

SUBDIVISION REPORT -CONCEPT/DEVELOPMENT PLAN

FILE #: 8-SA-24-C	AGENDA ITEM #:			
8-B-24-DP	AGENDA DATE: 8/8/20			
SUBDIVISION:	HAWK'S RIDGE SUBDIVISION			
APPLICANT/DEVELOPER:	FRED E. TRAINER, JR			
OWNER(S):	Fred E. Trainer Jr. FET Development LLC			
TAX IDENTIFICATION:	103 067, 063 View map on KG			
JURISDICTION:	County Commission District 6			
STREET ADDRESS:	11234 SAM LEE RD (11308 SAM LEE RD)			
LOCATION:	South and west sides of Sam Lee Rd, south of the intersection with Dearing Way.			
GROWTH POLICY PLAN:	Planned Growth Area			
FIRE DISTRICT:	Karns Fire Department			
WATERSHED:	Beaver Creek, Conner Creek			
APPROXIMATE ACREAGE:	10.41 acres			
ZONING:	PR (Planned Residential) up to 4.5 du/ac			
EXISTING LAND USE:	Rural Residential			
PROPOSED USE:	Detached residential subdivision			
SURROUNDING LAND USE AND ZONING:	North: Single family residential, rural residential, public/quasi public land (church) - A (Agricultural) South: Agriculture/forestry/vacant land - A (Agricultural) East: Agriculture/forest/vacant land, single family residential - A (Agricultura West: Single family residential, rural residential - A (Agricultural)			
NUMBER OF LOTS:	28			
SURVEYOR/ENGINEER:	Dedrick Jones PE Sterling Engineering Inc			
ACCESSIBILITY:	Access is via Sam Lee Road, a major collector street with a 18-ft pavement width within a 50-ft right-of-way.			
SUBDIVISION VARIANCES REQUIRED:	VARIANCES 1. Reduce the minimum double frontage lot depth from 150 ft to 135 ft along the frontage of Sam Lee Road and the "area reserved for future road extension".			
	ALTERNATIVE DESIGN STANDARDS REQUIRING KNOXVILLE-KNOX COUNTY PLANNING COMMISSION APPROVAL None.			
	ALTERNATIVE DESIGN STANDARDS REQUIRING KNOX COUNTY ENGINEERING AND PUBLIC WORKS APPROVAL (PLANNING COMMISSION APPROVAL NOT REQUIRED)			

 Increase the maximum intersection grade from 1 percent to 2 percent on Hawk's Ridge Road at Sam Lee Road.
 Increase the maximum intersection grade from 1 percent to 2 percent on Hawk's Ridge Road at Sim's Grove Road.
 Reduce the public right-of-way width from 50 ft to 40 ft for Hawk's Ridge Road and Sim's Grove Road.

STAFF RECOMMENDATION:

Approve the requested variance to reduce the minimum double frontage lot depth from 150 ft to 135 ft along the frontage of Sam Lee Road and the "area reserved for future road extension".

A. Knox County proposes to realign Sam Lee Road to the south side of the property, resulting in the reclassification of the existing Sam Lee Road to a local road on the north and east sides of the property.

B. The right-of-way for realigning Sam Lee Road is being dedicated from the subject lot, establishing double frontage lots along the southern boundary that would otherwise not be applicable.

C. The granting of the variation will not be detrimental to public safety, health, or welfare because the realignment of Sam Lee Road through the southern portion of the subject property will result in a safer roadway for the community.

Approve the Concept Plan subject to 10 conditions.

1) Connection to sanitary sewer and meeting other relevant utility provider requirements.

2) Provision of street names consistent with the Uniform Street Naming and Addressing System within Knox County (County Ord. 91-1-102).

3) Providing a permanent or temporary sight distance easement through the horizontal curve of Sam Lee Road in the northeast corner of the site if required by Knox County Engineering and Public Works during the design plan phase.

4) Providing sight distance easements through the horizontal curve radius less than 250 ft per the requirements of Knox County Engineering and Public Works during the design plan phase. Any driveways that cannot be located outside the sight distance easement must have a 20 ft depth outside the sight distance easement.

5) Providing a sidewalk on one side of Hawk's Ridge Road and along the Sam Lee Road frontage from Hawk's Ridge Road to the future road extension per the requirements of the Knox County Sidewalk Ordinance (Chapter 54, Article IV of the Knox County Code).

6) Submitting a geotechnical report of the closed contours on the site to be reviewed and approved by Knox County Engineering and Public Works during the design plan phase. For closed contours that are not a sinkhole, the certification to be provided by Knox County Engineering and Public Works must be placed on the final plat. For those that are a sinkhole, the area shown as a closed contour must be shown on the final plat with a 50-ft buffer as required by Section 3.06.B. of the Subdivision Regulations. If any building construction is proposed within the 50-ft buffer area around the designated sinkholes/depressions (including the depressions), a geotechnical report must be prepared by a registered engineer to determine soil stability and that report must be submitted to the Knox County Department of Engineering and Public Works for consideration. Any construction in these areas is subject to approval by the County following a review of the report. Engineered footings must be designed for these areas. For those lots that do not have a building site outside of the 50-ft buffer, approval by Knox County will be required prior to final plat approval. The sinkholes/depressions and 50-ft buffer shall be designated on the final plat even if they are approved to be filled. Lots that do not have buildable areas.

7) Placing a note on the final plat that all lots shall have access to the interior road system.

8) Meeting all applicable requirements of the Knox County Zoning Ordinance.

