

3+30+300

ANALYSIS REPORT

CITY OF
FORT COLLINS, COLORADO

MAY | 2025





A REPORT ON THE ANALYSIS OF THE
3+30+300 RULE IN
FORT COLLINS, COLORADO
MAY 2025

PREPARED FOR:



IN SUPPORT OF:



PREPARED BY:



WITH SUPPORT FROM:



Implementing the 3+30+300 Rule in Fort Collins: *A Path to Greener, Healthier Communities*

INTRODUCTION

The 3+30+300 rule (330300rule.com), introduced in May 2021 by Cecil C. Konijnendijk of the [Nature Based Solutions Institute](#), is an evidence-based framework for urban greening that ensures residents benefit from urban forests and green spaces. The Rule suggests that every resident in a community should:

- See at least **three mature trees** from their home.
- Live in a neighborhood with **30% tree canopy cover**.
- Have access to a **high-quality green space** within a **300-meter** walk or bike ride.

300 meters ≈ 984 feet ≈ 330 yards
(roughly 3 city blocks)

This pilot project for the City of Fort Collins introduces the innovative 3+30+300 rule to the United States, providing a powerful tool for urban planning. By focusing on high-impact zones, it enhances efficiency and stretches funding and taxpayer dollars further. As one of the first initiatives of its kind, it sets a scalable model for other cities, laying the groundwork for long-term urban sustainability and smarter resource use. Implementing the Rule supports other city plans, policies, and initiatives.

Fort Collins is perfectly situated to implement the Rule, having recently developed their [Urban Forest Strategic Plan](#) that was adopted by City Council in March 2025 which is supported by the City's [Structure Plan](#) and the recently adopted [15-minute City](#) concept. Implementing the Rule will allow the City to optimize resource allocation by pinpointing effective locations for tree planting, park development, and green infrastructure, ensuring significant improvements in livability and sustainability.

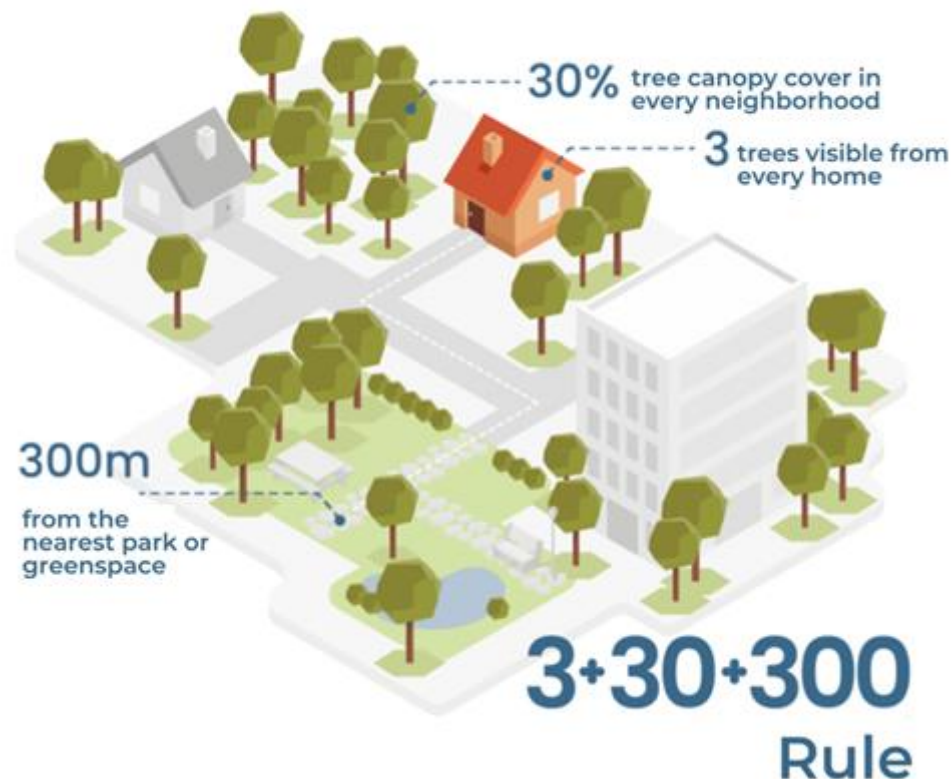


Figure 1. Illustration of the 3+30+300 rule (330300rule.com)

The Rule serves as an urban forest management principle and has been gaining traction worldwide. The Rule aims to boost public health, climate resilience, and quality of life. The City of Fort Collins is exploring this principle to enhance its urban environment, aligning with its sustainability and equity goals and driven by its Urban Forest Strategic Plan.

In early 2025, the 3+30+300 analysis was conducted to evaluate how Fort Collins measures up to the Rule's parameters. The following provides an overview of the process with additional details provided in the [Appendix](#).

- **3 Significant Trees:** Each building has at least three significant trees within a 30-meter buffer zone. "Significant" trees are defined as those with a canopy area exceeding 28 square meters (≈300 square feet), indicating the presence of mature, substantial trees in close proximity to the building.
- **30% Canopy Coverage:** The percentage of tree canopy coverage within a 500-meter buffer around each building is calculated. This metric confirms that the canopy coverage meets or exceeds 30%, ensuring a substantial amount of shade across the surrounding area for environmental and heat-reduction benefits.
- **300-Meter Park Access:** The walking distance along the road network from each building to the nearest park is measured, verifying that it is less than 300 meters. A park is defined as an area larger than 1 hectare (≈2.5 acres) containing at least one significant tree, promoting convenient pedestrian access to meaningful green spaces.
- **TreePlotter CANOPY:** The data were then incorporated into the City's TreePlotter CANOPY software application— an online interactive GIS platform developed by PlanIT Geo that equips users with tools to view canopy cover, plan for canopy growth and preservation, and quantify how many trees are needed to reach goals for canopy cover. View the application at www.pg-cloud.com/FortCollinsCO and a screenshot in [Appendix B](#) of this Report.

