


DATE: October 3, 2023
TO: Honorable Mayor & City Council
FROM: Planning & Zoning Commission
VIA: Mike Bell, AICP, Development Review Manager acting as Secretary of the Planning & Zoning Commission
Christina D. Day, AICP, Director of Planning 
SUBJECT: Results of Planning & Zoning Commission Meeting of October 2, 2023

AGENDA ITEM NO. 3 - ZONING CASE 2023-014
PETITIONER: CITY OF PLANO

Request to amend Article 8 (Definitions), Article 14 (Allowed Uses and Use Classifications), Article 15 (Use-specific Regulations), and related sections of the Zoning Ordinance to allow commercial drone delivery hubs and to include provisions for advanced air mobility aircraft. Project #ZC2023-014.

APPROVED: 6-2

Speaker Card(s) Received:	Support: <u>0</u>	Oppose: <u>1</u>	Neutral: <u>1</u>
Petition Signatures Received:	Support: <u>0</u>	Oppose: <u>0</u>	Neutral: <u>0</u>
Other Responses:	Support: <u>0</u>	Oppose: <u>2</u>	Neutral: <u>2</u>

First Vice Chair Cary and Commissioner Lisle voted in opposition to the item.

RESULTS:

The Commission recommended the item for approval as follows (additions are indicated in underlined text; deletions are indicated in strikethrough text):

- Amend Section 8.200 (Terms Defined) of Article 8 (Definitions), such amended and new definitions to read as follows:**

Commercial Drone Delivery Hub (Large)

An area of land, structural surface, building, or structure with one or more designated drone staging areas for use by unmanned aircraft, including but not limited to those defined under Commercial Drone Delivery Hub (Small), to distribute commercial goods by air. This includes any appurtenant areas used or intended for use for unmanned aircraft system buildings, structures, and other facilities.

Commercial Drone Delivery Hub (Small)

An area of land, structural surface, building, or structure with one or more designated drone staging areas for use by small unmanned aircraft systems (sUAS) under 55 pounds total take-off weight or as defined in Section 44801 of Title 49, United States Code, as amended, whichever is the lesser, to

3. Amend Section 14.200 (Nonresidential Districts Use Table) of Article 14 (Allowed Uses and Use Classifications), such portions of the section to read as follows:

NONRESIDENTIAL ZONING DISTRICTS																
Use Type	Use Category	O-1 - Neighborhood Office	O-2 - General Office	R - Retail	LC - Light Commercial	CC - Corridor Commercial	UMU - Urban Mixed-Use	BG - Downtown Business/Government	CB-1 - Central Business-1	CE - Commercial Employment	RC - Regional Commercial	RE - Regional Employment	RT - Research/Technology Center	LI-1 - Light Industrial-1	LI-2 - Light Industrial-2	NBD - Neighborhood Business Design
Commercial Drone Delivery Hub (Large)	EIPS									∞ ∞				∞ ∞	∞ ∞	
Commercial Drone Delivery Hub (Small)	EIPS		∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞

4. Amend Section 14.300 (Use Table Notes) of Article 14 (Allowed Uses and Use Classifications), such note to read as follows:

Number	End Note
3	{Reserved} See Sec. 15.100

5. Amend Section 15.100 ([Reserved]) of Article 15 (Use-specific Regulations), such section to read in its entirety as follows:

Sec. 15.100 [Reserved] Commercial Drone Delivery Hubs

These regulations apply to both commercial drone delivery hub (large) and commercial drone delivery hub (small) uses, except where individually referenced.

.1 Commercial Drone Delivery Hubs (Large)

A commercial drone delivery hub (large) may be allowed, if and where granted a specific use permit, in the CE, LI-1, and LI-2 districts if the requirements of this section are met.

.2 Commercial Drone Delivery Hubs (Small)

A. A commercial drone delivery hub (small) is allowed as a primary use in the CE, LI-1, and LI-2 districts when the requirements of this section are met.

B. A commercial drone delivery hub (small) is allowed as an accessory use to a permitted food/grocery store, restaurant/cafeteria, retail store, shopping center,

superstore, or warehouse/distribution center use in any district when the requirements of this section are met.

- C.** When a detached accessory building is occupied or intended to be occupied for an accessory commercial drone delivery hub (small), the floor area is limited to a maximum of 10% of the total floor area of the building containing the primary use.

.3 Drone Staging Areas

- A.** The drone staging area must be designated on an approved site plan.
- B.** The drone staging area must not be placed:
- i.** Within any required building setbacks;
 - ii.** Within any required landscape edge;
 - iii.** Within fire lanes, easements, maneuvering aisles, customer pick-up lanes, or required loading zones and parking spaces; or
 - iv.** So as to obstruct visibility or interfere with pedestrian or vehicle circulation.
- C.** As an accessory use, the drone staging area is limited to 10% of the total lot area or 1,000 square feet, whichever is greater. A drone staging area located inside of or on the roof of the building containing the primary use is not subject to this limitation.
- D.** When located at grade, any goods, materials, containers, trailers, or other equipment must be screened according to the requirements for open storage in Sec. 19.200. Landing pads are exempt from this screening requirement. The Planning & Zoning Commission may waive these requirements with approval of a site plan.
- E.** When a drone staging area is located on top of a building:
- i.** Any roof-mounted mechanical equipment, excluding landing pads, is subject to the mechanical screening requirements in Sec. 20.300; and
 - ii.** Any additional structure, parapet wall, screening, safety railing, or other appurtenance associated with the commercial drone delivery hub is subject to the maximum height requirement of the district, except a single mast up to 10 feet in height for a windsock may exceed the maximum height requirement.
- F.** Antennas and antenna support structures are subject to the requirements in Sec. 15.200.

G. Proximity to Noise-Sensitive Uses

- i.** The drone staging area for a commercial drone delivery hub (small) shall not be located within 150 feet of any property upon which a dwelling, retirement and supportive housing facility, or public park is located.
- ii.** The drone staging area for a commercial drone delivery hub (large) shall not be located within 300 feet of any property upon which a dwelling, retirement

and supportive housing facility, or public park is located. The 300-foot buffer requirement may be reduced to 150 feet if City Council finds that issuance of the specific use permit would not be detrimental or injurious to the public health, safety, or general welfare of the neighborhood.

iii. The measurement of the required buffer is to be made in a straight horizontal line from the edge of the drone staging area to the closest property line of a property containing a dwelling, retirement and supportive housing facility use, or public park.