9) Meeting all applicable requirements of the Knox County Department of Engineering and Public Works.

10) Before certification of the final plat for the subdivision, establish a property owners association or other legal entity responsible for maintaining common facilities, such as common areas, amenities, private roads, and/or stormwater drainage systems.

Approve the development plan for up to 28 detached residential lots and reduction of the 35-ft peripheral setback to 25 ft along the north, east, and south boundaries and to 20 ft on the western boundary of lots 8-10, subject to 2 conditions.

1) Meeting all other applicable requirements of the Knox County Zoning Ordinance.

2) Providing landscape screening consistent with the Type B screening guidelines (Exhibit B) on the western boundary of lots 9 and 10 where the peripheral setback is reduced. Existing trees that are retained on the

subject property can count toward this requirement. A landscape plan must be submitted for review and approval by Planning staff during the design plan phase.

With the conditions noted, this plan meets the requirements for approval in the PR zone and the criteria for approval of a development plan.

COMMENTS:

This proposal is for a 28-lot detached residential subdivision on 10.796 acres at a density of 2.6 du/ac. In February 2024 (12-D-23-RZ), the property was rezoned from A (Agricultural) to PR (Planned Residential) up to 4.5 du/ac. A single access is provided to Sam Lee Road. The applicant is providing a 50-ft wide area reserved for future road extension (right-of-way) along the southern boundary of the property where Knox County intends to relocate Sam Lee Road to eliminate the two existing 90-degree curves.

DOUBLE FRONTAGE LOTS

A double frontage lot is defined as a lot which has two (2) non-intersecting sides abutting on a street. This is most common when a lot fronts on an internal street of the subdivision and an existing external street along the rear property line, such as a county road. The minimum average lot depth is 135 ft when the external road is a local street, and 150 ft when it is a collector or arterial. The double front lot standard also applies to future collector and arterial streets. An alternative to creating double frontage lots is the establishment of a common area buffer strip with a minimum depth of 25 ft located between lots and the exterior street right-of-way.

Sam Lee Road is a major collector street, and the future road extension (realignment of Sam Lee Road) will also be classified as a major collector, so the 150 ft average lot depth applies to the north, east and south boundaries of the subdivision.

FUTURE ROAD IMPROVEMENTS

Knox County is working with the subject property owner and the adjacent property owner to the west to allow a realignment of Sam Lee Road to pass through their properties. This will eliminate two 90-degree curves and improve safety for the community.

VARIANCE

The applicant requests to reduce the double frontage lot depth from 150 ft to 135 ft to match the lot depth when the external road is a local street. When Sam Lee Road is realigned, the existing Sam Lee Road on the north and east sides of the subject lot will become local roads.

The 150-ft double-frontage lot depth applies to the southern boundary of the subdivision because the road realignment has been identified as a future street improvement project. If this improvement project were not identified, the double frontage lot standard would not apply to the southern boundary.

ALTERNATIVE DESIGN STANDARDS

The requested alternative design standards can be approved by Knox County Engineering and Public Works and do not require approval by the Planning Commission. The applicant is requesting to increase the maximum intersection grades at both ends of Hawk's Ridge Road to 2 percent and reduce the right-of-way for the new internal roads to 40 ft. The proposed intersection grades are consistent with the maximum allowed by Knox County Engineering and Public Works when there is a crosswalk, and it does not impact the intersection's functionality or safety.

DEVELOPMENT PLAN ANALYSIS PER ARTICLE 6, SECTION 6.50.06 (APPROVAL OR DENIAL) In the exercise of its administrative judgment, the Planning Commission shall determine if the proposed plan is in harmony with the general purpose and intent of the zoning ordinance and adopted plans.

1) ZONING ORDINANCE

PR (Planned Residential) up to 4.5 du/ac:

A. The PR zone allows detached houses as a permitted use. The administrative procedures for the PR zone require the Planning Commission to approve the development plan before permits can be issued (Article 5, Section 5.13.15).

B. The proposed density is 2.6 du/ac, including the land area proposed for the dedication of right-of-way along Sam Lee Road and the area reserved for future road extension.

C. The property has three closed contours that are potential sinkholes. The applicant has provided a geotechnical study that concluded that the two closed contours on the east side of the property are not

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sinkholes. The closed contour on the west side of the property was not studied and is presumed to be a sinkhole. It is proposed to be used as a detention pond. The geotechnical study will be reviewed by Knox County Engineering and Public Works during the design plan phase. The PR zone allows the clustering of lots away from sensitive environmental features like sinkholes.

2) COMPREHENSIVE PLAN - IMPLEMENTATION POLICIES

A. The developer is reserving an area for the future realignment of Sam Lee Road on the south side of the property by Knox County. This is consistent with Policy 9, to coordinate infrastructure improvements with development.

B. A sidewalk is required on one side of Hawk's Ridge Road and along Sam Lee Road from Hawk's Ridge Road to the future road extension. This is consistent with Policy 11, to promote connectivity with new development, increase mobility, and encourage active transportation and recreation.

3) FUTURE LAND USE MAP

A. The property is classified as the TN (Traditional Neighborhood) place type on the Future Land Use Map. Traditional Neighborhoods are areas that feature a mix of housing ranging from single family to townhomes and small multifamily buildings. They have a walkable block pattern, a mix of housing types within the neighborhood, and neighborhood amenities such as parks and schools. Small office, commercial, and civic uses may also exist in these areas along major thoroughfares. These areas are typically connected to a mixed-use center. – With the recommended conditions, this is consistent with the intent of the TN place type by providing residential uses, sidewalk connections to a future sidewalk network, and is within close proximity to schools.

