



2026 Land Dedication Standards Update

Prepared for:
Arapahoe County, Colorado

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Arapahoe County, CO Land Dedication Standards

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EXECUTIVE SUMMARY

Arapahoe County, Colorado, retained TischlerBise, Inc. to assist in updating its Land Dedication Standards to meet the new demands generated by development for public facilities in the County. This report presents the methodologies and calculations used to generate current levels of service, cash-in-lieu of land dedication, and other proposed changes to the existing standards. It is intended to serve as supporting documentation for the evaluation and update of the Land Dedication Standards in Arapahoe County. The methodologies used are applied to ensure equity and proportionality in the program.

The proposed changes differentiate West and East areas of the county for parks and school districts due to the differences in population and housing characteristics. Park acres per household, student generation rates, housing size factors, and proposed cash-in-lieu have all changed from the existing standards due to temporal and geographic differences in the data which is to be expected. In general, both the size of households and student generation rates have changed compared to the 1990 data that the existing standards are based on. The land values used in the assumed value approach for cash-in-lieu calculations have increased substantially since 1990 as well.

During the initial update process, TischlerBise met with school districts, park districts, the library district, infrastructure districts, and the Home Builders Association (HBA) to gather feedback on the existing land dedication program. Here are a few notable takeaways:

- The western school districts are experiencing relatively high student generation rates from new housing development because of their desirable educational services. Their standards for a new school have evolved since the last land dedication policy update as well.
- Suburban development patterns are more frequent in the eastern school districts growth which have started to trigger the need for facility expansion.
- Although the eastern school districts benefit from the land dedication policy when expansion is needed the districts have greater needs for maintenance and repair of facilities, which is not an allowable expenditure of the cash-in-lieu.
- Land suitability is a common issue park districts have experienced. The districts would prefer a stricter eligibility for dedicated land to ensure its usable park land.
- For the most part, park districts prefer the cash-in-lieu dedication rather than land. The monetary dedication allows for park improvements to be made at existing parks, while new land requires additional on-going maintenance costs.
- TischlerBise heard in several cases that districts were not aware of the fund balance from previously collected cash-in-lieu and annual reporting would be helpful especially when there is staff turnover at the districts.
- During meetings with the HBA, it was noted that the development community is having a difficult time constructing “missing middle” housing, in part, because of the cost of construction (including extractions for cities, counties, and utility districts).

- The current land dedication policy has placed a significant burden on multifamily development. Since dense development usually locates along desirable corridors, the market value of the land is considerably higher compared to typical greenfield development. Additionally, the number of acres to be dedicated is based on the number of housing units and, in some cases, the size of the development is smaller than the acres needed to be dedicated.
- Members of the HBA would prefer Arapahoe County to update its dedication policy more frequently to prevent large changes. A predictable cadence to the policy would result in incremental changes. TischlerBise recommends an update cycle of at least every five years.
- Lastly, there was support for including a commercial land dedication assessment for parks and other public purposes. Such dedication can bolster the profile for an employment center like a commuter trail connecting to a larger trail network or a pavilion for gathering. It was noted that additional public-private partnerships are encouraged in these improvement projects to leverage multiple resources.

COLORADO LAND DEDICATION ENABLING LEGISLATION

For local governments, the first step in evaluating funding options for facility improvements is to determine basic options and requirements established by state law. Some states have more conservative legal parameters that basically restrict local government to specifically authorized actions. In contrast, “home-rule” states grant local governments broader powers that may or may not be precluded or preempted by state statutes depending on the circumstances and on the state’s particular laws. Arapahoe County is statutory, not home-rule, and thus receives authority for the land dedication standards from the exaction enabling legislation adopted in 2001 by the Colorado General Assembly. This enabling legislation in section 29-20-104.5 reads as follows:

“Pursuant to the authority granted in section 29-20-104 (1)(g) and as a condition of issuance of a development permit, a local government may impose an impact fee or other similar development charge to fund expenditures by such local government on capital facilities needed to serve new development. No impact fee or other similar development charge shall be imposed except pursuant to a schedule that is:

- (a) Legislatively adopted;
- (b) Generally applicable to a broad class of property; and
- (c) Intended to defray the projected impacts on capital facilities caused by proposed development.”

Additionally, Colorado Revised Statute 30-28-133 furthers the legitimacy of the Arapahoe County land dedication policy.

Land dedication requirements are a type of exaction that may be imposed on new development to ensure that the needs of future residents are met by ensuring land is available for public facilities. In one of the most important exaction cases, the U. S. Supreme Court found that a government agency imposing exactions on development must demonstrate an “essential nexus” between the exaction and the interest being protected (see *Nollan v. California Coastal Commission*, 1987). In a more recent case (*Dolan v. City*

of Tigard, OR, 1994), the Court ruled that an exaction also must be “roughly proportional” to the burden created by development.

GENERAL OVERVIEW OF EXACTIONS

Impact fees, land dedications, and fees in lieu are all types of exactions. Exactions can be imposed as a condition for approval of land development and relate to a public need generated by the development itself. Exactions can take several forms such as dedication of land, construction of an amenity, or monetary charge and are imposed on a one-time basis. The purpose of the exaction must relate to the need created by the development.

Land dedications can be imposed by a local government on a development applicant to ensure land is available for public facilities—including parks and open space—and that they will be provided in a timely manner to serve the new development. The amount of land required must meet the needs generated by the new residents, and if appropriate, the new nonresidential development. The local government may also require infrastructure improvements needed for the new facilities.

Payment of a fee-in-lieu of land dedication may happen when there are site constraints within the development, or the location is not ideal for the jurisdiction. When collecting a fee-in-lieu, the amount should be equivalent to the value of land that would have been dedicated and any required infrastructure improvements.

UPDATED LEVEL OF SERVICE STANDARDS

As part of the effort to update the program, TischlerBise has updated the acres per student and acres per resident standards. These new standards better represent the existing conditions and future needs within Arapahoe County due to being calculated with more recent data.

The current standards require a park land dedication of 6.0 acres per 1,000 residents regardless of the development’s location. The proposed changes are for 10.0 acres per 1,000 residents in the West and East service areas. Shown in the body of the report, the Board of County Commissioners can have justifiably adopted a higher standard and a different standard by area. However, the Board considered the additional burden on development, consistency across the county, and the standards neighboring counties are assessing. Below in Figure 1 is a summary of the new dedication standards.

Based on current levels of service for school land and other public purposes, the update increases the standards for those components as well. Note that the current levels of service have been calculated using a methodology commonly used for impact fee programs (detailed in the body of this report) for the purposes of equity and proportionality. For example, if a development related fee is assessed higher than the current level of service then development is being burdened to elevated service levels for existing residents as well, not just addressing the new demand of its development. This approach ensures defensibility in the land dedication policy.

Figure 1. Summary of Proposed New Land Dedication Requirements

Proposed Park Land Dedication Standards		Parks Existing Standard
Park Land - West	10 acres per 1,000 residents	6 acres per 1,000 residents
Park Land - East	10 acres per 1,000 residents	6 acres per 1,000 residents

Proposed School Land Dedication Standards		Schools Existing Standard
School Land - West	0.0747 acres per student	0.0260 acres per student
School Land - East	0.0648 acres per student	0.0597 acres per student

Proposed Other Public Purposes Land Dedication Standards		Other Purpose Existing Standard
Residential	0.46 acres per 1,000 residents	0.25 acres per 1,000 residents
Commercial	2% of subdivision acres	none

RECOMMENDATIONS

As the County continues to grow and expectations for the County park and school systems evolve, the land dedication standards should evolve as well. Below summarizes the proposed changes to the standards along with the specific area in the code the change would be made.

1. Park land dedication standards (4-2.5.C.1-2)
 - a. Add west and east service areas to the park component, consistent with the west and east school districts.
 - b. Update the standard from 6 acres per 1,000 residents to 10 acres per 1,000 residents in both the west and east.
 - i. Although the analysis supports a greater increase, initial county reaction is that 10 acres per 1,000 residents is more reasonable and practical. Details of the analysis are available in the body of the report.
 - c. Update the assessment to be based on housing type not residential density .(Table 4-2.5.2)
 - d. Update the population generation factors in Table 4-2.5.2.
2. School land dedication standards (4-2.5.C.1-2)
 - a. Change the terminology from suburban and rural school districts to west and east school districts.
 - b. Update number of acres per student for west and east school districts.
 - c. Update student generation factors in Table 4-2.5.2.
3. Continuing with appraisal and assumed value methods
 - a. During the effort it was discussed revising the policy to one method, but it is recommended to continue with both.
 - b. With that said, the value per acre in the assumed method should be updated to \$40,000 per acre in the east and \$130,000 per acre in the west. (4-2.5.D.2.ii(a-b))

4. Other public purposes
 - a. The study supports increasing the land dedication for other public sites from 0.25 acres per 1,000 residents to 0.46 acres per 1,000 residents.
5. After discussion with Arapahoe County staff, the Homebuilders Association, and stakeholders who work with commercial developers it is proposed to introduce a new land dedication assessment on commercial and industrial development. Such development increases the number of employees within the county who use recreation facilities and/or commute on the trail network. (4-2.5.C.1-2)
 - a. After reviewing similar policies in neighboring counties, the dedication is proposed to be two percent of total area of the subdivision.
 - b. Furthermore, the dedication can be used for park and recreation facilities, such as plazas or trails, or other public purposes, such as a public safety facility.
 - c. Partnerships with other interested parties, such as metro districts, would allow resources to be leveraged and potentially address on-going maintenance of new civic sites.
6. Land suitability (4-2.5.B)
 - a. To ensure future dedicated sites are suitable for public use, it is recommended that the land suitability portion of the code be bolstered. In the related chapter of the report are examples provided by County staff and other stakeholders.
7. Cadence to code updates (4-2.5.J)
 - a. TischlerBise recommends that the land dedication code be reviewed at least every 5 years. Items such as land values and demographics can have meaningful change over that time period and the code should reflect the current conditions.
 - b. Additionally, a periodical updating cycle results in smaller changes to the dedication standards compared to a lengthier cadence.
8. Phasing the adoption
 - a. Shown in the body of the report, the updated standards results in the dedication from a residential subdivision doubling from the existing standards. In some cases, communities choose to phase the increase in standards over several years to not “shock” the market. This will allow developers to anticipate the increases in their business plans.
9. Affordability
 - a. Arapahoe County recently adopted a policy that exempts affordable housing developments from the land dedication standards.
 - b. The County should consider evaluating the dedication requirements for market rate projects as well.

