



AGENDA MEMORANDUM

To: Honorable Mayor and Members of Town Council

Through: David L. Corliss, Town Manager

From: Tara Vargish, PE, Director, Development Services
Brad Boland, AICP Planning Manager, Development Services
Ashlynn Miller, Planner 1, Development Services

Title: Discussion/Direction: Drone Retail Delivery Regulations

Executive Summary

Commercial drone retail delivery is an emerging land use issue for many local governments. The Town of Castle Rock recently received a pre-application inquiry for a drone delivery operation at the Walmart located at 133 Sam Walton Lane. The proposed operation would be associated with Walmart and Wing and would provide last-mile delivery of small retail items from launch facilities located on the store property.

Local authority over drone delivery is limited. The Federal Aviation Administration (FAA) regulates airspace, aircraft operations, flight paths, altitude, and in-flight noise. As a result, the Town's primary regulatory authority is generally limited to the land use and site-related aspects of the operation, including where launch and landing infrastructure may be located, how the site is designed, what review process is required, and what locally permissible standards should apply to ground-based facilities.

Several communities have recently considered drone delivery facilities with varying outcomes. These examples demonstrate that local governments should address land use compatibility, siting, and approval processes before operations begin. Once a drone delivery operation is approved and active, a municipality may have limited ability to address concerns related to flight activity, noise, and overflights because those matters are generally regulated at the federal level.

Staff is not presenting a proposed ordinance at this meeting. The purpose of this item is to provide Town Council with background information, identify potential regulatory considerations, and receive direction on whether staff should continue researching the issue and return with a draft ordinance for future Town Council consideration.

Staff recommends that Town Council direct staff to proceed with additional research and bring forward an ordinance establishing a local review process and land use standards for drone retail delivery facilities consistent with the Council discussion.

Background

Pre-Application Inquiry

The Town recently received a pre-application inquiry for a drone delivery operation at the Walmart located at 133 Sam Walton Lane. The inquiry contemplates a retail delivery operation using autonomous drones launched from pads or related equipment located in the existing Walmart parking lot or on the Walmart property. The delivery model is generally intended to provide delivery of small items within a limited radius of the participating store, with deliveries typically completed in a short timeframe.

Because drone retail delivery is a relatively new use and is not specifically addressed in the Town's municipal code or in any PD specific zoning regulations, staff believes it is appropriate to seek Town Council direction before proceeding further with any formal land use process.

Federal Regulatory Framework

The FAA regulates the national airspace system and has primary authority over drone aircraft operations. Local governments generally cannot regulate flight paths, altitude, aircraft operation, in-flight noise, or where a drone may fly once it is airborne. Those issues are typically addressed through federal rules, approvals, and complaint processes. This limits the Town's ability to respond to certain concerns after a drone delivery facility begins operating. For example, if residents experience concerns related to flight frequency, overflights, or noise from drones while in flight, the Town may have limited authority to impose new restrictions after the land use has already been approved.

Municipal Regulatory Authority

While federal law limits local authority over aircraft and airspace, municipalities retain authority over traditional land use matters. For drone delivery facilities, this authority is primarily focused on ground-based infrastructure and site-related impacts, such as the location of launch and landing areas, accessory structures, screening, lighting, setbacks, and compatibility with surrounding uses.

The key land use policy question is therefore not whether the Town can regulate drones while they are in flight, but whether and how the Town should regulate the location, approval process, and site design of drone delivery facilities on private property.

Peer Community Review

Staff reviewed several communities that have recently considered or approved drone delivery facilities. These examples are useful because they show the importance of establishing local expectations before a facility begins operations.

Richardson, Texas

Richardson approved zoning regulations allowing drone operations and maintenance centers in a designated innovation district. After Amazon launched drone delivery operations, nearby residents raised concerns about noise, flight frequency, and low-altitude flights over neighborhoods. When the City later explored whether it could reverse or limit the entitlement, legal counsel advised that the zoning was valid and that attempting to remove the entitlement carried significant legal risk.

The Richardson example illustrates that, once a drone delivery operation is approved and operating, local governments may have limited ability to respond to community concerns related to flight activity. It also demonstrates the importance of considering operational intensity, site compatibility, and approval conditions before the use is authorized.

Cobb County, Georgia

Cobb County denied a Walmart/Wing drone delivery request based on land use compatibility. The proposed launch facility was located in a parking lot near single-family neighborhoods, restaurants with outdoor seating, and other potentially sensitive uses. The County framed the request as a land use decision rather than an attempt to regulate drone flight.

