

COUNTY OF ALBEMARLE**APPLICATION FOR A SPECIAL EXCEPTION**

- ☒ Request for a waiver, modification, variation or substitution permitted by Chapter 18 = \$457
- ☐ Variation to a previously approved Planned Development rezoning application plan or Code of Development = \$457

OR

- ☐ Relief from a condition of approval = \$457

Provide the following

- ☒ 3 copies of a written request specifying the section or sections being requested to be waived, modified, varied or substituted, and any other exhibit documents stating the reasons for the request and addressing the applicable findings of the section authorized to be waived, modified, varied or substituted.
- Provide the following**
- ☐ 3 copies of the existing approved plan illustrating the area where the change is requested or the applicable section(s) or the Code of Development. Provide a graphic representation of the requested change.
- ☐ 1 copy of a written request specifying the provision of the plan, code or standard for which the variation is sought, and state the reason for the requested variation.

Project Name : 2231 Seminole Lane Drive-Through

Current Assigned Application Number (SDP, SP or ZMA) _____

Tax map and parcel(s): 045B1-05-0A-01100

Applicant / Contact Person Valerie W. Long (Williams Mullen)

Address 321 East Main Street, Suite 400 **City** Charlottesville **State** VA **Zip** 22902

Daytime Phone# (434) 951-5709 **Fax#** () _____ **Email** vlong@williamsmullen.com

Owner of Record Commercial Rentals, LLC

Address 1024 Carrington Place, Suite 100 **City** Charlottesville **State** VA **Zip** 22901

Daytime Phone# (434) 989-8667 **Fax#** () _____ **Email** dhanvant.goradia@gde-inc.net

COUNTY OF ALBEMARLE**APPLICATION FOR A SPECIAL EXCEPTION****APPLICATION SIGNATURE PAGE**

If the person signing the application is someone other than the owner of record, then a signed copy of the "CERTIFICATION THAT NOTICE OF THE APPLICATION HAS BEEN PROVIDED TO THE LANDOWNER" form must be provided in addition to the signing the application below. (page 3)

Owner/Applicant Must Read and Sign

By signing this application, I hereby certify that I own the subject property, or have the legal power to act on behalf of the owner of the subject parcel(s) listed in County Records. I also certify that the information provided on this application and accompanying information is accurate, true, and correct to the best of my knowledge. By signing this application, I am consenting to written comments, letters and or notifications regarding this application being provided to me or my designated contact via fax and or email. This consent does not preclude such written communication from also being sent via first class mail.

Goradio W.A.
Signature of Owner / Agent / Contract Purchaser

12/22/20
Date

Dhanvant Goradio
Print Name

434-989-8667
Daytime phone number of Signatory

FOR OFFICE USE ONLY APPLICATION# _____ Fee Amount \$ _____ Date Paid _____

By who? _____ Receipt # _____ Clk# _____ By _____

December 28, 2020

2231 Seminole Lane Special Exception Request SE 2020-_____

Commercial Rentals, LLC (the "Owner") owns Albemarle County Tax Map Parcel 045B1-05-0A-01100 (the "Property"), located at 2231 Seminole Lane, which is immediately adjacent to Seminole Trail (Route 29) at the intersection of Hilton Heights Road. The Property is zoned Highway Commercial and is currently used as a commercial office. Parcels to the north, south, and west are also zoned Highway Commercial and are developed with a variety of commercial uses along the Route 29 North corridor. Adjacent commercial uses include a Speedway Gas Station and Car Wash to the north, Wal-Mart Supercenter and Umansky Automotive Group Subaru/Honda to the west, and Hightech Signs to the south. The existing commercial office building on the Property was built in 1973. The Owner would like to redevelop the Property as a drive-through coffee shop, with a drive-through window open for business at 5:30 a.m. daily (the "Proposed Use"). A drive-through coffee shop is permitted by right in the Highway Commercial district, subject to the supplemental regulations for drive-through windows in Section 5.1.60 of the Zoning Ordinance. The supplemental regulations may be modified by the Planning Commission pursuant to Section 5.1.