Following the analysis, a hybrid workshop with consultants, City staff, and stakeholders assessed how the Rule could fit into Fort Collins' unique semi-arid, short grass steppe biome and discussed the potential management implications associated with implementing the Rule. These discussions highlighted opportunities like integrating with the 15-minute City concept—where daily needs are a short walk or bike ride away—and challenges like water limitations, native vegetation preferences, resource shortages, preventative maintenance demands, underrepresented communities, conflicting priorities, among others. Results from the workshop were incorporated into the Report's recommendations.

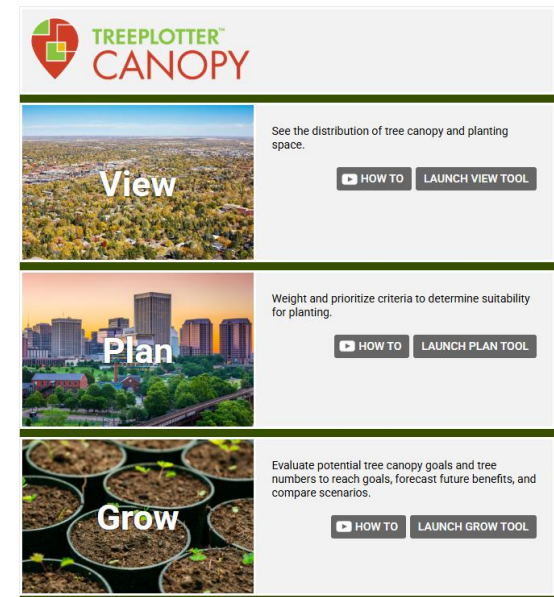


Figure 2. Fort Collins' TreePlotter CANOPY software application for viewing and implementing the 3+30+300 rule (pg-cloud.com/FortCollinsCO)



Figure 3. The workshop with consultants, staff, and stakeholders to discuss the 3+30+300 results and management implications (February 2025)

PURPOSE AND APPLICATION OF THE RULE IN FORT COLLINS

Adopting the 3+30+300 Rule in Fort Collins will create a greener, healthier, and more equitable urban environment by serving as a guiding compass and a key metric in making on-the-ground decisions. Access to trees and green spaces reduces stress, improves mental well-being, and encourages physical activity. Applying the Rule can also help mitigate urban flooding by reducing peak runoff rates, especially in underserved neighborhoods. Greener neighborhoods can boost property values, attract investment, and create green jobs, supporting the City's economic health objectives.

To ensure long-term beneficial impacts of adopting the 3+30+300 Rule, the project included an analysis of other City planning goals, policies, and initiatives to identify opportunities to align efforts and resources while addressing conflicting priorities. A key initiative in the City is the 15-minute City concept—adopted as a City Council priority for 2024 - 2026.

The City's 15-minute City Analysis Summary of December 2022 identified six Equity Focus Areas where the 3+30+300 could also be targeted in the short-term. These focus areas shown in the map above and described in the table below were further analyzed using the 3+30+300 Rule's parameters to support the City in implementing the Rule and the 15-minute City concept.



Figure 4. Illustration of the 15-minute City concept (City of Fort Collins, CO)

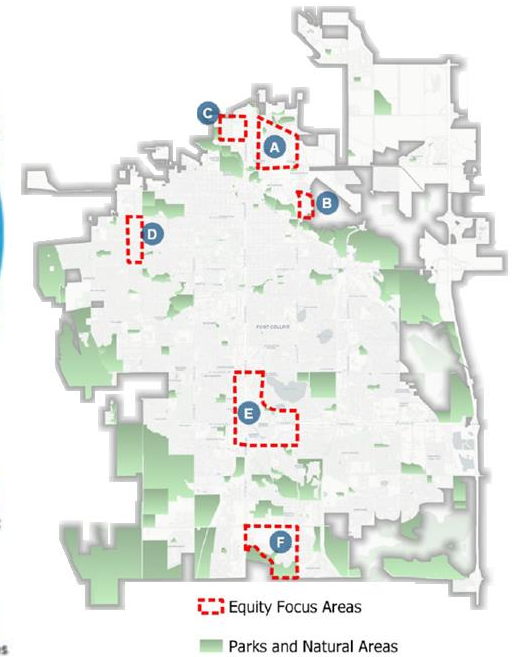


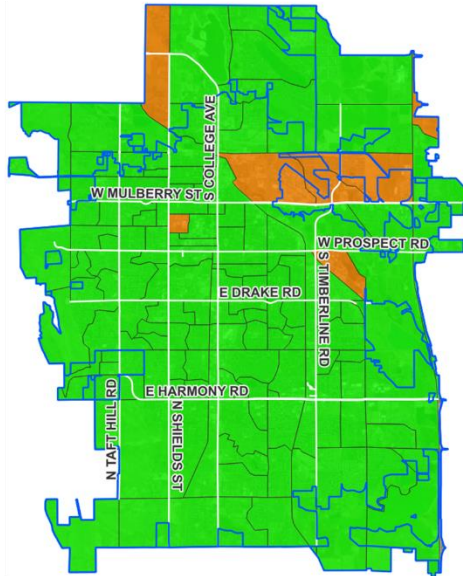
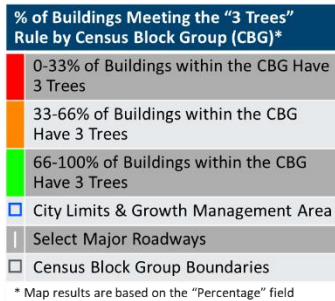
Figure 5. Map of the Equity Focus Areas in Fort Collins according to the 15-minute City Analysis Summary (December 2022)

Table 1. Characteristics of the Equity Focus Areas according to Fort Collins' 15-minute City Analysis Summary (December 2022)

