

GEORGETOWN-SCOTT COUNTY PLANNING COMMISSION
AGENDA
JULY 9, 2026
6:00 p.m.

I. COMMISSION BUSINESS

- A. Approval of June invoices
- B. Approval of June 11, 2026 minutes
- D. Approval of July 9, 2026 agenda
- E. Items for postponement or withdrawal

II. OLD BUSINESS

- A. ZMA-2025-36 Stables at Blossom Park - Zoning Map Amendment for 10.5 acres from B-5 (General Commercial Park) to R-3 (High Density Residential) located on Blossom Park Drive. PUBLIC HEARING
- B. ZMA-2026-22 McMillen Property - Zoning Map Amendment from A-1 (Agricultural) to R-2 PUD (Medium Density Residential) located on Lisle Road near Lemons Mill Road. PUBLIC HEARING

III. NEW BUSINESS

- A. ZMA-2026-27 Pleasant Valley Ph 5 - POSTPONED
- B. PSP-2026-24 Pleasant Valley Ph 5 - POSTPONED

IV. OTHER BUSINESS

- A. PDP-2007-43 Scott County Safe Storage - Variance for parking and interior landscaping for vehicular use area within a storage facility located at 102 Mary Lynn Drive.
- B. PDP-2026-15 LivSmart Amended - Amended Preliminary Development Plan for a 3-story, 99 room hotel with associated parking and landscaping located at 400 Outlet Center Drive.
- C. Approval of Audit for FY 24-25

**GEORGETOWN-SCOTT COUNTY PLANNING COMMISSION
REGULAR MEETING
MINUTES
JUNE 11, 2026**

The regular meeting was held in the Scott County Courthouse on June 11, 2026. The meeting was called to order by Chairman Mary Singer at 6:00 p.m. Present were Commissioners James Stone, Harold Dean Jessie, Malissa Adair, David Vest, Tristin Black, Director Holden Fleming, Planners Elise Ketz, Rhett Shirley, Mark Carper, Toshi Tusam, Noah Smith, and Attorney Charlie Perkins. Absent were Commissioners Jessica Canfield, Brad Green and Engineer Ben Krebs.

Motion by Garrett, second by Jessie to approve the May invoices. Motion carried.

Motion by Stone, second by Black to approve May 14, 2026 minutes. Motion carried.

Motion by Adair, second by Vest to approve the agenda for June 11, 2026. Motion carried.

All those intending to speak before the Commission were sworn in by Mr. Perkins.

ZMA-2025-36 Stables at Blossom Park - Zoning Map Amendment for 10.5 acres from B-5 (General Commercial Park) to R-3 (High Density Residential) located on Blossom Park Drive.

Chairman Singer opened the public hearing.

Motion by Jessie, second by Black to postpone (ZMA-2025-36) Stables at Blossom Park until the regularly scheduled July meeting after a representative for the Applicant requested a postponement in order to hold a neighborhood meeting on June 23, 2026.

Chairman Singer closed the public hearing.

A resident questioned how many times an application could be postponed.

Mr. Perkins stated the practice has been 3 times but could vary if the Commission requests a postponement or it is agreed upon by staff and the Applicant.

Mr. Shirley stated staff did research and to satisfy a state requirement it must be acted upon by staff and sent to the Planning Commission with no recommendation within 60 days of receiving an administratively complete application. He stated staff did not find a rule restricting postponements in Planning Commission ordinances or bylaws.

PDP-2024-48 Georgetown Commons Commercial West - Variance to the rear yard setback when adjoining residential zoning from 100 feet to 65 feet for building addition located on McClelland Circle.

Ms. Ketz stated this is a dimensional variance for a previously approved development plan in November 2024. She stated this requested variance is to reduce the rear yard setback from 100 feet to 65 feet when adjoining residential zoning. She stated the parcel is 27.91 acres zoned B-5 with access from a new public street (Bringardner Boulevard) to McClelland Circle or Tavner Drive.

She stated the applicant has requested the variance due to one of the tenants needing an additional amount of square footage that would encroach on the setback. She stated staff does not think the site creates hardship to need the requested variance.

Mr. Fleming stated that if the variance is approved that additional buffering be added in the area of the variance.

Scott Schuette, representing the applicant, stated every tenant has a different requirement due to restrictions by the parent company. He stated the pie shape of the property makes the property unique and difficult to fit every tenant on the property.

Justin Phelps, developer, stated that retailers' requirements have changed since the start of this project. He stated the unique shape combined with the changes necessitates the variance.

Dan Holman, 503 S Broadway, questioned what alternatives the retailer would be open to. Mr. Phelps stated they have stair stepped the building and that the building has less square footage than normal store size.

Mr. Fleming stated staff does not think the shape of the parcel creates a hardship. He stated if the project was a PUD staff would have more control of the changes. He stated the B-5 zone is the only business zone with the 100-foot setback requirement.

Ms. Ketz stated the other business zones have a 25-foot setback adjoining residential.

After further discussion, **Motion by Jessie, second by Black, to deny PDP-2024-48. Motion failed 3-4.**

After further discussion, **Motion by Garrett, second by Singer, to approve PDP-2024-48 with the additional landscape buffers requested by staff. Motion approved 4-3 with Black, Jessie, and Vest dissenting.**

Digital Permit Review

Mr. Fleming stated after workshop that GovWell agreed to a one-year contract and getting bids would not be needed. He stated he planned to sign the contract soon.

Stamping Ground Zoning

Mr. Fleming explained to the Planning Commission that the meetings in Stamping Ground have been to discuss the current zoning within the city limits.

Chairman Singer adjourned the meeting.

Attest:

Mary Singer, Chairman

Charlie Perkins, Secretary

**STABLES AT BLOSSOM PARK
ZONING MAP AMENDMENT**

**Staff Report to the Georgetown-Scott County Planning Commission
July 9, 2026**

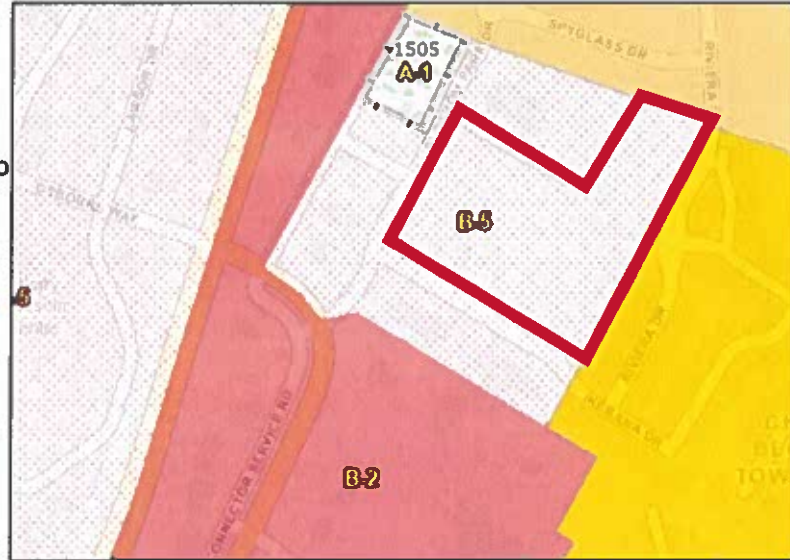
FILE NUMBER: ZMA-2025-36

PROPOSAL: Zoning Map Amendment for 10.5 acres from B-5 (General Commercial Park) to R-3 (High Density Residential)

LOCATION: Blossom Park Drive (189-10-087.000)

OWNER: Sunshine Development Group LLC

APPLICANT & CONSULTANT: Land Development and Design



STATISTICS:

Total Site Acreage: 10.5 ac (to be rezoned, 13.4 acre parent parcel)

Zone (Current, at Time of Application): B-5 (General Commercial Park)

Zone (Proposed): R-3 (High Density Residential)

Surrounding Zone: B-5, R-2

Proposed Development: Apartments (152)
14.5 units per acre (16 units per acre zone maximum)

Access: Blossom Park Drive, Ikebana Drive, Fitness Path

BACKGROUND:
The Project Site is a 13.4 -acre, B-5 (General Commercial Park) zoned tract located east of Blossom Park Drive, north of Ikebana Path. There would be approximately 2.9 acres of B-5 (General Commercial Park) remaining in the parent parcel if this request were to be approved.

The subject property received zoning approval for a change from A-1 to B-5 Commercial Park in February, 2000 (ZMA-2000-06) as part of a larger 27-acre rezoning. The site also later received Preliminary Development Plan approval (PDP-2000-64) for a 236,256 square foot commercial development on the 27 acres. The adjoining out lots west of Cherry Blossom Park and south of Ikebana Road as well as the Planet Fitness site were developed over time, leaving a remainder of 13.4 acres north of Ikebana Road and east of Cherry Blossom Park Road undeveloped.

Properties in the immediate vicinity are already developed with a mix of single-family detached homes, townhomes, and commercial uses of varying types and scale.

The 2024 Comprehensive Plan also identifies the area of the Project Site as a "Neighborhood Center". The Project Site is specifically in Neighborhood Center #4 (Blossom Park).

The Neighborhood Centers concept seeks to achieve the following outcomes:

1. Efficiently use the land available for development by combining higher density residential, retail, restaurant, grocery, and public services (parks, schools & libraries) into a compact area.
2. Reduce motor vehicle miles driven to meet the daily needs of residents and traffic congestion through integrated uses and excellent bicycle/pedestrian infrastructure.
3. Enhance the character of the built environment of the area through use of quality building materials and innovative architectural design.
4. Provide open space for public park uses that are centrally located, mostly avoids environmentally sensitive areas, has excellent bicycle/pedestrian access, and provides public amenities (trails, playgrounds, graded fields, etc.). This open space increases opportunities for socialization & exercise and improves the quality of life for our community.

There is an opportunity for this Neighborhood Center to become a commercial hub for the broader Cherry Blossom neighborhood. The site does not have access to arterial roads, so any residential component should be medium density or lower. Highway commercial uses would not be appropriate due to the transportation constraints and the context in which the land is situated.

CONCEPT PLAN REVIEW:

The subject property is proposed to be rezoned R-3 (High Density Residential) with a total of 152 apartment units resulting in a density of 14.5 units per acre. There are eight (8), two story buildings proposed, with a pool and clubhouse facility being central in the development.

The *Comprehensive Plan* states buildings in the Blossom Park Neighborhood Center should be two to two-and-a-half stories tall. Multi-family uses proposed for the site should be either second story apartments above commercial developments, or located as a transition between the commercial uses and the existing neighborhoods to the east. Heights of all buildings should be a maximum of two stories at the periphery in this area in order to better fit in with the surrounding development. The current proposal is in alignment with the *Comprehensive Plan* in terms of scale and design.

Traffic

The applicant has provided data from the ITE Trip Generation Manual illustrating the impact this use would have on local traffic patterns during peak times. They have demonstrated that this development will generate a maximum of 67 peak hour trips¹, falling below the threshold of 100 trips that would require a professional traffic study.

It was noted during Technical Review that a more thorough traffic study may be appropriate for this proposal. A TIS forecasting conditions until 2027 for surrounding intersections was supplied by the applicant. This study reveals that the level of service at the intersection of Blossom Park Drive and Connector Road is at times "F" and will degrade further with continued development in the area. Once warrants are met at this intersection, a traffic signal will be installed by KYTC along with other improvements on Connector Road planned for the future.

¹ 0.44 trips generated per unit in weekday PM peak hour, ITE Trip Generation Manual.

Access & Circulation

The Concept Plan lays out 152 residential units on the property. The *Subdivision & Development Regulations* require multi-family developments of 100 or more units to have at least two access points [Article X (P)(7)]. This application satisfies these requirements. The Concept Plan shows connectivity to both Fitness Path and Ikebana Drive. There is no connection proposed between the residential and future commercial components for vehicular traffic. Staff recommends sidewalks and other pedestrian amenities be installed to provide connectivity between residential and commercial uses.

The main arterial access to the area comes from Connector Road, which is approximately 500 feet away from the development via Blossom Park Drive. This Neighborhood Center is unlikely to support the same level of residential density that may be available at other proposed Neighborhood Centers due to lack of direct arterial access, and the current conditions of Connector Road.

Connector Road is a state route that connects Exit 126 to Exit 125 on Interstate I-75. Exit 125 does not have a northbound onramp so Connector Road gives northbound vehicles a route to the Exit 126 northbound ramp. This road has become a major Commercial corridor and the dual use for thru traffic and for local access to commercial businesses has increased congestion along the heavily used corridor. There is a need for improvements to help increase capacity of the roadway and for pedestrian and bicycle mobility due to the increase in residential development in the area.

KYTC is currently working on a project for improvements to the Connector Road Corridor, but a final project plan and timeline has not been released at the time this staff report was written. If a multi-use trail is part of the improvements proposed for the Connector Road corridor, staff expects development of the Neighborhood Center to provide connectivity to this feature.

Parking

Parking areas are located within the development, shielded from view of roadways by the residential structures themselves. A variety of apartment types are being offered, each requiring separate parking metrics as follows:

One bedroom units require 1.5 spaces per unit, with 21 units proposed. Two and three bedroom apartments require 2 parking spaces per unit, with 131 units proposed. Overall, 294 spaces are required. The plan satisfies this requirement with 296 spaces being offered, 10 of which being ADA compliant.

Landscape & Land Use Buffers

This concept plan shows all appropriate landscaping and buffering per the *Ordinance*. A full species specific landscape plan will be required as part of the development plan process.

LEGAL CONSIDERATIONS:

Any zone change request is required to meet the following standards from *Kentucky Revised Statutes, Chapter 100*:

Section 100.213 Findings necessary for proposed map amendment – Reconsideration.

1. *Before any map amendment is granted, the planning commission . . . must find that the map amendment is in agreement with the adopted comprehensive plan, or, in the absence of such a finding, that one (1) or more of the following apply and such finding shall be recorded in the minutes and records of the planning commission or the legislative body or fiscal court:*

ZMA-2025-36 Stables at Blossom Park, Page 3 of 4

- a. *That the existing zoning classification given to the property is inappropriate and that the proposed zoning classification is appropriate;*
- b. *That there have been major changes of an economic, physical, or social nature within the area involved which were not anticipated in the adopted comprehensive plan and which have substantially altered the basic character of such area.*

Part 1:

The Comprehensive Plan provides guidance for consideration of zone change requests. The Future Land Use Map (FLU Map) for the currently adopted Comprehensive Plan shows the Project Site inside the Georgetown urban service boundary and planned Mixed Use. This category allows high density residential uses when designed in a manner that is walkable and bikeable. High density residential uses may include townhome and apartment developments.

Though this application seeks to achieve solely residential development, the remaining commercial area within the parent parcel could provide for a mix of adjoining uses. The site's proximity to other commercial uses of varying type and scale also serves to provide convenient access to services for future residents.

Staff Findings

The 2024 Comprehensive Plan Future Land Use Map shows the most appropriate land use to be Mixed Use. The proposed R-3 zoning for the property could be appropriate for this Future Land Use designation, as high-density residential uses are expected as a part of mixed-use development patterns when the area can support them.

However, many sections of the Comprehensive Plan identify the transportation and infrastructure challenges faced by this area. These concerns are supported by the Traffic Impact Study as supplied by the applicant. Staff finds that this site cannot support a high-density residential development as detailed in the concept plan accompanying this application.

RECOMMENDATION:

Based on the findings that the requested zone change does not satisfy the requirements of KRS 100.213; staff recommends **Denial** of the zone change request for 10.5 acres from B-5 (General Commercial Park) to R-3 (High Density Residential).

If the Commission recommends approval of this application, staff recommends the following conditions be attached:

Conditions of Approval:

1. All applicable requirements of the *Zoning Ordinance* and *Subdivision and Development Regulations*.

IONA WOODALL

July 1, 2025

VIA HAND DELIVERY

Georgetown-Scott County Planning Commission
230 E. Main Street
Georgetown, Kentucky 40324

Applicant: Sunshine Development Group, LLC
Property: Blossom Park Drive
Parcel: 187-10-087.000
Project: The Stables at Blossom Park
RE: Zone Map Amendment and Preliminary Development Plan

Dear Commission Members:

Please be advised I am writing on behalf of the applicant, Sunshine Development Group, LLC, (hereinafter the "Applicant") who is applying for a zone change for property located on Blossom Park Drive, Georgetown, Kentucky and identified as parcel number 187-10-087.000 (the "Property"). Currently, the entirety of the Property (13.41+/- acres) is zoned B-5. The Applicant seeks to rezone approximately 10.5 acres of the Property to R-3. The purpose of this request is to make way for a multi-family residential development that will complement the various mixed uses already in the area. Simultaneous with this filing, the Applicant is also submitting a Preliminary Development Plan ("PDP") for the Commission's review and consideration.

I. The Applicant

The Applicant is very eager and excited to enter the Georgetown market and provide a residential development which will complement the remaining commercial uses to be developed on what will become the adjacent property. The Applicant's mission and vision uniquely align with many of the stated goals and objectives of the Georgetown-Scott County 2024 Comprehensive Plan (the "Comprehensive Plan"). Specifically, the Applicant is eager to advance the City's goals of promoting economic development, providing a safe and functional multi-modal transportation network through thoughtfully planned development and design. Likewise, the Applicant seeks to increase the quality of life of local citizens and promote safe and sustainable mixed-use developments, while also reinforcing Georgetown's distinctive character, identity and sense of place.

The Applicant is anxious to enter the Georgetown marketplace as a thoughtful and forward-thinking corporate citizen.

II. The Property

The Property consists of +/-13.41 acres located on Blossom Park Drive. The Property is situated in an area where residential and some commercial uses predominate. Currently, the Property is zoned B-5 which allows for commercial development at this location. However, as will be discussed in greater detail below, the Comprehensive Plan envisions a mixed-use development on the Property. Moreover, the Property is within the City boundaries and therefore urban in nature, prime for residential development.

III. Preliminary Development Plan

As can be seen from the PDP, the Applicant proposes to construct a multi-family development containing seven (7) separate buildings and consisting of 168 multi-family units on a 10.5-acre tract (the "Development"). A clubhouse and pool area will also be featured in the Development. The Development Plan also depicts that the Applicant has taken the time and effort to effectively plan for the seamless transition from commercial uses to the residential aspects of the Development. In addition, the Applicant has paid close attention to the surrounding areas and has sought to appropriately and adequately provide ingress and egress to prevent any potential traffic issues within the development. This development will also provide much-needed middle income housing.

IV. The Zone Change Request and Comprehensive Plan

A. KRS 100.213

Pursuant to KRS 100.213, "[b]efore any map amendment is granted, the planning commission...must find that the map amendment is in agreement with the adopted comprehensive plan, or, in the absence of such a finding, that one (1) or more of the following apply and such finding shall be recorded in the minutes and records of the planning commission or the legislative body or fiscal court: (a) That the existing zoning classification given to the property is inappropriate and that the proposed zoning classification is appropriate; (b) That there have been major changes of an economic, physical, or social nature within the area involved which were not anticipated in the adopted comprehensive plan and which have substantially altered the basic character of such area...." For reasons made clear below, the Applicant's request complies with the Comprehensive Plan.

As previously stated, the applicant proposes a multi-family development consisting of 168 units. The property in question was specifically considered during the process of the adoption of the Comprehensive Plan. In fact, in that section of the Comprehensive Plan devoted to neighborhood centers, Neighborhood Center Area 4: Blossom Park, is referenced. See 2024 Comprehensive Plan, pp. 96-97. Pursuant to "Land Use," it is stated that "[t]he Blossom Park Neighborhood Center is proposed north of Ikebana Drive and east of Blossom Park Drive. This

area would be appropriate for a mix of residential and commercial uses serving and fitting within the surrounding neighborhoods.” Id. The neighborhood center contemplated by the Comprehensive Plan is precisely what the applicant intends to construct. The Comprehensive Plan goes on to state that “[a]ppropriate commercial development in this area would be those retail and services that can service the surrounding neighborhoods and some of the passing traffic on nearby Collector Road (Kentucky – 2906).”

While the zone change application sought is simply to provide multi-family residential housing, the balance of the property (approximately 2.91 acres) will remain zoned B-5, such that a commercial development can be sustained there. Given that the adjacent property on the opposite side of the proposed multi-family residential development is already commercial (Planet Fitness Gym) this is an ideal use pattern for this area. With reference to the permitted uses and R-3 districts, the Zoning Ordinance specifically states that duplexes and multiple family dwellings with a maximum of 16 units per net acre are permitted. Thus, the 168 total units sought by the applicant, is consistent with the ordinance. See Section 4.34B.

With respect to “Buildings/Built Form”, the Comprehensive Plan dictates that “any development of this site should aesthetically fit in the with the residential area and provide commercial and residential uses that are compatible and provide for a better quality of life for those who live in the area.” Comprehensive Plan at 97. Moreover, the buildings proposed for the project should be oriented to face Ikebana Drive as well as Blossom Park Drive with parking focused on the interior of the development. “Parking lots should not be the dominant view of the sites from these collector roads.” Id. This is precisely the design employed by the Applicant.

In keeping with the “Mobility” references in the Comprehensive Plan, the Applicant recognizes that the property is supported by two (2) collector roads, Blossom Park Drive and Ikebana Drive. The plan further suggests that “individual developments in the neighborhood center should not have direct access to the collector roads and should be served by an internal road.” However, the Applicant’s proposal does in fact call for two (2) means of ingress and egress into its Development, that being from Ikebana Drive and Blossom Park Drive. This is simply due to the fact that no other viable means of access to the Property exist.

B. Goals and Objectives

The drafters of the Comprehensive Plan recognized that the community had a list of distinctive tasks that it had to address. One of those tasks was to “make sure that we encourage a wide range of housing types to meet the variety of incomes and interests of members of the community. Regulations can and should be adjusted to allow for and encourage\incentivize development of the ‘missing middle housing’ and a diversity of housing types described above.” See Comprehensive Plan, p. 227.

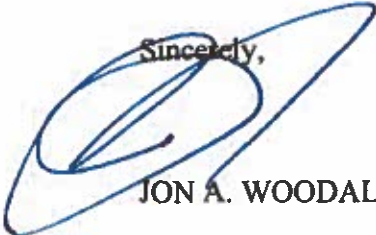
The Applicant’s request is consistent with several of the goals and objectives set forth in the Comprehensive Plan. HO 1 is to “[p]rovide a full spectrum of quality housing options for all

residents.” Id. HO 1.1 has the goal of encouraging “the expansion of affordable and middle-income housing opportunities throughout the community.” Id. The Applicant’s request is consistent with the intent of this objective. HO 1.4 states that “new residential developments should promote connectivity and be compact to reduce the impacts of sprawl.” This R-3 development represents infill and in fact does reduce sprawl. HO 1.5 is geared toward the elimination of “sub-standard housing”. Id at 228. The applicant is a proven developer and intends to construct a quality project at this location. Finally, HO3 calls for the “[s]upport [of] new housing development compatible with existing neighborhoods and downtown areas.” Id. As previously stated, the proposed Development represents a seamless transition from existing single-family residential neighborhoods in close proximity.

For all the foregoing reasons, this zone change request is in agreement with the 2024 Comprehensive Plan and its associated Future Land Use Map.

V. Conclusion

In conclusion, the Applicant appreciates this Commission’s consideration of its application and would request that the Commission approve the zone change request and associated Preliminary Development Plan.

Sincerely,

JON A. WOODALL

JAW/ss

Georgetown-Scott County Planning Commission
230 E. Main Street
Georgetown, Kentucky 40324

Applicant: Sunshine Development Group LLC
Property: Blossom Park Drive
Parcel: 189-10-087.000
RE: *Zone Change Application*

Dear Planning Commission,

Please be advised we are writing to you as the property owners of 13.41 acres located at Blossom Park Drive, Georgetown, Kentucky, and identified as Parcel 189-10-087.000 (the "Property"). Please allow this letter to serve as our acknowledgement of consent and permission to allow Sunshine Development Group LLC to apply for a zone map amendment from B-5 to R-3 for approximately 10.5 acres of the Property, consistent with the Rezoning Application and Preliminary Development Plan filed by the Applicant. The balance of the acreage will remain B-5.

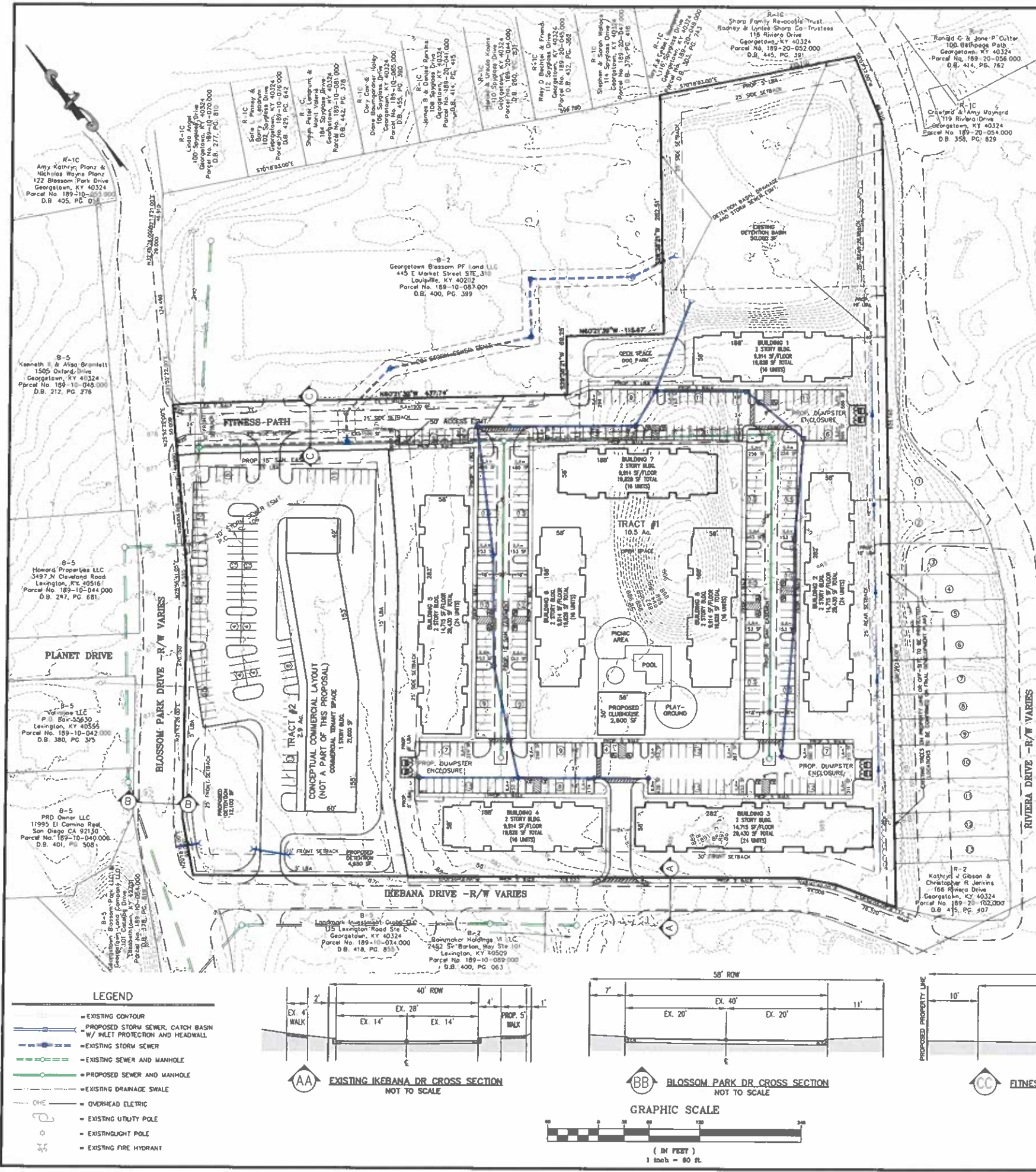
Thank you for your consideration.

