



AGENDA
GREER PLANNING COMMISSION
301 E. Poinsett St, Greer, SC 29651 Hall A
January 14, 2019 @ 6:30 PM
Public Hearing and Business Meeting

Anyone who requires an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a program, service or activity of the City of Greer Planning Division, should contact Ruthie Helms, ADA Coordinator at (864) 848-5397 or City Administrator (864) 848-5387 as soon as possible, but no later than 48 hours before the scheduled event.

I. ADVISORY MEETING

- A. Call to Order
- B. Minutes

II. PUBLIC HEARING

- A. Public Hearing Slides

III. ELECTION OF OFFICER

- A. Election of Officers

IV. BUSINESS MEETING

- A. Business Meeting Documents

V. OLD BUSINESS

VI. NEW BUSINESS

VII. EXECUTIVE SESSION

VIII. ADJOURN

Category Number: I.
Item Number: A.



AGENDA
GREER PLANNING COMMISSION
1/14/2019

Call to Order

Category Number: I.
Item Number: B.



AGENDA
GREER PLANNING COMMISSION
1/14/2019

Minutes

ATTACHMENTS:

Description	Upload Date	Type
📎 November Minutes	1/7/2019	Cover Memo



City of Greer

Planning Commission Minutes

November 19, 2018

Members Present: Judy Jones, Vice Chairman
John Holland
Walden Jones
William Lavender
Brian Martin

Member(s) Absent: Mark Hopper, Chairman
Suzanne Traenkle

Staff Present: Kelli McCormick, Planning Manager
Brandon McMahan, Zoning Coordinator
Brandy Blake, Development Coordinator

I. Call to Order

Ms. Jones called the meeting to order and read the opening remarks to begin the meeting.

Mr. Martin stated he would recuse himself from SUB 2018-30 Suber Branch Preliminary Plat Review.

II. Public Forum

Ms. Jones read a brief statement about the public forum portion of the meeting. There was no one to speak for public forum.

III. Minutes of the Planning Commission Meeting

ACTION – Mr. Holland made a motion to approve the minutes from the October 15, 2018 Planning Commission Meeting. Mr. Lavender seconded the motion. The motion carried with a vote of 4 to 0. Mr. Martin abstained from the vote. Mr. Hopper and Ms. Traenkle were absent from the vote.

IV. Public Hearing

Ms. Jones read a brief statement about conducting the public hearing section of the meeting.

A. AN 2018-13

Ms. Jones opened the public hearing for AN 2018-13.

Ms. McCormick gave the basic information for this request.

There was no one present to speak for or against this request as such, Ms. Jones closed the public hearing.

B. AN 2018-17

Ms. Jones opened the public hearing for AN 2018-17.

Ms. McCormick gave the basic information for this request.

There was no one present to speak for or against this request as such, Ms. Jones closed the public hearing.

C. RZ 2018-15

Ms. Jones opened the public hearing for RZ 2018-15.

Ms. McCormick gave the basic information for this request.

There was no one present to speak for or against this request as such, Ms. Jones closed the public hearing.

D. RZ 2018-16

Ms. Jones opened the public hearing for RZ 2018-16.

Ms. McCormick gave the basic information for this request.

There was no one present to speak for or against this request as such, Ms. Jones closed the public hearing.

E. RZ 2018-17

Ms. Jones opened the public hearing for RZ 2018-17.

Ms. McCormick gave the basic information for this request.

There was no one present to speak for or against this request as such, Ms. Jones closed the public hearing.

V. Old Business

There was no old business.

VI. New Business

A. AN 2018-13

Ms. Jones read a brief statement about conducting the business meeting and opened the business meeting for AN 2018-13.

Ms. McCormick presented the staff analysis and recommendation for the request.

Mr. Martin asked staffed to identify other properties with R-12 zoning near the request. Staff used the zoning map to identify those areas.

Paul Harrison, Bluewater Civil Design, advised the developer intended to use the property for a single family detached subdivision.

Staff advised that the preliminary plat for any development would be brought before the Planning Commission after submittal.

ACTION - Mr. Jones made a motion to approve AN 2018-13. With no second, the motion failed.

The Commission, staff and the applicant discussed different density and zoning options.

ACTION - After a detailed discussion of density in the area, Mr. Lavender made a motion to amend the request to R-12 zoning classification for AN 2018-13 in order to better fit the surrounding area. Mr. Martin seconded the motion. The motion carried with a vote of 5 to 0.

Mr. Martin made a motion to approve the amended request for AN 2018-13 for R-12 zoning. Mr. Holland seconded the motion. The motion carried with a vote on 5 to 0.

B. AN 2018-17

Ms. Jones opened the business meeting for AN 2018-17.

Ms. McCormick presented the staff analysis and recommendation for the request.

Daniel Esteban, Alliance Consulting Engineers, representing the applicant, gave a brief overview of the request.

ACTION - Mr. Lavender made a motion to approve AN 2018-17. Mr. Holland seconded the motion. The motion carried with a vote of 5 to 0.

C. RZ 2018-15

Ms. Jones opened the business meeting for RZ 2018-15.

Ms. McCormick presented the staff analysis and recommendation for the request.

Michael Grasso, applicant for the request, gave a brief history of the zoning and a brief overview of the request.

ACTION - Mr. Martin made a motion to approve RZ 2018-15. Mr. Lavender seconded the motion. The motion carried with a vote of 5 to 0.

D. RZ 2018-16

Ms. Jones opened the business meeting for RZ 2018-16.

Ms. McCormick presented the staff analysis and recommendation for the request.

Douglas Fowler, applicant for the request, gave a brief history and overview of the request.

ACTION - Mr. Lavender made a motion to approve RZ 2018-16. Mr. Jones seconded the motion. The motion carried with a vote of 5 to 0.

E. RZ 2018-17

Ms. Jones opened the business meeting for RZ 2018-17.

Ms. McCormick presented the staff analysis and recommendation for the request.

Brock Fankhauser, applicant with NewStyle Communities, gave a brief overview of the request.

ACTION - Mr. Holland made a motion to approve RZ 2018-17. Mr. Lavender seconded the motion. The motion carried with a vote of 5 to 0.

F. SUB 2018-29 The Courtyards at Greer Preliminary Plat Review

Ms. Jones opened the business meeting for SUB 2018-29.

Ms. McCormick presented the information for the preliminary plat and staff's recommendation.

Brock Fankhauser, applicant with NewStyle Communities, gave a brief overview of the request.

Mr. Martin started a discussion with staff and the Commission to require a buffer between the two proposed phases of development.

ACTION – After a brief discussion about buffering the two phases of development, Mr. Martin made a motion to approve SUB 2018-18 with the following requirements: that a 25ft buffer be shown along the northern boundary line separating phase 1 and phase 2 of the development, until such time as the preliminary plat for phase 2 is approved, where that buffer can then be removed. Mr. Lavender seconded the motion. The motion carried with a vote of 5 to 0.

G. SUB 2018-18 Colt's Neck FDP

Ms. Jones opened the business meeting for SUB 2018-18.

Ms. McCormick presented the information for the Final Development Plan and staff's recommendation.

Paul Harrison, Bluewater Civil Design, gave a brief history and overview of the request

ACTION - Mr. Holland made a motion to approve SUB 2018-18 with the following requirements: that a 6ft screening or landscaping of any combination of a hedge, trees, fencing, or applicable materials must be added along the top three contiguous properties on the Northeast corner of the site. Mr. Lavender seconded the motion. The motion carried with a vote of 5 to 0.

H. SUB 2018-30 Suber Branch Preliminary Plat Review

Mr. Martin recused himself from SUB 2018-30 and stepped down from the panel.

Ms. Jones opened the business meeting for SUB 2018-30.

Ms. McCormick presented the information for the preliminary plat and staff's recommendation.

Jamie McCutchen with Davis and Floyd, applicant for the request, was available to answer any questions from the Commission.

ACTION - Mr. Lavender made a motion to approve SUB 2018-30. Mr. Jones seconded the motion. The motion carried with a vote of 4 to 0. Brian Martin recused himself from the vote.

Brian Martin returned to the panel.

I. 2019 Calendar Dates

ACTION – Mr. Holland made a motion to approve the proposed 2019 calendar dates. Mr. Jones seconded the motion. The motion carried with a vote of 5 to 0.

VII. Other Business

Planning and Zoning Report

Ms. McCormick updated the Commission on the training opportunity being held at City Hall for the members to receive their required credits and plans for the training during the 2019 year.

VIII. Executive Session

There was no executive session.

IX. Adjourn

There being no other business to discuss, Mr. Lavender made a motion to adjourn. Mr. Holland seconded the motion. The meeting adjourned at 7:50pm.

Category Number: II.
Item Number: A.



AGENDA
GREER PLANNING COMMISSION
1/14/2019

Public Hearing Slides

ATTACHMENTS:

Description	Upload Date	Type
☐ Public Hearing Slides	1/7/2019	Cover Memo

Planning Commission City of Greer

January 14, 2019

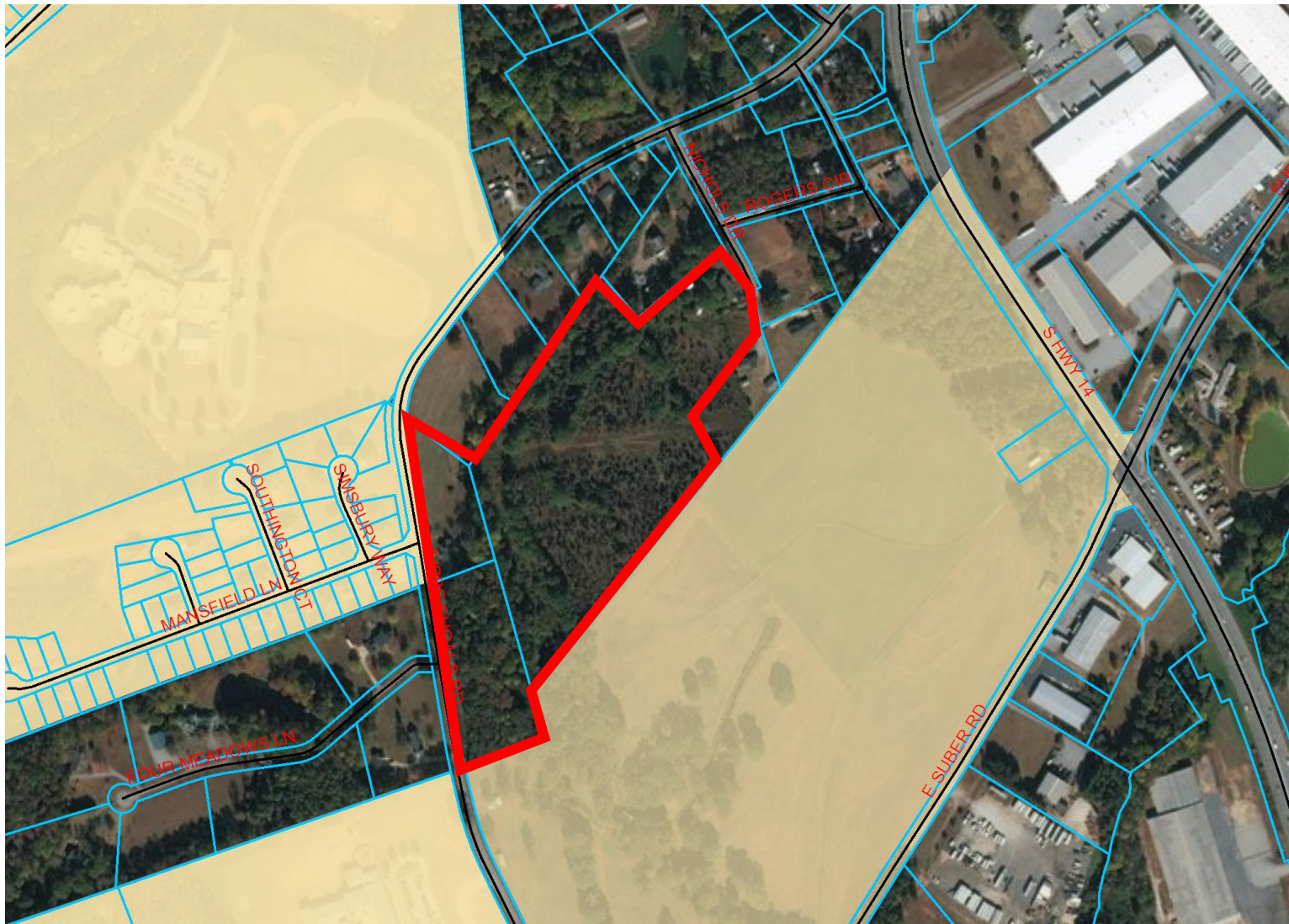
Public Hearing



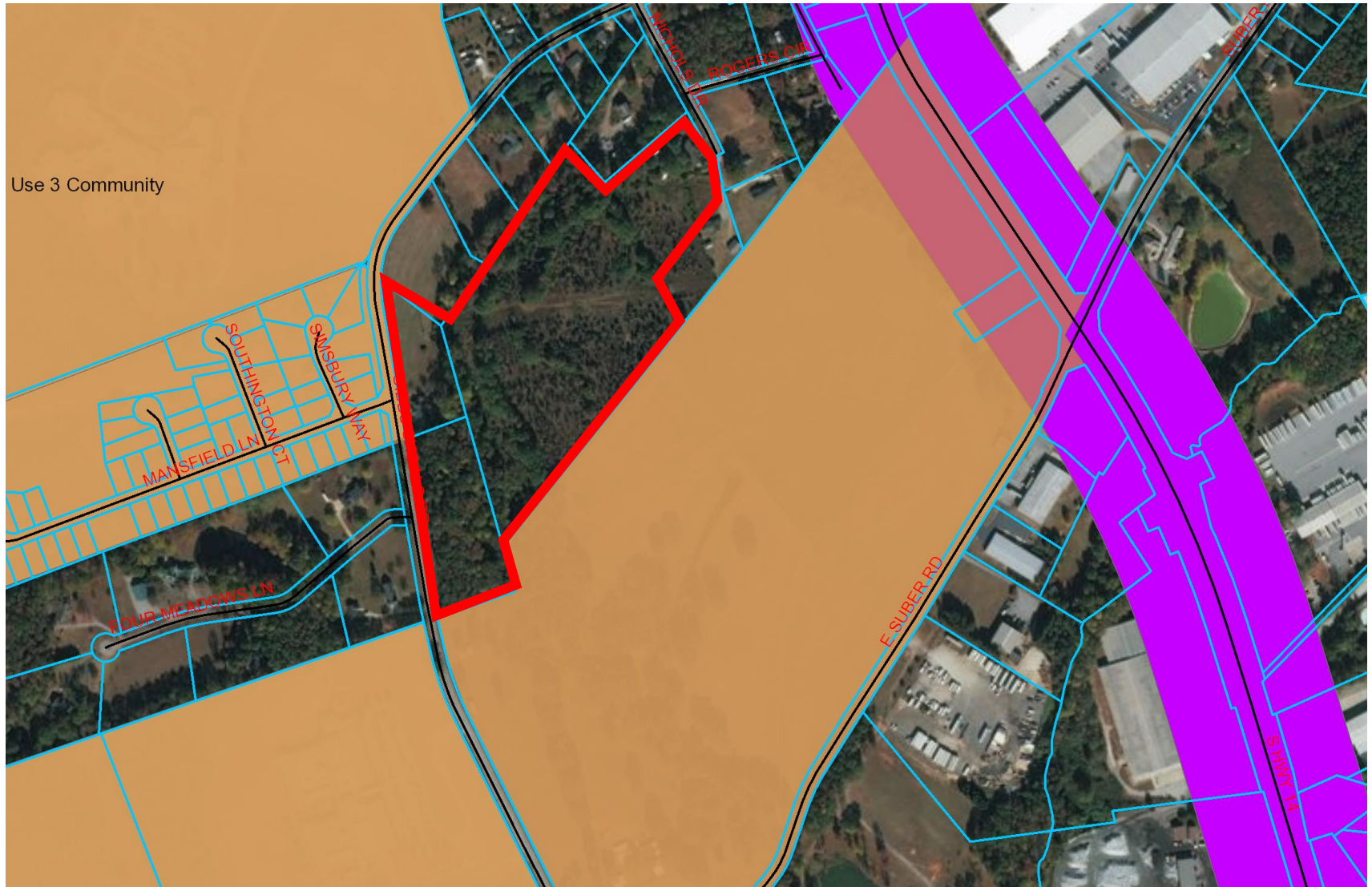
DOCKET NUMBER: AN 2019-02
APPLICANT: Jonathan Nett
ADDRESS: 122 Nichols Dr, 1689 Gibbs Shoals Rd, Gibbs
Shoals Rd
PARCEL ID NUMBER: 0528030102000, 0535030101501,
0535030101500
EXISTING ZONING: R-S, Residential Suburban (Greenville County)
REQUEST: Annex and zone DRD, Design Review District

DOCKET NUMBER:

AN 2019-02



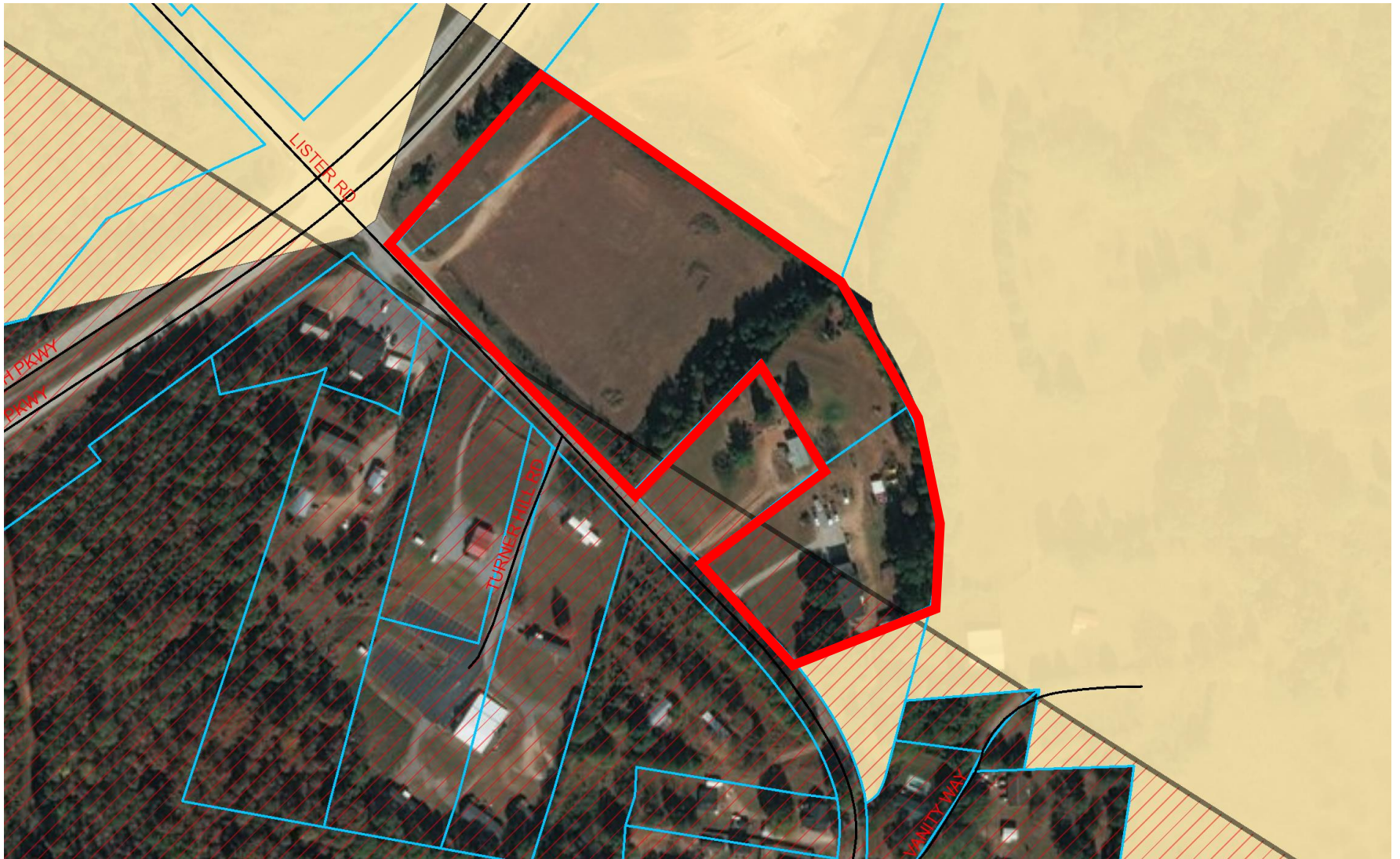


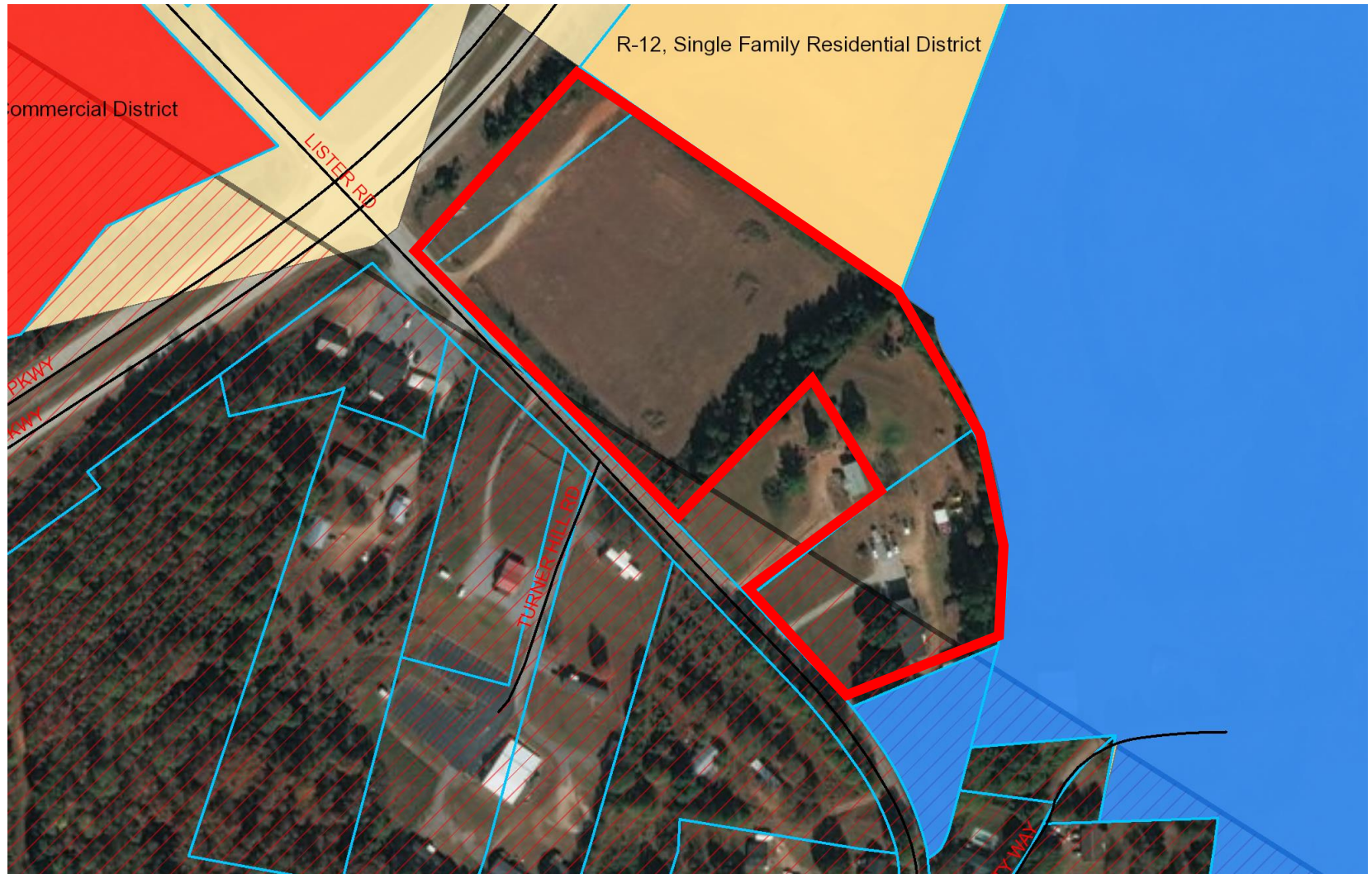


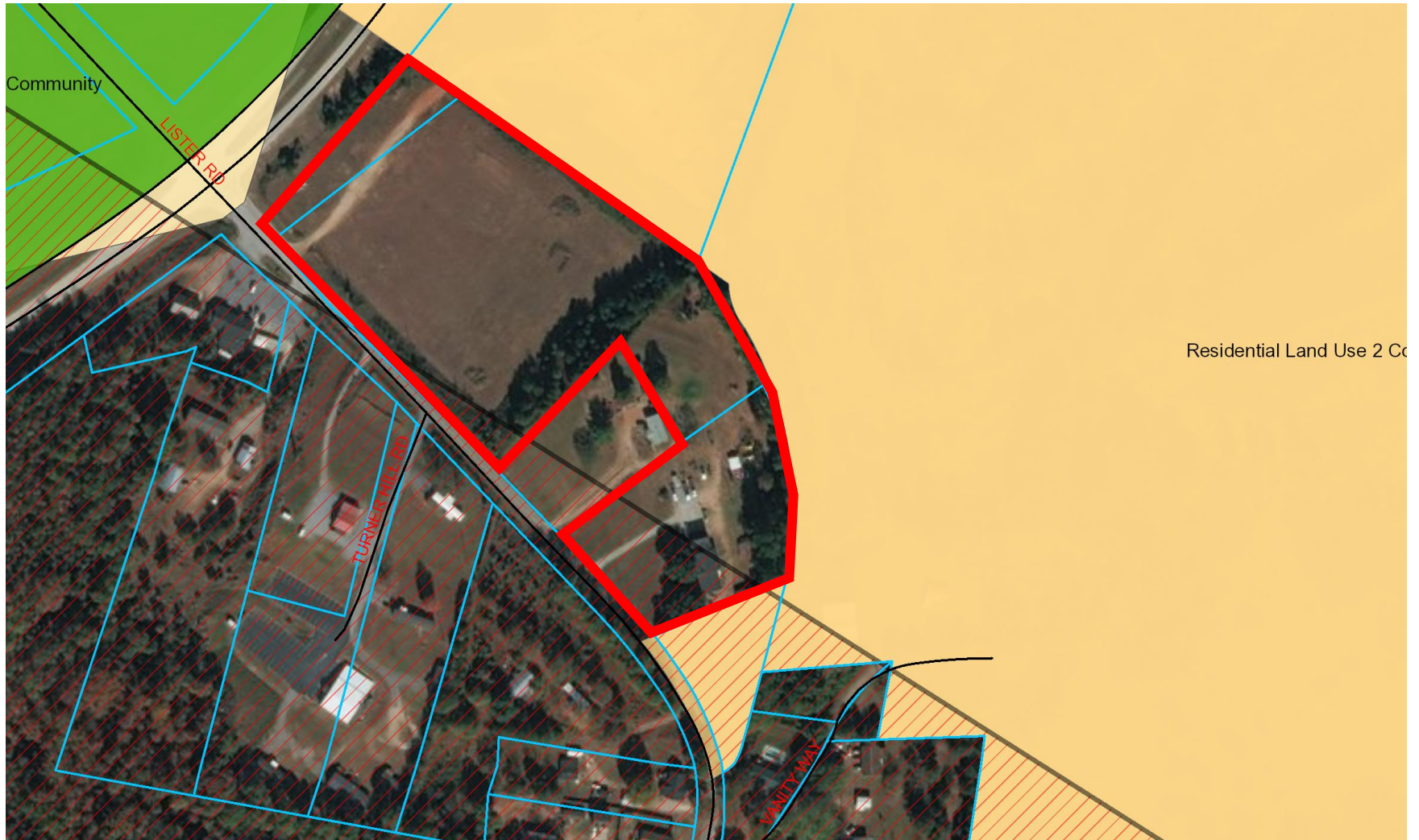
DOCKET NUMBER: AN 2019-02



DOCKET NUMBER: AN 2019-03
APPLICANT: Clarius Partners, LLC
ADDRESS: 228 Lister Rd, 0 Lister Rd, 0 Lister Rd
PARCEL ID NUMBER: 5-14-00-039.01, 5-14-00-039.02,
5-14-00-039.03
EXISTING ZONING: Unzoned (Spartanburg County)
REQUEST: Annex and zone to I-1, Industrial



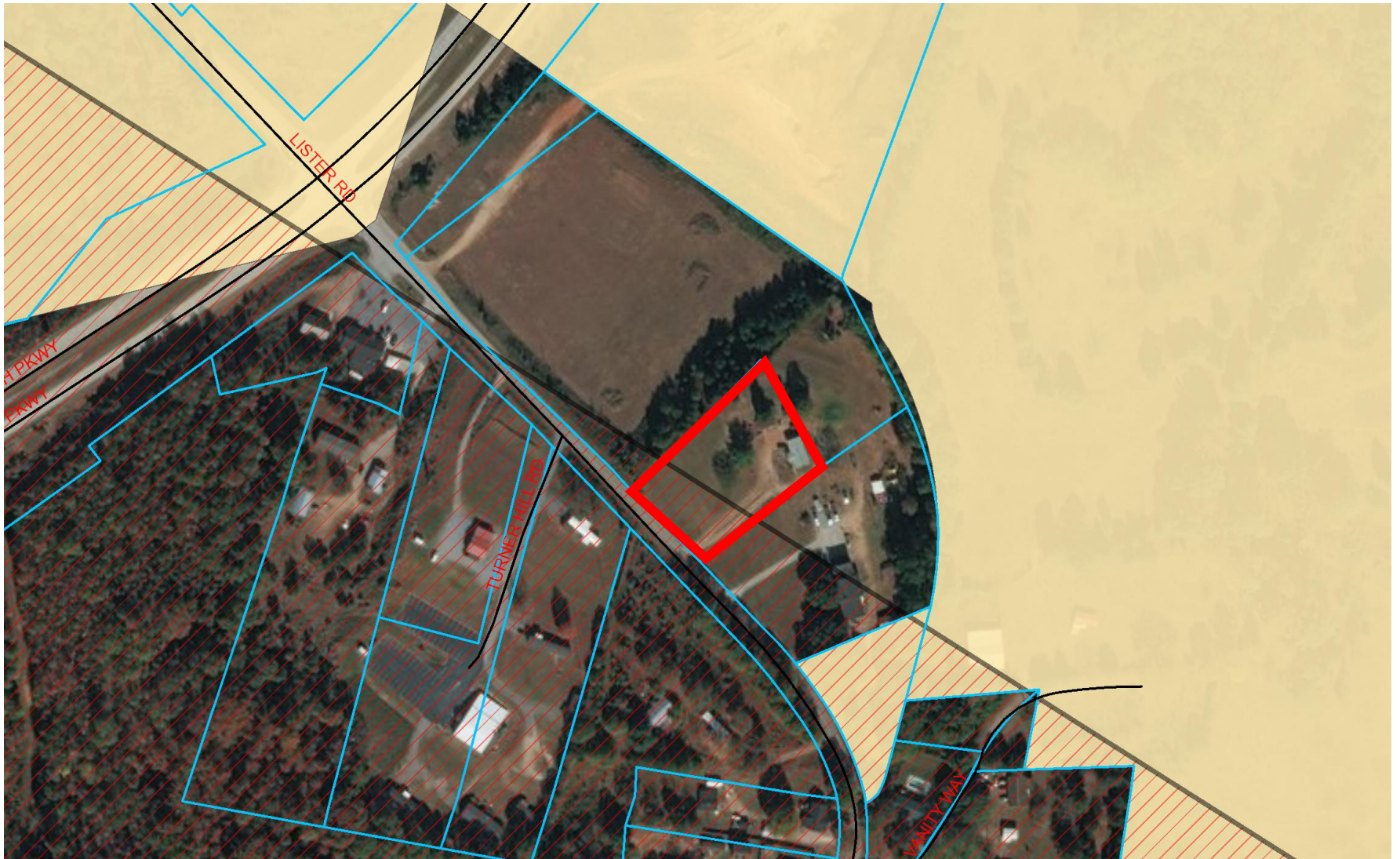


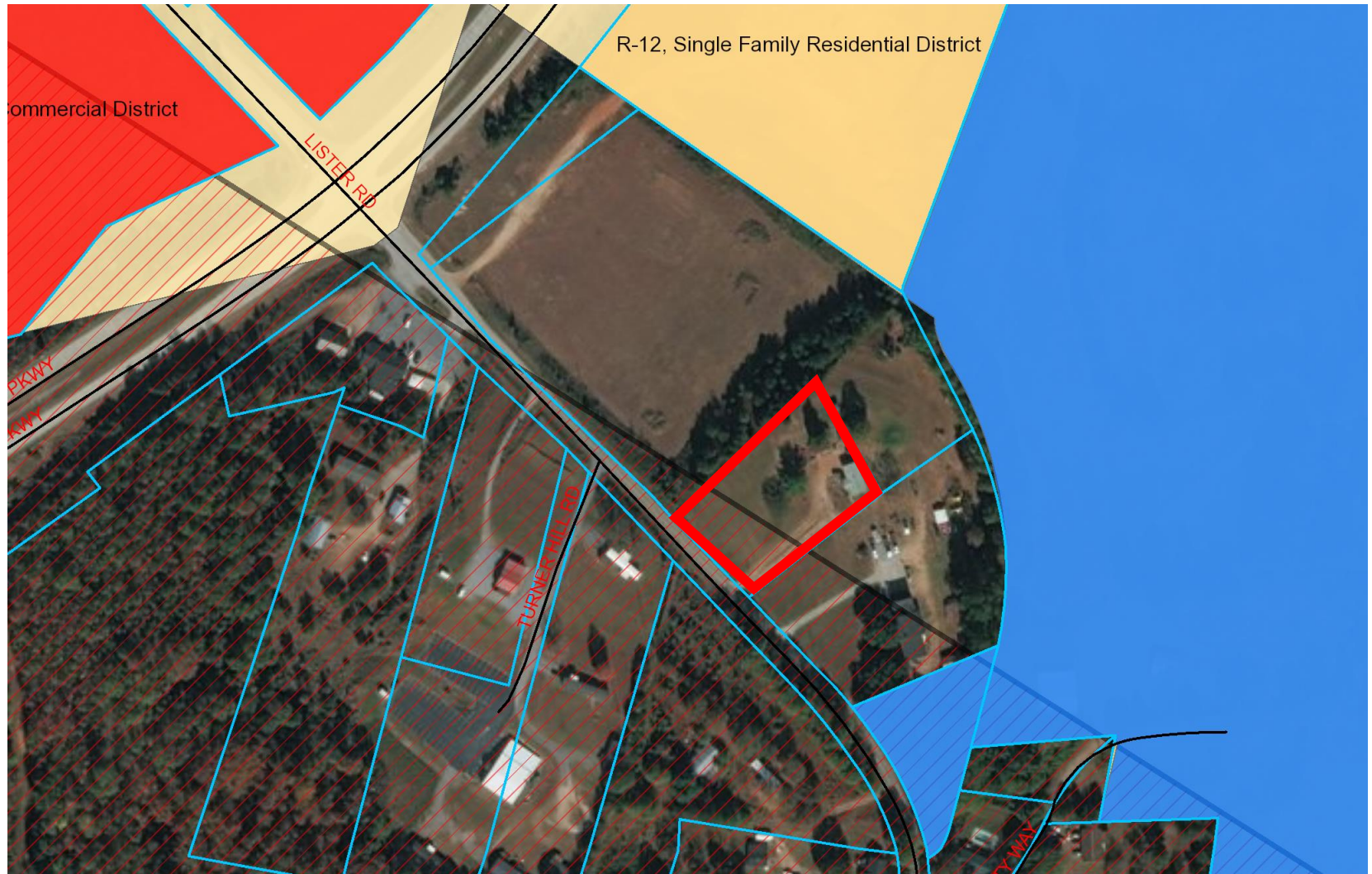


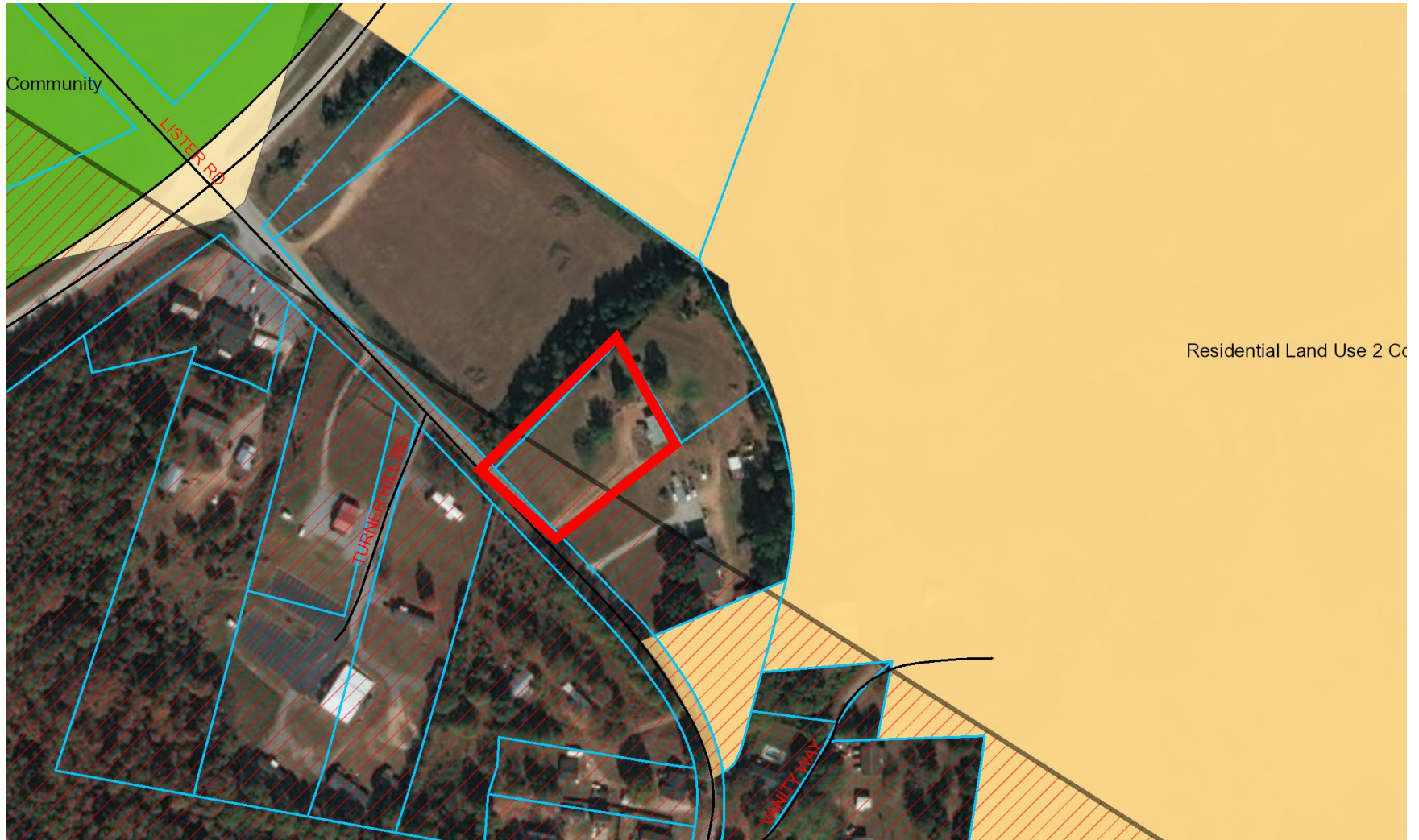
DOCKET NUMBER: AN 2019-03



DOCKET NUMBER:	AN 2019-04
APPLICANT:	Clarius Partners, LLC
ADDRESS:	234 Lister Rd
PARCEL ID NUMBER:	5-14-00-041.00
EXISTING ZONING:	Unzoned (Spartanburg County)
REQUEST:	Annex and zone I-1, Industrial



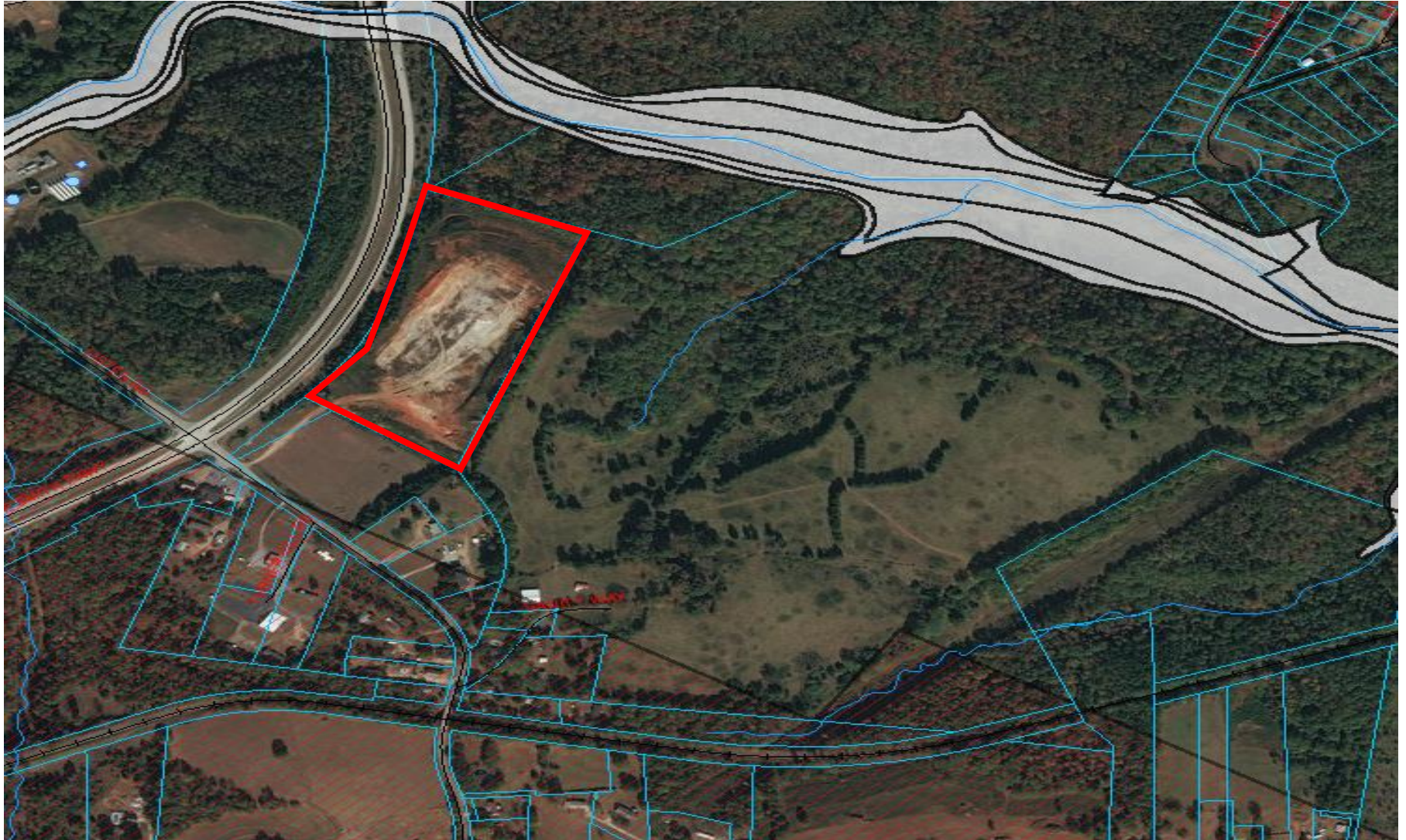


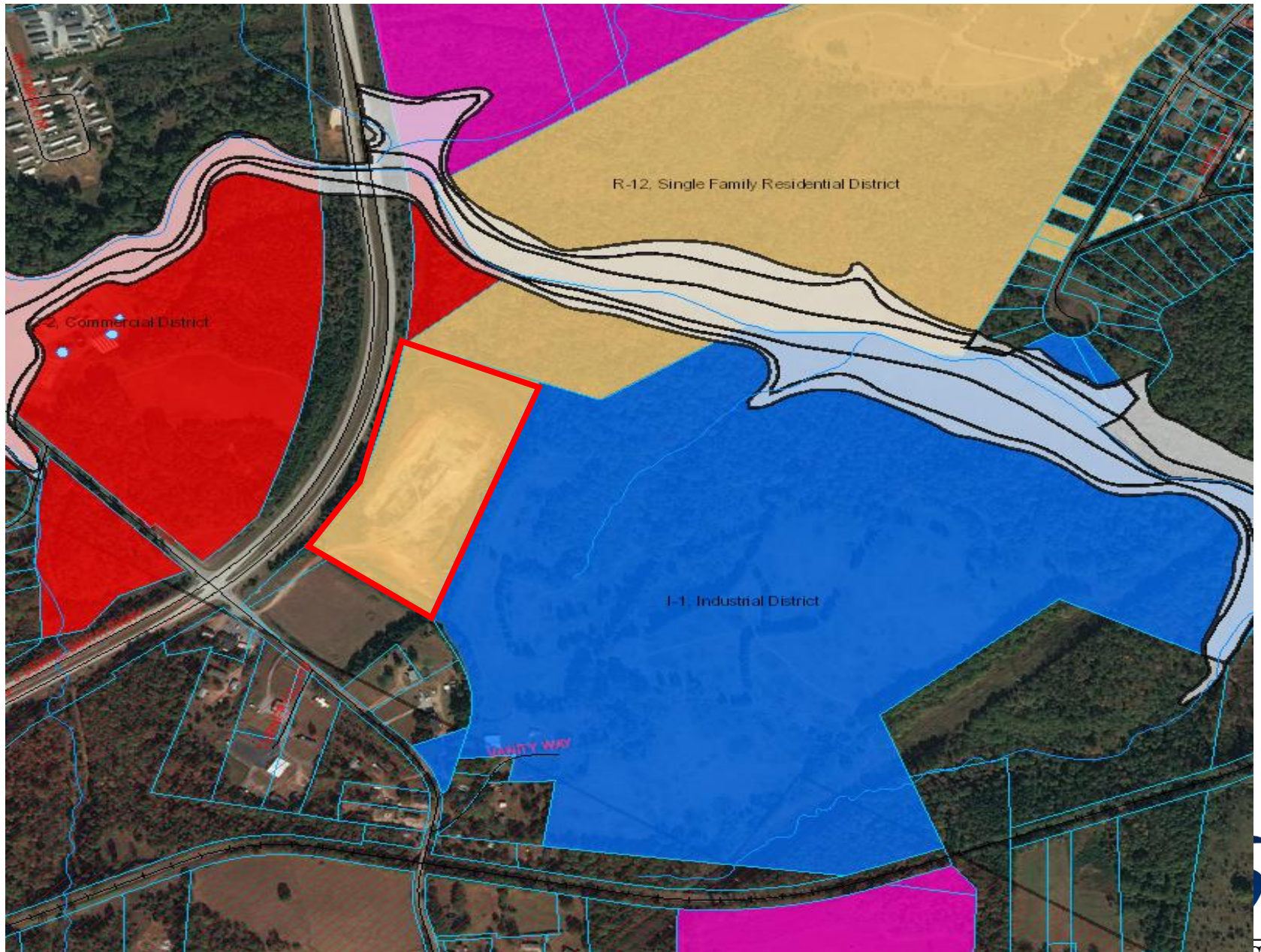


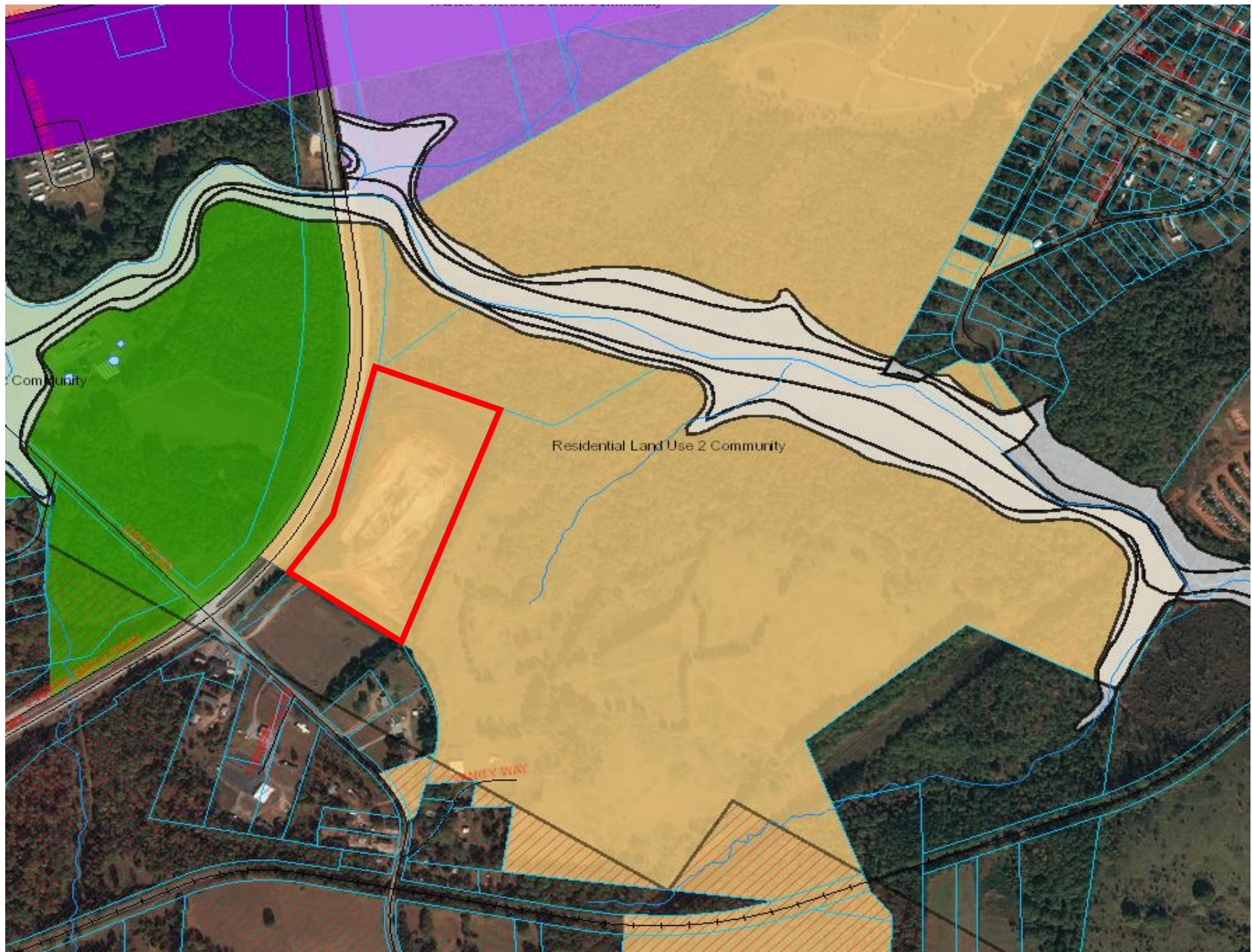
DOCKET NUMBER: AN 2019-04



DOCKET NUMBER:	RZ 2019-01
APPLICANT:	Paul Brannon and Linda Lister
ADDRESS:	Hwy 80 near Lister Rd
PARCEL ID NUMBER:	5-14-00-040.00
EXISTING ZONING:	R-12, Single Family Residential
REQUEST:	Rezone to I-1, Industrial District