.4 Parking and Loading

- A. Parking is not required for an accessory commercial drone delivery hub use.**
- B. Loading spaces shall be provided for a commercial drone delivery hub as per the requirements in Sec. 16.1400 for retail, commercial, and industrial uses. Loading spaces are not required for an accessory commercial drone delivery hub use.**
- C. The Planning & Zoning Commission may decrease the amount of required parking for a site by up to 10% to accommodate the drone staging area for a commercial drone delivery hub with approval of a site plan. The parking reduction is revoked if the commercial drone delivery hub use is removed.**

6. Amend Section 16.700 (Off-Street Parking Schedule) of Article 16 (Parking and Loading), such portion of the section to read as follows:

Parking Space Schedule for Nonresidential Uses in all Districts

Zoning Districts or Uses	Minimum Required Off-Street Parking or Spaces for Nonresidential Uses
<u>Commercial Drone Delivery Hub (Large) or Commercial Drone Delivery Hub (Small)</u>	<u>One space per 1,000 square feet of floor area for storage or warehousing, plus one space per 300 square feet of floor area for office, customer service, or other areas. A minimum of one parking space per 300 square feet of the designated drone staging area is required for commercial drone delivery hubs with no buildings.</u>

To view the hearing, please click on the provided link:
<https://planotx.new.swagit.com/videos/273003?ts=6003>

JR/kob

- cc: Mike Bell, Development Review Manager
Eric Hill, Assistant Director of Planning
Christina Sebastian, Land Records Planning Manager
Melissa Kleineck, Lead Planner
Justin Cozart, Sr. GIS Technician
Jeanna Scott, Building Inspections Manager
Dorothy Alatorre, Sr. Administrative Assistant - Neighborhood Services

AGENDA ITEM NO. 3

PUBLIC HEARING: Zoning Case 2023-014

PETITIONER: City of Plano

DESCRIPTION: Request to amend Article 8 (Definitions), Article 14 (Allowed Uses and Use Classifications), Article 15 (Use-specific Regulations), and related sections of the Zoning Ordinance to allow commercial drone delivery hubs and to include provisions for advanced air mobility aircraft. Tabled on August 21, 2023. Project #ZC2023-014.

SUMMARY:

The purpose of this request is to add new land use definitions and regulations for commercial drone delivery services, consistent with the procedures for considering new and unlisted land uses in Section 14.400 of the Zoning Ordinance. Amendments to the Heliport and Helistop land use definitions are also requested to allow service by advanced mobility aircraft. These amendments are in conformance with the Comprehensive Plan and position the city ahead of these emerging technologies. For these reasons, staff recommends approval, as noted in the following recommendation section.

STAFF PRELIMINARY REPORT - REMARKS

BACKGROUND:

The topics of commercial drone delivery and advanced air mobility have been discussed at three prior Planning & Zoning Commission (Commission) meetings. The discussion originated from a request by a commercial drone delivery operator to construct a drone delivery hub, which is not listed as a use in the Zoning Ordinance. Section 14.400 of the Zoning Ordinance outlines the procedures for considering and adding new uses.

October 3, 2022

At the October 3, 2022, Commission meeting ([staff report](#) | [video](#)), staff presented information to the Commission with a request to determine whether commercial drone delivery hubs should be listed as a new land use in the Zoning Ordinance. The Commission noted the following comments, and they recommended additional information be brought forward at a future date:

1. The standards should address noise and privacy in whatever capacity the city is able to regulate or control these issues.
2. The Commission desired an opportunity for oversight through a specific use permit approval process.
3. Various stakeholders, including drone companies, should be involved in formulating the standards to ensure that what is considered and adopted is workable across the industry and will not require frequent or immediate amendments. The standards should consider what operations will look like in the near future, not just what is occurring today.
4. Drone taxi service amendments were generally acceptable as proposed.

June 19, 2023

At the June 19, 2023, Commission meeting ([staff report](#) | [video](#)), staff presented additional information and options for potential standards. This meeting was attended by representatives from commercial drone delivery companies, who also made presentations to the Commission. The Commission provided the following direction on the proposed commercial drone delivery hub land use options:

1. Two new land uses for small and large commercial drone delivery hubs are appropriate and should be tied to a federally-defined aircraft classification.
2. A small commercial drone delivery hub should not require a specific use permit. It should be permitted as a primary use in a limited number of districts and an accessory use in most nonresidential districts.
3. A large commercial drone delivery hub should always require a specific use permit and should be permitted in a limited number of districts.

4. A 150-foot setback from noise-sensitive uses is appropriate as a starting point and could be reviewed in the future with more data on noise exposure.
5. Opportunities to reduce parking requirements for properties with a commercial drone delivery hub should be explored.

After discussion, the Commission directed staff to prepare amendments to the Zoning Ordinance for consideration and called a public hearing.

August 21, 2023

At the August 21, 2023, Commission meeting ([staff report](#) | [video](#)), a public hearing was held on the proposed Zoning Ordinance amendments. At this meeting, staff was provided the following direction in response to the proposed standards for commercial drone delivery hubs:

1. Review the proposed standards related to small commercial properties and address any potential barriers to these properties having a commercial drone delivery hub. Specifically, staff was directed to review the maximum size of the take-off and landing area for an accessory commercial drone delivery hub (small) use and the required buffer from noise-sensitive uses.
2. Determine whether reducing parking requirements would be appropriate for properties with a commercial drone delivery hub.
3. Remove the requirement to screen any goods, materials, containers, trailers, and other equipment the same as open storage.
4. Remove the requirement to screen a take-off and landing area located on the roof of a building as rooftop mechanical or commercial antenna equipment.

After discussion, the Commission tabled the request and directed staff to refine the proposed standards for commercial drone delivery hubs.