B. Single family and attached residential are considered primary uses in the TN place type. Primary uses are intended to be the predominant focus of the place. – The proposed single family development with small to medium-sized lots is consistent with the TN place type.

C. The proposal conforms to the form attributes of the TN place type, which recommends building heights of 1-3 stories, front setbacks of 0-20 ft, and open space that includes a private neighborhood open space and nearby school yards.

D. The TN place type allows consideration of PR (Planned Residential) up to 24 du/ac as a partially related zone. The proposed development has a density of 2.6 du/ac.

4) HARDIN VALLEY TRANSPORTATION PLAN

A. The subject property is within the boundaries of the Hardin Valley Transportation Plan, adopted in 2019. The plan describes a long-range goal to widen existing travel lanes on Sam Lee Road and create additional shoulder width for all users.

B. With the subject development and the recent rezoning of the adjacent property to the west, there is an opportunity to relocate Sam Lee Road to the south side of the subject property and connect with the existing Sam Lee Road in the northwest corner of the adjacent property to the west. This will eliminate two sharp curves and improve safety.

C. With the property's close proximity to schools, a sidewalk will be provided on Sam Lee Road with the future relocation, and the subject development is required to extend a sidewalk to this future sidewalk. This aligns with the Mobility Plan's multimodal aspirations.

5) KNOXVILLE – FARRAGUT – KNOX COUNTY GROWTH POLICY PLAN

A. The purposes of the Planned Growth Area designation are to encourage a reasonably compact pattern of development, promote the expansion of the Knox County economy, offer a wide range of housing choices, and coordinate the actions of the public and private sectors, particularly with regard to the provision of adequate roads, utilities, schools, drainage and other public facilities and services. The proposed development meets the relevant standards of the Growth Policy Plan.

ESTIMATED TRAFFIC IMPACT: 313 (average daily vehicle trips)

Average Daily Vehicle Trips are computed using national average trip rates reported in the latest edition of "Trip Generation," published by the Institute of Transportation Engineers. Average Daily Vehicle Trips represent the total number of trips that a particular land use can be expected to generate during a 24-hour day (Monday through Friday), with a "trip" counted each time a vehicle enters or exits a proposed development.

ESTIMATED STUDENT YIELD: 12 (public school children, grades K-12)

Schools affected by this proposal: Hardin Valley Elementary, Hardin Valley Middle, and Hardin Valley Academy.

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• Potential new school population is estimated using locally-derived data on public school student yield generated by new housing.

• Students are assigned to schools based on current attendance zones as determined by Knox County Schools. Students may request transfers to different zones, and zone boundaries are subject to change.

• Estimates presume full build-out of the proposed development. Build-out is subject to market forces, and timing varies widely from proposal to proposal.

• Student yields from new development do not reflect a net addition of children in schools. Additions occur incrementally over the build-out period. New students may replace current population that ages through the system or moves from the attendance zone.

Knoxville-Knox County Planning Commission's approval or denial of this concept plan request is final, unless the action is appealed to Knox County Chancery Court. The date of the Knox County Chancery Court hearing will depend on when the appeal application is filed.

The Planning Commission's approval or denial of this development plan request is final, unless the action is appealed either to the Board of Zoning Appeals or to a court of competent jurisdiction within thirty (30) days of the decision being appealed (Knox County, Tennessee Code of Ordinances, Appendix A, Zoning, 6.50.08).

PAGE #:

















July 19, 2024

Red Door Homes of East Tennessee 115 Circle Lane Knoxville, Tennessee 37919

ATTENTION: Mr. Brad Faerber <u>bfaerber@reddoorhomes.com</u>

Subject: REPORT OF LIMITED GEOTECHNICAL EXPLORATION Hawk's Ridge Closed Depressions Sam Lee Road Knox County, Tennessee UES Project No. A22109.00070

Dear Mr. Faerber:

We are submitting the results of the limited geotechnical exploration performed for the subject project. The geotechnical exploration was performed in accordance with our conversations with you dating from December 15, 2023. The purpose of our limited geotechnical exploration was to explore the subsurface conditions in the vicinity of KGIS indicated closed contour depressions and to provide a discussion on possible karst activity.

PROJECT INFORMATION AND SITE DESCRIPTION

Project information has been provided during site meetings, telephone conversations and email correspondence with you dating from December 15, 2023. We were also provided an undated and untitled layout drawing showing the possible subdivision layout in the area of the KGIS indicated closed depressions.

The proposed development is to consist of the Hawk's Ridge residential subdivision which will include individual residential lots, roadways and utilities. We understand that two closed depressions are indicated on the Knoxville, Knox County, KUB Geographic Information System (KGIS) topographic maps in the area just west of Sam Lee Road.

The area of the closed depressions slopes generally toward the east, toward Sam Lee Road. Sam Lee Road in the area of the depressions has been filled. Based on our observations, it appears that fill may have also been placed in the area of a former residence at 11234 Sam Lee Road. It is possible the area formerly drained toward a larger closed contour depression on the east side of Sam Lee Road prior to construction of the road. A concrete pipe crosses under the roadway embankment within the southern depression.

FIELD EXPLORATION

The subsurface conditions within the closed depressions were explored with three (3) test pits. The test pits were located in the field by UES personnel using a hand-held GPS unit and the provided drawing. The approximate locations of the test pits are shown on Figure 1 attached to this report. The depths in this report reference the ground surface that existed at the time of this exploration.

