

REPORT TO THE BOARD OF MAYOR & ALDERMEN

DATE: November 24, 2025

FROM: Jaime W. Groce, Town Planner

SUBJECT: Conditional Use Permit (CUP) - Collierville High School Tower - for a New Wireless Communications Facility (WCF) on a Portion of the 155.29-Acre Tract Located at 11701 E. Shelby Drive, Case #234581

INTRODUCTION:

Township Development Services (Grayson Vaughan) requests a CUP for a new 140-foot tall WCF on the northwest corner of a parcel owned by Collierville Schools (Thomas Dougherty). The tower would be between Shelby Drive and the football field (see Exhibit 1). The subject property is zoned R-1: Low Density Residential and is surrounded by R-1, R-2: Medium Density Residential, and FAR: Forest Agriculture Residential zoning to the north, south, east, and west. The Town's new Fire Hall #6 is to the north of the proposed tower.

BACKGROUND:

The Town has not received any applications for new "macro" WCFs since 2008. The Town comprehensively updated its telecommunications regulations in 2009 (via Ordinance 2009-01). The changes strongly encouraged co-location of wireless carriers on existing macro towers or other tall structures (i.e. water towers or church steeples). Over the past 17 years, the Town has approved received several co-location requests for alterations/additions to existing WCFs (on public or private property) and, in recent years, small cell facilities (within public rights-of-way).

The application for the CHS site was initially received in December 2023 but was not sufficient until September 2025. On November 6, 2025, the Planning Commission (PC) recommended approval of the CUP.

DISCUSSION:

1. Since the subject property is zoned residentially, a stealth design is required for the tower to minimize impacts on the surrounding area, and the subject property must be an institutional use.

- The area to be leased for the tower is adjacent to the easternmost entrance to the Collierville High School (CHS) campus along Shelby Drive (see Exhibits 1 and 12).
- The leased area for the fenced tower enclosure will access an internal driveway within the CHS campus and not have direct access to Shelby Drive. The fenced enclosure and ground equipment will be screened by existing vegetation.
- The applicant provided photo simulations (Exhibit 6) and a balloon test to demonstrate the tower's visibility from various points around the CHS campus.
- A "monopine" stealth tower design resembles a pine tree, with faux branches and needles. In addition to monopines, other types of "stealth" designs for macro WCFs include architectural concealment (flagpole, steeple or bell tower, clock tower, water tower, building integration), or ballfield light pole.

2. The location of the tower has been chosen to reduce the proximity to existing and future residential structures.

- The adjacent property 168 feet to the east is zoned R-2, allowing for single-family detached dwellings; however, dwellings are unlikely to be built in close proximity to the CHS campus.
 - A non-binding conceptual layout for the property showed no dwellings within 650 feet of the proposed tower.
 - Adjacent to the tower site is the low point on the adjacent property, a stream likely regulated by TDEC (Tennessee Department of Environment and Conservation), and the likely location of on-site stormwater detention.
- §151.024(G)(7)(f) requires new towers to be 250 feet or 300 percent of Tower height, whichever is greater, away from existing or future single-family detached dwellings.
 - This translates into a 420-foot setback for a 140-foot tall tower.
 - The Board of Mayor and Aldermen (BMA) can reduce the minimum setback if the applicant demonstrates limited or no development potential on adjacent residentially-zoned properties (i.e. restrictive easements, environmental constraints, or ownership). The PC found the reduced setback to be appropriate based upon the existing environmental constraints to the east of the proposed tower location.

3. An independent consultant hired by the Town to review this application found a new freestanding WCF could be warranted at this proposed location and comply with Town standards, if the conditions of approval are addressed.

- The consultant, Kimley-Horn, has qualified professionals in telecommunications engineering, structural engineering, and monitoring of electromagnetic fields. Their services were paid for by the applicant, as required by §151.024(G)(7).
- Kimley-Horn worked at the Town Planner's direction and provided a thorough review of the application, including review of the balloon test findings. Notable comments during their review were:
 - Engineering documents must be certified by a Tennessee licensed professional engineer; Detailed specifications of the proposed antennas must be provided;
 - A performance security and a removal estimate must be provided for review; and, Before the CUP is considered by the BMA, a description is needed of the:
 - suitability of the use of existing towers, other structures or alternate technology not requiring the use of towers or structures to provide the services to be provided through the use of the proposed new tower; and,
 - feasible location(s) of future towers or antennas within the Town based upon existing physical, engineering, technological or geographical limitations in the event the proposed tower is erected.

STAFF RECOMMENDATION:

Staff recommends approval, as the proposed CUP request will be consistent with §151.021 and §151.024(G)(7) once the conditions of approval are addressed. The applicant has demonstrated the design minimizes adverse impacts to adjacent property.

ATTACHMENTS:

[Exhibit 1 - Location Map and Contacts 10-31-25.pdf](#)

[Exhibit 2 - PC COAs 11-6-25.pdf](#)

[Exhibit 3 - CUP Test 10-31-25.pdf](#)

[Exhibit 4 - Cover Letter- CHS Cell Tower 9-30-25.pdf](#)

[Exhibit 5 - TN1031 Engineer Letter signed - 9-30-25.pdf](#)

[Exhibit 6 - CHS Cell Tower Photo Simulations 10-13-25.pdf](#)

[Exhibit 7 - Collierville South Zoning Plots _135.pdf](#)
[Exhibit 8 - Cville HS Nearby Towers Map 2025.pdf](#)
[Exhibit 9 - TN 1031 Collierville HS Tower Abandonment Statement LTR 8-7-2025.pdf](#)
[Exhibit 10 - TN 1031 Cville HS - Town of Collierville Existing Tower Locations 8-7-2025.pdf](#)
[Exhibit 11 - Clara's Ridge SD-Conceptual Site Plan 2-21-2021.pdf](#)
[Exhibit 12 - TN1031 Collierville High School - CDs - 9-30-25.pdf](#)
[Exhibit 13 - Suitability of Towers in Area 11-03-2025.pdf](#)

PROPOSED MOTION:

To approve a Conditional Use Permit (CUP) for the Wireless Communications Facility (WCF) at 11701 E. Shelby Dr, subject to the conditions in Exhibit 2.

Board Action: Motion By_____ Seconded By_____

Vote Total	Hall	Jordan	Robbins	Marshall	Stamps	Fraser
Yes						
No						
Abstain						