



Barnard Trace

Urban Residential Redevelopment



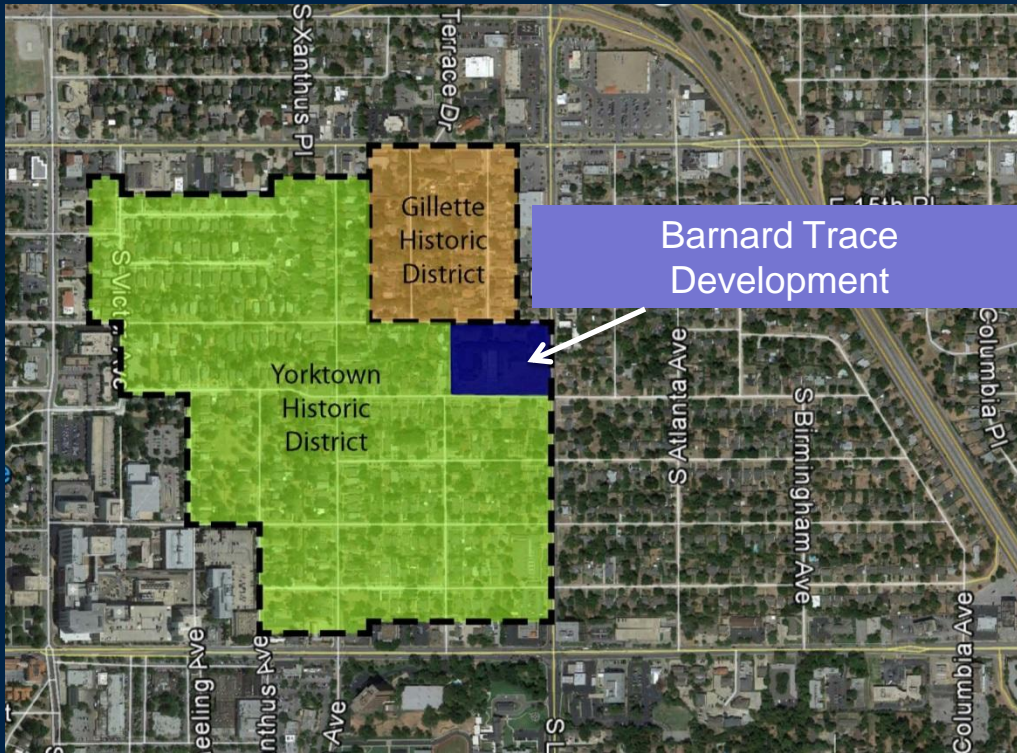
howell & vancuren



Jeff Dalton, AIA

Goals

At least 18 homes that match look and feel of surrounding Historic Districts



Similar lot widths / sizes

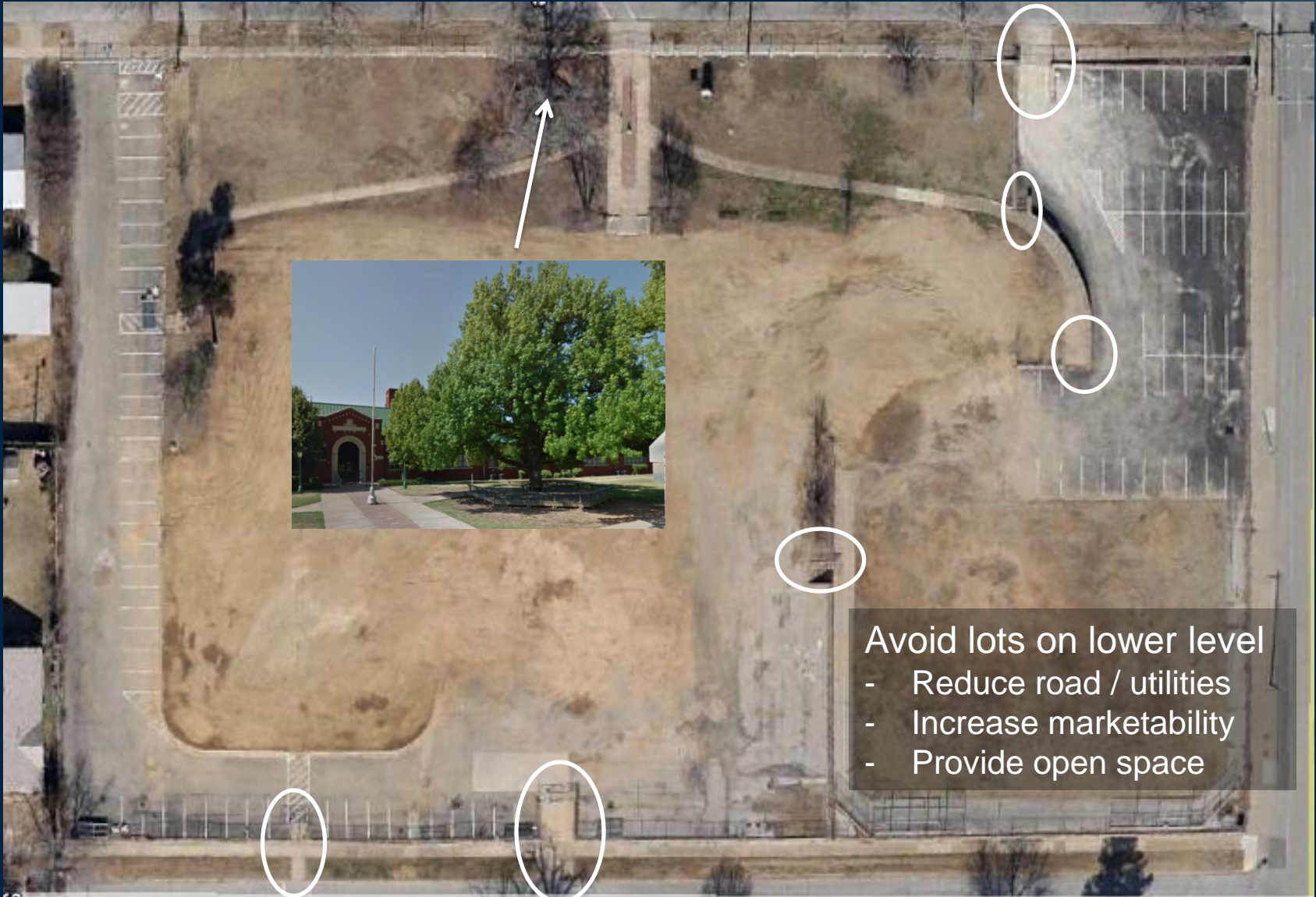
Housing style

Alignment



Goals

Preserve ALL existing WPA walls and stairways / entryways → use as assets
Preserve existing street trees and iconic gum tree / seating