The field work was performed on July 19, 2024 by a Red Door Homes subcontractor with excavations completed using a Caterpillar 305 excavator with a 36-inch-wide tooth bucket. The excavations were observed by a member of our staff to document the materials encountered. The soil samples were visually classified in general accordance with the Unified Soil Classification System (USCS – ASTM D 2487) by a UES geotechnical professional. Details regarding the subsurface conditions at each location is provided as an attachment to this report. Upon completion of excavations, the pits were backfilled and tamped.

GEOLOGIC CONDITIONS

The project site, as most of East Tennessee, lies in the Appalachian Valley and Ridge Physiographic Province. The Province is characterized by elongated, northeasterly-trending ridges formed on highly resistant sandstones and shales. Between ridges, broad valleys and rolling hills are formed primarily on less resistant limestones, dolomites, and shales.

Published geologic information indicates that the site is underlain by the Mascot Dolomite formation of the Knox Group. This formation is generally composed of well-bedded light-gray dolomite containing minor amounts of limestone. The Mascot Dolomite formation typically weathers to produce a light-tan to dark-orange residual clay overburden. Silica in the form of chert is resistant to weathering and typically scattered throughout the residuum. Since the bedrock underlying this site contains carbonate rock (i.e. limestone/dolomite), the site is susceptible to the typical carbonate hazards of irregular weathering, cave and cavern conditions, and overburden sinkholes. Carbonate rock, while appearing very hard and resistant, is soluble in slightly acidic water. This characteristic, plus differential weathering of the bedrock mass is responsible for these hazards. Of these hazards, the occurrence of sinkholes is potentially the most damaging to overlying soil-supported structures. Sinkholes occur primarily due to differential weathering of the bedrock mass and flushing of overburden soil into the cavities within the bedrock. This loss of solids creates a cavity, or dome, within the overburden. Growth of the cavity over time, or excavation over the dome, can create a condition in which rapid subsidence, or collapse, of the roof of the dome occurs. Such a feature is termed a sinkhole.

The process of bedrock solutioning including the formation of bedrock pinnacles, slots, fissures, caves, and sinkholes has been occurring for a long period of time. The result of this solutioning is evidenced by the undulating topography of present-day East Tennessee. Such topography is often referred to as "Karst" topography which is a term used to describe landforms, geologic features, and subsurface conditions resulting from the solutioning of carbonate bedrock. Some of the features associated with karst topography include internally drained depressions (closed depressions), springs, sinking creeks, caves, and underground springs.

The closed depressions are internally drained, meaning surface water within the highest closed contour interval of the depression flows to the bottom of the depression where it infiltrates into the subsurface. Closed depressions are indicated on United States Geologic Survey (USGS) topographic maps by a hatched contour interval. During our review of the United States Geological Survey (USGS – Lovell Quadrangle, TN), the KGIS indicated closed depressions were not shown; however, the large depression east of Sam Lee Road is mapped.

SUBSURFACE CONDITIONS

The following subsurface description is of a generalized nature to highlight the subsurface stratification features and material characteristics at the testing locations. The test pit logs included as an attachment to this report should be reviewed for specific information at each location. Information on actual

subsurface conditions exists only at the specific test pit locations and is relevant only to the time that this exploration was performed. Variations may occur and should be expected at the site.

Surficial & Fill Materials

In general, each test pit initially encountered 2 to 6 inches of surficial topsoil underlain by apparent fill materials. Fill is a material which has been transported and placed by man and machine. The fill materials consisted of varying shades of brown and tan low plasticity (lean) and high plasticity (fat) clay soils with rock fragments. The fill materials extended to depths ranging from approximately 5.5 to 6 feet below existing grade. We note test pit TP-3 was terminated in fill at a depth of 1.5 feet; therefore, the fill may extend to a greater depth at that location. The soil consistencies within the fill materials ranged from soft to firm.

Possible Alluvium

Possible alluvial soils were encountered underlying the fill in test pit TP-2. Alluvial soils have been transported to their present location by running water. The alluvial sols were classified as light brown lean clay soils with some rounded gravel. The alluvium was estimated to be of firm consistency.

<u>Residuum</u>

Underlying the fill materials of test pit TP-1 and alluvium of test pit TP-2, apparent residual soils were encountered. The residual soils generally consisting of brown, tan and gray lean clays with chert fragments. The residuum was estimated to be of stiff consistency.

Excavation Refusal

Excavation refusal was not encountered in the test pits. The test pits were extended to depths ranging from approximately 1.5 to 7 feet without encountering refusal materials. Excavation refusal is a designation applied to any material that cannot be penetrated by the equipment used to dig the test pits and is normally indicative of a hard or dense material.

Ground Water

Groundwater was not encountered in the test pits at the time of our field activities. We note that stabilized water levels can sometimes be difficult to obtain as the encountered soils are known to be relatively impermeable. In addition, each test pit was backfilled upon completion in consideration of safety so delayed water levels were not recorded. It is possible for groundwater to exist within the depths explored during other times of the year depending upon climatic and rainfall conditions. Additionally, discontinuous zones of perched water may exist within the overburden materials. The groundwater information presented in this report is the information that was collected at the time of our field activities.