Future Land Use Map

DOCKET NUMBER: RZ 2019-01

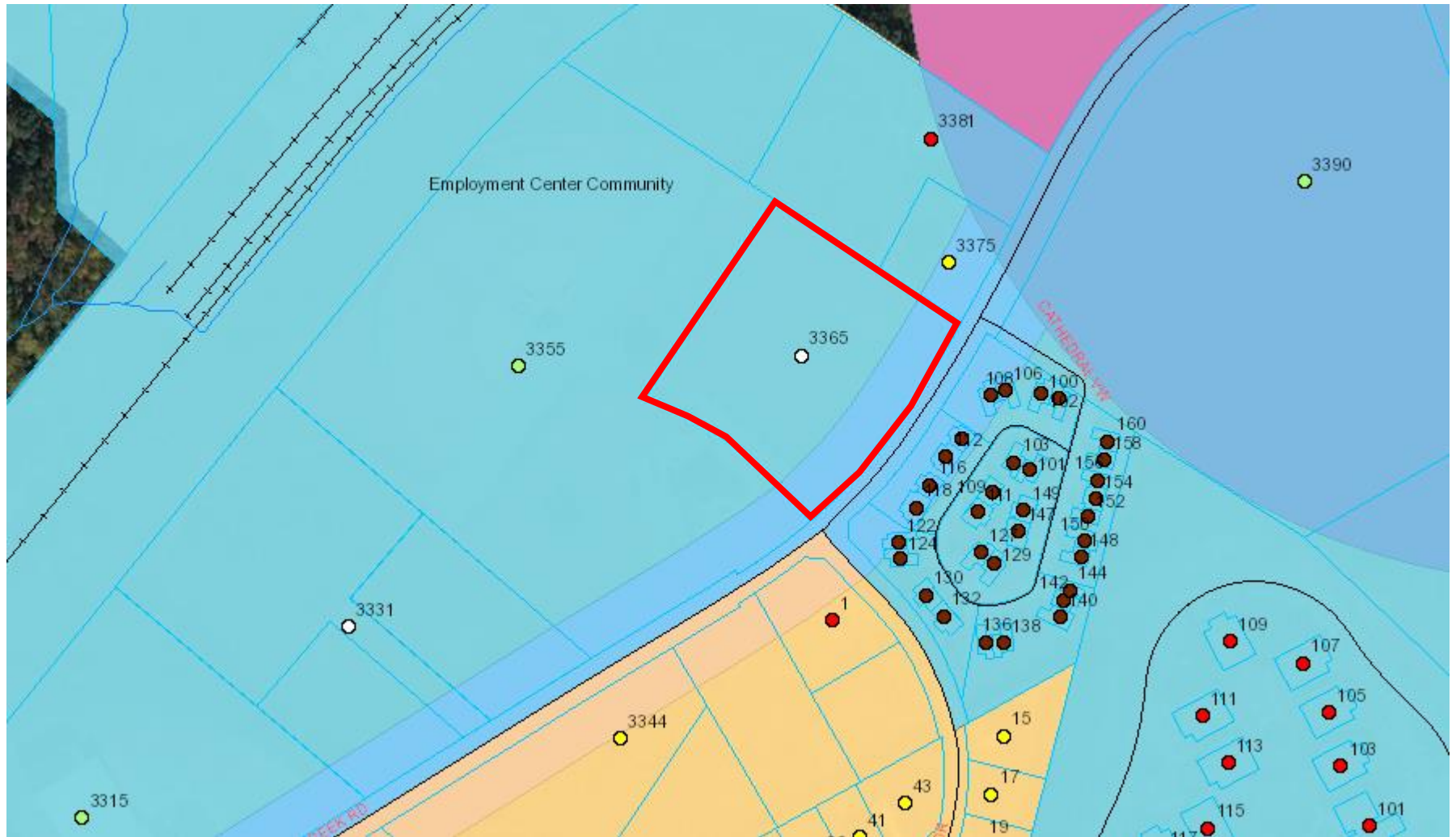


DOCKET NUMBER:	RZ 2019-02
APPLICANT:	Praise Cathedral Church of God
ADDRESS:	Brushy Creek Rd
PARCEL ID NUMBER:	G006000200203
EXISTING ZONING:	R-M2, Multi-Family Residential
REQUEST:	Rezone to S-1, Service District

DOCKET NUMBER: RZ 2019-02







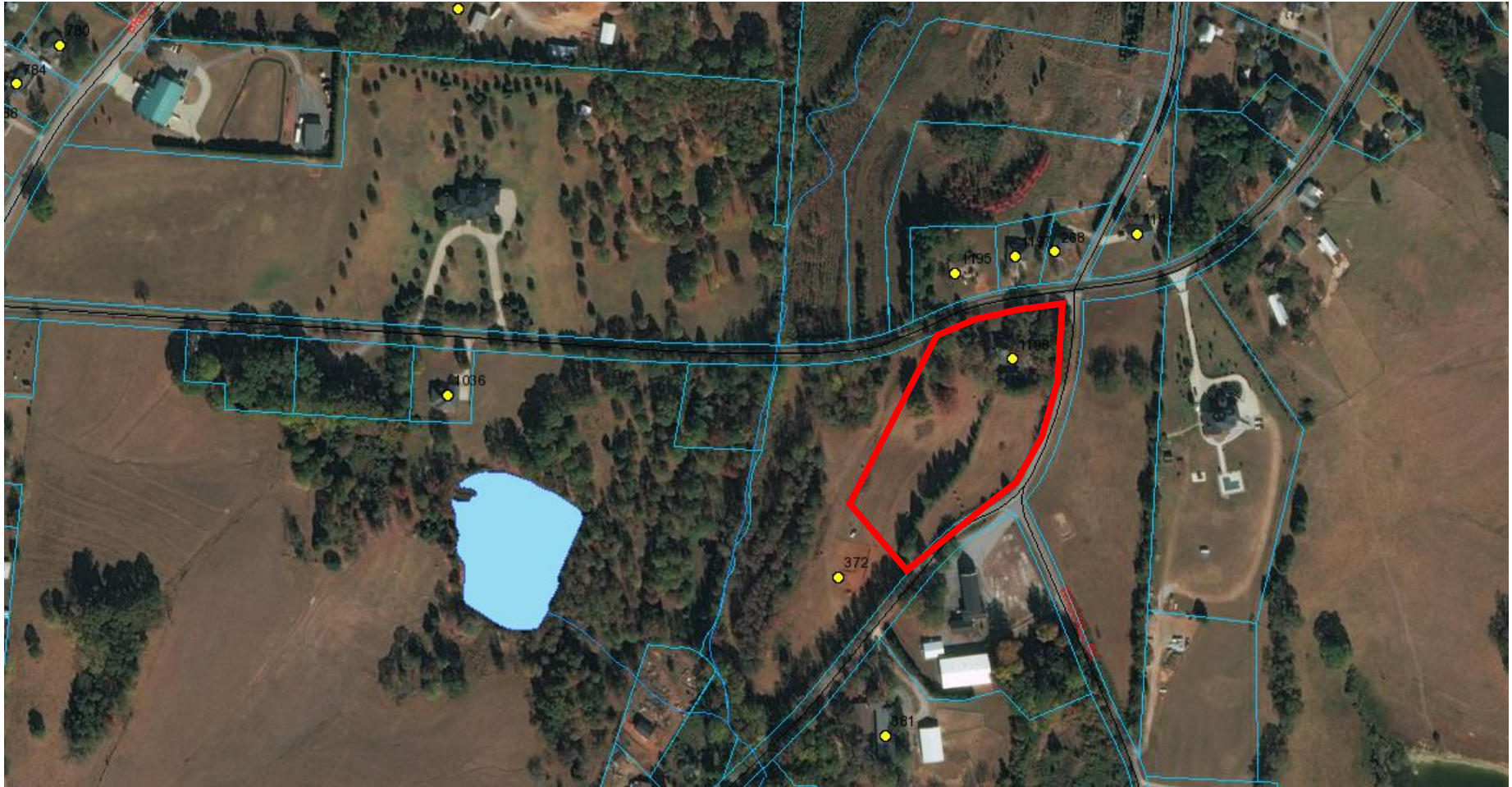
Future Land Use Map

DOCKET NUMBER: RZ 2019-02

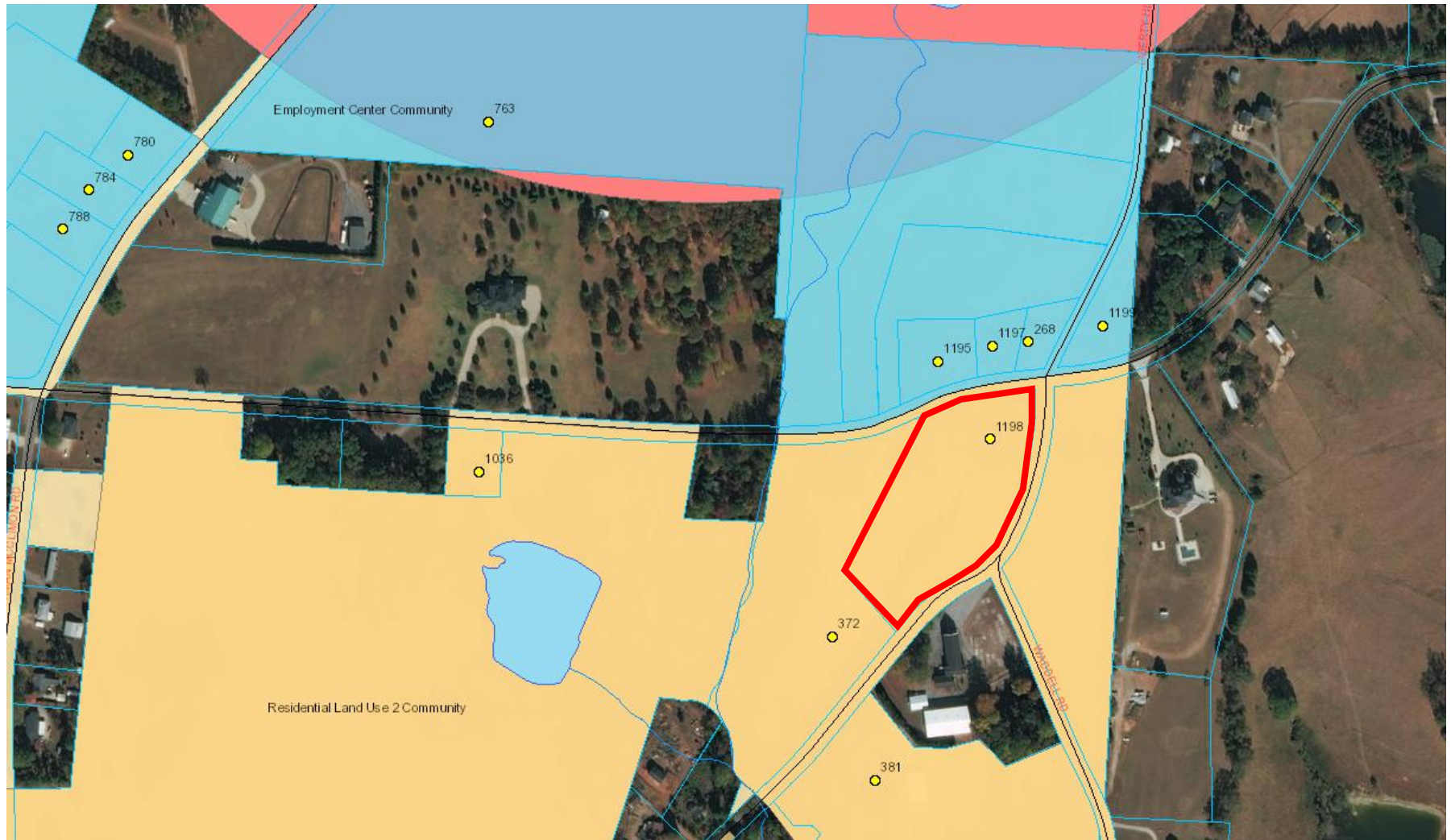


DOCKET NUMBER:	RZ 2019-03
APPLICANT:	Harold and Susan Johnson
ADDRESS:	1198 Abner Creek Rd
PARCEL ID NUMBER:	5-28-00-027.00
EXISTING ZONING:	R-S, Residential Suburban
REQUEST:	Rezone to DRD, Design Review District

DOCKET NUMBER: RZ 2019-03







Future Land Use Map

DOCKET NUMBER: RZ 2019-03



DOCKET NUMBER: RZ 2019-03

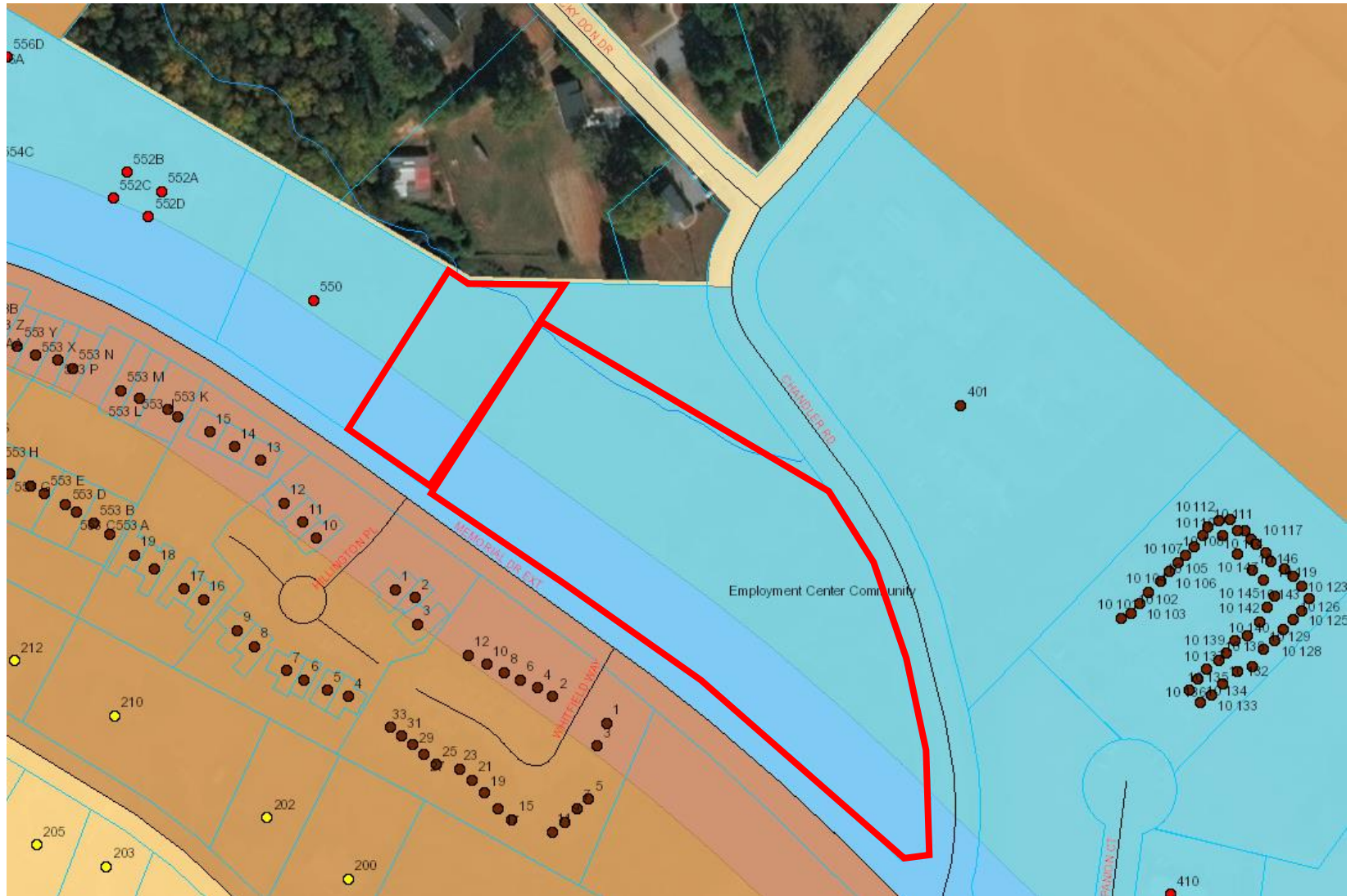


DOCKET NUMBER:	RZ 2019-04
APPLICANT:	Deep River South, LLC
ADDRESS:	Intersection of Chandler Rd and Memorial Dr Ext
PARCEL ID NUMBER:	G019000102104 and 103
EXISTING ZONING:	R-M2, Multi-Family Residential
REQUEST:	DRD, Design Review District

RZ 2019-04







Future Land Use Map

DOCKET NUMBER: RZ 2019-04



Category Number: III.
Item Number: A.



AGENDA
GREER PLANNING COMMISSION
1/14/2019

Election of Officers



AGENDA
GREER PLANNING COMMISSION
1/14/2019

Business Meeting Documents

ATTACHMENTS:

Description	Upload Date	Type
❑ Business Meeting Slides	1/7/2019	Cover Memo
❑ Blaize Ridge Statement of Intent	1/7/2019	Cover Memo
❑ Blaize Ridge Site Plan	1/7/2019	Cover Memo
❑ Greenville Student Success Academy Statement Of Intent	1/7/2019	Cover Memo
❑ Greenville Student Success Academy Site Plan	1/7/2019	Cover Memo
❑ Greenville Student Success Academy Traffic Study	1/7/2019	Cover Memo
❑ Greenville Student Success Academy Parking Plan	1/7/2019	Cover Memo
❑ Chandler Park Statement of Intent	1/7/2019	Cover Memo
❑ Chandler Park Site Plan	1/7/2019	Cover Memo
❑ Overton Park Revised Preliminary Plat	1/7/2019	Cover Memo

Planning Commission City of Greer

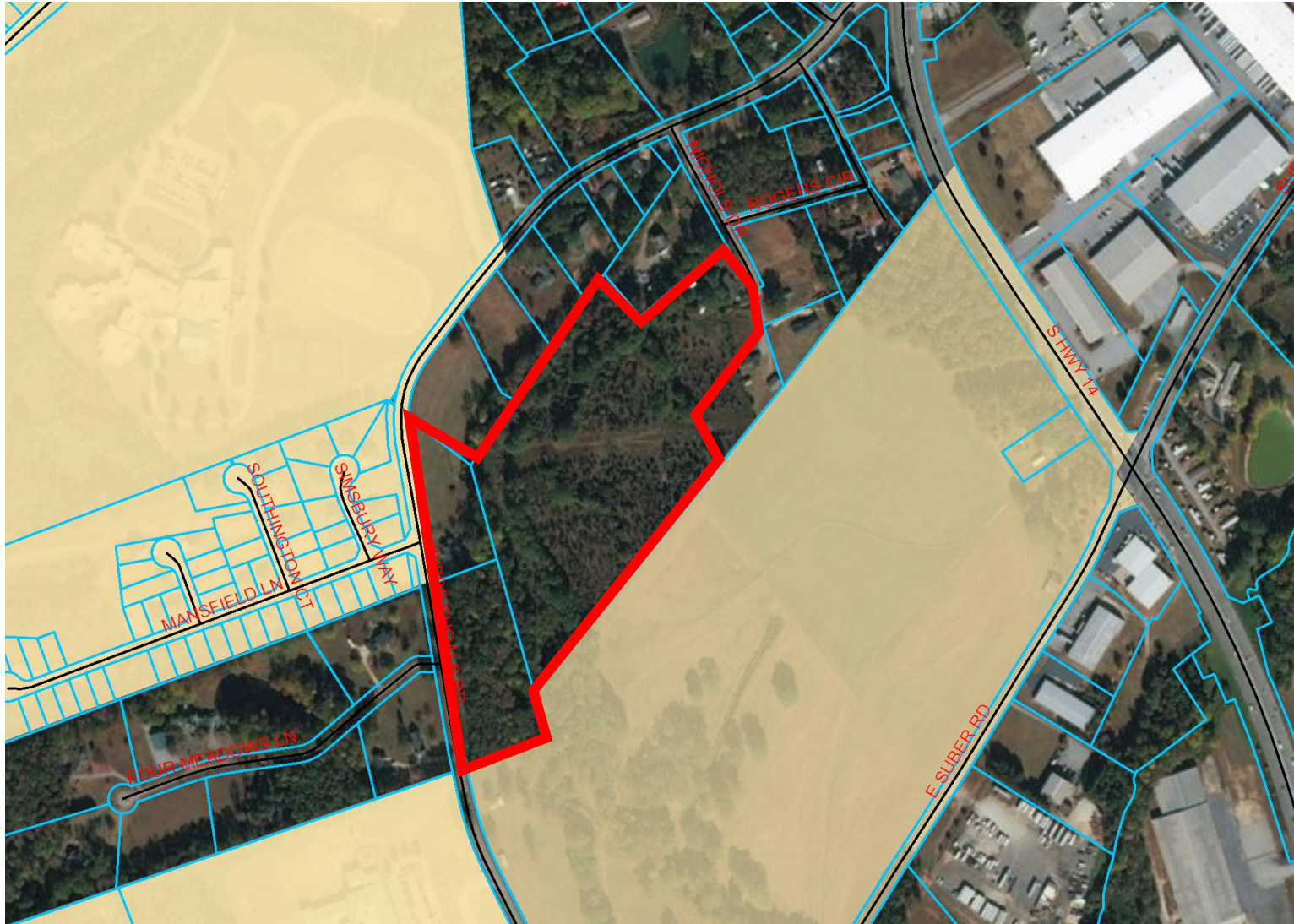
January 14, 2019

Business Meeting

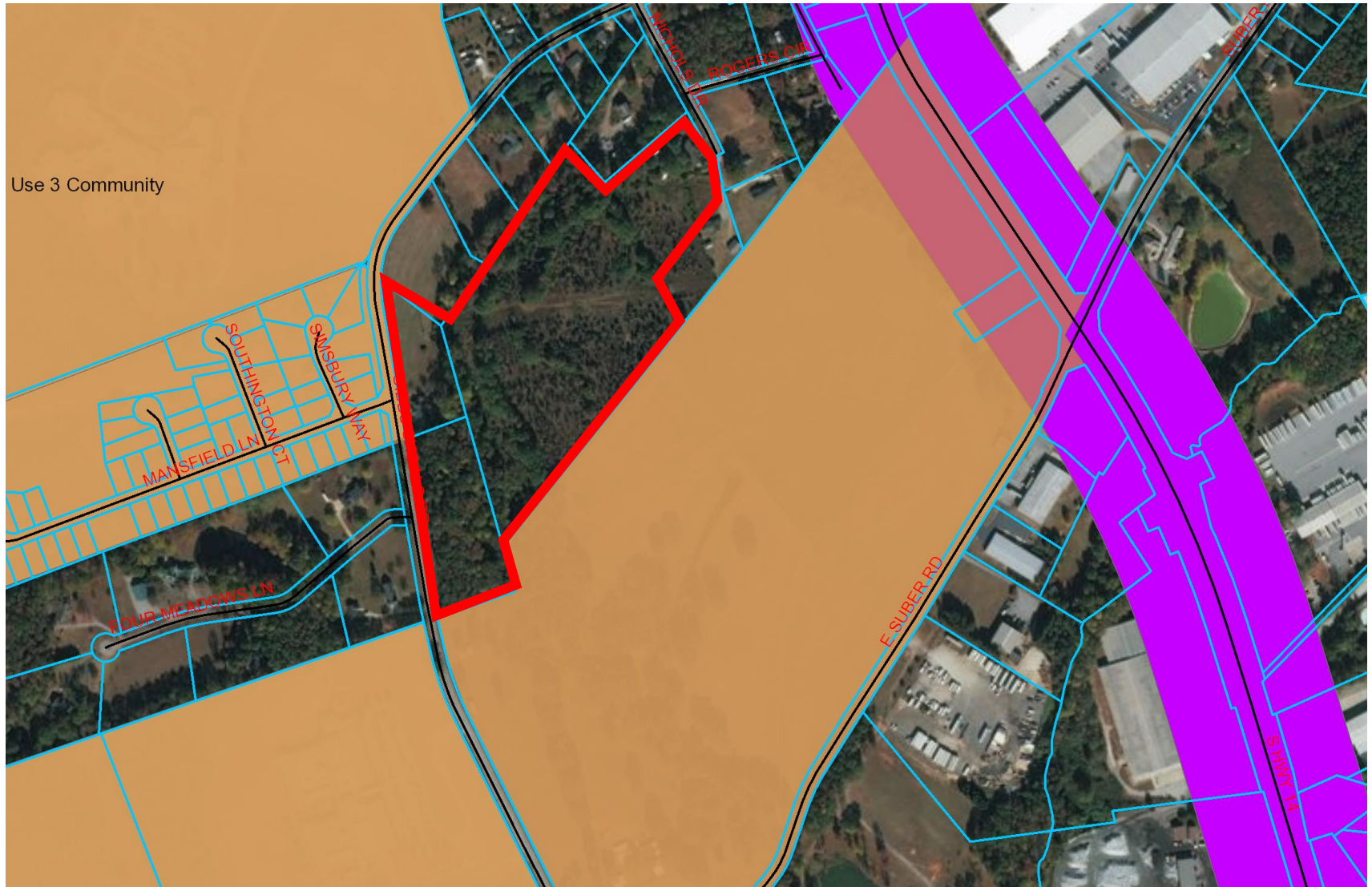


DOCKET NUMBER: AN 2019-02
APPLICANT: Jonathan Nett
ADDRESS: 122 Nichols Dr, 1689 Gibbs Shoals Rd, Gibbs
Shoals Rd
PARCEL ID NUMBER: 0528030102000, 0535030101501,
0535030101500
EXISTING ZONING: R-S, Residential Suburban (Greenville County)
REQUEST: Annex and zone DRD, Design Review District