The supplemental regulations provide that, when any portion of a drive-through lane is located within 100 feet of a residential zoning district, "the drive-through window shall be open for business no earlier than 7:00 a.m. and shall be closed no later than 10:00 p.m., daily." Section 5.1.60(d). The Property is adjacent to three parcels in the Carrsbrook subdivision zoned R-1 Residential. The proposed drive-through lane would be located within 100 feet of these residential parcels. See Exhibit A, Conceptual Drawing. As such, unless modified by special exception, Section 5.1.60(d) would limit the hours of operation of the proposed drive-through window to no earlier than 7:00 a.m. and no later than 10:00 p.m. daily.

The Owner respectfully requests a special exception from Section 5.1.60(d) to allow a drive-through window to be operated on the Property starting at 5:30 a.m. daily. The Planning Commission may modify Section 5.1.60(d) upon finding that the requirement (1) would not forward the purposes of the Zoning Ordinance or otherwise serve the public health, safety, or welfare, or (2) that a modified regulation would satisfy the purposes of the Zoning Ordinance to at least an equivalent degree as would Section 5.1.60(d). The requested special exception meets these criteria for the reasons stated below.

First, as applied to the Property, Section 5.1.60(d) does not forward the purposes of the Zoning Ordinance. While Section 5.1.60 does not contain a statement of purpose, the Zoning Ordinance contains numerous residential setback provisions. In general, these provisions exist to protect residential uses from potential impacts of more intensive uses on adjacent parcels. The 100-foot setback required by Section 5.1.60(d) helps to mitigate potential noise and visual

impacts of vehicles and their headlights, and the noise of an ordering or pick up window, of a drive-through window on nearby residential parcels.

The topography of the Property mitigates the potential visual and noise impacts of the proposed drive-through window without the need for a 100-foot setback. The steep area in the rear of the Property creates a significant physical separation between the Property and the adjacent residential parcels. As shown in Exhibit B, Elevation Exhibit, the entire rear (east) boundary of the Property is comprised of managed steep slopes to a depth of approximately 48 feet. The steep slopes also create a vertical elevation difference of over 20 feet between the Property and the adjacent residential parcels. The nearest residential structures are at an elevation that is approximately 30 feet higher than the location of the proposed drive-through lane and ordering station.

Regarding potential visual impacts of the drive-through lane and any site lighting or vehicle lights, the difference in elevation will prevent any such impacts. Due to the sharp change in elevation, the drive-through lane, including all vehicles and their headlights, will be obscured from view from the residential parcels. Similarly, even though the earlier requested drive-through operation hours may potentially have larger light volumes for the site, the residential lots will be looking out and over any light poles below, and all site lighting will be in line with the County's dark sky ordinance. In addition, the existing vegetation on the managed steep slopes also mitigate potential visual impacts. Although the grading plan for the proposed site plan has not yet been completed, the project's civil engineers report that most of the managed steep slopes will likely remain undisturbed.

The Property's topography also helps mitigate potential noise impacts of the Proposed Use. The elevation change minimizes the risk that sound from the drive-through lane will travel to or be heard at the residential parcels. The natural buffer of the managed steep slopes will also reduce sound levels created by the ordering station and cars in the drive-through lane. To be certain that the proposed drive-through lane will not create any sound impacts on the adjacent residential properties between the hours of 5:30 am and 7:00 am, the Owner engaged the services of Bill Yoder of Acentech to conduct a sound study of the Proposed Use at the Property. Acentech concludes that the predicted sound levels from the drive-through lane at the property line during those hours will be equal to, or lower than the sound levels from the existing road noise from Seminole Trail (Route 29), such that the drive-through lane is not expected to have a sound impact on the nearby residential properties. Specifically, the report concludes: At the nearest residential boundary, road noise sounds meet or exceed the predicted drive-thru operation sounds during the measured 5:30AM – 7AM period, often by quite a lot. The highest sound levels (LA1) at the property line are predicted to be 57 dBA due to active ordering, while the measured ambient sounds were up to 15 dBA higher. Though the county's noise ordinance may not apply here due to exceptions, the predicted LAeq sound level of 45 dBA is well below the 55 dBA sound level limit for residential boundaries. The county's health and safety guidelines show no problem with these results, with predicted LAeq sound levels of 45 dBA well below the measured ambient LAeq sound level of 65 dBA. We do not expect the drive-thru activity sounds will have an impact on the nearby residents.