Goals

Reduce imperviousness to maximum reasonable extent

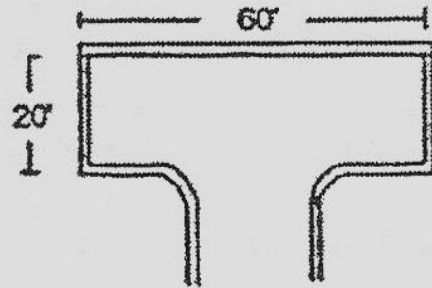
Shorter / narrower streets



Shared Driveways



Hammerhead
turnaround
25%
imperviousness vs.
40 ft. radius cul-
de-sac



Goals

LID stormwater controls in common areas

Easier maintenance

Greater visibility

Pervious Pavement



Bioretention Cells



Bioswales



Reduce Peak Flows and Filter Runoff

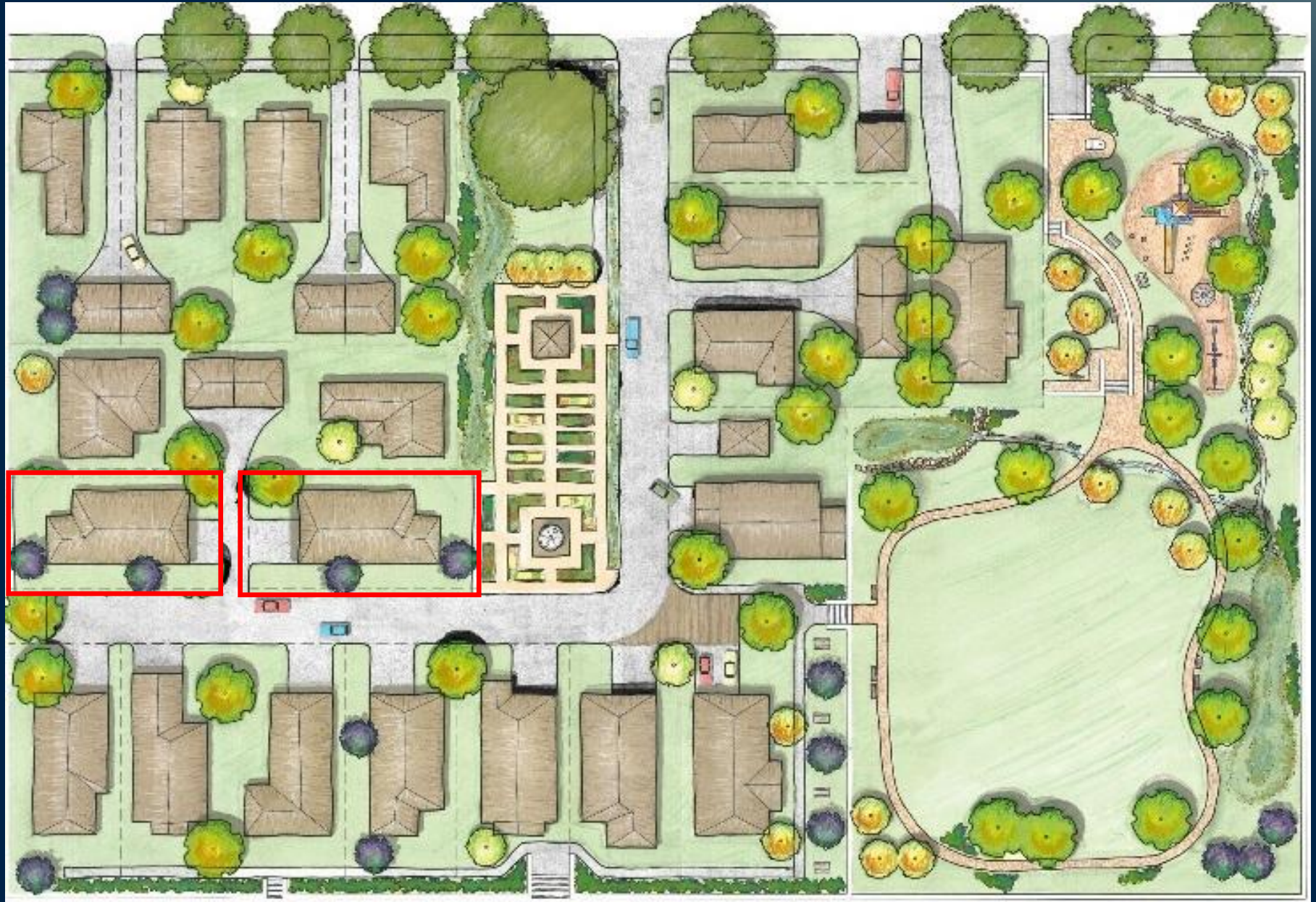
Site Plan



Site Plan

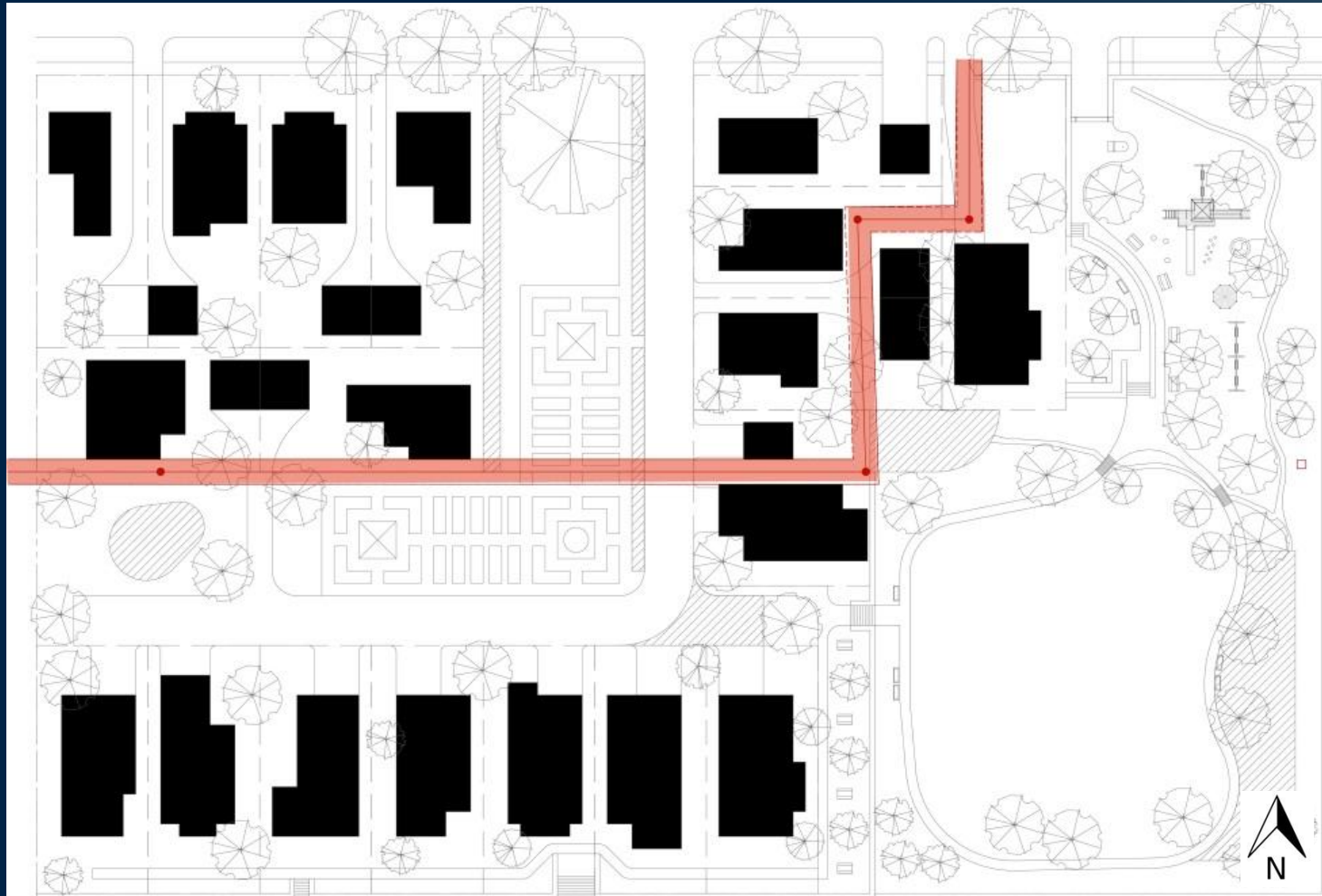


Site Plan



Code Challenge

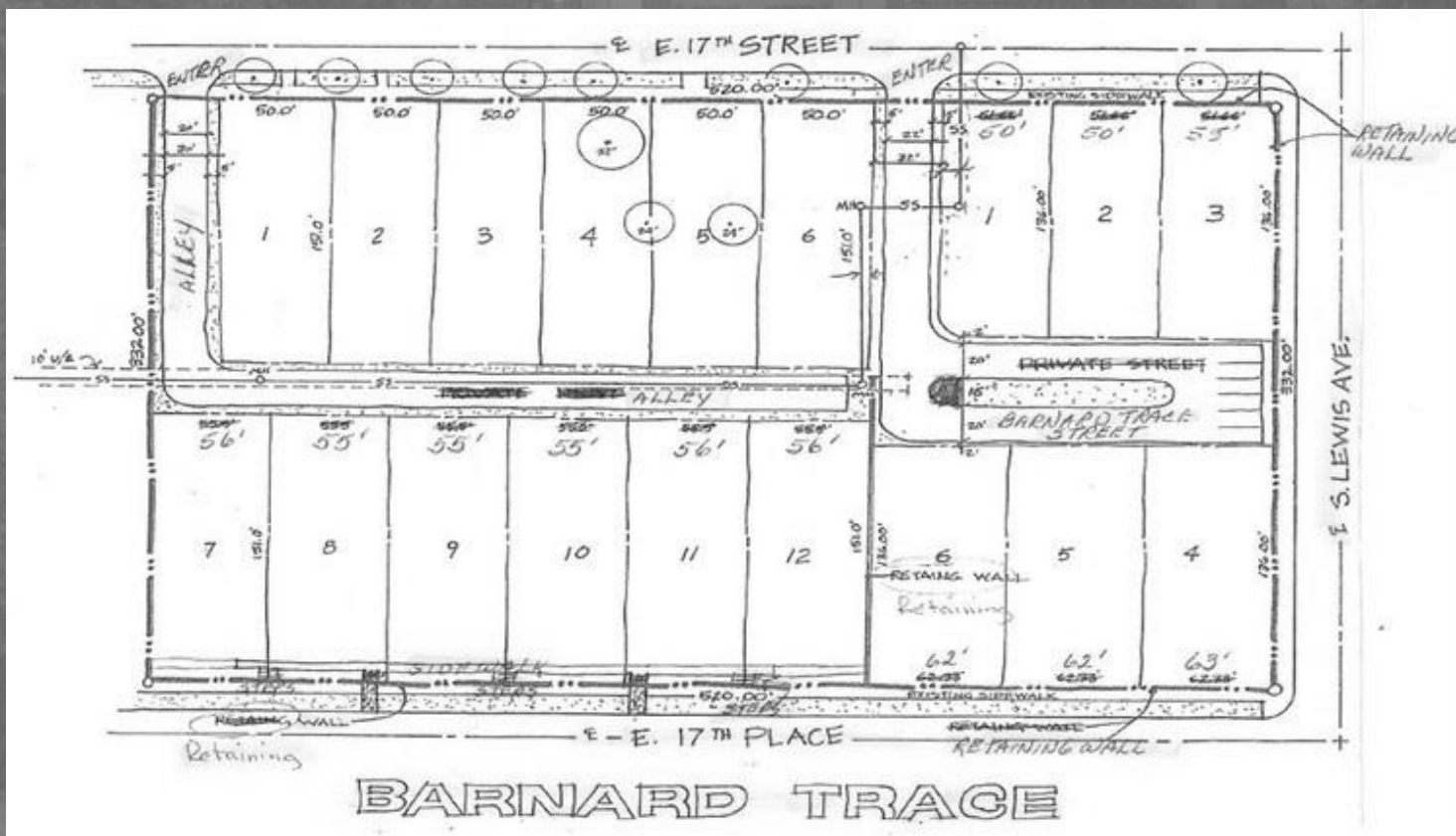
Cluster Development (72% are 45' x 100' lots)