Georgetown Blossom Park, LLC

By: DocuSigned by:
Kick Kunkler
06CC2673FD0642

Title: Ceo

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PROJECT DATA OVERALL

SITE OVERALL

- TRACT 1 = 13.4± AC (583,978 SF)
- TRACT 2 = 10.5± AC (458,289 SF)
- TRACT 3 = 2.9± AC (125,699 SF)

EXISTING ZONING

- TRACT 1 = B-5
- TRACT 2 = R-3
- TRACT 3 = B-5 TO REMAIN

PROPOSED ZONING (TRACT 1)

- TRACT 1 = UNDEVELOPED
- TRACT 2 = MULTI-FAMILY RESIDENTIAL

EXISTING USE

- TRACT 1 = UNDEVELOPED
- TRACT 2 = MULTI-FAMILY RESIDENTIAL

PROPOSED USE

- TRACT 1 = UNDEVELOPED
- TRACT 2 = MULTI-FAMILY RESIDENTIAL

PROPOSED NO. OF UNITS (TRACT 1)

- TRACT 1 = 152 UNITS

DENSITY (TRACT 1)

- TRACT 1 = 14.5 DU/AC

PROP. BUILDING AREA (FOOTPRINT) (TOTAL AREA)

- CLUBHOUSE (TRACT 1) = 2,800 SF / 2,800 SF
- MULTI-FAMILY RESIDENTIAL (16 UNITS) X 5 = 49,570 SF / 99,140 SF
- MULTI-FAMILY RESIDENTIAL (24 UNITS) X 3 = 44,145 SF / 88,290 SF
- TOTAL = 96,515 SF / 190,230 SF

PROP. BUILDING HEIGHT

- TRACT 1 = 40' (2-STORIES)

PROP. BLDG COVERAGE

- TRACT 1 = 21.1% (40% MAX)

TOTAL MIN. PARKING REQ.

- 1.5 SP. / 1 BR (21 UNITS) = 32 SPACES
- 2 SP. / 2 + 3 BR (131 UNITS) = 262 SPACES
- TOTAL = 294 SPACES

PARKING PROVIDED

- TRACT 1 = 296 SPACES (INCLUDES 10 ADA)

TOTAL VEHICULAR USE AREA

- TRACT 1 = 106,168 SF
- TRACT 2 = 10,617 SF (10% OF VUA)
- TRACT 3 = 10,719 SF
- TRACT 4 = 42 TREES (1 TREE PER 250 SF REQ. ILA)
- TRACT 5 = 4,642 SF
- TRACT 6 = 226,998 SF (5.2 AC)

R-3 REQUIREMENTS (TRACT 1)

- MIN. FRONT YARD = 30'
- MIN. SIDE YARD = 25'
- MINIMUM REAR YARD = 25'

B-5 REQUIREMENTS (TRACT 2)

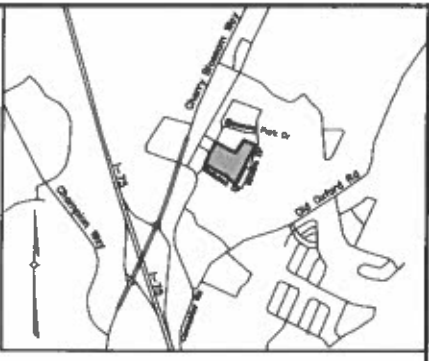
- MIN. FRONT YARD = 25'
- MIN. SIDE YARD = 10'
- MINIMUM REAR YARD = 30' IF SERVICED FROM THE REAR
- 20' IN ALL OTHER CASES
- 50' ADJACENT TO PERIPHERY BOUNDARY
- 100' ADJACENT TO RESIDENTIAL/AGRICULTURAL DISTRICT
- 50'
- MAXIMUM BUILDING HEIGHT = 5 STORES (60')

GENERAL NOTES:

- Parking areas and drive lanes to be a hard and durable surface.
- An encroachment permit and bond will be required for all work done in the right-of-way.
- Construction fencing shall be erected prior to any construction or grading activities preventing compaction of soil systems of trees to be preserved. The fencing shall enclose the area beneath the dripline of the tree canopy and shall remain in place. No parking, material storage, or construction activities shall be permitted within the fenced area.
- Compatible utilities shall be placed in a common trench unless otherwise required by appropriate agencies.
- No portion of the site is within the 100 year flood plain per FIRM Map No. 21209 C0181 D & 21209 C0182 D dated December 21, 2017.
- Stormwater detention is provided for this development within the existing detention basin.
- All stormwater management requirements per City of Georgetown regulations shall be met.
- Signage along Tract 2 frontage on Ikebana Dr and Blossom Park Dr to be provided at the time of Tract 2 development.

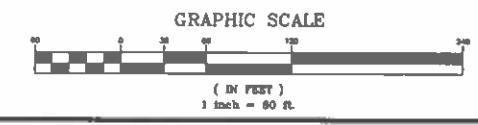
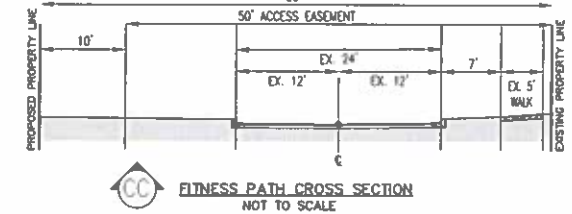
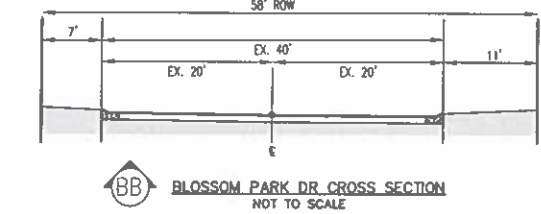
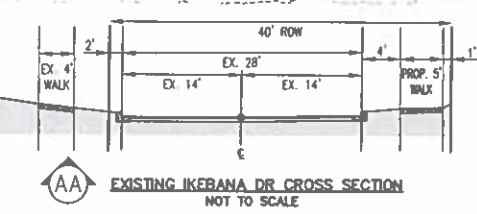
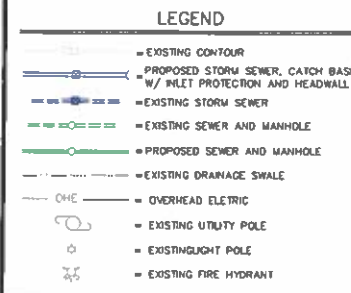
TREE CANOPY CALCULATION - TRACT 1

- TOTAL SITE AREA = 458,289 SF (10.5± AC)
- EXISTING TREE CANOPY = 0 SF (0% SITE)
- EXISTING TREE CANOPY TO BE PRESERVED = 0 SF
- NEW TREE CANOPY TO PROVIDED = 91,658 SF (20% SITE RESIDENTIAL AREAS)



ADJOINING PROPERTY OWNERS

1	R-2 Golf Townhomes of Cherry Blossom LLC 820 Andover Village Place Lexington, KY 40509 Parcel No. 189-20-081000 D.B. 298, PG. 273	2	R-2 Golf Townhomes of Cherry Blossom LLC 820 Andover Village Place Lexington, KY 40509 Parcel No. 189-20-073000 D.B. 298, PG. 273	3	R-2 Dorothy M. & Russell J. Perkins 114 Riviera Drive Georgetown, KY 40324 Parcel No. 189-20-079000 D.B. 417, PG. 165	4	R-2 Anita Homes LLC 820 Andover Village Place Lexington, KY 40509 Parcel No. 189-20-081000 D.B. 311, PG. 631
5	R-2 Anita Homes LLC 820 Andover Village Place Lexington, KY 40509 Parcel No. 189-20-084000 D.B. 311, PG. 631	6	R-2 Anita Homes LLC C/O Bryce & John C. Ward III 150 Riviera Drive Georgetown, KY 40324 Parcel No. 189-20-083000 D.B. 352, PG. 308	7	R-2 Elizabeth Michele Franklin-Standford 152 Rivara Drive Georgetown, KY 40324 Parcel No. 189-20-089000 D.B. 439, PG. 549	8	R-2 Annette & Sidney Franklin 1808 Oakwood Ave Georgetown, KY 40324 Parcel No. 189-20-090000 D.B. 442, PG. 581
9	R-2 Sly Misa 1110 Oak Orchard Rd Georgetown, KY 40324 Parcel No. 189-20-091000 D.B. 417, PG. 312	10	R-2 Christy Hamby 188 Riviera Drive Georgetown, KY 40324 Parcel No. 189-20-093000 D.B. 432, PG. 082	11	R-2 John Wright 180 Riviera Drive Georgetown, KY 40324 Parcel No. 189-20-095000 D.B. 446, PG. 606	12	R-2 Lynn Louise Rooks 182 Riviera Drive Georgetown, KY 40324 Parcel No. 189-20-097000 D.B. 427, PG. 306
13	R-2 Lisa L. Murray 188 Riviera Drive Georgetown, KY 40324 Parcel No. 189-20-100000 D.B. 398, PG. 519						



REVISIONS

NO.	DATE	DESCRIPTION
1	05.26.16	CHANGES TO LAYOUT
2		

PROJECT DATA

FILE NAME: 25011-DEV-PLAN-2016-05-26

DATE: 7/7/16

SCALE: AS SHOWN

DESIGNED BY: DT

CHECKED BY: MK

PROJECT DATA

ADJACENT PROPERTY OWNERS

1. GOLF TOWNHOMES OF CHERRY BLOSSOM LLC

2. GOLF TOWNHOMES OF CHERRY BLOSSOM LLC

3. DOROTHY M. & RUSSELL J. PERKINS

4. ANITA HOMES LLC

5. ANITA HOMES LLC

6. ANITA HOMES LLC

7. ELIZABETH MICHELE FRANKLIN-STANDFORD

8. ANNETTE & SIDNEY FRANKLIN

9. SLY MISA

10. CHRISTY HAMBY

11. JOHN WRIGHT

12. LYNN LOUISE ROOKS

13. LISA L. MURRAY

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9. SLY MISA

10. CHRISTY HAMBY

11. JOHN WRIGHT

12. LYNN LOUISE ROOKS

13. LISA L. MURRAY

PRELIMINARY DEVELOPMENT PLAN

THE STABLES AT BLOSSOM PARK

DEVELOPER

SUNSHINE DEVELOPMENT GROUP LLC

901 LILY CREEK RD STE 101

LOUISVILLE, KY 40243

JOB NO. 25011

SHEET 1 OF 1

OWNER: GEORGETOWN BLOSSOM PARK LLC & GEORGETOWN LAND COMPANY LLC
101 CATALOG DRIVE
ELIZABETHTOWN, KY 42701

SITE ADDRESS: BLOSSOM PARK DRIVE
GEORGETOWN, KY 47122
PARCEL NO. 189-10-087000
D.B. 378, PG. 818

MCMILLEN PROPERTY ZONING MAP AMENDMENT

Staff Report to the Georgetown-Scott County Planning Commission July 9, 2026

FILE NUMBER: ZMA-2026-22

PROPOSAL Zoning map amendment from A-1 (Agricultural) to R-2 PUD (Medium Density Residential)

LOCATION Lisle Road near Lemons Mill Road

OWNER Reginald McMillen Estate, C/O James McMillen

APPLICANT Denis Anderson, Anderson Communities, LLC



STATISTICS

Total Site Acreage: 13.29 acres
Existing Zone: A-1 (Agricultural)
Proposed Zone: R-2 PUD (Medium Density Residential)
Surrounding Zone(s): A-1, R-2, R-1C
Proposed Use: Residential
Access: Lisle Road
Arterial Access: Lemons Mill Road
Future Land Use (2024): Low Density Residential

SITE CHARACTERISTICS

The project site is a 13.29-acre, triangularly shaped property located along Lisle Road near its intersection with Lemons Mill Road. Its current zoning is A-1, and the applicant is requesting that it be rezoned to R-2 PUD. Its current use is agricultural, and the site is improved with two barn structures and perimeter and internal fencing. An automobile repair facility, approved by CUP (S-13-97), sits opposite this site across Lisle Road. The property is within the Urban Service Boundary but has not been annexed into Georgetown city limits. Rezoning to R-2 PUD would require annexation by the city. Water service to the site is currently supplied by the Kentucky-American Water Company,

and there is currently no public sanitary sewer on site. Development of the property would require connecting with GMWSS for sanitary sewer.

The property is bordered by R-2 PUD district along its western and southern borders. The area to the west has been developed into single-family neighborhoods. The property to the south, which was rezoned in 2008, has not yet been developed. Lisle Road (KY 1963) runs along the eastern side of the property, and I-75 runs parallel to that.

CONCEPT PLAN REVIEW

Use Review

The applicant is requesting a rezoning of the property from A-1 (Agricultural) to R-2 (Medium Density Residential) PUD (Planned Unit Development) for single-family residential development to include 79 units with a density of 7.81 units per acre. The Zoning Ordinance establishes the permitted uses within the R-2 district, which include single-family dwellings, duplexes, and multiple family dwellings with a maximum of six dwelling units per building. A maximum density of twelve (12) units per net acre is permissible in the R-2 zoning district.

Concept Plan

Layout

The applicant is proposing a largely linear arrangement of parcels on which to contain 79 single-family dwellings. To accommodate the proposed quantity of lots, the applicant proposes setbacks of 15 feet for the front yard, 7.5 feet for the side yard, and 10 feet for the rear yard. The typical lot size is to be 4,095 square feet, with the minimum size being 3,800 square feet, and the minimum lot width proposed is 43 feet.

The *Schedule of Dimension Area Regulations* within the Zoning Ordinance allows for a minimum lot size of 7,500 square feet and minimum lot width of 60 feet for single-family dwellings in the R-2 zone. The permissible setbacks are 30 feet for the front yard, 7.5 for the side yard, and 25 feet for the rear yard.

Dimensional Comparison		
	R-2 Permitted	Proposed
Min. Lot Area	7,500 sq.ft.	3,800 sq.ft.
Min. Lot Width	60 ft.	43 ft.
Front Setback	30 ft.	15 ft.
Side Setback	7.5 ft	7.5 ft.
Rear Setback	25 ft.	10 ft.

To address the dimensional discrepancies, the applicant is requesting that the property be rezoned as R-2 Planned Unit Development (PUD). The *Zoning Ordinance (2.32.1)* specifies that a PUD project, where allowed by zoning district, may depart from literal conformance with individual lot dimension and area regulations subject to conformity to permitted uses and densities of the zoning district and certain standards and special conditions.

C. Standards: In any planned-development project, although it is permissible to depart from literal conformance with the individual lot dimension and area regulations, there shall be no diminution of total equivalent lot area, parking area and loading and unloading area requirement that would be necessary for the equivalent amount of individual lot development with one exception; the Planning Commission may allow reductions in these requirements if the developer can satisfactorily prove that large scale development may permit such reductions without destroying the intent of these regulations.

D. Special Conditions: The Planning Commission shall attach reasonable special conditions to ensure that there shall be no departure from the intent of this Zoning Ordinance. The planned development project shall conform to all such conditions. Because a planned-

development project is inherently more complex than individual lot development and because each such project must be tailored to the topography and neighboring uses, the standards for such projects should be flexible. The Planning Commission shall attach special conditions based on all of the following standards in addition to imposing the standards for total area, parking area, and loading and unloading area defined in Paragraph C above. The Planning Commission may also attach any other reasonable special conditions.

Upon submission of a preliminary development plan (PDP), the applicant will need to satisfactorily prove that large scale development may permit dimensional reductions without destroying the intent of these regulations. The Planning Commission shall attach special conditions to the development to ensure compatibility with the intent of the ordinance. A common condition of a PUD attached to the development by the Planning Commission, when requested variances from dimensional regulations are requested, is a minimum of 10% of the lot area being dedicated to open space, with at least 50% of that area being dedicated to a usable public amenity.

The Concept Plan submitted by the applicant for the ZMA includes 10% of the lot being dedicated to open space with 82% of that as useable open space in the center of the proposed development and the remainder for stormwater management. Given that the variances needed to accommodate the development concept - which include a nearly 50% decrease in the minimum lot area, a 28% decrease in the minimum lot width, a 50% decrease in the minimum front yard setback, and a 60% decrease in the minimum rear yard setback - additional conditions are likely to be requested for development.

Access and Circulation

Four points of street access to the project site are proposed. Two involve an eastern extension of Skyline Drive, entering into the site from the already developed, adjacent Sutton Place Subdivision and exiting the site onto Lisle Road. A third, *B Street*, is to enter from the south, connecting with a conceptualized subdivision and development (Sparks Farm), also owned by the applicant, traveling to the northern end of the project site, and ending in a *cul-de-sac*. A fourth, *C Street*, is to enter from Lisle Road and connect with *B Street*. The proposed *C Street* is internal to the site, providing connectivity and lot frontage. A network of private alleyways is proposed, providing rear lot vehicular access to approximately 71% of the proposed parcels. For those lots that are to back onto the Sutton Place Subdivision, no rear access alleyway is proposed, implying that these lots, by necessity, are to have front yard driveways.

All of the proposed public roads are to be within 50-foot R.O.W.s, to include 2-foot-wide gutter curbs, minimum 7-foot-wide green strips, and 4-foot-wide sidewalks. The paved street for Skyline Drive is to be 28 feet wide, and streets *A*, *B*, and *C* are to have 27-foot-wide pavement. The proposed alleyways are to be within 24-foot access easements with 20-foot-wide pavement, the centerlines of which are to be the rear property lines.

Lisle Road has an existing pavement width of 22 feet, along which there are no curbs or sidewalks. Improvements to Lisle Rd - such as widening, turn lanes and shoulder and drainage - will be requested and shall be evaluated at Preliminary Development Plan stage. No individual driveway access shall be allowed to Lisle Rd or within 100' of an entrance intersection.

Traffic

According to the Institute of Transportation Engineers Common Trip Generation Rates (11th Edition), detached single-family dwellings generate per dwelling unit 0.75 vehicle trips in the AM peak hour

and 0.99 trips in the PM peak hour. With 79 units, the proposed development is estimated to produce 59.25 trips in the AM peak hour and 78.21 trips in the PM peak hour, numbers that are below the 100 estimated generated trips that would require a traffic study. Much of the generated traffic would impact Lisle Road.

The KYTC Traffic Database shows that the 2025 Annual Average Daily Traffic (AADT) for Lisle Road was 2,260 vehicle trips, 36% higher than the 1,438 daily trips in 2022 and 12% higher than the 1,992 daily trips in 2019. As the proposed street network for the project site is connected to the Sparks Farm potential development site to the south, owned by the applicant to this project site, should a unified development plan to include both sites be submitted, a traffic impact study is likely to be required.

LEGAL CONSIDERATIONS

Any zone change request is required to meet the following standards from Kentucky Revised Statutes, Chapter 100:

Section 100.213 Findings necessary for proposed map amendment

1. *Before any map amendment is granted, the planning commission . . . must find that the map amendment is in agreement with the adopted comprehensive plan, or, in the absence of such a finding, that one (1) or more of the following apply and such finding shall be recorded in the minutes and records of the planning commission or the legislative body or fiscal court:*
 - a. *That the existing zoning classification given to the property is inappropriate and that the proposed zoning classification is appropriate;*
 - b. *That there have been major changes of an economic, physical, or social nature within the area involved which were not anticipated in the adopted comprehensive plan and which have substantially altered the basic character of such area.*
2. *The planning commission, legislative body, or fiscal court may adopt provisions which prohibit for a period of two (2) years, the reconsideration of a denied map amendment or the consideration of a map amendment identical to a denied map amendment.*

Comprehensive Plan

When changes to zoning are desired, the Planning Commission uses the Comprehensive Plan and Future Land Use map to determine whether the desired zone change and proposed land use fit within the community vision, and whether or not the change supports the appropriate land use mix for the long-term benefit of the community. In addition to the content of this plan, the Commission also considers the appropriateness of the existing and desired zoning designations, and if there have been any unanticipated changes of a physical, social, or economic nature in the area involved since this plan was created.

Goals & Objectives

The 2024 Comprehensive Plan identifies housing as integral to quality of life, as central to form and character of community, and as linked to economic development and growth patterns. The Comprehensive Plan devotes considerable attention to the housing environment within Georgetown and the County, affirming that the county has experienced a reduction in the availability of units as construction has not kept pace with the growth in population.

To address the housing shortfall, the Comprehensive Plan advocates for providing a full spectrum of quality housing options for all residents. It encourages the expansion of affordable and missile-

income housing opportunities throughout the community and promotes connectivity and compactness of new residential developments. The Plan also encourages new housing developments being compatible with existing neighborhoods and downtown areas.

Future Land Use Map

The Comprehensive Plan specifies that the Future Land Use (FLU) describes the proposed future use of the property, regardless of the current zoning designation. Created through staff research and community input, the FLU map proposes the best land use mix for the long-term benefit of the community. It is intended to be combined with the related text of this Comprehensive Plan, including the goals, objectives, policies, and recommendations. It also reflects existing land use deemed likely to be long-term.

The 2024 Future Land Use Map shows the subject property designated as Low Density Residential. The description of the land use, per the Comprehensive Plan, states that Low Density Residential land use category,

... allows residential uses as well as home occupations. Home occupations include small-scale businesses, and institutions that will not detract from the basic residential integrity of a neighborhood. New low density residential growth will only occur within cities and Urban Service Boundaries. Low density **residential uses include single-family homes, duplexes, limited townhome development, and some appropriately scale walkable Missing Middle housing.** (Page 72)

Analysis of Legal Considerations

Section 100.213 Findings necessary for proposed map amendment

1. *Before any map amendment is granted, the planning commission . . . must find that the map amendment is in agreement with the adopted comprehensive plan, ...*

Staff finds that the proposed rezoning of the subject property from A-1 to R-2 is in agreement with the goals and objectives of the Comprehensive Plan. An increase in the housing stock helps to address the shortfall in supply, and the proposed, compact community of single-family homes would be compatible with the adjacent Sutton Place Subdivision neighborhood.

However, the proposed R-2 zone is not compatible with the Future Land Use map, which designates this property, and others around it, as Low Density Residential. While the description of Low Density Residential does not specify a maximum unit density ratio, it does not include apartments as an option for housing type.

The R-2 zoning district allows for single-family dwellings, duplexes, and multiple family dwellings with a maximum of six dwelling units per building. As the Concept Plan submitted with a ZMA application is not automatically binding, a post-rezoning submission of a development plan would be permitted, excluding any variance or waiver requests, to build to maximum R-2 density (12 units / net acre) inclusive of apartments. Such a development would be inconsistent with the Comprehensive Plan, but Planning Commission staff would be required by state statute to ministerially approve.

... or, in the absence of such a finding, that one (1) or more of the following apply and such finding shall be recorded in the minutes and records of the planning commission or the legislative body or fiscal court:

- a. *That the existing zoning classification given to the property is inappropriate and that the proposed zoning classification is appropriate;*

Staff finds that the existing A-1 zoning classification is inappropriate. The property is within the Urban Service Boundary and is in an area with ongoing residential development. However, staff finds that the proposed R-2 zoning classification is not an appropriate replacement as the zone allows for apartments, which are incompatible with the housing types allowed for Low Density Residential land use, according to the Comprehensive Plan.

- b. *That there have been major changes of an economic, physical, or social nature within the area involved which were not anticipated in the adopted comprehensive plan and which have substantially altered the basic character of such area.*

This property and the surrounding areas have long been identified in multiple Comprehensive Plans for residential use. There have been no major changes of an economic, physical, or social nature not anticipated in the Comprehensive Plan.

Staff finds that the application does not meet requirements of KRS 100.213. While the Comprehensive Plan advocates for an increase in the housing stock, it does not envision the inclusion of apartments in this area.

Findings:

1. The applicant has requested to rezone the subject property from A-1 (Agriculture) to R-2 PUD (Medium Density Residential).
2. The site is within the Urban Service Boundary but outside of Georgetown city limits.
3. The site is supplied with public water by Kentucky-American Water Company but has no public sewer.
4. If the ZMA is approved by the Planning Commission, the City of Georgetown would also need to approve the rezone and annex the property into city limits.
5. For development, the site would need to connect to GMWSS for sanitary sewer.
6. The configurations within Concept Plan are not in conformance with dimensional requirements for the R-2 district, and negotiations for inclusion of public amenities to offset exceptions to the dimensional requirements will be part of the Planned Unit Development Process.
7. KRS 100.213 specifies that consideration of a ZMA must be based on agreement with the Comprehensive Plan.
8. Staff finds that the proposed rezoning is in agreement with the goals and objectives of the Comprehensive Plan, which include increasing the housing stock and providing compact, single-family homes compatible with surrounding neighborhoods.
9. Staff finds that the proposed rezoning is not in agreement with the Future Land Use (FLU) map, which envisions this property and the surrounding area as Low Density Residential.
10. The Comprehensive Plan describes Low Density Residential land use to include single-family homes, duplexes, and limited townhomes but does not include apartments.
11. The R-2 zone allows for single-family dwellings, duplexes, and multiple family dwellings with a maximum of six dwelling units per building.

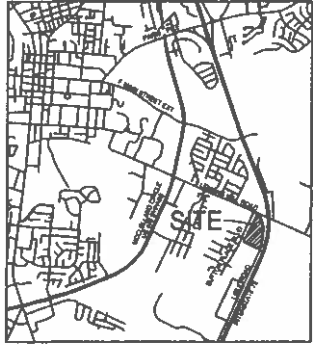
12. By state statute, submission of a development plan in conformance with zoning and development regulations may be approved ministerially by Planning Commission staff.
13. While staff finds that the current zoning is inappropriate, it does not find that the proposed zoning is appropriate.
14. Staff finds that the application does not meet requirements of KRS 100.213. While the Comprehensive Plan advocates for an increase in the housing stock, it does not envision the inclusion of apartments in this area.

RECOMMENDATION:

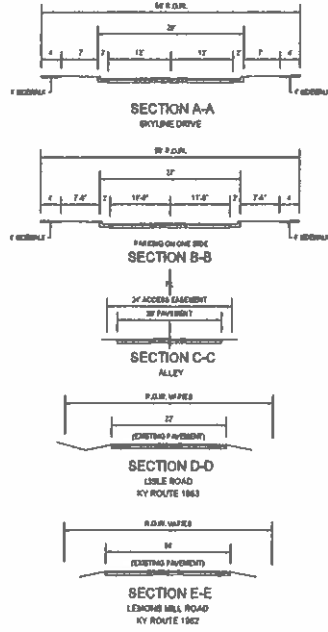
Based on the findings that the requested zone change does not satisfy the requirements of KRS 100.213, staff recommends **denial** of the zone change request from A-1 to R-2 for the 13.294-acre McMillen property (192-20-067.000) located along Lisle Road near its intersection with Lemons Mill Road.

