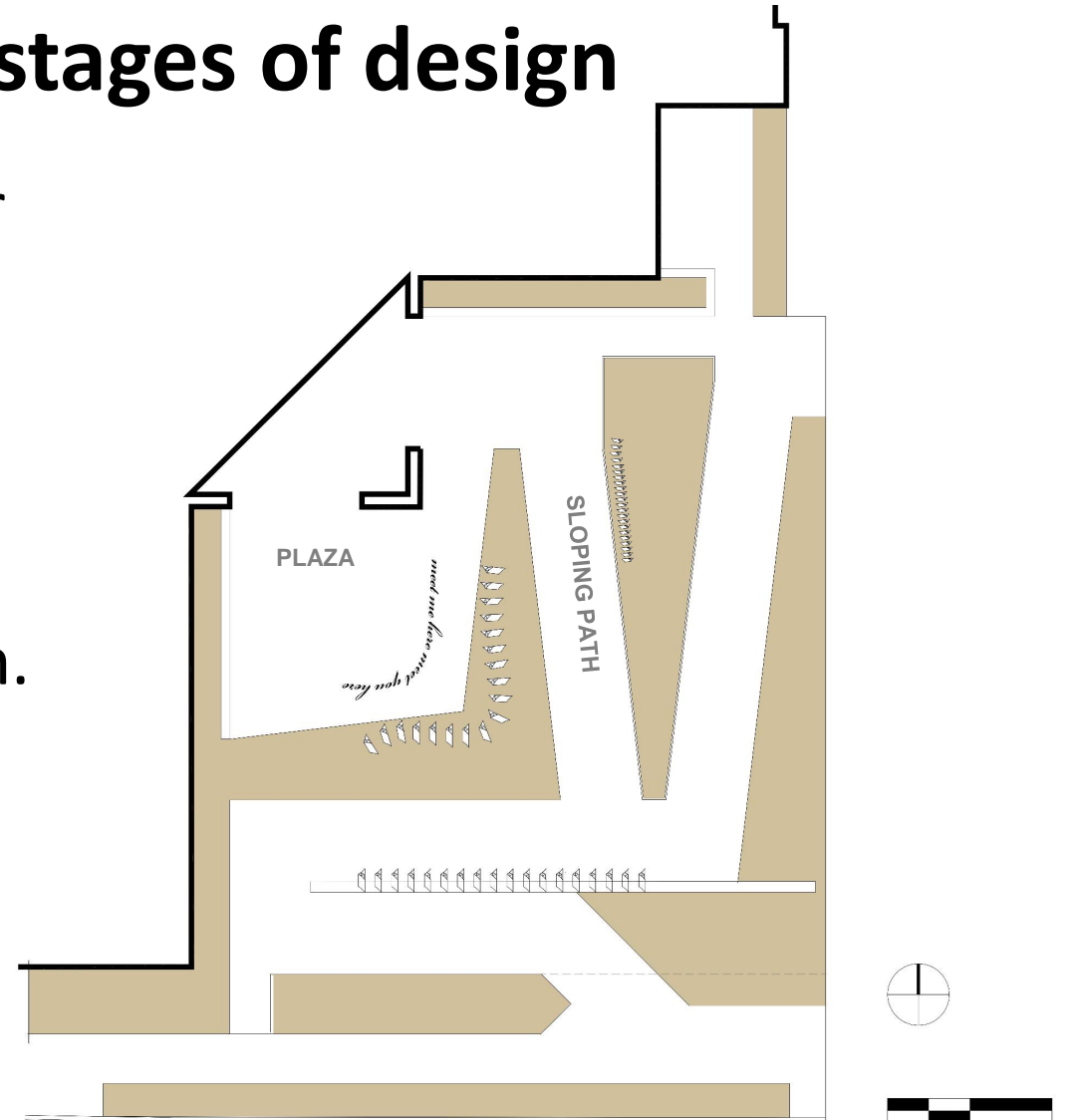
# Design Team



## Artist added to the team at early stages of design

Council approved a design team contract for the artist on December 1, 2020 based on qualifications and past work.

Maria has been contributing to sloping path designs, landscaping and plaza configuration. And is responding to this design in the art placement.





# Community/Stakeholder Input

## **This is what has happened so far:**

- Community and stake holders on selection panel
- Community input prior to design through Community Forum Survey with 176 responses
- Focus Groups: Stakeholder and community responses
- Beautification and Public Art Commission review and approval
- Library Board review and responses



# Selection Process



Maria Salenger was recommended by a diverse selection panel that included:

- Vice Chair, BPAC
- Commissioner, BPAC
- Library Director, City of Flagstaff
- Members, Library Foundation Board Member and a Lowell Librarian/Archivist
- Member, The Friends of the Library
- Artist, Co-owner of a downtown business

Recommendation was approved by BPAC (Beautification and Public Art Commission) and by City Council



# Community Forum Survey

## Sample Input Questions:

- What does the library mean to you?
- Tell us about a discovery you have made at the library.
- What is your favorite thing to do in Flagstaff?
- What is your favorite aspect of Northern AZ History?

Closed January 8<sup>th</sup>: **176 Reponses**

# Focus Groups

Artist presented preliminary art concepts to focus groups in February and in April

- Vice Chair, BPAC
- Commissioner, BPAC
- Three library patrons, one who is a librarian at Coconino Community College
- Two community members at large, one reared on the Southside, one an artist and downtown business owner
- Two Staff from Main Library: Library Director & Member of Library Executive Team
- Two Indigenous Librarians, Tuba City branch
- Lowell Librarian/Archivist
- Three Members of Library Boards
- Three Economic Development/Vitality Staff



# Community Input

## April Focus Groups' Responses



**Average/Mean:** Central Value of a set of numbers

**Median:** The middle number in an assorted list of numbers, an average that reflects data set more descriptively

**Mode:** The value that appears most frequently in a data set

1. How well do the proposed art features connect to the library?

(not very much) 1 2 3 4 5 (very much)

5 5 5 4 5 4 4 4 4 4 4 4 5 5 4 4

**100 % are positive, 0% neutral, 0% negative: Average 4.38, Median 4.0, Mode 4.0**

2. How well do the proposed art features connect to Flagstaff?

(not very likely) 1 2 3 4 5 (very likely)

5 5 5 4 1 4 4 4 5 3 4 4 5 4 5 3

**81% are positive, 13% neutral, 6% negative: Average 4.06, Median 4.0, Mode 4.0**

3. How likely is it that the proposed art features will help create a pleasing and welcoming space for the library?

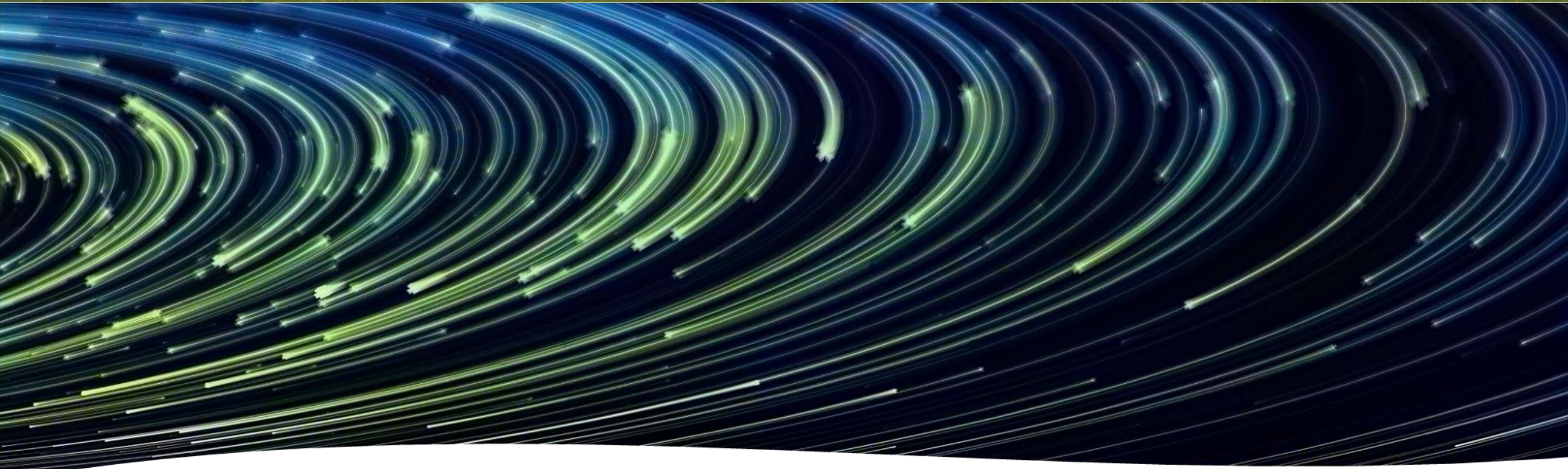
(not very much) 1 2 3 4 5 (very much)

5 5 5 3 5 4 4 5 5 4 4 4 5 4 4 5

**94% are positive, 6% neutral, 0% negative: Average 4.4, Median 4.5, Mode 5.0**



# Review of Today's Preliminary Concept



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It is preliminary

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BPAC reviewed and approved this concept on April 12<sup>th</sup>. Responses from focus groups, BPAC, Library Board and Council will be part of the design development