DOCKET NUMBER: AN 2019-02







DOCKET NUMBER: AN 2019-02



DOCKET NUMBER: AN 2019-02

AN 2019-02 is an annexation and zoning request for three parcels located on Nichols Drive and Gibb Shoals Road. The request is to zone the parcels from R-S, Residential Suburban (Greenville County), to DRD, Design Review District, for the development of a neighborhood containing 38 townhomes and 47 single-family homes to be known as Blaize Ridge. The entrance is proposed to be located off Gibb Shoals Road with an emergency access on Nichols Drive. A 25' buffer is shown where the property is adjacent to existing single-family residential homes. In addition, there is a pedestrian connection and another vehicular emergency access shown to connect this development with Sudduth Farms to the adjacent south. The development also includes 6.86 acres of open space, or 31.94% of the site. The meaningful open space, as defined by the Concept Plan, is shown at 2.25 acres. This space would be otherwise developable or improved with pocket parks or other amenity features. In addition, the sidewalks are fully compliant with City requirements for internal and external sidewalks.

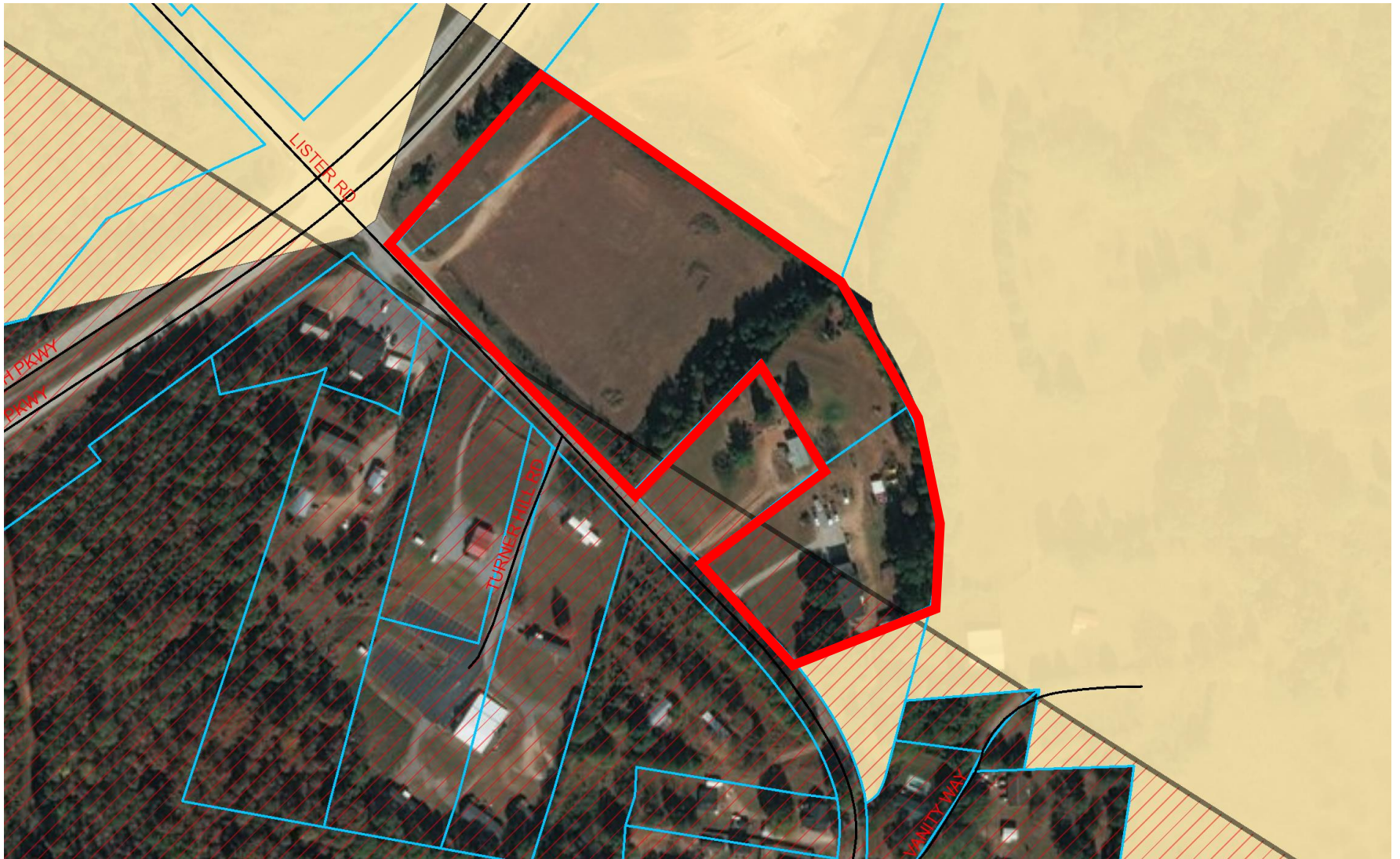
Surrounding land uses and zoning include:

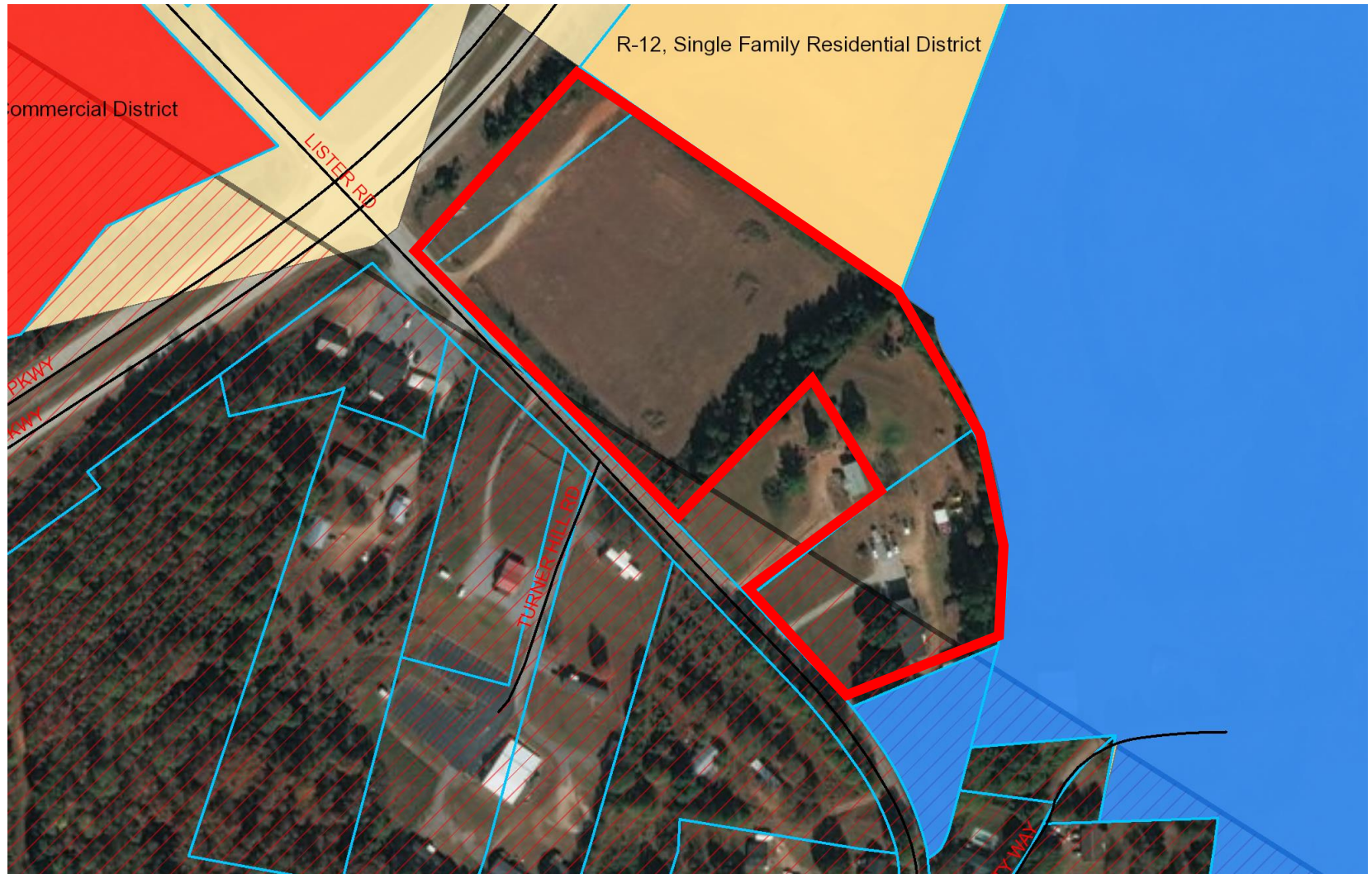
North:	R-S, Residential Suburban, single-family residences (Greenville County)
East:	R-S, Residential Suburban, single-family residences (Greenville County)
South:	DRD, Design Review District, Sudduth Farms mixed use development (City of Greer)
West:	R-12, Single-Family Residential, Westhaven subdivision (City of Greer)

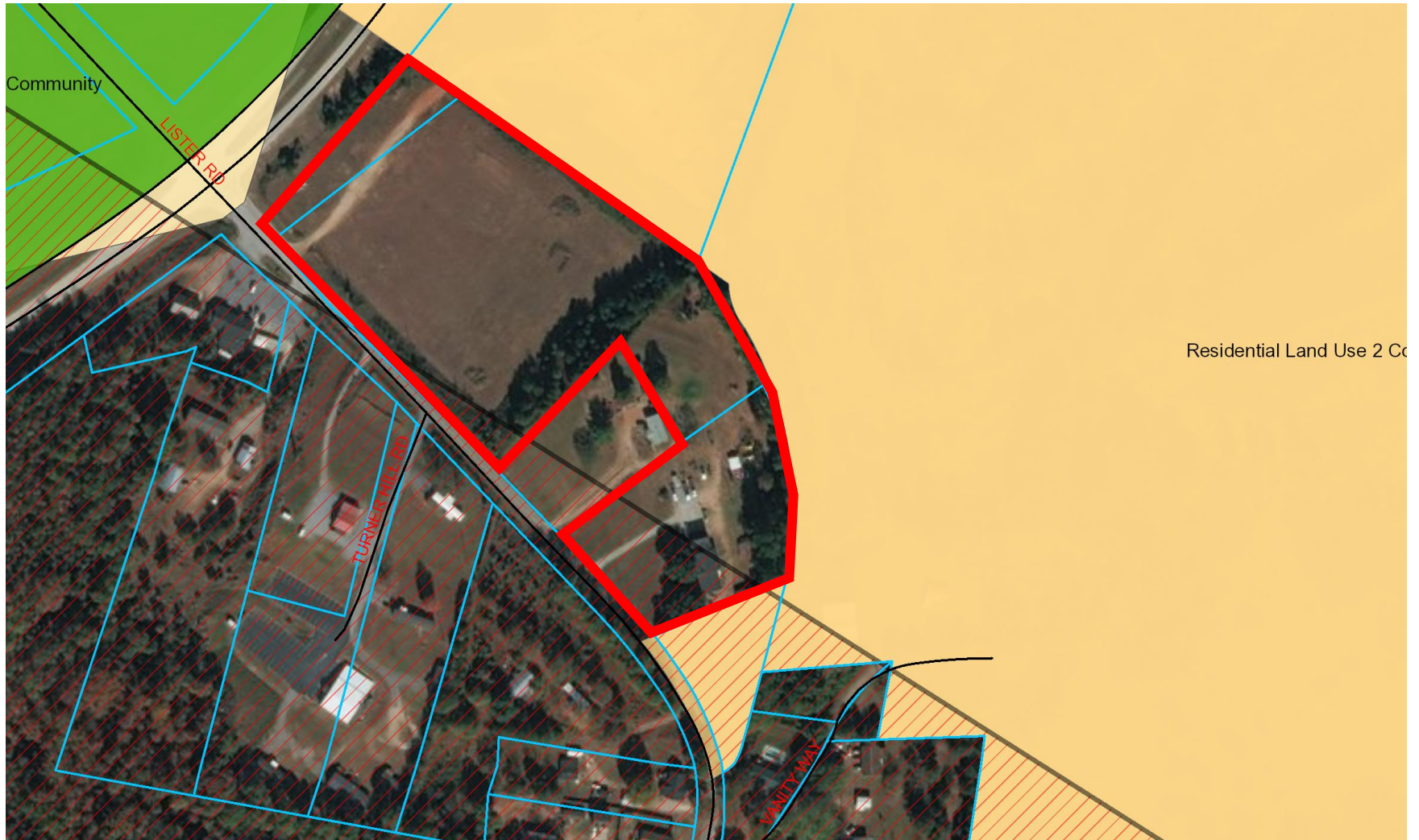
The land use map in the Comprehensive Plan defines the area adjacent to this property as a Residential Land Use 3 Community. This Community category is generally where most residential subdivisions located across the city may be found. This property has had a development proposal for two developments in the past year, but this new proposal combines those parcels and adds the remainder of the parcel on Nichols Drive to the development in order to accomplish several goals that were set forth in the original requirements from Planning Commission at the time of the original requests. Those requirements included: the developer installing screening along the eastern property line adjacent to the existing residential properties consisting of a combination of fence, berm, or greenery, to reach at least 6ft tall within the 25ft buffer area; along the southeast property line at least a 12.5ft buffer to be in coordination with the adjoining property to equal a minimum of 25ft buffer area or greater between the two developments. The new development plan accomplishes this goal with the exception of one break within the buffer for an emergency access onto Nichols Drive. With close access to a major highway (14) and connectivity to Sudduth Farms, this is an appropriate zoning request. In accordance with the guidelines set forth in this plan and after a detailed study of the area, Staff can support the proposed zoning request.

STAFF RECOMMENDATION: Approval

DOCKET NUMBER: AN 2019-03
APPLICANT: Clarius Partners, LLC
ADDRESS: 228 Lister Rd, 0 Lister Rd, 0 Lister Rd
PARCEL ID NUMBER: 5-14-00-039.01, 5-14-00-039.02,
5-14-00-039.03
EXISTING ZONING: Unzoned (Spartanburg County)
REQUEST: Annex and zone to I-1, Industrial







DOCKET NUMBER: AN 2019-03



DOCKET NUMBER: AN 2019-03

AN 2019-03 is an annexation and zoning request for three parcels located on Lister Rd. The request is to zone these parcels I-1, Industrial, for future development.

Surrounding land uses and zoning include:

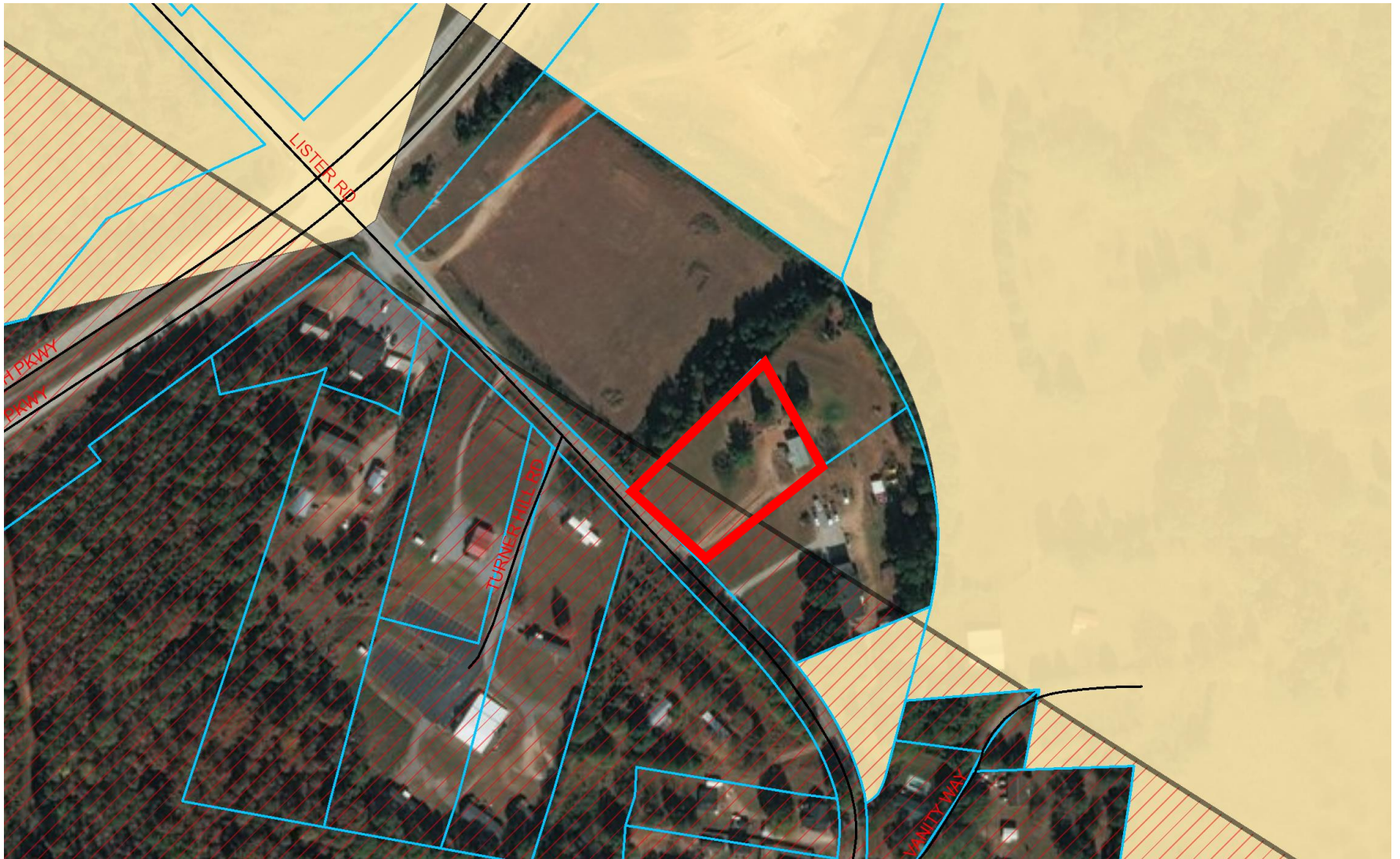
North: R-12, Single Family Residential and C-2, Commercial (City of Greer)
East: I-1, Industrial (City of Greer)
South: Unzoned (Spartanburg County)
West: C-2, Commercial (City of Greer)

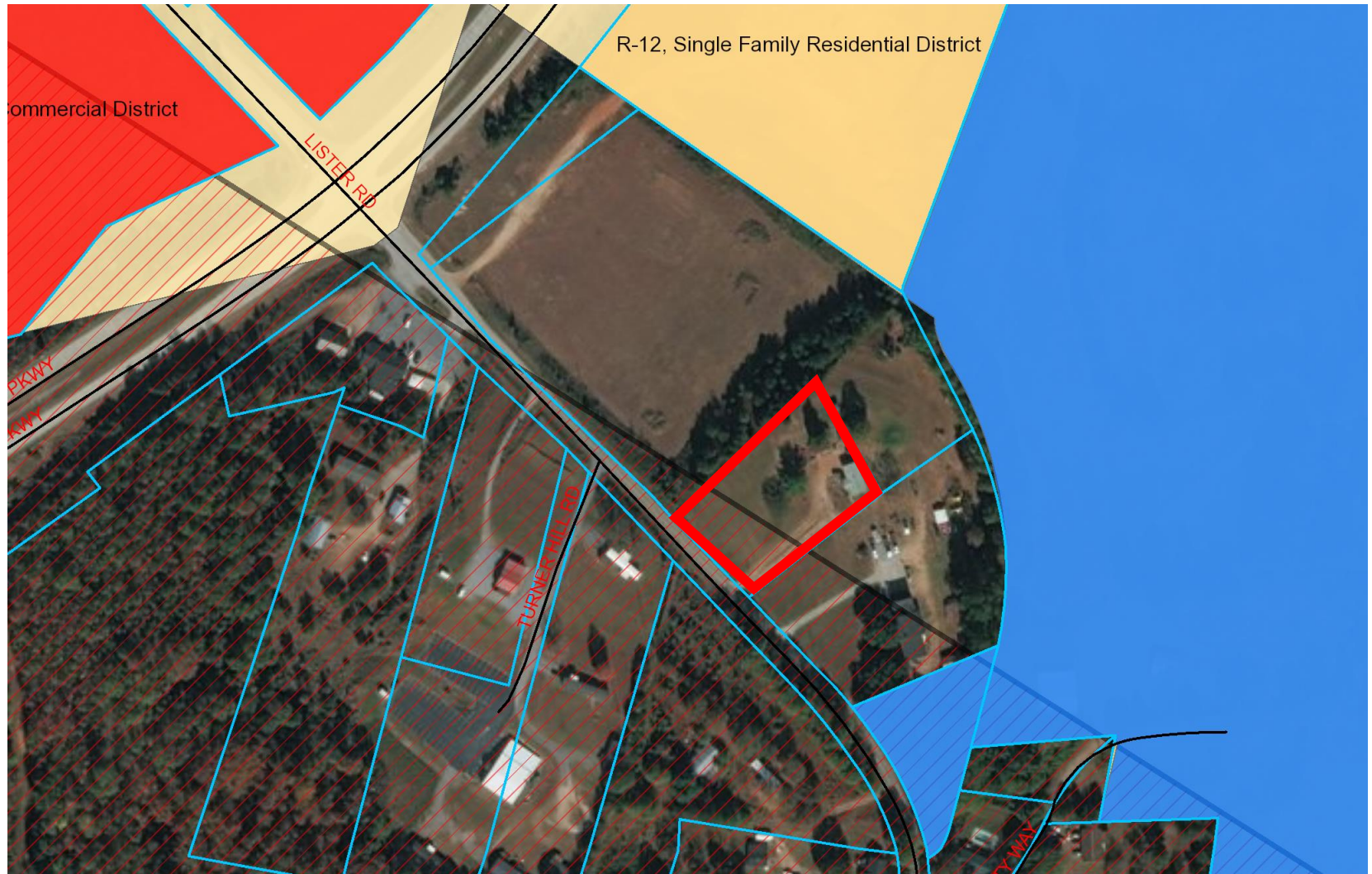
The land use map in the Comprehensive Plan defines this area as Residential Land Use 2 Community. This Community category is generally where most residential subdivisions located across the city may be found. A large majority of the Community residential areas will have this category designation. This property will be combined with additional property that is currently going through the annexation/zoning process, property being rezoned, as well as property already zoned I-1, Industrial within the city limits of Greer. With access to a major highway and easy access to the interstate, the requested I-1, Industrial, zoning is an appropriate rezoning request. In accordance with the guidelines set forth in this plan and after a detailed study of the area, Staff can support the proposed rezoning request. As such, Staff recommends approval of this rezoning request.