No structures over Utility Easement

Barnard Trace Code Challenges (lots)

	RS-3	RS-5 (proposed)	Yorktown	Conv. Design	LID Design
Min. Lot Width (ft)	60	30	40	50	45
Min. Lot Area (sq. ft.)	6,900	3,750	4,000	6,800	4,500



18 lots

Code Opportunities

Planned Unit Developments (PUD)

“greater flexibility to...preserve meaningful open space”

“assuring compatibility with adjoining...properties.”



Utica Midtown Corridor

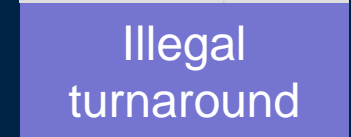
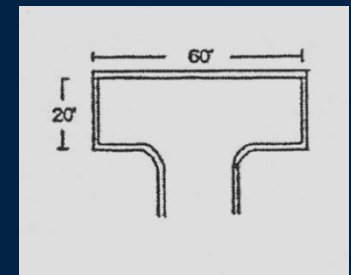
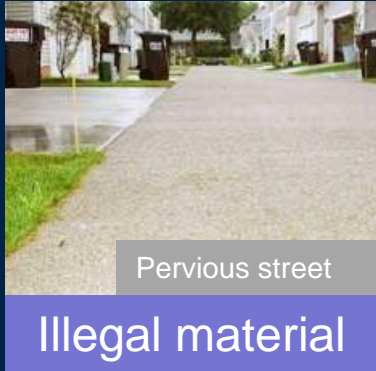
Small Area Plan

“Support open space...in the redevelopment

of the Barnard...site”. p. 240



Additional Code Challenges



Our design can be easily altered to meet codes, if necessary

Historic Neighborhood



17th Street looking south



Approved in Swan Lake
Historic District

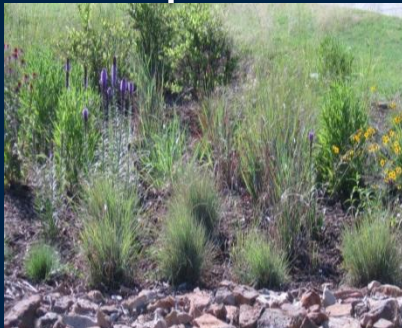
17th Place looking north



Park – Central



Tree and Entryway



Bioretention cell



Bioswale



Community Garden / Rainwater Silo

Park - Eastern



Park Benches



Dry Streambed



Picnic Tables



All WPA Walls preserved



Arch Entry



Flagpole



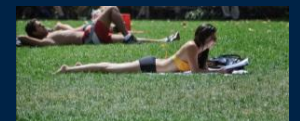
Playground



Monument



Pervious Trails



Lawn



Bio-retention

Open Space Plan - Park

Land Legacy to develop and manage open space:

- Raise funds
- Develop
- Manage / maintain (or find someone who will)

Strong candidate:

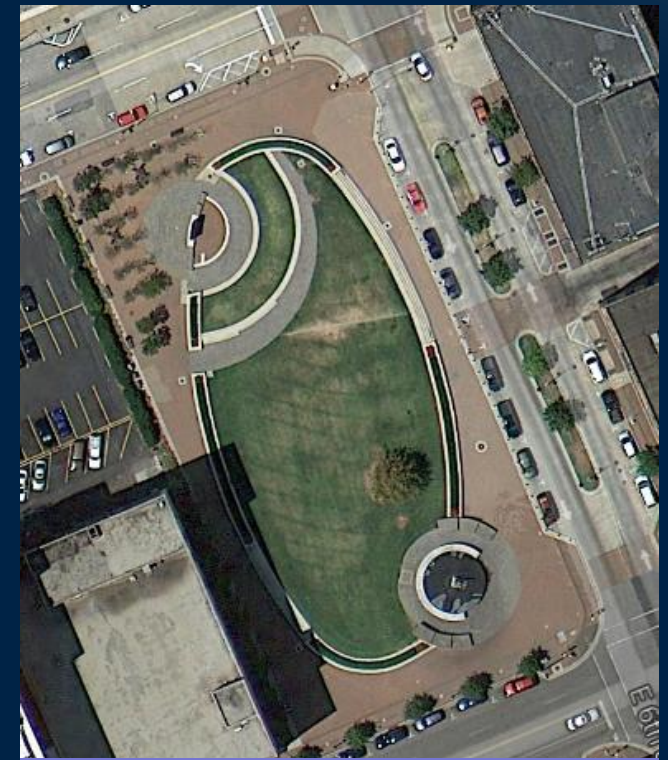
- No other open space in neighborhood
- Historic significance
- Fund-raising potential