If the Commission recommends approval of this application, staff recommends the following conditions be attached:

1. All applicable requirements of the *Zoning Ordinance and Subdivision and Development Regulations*.
2. The Applicant shall return to the Planning Commission for Preliminary Development Plan approval for any development or uses are proposed.



VICINITY MAP



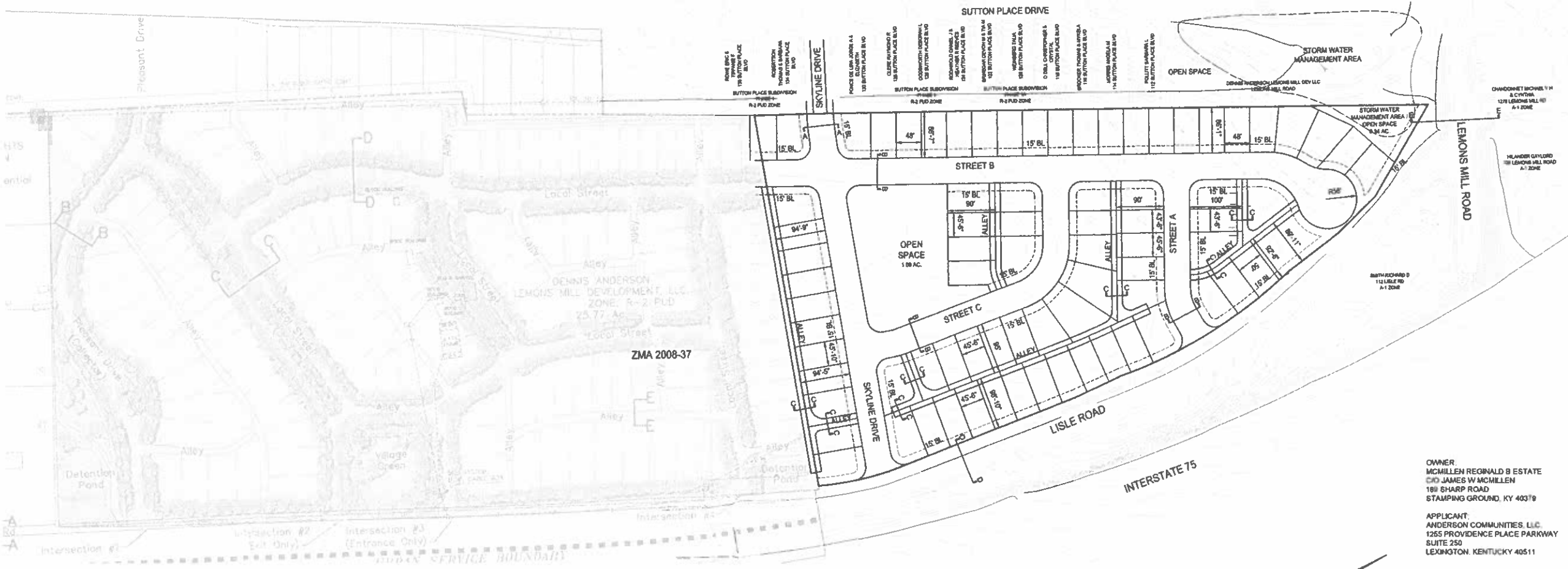
- GENERAL NOTES**
1. INTERIOR CONNECTIVITY, SANITARY SEWERS, STORMWATER MANAGEMENT, ENTRANCE DESIGN AND EXISTING TREES SHALL BE EVALUATED WITH THE PRELIMINARY DEVELOPMENT PLAN AND CONSTRUCTION DOCUMENTS.
 2. STORM SEWERS, STORM WATER RETENTION BASINS, AND SANITARY SEWERS SHALL MEET THE SPECIFICATIONS AND APPROVAL OF THE PLANNING COMMISSION ENGINEER.
 3. ALL AREAS THAT HAVE BEEN DISTURBED BY GRADING SHALL HAVE TEMPORARY VEGETATIVE COVER PROVIDED. SUCH COVER WILL CONSIST OF ANNUAL GRASSES OR SMALL GRAINS. SLOPES EXCEEDING 4:1 SHALL HAVE ADDITIONAL PROTECTION OF ADEQUATE MULCHING OR SOD IN ORDER TO PREVENT EROSION.
 4. THIS CONCEPTUAL PLAN SHALL NOT BE USED AS BASIS FOR SALE OF THIS PROPERTY. ANY SALE OF LAND SHALL BE BASED ON A RECORDED SUBDIVISION PLAN.
 5. GRADING, BUILDING FINISH FLOOR ELEVATIONS & HANDICAP PARKING SPACE LOCATIONS ARE SUBJECT TO CHANGE BASED ON FINAL CONSTRUCTION PLANS.

CERTIFICATION OF OWNERSHIP AND DEDICATION:
 I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT I (WE) HEREBY ADOPT THIS PLAT/PLAN OF THE DEVELOPMENT WITH MY (OUR) FREE CONSENT. ESTABLISH THE MINIMUM BUILDING RESTRICTION LINES, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS, AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS SHOWN IN ACCORDANCE WITH THE GEORGETOWN-SCOTT COUNTY SUBDIVISION AND DEVELOPMENT REGULATIONS. UNLESS OTHERWISE NOTED.

SIGNATURE OF OWNER OR OWNERS _____ DATE _____

SITE STATISTICS	
EXISTING ZONE	A-1
PROPOSED ZONE	R-2 (PUD)
SITE AREA	
GROSS AREA	13.29 AC
ROW AREA	3.18 AC
NET AREA	10.11 AC
TOTAL UNITS	79 UNITS
DENSITY	7.81 UNITS/NET ACRE
OPEN SPACE AREA	1.33 AC
	10.0%
TYPICAL LOT SIZE	45'-0" X 90'
MINIMUM LOT SIZE	3,800 SQ FT
R-2 (PUD) MINIMUM STANDARDS	
SINGLE FAMILY	
LOT WIDTH	43 FEET
LOT SIZE	3,800 SQ. FT.
FRONT YARD	15 FEET
SIDE YARD	7.5 FEET
REAR YARD	10 FEET

PURPOSE OF PLAN:
 TO REFLECT A CONCEPTUAL DEVELOPMENT OF THIS PROPERTY IN CONJUNCTION WITH THE ZONE CHANGE REQUEST TO R-2 (PUD)



OWNER:
 MCMILLEN REGINALD B ESTATE
 C/O JAMES W MCMILLEN
 1811 SHARP ROAD
 STAMPING GROUND, KY 40319

APPLICANT:
 ANDERSON COMMUNITIES, LLC
 1255 PROVIDENCE PLACE PARKWAY
 SUITE 250
 LEXINGTON, KENTUCKY 40511

SCALE: 1" = 100'-0"



Date: May 1, 2026

Barrett Partners, Inc.
 PLANNING AND LANDSCAPE ARCHITECTURE
 636 Euclid Avenue, Suite 317 - Lexington, Kentucky 40502
 856-381-9897
 www.barrettpartnersinc.com

McMillen Property
 PVA PARCEL NUMBER 192-20-067.000
 Lemons Mill Road
 Georgetown, Kentucky

Revised: 6/12/2026 PER TECHNICAL REVIEW

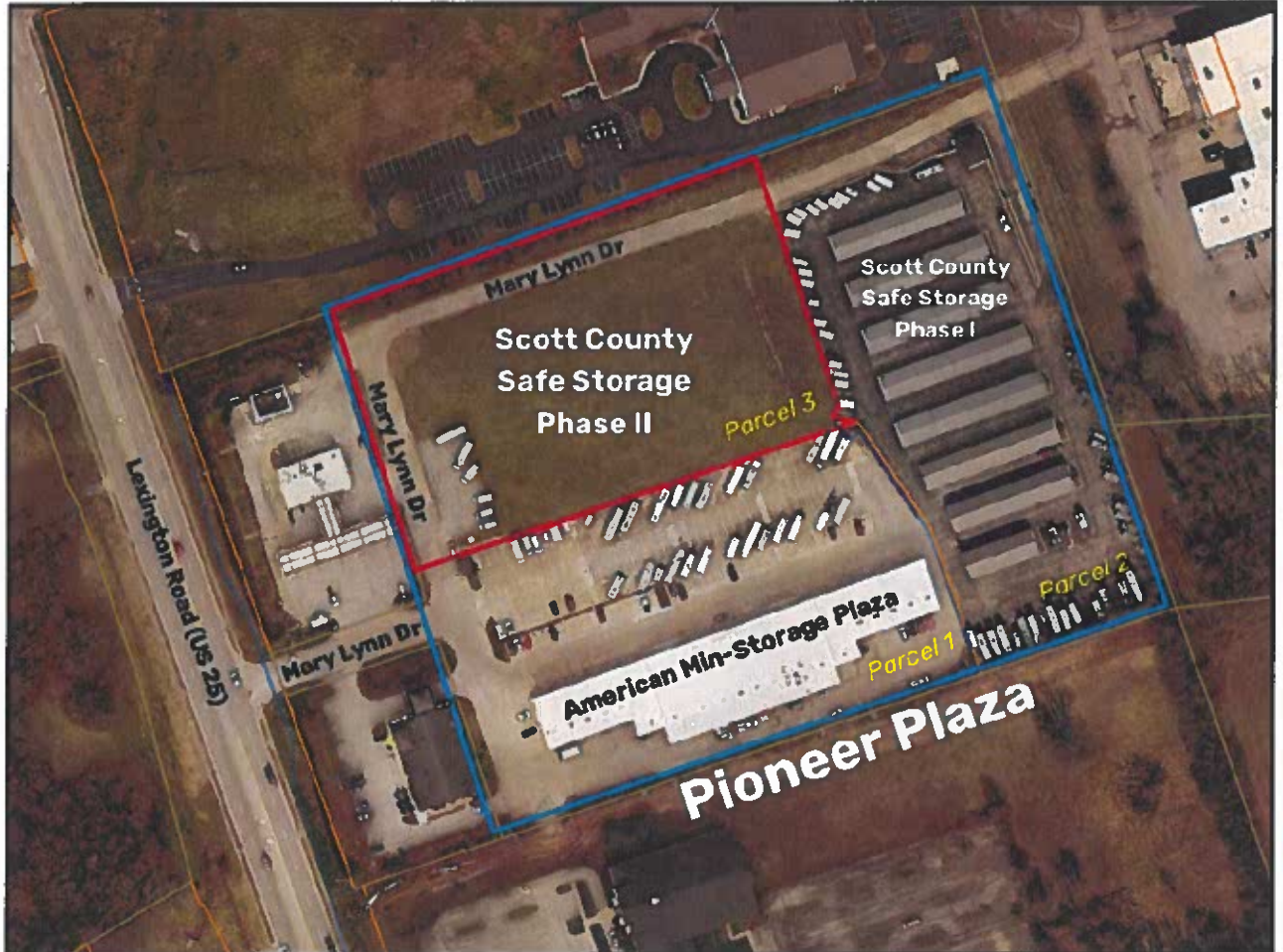
Concept Plan

CP

**SCOTT COUNTY SAFE STORAGE PHASE II
PRELIMINARY DEVELOPMENT PLAN AMENDMENT**

**Staff Report to the Georgetown-Scott County Planning Commission
July 9, 2026**

FILE NUMBER PDP-2007-43



PROPOSAL Variance for parking and interior landscaping for vehicular use area within a storage facility

LOCATION 102 Mary Lynn Drive, within the Pioneer Plaza

APPLICANT August Properties, LLC

ENGINEER Thoroughbred Engineering, Inc.

STATISTICS

Zone	B-2	Building Coverage	36.9%
Surrounding zones	B-2, A-1	Building No.	7
Lot Area	3.58 acres	Unit No.	278
Buildable Area	2.59 acres	Required Parking	28
Building Coverage	41,700 sq. ft.	VUA	71,574 sq. ft.
Required IL	7,157.4 sq. ft.	Water/sewer	Yes/Yes
Access	Via Mary Lynn Drive, a privately maintained street		
Requested Relief	Variances from Parking and VUA Interior Landscaping Requirements		

BACKGROUND

Following a 1995 subdivision of the Risk Property (04-1446), a 130-acre property located just south of US 62 (McClelland Circle) and extending eastward from US 25 (Lexington Road), Tract 1 of the resultant subdivision would go on to be developed as the Pioneer Plaza, evolving into three separate parcels owned by American Mini-Storage of Kentucky, Inc. (Parcels 1 and 2) and August Properties LLC (Parcel 3). The southern parcel (1) contains a partially filled strip mall with an RV and Trailer parking area; the eastern property (2) contains a self-storage facility (Scott County Safe Storage – Phase I); and the western, undeveloped property (3) for which an additional self-storage facility (Scott County Safe Storage – Phase II) is proposed.

On Parcel 1, the Preliminary Development Plan for the Pioneer Plaza (PDP 1994-10) was approved by the Planning Commission at its October 13, 1994, public hearing. The American Mini-Storage Plaza appears to be composed of interior storage units; several storefront tenants that include a self-serve laundromat, a fire arms sales store, a doughnut shop, a pregnancy support center, and a heating and cooling company; and a couple vacant store units available for lease. Parking is directly to the north of the structure, spaces for those facilities being directly in front of the building while the more distant ones adjacent to Parcel 3 are used for RV and trailer storage.

On Parcel 2, the Preliminary Development Plan for Phase I of the development (PDP 2006-31) – then referenced as Pioneer Plaza Self-Storage – was approved by the Planning Commission at its May 11, 2006, public hearing. The Final Development Plan for Phase I – now referenced as Scott County Safe Storage – was approved on September 5, 2006, and the facility was installed shortly thereafter. The parcel was enlarged along its western boundary in 2021 with a transfer and consolidation plat (13-080). The additional space is utilized for storage of RVs and trailers. Entrances into that facility are via a single gate at its NE corner off of Mary Lynn Drive as well as a larger, ungated opening from the Parcel 1 parking lot.

On Parcel 3, the Preliminary Development Plan for the **Scott County Safe Storage Phase II** (PDP 2007-43) project was approved with a list of thirteen (13) conditions by the Planning Commission at its October 11, 2007, public hearing. The Conditions of Approval include the following:

1. Provide scale on the Preliminary Development Plan.
2. All requirements of the Planning Commission Engineering regarding drainage.
3. All requirements of the Georgetown Fire Department regarding the installation/location of fire hydrants.
4. Application shall provide detail drawings for both 6' controlled entry gate areas.
5. Provide all required perimeter Vehicular Use Area Landscape Screening.
- 6. Provide Vehicular Use Area interior landscaping that is consistent with Phase I of this development.**
7. Provide species specific landscape plan prior to Final Development Plan approval.
8. Prior to Final Development Plan approval, provide construction drawings, stamped by the design engineer, for retaining wall.
9. Prior to any construction or grading, the applicant shall meet with the Planning Commission Engineer and Engineering Technician to review construction policies and establish inspection scheduled.
10. There shall be no grading or construction on the site until all required plans (i.e., drainage plans) including Construction Plans and Final Development Plans have been reviewed and approved by the Planning Commission staff.

11. Any revision or amendments to the approved development plan must be reviewed and approved by the Planning Commission staff (minor) or by the Planning Commission (major).

12. All applicable requirements of the *Zoning Ordinance and Subdivision & Development Regulations*.

13. Prior to (as part of) the Final Development Plan approval, the applicant must provide the Planning Commission staff (GIS Division) a digital copy of the approved plan.

Final Development Plans have been submitted, have been under review, and have been going through an iterative process as details are hashed out, which include issues of parking, vehicular use area (VUA), and landscape requirements. Aerial imagery and a site visit indicate that there is commercial activity currently taking place on the property that has not been authorized.

VARIANCE REQUESTS

Per Condition No. 11 mentioned above, which requires a review by the Planning Commission for any revisions or amendments to an approved plan, the applicant is requesting the following variances:

1. *That the required parking spaces (1 per 10 units) [not*] be designated stalls. Rather, they are part of the aisles between buildings, and therefore do not require interior landscaping. *This word was added following additional discussion with the applicant to clarify meaning.*
2. *That the VUA used for interior landscaping calculations does not include the loading/unloading areas (aisles and perimeter drives). In this case, since there is no onsite office, the VUA for interior landscaping is zero square feet.*

Article I, Section 135 of the Subdivision and Development Regulations establishes that the Planning Commission may grant variances from strict application of the Subdivision and Development Regulations, as a part of preliminary subdivision plat review or preliminary development plan review, according to the following:

- A. Variances may be granted according to the same purposes, analysis, and findings required of the Board of Adjustment for zoning variances, as set forth in KRS 100.243;
- B. Variances may be granted for the purpose of encouraging flexibility and economy in site design and/or providing for open space or protection of environmentally sensitive areas, if the intent and purpose of these regulations and the goals, objectives, and policies of the Comprehensive Plan are substantially met; or
- C. Variances may be granted to accommodate physical conditions exceptional and unique to the property sought to be subdivided or developed, if the intent and purpose of these regulations and the Goals, Objectives, and Policies of the Comprehensive Plan are substantially met.

Kentucky Revised Statutes 100.243 has established the following findings as necessary for granting variances:

1. Before any variance is granted, the board must find that the granting of the variance will not adversely affect the public health, safety, or welfare, will not alter the essential character of the general vicinity, will not cause a hazard or nuisance to the public, and will not allow an unreasonable circumvention of the requirements of the zoning regulations. In making these findings, the board shall consider whether:
 - a. The requested variance arises from special circumstances which do not generally apply to land in the vicinity, or in the same zone;
 - b. The strict application of the provisions of the regulation would deprive the applicant of the reasonable use of the land or would create an unnecessary hardship on the applicant; and
 - c. The circumstances are the result of actions of the applicant taken subsequent to the adoption of the zoning regulations from which relief is sought.
2. The board shall deny any request for a variance arising from circumstances that are the result of willful violations of the zoning regulation by the applicant subsequent to the adoption of the zoning regulations from which relief is sought."

Parking

Appendix VII(D) of the Subdivision and Development Regulations specifies that the minimum number of parking spaces for a self-storage facility is one (1) space per ten (10) storage units, plus one (1) space per employee on maximum shift.

The 2007 approved Preliminary Development Plan (PDP) for Phase II proposed 263 storage units, for which 27 parking spaces were required to account for the number of units. As the proposed facility is paired with Phase I to the east, where the office building is, no employees were to be on this site and no additional parking spaces for employees were required. The PDP included 24 parallel parking spaces, labeled as "stalls", on the Phase II site to be positioned along the perimeter fencing along the northern site boundary and adjacent to the side of the eastern most storage building. Three (3) outdoor vehicle stalls on the Phase I site were to be repurposed and counted for parking spaces on Phase II to account for the needed number per unit count for that site.

The recently submitted revised plan for Phase II proposes 278 storage units, for which 28 parking spaces are required in accordance with the Subdivision and Development Regulations. The plan does include 18 10'x30' RV and Trailer Rental Stalls but does not include any designated customer parking spaces, stating on the plan that the drive aisles provide more than sufficient parking space in front of the storage units as designated stalls.

VUA and Interior Landscaping

Section 6.13(*2) defines Vehicular Use Area (VUA) as any open or unenclosed area containing more than 1,800 sq. ft. of area and/or used by five or more of any type of vehicle, whether moving or at rest, including but not limited to parking lots, loading and unloading areas, mobile home parks, and sales and service areas. Driveways are considered to be vehicular use areas.

Section 6.22 specifies that any open vehicular use area (excluding loading, unloading, and storage areas in an industrial zone) containing 6,000 or more sq. ft. of area, or twenty or more vehicular parking spaces, shall provide interior landscaping in addition to the previously

required perimeter landscaping. Interior landscaping shall be peninsular or island types. Where a vehicular use area is altered or expanded to increase the size to 6,000 or more square feet of area, or twenty or more vehicular parking spaces, interior landscaping (IL) for the entire vehicular use area shall be provided and not merely to the extent of its alteration or expansion. Section 6.221 specifies that interior landscaping shall be 10% of the calculated VUA. Sections 6.2211 and 6.2212 establish the area requirements for IL islands and peninsulas.

The approved Preliminary Development Plan (PDP) for Phase II calculated 3,840 square feet of VUA based on the area of the 24 customer parking stalls on that site. The calculation appears not to have included the driveway, drive aisles, or loading and unloading areas on the site. Reasons for exclusion of those features are not included in our records.

Per Condition No. 6 of the approved PDP for Phase II, as mentioned above, the VUA interior landscaping is to be consistent with the IL in Phase I of the development. Review of the approved Final Development Plan for Phase I, as well as the approved amendments to that plan, show that VUA calculation was based on the area of the driveway, the area of the defined customer parking spaces/stalls, and the aisle width where the vehicle maneuvers into and out of the parking space area. Not included in the calculation were the rental outdoor vehicle stalls, the drive aisles between the storage structures, and much of the remaining perimeter drive aisles.

The proposed calculation of 3,840 square feet for the PDP for Phase II, by not including the driveway and the area to allow for entry into and reversal from the parking stalls, did not adhere to the requirement of Condition No. 6 and would have to be corrected for a Final Development Plan approval adhering to that condition. Subsequently, the plan would need to include interior landscaping according to that required for VUA calculations.

The submitted revised Final Development Plan for Phase II appears to posit that designated parking spaces as required by regulations are not applicable to this development due to precedents where it has not been applied or where there have been consistent variances from this requirement on other self-storage facilities; that designated parking spaces have been placed near offices for the limited purpose of visiting the office; and that most parking needs, which are temporary and for the purpose of loading and unloading, are met along the drive aisles in front of the respective storage units. As this development does not include a facility office (the management of Phase II units are proposed to be handled by the existing office on the Phase I site), no designated parking should be required. In the absence of designated parking, there is no VUA to be calculated. In the absence of a calculated VUA, no VUA interior landscaping should be required.

Examples of Self-Storage Development Projects

The applicant has communicated with Planning Commission staff that mini-storage facilities typically do not have designated parking at a ratio of one space per ten storage units, and that the number of parking spaces has been based on reasonable expectations for office visits, with many facilities having approximately six parking spaces near their office.

A survey of local self-storage facilities (see table below) reveals that in many cases only three components of the paved area of the facilities have been utilized in calculating the area for VUA interior landscaping, those being 1) the area of the designated customer parking spaces, 2) the aisle width (where the vehicle maneuvers into and out of the parking space), and 3) the facility driveway. Drive aisles between and around the storage buildings have typically not been

included in those calculations even though the definition of VUA includes those areas. (The lightly shaded areas in the table indicate anomalies, where an office was not proposed or no reduction in required parking was approved. The area with the red outline is the site for which parking variance is sought. The more darkly shaded area highlights the project site currently under review. Please note that these anomalies are associated only with the Scott County Safe Storage Phase I and Phase II facilities.)

Project Name	Address	Project Number	Zone	Office	Parking	VUA Interior Landscaping Based on:			
						Customer Parking	Aisle Width	Driveway	Drive Aisle
American Mini-Storage	1510 Oxford Dr	PDP-2002-18	B-2	Yes	3	-	-	-	-
American Mini-Storage (South)	209 American Path	PDP-2003-75	B-2	Yes	6	X	X	X	-
Scott County Safe Storage Phase I	108 Mary Lynn Dr	PDP-2006-31	B-2	Yes	26	X	X	X	-
Scott County Safe Storage Phase II	106 Mary Lynn Dr	PDP-2007-43	B-2	No	27	X	-	-	-
American Mini (Self-Storage)	1047 Paris Pike	PDP-2017-33	B-2	Yes	8 (V)	X	X	X	-
Bluegrass RV Storage	269 Connector Rd	PDP-2018-25	B-2	Yes	19 (W)	X	X	X	X (W)
Tri-Village Storage	250 Connector Rd	PDP-2019-04	B-2	Yes	8 (V)	X	X	X	-

For American Mini-Storage (1510 Oxford Dr), a facility with approximately 14,687 square feet of storage capacity and which received Final Development Plan approval in 2003, three (3) parking spaces adjacent to the office were allotted. No record of a variance request for reduction in parking requirements was found. VUA perimeter landscaping was included in the plans, but VUA interior landscaping was not. The American Mini-Storage South facility (209 American Path), which was approved in 2004, was designed for development in three phases. Phase I included an office space, for which 6 parking spaces were included. No record of a variance request for reduction in parking requirements was found. Further development of Phase II and Phase III did not result in an increase in the number of parking spaces. VUA interior landscaping was calculated and installed based on the area of the parking spaces, the aisles widths, and the entrance drive.

The Pioneer Plaza Self-Storage, which was renamed Scott County Safe Storage Phase I (108 Mary Lynn Dr), was approved in 2006. It included an office, and the 26 parking spaces approved were in accordance with current regulatory requirements of 1 space per 10 storage units. The VUA interior landscaping was based on the number of parking spaces. VUA interior landscaping was calculated and installed based on the area of the parking spaces, the aisles widths, and the entrance drive. The adjacent Scott County Safe Storage Phase II was preliminarily approved in 2007. No additional office space was proposed for that site, and the 27 parking spaces (three of which were repurposed area on the Phase I site) proposed and approved were as required by regulations. The VUA interior landscaping was based strictly on the area of the 24 parking spaces on the Phase II site.

The American Mini-Storage at 1047 Paris Pike was approved in 2019, and it received approval of a variance to reduce the number of parking spaces to eight (8) in front of the facility office. The

reasoning was that the approved number would be sufficient to meet the needs of the office and that the 24-foot-wide drive aisles would allow space for short-term parking for those accessing storage units. VUA interior landscaping was calculated and installed based on the area of the parking spaces, the aisles widths, and the two entrance drives.

The Bluegrass RV Storage facility (269 Connector Rd) was approved in 2018. The 340-storage unit facility includes an office, and a waiver to reduce the required parking spaces from 35 to 19 was approved along with a waiver for a reduction in the VUA interior landscaping requirements. The Tri-Village Storage facility (250 Connector Rd) received approval of a variance to reduce the required parking spaces from 34 to 8 spaces, the rationale given that the reduced number of parking spaces is sufficient in meeting the needs of the facility's office and because most of the clients visiting the site parked temporarily in front of their respective storage units. The VUA interior landscaping appears to have been calculated and installed based on the area of the parking spaces, the aisles widths, and the two entrance drives.

ANALYSIS

Variance Standards

As stated above, the Planning Commission may grant variances from strict application of the Subdivision and Development Regulations either 1) in accordance with KRS 100.243, 2) to encourage flexibility and economy in site design or protection of open space, or 3) to accommodate unique physical characteristics of the property.

KRS 100.243

If the granting of a variance were to be in accordance with KRS 100.243, the Planning Commission must find that the requested variance will not cause harm or be an unreasonable circumvention of zoning regulations, that difficulty in adhering to regulations arises from unique features of the property that would deprive the applicant of reasonable use of the land without a variance, and that the applicant did not create difficult circumstances of the property.