Federal Aviation Administration and State Regulation

As discussed in the previous staff reports and Commission meetings, regulation of drones and other aircraft is largely preempted by the Federal Aviation Administration (FAA) or restricted by the State. The FAA has set rules for the operation of unmanned aircraft and is active alongside other government and corporate bodies in developing regulations, air traffic control systems, and safety technology for unmanned aircraft and advanced mobility aircraft. The State has limited involvement but passed legislation restricting the ability of municipalities to adopt or enforce ordinances regulating the operation of an unmanned aircraft in [Texas Government Code Section 423.009](#). The proposed Zoning Ordinance amendments regulate only land use, which is within the city's regulatory power. The proposal has been reviewed by the Office of the Chief Counsel of the Federal Aviation Administration, and they did not identify any preemption issues. They specifically stated, "*State and local laws may regulate the location of UAS takeoff and landing areas, which is what the proposal does.*"

REMARKS

This report summarizes the overall proposal along with the amendments made since the last Commission meeting. These amendments are based on the Commission's direction and stakeholders' feedback. To aid the Commission, a copy of the proposed amendments with tracked changes – comparing the proposed amendments to those previously presented on August 21, 2023 – is provided in Exhibit A. The proposed amendments are provided in full as part of the staff recommendation at the end of this report.

PROPOSED CHANGES

Definitions

Two new land use definitions are proposed: Commercial Drone Delivery Hub (Small) and Commercial Drone Delivery Hub (Large). These land uses are functionally identical, except that Commercial Drone Delivery Hubs (Large) would be subject to more restrictive location standards than Commercial Drone Delivery Hubs (Small). The distinction between the two is that Commercial Drone Delivery Hubs (Small) are limited to small unmanned aircraft systems (sUAS), which are under 55 pounds total take-off weight. For simplicity, “drone hub” will be used in this report to refer to both proposed land uses collectively.

Commercial Drone Delivery Hub (Small)

An area of land, structural surface, building, or structure with one or more designated drone staging areas for use by small unmanned aircraft systems (sUAS) under 55 pounds total take-off weight or as defined in Section 44801 of Title 49, United States Code, as amended, whichever is the lesser, to distribute commercial goods by air. This includes any appurtenant areas used or intended for use for unmanned aircraft system buildings, structures, and other facilities.

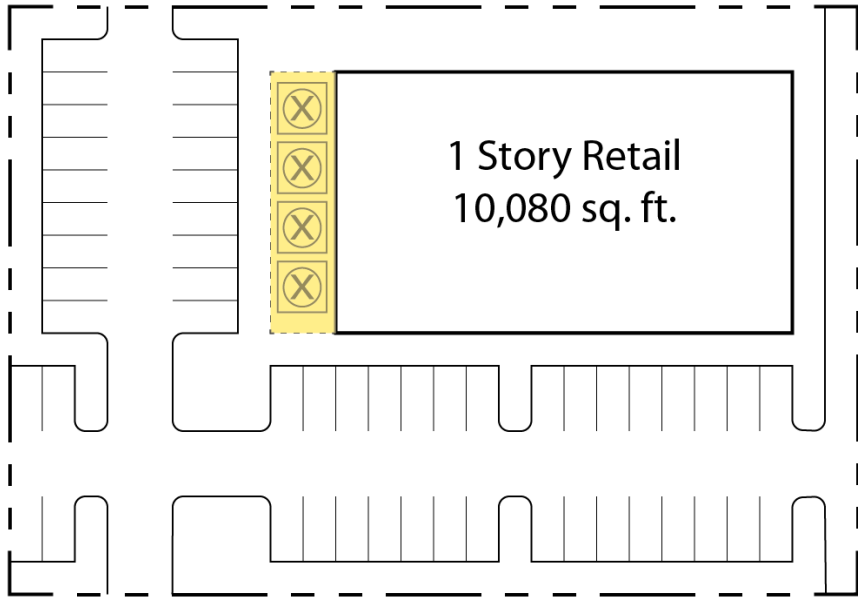
Commercial Drone Delivery Hub (Large)

An area of land, structural surface, building, or structure with one or more designated drone staging areas for use by unmanned aircraft, including but not limited to those defined under Commercial Drone Delivery Hub (Small), to distribute commercial goods by air. This includes any appurtenant areas used or intended for use for unmanned aircraft system buildings, structures, and other facilities.

Drone Staging Area

A designated area over which an unmanned aircraft completes the final phase of the approach, to a hover or a landing, and from which an unmanned aircraft initiates take-off. The drone staging area includes both the launch pads and any required safety areas, and may include areas for the outdoor storage of goods, materials, containers, trailers, or other equipment.

The proposed definition for a drone staging area is not a land use but forms part of the drone hub. The drone staging area would be subject to size and location restrictions due to the noise impacts associated with unmanned aircraft coming and going. For example, buffers to residences would be measured from the edge of the designated drone staging area. A conceptual site plan is shown in the following illustration, with the drone staging area highlighted in yellow. The “Changes Made Since August 21, 2023” section, beginning on page 6, outlines more information on these areas.



General Site Data	Lot 1
Zoning	R
Land Use	Retail Store
Lot Area	35,100 sq. ft.
Building Footprint	10,080 sq. ft.
Lot Coverage	28.7%
Parking	
Parking Ratio	1:200
Required Parking	51
Provided Parking	52
Drone Staging Area	
Max. Permitted	3,510 sq. ft.
Provided	1,440 sq. ft.
Parking Reduction	None

The existing definitions for Heliport and Helistop land uses are proposed to be amended to allow for advanced air mobility aircraft, which do not meet the typical understanding of a helicopter. This includes a variety of aircraft types in development that utilize tiltrotor or other rotary wing configurations to achieve flight.

Zoning Districts Use Tables

The drone hub uses will also be added to the use tables in Article 14 (Allowed Uses and Use Classifications). Neither of the drone hub uses is proposed to be permitted in a residential district. Each would be permitted in select nonresidential districts with some limitations. These use permissions would be detailed in Section 15.100 of Article 15 (Use-specific Regulations) of the Zoning Ordinance.

Commercial Drone Delivery Hubs (Large) are proposed only to be permitted with a specific use permit (SUP) in the Light Industrial-1 (LI-1), Light Industrial-2 (LI-2), and Commercial Employment (CE) districts. These districts permit the Warehouse/Distribution Center land use, which is expected to be complementary to operators using drones larger than 55 pounds. The SUP requirement would allow greater control over drone hubs with larger drones, which are expected to generate more noise.

Commercial Drone Delivery Hubs (Small) would not require an SUP and are proposed to be permitted by right as accessory uses to certain retail and warehousing uses in all nonresidential districts except for Neighborhood Office (O-1), as this district does not permit the identified retail or warehouse uses. The use is also proposed to be permitted by right as a primary use in LI-1, LI-2, and CE. These use permissions would be detailed in Article 15 (Use-specific Regulations).

