OKC Development Codes Update

Parking and Parking Area Landscaping

Stakeholder Advisory Team

August 22, 2025

Goals For Today's meeting

- Update you on the Code Update
- Explain a new proposed parking concept
- Preview some of the proposed landscape metrics for Parking
- Discuss next steps for your review

Parking Section Discussion

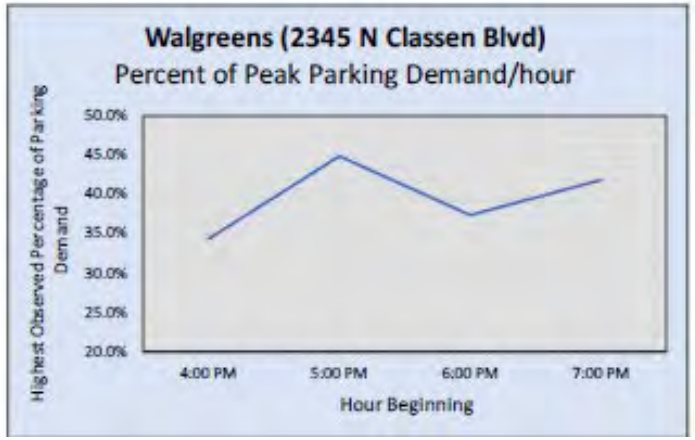
- Parking goals from planokc
- Approaches and Solutions
- Parking Area Requirements
- Parking Area (Lot) Design
- Next Steps

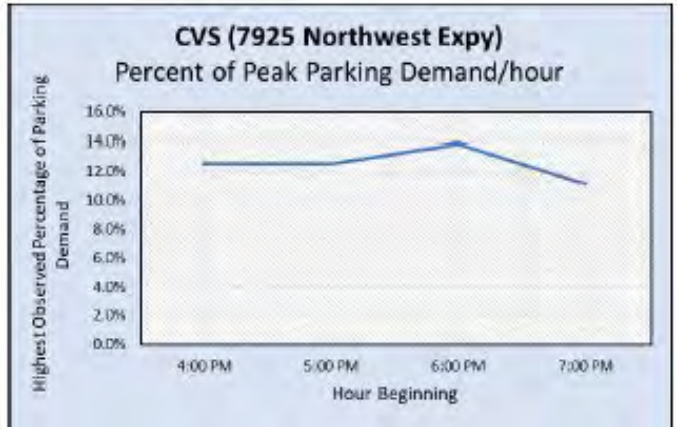
Why We Need to Modernize Our Parking Standards

Current Parking Standards

Parking Minimums

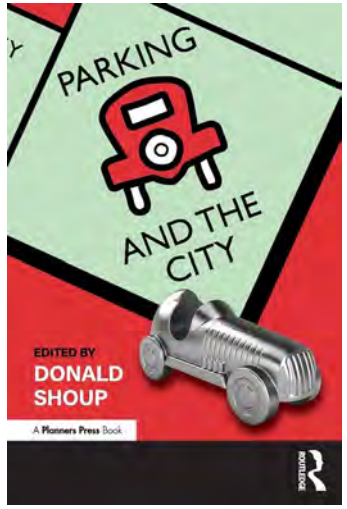
Source: Urban Land Institute Report, 2021

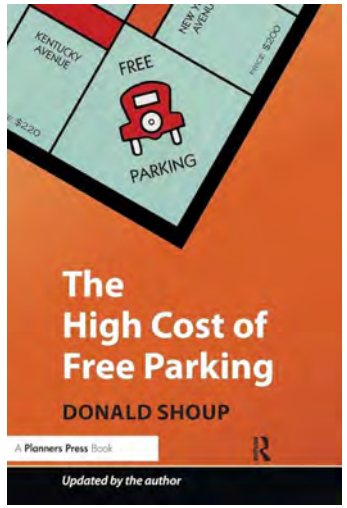




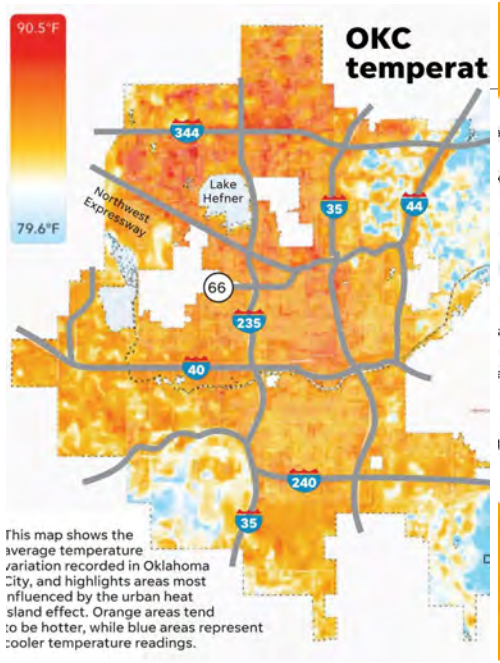
Source: OKC Planning Small Study 2022 showed less demand for retail parking than ITE predicts

"Off-street parking is heavily underutilized and over-built"

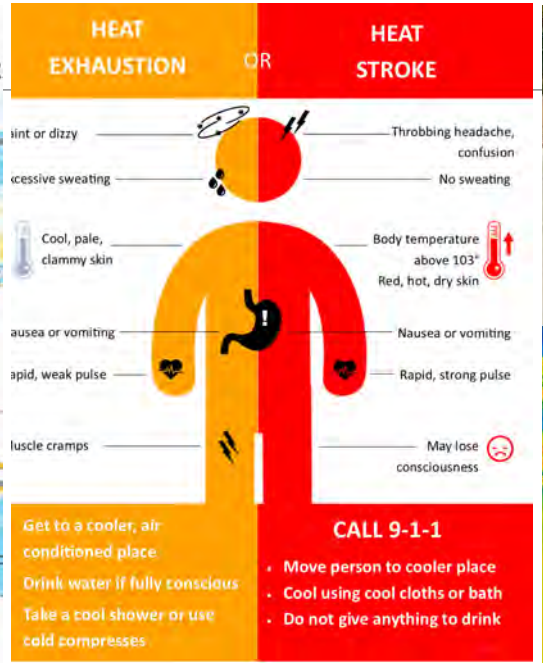




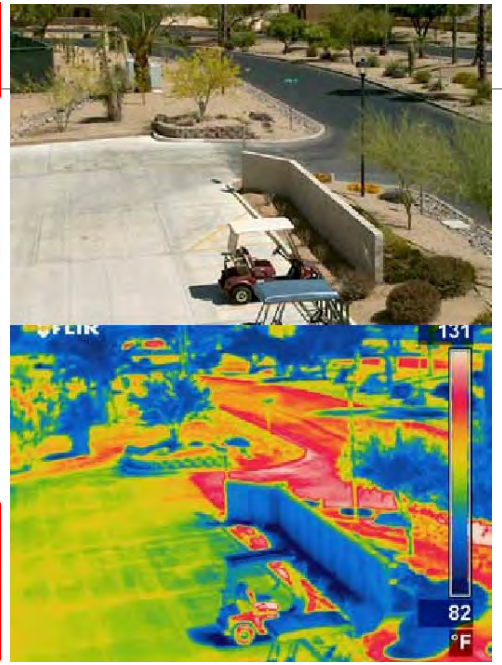
Human & Environmental Costs of Excessive Parking



Urban Heat Island

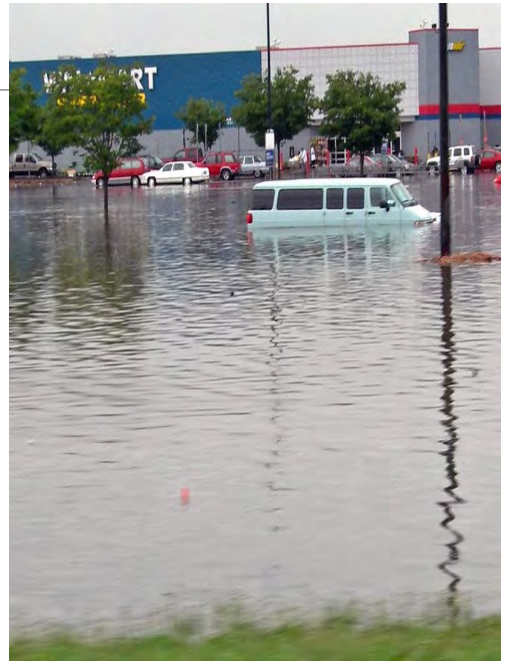


Negative Effects on Human Health



Large Parking Lots Are Significant Contributors To Urban Heat Island

Chemical Pollutant Runoff



Urban Flooding

https://www.okc.gov/Infrastructure-Development/Development-Planning/Housing-Neighborhood-Programs/Sustainability/Urban-Heat-Island-Campaign

