

# REQUEST FOR BOARD ACTION

## HENDERSON COUNTY PLANNING BOARD

**MEETING DATE:** October 19, 2017

**SUBJECT:** Master Plan for The Farm at Eagles Nest (Hammond Tract) (#2017-M08)

**PRESENTER:** Stedman Smith, Planner

**ATTACHMENTS:**

1. Staff Report
2. Letter from Etowah Sewer Company, LLC
3. Excerpt for the TIS – Conclusions and Recommendations
4. Zoning Compliance Letter
5. Master Plan Documents

### **SUMMARY OF REQUEST:**

On August 3, 2017, applicant John Turchin and agent Robert Grasso submitted a Master Plan and special use permit for The Farm at Eagles Nest located on the Hammond Tract in Etowah. The subject area is approximately 223.51 acres of land (according to the tax records) and is located on McKinney Road. The applicant is proposing a total of 299 units that will consist of single-family, duplex, and 8-plex units, as well as 1 guest suite, 24 RV spaces, and number of common area recreational amenities. The project is also located within a WS-IV water supply watershed district and a portion of the subject area is located within the floodplain. The subject area is located in the Residential One (R1) zoning district. A City of Hendersonville public water connection is proposed and a connection to the Etowah Sewer Company is proposed.

Staff has found that the Master Plan appears to meet the technical standards of the subdivision regulations of Chapter 42A, Henderson County Land Development Code (LDC) except for the comments listed in the Staff Report (See Attachment 1).

The Technical Review Committee reviewed the Master Plan and SUP-2017-03 at its August 15, 2017 meeting and forward the item to the Planning Board. The Zoning Board of Adjustment (ZBA) approved the special use permit application for the multifamily 8-plex units and RV Park at its August 30, 2017 meeting. The Planning Board first considered this application at its August 17<sup>th</sup> meeting and tabled the item until the ZBA could hold a hearing on the special use permit application and to allow time for the TIS to be completed with NCDOT's comments. The Planning Board shall take action within 90 days from the date of its first consideration of the application.

### **PLANNING BOARD ACTION REQUESTED:**

Planning Board action to approve, approve with modifications, or deny subdivision application #2017-M08.

#### **Suggested Motion:**

I move that the Planning Board approve, approve with modification or deny subdivision application #2017-M08 based on the Henderson County Land Development Code and recommendations of the Henderson County 2020 Comprehensive Plan and with any conditions as discussed within the staff report.

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**Henderson County Planning Department Staff Report**

**Master Plan Review for  
The Farm at Eagles Nest (Hammond Tract)  
McKinney Road, Mills River Township**

**File #M-2017-08**

**Applicant: John Turchin Companies**

**Master Plan Comments:**

According to Chapter 42A, Henderson County Land Development Code (LDC) §42A-341, the purpose of a Master Plan is to provide general information about the proposed development to allow for an assessment of its impact on the orderly growth and development of the County, environmental quality, land values, natural features identified on the site analysis sketch and the County's roads and governmental services. During the review of the Master Plan, the Technical Review Committee and the Planning Board should take into consideration: applicable recommendations of the *Henderson County 2020 Comprehensive Plan*, the potential use of the land to be subdivided, and the impact of the subdivision and proposed use whether residential, commercial or industrial.

When reviewing the Master Plan it is important to consider that, due to severe topographic conditions, inadequate road access, distance from services, unique natural areas, soils that do not easily support soil drainage systems and/or the proximity to existing and incompatible land uses/zoning, all land may not be suitable to be subdivided for the purpose of dense development (LDC §42A-75).

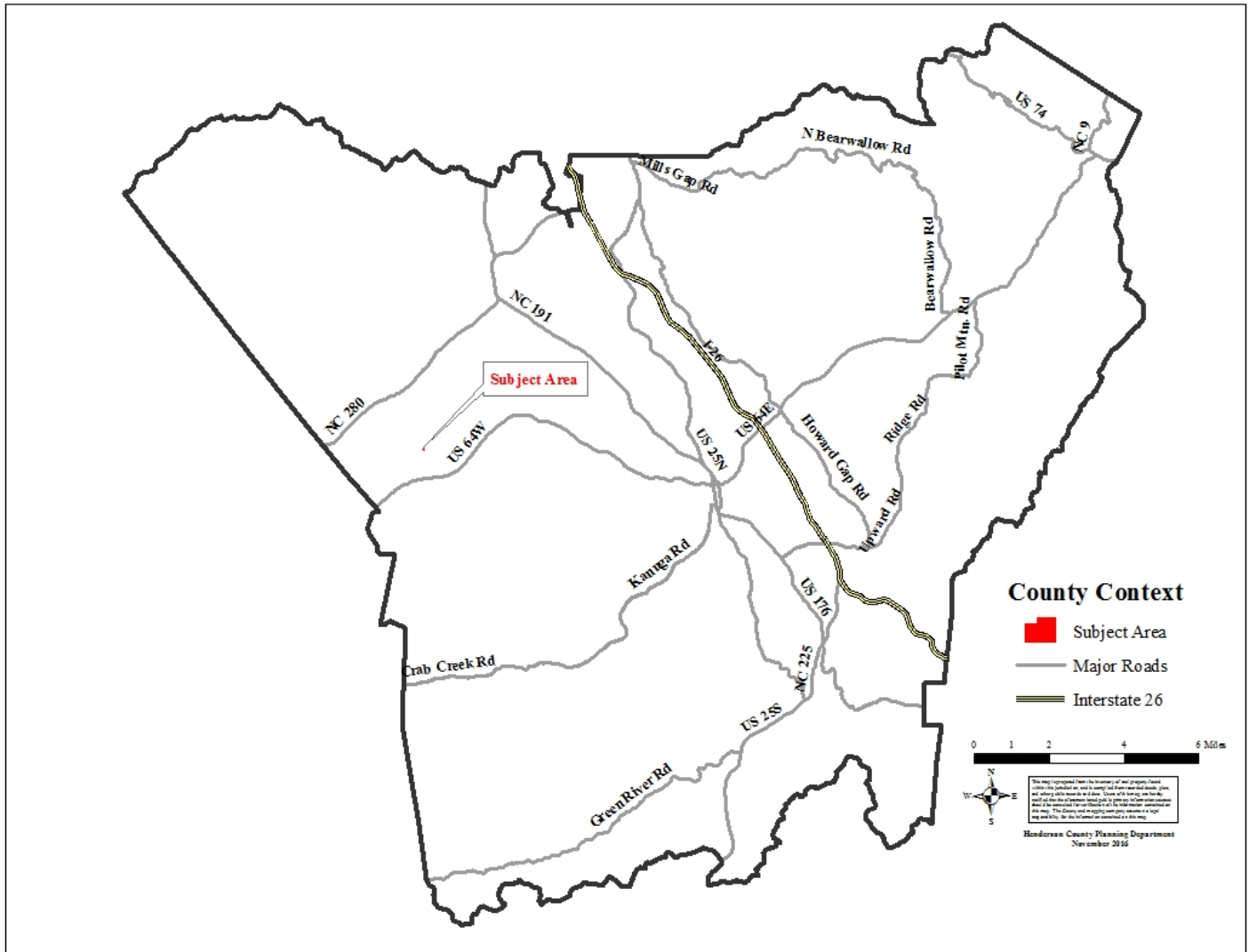
Staff has reviewed the submitted the Master Plan for the Farm at Eagles Nest (Hammond Tract) Major Subdivision, taking into consideration the recommendations of the *Henderson County 2020 Comprehensive Plan* and reviewing the plan for conformance with Henderson County Land Development Code.

**Master Plan vs Development Plan Overview**

**Master Plan:** The purpose of the master plan is “to provide general information about the proposed development to allow for an assessment of its impact on the orderly growth and development of the County, environmental quality, land values, natural features identified on the site analysis sketch and the County's roads and governmental services.” The master plan is valid for two (2) years or until the approval of a development plan. The applicant may only proceed with land distributing activities upon receipt of approval of the development plan.

**Development Plan:** The development plan is “a graphic representation or map of the tract of land to be developed indicating all proposed divisions of land, their uses, improvements and other information as may be required to fully disclose the applicant's intentions. The purpose of the plan is to provide general and specific information and is not intended to be a recordable document.” Once a development is approved, the applicant can proceed with land distributing activities and improvement activities associated with the project. Unless an improvement guarantee is approved by the County, the applicant must complete all required road and infrastructure improvements for the approved phase of development and any required off site road improvements before lots may be recorded or for more than one building permit to be issued.

### Map A: County Context



### Application Overview

**Applicant:** John Turchin Companies

**Property Owner:** John Thomas Hammond, James William Hammond, Annette P. Hammond Revocable Trust

**PIN:** 9529838232, 9539037259, and 9529916743

**Request:** Master plan approval for a major subdivision with 299 units and associated common area recreational uses

**Size:** Approximately 223.51 acres according to the tax records (232.23 acres per the applicant survey)

**Location:** The subject area is located on McKinney Road in Etowah. The northern boundary of the site runs parallel to the French Broad River.