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# Preliminary Art Concept

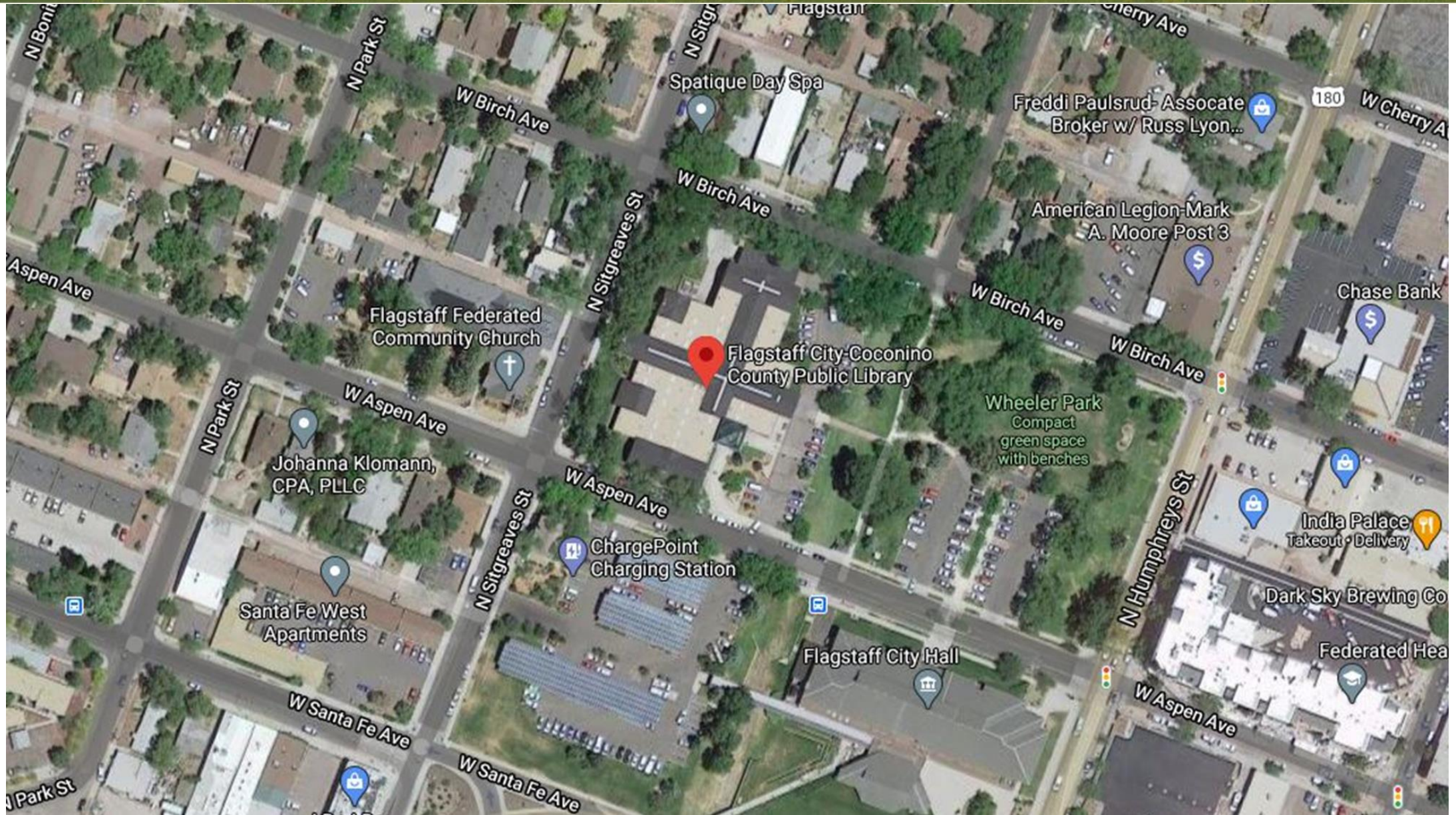
**Objective: The Art Features will be Site Specific for the Library Entry Plaza**

ARTIST WILL  
AMPLIFY THE  
PROGRAMMING AND  
OBJECTIVES OF THE  
ENTRY PLAZA

ARTIST WILL CREATE  
ART FEATURES THAT  
CONNECT TO THE  
LIBRARY AND TO  
FLAGSTAFF.



# Artist Process/Inspiration



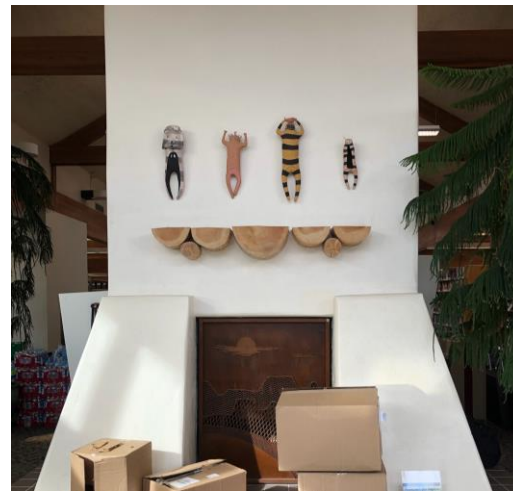


# Artist Process/Inspiration





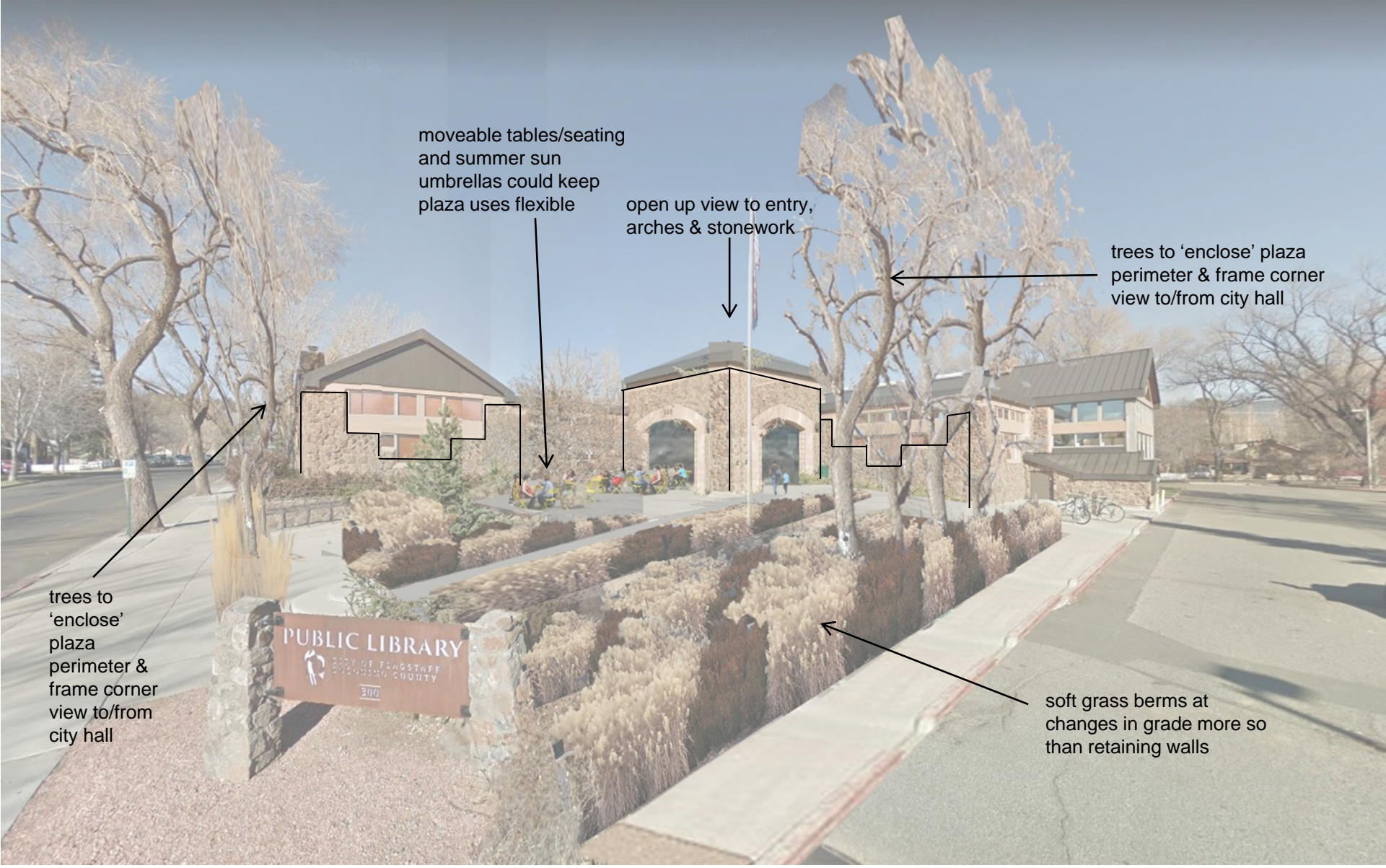
# Artist Process/Inspiration





# Artist Process/Inspiration





moveable tables/seating  
and summer sun  
umbrellas could keep  
plaza uses flexible

open up view to entry,  
arches & stonework

trees to 'enclose' plaza  
perimeter & frame corner  
view to/from city hall

trees to  
'enclose'  
plaza  
perimeter &  
frame corner  
view to/from  
city hall

soft grass berms at  
changes in grade more so  
than retaining walls



# Artist Process: Community Aspirations

Something *inspiring*, something *evocative*.

Central community space for *research, education, learning and inspiration*.

A bank of *knowledge, inspiration, and escape*.