Use	Type	How Permitted
Commercial Drone Delivery Hub (Large)	Primary or Accessory Use	Permitted with Specific Use Permit in CE, LI-1, LI-2
Commercial Drone Delivery Hub (Small)	Primary Use	Permitted by right in CE, LI-1, LI-2
Commercial Drone Delivery Hub (Small)	Accessory Use to Grocery Store, Restaurant, Retail, or Warehouse uses	Permitted by right in all nonresidential districts except O-1

Use-Specific Standards

The bulk of the proposed amendments are new use-specific standards. The proposed standards would apply to both drone hub land uses, except for a more restrictive buffer requirement that would apply to Commercial Drone Delivery Hub (Large) only. The proposed amendments are modeled after existing standards for similar land uses.

- Drone staging area: The drone staging area must be shown on an approved site plan, is not permitted to be located on certain areas of the site, and would have limits on the total size. Screening would be required in some situations, as described below.
- Drone hubs on roofs: The proposed size limit would not apply to a drone staging area located on the roof of the primary building, which is intended to encourage the utilization of the roof. When located on a roof, some screening for roof-mounted equipment, consistent with current requirements, would be required. Any screening or structure on the roof would need to be within the allowable building height, with a single exemption for a wind sock.
- Proximity to noise-sensitive uses: A buffer would be required from the edge of the drone staging area to certain land uses, including residences, public parks, and retirement and supportive housing facilities. A 150-foot buffer is required for a Commercial Drone Delivery Hub (Small) and a 300-foot buffer is required for a Commercial Drone Delivery Hub (Large). The proposed standards include an allowance for the buffer to be reduced to 150 feet by the City Council through a review of the required SUP.

The purpose of the buffer is to mitigate nuisances to noise-sensitive land uses and is not intended to address security or privacy concerns. The city is unable to regulate where drones fly, except as permitted by [Texas Government Code Section 423.009](#).

- Parking: Finally, the parking rate for drone hubs as a primary use would be added to Article 16 of the Zoning Ordinance. The proposed parking rate is as follows: One space per 1,000 square feet of warehouse space plus one space per 300 square feet of other uses. Should a drone hub have no building, the parking rate would be one space per 300 square feet of the drone staging area. The proposed parking rates are intended to allow the use to be easily added to existing properties or replaced with other uses without significant impacts to the parking needs. To allow flexibility for small sites, parking is not required for accessory drone hubs, and the Commission may decrease the amount of required parking for a site by up to 10% with approval of a site plan.

CHANGES MADE SINCE AUGUST 21, 2023

The following changes have been made since August 21, 2023:

Drone Staging Area

The take-off and landing area has been renamed the “drone staging area,” and the definition has been revised to clarify that the area includes both the launch pads and safety areas. An area for materials storage may also be included. Operators requested this clarification due to similarities to other industry terms with more specific meanings, such as “touchdown and liftoff area.” The definitions for both commercial drone delivery hub uses have been updated accordingly.

The definition intends to capture the broad range of possible operations and infrastructure, which could be ground-mounted, on top of a building or structure, or suspended from a structure. The designated drone staging area is intended to be flexible enough to accommodate changes to operations without requiring additional city review, such as adding, removing, or relocating launch pads within the area defined on the site plan. Expanding the designated area would require updating the site plan.

Open Storage Screening Requirements

The Commission felt that screening requirements may increase noise-related nuisance due to reduced air flow and reflection of sound, pose a navigational hazard to aircraft, and create a barrier to entry for commercial drone delivery operators. Staff has discussed the topic of screening and fencing internally and with several stakeholders to determine appropriate standards to balance the safe operation of aircraft, the enforceability of regulations, and upholding the public's vision of the community.

To address this, the requirement to screen open storage-like uses at grade has been revised to include an exemption for a single special vehicle and a single shipping container. This would allow for pilot projects and small-scale operations to begin with minimal changes to a site while retaining the screening requirements for larger operations. Screening the areas used for storage is intended to prevent storage from becoming a visual nuisance, contain storage within a defined and approved area, and assist staff in the field if a complaint is received.



The proposed exemptions are both specific and modest and respond to the Commission's desire to remove barriers to entry for new operators. The above image shows a drone staging area in Frisco, which includes landing pads, one trailer-mounted generator, and one shipping container for drone storage. Screening would not be required under the proposed standards. The area has been fenced by the operator for public and crew safety.

Alternatively, the Commission may choose to waive the screening requirements for open storage-like uses and substitute one of the following options:

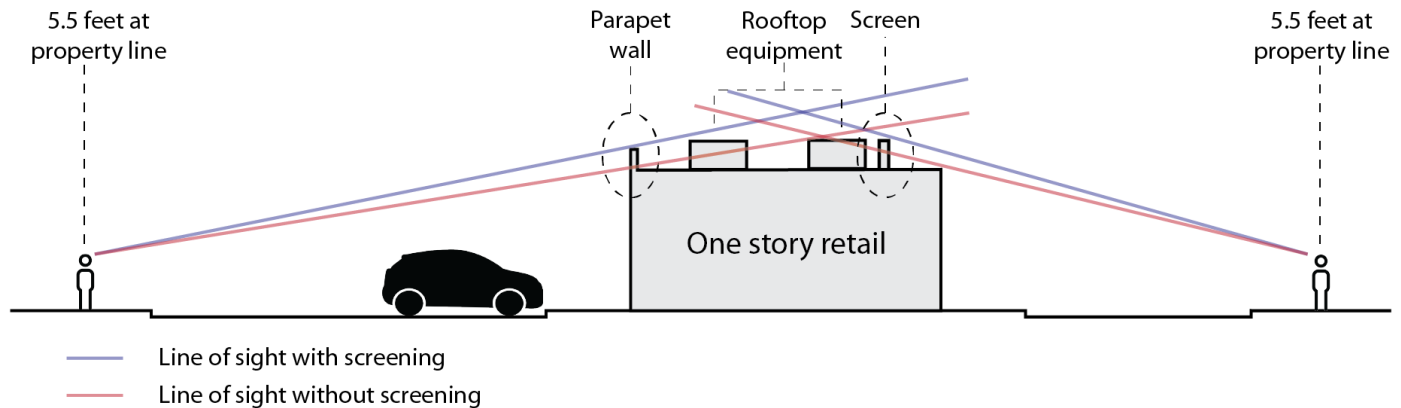
1. Open storage associated with a drone delivery hub and located in the designated drone staging area is exempt from the screening requirements, however must be enclosed with a secure, metal fence. Fencing the area is intended to contain storage within a defined and approved area and to assist staff in the field if a complaint is received.
2. Open storage associated with a drone delivery hub and located in the designated drone storage area is exempt from the screening requirements. Fencing is not required.