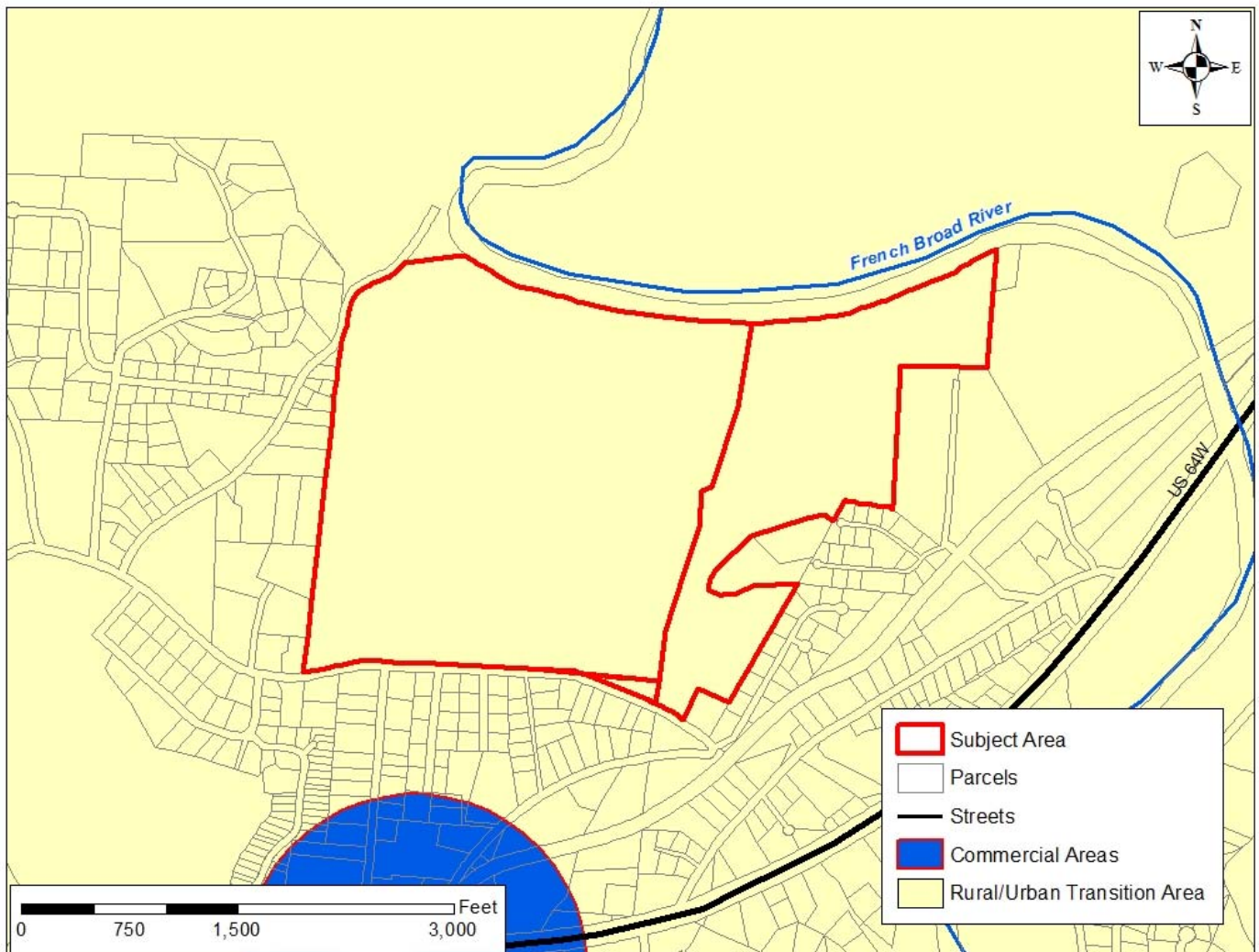
**Map B: Aerial**



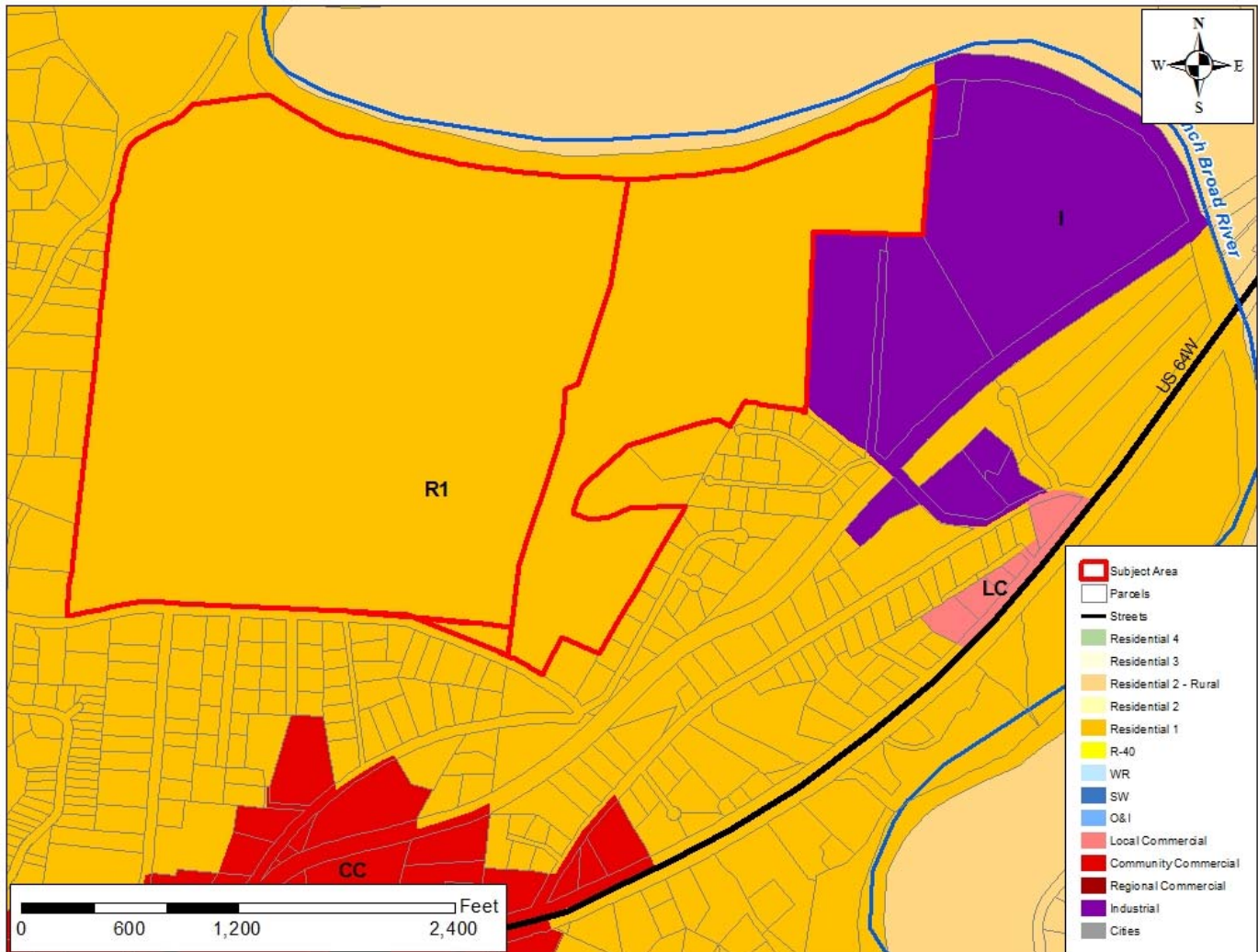
1. **Henderson County 2020 Comprehensive Plan (CCP).** The Future Land Use Map of the CCP shows the Subject Area as being located within the Rural/Urban Transition Area (RTA) (See Map C: CCP Future Land Use Map).
  - (a) **Rural/Urban Transition Area (RTA):** The following descriptions are from the CCP for the patterns of development envisioned within the RTA (2020 CCP, Pg. 134-135 and 141).
    1. “The RTA is currently rural in character, with existing pockets of limited higher density residential and commercial development. Slopes vary across the RTA, although the area can be considered to be generally developable. The primary factor preventing urban development in the RTA is the absence of sewer and water service. The RTA will continue to experience extensive development over the operational timeframe of this Comprehensive Plan.”
    2. “At the same time, it should be recognized that growth has steadily increased in the RTA during the preceding decade and that the RTA will remain in a state of transition and will absorb much of the development pressure in the USA. As such, it will be necessary to allow for more dense development where appropriate.”

3. “Clustering and conservation design will be encouraged with the intent of maintaining a rural environment, protecting sensitive natural areas, and reserving land for future development with the expansion of the USA.”
4. “At the present time, most of the RTA does not have sewer or water services, with the exception of Etowah. Future expansions of sewer and water infrastructure into the RTA should be consistent with the *Sewer and Water Master Plan* as envisioned in the *Sewer and Water Element* of this Comprehensive Plan and should be timed to coincide with deliberate expansions of the USA.”
5. “The precise extent of the USA and RTA should be periodically reviewed in light of any changes in sewer and water capacity or other factors. As urban densities within the USA and development pressures within the RTA increase and as sewer and water capacities within the RTA are developed, areas of the RTA should be pulled into the USA and allowable densities substantially increased.”
6. New high-density residential zoning districts will be created and applied within the USA as well as in / around Community Service Centers within the RTA.

**Map C: County Comprehensive Plan Future Land Use Map**



### Map D: Official Zoning Map



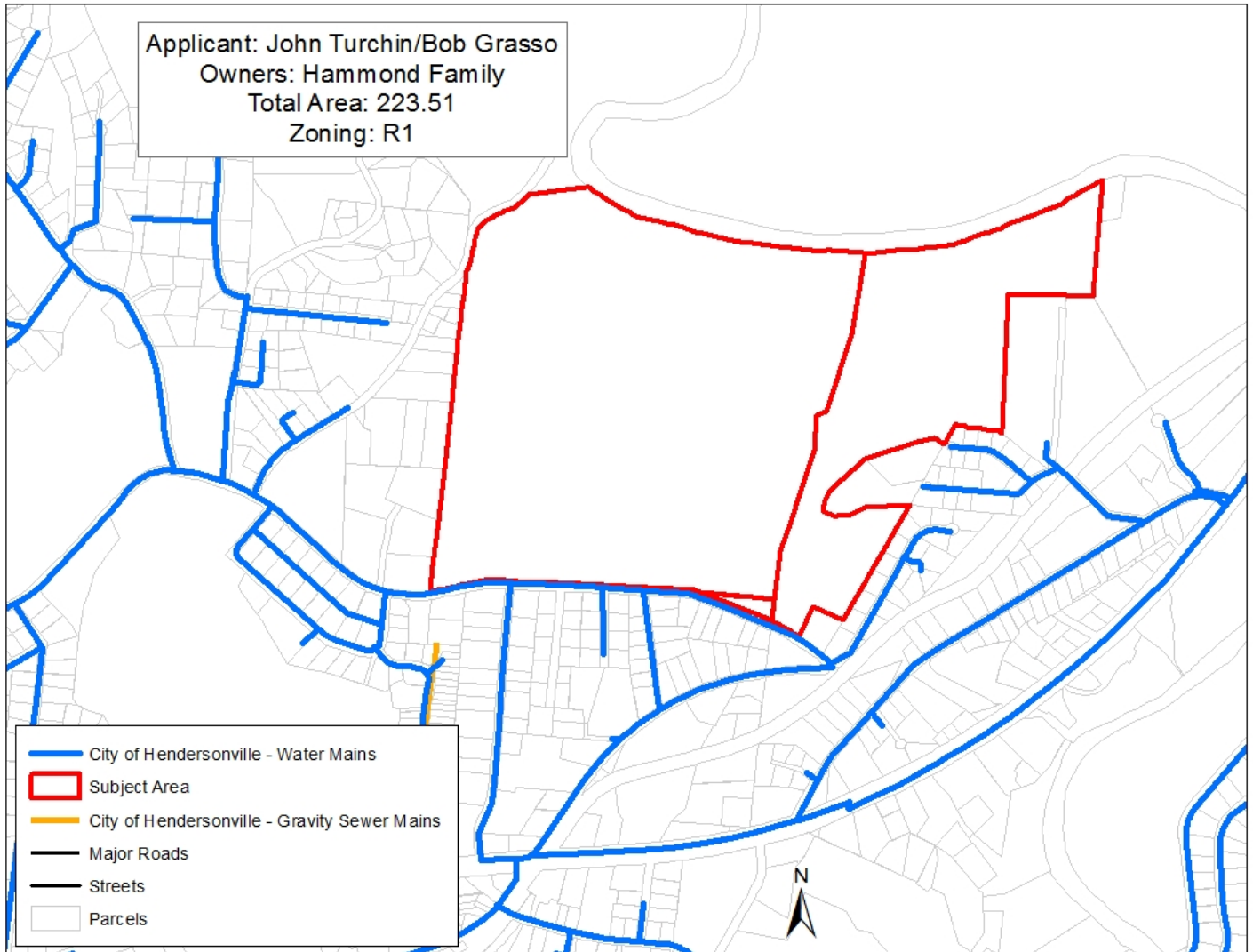
2. **Chapter 42A, Henderson County Land Development Code (LDC).** According to Chapter 42A, Henderson County Land Development Code (LDC) and its Official Zoning Map adopted September 19, 2007 (as amended), the proposed subdivision is located within the Residential One (R1) zoning district. (See Map D: Official Zoning Map). The applicant is proposing 299 units with 4 outparcels totaling approximately 223.51 acres according to the tax records.
- (a) **Residential One (R1) Zoning District:** The purpose of the R1 zoning district is “to foster orderly growth where the *principal use* of land is residential. The intent of this district is to allow for medium to high-density *residential development* consistent with the recommendations of the *Comprehensive Plan*. This general *use district* is typically meant to be utilized in areas designated as Urban (USA) in the *Comprehensive Plan*.”
- 2.a.1. **Date Zoned:** The Subject Area and surrounding property were previously zoned Open Use (OU) which had no minimum lot or density requirements for residential developments. The R1 zoning district was applied in September of 2007 with the adoption of the Land Development Code and per the recommendations of the CCP.