It is staff's opinion that the application does not meet the assessment standards set forth in KRS 100.243. While the proposed variances are unlikely to have adverse impacts to public health, safety, or welfare, there are no evidence of special circumstances or unique characteristics of the property or likely loss of reasonable use of the land or the creation of hardship due to lack of the requested variances. Therefore, consideration of a variance must be weighed by other measures.

Unique Features of Property

The site for the Scott County Safe Storage Phase II facility is a 2.59-acre rectangle on level ground. There are no unique features that would constrain development.

Flexibility and Economy in Site Design

The Planning Commission may wish to consider the option of granting the requested variances, as stated in Article I, Section 135 of the Subdivision and Development Regulations, for "the purpose of encouraging flexibility and economy in site design ... if the intent and purpose of these regulations and the goals, objectives, and policies of the Comprehensive Plan are substantially met."

Parking Regulations

Section 2.71(B) of the Georgetown-Scott County Zoning Ordinance establishes the requirements for off-street parking:

When any building is built or any use of premises is initiated they shall be provided with sufficient off street parking space on the premises so that they will generate no automobile parking on any street as a result of their normal activity...

Section 2.72, Off-Street Loading and Unloading Space Regulations for Trucks, specifies the following:

All buildings and uses except those in the Central Business District which generate regular trucking traffic shall be provided with sufficient off-street loading and unloading space on the premises so that they will generate no loading or unloading activity on their required parking spaces or on any street. The Board of Adjustment shall interpret the amount of loading and unloading space required for any building or use whenever the Enforcement Officer is unable to apply this standard literally and applies to the Board for an original interpretation.

Appendix VII(D) of the Subdivision and Development Regulations, as previously stated, specifies that the minimum number of parking spaces for a self-storage facility is one (1) space per ten (10) storage units, plus one (1) space per employee on maximum shift.

In summary, the intent and purpose of the regulations is that off-street parking shall accompany buildings or uses of a property, that loading and unloading zones shall be available for all buildings and that those zones will not interfere with other parking spaces or traffic, and that a self-service storage facility must have a minimum of one parking space per ten storage units and one for each employee at maximum shift.

VUA and Interior Landscape Regulations

As cited earlier, Section 6.13(*2) of the Landscape Ordinance defines Vehicular Use Area (VUA) as any open or unenclosed area used by any type of vehicle and includes parking lots, loading/unloading zones, and driveways. Section 6.22 specifies that any VUA 6,000 square feet or more shall provide interior landscaping.

Section One of the Landscape Ordinance describes the intent of the article as "...to improve the appearance of vehicular use areas (VUAs) and property abutting public rights-of-way; to require buffering between incompatible land uses; to protect, preserve and promote the aesthetic appeal, character, and value of the community, and to promote public health and safety through the reduction of noise pollution, air pollution, visual pollution, air temperature, and artificial glare." The above-cited regulations work toward that intent.

Comprehensive Plan

The 2024 Comprehensive Plan addresses multiple elements in its vision, goal setting, and strategy recommendations. Of the eight elements addressed, Community Form and Environment appear to be the most pertinent to this discussion.

Of the common themes addressed in the chapter on Community Form, a need for more flexibility in our regulations and a desire for stronger design and building standards in high-use locations and community gateways is expressed. The community form goals and objectives applicable to the current discussion include the following:

- CF 1 Design for an efficient network of streets and land uses
- CF 2 Maintain and enhance our built environment's form and character
- CF 2.1 Allow flexibility in land uses and design patterns within projects that provide *public amenities* or other *community benefits**
- CF 3 Encourage development practices at site and community wide levels that are sustainable and protect agricultural areas
- CF 3.5 Encourage development utilizing green building and sustainable best practices

* *Public amenities* are shared facilities and services that enhance quality of life accessibility, and social cohesion. These may include parks and green spaces as well as libraries and community centers. *Community benefits* are the positive social, economic and environmental impacts that enhance quality of life and foster social cohesion. These may include environmental improvements as well as affordable housing.

The focus of the chapter on the environment is on protecting the environmental qualities and character of rural Scott County, and the methods that can be used to evaluate the impacts of existing and proposed growth to our agricultural areas, natural habitats, and urban areas activities. The environmental goals and objectives applicable to the urban setting include the following:

- EN 1 Protect air and water quality
- EN 1.8 Increase tree canopy coverage for Scott County to reduce the heat island effect and to capture and sequester carbon
- EN 4 Support green spaces, parks, and walkways
- EN 4.6 Increase the footprint of the urban tree canopy
- EN 5 Encourage the adoption of sustainable practices at all scales

In summary, the goals, objectives, and policies of the Comprehensive Plan, respective to this discussion, appear to support limited flexibility in site design while prioritizing environmental quality through green infrastructure.

Analysis of Requested Variances

Variance Request 1: *That the required parking spaces (1 per 10 units) [not] be designated stalls. Rather, they are part of the aisles between buildings, and therefore do not require interior landscaping.*

The intent of this variance request was initially unclear to staff, but, based on further communication with the applicant, staff believes that the intent of this request is an assertion that required designated parking should be limited to customer and employee access to any facility office. As no office is proposed for this site, designated parking stalls should not be required for this development.

Staff posits that this assertion has merit. While regulations require self-service storage facilities to have 1 parking space for each 10 storage units, this requirement has historically not been imposed on previous developments of such facilities, the exception being the Scott County Safe Storage development sites. Reasoning given for approved variances to this requirement has been that the reduced number of parking spaces has been sufficient in meeting the needs

of the facilities' offices and because most of the clients visiting the sites park temporarily in front of their respective storage units.

The Planning Commission may wish to consider approving a variance of the designated parking requirement of 1 space per every 10 storage units on the grounds of encouraging flexibility and economy in site design, for which the Planning Commission has authority. The Planning Commission must find that the intent and purpose of the regulations and the goals, objectives, and policies of the Comprehensive Plan are substantially met.

As previously stated, the intent and purpose of the Subdivision and Development Regulation and of the Zoning Ordinance are that off-street parking shall accompany buildings or uses of a property, that loading and unloading zones shall be available for all buildings and that those zones will not interfere with other parking spaces or traffic, and that a self-service storage facility must have a minimum of one parking space per ten storage units and one for each employee at maximum shift.

Staff contends that the proposed development provides off-street parking and availability of loading and unloading areas that do not interfere with parking or traffic. Although a reduction in or waiver of the required number of parking spaces does not strictly adhere to regulations, staff reasons that the intent and purpose of the regulations are met. The Comprehensive Plan supports flexibility of design when it benefits the community, and the Planning Commission may wish to consider whether flexibility and economy in site design is a benefit to community.

Staff recommends that the variance request be rephrased to better match the phrasings of variance requests in the most recent self-service storage facility approvals:

Variance to reduce the required parking from 28 to 0 spaces.

Staff recommends approval of this variance request.

Variance Request 2: *That the VUA used for interior landscaping calculations does not include the loading/unloading areas (aisles and perimeter drives). In this case, since there is no onsite office, the VUA for interior landscaping is zero square feet.*

Staff believes that this assertion has some limited credence. As mentioned above, a condition of the 2007 approval of Phase II (PDP 2007-43) was that the VUA interior landscaping was to be consistent with Phase I of this development. As mentioned above, the VUA calculations and associated interior landscaping of Phase I was based on the area of the driveway, the area of the defined customer parking spaces/stalls, and the area of the aisle width where the vehicle maneuvers into and out of the parking space area. Not included in the calculation were the rental outdoor vehicle stalls, the drive aisles between the storage structures, and much of the remaining perimeter drive aisles. Exclusion of the aisles and perimeter drives for VUA interior landscaping calculations on this site is consistent with those with Phase I.

However, staff would like to note that, in this application, aisle width and driveway area have not been included in the discussion of VUA calculations for Phase II. As mentioned, the previously approved PDP for Phase II (PDP-2007-43) included only the area of the defined parking stalls and did not include the area for aisle width and driveway. Condition No. 6 of that approval required that the VUA interior landscaping be consistent with that in Phase I of this development. As stated earlier, the calculation in Phase I for VUA interior landscaping was

based on the area of the required number of parking stalls, of the aisle widths, and of the driveway. To be consistent with the interior landscaping of Phase I, the interior landscaping in Phase II would need to include in its VUA calculations the area of the required number of parking stalls, of the aisle widths, and of the driveway for Final Development Plan Approval.

Staff finds that the proposed elimination of VUA interior landscaping does not meet the standards necessary for approval. Under the requirements for KRS 100.243, no hardship is created through the enforcement of these regulations. Under the consideration requirements for the purpose of encouraging flexibility and economy in site design, the proposed variance does not meet the intent and purpose of the regulations and the goals, objectives, and policies of the Comprehensive Plan. Staff posits that the proposed elimination of VUA interior landscaping does not meet these criteria.

The Landscape Ordinance clearly articulates its intent of improving the appearance of vehicular use areas (VUAs); of protecting, preserving, and promoting the aesthetic appeal, character, and value of the community; and of promoting public health and safety through the reduction of noise pollution, air pollution, visual pollution, air temperature, and artificial glare. As well, the Comprehensive Plan explicitly supports increasing the tree to canopy to reduce the heat island effect and to capture and sequester carbon.

Staff recommends denial of this requested variance. Additionally, in keeping with the mandate of Condition No. 6 in the 2007 PDP approval of Phase II, staff recommends that the VUA interior landscaping be based on the area of the required number of parking stalls, of the aisle widths, and of the driveway.

Calculation of these areas can be pursued in a small number of approaches. Section 2.71(C)(8) of the Zoning Ordinance suggests computing for each vehicle 400 square feet to allow for driveways and aisle widths and 180 square feet for each vehicle parking space. This method is consistent with the VUA calculations for Phase I in that it includes the parking space, the aisle width, and the driveway. The total VUA calculation is 580 square feet per vehicle. With 278 storage units proposed, the required number of parking spaces would be 28, given that there would be no office or personnel onsite. That number multiplied by the calculated VUA is 16,240 square feet. Ten percent of that, as is required for the interior landscaping, is 1,624 square feet.

Alternatively, Section 1005(B) of the Subdivision and Development Regulations establishes that each standard off-street parking space shall be measured 9 feet in width and 18 feet in length, for a total area of 162 square feet for each parking space. Exhibit 10-7 specifies that the aisle width is to be determined based on the angle of parking. For a 90° angle, the aisle width is to be measured at 24 feet. That length times the width of the parking space equals 216 square feet. Add these measurements to the area of the driveway, and it would be a methodology that provides the needed components for VUA calculations.

FINDINGS

1. The Preliminary Development Plan (PDP-2007-43) for Scott County Safe Storage Phase II, located in the Pioneer Plaza, was approved in 2007 subject to 13 conditions.
2. Those conditions include compliance with all applicable requirements of the *Zoning Ordinance* and the *Subdivision and Development Regulations*.
3. Those regulations require that self-service storage facilities provide 1 parking space for each 10 storage units, and one for each employee at maximum shift.

4. With a proposed 278 storage units and no onsite office, the applicant is required to provide a minimum of 28 parking spaces.
5. Variance request 1: The applicant requests a variance to reduce the required parking from 28 to 0 spaces, asserting that required designated parking should be limited to customer and employee access to any facility office. As no office is proposed for this site, designated parking stalls should not be required for this development.
6. A survey of local self-storage facilities reveals that in most cases, the required parking has been based on reasonable expectations for office visits rather than the regulatory requirement. The Scott County Safe Storage Phase I and Phase II facility is the exception to this consistency of application.
7. Staff supports approval of the requested variance to reduce the required parking from 28 to 0 spaces.
8. Variance request 2: The applicant requests a variance from the interior landscape requirement based on VUA calculations.
9. According to Section 6.13(*2) of the Landscape Ordinance, VUA includes any open or unenclosed area containing more than 1,800 sq. ft. of area and/or used by five or more of any type of vehicle, whether moving or at rest, including but not limited to parking lots, loading and unloading areas, mobile home parks, sales and service areas, and driveways. Section 6.22 specifies that any open vehicular use area ...containing 6,000 or more sq. ft. of area, or twenty or more vehicular parking spaces, shall provide interior landscaping.
10. Condition No. 6 placed with that approval for Phase II states that the applicant shall provide Vehicular Use Area interior landscaping that is consistent with Phase I of the development (PDP-2006-31), which has since been constructed and is operational.
11. The VUA interior landscaping for Scott County Safe Storage Phase I was based on the calculated area of the required parking spaces (in compliance with regulatory requirements), the aisle widths, and the driveway. Not included in the calculation were the rental outdoor vehicle stalls, the drive aisles between the storage structures, and much of the remaining perimeter drive aisles.
12. Staff does not support the requested variance from the VUA interior landscaping requirement as conditioned by the PDP-2007-43 approval.
13. The Planning Commission may grant variances from strict application of the Subdivision and Development Regulations either 1) in accordance with KRS 100.243, 2) to encourage flexibility and economy in site design or protection of open space, or 3) to accommodate unique physical characteristics of the property.
14. Staff contends that the application does not meet the assessment standards set forth in KRS 100.243 and that consideration of the requested variances must be weighed by another measure.
15. The Planning Commission may wish to consider the requested variances, as stated in Article I, Section 135 of the Subdivision and Development Regulations, for "the purpose of encouraging flexibility and economy in site design ... if the intent and purpose of these regulations and the goals, objectives, and policies of the Comprehensive Plan are substantially met."

16. Regarding parking requirements respective to this application, the intent and purpose of the regulations is that off-street parking shall accompany buildings or uses of a property, that loading and unloading zones shall be available for all buildings and that those zones will not interfere with other parking spaces or traffic, and that a self-service storage facility must have a minimum of one parking space per ten storage units and one for each employee at maximum shift.
17. Staff contends that the proposed development provides off-street parking and availability of loading and unloading areas that do not interfere with parking or traffic. Although a reduction in or waiver of the required number of parking spaces does not strictly adhere to regulations, staff reasons that the intent and purpose of the regulations are met. The Comprehensive Plan supports flexibility of design when it benefits the community, and the Planning Commission may wish to consider whether flexibility and economy in site design is a benefit to the community.
18. Regarding the VUA interior landscaping respective to this application, the Landscape Ordinance describes the intent of the article as "...to improve the appearance of vehicular use areas (VUAs) and property abutting public rights-of-way; to require buffering between incompatible land uses; to protect, preserve and promote the aesthetic appeal, character, and value of the community, and to promote public health and safety through the reduction of noise pollution, air pollution, visual pollution, air temperature, and artificial glare."
19. The goals, objectives, and policies of the Comprehensive Plan, respective to this discussion, appear to support limited flexibility in site design while prioritizing environmental quality through green infrastructure.

RECOMMENDATION

Regarding the proposed amendment to the preliminary development plan (PDP-20026-43), staff recommends **approval** of the requested *variance to reduce the required parking from 28 to 0 spaces* with the following conditions:

1. Calculation of the VUA interior landscaping shall include the area of the required number of parking stalls, of the aisle widths, and of the driveway in accordance with Condition No. 6 in the 2007 PDP approval.
2. All applicable conditions of previous approvals.

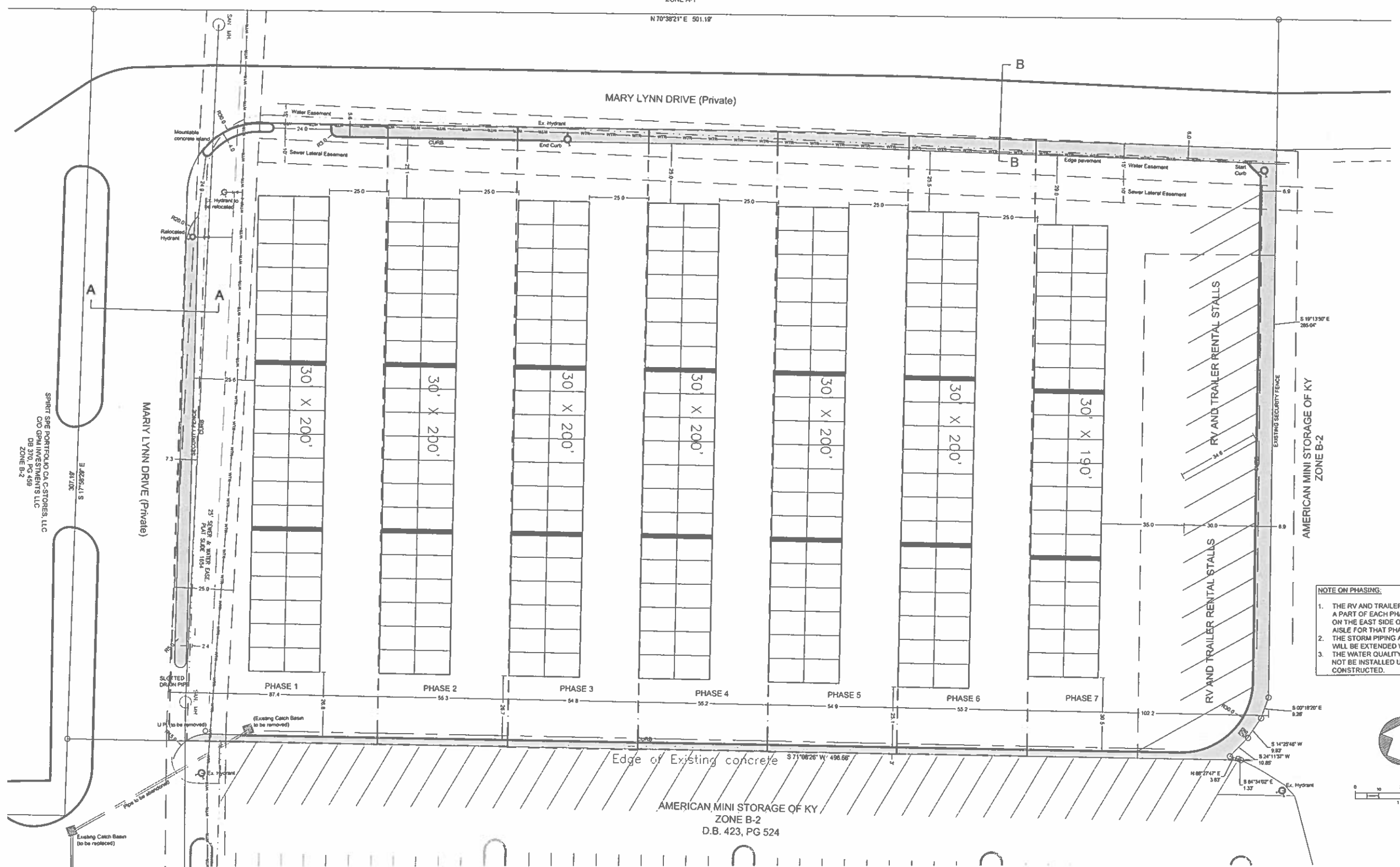
Staff recommends **denial** of the requested variance from the VUA interior landscaping requirement as conditioned by the PDP-2007-43 approval. Should the Planning Commission approve this variance request, staff recommends the following conditions:

1. Calculation of the VUA interior landscaping shall include the area of the aisle width and of the driveway in partial accordance with Condition No. 6 in the 2007 PDP approval.
2. All applicable conditions of previous approvals.

FIRST UNITED METHODIST CHURCH
ZONE A-1

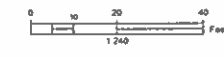
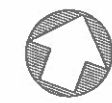
N70°38'21" E 501.18'

MARY LYNN DRIVE (Private)



NOTE ON PHASING:

1. THE RV AND TRAILER RENTAL STALLS WILL BE A PART OF EACH PHASE, JUST SHIFTED TO BE ON THE EAST SIDE OF THE CONSTRUCTED AISLE FOR THAT PHASE.
2. THE STORM PIPING AND WATER RECHARGE WILL BE EXTENDED WITH EACH PHASE.
3. THE WATER QUALITY UNIT FOR PHASE 1 WILL NOT BE INSTALLED UNTIL PHASE 7 IS CONSTRUCTED.



Edge of Existing concrete S 71°08'26" W 496.68'
AMERICAN MINI STORAGE OF KY
ZONE B-2
D.B. 423, PG 524

SITE STATISTICS

ZONE	B-2
TOTAL AREA	3.583 acres
EXCLUDING MARY LYNN DR.	2.59 acres
BUILDING AREA	41,700 sq ft.
BUILDING COVERAGE	38.9 %
ALLOWED BLDG COVERAGE	50%
VUA AREA (loading/unloading)	71,574 sq ft.
VUA SUBJECT TO INTERIOR LANDSCAPING	0 sq ft.
PARKING:	
NUMBER OF UNITS =	278
1 SPACE PER 10 UNITS =	28
THE AISLES CAN ACCOMMODATE 78 CARS SAFELY.	
PARKING ON ONE SIDE - 1500' OF AISLE @ 20' EACH	
NO ONSITE OFFICE (no employees)	

PURPOSE NOTE:

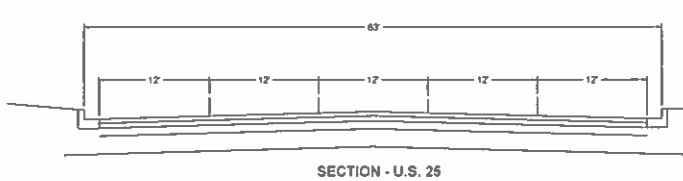
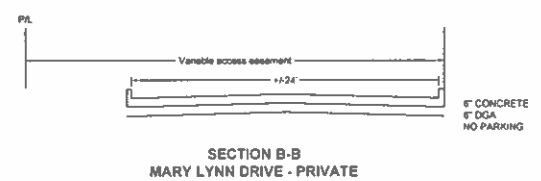
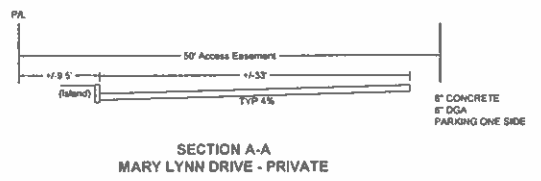
THE PURPOSE OF THIS AMENDMENT IS TO REQUEST VARIANCES AS FOLLOWS:

1. THAT THE REQUIRED PARKING SPACES (1 PER 10 UNITS) BE DESIGNATED STALLS. RATHER, THEY ARE PART OF THE AISLES BETWEEN THE BUILDINGS, AND THEREFORE DO NOT REQUIRE THE INTERIOR LANDSCAPING.
2. THAT THE VUA USED FOR THE INTERIOR LANDSCAPING CALCULATIONS DOES NOT INCLUDE THE LOADING/UNLOADING AREAS (AISLES AND PERIMETER DRIVES). IN THIS CASE, SINCE THERE IS NO ONSITE OFFICE, THE VUA FOR INTERIOR LANDSCAPING IS ZERO SQUARE FEET.

IN ADDITION, TO SHOW THE MOST CURRENT BUILDING LAYOUT AND PHASING.

SPRINT SPE PORTFOLIO O.A.C. STORES, LLC
C/O GPM INVESTMENTS, LLC
DB 370, PG 459
ZONE B-2

MARY LYNN DRIVE (Private)



AMENDED PRELIMINARY DEVELOPMENT PLAN
SCOTT COUNTY SAFE STORAGE - PHASE 2

August Properties, LLC
106 MARY LYNN DRIVE, GEORGETOWN, KENTUCKY

BRENT COMBS, ENGINEER

4078 LONG LICK PIKE, STAMPING GROUND, KENTUCKY

DATE	3-24-2024	DESIGNED BY	ABC
FOR REVIEW			
DATE		REVISION	

LIVSMART STUDIO HOTEL – AMENDED PLAN PDP-2026-15

**Staff Report to the Georgetown-Scott County Planning Commission
July 9, 2026**

FILE NUMBER: PDP-2026-15

PROPOSAL: Amended Preliminary Development Plan for a 3-story, 99 room hotel with associated parking and landscaping

LOCATION: 400 Outlet Center Drive (#190-10-088.000)

OWNER: Georgetown Interstate LLC

APPLICANT: GCC Development LLC

CONSULTANT: Grace Construction Consultants, Wayde Morrow PE & Klay Dunham



STATISTICS:

Zone:	B-2 Highway Commercial	
Surrounding Zone(s):	B-2, A-1 (Agricultural)	
Acreage:	2.78 ac	
Access:	Outlet Center Drive to Cherry Blossom Way [US-62]	
Existing Use:	Vacant	
Proposed Use:	<i>Existing (April 2026)</i> Hotel (89 rooms)	<i>Proposed (July 2026)</i> Hotel (99 rooms)
Building Height [Zone Max]:	38 feet and 3 stories [75 feet and 6 stories]	38 feet and 3 stories [75 feet and 6 stories]
Building Area [Lot Coverage]:	14,700 SF per floor [12.13% lot coverage]	16,350 SF per floor [13.49% lot coverage]
Variances & Waivers	1. Parking spaces per guest room 2. Ratio of interior landscape area to vehicular use area	1. Parking spaces per guest room 2. Ratio of interior landscape area to vehicular use area

BACKGROUND:

The subject property is a B-2 Highway Commercial 2.78-acre parcel located at 400 Outlet Center Drive ("Project Site"). The Project Site is a "flag-shaped" parcel located at the terminus of Outlet Center Drive with frontage and access onto Outlet Center Drive and frontage onto I-75.

The Project Site is vacant at time of application and the proposed use as a hotel is a by-right use for the Highway Commercial zone. In April 2026, the site was approved for a hotel with 89 rooms and associated parking, signage, and plantings. The Applicant is now requesting to amend the request to a hotel with 99 rooms and associated parking, signage, and plantings. The amended application is required to return to the Board for review of an amendment to the variances associated with parking and interior landscape areas for vehicle use areas.

SITE LAYOUT:

The development plan depicts a driveway from Outlet Center Drive to a 90-space parking lot and 3-story hotel with first floor area of 16,350 SF. The building is shown along the south boundary of the parcel.

Setbacks & Lot Layout

The building standards for the B-2, Highway Commercial, zone are as follows:

- 50-foot front yard setback
- 0-foot side yard setback
- 0-foot rear yard setback
- 6-story and 75-foot maximum height
- 50% maximum building ground coverage of lot

The proposed hotel satisfies the minimum building setback, maximum number of stories and maximum height requirements. The hotel also satisfies the requirements for maximum building lot coverage, as the proposed development would result in building ground coverage of 13.49%.

Building Signage:

The Applicant was approved for a variance to the signage for the development in April 2026. Because there is no change in the volume of signage with the increase in the number rooms, the variances approved in April 2026 remain intact.

Access:

The site is accessed by one entrance onto Outlet Center Drive. Outlet Center Drive does not have sidewalks on the east side of the roadway, so construction of a sidewalk is not required at this time.

Parking:

Per the *Subdivision & Development Regulations*, hotels require one parking space per room, one space per three employees, and four additional spaces per 50 guest rooms, or in the case of the Project Site 107 parking spaces (with 5 ADA spaces). The Applicant requests a waiver to this requirement, instead proposing allocating one parking space for each hotel room plus one additional space for staff. The development plan shows the Project Site having 99 parking spaces; 1 being designated for electric vehicles, and 5 being designated as ADA accessible.