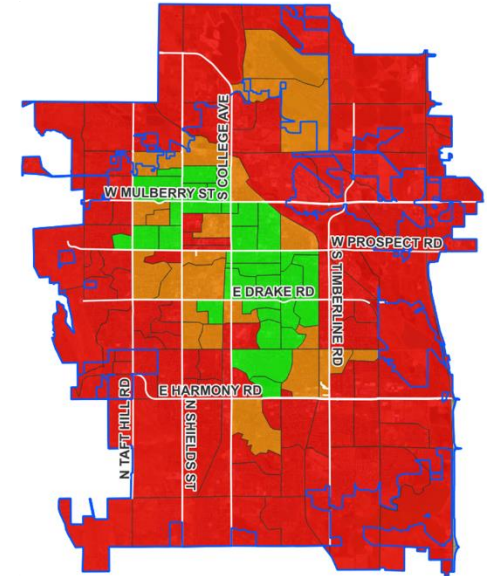
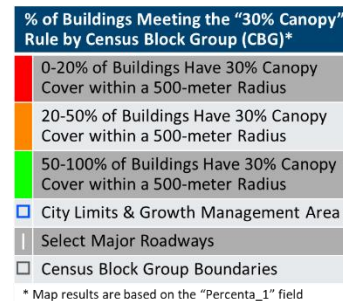
Area	Characteristics of Equity Focus Areas (15-minute City Analysis)
A	Rural/exurban residential, no pedestrian/bicyclist access, population: 2,500
B	Suburban shopping, limited housing, no bicycle infrastructure, population: 500
C	Rural mobile home area, near commercial strip, no sidewalks/bicycle infrastructure, population: 500
D	Suburban mixed-use, no low-stress bicycle infrastructure, long walking trips, population: 2,000
E	Suburban commercial center, high-speed roads, no low-stress bicycle infrastructure, population: 2,500
F	Rural, high-speed roads, no sidewalks/bike lanes, no access to daily destinations, population: 2,200

CITYWIDE ANALYSIS RESULTS

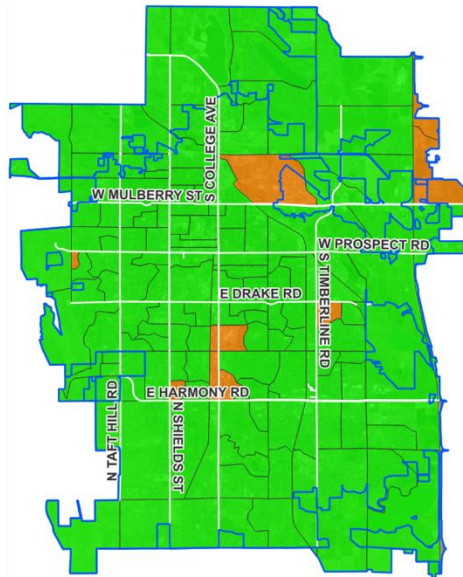
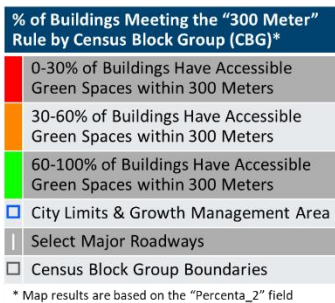
% of Buildings with 3 Trees by US Census Block Group (CBG, 2020)



% of Buildings with 30% Canopy Cover within a 500-meter Radius by CBG



% of Buildings with Accessible Green Spaces within 300 Meters by CBG



% of Buildings Meeting All Three Rules by CBG

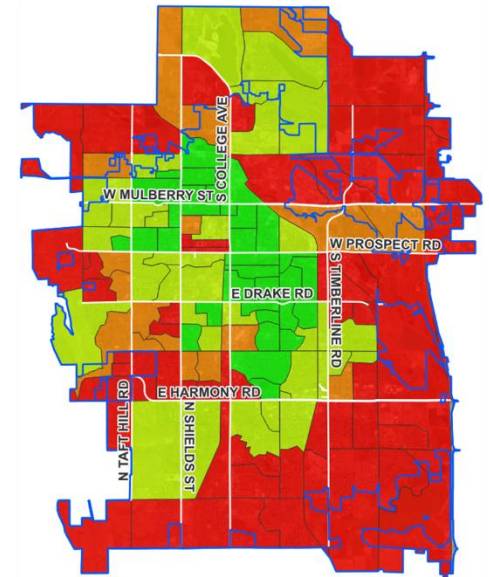
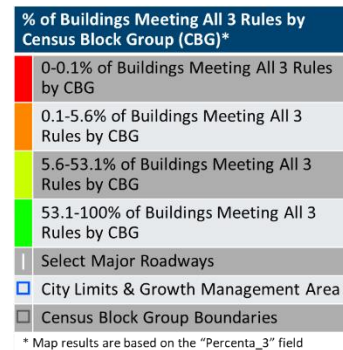
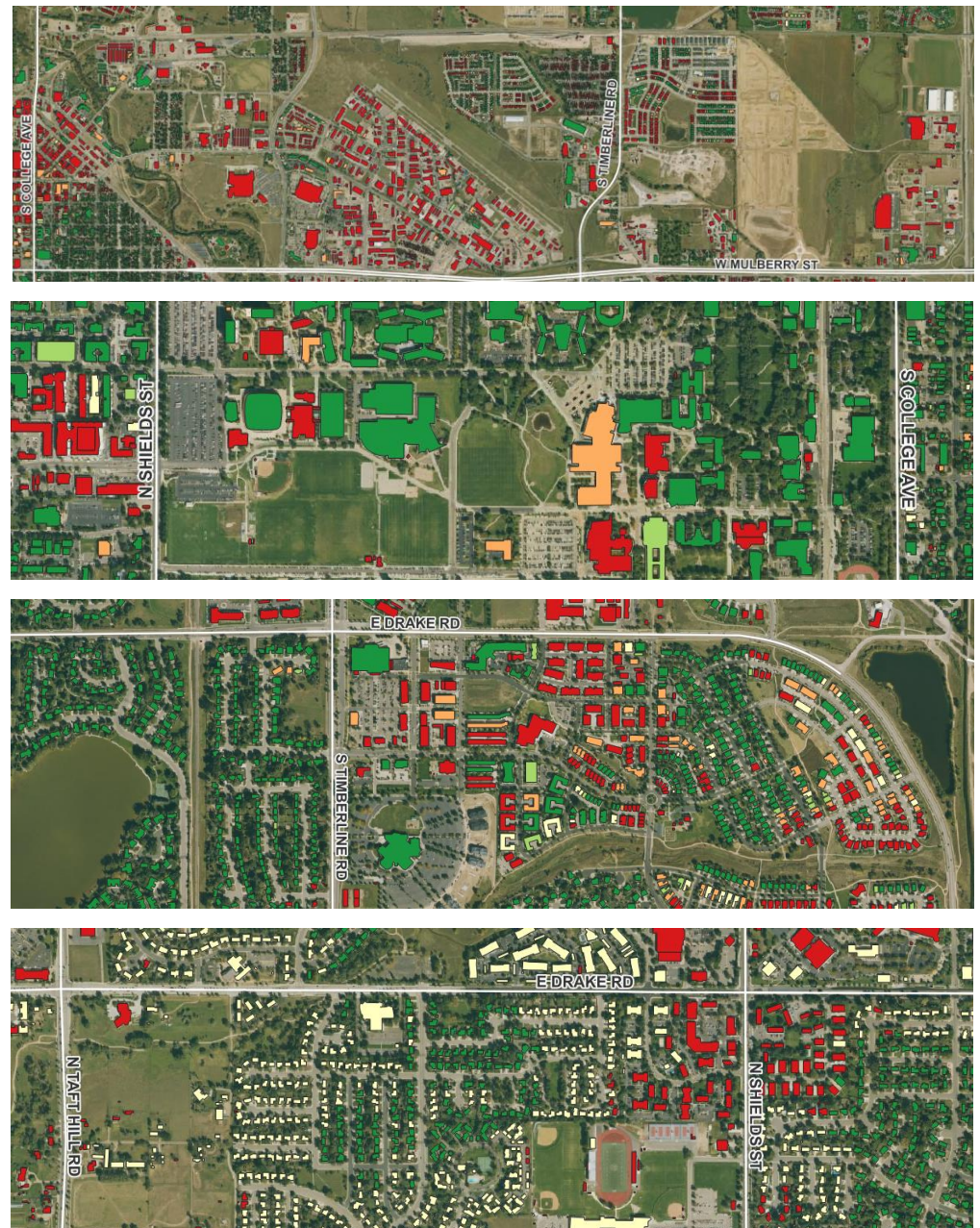