Please see Acentech's report, attached as Exhibit C for specific details. Because the topography of the Property already mitigates potential visual and noise impacts of the Proposed

Use, and further because the predicted sound levels at the residential property line will be well below the noise ordinance limits, requiring a 100-foot setback in this case would not further the purposes of the Zoning Ordinance.

Secondly, as applied to the Property, Section 5.1.60(d) does not serve the public health, safety, or welfare in this instance. The requested special exception would allow the proposed drive-through lane to be 50 feet closer to residential property lines than Section 5.1.60(d) allows. As discussed above, the proposed drive-through lane would be physically separated from the adjacent residential parcels by a significant difference in elevation and a dense vegetative buffer. This physical separation and buffer protect the health, safety, and welfare of nearby residents by preventing impacts from noise or light from the drive-through lane. Because the Acentech report states that the predicted sound levels of the drive-through lane at the property line will already be equal to or lower than background traffic sound levels at that property line, requiring the full 100 feet of setback that would otherwise be required by Section 5.1.60(d) would not improve the health, safety, or welfare of the nearby residents. In addition, the requested special exception would provide more space for cars to enter, exit, and circulate within the Property safely without creating any overflow onto Seminole Lane or any other roads. As such, strict application of Section 5.1.60(d) to the Property would actually create a site that is less safe than one designed pursuant to the requested special exception.

Finally, for the same reasons discussed above, the requested special exception satisfies the purposes of the Zoning Ordinance to at least an equivalent degree as Section 5.1.60(d) since the proposed 50 foot setback already fully prevents any visual or noise impacts of the drive-through lane, especially when combined with the low sound levels associated with the drive-through lanes. Thus, regardless of whether the proposed drive-through lane is located 50 feet or 100 feet from the residential property line, there will not be any visual or noise impacts on the residential property associated with the Proposed Use.

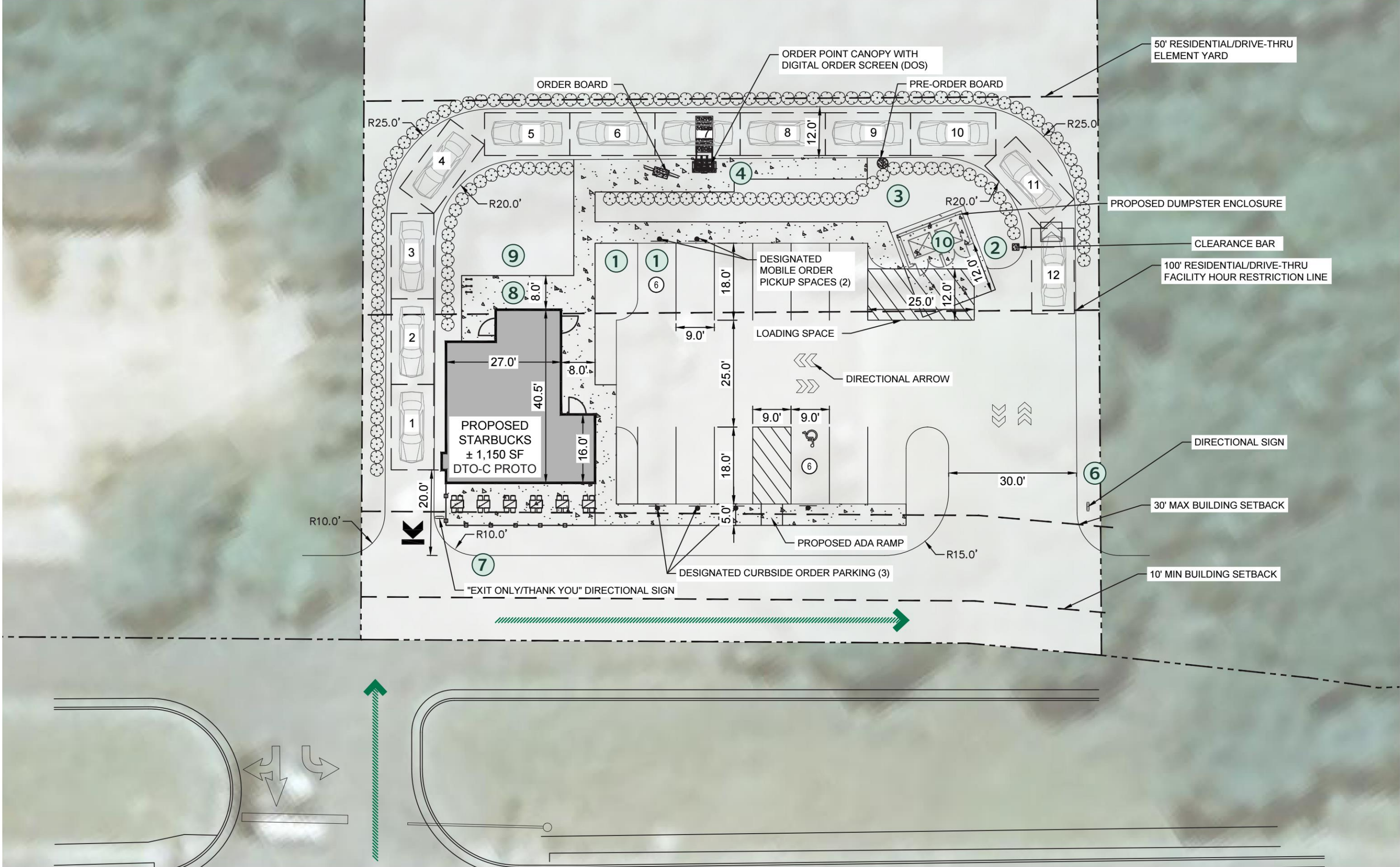
Because the requested special exception satisfies the criteria of Section 5.1, the Owner respectfully requests that the Board of Supervisors modify Section 5.1.60(d) to allow the operation of a drive-through window on the Property starting at 5:30 a.m. daily.

