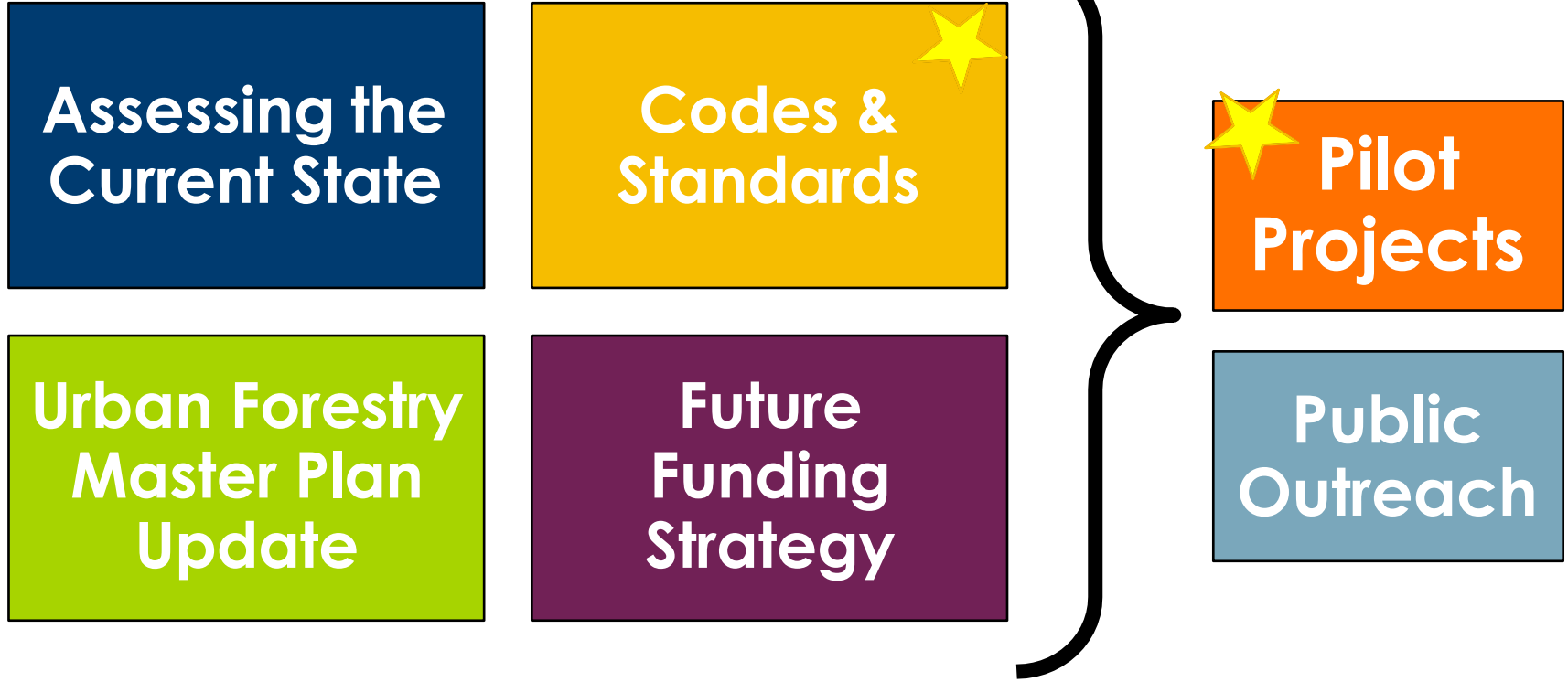


Rain to Roots Ambassador Program February 2025 Meeting

Codes & Standards Review, Site tour of YMCA – Feb. 5, 2024



Project Overview





Codes & Standards: Definitions

Codes

- Describe **what** needs to be done to protect health & safety.
- Outline requirements, practices, and regulations.
- Can be adopted into law (**ex: Zoning & Development Code**).

