

KNOXVILLE/KNOX COUNTY METROPOLITAN PLANNING COMMISSION SUBDIVISION REPORT - CONCEPT/USE ON REVIEW

► FILE #: 4-SB-17-C AGENDA ITEM #: 18

> 4-G-17-UR AGENDA DATE: 4/13/2017

SUBDIVISION: **WESTLAND CREEK (FKA - WESTLAND OAKS)**

S AND E PROPERTIES ▶ APPLICANT/DEVELOPER:

OWNER(S): **S&E Properties**

TAX IDENTIFICATION: 133 050 View map on KGIS

JURISDICTION: County Commission District 5

STREET ADDRESS: 8444 Westland Dr

► LOCATION: Southeast side of Westland Dr., east of Gothic Manor Way.

SECTOR PLAN: Southwest County **GROWTH POLICY PLAN:** Planned Growth Area

WATERSHED: Ten Mile Creek APPROXIMATE ACREAGE: 28.74 acres

ZONING: PR (Planned Residential)

EXISTING LAND USE: Residence and vacant land

PROPOSED USE: **Detached Residential Subdivision**

North: Railroad and residences / A (Agricultural) & PR (Planned Residential) SURROUNDING LAND

South: Residence and stables / A (Agricultural) **USE AND ZONING:**

East: Residences, utility substation and vacant land / PR (Planned

Residential) & A (Agricultural)

West: Residences / PR (Planned Residential) & A (Agricultural)

NUMBER OF LOTS: 82

SURVEYOR/ENGINEER: Fulgum MacIndoe & Assoc.

ACCESSIBILITY: Access is via Westland Dr., a minor arterial street with an 18' pavement

width within a required 88' right-of-way.

SUBDIVISION VARIANCES

1. Maximum street grade variance on Road C, between STA 0+93.09

and STA 4+73.93, from 12% to 13%. **REQUIRED:**

STAFF RECOMMENDATION:

APPROVE variance 1 because the site's topography restricts compliance with the Subdivision Regulations and the proposed variance will not create a traffic hazard.

APPROVE the Concept Plan subject to 10 conditions

- 1. Connection to sanitary sewer and meeting any other relevant requirements of the Knox County Health Department.
- 2. Provision of street names which are consistent with the Uniform Street Naming and Addressing System within Knox County (Ord 91-1-102).

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- 3. Installation of sidewalks as identified on the concept plan. Sidewalks shall meet all applicable requirements of the Americans with Disabilities Act (ADA) and the Knox County Department of Engineering and Public Works. A bond shall be provided to the Knox County Department of Engineering and Public Works by the developer in an amount sufficient to guarantee the installation of the sidewalks.
- 4. Implementation of the intersection improvements and recommendations outlined in the Traffic Impact Study prepared by Fulghum MacIndoe & Associates, Inc. as revised on March 29, 2017. The design details and timing of the installation of the improvements shall be worked out with the Knox County Department of Engineering and Public Works during the design plan stage for the subdivision.
- 5. Meeting all applicable requirements of the Knox County Department of Engineering and Public Works.
- 6. Placing a note on the final plat that all lots will have access only to the internal street system.
- 7. The right-of-way of the cul-de-sacs at the ends of Roads A and B shall be made wide enough to allow for the creation of one or two lots from the adjoining tracts of land allowing access to the public streets.
- 8. Meeting all applicable requirements and obtaining all required permits from the Tennessee Department of Environment and Conservation.
- 9. Identify the stream and required stream buffers on the final plat.
- 10. A final plat application based on this concept plan will not be accepted for review by the MPC until certification of design plan approval has been submitted to the MPC staff.
- ▶ APPROVE the Development Plan for up to 82 detached dwelling units on individual lots, and the requested reduction of the peripheral setback to 25' as identified on the Concept Plan, subject to 1 condition.
 - 1. Meeting all applicable requirements of the Knox County Zoning Ordinance.

With the conditions noted, this plan meets the requirements for approval in the PR zone and the other criteria for approval of a Use on Review.

COMMENTS:

The applicant is proposing to develop an 82 lot subdivision on a portion of a 28.74 acre site that is located on the south side of Westland Rd. just east of Westland Manor Subdivision. The property extends between Westland Dr. and Nubbin Ridge Rd. to the south. There is one future development site of approximately 7.3 acres located at the south end of the proposed subdivision that has frontage along Nubbin Ridge Rd.