Thank you for your consideration of this request.

KEY NOTES

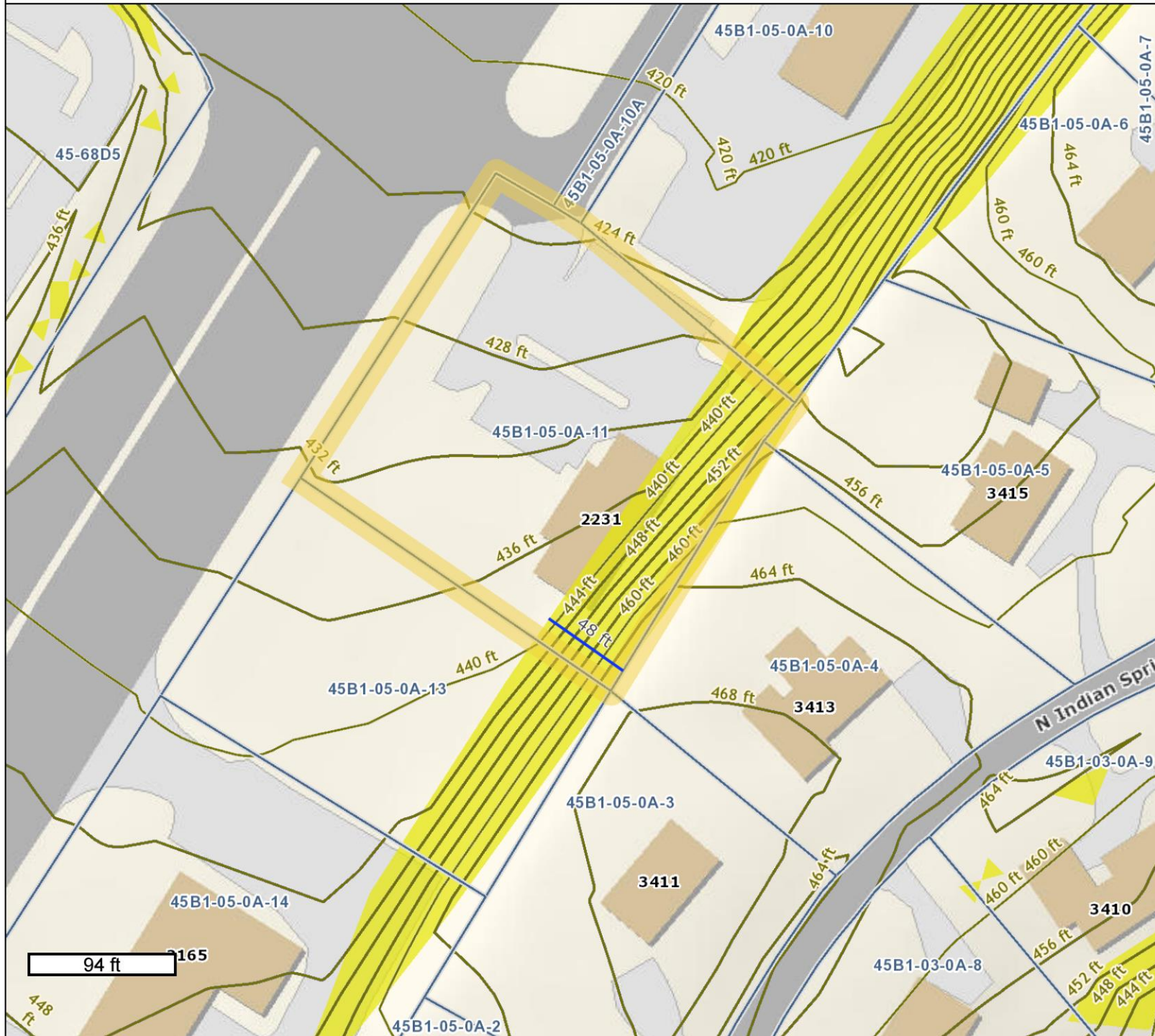
- ① DEDICATED MOP PARKING
- ② CLEARANCE BAR
- ③ PRE-MENU BOARD
- ④ ORDER POINT & MENUS
- ⑤ MONUMENT/PYLON SIGN
- ⑥ DIRECTIONAL SIGN
- ⑦ THANK YOU/EXIT SIGN
- ⑧ TRANSFORMER
- ⑨ GREASE INTERCEPTOR
- ⑩ TRASH ENCLOSURE

DT APPROACH



SITE PLAN

2231 Seminole Lane - Elevation Exhibit



Legend

(Note: Some items on map may not appear in legend)

Parcel Info

- Parcels

Elevation

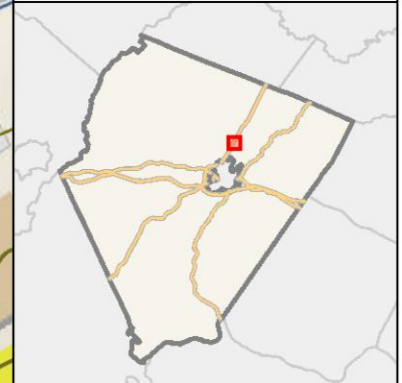
Y2018 Elevation Contours

- Y2018 Elevation Contours (100 ft)
- Y2018 Elevation Contours (60 ft)
- Y2018 Elevation Contours (40 ft)
- Y2018 Elevation Contours (20 ft)
- Y2018 Elevation Contours (4 ft)

Zoning Info

Steep Slopes Overlay

- Critical Slopes
- Steep Slopes - Managed
- Steep Slopes - Preserved



GIS-Web
Geographic Data Services
www.albemarle.org/gis
(434) 296-5832

December 23, 2020

Dhanvant Goradia
Commercial Rentals, LLC
1024 Carrington Place, Suite 100
Charlottesville, VA 22901
dhanvant.goradia@gde-inc.net

Subject Starbucks Drive-Thru Noise Review, Albemarle County, VA
Acentech Project Number 634056

Dear Mr. Goradia:

We understand that you own a parcel of land on Seminole Trail that is currently in the planning stages for a drive thru Starbucks facility. We also understand that Albemarle County code allows drive thru operations prior to 7AM only when the nearest residential property line is a minimum of 100 feet from the drive thru lane. Your plans currently have the drive through lane at roughly 50 feet from the nearest residential property line. Your team has asked that we review the potential sound levels associated with this drive-thru operations for that residential boundary. This report summarizes our sound measurement results and our expectations regarding impact of drive-thru sound on the nearby residences.

