TOGETHER 2045

Bismarck's Comprehensive Plan

RURAL DEVELOPMENT TIMING

Policy Options for Rural Development within Urban Growth Corridors

December 2, 2021

A perennial issue faced by the City of Bismarck, and many other growing cities, is determining how to preserve land on the periphery of the city for future urban growth while also allowing reasonable interim use of the land by rural property owners. The purpose of this report is to explore this dilemma and compare several different alternative strategies that have been attempted in various communities as a resolution.

Framing the Development Timing Issue

In a common scenario, a landowner wishes to develop land outside of city limits that is not yet serviceable as an urban development but will likely be in the future – perhaps in five, or maybe twenty years, depending on unknown market forces. If the land is developed immediately as a lower-intensity rural subdivision, the future potential for a higher-intensity urban development is functionally precluded. More importantly, the urban development potential for land around and beyond this site is also likely diminished, because city roads and pipelines become marginally less efficient (and justifiable) because they must circumvent this rural site. Cumulatively, the practice of allowing non-urban uses within growth corridors is likely to result in highly inefficient, and thus costly, urban infrastructure over time.

Furthermore, future land use compatibility concerns arise as residents who intentionally purchased a rural home find themselves surrounded by urban growth. This typically generates political opposition to urban development, especially more intensive uses such as commercial or multifamily residential, which diminishes the efficiency of land use patterns, distorts real estate markets, and drives up costs for city taxpayers.

In North Dakota, cities have extraterritorial zoning jurisdiction and thus can exert some control over future development corridors outside of city limits. Nevertheless, cities face pressure from landowners within this area who wish to make use of their land in the short-term, rather than wait until urban development is available. This is especially true in areas where annexation could be a long range into the future or uncertain to some degree.

This report focuses on rural residential development, but the issue also apply to industrial storage sites, substations, or institutional uses such as churches or schools. However, these sites are often owned by single entities, are more likely to redevelop when future services are available, tend to be on larger lots, and lack the sensitivity to surrounding development common to residential areas. Although many of the general concepts still apply, these sites may be more likely to be absorbed into city limits in the future.

Potential Solutions

The development timing question has been discussed in Bismarck for many years and was a dominant theme in both the 2003 and 2014 Growth Management Plans. The purpose of this report is to outline various strategies that have been employed locally and by other jurisdictions, with the ultimate goal of selecting a preferred direction, or set of policies, for the Together 2045 Comprehensive Plan.

Strategy A: Rural Build-Out

Under this strategy, rural residential developments are permitted within growth corridors of the city at any density allowed by the zoning districts – typically 1.5-to-3-acre lot sizes. However, provisions are made during the initial subdivision review for future build-out of the subdivision at urban densities. The recorded plat includes future lot lines, rights-of-way, and easements that do not have immediate legal bearing but would show conditions that would take effect when the property is annexed. This practice, sometimes known as “ghost platting” or “shadow platting,” was practiced in Minnesota, Wisconsin, and North Dakota and potentially other states.

Under this strategy, engineering studies for future urbanization would be required, including future urban roadway profiles, stormwater plans meeting city standards, and utility servicing plans for eventual municipal water and sewer connections. Furthermore, all private water lines would need to be installed to city standards at initial development, so the city can assume ownership once urbanized. In some communities, a similar practice was attempted by platting at urban density but requiring “lot bundling” with deed restrictions on selling or building a lot individually until urbanized.

Rural Build-Out was the strategy selected in the 2003 Growth Management Plan, and it has been practiced in Bismarck in some form since the 1960s. It was formalized into the zoning ordinance after the 2003 plan and remains an ordinance requirement within the Urban Service Area Boundary of Bismarck’s Extraterritorial Area.

In theory, the Rural Build-Out strategy solves the dilemma by allowing both short-term rural use and longer-turn urbanization of the land, with the only real cost being the initial planning and design required in advance to ensure a smooth build-out transition.

In practice, Bismarck staff have encountered numerous problems with this approach. There are technical difficulties involved in designing a stormwater system that functions with rural street sections and can easily be adapted to an urban stormwater system. Such a transition would often require significant grading, which is hindered by the need to preserve the existing rural residences. Furthermore, streets may require complete reconstruction and even realignment of rights-of-way. The physical urbanization of the development is complicated by the need for the rural residences to remain occupied.