The property is zoned PR (Planned Residential) with an approved density of up to 5 du/ac. The proposed density for the subdivision that will be located on approximately 21.44 acres will be approximately 3.82 du/ac. The overall density for the site at this time will be 2.85 du/ac. The applicant has designated on the concept plan that the unused density from this subdivision is reserved for the 7.3 acre tract (up to 61 dwelling units).

Access to the proposed subdivision will be from Westland Dr. with no connection proposed out to Nubbin Ridge Rd. The 7.3 acre tract that has frontage along Nubbin Ridge Rd. will most likely have access only out to Nubbin Ridge Rd. The site is not located within the parental responsibility zone. The proposed subdivision will include sidewalks on one side of Roads A and C. One of the general provisions for the PR zoning district is that it encourages open space for recreational use. The addition of sidewalks would in part meet that objective.

A Traffic Impact Study was prepared by Fulghum MacIndoe & Associates, Inc. for this development with the last revision date being March 29, 2017. The study recommends turn lane improvements on Westland Dr. at the proposed subdivision entrance.

The applicant has requested a reduction of the peripheral setback from 35' to 25' along all exterior boundaries of this subdivision. The Planning Commission can approve a peripheral setback reduction down to 15' when the subdivision adjoins specific residential zoning districts. The standard rear yard setback for most low density and general residential zoning districts is 25'. Westland Manor to the west was approved with a reduction of the peripheral boundary down to 15'.

EFFECT OF THE PROPOSAL ON THE SUBJECT PROPERTY, SURROUNDING PROPERTY AND THE COMMUNITY AS A WHOLE

- 1. The proposed detached residential subdivision will have minimal impact on local services since utilities are available to serve this site.
- 2. The proposed low density residential development is compatible with the scale and intensity of development that has occurred in this area.
- 3. The proposed detached residential subdivision at the proposed density of 3.82 du/ac, is consistent in use and density with the approved rezoning for the property.

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CONFORMITY OF THE PROPOSAL TO CRITERIA ESTABLISHED BY THE KNOX COUNTY ZONING ORDINANCE

- 1. With the recommended conditions, the proposed subdivision is consistent with all relevant requirements of the PR zoning, as well as other criteria for approval of a use on review.
- 2. The development is consistent with the following general standards for uses permitted on review: The proposal is consistent with the adopted plans and policies of the General Plan and Sector Plan. The use in is harmony with the general purpose and intent of the Zoning Ordinance. The use will not significantly injure the value of adjacent property. The use will not draw additional traffic through residential areas since the development has access to a minor arterial street.

CONFORMITY OF THE PROPOSAL TO ADOPTED MPC PLANS

- 1. The Southwest County Sector Plan proposes low density residential uses for this site. The proposed development at a density of 3.82 du/ac is consistent with the sector plan.
- 2. This site is located within the Planned Growth Area on the Knoxville-Knox County-Farragut Growth Policy Plan map.

ESTIMATED TRAFFIC IMPACT: A traffic impact study was prepared by the applicant. The findings of that study were used in formulating the recommendations of this staff report.

ESTIMATED STUDENT YIELD: 51 (public and private school children, ages 5-18 years)

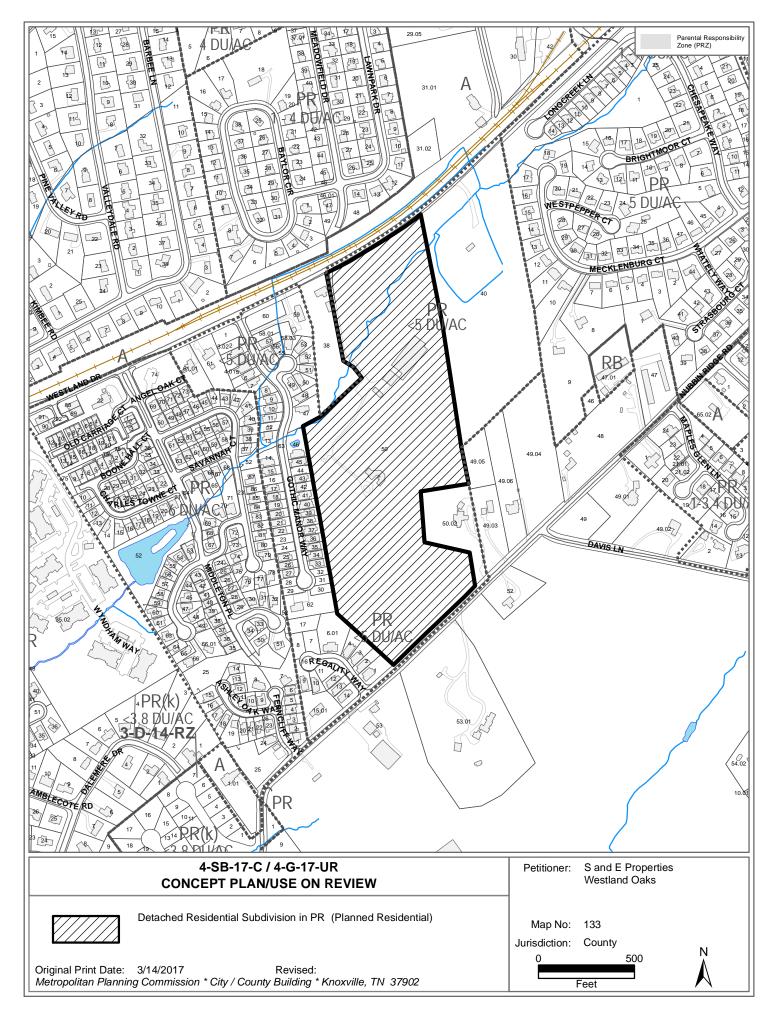
Schools affected by this proposal: Blue Grass Elementary, West Valley Middle, and Bearden High.