Figure 6. Maps displaying the results of each of the three rules by U.S. Census Block Group

- ✓ **Percentage of buildings with 3 trees** (top left map): Displayed by U.S. Census Block Group (CBG) with the categories: 0-33% of buildings meeting the “3 tree Rule”, 33-66% meeting the Rule, and >66% of buildings in a CBG meeting the “3 tree Rule”.
(based on the “Percentage” field)
- ✓ **Percentage of buildings with 30% canopy cover** (top right map): Canopy cover measured within a 500-meter radius with categories of 0-20% of buildings having 30% canopy within 500 meters, 20-50% of buildings, and 50-100% of buildings meeting this criterion.
(based on the “Percenta_1” field)
- ✓ **Percentage of buildings with accessible green spaces within 300 meters** (bottom left map): CBGs color-coded based on a scale of 0-30% of buildings having accessible green space within 300 meters, 30-60% of buildings, and >60% of buildings meeting this criterion.
(based on the “Percenta_2” field)
- ✓ **Percentage of buildings meeting all three Rules** (bottom right map): CBGs color-coded based on the percentage of buildings meeting all three Rules on a scale of 0-1.5% of all buildings, 1.5-5% of all buildings, 5-15% of all buildings, and >15% of all buildings meeting all three Rules.
(based on the “Percenta_3” field)