Benefits to developer:

- Tax savings (about \$160,000)
- Reduce development cost
- No maintenance plans

1.6 acres preserved (40% of development)

Land Legacy Pocket Park on Archer



Chapman Green in downtown Tulsa
A Land Legacy Park

Public Acceptance



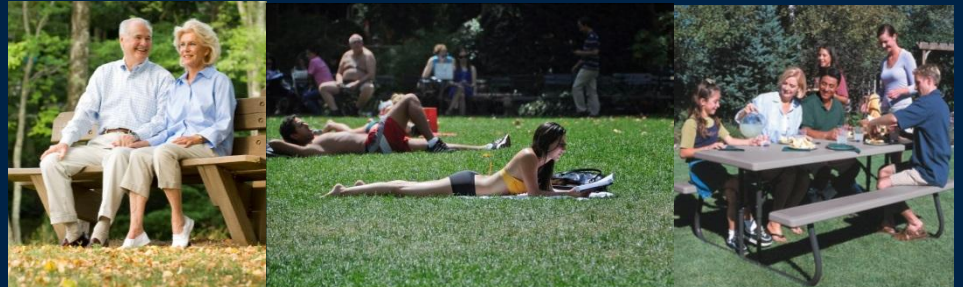
Preserve trees



Honor the historic school site



Look and feel of community

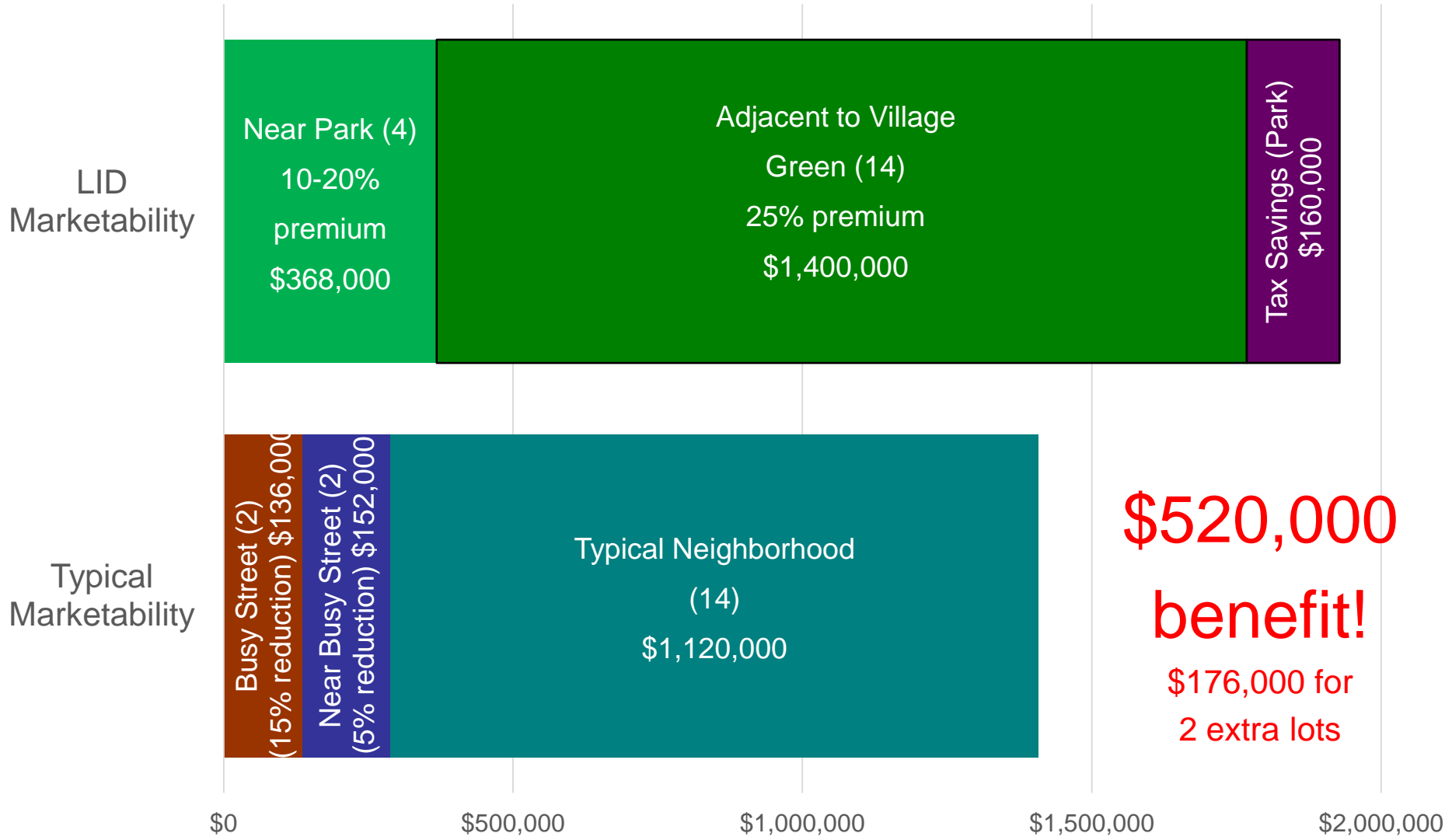


Keep all WPA walls & stairs



40% as community park open space

Marketability Comparison



Based on \$80,000 average lot value (conservative).