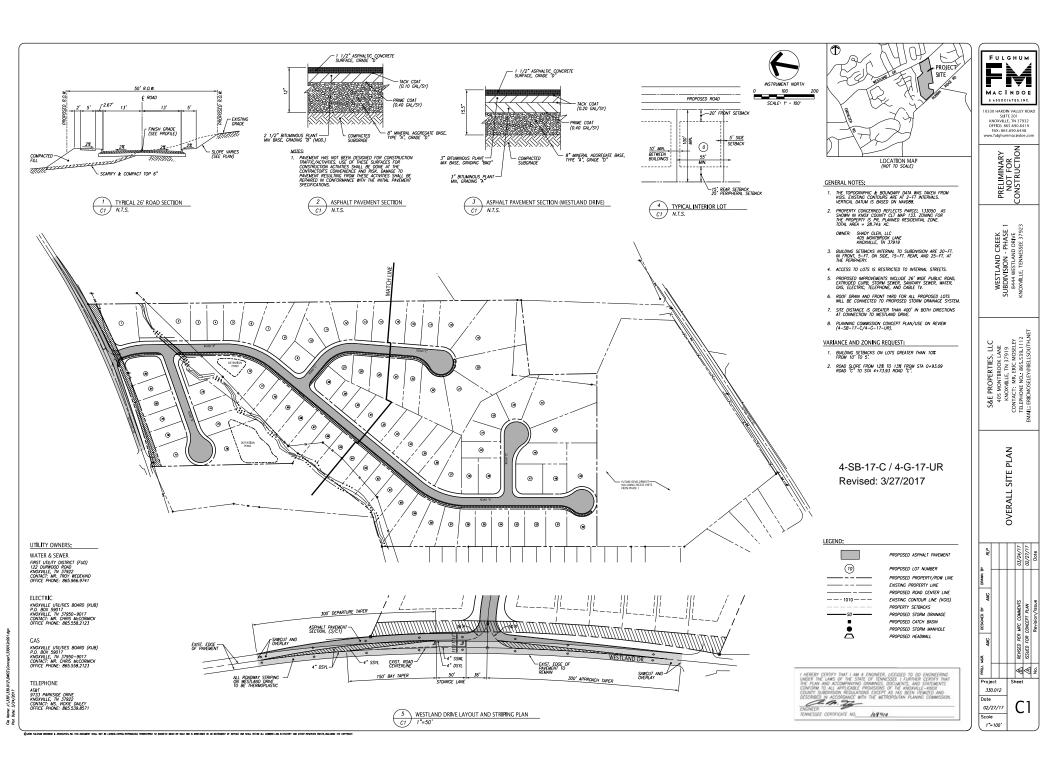
- School-age population (ages 5–18) is estimated by MPC using data from a variety of sources.
- While most children will attend public schools, the estimate includes population that may be home-schooled, attend private schools at various stages of enrollment, or drop out of the public system.
- Students are assigned to schools based on current attendance zones as determined by Knox County Schools. 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.
- School capacities are subject to change by Knox County Schools through building additions, curriculum or scheduling changes, or amendments to attendance zone boundaries.