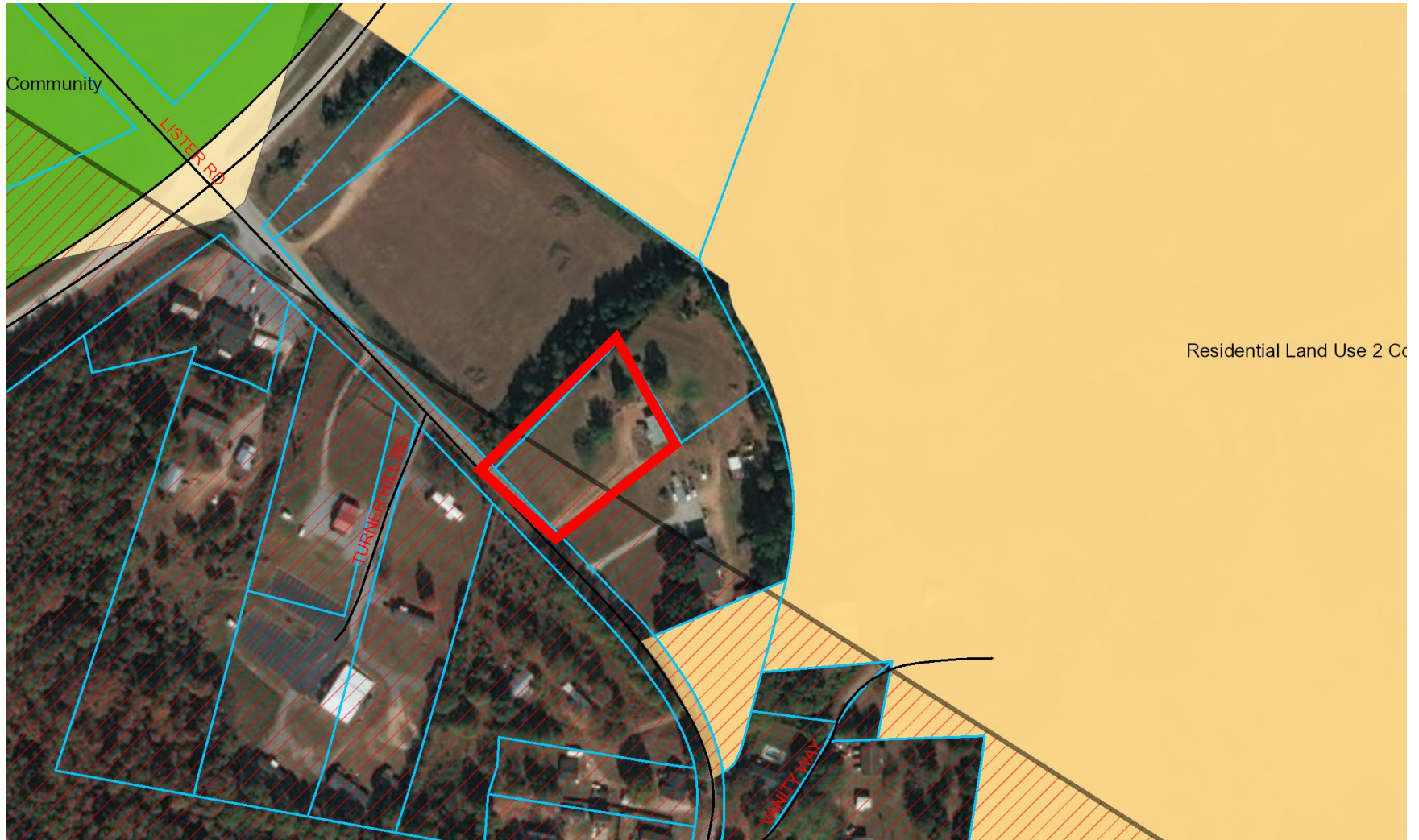
STAFF RECOMMENDATION: Approval



DOCKET NUMBER:	AN 2019-04
APPLICANT:	Clarius Partners, LLC
ADDRESS:	234 Lister Rd
PARCEL ID NUMBER:	5-14-00-041.00
EXISTING ZONING:	Unzoned (Spartanburg County)
REQUEST:	Annex and zone I-1, Industrial







DOCKET NUMBER: AN 2019-04



DOCKET NUMBER: AN 2019-04

AN 2019-04 is an annexation and zoning request for a parcel located on Lister Rd. The request is to zone this parcel I-1, Industrial, for future development.

Surrounding land uses and zoning include:

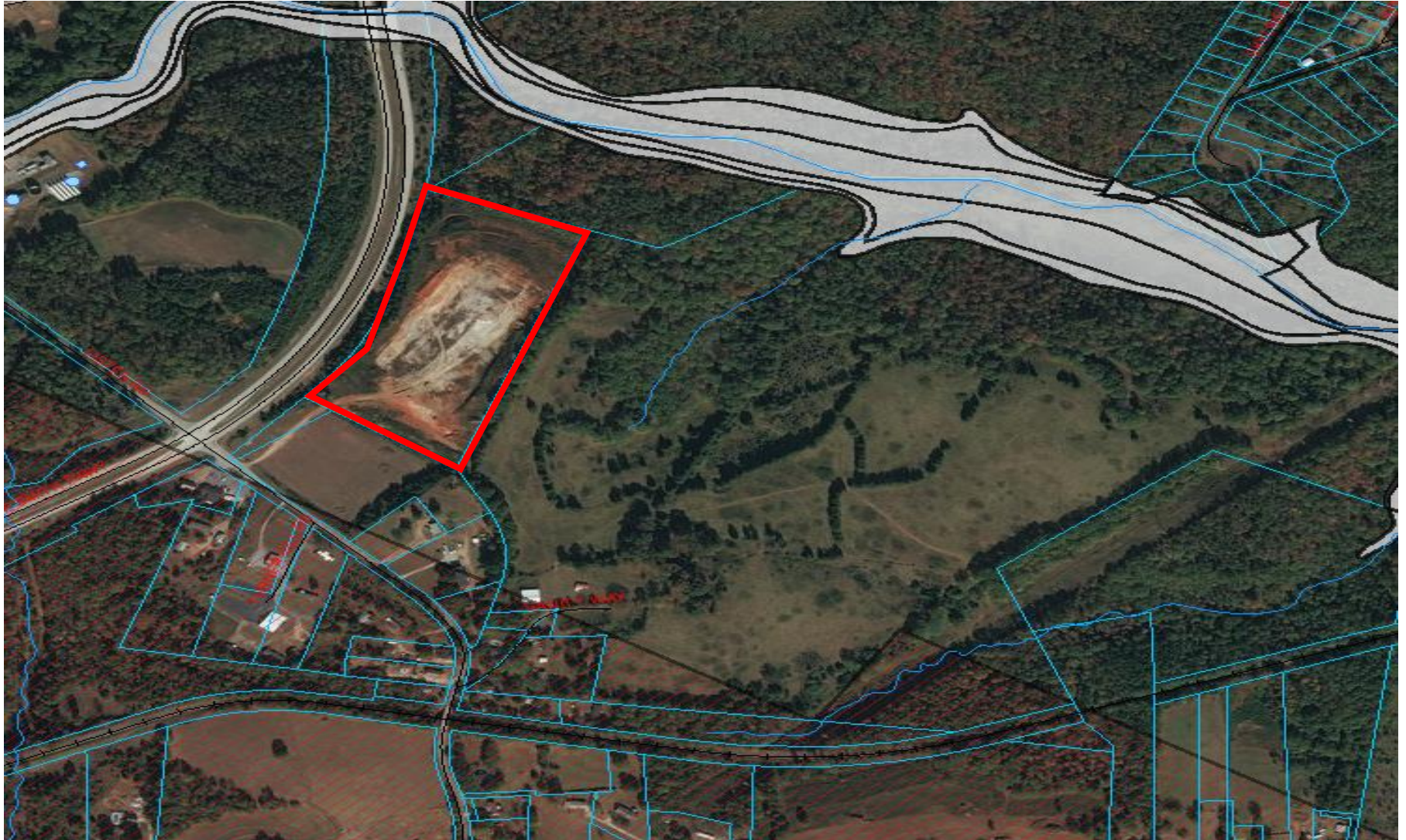
North: R-12, Single Family Residential and C-2, Commercial (City of Greer)
East: I-1, Industrial (City of Greer)
South: Unzoned (Spartanburg County)
West: C-2, Commercial (City of Greer)

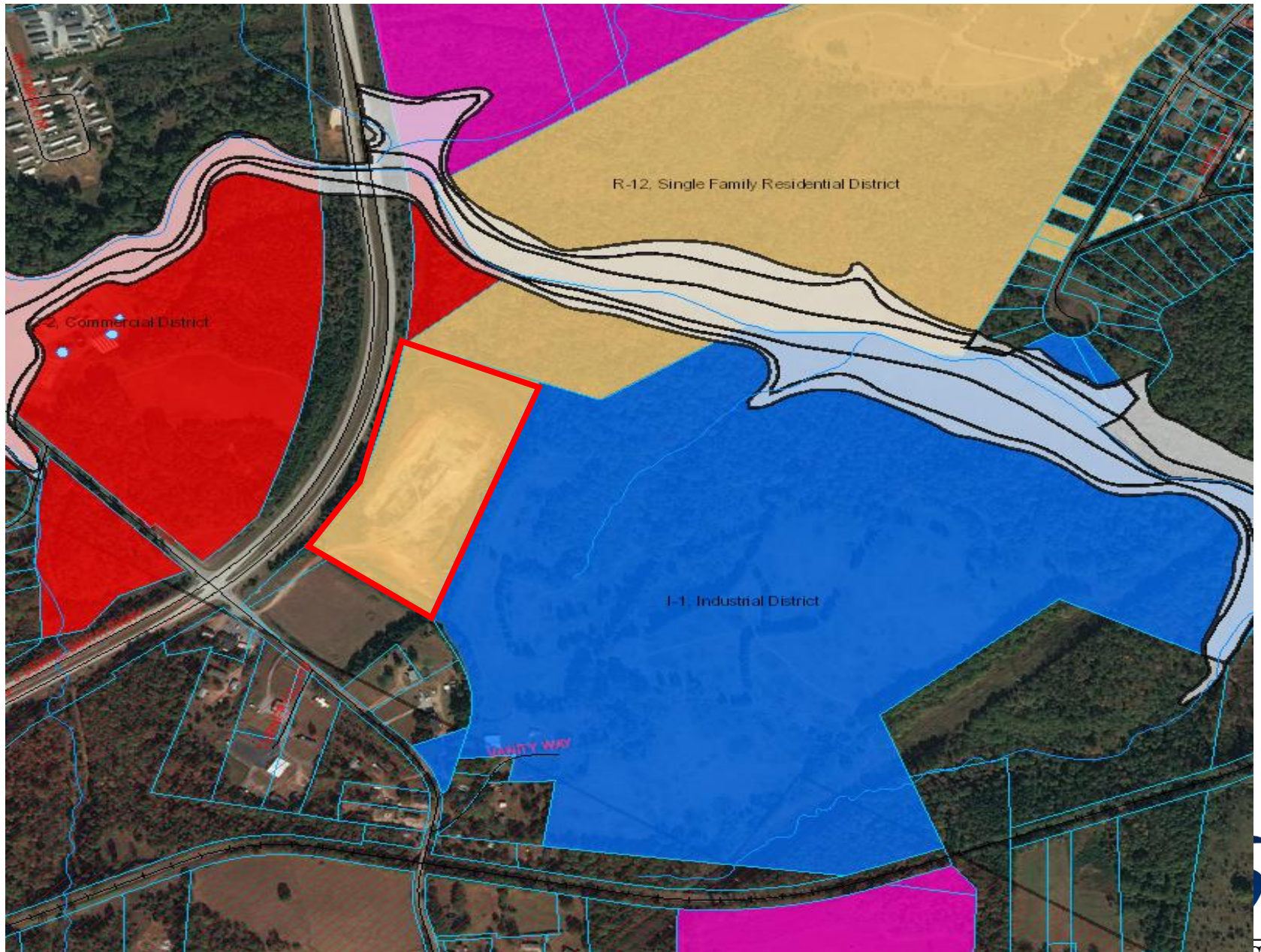
The land use map in the Comprehensive Plan defines this area as Residential Land Use 2 Community. This Community category is generally where most residential subdivisions located across the city may be found. A large majority of the Community residential areas will have this category designation. This property will be combined with additional property that is currently going through the annexation/zoning process, property being rezoned, as well as property already zoned I-1, Industrial within the city limits of Greer. With access to a major highway and easy access to the interstate, the requested I-1, Industrial, zoning is an appropriate rezoning request. In accordance with the guidelines set forth in this plan and after a detailed study of the area, Staff can support the proposed rezoning request. As such, Staff recommends approval of this rezoning request.

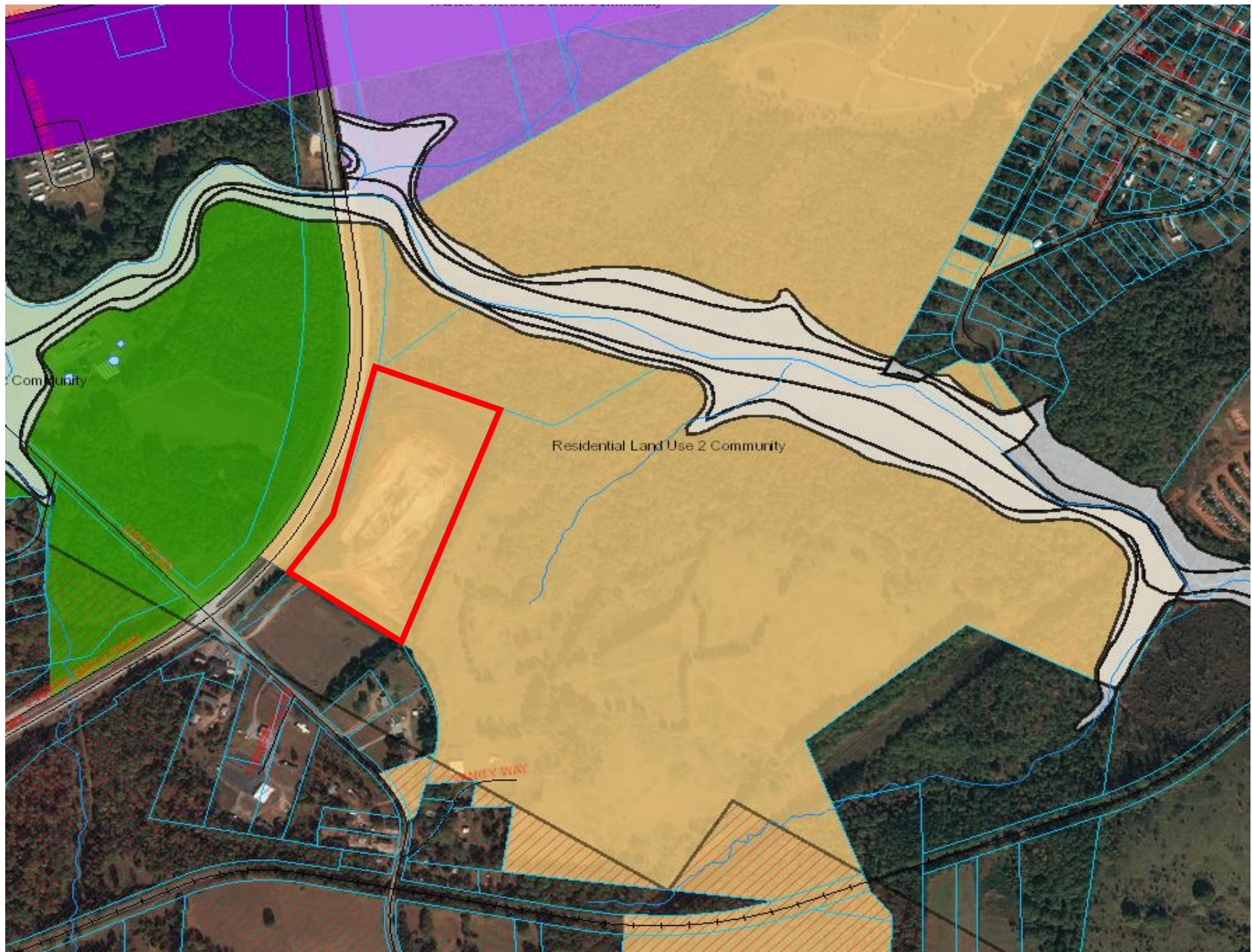
STAFF RECOMMENDATION: Approval



DOCKET NUMBER:	RZ 2019-01
APPLICANT:	Paul Brannon and Linda Lister
ADDRESS:	Hwy 80 near Lister Rd
PARCEL ID NUMBER:	5-14-00-040.00
EXISTING ZONING:	R-12, Single Family Residential
REQUEST:	Rezone to I-1, Industrial District







Future Land Use Map

DOCKET NUMBER: RZ 2019-01



DOCKET NUMBER: RZ 2019-01

RZ 2019-01 is a rezoning request for a parcel located on Highway 80 near Lister Rd. The request is to rezone this parcel from R-12, Single Family Residential, to I-1, Industrial, for future development.

Surrounding land uses and zoning include:

North: R-12, Single Family Residential and C-2, Commercial (City of Greer)
East: I-1, Industrial (City of Greer)
South: Unzoned (Spartanburg County - In the process of annexation and zoning to I-1, Industrial)
West: C-2, Commercial (City of Greer)

Annexation/Zoning/Rezoning History:

1994: Annexed and Zoned to R-12, Single Family Residential

The land use map in the Comprehensive Plan defines these properties as a Residential Land Use 2 Community. This Community category is generally where most residential subdivisions located across the city may be found. A large majority of the Community residential areas will have this category designation. The property is located along Highway 80 and will have access on Lister Rd. This property will be combined with property that is currently going through the annexation process as well as property already zoned I-1, Industrial within the city limits of Greer. With access to a major highway and easy access to the interstate, the requested I-1, Industrial zoning is an appropriate rezoning request. In accordance with the guidelines set forth in this plan and after a detailed study of the area, Staff can support the proposed rezoning request. As such, Staff recommends approval of this rezoning request.

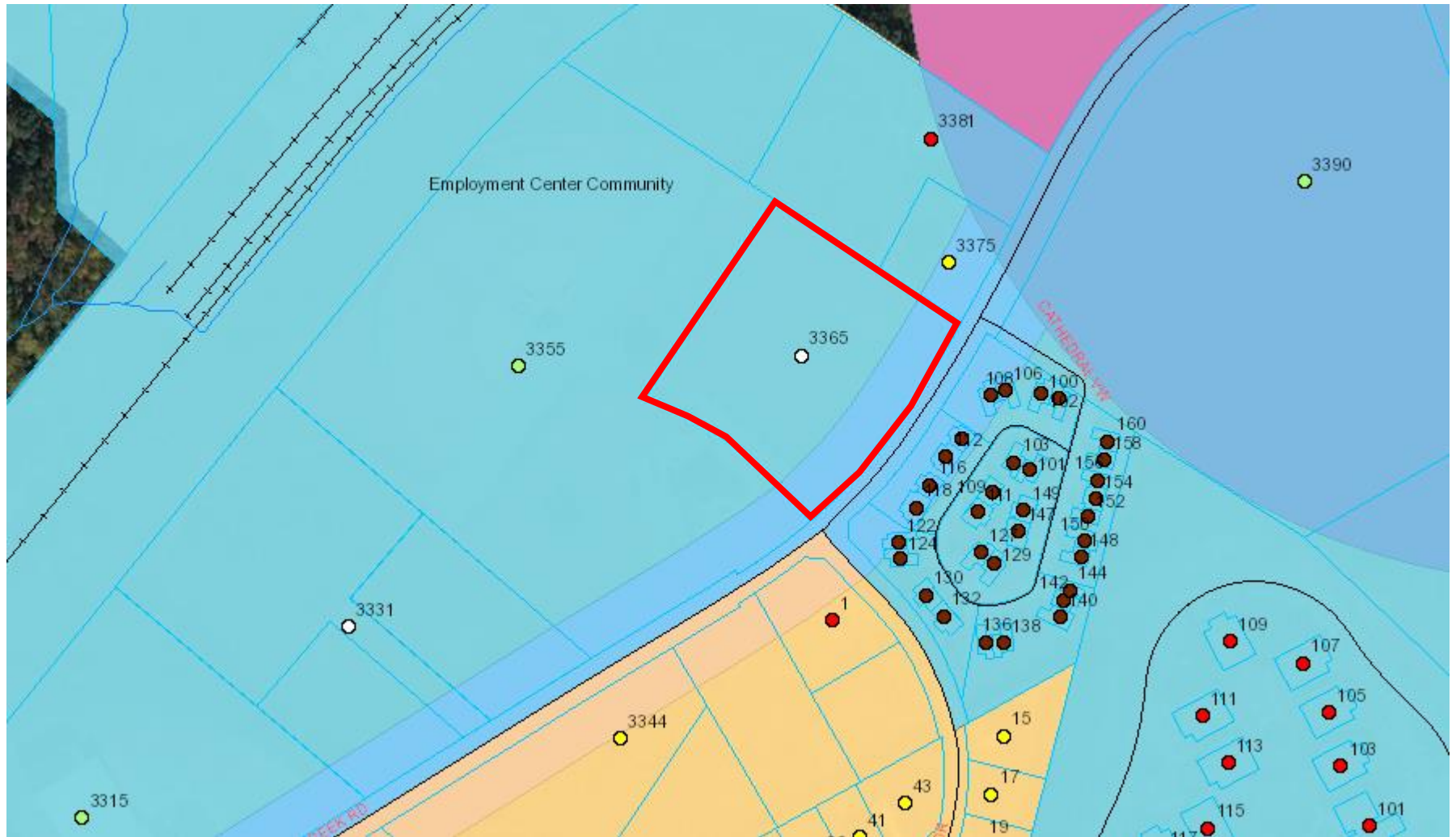
STAFF RECOMMENDATION: Approval



DOCKET NUMBER:	RZ 2019-02
APPLICANT:	Praise Cathedral Church of God
ADDRESS:	Brushy Creek Rd
PARCEL ID NUMBER:	G006000200203
EXISTING ZONING:	R-M2, Multi-Family Residential
REQUEST:	Rezone to S-1, Service District







Future Land Use Map

DOCKET NUMBER: RZ 2019-02



DOCKET NUMBER: RZ 2019-02

RZ 2019-02 is a rezoning request for a parcel located on Brushy Creek Rd. The request is to rezone this parcel from R-M2, Multi-Family Residential, to S-1, Services District. This area contains a mix of residentially and commercially zoned properties.

Surrounding land uses and zoning include:

North: S-1, Services District
East: S-1, Services District
South: PD-R, Planned Development Residential
West: S-1, Services District

Annexation/Zoning/Rezoning History:

1993: Annexed and zoned to I-1, Industrial District
2005: Rezoned to R-M2, Multi-Family Residential

The land use map in the Comprehensive Plan defines this property as an Employment Center Community. These centers serve as locations for employment in the community. The types of employment centers can range from retail uses to manufacturing uses. The intent of these centers is to provide employment opportunities for city residents as well as for people who may commute to these locations for work. Employment centers can also range in scale from single use buildings to large mixed use buildings to multiple- building complexes possibly containing office, commercial, service, warehousing and industrial uses. In addition to providing employment and shopping opportunities, employment centers can also include living possibilities as well.