There is no single entity to initiate and achieve such a transition to an urban subdivision. Building a consensus among potentially hundreds of different landowners is challenging, and the City is not equipped to carry out such projects even if authorized to do so. Homeowners’ Associations often lack capacity and funding for major projects. The display of future lot lines on plats can be confusing to existing homeowners and even future staff, and over time buildings or landscaping may straddle the sublots making division more difficult. In Bismarck and other jurisdictions, building permits have been erroneously issued on sublots prior to annexation.

Most importantly, the residents of a rural residential subdivision may not want to annex when the option is available. Homeowners often choose their home based on lifestyle preference, not solely as a financial investment. It has been suggested that a future annexation could be assured though an agreement between the initial developer and the City. However, courts in

Figure 1: Excerpt from Western Hills (1986)

other states have not allowed such annexation agreements to be binding on future owners, and this approach may not be acceptable in North Dakota either. Even if legal, it may be politically difficult for elected officials to force residents into the City against their will, at which point they immediately become voters.

After utilizing some form of Rural Build-Out for over fifty years, Bismarck has never had a rural plat successfully transition fully into an urban subdivision. The closest example is the plat of Western Hills, which was recorded in 1986 as rural lots each with three or four future urban sublots shown. This subdivision remained essentially undeveloped until it was largely replatted as part of the Horizon Heights development in the late 1990s. Only one home in Western Hills had been built by the time the city limits reached the boundaries, and that one home was built across a sublot line. Nevertheless, one other sublot was divided as intended to allow one additional residence.

Bismarck's very limited completion of Rural Build-Out suggests that this strategy has marginal real-world application. The practice can be conceptually helpful but wholesale redevelopment into urban lots, especially in larger rural subdivisions, should not be relied upon for planning within growth corridors.

Strategy B: Rural Cluster

The Rural Cluster strategy allows development to occur in the rural areas but only if clustered together at urban densities, typically greater than three dwellings per acre. The clusters are served by a centralized sewer system and water lines are built to city standards and serviced by the rural water district. Once the city limits approach the rural cluster, the subdivision may be annexed into the city with only minimal physical changes necessary. The private wastewater treatment system (e.g., package plant) is decommissioned and the outflow is connected to the municipal sanitary sewer system.

Rural clusters are recognized in Bismarck's 2014 Growth Management Plan and assigned to certain areas, primarily those with high topographical constraints, but the strategy of eventual urbanization of the clusters is not addressed in the plan. Past examples in the region are Imperial Valley and subdivisions around Hawktree Golf Course, which remain rural with no expectations to be annexed in the future, and Fort Lincoln Estates, which was separately incorporated into the City of Lincoln. There are no examples of a rural cluster being annexed into Bismarck.

Much like the Rural Build-Out strategy, the Rural Cluster strategy is presented as a “win-win” solution to the dilemma. The rural landowner is allowed immediate and full development of the land, while the City achieves full utilization of infrastructure in the future.

However, this strategy also faces practical difficulties. The City of Bismarck would be taking a risk by assuming ownership of private roadway, sewage, and water facilities. The City does not have jurisdiction to inspect and approve facilities outside of city limits, and even if they could be assured to meet city standards at time of installation there is no way to ensure they have been properly maintained by a private association. There is less incentive for a private association to adequately invest in the facilities if it is known in advance that the City will be the future owner.

The residents of the Rural Cluster may also resist annexation once it is available, even if the overall character of the development would not change. Unlike the Rural Build-Out strategy, there is no financial incentive to individual homeowners to split and sell sublots. Annexation would likely only be desired if the cost of maintenance and operation of the sewage treatment and other private facilities exceeded costs associated with the annexation assessed to the residents.

Finally, there may be a mismatch between the design features desired by the initial buyers of the rural cluster and the preferred design of the eventual urban neighborhood. Features that create a desirable urban neighborhood, such as sidewalks, narrow streets, street lighting, street trees, neighborhood parks, and other amenities may be considered too costly by the rural developer, and the private association may be not have the capacity to own and operate such amenities. Retrofitting these amenities into the development upon annexation results in the same challenges outlined above in the Rural Build-Out strategy.

