

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

▶ **FILE #:** 8-SC-18-C  
 8-D-18-UR

**AGENDA ITEM #:** 17  
**AGENDA DATE:** 8/9/2018

▶ **SUBDIVISION:** THE LEGENDS AT WASHINGTON PIKE  
 ▶ **APPLICANT/DEVELOPER:** MADDOX COMPANIES  
 OWNER(S): Maddox Companies

TAX IDENTIFICATION: 49 088.01 & PART OF 088.02

[View map on KGIS](#)

JURISDICTION: City Council District 4

STREET ADDRESS: 5304 McCampbell Dr

▶ **LOCATION:** North of Rising Oak Way terminus, northwest of Washington Pike, south side McCampbell Dr.

SECTOR PLAN: North City

GROWTH POLICY PLAN: Urban Growth Area (Inside City Limits)

WATERSHED: Whites Creek

▶ **APPROXIMATE ACREAGE:** 94.34 acres

▶ **ZONING:** RP-1 (Planned Residential)

▶ **EXISTING LAND USE:** Vacant land

▶ **PROPOSED USE:** Attached and detached residential subdivision

SURROUNDING LAND USE AND ZONING: This area is primarily developed with residential uses under RA, RB, R-1, R-2 and PR zoning. There is some industrial (LI & I) zoning in the area. There are also commercial uses to the southwest, zoned PC-1 and C-3. The north side of the New Harvest Park property borders the southwest property line of the subject property.

▶ **NUMBER OF LOTS:** 261

SURVEYOR/ENGINEER: Robert Campbell & Associates

ACCESSIBILITY: Access is via Washington Pike, a minor arterial street with 22' - 38' of pavement width within 40' - 70' of right-of-way. There is also access from McCampbell Dr. for emergency vehicles only.

▶ **SUBDIVISION VARIANCES  
 REQUIRED:**

**STAFF RECOMMENDATION:**

▶ **APPROVE the Concept Plan subject to 16 conditions.**

1. Connection to sanitary sewer and meeting any other relevant requirements of the Knox County Health Department.
2. Provision of a street name which is consistent with the Uniform Street Naming and Addressing System within the City of Knoxville (City Ord. 0-280-90).
3. Meeting all applicable requirements of the Knoxville Department of Engineering.
4. Installation of sidewalks as identified on the concept plan. Sidewalks shall meet all applicable requirements

- of the Americans with Disabilities Act (ADA) and the Knoxville Department of Engineering and shall be installed at the time the streets are installed. The final plat shall include all sidewalk easements as identified on the plan.
5. Revising the roadway design to meet AASHTO standards, to be reviewed and approved by the Knoxville Department of Engineering.
  6. Certifying sight distance at various locations throughout the development during design plan review, as required by the Knoxville Department of Engineering.
  7. Establishing sight distance easements and identifying driveway locations for lots with these easements during design plan review as required by the Knoxville Department of Engineering, and including the easements and driveway locations on the final plat.
  8. The gated entrance off of McCampbell Dr. and the emergency access driveway to Rising Oak Way is subject to approval by the Knoxville Fire Marshal.
  9. Placing a note on the final plat that indicates which road lot 40 is to obtain access.
  10. Revising the Traffic Impact Study (TIS) as required by MPC and Knoxville Department of Engineering staff.
  11. Installation of the recommended improvements of the Traffic Impact Study for Legends at Washington Pike - Phase 2, prepared by Fulghum MacIndoe & Associates and dated August 6, 2018 (or subsequent revisions approved by staff), including but not limited to the left and right turn lanes on Rising Oak Way and the westbound right turn lane on Washington Pike at Rising Oak Way. See Exhibit A for the TIS conclusions and recommendations. All improvements and necessary right-of-way acquisitions are the responsibility of the property owner unless otherwise agreed upon and approved by the Knoxville Department of Engineering.
  12. The design details and timing of the installation of the recommended improvements from the TIS shall be determined by the Knoxville Department of Engineering during the design plan stage for the subdivision.
  13. Prior to obtaining a design plan approval for the subdivision, submitting a landscape plan for the common area strip that borders McCampbell Dr. behind the townhouse lots 207-217 to Planning Commission staff for review and approval. The common area shall have a minimum depth of 25' feet and the landscape plan should include existing vegetation when possible or a combination of new landscaping and berms.
  14. Submitting any revisions to the amenity plan to Planning Commission for review and approval, including the playground and trailhead loop.
  15. Prior to certification of the final plat for the subdivision, establishing a property owners association that will be responsible for maintenance of all common areas, amenities and drainage facilities.
  16. 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 179 detached and 82 attached dwellings on individual lots subject to 1 condition.**

1. Meeting all applicable requirements of the City of Knoxville Zoning Ordinance.

With the conditions noted, this plan meets the requirements for approval of a Concept Plan in the RP-1 zone and a Use on Review.