In a supplemental letter submitted by the Applicant, they state that the typical business model for a hotel result in a "staggered parking demand" where there is limited overlap between guests, variation in check-in/check-out times, and single-vehicle guest arrivals. Furthermore, the Applicant notes that the industry standard is one space per room for limited-service and select-service hotels, which they state the proposed use satisfies as the hotel does not provide conference room nor other ancillary uses typical for all-service hotels. Finally, the Applicant states reducing the number of parking spaces would reduce

the environmental impact of site development as additional parking areas would increase impervious area and stormwater runoff while reducing the area for landscape buffer installation.

When reviewing the request, the Board is guided by KRS 100.243, which states the findings requirements for variances:

"KRS 100.243 Findings necessary for granting variances.

1. *Before any variance is granted, the board must find that the granting of the variance will not adversely affect the public health, safety, or welfare, will not alter the essential character of the general vicinity, will not cause a hazard or nuisance to the public, and will not allow an unreasonable circumvention of the requirements of the zoning regulations. In making these findings, the board shall consider whether:*
 - a. *The requested variance arises from special circumstances which do not generally apply to land in the vicinity, or in the same zone;*
 - Staff finds that the request meets the statutory requirements of KRS 100.243(a). The site is limited by several utility easements to the east which cannot be built over. Furthermore, the Applicant is required to have on-site stormwater management, which requires a certain amount of area for the system to be effective at treating the building run-off water before it enters into the groundwater system. The Applicant is limited by both requirements, thus making additional parking unfeasible without greatly impacting its' ability to satisfy all the local engineering and utility regulations.
 - b. *The strict application of the provisions of the regulation would deprive the applicant of the reasonable use of the land or would create an unnecessary hardship on the applicant; and*
 - Staff finds that the request meets the statutory requirements of KRS 100.243(b). When referring to the *ITE Parking Generation Manual, 6th Edition*, the parking requirements for a limited-service hotel would be 0.66 spaces per one guest room. Furthermore, the proposed development does not include several ancillary uses like recreation, restaurants, and meeting rooms facilities referenced in the requirements for on-site parking. By requiring additional parking based upon uses which the user does not engage with, it increases the number of parking spaces on-site despite identifying that it is not required for this type of lodging operation.
 - c. *The circumstances are the result of actions of the applicant taken subsequent to the adoption of the zoning regulations from which relief is sought.*
 - Staff finds that the request meets the statutory requirements of KRS 100.243(c). Staff finds that circumstances which necessitate are not the result of actions of the applicant taken subsequent to the adoption of regulations.
2. *The board shall deny any request for a variance arising from circumstances that are the result of willful violations of the zoning regulation by the applicant subsequent to the adoption of the zoning regulations from which relief is sought."*
 - Staff finds no evidence of willful violations of the regulations by the applicant.

After review of the proposed site development, Staff recommends in favor of the variance request. The intent of regulations is to ensure that sites are developed with consideration for their unique use and site needs, and staff finds that a reduction in the required parking by eight spaces is in line with the *Ordinance*.

Stormwater Management:

Stormwater is proposed to be handled by three stormwater detention areas located north of the parking lot, east of the hotel building, and southwest of the hotel building. Maintenance and construction of the stormwater system would be subject to all applicable local, state, and federal regulations, including the filing of a Stormwater Management agreement.

Landscaping & Land Use Buffers:

Section 6.12: Property Perimeter Requirements

The Applicant was approved for a variance to the property perimeter landscape for the development in April 2026. Because there is no change in the property perimeter landscaping with the increase in the number rooms, the variances approved in April 2026 remain intact.

Section 6.13: Vehicular Use Area Perimeter Requirements

The *Landscape & Land Use Buffers Ordinance* requires a 3 to 5-foot-wide buffer area between a vehicular use area (VUA) and an adjoining property, and for those areas to be populated with 1 tree per 40 feet of linear boundary plus a 3-foot-tall continuous buffer. Areas to the north, west, and south of the VUA meet this requirement. Areas to the east along the parking lot need additional buffering pursuant to this regulation.

Section 6.22: Interior Landscaping for Vehicular Use Areas

The *Landscape & Land Use Buffers Ordinance* requires an interior landscaped area 10% the size of the VUA and for those areas to be populated with 1 tree per 250 square feet of interior landscaped area. The plan shows 39,093 SF of VUA, equivalent to 3,909 SF of ILA required for the property. The Applicant requests a variance to the requirement to install 6.5% ILA, equivalent to 2,663 SF of ILA on the property, and 11 ILA trees.

In a letter submitted regarding the request, the Applicant states that the Project Site is a "flag-shaped" parcel, thus requiring a longer driveway than what is typical for the area. They calculate that the Project Site requires an additional 5,351 SF of VUA to connect the proposed parking lot and building to Outlet Center Drive that would otherwise not be required if the lot was a more rectangular shape.

Staff finds that the request satisfies the requirements of KRS 100.243 and makes the following findings:

- The shape of the lot increases the vehicle use area for the proposed user. As there is only one access location to the property from public right-of-way, there are no alternatives which could reduce the volume of vehicle use area that the Applicant must install on the property in order to utilize the property.
- The size and layout of the property is dictated by the stormwater management requirements and utility easements and lines, thus reducing the usable areas. If the Applicant were to be required to satisfy the ILA area requirements, they would have to reduce the stormwater management areas or ask for a greater variance to the number of required parking spaces for the site development.
- There is no evidence of action of the applicant taken subsequent to the adoption of the regulation, nor that there is evidence of willful violations of the ordinance.

Section 6.2215: Minimum Canopy Requirements

The Applicant proposes the preservation of an unspecified area of existing tree canopy, however the plans indicate that at least 24.57% of site area shall be under tree canopy post-development. This is equivalent to 29,750 SF of tree canopy, located in either existing canopy areas or newly planted property perimeter, vehicular use area perimeter, and interior landscape areas. The requirement for tree canopy

preservation on a commercial site is 20 to 24% of the total site area, which the proposed amendment exceeds. The final landscape plan shall include the preserved tree canopy and satisfy the requirements of the *Ordinance*.

Additional Comments

At the meeting in April 2026, the Planning Commission Board had, based upon public comment, expressed interest in viewing the geotechnical report for the Project Site. At the time of preliminary development plan submittal, such report was not available. The Applicant has provided a geotechnical report for review and discussion with the Board with the Amended Preliminary Development Plan.

RECOMMENDATION:

Staff recommends **Approval** of the Preliminary Development Plan for a 3-story hotel with 99 guest rooms at the property addressed 400 Outlet Center Drive. If the Planning Commission approves the application, staff recommends including the following waivers/variances and conditions of approval:

Waiver/Variance:

1. Waiver to the number of parking spaces on site from 107 spaces to 99 spaces.
2. Waiver to the ratio of interior landscape areas required from 10% (3,909 SF) to 6.5% (2,663 SF).

Conditions of Approval:

1. All applicable requirements of the *Zoning Ordinance, Subdivision & Development Regulations, and Landscape & Land Use Buffers Ordinance*.
2. Any revisions or amendments to the approved Preliminary Development Plan shall be reviewed and approved by the Planning Commission staff (minor) or by the Planning Commission (major).
3. Waivers/Variances related to building signage and property perimeter landscaping requirements approved on April 9, 2026 shall remain. They are as follows:
 - a. Waiver for wall sign installation to allow for 91 square feet of wall signage to be installed along the north and south sides of the building.
 - b. Waiver to the property perimeter landscaping location and 6-foot-tall continuous buffer requirement along the east property line directly adjacent to I-75 (Section 6.12.5).
4. Prior to (as part of) the Final Development Plan approval, the applicant shall provide the Planning Commission staff (GIS division) with a digital copy of the approved plan.
5. Prior to any construction or grading, a Final Development Plan, including all required construction plans, shall be approved by the Planning Commission staff and the applicant shall schedule a Pre-Construction Meeting with the Planning Commission Engineering Department to review construction policies and to establish inspection schedules. This includes a Grading Permit with fee and a Land Disturbance Permit with erosion control surety.
6. The Final Development Plan shall comply with all stormwater management requirements according to the current Stormwater Manual including a post-construction stormwater management BMP O&M agreement.
7. Preliminary Development Plan approval is valid for two years, subject to the requirements of Article 406 section A of the *Subdivision and Development Regulations*.
8. The Applicant shall receive Georgetown Fire Department approval as part of the Final Development Plan.
9. The Final Development Plan shall satisfy the requirements for minimum site tree canopy and shall include a specie specific landscape plan.



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- GENERAL NOTES**
1. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL PERMITTING AUTHORITIES.
 2. NO GRADING, STRIPPING, EXCAVATION, FILLING OR OTHER DISTURBANCE OF THE NATURAL GROUND COVER SHALL TAKE PLACE UNTIL PROPOSED SOIL EROSION CONTROL PLAN HAS BEEN APPROVED AND IN PLACE.
 3. ALL DIMENSIONS INVOLVING CURB RADI ARE SHOWN TO FACE OF CURB, UNLESS NOTED OTHERWISE. ALL CURB RADI ARE 5.0' UNLESS NOTED OTHERWISE.
 4. IN THE CASE OF CONFLICT BETWEEN THIS DRAWING AND ANY OTHER DRAWING AND/OR SPECIFICATIONS, THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR CLARIFICATION.
 5. THE CONTRACTOR SHALL BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND THE REQUIREMENTS OF LOCAL UTILITY COMPANIES.
 6. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL BARRICADES, WARNING SIGNS, FLASHING LIGHTS AND THE TRAFFIC CONTROL DEVICES DURING CONSTRUCTION. CONTRACTOR SHALL COMPLY WITH OSHA REGULATIONS AND SAFETY REQUIREMENTS.
 7. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF ALL VEHICLE TRAFFIC IN AND AROUND THE CONSTRUCTION AREA.
 8. ALL UNPAVED AREAS TO RECEIVE A MINIMUM OF 4" TOPSOIL, SEED AS OUTLINED IN THE LANDSCAPE PLAN(S), MULCH AND WATERED AS NECESSARY TO PROVIDE SUBSTANTIAL GRASS COVER.
 9. ALL PAVEMENT MARKINGS INCLUDING STRIPS, DIRECTIONAL ARROWS, ETC. SHALL BE WHITE PAINT (TWO COATS). HANDICAP SYMBOL COLORS SHALL BE PER LOCAL CODE. APPROVED EXTERIOR PAINTS ARE AS FOLLOWS:
 - PRATT AND LAMBERT TRAFFIC PAINT
 - SHERWIN-WILLIAMS PRO-MARK TRAFFIC MARKING PAINT 800 SERIES
 - GLODEN ROMARK TRAFFIC PAINT
 - PPD ZONE AND TRAFFIC MARKING PAINT
- *NOTES: THE SETS SHALL COMPLY WITH ALL ACCESSIBILITY STANDARDS.

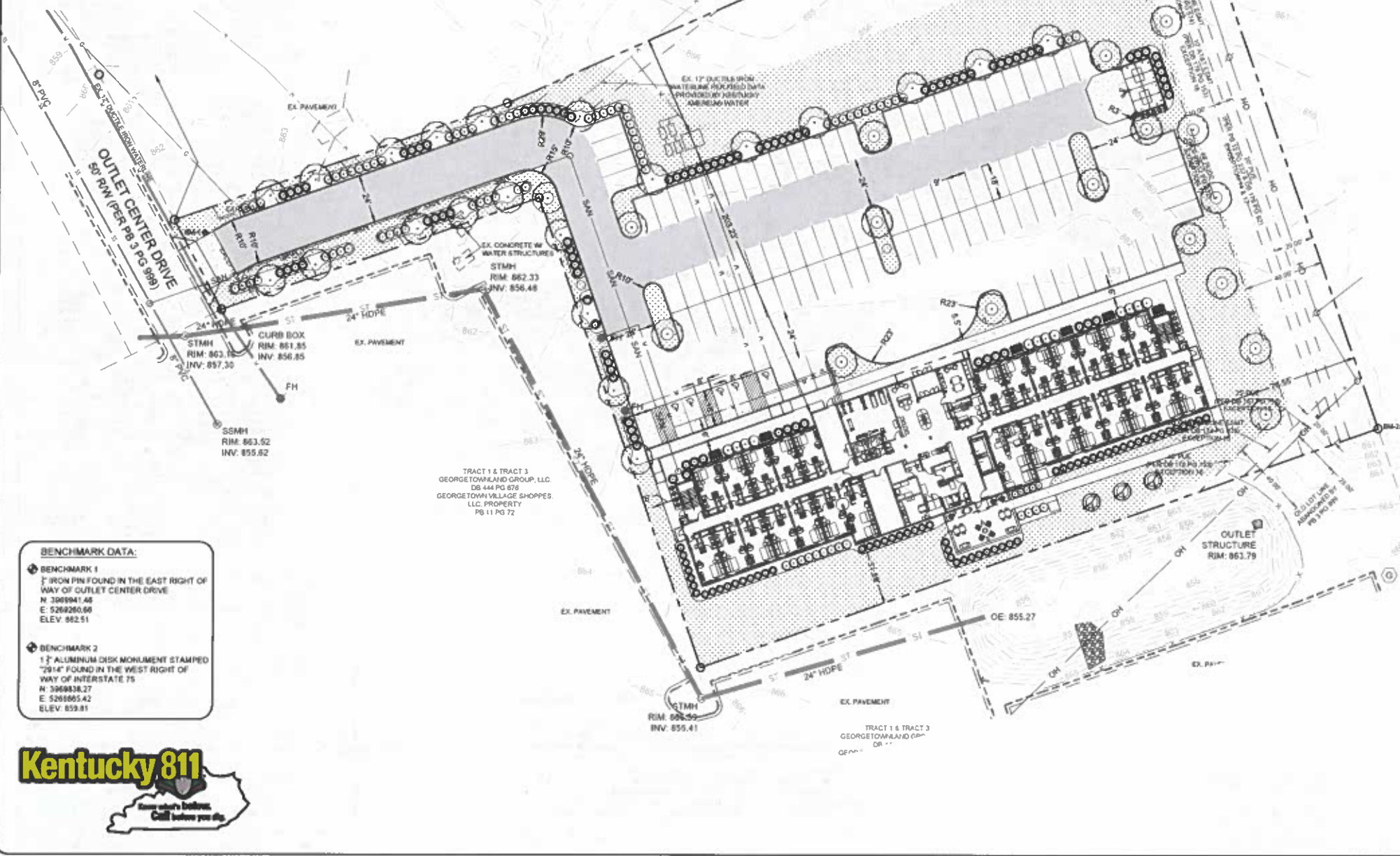
REVISIONS

OUTLET CENTER DR.
GEORGETOWN, KY 40324
SCOTT COUNTY, KY

LivSmart Studios
by Hilton™

DEVELOPMENT SUMMARY

STATISTIC	PERMITTED/REQUIRED	PROVIDED
ADDRESS	N/A	OUTLET CENTER DR GEORGETOWN, KY 40324
CURRENT ZONING	B-2	B-2
PARCEL NUMBER	N/A	190-10-088.000
EXISTING USE	VACANT	N/A
PROPOSED USE	HOTEL	HOTEL
MINIMUM LOT AREA	7,500 SF	2.78 +/- AC (121131 +/- SF)
BUILDING SETBACKS	FRONT (OUTLET CENTER DR) 50' SIDE (NORTH) 0' SIDE (SOUTH) 0' FRONT (S-75) 50'	FRONT (OUTLET CENTER DR) 155.02' SIDE (NORTH) 203.23' SIDE (SOUTH) 31.09' FRONT (S-75) 70.50'
TOTAL PARKING	88 SPACES 1 SPACE PER ROOM PER VEHICLE	83 STANDARD SPACES 5 ADA SPACES 1 EV SPACES
BUILDING SUMMARY		
BUILDING AREA	N/A	BUILDING FOOTPRINT: 16,200 SF
BUILDING HEIGHT	77 (8 STORES)	(2 STORES)



BENCHMARK DATA:

➤ BENCHMARK 1
1" IRON PIN FOUND IN THE EAST RIGHT OF WAY OF OUTLET CENTER DRIVE
N: 3085941.48
E: 526280.80
ELEV: 862.51

➤ BENCHMARK 2
1" ALUMINUM DISK MONUMENT STAMPED "2914" FOUND IN THE WEST RIGHT OF WAY OF INTERSTATE 75
N: 3968838.27
E: 5265665.42
ELEV: 859.81



ACES
ARNOLD CONSULTING & ENGINEERING SERVICES, INC.
P.O. BOX 1038
BOWLING GREEN, KY 42101
PHONE (606) 785-2545

JOB NUMBER: 26-3048-L
DATE: 8-1-2026
SCALE: 1" = 30'
DRAWN: D. SHIVERS
CHECKED: D. WHITLEY
APPROVED: A. ARNOLD

PRELIMINARY
PLAN SET
NOT APPROVED
FOR CONSTRUCTION

C2
SITE
LAYOUT





LANDSCAPE NOTES

- PLANT MATERIALS SHALL CONFORM IN SIZE AND GRADE TO AMERICAN STANDARDS FOR NURSERY STOCK. PLANT MATERIALS SHALL BE OF STANDARD QUALITY TRUE TO NAME AND TYPE, AND FIRST CLASS REPRESENTATIVES OF THEIR SPECIES OR VARIETY. PLANTS SHALL BE CAREFULLY LABELED AND SIZES NOTED. RIGHT IS RESERVED TO REJECT PLANTS CONSIDERED AS UNSATISFACTORY. REJECTED PLANTS SHALL BE REMOVED FROM SITE. PLANTS SHOULD NOT BE PRUNED PRIOR TO DELIVERY. HEAD-BACK PLANTS TO MEET SIZES INDICATED IN DRAWINGS SCHEDULE WILL NOT BE PERMITTED.
- PLANTS & TREES**
 - CONTRACTOR SHALL STAKE THE LOCATION OF EACH TREE AND SHRUB IN ACCORDANCE WITH THE LOCATIONS SHOWN ON THE DRAWINGS. STAKING AND LAYOUT WORK SHALL BE DONE SUFFICIENTLY IN ADVANCE OF PLANTING OPERATIONS TO PERMIT THE LANDSCAPE ARCHITECT TO CHECK, REVISE IF DESIRED, AND APPROVE THE LOCATIONS BEFORE DIGGING OPERATIONS BEGIN.
 - EXCAVATE PLANTING BEDS AND POCKETS TO A DEPTH REQUIRED FOR PLANTINGS.
 - ANY ROCK OR OTHER UNDERGROUND OBSTRUCTION SHALL BE REMOVED TO DEPTH NECESSARY TO PERMIT PLANTING ACCORDING TO THESE SPECIFICATIONS.
 - IN GENERAL, CONTRACTOR SHALL THOROUGHLY WATER ALL PLANTED AREAS AFTER PLANTING AND IN DRY WEATHER USE ENOUGH WATER TO THOROUGHLY SOAK ALL TREE FIRTS BEFORE PLANTING. CONTRACTOR SHALL MAKE NECESSARY ARRANGEMENTS IN ADVANCE OF START OF THE WORK TO ENSURE THAT AN ADEQUATE SUPPLY OF WATER AND WATERING EQUIPMENT ARE AVAILABLE WHEN REQUIRED.
- MULCHING**
 - MULCH TOP OF ROOT BALL AND SAUCER WITHIN 48 HOURS TO A MIN. DEPTH OF 2" AND TO A DEPTH NOT TO EXCEED 3".
 - ALL SHADE AND FLOWERING TREES SHALL BE MULCHED WITH THREE (3) INCHES THICK (SETTLED) AND COVERING AN AREA TWELVE (12) INCHES GREATER THAN THE DIAMETER OF PIT.
- PLANT MAINTENANCE**
 - MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS PLANTED AND SHALL CONTINUE FOR 90 DAYS AFTER THE LAST PLANT HAS BEEN INSTALLED.
 - ALL PLANTS SHALL BE KEPT IN A GROWING, HEALTHY CONDITION BY WATERING, PRUNING, SHEARING, SPRAYING, TIGHTENING OF GUYS (IF USED), STRAIGHTENING OF PLANTS WHICH LEAN OR SAG, LIFTING PLANTS WHICH DEVELOP MORE THAN NORMAL SETTLEMENT, WEEDING, AND BY ANY OTHER NECESSARY OPERATION OF MAINTENANCE. KEEP ALL PLANTING AREAS FREE OF WEEDS AND UNDESIRABLE GRASSES.
 - DURING THE MAINTENANCE PERIOD, PLANTS IN AN UNHEALTHY OR BADLY IMPAIRED CONDITION, SHALL BE REMOVED AND REPLACED IMMEDIATELY USING SPECIFIED MATERIAL.
- ACCEPTANCE AND GUARANTEE**
 - ANY PLANT REQUIRED UNDER THIS CONTRACT THAT IS DEAD OR WITHOUT SATISFACTORY GROWTH AS DETERMINED BY THE LANDSCAPE ARCHITECT, SHALL BE REMOVED AND REPLACED IN NEXT SPECIFIED PLANTING SEASON. ANY REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED AND REPLANTED IN SAME LOCATION FROM WHICH DEAD PLANT WAS REMOVED AND SHALL BE REPLACED AT NO ADDITIONAL COST. ALL PLANT MATERIAL SHALL HAVE A ONE YEAR WARRANTY FOR REPLACEMENT.
 - DURING THE GROWING PROCESS, NO PLANTS MAY BE SUBSTITUTED FOR A DIFFERENT PLANT. THE PLAN MUST BE BND AS DRAWN.
 - THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO COME BACK AFTER ONE YEAR OF ACCEPTANCE OF THE PLANTING TO REMOVE ANY STAKES OR GUY WIRE THAT MAY HAVE BEEN USED.
 - ANY DISCREPANCY BETWEEN THE PLANTING PLAN AND THE PLANT SCHEDULE SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. THE QUANTITY SHOWN ON THE PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE.
 - THE OWNER RESERVES THE RIGHT TO ALTER THE PLANTING PLAN ONLY AS SHOWN IN THE AREA OF THE FOUNDATION.



LANDSCAPE BUFFER NOTES:

- Any double frontage lot (as defined by the *Subdivision Regulations*) in any zone except A-1, unless the lot is used for a vehicle sales facility or service station and adjoins any freeway or arterial street not providing direct access to the property requires a minimum buffer area of 20' for residential zones, & 10' for all other zones adjacent to freeway or arterial with 1 tree per 30' of linear boundary O FT, Group A or B only; plus, a continuous 5' high planting, hedge, wall, fence (not to exceed 5' in height at street grade) or earth mound. Such plantings are to be shown on a unified plan for the development.

Refer to variance application request.



PARCEL OWNER, ADDRESS, AND SOURCE OF TITLE
 GEORGETOWN INTERSTATE, L.L.C.
 1900 GULF SHORE BLVD. NORTH, SUITE 102
 NAPLES, FL 34102
 DEED BOOK 448 PAGE 664
 PLAT BOOK 12 PAGE 232

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BENCHMARK DATA:
 BENCHMARK 1
 3" IRON PIN FOUND IN THE EAST RIGHT OF WAY OF OUTLET CENTER DRIVE
 N 390994.146
 E: 5289260.66
 ELEV: 662.51
 BENCHMARK 2
 1" ALUMINUM DISK MONUMENT STAMPED "2014" FOUND IN THE WEST RIGHT OF WAY OF INTERSTATE 75
 N 390993.28.27
 E: 5288865.42
 ELEV: 859.81

FLOODPLAIN INFORMATION
 THE PROPERTY SHOWN HEREON DOES NOT LIE IN A FLOOD PRONE AREA ACCORDING TO (FIRM) FLOOD INSURANCE RATE MAP FOR SCOTT COUNTY, KENTUCKY. SAID AREA IS SHOWN ON MAP #21209CD181D, WITH AN EFFECTIVE DATE OF DECEMBER 21, 2017.

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
TREES						
AB	11	ACER BUERGERIANUM 'STREETWISE'	TRIDENT MAPLE	1 3/4" CAL	CONT. / B & B	WELL BRANCHED
AR	14	ACER RUBRUM 'RED SUNSET'	RED MAPLE	1 3/4" CAL	CONT. / B & B	WELL BRANCHED
BN	6	BETULA NIGRA 'DURA HEAT'	RIVER BIRCH	1 3/4" CAL	CONT. / B & B	SINGLE STEM
PY	5	PRUNUS X YEDOENSIS	YOSHINO CHERRY	5-6 HT	CONT. / B & B	WELL BRANCHED
QP	7	QUERCUS PHELLOS	WILLOW OAK	1 3/4" CAL	CONT. / B & B	WELL BRANCHED
SHRUBS						
BS	56	BUXUS SEMPERVIRENS 'VARDAR VALLEY'	COMMON BOX	24" HT.	CONT. / B & B	WELL BRANCHED
EA	28	EUONYMUS ALATUS 'COMPACTUS'	DWARF-WINGED BURNING BUSH	24" HT.	CONT. / B & B	WELL BRANCHED
FG	24	FOTHERGILLA GARDENII	DWARF FOTHERGILLA	24" HT.	CONT. / B & B	WELL BRANCHED
HP	9	HYPERICUM PROLIFICUM	SHRUBBY ST. JOHN'S WORT	24" HT.	CONT. / B & B	WELL BRANCHED
HQ	12	HYDRANGEA QUERCIFOLIA	OKLEAF HYDRANGEA	24" HT.	CONT. / B & B	WELL BRANCHED
IV	20	ILEX VERTICILLATA 'RED SPRITE'	COMMON WINTERBERRY	24" HT.	CONT. / B & B	WELL BRANCHED
PL	16	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN CHERRY LAUREL	24" HT.	CONT. / B & B	WELL BRANCHED
TC	66	TAXUS X MEDIA 'DENSIFORMIS'	YEW	24" HT.	CONT. / B & B	WELL BRANCHED
VC	9	VIBURNUM CARLESII	KOREANSPICE VIBURNUM	24" HT.	CONT. / B & B	WELL BRANCHED
VP	9	VIBURNUM X PRAGENSE	PRAGENSE VIBURNUM	24" HT.	CONT. / B & B	WELL BRANCHED
GROUND COVERS / ORNAMENTAL GRASS						
CA	13	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	5 GALLON		
LM	162	LIRIOPE MUSCARI	BIG BLUE LIRIOPE	1 QUART 12" ON CENTER		

AREA OF SOD: 5,228 SQUARE YARDS
 SOD TO BE A LOCALLY GROWN TYPE FESCUE. SOD TO BE PLACED WITHIN 24 HOURS OF HARVEST.