Policy & Goals For Parking

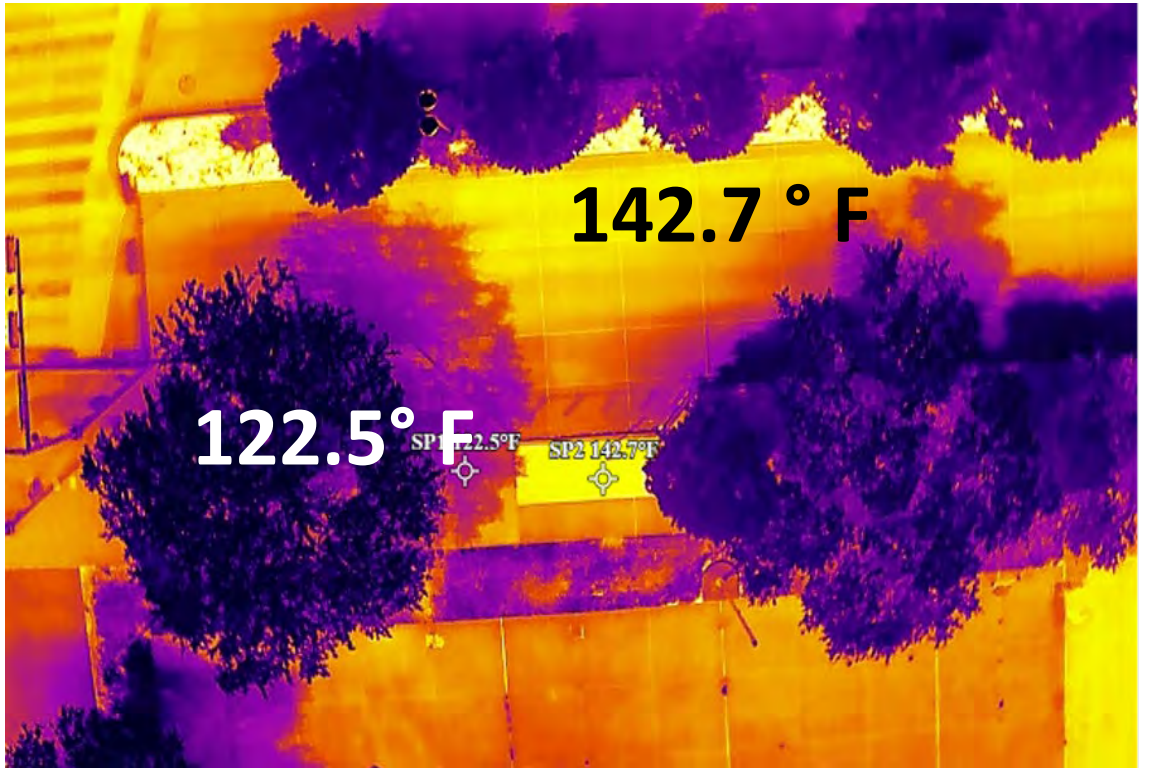
- Conduct parking studies to develop standards based on land use, location, and demand (**C-43**)
- Increase trees and landscaped islands in parking lots (**SU-29**)

- Screen parking lots to promote walkability (**SU-28**)
- Prohibit new surface parking lots downtown, incentivize redevelopment of existing surface lots (**SU-38**)
- Encourage shared parking among adjacent developments (**C-31**)
- Modify regulations to support green infrastructure in vulnerable areas, particularly for aquifer recharge and stream protection (**G-12**)

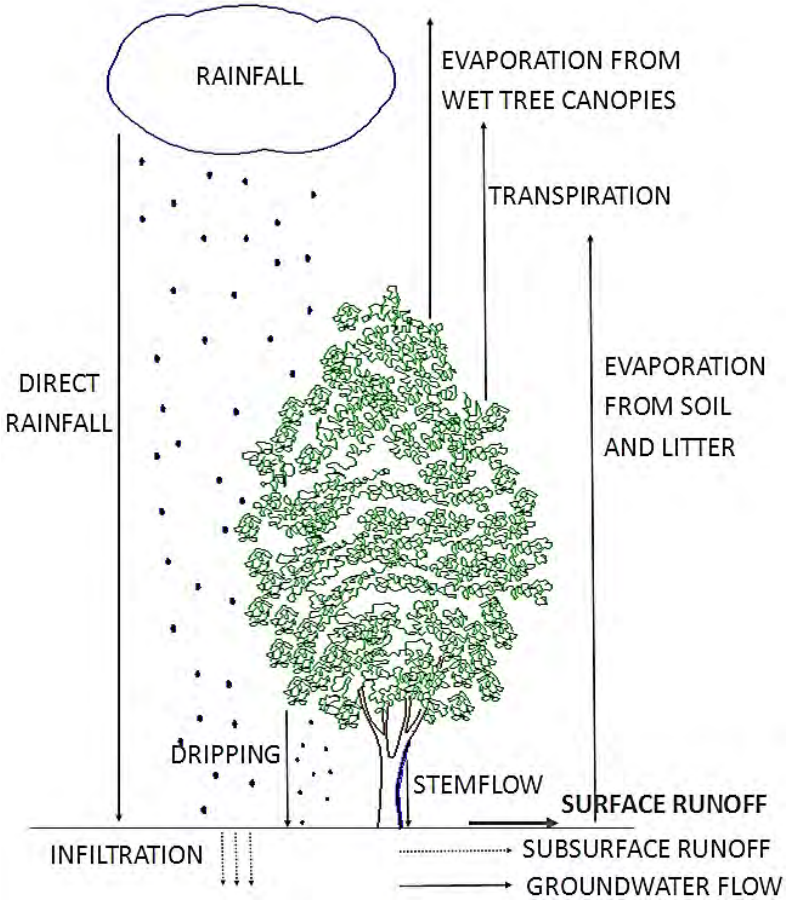
planokc

Trees Cool Cities, Clean Our Air, Help us Breathe Easier

From Oklahoma City Urban Heat study, 2023



Trees/ Plants Help With Flooding & Runoff



*Trees planted over open, impervious surfaces such as parking lots could reduce stormwater runoff by as much as 20 percent.

Parking Management Best Practices & Options

Potential Parking Standards

Reduced Parking Minimums

Rules that lower standard minimum parking requirements in specific areas or situations, typically near transit or in urban cores, but still maintain some baseline requirement.

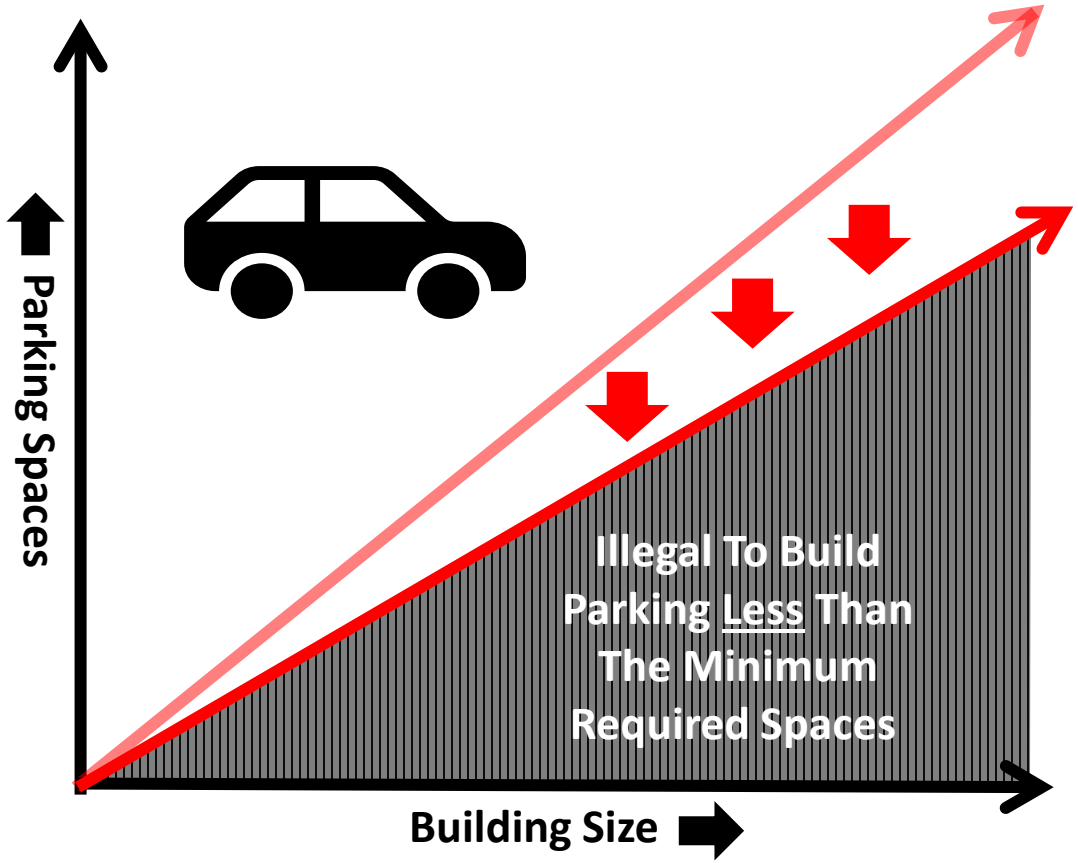
Example: Reducing required parking from 1 space per 400 retail square feet to 1 space per 800 square feet within a quarter mile of major transit stops.

Pros	Cons
• Predictable for Development • Convenient for Motorists • Environmentally Friendly	• Deprioritizes Pedestrians • Inflexible To Changing Needs, Behaviors, and Demands Of Businesses and Consumers

Example: Richmond, VA (2019)*

ARTICLE VII. - OFF-STREET PARKING AND LOADING REQUIREMENTS
DIVISION 2. - OFF-STREET PARKING REGULATIONS

On April 24, 2023 the Richmond, VA city council voted unanimously to eliminate parking mandates citywide.



Potential Parking Standards

No Parking Minimums

Rules that eliminate minimum parking requirements, allowing the market and individual developers to determine the appropriate amount of parking for their projects.