- 2.a.2. **R1 Density:** The R1 zoning district allows for the highest density of development.
- Standard Density: 4 units/acre
  - Intermediated Density: 8 units/acre
  - Maximum Density: 16 units/acre
- 2.a.3. **1/2 Acre Individual Septic System Example:** The subject area is proposing 299 units. The average lot requires approximately 1/2 acre for an individual septic system. If we excluded the proposed outparcels, floodway or floodplain acreage, the subject area has approximately 143.26 acres left for development. Using the 1/2 septic system example, the subject area could have approximately 286 residential lots or units in a traditional subdivision design served by individual septic systems.
3. **Water Supply Watershed:** The subject area is located within the WS IV water supply watershed. The provisions for low density or high density options shall apply. The proposed development meets the required thresholds under the low density option.
4. **Etowah/Horse Shoe Community Plan (EHS Plan):** The Etowah/Horse Shoe Plan adopted by resolution on September 16, 2009 supported the R1 zoning on the subject area and surrounding parcels and recommended the expansion of the R1 zoning district on parcels near the Etowah golf course.
5. **Water and Sewer Availability.** The applicant is proposing to be connected to the City of Hendersonville water mains and to connect to the Etowah Sewer Company for sewage service. The applicant received a letter from Etowah Sewer Company advising that adequate service could be made available to the applicants for their first phase of development. During the first phase of development, the applicants have proposed the installation of a lift station which would pump to the existing Etowah Sewer Company plant. (Map E: Utilities Map). The latter phases of development would require either updates to the current Etowah Sewer Company plant, or the creation of a new sewage plant on-site.

The applicant and the Etowah Sewer Company are negotiating a legal agreement whereby the applicant is proposing an outparcel within the development for a new sewer facility location that will support the proposed development. The facility upon completion would be turned over to the Etowah Sewer Company to run and manage. Etowah Sewer Company is permit applicant for the new facility, and the developer is responsible for the design and construction.

A condition of approval is that the required water and sewer connections be made to address the first phase of development to the existing Etowah Sewer Plant, and the second phase address the approval and construction of the new sewer facility for the Etowah Sewer Company. An improvement guarantee will be required before building permits for these units may be issued if all infrastructure is not completed.

### Map E: Public Utilities



#### 5. Traffic Impact Study

The proposed development requires a traffic impact study (TIS or TIA). The study must be conducted in conjunction with the North Carolina Department of Transportation. The TIS was submitted to NCDOT by J.M. Teague Engineering on Friday, September 29, 2017. Based on the TIS and NCDOT's review, the following road improvements are required.

1. N. Greenwood Forest Drive @ Brickyard Road: Install a 75' westbound left turn lane and a 50' eastbound right turn lane
2. Holly Springs Road @ Brickyard Road: Install a 75' eastbound left turn lane and a 75' westbound right turn lane
3. Brickyard Road @ McKinney Road: Install a 100' eastbound right turn lane
4. Main Street Access "A" for the proposed development @ McKinney Road: Install a 100' eastbound left turn lane and a 75' westbound right turn lane.

NCDOT may require additional information on the signals at McKinney Road and Brickyard Road, and it is possible that a 50' eastbound right turn lane may be required for Pisgah View Drive North @ McKinney Road after some further review by NCDOT.



**Master Plan Overview:** The applicant proposes the following:

- 299 Dwelling Units
  - 169 Single Family Units
  - 58 Duplex Units (30 structures)
  - 72 8-Plex Units (9 structures)
  - 1 Guest Suite
- 24 RV Spaces
- 138.59 Acres of Open Space (64.2%)
- 32.62 Impervious Surface Acreage
- 29,866 Linear Feet of Roads
- 4 Outparcels
- Proposed Density: 1.38 Units/Ac.
- Amenities: Restaurant, Clubhouse, Art Center, Wellness Center, Motorcycle/Car Display Building, Barn with guest suite, Pavilion, Ridding Ring, Art Studio, Art Gallery, Pool, etc.
- Additional Buildings: Administration Building, Maintenance, Storage Building

**Technical Comments and Conditions of Approval:**

1. **Purpose of the Master Plan.** The master plan is intended to provide general information about the proposed development to allow for an assessment of its impact on the orderly growth and development of the County, environmental quality, land values, natural features identified on the site analysis sketch and the County's *roads* and governmental services. Improvement are required at the development plan approval.
2. **Soil Erosion and Sedimentation Control Plan.** The Applicant shall submit written notice from the appropriate local agencies verifying that an Erosion and Sedimentation Control Plan has been received or a written notice from a professional land surveyor, engineer, landscape architect, architect, or professional planner certifying that no plan is required (LDC §42A- 113B).
3. **Private Road Standards.** The Applicant has indicated private road construction throughout the three different phases. All subdivision roads must be designed and constructed to the minimum standards of LDC §42A-81 C (Table 3.1)
4. **Road Name Approval.** Proposed road names for a private and/or public road shall be preapproved by Henderson County in accordance with Chapter 42 of the Henderson County Code, Property Addressing (LDC §42A-98). The applicant lists the proposed road names for all road segments. The names of the shared drives should be confirmed with the Master and Development Plan approval. Property Addressing has reviewed and approved the proposed road names in this plan.
5. **Subdivision Names.** The final plat shall contain certification that the public records of the County have been searched and the proposed subdivision name meets the standards set forth in this Chapter (LDC §42A-85).
6. **Pedestrian Access.** Sidewalks or walking trails are required for any major subdivision of 35 or more lots outlined in Henderson County Code Chapter 42 (LDC §42-113). Reasonable pedestrian access shall be provided to promote healthy and safe walking when a developer proposes a density equal to or greater than two (2) units per acre. The applicant must provide one (1) linear foot of sidewalk or

walking trail for every linear foot of improved or newly proposed roadway within the tract. Sidewalks or walking trails are to be located in a road right-of-way, pedestrian access to easement, or other dedicated open space. Sidewalks are to be constructed at a minimum of 5 feet in width using concrete, asphalt, or other permanent all-weather surface such as gravel.

7. **Water and Sewer.** According to the Henderson County Land Development Code (LDC), the applicant must provide evidence that the water supply and sewer system plans have been approved by the appropriate agency. All public or private (community) water supply and sewerage systems shall be installed and shall meet the requirements of the Henderson County Health Department or other government authorities having jurisdiction thereof. No final plat shall be approved until all such final approvals have been obtained. Any subdivision served by a public water system shall meet the respective county or municipality's minimum requirements for fire hydrants installation.
8. **Shoulder Stabilization.** All areas disturbed by the construction of a private road, including cut and fill slopes, shoulders and ditch banks, shall be seeded to stabilize the soil and prevent erosion. Seeding should be done as soon as feasible after road construction (LDC §42A-97).
9. **Street Tree Requirements.** According to the street tree requirements of Chapter 42A (LDC §42A-176 & 178) the applicant must provide one tree per 50 linear feet of property abutting an internal road. Trees may be placed in groups with a minimum spacing of no less than 15 feet and maximum spacing of no more than 65 feet. The trees must be placed within the right-of-way or within 20 feet of the edge of the right-of-way. The applicant may use existing trees in accordance with §42A-153 instead of planting new trees. These existing trees must also be located within the right-of-way or 20 feet of the edge of the right-of-way as required by §42A-178. All street trees must be properly planted and meet the spacing requirements or the applicant may post an improvement guarantee with the County before the final plat can be approved. Planning Staff recommends that street trees outside the ROW be protected by requiring a platted easement or restriction preventing lot owners from removing trees designated as meeting the street tree requirement.
10. **Subdivision Setback and Buffering.** When a tract to be subdivided is located outside a Comprehensive Plan designated Community Service Center Node and within a residential zoning district, the following shall be required: A 50 foot structure setback from any external road which is not classified as a local road, with the understanding that lots may be created which contain all or portions of the setback. Installation of a B2 buffer (see Article V (Landscape Design Standards) Subpart A (Buffer Requirements)) within the required setback where the tract is located along a: collector road, thoroughfare, boulevard, expressway or freeway. The applicant should, where possible, maintain existing stands of trees in accordance with §42-185 (Credits for Preserving Existing Trees) to meet this standard.
11. **Water Supply Watershed.** The Applicant must adhere to the water supply watershed regulations pertaining to subdivisions and storm water management regulations since the Subject Area is found within the Water Supply Watershed WS-IV (LDC §42A-239.6 and §42A-240.1).
12. **Notice of Farmland Preservation District.** The final plat shall contain a note stating that the property is not within one-half mile of land in a Farmland Preservation District (LDC §42A-81 P).
13. **Miscellaneous Advisory Provisions.** The Applicant should become familiar with the Miscellaneous Advisory Provisions of Chapter 42A (LDC §42A-87).

14. **Development Plan Requirements.** The Development Plan(s) must meet the requirements provided by the Planning Department whenever a subdivision of land occurs (LDC §42A-343).
15. **Traffic Impact Study (TIS) Recommendations.** Road improvements as identified in the TIS shall be a conditions of approval if required by NCDOT. Road improvements shall be required to be completed during phase one of the development plan approval but should be conditions noted in the master plan.

**Technical Review Committee:** The TRC reviewed the Master Plan on August 15<sup>th</sup>, 2017. In addition to the comments listed above, the committee suggested the following conditions of approval.