- i. For example, when accounting for overall requirements and exactions from other public service providers (State, county, cities, utility companies) building the “missing middle” housing stock is currently challenging in Arapahoe County.
 - ii. Additionally, multifamily developments generally choose the cash-in-lieu option because the land required would hinder their project. However, the cash-in-lieu amount can be significant for multifamily growth.
- 10. Provide education and information to partner districts about available funding from the land dedication program through an annual notice to partner districts.
- 11. The County could explore implementing its own park and recreation impact fee program which would better serve the needs of park infrastructure to support growth.
 - a. For example, park impact fees can be assessed for park amenities and park land.
 - b. Collecting an impact fee provides more flexibility with the revenue compared to land dedication as well.
- 12. Include rezoning applications into land dedication policy (*revisions will be throughout LDC*)
 - a. Currently, the land dedication program is assessed on new subdivision when the final plat is approved. Although this policy captures new demand on typical suburban growth, Arapahoe County is experiencing rezonings of existing plats. In those cases, the land dedication policy is not currently being assessed. For example, a commercially zoned parcel that is rezoned to multifamily. TischlerBise supports the County revising the Land Development Code to include rezonings into the land dedication policy. However, administrative procedure and legal framework will need to be considered.
- 13. A common budgetary consideration for additional land is the on-going maintenance costs. The Board of County Commissioners should consider these costs when approving land dedications and pursue partnerships with other agencies (such as metro districts) to mitigate the on-going costs.
- 14. Include municipalities and metro districts as possible recipients of park and other public purpose land and cash-in-lieu (4-2.5.1(2a))
 - a. Subdivisions have occurred in unincorporated enclaves surrounded by municipalities which operate their own parks and recreation department. This results in a site being costly for the County to manage and a park district not able to request the dedication. Thus, it is recommended to add municipalities and metro districts as a possible recipient of land or cash-in-lieu to ensure the dedication is used to its fullest potential.

CURRENT APPROACH IN ARAPAHOE COUNTY

Arapahoe County has a land dedication/fee-in-lieu policy in place for parks, school facilities, and other public facilities. The following chapter summarizes the program.

PARK LAND DEDICATION

Currently, Arapahoe County's land dedication requirements for parks are:

- 6.0 acres of dedicated land per 1,000 residents for park land
- The land cannot have geologic hazards or contaminated waste
- The land must be strategically located as a link between other open space areas and parklands
- The land must have appropriate access for pedestrian use with limited parking
- The owner/subdivider is required to install street, sidewalk, drainage, as well as sewer and water lines to the site

Shown in Figure 2 are the current persons per household rates used in Arapahoe County's Land Dedication Standards. The generation rates are based on the density of residential dwelling units (du) in a development and used to estimate the total population generated. The population generated is used to determine total acres of park land to be dedicated.

Figure 2. Current Arapahoe County Persons per Household Factors

Residential Density	Population Generated
0.00 - 7.49 du/ac	2.96 persons/du
7.50 - 14.99 du/ac	2.39 persons/du
15.00 du/ac and above	1.76 persons/du

Source: Current Arapahoe County Land
Development Code, Land Dedication Standards

Subdivisions may develop and maintain privately owned parks for the benefit of the residents. In the case where parks are privately owned, the land and improvements may be credited against the park land dedication requirements. Privately owned parks must be approved by the BoCC and maintained by the owner, homeowners' association, or entity other than Arapahoe County. Credit for privately owned parks cannot exceed 35 percent of the land dedication requirement. The remaining funds, land, or mix of both are to be dedicated to the County.

SCHOOL LAND DEDICATION

The current general land dedication requirements are categorized by west and east school districts, maps of which are shown in Appendix A. Demographic Assumptions, are as follows:

- The land cannot have geologic hazards or contaminated waste
- The land must be exclusively outside the floodplain with slopes no greater than five percent
- The land must have access to a public street
- The land area must be approved for dedication as a school site by the appropriate school district

Specific land area requirements are differentiated between west and east school districts by acres per student. This is due to the western and eastern districts having different housing, population, and student

generation factors creating the need to differentiate between them for accuracy and proportionality. Additionally, capital planning and desired level of service standards by the public differ in the two communities. The required land dedication is:

- 0.0260 acres per student in West Districts
- 0.0597 acres per student in East Districts

Shown in Figure 3 are the current student generate rates used in Arapahoe County's Land Dedication Standards. The generation rates are based on the density of residential dwelling units in a development and used to estimate the total students generated. The students generated are used to determine total acres of school land to be dedicated.

Figure 3. Current Arapahoe County Student Generation Rates

Residential Density	Students Generated
0.00 - 7.49 du/ac	0.775 students/du
7.50 - 14.99 du/ac	0.364 students/du
15.00 du/ac and above	0.195 students/du

Source: Current Arapahoe County Land Development Code, Land Dedication Standards

OTHER PUBLIC PURPOSES LAND DEDICATION

Lastly, the existing policy assesses a land dedication on residential development to account for demand on other public purposes which includes fire stations, libraries, or other County services. At the moment, the current standard is 0.25 acres per 1,000 persons. This is a relatively minimal dedication, but it can be used to support other service providers in Arapahoe County.

CASH-IN-LIEU OF LAND DEDICATION

Payment can be accepted in-lieu of land dedication (cash-in-lieu) when deemed by the Board of County Commissioners (BoCC) to be more appropriate in satisfying the needs of the districts and proposed subdivision, or the present and future residents of the County. This payment is dependent upon the required land's fair market value. Fair market value can be determined by either the assumed value method or the appraisal approach:

1. The assumed value method establishes a cost of \$20,000 per acre within the boundaries of eastern districts and \$40,000 per acre within the boundaries of western districts.
2. The appraisal approach determines fair market value by considering qualifying appraisals submitted to the BoCC. If the affected public agency believes the assumed value method would result in a cash-in-lieu payment less than the fair market value of the dedicated site, then they have the right to submit an appraisal meeting request with the Board of County Commissioners.

Cash collected is required to be spent within the district in which it was collected. Land dedication can be negotiated with the respective districts and given directly to the County or district if approved by the BoCC.

NEIGHBORING COUNTY LAND DEDICATION STANDARDS COMPARISON

The following section serves as a general high-level comparison between the current Land Dedication Standards in neighboring counties and the existing program in Arapahoe County to assist in the rationale for any changes made to the existing program. The chapter details park land dedication policies and school land dedication policies separately.

PARK LAND DEDICATION COMPARATIVE ANALYSIS

The following section serves as a general high-level comparison between the current park land dedication standards in some of the neighboring counties and the existing program in Arapahoe County to assist in the rationale for any changes made to the existing program.

ADAMS COUNTY

Land dedication requirements for parks in Adams County were last updated in 2005 and **TischlerBise is currently completing an update**. The existing park land standards are as follows:

- 6.0 acres of dedicated land per 1,000 residents for service area parks
- 4.0 acres of dedicated land per 1,000 residents for regional parks
- 5 percent of commercial development sites for regional parks

Dedicated park land must be a minimum of 3 acres for service area parks and 50 acres for regional parks. Privately owned and maintained parks can count as a credit toward the land dedication given that the amenities are provided through the life of the subdivision.

Payment can be accepted in-lieu of land dedication when deemed by the BoCC to be more appropriate in satisfying the needs of the school district and proposed subdivision, or the present and future residents of the County. This payment is dependent upon the required land's fair market value. The market value of the zoned, platted, but unimproved land at the time of approval is determined on the zoning district of the land type. The market value per acre by zoning type is outlined in the Adams County Development Standards and Regulations.

JEFFERSON COUNTY

General land dedication requirements for parks in Jefferson County are as follows:

- 9.6 acres of dedicated land per 1,000 residents

Per the Land Development Regulations in Jefferson County, land dedication requirements are typically satisfied with cash-in-lieu payments which are calculated based on a fee structure by unit type specified in the County Policies and Procedures updated January 1 of every year. These fees are broken down into mountain and plains regions of the county. In general, 60 percent of the fees go towards satisfying the dedication requirements for parks, and 40 percent goes towards satisfying the dedication requirements for schools. In the event an applicant disagrees with the fees and believes that they do not represent the fair market value of the land dedication requirement, the applicant may submit an appeal. The appeal must include an appraisal valuation of the buildable land area based on the proposed dedication and

needed infrastructure costs for the proposed dedication may be subtracted from the value of the property. Land dedication can substitute as a credit that reduces the fees.

Additionally, Jefferson County has standards for the administration of dedicated land post development. Any park land dedicated for use may be sold by the park district if it has been declared that the dedicated property is surplus land. The district must agree to sell the land through a process that legitimately establishes the fair market value of the land, and in the case the land has not been held by the district for more than 20 years, the original developer has the right of first refusal to purchase the dedicated land back. The sale of dedicated land must be approved by the BoCC in a public hearing.

DOUGLAS COUNTY

The general land dedication requirements for parks in Douglas County are as follows:

- 15 acres of dedicated land per 1,000 residents
- 3 percent of the gross site for nonresidential developments

Douglas County's residential park land dedication requirements are divided between local parks and regional parks. Calculation for the total acres of local park dedication is equal to the number of dwelling units times 0.015 acres per unit. The regional park dedication acres are calculated by the number of dwelling units times 0.030 acres per unit. Dedicated park land must be a minimum of 5 acres for local parks and 50 acres for regional parks.

Land dedication requirements in Douglas County allow provisions for a cash-in-lieu payment when determined by the BoCC, generally for smaller developments that cannot meet the minimum dedication requirements. The payment is to be equivalent to the full anticipated market value of the acreage required after the completion of platting. The applicant must submit a proposal to the BoCC including at least one appraisal by a qualified appraiser to determine the market value for the cash-in-lieu payment. Funds are to be held by the County until the affected park district submits a request that includes a park plan and development schedule with estimated costs. Subdivisions may be considered for a credit towards park dedication requirements if they provide parks, open space, regional trails, or recreational facilities that are open to the general public and meet a demonstrated need in the community.