Standards

- Describe **how** to implement a code to ensure compliance.
- Outline technical definitions, specifications, and guidelines.
- Are widely accepted and followed (**ex: Engineering Design Standards**).



Codes & Standards Summary

Promoting GSI	Tree Protection	Landscape Code & Maintenance
<ul style="list-style-type: none">• Onsite GSI Requirements• Construction Details• Drywells• Onsite Stormwater Credit	<ul style="list-style-type: none">• Required Tree Protection Plan• Tree Replacement Standards• Tree Removal Permit• Tree Protection Bond	<ul style="list-style-type: none">• Tree Root Zone Requirements• Landscape Maintenance Best Practices & Requirements• Landscape Code Amendments



Codes & Standards Area #1: Promoting GSI

Current Codes & Standards	Proposed Codes & Standards	Details
GSI is mentioned, but it is not required.	Onsite GSI Requirements	Require that sites utilize on-site GSI to achieve % of stormwater retention.
Standards reference Mesa's LID Toolkit (no Tempe-specific details).	Construction Details	Adapt existing details & develop new details (root zone requirements, mulch planting distance from utilities)
Drywells are prescribed in most cases.	Drywells	Don't require drywells; encourage other GSI methods.
GSI does not count toward onsite retention calculations.	Onsite Stormwater Credits	Give credit for the volume of stormwater captured through GSI toward retention calculations.



Codes & Standards Area #2:

Tree Protection

Current Codes & Standards	Proposed Codes & Standards	Details
Required on COT parks projects, not other city or commercial projects.	Tree Protection Plan	Inventory existing trees on development site & develop strategy for preserving them during construction.
Commercial properties are required to replace dead trees; need to alter the landscape plan to plant a different species.	Tree Replacement Standards	Develop a standard replacement formula for removing existing trees (based on size, species, condition).
<i>No current codes/standards.</i>	Tree Removal Permit	Pay a permit fee (based on tree size) to remove an existing tree, with restrictions against removing large & significant trees.
<i>No current codes/standards.</i>	Tree Protection Bond	Developer pays bond for preserved and salvaged trees on a development site, with release dependent on tree success.

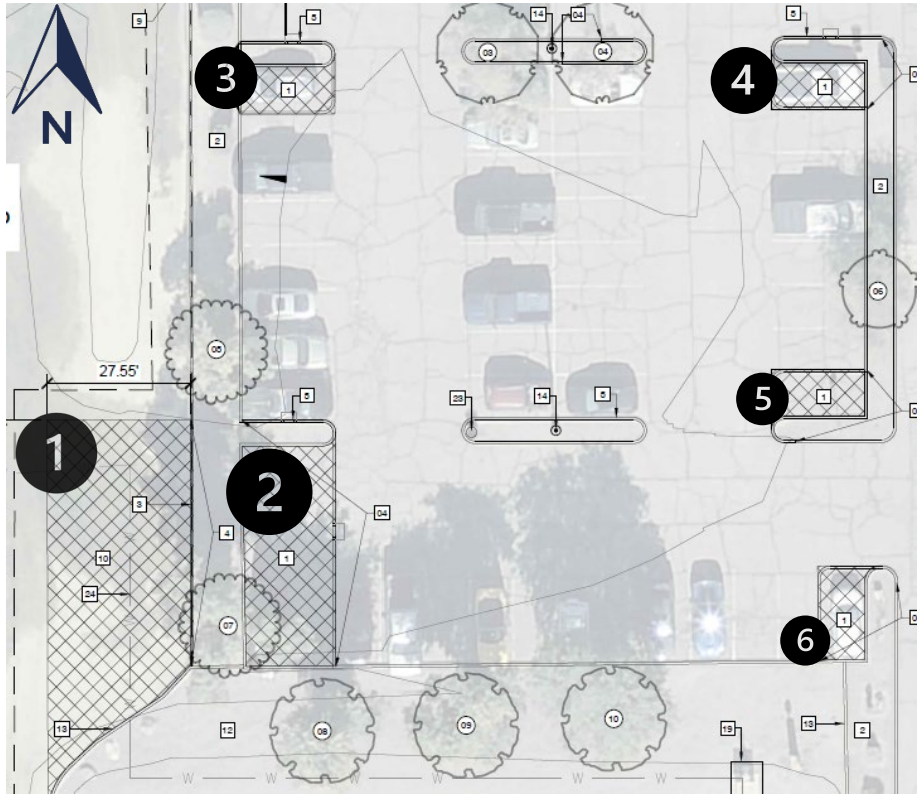


Codes & Standards Area #3:

Landscape Code & Maintenance

Current Codes & Standards	Proposed Codes & Standards	Details
No current root zone requirements.	Tree Root Zone Requirements	Establish a minimum soil volume based on tree size and planting location.
Required maintenance practices for public landscapes.	Landscape Maintenance Best Practices	Promote national, arborist-approved best practices related to tree pruning and landscape care for public and private land.
Trees are spaced by a standard linear foot distance (<i>ex: 1 tree per 30 linear feet</i>).	Landscape Code Amendments	<ul style="list-style-type: none">• Adjust tree spacing guidelines, focusing on shading pedestrian walkways.• Update the approved plant list.• Encourage the use of organic mulch.
Dead plants must be replaced; a lack of maintenance can result in a code violation.	Landscape Maintenance Requirements	Develop and enforce maintenance requirements that cite specific pruning & care practices. Apply a per-tree fee for incorrect tree maintenance via code enforcement.

YMCA – GSI Highlights

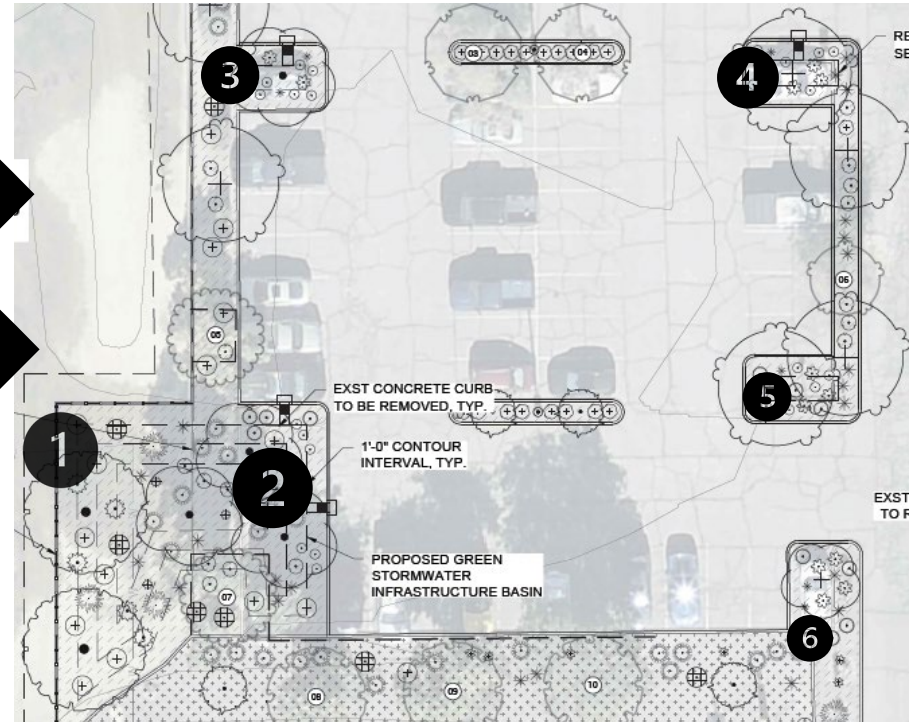
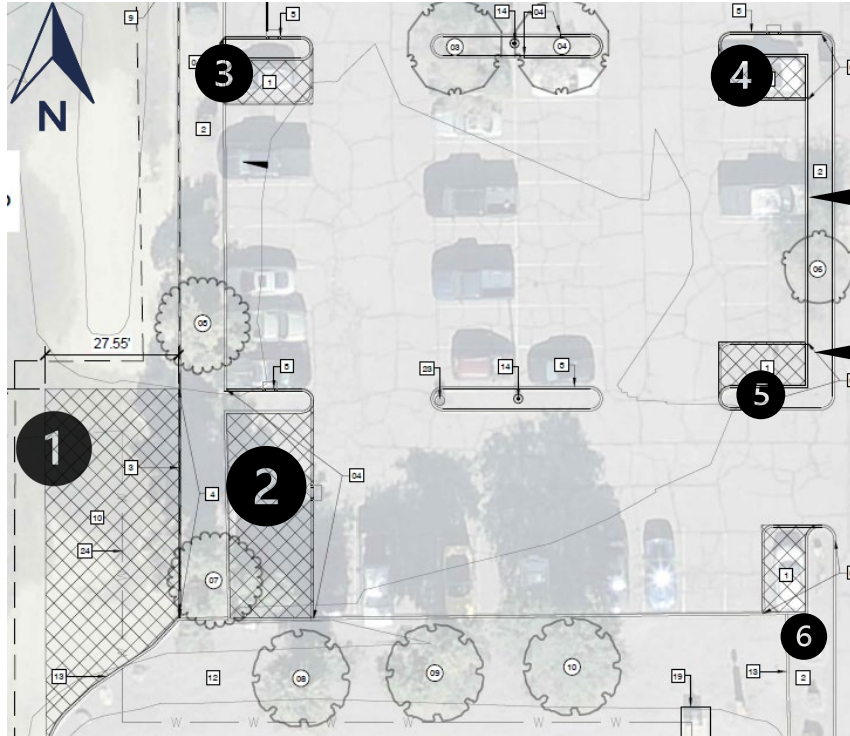