CONCLUSIONS

The findings of our exploration are consistent with the overall topography and our visual observations of the site. Fill materials were encountered in test pits TP-1 and TP-2 to depths of 5.5 to 6 feet below the existing ground surface. It is likely this fill placement has bisected to former draw or drainage feature leading toward the large closed depression to the east of Sam Lee Road and created an artificial closed depression which is indicated on the KGIS topographic maps. This is in reference to the northern depression indicated on the KGIS maps.

A similar situation exists in the area of the southern depression, where fill has been placed to form an embankment for Sam Lee Road. This embankment is on the order of about 6 feet in height and is composed of fill material as evidenced by the findings of test pit TP-3. A concrete pipe conveys water under Sam Lee Road from the west to the east toward the large closed depression east of Sam Lee Road. The southern closed depression is also an artificial closed depression caused by the placement of the fill.

Based on the results of the geotechnical exploration and our evaluation of the site topography, the two depressions explored in the area west of Sam Lee Road are not sinkholes and should not be treated as such for construction purposes.

The risk of sinkhole development across the entire site can be further reduced by following the recommendations provided in the following section. The present standard of practice of geotechnical engineering cannot definitely predict where or when solution features will occur. The recommendations are based on the field work completed in July of 2024.

SINKHOLE RISK REDUCTION AND CORRECTIVE ACTIONS

Based on our experience, corrective actions can also be performed to reduce the potential for sinkhole development at this site. These corrective actions would decrease but not eliminate the potential for sinkhole development. Much can be accomplished to decrease the potential of future sinkhole activity by proper grade selection and positive site drainage.

In general, the portions of a site that are excavated to achieve the desired grades will have a higher risk of sinkhole development than the areas that are filled, because of the exposure of relic fractures in the soil to rainfall and runoff. On the other hand, those portions of a site that receive a modest amount of fill (or that have been filled in the past) will have a decreased risk of sinkhole development caused by rainfall or runoff because the placement of a cohesive soil fill over these areas effectively caps the area with a relatively impervious "blanket" of remolded soil. Therefore, the recommendations that are designed to make the surface of the soil in excavated areas less permeable.

Although it is our opinion that the risk of ground subsidence associated with sinkhole formation cannot be eliminated, however, we have found that several measures are useful in site design and development to reduce this potential risk. These measures include:

- Maintaining positive site drainage to route surface waters well away from structural areas both during construction and for the life of the structure.
- The scarification and re-compaction of the upper 6 to 10 inches of soil in earthwork cut areas.
- Verifying that subsurface piping beneath structures is carefully constructed and pressure tested prior to its placement in service.
- The use of pavement or geosynthetic clay lined ditches, particularly in cut areas, to collect and transport surface water to areas away from structures.

Considerations when building within a sinkhole prone area are to provide positive surface drainage away from proposed building or parking areas both during and after construction. Backfill in utility trenches or other excavations should consist of compacted, well-graded material such as dense graded aggregate or compacted on site soils. The use of an open graded stone (such as No. 57) stone is not recommended unless the stone backfill is provided an exit path and not allowed to pond. If sinkhole conditions are observed, the type of corrective action is most appropriately determined by a geotechnical engineer on a case by case basis.

LIMITATIONS

This report has been prepared in accordance with generally accepted geotechnical engineering practice for specific application to this project. This report is for our geotechnical work only, and no environmental assessment efforts have been performed. The conclusions and recommendations contained in this report are based upon applicable standards of our practice in this geographic area at the time this report was prepared. No other warranty, express or implied, is made.

CLOSURE

We appreciate the opportunity to provide these services. If you have any questions, please feel free to contact us at your convenience.

Sincerely,

UES, LLC



Matthew B. Haston, P.E. Senior Geotechnical Engineer TN 109,269

ATTACHMENTS:

Test Pit Location Plan Test Pit Logs

WRGA

W. Ros Kingery III, P.E. Vice President

ATTACHMENTS

UES



		U	ES	Mawk's Ridge Closed Depressions UES Project A22109.00070 Personnel: Matt Haston, P.E.	Date:	July 19, 2024
Location	Location Depth (ft.) Material Type			Description		Comments
	0.0	0.2	Surface	Topsoil and Roots (2 inches)		
TP-1	0.2	6.0	Fill	Lean CLAY (CL) - yellowish brown, moist to wet		Soft to Firm
16-1	6.0	6.5	Residuum	Lean CLAY (CL) - with chert fragments, tan and light gray		Stiff
		6.5		Test Pit Terminated at 6.5 Feet.		





Observation Pit Logs Hawk's Ridge Closed Depressions UES Project A22109.00070

Date: July 19, 2024

	Personnel: Matt Haston, P.E.				
Location	Depth (ft.)		Material Type	Description	Comments
	from	to	Туре		
	0.0	0.5	Surface	Topsoil and Roots (6 inches)	
	0.5	5.5	Fill	Lean CLAY (CL) - with rock fragments, tan and brown, dry to moist Firm	
TP-2	5.5	6.5	Possible Alluvium	Lean CLAY (CL) - with rounded gravel, light brown, moist to wet Firm	
	6.5	7.0	Residuum	Lean CLAY (CL) - with chert fragments, yellowish brown and gray Stiff	
		7.0		Test Pit Terminated at 7.0 Feet.	