A modified version of this strategy would be to require full installation of all urban infrastructure up front in a rural development, but it would remain unused, or “dry,” until future annexation. This strategy has many of the drawbacks listed above, with the additional problem that unused pipelines deteriorate at a faster rate than those that are in use. Communities only utilize this variation of the strategy in areas where utilization of the dry pipelines can be expected in the immediate future.

Strategy C: Urban Reserve

The Urban Reserve strategy allows a fixed proportion of a rural tract of land to be developed at conventional rural residential densities, approximately 1.5 - 3 acres per dwelling, while reserving the remainder of the tract for future urbanization or natural conservation, depending on the characteristics of the land. The reserved land is then legally protected though a deed restriction or agreement that only allows development once annexation and city services are available.

The Urban Reserve strategy functions as a compromise to the dilemma. The City accepts a certain degree of future inefficiency, cost, and controversy that may result from urbanizing around a smaller rural residential subdivision, while the rural landowner accepts that only a portion of the land may be developed in the short-term.

This strategy, labeled “Build Through Acreage” or BTA, was adopted through Bismarck’s 2014 Growth Management Plan but has not been formally implemented into the zoning ordinance. Under Bismarck’s BTA, about 25% to 30% of a tract of land at least 40 acres in size could be developed as rural residential permanently, with certain bonuses allowed for conservation or using a central sewer system. The remainder outlot is preserved, and a master plan for urban development is submitted with a subdivision agreement to be triggered upon future annexation. The City of Williston is developed a similar policy, allowing rural residential lots on half of a tract of land and reserving the other half for urban development. The developed would be required to show potential lots and infrastructure in the urban reserve area.

Although this is the current adopted strategy for areas identified as Urban Reserve on the Future Land Use Plan, to date no rural landowners in Bismarck’s Extraterritorial Area have elected to utilize Build Through Acreage, so City staff have no real experience with either the initiation or completion of this strategy.

Figure 2: Sketch of Build Through Acreage Concept from 2014 Bismarck Growth Management Plan

There is no clear means to guarantee that the land set aside for future urbanization will remain open. A deed restriction or annexation agreement may not be legally valid if the property is transferred to new owner, as discussed in the previous section. If the land is restricted through zoning, the zoning could be changed at any time through one action by the future Commission to allow development. By all measures, the implementation will depend on sustained political will to preserve the outlots.

Several cities and counties in Nebraska have used this approach to growth management, and the cities of Lincoln and Omaha both adopted overlay zoning districts for Build Through Acreage approximately fifteen years ago (although it’s worth noting that the Lincoln’s 2050 Comprehensive Plan currently in process moves away from this strategy). In all cases, including Bismarck’s plan, it is only applied to areas outside of a projected 20-to-25-year urban growth area.

In Lincoln, Nebraska, the rural residential subdivision of Sunrise Estates was approved in 1993, under build-through-acreage provisions, on the eastern fringes. Approximately thirty rural residential lots of approximately 3 – 5 acres were permitted with a set-aside for future urban development. The annexed area of Lincoln reached this site by around 2010, and the parcels began to develop as urban residential as intended. Most recently, a rezoning was requested in

the Spring of 2020 for multifamily residential directly adjacent to the subdivision. Although this was approved, it was not without significant opposition from nearby residents, despite the fact that it met the terms of the Comprehensive Plan and was designated for eventual urban redevelopment even at the time of initial development.

Figure 3: Sunrise Estates Example of BTA in Lincoln, NE

The Urban Reserve strategy appears to be practically viable, provided a legal mechanism for preservation can be determined and the political will exists for future elected officials to abide by the Comprehensive Plan. However, it is a less than ideal solution for all parties, given that there is no expectation that the rural lots would urbanize in the future. Therefore, it is typically applied to areas with only longer-term annexation potential.

Strategy D: Large-Lot Rural

The Large-Lot Rural strategy limits the densities of any development within the growth corridors outside of the city, typically to lot sizes between 10 and 40 acres. No future build-out plans or agreements to transition into an urban area are required.