TOTAL VEHICULAR USE AREA: 38,093 SF
REQUIRED INTERIOR LANDSCAPING: 3,909 SF (10%)
PROVIDED INTERIOR LANDSCAPING: 2,963 SF (6.5%)
 (SEE VARIANCE REQUEST)
REQUIRED CANOPY COVER: 29,063 SF (24%)
PROVIDED CANOPY COVER: 29,750 SF (24.57%)

DEVELOPMENT SUMMARY:
 PROJECT NAME: LIVSMART STUDIOS @OUTLET CENTER DRIVE
 ADDRESS: 400 OUTLET CENTER DRIVE
 180-10-008.000
 PARCEL INFORMATION: 2.78 AC.
 SITE AREA: B-2 HIGHWAY COMMERCIAL
 EXISTING ZONING: B-2 HIGHWAY COMMERCIAL
 PROPOSED ZONING: VACANT
 EXISTING USE: 88 GUEST ROOM HOTEL
 PROPOSED USE: 96 SPACES
 REQUIRED PARKING: 1 SPACE PER ROOM + 1 SPACE PER 3 EMPLOYEES + 4 SPACES PER 50 ROOMS
 PARKING RATIO: 96 SPACES REQUIRED
 80 TOTAL
 84 STANDARD SPACES
 4 ADA SPACES
 1 EV ADA SPACE
 1 EV SPACE
 3-STORY
 14,700 SF (+/-) 44,100 SF TOTAL

PERIMETER PLANTINGS	
AREA 1	TOTAL LINEAR FOOTAGE: 494.12 FT 5" BUFFER WIDTH
STANDARD:	1 TREE PER 40 LF PLUS 3' H. PLANTING HEDGE BUFFER
REQUIRED PLANTINGS:	12 TREES & 3' H. PLANTING HEDGE BUFFER
PROVIDED PLANTINGS:	12 TREES & 83 SHRUBS FOR A 3' H. PLANTING HEDGE BUFFER
AREA 2	TOTAL LINEAR FOOTAGE: 326.60 FT 10' BUFFER WIDTH
STANDARD:	1 TREE PER 30 LF PLUS 6' H. PLANTING HEDGE BUFFER
REQUIRED PLANTINGS:	11 TREES & 6' H. PLANTING HEDGE BUFFER (SEE VARIANCE REQ.)
PROVIDED PLANTINGS:	8 TREES & 0 SHRUBS FOR NO PLANTING HEDGE BUFFER
AREA 3	TOTAL LINEAR FOOTAGE: 148.36 FT 5' BUFFER WIDTH
STANDARD:	1 TREE PER 40 LF PLUS 3' H. PLANTING HEDGE BUFFER
REQUIRED PLANTINGS:	4 TREES & 3' H. PLANTING HEDGE BUFFER
PROVIDED PLANTINGS:	5 TREES & 15 SHRUBS FOR A 3' H. PLANTING HEDGE BUFFER
AREA 4	TOTAL LINEAR FOOTAGE: 168.68 FT 5' BUFFER WIDTH
STANDARD:	1 TREE PER 40 LF PLUS 3' H. PLANTING HEDGE BUFFER
REQUIRED PLANTINGS:	4 TREES & 3' H. PLANTING HEDGE BUFFER
PROVIDED PLANTINGS:	5 TREES & 26 SHRUBS FOR A 3' H. PLANTING HEDGE BUFFER

REVISIONS

OUTLET CENTER DR.
 GEORGETOWN, KY 40324
 SCOTT COUNTY, KY

LivSmart Studios
 by Hilton

ACES
 ARNOLD CONSULTING
 ENGINEERING SERVICES, INC.
 P.O. BOX 1338
 BOWLING GREEN, KY 42101
 PHONE (270) 780-9445

JOB NUMBER: 26-3048-L
 DATE: 06-01-2026
 SCALE: 1" = 40'
 DRAWN: B. SHIRLEY
 CHECKED: D. WHITLEY
 APPROVED: B. ZACKERY

L1
 LANDSCAPE PLAN

Elise Ketz

From: Wayde Morrow [REDACTED]
Sent: Wednesday, July 1, 2026 11:38 AM
To: Elise Ketz; Dale Shivers
Cc: Daniel Whitley; Klay Durham; Jennifer Wise; Alex Grace
Subject: Re: Livsmart Hotel - 400 Outlet Center Drive

Good morning Elise,

I am providing to you the Applicant's rationale for resubmittal regarding the proposed LivSmart Studios hotel @ 400 Outlet Center Drive:

Since the original application was submitted, the development team has completed its due diligence efforts, including final geotechnical investigations, utility coordination, and detailed site cost analyses. These efforts provided critical information necessary to finalize the most appropriate building configuration for the site.

The proposed revision increases the building length from approximately 242 feet to 268 feet while maintaining the same building width. This results in an increase from 89 guestrooms to 99 guestrooms within the same three-story building form previously approved by the Planning Commission.

A significant factor in refining the development program was the completion of the geotechnical investigation. The geotechnical report confirmed that the site can support a larger building footprint utilizing conventional foundation systems and recommended site preparation measures. With a better understanding of subsurface conditions, the development team was able to confidently optimize the building layout and increase the footprint while remaining within the site's engineering constraints. The completed investigation removed a substantial degree of uncertainty that existed during the earlier planning stages.

In addition, the development team now has finalized cost estimates associated with required off-site infrastructure improvements, including the sanitary sewer improvements required to serve the project. With both the geotechnical and utility information available, the team was able to complete a comprehensive evaluation of feasible development options for the property.

The resulting 99-room, three-story configuration represents the most appropriate application of the LivSmart Studios prototype for this site. The revised layout allows the project to better utilize the property while maintaining the overall character, scale, and operational characteristics previously presented to the City. No additional stories are proposed, the building width remains unchanged, and the development continues to function within the established framework of the approved site design.

The applicant respectfully requests consideration of this modification as it reflects the final engineering and site feasibility findings obtained through the due diligence process and results in a more efficient and practical development of the property.

At this time, would you please confirm that our application has been accepted for the July 9th meeting?

Thank you,



GRACE

Wayde Morrow, PE | Civil Engineer

AL, FL, GA, KY, NC, SC, TN

Development | Construction | Procurement

[Redacted]

[Redacted] | www.grace-cc.com

5726 Marlin Road, Suite 200, Chattanooga, TN 37411



Arnold Consulting Engineering Services, Inc.

P.O. Box 1338
Bowling Green, KY42101

1136 South Park Drive, Suite 201
Bowling Green, KY 42103



May 31st, 2026

To: Grace Development

Re: LivSmart Hotel
Georgetown, Kentucky

Subject: Addendum to Geotechnical Engineering Report Dated April 29, 2026

This letter serves as an addendum to the Geotechnical Engineering Report prepared by Arnold Consulting Engineering Services, Inc. (ACES) for the referenced project and dated April 29, 2026.

The geotechnical report recommends a maximum allowable soil bearing pressure of 2,000 pounds per square foot (psf) for foundation design under conventional static loading conditions. Due to the short duration of transient loading events, an allowable bearing pressure of up to 3,000 psf may be utilized for load combinations involving wind, seismic, tornado, or other temporary extreme loading conditions.

It should be noted that extreme wind events, tornadoes, or other severe transient loading conditions may impose forces that exceed those anticipated during design. While the increased transient bearing pressure noted above may be utilized for foundation design, the occurrence of such extreme events does not preclude the possibility of damage to the structure, foundation system, or both.

Except as modified herein, the findings, conclusions, and recommendations presented in the April 29, 2026, Geotechnical Engineering Report remain unchanged.

We appreciate the opportunity to be of service on this project. Please contact our office if you have any questions or require additional information.

Sincerely,

Arnold Consulting Engineering Services, Inc.

Matthew A. Dettman, P.E.
Senior Geotechnical Engineer



5-31-26

Report of Geotechnical Engineering Investigation

LivSmart Hotel

Georgetown, KY

Prepared For:

Grace Development

Prepared By:

Arnold Consulting
Engineering Services, Inc.
P.O. Box 1338
Bowling Green, KY 42101

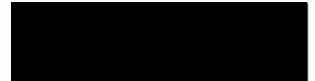




Arnold Consulting Engineering Services, Inc.

P.O. Box 1338
Bowling Green, KY 42101

1136 South Park Drive, Suite 201
Bowling Green, KY 42103



April 29th, 2026

Re: LivSmart Hotel
Georgetown, KY
Geotechnical Investigation

Attached is the report of our subsurface investigation for the above referenced project. This report includes geotechnical recommendations pertinent to the site development, foundation design, and construction. Also included in the report are detailed logs of the test borings drilled at the proposed project site and the results of laboratory tests performed on samples obtained from the site. In addition, a geophysical survey which consisted of an Electrical Resistivity (ER) survey and a shear wave velocity test by NSG Innovations, LLC (NSG) was used in the development of our recommendations. The geophysical report is attached and contains detailed information on the methods used and their results.

We appreciate the opportunity to perform this geotechnical engineering investigation and are looking forward to working with you during the construction phase of the project. If you have any questions regarding this report or if we may be of any additional assistance regarding any geotechnical aspect of the project, please do not hesitate to contact me.

Sincerely,

Arnold Consulting Engineering Services, Inc.

Matthew A. Dettman, P.E.
Senior Geotechnical Engineer



4-29-26

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REPORT OF GEOTECHNICAL ENGINEERING INVESTIGATION

LivSmart Hotel
Georgetown, KY

1.0 PROJECT DESCRIPTION AND DESIGN CONSIDERATIONS

The purpose of this investigation was to determine the general near surface and subsurface conditions within the project area. The investigation is also intended to develop the geotechnical engineering recommendations necessary for the design and construction of the project. This was achieved by drilling borings to explore the subsurface soil and ground water conditions and a geophysical study to evaluate potential karst activity. Laboratory tests were performed on selected representative soil samples from the borings to evaluate the soil properties.

The proposed project involves the construction of a multi-story hotel facility off Outlet Center Drive in Georgetown, KY. The construction will also include associated parking and drive aisles. The structural loads have not been defined as of this date but are anticipated to be less than 80 kips and 3 kips per lineal foot for columns and walls, respectively. If structural loads are determined to be greater than this, ACES should be contacted as this may impact our foundation recommendations.

We developed the exploration scope and have based our recommendations upon the above-stated design criteria. This report contains the results of our findings, an engineering interpretation of these results with respect to the available project information, and recommendations to aid in the design and construction of the proposed development.

2.0 SITE AND SUBSURFACE CONDITIONS

2.1 Site Conditions

At the time of our investigation, the subject property was an undeveloped, relatively flat tract of land. The property had been generally cleared of trees and brush prior to our field investigation. The property is bounded by the following: Outlet Center Drive to the west, I-75 to the east, a hotel to the north, and a commercial shopping center to the south.

2.2 Exploration and Testing

Our interpretation of the subsurface conditions is based upon 11 borings completed on April 7th, and 8th, 2026 at the locations shown on the Boring Location Map in Appendix A. The boring locations shown were marked in the field with a handheld GPS device.

The soil test borings were performed with a track mounted drill rig, which utilized continuous flight auger drilling methods to advance the boreholes. Representative soil samples were obtained by means of the split-barrel sampling procedure in general accordance with ASTM Specification D-1586 using an auto drive hammer. In this procedure, a 2-inch O.D., split-barrel sampler is driven into the soil 18-24 inches by a 140-pound hammer falling 30 inches. The number of blows required to drive the sampler through the last 12-inch interval (Blows per foot-bpf) is termed the Standard Penetration Test (SPT) N-value and is indicated for each sample on the boring logs. This value indicates the consistency of cohesive soils and relative density of cohesionless soils.

The drill crew maintained a field log of the soils encountered in the borings. After recovery, each sample was removed from the sampler and visually classified. Representative portions of each sample were then sealed and brought to our office for examination and laboratory testing to measure fundamental engineering characteristics. Each soil sample was classified on the basis of texture, plasticity, and approximate grain size in accordance with the Unified Soil Classification

System. The soils were grouped into major zones noted on the boring logs. The stratification lines designating the interfaces between earth materials on the boring logs and profiles are approximate; in-situ, the transitions may be gradual. The laboratory test results are presented on the boring logs and in the appendix.

2.3 Subsurface Conditions

The borings initially penetrated a 3 to 6-inch surficial layer of topsoil. Topsoil is typically composed of a blend of silts, sands, and clays, with varying amounts of organic matter. Underlying the surficial layer, the soil was typically a firm to hard moderately plastic silty clay with varying amounts of chert was encountered with isolated pockets of soft at depths of 10 feet or more below existing grade. The silty clay varied in color from brown to reddish brown. Auger refusal, presumably on the bedrock surface, was encountered at depths ranging from 6-½ feet to 36 feet below existing grade. The deeper refusals were located in the potential karst anomalies. Auger refusal is generally assumed to be on the bedrock surface; however other subsurface conditions can cause refusal such as shot rock fill or an isolated rock "floater". To definitively know what is causing refusal, test pits or air track rock drilling would need to be performed, which was beyond the scope of this investigation. We should note that it is common for the bedrock in this region to be highly "pinnacled" in nature and bedrock elevations can vary dramatically in short distances. Reference Appendix A for more details.

2.4 Groundwater

Groundwater was not observed in the borings beneath the existing ground elevations during drilling procedures. All soil borings were backfilled with soil excavated from each soil boring subsequent to completing tests and checking for groundwater.

The term groundwater pertains to any water that percolates through the soil found on site. This includes any overland flow that permeates through a given depth of soil, perched water, and water that occurs below the "water table", a zone that remains saturated and water-bearing year-round. It should be recognized that fluctuations in the groundwater level should be expected over time due to variations in rainfall, other environmental or physical factors as well as site conditions associated with the adjacent drainage ditches or basins. The true static groundwater level can only be determined through observations made in cased holes over a long period of time, the installation of which was beyond the scope of this investigation.

3.0 DESIGN RECOMMENDATIONS

3.1 Basis

Our recommendations are based on data presented in this report, which include soil borings, laboratory testing, and our experience with similar projects. Subsurface variations that may not be indicated by a dispersive exploratory test boring program can exist on any site. If such variations or unexpected conditions are encountered during construction, or if the project information is incorrect or changed, we should be informed immediately since the validity of our recommendations may be affected.

3.2 Karst Considerations

No visible **surface** dropouts were identified on the site, however sites located within this geologic setting are susceptible to sinkhole activity. The investigation of the site included a geophysical survey to determine locations of potential karst features and geotechnical drilling to determine if the areas identified as karst features were active sinkholes that would require remediation prior to the development of the property.

The geophysical survey consisted of conducting ER lines as shown in the NSG report attached in the appendix of this report. The geophysical report indicated 4 potential karst features, which

are labeled starting with the letter "L" on the boring map. These locations were drilled with geotechnical borings to determine if they are active sinkholes

Sinkholes form when water filters down through the soil and carries some of the soil down into the fractures and crevices of the underlying bedrock. This typically occurs where dips in the bedrock are located, and water naturally flows to these areas. The geophysical data shows where dips in the bedrock exist which may indicate the presence of a sinkhole. If a sinkhole is forming, soft soils will be encountered at depth which is the result of soil loss into the underlying bedrock. Over time, enough of the soil washes into the bedrock resulting in a surficial dropout which we identify as a sinkhole.

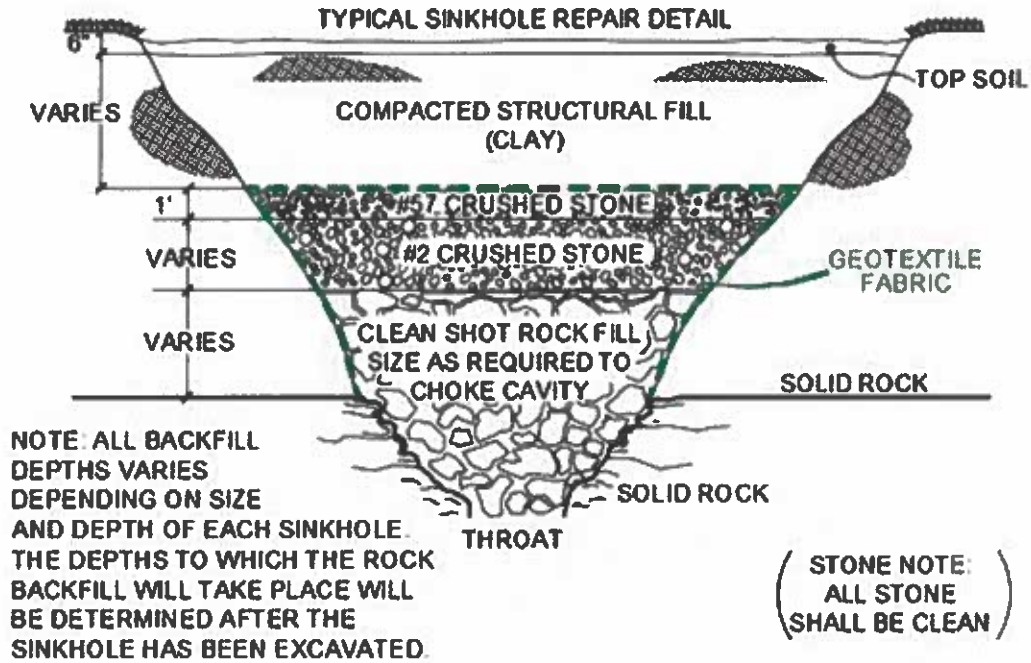
The purpose of drilling geotechnical borings in the areas identified as potential karst features is to determine if soft soil are present in these areas. The strength of the soil is determined by the Standard Penetration Test (SPT) described in **Section 2.2 Exploration and Testing** which is done while drilling and sampling the soil. The most common indicator of an active sinkhole is where we see very low N values at depth near the bedrock surface and stiffer soils near the surface. This is due to the fact that sinkholes form from the bedrock surface upwards so the soft soil or voids are close to the bedrock surface and slowly rise to the ground surface over time. The more developed the karst feature the thicker the soft layer will be. N-values less than 5 are considered soft and less than 3 very soft.

Based on the results of the geophysical survey, the soil borings, and our experience with karst conditions in the region, the anomalies identified in the NSG report do not appear to represent active karst features at the time of this investigation. The soil borings encountered firm to stiff, competent clay soils extending from the ground surface to the top of bedrock, which is generally indicative of stable subsurface conditions and suggests that soil raveling into underlying voids is not occurring at these locations.

While karst-related features can develop over time and their occurrence cannot be predicted with certainty, the available data indicate that the risk of sinkhole development impacting the ground surface at this site is considered low under current conditions. Therefore, no remedial measures are recommended at this time.

As with any site underlain by karst-prone geology, periodic observation of site conditions is recommended. If signs of ground distress such as settlement, cracking, or depressions are observed, further evaluation should be performed.

Typical repairs consist of excavating the feature to bedrock and stabilizing the area with rock and a geotextile fabric. The drawing below shows the components of a typical repair, however specific details will depend on the size and depth of the feature.



While state-of-the-art geophysical techniques allow us improved capabilities in identifying potential karst features, they are not infallible and essentially any area underlain by soluble limestone is subject to some degree of risk associated with incipient or future karst activity. Nevertheless, it is our opinion that the site can be developed, and the degree of risk associated with sinkhole development is no greater at this site than any other site in this geologic setting. We offer the following recommendations to reduce the potential for future sinkhole development:

- Control storm water drainage during and after earthwork operations by properly grading the site to promote complete and rapid runoff of surface water away from construction areas and avoid the ponding of water on the site.
- Avoid leaving open excavations overnight or when rain is expected. Excavations holding water can lead to dropouts.
- Locate detention/retention ponds as far as practical from the building
- Construct underground plumbing systems in a leak-proof manner
- To the extent practicable, provide ditches or pipes for discharge of storm water
- Evaluate any area of suspected sinkhole development, such as areas of abnormally thick topsoil deposits, depressed areas, and locations of soil collapse or voids within the overburden
- Where incipient sinkholes are detected, perform remedial treatment as recommended by our geotechnical engineer based on the actual conditions encountered

Our experience indicates that undetected sinkholes are more likely to appear during construction when site drainage patterns have been altered. Therefore, particular care should be taken during grading to check for surface indications of sinkhole activity.

3.3 Foundation Recommendations

Due to the anticipated structural loading, the proposed structure could be supported on shallow spread and strip foundation elements. Once the site has been prepared in accordance with **Section 4.1 Site Preparation** of this report, the foundations can be designed to bear on native soil or structural fill and should be proportioned using a net allowable soil bearing pressure not exceeding **2,000 psf**. In using the above net allowable soil bearing pressures, the weight of the foundation and backfill over the foundation need not be considered. Hence, only load applied at or above the minimum finished grade adjacent to the footing need to be used for dimensioning the foundations. Each new foundation should be positioned so it does not undercut or induce significant pressure on adjacent foundations; or the underlying soils supporting these foundations; otherwise, the stress overlap must be considered in the design.

All exterior foundations and foundations in unheated areas should be located at a depth of at least 24 inches below final exterior grade, or at the appropriate frost depth in accordance with local building codes, whichever is deeper. However, interior foundations in heated areas can bear at depths of approximately 18 inches below the finished floor. We recommend that strip footings be at least 24 inches wide and column footings be at least 24 inches by 24 inches. All footings should be at least a minimum thickness of 12 inches.

All foundation excavations should be clean, dry, flat, and free of any deleterious materials.

Every effort should be made to pour foundations the same day they are excavated. If this is not done, the excavations can be disturbed by rain, sloughing of the sides of the excavation, excessive drying, and other situations that could negatively impact the performance of the foundation system.

For proper performance at the recommended bearing pressure, foundations must be constructed in compliance with the recommendations for footing excavation and inspection that are discussed in **Section 4.2 Foundation Excavations** of this report.

Based on the expected loading and previous experience with the soils in this region, the total foundation settlement should not exceed approximately 1 inch and that differential settlement should not exceed 70 percent of the total foundation settlement. Most of this settlement may take place rapidly as loads are imposed during construction and during the placement of site fill. It should be noted that this does not include any settlement associated with karst-related activity, which is unpredictable.

3.4 Slabs-on-Grade

Once the site is prepared in accordance with **Section 4.1 Site Preparation** of this report, the subgrade soil will be suitable for floor slab support. We recommend that all floor slabs be designed as "floating", that is, fully ground supported and not structurally connected to walls or foundations. This is to minimize the possibility of cracking and displacement of the floor slab because of differential movements between the slab and the foundation. Although the movements are estimated to be within the tolerable limits for structural safety, such movements could be detrimental to the slabs if they were rigidly connected to the foundations.

The building floor slabs should be supported on a minimum 4-inch-thick compacted layer of free draining granular material, such as #57 stone, bearing on suitably prepared subgrade (refer to **Section 4.0 Construction Considerations**). The granular base course is expected to help distribute loads and equalize moisture conditions beneath the slab. All slabs should be liberally jointed and designed with the appropriate reinforcement for the anticipated loading conditions. A vapor barrier beneath the floor slab should be utilized.

3.5 Modulus of Subgrade Reaction

Provided that a minimum of 4 inches of a crushed stone base is placed below the floor slab, a modulus subgrade reaction, "K₃₀", value of 75 pounds per cubic inch (pci), is recommended for the design of ground supported floor slabs. It should be noted that the "K₃₀" modulus is based on a 30-inch diameter plate load.

3.6 Lateral Earth Pressures

Walls that retain soil and are unrestrained and free to move at the top will most likely experience active earth pressures. If an active lateral earth pressure condition exists, an active earth pressure coefficient (K_a) of 0.33 and an equivalent fluid pressure of 40 pounds per cubic foot acting against the wall should be used for design purposes. In addition, a uniformly distributed lateral load of 10 times the height of the wall (10H psf) should be added acting against the wall to account for minor construction loads.

Walls that retain soil and are restrained from moving at the top will most likely experience at rest earth pressures. If an at rest lateral earth pressure condition exists, an at rest earth pressure coefficient (K₀) of 0.50 and an equivalent fluid pressure of 60 pounds per cubic foot acting against the wall should be used for design purposes. In addition, a uniformly distributed lateral load of 10 times the height of the wall (10H psf) should be added acting against the wall to account for minor construction loads.

Any structural element that exerts a lateral load into the soil will experience passive earth pressures. If a passive lateral earth pressure condition exists, a passive earth pressure coefficient (K_p) of 2.0 and an equivalent fluid pressure of 240 pounds per cubic foot acting against the wall should be used for design purposes.

These pressures assume a backfill comprised of a **well-graded granular material for a minimum distance of 3 feet immediately against the wall**. In general, the onsite soil is **not** suitable for use as backfill immediately against earth retention walls. The shear resistance against base sliding can be computed by multiplying the minimum normal force on the base of the footing times a coefficient of friction of 0.3 using a minimum factor of safety of 1.5.

Foundations for retaining walls 5 feet or less in height should be designed using bearing pressures provided in section 3.3 Foundation Recommendation. If retaining walls greater than 5 feet in height are to be used on the project that are not part of the primary structure supported by the foundations designed in accordance with the Foundation Recommendations above, please contact our office with specific details of the wall and we can provide appropriate foundation recommendations.

All heavy construction loads such as cranes, vehicles, palletted construction materials, or other such heavy loads should be kept a minimum of 10 feet from the top of the wall during construction. If this is not possible, or if any abnormally heavy loads are anticipated at the top of any type of retaining wall, either permanent or temporary, we should be notified so that the design pressures can be modified properly to account for those loads.

The walls should be designed with an adequate drainage system such that hydrostatic pressures do not build up behind the wall. If hydrostatic pressure due to water build-up against a wall is anticipated, the hydrostatic pressure should be added to the lateral earth pressure. Alternatively, perimeter sub drains may be installed around the walls.

It has been assumed that the static weight per axle of equipment utilized for the compaction of the backfill materials adjacent to the below-grade wall will not exceed 2 tons per axle for non-vibratory equipment and 1 ton per axle for vibratory equipment. All heavy equipment, including compaction equipment heavier than recommended above, should not be allowed closer to the

wall (horizontal distance) than the vertical distance from the backfill surface to the bottom of the wall.

3.7 Groundwater Drainage Control

Positive drainage of surface water, including downspout discharge, should be maintained away from structure foundations to avoid wetting, weakening and/or expansion of the foundation soils both during construction and after construction is complete. Additionally, the water and drainage lines should be located such that if any leakage occurs, water will not be readily accessible to foundation or floor slab soils thereby causing damage.

3.8 Seismic Considerations

The IBC and ASCE 7 require Seismic Site Classification to be based on the upper 100 feet of the subsurface profile. The classification may be determined using the shear wave velocity method, the unconfined compressive strength method, or the Standard Penetration Resistance (N-value) method.

For this project, the shear wave velocity method was used. Based on the measured shear wave velocity of 1,977 ft/s, we recommend a Seismic Site Class C for the site.

Limitations

These design values are based on the information obtained from the locations on the project site and are unique due to the overburden consistency and thickness and the bedrock conditions; therefore, the calculated seismic information should only be considered applicable for this given project site.

3.9 Pavement Design

Our pavement recommendations are derived from experience and anticipated traffic use with similar development projects. The following assumptions are used to develop our recommendations.

- CBR value of 3
- The concrete has a 28-day compressive strength of 4,000 psi
- The design life for the pavement is 20 years

Flexible Pavement Sections

We recommend using the following flexible pavement section thicknesses: ¹

Flexible Pavement Design			
Pavement Usage	Asphalt Surface Course	Asphalt Binder Course	Mineral Aggregate Base Course¹
Light Duty	1 ½ inches	2 inches	6 inches
Heavy Duty (Commercial)	1 ½ inches	3 inches	8 inches
Heavy Duty (Industrial)	1 ½ inches	6 inches	10 inches
¹ Mineral aggregate base should be compacted to 95 percent of the maximum dry density as determined by the standard proctor			

All materials and procedures used in pavement construction should conform to the pertinent sections of the latest edition of the State Department of Highway's Standard Specifications for Road and Bridge Construction. The mineral aggregate base should conform to State specifications with the exception that no more than 12% of the mineral should pass the No. D200

mesh sieve, as determined by the wet method. In addition, the mineral aggregate base should be compacted to the minimum density noted above.