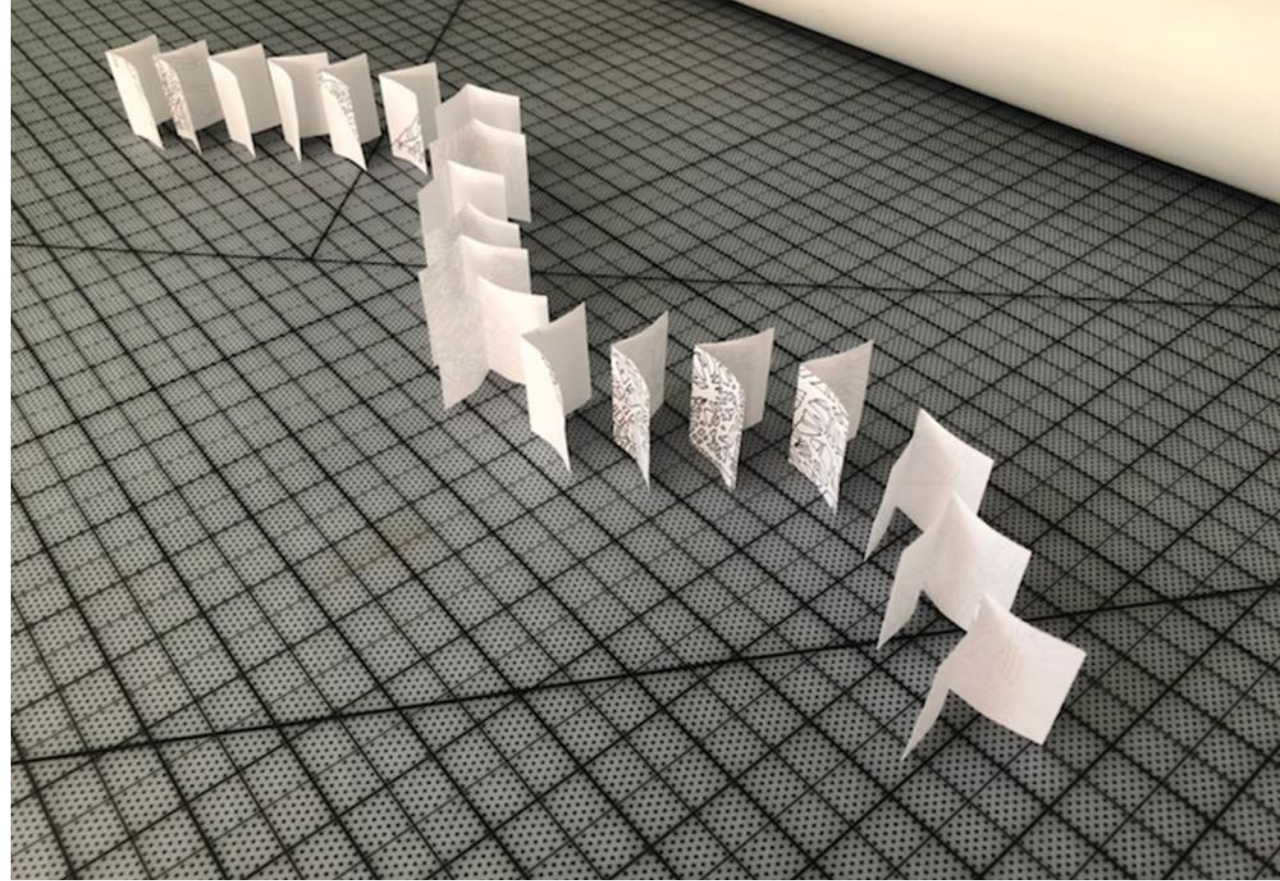
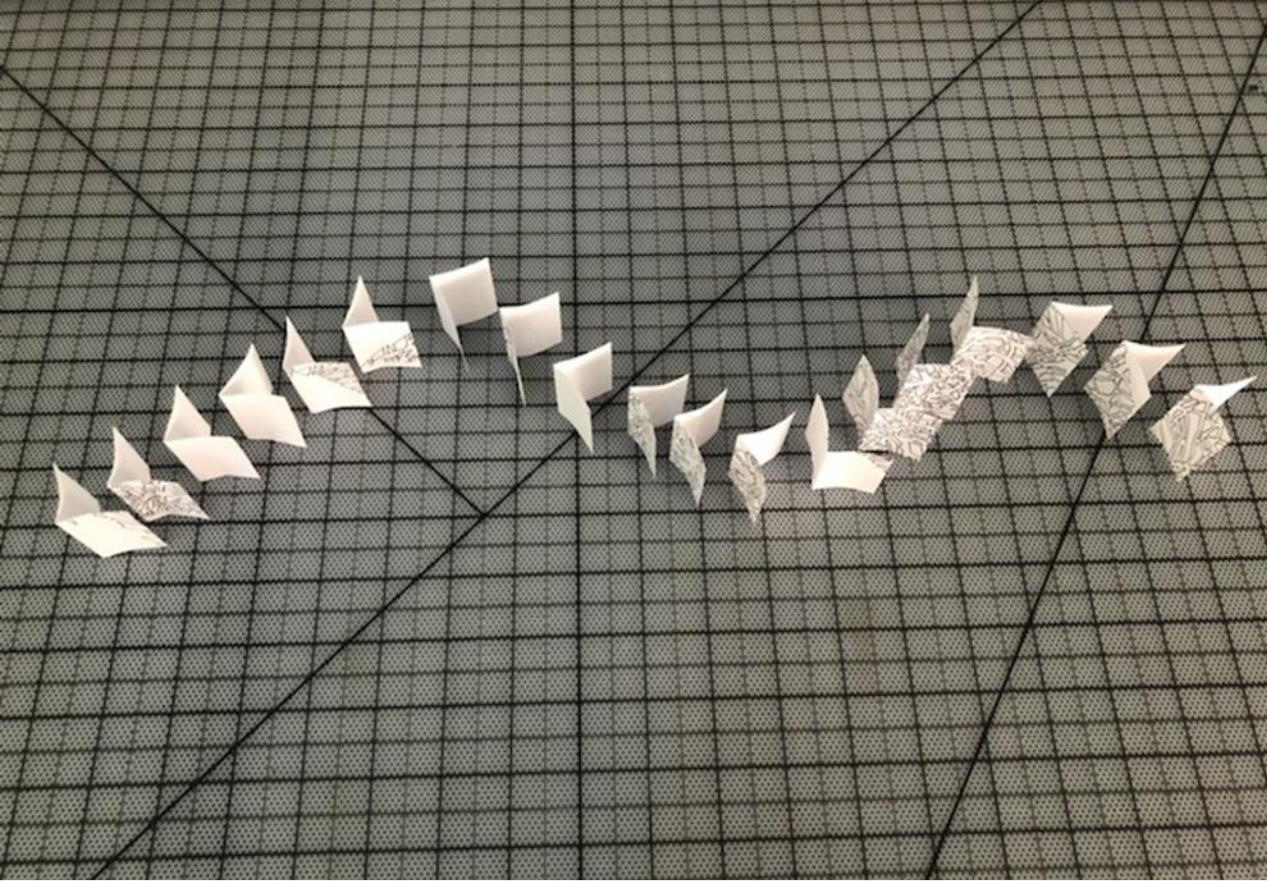
A great source of *pleasure and connectivity*.

A moment for my kids to stop and *interact with something beautiful & interesting*.

In harmony with *community and nature*.

Integrate our greatest treasures: *our nature environment, our science community, and the great history we have*.

In which all differently abled people can *experience and use the entry inclusively*.



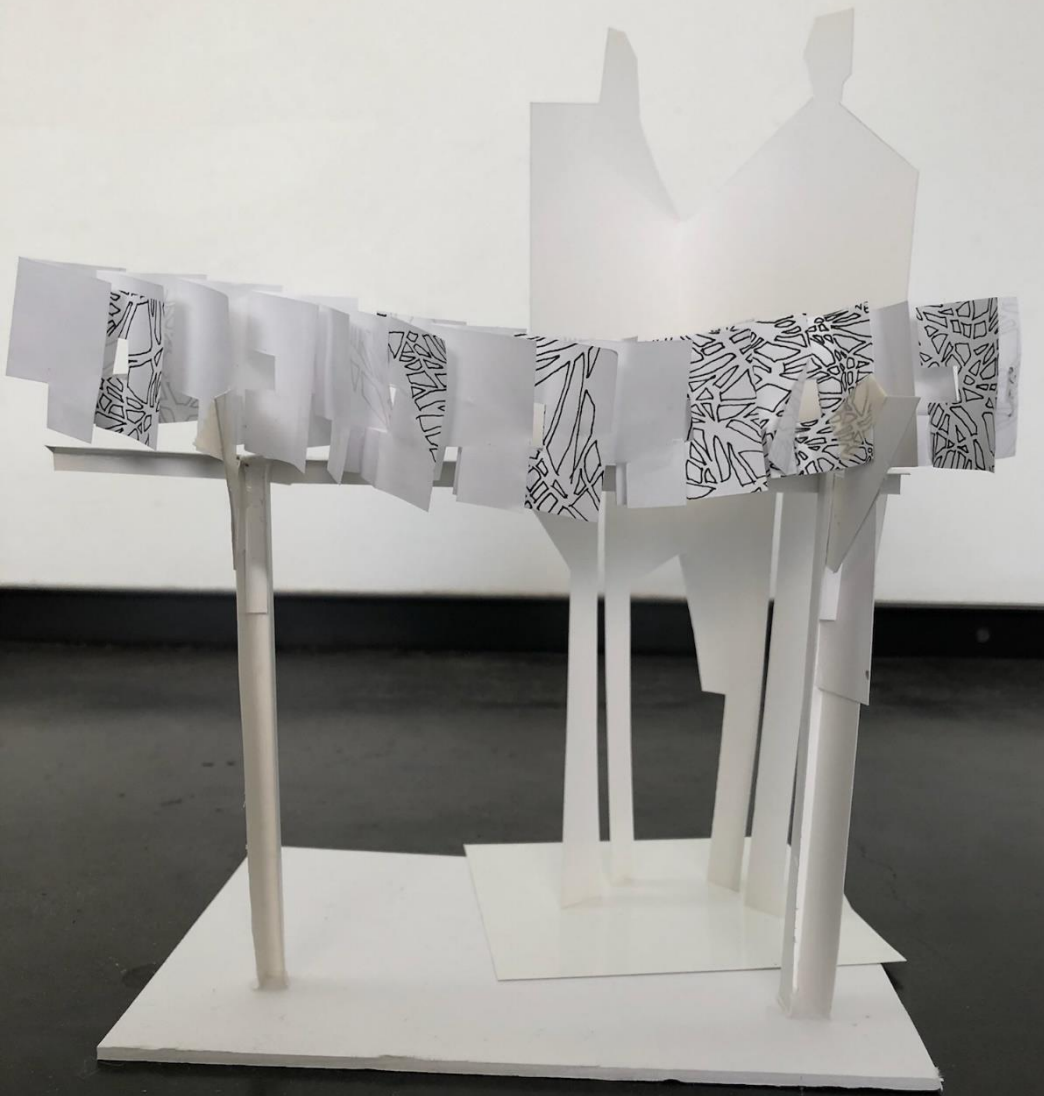
Preliminary Art Concept:  
Open Book Sculpture Meandering the  
Pathways.