- Permits must be obtained for: floodplain, erosion, watershed, sedimentation control, stormwater, NCDOT Driveway, Environmental Health (as required).
- Any special use permit conditions that may be added after Zoning Board of Adjustment hears the application.

**Zoning Board of Adjustment:** The ZBA reviewed the application for a special use permit for the multi-family 8-plex units and the RV spaces at its August 30<sup>th</sup>, 2017 meeting. The Board approved the permit order at its September 27<sup>th</sup> meeting.

**Planning Board:** The Planning Board first reviewed the Master Plan at its meeting on August 17<sup>th</sup>, 2017. The Board tabled the master plan item to allow time for the Zoning Board of Adjustment to make a decision on the special use permit and to allow for the traffic impact study to be completed. On September 21<sup>st</sup>, staff provided an update to the Planning Board on the project's status with the ZBA hearing and TIS. The Planning Board received additional public input on the proposed development and noted that the item would come before the Board at its October meeting. The Planning Board has 90 days from its first consideration to make a decision.

# Etowah Sewer Company

Post Office Box 1659  
Etowah, NC 28729  
828-891-7022

July 26, 2017

Mr. John Turchin  
John Turchin Companies  
1900 Sunset Harbour Dr, Suite 1  
Miami Beach, FL 33139

RE: Sewer Service Availability  
Applicant: John Turchin  
Project Name: The Farm at Eagles Nest  
Location: Hammond Farm Property, Etowah

To Mr. Turchin:

This is to advise that sanitary sewer service can be made available and can be provided by the Etowah Sewer System for the above referenced Applicant/location. Excess capacity of approximately 50,000 gallons per day is available on the sanitary sewer system as of this date - a portion of which can be made available for use at this site.

We can allocate up to 30,000 gpd capacity (sufficient to service 100 Residential Equivalent (REQ) Taps once you enter into a "SEWER LINE EXTENSION AGREEMENT" with the Etowah Sewer Company. Additional capacity allocation will require a "WASTEWATER TREATMENT / CAPACITY EXPANSION AGREEMENT".

If you have any questions, please feel free to call me at 828-243-1784 (cell).

Sincerely,



Tom Kilpatrick  
Manager

cc: project file

ESTIMATED USAGE NEEDS FOR THE FARM AT EAGLES NEST PROJECT

Residential units

100 1 bedroom units @ 120g/br = 12,000 gpd  
200 bedroom units @ 240g/br = 48,000 gpd

2 Restaurants

200 seats total @ 40g/seat = 8,000 gpd

25 RV slips @ 120g ea. = 3,000 gpd

24 unit motel/lodge @ 200g ea. = 4,800 gpd

Club house @ 720 gpd = 720 gpd

Event Center @ 360 gpd = 360 gpd

Admin Bldg. - 2 baths @ 120g ea. = 240 gpd

Barn - 2 baths @ 120g ea. = 240 gpd

Maintenance Bldg. - 2 baths @ 120g ea. = 240 gpd

TOTAL = 77,600 gpd

## **CONCLUSIONS AND RECOMMENDATIONS**

The mitigation recommendations at each of the studied intersections were based on NCDOT's *Policy on Street and Driveway Access to North Carolina Highways* (Driveway Manual) methodology and mitigation threshold requirements, and engineering judgement.

According to NCDOT, mitigation improvements are required to the studied roadway network if at least one of the following conditions exists when comparing base network conditions to project build-out conditions:

- Average intersection or approach delay increases by 25% or greater while maintaining same LOS,
- LOS degrades by at least one level
- LOS is F

NCDOT has requested that turn lane warrant analyses be conducted at each of the appropriate un-signalized studied intersections. The NCDOT "*Warrant for Left and Right-Turn Lanes*" chart was utilized to determine potential turn lane storage length requirements. For the purposes of this report and to assist with overall mitigation, turn lane installation will be recommended when turn lane warrants are met for 75-feet of storage or greater.

Additionally, the Driveway Manual states that all site access points to a development should have a minimum internal protected stem length of 100 feet before any crossing / left-turning conflicts are allowed.

**N. Greenwood Forest Drive @ Brickyard Road:**

Based on HCM and NCDOT guidance, “LOS for un-signalized intersections is not defined as a whole and should only be reported for individual stop-controlled or yield movements.” As a result, the free-flow movements / approaches were not utilized when comparing background conditions to build-out conditions. As can be seen in Table 28, the difference in LOS, delay, v/c ratio, and queue between background traffic and the anticipated trips generated by the project is minimally increased for the northbound approach during the AM and PM peak hours.

**N. GREENWOOD FOREST DRIVE @ BRICKYARD ROAD  
COMPARISON OF BACKGROUND VS BUILD-OUT PEAK HOUR TRAFFIC CONDITIONS**

Approach	Peak Hour	Background			Build-out			Delay Increase %
		LOS	Delay	V/C	LOS	Delay	V/C	
Eastbound (Brickyard)	AM	A	0.0	0.07	A	0.0	0.07	0%
	PM	A	0.0	0.05	A	0.0	0.07	0%
Westbound (Brickyard)	AM	A	4.9	0.02	A	3.4	0.02	-31%
	PM	A	4.6	0.06	A	4.3	0.06	-7%
Northbound (Greenwood Forest)	AM	A	9.5	0.14	A	9.6	0.15	1%
	PM	B	10.5	0.12	B	10.8	0.13	3%

<Table 28>

It should be noted that the westbound approach experiences a decrease in delay when comparing background conditions to build-out conditions. This is a result of the Synchro calculations taking a weighted average of the westbound approach volumes. Since only through movements are being added to the free flow westbound approach, the Synchro calculations result in a lower average approach delay.

None of the approaches are beyond the NCDOT thresholds for delay increase percentage or LOS degradation. Since each approach maintains adequate LOS operation for an un-signalized intersection during a peak hour, no changes are recommended at this intersection to accommodate traffic generated by the site under build-out conditions based solely on capacity analysis.

From a capacity analysis standpoint, LOS A & LOS B are acceptable operation for an un-signalized intersection during a peak hour. However, as a secondary analysis, left and right turn lane warrants were studied for the eastbound and westbound approaches at this intersection. Table 29 below shows the results of the turn lane warrant analysis for this intersection.

N. GREENWOOD FOREST DRIVE @ BRICKYARD ROAD  
 TURN LANE WARRANT ANALYSIS

Approach	Peak Hour	Left Turns (Vehicles)	Opposing Lefts (Vehicles)	Right Turns (Vehicles)	Opposing Rights (Vehicles)	Required Storage Length per NCDOT Chart
Eastbound	AM	-	-	39	100	50'
	PM	-	-	36	100	50'
Westbound	AM	26	111	-	-	50'
	PM	79	104	-	-	75'

<Table 29>

The results of the turn lane warrant analysis indicate that build-out volumes warrant a 50-foot eastbound right turn lane and a 75-foot westbound left turn lane. It is recommended to install a 75-foot westbound left turn lane at this intersection to accommodate traffic generated by the proposed site. The NCDOT “Warrant for Left and Right-Turn Lanes” chart can be found in Appendix E.

DRAFT



**Holly Springs Road @ Brickyard Road:**

Based on HCM and NCDOT guidance, “LOS for un-signalized intersections is not defined as a whole and should only be reported for individual stop-controlled or yield movements.” As a result, the free-flow movements / approaches were not utilized when comparing background conditions to build-out conditions. As can be seen in Table 30, the difference in LOS, delay, v/c ratio, and queue between background traffic and the anticipated trips generated by the project is minimally increased for the southbound approach during the AM and PM peak hours.

**HOLLY SPRINGS ROAD @ BRICKYARD ROAD  
COMPARISON OF BACKGROUND VS BUILD-OUT PEAK HOUR TRAFFIC CONDITIONS**

Approach	Peak Hour	Background			Build-out			Delay Increase %
		LOS	Delay	V/C	LOS	Delay	V/C	
Eastbound (Brickyard)	AM	A	4.7	0.07	A	4.6	0.07	-2%
	PM	A	3.1	0.02	A	2.5	0.02	-20%
Westbound (Brickyard)	AM	A	0.0	0.06	A	0.0	0.10	0%
	PM	A	0.0	0.09	A	0.0	0.12	0%
Southbound (Holly Springs)	AM	B	10.9	0.13	B	12.1	0.19	11%
	PM	B	10.6	0.22	B	12.2	0.34	15%

<Table 30>

It should be noted that the eastbound approach experiences a decrease in delay when comparing background conditions to build-out conditions. This is a result of the Synchro calculations taking a weighted average of the eastbound approach volumes. Since through movements are being added to the free flow eastbound approach, the Synchro calculations result in a lower average approach delay.

None of the approaches are beyond the NCDOT thresholds for delay increase percentage or LOS degradation. Since each approach maintains adequate LOS operation for an un-signalized intersection during a peak hour, no changes are recommended at this intersection to accommodate traffic generated by the site under build-out conditions based solely on capacity analysis.

From a capacity analysis standpoint, LOS A & LOS B are acceptable operation for an un-signalized intersection during a peak hour. However, as a secondary analysis, left and right turn lane warrants were studied for the eastbound and westbound approaches at this intersection. Table 31 below shows the results of the turn lane warrant analysis for this intersection.

HOLLY SPRINGS ROAD @ BRICKYARD ROAD  
TURN LANE WARRANT ANALYSIS

Approach	Peak Hour	Left Turns (Vehicles)	Opposing Lefts (Vehicles)	Right Turns (Vehicles)	Opposing Rights (Vehicles)	Required Storage Length per NCDOT Chart
Eastbound	AM	90	157	-	-	75'
	PM	28	184	-	-	50'
Westbound	AM	-	-	114	100	75'
	PM	-	-	112	100	75'

<Table 31>

The results of the turn lane warrant analysis indicate that build-out volumes warrant a 75-foot eastbound left turn lane and a 75-foot westbound right turn lane. It is recommended to install a 75-foot eastbound left turn lane and a 75-foot westbound right turn lane at this intersection to accommodate traffic generated by the proposed site. The NCDOT “Warrant for Left and Right-Turn Lanes” chart can be found in Appendix E.



**McKinney Road @ Brickyard Road:**

Based on HCM and NCDOT guidance, “LOS for un-signalized intersections is not defined as a whole and should only be reported for individual stop-controlled or yield movements.” As a result, the free-flow movements / approaches were not utilized when comparing background conditions to build-out conditions. As can be seen in Table 32, the difference in LOS, delay, v/c ratio, and queue between background traffic and the anticipated trips generated by the project is increased for the eastbound and westbound approaches during the PM peak hours.