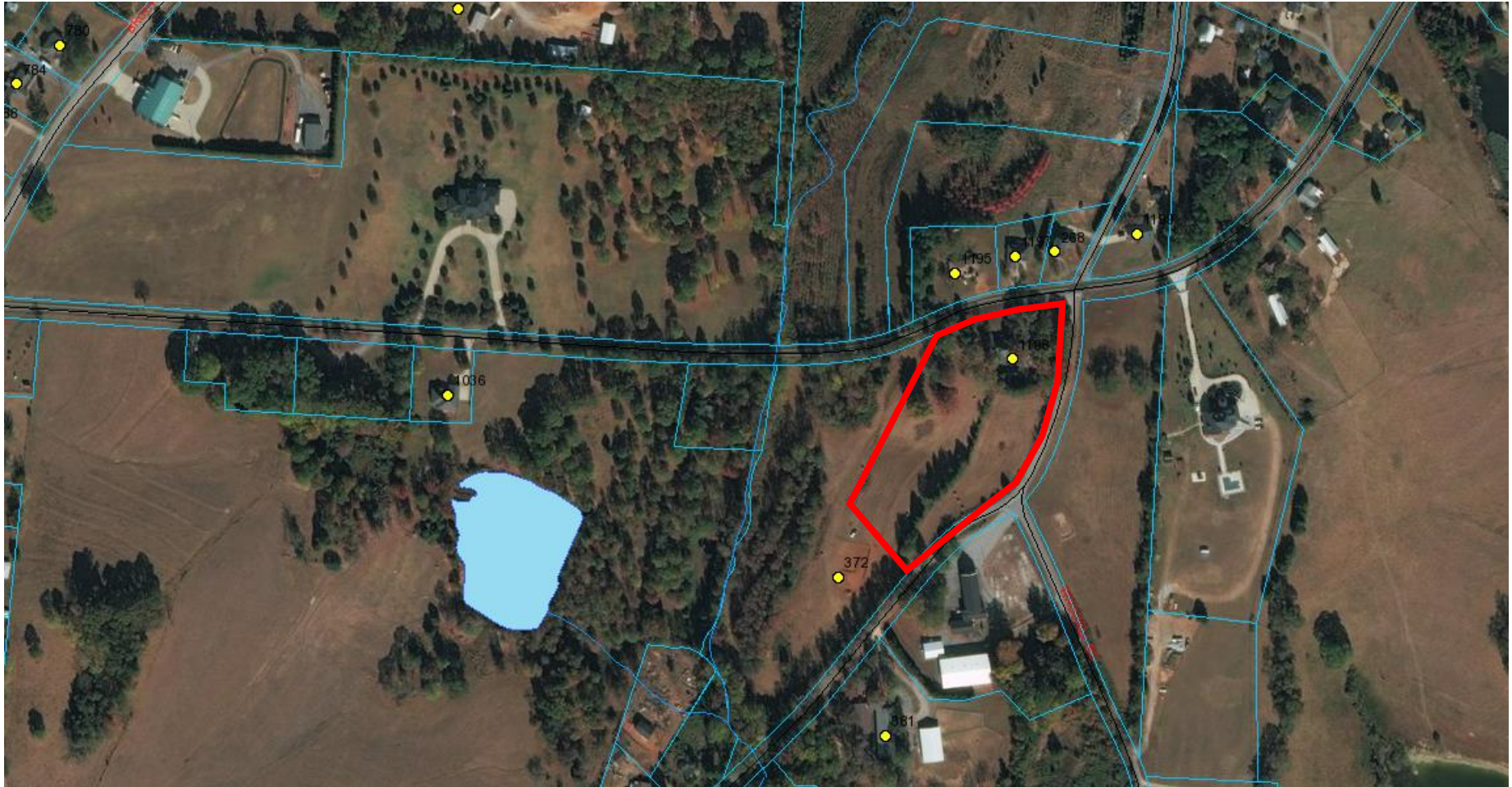
Supportive uses such as recreational, educational, and other public uses can be found in employment centers as well. Therefore most of the city's zoning district allowed land uses are permitted. Design standards may come into play when typical incompatible land uses are in close proximity to one another. The land use balance is about 10% residential and 90% non-residential. As such, Staff recommends approval of this rezoning request

STAFF RECOMMENDATION: Approval

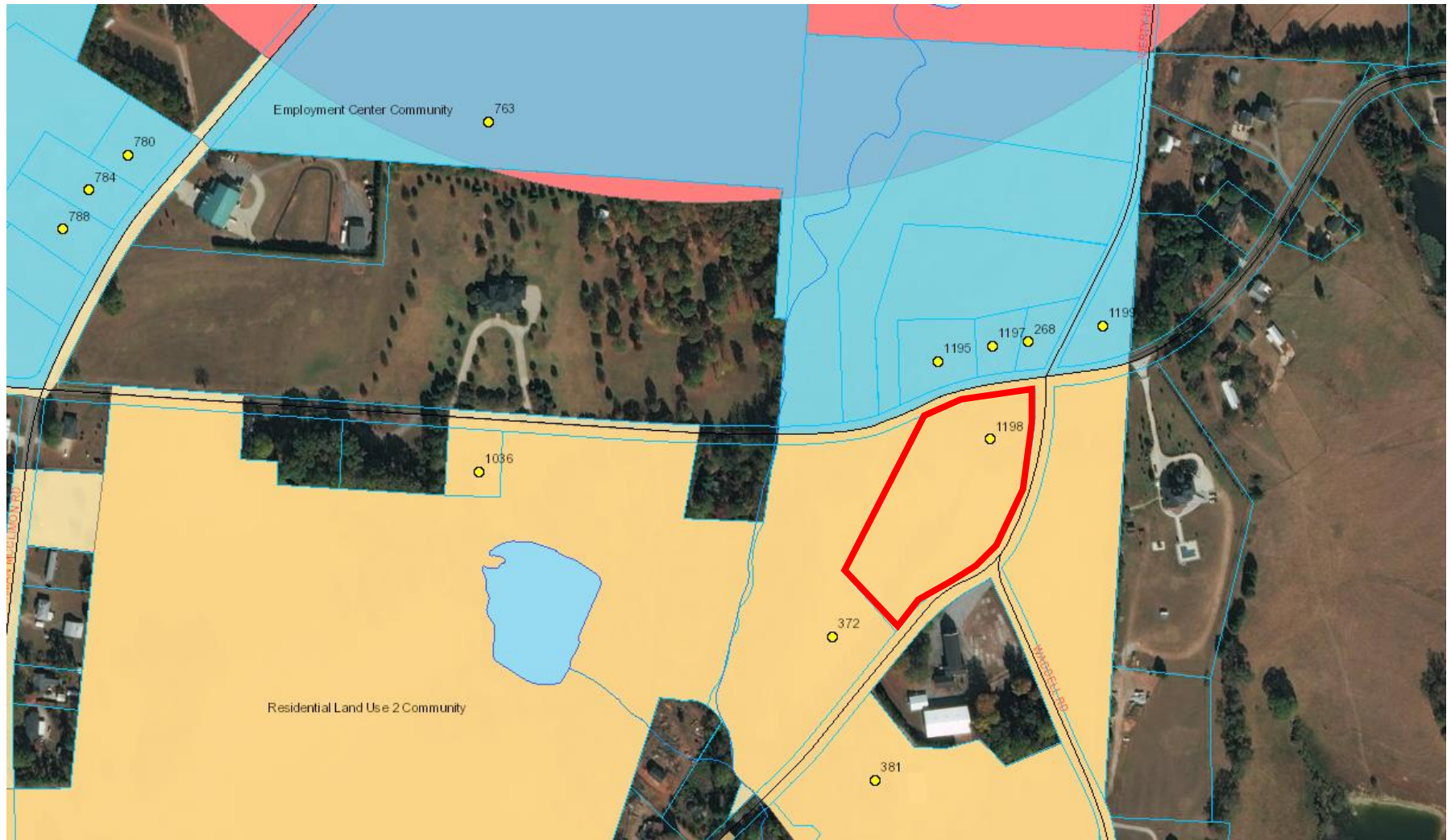


DOCKET NUMBER:	RZ 2019-03
APPLICANT:	Harold and Susan Johnson
ADDRESS:	1198 Abner Creek Rd
PARCEL ID NUMBER:	5-28-00-027.00
EXISTING ZONING:	R-S, Residential Suburban
REQUEST:	Rezone to DRD, Design Review District

DOCKET NUMBER: RZ 2019-03







Future Land Use Map

DOCKET NUMBER: RZ 2019-03



DOCKET NUMBER: RZ 2019-03



DOCKET NUMBER: RZ 2019-03

RZ 2019-03 is a rezoning request for a parcel located at 1198 Abner Creek rd. The request is to rezone this parcel from R-S, Residential Suburban, to DRD, Design Review District. This area contains mainly residential, industrial and service zoned properties as well as unzoned properties in Spartanburg County. To the southeast of the parcel is Liberty Hill Methodist Church and Hollycrest Bed and Biscuit (Kennels). The purpose of this rezoning is to establish the Greenville Student Success Academy, which will function as a secular coeducational independent day school starting with grades 1-4 and adding a grade each year until the 8th grade.

Surrounding land uses and zoning include:

North:	R-S, Residential Suburban and S-1, Service District
East:	R-S, Residential Suburban (City of Greer) and Unzoned (Spartanburg County)
South:	R-S, Residential Suburban (City of Greer) and Unzoned (Spartanburg County)
West:	R-S, Residential Suburban (City of Greer) and Unzoned (Spartanburg County)

The land use map in the Comprehensive Plan defines this property is Residential Land Use 2 Community across from an Employment Center Community. Residential Land Use 2 Community category is generally where most residential subdivisions located across the city may be found. A large majority of the Community residential areas will have this category designation. The density range of these areas is between 2.6 to 4.5 units per acre. There may also be some of the lower density developments who were at one time considered the more rural parts of the community, included in this category. Whereas the Employment Center Community can range from retail uses to manufacturing uses.

The intent of these centers is to provide employment opportunities for city residents as well as for people who may commute to these locations for work. Employment centers can also range in scale from single use buildings to large mixed use buildings to multiple-building complexes possibly containing office, commercial, service, warehousing and industrial uses. In addition to providing employment and shopping opportunities, employment centers can also include living possibilities as well. Supportive uses such as recreational, educational, and other public uses can be found in employment centers as well. Therefore, most of the city's zoning district allowed land uses are permitted. Design standards may come into play when typical incompatible land uses are in close proximity to one another. The land use balance is about 10% residential and 90% nonresidential. Therefore, this is a compatible land use with the Comprehensive Plan. In accordance with the guidelines set forth in this plan and after a detailed study of the area, Staff can support the proposed rezoning request. All comments from other agencies and departments in the City of Greer must also be met and a Final Development Plan must be approved before construction can commence.

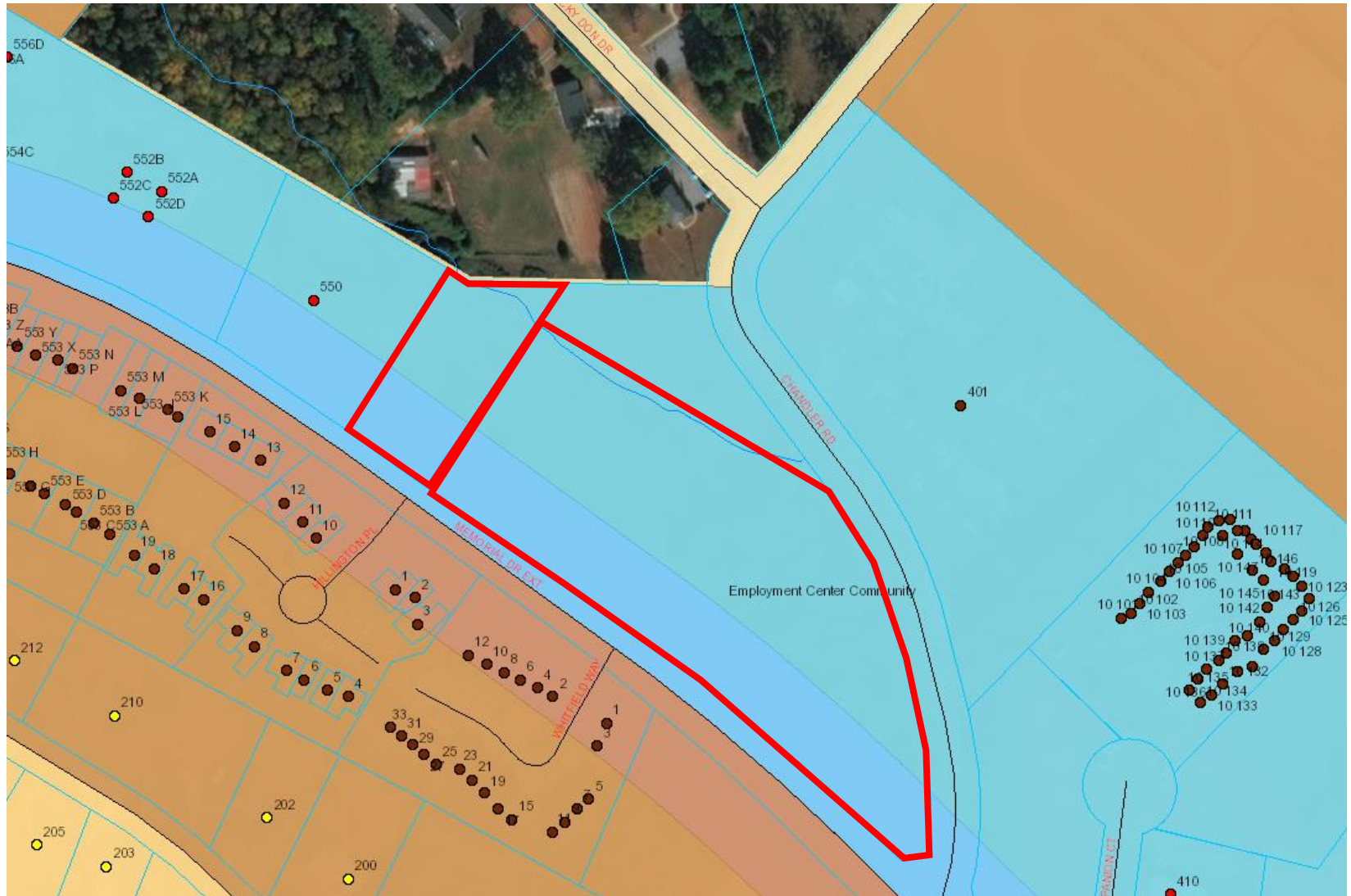
STAFF RECOMMENDATION: Approval

DOCKET NUMBER:	RZ 2019-04
APPLICANT:	Deep River South, LLC
ADDRESS:	Intersection of Chandler Rd and Memorial Dr Ext
PARCEL ID NUMBER:	G019000102104 and 103
EXISTING ZONING:	R-M2, Multi-Family Residential
REQUEST:	DRD, Design Review District

RZ 2019-04







DOCKET NUMBER: RZ 2019-04



DOCKET NUMBER: RZ 2019-04

RZ 2019-04 is a rezoning request for two parcels located at the intersection of Chandler Rd and Memorial Dr Ext. The request is to rezone this parcel from R-M2, Multi-Family Residential, to DRD, Design Review District for the future development of 39 Townhouses.

Surrounding land uses and zoning include:

North: C-3, Commercial (City of Greer) and Unzoned (Greenville County)
East: C-3, Commercial (City of Greer)
South: O-D, Office District and R-M1, Multi-Family Residential (City of Greer)
West: C-3, Commercial and R-M1, Multi-Family Residential (City of Greer)

Annexation/Zoning/Rezoning History:

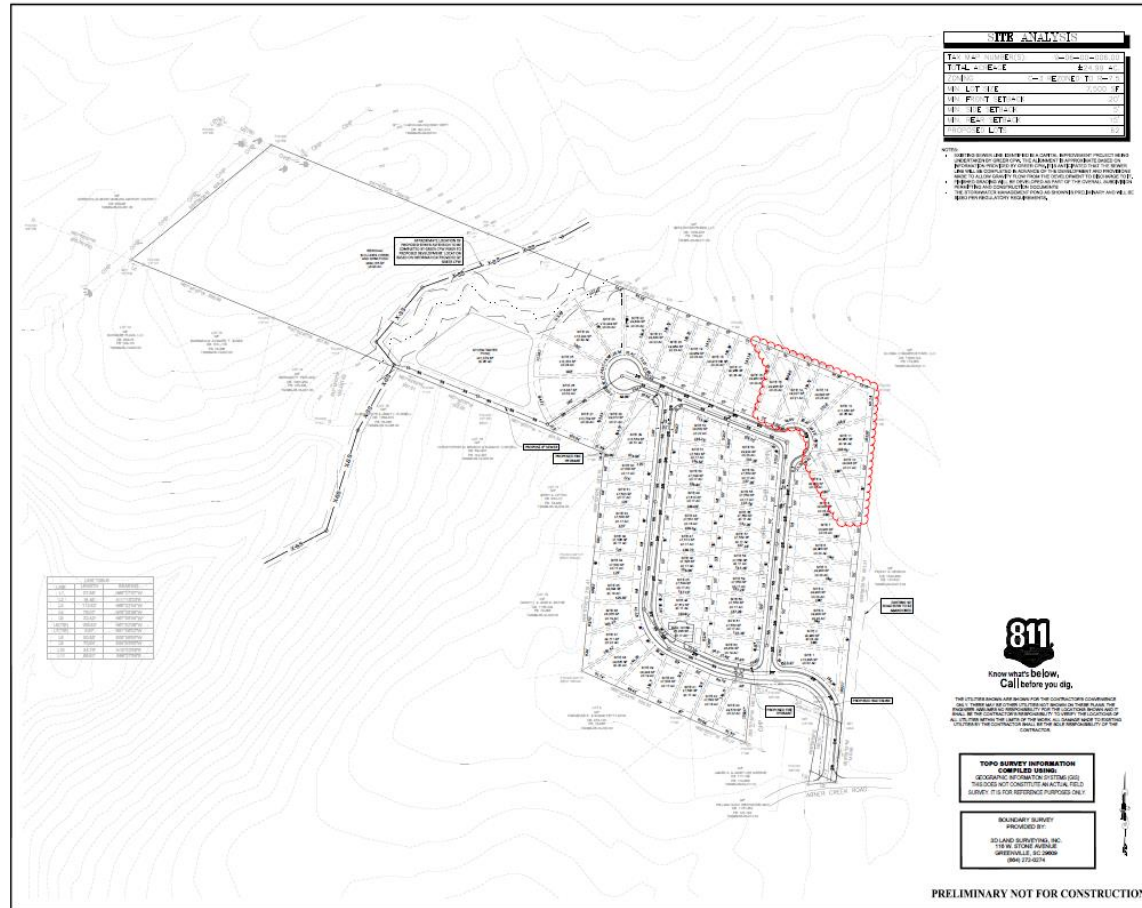
1982: Annexed and Zoned to C-3, Commercial
2016: Rezoned to R-M2, Multi-Family Residential

The land use map in the Comprehensive Plan defines these properties as an Employment Center Community on a Neighborhood Corridor surrounded by Residential Land Use 3 Communities. These centers serve as locations for employment in the community. The types of employment centers can range from retail uses to manufacturing uses. The intent of these centers is to provide employment opportunities for city residents as well as for people who may commute to these locations for work. Employment centers can also range in scale from single use buildings to large mixed use buildings to multiple-building complexes possibly containing office, commercial, service, warehousing and industrial uses. In addition to providing employment and shopping opportunities, employment centers can also include living possibilities as well.

Supportive uses such as recreational, educational, and other public uses can be found in employment centers as well. Therefore most of the city's zoning district allowed land uses are permitted. Design standards may come into play when typical incompatible land uses are in close proximity to one another. The land use balance is about 10% residential and 90% nonresidential. With the property being located along a Neighborhood Corridor, which has a land use balance of 60% residential and 40% nonresidential, this is a compatible use. In accordance with the guidelines set forth in this plan and after a detailed study of the area, Staff can support the proposed rezoning request. All comments from other agencies and departments in the City of Greer must also be met and a Final Development Plan must be approved before construction can commence.

STAFF RECOMMENDATION: Approval

DOCKET NUMBER: SUB 2018-23
 APPLICANT: Jamie McCutchen
 ADDRESS: 937 Abner Creek Rd
 PARCEL ID NUMBER: 9-06-00-006.00
 EXISTING ZONING: R-7.5, Single Family Residential District
 REQUEST: Amended Preliminary Plat



Statement of Intent for Blaize Ridge Subdivision

Proposed Mixed Use Development

Gibbs Shoals Rd, Greer SC

Residential Development Description

The total area of the proposed development is +/-21.48 acres and is located across from the newly developed Westhaven Subdivision on Mansfield Lane. The proposed development will contain about 3,740 feet of new public roadway and will have single entrance on Gibbs Shoals Road. The proposed development will contain approximately 85 residential units consisting of single-family detached lots and multifamily attached townhomes. The townhomes will range from 20' to 28' wide and the single family lots will average 55' wide by 110' deep.

The townhomes will be 1.5 to 2 stories and average anywhere from 1,400-2,800 sf. The single-family homes will be 2 stories and range anywhere from 2,200- 3,800 sf. All homes will utilize attached front entry garages to provide minimum 2 off-street parking spaces per unit. Additionally, 7 off-street parking spaces will be provided at a central mailbox kiosk station.

The exterior materials of homes are to include Hardi Board, Brick, or Stone. All homes are to feature energy efficient design including windows, HVAC, and appliances. The exterior colors will vary from house to house to create contrast and visual appeal. Since these homes will be for individual sale, each buyer will be able to customize the interiors freely. The homes will be offered at a competitive price to the surrounding area.

Landscaping and Common Area

The entrance of the site will be decorated with attractive landscaping including an entrance monument and annual plantings of seasonal flowers to be approved by the City of Greer Planning director. The interior and perimeter landscaping will be a combination of shade trees, evergreens, and shrubs alongside new homes to meet current City of Greer landscaping requirements. A combination 6' berm/evergreen screen will be provided (where feasible) along the eastern property lines where site abuts existing residential homes.

The stormwater detention pond will be screened from view with evergreen tree plantings and will have fencing installed to assure safety to the residents.

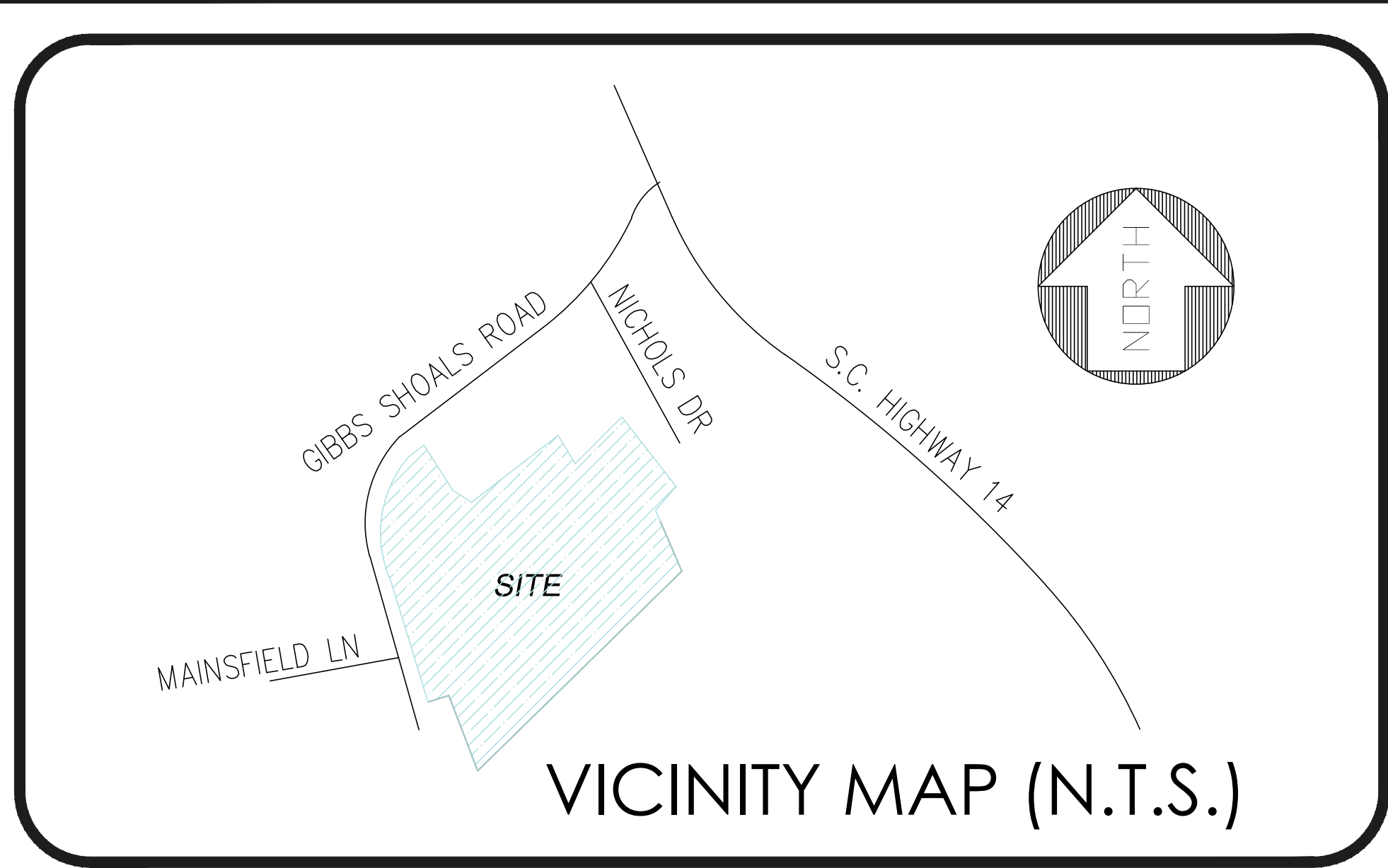
Amenities for this development are to include a common area for residents to host barbeques and bon fires. Additionally, several pocket parks will be created to allow a place for children to play while also allowing a place for residents to walk their pets. A 4' sidewalk will be installed throughout development to aid in pedestrian traffic and promote community activities. A 5' sidewalk will be installed along all road frontage of Gibbs Shoals Road.