# Preliminary Art Concept



- Formally the sculpture is a series of interlocking steel plates ranging in scale from 9" to 18" tall, mounted up beside the pathway handrail system and within the landscape planted area.
- Will not be in the pathway or plaza



Covers have cut out patterns.

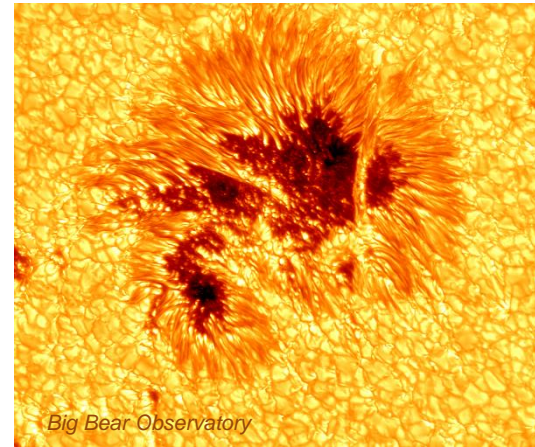
Patterns to be determined and drawn from....



Lowell Observatory



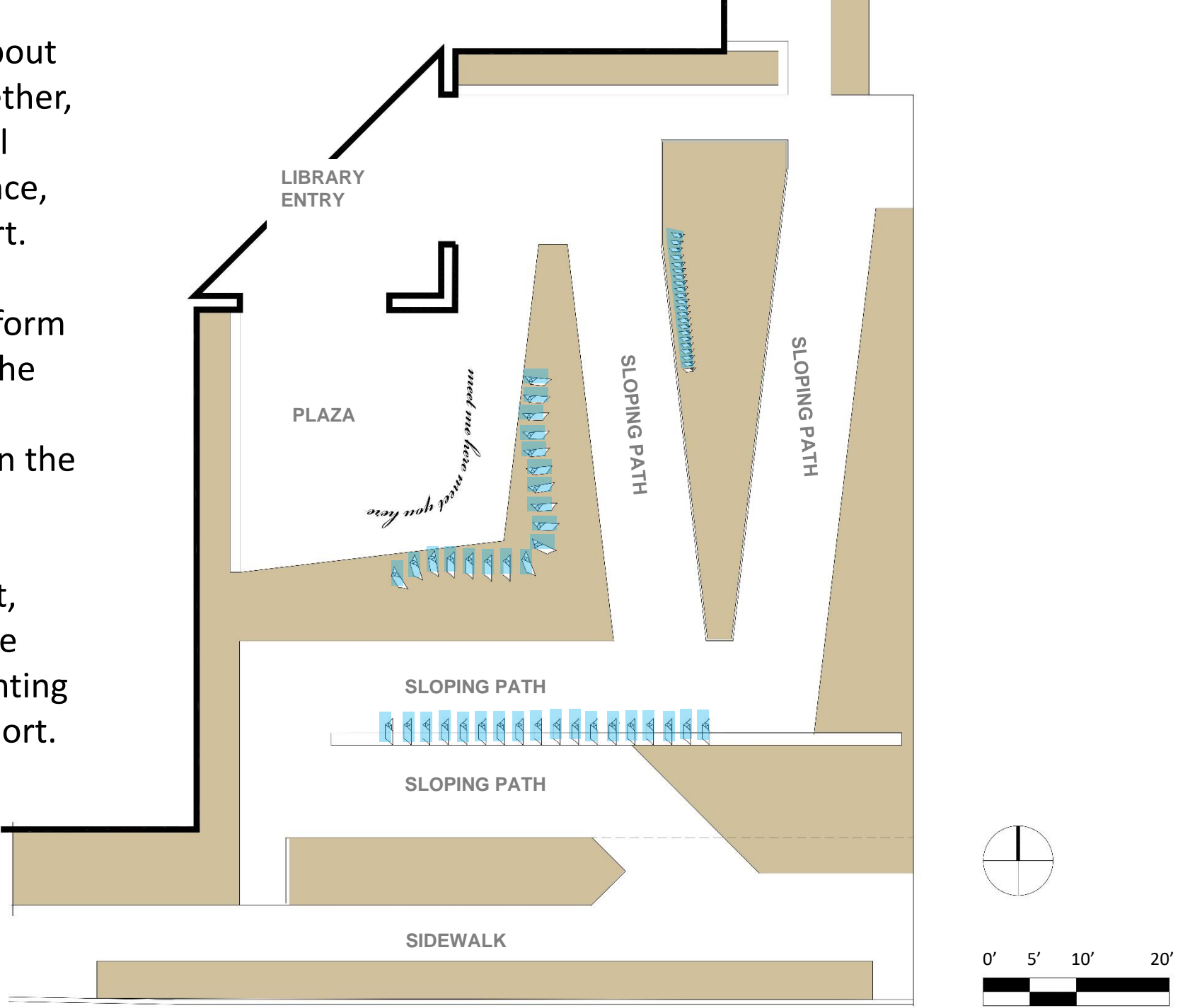
Bureau of Entomology, Portland Station Collection



Big Bear Observatory

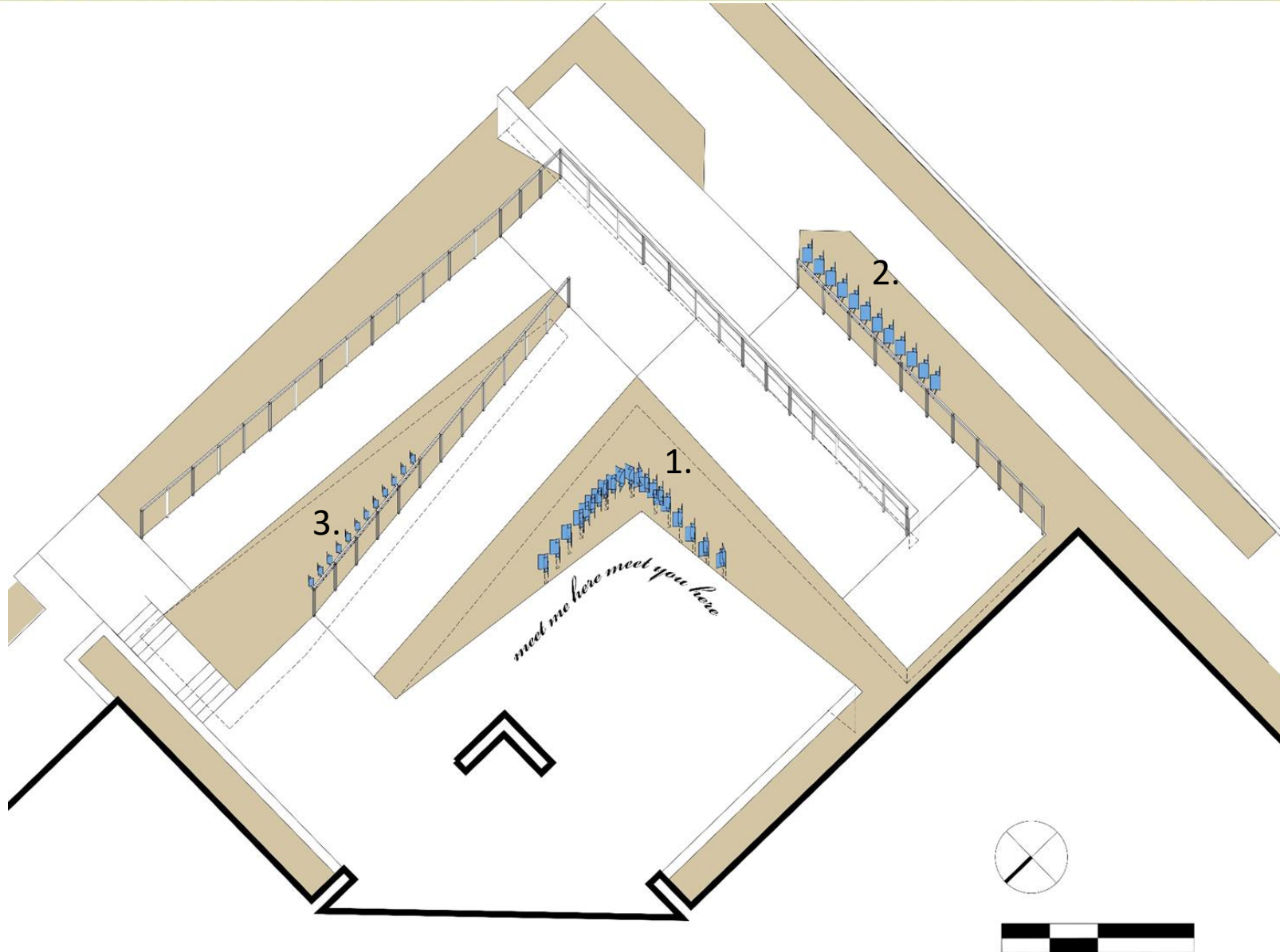
The art concept is about bringing people together, with rhythms of local nature, history, science, writing, and visual art.