WELD COUNTY

Land dedication standards in Weld County are much simpler in comparison to neighboring counties and were last updated in 2020. For public sites and open spaces, the BoCC may require the dedication, development, or reservation of various features necessary for public purposes. The type of use, lot size, and residential density are considered when determining lots necessary for these public purposes.

KEY DIFFERENCES

In the following Figure 4, the land dedication standards are listed and ordered by the total acreage dedicated per 1,000 residents. There is a wide variety of dedication standards ranging between 9.6 acres to 15 acres per 1,000 residents. While the existing Arapahoe County standard is 6 acres per 1,000 residents. Additionally, the national average for city and county park land is 10.2 acres per 1,000 residents.

The land development code for the other jurisdictions do not include how their standards were determined, but many of them have been updated more recently than Arapahoe County's land dedication policy. Updating such policies regularly allow the standards to reflect recent investments in park land and community priority.

Lastly, Arapahoe, Jefferson, and Weld Counties do not have explicit language regarding the dedication of land for parks from commercial development while Douglas and Adams County do for regional parks and open space. Adams County requires commercial development to dedicate 5 percent of the subdivision and Douglas County requires 3 percent.

Figure 4. Peer Community Park Dedication Standards Comparison Table

Comparison of Park Land Dedication Requirements			
Jurisdiction*	Dedication Type	Level of Service Standard	Notes
Douglas County	Local Parks + Regional	15 acres per 1,000 Residents	3% of commercial land dedicated for both park types
2025 National Average	Local Parks + Regional	10.2 acres per 1,000 Residents	
Adams County	Local Parks + Regional	10 acres per 1,000 Residents	5% of commercial land dedicated for regional parks only
Jefferson County	All Park Types	9.6 acres per 1,000 Residents	
Arapahoe County Existing Standards	All Park Types	6 acres per 1,000 Residents	

*Note: Ordered by total acreage dedicated per 1,000 residents

SCHOOL LAND DEDICATION COMPARATIVE ANALYSIS

The following section serves as a general high-level comparison between the Land Dedication Standards in neighboring counties and the existing program in Arapahoe County to assist in the rationale for any changes made to the existing program.

ADAMS COUNTY

General land dedication requirements in Adams County were last updated in 2005 and **TischlerBise is currently completing an update**. Similar to Arapahoe County, the Adams County program differentiates land dedication requirements for school districts between west and east school districts:

- 0.0260 acres per student for West districts.
- 0.0597 acres per student for East districts.

Note these are the same standards as the existing Arapahoe County standards.

In Adams County, there are minimum land dedication requirements by school type. The dedication requirements are single parcels of a minimum of 10 acres for elementary schools, minimum of 25 acres for middle schools, and minimum of 40 acres for senior high schools.

Payment can be accepted in-lieu of land dedication when deemed by the BoCC to be more appropriate in satisfying the needs of the school district and proposed subdivision, or the present and future residents of the County. This payment is dependent upon the required land's fair market value. The market value of the zoned, platted, but unimproved land at the time of approval is determined on the zoning district of the land type. The market value per acre by zoning type is outlined in the Adams county Development Standards and Regulations.

JEFFERSON COUNTY

General land dedication requirements for schools in Jefferson County are as follows:

- 6.4 acres of dedicated land per 1,000 residents

Per the Land Development Regulations in Jefferson County in which the land dedication standards for schools were last updated in 2013, land dedication requirements are typically satisfied with cash-in-lieu payments which are calculated based on a fee structure by unit type specified in the County Policies and Procedures updated January 1 of every year. These fees are broken down into mountain and plains regions of the county. In general, 60 percent of the fees go towards satisfying the dedication requirements for parks, and 40 percent goes towards satisfying the dedication requirements for schools. In the event an applicant disagrees with the fees and believes that they do not represent the fair market value of the land dedication requirement, the applicant may submit an appeal. The appeal must include an appraisal valuation of the buildable land area based on the proposed dedication and needed infrastructure costs for the proposed dedication may be subtracted from the value of the property. Land dedication can substitute as a credit that reduces the fees.

Additionally, Jefferson County has standards for the administration of dedicated land post development. Any school land dedicated for use may be sold by the school district if it has been declared that the dedicated property is surplus land. The district must agree to sell the land through a process that legitimately establishes the fair market value of the land, and in the case the land has not been held by the district for more than 20 years, the original developer has the right of first refusal to purchase the dedicated land back. The district can also declare that the proceeds from the sale will be used to purchase new land or will be used to pay for improvements to existing facilities.

DOUGLAS COUNTY

The general land dedication requirements for schools in Douglas County are as follows:

- 0.017 acres per student for elementary schools
- 0.021 acres per student for junior schools
- 0.027 acres per student for senior high schools

The County requires that all land dedicated for schools must be centrally located to the service area, have adjacent street frontage, and be free from any hazards. Additionally, the County requires a minimum of 10 acres dedicated for elementary schools, 25 acres dedicated for junior high schools, and 40 acres dedicated for senior high schools.

Land dedication requirements in Douglas County allow provisions for a cash-in-lieu payment when determined by the BoCC, generally for smaller developments that cannot meet the minimum dedication requirements. The payment is to be equivalent to the full anticipated market value of the acreage required after the completion of platting. The applicant must submit a proposal to the BoCC including at least one appraisal by a qualified appraiser to determine the market value for the cash-in-lieu payment. Money is to be held by the County until the affected school district submits a request for the funds.

WELD COUNTY

Land dedication standards in Weld County are much simpler in comparison to Arapahoe County and were last updated in 2020. Residential subdivision applications are referred to any applicable School District for review and recommendation regarding School District requirements. This review may include land dedication or cash-in-lieu pursuant to the requirements of Section 30-28-133(4)(a) of the Colorado Revised Statutes.

KEY DIFFERENCES

In the following Figure 5, the land dedication standards are summarized. There is a variety of approaches used to determine the dedication, but TischlerBise attempted to order the figure based on the estimated acreage to be dedicated. The land development code for the other jurisdictions do not include how their standards we determined, but the existing standards for Arapahoe and Adams Counties are the same, indicating there may have not been a determined local standard but more of a general standard applied at the time.

Figure 5. Peer Community School Land Dedication Standards Comparison Table

Comparison of School Land Dedication Requirements		
Jurisdiction*	Dedication Type	Level of Service Standard
Jefferson County	All Schools	6.4 acres per 1,000 Residents
Douglas County	All Schools	0.065 acres per Student
Arapahoe County Existing Standards	West Schools	0.0260 acres per Student
	East Schools	0.0597 acres per Student
Adams County	Urban Schools	0.0260 acres per Student
	Rural Schools	0.0597 acres per Student

*Note: Ordered by estimated acres to be dedicated

CASH-IN-LIEU & LAND VALUE COMPARISON

The calculation used to determine the cash-in-lieu is common: [required acres to be dedicated] x [fair market value of the land] = cash-in-lieu. However, there is a variety of approaches jurisdictions are using to determine the fair market value of land. Below are notable differences:

- **Methodology.** Arapahoe County currently uses either an appraised land value approach or an assumed land value approach while Adams County currently uses just an assumed land value approach when determining the land value per acre. Douglas County requires a proposal to be

submitted to the BoCC, including an appraisal to establish the market value cost per acre. Jefferson County uses a fee per unit and land dedication formula to determine the value of improved land acres for cash-in-lieu.

- **Extent of Valuation.** The standards for cash-in-lieu in Arapahoe County include the cost of improvements to the site, such as access and utility improvements. Adams County only includes unimproved land costs in the existing market values while Jefferson County allows, in the event of a successful appeal of the park and cash-in-lieu payments, the cost of needed infrastructure for the proposed dedication to be excluded from the appraised value of the land.

PARK LAND DEDICATION STANDARDS UPDATE ANALYSIS

This chapter details the level of service calculations for the park land dedication. Existing park inventory from the park districts and Arapahoe County is used in conjunction with the population to understand the current level of service. TischlerBise has introduced a regional park component to address the countywide nature of regional parks. Regional parks have a wider benefit area; thus, the analysis expanded the calculation to include countywide population.

The proposed changes differentiate west and east service areas of the county for parks due to the differences in population and housing characteristics. Levels of service have been calculated using a methodology commonly used for impact fee programs to capture the currently provided service levels to the existing population in the west and east service areas for the purposes of equity and proportionality. Collecting land or cash-in-lieu at a level of service higher than what is currently being provided to address deficiencies or to achieve a higher desired level of service means development is being burdened to elevated service levels for existing residents as well, not just addressing the new demand of its development. The west and east service areas of the County are based on school district boundaries, maps of which can be found in Appendix A. Demographic Assumptions.

Along with determining the current level of service based on the number of the residents, the following chapter then compares the level of service per 1,000 residents to the number of residents per household by housing type to find the **maximum standards** for Arapahoe County. These standards represent the past investment the community has made in the park infrastructure. Additionally, these standards can be justifiably used in the Arapahoe County LDC since future development will not be assessed any higher than the current standards and only continues the current level of service as the area grows.

Importantly, TischlerBise recommends that the BoCC consider the increased burden on development when adopting an updated land dedication standard along with the standards neighboring counties have adopted. The following results represent the highest standards this analysis supports. The BoCC can adopt standards below the maximum.

LEGAL FRAMEWORK

Colorado Revised Statute 29-20-104.5 and C.R.S. 30-28-133 authorizes local governments to impose development charges to fund capital facilities needed to serve new development. Park and recreation facilities qualify as essential capital facilities because they provide measurable public health benefits through accessible spaces for physical activityⁱ, reduce stressⁱⁱ, enhance mental well-being and social cohesionⁱⁱⁱ, increase property values, and deliver critical environmental services in the form of reduced water and air pollution^{iv}. The land dedication program ensures new residential development defrays its proportional impact on park infrastructure by contributing land commensurate with the demand created, as required by statute, thereby maintaining service levels for both existing and future residents.

REGIONAL PARKS

In Arapahoe County there are large regional parks that serve the broader population of the area. The level of service for regional parks is found by first identifying which parks are considered regional. Large tracts

of open space and the county fairgrounds owned by Arapahoe County Open Spaces are considered regional because these sites serve residents from beyond their immediate area. The same can be said about Quint Valley Fairgrounds owned by Byers Parks and Recreation District. Additionally, the County owned portion of the Bijou Basin Open Space is included (2,809 acres) and the Kiowa Creek Open Space (830 acres) since the County plans to eventually open the areas to the public.

