

Rain to Roots Ambassador Program March 2025 Meeting

On-Site GSI Requirements





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**).

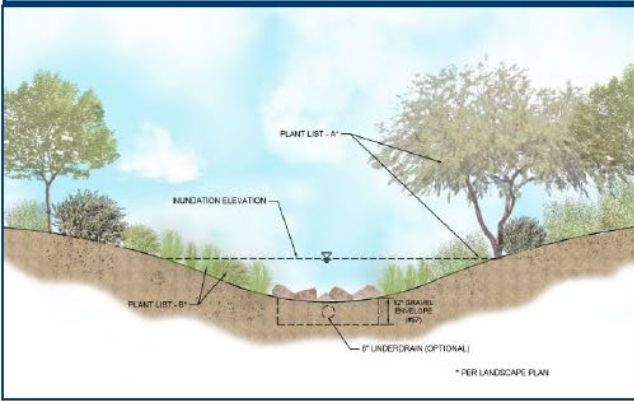
Proposed Codes & Standards Amendments

Identified Areas of Intervention

Promoting GSI

Tree Protection

Landscape Code & Maintenance





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.



On-Site Retention

Current Code:

- 100% on-site retention for 100 year, 2 hour storm
- Alternative Retention Criteria Area (ARCA)
- 2-year 2-hour storm
- Dispose of water in 36 hours
- Drainage reports

Three Approved Best Management Practices:

1. Basins (max 3 feet depth but >3ft requires a drywell)
2. Underground stormwater retention tanks (drywell)
3. Subsurface stormwater management (drywell)

On-Site Retention

Drywell System



Basin with Drywell





On-Site GSI Requirement

Current Code =

Prioritizes removing water from the surface as fast as possible

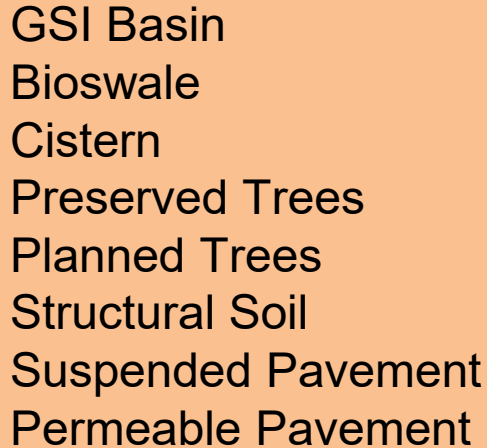
Proposed Code =

Prioritizes that surface drainage be maximized for multiple benefits.

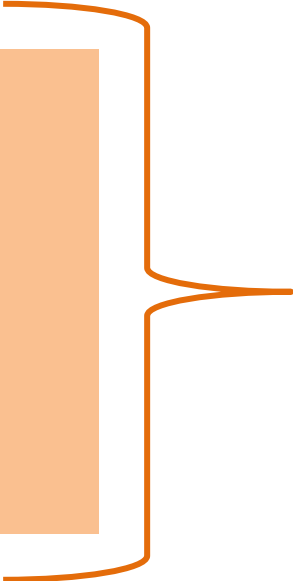


On-Site GSI Requirement

Of the 100% on-site retention requirement, the FIRST 50% of that total volume will be retained by and /or routed through updated GSI Best Management Practices.



GSI Basin
Bioswale
Cistern
Preserved Trees
Planned Trees
Structural Soil
Suspended Pavement
Permeable Pavement



Description
Design Considerations
Maintenance



On-Site GSI Requirement

Discussion & Questions