Complete removal of the screening requirement is not recommended without also reviewing the current screening requirements for open storage, in general, to ensure consistency and fairness across the city. Having varying screening standards for uses that appear the same is likely to cause enforcement issues over time, where a recycling trailer, for example, is required to be screened, but a trailer for drone deliveries is not required to be screened, even when at the same site. See the following photos for examples of unscreened open storage that has been pursued as a violation by the Property Standards division of Neighborhood Services as a zoning violation.



Rooftop Screening Requirements

The requirement to screen a drone staging area on the roof of a building has been updated to clarify that screening is only required for rooftop equipment, excluding landing pads. Screening is currently required when rooftop equipment is visible from a height of 5.5 feet along the property lines. Most commercial buildings are constructed with a parapet wall, making screening necessary only for equipment placed near the roof's edge or for tall equipment. See below for an illustration and examples of typical screening.



Left: Mini storage building with a parapet wall.



Right: Office building with rooftop screening.

It would be most appropriate to have consistent standards for any rooftop equipment or storage related to this new use, to preserve the community's aesthetic standards. Building code requirements would continue to apply and may require the installation of a parapet wall or safety railing, even if no visual screening is required. Safety railings are typically a minimum of 3.5 feet in height. Any building additions or structures would be subject to the height regulations of the zoning district.

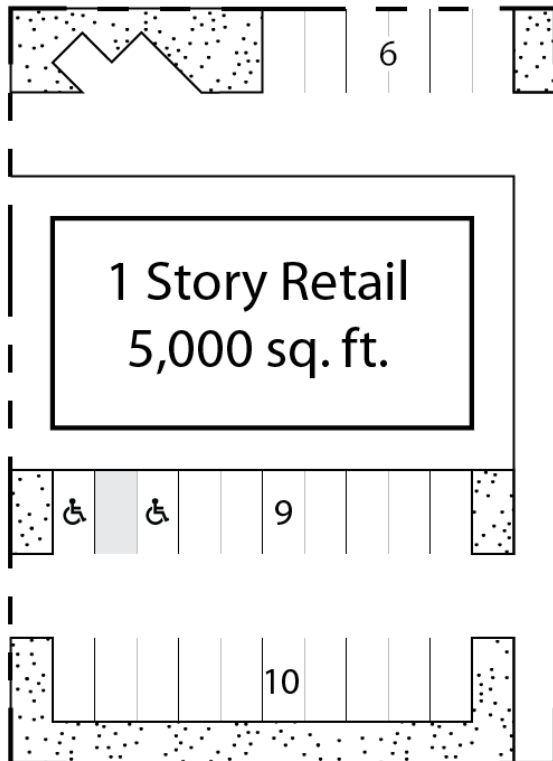
Allowances for Small Commercial Properties

Staff looked at small commercial pad sites in Plano, which typically contain restaurant or single-tenant retail uses. Pad sites are generally more than 20,000 square feet in lot area, which would have afforded a 1,000-square-foot drone operations area using the previously recommended 5% limitation. The Commission noted that restricting the drone operations area based on the size of the property may make a commercial drone delivery hub infeasible on these small sites. Additionally, site planning could be constrained by the required buffer from noise-sensitive land uses and the cumulative requirements for parking, fire lanes, landscaping, and other development requirements.

To address this:

- The maximum size of a drone operations area for an accessory commercial drone delivery hub (small) has been increased to 10% of the lot area or 1,000 square feet, whichever is greater. 10% of the lot area correlates with the typical interpretation of an accessory building or use. The 1,000-square-foot figure will provide a functional drone operations area for the smallest commercial properties, but does not absolve the owner from meeting other ordinance requirements, such as parking or landscaping.
- Several nonresidential land uses have been removed from the list of noise-sensitive uses. Religious facilities, schools, and day care centers have been removed as the noise sensitivity is largely limited to indoor activities, which are less impacted by outside noise. The revised list includes only dwellings, retirement and supportive housing uses, and public parks.
- An option to reduce the minimum required parking has been added. With the approval of a site plan, the Commission would have the discretion to reduce the parking requirement for the property as a whole by up to 10%. This is consistent with other parking reductions available in the Zoning Ordinance.

As noted, site planning must consider required parking, access aisles and fire lanes, landscaping, and other development requirements. These pose challenges for small properties even before considering a drone operations area for a commercial drone delivery hub. A conceptual site plan is provided in the following graphic, which shows the minimum parking, landscaping, and circulation requirements for a 5,000-square-foot retail building. In this example, a 600-square-foot drone staging area could be accommodated only by reducing the required parking by three spaces. Significant parking reductions are not recommended without a complete review of the parking requirements for all uses, which is anticipated to be part of the upcoming comprehensive review of the Zoning Ordinance.



General Site Data	Lot 1
Zoning	R, Retail
Land Use	Retail Store
Lot Area	23,400 sq. ft.
Building Footprint	5,000
Lot Coverage	21.4%
Parking	
Parking Ratio	1:200
Required Parking	25
Provided Parking	25
Accessible Parking Required	2
Accessible Parking Provided	2
Landscape Area	
Landscape Edge Area	120 sq. ft.
Required Interior Landscape Area	200 sq. ft.
<i>Total Landscape Area</i>	320 sq. ft.
Drone Staging Area	
Max. Permitted	2,340 sq. ft.
Max. Parking Reduction (10%)	3 spaces
Possible Drone Staging Area	600 sq. ft.

Commercial Antenna Requirements

Staff has added a statement to clarify that antennas for a commercial drone delivery hub are subject to the requirements for commercial antennas and antenna support structures found in Sec. 15.200. This was one of the questions posed in a letter received for the August 21, 2023, public hearing.

Parking and Loading Requirements

Staff has added a subsection addressing parking and loading requirements for commercial drone delivery hubs. These proposed standards clarify when parking and loading spaces are required and align with the existing requirements for retail, commercial, and industrial uses.