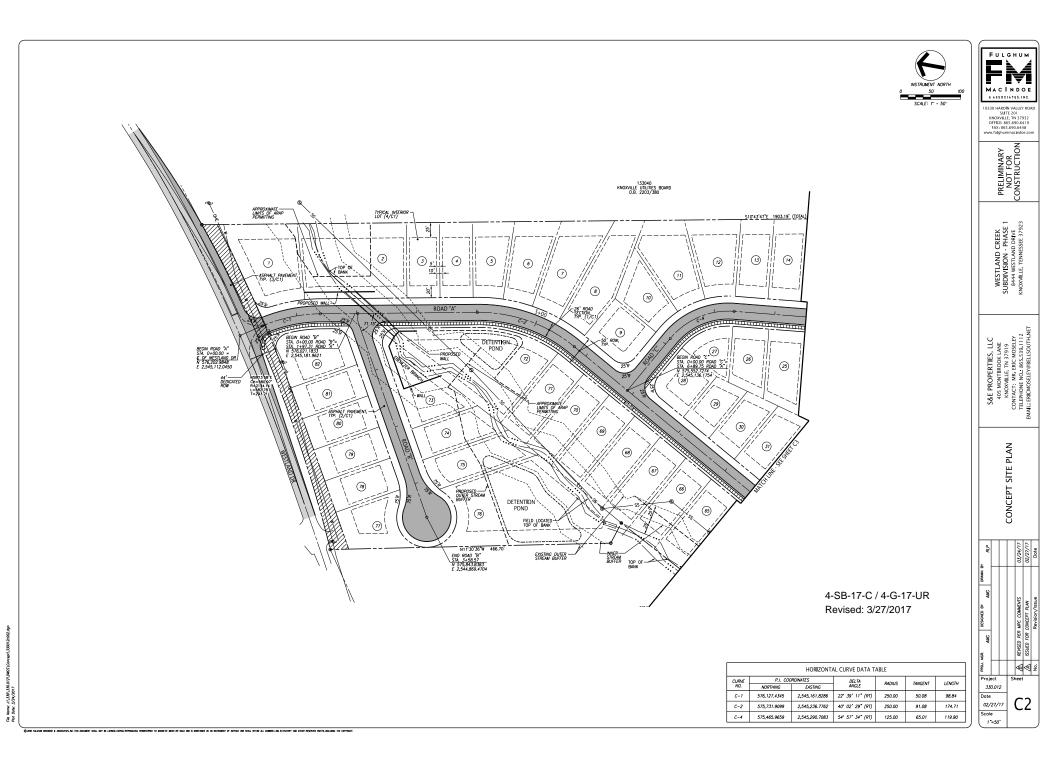
MPC's approval or denial of this concept plan request is final, unless the action is appealed to Knox County Chancery Court. The date of the Knox County Chancery Court hearing will depend on when the appeal application is filed.

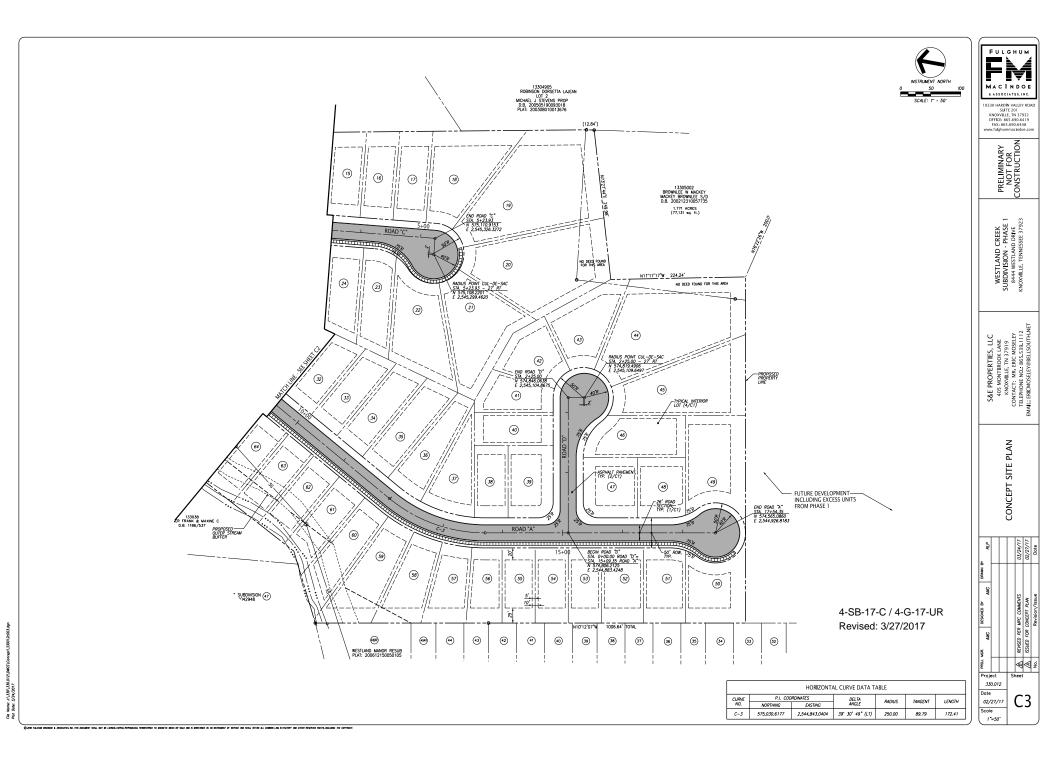
MPC's approval or denial of this use on review request is final, unless the action is appealed to the Knox County Board of Zoning Appeals. The date of the Knox County Board of Zoning Appeals hearing will depend on when the appeal application is filed.