1 & 2: Low spot in the southwest corner. Asphalt and grass to be removed and area to be converted to a rain garden with wood mulch, trees & other plants.

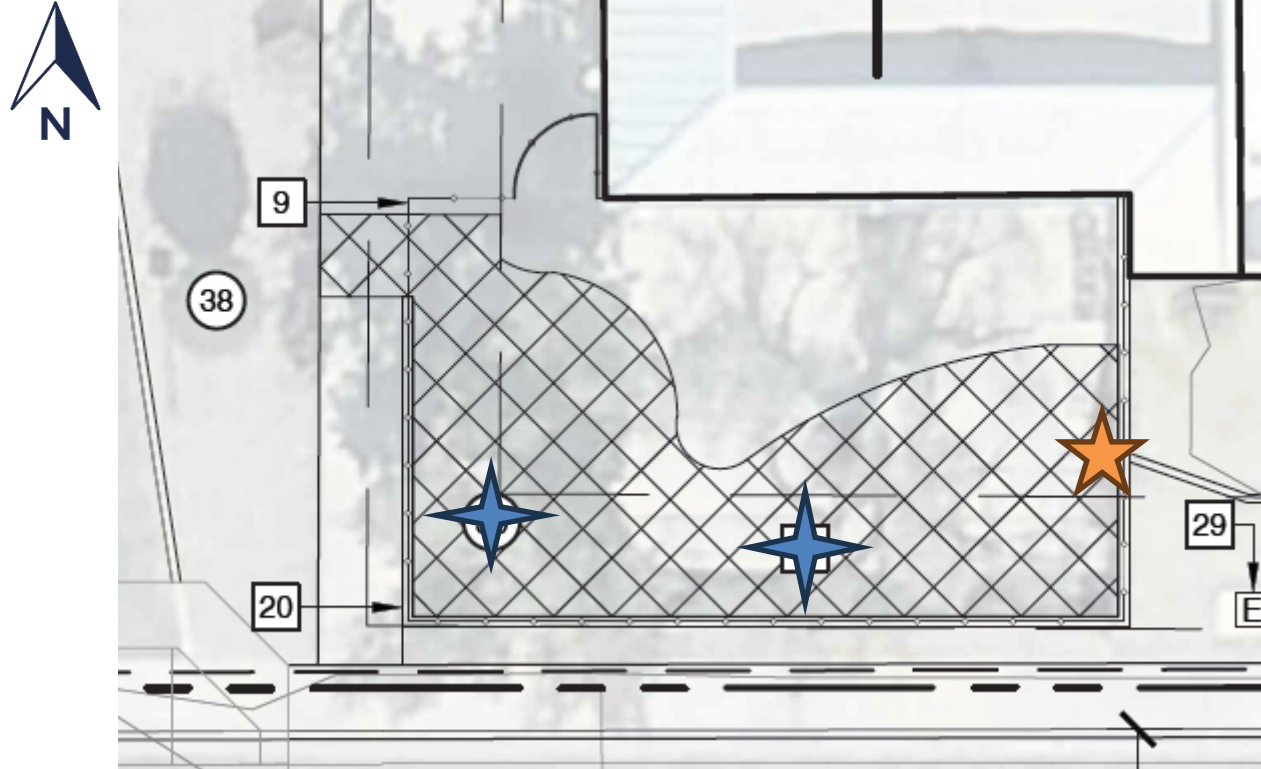
3, 4, 5, 6: Parking spaces to be removed to expand narrow medians, plus refreshed soil, wood mulch, trees & other plants.