The Large-Lot Rural strategy is very common in growing metropolitan areas, including other major cities in North Dakota. The City of Fargo limits rural lot sizes to 10 acres in any areas expected to urbanize in the next 50 years. These lands are all currently in the AG – Agricultural zoning district, and rezonings to alternative districts are not supported. The City of Grand Forks limits rural residential development to 40 acre lots within their ETA. City officials place an especially high value in reserving land for urban growth because of the city's investment in a flood protection system. Both Fargo and Grand Forks established these policies in their plans and regularly abide by the plans in rural land use decisions.

The basic premise of the Large-Lot Rural strategy is that larger lots are more easily subdivided into urban densities than smaller lots once services are available. The rural landowner is provided a limited use of the land in the interim period, in exchange for the potential for more intensive utilization in the future.

This growth management technique is also commonly used in rural areas that have no intention of urbanization, as means for limiting densities that conflict with agriculture and strain county services. An alternative is practiced in Morton County to allow smaller rural residential lots but establish a quota, typically four, per quarter section, with the remaining outlot legally protected

from development until future annexation. Either the quota or lot size restriction method results in a relatively low-density rural area.

The obvious question arises: what is the right lot size? A size should be selected that balances a reasonable ability to urbanize with a minimal necessary disruption to the rural landowner's current property rights. This is an empirical question that can be informed by case studies of the final stages of the transition process.

Several rural residential subdivisions, including Falcon Estates and Columbine Estates, were developed in the 1960s north of Colorado Springs to serve U.S Airforce Academy officers. The lot sizes ranged from one acre to the west to two and a half acres to the east. By the 1980s, Colorado Springs had annexed right up to the boundaries of these subdivisions.

This situation resulted in years of conflict between the rural residents, often represented by El Paso County, and Colorado Springs, which continued to grow around and beyond the subdivisions. By the 1990s, the subdivisions entered into an annexation agreement and became part of Colorado Springs. The primary reason was that the rural water provider did not have the capacity to comply with more stringent federal standards and residents were affected by traffic on arterial roads that had been constructed around and through the subdivisions.