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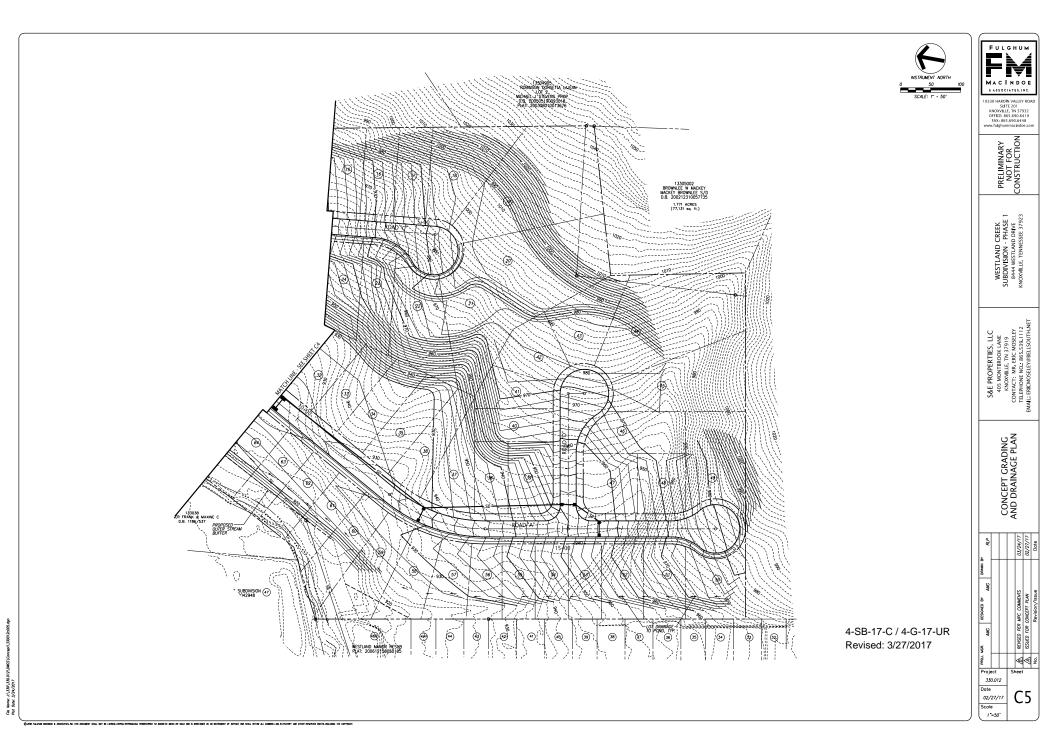