This example is important because it demonstrates that local governments can evaluate drone delivery facilities through traditional land use considerations, such as compatibility, site context, and impacts on nearby properties.

Lincoln County, North Carolina

Lincoln County recently considered a request to amend a conditional zoning plan to allow a drone launchpad at a Walmart store. The request generated significant public opposition, including

concerns related to noise, privacy, wildlife, and quality of life. At the time of staff's research, the matter was still active and demonstrated that drone delivery requests can generate substantial public interest before operations begin.

Town of Parker

Staff is also aware that the Town of Parker received a similar request for a drone delivery facility. Parker Town Council held a study session and directed a temporary suspension on drone delivery uses to allow additional time for research and development of appropriate regulations. Parker is expected to use that time to evaluate regulatory options and develop ordinance language specific to drone delivery facilities.

Discussion

Drone retail delivery presents a new land use issue for the Town. The technology may provide convenience for customers and may become more common as retailers expand last-mile delivery options. At the same time, the use raises questions regarding compatibility with residential neighborhoods, schools, parks, trails, outdoor gathering areas, and other sensitive land uses. Because the Town's authority is strongest before a facility is approved, staff believes it is appropriate to evaluate whether zoning regulations should be amended before accepting or processing a formal application for a drone delivery facility.

Potential Regulatory Considerations

If Town Council directs staff to prepare an ordinance, potential regulatory considerations could include:

- Defining drone retail delivery facilities as a separate land use in the Zoning Ordinance;
- Determining whether the use should require a Planned Development amendment, Use by Special Review, administrative Site Development Plan review, or another approval process;
- Establishing separation distances from residential neighborhoods and other sensitive land uses;
- Establishing setbacks for launch and landing areas from property lines, public rights-of-way, and adjacent uses;
- Requiring screening, fencing, or other design measures for ground-based equipment;
- Regulating the size, placement, and number of launch pads or related infrastructure on a site;
- Addressing lighting, equipment storage, maintenance areas, and other site-related impacts;
- Considering whether hours of ground-based facility operation should be addressed to the extent permitted by law; and
- Requiring public notice or public hearing review where appropriate.

Any ordinance would need to be carefully drafted to avoid regulating federally controlled airspace or aircraft operations. The intent would be to regulate the land use, approval process, and ground-based facilities within the Town's local authority.

Potential Approval Processes

There are several possible approaches for reviewing drone delivery facilities. A more discretionary process, such as a Planned Development amendment or Use by Special Review, would provide a higher level of public review and allow site-specific evaluation of compatibility. An administrative process could provide a more predictable path for applicants but may provide less opportunity for policy-level review and public input. Treating drone delivery as an accessory use to an existing retailer would be the least burdensome approach, but it also provides the Town with the least ability to address compatibility concerns before operations begin.

Staff is seeking Council direction on which level of review appears most appropriate for this emerging use, or whether Council would like staff to return with options for further discussion.

Ongoing Monitoring and Coordination

Staff will continue to check in with the Town of Parker regarding its process and will monitor how other Front Range communities are evaluating drone delivery regulations. Staff will also continue to track regional and national discussions related to drone delivery to better understand emerging practices, legal considerations, and potential regulatory approaches that may be appropriate for Castle Rock.

Staff Findings

Staff finds that drone retail delivery is not specifically addressed in the Town's current zoning regulations or custom Planned Development zoning regulations, and that the Town's local authority is primarily limited to ground-based land use and site-related considerations. Because the Town may have limited ability to address flight-related impacts after a facility begins operating, staff believes it is appropriate to establish a local review process and development standards before any formal application is processed.

Staff also finds that peer community experiences support a deliberate approach. Communities that addressed drone delivery as a land use compatibility issue retained a clearer local decision-making framework, while communities that approved operations without robust standards had fewer tools available after operations began.

Staff Recommendation

Staff recommends that Town Council direct staff to continue researching drone retail delivery regulations and bring forward a draft ordinance at a future Council meeting. The ordinance would be intended to define the use, establish an appropriate review process, and create land use and site design standards for ground-based drone delivery facilities, consistent with Town Council's discussion and direction.

Proposed Motions

"I move to direct staff to bring back an ordinance addressing drone retail delivery facilities as discussed tonight."

Alternative Motion:

"I move to direct staff to bring back an ordinance addressing drone retail delivery facilities as discussed tonight with the following changes _____."

Attachments

None