Given that regional parks serve the broader population of the area and not just incorporated or unincorporated areas, their level of service is derived from the total acres by the countywide 2025 population. The countywide population is used instead of the unincorporated population because attributing all the regional park land to a much smaller population would create an outsized level of service putting disproportionate demand for land dedications or cash-in-lieu on growth in the unincorporated areas. Additionally, cities typically do not prioritize construction of parks that serve such a large benefit area while Arapahoe County plans for expansion at these locations based on countywide demand, not just unincorporated demand.

Listed in Figure 6, there are a total of 5,206 acres of regional parks within the county. The current level of service is calculated by dividing the attributed acreage of 5,206 acres by the estimated base year countywide population of 655,720 residents. As a result, there are 8 acres per 1,000 persons.

Figure 6. Current Regional Parks Level of Service

Jurisdiction	Park Land (Acres)
Arapahoe County Open Spaces	5,127
Byers Parks and Rec	78
Total	5,206

<i>Level-of-Service Standards</i>	<i>Acres</i>
Total Acres	5,206
2025 Population [1]	655,720
Acres per 1,000 Persons	8

Source: Arapahoe County Open Spaces; Byers Parks and Recreation

[1] U.S. Census Bureau, 2023 American Community Survey 5-Year Estimates, DRCOG Small Area Forecast

Regional park level of service will be added to the level of service for service area parks in the west and east. The total level of service will be applied to their respective persons per household factors. This derives park acres per household for all parks in both west and east areas.

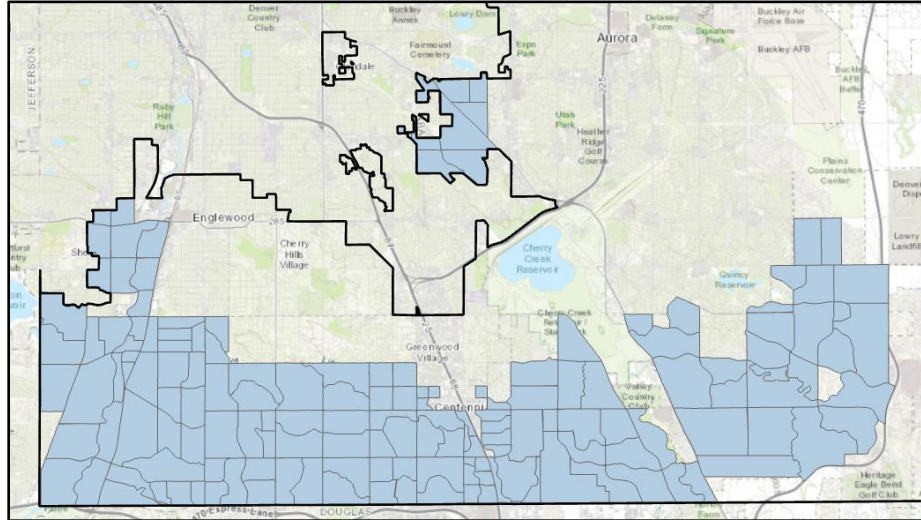
WEST SERVICE AREA PARKS

To derive the current level of service for western service area parks, TischlerBise collected current park inventory from park districts within the west area of Arapahoe County. These districts are Trails Parks and Recreation, Cherry Creek Vista Parks and Recreation, Arapahoe County Open Spaces, and South Suburban Parks and Recreation. These parks serve both unincorporated and incorporated portions on the County. Given the nature of park usage, that parks in unincorporated areas are not solely used by the residents of

those areas, it is best to use the entire park inventory along with the respective population for the service area to estimate the current level of service provided. To estimate population within the selected park districts, the Denver Regional Council of Governments (DRCOG) Small Area Forecast boundaries are used.

Shown in Figure 7 are the DRCOG Small Area Forecast boundaries used to estimate 2025 population within the west park districts. While not perfectly coterminous with park district boundaries, the differences are marginal and thus an appropriate proxy.

Figure 7. DRCOG Small Area Forecast Zones for West Service Area Park District Population



Listed in Figure 8, there are a total of 2,336 acres of park land within the west areas of Arapahoe County. The current level of service is calculated by dividing the attributed acreage of 2,336 acres by the DRCOG Small Area Forecast 2025 population for the included park districts. As a result, the current level of service is 10 acres per 1,000 persons, rounded ($2,336 \text{ acres} / 232,305 \text{ persons} = 10 \text{ acres per } 1,000 \text{ persons}$).

Figure 8. Current West Service Area Parks Level of Service

Jurisdiction	Park Land (Acres)
Trails Parks and Rec	249
Cherry Creek Vista Parks and Rec	26
Arapahoe County Open Spaces	140
South Suburban Parks and Rec	1,922
Total	2,336

<i>Level-of-Service Standards</i>	<i>Acres</i>
Total Acres	2,336
2025 Population [1]	232,305
Acres per 1,000 Persons	10

Source: Trails Parks and Recreation; Cherry Creek Vista Parks and Recreation; Arapahoe County Open Spaces; South Suburban Parks and [1] DRCOG Small Area Forecast

Shown in Figure 9, the current level of service in the west is 18.0 acres per 1,000 residents.

Figure 9. Current West Service Area Park Acres per 1,000 Residents

West Service Area Level of Service	
Local Park Acres per 1,000 Persons	10.0
Regional Park Acres per 1,000 Persons	8.0
Total Acres per 1,000 Persons	18.0

EAST SERVICE AREA PARKS

To derive the current level of service for parks in the eastern areas of Arapahoe County, TischlerBise collected park inventory for the two districts in the region, Strasburg Parks and Recreation and Byers Parks and recreation. While these districts cover both Adams and Arapahoe Counties, inventory was only collected for parks within Arapahoe County. The incorporated areas of Bennett and Deer Trail have their own respective dedication policies addressing growth; therefore, it is appropriate to use the east area's unincorporated population along with parks in the unincorporated east areas to establish the current level of service.

Listed in Figure 10, there are a total of 57 acres of local parks within the east areas of the unincorporated county. The current level of service is calculated by dividing the attributed acreage of 57 acres by the base year east service area unincorporated population of 6,873 residents. As a result, the current level of service is 8 acres per 1,000 persons.

Figure 10. Current East Service Area Parks Level of Service

Jurisdiction	Park Land (Acres)
Strasburg Parks and Rec	55
Byers Parks and Rec	2
Total	57

Level-of-Service Standards	Acres
Total Acres	57
2025 Eastern Population [1]	6,873
Acres per 1,000 Persons	8

Source: Strasburg Parks & Recreation; Byers Parks and Recreation

[1] U.S. Census Bureau, 2023 American Community Survey 5-Year Estimates, DRCOG Small Area Forecast

Shown in Figure 11, the current level of service in the east is 16.0 acres per 1,000 residents.

Figure 11. Current East Service Area Park Acres per 1,000 Persons

East Service Area Level of Service	
Local Park Acres per 1,000 Persons	8.0
Regional Park Acres per 1,000 Persons	8.0
Total Acres per 1,000 Persons	16.0

UPDATED PARK LEVEL OF SERVICE COMPARISON

In the following Figure 14 the current level of services described above is included in the comps table with the County's and other jurisdictions' existing standards. Based on current park inventory and demand, the current level of service in Arapahoe County is 18 acres per 1,000 residents in the west service area and 16 acres per 1,000 residents in the east service area. These results are higher than the other neighboring counties.

Figure 12. Peer Community Park Dedication Standards Comparison Table w/Current Level of Service

Comparison of Park Land Dedication Requirements			
Jurisdiction*	Dedication Type	Level of Service Standard	Notes
Arapahoe County Current LOS	West Parks + Regional East Parks + Regional	18 acres per 1,000 Residents 16 acres per 1,000 Residents	
Douglas County	Local Parks + Regional	15 acres per 1,000 Residents	3% of commercial land dedicated for both park types
2025 National Average [1]	Local Parks + Regional	10.2 acres per 1,000 Residents	
Adams County	Local Parks + Regional	10 acres per 1,000 Residents	5% of commercial land dedicated for regional parks only
Jefferson County	All Park Types	9.6 acres per 1,000 Residents	
Arapahoe County Existing Standards	All Park Types	6 acres per 1,000 Residents	

*Note: Ordered by total acreage dedicated per 1,000 residents

[1] National Recreation and Park Association, *2025 Agency Performance Review*

As mentioned, the current level of service is a justifiable standard, however, the Board of County Commissioners (BoCC) should consider other consequences of assessing an increased standard. For example, these higher standards would result in a higher cost of construction for new housing in unincorporated Arapahoe County. Additionally, once park land is dedicated to the County there will be a cost to improve the land with amenities and an on-going operating cost to maintain the park.

With these considerations in mind, **the BoCC has proposed a new standard of 10 acres per 1,000 residents for both the west and east area.**

Figure 13. Proposed Updated Park Dedication Standards Comparison

Comparison of Park Land Dedication Requirements			
Jurisdiction*	Dedication Type	Level of Service Standard	Notes
Arapahoe County Current LOS	West Parks + Regional	18 acres per 1,000 Residents	
	East Parks + Regional	16 acres per 1,000 Residents	
Douglas County	Local Parks + Regional	15 acres per 1,000 Residents	3% of commercial land dedicated for both park types
2025 National Average [1]	Local Parks + Regional	10.2 acres per 1,000 Residents	
Arapahoe County Proposed Standards	West Parks + Regional	10 acres per 1,000 Residents	
	East Parks + Regional	10 acres per 1,000 Residents	
Adams County	Local Parks + Regional	10 acres per 1,000 Residents	5% of commercial land dedicated for regional parks only
Jefferson County	All Park Types	9.6 acres per 1,000 Residents	
Arapahoe County Existing Standards	All Park Types	6 acres per 1,000 Residents	

*Note: Ordered by total acreage dedicated per 1,000 residents

[1] National Recreation and Park Association, 2025 Agency Performance Review

Another way to illustrate the results of the existing and proposed standards is by the number of acres to be dedicated by density/housing type. In Figure 14, the acres per density/housing type is found by multiplying the number of acres per 1,000 residents by the persons per household factors. For example, under the current standard a subdivision with a density of 0.00 - 7.49 du/ac dedicates 0.018 acres per housing unit (6 acres per 1,000 residents x 2.96 persons per household = 0.018 acres per household). While the proposed standard results in park acres a single family detached subdivision in the west service area would be required to dedicate 0.027 acres per unit (10 acres per 1,000 residents x 2.71 persons per household = 0.049 acres per household). The figure includes the percent change from the existing standard which ranges from 42 percent to 73 percent increase.