Experience has shown that most pavement failures are caused by localized soft spots in the sub grade or inadequate drainage. Proof rolling observed by our geotechnical engineer will help detect the incidence of weak spots in the sub grade, as discussed earlier. However, the civil design must include proper drainage to reduce softening of the sub grade, soil migration, and pumping failures. The pavement surface and sub grade should have a minimum slope of about 2 percent. Constructing concrete pads around catch basins should be considered to accommodate the problems associated with the frequent saturation of the pavements is also recommended. Any isolated areas that experience premature failure should be promptly repaired to prevent widespread problems from occurring.

Rigid Pavement Sections

Heavy Duty (HD) Rigid Pavement consisting of Portland Cement Concrete (PCC) should be used for the loading dock area, dumpster enclosures and other areas open to heavy-duty traffic. Light Duty (LD) Rigid Pavement should only be used for light duty vehicular parking. The recommended rigid pavement section is provided below:

Rigid Pavement Design

Material	HD Rigid Pavement Section	LD Rigid Pavement Section
PCC Slab	6 inches	5 inches
Crushed Stone	8 inches	5 inches

All exterior concrete exposed to weather should contain 5% +/- 1.5% entrained air to improve durability. The air content should be compatible with the maximum aggregate size and the project location. The pavements should be designed and constructed in accordance with applicable ACI guidelines, including joint spacing. The pavement surface should have a minimum slope of 1 percent. Additional considerations for pavement design and construction are provided below:

- Contraction joints should be sawed as soon as the concrete will allow, typically within 12 hours of concrete placement. The depth of the saw joint should be ¼ of the slab thickness. The joints should be subsequently sealed to reduce surface water infiltration into the prepared subbase. Saw joint spacing should be 10 to 15 feet in both directions.
- Construction joints (excludes saw joints) should be underlain by a non-woven geotextile (about 2 feet wide) to reduce the potential for the upward movement of soils fines through the joints.
- Loading (traffic) must not be allowed until the concrete has achieved at least 85 percent of its design strength.

General Pavement Considerations

Site grading is generally accomplished early in the construction phase. However, as construction proceeds, the sub grade may be disturbed due to utility excavations, construction traffic, or rainfall. As a result, sections of the pavement sub grade may not be suitable for pavement construction and require corrective action. The sub grade should be carefully evaluated at the time of pavement construction by proof rolling with a loaded tandem axle dump truck. Particular attention should be given to high traffic areas that were rutted and disturbed earlier and to areas where backfilled trenches are located. Areas where unsuitable conditions are located should be repaired by removing and replacing the materials with compacted fill.

The stability of the existing subgrade should be evaluated by proof rolling, as previously discussed. It may be desirable to place the base materials immediately after sub grade elevations are achieved to reduce the potential for moisture content changes.

Maintenance is essential to good long-term performance of both concrete and asphalt pavements. Any distressed areas should be promptly repaired to prevent the failure from spreading due to vehicular loading and infiltration. Cracks and joints should be sealed routinely with a heavy-duty sealer. Additionally, a coal tar seal should be applied as needed for the asphalt pavements. The seal will retard the tendency of asphalt to become brittle and will close small cracks that cannot be repaired otherwise.

3.10 Slopes

All temporary excavations and slopes shall be made in accordance with applicable Occupational Safety and Health Administration (OSHA) Guidelines for sloping and benching.

If the final grading plan includes natural or engineered slopes, all building setbacks from both the top and toe of slope should comply with the applicable building code. The grade and height of the slope will dictate the required setback. In addition, all permanent slopes should be evaluated by the Geotechnical Engineer for long term stability.

4.0 CONSTRUCTION CONSIDERATIONS

4.1 Site Preparation

All areas that will support foundations, floors, pavements, or if required, newly placed structural fill must be properly prepared. All loose surficial soil, topsoil, vegetation, and other unsuitable materials, if encountered, must be removed. Unsuitable materials include: frozen soil, uncontrolled fill, relatively soft or loose material, relatively wet soils, deleterious material, or soils that exhibit a high organic content.

Topsoil was observed at the test boring locations and is anticipated to be encountered on site and will require removal. Although a minimum topsoil stripping depth of 6 inches is **typical**, actual stripping depth should be verified by ACES in the field. The minimum stripping depth will be required to remove any vegetation or organic material at the surface, followed by the potential for additional stripping and/or scarification and recompaction as may be required to achieve subgrade support.

Prior to construction of floor slabs or pavements, or the placement of new structural fill, the exposed subgrade must be proofrolled, typically with a fully loaded tandem axle dump truck, under the observation and direction of an ACES representative. Any area to rut, pump, or deflect excessively should be compacted in-place, scarified and recompacted, or undercut and replaced with structural fill and compacted as specified below.

Care must be exercised during grading and fill placement operations. The combination of heavy construction equipment traffic and excess surface moisture can cause pumping and deterioration of the near surface soils. The severity of this potential problem depends to a great extent on the weather conditions prevailing during construction. The contractor must make every effort to control construction traffic and surface water while the subgrade soils are exposed. If rainfall is expected during grading operations, ideally the area will be sloped for drainage and rolled with a smooth drum compactor to minimize water infiltration into the soil. They should avoid repeatedly driving heavy equipment in the same location and provide adequate protection to completed building pad and paving areas with aggregate or some other method to prevent breakdown of the surficial soils. If such problems do arise, the operations in the affected area should be halted and the ACES representative contacted to evaluate the condition.

Heavy duty construction roads should be prepared by placing a layer of filter fabric on the subgrade and then an 8" layer of #2 stone. If soft subgrade soils are encountered when preparing the construction road, a layer of Tensar NX850 should be placed on the filter fabric, followed by 12" of #2 stone. In either case, the #2 stone can be capped with #57 stone or DGA to provide a more uniform driving surface.

If the project schedule precludes site grading during optimal weather conditions, our experience shows that typical silty clay soil during wet seasons (i.e., late fall through early spring) has moisture content well above optimum required for compaction. The higher moisture content in the upper soil profile can easily cause degradation of the soil under normal construction traffic. Routine aeration methods do not adequately dry wet soils to meet optimum moisture for compaction under these conditions. During poor weather conditions, lime modification is usually the most cost-effective subgrade stabilization. All soil modification should be performed by a specialty contractor with specific experience in the application of lime or cement stabilization methods.

4.2 Foundation Excavations

Upon completion of the foundation excavations and prior to the placement of reinforcing steel, an ACES representative should check the exposed subgrade to confirm that the bearing surface meets the design criteria. These inspections should take place the same day the foundations are poured. Any localized soft or loose soil zones or unsuitable materials encountered at the bearing elevations should be further excavated until adequate support soils are encountered. Over excavation should be in six-inch (6") increments until the allowable bearing capacity is met but no greater than four (4) feet below bottom of footing elevation. The area undercut should be backfilled with structural fill or lean concrete, or the footing can be poured at the excavated depth. The undercut should not be backfilled with an open graded aggregate such as #57 stone as the aggregate will collect and hold water creating a "bathtub" effect directly beneath the bottom of the footings which can significantly reduce the bearing capacity of the underlying soils. Acceptable on-site soils could be used as structural fill beneath footings placed and compacted in accordance with Section 4.3.

If it is necessary to support foundations on structural fill, the fill pad must extend laterally a minimum distance beyond the edge of the footing or foundation system. The minimum structural pad would correspond with a point at which an imaginary line extending downward from the outside edge of the footing at a 1H:2V slope intersects the surface of the natural soils.

4.3 Structural Fill and Fill Placement Control

Structural fill, defined as any fill which will support structural loads, should be clean and free of organic material, debris, deleterious materials, and frozen soils. Samples of the proposed fill materials should be tested prior to initiating the earthwork and backfilling operations to determine the classification, the natural and optimum moisture contents, maximum dry density, and overall suitability as a structural fill. Materials to be used as structural fill should meet the following criteria:

- Consist of gravels, sands, silts, and/or lean clays and be classified as CL, ML, SM, SC, SW, SP, GW, GP, GM, or GC (or any combination of these group symbols per the Unified Soil Classification System - USCS)
- A plasticity index of 25 or less
- A Standard Proctor dry density of at least 95 pounds per cubic feet (pcf)
- No particles greater than 4 inches in size.
- If open graded gravels are used as structural fill, they should be separated from sands, silts, and/or clays with a layer of filter fabric.

- If any type of rock fill is to be used to bring a building pad to subgrade elevation, the building pad must be sloped prior to the placement of the rock fill to allow the pad to drain. This is to prevent the rock fill from holding excessive water which can subsequently bleed into footing excavations, causing reduced bearing capacities and construction delays. The low end of the slope must extend beyond the perimeter footing line.
- Shot rock/soil fill
 - Upper 4 feet shall not have rock exceeding 5 inches (softball) in diameter
 - Rock beneath the upper 4 feet shall not exceed 12 inches (basketball) in diameter
 - Shot rock/soil fill shall not contain more than 40% soil
 - If soil fill is to be placed above shot rock fill, filter fabric will be required to separate the material
 - If shot rock fill is to be placed above soil fill, filter fabric will not be required

Any variations to these criteria can only be approved by the geotechnical engineer or their representative.

Any on-site soil meeting these criteria is suitable for use as structural fill for the project.

Unacceptable material would include highly plastic "fat" clays (CH) determined to have a high expansion potential or organic soils such as topsoil.

All structural fill beneath floor slabs and foundations should be compacted to at least 98 percent of its maximum Standard Proctor dry density (ASTM D-698). All structural fill beneath sidewalks & exterior slabs, utility trench backfill, beneath pavement areas and embankments of storm water ponds should be compacted to at least 95 percent of the maximum Standard Proctor dry density. All structural fill beneath landscaped areas should be compacted to at least 90 percent of the maximum Standard Proctor dry density. Care should be taken to maintain the moisture content of the structural fill to +/- 2% of the optimum moisture content.

To achieve the recommended compaction of the structural fill, we suggest that the fill be placed and compacted in layers not exceeding eight (8) inches in loose thickness. All fill placement should be monitored by an ACES representative. Field density testing should be performed in accordance with ASTM D2922, nuclear gauge method. The frequency of testing should produce a minimum of one (1) density test result per 2,500 square feet, per material lift, and as necessary to adequately represent the area and compaction effort.

If an open graded gravel, such as #57 stone, is used as structural fill in any location, it should be compacted using vibratory equipment in lifts not exceeding 12 inches in loose thickness. Density testing is not required; however, the placement and compaction effort should be observed and approved by a representative of our office.

All compaction should be performed with equipment specifically designed for the purpose of compacting soil or rock. Track mounted equipment such as dozers or excavators, or the bucket of an excavator, would not be acceptable for use in compaction.

5.0 LIMITATIONS OF INVESTIGATION

The recommendations provided herein were developed from the information obtained in the test borings, which depict subsurface conditions only at specific locations. Subsurface conditions at other locations may differ from those occurring at the specific test boring sites.

The nature and extent of variations between test borings may not become evident until the time of construction. If variations become evident, it will be necessary to re-evaluate the recommendations of this report after performing on-site observations during construction and noting the characteristics of any variation.

Our professional services have been performed, findings obtained, and recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. This warranty is in lieu of all other warranties either expressed or implied. This company is not responsible for the independent conclusions, opinions or recommendations made by others based on the field and laboratory data presented in this report.

The scope of our services did not include any environmental assessment or investigation for the presence or absence of wetlands, hazardous or toxic materials in the soil, groundwater, or surface water within or beyond the site studied. Any statements in this report or on the soil boring logs regarding vegetation types, odors or staining of soils, or other unusual conditions observed are strictly for the information of our client and the owner.

APPENDIX A

Geotechnical Information

Boring Location Map

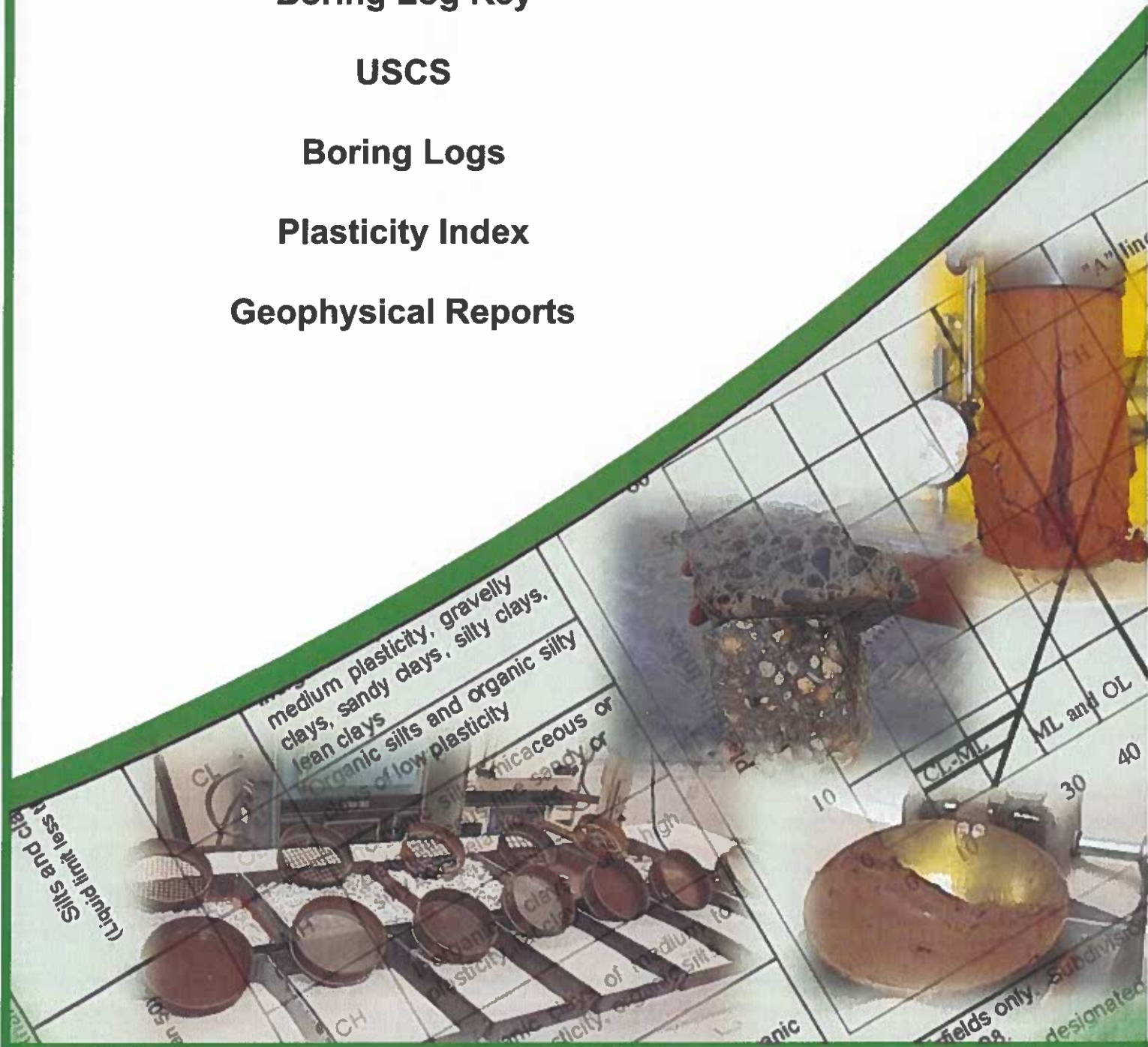
Boring Log Key

USCS

Boring Logs

Plasticity Index

Geophysical Reports



Important Information About Your Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one - not even you - should apply the report for any purpose or project except the one originally contemplated.*

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes - even minor ones - and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ-sometimes significantly from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led

to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

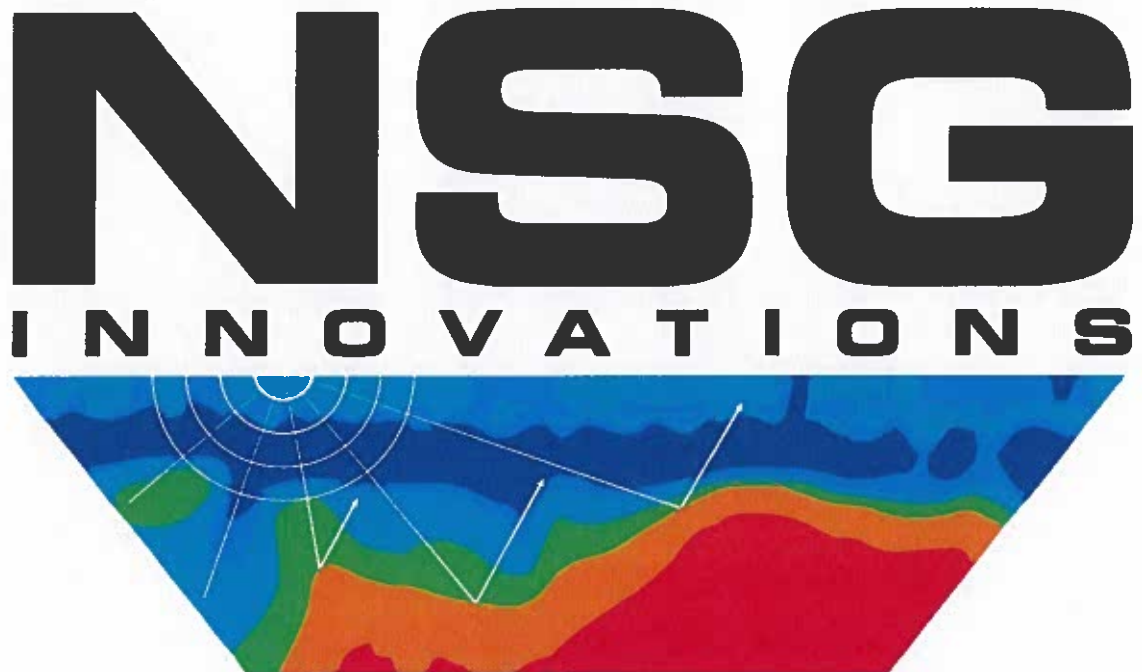
Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the express purpose of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely on Your ASFE-Member Geotechnical Engineer For Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.



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**ELECTRICAL RESISTIVITY
GEOPHYSICAL SURVEY**

**Livsmart
Outlet Centre Drive
Georgetown, KY**

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1.0 Introduction

The area under investigation lies within an undeveloped parcel located between I-75 and Outlet Center Drive in Georgetown, KY. The site featured a gently rolling topography with dense woods that were bushhogged prior to the survey. The intent of this geophysical survey was to characterize the subsurface prior to proposed construction. Three ER survey lines were used to determine subsurface anomalies related to karst development and to identify potential impacts of ER anomalies near the proposed building footprint. A vicinity map showing the location of the site is presented as Figure 1 and a site map showing the location of the survey area in relation to the project site is illustrated in Figure 2. Figure 3 is a detailed aerial view or map illustrating the approximate locations of the ER lines laid out across the property.

2.0 Technical Background

The challenge for this project was to select the correct non-intrusive tools and techniques to evaluate the potential karst features at the site. In general, a variety of geophysical techniques can be applied to the mapping of subsurface features; however, certain methods, sensitive to a range of contrasting physical properties, can possess attributes that make them more suitable than others, depending on the site-specific conditions. Contrasting physical properties that typically are found to be useful for mapping soil and bedrock include electrical conductivity or resistivity, acoustic velocity, density, and magnetic susceptibility. Of these, electrical resistivity is commonly determined to have the greatest range of contrast and is most applicable for detailed characterization of karst sites. Given the desired depth of investigation (approximately 50 feet), and the need to image both the lateral and vertical extent of possible features, two-dimensional electrical resistivity (2-D ER) was selected as the method of choice to document the soil-sediment-rock profile beneath the site. A description of techniques used in this field study is presented in the portion of the report immediately following the Geological Setting section.

2.1 Geological Setting

The site is located atop soils formed from the weathering of the Ordovician-aged Tanglewood Limestone Member No. 1 of the Lexington Limestone and the upper parts of the Lexington Limestone in general. Overall, the Lexington Limestone is typified by approximately 70% limestone and 30% fine-grained clastics (primarily shale) and commonly contains well-preserved, whole fossils including brachiopods, crinoids, bryozoans, various molluscs, etc. The geologic map with red hash marked areas seen in Figure 4, Geological Setting, represents mapped sinkholes in the vicinity of the surveyed area and is made available by the National Cooperative Geological Map Database (accessed April, 2026).

2.2 Two-Dimensional Electrical Resistivity (2-D ER)

Electrical resistivity is one of the most widely varying of the physical properties of natural materials. Certain minerals such as native metals and graphite, conduct electricity via the passage of electrons; however, electronic conduction is generally very rare in the subsurface. Most minerals and rocks are insulators, and therefore electrical current preferentially travels through water-filled pores in soil and rock via the passage of the free ions in pore waters (*i.e.*, ionic conduction). It thus follows that the degree of saturation, interconnected porosity, and water chemistry (*i.e.*, concentration of total dissolved solids or TDS) are the major controlling variables of the resistivity of a given soil or rock. In general, electrical resistivity directly varies with changes in these parameters.

Fine-grained sediments, particularly those that are clay-rich are excellent conductors of electricity, whereas relatively coarser-grained materials such as sand and gravel in contrast, are much more resistive stratigraphic units. Carbonate rocks (*i.e.*, limestone and dolomite or dolostone) are very electrically

resistive when they are unfractured, but they can possess significantly lower resistivity values if fractured and/or weathered and solutioned. In contrast, shale or clay-rich materials quite conductive. Void spaces in a clay matrix for example could appear to be more resistive than the clay. However, if after a protracted drought, sufficient rain falls to infill void spaces and the clay does not have sufficient time to absorb moisture, the resistive void can appear to be conductive. Thus, the interpretation of geophysical data requires the consideration of many lines of evidence.

2.3 Electrical Resistivity Methods

While the resistivity meter used in sounding and profiling surveys typically has four electrodes connected

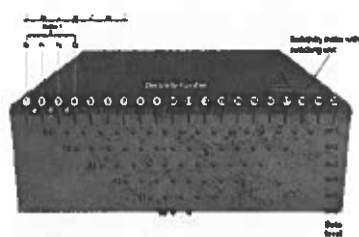


Diagram 1. Schematic diagram of a multi-electrode system, and a possible sequence of measurements to create a 2-D pseudosection.

via four separate cables, a multi-electrode system has 25 or more electrodes connected to the resistivity meter via a multi-core cable (see inset Diagram 1). Commercial multi-electrode systems first appeared in the late 1980s and since then have become a standard tool in many geophysical organizations. An internal switching circuitry controlled by a programmable microcomputer or microprocessor within the resistivity meter automatically selects the appropriate four electrodes for each measurement. This enables almost any array configuration to be used. By making measurements with different spacing at variable locations along the cable, a 2-D profile of the subsurface is obtained. Together with the parallel development of fast and stable automatic data inversion techniques that could be implemented on commonly available microcomputers, 2-D electrical imaging surveys became

widely used in the early 1990s. There are many commercial multi-electrode resistivity systems capable of connecting up to several hundred electrodes at once, with electrode spacing practically varying from one to 20 meters. A recent development over the past 10 years is multi-channeled systems that can greatly reduce the survey time. Only two electrodes can be used as the current electrodes at a single time, but the voltage measurements can be made between many different pairs of potential electrodes. Commercial systems with four to 10 channels are widely available (Loke et al., 2013).

3.0 Procedures

Standard Operating Procedures (SOPs) for ER begins with a site safety check. Each site is evaluated for possible safety concerns and the surveys are modified to take these into account. After the location of the survey line is determined, the overall distance of the survey is measured. The desired resolution is factored in and a spacing optimal to these parameters is determined. Tape measures are laid out and stainless-steel electrodes are placed into the ground at pre-determined positions. Depth of emplacement of the electrodes is determined by field conditions. Where possible, electrode stakes are driven approximately six inches below surface to minimize contact resistance. A few ounces of a salt-water solution are then poured at the base of each stake where needed to decrease contact resistance. The electrical resistivity cables are unrolled, and an electrode bulb is placed at each stake. The bulbs are then attached to the stakes. The AGI SuperSting R8/IP and Swift switch box are in turn attached to the cables. A final check of the setup is made to ensure proper working order of the laid-out survey line. A contact resistance test is then completed, and data recording is initiated.

3.1 ER Lines Conducted

A total of three ER lines were conducted at the site, encompassing the areas of the proposed building footprint and through the center of the proposed parking lot area. Each ER line's corresponding electrode spacing, orientation, and length are presented in Table 1, and each line's approximate location can be

observed in Figure 3, Line Location Map. All ohms-meter values from the three ER lines were normalized to better estimate depth to rock from resistivity values. The normalized values for the surveyed lines range from 10.0 to 440 ohms meters. A standard dipole-dipole array was used (command file name DD56) on each line. One 12-volt battery was used to power the system. Data were processed using the Advanced Geoscience Inc. (AGI) 2D-EarthImager software and removed noisy data points. Good contact resistance was achieved allowing for the removal of few data points. Each ER line's corresponding measured apparent resistivity pseudosection can be found in the upper right corner of their respective profiles (Figures 5 through 7).

Table 1 – Electrical Resistivity Lines Conducted

Field Name and Processed Name*	Report Figure	Electrode Spacing (feet)	Electrode 1 Position	Last Electrode Position	Length (feet)
LG0402LA	5	6	SW	NE	318
LG0402LB	6	6	SW	NE	330
LG0402LC	7	6	SW	NE	330

Note: See Figure 3 for ER Survey line map locations on the site
 *Naming Nomenclature: Site Name, Month, Day and Line Letter

4.0 Salient Results of Geophysical Survey

Study of geophysical profiles (Figures 5 through 7) suggests that the upper 6-to-21- feet are unconsolidated moist to wet, silt, silty clay, and clay-rich earth material overlying an undulatory fractured weathered rock surface. These upper conductive soils (upper-most blue colors in ER profiles) contain areas of increased thickness, with soils extending into the fractured weathered rock below. Within this upper layer of conductive soils are areas of increased resistivity (light green to yellow colors) and may represent areas of more well drained soil and/or increased rock material. Fractured weathered rock is observed below the soil layer and is approximately 20-feet in thickness (lowermost light blue colors in ER profiles), depending on the profile being observed. At the base of the fractured weathered rock layer, and depending on the profile being observed, several depressions or solution-enlarged fractures (i.e., "cutters" or grikes) of various sizes are sporadically distributed. These cutters appear to be associated with digitate anomalies and extend into the bedrock at depth. Borings are suggested to confirm the presence of karst anomalies at the more pronounced locations identified in the profiles. Competent (i.e., relatively unfractured) bedrock (light green to red in ER profiles) occurs at a depth of about 20 feet or greater depending on the profile being observed and is characterized as undulatory. Breaks in the competent bedrock layer suggest joints or fractures into which water could drain into the subsurface. Such breaks could be explored further in order to determine the nature and the extent of these ER anomalies suggestive of karst.

5.0 Summary of Findings

The area under investigation is located along Outlet Centre Drive in Georgetown, KY. This area of Kentucky is known for small "epi-karst" features typical of exposed and weathered Lexington Limestone units. Small, mapped sinkholes (red-hashed areas in Figure 4) are present at the site and in nearby areas. Based on the ER profiles, there appears to be a relatively thick, continuous, unconsolidated and undulatory layer of silty loam and silty clay overlying the site with development of subsurface karst features below.