**COMMENTS:**

This proposal is for an 82 lot attached and 179 lot detached residential subdivision that is phase 2 of a development that includes a 264 unit apartment complex that was constructed in 2010. The Phase 2 development will be on 58.86 acres of the 94.34 total acres and will have a net density of 4.4 du/ac. The majority of the undeveloped property is within the Hillside Protection Area. The southwest corner of the property contains the largest portion of the property within the hillside area and it is to be undeveloped. There is approximately 6 acres shown as "future development" on the northeast side of Rising Oak Way on sheet 3 of the development plan.

In 2012 the property was annexed into the City and zoned RP-1 up to 5.5 du/ac subject to 2 conditions: 1) At the time of development plan approval, appropriate land within the (hillside area) shall be placed in a conservation easement or otherwise preserved in an undisturbed condition; and 2) At the time of development plan approval, a method for providing public access to the area shown as a conservation easement, such as a trail or greenway easement, shall be documented and shown on the development plan. The approved density of 5.5 du/ac included a density bonus of 20 percent for conserving the hillside area on the southwest corner of the property that is adjacent to New Harvest Park. If the hillside area is not protected per the conditions then the 20 percent density bonus is not applicable and the density for the site shall not exceed 4.5 du/ac. The density of the proposed phase 2 development is within density limits excluding the 20 percent bonus, however, the developer still intends to protect the majority of the hillside area and work with the County to connect walking trails on their site with the park on the opposite side of the ridge.

The traffic impact study (TIS) completed for this project recommends installing right and left turn lanes on

Rising Oak Way and a right turn lane on Washington Pike at Rising Oak Way. There is an existing left turn lane on Washington Pike at Rising Oak Way that is adequate for the proposed development. The concept plan includes the turn lanes on Rising Oak Way, however, the applicant is requesting that the right turn lane on Washington Pike not be required at this time and be installed when the City improves the road. The City had a timeline for improving Washington Pike a few years ago, however, that project has been indefinitely put on hold. Staff is recommending that this turn lane be installed as part of this project.

Sidewalks will be installed on all roads within the new subdivision with the exception of the short cul-de-sacs. There is a trail loop proposed on the west side of Rising Oak Way, just before the new subdivision begins. This loop is to be a trailhead for walking trails in the preserved hillside and potentially connecting to the New Harvest Park trails. In the attached townhouse portion of the development there is a playground proposed in the northeast corner of the property.

The development only has one access for vehicular traffic, which is not typically recommended for safety reasons for a development of this size. Because of this, an emergency access will be installed from McCampbell Dr. that borders the north side of the development. McCampbell Dr. is not suitable for everyday traffic from the development but is sufficient to provide emergency access if needed. The access is at the northern terminus of Rising Oak Way, between lots 114 and 115, and will be constructed of a structurally reinforced grass lawn so it does not have the appearance of a road or driveway. There will be a gate near McCampbell Dr. to ensure this access is used only by emergency vehicles.

There are townhouse lots that have double frontage along McCampbell Dr. (lots 207-217). A common area greater than 25' in depth has been provided so the lots are not required to have a depth of 150' as required by the Subdivision Regulations. The common area must have continuous landscape screening behind these lots consisting of existing trees, or a combination of new and existing trees.

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

1. The proposed subdivision will have minimal impact on local services since all utilities are available to serve this site.
2. The proposed detached residential subdivision at a density of 4.4 du/ac, is consistent in use and density with the existing RP-1 zoning, which allows 5.5 du/ac if the Hillside Protection Area is protected with a conservation easement and trails installed or 4.5 du/ac if it is not. The development does propose to maintain a portion of the Hillside Protection Area but does not propose permanent protections such as a conservation easement.
3. Other residential development in the area has occurred under the RP-1 and PR zoning regulations at various densities. The Wyngate Subdivision to the east is zoned PR < 4 du/ac but is developed at approximately 3.4 du/ac. The Legends at Oak Grove apartment complex is zone RP-1 (conditioned when annexed to allow the 264 du previously developed -- approximately 12 du/ac). The Steeple Shadow Condo development is zoned PR < 7 du/ac and is developed at 6.7 du/ac.
4. If the conditions are approved as recommended, the development will be required to make improvements to the Washington Pike and Rising Oak Way intersection.

#### CONFORMITY OF THE PROPOSAL TO CRITERIA ESTABLISHED BY THE CITY OF KNOXVILLE ZONING ORDINANCE

1. The proposed detached and attached residential subdivision meets the standards for development within a RP-1 (Planned Residential) Zone and all other requirements of the Zoning Ordinance.
2. The proposed subdivision is consistent with the general standards for uses permitted on review: The proposed development is consistent with the adopted plans and policies of the General Plan and Sector Plan. The use is in harmony with the general purpose and intent of the Zoning Ordinance. The use is compatible with the character of the neighborhood where it is proposed. The use will not significantly injure the value of adjacent property. The use will not draw additional traffic through residential areas since the subdivision has access to a minor arterial street.