ALBEMARLE COUNTY CODE REVIEW

Albemarle County has a noise ordinance as part of the zoning code ¹ that could be used as a guidance for acceptability of the noise due to drive-thru operations. The noise ordinance states that the equivalent continuous sound level from operations must meet a nighttime (10PM – 7AM) sound level limit of 55 dBA for residential receiving zones. However, voice and transportation sources are specifically exempt from the sound level limit and even so, energy averaged sound levels due to intermittent speech and low speed vehicles would likely be much lower than that limit. This code may not be applicable for these drive-thru operations.

Albemarle County also has some noise details as part of the health and safety code ² that could be used as guidance. This includes some subjective details, but also includes guidance as to how sound increases may be viewed by the community. Specifically, it states that an increase in the sound level of 5 - 10dB is considered "intrusive", 10 - 15 dB is "very noticeable", and 15 - 20 dB is "very objectionable". Sound levels in the "very objectionable" range are not permissible.

SOUND LEVEL METRICS

The sound level metric required to show compliance with the above noise ordinances is the A-weighted, equivalent continuous sound level (LAeq). This metric is essentially an energy averaged sound level over the measurement period and may not adequately characterize the perception of sound due to intermittent or short durations sounds that come and go, such as those caused by passing trucks or aircraft. Sounds

¹ Albemarle County Code, Chapter 18, Article II, Section 4.18, Noise.

https://library.municode.com/va/albemarle_county/codes/code_of_ordinances?nodeId=CH18ZO_ARTIIBARE_S4GERE_S4.18NO

² Albemarle County Code, Chapter 7, Article 1, Noise

https://library.municode.com/va/albemarle_county/codes/code_of_ordinances?nodeId=CH7HESA

due to these transient events may be outliers when compared to typical sound levels, and can significantly influence the sound level defined by the LAeq metric.

We will also look at statistical metrics, such as the A-weighted L1, L50, and L90. While these aren't outlined in the code, they relate how often a sound level was above a particular value; L1 is the sound level exceeded only 1% of the time (36 second per hour), L50 is the median (or typical) sound level, and the L90 is the level exceeded 90% of the time (considered the background sound level because the actual sound level is nearly always higher). These statistical metrics are intended to better characterize the nature of these sounds by specifying how often that sound level is exceeded, whereas the LAeq lacks these details since it is essentially an average.

MEASUREMENTS

Existing Starbucks Location

We visited the existing Starbucks location on 5th Street in Charlottesville, VA to measure sound levels due to characteristic operations of the drive-thru. These measurements took place from 5:30AM – 7AM on December 10, 2020. This Starbucks location is quite new and we were unable to find up to date satellite imagery. Figure 1 shows our general measurement locations on out of date satellite imagery with the Starbucks still under construction.

Figure 1: Existing Starbucks, Sound Measurement Locations



Over the course of the measurement period there were a total of 42 vehicles that placed orders using the drive-thru. Sound level measurements were made simultaneously at the ordering station and pickup window, roughly 3.5 feet from the source at each location and 5 feet above the ground. We used Type 1 certified ³ NTI XL2-TA sound level meters, which were both field calibrated using a Larson Davis CAL200 at the start of the measurements.

³ ANSI S1.4 and IEC 61672, Specifications and Standards for Sound Level Meters.

The ordering station sound was primarily due to speech from the customer in their vehicle and relayed speech from the Starbucks employee through the ordering station loudspeaker. Pickup window sound was primarily due to direct speech between the customer and employee. Because the ordering station has speech relayed through a loudspeaker, the sound levels were observed to be higher than the pickup window sound levels by around 6 dBA. Note that sound from the loudspeaker could be adjusted lower to be similar to the sound levels from the pickup window. Drive-thru vehicle sounds were generally low due to idle conditions, but louder vehicles certainly contribute. Table 1 shows the measured sound levels attributable to the drive-thru operations, shown as the LA1 and LAeq metrics, at each measurement location.