**McKINNEY ROAD @ BRICKYARD ROAD**  
**COMPARISON OF BACKGROUND VS BUILD-OUT PEAK HOUR TRAFFIC CONDITIONS**

Approach	Peak Hour	Background			Build-out			Delay Increase %
		LOS	Delay	V/C	LOS	Delay	V/C	
Eastbound (Brickyard)	AM	A	9.0	0.15	A	9.8	0.21	9%
	PM	A	9.2	0.16	B	12.3	0.34	34%
Westbound (McKinney)	AM	B	11.0	0.02	B	13.4	0.26	22%
	PM	B	12.8	0.04	C	17.6	0.30	45%
Northbound (Brickyard)	AM	A	7.0	0.05	A	5.8	0.05	-17%
	PM	A	7.2	0.09	A	5.5	0.09	-24%

<Table 32>

The eastbound approach experiences LOS degradation under PM peak hour conditions when comparing background traffic to build-out traffic. During the PM peak hour, the westbound approach goes from a LOS A (9.2 seconds under background conditions) to LOS B (12.3 seconds under build-out conditions) – representing a 3.1 second increase in delay. Additionally, the delay increase percentage is beyond NCDOT thresholds – 34%.

The westbound approach experiences LOS degradation under PM peak hour conditions when comparing background traffic to build-out traffic. During the PM peak hour, the westbound approach goes from a LOS B (12.8 seconds under background conditions) to LOS C (17.6 seconds under build-out conditions) – representing a 4.8 second increase in delay. Additionally, the delay increase percentage is beyond NCDOT thresholds – 45%.

It should be noted that the northbound approach experiences a decrease in delay when comparing background conditions to build-out conditions. This is a result of the Synchro calculations taking a weighted average of the northbound approach volumes. Since through movements are being added to the free flow northbound

approach, the Synchro calculations result in a lower average approach delay.

Even though the eastbound and westbound approaches are beyond the NCDOT thresholds for delay increase percentage and LOS degradation, LOS A, LOS B, & LOS C are acceptable operation for an un-signalized intersection during a peak hour and typically do not warrant mitigation to accommodate site traffic. Since each approach maintains adequate LOS operation for an un-signalized intersection during a peak hour, no changes are recommended at this intersection to accommodate traffic generated by the site under build-out conditions based solely on capacity analysis.

However, as a secondary analysis, left and right turn lane warrants were studied for the eastbound and westbound approaches at this intersection. *Table 33* below shows the results of the turn lane warrant analysis for this intersection.

**BRICKYARD ROAD @ MCKINNEY ROAD  
TURN LANE WARRANT ANALYSIS**

<b>Approach</b>	<b>Peak Hour</b>	<b>Left Turns (Vehicles)</b>	<b>Opposing Lefts (Vehicles)</b>	<b>Right Turns (Vehicles)</b>	<b>Opposing Rights (Vehicles)</b>	<b>Required Storage Length per NCDOT Chart</b>
<b>Eastbound</b>	<b>AM</b>	-	-	134	100	100'
	<b>PM</b>	-	-	137	100	100'
<b>Westbound</b>	<b>AM</b>	57	175	-	-	50'
	<b>PM</b>	45	229	-	-	50'

<Table 33>

The results of the turn lane warrant analysis indicate that build-out volumes warrant a 100-foot eastbound right turn lane. It is recommended to install a 100-foot eastbound right turn lane at this intersection to accommodate traffic generated by the proposed site. The NCDOT “*Warrant for Left and Right-Turn Lanes*” chart can be found in *Appendix E*.

NCDOT has requested a historical crash analysis at this intersection. The crash analysis will be forthcoming as a separate TIA Addendum.

***Pisgah View Drive (North) @ McKinney Road:***

Based on HCM and NCDOT guidance, “LOS for un-signalized intersections is not defined as a whole and should only be reported for individual stop-controlled or yield movements.” As a result, the free-flow movements / approaches were not utilized when comparing background conditions to build-out conditions. As can be seen in *Table 34*, the difference in LOS, delay, v/c ratio, and queue between background traffic and the anticipated trips generated by the project is minimally increased during the AM and PM peak hours.

**PISGAH VIEW DRIVE (NORTH) @ MCKINNEY ROAD  
COMPARISON OF BACKGROUND VS BUILD-OUT PEAK HOUR TRAFFIC CONDITIONS**

Approach	Peak Hour	Background			Build-out			Delay Increase %
		LOS	Delay	V/C	LOS	Delay	V/C	
Eastbound (McKinney)	AM	A	0.0	0.01	A	0.0	0.04	0%
	PM	A	0.0	0.01	A	0.0	0.03	0%
Westbound (McKinney)	AM	A	2.9	0.01	A	3.0	0.01	3%
	PM	A	2.9	0.01	A	2.9	0.01	0%
Northbound (Pisgah View)	AM	A	8.5	0.01	A	8.9	0.04	5%
	PM	A	8.6	0.02	A	9.1	0.10	6%

<Table 34>

None of the approaches are beyond the NCDOT thresholds for delay increase percentage or LOS degradation. Since each approach maintains adequate LOS operation for an un-signalized intersection during a peak hour, no changes are recommended at this intersection to accommodate traffic generated by the site under build-out conditions based solely on capacity analysis.

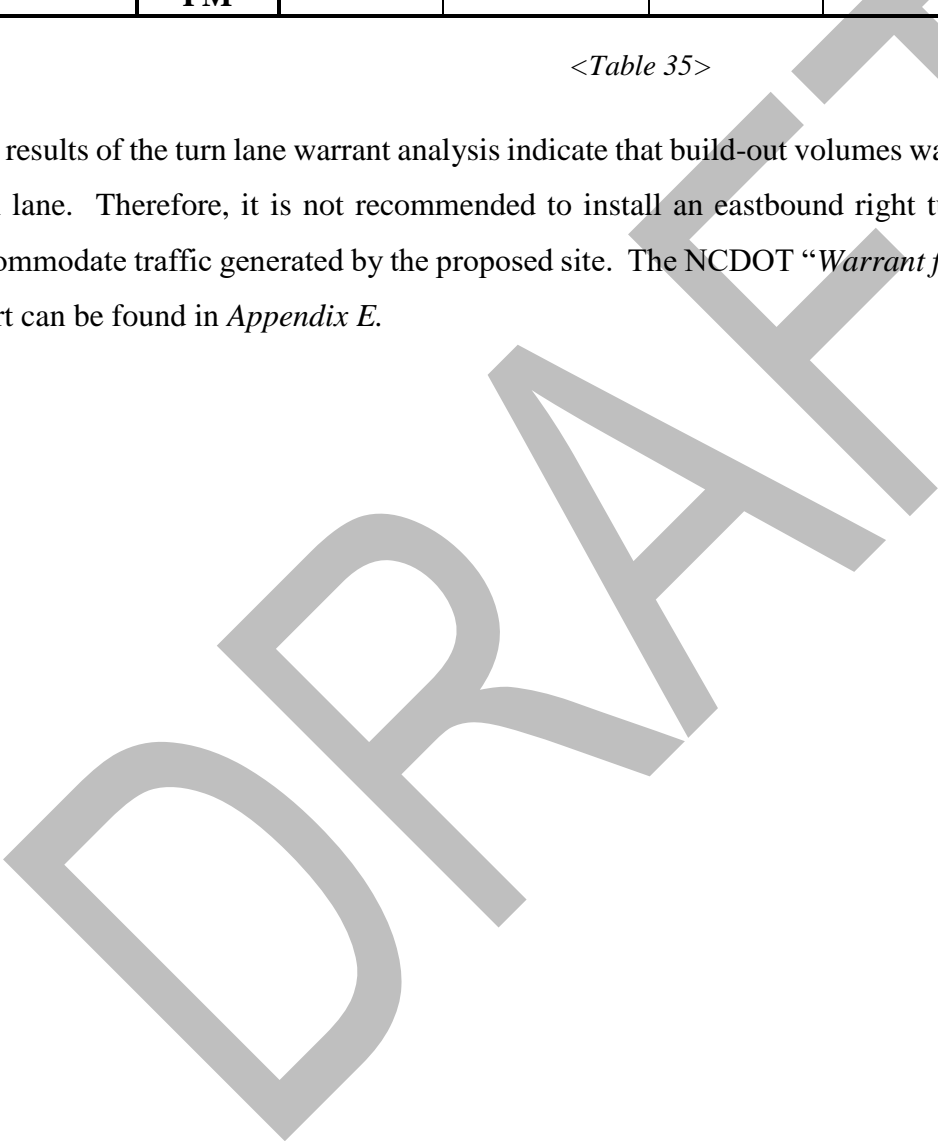
However, as a secondary analysis, right turn lane warrants were studied for the eastbound approach at this intersection. A left turn lane warrant was not evaluated since there are no westbound left turning vehicles under build-out conditions. *Table 35* below shows the results of the turn lane warrant analysis.

**PISGAH VIEW DRIVE (NORTH) @ MCKINNEY ROAD  
TURN LANE WARRANT ANALYSIS**

<b>Approach</b>	<b>Peak Hour</b>	<b>Left Turns (Vehicles)</b>	<b>Opposing Lefts (Vehicles)</b>	<b>Right Turns (Vehicles)</b>	<b>Opposing Rights (Vehicles)</b>	<b>Required Storage Length per NCDOT Chart</b>
<b>Eastbound</b>	<b>AM</b>	-	-	60	100	50'
	<b>PM</b>	-	-	44	100	50'
<b>Westbound</b>	<b>AM</b>	-	-	-	-	-
	<b>PM</b>	-	-	-	-	-

<Table 35>

The results of the turn lane warrant analysis indicate that build-out volumes warrant a 50-foot eastbound right turn lane. Therefore, it is not recommended to install an eastbound right turn lane at this intersection to accommodate traffic generated by the proposed site. The NCDOT “Warrant for Left and Right-Turn Lanes” chart can be found in *Appendix E*.



***Pisgah View Drive (South) @ McKinney Road:***

Based on HCM and NCDOT guidance, “LOS for un-signalized intersections is not defined as a whole and should only be reported for individual stop-controlled or yield movements.” As a result, the free-flow movements / approaches were not utilized when comparing background conditions to build-out conditions. As can be seen in *Table 36*, the difference in LOS, delay, v/c ratio, and queue between background traffic and the anticipated trips generated by the project is minimally increased during the AM and PM peak hours.

**PISGAH VIEW DRIVE (SOUTH) @ MCKINNEY ROAD  
COMPARISON OF BACKGROUND VS BUILD-OUT PEAK HOUR TRAFFIC CONDITIONS**

Approach	Peak Hour	Background			Build-out			Delay Increase %
		LOS	Delay	V/C	LOS	Delay	V/C	
Eastbound (McKinney)	AM	A	0.6	0.01	A	5.6	0.02	833%
	PM	A	3.5	0.01	A	6.6	0.06	89%
Westbound (McKinney)	AM	A	0.0	0.01	A	0.0	0.01	0%
	PM	A	0.0	0.01	A	0.0	0.01	0%
Southbound (Pisgah View)	AM	A	8.4	0.01	A	8.6	0.06	2%
	PM	A	8.4	0.01	A	8.6	0.05	2%

<Table 36>

Please note, the westbound approach experiences significant delay increase percentage but maintains a LOS A under build-out conditions. The significant percent increase is a result of the calculation when comparing background conditions to build-out conditions and should not be of concern when determining appropriate mitigation.