STAFF PRELIMINARY REPORT - CONFORMANCE TO THE COMPREHENSIVE PLAN

The proposed request has been reviewed for conformance with the Comprehensive Plan. Major factors included in the analysis are provided below.

Guiding Principles – The set of [Guiding Principles to the Comprehensive Plan](#) establishes overarching themes that apply to all policies and actions and express values for Plano Today, Plano 2050, and Plano Together. Since the principles do not stand alone but are used in concert with one another and carry across the Plan as a whole, each principle must be judged through a lens that incorporates all other principles to be fully and accurately understood. As such, the Commission is encouraged to review the full list of Guiding Principles and judge zoning requests through the lens of all principles.

Land Use Policy – *Plano will support a system of organized land use to provide housing and employment choices aligned with the market, where new and redevelopment areas respect the viability and quality of life for existing neighborhoods, businesses, and institutions.*

The proposed amendments introduce new land uses and update existing land uses in response to changing market demands. The amendments include standards to protect residential neighborhoods from negative impacts associated with aircraft noise. This request is in conformance with this policy.

Land Use Action 1 (LU1) – *Review and evaluate the Zoning Ordinance and make appropriate amendments based on guidance from the Comprehensive Plan.*

The proposed amendments introduce new land uses and update existing land uses in response to changing market demands. The amendments include standards to protect residential neighborhoods from negative impacts associated with aircraft noise. This request is in conformance with this action statement.

Land Use Action 4 (LU4) – *Create regulations that incentivize the redevelopment and revitalization of underperforming retail and multifamily development.*

The proposed amendments would allow a new method to deliver products to customers. While the amendments would not directly result in material changes or improvements to retail centers, the additional revenue stream could support existing businesses and make others more viable. This request is in conformance with this action statement.

Regional Transportation Policy – *Plano will evaluate regional transportation initiatives with consideration of the impacts on existing residential and business development and emphasis on expanding transportation options, traffic demand management, and other traffic efficiency strategies to improve regional mobility.*

The proposed amendments would allow commercial goods to be delivered to customers by aerial drone, eliminating some vehicle trips from city roadways. Amendments to the heliport and helistop uses are intended to allow aerial taxis and advanced air mobility aircraft as this form of transportation is developed and implemented. This request is in conformance with this policy. In addition, this request is in conformance with the North Central Texas Council of Governments' [Metropolitan Transportation Plan](#) aviation policies.

STAFF PRELIMINARY REPORT - RECOMMENDATION

SUMMARY:

The purpose of this request is to add new land use definitions and regulations for commercial drone delivery services, consistent with the procedures for considering new and unlisted land uses in Section 14.400 of the Zoning Ordinance. Amendments to the Heliport and Helistop land use definitions are also requested to allow service by advanced mobility aircraft. These amendments are in conformance with the Comprehensive Plan and position the city ahead of these emerging technologies. For these reasons, staff recommends approval, as noted in the following recommendation section.

RECOMMENDATION:

Recommended for approval as follows (additions are indicated in underlined text; deletions are indicated in ~~strikethrough~~ text).

1. **Amend Section 8.200 (Terms Defined) of Article 8 (Definitions), such amended and new definitions to read as follows:**

Commercial Drone Delivery Hub (Large)

An area of land, structural surface, building, or structure with one or more designated drone staging areas for use by unmanned aircraft, including but not limited to those defined under Commercial Drone Delivery Hub (Small), to distribute commercial goods by air. This includes any appurtenant areas used or intended for use for unmanned aircraft system buildings, structures, and other facilities.

Commercial Drone Delivery Hub (Small)

An area of land, structural surface, building, or structure with one or more designated drone staging areas for use by small unmanned aircraft systems (sUAS) under 55 pounds total take-off weight or as defined in Section 44801 of Title 49, United States Code, as amended, whichever is the lesser, to distribute commercial goods by air. This includes any appurtenant areas used or intended for use for unmanned aircraft system buildings, structures, and other facilities.

Drone Staging Area

A designated area over which an unmanned aircraft completes the final phase of the approach, to a hover or a landing, and from which an unmanned aircraft initiates take-off. The drone staging area includes both the launch pads and any required safety areas, and may include areas for the outdoor storage of goods, materials, containers, trailers, or other equipment. (See Sec. 15.100.3)

Heliport

An area of land or water or a structural surface which is used, or intended for use, for the landing and taking off of ~~helicopters~~ rotary wing and tiltrotor passenger aircraft, and any appurtenant areas which are used, or intended for use, for heliport buildings and other heliport facilities. (See Sec. 15.600)

Helistop

The same as a heliport, except that no refueling, maintenance, repairs, or storage of ~~helicopters~~ aircraft is permitted. (See Sec. 15.600)

2. Amend Sec. 14.100 (Residential Districts Use Table) of Article 14 (Allowed Uses and Use Classifications), such portions of the section to read as follows:

RESIDENTIAL ZONING DISTRICTS																	
Use Type	Use Category	A - Agricultural	ED - Estate Development	SF-20 - Single-Family-20	SF-9 - Single-Family-9	SF-7 - Single-Family-7	SF-6 - Single-Family-6	UR - Urban Residential	PH - Patio Home	SF-A - Single-Family Attached	2F - Two Family (Duplex)	GR - General Residential	MF-1 - Multifamily-1	MF-2 - Multifamily-2	MF-3 - Multifamily-3	MH - Mobile Home	RCD - Residential Community Design
<u>Commercial Drone Delivery Hub (Large)</u>	<u>EIPS</u>																
<u>Commercial Drone Delivery Hub (Small)</u>	<u>EIPS</u>																

3. Amend Section 14.200 (Nonresidential Districts Use Table) of Article 14 (Allowed Uses and Use Classifications), such portions of the section to read as follows:

NONRESIDENTIAL ZONING DISTRICTS																
Use Type	Use Category	O-1 - Neighborhood Office	O-2 - General Office	R - Retail	LC - Light Commercial	CC - Corridor Commercial	UMU - Urban Mixed-Use	BG - Downtown Business/Government	CB-1 - Central Business-1	CE - Commercial Employment	RC - Regional Commercial	RE - Regional Employment	RT - Research/Technology Center	LI-1 - Light Industrial-1	LI-2 - Light Industrial-2	NBD - Neighborhood Business Design
<u>Commercial Drone Delivery Hub (Large)</u>	<u>EIPS</u>									∩ ∩				∩ ∩	∩ ∩	
<u>Commercial Drone Delivery Hub (Small)</u>	<u>EIPS</u>		∩	∩	∩	∩	∩	∩	∩	∩	∩	∩	∩	∩	∩	∩

4. Amend Section 14.300 (Use Table Notes) of Article 14 (Allowed Uses and Use Classifications), such note to read as follows:

Number	End Note
3	{Reserved} See Sec. 15.100

5. Amend Section 15.100 (~~{Reserved}~~) of Article 15 (Use-specific Regulations), such section to read in its entirety as follows:

Sec. 15.100 ~~{Reserved}~~ Commercial Drone Delivery Hubs

These regulations apply to both commercial drone delivery hub (large) and commercial drone delivery hub (small) uses, except where individually referenced.