Community Maintenance

The Home Owners Association (HOA) will hold declaration, covenant, by-laws and rules that the community will be subject to follow. These may include future improvements or maintenance to the community. The Board of Directors for HOA will be voted upon by residents and will be responsible for upholding management under the South Carolina Law. The HOA will have a landscape maintenance company maintain all common areas including entrance and stormwater management facility areas at all times.

Public Improvements

The interior roadways within the community will have public-access. Stormwater Management, utilities, and roadways will all be installed in accordance with City of Greer requirements. A secondary emergency vehicular access will be provided to connect to Nichols Drive. Additionally, a pedestrian and fire access connection will be provided to the Sudduth Development currently under construction to the south. Public Water, Natural Gas, and Public Sewer will be provided by Greer CPW. ATT and Charter will also serve this development with high speed internet and cable television. The proposed subdivision shall have no adverse impacts to the nearby public or traffic. A traffic study will be performed and given to SC DOT for their review. Construction for the project will be supervised and will follow appropriate codes and regulations.



LEGEND

BL BUILDING LINE	TC/BC TOP/BOTTOM CURB	CB CATCH BASIN
CT CRIMP TOP	TW/BW TOP/BOTTOM WALL	DI DROP INLET
DE DRAINAGE EASEMENT	EW ELECTRIC METER	DI ELEC TRANS
EP EDGE OF PAVEMENT	WM WATER METER	90.3 ELEVATION
IPO IRON PIN OLD	WV WATER VALVE	FD FIRE HYDRANT
IPS IRON PIN SET	CTV CABLE TV	GV GAS VALVE
N&C NAIL & CAP	X FENCE LINE	LP LIGHT POLE
OT OPEN TOP	FOC FIBER OPTIC CABLE	PP POWER POLE
RB REBAR	GAS GAS LINE	OP GUY ANCHOR
R/W RIGHT OF WAY	OHP OVERHEAD POWER	
SD STORM DRAIN	OHT OVERHEAD TEL	
SS SANITARY SEWER	SD STORM DRAIN	
SSE SS EASEMENT	SS SANITARY SEWER	
SDMH SD MANHOLE	UGP UNDERGROUND POWER	
SSMH SS MANHOLE	UGT UNDERGROUND TEL	
CO CLEAN OUT	W WATER LINE	
TMH TELEPHONE MANHOLE	TEL TELEPHONE PEDESTAL	

ROAD C/L LINE TABLE

Line #	Length	Direction
L1	71.38	N44° 08' 03.02"W
L2	106.22	N10° 20' 34.78"W
L3	12.61	N6° 30' 13.92"W
L4	246.33	N39° 14' 32.80"E
L5	33.85	N75° 06' 41.38"E
L6	494.14	N61° 58' 42.32"E
L7	105.03	N44° 54' 50.03"E
L8	219.30	N9° 44' 11.59"W
L9	131.56	N15° 32' 38.52"W
L10	27.98	S73° 54' 12.28"W
L11	39.11	S80° 36' 40.28"W
L12	102.55	S62° 11' 29.99"W
L13	484.79	S80° 15' 48.41"W
L14	56.08	N80° 47' 32.54"W
L15	160.00	S28° 46' 18.66"E
L16	138.45	S28° 37' 29.02"E
L17	57.35	S33° 19' 03.50"W

ROAD C/L CURVE TABLE

Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	63.11	107.00	33.79	N27° 14' 19"W	62.19
C2	87.83	110.00	45.75	N16° 22' 09"E	85.51
C3	68.86	110.00	35.87	N57° 10' 37"E	67.74
C4	119.13	400.00	17.06	N53° 26' 46"E	118.69
C5	115.97	118.02	56.30	N17° 48' 11"E	111.36
C6	202.72	2000.00	5.81	N12° 38' 25"W	202.63
C7	35.36	110.00	18.42	S71° 24' 05"W	35.21
C8	45.73	145.00	18.07	S71° 13' 39"W	45.55
C9	139.57	500.00	15.99	S88° 15' 36"W	139.11
C10	378.38	350.00	61.94	S2° 20' 47"W	360.22

BOUNDARY and TOPOGRAPHIC SURVEY PROVIDED BY:

ARROW NORTH SURVEYING, LLC

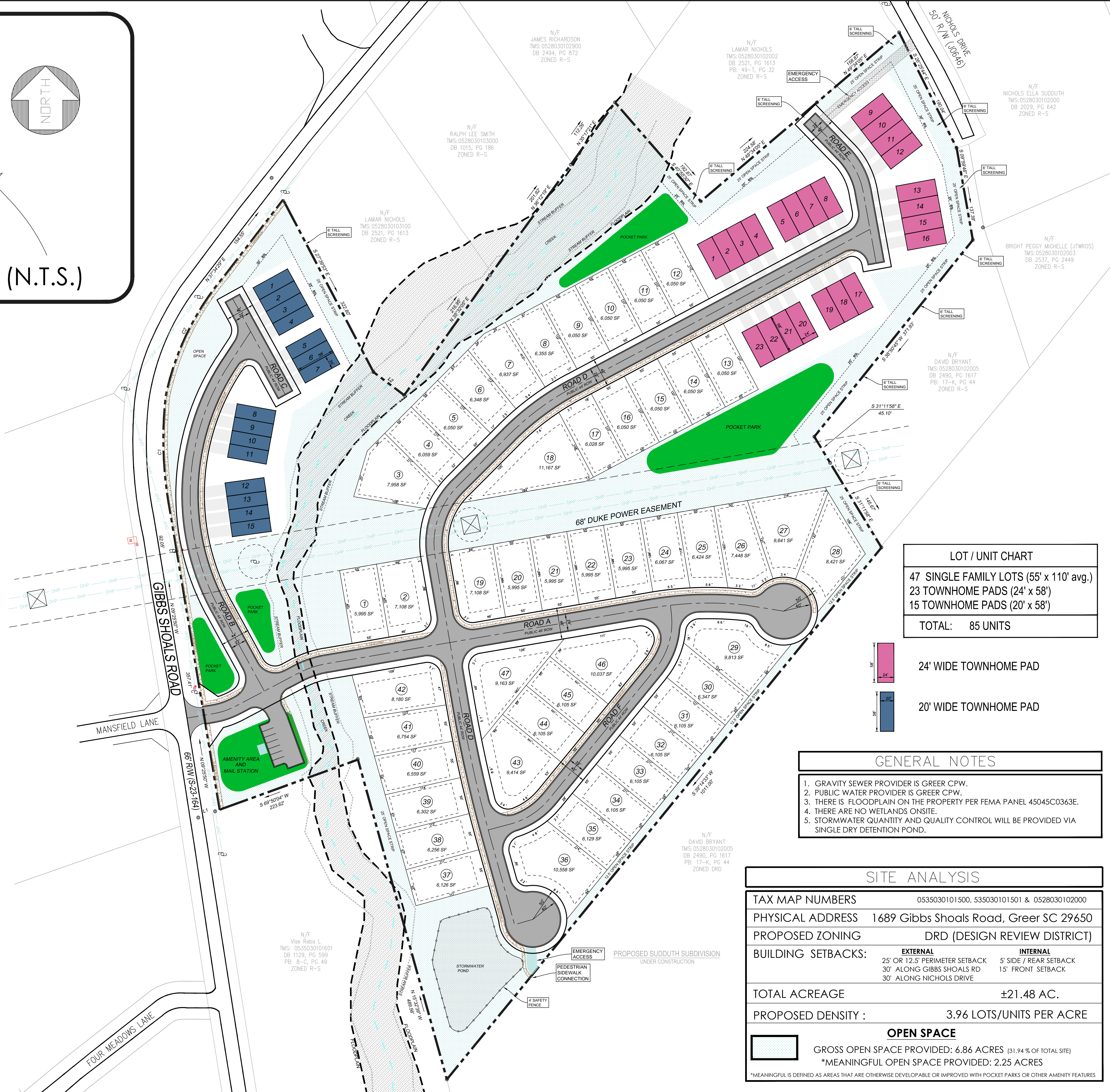
LAND SURVEYORS & MAPPERS
509 PIMLICO ROAD
GREENVILLE, SC 29607
PH: (864) 449-1289
www.ArrowNorthSurveying.com

BOUNDARY LINE TABLE

LINE	BEARING	DISTANCE
L1	S 69°40'42" W	26.38'
L2	S 52°59'37" E	56.57'

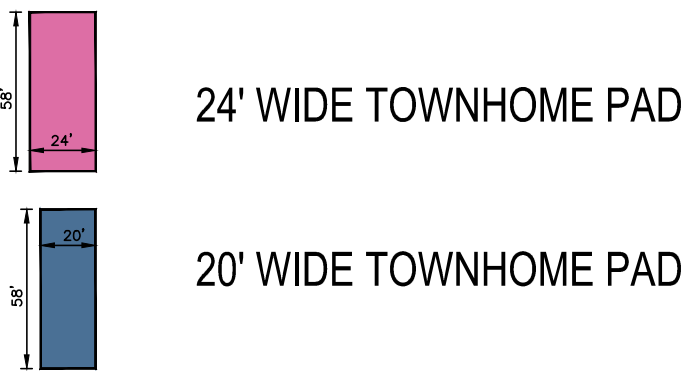
BOUNDARY CURVE TABLE

CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	N 02°06'32" W	182.87'	611.86'	183.56'
C2	N 25°57'52" E	214.88'	434.79'	217.13'



LOT / UNIT CHART

47 SINGLE FAMILY LOTS (55' x 110' avg.)
23 TOWNHOME PADS (24' x 58')
15 TOWNHOME PADS (20' x 58')
TOTAL: 85 UNITS



- GENERAL NOTES
- GRAVITY SEWER PROVIDER IS GREER CPW.
 - PUBLIC WATER PROVIDER IS GREER CPW.
 - THERE IS FLOODPLAIN ON THE PROPERTY PER FEMA PANEL 45045C0363E.
 - THERE ARE NO WETLANDS ONSITE.
 - STORMWATER QUANTITY AND QUALITY CONTROL WILL BE PROVIDED VIA SINGLE DRY DETENTION POND.

SITE ANALYSIS

TAX MAP NUMBERS	0535030101500, 535030101501 & 0528030102000
PHYSICAL ADDRESS	1689 Gibbs Shoals Road, Greer SC 29650
PROPOSED ZONING	DRD (DESIGN REVIEW DISTRICT)
BUILDING SETBACKS:	EXTERNAL 25' OR 12.5' PERIMETER SETBACK 30' ALONG GIBBS SHOALS RD 30' ALONG NICHOLS DRIVE INTERNAL 5' SIDE / REAR SETBACK 15' FRONT SETBACK
TOTAL ACREAGE	±21.48 AC.
PROPOSED DENSITY :	3.96 LOTS/UNITS PER ACRE
OPEN SPACE	GROSS OPEN SPACE PROVIDED: 6.86 ACRES (31.94 % OF TOTAL SITE) *MEANINGFUL OPEN SPACE PROVIDED: 2.25 ACRES *MEANINGFUL IS DEFINED AS AREAS THAT ARE OTHERWISE DEVELOPABLE OR IMPROVED WITH POCKET PARKS OR OTHER AMENITY FEATURES

CivilSD
Site Development Engineering

935 Tanner Road
Greenville, South Carolina 29607
864.373.9662
Jnett@CivilSD.com
CivilSD.com

Civil engineering Land planning Landscape architecture

Client

Revisions

No.	Description	Date
1	Original Submittal	5.31.18
2	Revised Prelim Plat	9.1.18
3	Revised Prelim Plat	11.13.18
4	Revised Prelim Plat	12.6.18

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THIS SEAL IS ONLY VALID IF COUNTER SIGNED AND DATED WITH AN ORIGINAL SIGNATURE.

Blaize Ridge Subdivision

Project Location
Gibbs Shoals Road
Greenville County, SC

Project No. -
Date: 12/27/18
Dwg: 18004-PRELIM PLAT.dwg

Scale 1" = 70'

Sheet Title
Preliminary Plat

Sheet Number
1 of 1

Greenville Educational Services LLC Greenville Student Success Academy LLC

Design Review District **1198 Abner Creek Road - Greer, SC**

Statement of Intent
December 1, 2018

Greenville Educational Services LLC (GES) owns the five acre property at 1198 Abner Creek Road, at the intersection of Abner Creek and Liberty Hill Roads. Greenville Student Success Academy LLC (GSSA) plans to occupy the property, utilizing the Design Review District (DRD) zoning classification.

Greenville Educational Services LLC, as property owner, will pay business and real estate taxes. GSSA will rent the use of the property from GES. Both GES and GSSA pay sales tax and are LLCs run by two members, a CEO and CFO.

The CEO, Susan J. Johnson, Ph.D. has over 38 years of experience as a licensed educator, school psychologist and administrator in both public and private schools serving preschool through high school aged students. She was CEO and Head of School for 14 years before relocating to Greenville, SC.

The CFO, Harold E. Johnson, Jr., PMP has over 38 years of experience as a systems engineer and IT project manager for large corporations. He has the expertise to design/manage the technology and oversee the business/financial needs of both LLCs.

INTENT:

GES intends to provide community outreach through a Parent Resource Center which gives parents and/or guardians access to literature, forums and professional speakers related to education. After the school day, GES will provide in-person or online academic and/or organizational support to elementary and middle school students in a one-to-one or one-to-two teacher to student ratio; only online organizational support will be provided for high school students. As part of its commitment to the community, GES will offer Saturday classes during the winter months for elementary students in topics of interest like art and coding. Class size will range from 10-15 students.

GSSA intends to function as a secular coeducational independent day school starting with grades 1-4 and adding a grade each year until 8th grade. GSSA has many characteristics of a micro-school in its overall size, small class size, mixed-age flexible grouping, and ability grouping. Micro-schooling is seen as being in between homeschooling and private schooling.

GSSA has a specific mission and unique approach. Drawing from the surrounding preschools, elementary programs and home-school markets, GSSA will service students who are average, above-average or gifted and find school either academically boring or academically difficult, or a combination of both depending on subject. Every student must be able to work independently as well as part of a group without notable behavioral interference. All students must have up-to-date vaccinations.

By starting with grade 1, preservice students (students who lag behind their peers but who are not eligible for support service in their current school) and gifted students who need accelerated academics in one or more areas, or a combination of acceleration and support, will receive personalized instruction. Prime candidates for GSSA are: the first grader who reads and comprehends on a 3rd-4th grade level but is instructed on a first grade level with classmates; a second grader who reads on a mid-kindergarten level but is instructed on a 2nd grade level and spends the day in the nurse's office complaining of headaches and stomach aches; or the gifted student who is reading on grade level, far below his intellectual potential, but within the norms for the grade. Traditionally, instruction for students in these early elementary years is not differentiated to meet individual specific strengths and needs, which leaves students bored or academically lagging.

The overarching mission of both GES and GSSA is to provide educational opportunities and resources, not currently available in the local area, at a competitive cost. On a societal level, when you change one child's life, you change the family, the child's lineage and that child's impact on the world – for the better.

RATIONALE:

National Institute of Child Health and Human Development (NICHD) research has consistently shown that if children do not learn to understand and use language, to read and write, to calculate and reason mathematically, to solve problems, and to communicate their ideas and perspectives, their opportunities for a fulfilling and rewarding life are seriously compromised ([*Reading Disabilities: Why Do Some Children Have Difficulty Learning to Read? What Can Be Done About It? By G. Reid Lyon, Ph.D.*](#)).

In September 2018, **less than half** of South Carolina students in grades 3-8 met or exceeded expectation in either English Language Arts or Math. On average, one in four students landed in the lowest category, "Does Not Meet" expectations on SC READY benchmarks ([*Greenville Journal: Less than half of SC students are meeting SC READY benchmarks*](#)).

Dr. C. Reid Lyon, former Chief of the Child Development and Behavior Branch of the National Institute of Child Health and Human Development (NICHD) at the National Institutes for Health, estimates that a lucky five percent of kids seem to read with no effort at all, and another 20-30 percent of students overall learn to read with ease when exposed to any kind of instruction. For about 60 percent of students, though, learning to read will be hard work and their success will depend largely on the effectiveness of the instruction. **About 20 to 30 percent of students will**

find reading to be one of the most difficult tasks they have ever encountered. How these children are taught to read is critical to their success.

By the end of first grade, children having difficulty learning to read begin to feel less positive about their abilities than when they started school. As children were followed through elementary and middle school, self-esteem and the motivation to learn to read decline even further. Of the 10 to 15% of children who will eventually drop out of school, more than 75% will report difficulties learning to read.

The majority of children who enter kindergarten and elementary school at-risk for reading failure can learn to read at average or above levels, but only if they are identified early and provided with systematic, explicit, and intensive instruction in phonemic awareness, phonics, reading fluency, vocabulary, and reading comprehension strategies. Substantial research supported by NICHD shows clearly that without systematic, focused, and intensive interventions, the majority of children rarely “catch up”. Failure to develop basic reading skills by age nine predicts a lifetime of illiteracy. Unless these children receive the appropriate instruction, more than 74% of the children entering first grade who are at-risk for reading failure will continue to have reading problems into adulthood

Reading problems are seriously under-diagnosed. Many students find out they have dyslexia in grades 3-5 even though the signs for dyslexia are apparent much earlier. In kindergarten through grade 2, signs of a student being at-risk for reading difficulties include when a student has difficulty learning letter names and remembering the sounds they make, confusing letters that look similar and letters that have similar sounds, struggles to read familiar words, often substitutes words when reading aloud or omits word endings, doesn't seem to know how to approach unfamiliar words, has trouble blending individual sounds or identifying vowel and vowel combinations in words, can't remember how words are spelled or spelling rules, and/or has trouble coming up with a list of words like the names of 10 colors or 10 fruits or retrieving the name of something ([*Understood: Signs of Dyslexia at Different Ages*](#)).

According to the National Institutes of Health, **75%-80%** of students identified with specific learning disabilities (SLD) have their basic deficits in language and reading ([*Learning Disabilities Association of South Carolina: New to LD*](#)).

In NICHD-supported longitudinal studies, it was learned that school failure has devastating consequences with respect to self-esteem, social development, and opportunities for advanced schooling and meaningful employment.

GSSA PROGRAM DESIGN:

GSSA will have a unique hybrid program design. In the mornings, all academic basic skills will be taught using direct teacher instruction, peer-to-peer teaching, blended self-paced learning using technology, and challenging centers in two 90-minute blocks with a 30-minute recess between blocks. One block will focus on reading (decoding, vocabulary, comprehension, and fluency), literature and writing. The second block will focus on arithmetic (numeracy, calculation, problem solving) and visual/strategic thinking. Each student's academic levels will

be assessed to determine where instruction can be accelerated and where support needs to be provided. The most effective research-based and pedagogical best practices will be used in a class size of up to 10 students.

The afternoons will involve project-based learning that allows students to explore, discover, imagine and create through hands-on activities and access to technology. The focus will be on STEM and STEAM (Science, Technology, Engineering, Art, and Math) projects that relate to student interests. Art, music and drama will be integrated into the projects. Students will seek to find their passions while developing the perseverance or grit needed to succeed. Students will work independently and collaboratively on teams. Class size will vary.

PROPOSED SITE PLAN:

GES and GSSA will utilize all existing buildings – updated farmhouse, remodeled two-car garage with expanded loft area and remodeled free standing red barn structure. The updated Life Safety Plan by SGA Architects (Attachment 1) identified 11 classroom spaces with an occupancy load of 162. To ensure the quality of experience for each student, the maximum enrollment will be capped at 75 students in the first five years.

On Liberty Hill Road, GES and GSSA will be located directly across the street from The Liberty Hill Methodist Church property and down the road from The Liberty Hill Methodist Church and cemetery at 301 Liberty Hill Road, and Hollycrest Bed and Biscuit, pet boarding and grooming, at 381 Liberty Hill Road, next door to the church. GES and GSSA will not have any permanent signage on Abner Creek Road. We do intend to have a small sign on Liberty Hill Road pointing to the parking lot entrance. We intend to “hide in plain sight” and will not be using road signage to advertise the presence of the school as we prefer to be seen as a farmhouse and part of the community that reflects its rural character and history.

Sprague & Sprague Consulting Engineers was hired to conduct a traffic impact study (Attachment 2). At the first SCDOT meeting with Gaye Sprague, SCDOT recommended closing off the existing Abner Creek Road and Liberty Hill Road driveway entrances and installing a new driveway entrance further down Liberty Hill Road, away from the Abner Creek Road intersection, which we have agreed to do. We will work with the Fire Department to have access via Abner Creek Road.

Darrohn Engineering, a civil engineering firm, was hired to design the traffic flow, driveway entrance, parking lot and associated storm water management. At our second meeting with SCDOT, John Darrohn presented the revised site plan. At that meeting, SCDOT approved the location of the new driveway for student drop-off and pick-up and parking for staff and visitors further down Liberty Hill Road, between Abner Creek Road and Waddell Road (Attachment 3). This new parking area was designed for efficient traffic flow and storm water management, and contains 23 parking spaces, 6+ car drop-off lane, with additional surge capacity in the two-lane perimeter. An additional 45 overflow spaces are available in the adjacent grassy area (Attachment 4). During arrival and dismissal, faculty and staff will be assigned to supervise

traffic flow (a.k.a. car pool duty), assisting students to exit their vehicles quickly and directing drivers to park if there is no room in the drop-off lane. This process should expedite arrival and departure, and should eliminate vehicles queuing up on Liberty Hill Road.

In order to achieve the sight lines from the new driveway that SCDOT requires, the trees and bushes along Liberty Hill Road going southbound from the old driveway, past the new driveway and past Waddell Road will need to be removed. This will greatly improve visibility and safety for all vehicular, bicycle and pedestrian traffic along that part of Liberty Hill Road.

Gaye Sprague's full 36-page traffic impact study is attached. Below are key conclusions:

1. A capacity analysis was performed, looking at the existing traffic conditions and factoring in anticipated development/growth along with the proposed school traffic and concluded that both the intersection at Abner Creek and Liberty Hill Roads, and the new Liberty Hill site access intersection, can handle the proposed school traffic without modification. No left or right turn lanes are needed at either intersection.
2. A traffic operations analysis was performed to assess the quality of traffic flow in terms of Level of Service (LOS) using a six point scale from "A" to "F". During the arrival and dismissal peak hours, the unsignalized intersection at Abner Creek and Liberty Hill Roads is rated a "B", while the unsignalized intersection at Liberty Hill Road and the site access driveway is rated an "A". Per SCDOT guidelines, these LOS rating do not require mitigation.
3. The traffic study also recorded traffic counts during peak morning and afternoon rush. During the peak morning 15-minute block from 7:30-7:45AM, a total of 100 vehicles passed through the intersection at Abner Creek and Liberty Hill Roads yielding a peak rate of 400 vehicles per hour, or an average of 6.7 vehicles per minute during the peak morning period. During the peak afternoon 15-minute block from 3:45-4:00PM, a total of 53 vehicles passed through the intersection yielding a peak rate of 212 vehicles per hour, or an average of 3.5 vehicles per minute during the peak afternoon period.

Schools are procedural, they are routinized, and they have predictable, short duration, traffic patterns during weekday mornings and afternoons. Based on this information, we plan to:

- Start school at 8:00AM, after the morning peak, and
- Dismiss school at 3:30PM, before the afternoon peak.