Details on the persons per household calculations can be found in Appendix A. Demographic Assumptions.

Figure 14. Current Park Standards vs Current Level of Service by Housing Type

Existing Standard Countywide		
Residential Density	Existing PPHU	Existing Park Acre Dedication [1]
0.00 - 7.49 du/ac	2.96	0.018
7.50 - 14.99 du/ac	2.39	0.014
15.00 du/ac and above	1.76	0.011

[1] Existing park acre dedication is found by multiplying the current standard of 6 acres per 1,000 persons by the PPHU factors

West Districts			
Housing Unit Type	Updated PPHU	Park Acres at Proposed Standard*	Change from Existing Standard
Single Family Detached	2.71	0.027	53%
Single Family Attached	2.03	0.020	42%
Multifamily	1.74	0.017	65%

East Districts			
Housing Unit Type	Updated PPHU	Park Acres at Proposed Standard*	Change from Existing Standard
Single Family Detached	2.96	0.030	67%
Single Family Attached	2.13	0.021	49%
Multifamily	1.83	0.018	73%

*Found by multiplying the proposed standard of 10.0 acres per 1,000 persons by the PPHU factors

TischlerBise recommends revising the policy to assesses by the housing type: single family detached, single family attached, and multifamily. From experience in the Colorado Front Range, TischlerBise has found that the type of housing is a better indicator in number of persons and students in a dwelling rather than the density of a development. This is especially the case as single family detached units and lots are becoming smaller while still serving family household sizes. Furthermore, U.S. Census data based on density and lot size is limited compared to data based on the housing type.

With that said, in practice, the density groupings line up well with groupings by housing type. For example, single family attached (i.e. townhomes) will be built to a density within 7.50 to 15 units per acre while most single family detached subdivision will be less dense (0 to 7.50 units per acre).

SCHOOL DISTRICT LAND DEDICATION STANDARDS

The following chapter details the level of service calculations for the school land dedication; changes differentiate west and east service areas of the county for school facilities due to the differences in population and housing characteristics. The west service area uses an established level of service from Aurora School District's Site Acquisition Standards policy, last updated in 2021. This is the level of service, the district must conform to for all future development, thus a reasonable standard for future dedication.

Level of service for the east service area is established using a methodology commonly used for impact fee programs to capture the currently provided service levels to the existing population for the purposes of equity and proportionality. During the data gathering portion of this effort not all school districts were able to provide the necessary information. However, while the data used for the level of service calculations does not include every school district, the information provided is enough of the total enrollment within the east region of the county as to be an appropriate proxy for the calculation. The west and east service areas of the County are based on school district boundaries, maps of which can be found in Appendix A. Demographic Assumptions.

WEST SERVICE AREA SCHOOL DISTRICTS

To derive the west service area school districts' current level of service, TischlerBise collected information from Aurora School District's School Site Acquisition Standards policy, last updated in 2021. While older schools in the district do not conform to this policy, it is the framework for future school development and thus a reasonable standard for future dedication. During meetings with staff from the western school districts, it was determined that the Aurora School District standards are consistent with the other districts policies.

Listed in Figure 15, there is an established standard of 11.3 acres for an elementary school with 644 students, 25 acres for middle schools with 1,000 students, and 58 acres for high schools with 1,800 students. The current level of service is calculated by adding the acres per student of each school type. As a result, there are 0.0747 acres per student.

Figure 15. Current West Service Area School District Level of Service

West Service Area			
School Type	Minimum Site (acres)	Standard Enrollment	Acres per Student
Elementary	11.3	644	0.0175
Middle	25.0	1,000	0.0250
High	58.0	1,800	0.0322
Total Acres per Student			0.0747

Source: Aurora School District Site Acquisition Standards

Shown in Figure 16 are the school acres per household type for school land dedication in the west service area using the updated acres per student factor. This standard is calculated by multiplying the school acres per student by the student generation rate by housing type. For example, single family detached development results in 0.0506 acres per unit (0.0747 acres per student x 0.678 students per household =

0.0506 school acres per household). Details on the students per household calculations can be found in Appendix A. Demographic Assumptions.

Figure 16. Current West Service Area District School Acres per Household

West Service Area Level of Service	
School Acres per Student	0.0747

Housing Type	Students per Household [1]	School Acres per Household
Single Family Detached	0.678	0.0506
Single Family Attached	0.385	0.0288
Multifamily	0.288	0.0215

[1] Cherry Creek and Aurora School District analysis of housing units and student location

EAST SERVICE AREA SCHOOL DISTRICTS

To derive the current level of service for the east service area School Districts, TischlerBise collected total inventory of acreage and total student capacity from Bennett School District and Byers School District.

Listed in Figure 17 there is a total of 20.9 acres of elementary schools with a capacity of 1,107 students, 11.1 acres of middle schools with a capacity of 525 students, and 16.3 acres of high schools with a capacity of 661 students. The current level of service is calculated by adding the acres per student of each school type. As a result, there are 0.0648 acres per student.

Figure 17. Current East Service Area School District Level of Service

East Service Area			
School Type	Total Acres*	Total Capacity*	Acres per Student
Elementary	20.9	1,107	0.0189
Middle	11.1	525	0.0212
High	16.3	661	0.0247
Total Acres per Student			0.0648

*Total acres and capacity is from Bennett and Byers School Districts

Shown in Figure 18 are the school acres per household type for school land dedication in the east service area using the updated acres per student factor. This standard is calculated by multiplying the school acres per student by the student generation rate by housing type. For example, single family detached development results in 0.0389 acres per unit (0.0648 acres per student x 0.600 students per household = 0.0389 school acres per household). Details on the students per household calculations can be found in Appendix A. Demographic Assumptions.

Figure 18. Current East Service Area District School Acres per Household

East Service Area Level of Service	
School Acres per Student	0.0648

Housing Type	Students per Household [1]	School Acres per Household
Single Family Detached	0.600	0.0389
Single Family Attached	0.280	0.0181
Multifamily	0.140	0.0091

[1] Source: Bennett Public School District Student Generation Rates, 2022

UPDATED SCHOOL LEVEL OF SERVICE COMPARISON

In the following Figure 19 the current level of service described above is included in the comps table with the County's and other jurisdictions' existing standards. Based on established standards and current school acre inventory and enrollment, the current level of service in Arapahoe County is higher than most of the standards used in the jurisdictions included in the analysis. The County standards have not been updated in 40 years and the increase in the standard may reflect school districts establishing a higher standard of service due to growth opportunities that have been presented in the time since.

Figure 19. School Land Dedication Standards Comparison Table w/ Current Level of Service

Comparison of School Land Dedication Requirements		
Jurisdiction*	Dedication Type	Level of Service Standard
Jefferson County	All Schools	6.4 acres per 1,000 Residents
Arapahoe County Current LOS	West Schools	0.0747 acres per Student
	East Schools	0.0648 acres per Student
Douglas County	All Schools	0.065 acres per Student
Arapahoe County Existing Standards	West Schools	0.0260 acres per Student
	East Schools	0.0597 acres per Student
Adams County	Urban Schools	0.0260 acres per Student
	Rural Schools	0.0597 acres per Student

*Note: Ordered by estimated acres to be dedicated

Another way to illustrate the results of the existing standards and current level of service is by the number of acres to be dedicated by density/housing type. In Figure 20, the acres per density/housing type is found by multiplying the number of acres per student by the student generation rate (SGR). For example, under the current standard a subdivision with a density of 0.00 - 7.49 du/ac dedicates 0.020 acres per housing unit in the west area (0.026 acres per student x 0.775 students per household = 0.020 acres per household). While based on the current level of service for school acres a single family detached subdivision in the west area would be required to dedicate 0.0506 acres per unit (0.0747 acres per student x 0.678 students per household = 0.0506 acres per household).

The increased standard acres per student and decreased SGRs across the county have differing results for the east and west service areas. In the west, the growth in updated acres per student are enough to offset

decreased SGRs, ending with acres per household much larger than before. While in the east service area, the decrease in SGRs results in lower acres per household for all housing types.

Figure 20. Current School Standards vs Current Level of Service by Housing Type

Residential Density	Existing SGR	West <i>0.026 acres/student</i>	East <i>0.0597 acres/student</i>
		Existing School Acre Dedication [1]	Existing School Acre Dedication [1]
0.00 - 7.49 du/ac	0.775	0.020	0.046
7.50 - 14.99 du/ac	0.364	0.009	0.022
15.00 du/ac and above	0.195	0.005	0.012

[1] Existing school acre dedication is found by multiplying the current standard acres per student to the SGR by subdivision density

West Service Area Districts (<i>0.0747 acres per student</i>)			
Housing Unit Type	Updated SGR	School Acres at Current LOS	Change from Existing Standard
Single Family Detached	0.678	0.0506	151%
Single Family Attached	0.385	0.0288	204%
Multifamily	0.288	0.0215	324%

East Service Area Districts (<i>0.0648 acres per student</i>)			
Housing Unit Type	Updated SGR	School Acres at Current LOS	Change from Existing Standard
Single Family Detached	0.600	0.0389	-16%
Single Family Attached	0.280	0.0181	-17%
Multifamily	0.140	0.0091	-22%

TischlerBise recommends revising the policy to assesses by the housing type: single family detached, single family attached, and multifamily. From past experience in the Colorado Front Range, TischlerBise has found that the type of housing is a better indicator in number of persons and students in a dwelling rather than the density of a development. This is especially the case as single family detached units and lots are becoming smaller while still serving family household sizes. Furthermore, U.S. Census data based on density and lot size is limited compared to data based on the housing type.

With that said, in practice, the density groupings line up well with groupings by housing type. For example, single family attached (i.e. townhomes) will be built to a density within 7.50 to 15 units per acre while most single family detached subdivision will be less dense (0 to 7.50 units per acre).