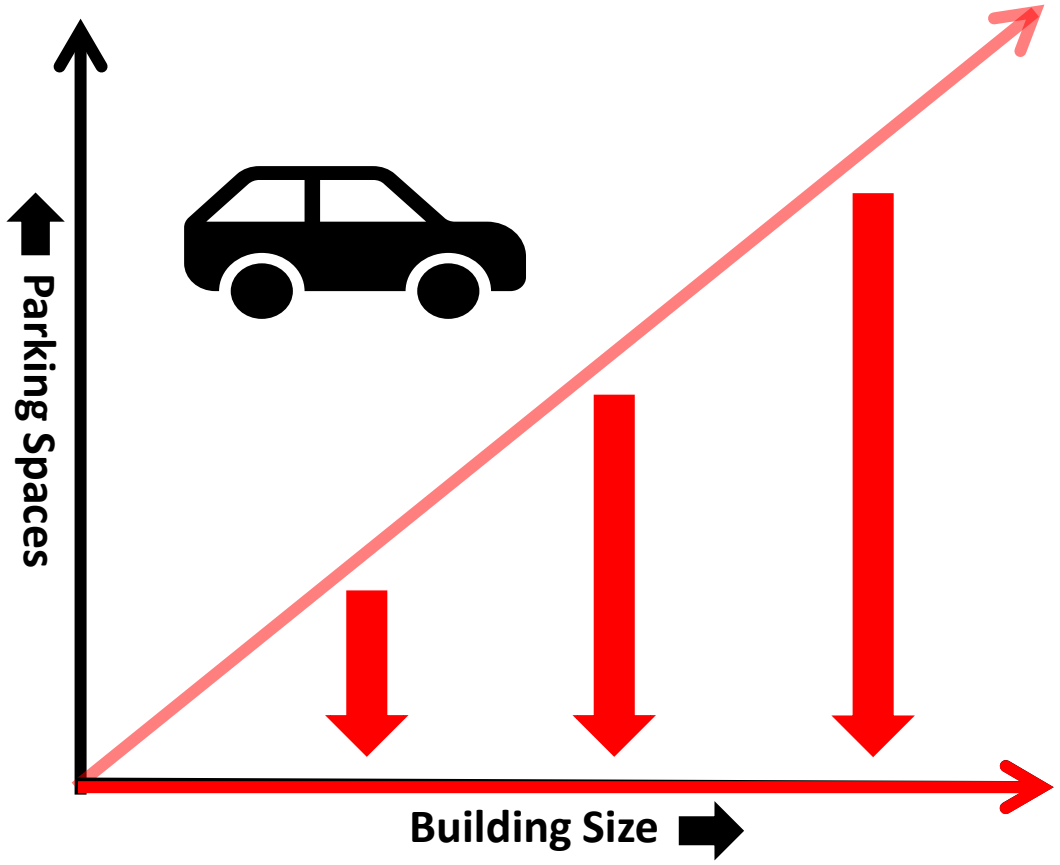
Example: A downtown district that removes all minimum parking requirements, letting a new apartment building choose to build any number of spaces based on expected tenant demand.

Pros	Cons
• **Flexible To Changing Needs, Behaviors, and Demands Of Businesses and Consumers**	• **Less Predictable** • **Parking Cannibalization**

Example: Austin, TX (2023)

C20-2023-010 Eliminate Minimum Parking Requirements

"BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF AUSTIN: The City Council initiates amendments to City Code Title 25 (Land Development) to eliminate minimum off-street motor vehicle parking requirements in the City."



Potential Parking Standards

Parking Maximums

Rules that set the maximum number of parking spaces allowed for different types of buildings or land uses.

Example: A city ordinance limiting office buildings to no more than one parking space per 1,000 square feet of floor area.

Pros	Cons
• Predictable For Development • More Environmentally Friendly Than Minimums	• May Lead To Parking Shortages If Not Calibrated Correctly • Inflexible To Changing Needs, Behaviors, and Demands Of Businesses and Consumers

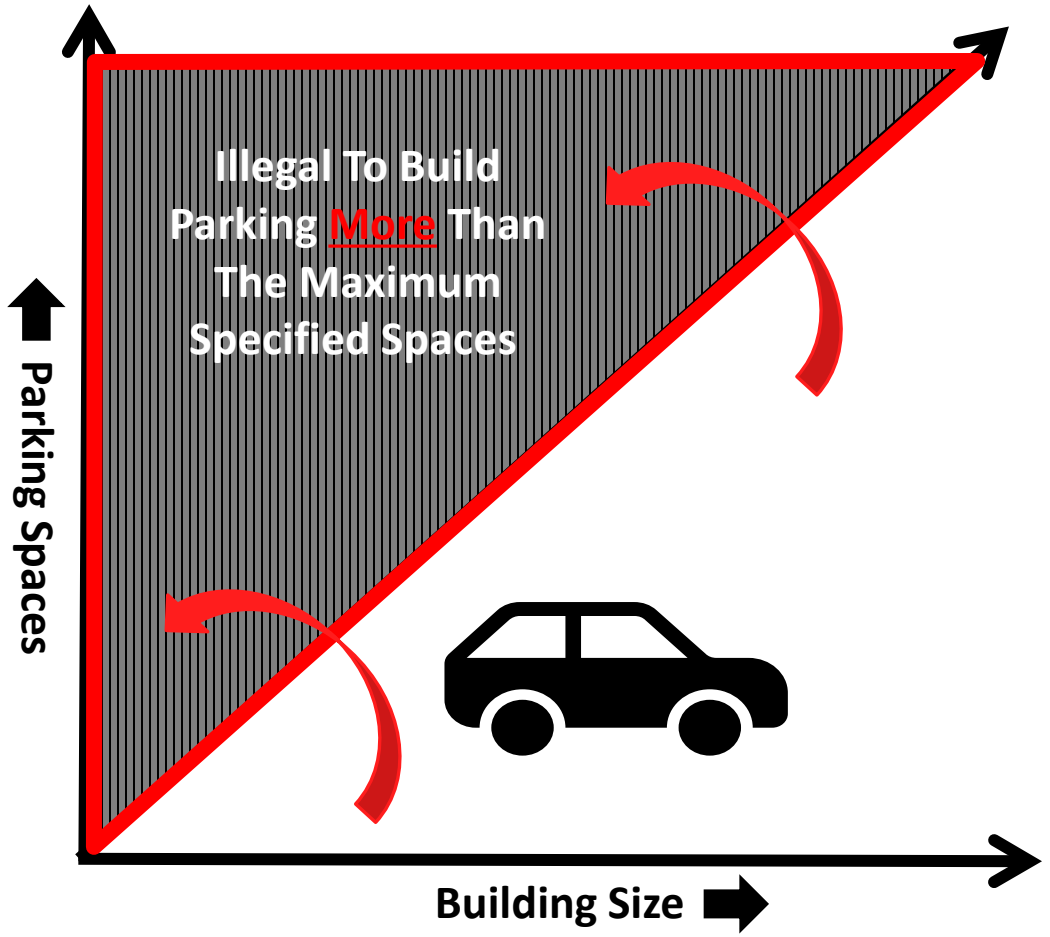
Example: Branson, MO (2018)

Table 94-87.1: Maximum Off-Street Parking Standards

(c) *Off-street parking spaces required.* Off-street parking spaces shall be provided in accordance with Table 94-87.1, Maximum Off-Street Parking Standards. Where this table does not specify a parking requirement, the standards of subsection 94-87(d) apply.

Table 94-87.1: Maximum Off-Street Parking Standards

Dwelling Unit = du Gross Floor Area = GFA



Potential Parking Standards

Parking Flexibility

Strategies that work with market forces to encourage or discourage certain parking behaviors. Pay as you go, proportional requirements, etc.

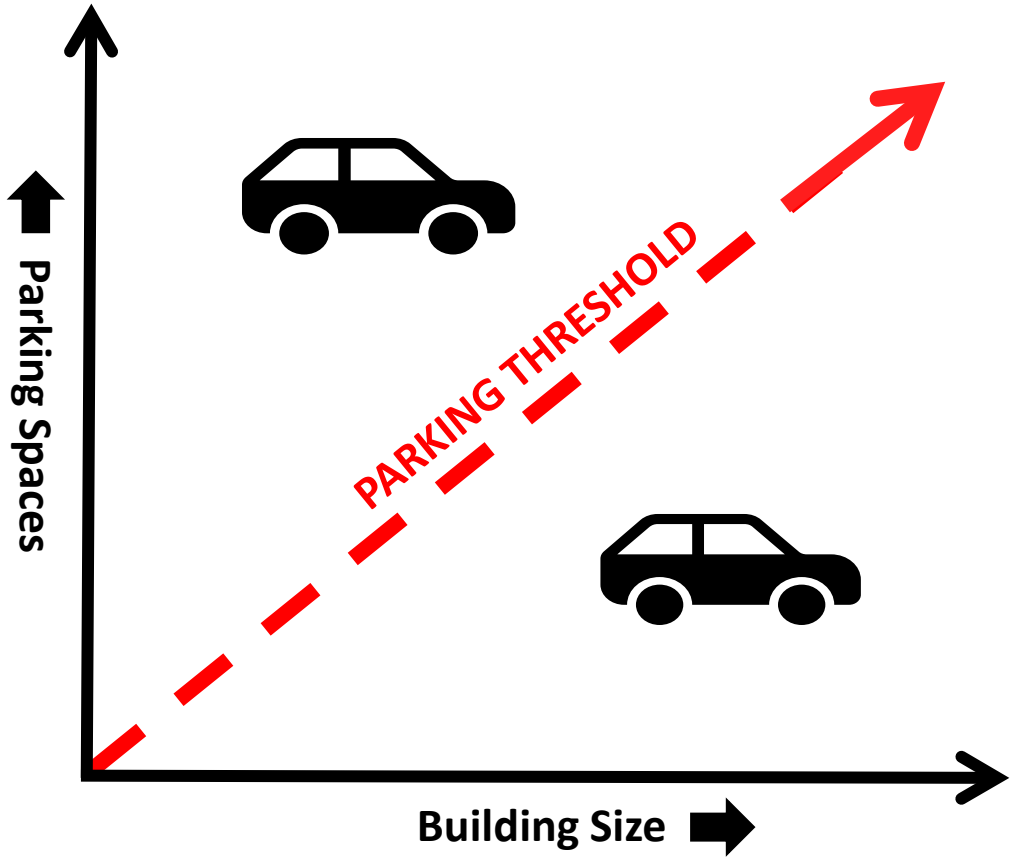
Example: Requiring developers to provide additional landscaping if they overbuild parking

Pros	Cons
• **Flexible To Changing Needs, Behaviors, and Demands Of Businesses and Consumers**	• **Less Predictable**

Example: Edmond, OK (2017)

22.6.1. - General Standards. (C)(4))

(4) *Excess Spaces.* If an applicant desires parking spaces in excess of the number required for a particular use in the table above, tree plant units in addition to those required in this Chapter shall be provided on the site. Fifteen additional tree plant units shall be provided for every four, or any portion thereof, excess parking spaces.