Building
Key: Meets the Rule Missing a component Rule not met

Figure 7. Buildings color-coded by status for each of the three rules

RESULTS BY ZONING CLASS

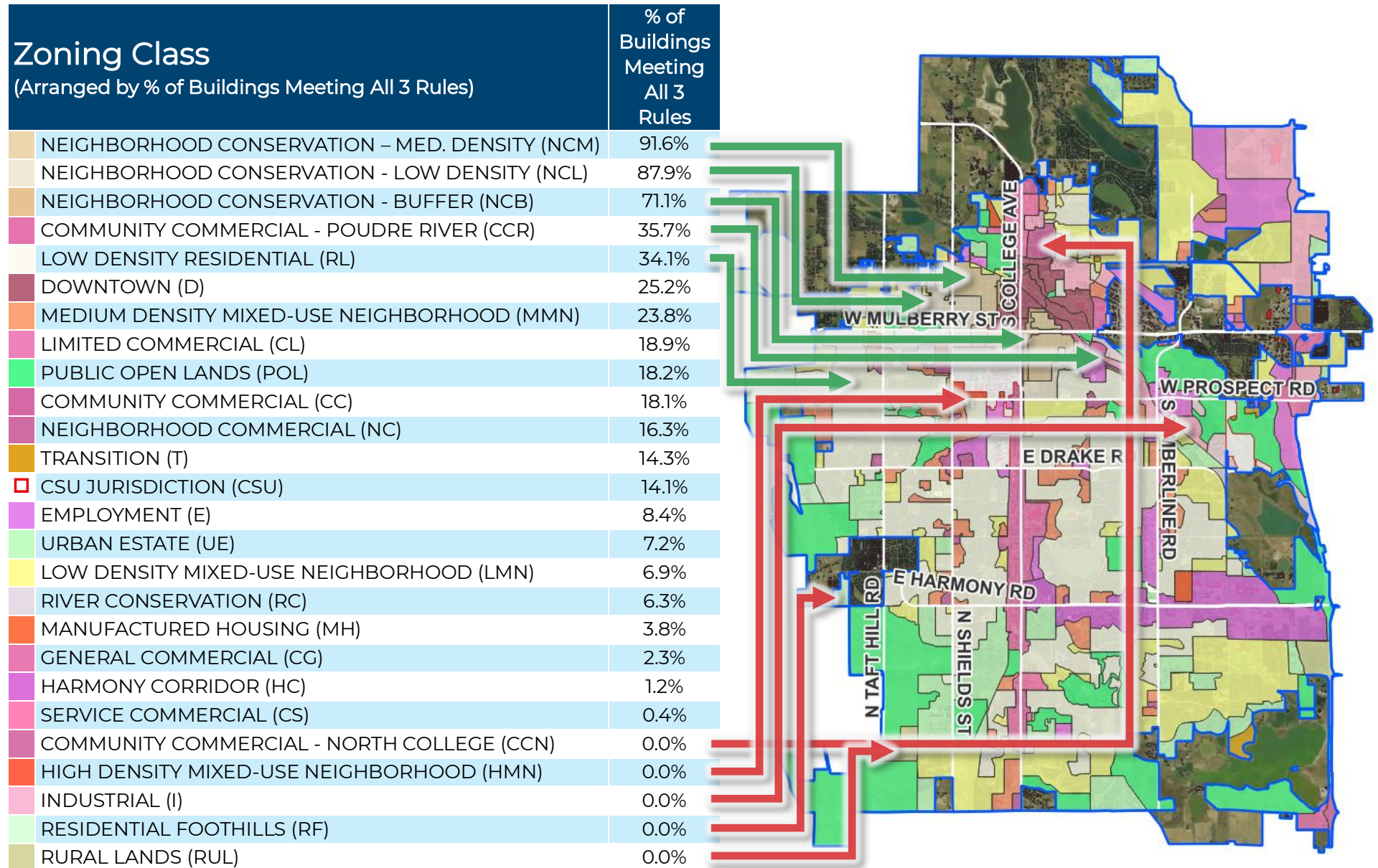
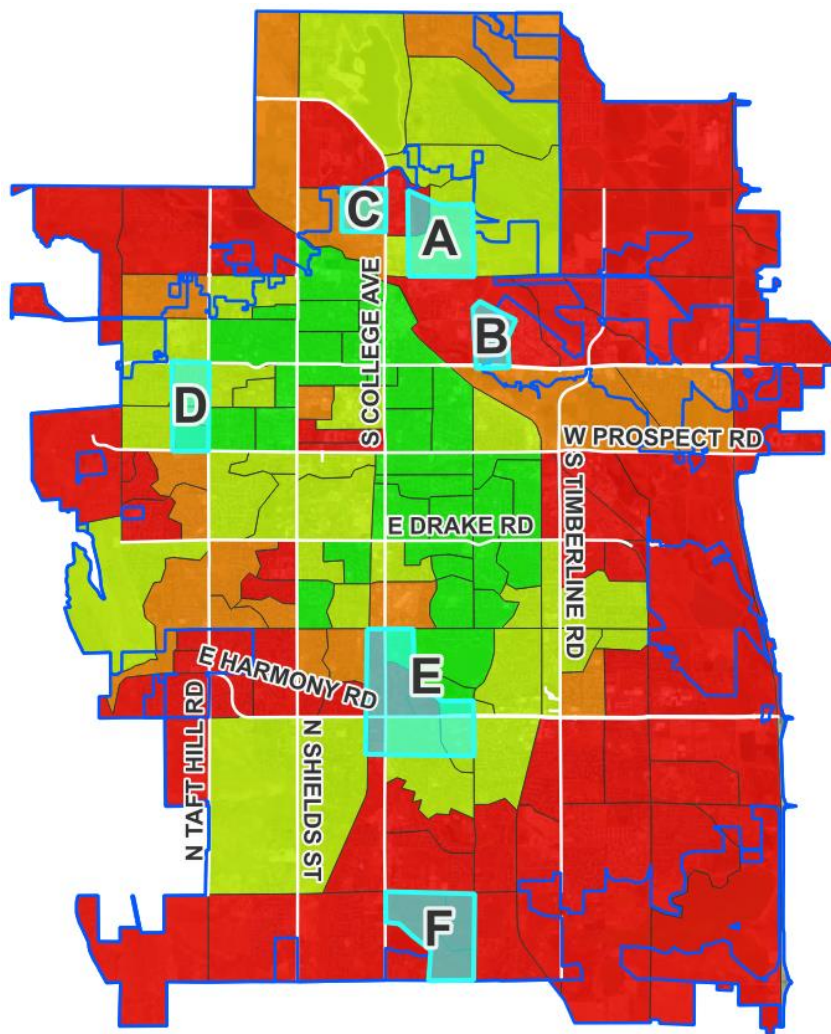


Figure 8. Map and table displaying the City's zoning classes and the percentage of buildings within each class meeting all three criteria of the 3+30+300 rule (City of Fort Collins, CO)

EQUITY FOCUS AREAS RESULTS

The 3+30+300 Rule was examined by each of the six Equity Focus Areas as defined by Fort Collins' 15-minute City Analysis Summary (December 2022). Based on the analysis, Equity Areas B, C and F do not contain any buildings which pass all three rules, highlighting the need for targeted interventions. Integrating the Rule with the **15-Minute City initiative** enhances pedestrian-friendly neighborhoods and community engagement is crucial to address potential resistance to tree planting. To target implementation and engagement, the status of the Rule for each of the six Equity Focus Areas is summarized below:



- ✓ **Equity Focus Area A)** Overlaps Census Block Groups (CBGs) that have up to 53% of buildings meeting all three rules.
- ✓ **Equity Focus Area B)** Is within a CBG with up to 0.1% of buildings meeting all three rules but no buildings meet the Rule within the Focus Area boundary.
- ✓ **Equity Focus Area C)** Is within a CBG with up to 6% of buildings meeting all three rules but no buildings meet the Rule within the Focus Area boundary.
- ✓ **Equity Focus Area D)** Overlaps CBGs with up to 100% of all buildings meeting all three rules.
- ✓ **Equity Focus Area E)** Overlaps CBGs with up to 100% of all buildings meeting all three rules.
- ✓ **Equity Focus Area F)** Is within a CBG with up to 0.1% of buildings meeting all three rules but no buildings meet the Rule within the Focus Area boundary.

Figure 9. Map displaying the percentage of buildings meeting all three rules by U.S. Census Block Group and an overlay of the Equity Focus Areas (City of Fort Collins, CO 15-minute City Analysis Summary, December 2022)

RECOMMENDATIONS FOR IMPLEMENTATION

A multi-faceted strategy grounded in workshop findings, data analyses, and aligned with City plans is needed to implement the 3+30+300 Rule. The approach should prioritize education, policy integration, community involvement, and monitoring.