YMCA – GSI Highlights




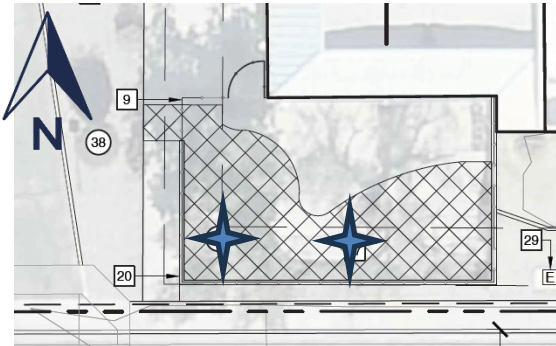
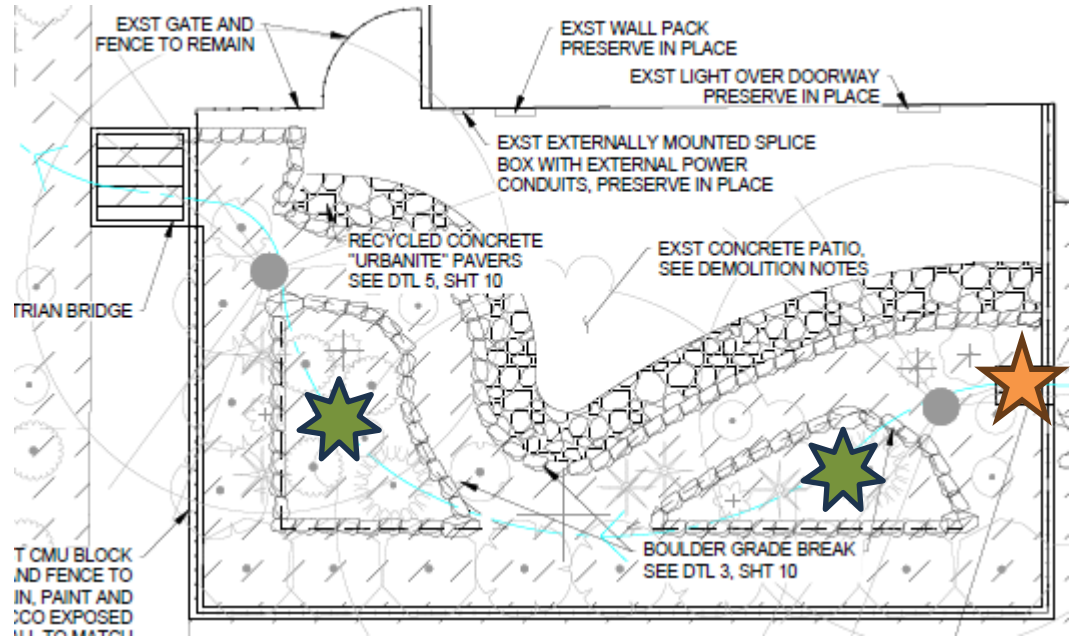
YMCA – GSI Highlights



 Concrete to be removed and the edge changed to a more organic shape. Removed concrete recycled into “urbanite” pavers

 Landscape moved to create basin, with water flowing in here.