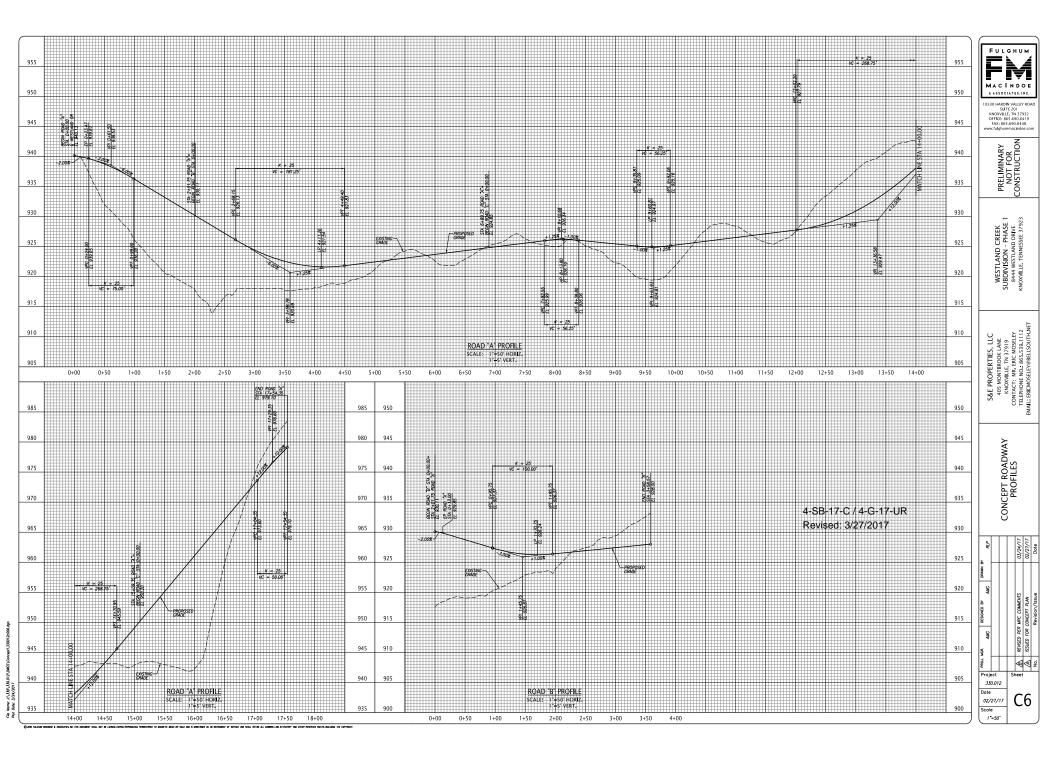




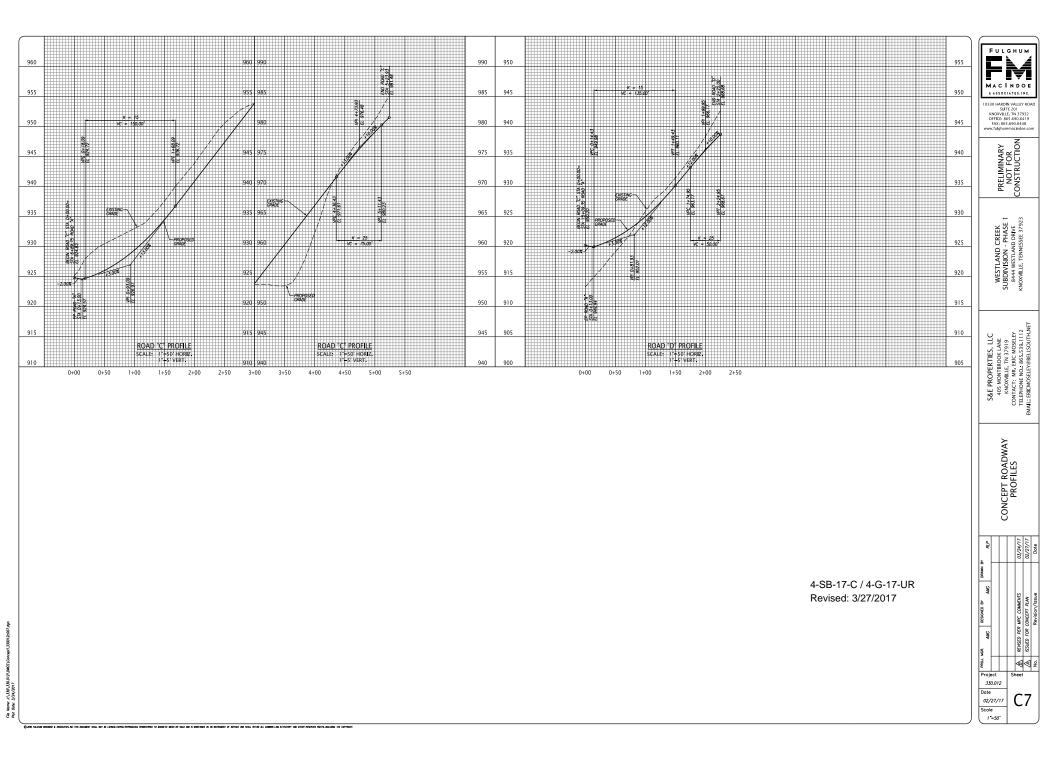








MPC April 13, 2017 Agenda Item # 18





WESTLAND CREEK SUBDIVISION

Traffic Impact Study
Westland Drive
Knoxville, TN

A Traffic Impact Study for the Proposed Westland Creek Subdivision

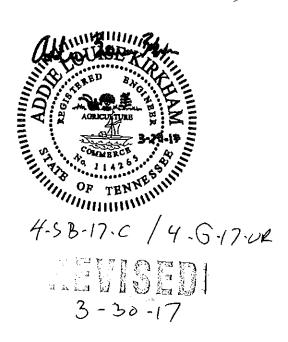
Submitted to

Knoxville – Knox County Metropolitan Planning Commission

Revised March 29, 2017 February 27, 2017 FMA Project No. 330.012

Submitted By:





10330 HARDIN VALLEY ROAD SUITE 201 KNOXVILLE, TN 37932 T 865.690.6419 F 865.690.6448 www.fulghummacindos.com

Executive Summary

S & E Properties, LLC proposes a residential development with single family homes. The project is located east of Ebenezer Road near the intersection of Westland Drive and Gothic Manor Way in Knox County. The development will consist of 82 single family homes. Construction is proposed to take place this year and this study assumes full build out for the development will occur in 2020.

The driveway for the proposed development will tie into Westland Drive 905 feet east of the intersection of Westland Drive and Gothic Manor Way. The proposed lane configuration is a single lane out of the development.

In order to maintain or provide an acceptable level-of-service for each of the intersections studied, some recommendations are presented.

Westland Drive @ Project Entrance

A westbound left turn lane is warranted at the intersection of Westland Drive and the proposed project entrance. FMA recommends a 50 foot storage length and a 150 foot bay taper for the proposed left turn lane per Knox County policy. Assuming the installation of an 11 foot turn lane; a 300 foot approach/departure taper will need to be installed on Westland Drive per TDOT guidelines.

The northbound approach is expected to operate at a LOS C during the AM peak hour and a LOS D during the PM peak hour after the completion of the Westland Creek Subdivision. The unsignalized intersection capacity analyses show a 95% queue length of less than one car length (25 feet) during both the AM and PM peak hours; therefore, the proposed geometry of one 13 foot lane exiting the subdivision will be adequate.

Westland Drive @ Gothic Manor Way

At the intersection of Westland Drive and Gothic Manor Way, the westbound approach will continue to operate at a LOS A and the northbound approach will continue to operate at a LOS C after the completion of the Westland Creek Subdivision.