Strategies

- A) **Community Education and Engagement:** Launch campaigns to highlight the Rule's benefits using local media and community events. Workshops with schools and businesses can foster stewardship. Engage residents in Equity Focus Areas through surveys and forums to understand preferences and ensure greening efforts reflect community needs.
- B) **Policy and Standards Integration:** Update the Urban Forest Strategic Plan and Land Use Code to set canopy and green space targets to achieve 3+30+300 outcomes. Incentivize developers with tax breaks for exceeding standards. Form a multi-departmental working group to coordinate efforts across Forestry, Planning, and Stormwater teams. Align with Complete Streets and ADA (Americans with Disabilities Act) compliance projects.
- C) **Planning, Targeted Interventions (Planting), and Monitoring:** Utilize the data to prioritize areas for intervention. Pinpoint the priorities by first utilizing Fort Collins' 15-minute City Equity Focus Areas, especially areas B, C, and F which do not have any buildings that meet all three rules. Further refine the prioritization. For example, address shortcomings to the 3+30+300 Rule by identifying residential properties that do not meet the "3 trees" Rule but have a vacant public right-of-way (ROW) tree planting site adjacent to their front yard. Align this prioritization schema with a robust planting strategy that supports the Urban Forest Strategic Plan. Use other data and GIS mapping to pinpoint planting sites and create pocket parks. Implement street tree plantings and small green spaces in underserved neighborhoods to boost visibility and canopy incrementally. Regularly assess progress with TreePlotter CANOPY and GIS tools, overlaying data with 15-Minute City maps to track equity and canopy goals every 3-5 years.

Recommended Priority Actions

Strategy	Recommended Priority Actions
A) Community Education and Engagement	A1: Launch targeted public awareness campaigns using local media and community events to communicate the benefits of the 3+30+300 Rule. Consider the resources of other communities that have already adopted the Rule. (UFSP* Recommendation #6)
	A2: Engage residents in Equity Focus Areas through surveys and public forums to tailor greening initiatives to community needs. (UFSP Recommendation #6)
	A3: Promote community involvement in maintaining parks and green spaces to foster ownership and long-term success of the 3+30+300 Rule. (UFSP Recommendation #6 & #2)
B) Policy and Standards Integration	B1: Update the Land Use Code based on 3+30+300 and best practices. (UFSP Recommendation #3)
	B2: Create incentives for development projects that exceed tree canopy preservation requirements. (UFSP Recommendation #3)
	B3: Require green space and tree planting in new developments. (UFSP Recommendation #3)
	B4: Develop sustainable design standards and offer incentives for compliance. (UFSP Recommendation #3)
	B5: Incorporate trees into transportation design standards (and Capital Improvement Projects like trails) and code updates. (UFSP Recommendation #3)
	B6: Include tree preservation and planting during the planning and design phases of multi-modal transportation projects. (UFSP Recommendation #3)
	B7: Address tree and sidewalk conflicts during repairs or replacements. (UFSP Recommendation #3)

Strategy	Recommended Priority Actions (continued)
C) Planning, Targeted Interventions (Planting), and Monitoring	C1: Refine analysis for implementation, e.g., clip 3+30+300 data to the Structure Plan layer and overlay with the 15-minute City and Access to Nature map layers. (UFSP Recommendation #1)
	C2: Compare priority areas from this analysis to those in the Urban Forest Strategic Plan or other sources. (UFSP Recommendation #1)
	C3: Create or update a citywide and neighborhood-level planting strategy with goals for species diversity, climate resilience, and reduced resource demands. (UFSP Recommendation #1)
	C4: Incorporate the "300-meter" Rule into interventions, prioritizing vulnerable locations like childcare centers and hospitals. (UFSP Recommendation #1)
	C5: Use the "30% canopy" Rule to prioritize areas with less than 30% canopy cover. (UFSP Recommendation #1)
	C6: Implement the "3 trees" Rule with small-scale greening projects in areas with vacant planting sites. (UFSP Recommendation #1)
	C7: Prioritize tree planting in low canopy areas, considering species diversity, wildlife habitat corridors, and climate resilience. Secure funding through grants for strategic planting. (UFSP Recommendation #1)
	C8: Apply the right tree, right place principle and align this practice with updates to the City's General Development Site Design (Article 5) and the Larimer County Urban Area Street Standards, among other applicable guidelines. (UFSP Recommendation #1)
	C9: Use trees as screening features in parking areas, with canopy requirements based on paved square footage or number of spaces. (UFSP Recommendation #1)
	C10: Design and enhance neighborhoods with trees as key elements of vibrant, accessible, and sustainable communities. (UFSP Recommendation #1)
	C11: Set goals and strategies for 3+30+300 that consider local ecological and climate constraints. (UFSP Recommendation #1)
	C12: Update urban forestry plans to include the 3+30+300 Rule and conduct tree (and planting space) inventories that include protocols for tracking plantings toward the Rule. (UFSP Recommendation #1)
	C13: Secure funding for the 3+30+300 strategy, ensuring maintenance of existing trees, parks, and green spaces. (UFSP Recommendation #1)
	C14: Encourage community involvement to reduce resource burden, using the 3+30+300 study and Urban Forest Strategic Plan to build the case for funding. (UFSP Recommendation #1)
	C15: Ensure the Forestry Division is a key stakeholder in future resilience funding opportunities to maximize urban tree canopy benefits, particularly through nature-based solutions. (UFSP Recommendation #1)

*UFSP = Urban Forest Strategic Plan (City of Fort Collins, CO March 2025) | Tools such as [TreePlotter™ CANOPY](#) software and City GIS may support the above actions.

CONCLUSION



To successfully implement the 3+30+300 Rule and achieve desired outcomes, it is essential to balance strategies with local conditions, recognize regional variations in tree growth and urban environments, and tailor approaches to specific contexts. Given that implementing the 3+30+300 Rule is a long-term process, it is important to set a timeframe of 20-30 years for achieving the full principle in new developments, accompanied by a clear vegetation management and growth plan.

The City should involve residents in greening projects to build ownership and align efforts with community needs. Implementation will require coordinating with conventional and nonconventional stakeholders and agencies. For example, coordinate with Water Conservation Standards to balance water conservation efforts with urban forest goals. Promote data sharing and coordination among different departments

to ensure the Rule and its strategies are integrated into all applicable City operations.