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Observation Pit Logs Hawk's Ridge Closed Depressions UES Project A22109.00070 Personnel: Matt Haston, P.E.			July 19, 2024			
Location	Location Depth (ft.) Material			Description		Comments
	from	to	Туре			
	0.0	0.2	Surface	Topsoil and Roots (2 inches)		
TP-3	0.2	1.5	Fill	Fat CLAY (CH) - with gravel, brown and reddish yellow, dry Stiff		Stiff
		1.5		Test Pit Terminated at 1.5 Feet.	Note Fill E	Embankment and Drain Under Road







Alternative Design Standards

The minimum design and performance standards shall apply to all subdivisions unless an alternative design standard is permitted within Article 3 Section 3.01.D, Application of Alternative Design Standards, or Article 4.01.C, Street Standards (within Hillside and Ridgetop Areas).

There are some alternative design standards that require Planning Commission approval, and some that can be approved by the Engineering Departments of the City or County. However, the City or County Engineering Departments, as applicable, will provide review comments on any alternative design proposed. These comments will be provided during the review process.

Alternative Design Standards Requiring Planning Commission Approval

Section 3.03.B.2 - Street frontage in the PR (Planned Residential) zone, Knox County Section 3.03.E.1.e – Maximum grade of private right-of-way Section 3.03.E.3.a – Pavement width reduction, private rights-of-way serving 6 or more lots Section 3.04.H.2 – Maximum grade, public streets Section 3.04.I.1.b.1 – Horizontal curves, local streets in Knox County

Alternative Design Standards Approved by the Engineering Departments of

the City of Knoxville or Knox County

Section 3.03.E.3.a – Right-of-way width reduction, private rights-of-way serving 6 or more lots Section 3.04.A.3.c – Right-of-way dedication, new subdivisions Section 3.04.F.1 – Right-of-way reduction, local streets Section 3.04.G.1 – Pavement width reduction, local streets Section 3.04.H.3 – Intersection grade, all streets Section 3.04.J.2 – Corner radius reduction in agricultural, residential, and office zones Section 3.04.J.3 – Corner radius reduction in commercial and industrial zones Section 3.11.A.2 – Standard utility and drainage easement

By signing this form, I certify that the criteria for a variance have been met for each request, and that any and all requests needed to meet the Subdivision Regulations are requested above or are attached. I understand and agree that no additional variances can be acted upon by the legislative body upon appeal and none will be requested.

Brad Faerbe	Digitally signed by Brad Faerber Date: 2024.08.01 17:14:58 -04'00'	Brad Faerber	8/1/24
Signature		Printed Name	Date
	Knoxville-Knox Count	y Planning KnoxPlanning.org	

Knoxville-Knox County Planning | KnoxPlanning.org 400 Main Street, Suite 403 | Knoxville, TN 37902 | 865.215.2500 For each alternative design standard requested, identify how the proposed alternative design either meets the intent of the standard in the Subdivision Regulations or meets an alternative, nationally recognized engineering standard such as The American Association of State Highway and Transportation Officials (AASHTO) or Public Right-of-Way Accessibility Guidelines (PROWAG).

1. ALTERNATIVE DESIGN STANDARD REQUESTED:

Intersection grades greater than 1% and no greater than 3%.

Approval required by: Planning Commission

Engineering

Engineering supports the alternative design standard requested (to be completed during review process): YES ■ NO □ Engineering Comments:

Knox County EPW concurs with the applicant's request.

2. ALTERNATIVE DESIGN STANDARD REQUESTED:

Reduce minimum public right-of-way width from 50 feet to 40 feet for the internal roads.

Approval required by: Planning Commission

Engineering

Engineering supports the alternative design standard requested (to be completed during review process): YES ■ NO □ Engineering Comments:

Knox County EPW concurs with the applicants request.

3. ALTERNATIVE DESIGN STANDARD REQUESTED:

Approval required by: Planning Commission □ Engineering □

Engineering supports the alternative design standard requested (to be completed during review process): YES
NO
Engineering Comments:



Variances

File No: 8-SA-24-C

The Planning Commission may reduce or otherwise vary the requirements of the Subdivision Regulations when it finds the hardship criteria are met. In granting such variances, the Planning Commission may attach and require whatever conditions it feels are necessary to secure the basic objectives of the varied regulations. Any variance granted by the Planning Commission shall be noted in its official minutes along with the justification for granting the variance (Subdivision Regulations, Section 1.05).

HARDSHIP CONDITIONS TO BE MET:

- 1 **Conditions Required:** Where the Planning Commission finds that extraordinary hardships or particular difficulties may result from the strict compliance with these regulations, they may, after written application, grant variations to the regulations, subject to specified conditions, so that substantial justice may be done and the public interest secured, provided that such variations shall not have the effect of nullifying the intent and purpose of these regulations or the comprehensive plan.
- 2 Evidence of Hardship Required: The Planning Commission shall not grant variations to these regulations if the purpose of the variation is solely for financial gain. The Planning Commission shall not grant variations to the Subdivision Regulations unless they make findings based upon the evidence presented to them in each specific case that the following hardships are met:
 - a. Because of the particular surroundings, shape, or topographical conditions of the specific property involved, a particular hardship to the owner would result, as distinguished from a mere inconvenience, if the strict letter of the regulations were adhered to.
 - b. The conditions upon which the request for a variation is based is unique to the property for which the variation is sought and is not applicable, generally, to other property, and has not been created by any person having an interest in the property.
 - c. The granting of the variation will not be detrimental to the public safety, health, or welfare, or injurious to other property or improvements in the neighborhood in which the property is located.

By signing this form, I certify that the criteria for a variance have been met for each request, and that any and all requests needed to meet the Subdivision Regulations are requested above or are attached. I understand and agree that no additional variances can be acted upon by the legislative body upon appeal and none will be requested.