Westland Drive @ Project Entrance (Full Buildout 2020)				
\M Peak	WB LT	8.8 / A		
	NB LR	20.4 / C		
PM Peak	WB LT	8.9 / A		
	NB LR	27.8 / D		
West	land Drive @ Project En	trance (Full Buildout w/ Left T	urn 2020)	
M Peak	WB LT	8.8 / A		
	NB LR	20.4 / C		
PM Peak	WB LT	8.9 / A		
MILEGE				

6 Turn Lane Warrant Analysis

The intersection of Westland Drive and the Project Entrance was evaluated to determine if an eastbound right turn lane or a westbound left turn lane on Westland Drive was warranted. The Knox County Department of Engineering and Public Works handbook, "Access Control and Driveway Design Policy," was used to analyze the information. An eastbound right turn lane on Westland Drive is not warranted during the AM or PM peak hour. A westbound left turn lane on Westland Drive is warranted during the PM peak hour. The turn lane warrant worksheets and analysis are included in Attachment 7.

7 Conclusions and Recommendations

7.1 Westland Drive @ Gothic Manor Way

At the intersection of Westland Drive and Gothic Manor Way, the westbound approach will continue to operate at a LOS A and the northbound approach will continue to operate at a LOS C after the completion of the Westland Creek Subdivision.

7.2 Westland Drive @ Project Entrance

Westland Drive is classified as a minor arterial. The minimum intersection spacing required for an arterial is 400 feet per the "Minimum Subdivision Regulations" for Knoxville and Knox County. The nearest road intersection to the project entrance is currently 905 feet west at the intersection of Westland Drive and Gothic Manor Way. This intersection exceeds the typical minimum separation of 400 feet between roads on a minor arterial; therefore, no change is necessary.

The minimum required sight distance for a road with a posted speed limit of 40 mph is 400 feet in each direction in accordance with the "Minimum Subdivision Regulations" for Knoxville and Knox County. The proposed intersection of Westland Drive and the project entrance has a measured sight distance that exceeds 400-ft east and west of the intersection, which meets the requirement. FMA recommends any landscaping be installed so as to maintain the sight distance and continue to comply with Knox County Engineering & Public Works requirements.