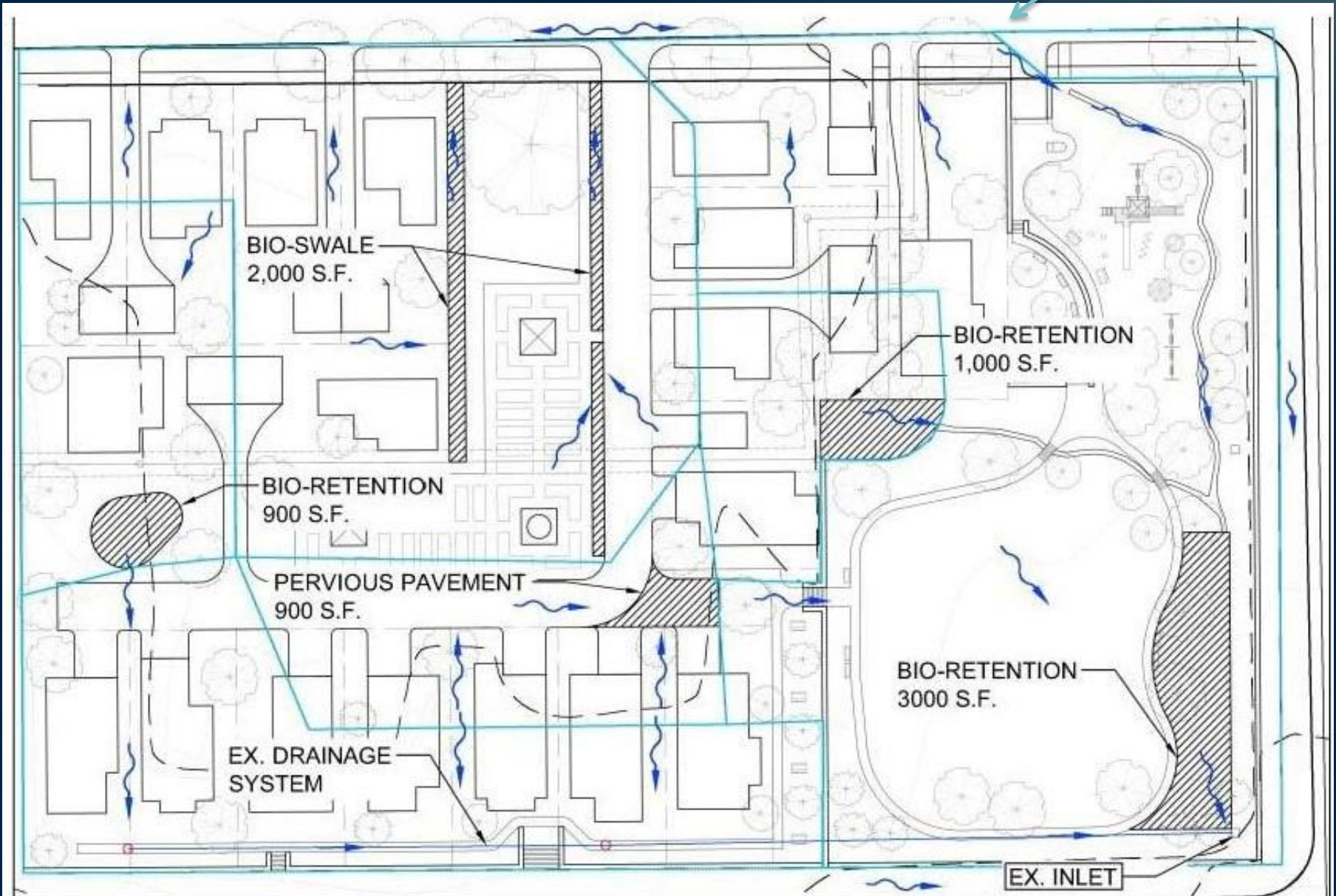
Property purchased for \$1,005,000 + \$450,000 conventional development = \$1,455,000 (vs. \$1,408,000 marketability)