Since each approach maintains adequate LOS operation for an un-signalized intersection during a peak hour, no changes are recommended at this intersection to accommodate traffic generated by the site under build-out conditions based solely on capacity analysis.

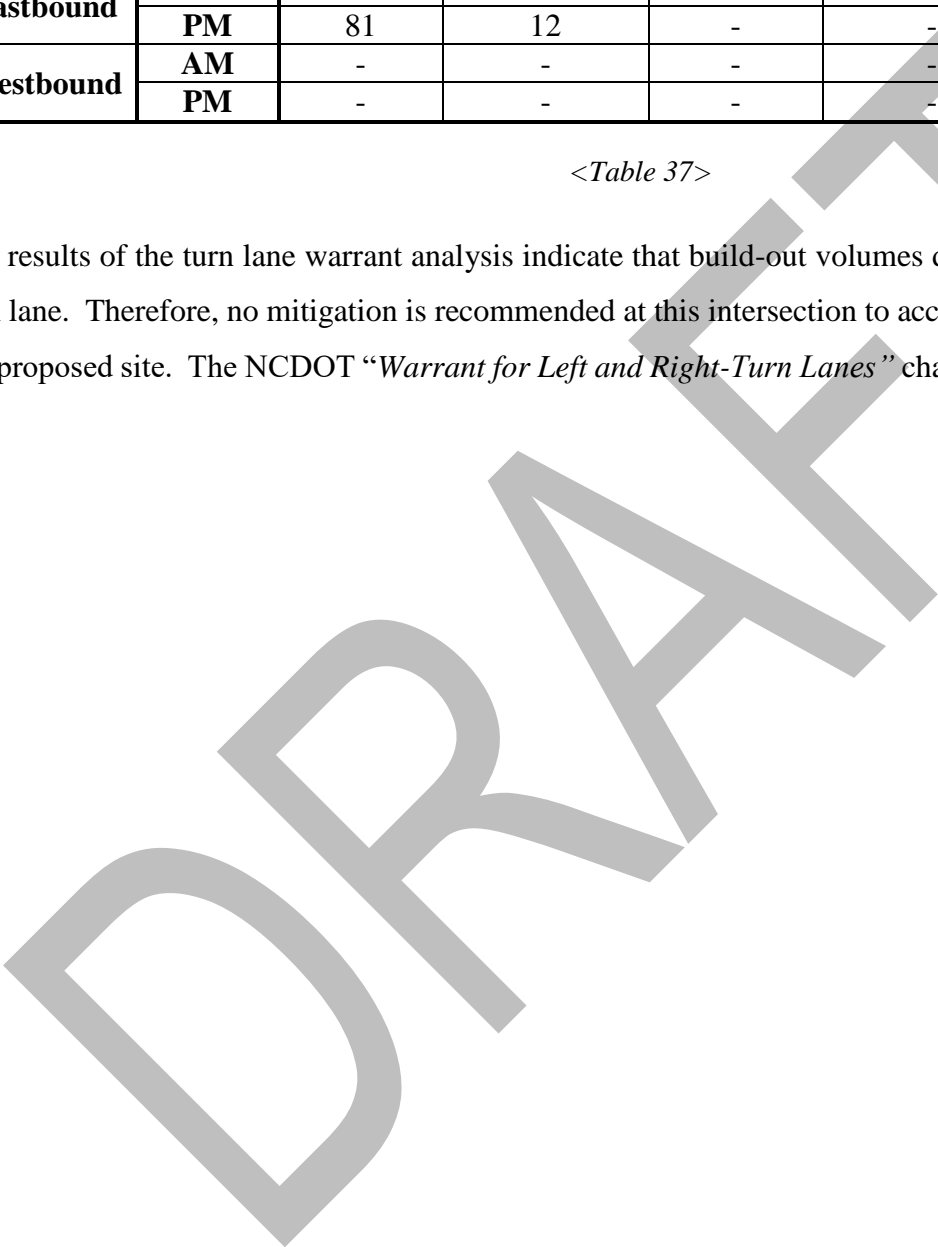
However, as a secondary analysis, left turn lane warrants were studied for the eastbound approach at this intersection. A right turn lane warrant was not evaluated since there are no westbound right turning vehicles under build-out conditions. *Table 37* below shows the results of the turn lane warrant analysis.

**PISGAH VIEW DRIVE (SOUTH) @ MCKINNEY ROAD  
TURN LANE WARRANT ANALYSIS**

<b>Approach</b>	<b>Peak Hour</b>	<b>Left Turns (Vehicles)</b>	<b>Opposing Lefts (Vehicles)</b>	<b>Right Turns (Vehicles)</b>	<b>Opposing Rights (Vehicles)</b>	<b>Required Storage Length per NCDOT Chart</b>
<b>Eastbound</b>	<b>AM</b>	32	12	-	-	0'
	<b>PM</b>	81	12	-	-	0'
<b>Westbound</b>	<b>AM</b>	-	-	-	-	-
	<b>PM</b>	-	-	-	-	-

<Table 37>

The results of the turn lane warrant analysis indicate that build-out volumes do not warrant a eastbound left turn lane. Therefore, no mitigation is recommended at this intersection to accommodate traffic generated by the proposed site. The NCDOT “Warrant for Left and Right-Turn Lanes” chart can be found in Appendix E.





**McKinney Road @ US 64 (Brevard Road):**

As can be seen in *Table 38*, the difference in LOS, delay, v/c ratio, and queue between background traffic and the anticipated trips generated by the project is minimally increased for all approaches during the AM and PM peak hours except for the eastbound approach during the AM and PM peak hour.

**MCKINNEY ROAD @ US 64 (BREVARD ROAD)  
COMPARISON OF BACKGROUND VS BUILD-OUT PEAK HOUR TRAFFIC CONDITIONS**

Approach	Peak Hour	Background			Build-out			Delay Increase %
		LOS	Delay	V/C	LOS	Delay	V/C	
Eastbound (US 64)	AM	A	9.0	0.49	A	8.9	0.51	-1%
	PM	A	6.6	0.46	A	6.5	0.46	-2%
Westbound (US 64)	AM	A	7.1	0.34	A	7.0	0.37	-1%
	PM	A	6.1	0.44	A	6.5	0.49	7%
Northbound (Old Hwy 64)	AM	B	10.3	0.39	B	13.4	0.44	30%
	PM	B	11.8	0.25	B	13.5	0.28	14%
Southbound (McKinney)	AM	A	9.9	0.07	B	12.4	0.24	25%
	PM	B	12.6	0.10	B	14.8	0.24	17%

<Table 38>

The eastbound approach experiences a slightly improved delay under build-out conditions due to this intersection operating as an actuated signal and more green-time being allocated to the eastbound approach to accommodate proposed site traffic.

The northbound approach experiences a delay increase percentage beyond NCDOT thresholds during the AM peak hour when comparing background traffic to build-out traffic. The 30% increase in delay corresponds to a 3.1 second increase. This increase in delay is not anticipated to negatively affect intersection operation for the northbound approach during the AM peak hour – especially at a signalized intersection.

The southbound approach experiences LOS degradation under AM peak hour conditions when comparing background traffic to build-out traffic. During the AM peak hour, the westbound approach goes from a LOS A (9.9 seconds under background conditions) to LOS B (12.4 seconds under build-out conditions) – representing a 2.5 second increase in delay. Additionally, the delay increase percentage is beyond NCDOT thresholds – 25%.

Even though the northbound and southbound approaches are beyond the NCDOT thresholds for delay increase percentage and LOS degradation, LOS A & LOS B are acceptable operation for a signalized

intersection during a peak hour and typically do not warrant mitigation to accommodate site traffic. Since each approach maintains adequate LOS operation for a signalized intersection during a peak hour, no changes are recommended at this intersection to accommodate traffic generated by the site under build-out conditions.

**Brickyard Road @ US 64 (Brevard Road):**

As can be seen in Table 39, the difference in LOS, delay, v/c ratio, and queue between background traffic and the anticipated trips generated by the project is minimally increased for all approaches during the AM and PM peak hours except for the eastbound approach during the PM peak hour.

**BRICKYARD ROAD @ US 64 (BREVARD ROAD)  
COMPARISON OF BACKGROUND VS BUILD-OUT PEAK HOUR TRAFFIC CONDITIONS**

Approach	Peak Hour	Background			Build-out			Delay Increase %
		LOS	Delay	V/C	LOS	Delay	V/C	
Eastbound (US 64)	AM	A	7.2	0.39	A	7.5	0.40	4%
	PM	A	6.8	0.43	A	6.7	0.42	-1%
Westbound (US 64)	AM	B	10.6	0.50	B	14.0	0.56	32%
	PM	B	11.7	0.63	B	17.3	0.71	48%
Southbound (Brickyard)	AM	B	17.2	0.42	C	20.3	0.53	18%
	PM	C	22.7	0.46	C	28.7	0.57	26%

<Table 39>

The eastbound approach experiences a slightly improved delay during the PM peak hour under build-out conditions due to this intersection operating as an actuated signal and more green-time being allocated to the eastbound approach to accommodate proposed site traffic.

The westbound approach experiences a delay increase percentage beyond NCDOT thresholds during the AM and PM peak hours when comparing background traffic to build-out traffic. The 32% increase in delay in the AM peak hour corresponds to a 3.4 second increase in delay and the 48% increase in delay during the PM peak hour corresponds to a 5.6 second increase in delay. This increase in delay is not anticipated to negatively affect intersection operation for the northbound approach during the AM and PM peak hours – especially at a signalized intersection.

The southbound approach experiences LOS degradation under AM peak hour conditions when comparing background traffic to build-out traffic. During the AM peak hour, the westbound approach goes from a LOS B (17.2 seconds under background conditions) to LOS C (20.3 seconds under build-out conditions) –

representing a 3.1 second increase in delay. Additionally, the delay increase percentage for the PM peak hour is beyond NCDOT thresholds – 26%.

Even though the westbound and southbound approaches are beyond the NCDOT thresholds for delay increase percentage and LOS degradation, LOS A, LOS B, & LOS C are acceptable operation for a signalized intersection during a peak hour and typically do not warrant mitigation to accommodate site traffic. Since each approach maintains adequate LOS operation for a signalized intersection during a peak hour, no changes are recommended at this intersection to accommodate traffic generated by the site under build-out conditions.