The sculptural steel form leads visitors along the pathway, impressing connectivity between the library and northern Arizona natural and cultural environment, prompting interactive exhibits, and highlighting library patrons' support.





# Preliminary Art Concept





‘The cut patterning on the “pages” of the sculpture will combine to create a cultural impression of Northern Arizona, combining astronomy/celestial bodies, ponderosa pine trees, sun flowers, dandelions, aspects of the railroad and Route 66, the trails, and topography of the San Francisco Peaks. Casting playful shadows in daylight.

As a complement to the steel form piece, inscribed within the plaza the words, “meet me here; meet you here”, reference the community coming together in this space, as well as, a call from the resources within the library for individual reflection, to explore, learn, and create.

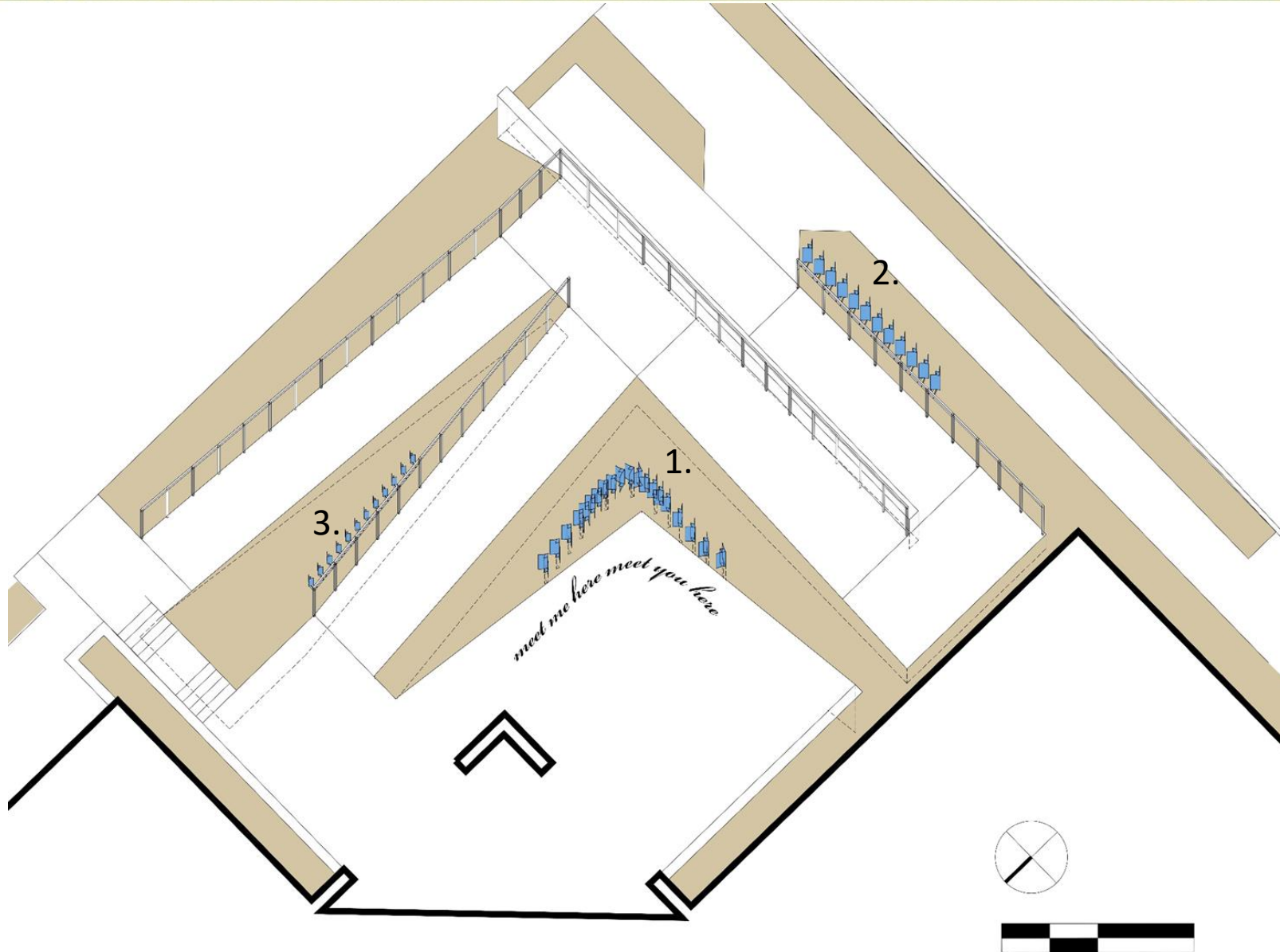
# Preliminary Art Concept

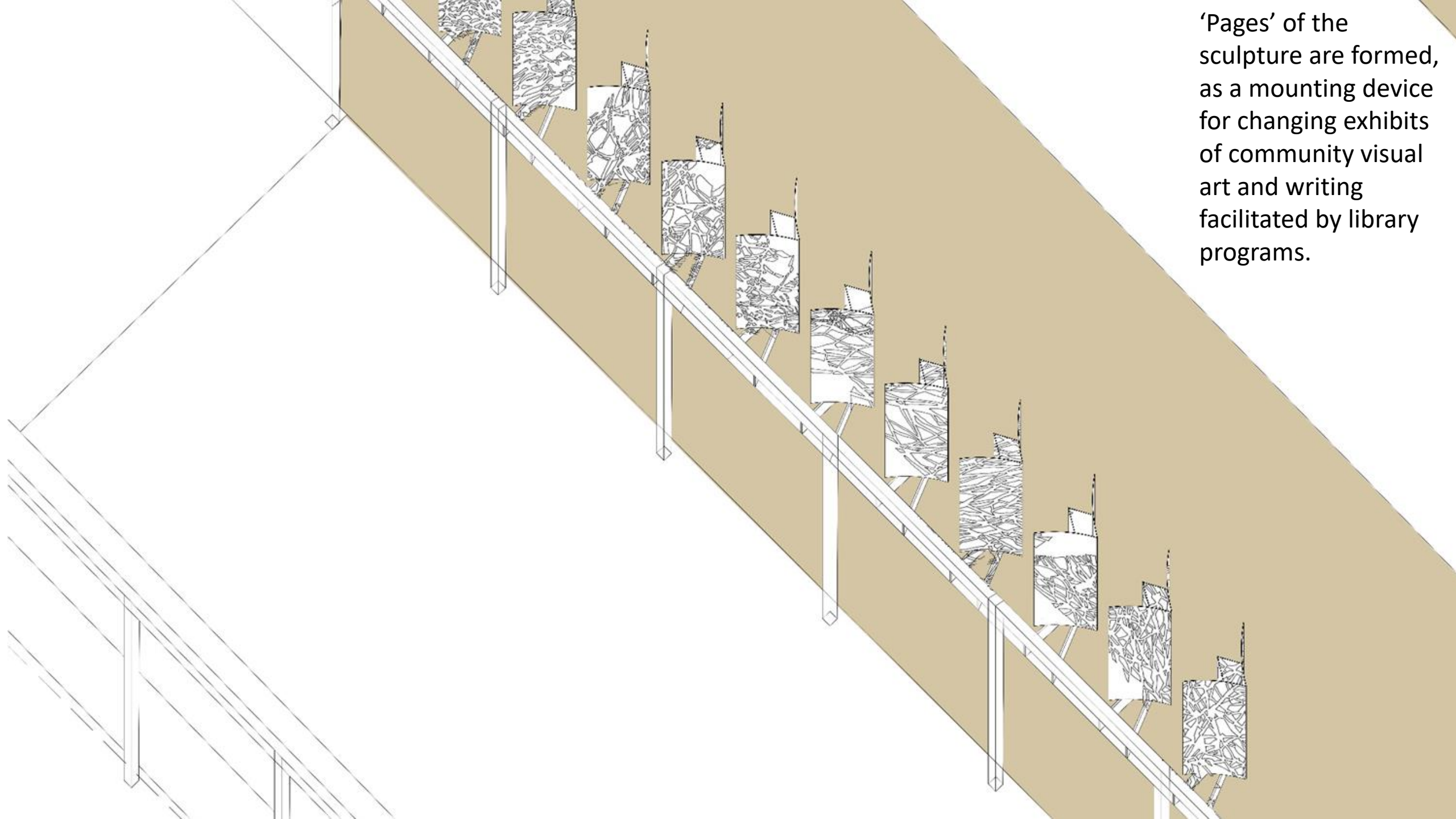
Night illumination provided by dark-skies-friendly narrow band amber lights within the steel lanterns, having the warm yellow color similar to the sun at sunrise and sunset, and a campfire light.