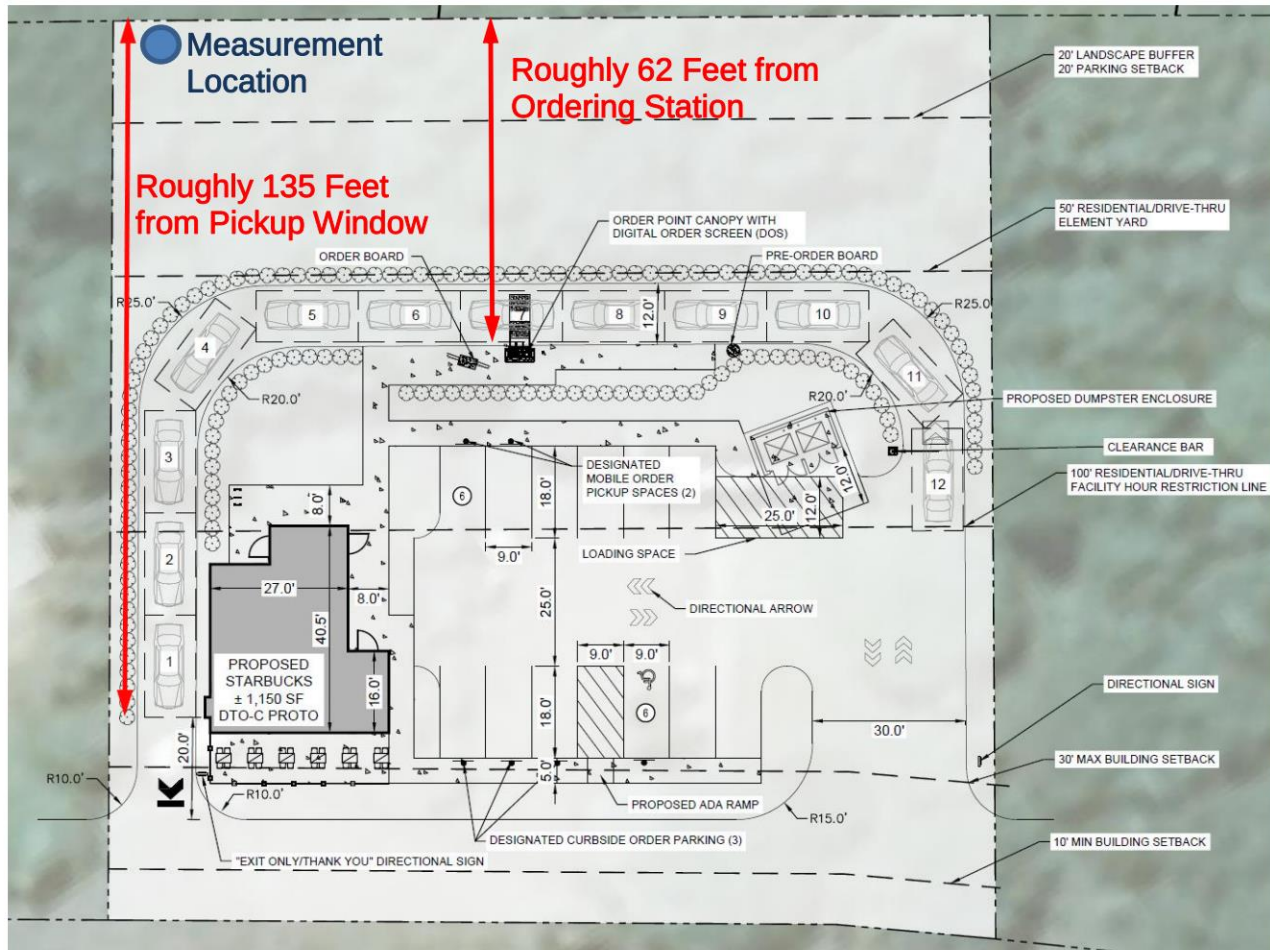
Table 1: Sound Levels Associated with the Loudest of Drive-Thru Operations

Measurement Location	LA1 (highest transient sounds)	LAeq (equivalent continuous)
Ordering Station	81 dBA	69 dBA
Pickup Window	75 dBA	63 dBA

Proposed Starbucks Location

We visited your parcel on Seminole Lane, adjacent to Seminole Trail, to measure ambient sound levels at the residential property line. These measurements took place from 5:30AM – 7AM on December 11, 2020. Figure 2 shows the proposed site plan, where you can see the ordering station, pickup window, property boundary, and sound measurement location.