**N. Greenwood Forest Drive @ US 64 (Brevard Road):**

Based on HCM and NCDOT guidance, “LOS for un-signalized intersections is not defined as a whole and should only be reported for individual stop-controlled or yield movements.” As a result, the free-flow movements / approaches were not utilized when comparing background conditions to build-out conditions. As can be seen in Table 40, the difference in LOS, delay, v/c ratio, and queue between background traffic and the anticipated trips generated by the project is minimally increased for all approaches during the AM and PM peak hours except for the eastbound approach during the AM and PM peak hour.

**N. GREENWOOD FOREST DRIVE @ US 64 (BREVARD ROAD)  
COMPARISON OF BACKGROUND VS BUILD-OUT PEAK HOUR TRAFFIC CONDITIONS**

Approach	Peak Hour	Background			Build-out			Delay Increase %
		LOS	Delay	V/C	LOS	Delay	V/C	
Eastbound (US 64)	AM	A	1.9	0.19	A	1.8	0.21	-5%
	PM	A	0.9	0.22	A	0.8	0.25	-11%
Westbound (US 64)	AM	A	0.0	0.17	A	0.0	0.20	0%
	PM	A	0.0	0.21	A	0.0	0.23	0%
Southbound (Greenwood Forest)	AM	B	12.0	0.13	B	12.4	0.14	3%
	PM	B	12.0	0.20	B	12.5	0.21	4%

<Table 40>

It should be noted that the eastbound approach experiences a decrease in delay when comparing background conditions to build-out conditions. This is a result of the Synchro calculations taking a weighted average of the eastbound approach volumes. Since through movements are being added to the free flow eastbound approach, the Synchro calculations result in a lower average approach delay.

None of the approaches are beyond the NCDOT thresholds for delay increase percentage or LOS degradation. Since each approach maintains adequate LOS operation for an un-signalized intersection during a peak hour, no changes are recommended at this intersection to accommodate traffic generated by the site under build-out conditions.

Turn lane warrants were not evaluated at this intersection since the eastbound and westbound approaches already contain left and right turn lanes. No additional mitigation is recommended at this intersection to accommodate traffic generated by the site.

**Site Access “A” @ McKinney Road:**

As can be seen in *Table 41*, the resulting LOS, delay, v/c ratio, and queue are within acceptable levels for Site Access “A” @ McKinney Road. The southbound approach (proposed site access) is anticipated to operate at a LOS A during the AM and a LOS B during the PM peak hour.

SITE ACCESS “A” @ MCKINNEY ROAD  
ANALYSIS OF BUILD-OUT AM/PM PEAK HOUR TRAFFIC CONDITIONS

APPROACH	AM PEAK HOUR			PM PEAK HOUR		
	Queue Free Percent (%)	LOS and Delay (sec)	V/C Ratio	Queue Free Percent (%)	LOS and Delay (sec)	V/C Ratio
Eastbound	96	A 6.4	0.04	90	A 7.2	0.10
Westbound	100	A 0.0	0.02	100	A 0.0	0.06
Southbound	87	A 9.7	0.20	90	B 10.3	0.18

<Table 41>

Since each approach maintains adequate LOS operation for an un-signalized intersection during a peak hour, no changes are recommended at this intersection to accommodate traffic generated by the site under build-out conditions based solely on capacity analysis.

However, as a secondary analysis, left and right turn lane warrants were studied for the eastbound and westbound approaches at this intersection. *Table 42* below shows the results of the turn lane warrant analysis for this intersection.

**SITE ACCESS “A” @ MCKINNEY ROAD  
TURN LANE WARRANT ANALYSIS**

<b>Approach</b>	<b>Peak Hour</b>	<b>Left Turns (Vehicles)</b>	<b>Opposing Lefts (Vehicles)</b>	<b>Right Turns (Vehicles)</b>	<b>Opposing Rights (Vehicles)</b>	<b>Required Storage Length per NCDOT Chart</b>
<b>Eastbound</b>	<b>AM</b>	57	38	-	-	50'
	<b>PM</b>	132	87	-	-	100'
<b>Westbound</b>	<b>AM</b>	-	-	31	100	50'
	<b>PM</b>	-	-	71	100	75'

<Table 42>

The results of the turn lane warrant analysis indicate that build-out volumes warrant a 100-foot eastbound left turn lane and a 75-foot westbound right turn lane. It is recommended to install a 100-foot eastbound left turn lane and a 75-foot westbound right turn lane at this intersection to accommodate traffic generated by the proposed site. The NCDOT “Warrant for Left and Right-Turn Lanes” chart can be found in *Appendix E*.

Based on a review of the proposed site plan, the main Site Access “A” @ McKinney Road exceeds NCDOT’s internal protected stem length requirement of 100 feet.

***Service Site Access @ McKinney Road / Emergency Access @ Ewbank Road:***

Capacity analysis was not performed at either of these site access locations due to the intended functionality of each access under build-out conditions. The emergency site access will be gated accesses and service access will be designated as employees only so no residential traffic will utilize either access under normal daily traffic operations. Each of these access points exceed NCDOT’s internal protected stem length requirement of 100 feet. No mitigation is recommended at either the emergency access or service access to accommodate traffic generated by the site. The addition of site generated traffic is not anticipated to degrade general roadway or driver safety at either intersection.

**Overall:**

The proposed Farm at Eagles Nest residential development will adequately accommodate anticipated site generated traffic during the weekday AM and PM peak hours when the following mitigation measures take place:

- N. Greenwood Forest Drive @ Brickyard Road
  - Install 75' westbound left turn lane
- Holly Springs Road @ Brickyard Road
  - Install 75' eastbound left turn lane
  - Install 75' westbound right turn lane
- Brickyard Road @ McKinney
  - Install 100' eastbound right turn lane
  - Maintain existing Stop control configuration
- Main Site Access "A" @ McKinney Road
  - Install 100' eastbound left turn lane
  - Install 75' westbound right turn lane

When the above mitigation takes place, the anticipated site traffic from the proposed development will be adequately accommodated under build-out conditions. *Figure 10* below shows the proposed lane configurations for build-out conditions.



## Henderson County, North Carolina Code Enforcement Services

October 13, 2017

Autumn Radcliff, Planning Director  
100 N King St.  
Hendersonville NC 28792

RE: Common Area Recreation and Service Facilities

Ms. Radcliff,

The Hammond Tract in Etowah at 205 McKinney Rd having (PIN 9529838232, 9539037259, and 9529916743) is zoned Residential One (R1). The purpose of Residential District One (R1) is to foster orderly growth where the *principal use* of land is residential. The intent of this district is to allow for medium to high-density *residential development* consistent with the recommendations of the *Comprehensive Plan*. This general *use district* is typically meant to be utilized in areas designated as Urban (USA) in the *Comprehensive Plan*.

The Turchin plan to utilize the property for a mix of single family, duplex, multi-family (8-plex), RV Park and accessory uses are all defined and allowed within the Land Development Code in the R1 District. These uses can be permitted on the property if the project meets the supplemental requirements (below). The multifamily and RV Park were granted a Special Use Permit by our Zoning Board of Adjustment at their August 30, 2017 meeting.

The accessory uses: administration building, restaurant, clubhouse, wellness center, pool, art gallery, motorcycle/car display, maintenance building, event building, pavilion, art studios, rv/boat storage, recreational facilities and trails all are defined as a common area recreation and service facility. See Supplemental Requirements and definition below. The fields, barns, riding ring and pasture land will be considered exempt from zoning or building codes once the developer obtains proof that the use is a bona fide farm.

#### **SR 1.4. Dwelling, Duplex**

- (1) Site Plan. Minor *Site Plan* required in accordance with §42-330 (Minor Site Plan Review).
- (2) Multifamily Development. Where more than one (1) *duplex* is desired, this shall be considered a multifamily development and shall adhere to the standards outlined in SR 1.6 (Dwelling, Multifamily, Five (5) or More Units).

#### **SR 1.6. Dwelling, Multifamily, Five (5) or More Units**

- (1) Site Plan. Major *Site Plan* required in accordance with §42-331 (Major Site Plan Review).
- (2) Multifamily dwellings of five (5) or more units:
  - a. May be developed in *phases*.
  - b. Shall have a minimum spacing between *buildings* of 20 feet, with an additional one (1) foot of separation for each one (1) foot of *building* height in excess of 30 feet.
  - c. Shall have a maximum *building* length of 150 feet.
  - d. May increase the building height to 50 feet where a B1 *Buffer* is provided as detailed in §42-168 (Buffer Determination).
  - e. Shall be required pervious pavement for a minimum of 25 percent of all paved surfaces (*roads*, parking areas, drives, sidewalks, etc.).
  - f. Shall adhere to the *road* standards required for a *major subdivision* in accordance with Article III, Subdivision Regulations, and shall be organized:
    1. To provide increased internal mobility;
    2. To provide safe and convenient access;

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3. In intersecting/grid patterns where possible; and
  4. Without cul-de-sacs (except where topographical considerations/restrictions are submitted by the *applicant*).
- g. Shall have subsurface utilities.
- (3) Where a multifamily dwelling of five (5) or more units development is located along any *road* with current public transit access and such public transit authority approves the addition of a stop, such development shall provide a minimum of one (1) public transit access shelter for the *use* of occupants/patrons.
- (4) Solid Waste Collection. Solid waste collection systems must be installed and/or operated to meet all local and state statutes, ordinances and regulations and shall thereafter be certified by the Department of Public Health. Each development shall provide a suitable method of solid waste disposal (in accordance with Chapter 165 of the Henderson County Code, *Solid Waste*) and collection consisting of either private collection from individual *uses* or the *use* of dumpsters. Where dumpsters are used concrete pads shall be designed to drain to a bio-retention area to filter *stormwater* before the water reaches a larger drainage system, and Screen Class One (1), Two (2), or Three (3) shall be provided consistent with the requirements of §42-182 (Screen Classification).
- (5) Open Space. *Open space* shall be provided in perpetuity (perpetual *easements* or deed restrictions are required) equivalent to 20 percent of all lands within the development. This designated *open space* area shall not:
- a. Include more than 50 percent in primary conservation areas; and
  - b. Be composed entirely of secondary conservation areas.
- (6) Common Area Requirements. A *common area* shall be provided that is equivalent to 10 percent of the total area. *Common area* shall be accessible for the *use* and enjoyment of the multifamily occupants/patrons, located as to be free of traffic hazards and maintained in good condition by the *applicant*.
- (7) Other Requirements. Due to the comprehensive nature of a multifamily project, there are several sections that must be consulted. Please refer to the following sections for more information on each facet of a multifamily project.
- a. See Article III for information on *road* design and construction standards, pedestrian facility standards, water and sewer requirements, and *fire protection*.
  - b. See Article IV for traffic impact study and emergency services impact report requirements.
  - c. See Article V for landscaping and buffering requirements.
  - d. See Article VI for off-street parking and loading requirements.
  - e. See §42-63 (Supplemental Requirements) for each land *use*.
  - f. See Article VII for *sign* requirements.
  - g. See Article XI for permitting procedures.