Local Parking Analysis & ITE Parking Ratios

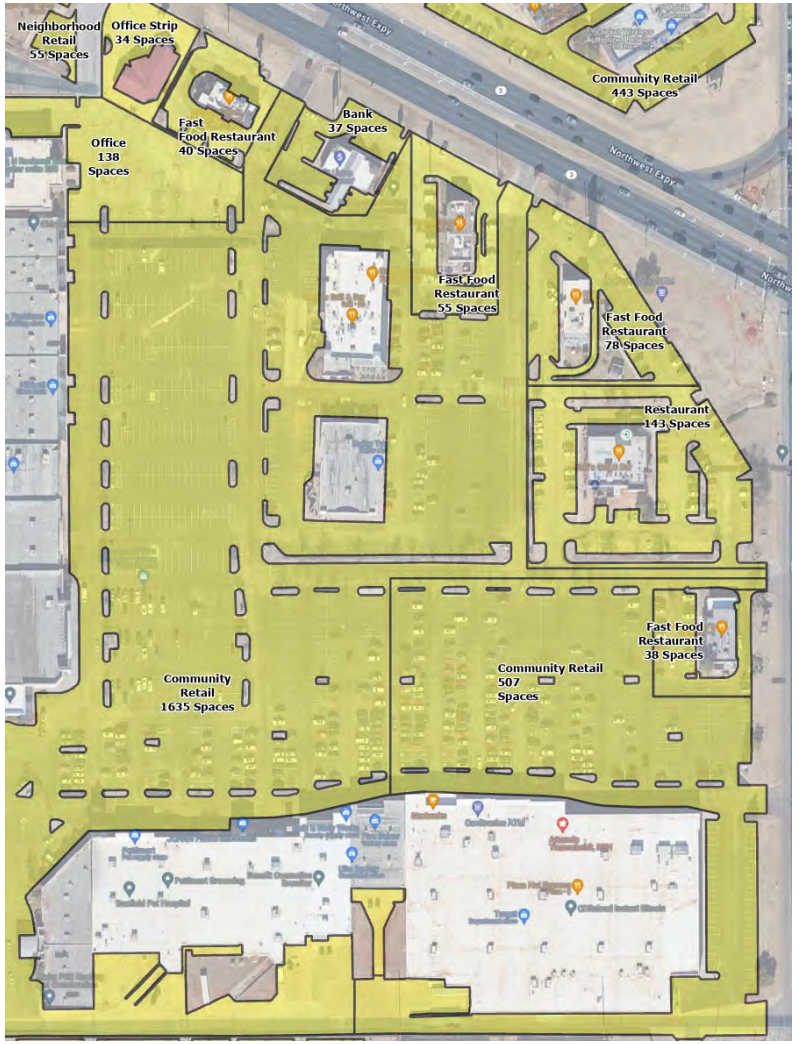
Standards based on OKC Land Use, Location, Demand

Analyzing Oklahoma City's Built Parking Environment

We Modeled Parking Patterns Across All Land Uses to Measure & Estimate How Much Parking Already Exists

We looked at every parking lot in the city (**28,000+)** using aerial maps from 2020 and joined each lot to the 2020 parcel it serves. We then estimated the total number of spaces based on the square footage of pavement, with calibration for factors such as drive lanes.

The outcome gave us a **local picture of the amount of parking that different uses have today** (restaurants, offices, schools, etc.).



Ex. 12 Data Samples

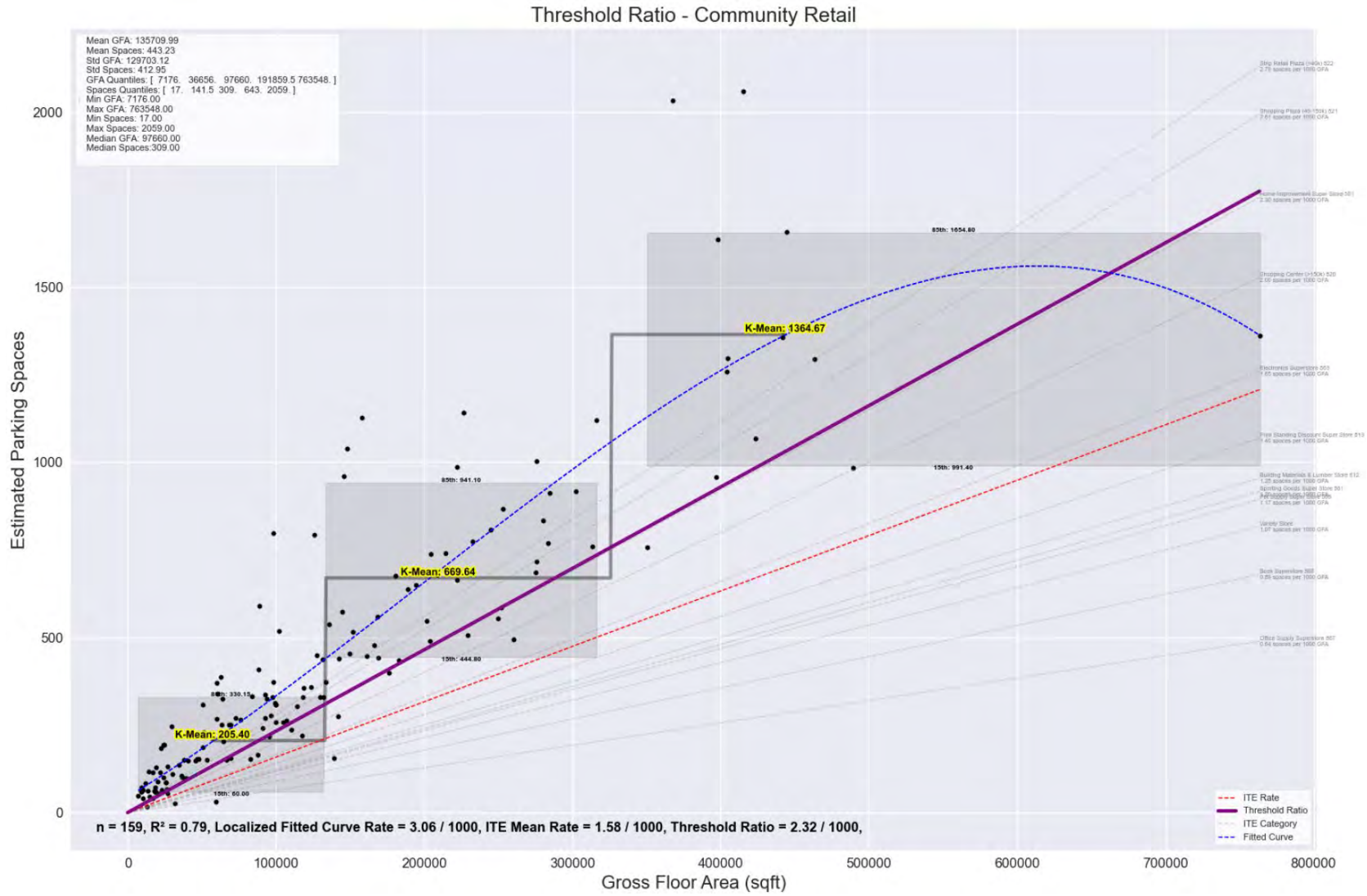
Neighborhood Retail – 55 spaces
Office Strip – 34 spaces
Fast Food Restaurant – 40 spaces
Office – 138 spaces
Bank – 37 spaces
Fast Food Restaurant – 55 spaces
Fast Food Restaurant – 78 spaces
Restaurant – 143 spaces
Community Retail – 443 spaces
Community Retail – 507 spaces
Community Retail – 1,635 spaces
Fast Food Restaurant – 38 spaces

Standards based on OKC Land Use, Location & Demand

How Parking Behavior was Analyzed & Identified

Identify Localized Parking Ratios for Each Use

- After organizing compiled local data, we calculated the R^2 value to measure how strongly building size and parking were correlated for each use.
- We compared each group's results to the ITE national average rate (**dashed red line**) as a benchmark.
- To better reflect local conditions, we fitted a localized curve (**dashed blue line**) that captured how parking scales in Oklahoma City developments.
- From there, we established a Local Parking Ratio (**solid purple line**)—a clear, consistent parking rate for that use type, rooted in both local data and national practices.
- **The analysis results closely matched the parking ratios typically desired by commercial development lenders.**



Findings

- **83% of parking areas contain fewer than 150 spaces**
  - *The vast majority of parking facilities are small to medium-sized*
- **Only 1% of parking areas exceed 750 spaces**
  - *Large-scale parking facilities are extremely rare*
- **40% of parking areas serve commercial properties**
  - *Commercial use represents the largest single category of parking facilities*