# Preliminary Art Concept

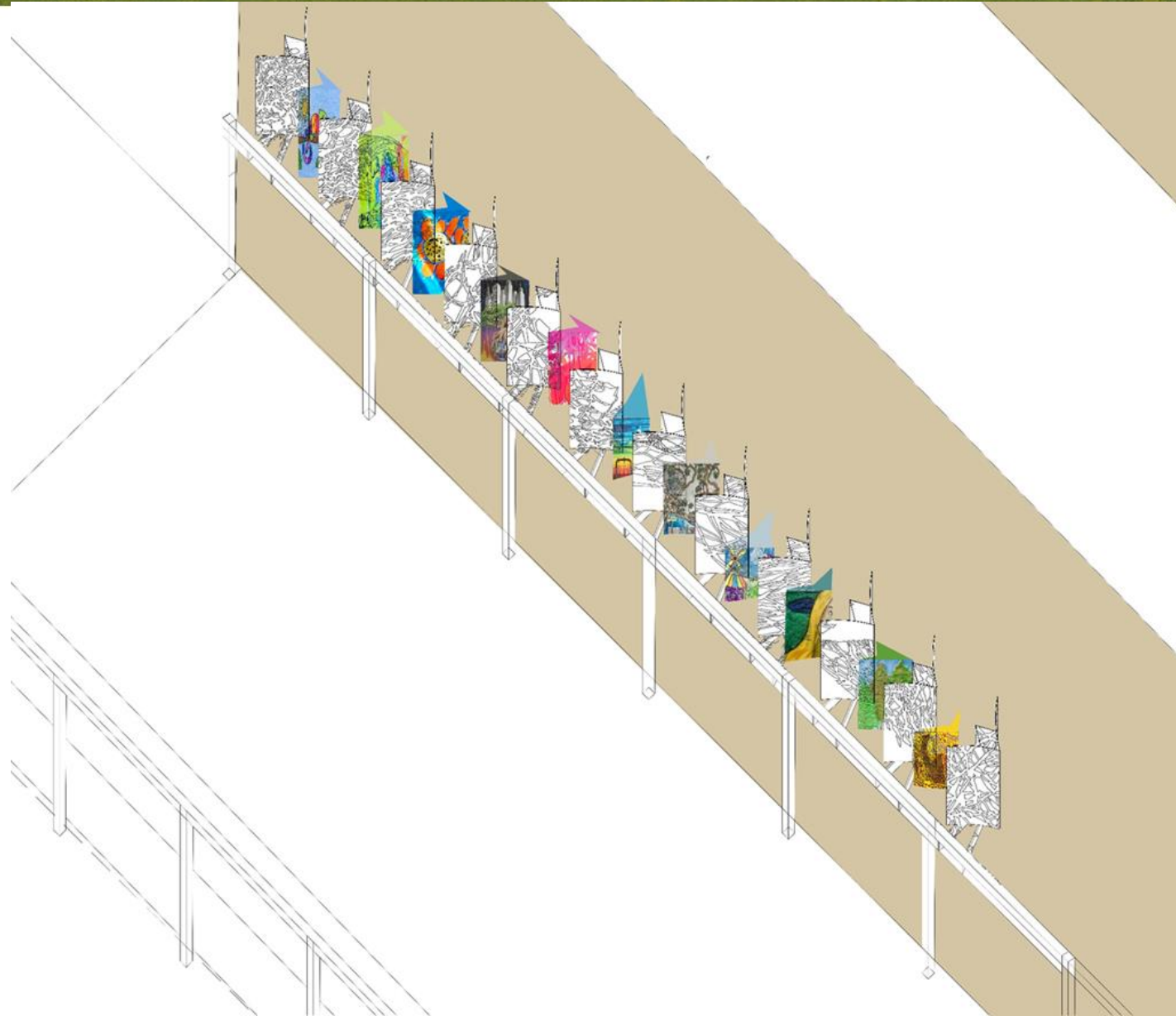




'Pages' of the sculpture are formed, as a mounting device for changing exhibits of community visual art and writing facilitated by library programs.