#### CONFORMITY OF THE PROPOSAL TO ADOPTED PLANS

1. The North City Sector Plan designates this property for low density residential uses with a maximum density of 6 du/ac. The RP-1 zoning approved for the site will allow a density up to 5.5 du/ac. At a proposed density of 4.4 du/ac, the proposed subdivision is consistent with the Sector Plan and zoning designation.
2. The site is located within the Knoxville city limits 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: 66 (public school children, ages 5-18 years)

Schools affected by this proposal: Shannondale Elementary, Gresham Middle, and Central High.

- School-age population (ages 5–18) is estimated by MPC using data from a variety of sources.
- 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.

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 Knoxville City Council. The date of the Knoxville City Council hearing will depend on when the appeal application is filed.

## 6 Turn Lane Warrant Analysis

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The intersection of Washington Pike at Rising Oak Way was evaluated to determine if a southbound right turn lane is warranted. The Knox County Department of Engineering and Public Works handbook, “Access Control and Driveway Design Policy,” was used to analyze the information. A right turn lane is warranted on Washington Pike at the intersection of Rising Oak Way during the AM peak hour.

The right-of-way for Washington Pike at the intersection with Rising Oak Way is 88 feet per the Major Road Plan. There is approximately 10 feet between the edge of pavement and the property line for the Oak Grove Zion Church therefore; the owner may need to acquire property from the Oak Grove Zion Church in order to install a right turn lane. Per AASHTO “A Policy on Geometric Design of Highways and Streets” the recommended storage length for the right turn lane is three car lengths (approximately 75 feet) and the recommended taper length is 100 feet. The turn lane warrant worksheets and diagram are included in Attachment 8.

## 7 Conclusions and Recommendations

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### 7.1 Washington Pike @ Rising Oak Way

Currently at the intersection of Washington Pike at Rising Oak Way the eastbound approach exiting the development operates at a LOS C during the AM peak hour and a LOS B during the PM peak hour and the northbound approach operates at a LOS B during the AM peak hour and a LOS A during the PM peak hour.

It is estimated based on field observations that the existing driveway connection is blocked approximately 10% during the PM peak hour by northbound traffic from the signalized intersection of Washington Pike at Mill Road. The signalized intersection capacity analysis for the intersection of Washington Pike at Mill Road shows an existing 95% queue length for the northbound approach of 159.9 feet during the AM peak hour and 1320.5 feet during the PM peak hour.

The existing northbound left turn lane on Washington Pike measures 125 feet with enough storage space for approximately 5 vehicles. The unsignalized intersection capacity analyses show a 95% queue length of less than one vehicle during both the AM and PM peak hour after the completion of the Legends at Washington Pike – Phase 2, therefore; the existing storage capacity will be adequate.

A turn lane warrant is met for a southbound right turn lane on Washington Pike during the AM peak hour at the intersection of Washington Pike at Rising Oak Way.

Per AASHTO “A Policy on Geometric Design of Highways and Streets” the recommended storage length is three car lengths (approximately 75 feet) and the recommended taper length is 100 feet. The design of the right turn lane should be coordinated with the City of Knoxville engineering department.

FMA recommends adding a separate right and left turn lane at the intersection with Washington Pike to be built during the Legends at Washington Pike – Phase 2 construction in order for the intersection to operate at an acceptable LOS.

After the completion of the Legends at Washington Pike – Phase 2 including the proposed improvements to the intersection the eastbound approach exiting the development will operate at a LOS D during the AM peak hour and a LOS C during the PM peak hour and the northbound approach will operate at a LOS B during the AM peak hour and a LOS A during the PM peak hour.

The 95% queue length on Rising Oak Way for the exiting traffic after the completion of The Legends at Washington Pike – Phase 2 is calculated at 1.3 vehicles in the left turn lane and 3.0 vehicles in the right turn lane during the AM peak hour and less than one vehicle for both the right and left turn lanes during the PM peak hour. Rising Oak Way does have adequate storage capacity for 3 vehicles.

The existing northbound left turn lane on Washington Pike measures 125 feet with enough storage space for approximately 5 vehicles. The unsignalized intersection capacity analyses show a 95% queue length of less than one vehicle during both the AM and PM peak hour after the completion of the Legends at Washington Pike – Phase 2, therefore; the existing storage capacity will be adequate.

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 “Subdivision Regulations” for Knoxville and Knox County. FMA measured the sight distance at the existing intersection of Washington Pike at Rising Oak Way. At 15 feet from the edge of pavement the sight distance at the existing intersection is 400 feet northbound and 410 feet southbound; however the northbound sight distance is partially blocked due by the tree line.

FMA recommends that the sight distance be re-evaluated in the field after the completion of the proposed intersection improvements to ensure that the sight distance complies with the City of Knoxville Department of Engineering requirements. FMA also recommends any landscaping be installed so as to maintain the sight distance and continue to comply with the City of Knoxville Department of Engineering.