By embracing the 3+30+300 Rule and implementing these recommendations, the City of Fort Collins can create a more sustainable, equitable, and vibrant community. This approach integrates urban forestry with other City initiatives, ensuring a comprehensive and effective strategy for enhancing the urban environment and promoting the well-being of its citizens. The long-term vision requires patience, as tree maturity may take 25 years or more, but incremental gains, such as a 1-2% canopy increase, yield immediate benefits. Fort Collins can lead as a model for semi-arid cities, balancing trees with native vegetation to achieve the 3+30+300 goals.

To conclude the report, it is recommended to launch pilot projects in Equity Focus Areas and formalize the 3+30+300 Rule in City policy. These actions will ensure a sustainable legacy for generations to come. Taking these crucial steps will pave the way for a greener, healthier future.

APPENDIX A. METHODOLOGY AND DATA SOURCES

This appendix provides a summary of the methodology and data sources employed in the 3+30+300 analysis, which evaluates urban tree canopy and green space accessibility relative to building locations.

Data Sources

- **Tree Canopy Data:** A 60cm resolution raster dataset from ED (2023) was utilized to assess tree canopy coverage. This dataset supports the calculations for both the 3 Rule and the 30 Rule and aligns with the tree canopy percentages presented in the broader CANOPY application.
- **Building Footprints:** Building footprint data were sourced from local GIS databases or OpenStreetMap (specific source not provided).
- **Park Data:** Park areas were derived from OpenStreetMap. These areas were filtered to exclude regions overlapping with airports, highways, and railways, and only areas greater than 1 hectare (10,000 m²) were included. A park is defined as containing at least one significant tree (area >28 m²).
- **Road Network:** Road network data, used for distance calculations in the 300 Rule, were sourced from OpenStreetMap (specific source not specified).

Methodology

The 3+30+300 analysis assesses buildings based on three distinct criteria related to tree canopy proximity, coverage, and access to green spaces:

1. **3 Rule:**
 - **Process:** Statistical analysis and a canopy height model were applied to segment the 60cm tree canopy raster into individual trees. "Significant" trees were identified as those with an area greater than 28 m².
 - **Evaluation:** For each building, the analysis checks for the presence of at least three significant trees within a 30m buffer around its footprint.
2. **30 Rule:**
 - **Process:** The 60cm tree canopy data were used to calculate the percentage of tree canopy coverage within a 500m buffer around each building footprint.
 - **Evaluation:** A building passes this Rule if the canopy coverage within the 500m buffer is at least 30%.
3. **300 Rule:**
 - **Process:** The distance from each building to the nearest park or green space was measured along the road network.

- **Park Definition:** A park is an area greater than 1 hectare, derived from OpenStreetMap data (with exclusions for overlaps with airports, highways, and railways), and must contain at least one significant tree (area >28 m²).
- **Evaluation:** A building passes this Rule if the distance to the nearest park is less than 300m.

Scoring

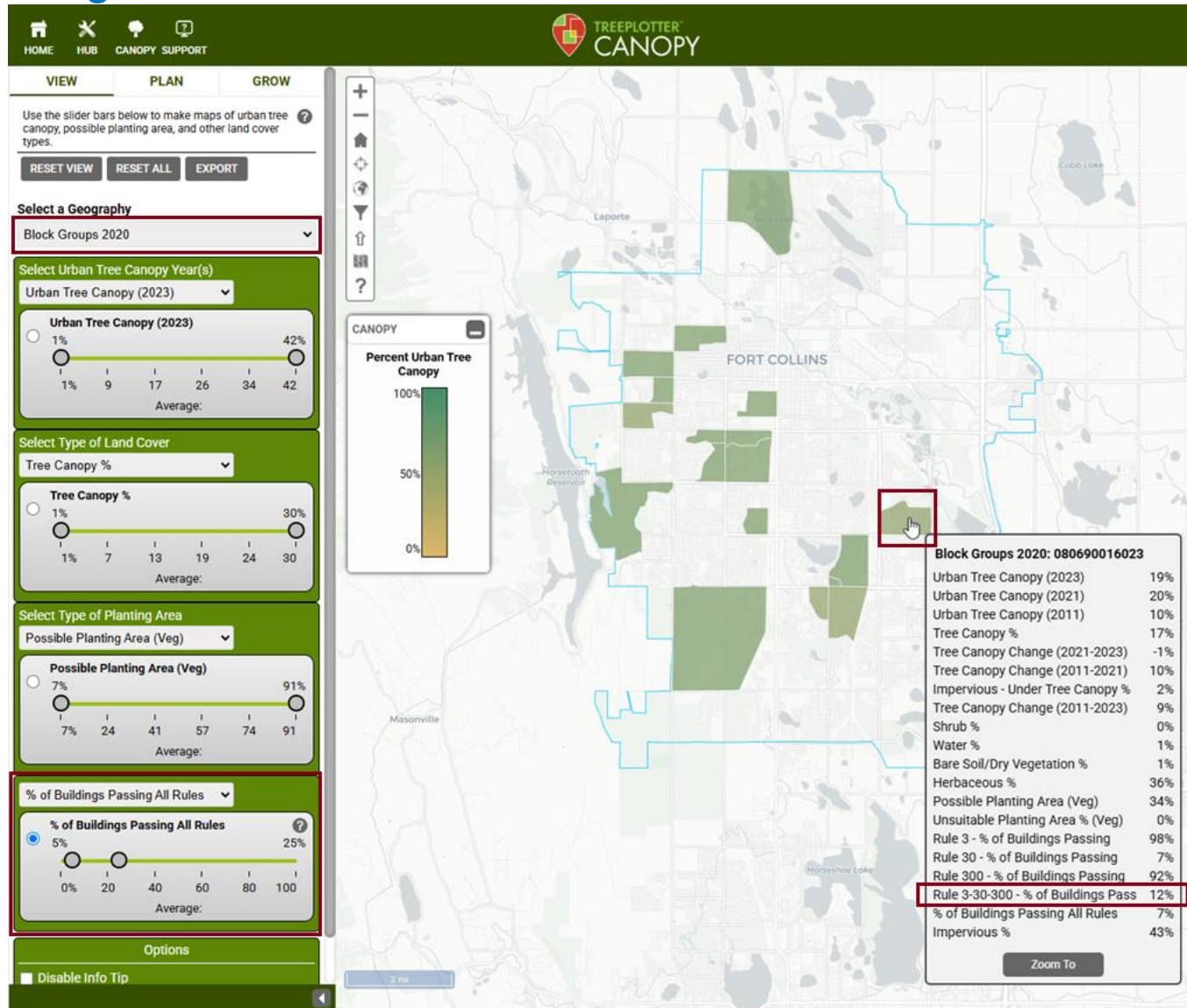
- **Composite Score:** Each building is evaluated based on the number of rules (3, 30, 300) it passes. The Cobra tool was used to assign scores to buildings according to these criteria and to summarize the results across multiple geographic areas (e.g., neighborhoods or districts).
- **Note on Thresholds:** A building's composite score reflects the count of rules passed, though the specific threshold for an overall "passing" score (e.g., "score greater than X") was not detailed in the provided information.