#### **SR 4.5. Common Area Recreation and Service Facilities**

- (1) Site Plan. Major *Site Plan* required in accordance with §42-331 (Major Site Plan Review).
- (2) Structure. Where the *common area recreation facility* is a swimming pool, spa or hot tub, it shall be protected by a fence or equal enclosure, a minimum of four (4) feet in height, and shall have controlled access.
- (3) Operations. Common area service facilities shall be for the purpose of serving residents and visitors within the complex, development, *manufactured home park* or *subdivision*, and shall not be considered a commercial operation for *use* by those outside of the complex, development, *manufactured home park* or *subdivision*.

**Common Area Recreation and Service Facilities.** Recreational (swimming pools, hot tubs, etc.) and service (laundry, mail delivery area, etc.) facilities built to serve complexes, developments, *manufactured home parks* and *subdivisions*.

Please let me know if you have any further questions,

*Toby Linville*

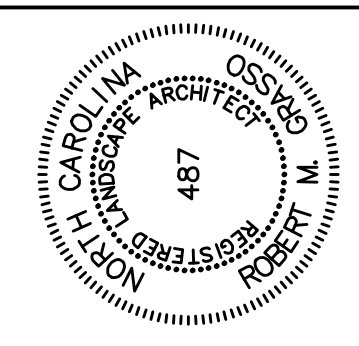
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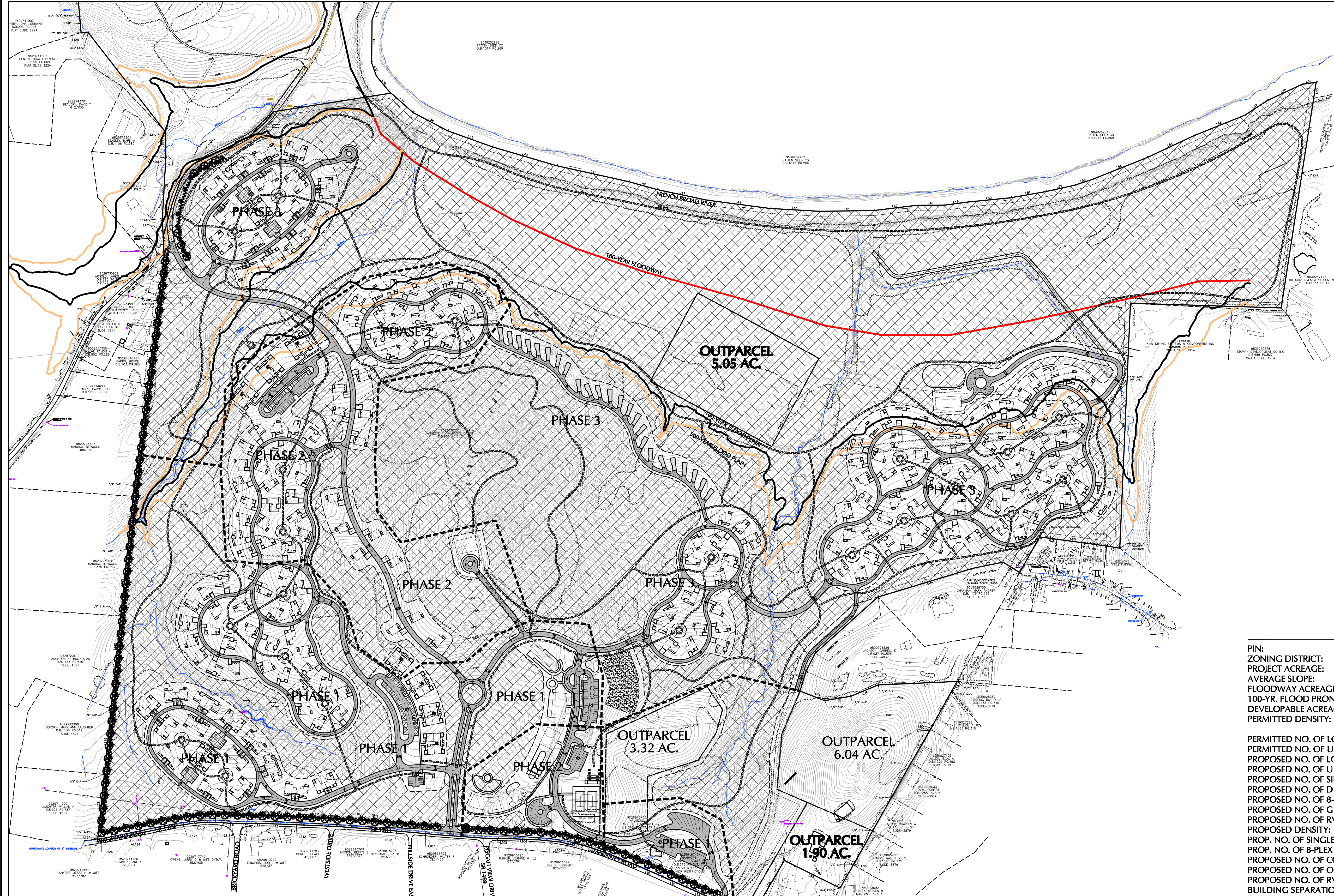


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PHASING PLAN

THE FARM AT EAGLES NEST  
 HENDERSON COUNTY, NORTH CAROLINA



PROJECT INFORMATION

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 EMAIL: bgrasso@landplancollab.com  
 CONTACT: ROBERT M. GRASSO, RLA

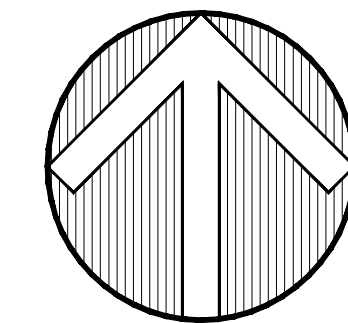
**CIVIL ENGINEER:** BROOKS ENGINEERING ASSOCIATES  
 17 ARLINGTON STREET  
 ASHEVILLE, NC 28801  
 PHONE: (828) 232-4700  
 EMAIL: mbrooks@brooksea.com  
 CONTACT: MARK BROOKS, PE

**SURVEYOR:** NC SURVEY, P.C.  
 50 NORTH MERRIMON AVE., SUITE 109  
 ASHEVILLE, NC 28804  
 PHONE: (828) 252-1530  
 EMAIL: jyoung@ncsurvey.com  
 CONTACT: JOHN YOUNG, PLS

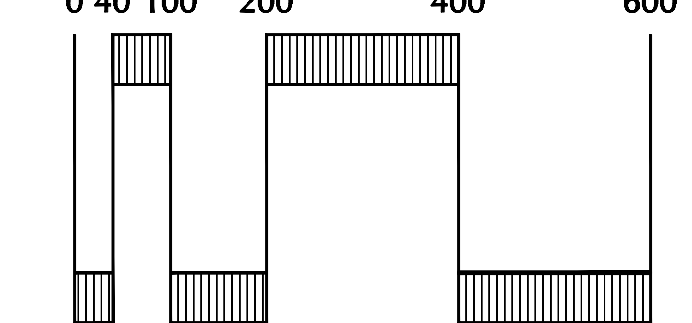
SITE INFORMATION

PIN: 9529838232, 9539037259 & 9529916743  
 ZONING DISTRICT: R-1  
 PROJECT ACREAGE: 232.23 AC.  
 AVERAGE SLOPE: 12.95%  
 FLOODWAY ACREAGE: 36.79 AC.  
 100-YR. FLOOD PRONE ACREAGE: 35.87 AC.  
 DEVELOPABLE ACREAGE: 143.26 AC. (OUTPARCELS EXCLUDED)  
 PERMITTED DENSITY: SINGLE-FAMILY: 4 UNITS/AC.  
 MULTI-FAMILY: 16 UNITS/AC.  
 928 LOTS  
 3,715 MULTI-FAMILY UNITS  
 4 OUTPARCEL LOTS  
 299 UNITS  
 169 SINGLE-FAMILY UNITS  
 58 DUPLEX UNITS  
 72 8-PLEX UNITS  
 1 SUITE  
 24 UNITS  
 1.38 UNITS/AC. (OUTPARCELS EXCLUDED)  
 334 SPACES (2 SPACES/UNIT)  
 90 SPACES (1 1/2 SPACES/UNIT)  
 109 SPACES  
 89 SPACES  
 10 SPACES  
 20' MINIMUM  
 138.59 AC. (64.2%) (OUTPARCELS EXCLUDED)  
 IMPERVIOUS SURFACE ACREAGE: 32.62 AC. (15.1%) (OUTPARCELS EXCLUDED)  
 IMPERVIOUS ROAD SURFACE (MULTI-FAMILY): 157,278 SF  
 PERMEABLE PAVERS (MULTI-FAMILY): 44,498 SF (28.3%)  
 LENGTH OF ROADS: 29,866 LF  
 LENGTH OF WALKS/TRAILS: 45,694 LF  
 MAXIMUM BUILDING HEIGHT: 40'  
 UTILITIES:  
 WATER: HENDERSONVILLE  
 SEWER: ETOWAH SEWER COMPANY, INC.  
 UNDERGROUND POWER, TELEPHONE & CATV  
 WS IV

WATER SUPPLY WATERSHED:



NORTH



SCALE: 1" = 200'

PHASING INFORMATION

<b>PHASE 1:</b>	
1-BEDROOM UNITS:	32 UNITS
2-BEDROOM UNITS:	59 UNITS
MAIN RESTAURANT:	200 SEATS
CLUBHOUSE:	100 SEATS
ADMINISTRATION BUILDING:	2 RESTROOMS
MAINTENANCE BUILDING:	2 RESTROOMS
STORAGE BUILDING:	2 RESTROOMS
<b>PHASE 2:</b>	
1-BEDROOM UNITS:	38 UNITS
2-BEDROOM UNITS:	45 UNITS
EVENT BUILDING:	100 SEAT RESTAURANT
WELLNESS CENTER:	4 RESTROOMS
ART GALLERY:	2 RESTROOMS
MOTORCYCLE/CAR DISPLAY & SHOP:	2 RESTROOMS
<b>PHASE 3:</b>	
1-BEDROOM UNITS:	8 UNITS
2-BEDROOM UNITS:	117 UNITS
EQUESTRIAN BARN:	50 SEAT RESTAURANT & 1 GUEST SUITE
PAVILION:	50 SEAT RESTAURANT
RV SPACES:	24 SPACES
DAIRY BARN:	1 RESTROOM

JOB NO.: 2017300  
 DWG NAME: homehoe-sha.dwg  
 DATE: AUGUST 4, 2017

REV:	DATE:	BY:
1	8/29/17	RMG
2	9/28/17	RMG
3	-	-
4	-	-

**SHEET**  
 3 OF 4