Figure 2: Proposed Site Plan & Measurement Location



Sound level measurements were made near the north-east residential property boundary, 5 feet above the ground, using a NTI XL2-TA Type 1 sound level meter, field calibrated using a Larson Davis CAL200 at the start of the measurement. Over the course of this measurement period the ambient sound at the residential property line was observed to be entirely due to road noise from Seminole Trail (Route 29). The adjacent gas station had very little activity during this period and no other neighbors were obvious noise producers. Table 2 shows the measured sound levels for the various statistical and average metrics. Notice that the average sound level (LAeq) is higher than the typical sound level (LA50).

Table 2: Sound Levels at Proposed Site's Residential Property Boundary

Measurement Location	LA1 (highest transient sounds)	LAeq (equivalent continuous)	LA50 (typical sound level)	LA90 (background sound level)
Northeast Corner	72 dBA	65 dBA	63 dBA	57 dBA

PREDICTIONS

Using the source sound level measurements made at the existing Starbucks location, we can predict the corresponding sound levels at the future location's residential boundary. The process involves a prediction of the attenuation, or reduction, of sound due to distance, barriers, and absorption. Here we take a conservative approach to predicting the attenuation by only considering distance, ignoring the roughly 20 foot elevation change and absorptive ground cover. To simplify our review, we have ignored the pickup window as a significant source since sound levels measured 6 dBA lower than the ordering station and it will be more than twice as far from the residential boundary as the ordering station. The pickup window sounds shouldn't contribute to the total sound level at the residential boundary.

We predict roughly 24 dB of attenuation from the measured ordering station source sound levels (taken at less than 4 feet) to the residential property boundary (roughly 62 feet). Table 3 shows the measured sound levels at the ordering station (refer to Table 1) and the predicted sound levels at the nearest residential boundary due to the added distance.

Table 3: Sound Level Prediction due to Ordering Station

Measured Sound Level @ Existing Starbucks Source		Predicted Sound Level @ Nearest Residential Boundary	
LA1 (highest transient sounds)	LAeq (equivalent continuous)	LA1 (highest transient sounds)	LAeq (equivalent continuous)
81 dBA	69 dBA	57 dBA	45 dBA

The sound level at the nearest position on the eastern residential boundary is predicted to be 57 dBA due to an active order at the ordering station (LA1) and 45 dBA with respect to the noise ordinance metric (LAeq). This predicted LA1 sound level due to ordering station activity is similar to the measured background sound level (LA90) that was nearly always exceeded at the residential boundary due to road noise. To restate, sound levels at the property boundary due to an *active* order are predicted to be similar to the background sound level due to road noise, and lower than every other metric shown in Table 2 (LAeq, LA1, and LA50).

Additionally, sensitive receivers (homes and listeners) are further beyond the property boundary and drive-thru activity noise will have even more attenuation than road noise will at those locations. Note also that ground cover, shadowing due to elevation differences, and existing fences should provide some additional attenuation at the sensitive receiver locations.

CONCLUSION

At the nearest residential boundary road noise sounds meet or exceed the predicted drive-thru operation sounds during the measured 5:30AM - 7AM period, often by quite a lot. The highest sound levels (LA1) at the property line are predicted to be 57 dBA due to active ordering, while the measured ambient sounds were up to 15 dBA higher. Though the county's noise ordinance may not apply here due to exceptions, the predicted LAeq sound level of 45 dBA is well below the 55 dBA sound level limit for residential boundaries.

The county's health and safety guidelines show no problem with these results, with predicted LAeq sound levels of 45 dBA well below the measured ambient LAeq sound level of 65 dBA. We do not expect the drive-thru activity sounds will have an impact on the nearby residents.

I hope this report provides you with the information that you need at this time. If you have any questions, please feel free to contact me at byoder@acentech.com or 434.218.0759.

Sincerely,

Acentech Incorporated



Bill Yoder
Senior Staff Scientist