Figure 8, Electrical Resistivity Overlay, provides a view of all the profiles and development of features of concern across the site. Black dashed lines have been drawn across the ER profiles indicating inferred potential conduits, preferential pathways and/or fracture trends. Black-dashed ellipses represent the

potential extent of the features and between Line A and Line B. Figure 9, Drill Hole Locations, illustrates areas with the highest likelihood of developed karst features based on the ER data. There are 4 well-defined ER anomalies that are likely indicative of internally drained features across this site. Each location on Figure 9 refers to the ER line and corresponding footage/station number along the line. For example, LA-144 refers to Line A (Figure 5) station/footage 144.

6.0 Recommendations

We recommend at least 4 test boreholes, excavations or similar investigations be conducted at the exploration areas as presented in the report figures (ER profiles or Figure 8) or alternatively, excavation of the features. Boring locations noted in red on Figure 9 are recommended and aq Google Earth KMZ file has been included supplemental to this report which contains each of these locations relative to the rest of the site. It may be advisable to employ an engineered solution to address hazards associated with a given karst anomaly identified by the series of presented ER survey profiles. Addressing control of surface water is also advised.

7.0 Limitations

This study included a limited set of geophysical readings across limited portions of the site. The results and interpretations of the geophysical survey performed are considered generally reliable and were conducted in a manner generally consistent with practitioners in the field of geophysical engineering. The methods used in this investigation are considered reliable; however, localized variations may exist in the subsurface conditions that have not been completely defined at this time. The resistivity results are not unique to geological features and more than one geologic feature or model may give similar results. Therefore, properly conducted soil test borings and other exploratory techniques are necessary to determine the subsurface conditions more completely at the site.

The site features presented on the site base map are for informational purposes only and no representation is made as to the accuracy or completeness of this information. It is recommended that a practicing geosciences or geotechnical engineering professional be contacted prior to conducting verification drilling or excavating activities.

Figure 1 Vicinity Map

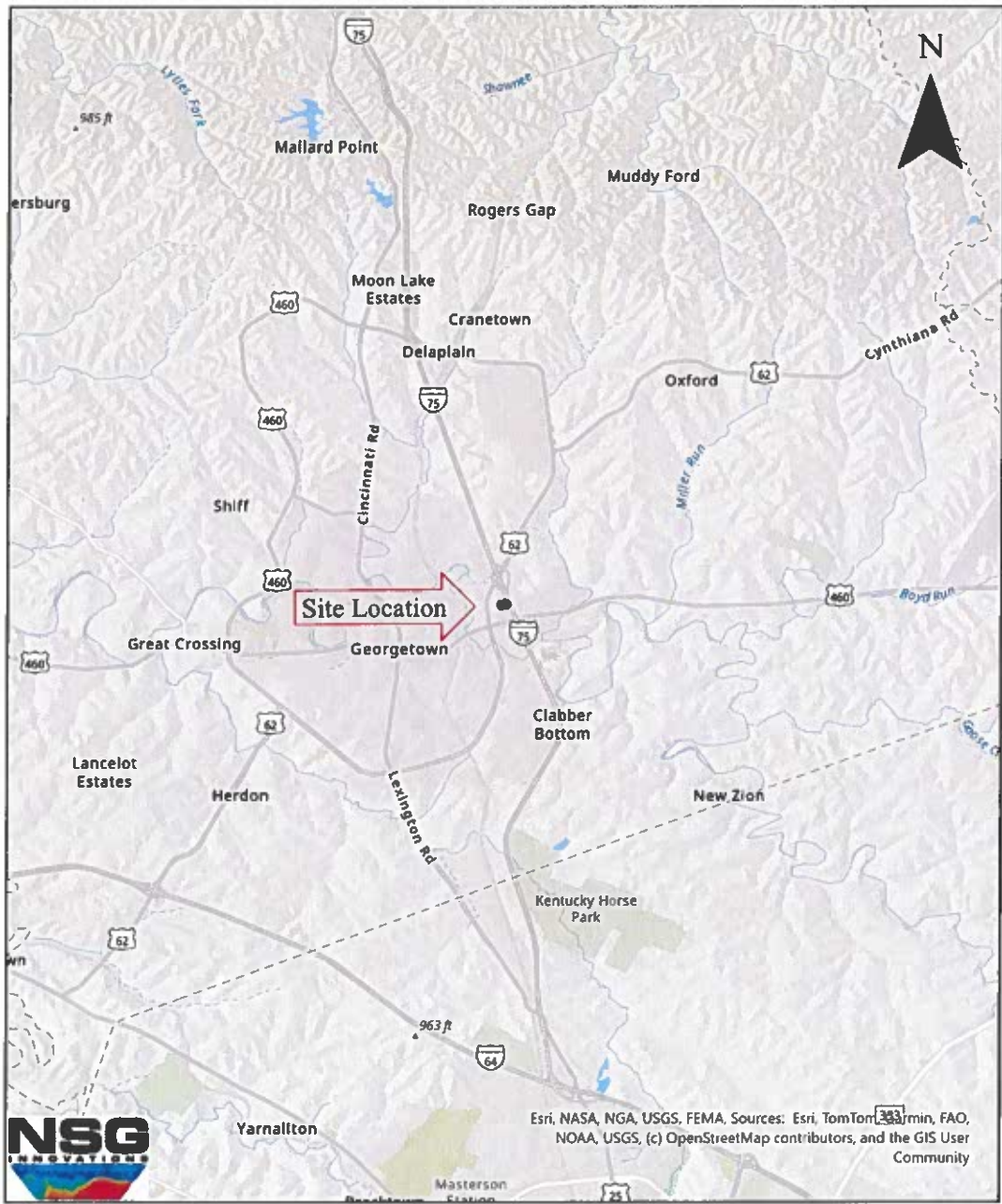
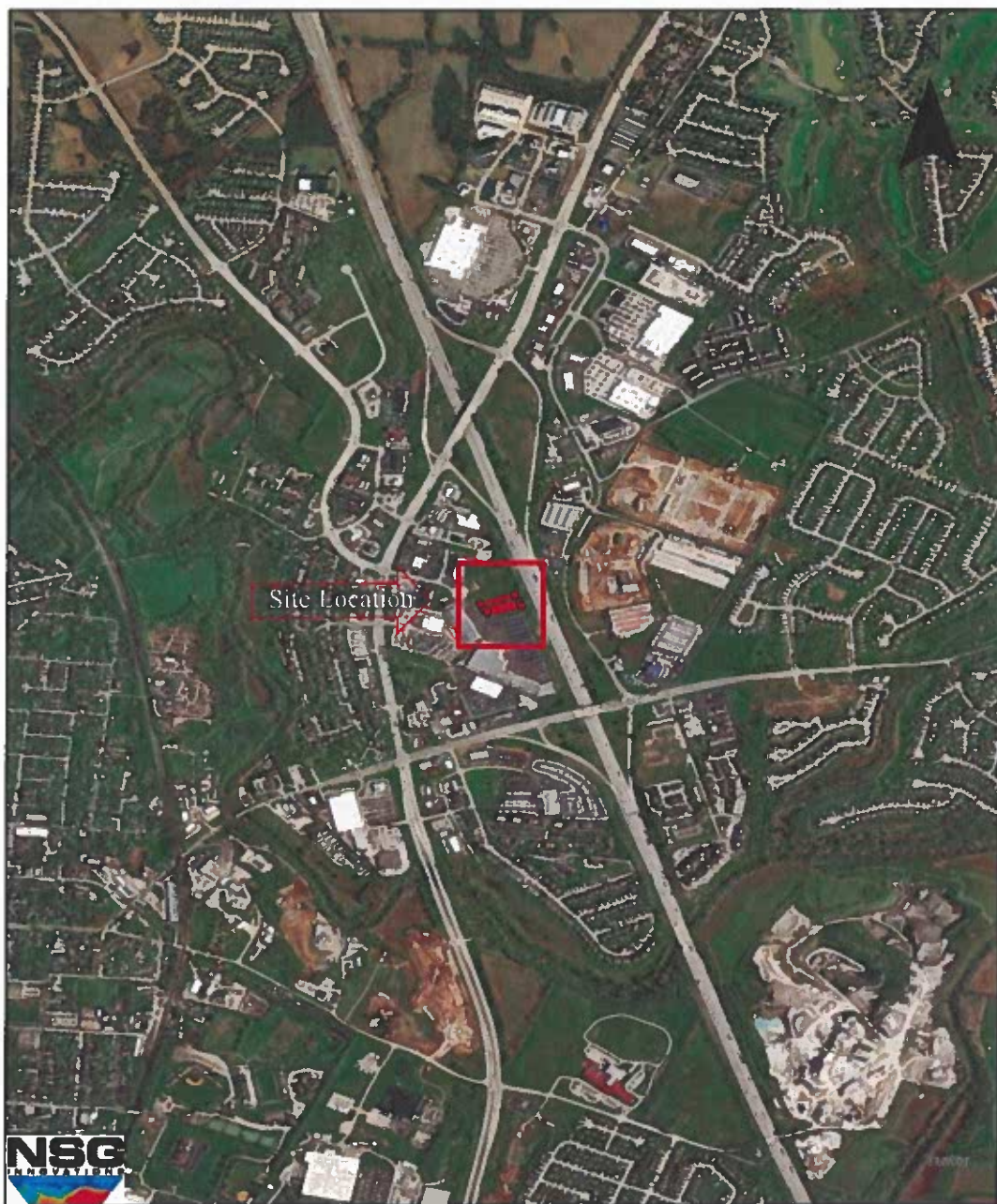


Figure 2 Site Map



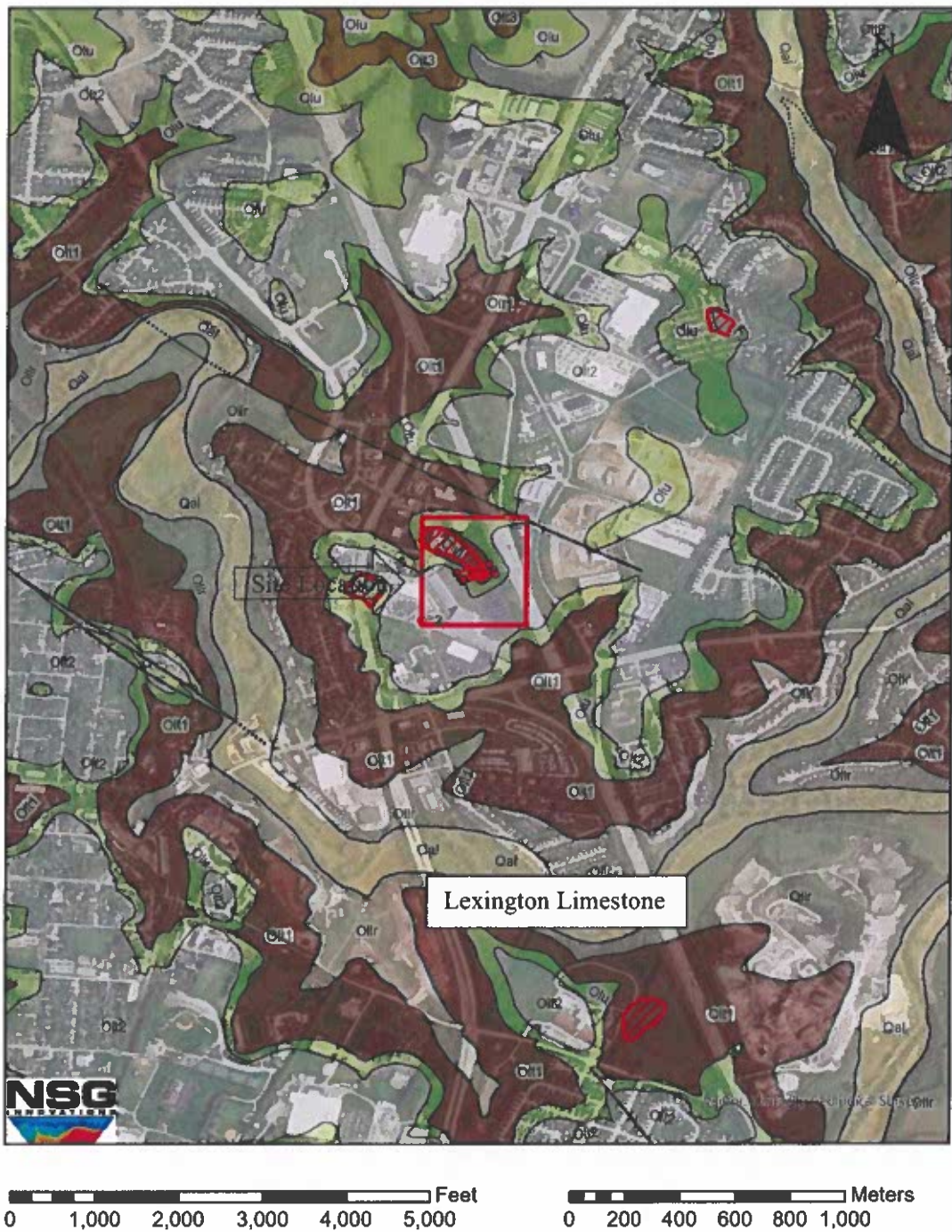
0 1,000 2,000 3,000 4,000 5,000 Feet

0 200 400 600 800 1,000 Meters

Figure 3 Line Location Map

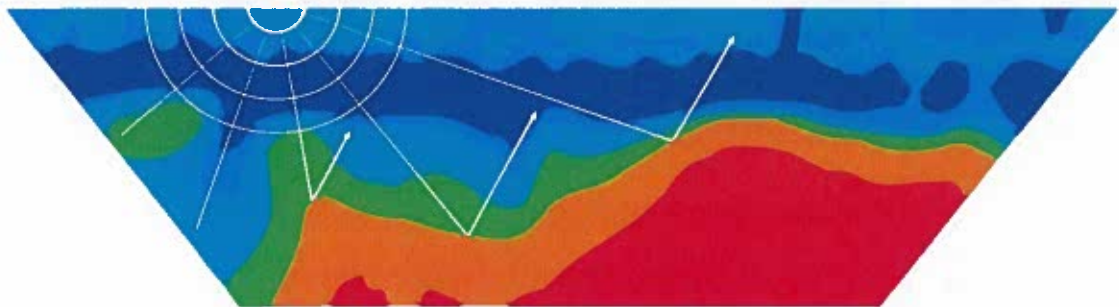


Figure 4 Geological Setting



NSG

I N N O V A T I O N S



SHEAR-WAVE VELOCITY TESTING FOR SEISMIC CLASS DETERMINATION

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1.0 Introduction

The area under investigation lies within an undeveloped parcel located along Outlet Centre Drive in Georgetown, KY. One refraction microtremor (ReMi) survey line was conducted through the approximate center of the proposed building footprint. A site map showing the approximate location of the survey line in relation to the rest of the site is included as Figure 1. The intent of this survey was to conduct a shear-wave velocity test for seismic-class determination for the site prior to construction.

The information provided herein is a determination of the shear-wave velocity using the Refraction Microtremor (ReMi) method, which can be used in accordance with the International Building Code (IBC) and ASCE 7 to determine a seismic site classification. It is recommended that a professional engineer be consulted to determine if the site class noted here is acceptable.

2.0 Technical Background

Since its introduction in the late 1990s, use of surface wave techniques have rapidly increased for two reasons: (1) they provide the shear-wave velocity (V_s) of ground materials, which is one of the most important geotechnical parameters in civil engineering, and (2) they are easier to use than other common seismic approaches (e.g., refraction, reflection, and surface-wave surveys).

2.1 Shear-Wave Velocity (V_s)

Elastic moduli are commonly used in geotechnical engineering to describe the behavior of Earth materials under stress, which is ultimately related to such tasks as properly designing earthworks and structural foundations, risk assessment under specific site conditions, and monitoring various types of existing infrastructures for public safety. Among three primary types of modulus: Young's (E), shear (μ), and bulk (κ) moduli—the first two are most commonly used because of what they represent. Young's modulus simply describes the deformation tendency along the axis of stress, whereas the shear modulus describes the tendency of shape deformation (shearing) that, in turn, is related to the viscosity of material. Young's and shear moduli are determined from the parameters of density (ρ), V_s , and Poisson's ratio (ν). V_s plays the most important role as it is included as squared terms in expressions. In addition, V_s , in reality, changes through a broader range than density and Poisson's ratio. Therefore, accurate evaluation of V_s can be extremely valuable in geotechnical engineering. The shear modulus can be determined fairly accurately once V_s is known. Alternatively, Young's modulus requires Poisson's ratio to obtain comparable accuracy. V_s information of ground materials is obtained by processing Rayleigh-type surface waves that are dispersive when travelling through a layered media (i.e., different frequencies travel at different speeds). This dispersion property is determined from a material's V_s (by more than 95%), P-wave velocity (V_p) ($\leq 3\%$), and density (ρ) ($\leq 2\%$). By analyzing dispersion properties, we can therefore determine V_s fairly accurately by assuming some realistic values for V_p and ρ . The accurate evaluation of the dispersion property is most important with any surface-wave method in this sense.

By using a transformation, the surface wave method converts raw field data in a time-offset ($t-x$) domain into a frequency-slowness velocity ($f-p$) domain. The remaining procedure extracts a

dispersion curve that will be used in a subsequent process in search for the one-dimensional (1D) V_s profile. An accurate dispersion analysis is obviously an important part of data processing, and this is because shear-wave velocity (V_s) information is a good indicator of the material stiffness. The surface wave methods are often applied in civil engineering to deal with mechanical aspects of ground materials for example, assessment of load-bearing capacity, ground behavior under continuous and prolonged vibration, and ground amplification and liquefaction potential.

Based on the premise established from empirical studies that the top 100 feet (approximately 30 meters) are influenced the most, and also from the fact that the shear-wave velocity (V_s) is the best indicator of stiffness, the average V_s in the top 100 feet (usually denoted as V_s 100 ft or V_s 30 m.) is used as an important criterion in the design of building structures. In general, a site with a lower V_s 100 ft (30 m) would be subject to greater ground amplification (and suffer more damage from an earthquake).

The National Earthquake Hazard Reduction Program (NEHRP) established by the U.S. Congress in 1977 adopts this criterion and classifies a site into one of several categories (Table 1). The International Building Code (IBC) published the same classification designations in 2000 as one of the parameters that should be accounted for in structural design. In a 2018 update, the IBC now defers to ASCE 7.

Calculation of the average V_s for a certain depth range can be accomplished in two ways: (1) based on relative thickness-contribution of each layer, and (2) based on the definition of velocity—total distance ($\sum di$) divided by total travel time ($\sum ti$) that is calculated by the summation of thickness (di) divided by velocity (V_{si}) of each layer. Both methods can yield significantly different results for the same V_s profile as illustrated by using a simple two-layer V_s profile. V_s 30 m, as defined in the International Building Code (IBC 2000 and later editions) uses the second method, which tends to put a heavier weight on the lower V_s as shown in the equation below:

$$V_{s30m} = \frac{\sum di}{\sum ti} = \frac{30}{\sum (di/V_{si})} \text{ (m/s)} \quad (1)$$

2.2 Surface Wave Seismic Method; Refraction Microtremor (ReMi)

Refraction Microtremor or ReMi is a surface-wave seismic method for measuring in-situ shear-wave (S-wave) velocity profiles. The ReMi method is used to determine shear-wave velocity profiles for International Building Code seismic site classification. The Rayleigh wave method has since been used for delineation of landslides and tunnel assessment, soil compaction control, mapping the subsurface and estimating the strength of subsurface materials. Testing is performed

Table 1 Site Class Definitions partially reproduced below

Site Class	Soil Profile Name	Average Properties in Top 100 feet (as per 2000 IBC section 1615.1.5) Soil Shear Wave Velocity, V_s	
		Feet/second	Meters/second
A	Hard Rock	$V_s > 5000$	$V_s > 1524$
B	Rock	$2500 < V_s \leq 5000$	$762 < V_s \leq 1524$
C	Very dense soil and soft rock	$1200 < V_s \leq 2500$	$366 < V_s \leq 762$
D	Stiff soil profile	$600 < V_s \leq 1200$	$183 < V_s \leq 366$
E	Soft soil profile	$V_s < 600$	$V_s < 183$

Site Classifications adopted from Table 1615.1.1 Site Class Definitions published in 2000 International Building code, International Code Council, Inc. on page 350.

at the surface using the same conventional seismograph and vertical P-wave geophones used for refraction studies thus the term refraction. The seismic source consists of ambient seismic "noise", or microtremors, which are constantly being generated by cultural and natural noise. Depending on the material properties of the subsurface, ReMi can determine shear-wave velocities down to a minimum of 40 meters (approximately 130 feet) and a maximum of 100 meters (approximately 300 feet) depth. The data acquisition procedure consists of obtaining ten to twenty, thirty-second seismic noise records using conventional seismograph and 4.5 or 10 Hertz (Hz), P-wave geophones. The wavefield transformation of the noise record reveals the shear-wave dispersion curve. The shear-wave dispersion curve is then manually picked from the wavefield transformation and forward modeled to determine the subsurface shear-wave velocity profile (see inset Diagram 1).

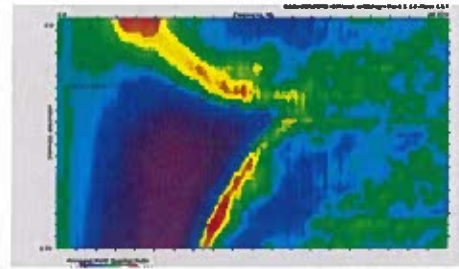


Diagram 1: Schematic diagram of the slowness (p) frequency transformation of the data for picking the dispersion curve.

3.0 Procedures

One ReMi line was conducted on April 7, 2026, using twenty-four 10 hertz geophones positioned with 13-foot spacing for a total line length of 299 feet. The line was laid out for the survey as shown in Figure 1, oriented southwest to northeast. Data was collected for 30 second intervals using a Seismic Source DAQ link III, 24-bit Data, 24-Channel Seismic Acquisition Unit equipped with Vibroscope Seismic Software.

Evaluation of the ReMi data for the site was completed using the method described by Louie (2001). The recorded data were exported to the SeisOpt® ReMi™ proprietary software for processing and modeling. SeisOpt® ReMi™ software was used to process and pick the dispersion curve (Figure 2). The dispersion curve was forward modeled to construct a shear-wave velocity profile (Figure 3). Shear wave velocities obtained from the forward modeling process are compared to the National Earthquake Hazard Reduction Program (NEHRP) site class as illustrated in Table 1.

4.0 Summary of Findings

The information provided herein is a determination of the shear-wave velocity using the Refraction Microtremor (ReMi) method and can be used in accordance with the International Building Code (IBC) to determine a seismic site classification (Table 1). The Site Class has been determined to be **Class C** based on data provided by the geophysical survey conducted. Shear wave velocity, based on evaluation of data from the ReMi survey line at the site, is $V_s=1,977.23 \text{ ft/sec} \pm 40.37 \text{ ft/sec}$.

5.0 Limitations

This study included a limited set of geophysical readings across limited portions of the site. The results and interpretations of the geophysical survey performed are considered generally reliable

and were conducted in a manner generally consistent with practitioners in the field of geophysical engineering. The methods used in this investigation are considered reliable. The shear wave data applies only to this particular site.

Figure 1 Line Location Map



0 100 200 300 Feet

0 20 40 60 Meters

Figure 2 ReMi Dispersion Curve and Picks

ReMi line

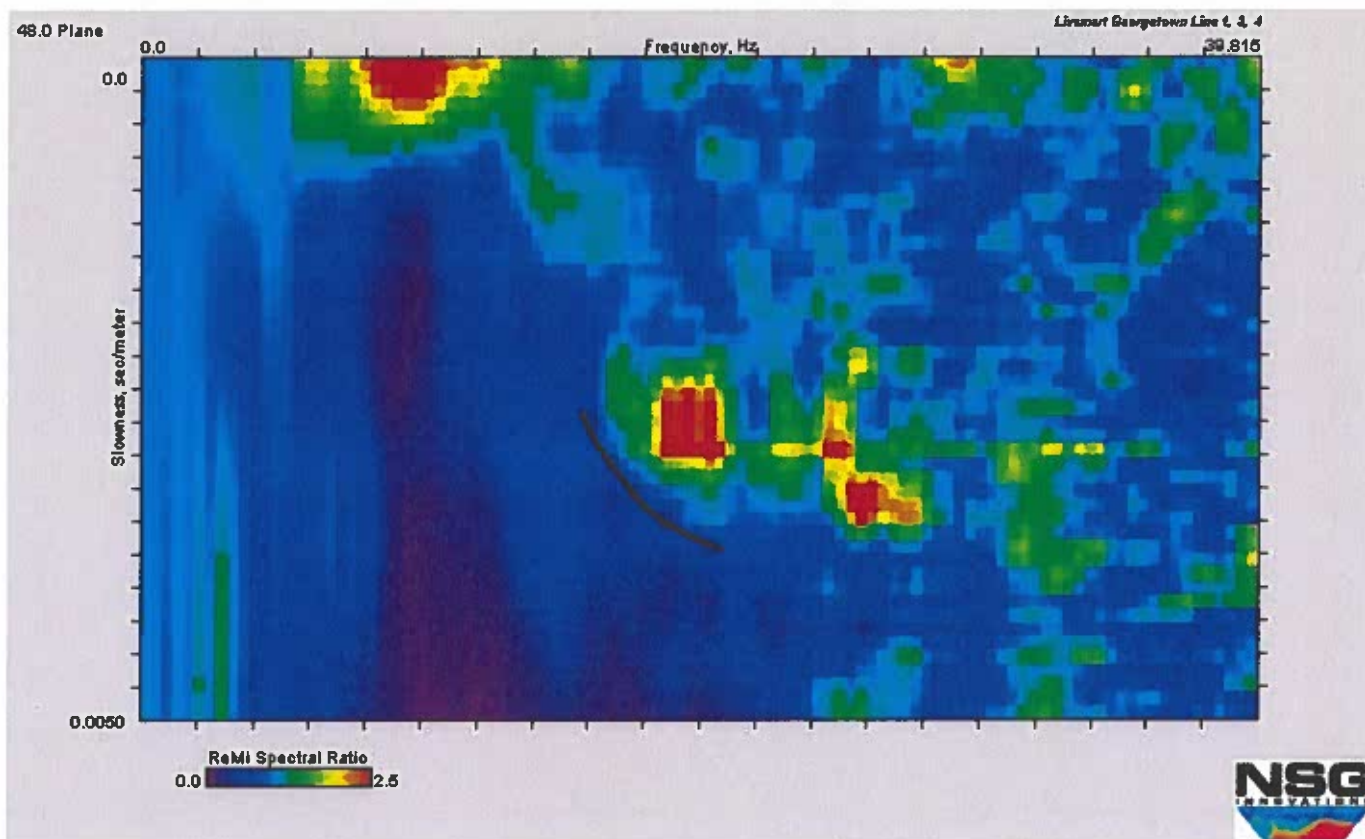


Figure 3 Shear-Wave Velocity Profile