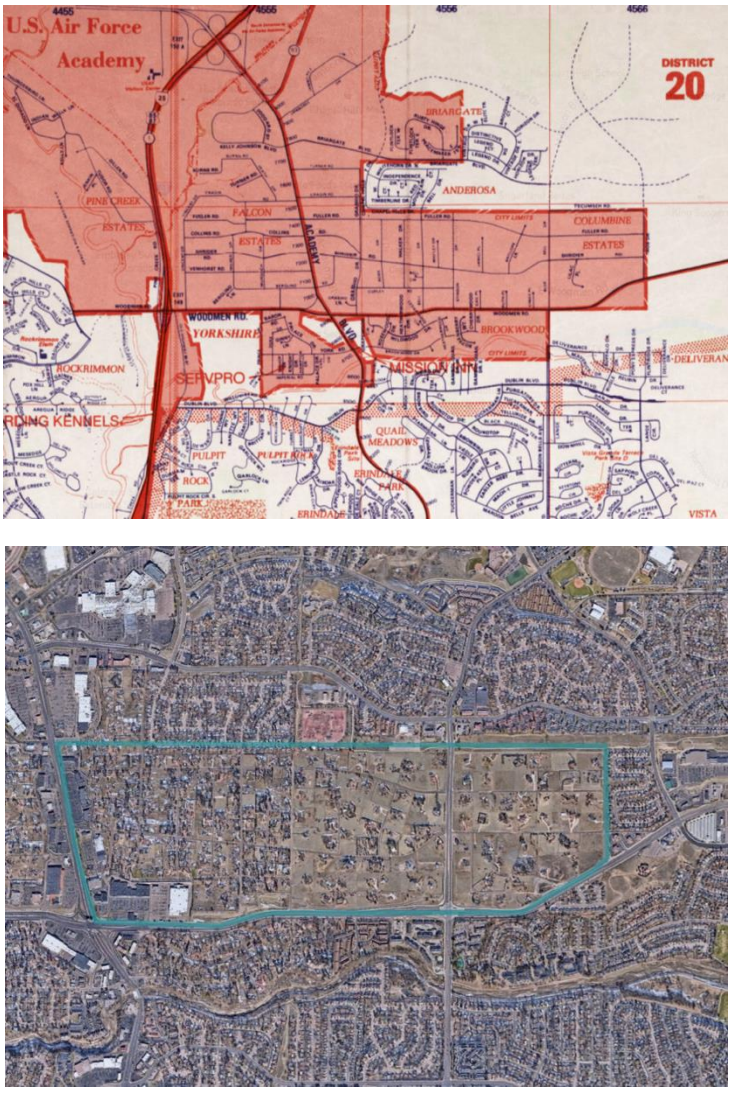

Figure 3: Rural Colorodo Springs subdivisions in 1980 map and 2021 Aerial

Colorado Springs agreed to annex "as is." No physical changes were required. The City assumed ownership of the water system and made the required upgrades. Homes remained on private septic systems on the condition that each would be required to connect to the municipal sewer at the owner's expense upon failure. The streets were already paved, but no curb and gutter or sidewalks were required. Horses are still allowed, to this day.

In 2021, the city limits extend more than six miles beyond these once rural subdivisions to the north. The

surrounding area is developed at urban density, with much higher residential real estate values per square foot of land, which suggests there would be economic pressures to subdivide the larger lots. However, the vast majority of the development has remained unchanged. The exception is a commercial corridor along a major arterial roadway. Several of the one-acre residential lots adjacent to an arterial street were combined and redeveloped into commercial lots. This suggests both a push and pull effect. The growing traffic likely depressed these residential lot values, while also creating greater potential for commercial value. At some point these economic forces were strong enough to overcome the complexity and disruption of land assembly.

Another case study of Cherry Hill Village and neighboring Greenwood Village, CO also displays the limits of rural redevelopment by lot size. These cities in the Denver metropolitan area were incorporated in the 1940-50's. By this time, the urbanized area of the city was beginning to encroach upon country homes used by affluent Denver residents. The residents incorporated for the purpose of enacting large-lot zoning. Although Denver sought to annex these areas in the 1970s, the smaller Greenwood and Cherry Hill prevailed in the Colorado State legislature, effectively blocking southern expansion of Denver.

The initial zoning established 2.5 acre minimum lot sizes for a majority of Cherry Hill Village. Greenwood Village used 2.5 acres, then 5 acres and 10 acres, from west to east. The lot size was set on the grounds of allowing private septic systems and groundwater wells on a lot, with the expectation of remaining "semi-rural" neighborhoods. The practice of large-lot zoning on the metropolitan fringe was common in the U.S by the 1950s. Leading experts in planning questioned the health need, and thus the legality, for extreme lot size restriction, so most zoning ordinances did not restrict to larger than one acre. Although Greenwood Village was sued several times by farmers who called the restrictions unreasonable, they were upheld in court.

Today the majority of the 2.5 acre lots remain as is, although they are well within the Denver metropolitan area and surrounded by much higher densities. Water is provided by a local water district, which is purchased from Denver water. Several sanitary sewer districts provide services to the area, although many of the large-lot residences remain on private septic systems. An ordinance requires connection to a public system, if public health is threatened, and the Greenwood Village Comprehensive Plan suggests a more systematic transition to public sewer for the rural residential lots.

However, the very large original 10-acre lots on the east side of Greenwood Village redeveloped very quickly, starting in the 1960s, into one-acre lots in most cases, or a commercial corridor along Interstate 25. The current Greenwood Village Comprehensive Plan sets the goal of the neighborhoods remaining rural in character and discouraging any further subdivision.

Bismarck has direct experience with redevelopment of a rural subdivision with lot sizes of 4 to 10 acres. KMK Estates was platted in 1966 about three miles north of Bismarck. In the early 1990s, the largest lots on the west side were assembled, replatted, and annexed into an urban density subdivision. This was completed as a wholesale redevelopment with a new street network. For the next thirty years, rural lots were replatted periodically, as initiated by each

landowner on an individual basis. In general, a four-acre lot could yield 15 detached single-family homes, 26 attached twinhomes, a church, or a small commercial center.