OTHER PUBLIC PURPOSES

The existing policy assesses a land dedication on residential development to account for demand on other public purposes which includes fire stations, libraries, or other County services. At the moment, the current standard is 0.25 acres per 1,000 persons. This is a relatively minimal dedication, but it can be used to support other service providers in Arapahoe County.

The facility level of service for other public purposes is found by summing the existing land owned by Arapahoe County (excluding parks), Arapahoe Library District, and the fire districts serving the county. In total there are 299 acres (Figure 21) for other purposes. These jurisdictions are providing a service to residents in municipalities and unincorporated areas of the county; thus, the level of service is calculated based on the 2025 countywide population (655,720 residents). As a result, there are 0.46 acres per 1,000 persons.

This standard (0.46 acre per 1,000 persons) is nearly double the existing policy (0.25 acres per 1,000 persons). However, the updated level of service is still minimal compared to the park and school land dedication standards.

Figure 21. Other Public Purposes Facilities Level of Service

Jurisdiction	Land (Acres)
Arapahoe County Facilities	204
Arapahoe Libraries	37
Fire Districts	58
Total	299

Level-of-Service Standards	Acres
Share of Acres	299
2025 Population [1]	655,720
Acres per 1,000 Persons	0.46

Source: Arapahoe County Facilities and Fleet Management Department, Arapahoe County Assessor Data

[1] U.S. Census Bureau, 2023 American Community Survey 5-Year Estimates, DRCOG Small Area Forecast

NONRESIDENTIAL ASSESSMENT

Arapahoe County currently does not assess a land dedication on commercial and industrial development. However, neighboring Adams County and Douglas County assess a park land dedication to commercial development since the additional employment growth puts demand on regional parks directly with the new jobs. In Adams County 5 percent of the commercial subdivision is required and 3 percent in Douglas County. After discussions with service providers and the Board of County Commissioners, Arapahoe County is exploring adding a commercial component to its policy. The intent of the dedication would be for parks and other public purposes (excluding school land). In this case, the land dedicated by a

commercial development could be used to address the recreation, civic, or public safety needs associated with the new employment at that site.

After reviewing demand and development factors associated with commercial and industrial development including employee densities and floor area ratios (FAR) along with the policies for the neighboring counties, the County has determined that a 2 percent land area dedication policy is reasonable when considering the variety of development patterns and employment generation that is still unknown during the subdivision process.

LAND VALUATION FOR CASH-IN-LIEU POLICY & LAND SUITABILITY

The County Land Development Code allows for a cash-in-lieu to be paid to offset a portion or all of the acres required to be dedicated. The policy multiplies the required acres by fair market land value determined under two approaches:

1. Appraisal Method
 - Process and Requirements
 - a. Upon determination that cash-in-lieu will be required, the applicant must submit a qualifying appraisal prior to scheduling the Board of County Commissioners hearing.
 - b. All appraisals must be:
 - i. Certified by a Member of the Appraisal Institute (M.A.I.)
 - ii. Based on the assumption that the final plat is approved
 - iii. Based on land improved with required public improvements, water facilities, and sewer facilities
 - iv. Current to within six months of the Board hearing date
 - c. The Planning Division distributes copies of the applicant's appraisal to eligible public agencies (school districts, park districts, library districts, fire districts). These agencies may submit their own qualifying appraisals for Board consideration.
 - d. The Board of County Commissioners reviews submitted appraisals and determines the final fair market value based on the evidence presented.
2. Assumed Value Method
 - The assumed value method provides predetermined per acre values based on the location of the subdivision (west vs east). Applicants may choose this method by notifying the Planning Division, waiving their right to submit an appraisal.
 - Value per acre by area
 - a. West Service Area - \$40,000
 - b. East Service Area - \$20,000
 - c. Note that the land values have not been updated since the 1990s, reflecting outdated estimates.

If an affected public agency believes the assumed value method would result in a cash-in-lieu amount less than the actual fair market value, the agency may submit a qualifying appraisal. Since the values in the assumed value method have not been updated in over 30 years, it is very common for subdivisions to be assessed under the appraisal method.

Although nearly all applicants are processed through the appraisal approach, it is important for the policy to have updated land values in the assumed value method. Figure 22 compares the existing policy with values that have been calculated based on a survey of unimproved residentially zoned land in unincorporated Arapahoe County, areas in which future residential subdivisions may occur, based on the County Assessor's valuation. Land averages \$130,000 per acre in the west and \$40,000 per acre in the east. Although, assessed values typically lag behind fair market values, TischlerBise recommends updating the policy with these estimates to ensure the assumed value method reflects a more accurate valuation.

Additionally, TischlerBise (along with comments from the Homebuilders Association) recommends a more frequent update to the values in the assumed value method.

Figure 22. Comparison of Land Valuations

Service Area Land Value per Acre	Existing Policy (1990)	Current Assessed Value[1]
West	\$40,000	\$130,000
East	\$20,000	\$40,000

[1] Parcel land values from survey of unimproved
unincorporated Arapahoe County zoning R via County
Assessor data

LAND SUITABILITY

In addition to a revision to the existing land valuations, during the effort it has been recommended by County staff, school districts, and park districts to bolster the characteristics of land eligibility. At the moment, land that is suitable for dedication is broadly defined including it should not be a geological hazard, within a floodplain, accessible by vehicle, and approved by the school or park district. However, in the past there has been land dedicated that was deemed only partially usable. For example, land that is a stormwater site or the shape of the parcel is too narrow for park activities.

Below are additions that have been proposed by districts and County staff:

- No slopes that are above a 2 percent slope
- Not in floodplain nor stormwater detention area
- No environmental mitigation needed
 - Old dumpsite have been dedicated in the past, resulting in costs to school and park districts
- Utility-ready
 - Water, sewer, electricity, stormwater, fiber, etc.
- Appropriate location for school related traffic
- Park land needs to be suitable for active park uses
 - Not a narrow strip of land

With that said, the Homebuilder Association have mentioned that establishing too strict of qualifications could potentially be too burdensome to their developments and may not allow for consideration of certain unique conditions of the site.

LAND DEDICATION STANDARDS CASH-IN-LIEU EXAMPLE

The following sections serves as supporting documentation and analysis in the calculation of cash-in-lieu of land dedication exactions. **The surveyed costs per acre are intended to be used as an example for calculation of the fee-in-lieu and not as an update to the current valuation table that exists within the Land Dedication Code (section 4-2.5).** The example land cost of \$200,000 per acre is applied to a 100-unit single family detached subdivision in the west area under the existing code (Figure 23) and proposed updated standards (Figure 24). **These amounts serve as an example and are not intended to be used as a fee schedule.**

Under the existing standards, the subdivisions would result in a dedication of 1.78 park land acres, 2.02 school land acres, and 0.07 other facility acres totaling 3.87 acres. Based on the example land cost value, the subdivision could pay a cash-in-lieu of \$773,000 to mitigate the whole land dedication.

Figure 23. Example of Land & Cash-in-Lieu Dedication Under Existing Standards

Hypothetical Subdivision in West		
Single Family Detached	100 units	
Land Value	\$200,000 per acre	

Category	Current Standards (Acres per SFD Unit)	Dedicated Acres
Park Land	0.018	1.78
School Land	0.020	2.02
Other Facilities	0.001	0.07
Total Acres		3.87
Total Cash-in-Lieu		\$773,000
Per Unit		\$7,730

Under the proposed updated standards, the subdivisions would result in a dedication of 2.71 park land acres, 5.06 school land acres, and 0.12 other facility acres totaling 7.90 acres. Based on the example land cost value, the subdivision could pay a cash-in-lieu of \$1.6 million to mitigate the whole land dedication.

The updated standards result in an increase of 4.03 acres for dedication (more than doubling the current policy) or an increase of approximately \$800,000 in cash-in-lieu.

Figure 24. Example of Land & Cash-in-Lieu Dedication Under Updated Proposed Standards

Hypothetical Subdivision in West		
Single Family Detached	100 units	
Land Value	\$200,000 per acre	

Category	Proposed Standards (Acres per SFD Unit)	Dedicated Acres		
Park Land	0.027	2.71		
School Land	0.051	5.06		
Other Facilities	0.001	0.12		
Total Acres		7.90	3.87	4.03
Total Cash-in-Lieu		\$1,579,000	\$773,000	\$806,000
Per Unit		\$15,790	\$7,730	\$8,060

APPENDIX A. DEMOGRAPHIC ASSUMPTIONS

The data estimates and projections used in the study's calculations are detailed in this section. This chapter includes discussion and findings on:

- Household/housing unit size
- Current population and housing unit estimates
- Residential construction trends
- Residential projections
- Student generation rates

WEST AND EAST SERVICE AREA SCHOOL DISTRICTS

Arapahoe County LDC recognizes differences between west and east school districts which is reflected in the data used in this analysis to calculate persons per housing unit and student generation rates. In this study, west and east areas are redefined as west and east service areas, respectively. Furthermore, the land dedication program collects and distributes the school land and cash-in-lieu based on school districts. The following categorizes the districts within Arapahoe County in their respective service areas. Maps of the districts following.