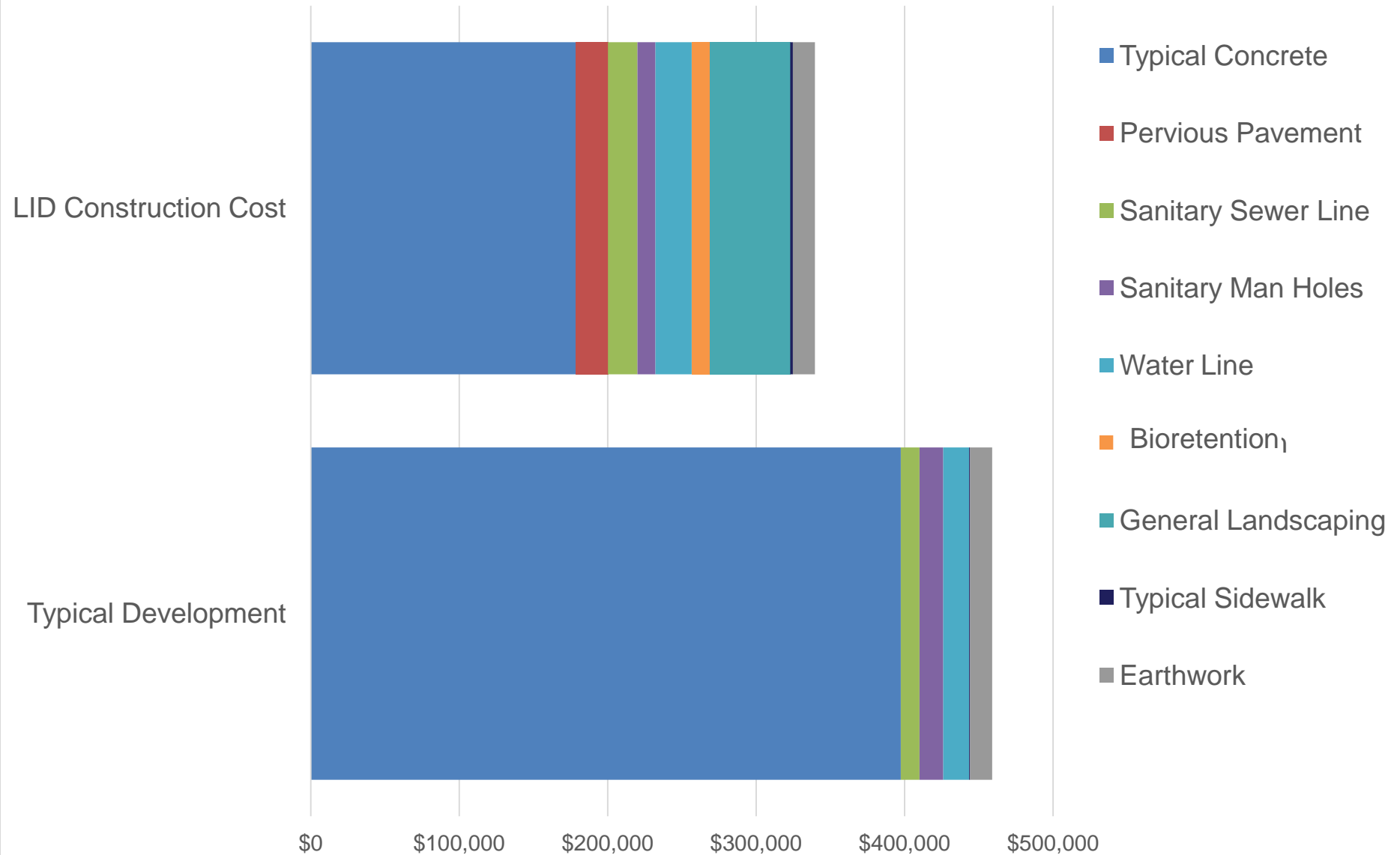
water flow
direction

Stormwater Design

Water recaptured from street!

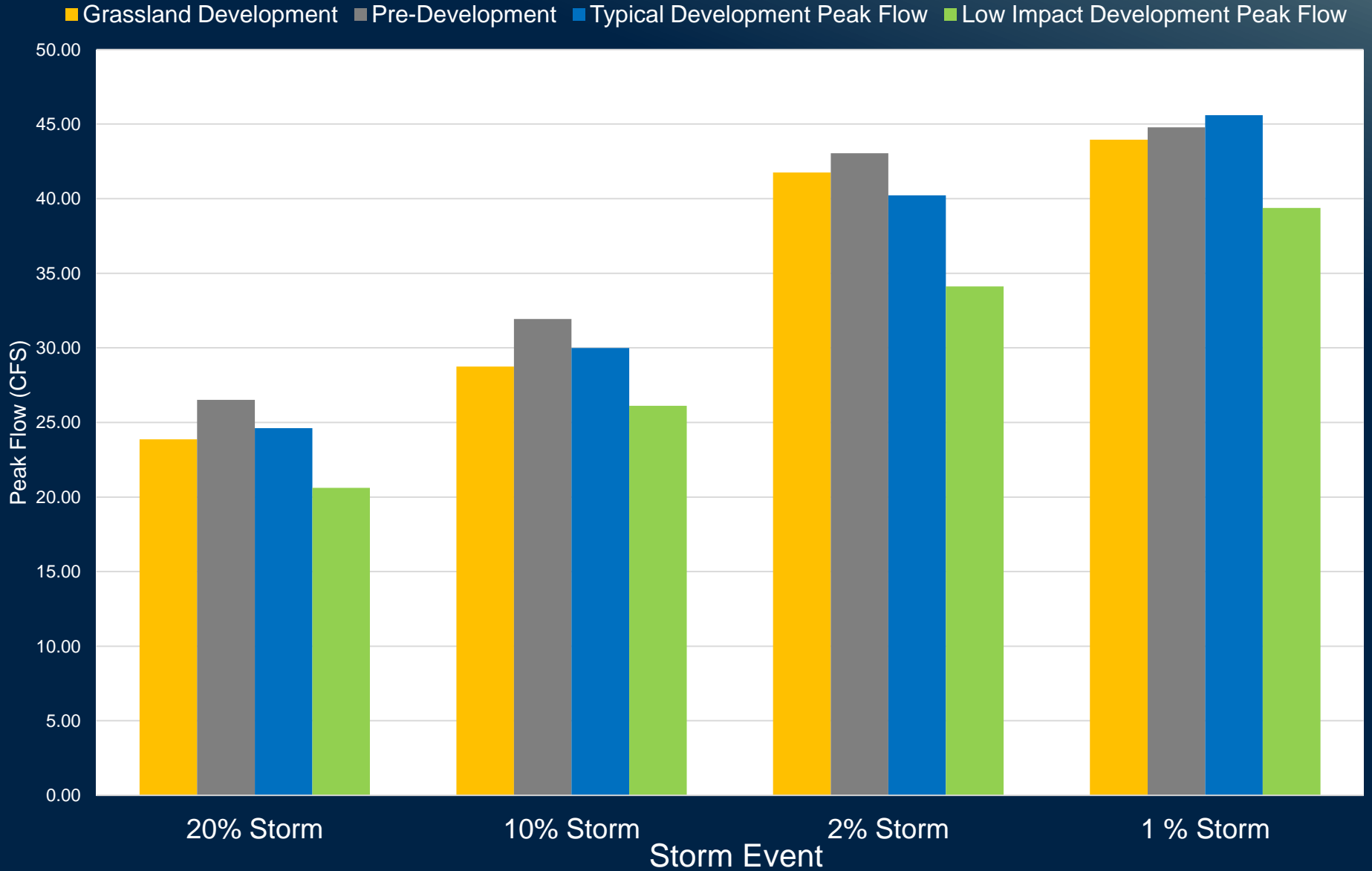


Construction Cost Comparison

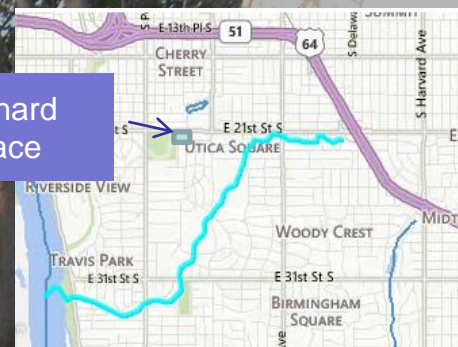


Over \$100,000 saved (25%)

Storm Flow Reduction



Pre-Development: Current site condition.