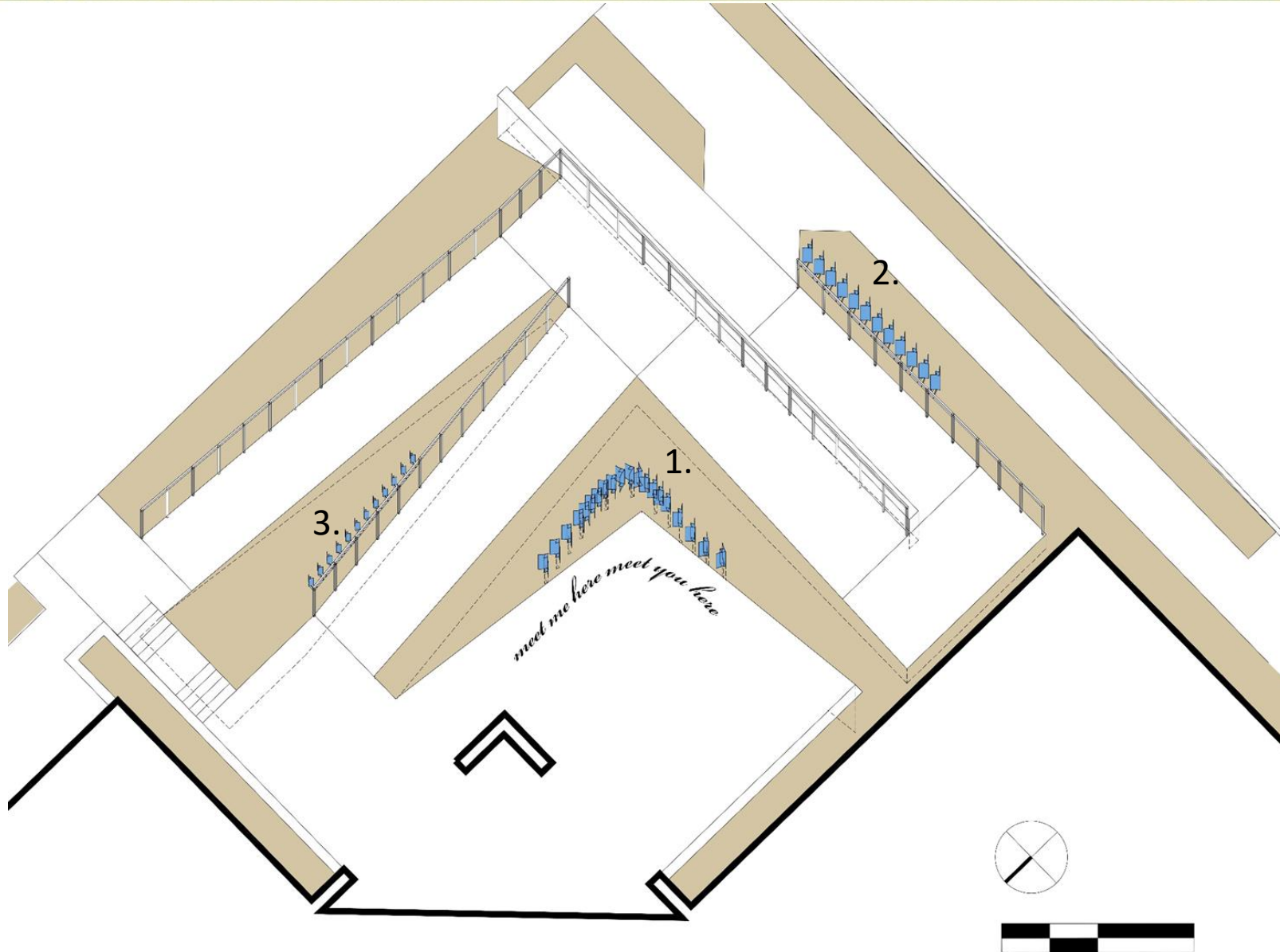


# Preliminary Art Concept





# Preliminary Art Concept

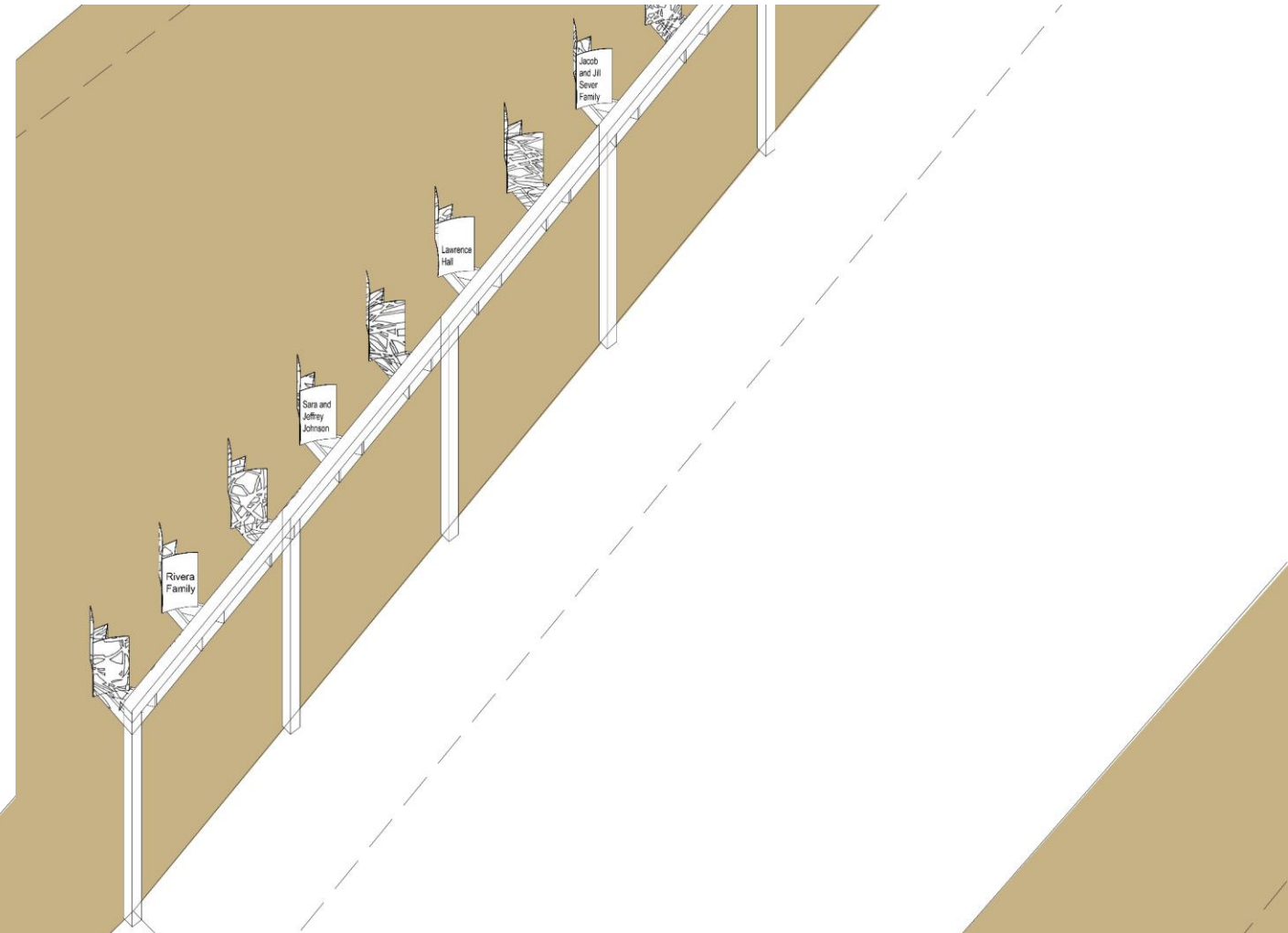
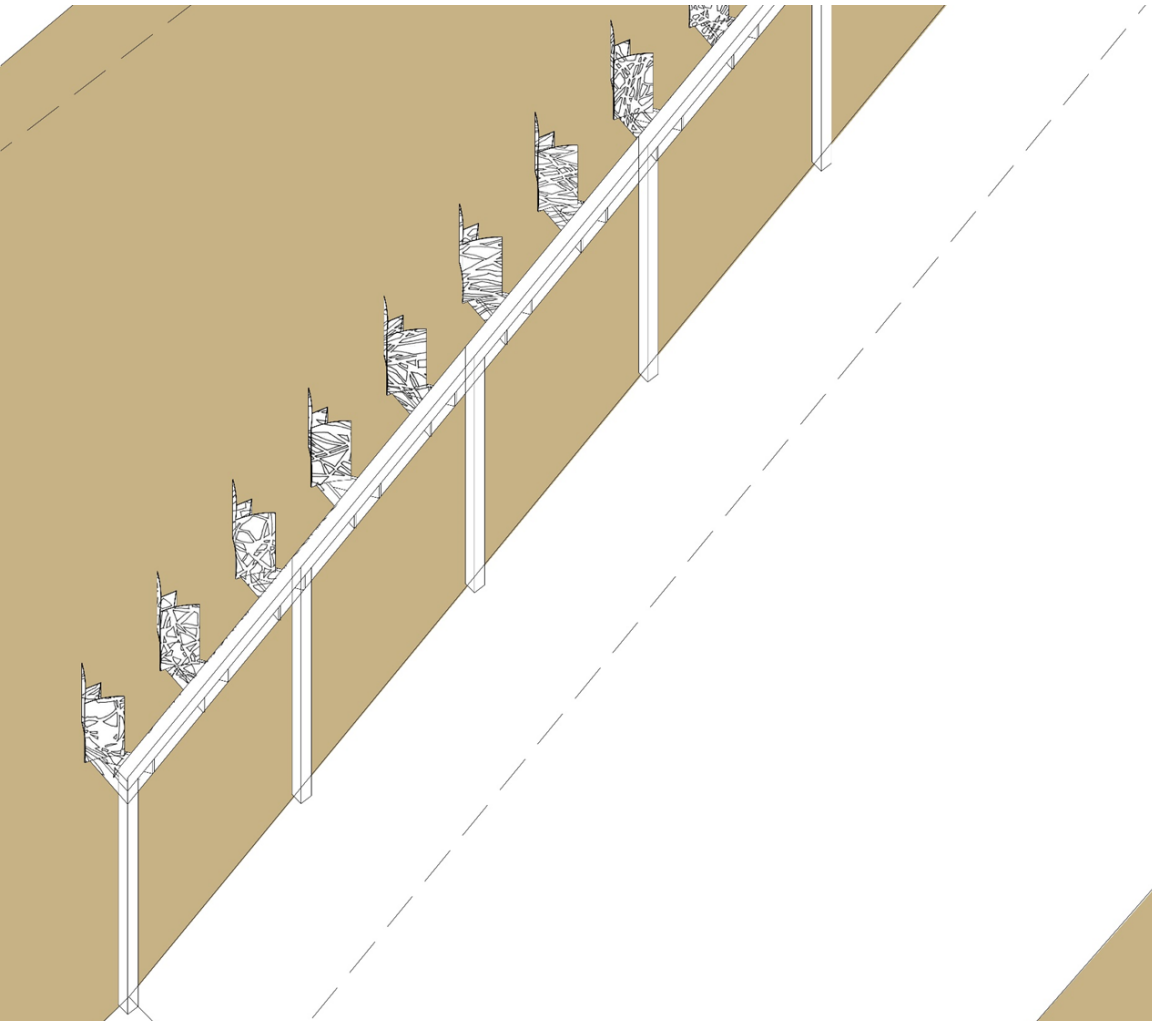


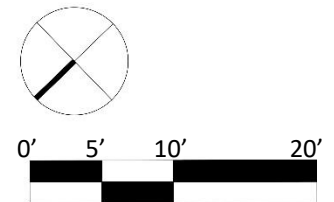
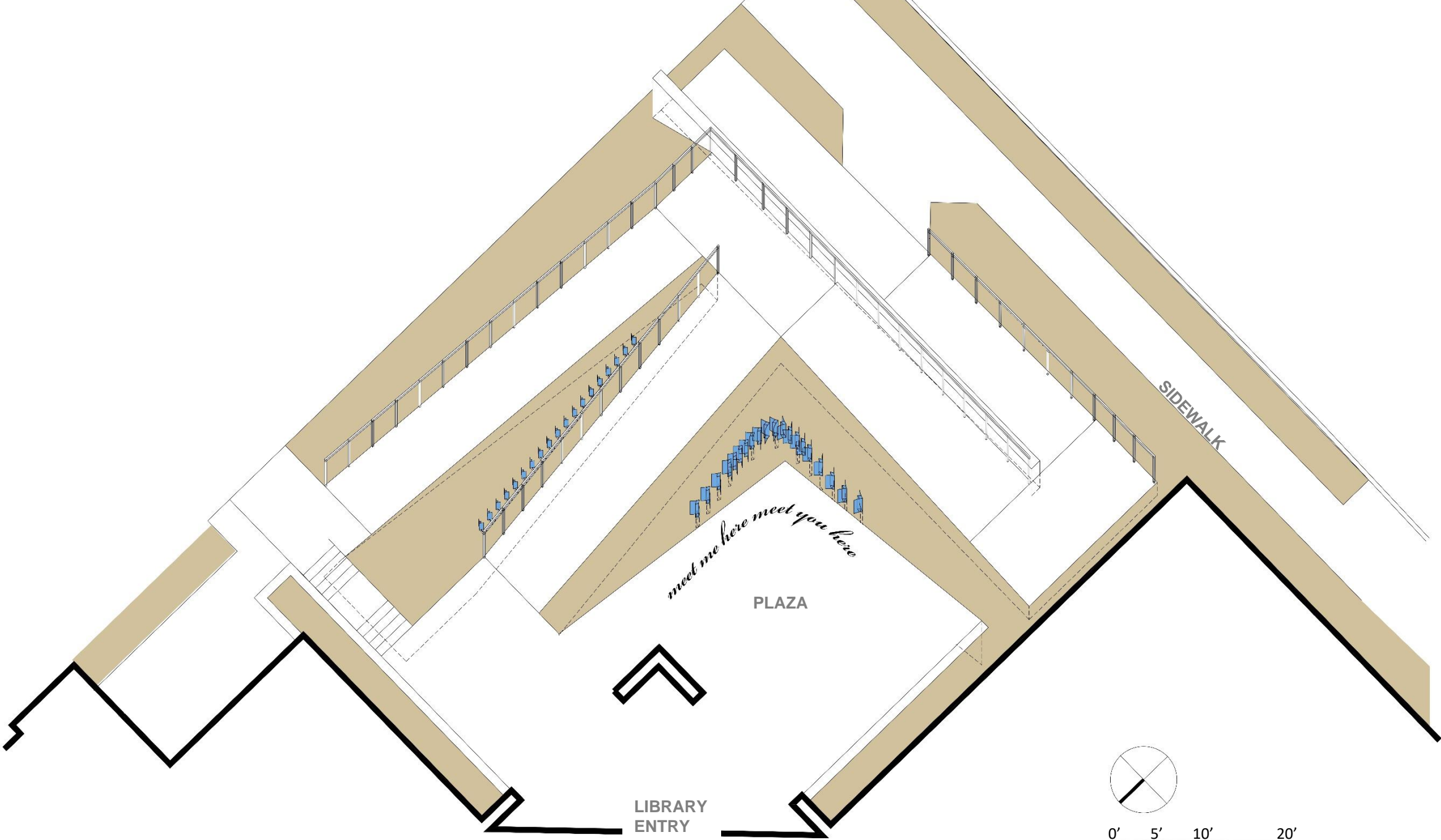


# Preliminary Art Concept



'Pages' of the sculpture can adapt to contain donor recognition as digital prints applied to the steel plates.