Figure 25. West and East Service Area School Districts

West Service Area	East Service Area
Aurora School District 28j	Bennett School District 29j
Cherry Creek School District 5	Byers School District 32j
Englewood School District 1	Deer Trail School District 26j
Littleton School District 6	Strasburg School District 31j
Sheridan School District 2	

Figure 26. Arapahoe County West Service Area School Districts

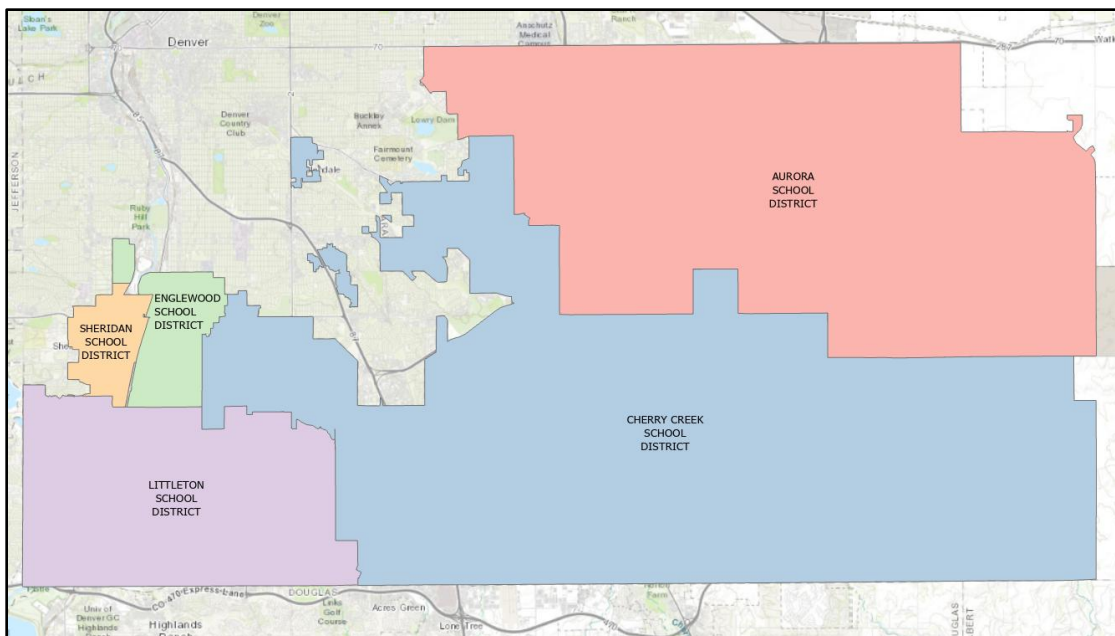
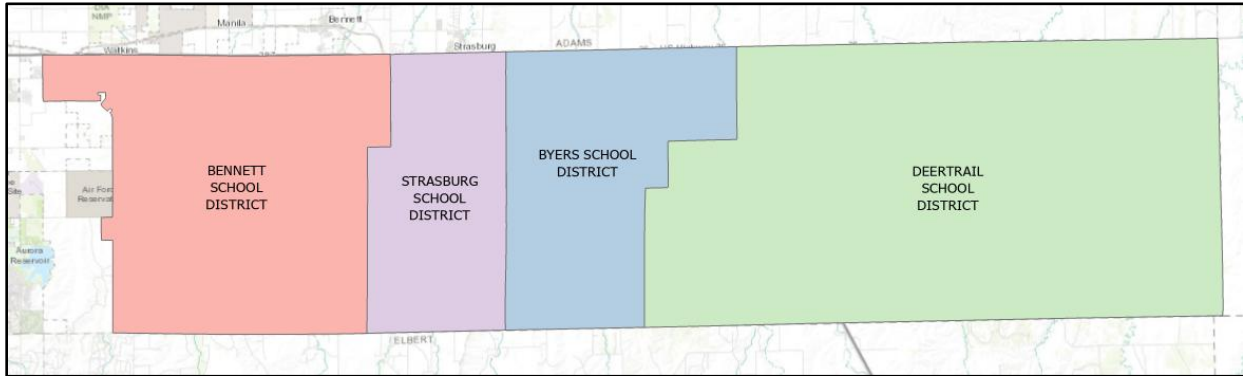


Figure 27. Arapahoe County East Service Area School Districts



POPULATION AND HOUSING CHARACTERISTICS

Housing types have varying household sizes and, consequently, a varying demand on district infrastructure and services. Thus, it is important to differentiate between housing types. TischlerBise uses American Community Survey (ACS) 2019-2023 Public Use Microdata Sample (PUMS) data – the most recent year available – to derive the persons per housing unit (PPHU) by type of unit. PUMS data are only available for areas of roughly 100,000 persons. The west service area is included in Colorado Public Use Microdata Area (PUMA) 1301, 1501, 1601, 1602, and 1603. The east service area is included in Colorado PUMA 1401. Maps of the PUMAs are provided in the appendix.

TischlerBise has calculated PPHU for single family detached, single family attached, and multifamily housing types. Each housing type has different characteristics which results in a different demand on district facilities and services. These factors will be used to determine the acreage for land dedication or the cash-in-lieu. The west service area PPHU is listed in Figure 28. Single family detached units have a household size of 2.71 persons and while the overall average is 2.40 persons per unit.

Figure 28. Persons per Housing Unit – West Service Area

Housing Type	Persons *	Housing Units *	Persons Per Housing Unit
Single Family Detached	22,185	8,193	2.71
Single Family Attached	2,786	1,375	2.03
Multifamily	5,463	3,139	1.74
Total	30,434	12,707	2.40

Source: U.S. Census Bureau, 2019-2023 5-Year American Community Survey Public Use Microdata Sample for Colorado PUMA 1301, 1501, 1601, 1602, 1603

* Note: values are responses to PUMA survey and not representative of the total population

The PPHU factors for the east service area are listed in Figure 29. Single family detached units have a household size of 2.96 persons and while the overall average is 2.83 persons per unit.

Figure 29. Persons per Housing Unit – East Service Area

Housing Type	Persons *	Housing Units *	Persons Per Housing Unit
Single Family Detached	4,527	1,530	2.96
Single Family Attached	222	104	2.13
Multifamily	223	122	1.83
Total	4,972	1,756	2.83

Source: U.S. Census Bureau, 2019-2023 5-Year American Community Survey Public Use Microdata Sample for Colorado PUMA 1401

* Note: values are responses to PUMA survey and not representative of the total population

Figure 30 compares the existing PPHU standards in the Arapahoe County LDC and results of the updated analysis. Importantly, the current program has not been updated since 1990 resulting in outdated standards. As such, differences were anticipated and shown in the results.

Additionally, noted in Figure 30, the existing program assesses the PPHU by density of the subdivision. TischlerBise recommends revising this approach to assesses by the housing type: single family detached, single family attached, and multifamily. From past experience in the Colorado Front Range, TischlerBise has found that the type of housing is a better indicator in number of persons and students in a dwelling rather than the density of a development. This is especially the case as single family detached units and lots are becoming smaller while still serving family household sizes. Furthermore, U.S. Census data based on density and lot size is limited compared to data based on the housing type.

With that said, in practice, the density groupings line up well with groupings by housing type. For example, single family attached (i.e. townhomes) will be built to a density within 7.50 to 15 units per acre while most single family detached subdivision will be less dense (0 to 7.50 units per acre).

Figure 30. Persons per Housing Unit Comparison

Persons per Housing Unit						
Residential Density	Existing Standards	Housing Unit Type	West [2]	Percent Change	East [3]	Percent Change
0.00 - 7.49 du/ac	2.96	Single Family Detached	2.71	-8%	2.96	0%
7.50 - 14.99 du/ac	2.39	Single Family Attached	2.03	-15%	2.13	-11%
15.00 du/ac and above	1.76	Multifamily	1.74	-1%	1.83	4%

[1] Source: Current Arapahoe County Land Development Code, Population and Student Generation

[2] Source: U.S. Census Bureau, 2019-2023 5-Year American Community Survey Public Use Microdata Sample for Colorado PUMA 1301, 1501, 1601, 1602 and 1603

[3] Source: U.S. Census Bureau, 2019-2023 5-Year American Community Survey Public Use Microdata Sample for Colorado PUMA 1401

STUDENT GENERATION RATES

Demand for additional school facilities will be generated by new residential development. To determine the level of this demand, student generation rates are used as the “service unit” for the school land portion of the Land Dedication Program. The term “student generation rate” (SGR) refers to the number

of public school students per housing unit within the Arapahoe County western and eastern school districts. These factors will be used to determine the acreage for land dedication or the cash-in-lieu.

Student generation rates for Cherry Creek and Aurora School Districts were provided for the study by the districts. These rates were derived from an analysis of housing units and student residences in the E-470 area. Given the reliability of the data, these student generation rates are assumed across the entire west service area. Figure 31 shows that a single family detached unit is estimated to generate a total of 0.678 students (0.267 in elementary, 0.165 middle, and 0.246 high students).

Figure 31. West Service Area Student and Housing Responses

	Housing Unit Type		
	Single Family Detached	Single Family Attached	Multifamily
Elementary	0.267	0.151	0.133
Middle	0.165	0.102	0.061
High	0.246	0.132	0.093
Total	0.678	0.385	0.288

Source: School District analysis of housing units and student location

Student generation rates for Bennett Public School District, updated in 2021 and adopted in 2022, were provided for the study by Western Demographics. Given the relative homogeneity of the east service area, student generation rates for Bennett Public School District are assumed across the entire east area. Figure 32 indicates that a single family detached unit is estimated to generate a total of 0.600 students (0.290 in elementary, 0.150 middle, and 0.160 high students).

Figure 32. East Service Area Students by Housing Unit Type

	Housing Unit Type		
	Single Family Detached	Single Family Attached	Multifamily
Elementary	0.290	0.140	0.070
Middle	0.150	0.060	0.030
High	0.160	0.080	0.040
Total	0.600	0.280	0.140

Source: Bennett School District Student Generation Rates, 2022, Provided by Western Demographics

Below in Figure 33 are the existing standards in the Arapahoe County LDC and results of the updated analysis. Importantly, the current program was implemented in 1990 resulting in outdated standards. As such, differences were anticipated. The national trend of households having less children and increased housing prices can be observed in the decreased SGR for single family detached units.

Additionally, noted in Figure 33, the existing program assesses the SGR by density of the subdivision. TischlerBise recommends revising this approach to assesses by the housing type: single family detached, single family attached, and multifamily. From past experience in the Colorado Front Range, TischlerBise has found that the type of housing is a better indicator in number of persons and students in a dwelling rather than the density of a development. This is especially the case as single family detached units and

lots are becoming smaller while still serving family household sizes. Furthermore, U.S. Census data based on density and lot size is limited compared to data based on the housing type.

With that said, in practice, the density groupings line up well with groupings by housing type. For example, single family attached (i.e. townhomes) will be built to a density within 7.50 to 15 units per acre while most single family detached subdivision will be less dense (0 to 7.50 units per acre).