Brad Faerber Digitally signed by Brad Faerber Date: 2024.08.01 16:56:30 -04'00'	Brad Faerber	8/1/24
Signature	Printed Name	Date

It is the applicant's responsibility to identify the hardship that would result, as distinguished from a mere inconvenience, if the strict letter of the regulations was adhered to. Each of the variance criteria must be addressed in the comments below with specific facts regarding the unique details of the property and/or project, as applicable.

1. VARIANCE REQUESTED:

Reduce the minimum double frontage lot depth from 150 ft to 135 ft along the Sam Lee Road frontage and "area reserved for future road extension".

Specify the hardship that would result for each of the variance criteria:

A. Pertaining to the particular surroundings, shape, or topographical conditions of the subject property:

EPW wishes to realign Sam Lee Rd. improving two curves that do not meet today's design standards. This involves a new Right of Way along our south boundary. This will change Sam Lee Rd. to no longer be a collector road along our North and East boundaries. We request this variance to match this change.

B. Pertaining to conditions unique to the property that are not applicable to other property and has not been created by any person having an interest in the property.

It is unique to have this request to allow for a new Right of Way through our property. We feel it is in the best interest of the community to see the road realignment come to fruition, therefore we are trying to find ways to work with planning to accommodate this while preserving our desire to provide larger lots with lesser density.

C. Pertaining to the granting of a variance will not be detrimental to public safety, health, or welfare, or injurious to other property or improvements in the neighborhood in which the property is located.

The road realignment will improve safety for vehicle traffic.

To be completed by the City or County Department of Engineering, as applicable:

Engineering supports the variance requested (to be completed during review process): YES
NO
Engineering Comments:

Knox County EPW concurs with this request as it will improve public safety on a busy County roadway.

Jim Snowden



Development Request

DEVELOPMENT

✓ Development Plan

□ Planned Development

Use on Review / Special Use ☐ Hillside Protection COA

SUBDIVISION

✓ Concept Plan 🗌 Final Plat

ZONING

🗌 Rezoning

Plan Amendment

Sector Plan	
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City OYP / County

		Comp Plan
Fred E. Trainer, Jr Applicant Name		Affiliation
6/24/2024	8/8/2024	8-SA-24-C / 8-B-24-DP
Date Filed	Meeting Date (if applicable)	File Number(s)
CORRESPONDENCE	All correspondence related to this applicatio	n should be directed to the approved contact listed below.
Dedrick Jones PE Sterling Engin	eering Inc	
Name / Company		
1020 William Blount Dr Maryvil	le TN 37801	
Address		
865-984-3905 / sdjones@sterlir	ng.us.co	
Phone / Email		
CURRENT PROPERTY INF	0	
Fred E. Trainer Jr. FET Developn	nent LLC 1185 Keowee Ave Knoxville T	N 37919 865-531-1880 / ftrainer@fetcon
Owner Name (if different)	Owner Address	Owner Phone / Email
11234 SAM LEE RD / 11308 SAM	M LEE RD	
Property Address		
103 067,063		10.41 acres
Parcel ID	Part	of Parcel (Y/N)? Tract Size
West Knox Utility District	West Knox Utili	y District
Sewer Provider	Water Provider	Septic (Y/N)
STAFF USE ONLY		
Southwest side of Sam Lee Rd,	south side of Swafford Rd	
General Location		
City Commission District 6	PR (Planned Residential)	Rural Residential
County District	Zoning District	Existing Land Use
TN (Traditional Neighborhood)		Planned Growth Area

Land Use (City)/Place Type (County)

Growth Policy Plan Designation

Phone / Email						
Applicant Signature	Please Print					Date
	Fred E. Trai	ner, Jr				6/24/2024
□ I declare under penalty of pe all associated materials are b				vner of the pro	perty, AND 2) th	ne application and
AUTHORIZATION						
COA Checklist (Hillside Prot	tection)					
Traffic Impact Study	/					
ADDITIONAL REQUIREM ✓ Use on Review / Special Us				Fee 3		-
Amendment Request (Com						
Property Owners / Option		e Request		Fee 2		
ATTACHMENTS				\$1,600.00		-
	nning Commission			Fee 1 \$1,600.00		Total
STAFF USE ONLY				F , A		·
Proposed Density (units/acre) Additional Information	Previous Rezoning R	lequests				
Amendment Proposed Pla	an Designation(s)					
□ Plan						
Change Proposed Zo	ning				Penaing P	lat File Number
					Donding D	lat Filo Number
Attachments / Additional R	lequirements					
Additional Information	loquiromonto					
Unit / Phase Number			Total Number of L	ots Created		
	✓ Split Parcels		28			
Proposed Subdivision Name						
Hawk's Ridge Subdivision					Related Rezo	oning File Number
SUBDIVSION REQUEST						
Other (specify) 28 detached	single family houses					
Home Occupation (specify)						
Hillside Protection COA	·	 Resident		sidential		
🖌 Development Plan 🛛 🗌 P	lanned Development	Use on F	Review / Special Use	2	Related City	Permit Number(s)