Surface Parking Spaces Distribution Across Broad Land Use Categories

Land Use	n	75 or Less	76 -150	151 - 225	226 - 375	376 - 750	751 or Greater
Residential	975	64.2%	12.5%	7.1%	8.8%	7.0%	0.4%
Commercial	4,429	68.8%	17.3%	4.8%	4.1%	3.1%	1.6%
Institutional	345	55.9%	19.1%	9.0%	9.6%	5.2%	1.2%
Industrial	3,480	62.7%	17.5%	7.0%	6.6%	4.5%	1.2%
Office	1,819	77.0%	11.3%	5.0%	4.5%	1.4%	0.7%
Citywide*	**11,048**	**67.4%**	**16.0%**	**5.9%**	**5.5%**	**3.7%**	**1.2%**

**Based on a refined subset comprising 39.2% (n=28,141) of the total data set.*

Proposed Parking Standards

Proposed Updated Parking Standards

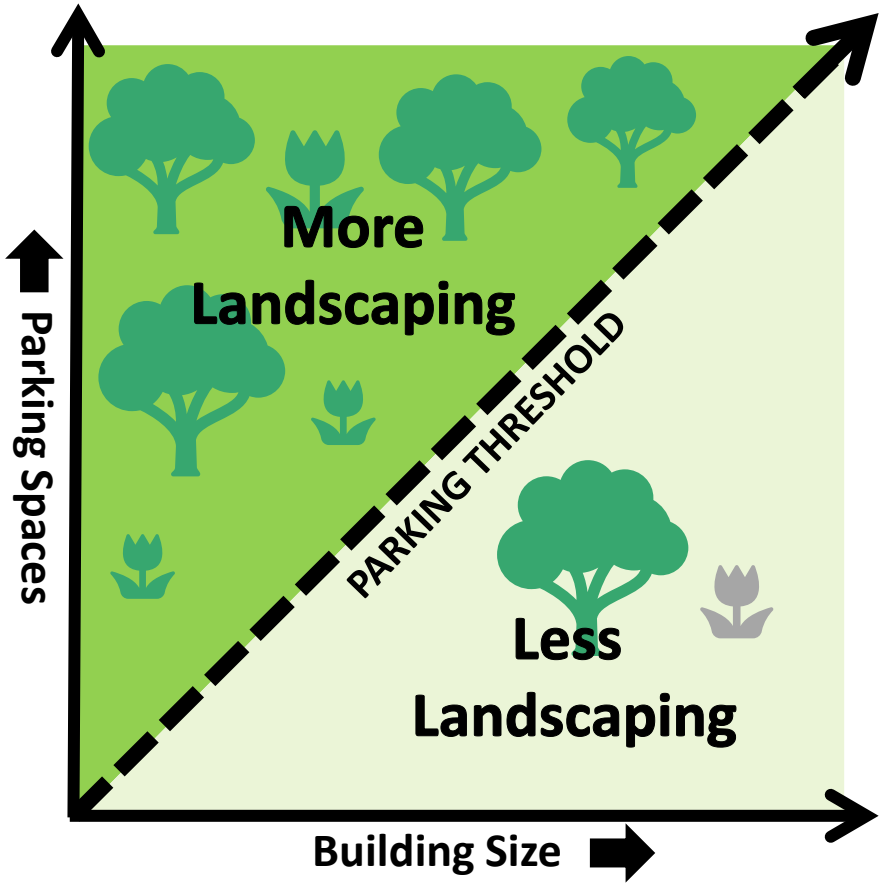
- Remove Parking Minimums on All Non-Residential Uses
- Reduce Residential Parking Minimums to 1 Per Dwelling
- Introduce **Parking Thresholds** to Provide Flexibility and Balance Parking Needs with Landscaping Requirements

Parking Threshold

A parking threshold is a level where the number of parking spaces changes how much landscaping is needed. As buildings add more parking, they cross these thresholds. At each threshold, business owners must add more plants, trees, and landscaping. These thresholds help balance parking and landscaping based on *the building's size, LUTA, and how the building is used*. **Business owners decide how much parking they need, knowing more parking means more landscaping.**

Above Threshold

Below Threshold



planokc C-43: standards based on land use, location, and demand

Threshold Formula:

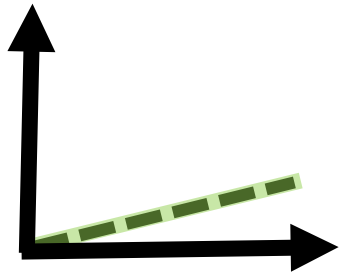
$$\frac{\text{Gross Floor Area}^{1}}{\text{1,000 square feet}} \times \text{Base Ratio} \times \text{LUTA Multiplier}$$

1. Dwelling Count For Residential Uses

Land Use Parking Base Ratios

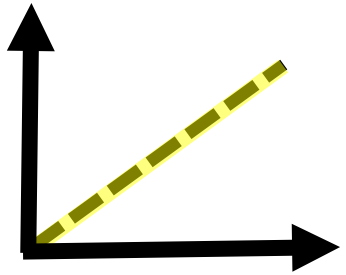
Base Ratio of Parking Per 1000 SF by Land Use Based on Extensive Local Analysis and National ITE Standards

Low Demand
(2 Spaces / 1000 SqFt Floor Space)

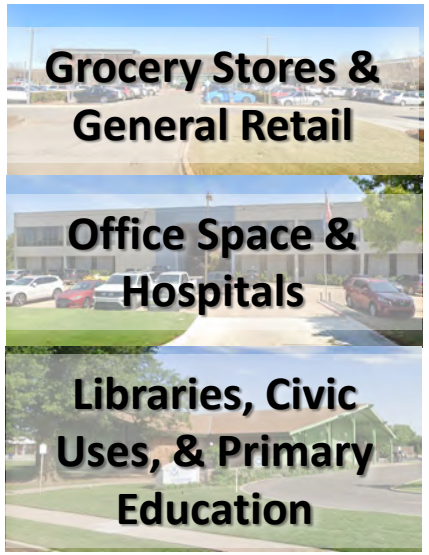


Examples:

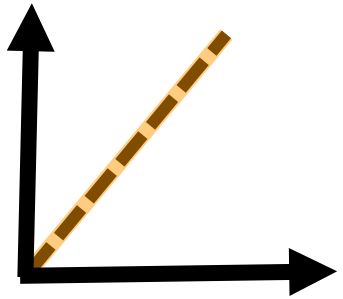
Medium Demand
(4 Spaces / 1000 SqFt Floor Space)



Examples:

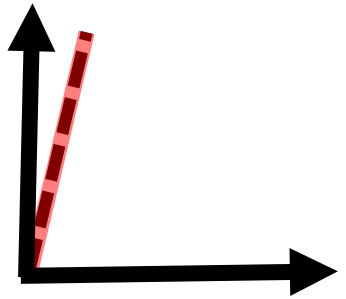


High Demand
(6 Spaces / 1000 SqFt Floor Space)



Examples:

Very High Demand
(10 Spaces / 1000 SqFt Floor Space)



Examples:

Demand	Base Rate
Very High	10.0
High	6.0
Medium	4.0
Low	2.0

Represented At Rate of # of Spaces Per 1000 SqFt Gross Floor Area

Threshold Formula: Gross Floor Area x **Base Ratio** x LUTA Multiplier

Land Use Parking Base Ratios

Base Ratio of Parking Per 1000 SF by Land Use Based on Extensive Local Analysis and National ITE Standards

Table 59-44.1b Parking Demand Base Ratio Per Dwelling					
Land Use	**Base Ratio**	**Land Use**	**Base Ratio**	**Land Use**	**Base Ratio**
Cottage Court	2.0	Manufactured Dwelling, Detached	2.0	Townhouse	2.0
Detached Dwelling	2.0	Mixed Use Dwelling	2.0	Two-Dwelling	2.0
Land Lease Community	2.0	Multi-Dwelling	2.0		
Live-Work Dwelling	2.0	Three or Four Dwelling	2.0		