Figure 33. Students per Housing Unit Comparison

Students per Housing Unit						
Residential Density	Existing Standards [1]	Housing Unit Type	West [2]	Percent Change	East [3]	Percent Change
0.00 - 7.49 du/ac	0.775	Single Family Detached	0.678	-13%	0.600	-23%
7.50 - 14.99 du/ac	0.364	Single Family Attached	0.385	6%	0.280	-23%
15.00 du/ac and above	0.195	Multifamily	0.288	47%	0.140	-28%

[1] Source: Current Arapahoe County Land Development Code, Population and Student Generation

[2] Source: Cherry Creek and Aurora School District analysis of housing units and students in E-470 corridor

[3] Source: Bennett School District Student Generation Rates, 2022, Provided by Western Demographics

BASE YEAR HOUSING UNITS AND POPULATION

Base year population and housing is derived from the U.S. Census Bureau 2023 ACS 5-Year Estimates plus growth projections from the Denver Regional Council of Governments (DRCOG) Small Area Forecasts. Shown in Figure 34 the base year population estimate for unincorporated Arapahoe County is 97,911. Housing mix and PPHU factors are used to estimate base year housing units leading to an estimate of 24,826 single family units and 13,511 multifamily units.

Figure 34. Base Year Housing Units and Population

Arapahoe County, CO Unincorporated	Base Year 2025
Population [1]	97,911
Housing Units [2]	
Single Family [3]	24,826
Multifamily	13,511
Total Housing Units	38,336

[1] U.S. Census Bureau, 2023 American Community Survey 5-Year Estimates, Tables: B23024 and B25033, DRCOG Small Area Forecast, TischlerBise analysis

[2] Housing units based on population growth and PPHU factors

[3] Includes attached and detached single family homes and mobile homes

NEW RESIDENTIAL CONSTRUCTION TREND

To illustrate residential development trends in the unincorporated county, Figure 35 lists the past four years of new construction. Over the past four years, there has been a total of 1,695 housing units, 1,185 single family units and 510 multifamily units. This leads to a yearly average of 424 housing units, the majority being single family housing.

Figure 35. Annual New Construction by Housing Type – Whole Unincorporated County

Housing Type	2021	2022	2023	2024	4-Year Total	4-Year Average
Single Family	460	239	201	285	1,185	296
Multifamily	-	-	449	61	510	128
Total	460	239	650	346	1,695	424

Source: Arapahoe County Planning and Land Development Department

To further illustrate residential development trends, Figure 36 and Figure 37 show the past four years of new construction within the west and east service areas. Over the past four years there has been a total of 1,343 units added in the unincorporated areas of the west service area, 833 single family units and 510 multifamily units. This leads to an average of 336 housing units being added annually.

Figure 36. Annual New Construction by Housing Type – West Service Area

Housing Type	2021	2022	2023	2024	4-Year Total	4-Year Average
Single Family	430	100	96	207	833	208
Multifamily	-	-	449	61	510	128
Total	430	100	545	268	1,343	336

Source: Arapahoe County Planning and Land Development Department

There has been less development in the east service area. Over the past four years there has been a total of 352 units added with all of them being single family units. This leads to an average of 88 single family units being added annually to the unincorporated areas of the east service area.

Figure 37. Annual New Construction by Housing Type – East Service Area

Housing Type	2021	2022	2023	2024	4-Year Total	4-Year Average
Single Family	30	139	105	78	352	88
Multifamily	-	-	-	-	-	-
Total	30	139	105	78	352	88

Source: Arapahoe County Planning and Land Development Department

HOUSING UNIT AND POPULATION PROJECTIONS

Past housing construction trends are assumed to continue through the next ten years. The annual average totals are included in the projections to estimate housing growth in the unincorporated county. As a result, there are 4,238 new housing units projected in the unincorporated county over the next ten years, broken down into 2,963 single family units and 1,275 multifamily units.

Population growth is estimated based on housing development and PPHU by housing type. Enrollment is not available for students specifically in unincorporated areas of school districts. Net new enrollment is calculated with new housing units and student generations rates discussed in an earlier sections. Based on the housing development, population in the unincorporated county is estimated to grow by 10,365 residents or 11 percent. Additionally, based on the housing development there is a projected increase of 2,306 students.

Figure 38. Residential Development Projections – Whole Unincorporated County

Arapahoe County, CO Unincorporated	Base Year 2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Total Increase
Population [1]	97,911	98,948	99,984	101,021	102,058	103,094	104,131	105,167	106,204	107,240	108,277	10,365
Net New Students [2]	-	231	461	692	922	1,153	1,383	1,614	1,845	2,075	2,306	2,306
Housing Units [3]												
Single Family	24,826	25,122	25,418	25,714	26,011	26,307	26,603	26,899	27,196	27,492	27,788	2,963
Multifamily	13,511	13,638	13,766	13,893	14,021	14,148	14,276	14,403	14,531	14,658	14,786	1,275
Total	38,336	38,760	39,184	39,608	40,031	40,455	40,879	41,303	41,726	42,150	42,574	4,238

[1] Population projections are based on housing growth and PPHU factors

[2] Enrollment is not available for students in unincorporated areas of school districts. Net new enrollment is calculated with new housing units and student generations rates.

[3] Housing projections are based on building permit trends provided by Arapahoe County Planning and Land Development Department

The population and housing projections are broken down further by service area. In the west service area, over the next ten years there is a projected increase of 3,358 housing units. Based on the housing development, population in the area is estimated to grow by 7,862 residents, 9 percent. Additionally, based on the housing development there is a projected increase of 1,778 students in the unincorporated areas.

Figure 39. Residential Development Projections – West Service Area

Arapahoe County, CO Unincorporated West	Base Year 2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Total Increase
Population [1]	91,039	91,825	92,611	93,397	94,183	94,970	95,756	96,542	97,328	98,114	98,901	7,862
Net New Students [2]	-	178	356	533	711	889	1,067	1,244	1,422	1,600	1,778	1,778
Housing Units [3]												
Single Family	23,031	23,240	23,448	23,656	23,864	24,073	24,281	24,489	24,697	24,906	25,114	2,083
Multifamily	12,592	12,720	12,847	12,975	13,102	13,230	13,357	13,485	13,612	13,740	13,867	1,275
Total	35,623	35,959	36,295	36,631	36,966	37,302	37,638	37,974	38,309	38,645	38,981	3,358

[1] Population projections are based on housing growth and PPHU factors

[2] Enrollment is not available for students in unincorporated areas of school districts. Net new enrollment is calculated with new housing units and student generations rates.

[3] Housing projections are based on building permit trends provided by Arapahoe County Planning and Land Development Department

In the east service area, over the next ten years there is a projected increase of 880 housing units. Based on the housing development, population in the area is estimated to grow by 2,605 residents, 38 percent. Additionally, based on the housing development there is a projected increase of 528 students in the unincorporated areas.

Figure 40. Residential Development Projections – East Service Area

Arapahoe County, CO Unincorporated East	Base Year 2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Total Increase
Population [1]	6,873	7,133	7,394	7,654	7,915	8,175	8,436	8,696	8,957	9,217	9,478	2,605
Net New Students [2]	-	53	106	158	211	264	317	370	422	475	528	528
Housing Units [3]												
Single Family	1,746	1,834	1,922	2,010	2,098	2,186	2,274	2,362	2,450	2,538	2,626	880
Multifamily	935	935	935	935	935	935	935	935	935	935	935	-
Total	2,681	2,769	2,857	2,945	3,033	3,121	3,209	3,297	3,385	3,473	3,561	880

[1] Population projections are based on housing growth and PPHU factors

[2] Enrollment is not available for students in unincorporated areas of school districts. Net new enrollment is calculated with new housing units and student generations rates.

[3] Housing projections are based on building permit trends provided by Arapahoe County Planning and Land Development Department

APPENDIX B. PUMA MAPS

Below are maps illustrating the PUMAs used in the demographic analysis. Importantly, although the boundaries of the PUMAs are not coterminous with the Arapahoe County school district boundaries it is assumed that the neighboring areas are demographically similar, thus, an appropriate proxy.

Figure 41. PUMAs Used for West Service Area

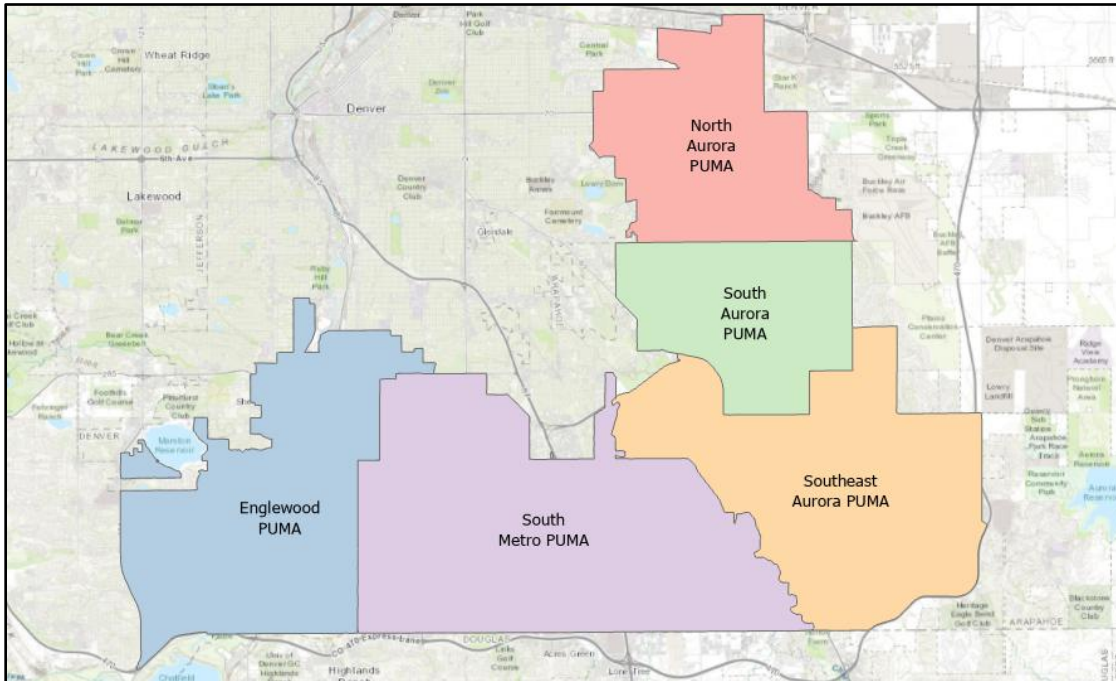


Figure 42. PUMAs Used for East Service Area



APPENDIX C. CITATIONS

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