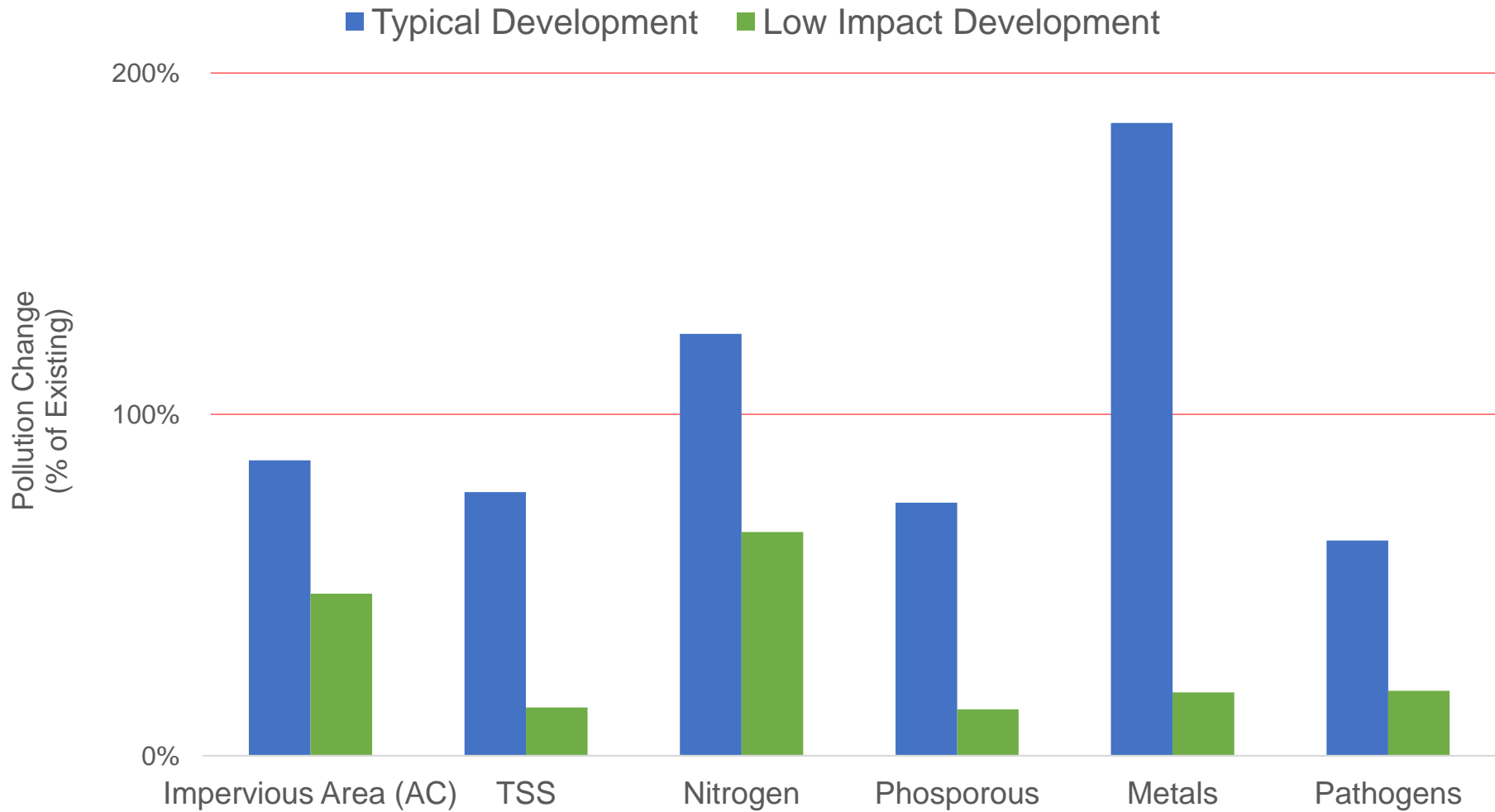


Crow Creek

<u>Cause of Impairment</u>	<u>Cause of Impairment Group</u>	<u>State TMDL Development Status</u>
Dissolved Oxygen	Organic Enrichment/Oxygen Depletion	TMDL needed
Escherichia Coli (E. Coli)	Pathogens	TMDL needed
Fish Bioassessments	Cause Unknown - Impaired Biota	TMDL needed

Fertilizers, pet waste, hot runoff from impervious surfaces

Pollution Reduction



Also, cooler temperature runoff from the LID development:

- 57% less paved area (less heating)

- Runoff filtered into ground (cooling)

Plants for Bioretention

Sedges, Rushes, and Grasses

Low maintenance native plants:

- Remove pollutants
- Withstand periods of wet
- Tolerate dry periods

Grasses

- Prevent erosion
- Winter interest



Shrubs and perennials

- Seasonal color
- Attract native insects

Shrubs



Perennials



Stormwater Quality – Landscape Plan

1.6 acres taken out of homeowner management:

- Native plants with low nutrient and water needs.
- Buffalo grass turf
 - drought-tolerant
 - very low nutrient needs

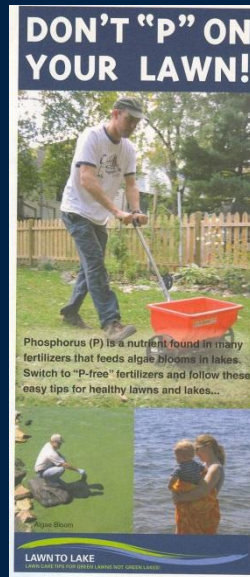


2004 7 18

Stormwater Quality - Education

Further reduce inputs :

- Signage and sales package flyers
 - nutrients & pet waste
- Pet waste stations
 - nutrients & pathogens



Rich history

Historic look and feel

Community

Treated stormwater

Reduced peak runoff



Up to \$800,000 in increased profit for developer!