Parking Base Ratios are Neither Minimum Nor Maximum Parking Requirements

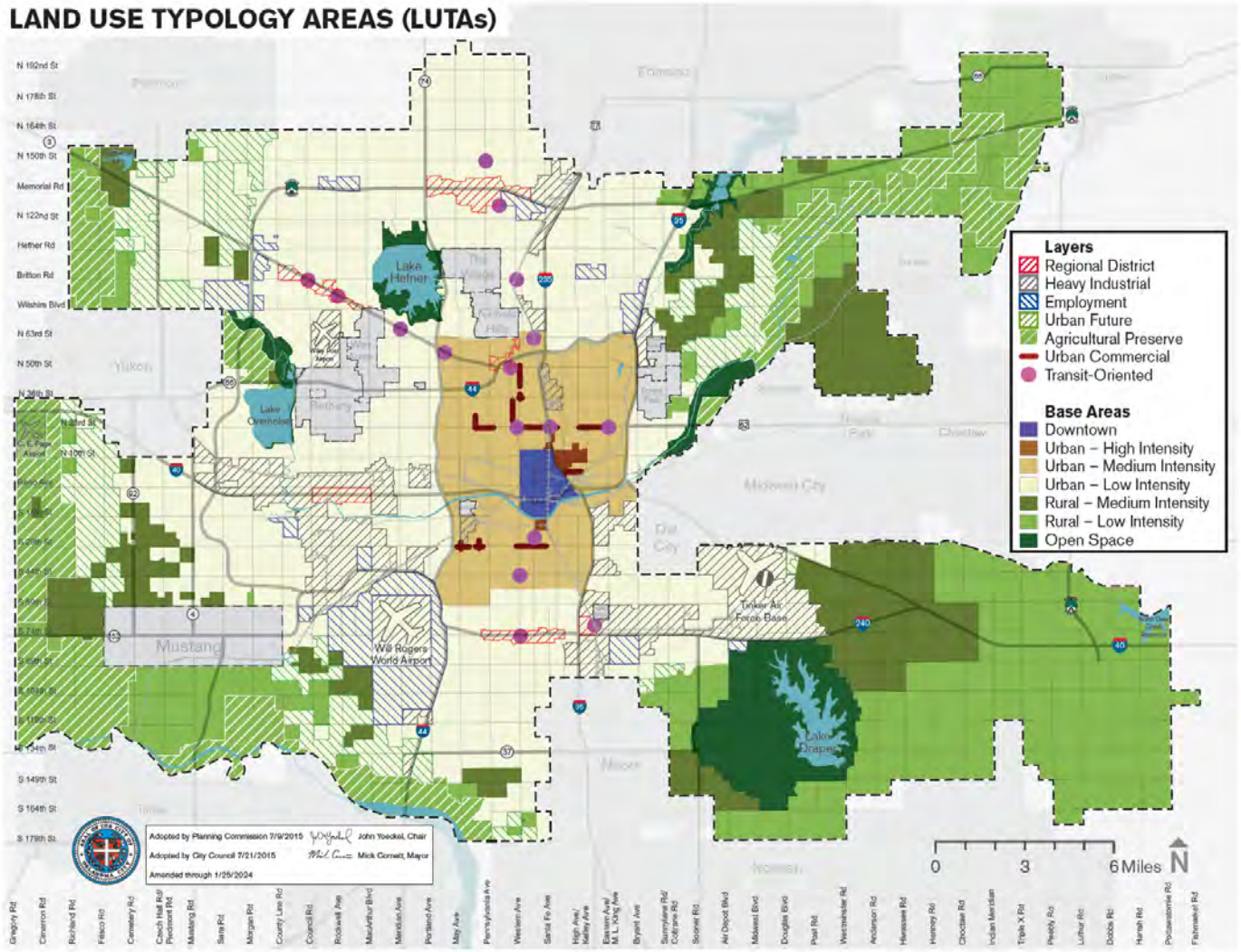
Base Ratios Represent Appropriate Parking Expectations With Flexibility

Table 59-44.1a Parking Demand Base Ratio Per 1,000 Square Feet of Building					
Land Use	**Base Ratio**	**Land Use**	**Base Ratio**	**Land Use**	**Base Ratio**
Aboveground Flammable Liquid Storage	2.0	Food Truck Court	4.0	Personal Services	4.0
Adult Daycare	2.0	Forced Detention and Correction Facilities	4.0	Personal Storage	4.0
Adult Entertainment	4.0	Gasoline and Fueling Sales	6.0	Recycling Processing Facilities	4.0
Adult Novelty Shop	4.0	Grocery Store	4.0	Re-Entry Facility	2.0
Agricultural Processing	2.0	Group Home Facility	2.0	Re-usable Materials Collections and Sales	4.0
Agricultural Supplies and Services	2.0	Group Residential	2.0	Religious Institution	6.0
Alcoholic Beverage Retail Sales	4.0	Hazardous Waste Disposal	4.0	Repair Services Consumer	4.0
Animal Internment	2.0	Horse Stable	2.0	Residential Facilities	2.0
Animal Raising	2.0	Horticulture	2.0	Restaurant	10.0
Animal Waste Processing	2.0	Hospital	6.0	Retail Sales	4.0
Automobile and Vehicle Sales and Rental	6.0	Hotel	2.0	Sanitary Landfill	4.0
Automobile Vehicle Impound Yards and Damaged Vehicle Auctions and Sales	6.0	Industrial	4.0	School, Major	6.0
Bed and Breakfast	2.0	Inpatient Rehabilitation Facilities and Palliative Care	4.0	School, Minor	4.0
Building Services	4.0	Interring	4.0	Senior Independent Living	2.0
Campground	6.0	Kennel	2.0	Spectator Sports / Performance Venue	10.0
Childcare Centers	2.0	Library Services and Community Centers	4.0	Spectator Sports and Entertainment	10.0
Cleaning and Repairs	4.0	Livestock Auction	6.0	Stockyards	6.0
Colleges or Universities	6.0	Marijuana Processing	4.0	Supportive Housing	2.0
Commercial Kiosk	4.0	Medical Marijuana Dispensary	4.0	Underground Injection Well	2.0

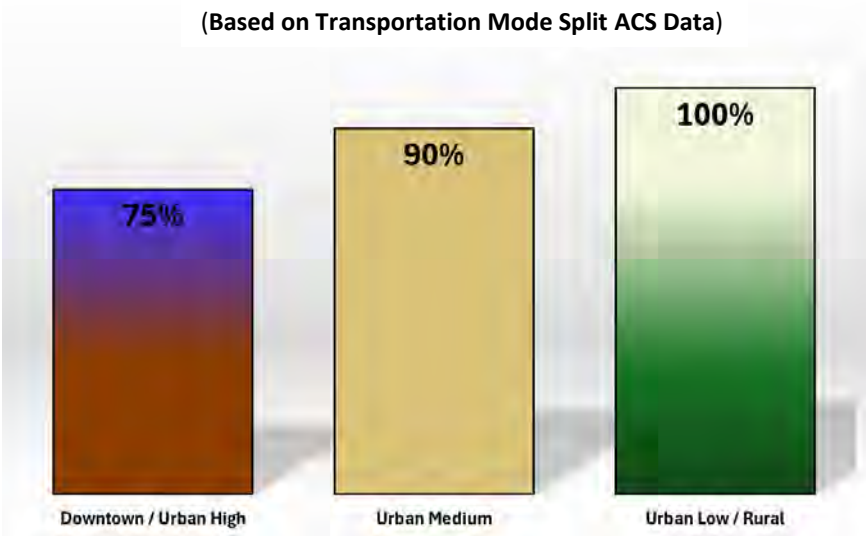
Threshold Formula: Gross Floor Area x **Base Ratio** x LUTA Multiplier

Land Use Typology Areas

Calibrate Parking Thresholds Differently For Each LUTA



Base Rate * LUTA Multiplier



Threshold Formula: Gross Floor Area x Base Ratio x **LUTA Multiplier**

Parking Thresholds Examples + Discussion & Questions

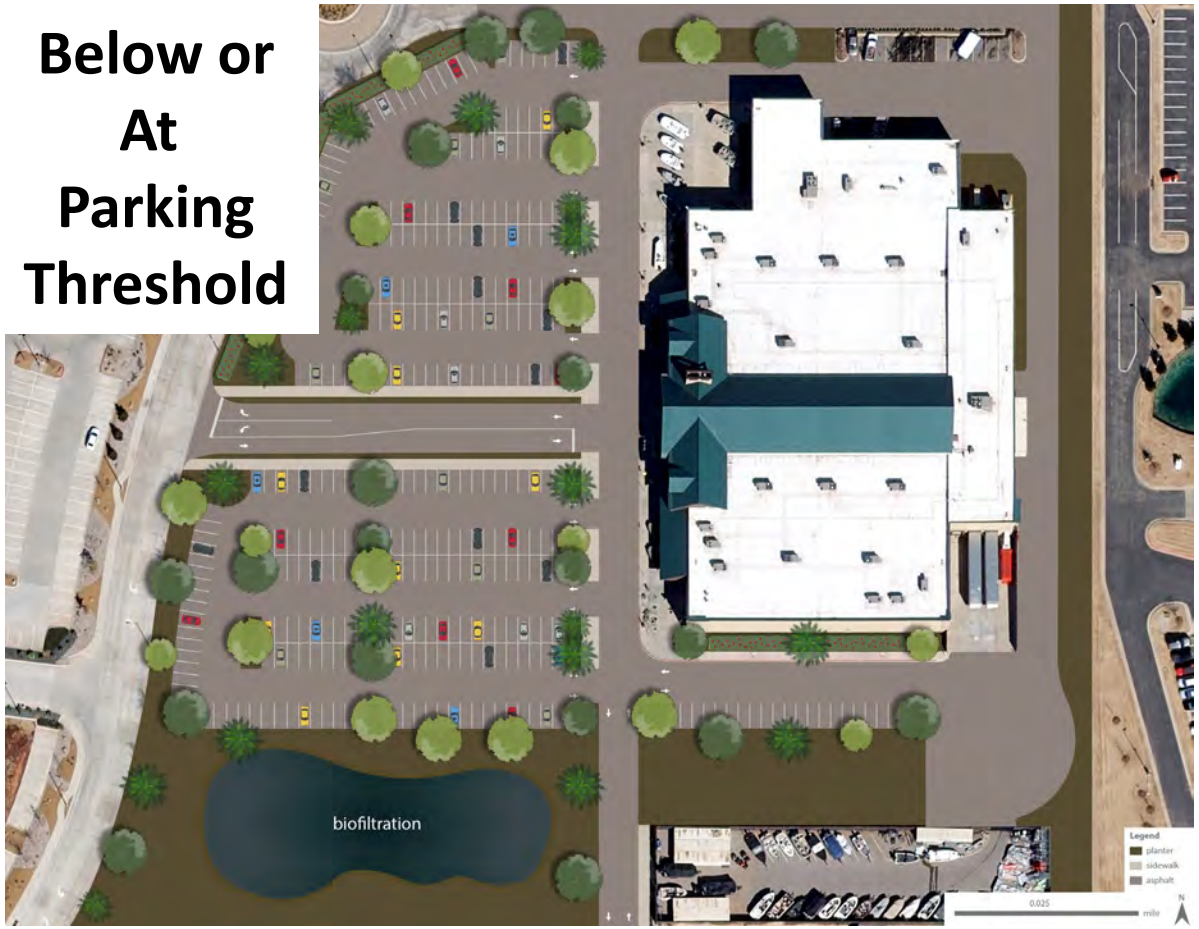
Parking Threshold Example #1 Small Commercial Development