There are some important and unique factors that contributed to the urbanization of KMK Estates. The rural residences were served by private wells, which made the prospect of connecting to city water more attractive than if they were already served by a rural water provider. A few urban subdivisions were initiated as a direct result of well failure. Secondly, the subdivision roads connected to the city on multiple sides, which generated through traffic on the gravel roads and associated dust nuisance. After subdivision residents first rejected a city-initiated attempt to annex KMK Estates in 2006, an agreement was reached to annex in exchange for the City, County, and Township participating in paving the roadways. The annexations eventually took effect in 2014.

Figure 4 The 1966 rural plat of KMK Estates and 2020 aerial

The piecemeal approach has been relatively effective, but also includes some complications. Road stub-outs were provided temporarily until an adjoining lot urbanized, and several of these are still disconnected. Streets remain rural in nature, even with a heavier traffic load. The City has collected petitions from property owners to improve the roadways upon development but has yet to arrive at sufficient support for a roadway improvement project. Private streets have often been used for internal street networks to fit within constrained space. Stormwater management must account for both the temporary rural street sections and ultimate plans for urban storm sewer. In some cases, the original home could be included in the new subdivision, but in other cases it has to be removed.

Finally, tax assessments for rural lots in city limits are challenging. An assessment based on potential for future development may accurately reflect market value but also can appear punitive to existing homeowners who do not intend to redevelop. Even three decades into the process, the transition to a full urban neighborhood is only about 75% complete.

Bookends of the Spectrum

All of the strategies presented in this report exist somewhere in the middle of a spectrum ranging from most restrictive to most permissive. The extreme positions on both sides can be explained to help frame the spectrum, although clear shortcomings are evident in both.

The most restrictive approach would be to limit all development in rural areas until city services may be available, at some undefined time in the future. This approach may face legal challenges. The U.S. Constitutions requires just compensation for any taking of private property by a government, and courts have asserted that a regulation that categorically excludes all economic value of land may constitute such a taking. Although temporary complete prohibitions, such as moratoria, have been accepted as reasonable uses of police powers, the general rule is that such temporary restrictions should be defined and not excessively long. Takings jurisprudence can be difficult to predict, but a complete prohibition of rural development may be considered “too far” by courts.

The other extreme would be to allow unrestricted rural development throughout the extraterritorial area, perhaps only applying basic life safety measures. This could be done by either forgoing control within the Extraterritorial Area completely or adopting a laissez-faire policy to subdivision and zoning approval within this area.

Without zoning, rural landowners within growth corridors would likely adopt different approaches. Some may elect to hold their property and wait until higher returns may be achieved though urban development, while others may elect to develop immediately at lower non-urban densities. This situation is known in game theory as the “prisoners’ dilemma.” While all parties would mutually benefit by waiting for eventual urbanization, each party has an individual incentive to develop at rural densities first before being blocked from development by another landowner. Without any form of central coordination, the suboptimal outcome for all parties of restricting urban growth is likely to occur.

The barrier of rural residential subdivisions may function as a *de facto* urban growth boundary around Bismarck. While it’s possible this may compel greater infill and redevelopment within the existing footprint of the city, it would more likely lead to the emergence of an ersatz patchwork of private associations or smaller municipalities that serve individual development sites on the periphery of the metropolitan area.

Many cities in the United States have accepted the station of never growing in land area. This is the case in older cities within metropolitan areas with fragmented municipal governance, cities with steep population decline, and cities in states that have severely restricted annexation. Cities with healthy and growing economies often report challenges faced by such fragmentation, because the economies of scale in infrastructure and planning coordination are much more difficult to achieve with multiple parties in regional competition. While some of these challenges can be addressed by regional governance bodies, most effectively orchestrated through state law, the complexities could be avoided by preventing the fragmentation from occurring in the first place.