 New rain garden created with stepped design and desert vegetation.



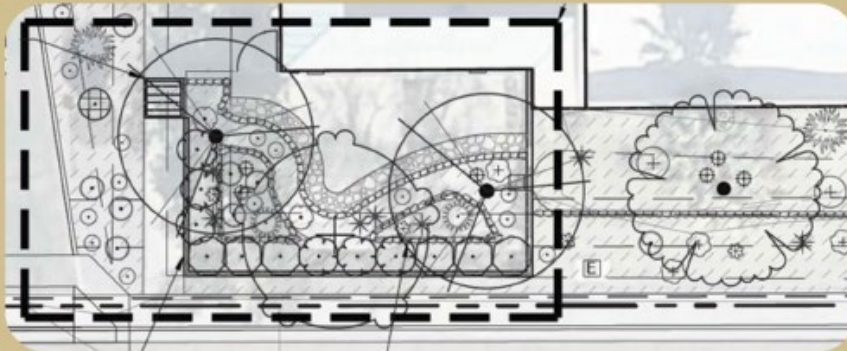
YMCA Summary

YMCA Urban Cooling Project



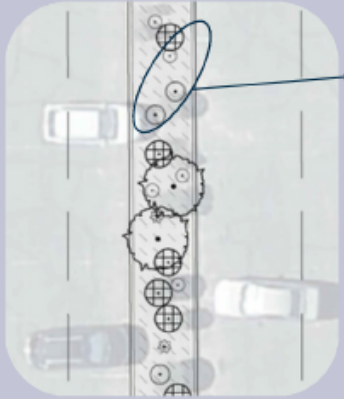
Project Highlights

- Adds **64 low-water use trees** onsite.
- 27 existing trees are **preserved**.
- The **removal** of concrete & asphalt will help the area cool off at night, lowering the Urban Heat Island Effect.
- Material removed will be salvaged for **reuse** as Urbanite.
- Refreshed landscape provides educational opportunities.

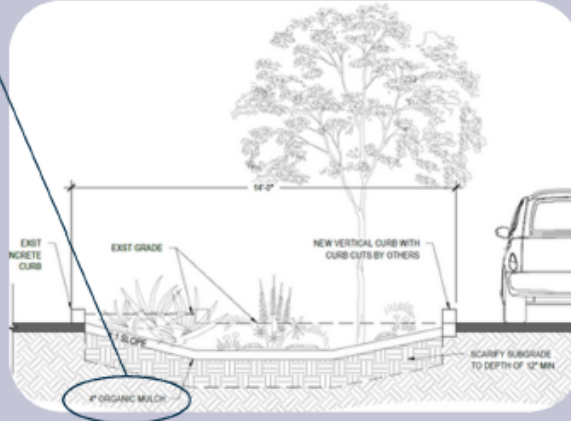


Along Rural Road & Divot Drive a new basin rich with **colorful and desert-adapted vegetation** like **yellow bells and hop bushes** showcases green stormwater infrastructure at work.

YMCA Summary



Use of **woodchip mulch** in parking lot islands not only encourages healthy plant growth, it also releases daytime heat for cooler temperatures overall.



Current News & Next Steps:

- Designs are 100% developed & are proceeding through the permitting process.
- Constructions bids will be going to Tempe City Council in April & work is estimated to start in June.
- We've requested construction begin on the Rural Rd side and continue west-ward.
- Volunteers will be welcome later in the process.

For questions, reach out to Brianne: Brianne_Fisher@tempe.gov