Below or At Parking Threshold

Above Parking Threshold

Parking Threshold Example #2 Large Commercial Development

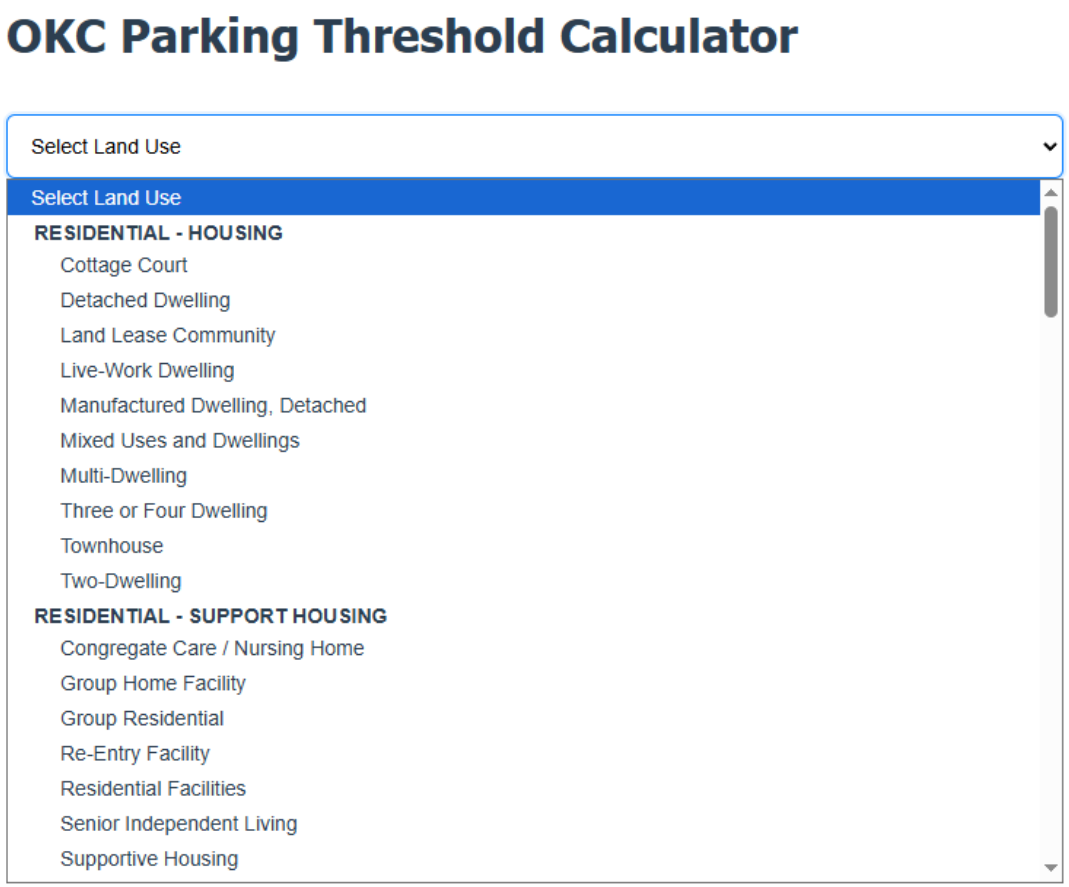
Below or At Parking Threshold

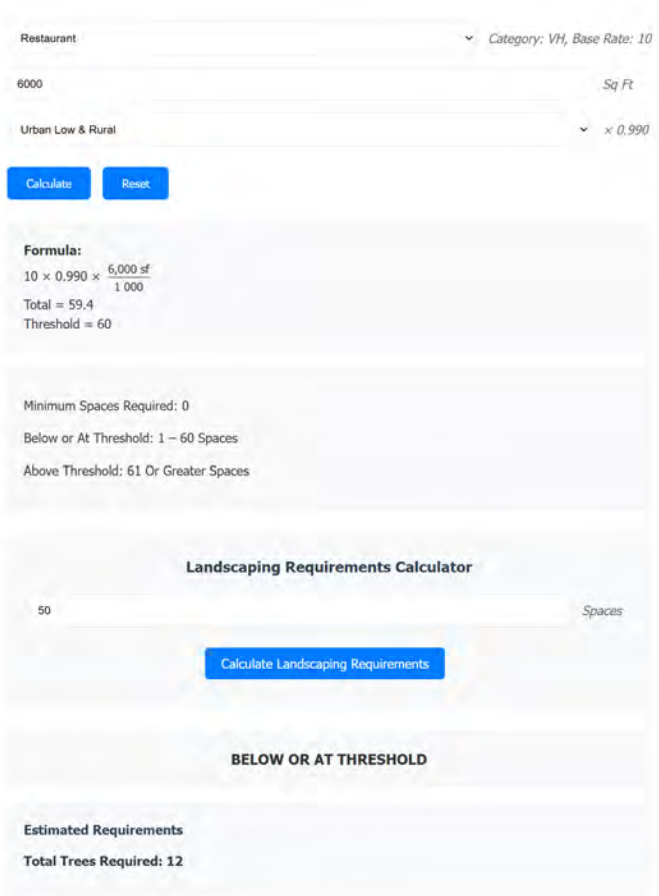


Above Parking Threshold

Parking Thresholds Do Not Apply to Structured or Garage Parking Spaces

Calculator, sample calculator on SAT page





Discussion about threshold approach

1. What do you think of a no parking minimum approach?
2. Is the threshold concept understandable?
3. What about residential minimums?
4. Other considerations?

Landscape Requirements

- Goals for Parking Landscape
- Current Parking Landscape Standards
- Development of the Requirements
- Importance of Soils for Trees
- Parking Area Landscape Requirements

Goals For Parking Area Landscaping

- **Reduce Urban Heat** through smaller parking blocks, landscaping, and surface area reduction
- **Provide Flexible Design Options** for varying soil conditions and configurations
- **Improve Air and Water Quality** via tree preservation, more landscaping, and pervious surfaces
- **Ensure Tree Survivability** in a harsh climate
- **Clear, easy to read** regulations

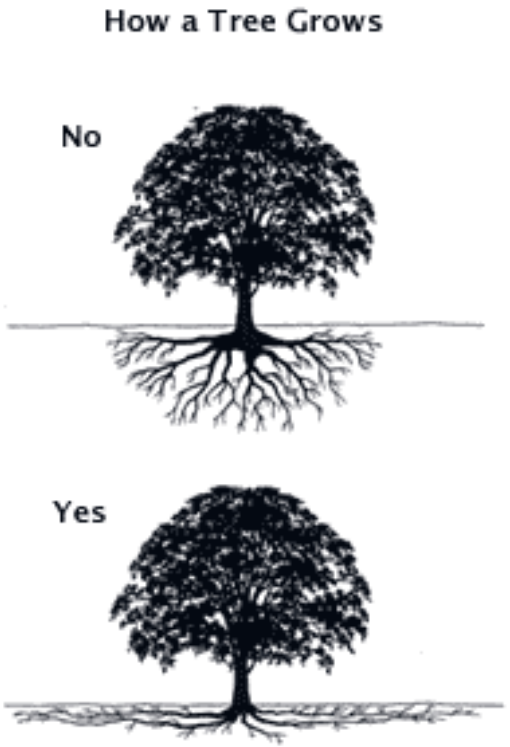
Current Parking Landscape Standards

Section 11250.E	Example	Issues
2 landscape points for every space and one tree within 75 feet of a space **3 points required for a stand-alone lot**	75 spaces = 5 required trees 5 trees = 60 points (40% of needed points)	This requirement is not creating a lot of shade Doesn't count extras like drive-thru queuing and loading areas Turf points are generous so used liberally
Parking lot perimeter: Trees and plants along the perimeter, 3 feet in height (berm) or trees planted between 15 and 35 feet on center	Some of the perimeter trees can count toward the 5 trees	This helps with buffering the parking lot and should be maintained, but also want to disincentivize parking along a street frontage
Parking lot interior: Islands within the parking lot, 100 sf in size min or 5-foot minimum landscape strips		Widths are not large enough to support even a small tree
Cannot count front, side and rear buffer yard required plantings	Separates the parking lot rules from the landscape rules	In practice points get added together, so difficult to know if all the parking points are in the parking lot

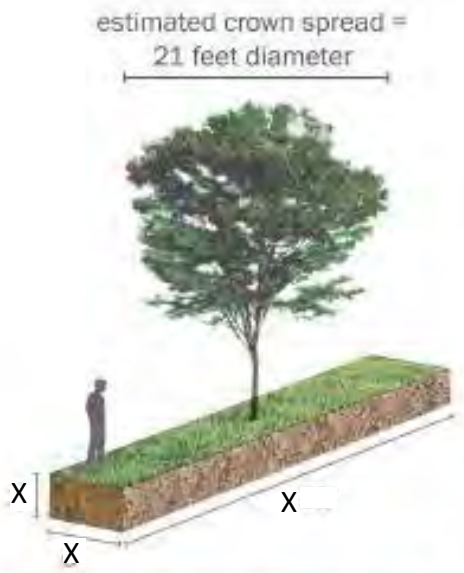
From Research to Landscape Draft

- **Focus group**: 12 landscape architects and arborists, including OGE and ODAFF, added soil standards, maintenance considerations
- Researched national and international **best practices** for sustainable parking and site landscaping.
- Reviewed codes and design standards from **peer cities** to identify successful and adaptable approaches.