.1 Commercial Drone Delivery Hubs (Large)

A commercial drone delivery hub (large) may be allowed, if and where granted a specific use permit, in the CE, LI-1, and LI-2 districts if the requirements of this section are met.

.2 Commercial Drone Delivery Hubs (Small)

A. A commercial drone delivery hub (small) is allowed as a primary use in the CE, LI-1, and LI-2 districts when the requirements of this section are met.

B. A commercial drone delivery hub (small) is allowed as an accessory use to a permitted food/grocery store, restaurant/cafe/teria, retail store, shopping center, superstore, or warehouse/distribution center use in any district when the requirements of this section are met.

C. When a detached accessory building is occupied or intended to be occupied for an accessory commercial drone delivery hub (small), the floor area is limited to a maximum of 10% of the total floor area of the building containing the primary use.

.3 Drone Staging Areas

A. The drone staging area must be designated on an approved site plan.

B. The drone staging area must not be placed:

i. Within any required building setbacks;

ii. Within any required landscape edge;

iii. Within fire lanes, easements, maneuvering aisles, customer pick-up lanes, or required loading zones and parking spaces; or

iv. So as to obstruct visibility or interfere with pedestrian or vehicle circulation.

C. As an accessory use, the drone staging area is limited to 10% of the total lot area or 1,000 square feet, whichever is greater. A drone staging area located inside of or on the roof of the building containing the primary use is not subject to this limitation.

D. When located at grade, any goods, materials, containers, trailers, or other equipment associated with the commercial drone delivery hub and located in the designated

drone staging area must be screened according to the requirements for open storage in Sec. 19.200 and Sec. 20.100, except:

i. Screening is not required for up to one special vehicle up to 22 feet in length and one shipping container; and

ii. Screening is not required for landing pads.

E. When a drone staging area is located on top of a building:

i. Any roof-mounted mechanical equipment, excluding landing pads, is subject to the mechanical screening requirements in Sec. 20.300; and

ii. Any additional structure, parapet wall, screening, safety railing, or other appurtenance associated with the commercial drone delivery hub is subject to the maximum height requirement of the district, except a single mast up to 10 feet in height for a windsock may exceed the maximum height requirement.

F. Antennas and antenna support structures are subject to the requirements in Sec. 15.200.

G. Proximity to Noise-Sensitive Uses

i. The drone staging area for a commercial drone delivery hub (small) shall not be located within 150 feet of any property upon which a dwelling, retirement and supportive housing facility, or public park is located.

ii. The drone staging area for a commercial drone delivery hub (large) shall not be located within 300 feet of any property upon which a dwelling, retirement and supportive housing facility, or public park is located. The 300-foot buffer requirement may be reduced to 150 feet if City Council finds that issuance of the specific use permit would not be detrimental or injurious to the public health, safety, or general welfare of the neighborhood.

iii. The measurement of the required buffer is to be made in a straight horizontal line from the edge of the drone staging area to the closest property line of a property containing a dwelling, retirement and supportive housing facility use, or public park.

.4 Parking and Loading

A. Parking is not required for an accessory commercial drone delivery hub use.

B. Loading spaces shall be provided for a commercial drone delivery hub as per the requirements in Sec. 16.1400 for retail, commercial, and industrial uses. Loading spaces are not required for an accessory commercial drone delivery hub use.

C. The Planning & Zoning Commission may decrease the amount of required parking for a site by up to 10% to accommodate the drone staging area for a commercial drone delivery hub with approval of a site plan. The parking reduction is revoked if the commercial drone delivery hub use is removed.

6. Amend Section 16.700 (Off-Street Parking Schedule) of Article 16 (Parking and Loading), such portion of the section to read as follows:

Parking Space Schedule for Nonresidential Uses in all Districts

Zoning Districts or Uses	Minimum Required Off-Street Parking or Spaces for Nonresidential Uses
<u>Commercial Drone Delivery Hub (Large) or Commercial Drone Delivery Hub (Small)</u>	<u>One space per 1,000 square feet of floor area for storage or warehousing, plus one space per 300 square feet of floor area for office, customer service, or other areas. A minimum of one parking space per 300 square feet of the designated drone staging area is required for commercial drone delivery hubs with no buildings.</u>

Zoning Case 2023-014 Draft Standards

Additions are indicated in underlined text; deletions are indicated in ~~strikethrough~~ text.

Additions and deletions to the standards presented on August 21, 2023 are indicated in red text.

1. Amend Section 8.200 (Terms Defined) of Article 8 (Definitions), such amended and new definitions to read as follows:

Commercial Drone Delivery Hub (Large)

An area of land, structural surface, building, or structure with one or more designated ~~take-off and landing~~drone staging areas for use by unmanned aircraft, including but not limited to those defined under Commercial Drone Delivery Hub (Small), to distribute commercial goods by air. This includes any appurtenant areas used or intended for use for unmanned aircraft system buildings, structures, and other facilities.

Commercial Drone Delivery Hub (Small)

An area of land, structural surface, building, or structure with one or more designated ~~take-off and landing~~drone staging areas for use by small unmanned aircraft systems (sUAS) under 55 pounds total take-off weight or as defined in Section 44801 of Title 49, United States Code, as amended, whichever is the lesser, to distribute commercial goods by air. This includes any appurtenant areas used or intended for use for unmanned aircraft system buildings, structures, and other facilities.