Additional Notes

- The tree canopy percentages calculated in this analysis are consistent with those reported in other sections of the CANOPY application.
- While formulas such as canopy coverage percentage (e.g., [canopy area within buffer / total buffer area] × 100) or network distance calculations are implicit in the methodology, they are standard GIS operations and not explicitly detailed here.

APPENDIX B. OTHER CONSIDERATIONS

Using TreePlotter CANOPY



- ✓ Identify priority areas for intervention using the TreePlotter CANOPY application (www.pg-cloud.com/FortCollinsCO).
- ✓ Access the CANOPY module in TreePlotter.
- ✓ Click the “View” button to view 3+30+300 and tree canopy assessment results.
- ✓ Change the “Geography” to Block Groups 2020.
- ✓ Scroll to the “% of Buildings...” dropdown and select the desired rule.
- ✓ Choose your range to filter results based on desired thresholds (e.g., “show me all Census Block Groups that have less than 25% of buildings passing all three rules”).
- ✓ Devise your strategy(s) for intervention.

Figure 10. Fort Collins' TreePlotter CANOPY application for viewing study results and prioritizing interventions (www.pg-cloud.com/FortCollinsCO, PlanIT Geo)

Fort Collins' Urban Forest Strategic Plan's Canopy Cover Results

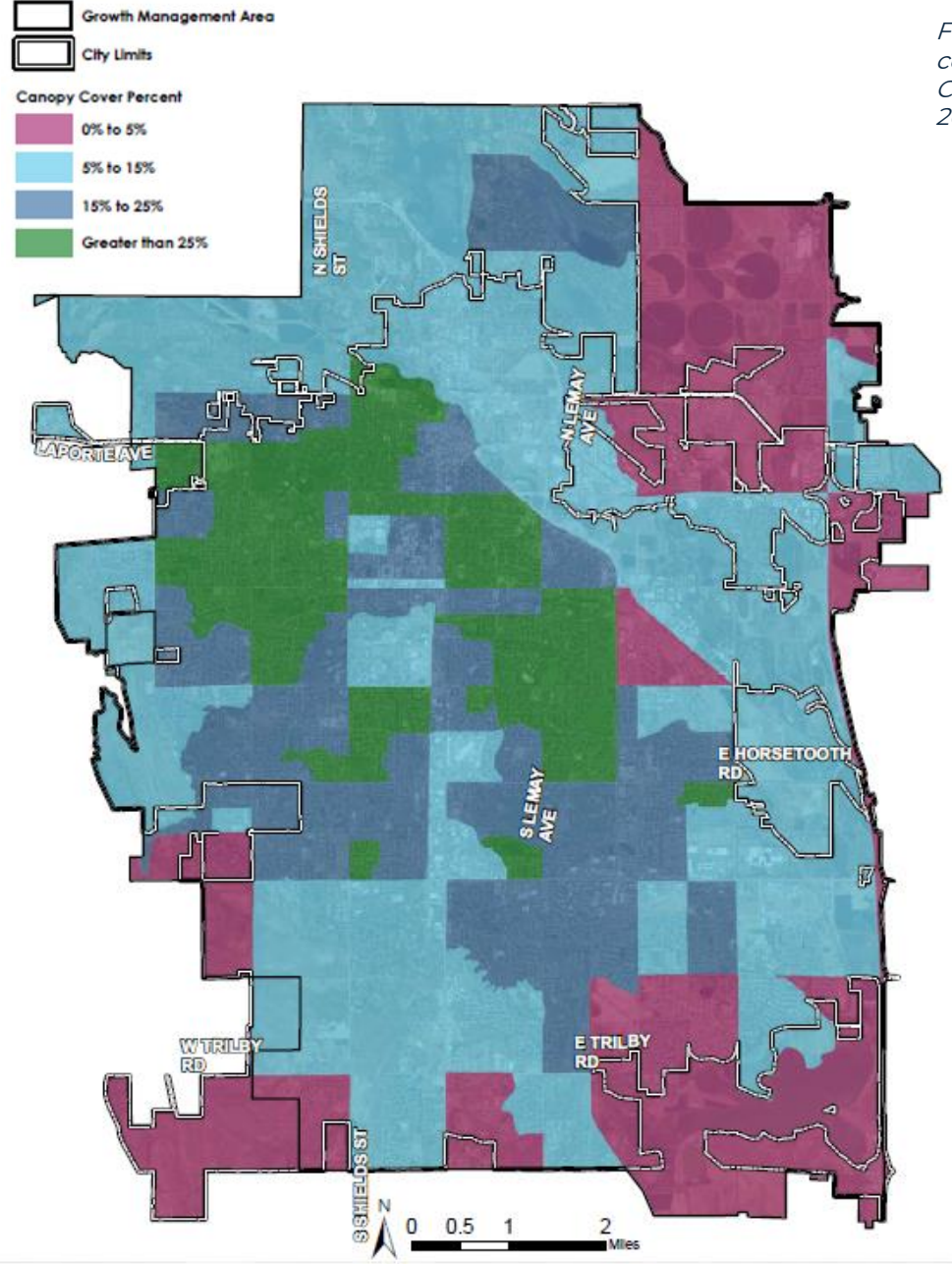


Figure 11. Tree canopy cover by U.S. Census Block Group. Tree cover is highest within the oldest parts of the City (Source: City of Fort Collins, CO Urban Forest Strategic Plan, March 2025)



3+30+300 ANALYSIS REPORT

FORT COLLINS, COLORADO

MAY 2025