Conclusion

Lessons may be drawn from these case studies. First, rural residential lots of 1 - 2.5 acres are unlikely to redevelop into urban residential lots, even under high levels of economic pressure. Lots of this size cannot be economically divided individually, and the cost of coordination between multiple lot owners for land assembly is too high to justify residential development. Commercial redevelopment is more likely under certain conditions, but not without many years of considerable disruption to existing residents. Lot sizes of 5 – 10 acres may urbanize under certain circumstances, but most likely incrementally over several decades and with some interim mismatch in services and identity. On the other hand, lots in the range of 10 acres or more are more likely to redevelop once urban services are available

Many communities will apply different strategies to different areas surrounding the City, depending on the expectation for future urbanization or other natural characteristics or the land. Each strategy can be linked to a Future Land Use Plan or a Growth Phasing Plan that provides guidance on which policy to follow.

The purpose of this report is to provide background information and to frame the question in a rational way to facilitate a community dialogue on the best approach for Bismarck. It is anticipated that the Together 2045 Comprehensive Plan will identity a strategy or strategies to set community expectations for fair and consistent urbanization of the extraterritorial area.

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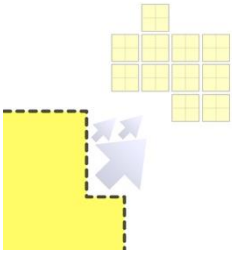
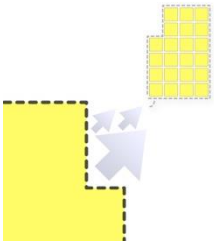
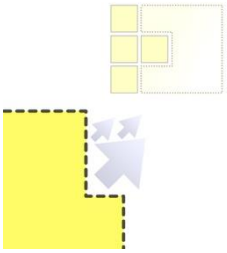
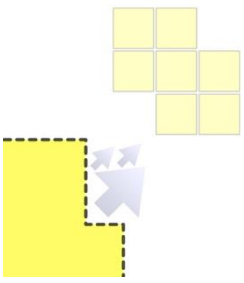
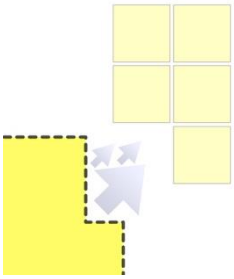
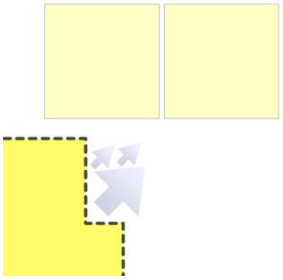
Summary and Evaluation of Strategies

Strategy		Summary	Pro	Con
Rural Build-Out		Rural subdivisions are permitted at moderate densities (1-3 acre lots). Build-out plans are required for future urbanization, including “ghost platting” and urban utility servicing.	If implemented, interim rural use and ultimate urban use are both realized.	Implementation faces economic, political, and engineering barriers. No examples of success. Likely result is inefficient growth patterns
Rural Cluster		Rural subdivisions are clustered into urban densities (3-4 lots/acre) and serviced with privately-owned common systems. By agreement, subdivision annexes in the future when available and connected to municipal services.	If implemented, interim use at urban densities and ultimate urban use are both realized.	Difficult to assure that private infrastructure is installed and maintained to City standards. No clear legal mechanism to require annexation. Full urban amenities are unlikely supported.
Urban Reserve		Rural subdivisions of moderate density are allowed on portion of a larger tract, but other portions of the tract are reserved and protected for future urbanization.	Limited interim use of land as a rural subdivision, and moderately efficient use of urban land upon annexation	Compromise is suboptimal for both rural landowner and City. Need to assure land is legally protected. Complex administration.
Rural Large Lot – 5 Acre		Rural development may occur with a 5-acre minimum lot size. Future subdivision is presumed when urbanization is available.	Limited interim rural use and ultimate urban use are realized. Easy to administer.	Redevelopment is likely to occur but over many years, and with some inefficiencies and conflict.

Rural Large Lot – 10 Acre		Rural development may occur with a 10-acre minimum lot size. Future subdivision is presumed when urbanization is available.	Redevelopment is likely to occur relatively easily. Interim rural uses allowed. Easy to administer.	Rural landowner somewhat limited in rural residential use.
Rural Large Lot – 40 Acre		Rural development may occur with a 40-acre minimum lot size. Future subdivision is presumed when urbanization is available.	Minimal disruption to future urban development. Only strategy that allows legitimate agricultural uses in the interim. Easy to administer.	Very limited interim residential use by rural landowners.