Drone Staging Area

A designated area over which an unmanned aircraft completes the final phase of the approach, to a hover or a landing, and from which an unmanned aircraft initiates take-off. The drone staging area includes both the launch pads and any required safety areas, and may include areas for the outdoor storage of goods, materials, containers, trailers, or other equipment. (See Sec. 15.100.3)

Heliport

An area of land or water or a structural surface which is used, or intended for use, for the landing and taking off of ~~helicopters~~ rotary wing and tiltrotor passenger aircraft, and any appurtenant areas which are used, or intended for use, for heliport buildings and other heliport facilities. (See Sec. 15.600)

Helistop

The same as a heliport, except that no refueling, maintenance, repairs, or storage of ~~helicopters~~ aircraft is permitted. (See Sec. 15.600)

Take-off and Landing Area

A designated load bearing area over which an unmanned aircraft completes the final phase of the approach, to a hover or a landing, and from which an unmanned aircraft initiates take-off.

[Remainder of page intentionally blank]

4. Amend Section 14.300 (Use Table Notes) of Article 14 (Allowed Uses and Use Classifications), such note to read as follows:

Number	End Note
3	[Reserved] See Sec. 15.100

5. Amend Section 15.100 ([Reserved]) of Article 15 (Use-specific Regulations), such section to read as follows:

Sec. 15.100 ~~[Reserved]~~ Commercial Drone Delivery Hubs

These regulations apply to both commercial drone delivery hub (large) and commercial drone delivery hub (small) uses, except where individually referenced.

.1 Commercial Drone Delivery Hubs (Large)

A commercial drone delivery hub (large) may be allowed, if and where granted a specific use permit, in the CE, LI-1, and LI-2 districts if the requirements of this section are met.

.2 Commercial Drone Delivery Hubs (Small)

A. A commercial drone delivery hub (small) is allowed as a primary use in the CE, LI-1, and LI-2 districts when the requirements of this section are met.

B. A commercial drone delivery hub (small) is allowed as an accessory use to a permitted food/grocery store, restaurant/cafeteria, retail store, shopping center, superstore, or warehouse/distribution center use in any district when the requirements of this section are met.

C. When a detached accessory building is occupied or intended to be occupied for an accessory commercial drone delivery hub (small), the floor area is limited to a maximum of 10% of the total floor area of the building containing the primary use.

.3 ~~Take-off and Landing~~ Drone Staging Areas

~~These regulations apply to the take-off and landing areas for both commercial drone delivery hub (large) and commercial drone delivery hub (small) uses, except where individually referenced.~~

A. The ~~take-off and landing~~ drone staging area must be designated on an approved site plan.

B. The ~~drone staging take-off and landing~~ area must not be placed:

i. Within any required building setbacks;

ii. Within any required landscape edge;

iii. Within fire lanes, easements, maneuvering aisles, customer pick-up lanes, or required loading zones and parking spaces; or

iv. So as to obstruct visibility or interfere with pedestrian or vehicle circulation.

C. As an accessory use, the ~~drone staging take-off and landing~~ area is limited to ~~510%~~ of the total lot area ~~or 1,000 square feet, whichever is greater.~~ ~~except that a A drone staging take-off and landing~~ area located inside of or on the roof of the building

containing the primary use is not subject to this limitation. may exceed 5% of the total lot area.

D. When located at grade, any goods, materials, containers, trailers, or other equipment associated with the commercial drone delivery hub and located in the designated drone staging area must be screened according to the requirements for open storage in Sec. 19.200 and Sec. 20.100, except:

i. Screening is not required for up to one special vehicle up to 22 feet in length and one shipping container; and

ii. ~~Landing pads are exempt from this screening requirement.~~ Screening is not required for landing pads.

E. When a drone staging area is located on top of a building, the take-off and landing area must be screened from view at a point 5.5 feet above the property line with a parapet wall, mansard roof, or alternative architectural feature.:

i. Any roof-mounted equipment, excluding landing pads, is subject to the mechanical screening requirements in Sec. 20.300; and

ii. Any additional structure, parapet wall, screening, safety railing, or other appurtenance associated with the commercial drone delivery hub is subject to the maximum height requirement of the district, except for a single mast up to 10 feet in height for a windsock, which may exceed the maximum height requirement.

F. Antennas and antenna support structures are subject to the requirements in Sec. 15.200.

G. Proximity to Noise-Sensitive Uses:

i. The ~~take-off and landing~~ drone staging area for a commercial drone delivery hub (small) shall not be located within 150 feet of any ~~day care center, religious facility, property upon which a dwelling, retirement and supportive housing facility, or public park is located~~ retirement and supportive housing facility, school, or public park, or within 150 feet of any property upon which a dwelling is located.

ii. The ~~take-off and landing~~ drone staging area for a commercial drone delivery hub (large) shall not be located within 300 feet of any ~~day care center, religious facility, property upon which a dwelling, retirement and supportive housing facility, or public park is located~~ retirement and supportive housing facility, school, or public park, or within 300 feet of any property upon which a dwelling is located. The 300-foot buffer requirement may be reduced to 150 feet if City Council finds that issuance of the specific use permit would not be detrimental or injurious to the public health, safety, or general welfare of the neighborhood.

iii. The measurement of the required buffer is to be made in a straight horizontal line from the edge of the ~~take-off and landing~~ drone staging area to the closest property line of a property containing a dwelling, retirement and supportive housing facility use, or public park, or to the building face of a day care center, religious facility, public and parochial school, or private school use.

.4 Parking and Loading

A. Parking is not required for an accessory commercial drone delivery hub use.

- B. Loading spaces shall be provided for a commercial drone delivery hub as per the requirements in Sec. 16.1400 for retail, commercial, and industrial uses. Loading spaces are not required for an accessory commercial drone delivery hub use.
- C. The Planning & Zoning Commission may decrease the amount of required parking for a site by up to 10% to accommodate the drone staging area for a commercial drone delivery hub with approval of a site plan. The parking reduction is revoked if the commercial drone delivery hub use is removed.

6. Amend Section 16.700 (Off-Street Parking Schedule) of Article 16 (Parking and Loading), such portion of section to read as follows:

Parking Space Schedule for Nonresidential Uses in all Districts

Zoning Districts or Uses	Minimum Required Off-Street Parking or Spaces for Nonresidential Uses
<u>Commercial Drone Delivery Hub (Large) or Commercial Drone Delivery Hub (Small)</u>	<u>One space per 1,000 square feet of floor area for storage or warehousing, plus one space per 300 square feet of floor area for office, customer service, or other areas. A minimum of one parking space per 300 square feet of the designated take-off and landingdrone staging area is required for commercial drone delivery hubs with no buildings.</u>