1. Soil Volume



Soil Volume = 300 Cubic Feet



Soil Volume = 600 Cubic Feet

Soil Volume = 900 Cubic Feet

Soil Volume

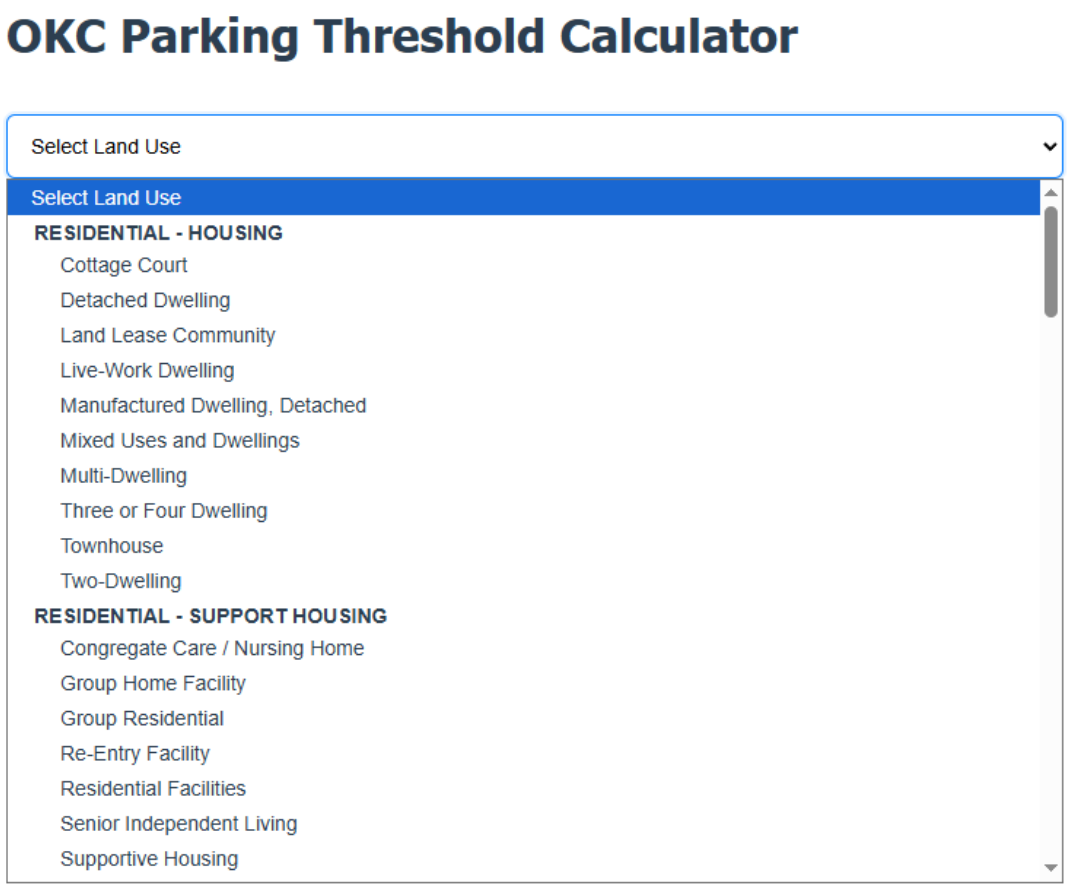
Structural soils/Silva cells: Alternative to meet Soil Volume Requirements

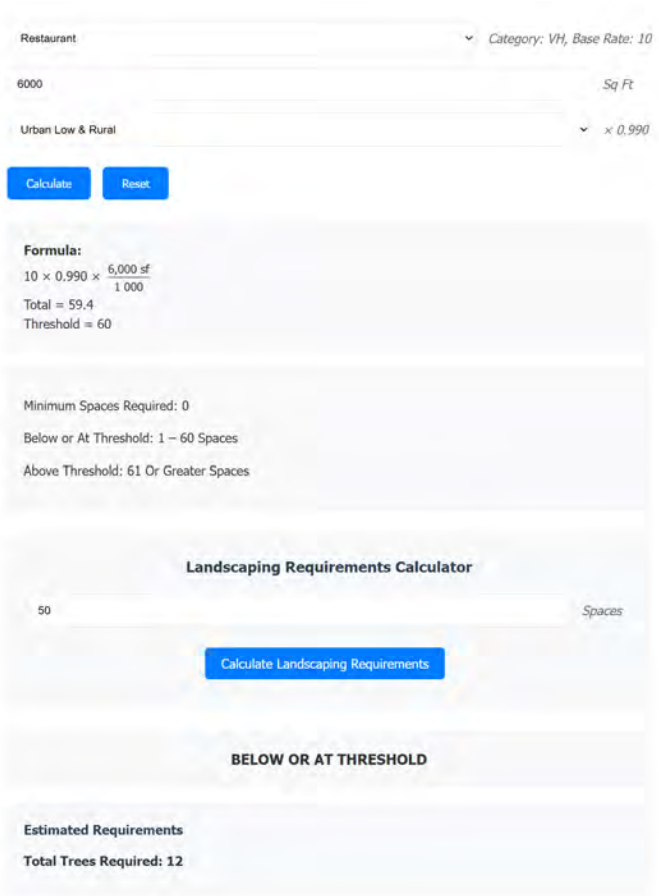
2. Parking Area Landscape Requirements

Table 59-44.4. Cumulative Total Off-Street Surface Parking Landscaping Requirements*		
Parking Spaces	**At or Below Threshold**	**Above Threshold**
1 or Greater	Minimum Two (2) Trees	Minimum Three (3) Trees
5 or Greater	Minimum One (1) Tree Within the Parking Area for Every Five (5) Parking Spaces	Minimum One (1) Tree Within the Parking Area for Every Three (3) Parking Spaces
150 or Greater	Minimum One (1) Interior Parking Island Per Every Ten (10) Parking Spaces	Minimum One (1) Interior Parking Island Per Every Six (6) Parking Spaces
375 or Greater	Minimum One (1) Consolidated Tree Planting Area Per Every Three-Hundred-Seventy-Five (375) Parking Spaces	Minimum Two (2) Consolidated Tree Planting Areas Per Every Three-Hundred-Seventy-Five (375) Parking Spaces
750 or Greater	Minimum One (1) Additional Tree Within the Parking Area for Every Five (5) Parking Spaces in Excess of Seven-Hundred-Fifty (750) Parking Spaces	Minimum One (1) Additional Tree Within the Parking Area for Every Three (3) Parking Spaces in Excess of Seven-Hundred-Fifty (750) Parking Spaces
1000 or Greater	Minimum One (1) Additional Tree Within the Parking Area for Every One (1) Parking Spaces in Excess of One-Thousand (1,000) Parking Spaces	

** Every row related to the category of parking spaces is a landscaping requirement. The requirements in each row within each column are cumulative.*

Calculator, sample calculator on SAT page





Parking Area Landscape Requirements

Substitutions for required trees

- ***Stormwater Infiltration Areas***
  - Every 500 sq/ft of Low Impact Development biofiltration = 1 required tree
- ***Light-color shade structures***
  - 2 light-colored shade structures = 1 required tree
- ***Existing trees preserved on site***
  - 1 Significant Tree preserved = 2 required tree

3. Parking Area Landscape Design

Design for large parking areas (75 spaces +)

20 to 30% medium or large trees:

- Minimum requirement for shade
- Flexible options for tree sizes to ensure growth in harsh environment

Landscape medians:

- At or below threshold, a minimum 1 median for every 6 rows
- Above threshold, a minimum of 1 median for every 3 rows
- One pedestrian walkway median required

•***Terminal islands***:

- At the ends of each parking row with a minimum of two (2) trees each
- Interior islands may be provided to place required trees one (1) tree each
- Shape and size determined by soil volume

3. Parking Area Landscape Design

Alternatives to Design requirements

- ***Consolidated Planting Areas:***
  - Areas with site constraints, historic buildings
  - To protect and preserve existing significant trees or existing infrastructure
  - To meet other landscape requirements
- ***A minimum of one consolidated area required for 375+ lots, two if over threshold***
- ***Preserve 3 trees or minimum plant 5 new trees in the area***
- ***Must be located within the parking area***

Other Parking draft topics

- ***Paving and parking stall standards***
  - Similar to current code
  - Added some pervious paving standards for commercial and residential

- ***Residential trailer parking regulations***
  - Similar but re-written with better clarification for differences between RVs, boat trailers and hauling trailers

- ***Off-street loading standards***
  - Same as current code
  - Adding standards by street type

Parking Area Landscaping Discussion

1. Is the landscaping approach (including substitutions/alternatives) understandable?
2. Do you think the proposed requirements are an acceptable balance of parking and landscaping?
3. Will the consolidated planting area option make this concept more acceptable? Do you foresee any prohibitive site layout or cost challenges?
4. Other considerations?

Next Steps

Stakeholder Advisory Team review of Parking Draft

- This presentation will be available on the SAT web page: https://www.okc.gov/Infrastructure-Development/Development-Planning/Code-Update/Stakeholder-Advisory-Team
- Commenting will be available on our Encode web tool. Staff will let you know when it is available. https://online.encodeplus.com/regs/oklahomacity-ok/doc-viewer.aspx#secid-6
- Reviewing outside Encode, the draft will also be on the SAT webpage https://www.okc.gov/Infrastructure-Development/Development-Planning/Code-Update/Stakeholder-Advisory-Team

Landscaping Draft

- Almost complete, will be released to the SAT this fall.
- Review in Encode tool
- Continue testing

Planning Commission Study Session for Parking and Landscaping Drafts

- After SAT has reviewed the drafts, a presentation will be made to the Planning Commission, and
- The drafts will be released for public comment in the Encode tool

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www.okc.gov/departments/planning/current-projects/development-codes-update