	Fred E. Trainer Jr. FET Development LLC	6/24/2024
Property Owner Signature	Please Print	Date

		elopmen		
	DEVELOPMI		SUBDIVISION Concept Plan	ZONING In Amendment
Planning KNOXVILLE KNOX COUNTY	□ Planned [□ Use on Re	Development eview / Special Use rotection COA	Final Plat	□ SP □ PA □ Rezoning
Fred E. Trainer, Jr.		rotection COA	0	
Applicant Name			Own	
June 24, 2024	Διστις	t 8, 2024		File Number(s)
Date Filed		g Date (if applicable)		File Multiper(s)
1997-1997 1997 1997 1997 1997 1997 1997				
CORRESPONDENCE All c	orrespondence r	elated to this application s	hould be directed to the a	pproved contact listed below.
Applicant Property Owner	Option Hol	der 🔲 Project Surveyor	🗉 Engineer 🔲 Arch	tect/Landscape Architect
Derick Jones, PE		Sterli	ng Engineering, Inc.	
Name		Compa	ny	· · · · · · · · · · · · · · · · · · ·
1020 William Blount Drive		Mary	rille TN	37801
Address		City	State	ZIP
865-984-3905	sdjone	s@sterling.us.com		
Phone	Emall	····· · · · · · · · · · · · · · · · ·	···· ····· ··· ···· ······ ······ ······	
CURRENT PROPERTY INFO		۲۹۹۹ کامل میں دور		
Fred E. Trainer, Jr. (FET Develo	pment LLC)	1185 Keowee Avenue	e Knoxville, TN 37919	865-531-1880
Property Owner Name (if different)		Property Owner Address	······	Property Owner Phone
11234/11308 Sam Lee Road			103/063, 103/067	
Property Address	···· · <u></u> . · · · · · ·	**** **** ***** ** <u>**</u> * * <u>***</u> * ****** *	Parcel ID	
West Knox Utility District		West Knox Uti		Ν
Sewer Provider		Water Provider		Septic (Y/N)
STAFF USE ONLY				
General Location	· · · · · · · · · · · · · · · · · · ·	·····		
			Tract Siz	e
City County District	Zoning Di	strict	Existing Land Use	
Planning Sector		Use / Place Туре соимту	Growth	Policy Plan Designation

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23	22			10	1	1.1			2.2					1			e. 19		22		, at			1	

Development Plan	Use on Review / Special Use 🛛 Hillside Protection COA	Related City Permit Number(s)
🗌 Residential	Non-Residential	
Home Occupation (spe	cify)	
Other (specify) 28	· detached single family houses	

SUBDIVISION REQUEST

Hawk's Ridge Subdivision			Related Rezoning File Number
Proposed Subdivision Name	· · · · · · · · · · · · · · · · · · ·	······································	12-D-23-RZ
1 Combine Parcels		28	
Unit / Phase Number	Divide Parcer	Total Number of Lots Created	le en la companya de
Other (specify)		· · · ······ · · · · · · · · · · · · ·	a suus uu uu uu saa saa saa saa saa saa

Attachments / Additional Requirements

ZONING REQUEST

		Pending Plat File Number
Zoning Change		
Propose	d Zoning	
Plan Amendment Change		
	Proposed Plan Designation(s)	
Proposed Density (units/acre	Previous Rezoning Requests	·····

□ Other (specify)

STAFF USE ONLY

PLAT TYPE Staff Review I Planning Commission	Fee 1	Total
ATTACHMENTS Property Owners / Option Holders Variance Request Amendment Request (Comprehensive Plan)	Fee 2	
ADDITIONAL REQUIREMENTS Use on Review / Special Use (Concept Plan) Traffic Impact Study COA Checklist (Hillside Protection)	Fee 3	

WARKS (CRIMAN)

and the second second J declare under penalty of perjury the foregoing is true and correct: 1) He/she/it is the owner of the property AND 2) The application and all associated materials are being submitted with his/her/its consent ١

152. 2. Au	Fred E. Trainer, Jr.	6/17/24
Applicant Signature	Please Print	Date
865 522-2423	ftrainer @fetconstruction.com	
Phone Number	Email	\$1,600
· JJEJ. A.	Fred E. Trainer, Jr.	1250.4
Property Owner Signature	Please Print	Date Paid



Sign Posting & Removal Requirement

Revised April 2021

The Administrative Rules and Procedures of the Knoxville-Knox County Planning Commission require a sign to be posted on the property for each application subject to consideration by the Planning Commission, including the following applications: rezoning, plan amendment, concept plan, use on review/special use, planned development, right-of-way closure, and name change.



The required public notice sign(s) will be provided by Planning to the applicant when an application is submitted. If an application is submitted electronically, Planning staff will post the required sign. If a replacement sign(s) is needed, the applicant is responsible for picking up the new sign(s) from Planning and will be charged \$10 for each replacement.

LOCATION AND VISIBILITY

The sign must be posted on the nearest adjacent/frontage street and in a location clearly visible to vehicles traveling in either direction. If the property has more than one street frontage, the sign should be placed along the street that carries more traffic. Planning staff may recommend a preferred location for the sign to be posted at the time of application.

TIMING

The sign(s) must be posted **not less than 12 days prior to the scheduled Planning Commission public hearing** and must remain in place until the day after the meeting. In the case of a postponement, the sign can either remain in place or be removed and reposted not less than 12 days prior to the next Planning Commission meeting. The applicant is responsible for removing the sign after the application has been acted upon by the Planning Commission.

The individual below is responsible for posting and removing the sign(s) provided consistent with the above guidelines and between the dates of:

July 26, 2024	and	August 9, 2024			
(applicant or staff to post sign)		(applicant to remove sign)			
Applicant Name: Fred E. Trainer Jr Date: 6/24/2024		Sign posted by Staff			
File Number: <u>8-B-24-DP_8-SA-24-C</u>		Sign posted by Applicant			