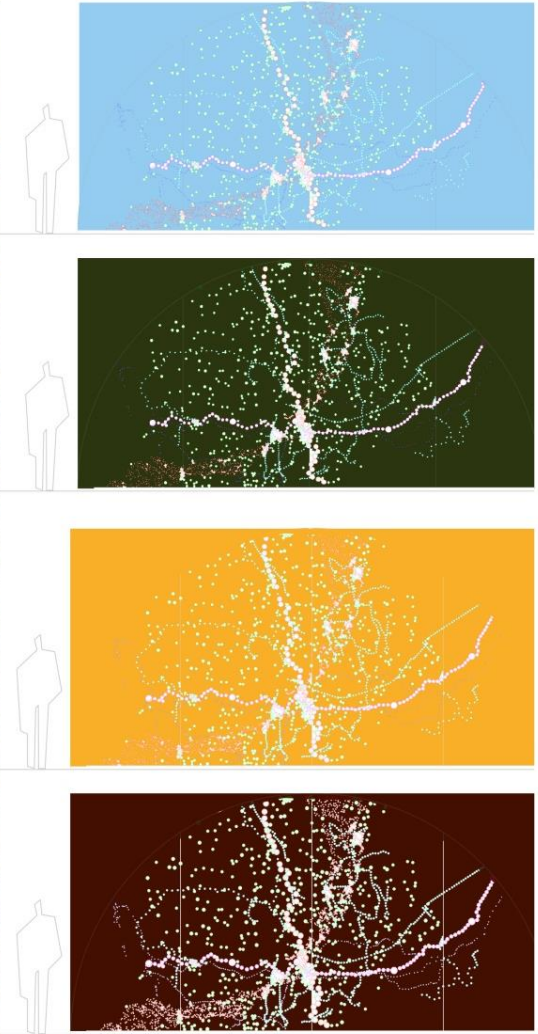


# Preliminary Art Concept: Color

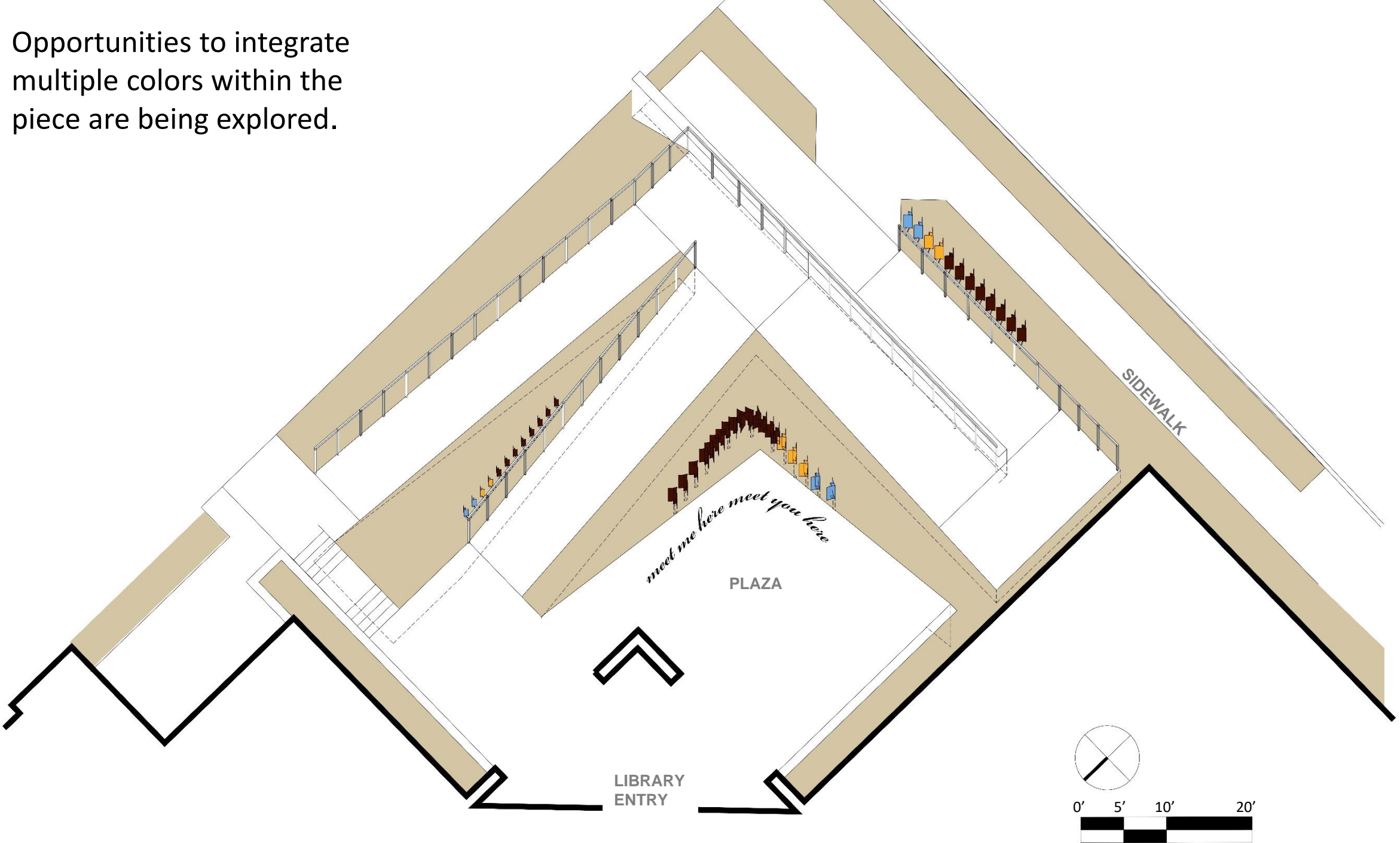




# Preliminary Art Concept: Color

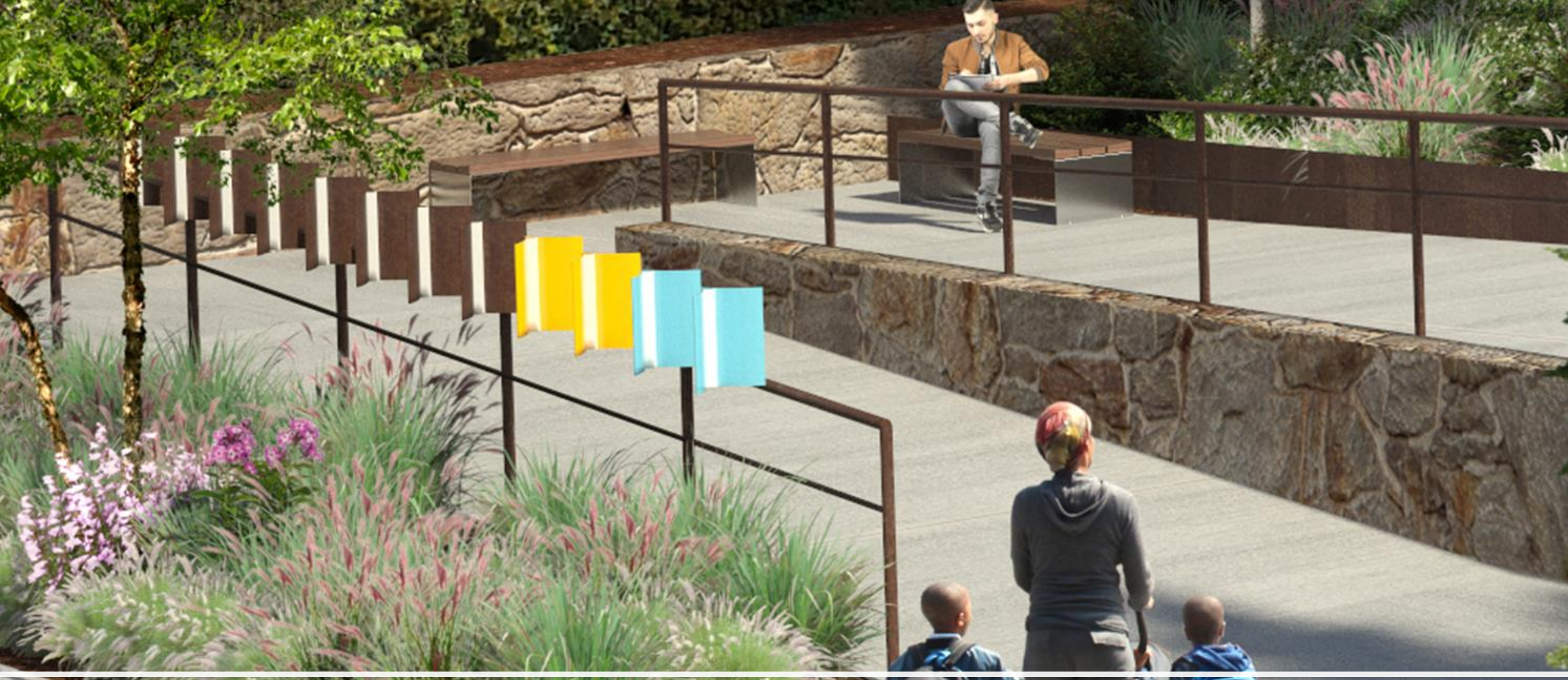


Opportunities to integrate multiple colors within the piece are being explored.



# Preliminary Art Concept: Meet Me Here





## Preliminary Art Concept: Area 1

# Preliminary Art Concept: Area 2



# Preliminary Art Concept: Area 3



# Questions Discussion

## Preliminary Art Concept Library Entry Plaza