An eastbound right turn lane is not warranted at the intersection of Westland Drive and the proposed project entrance.

A westbound left turn lane is warranted at the intersection of Westland Drive and the proposed project entrance. The unsignalized intersection capacity analyses shows a 95% queue length for the westbound left turning movement of less than one car length (25 feet) during both the AM and PM peak hours. FMA recommends a 50 foot storage length and a 150 foot bay taper for the proposed left turn lane per Knox County policy. Assuming the installation of an 11 foot turn lane; a 300 foot approach/departure taper will need to be installed on Westland Drive per the TDOT guidelines.

At the intersection of Westland Drive and the Project Entrance, the westbound left turning movement is expected to operate at a LOS A during both the AM and PM peak hours and the northbound approach is expected to operate at a LOS C during the AM peak hour and a LOS D during the PM peak hour after the completion of the Westland Creek Subdivision. The unsignalized intersection capacity analyses shows a 95% queue length for the northbound approach of less than one car length during both the AM and PM peak hours; therefore, the proposed geometry of one 13 foot lane exiting the subdivision will be adequate.

KHOXVIIII I IKIIOXI GOUIII Y	SUBDIVISION - CONCEPT			
MPC	Name of Applicant:	RECEIVED		
METROPOLITAN PLANNING		Meeting Date: April 13 FEB 2 7-2017		
COMMISSION TEUMESSEE	A	a la		
Suite 403 • City County Building	Application Accepted by:	mus Brulles Planning Commission		
400 Main Street Knoxville, Tennessee 37902 865 • 215 • 2500	Fee Amount: 2960.00 File Nun	nber: Subdivision - Concept <u>4-58-17-</u>		
FAX · 2 1 5 · 2 0 6 8 www.knoxmpc.org	Fee Amount: Related	File Number: Use On Review 4-6-17-0R		
PROPERTY INFORMATION		PROPERTY OWNER/OPTION HOLDER		
Subdivision Name:		PLEASE PRINT Name:		
Unit/Phase Number:		Company:		
General Location: South side of Westland Dr		Address:		
East of Gothic Manor Way		City: State: Zip:		
Tract Size: 28.74 ac. No. of Lots: 82		Telephone:		
Zoning District: / farm		Fax:		
Planning Sector: Southwest County		E-mail:		
	Designation: Planned Growth	E-mail:		
		PROJECT SURVEYOR/ENGINEER		
Census Tract: 57./2		Name: \(\frac{1}{2}\)		
Traffic Zone: 169 Tax Identification Number: 133 050		Company:		
Tax Identification Number: 123 65		Address: 10330 Hardin Valley Pd		
Jurisdiction: City Council District		City: Knoxuille State: T/V Zip: 37932		
☑ County Commission District		Telephone: 690 - 6419		
AVAILABILITY OF UTILITIES		Fax: 690-6448		
List utility districts proposed to serve this subdivision:		E-mail:		
Sewer 1st Knox Otility District Water 1st Utility District				
Electricity LC	UB.	APPLICATION CORRESPONDENCE		
Gas KUB	4-1-1-2-2	All correspondence relating to this application (including plat corrections) should be directed to:		
Telephone ATT		PLEASE PRINT		
TRAFFIC IMPACT STUDY REQUIRED ☐ No ☑ Yes		Name:		
		Company:		
USE ON REVIEW ☐ No ☐ Yes Approval Requested: ☐ Development Plans in Planned District or Zone ☐ Other (be specific):		Address:		
		City: State: Zip:		
		Telephone:		
		Fax:		
	CE(S) REQUESTED us, see reverse side of this form)	E-mail:		
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VARIANCES REQUESTED				
1 Justify variance by indicating hardship:				
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APPLICATION AUTHORIZATION				
I hereby certify that I am the authorized applicant,	PLEASE PRINT			
representing ALL property owners involved in this request or holders of option on same, as listed on this form. I further certify that any and all variances needed to	Name: Eriz Moselen			
meet regulations are requested above, or are attached. I understand and agree that no additional variances can	Address: 405 Monthrook			
be acted upon by the legislative body upon appeal and none will be requested. I hereby waive the requirement	City: State: State: State: State: State: State: State: State:			
for approval or disapproval of the plat within sixty (60) days after its submission, in accordance with the provisions of Tennessee Code Annotated 13-3-404.	Telephone: 454-3727			
Signature:	Fax:			
Date: 2/27/17	E-mail:			