ATTACHMENTS



Attachment 1: GSSA Life Safety
Plan 2018.10.22.pdf



Attachment 2: GSSA Traffic Impact
Study 2018.10.23.pd



Attachment 3: GSSA Color Site
Plan 2018.10.22.pdf



Attachment 4: GSSA Parking Site
Plan 2018.11.15.PNG



PROJECT:	18070
DRAWN/CHECKED BY:	TRD/UCD
BY	UCD
NO.	1
DATE	10/19/18
REVISIONS	BOARD OF ZONING APPEALS

**GREENVILLE STUDENT SUCCESS ACADEMY
TRAFFIC IMPACT STUDY
Greer, South Carolina**

**Prepared for
Greenville Educational Services, LLC**

Prepared by
 **Sprague & Sprague**
Consulting Engineers

October 23, 2018

Signature Page
GREENVILLE STUDENT SUCCESS ACADEMY TRAFFIC IMPACT STUDY
Greer, South Carolina
October 23, 2018

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 **Sprague & Sprague**
Consulting Engineers
Post Office Box 9192
Greenville, South Carolina 29604
864/346-3106

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GREENVILLE STUDENT SUCCESS ACADEMY TRAFFIC IMPACT STUDY
Greer, South Carolina
October 23, 2018

Executive Summary

Greenville Student Success Academy is planned to be housed in an existing structure in the southwest quadrant of the intersection of Abner Creek Road/Liberty Hill Road. An aerial of the site is included in Appendix A. The site currently has access via Abner Creek Road and Liberty Hill Road, but the Academy site, as also shown in Appendix A, will have access via a relocated driveway on Liberty Hill Road. Although the academy will open with only a few students, the ultimate enrollment is planned as 75 students. Opening of the academy is planned in 2019.

The findings of this study are:

- *Abner Creek Road/Liberty Hill Road* – This intersection currently operates acceptably and will continue to do so with existing geometry in 2020 with either no build or build volumes.
- *Liberty Hill Road/site access* – This intersection will operate acceptably with existing geometry and 2020 build volumes.

Introduction

Greenville Student Success Academy is planned to be housed in an existing structure in the southwest quadrant of the intersection of Abner Creek Road/Liberty Hill Road. An aerial of the site is included in Appendix A. The site currently has access via Abner Creek Road and Liberty Hill Road, but the Academy site, as also shown in Appendix A, will have access via a relocated driveway on Liberty Hill Road. Although the academy will open with only a few students, the ultimate enrollment is planned as 75 students. Opening of the academy is planned in 2019.

Purpose of Study

The purpose of this study is to meet the requirements of the South Carolina Department of Transportation in the encroachment permit process and of the City of Greer in the development approval process. The study intersections are:

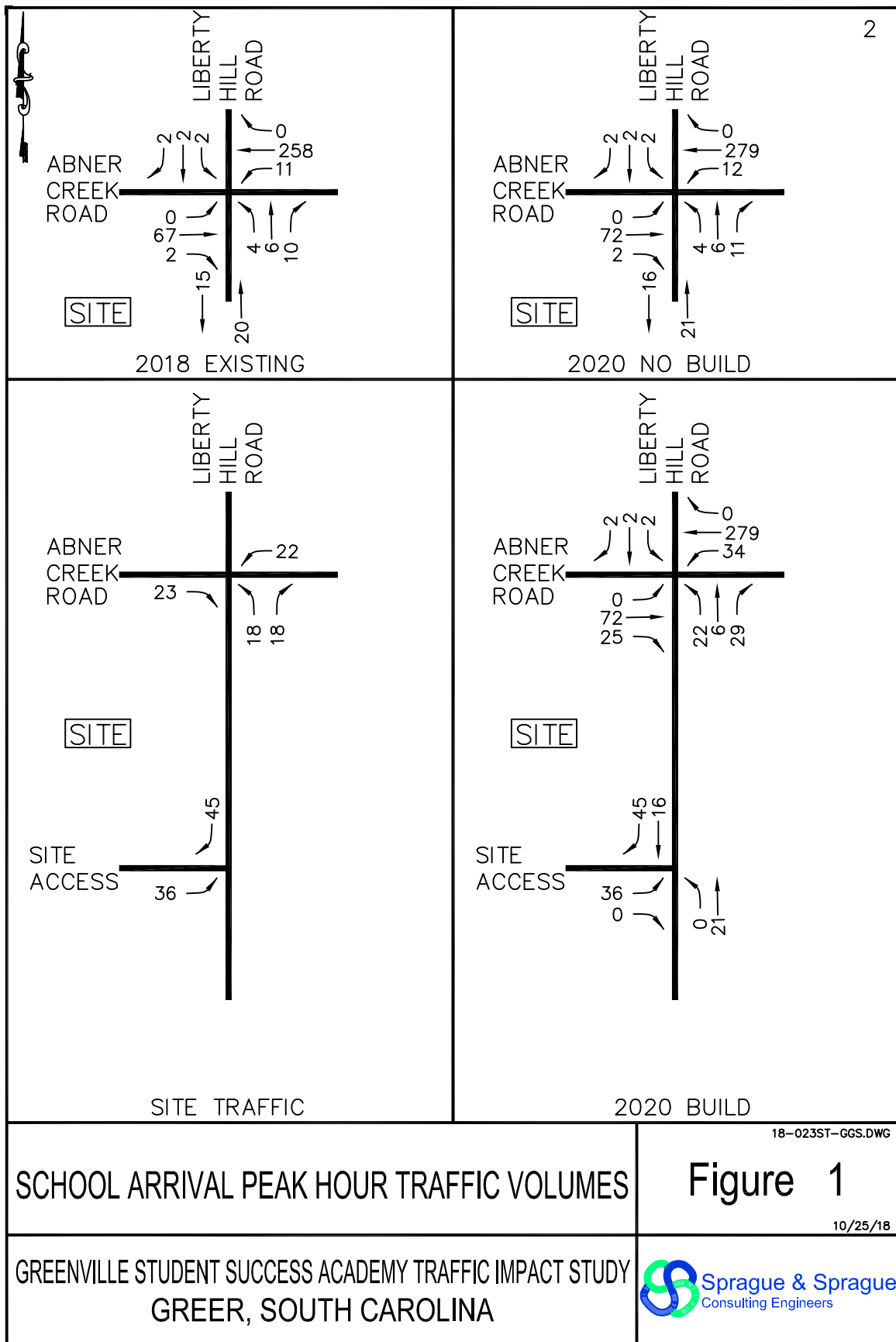
- Abner Creek Road/Liberty Hill Road
- Liberty Hill Road/site access

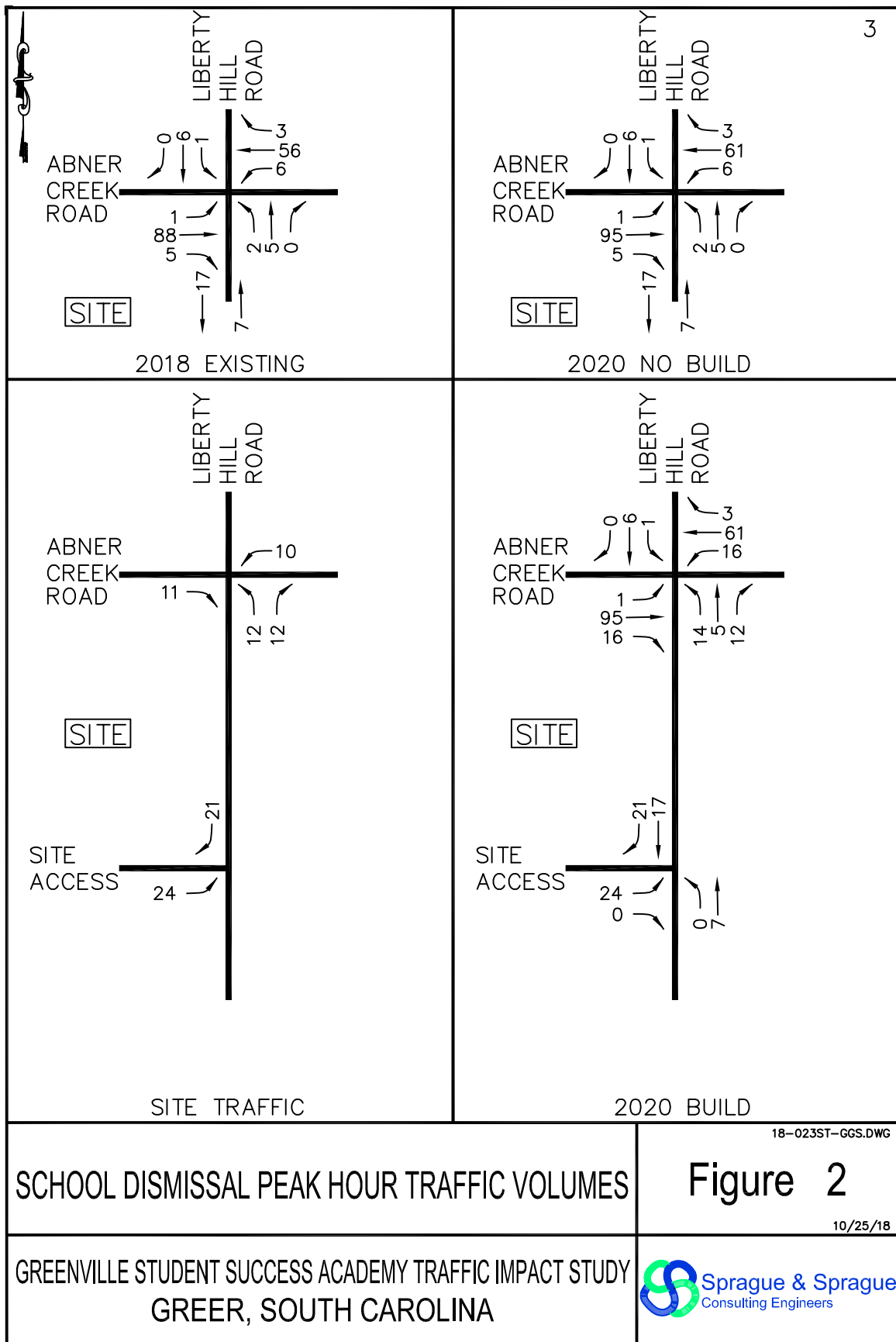
The study periods are school arrival and dismissal peak hours. The study year is build out plus one year. Build out is planned by 2019. Therefore, the study year is 2020.

Existing Conditions

Abner Creek Road and Liberty Hill Road are two-lane roads. Their intersection is controlled by stop signs on Liberty Hill. Speed limits are 40 miles per hour on Abner Creek and 35 miles per hour on Liberty Hill.

Turning movement counts were conducted at the study intersection in October 2018. The counts were conducted during the time periods of 7:00 – 9:00 a.m. and 2:00 – 4:00 p.m. and are included in Appendix B. The 2018 existing peak hour traffic volumes are shown in Figure 1 for school arrival peak hour and in Figure 2 for school dismissal peak hour. These peak hours are 7:00-8:00 am and 3:00-4:00 pm. The peak of school traffic volumes





may occur outside these peaks during periods such as 7:15-8:15 am and 2:00-3:00 pm. To be sure that the school traffic impact was not understated the peak hours of existing traffic during the hours counted were used in this study.

2020 No Build Traffic

No build traffic is the traffic that would be at the study intersections in the future without the proposed development. No build traffic is made up of existing traffic and any increase or decrease in volumes which might occur from general growth trends in the surrounding area or from nearby specific developments. One way to estimate background traffic growth is to examine historical SCDOT traffic volumes. As shown in Table 1, SCDOT has an annual traffic count station on Abner Creek Road east of the site. Between 2009 and 2017, traffic volumes went up and down as did volumes at many stations across South Carolina due to the economic downturn at the beginning of this period. It is usually reasonable to use the growth that occurred between 2011 and 2017 as representative of recent traffic volume growth, but in this case the 2011 volume does not indicate any recovery from the recession. Also, the volume at this location went down between 2016 and 2017. It would be reasonable to use no background traffic growth in this study, but there are large undeveloped parcels in the area. Therefore, the growth between 2012 and 2016 was considered, and that growth was four percent per year. Because the time between the counts and the study year is short, it is reasonable to use this higher annual traffic growth. Therefore, four percent per year background traffic growth was used in this study.

The 2018 peak hour traffic volumes were increased by four percent per year for two years, and the 2020 no build peak hour traffic volumes are shown in Figure 1 for the school arrival peak hour and in Figure 2 for the school dismissal peak hour.

Table 1
HISTORICAL SCDOT TRAFFIC COUNTS
Greenville Student Success Academy Traffic Impact Study
Greer, South Carolina

Location (Station #)	2017	2016	2015	2014	2013	2012	2011	2010	2009
Abner Creek W of SC 101 (#357)	1600	2100	1750	2000	2000	1800	1600	1600	1550

Proposed Site

Trip Generation – All trip generation information was taken from the 10th Edition of Trip Generation, Institute of Transportation Engineers.

- Private School (K-8) (Land Use Code 534) – independent variable is students – 75 students
 - o Morning Peak Hour of Generator: $T=0.88X+14.85 = 81$
 - 56% enter = 45, 44% exit = 36
 - o Afternoon Peak Hour of Generator: $T=0.63X-1.93 = 45$
 - 47% enter = 21, 53% exit = 24

All trips will be new to the street network. The trip generation for Greenville Student Success Academy is shown in Table 2.

Table 2
TRIP GENERATION
Greenville Student Success Academy Traffic Impact Study
Greer, South Carolina

Use – Size	Morning Peak Hour			Afternoon Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
Private School (K-8) – 75 students	45	36	81	21	24	45

Trip Distribution – There is no geographic limitation of residence for the students of the academy. While the heavier population concentration is to the west of the subject site, it appears there are more similar schools to the west also. Therefore, the trip distribution for school traffic was assumed to be:

- 50 percent to/from the east
- 50 percent to/from the west

Trip Assignment - Peak hour site trips were assigned to the study intersections using the distribution above and are shown in Figure 1 for school arrival peak hour and in Figure 2 for school dismissal peak hour.

2020 Build Traffic

Peak hour site trips were added to the 2020 no build peak hour traffic volumes to obtain the 2020 build peak hour traffic volumes shown in Figure 1 for school arrival peak hour and in Figure 2 for school dismissal peak hour.

Need for Turn Lanes

In general, it is desirable to have a left turn lane on the major street at a driveway or side street so that vehicles stopped to turn left have a place to store outside the through lane. This arrangement reduces the potential for rear end collisions. The provision of a right turn lane eliminates the delay that can result for through vehicles as the right turn vehicles slow to make the turn. Right turn lanes also reduce the potential for rear end collisions. The disadvantages of the additional lanes besides the construction cost are the right-of-way requirements, maintenance costs, the additional run-off caused by a paved surface, and greater intersection width increasing pedestrian crossing distance as well as the accident potential during construction.

Because there are both advantages and disadvantages to the additional lanes, the lanes should be installed where the advantages outweigh the disadvantages. The SCDOT Highway Design Manual, 2017 offers guidelines for a two-lane highway with a speed of 40 miles per hour (lowest speed for which a graph is available): Figure 9.5G - Volume Guidelines for Left-Turn Lanes at Unsignalized Intersections on Two-Lane Highways (40 MPH). This graph can be used as a guideline in this case and is included in Appendix C. No left turns are projected into the site access, but even if a few lefts are made, it is obvious from comparing the 2020 build volumes to the graph in Figure 9.5G that a left turn lane would not be necessary at the site access. The 2020 build volumes at Abner Creek/Liberty Hill were plotted on the graph and indicate that a left turn lane is not necessary westbound on Abner Creek at Liberty Hill.

The SCDOT Design Manual also offers Figure 9.5A – Guidelines for Right-Turn Lanes at Unsignalized Intersections on Two-Lane Highways. It is obvious from comparing the 2020 build volumes to the graph in Figure 9.5A that a right turn lane is not necessary for the southbound right turn into the sight. The 2020 build volumes at Abner Creek/Liberty Hill were plotted on the graph and indicate that a right turn lane is not necessary eastbound on Abner Creek at Liberty Hill.

Traffic Operations

Synchro 9.1 is the software used for the traffic operations analyses in this study. The methodology used for assessing the quality of traffic flow is the methodology describe in the 2010 Highway Capacity Manual (HCM), Transportation Research Board. In general, the HCM expresses quality of flow in terms of Level of Service (LOS). The type of transportation facility which was examined in this study is the unsignalized intersection. The criteria for unsignalized intersection LOS are shown in Table 3. The variable used is control delay. This is the delay attributed to traffic control measures and includes deceleration delay, queue move-up time, stopped delay, and final acceleration delay. SCDOT uses a guideline of roadway LOS C or no change in LOS if the baseline LOS is below C as not requiring mitigation. It is not unusual for an individual movement, especially on a side street at an unsignalized intersection, to experience LOS E or F during the peak hour.

Table 3
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE CRITERIA
Greenville Student Success Academy Traffic Impact Study
Greer, South Carolina

Level of Service	Control Delay Range (seconds/vehicle)
A	<10
B	>10 and <15
C	>15 and <25
D	>25 and <35
E	>35 and <50
F	>50

The study intersections were analyzed for school arrival and dismissal peak hours with existing, 2020 no build, and 2020 build traffic volumes. Percentages of heavy vehicles, peak hour factors, and pedestrians were taken from existing counts. A peak hour factor of 0.70 was used for the school trips into and out of the site access. Lane widths, storage lengths, and grades were measured on aerials. Capacity analysis printouts are included in Appendix D. Although there are no turn lanes for which storage adequacy needs to be checked, SimTraffic was run for the study intersections for information, and the printouts are also included in Appendix D.

Abner Creek Road/Liberty Hill Road – As shown in Table 4, this intersection currently operates acceptably and will continue to do so in 2020 with either no build or build volumes.

Table 4
CAPACITY ANALYSES RESULTS – UNSIGNALIZED INTERSECTION – EXISTING GEOMETRY
ABNER CREEK ROAD/LIBERTY HILL ROAD
Greenville Student Success Academy Traffic Impact Study
Greer, South Carolina

Movement	Level of Service/Delay (seconds/vehicle)		
	Existing	2020 No Build	2020 Build
<i>School Arrival Peak Hour</i>			
Eastbound - Left	A/0	A/0	A/0
Westbound - Left	A/7	A/7	A/8
Northbound-Left/through/right	B/10	B/10	B/11
Southbound-Left/through/right	B/11	B/11	B/12
<i>School Dismissal Peak Hour</i>			
Eastbound - Left	A/7	A/7	A/7
Westbound - Left	A/7	A/7	A/8
Northbound-Left/through/right	B/10	B/10	B/10
Southbound-Left/through/right	B/10	B/10	B/11

Notes:

- Abner Creek is east-west. Liberty Hill is north-south.

Liberty Hill Road/site access – As shown in Table 5 this intersection will operate acceptably with 2020 build volumes.

Table 5
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTION – 2020 BUILD VOLUMES
LIBERTY HILL ROAD/SITE ACCESS
Greenville Student Success Academy Traffic Impact Study
Greer, South Carolina

Movement	Level of Service/Delay (seconds/vehicle)	
	School Arrival Peak Hour	School Dismissal Peak Hour
Northbound – Left	A/0	A/0
Eastbound – Left/right	A/9	A/9

Notes:

- (1) Site access is east-west. Liberty Hill is north/south.

Conclusions and Recommendations

- *Abner Creek Road/Liberty Hill Road* – This intersection currently operates acceptably and will continue to do so with existing geometry in 2020 with either no build or build volumes.
- *Liberty Hill Road/site access* – This intersection will operate acceptably with existing geometry and 2020 build volumes.

Appendix A
CONCEPTUAL SITE PLAN AND SITE AERIAL



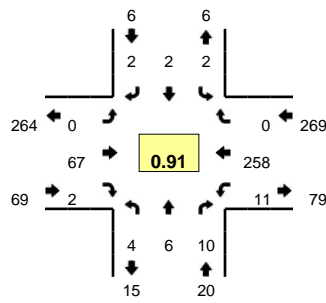
NO.	DATE	REVISIONS
1	10/19/18	BOARD OF ZONING APPEALS



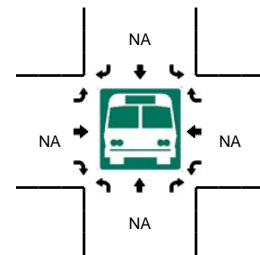
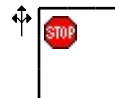
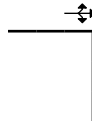
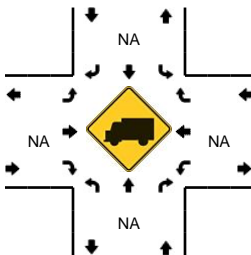
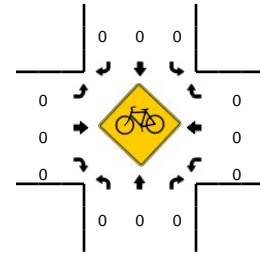
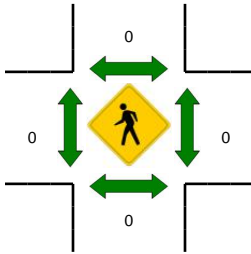
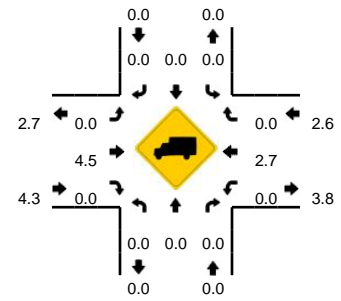
Appendix B
EXISTING TRAFFIC COUNTS

LOCATION: Liberty Hill Rd -- Abner Creek Rd
CITY/STATE: Greer, SC

QC JOB #: 14800301
DATE: Wed, Oct 03 2018



Peak-Hour: 7:00 AM -- 8:00 AM
Peak 15-Min: 7:30 AM -- 7:45 AM

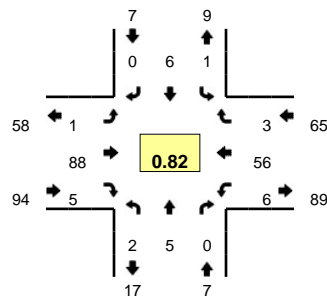


15-Min Count Period Beginning At	Liberty Hill Rd (Northbound)				Liberty Hill Rd (Southbound)				Abner Creek Rd (Eastbound)				Abner Creek Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	2	4	0	1	0	0	0	0	24	0	0	3	61	0	0	95	
7:15 AM	2	2	2	0	0	0	0	0	0	16	1	0	1	71	0	0	95	
7:30 AM	2	1	0	0	0	1	2	0	0	14	1	0	4	75	0	0	100	
7:45 AM	0	1	4	0	1	1	0	0	0	13	0	0	3	51	0	0	74	364
8:00 AM	1	0	1	0	0	1	0	0	0	4	1	0	0	52	1	0	61	330
8:15 AM	3	1	0	0	0	0	0	0	0	6	2	0	0	40	0	0	52	287
8:30 AM	3	0	0	0	0	0	0	0	0	10	0	0	2	22	0	0	37	224
8:45 AM	0	1	1	0	1	0	0	0	0	7	0	0	0	19	0	0	29	179
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	8	4	0	0	0	4	8	0	0	56	4	0	16	300	0	0	400	
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	8	0		8	
Pedestrians	0				0				0				0				0	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

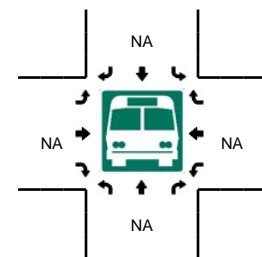
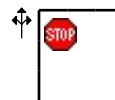
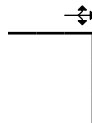
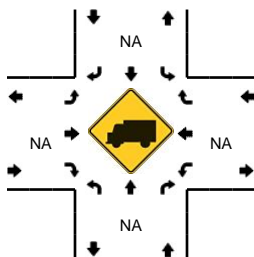
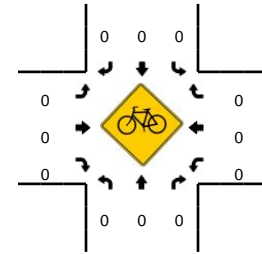
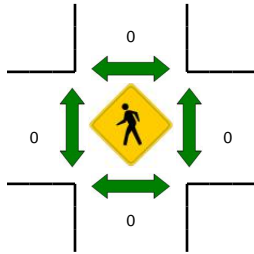
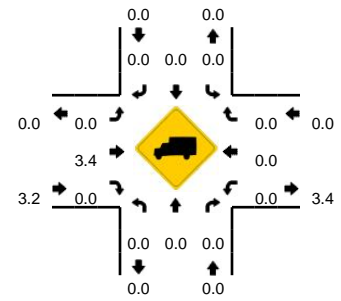
Comments:

LOCATION: Liberty Hill Rd -- Abner Creek Rd
CITY/STATE: Greer, SC

QC JOB #: 14800302
DATE: Wed, Oct 03 2018



Peak-Hour: 3:00 PM -- 4:00 PM
Peak 15-Min: 3:45 PM -- 4:00 PM



15-Min Count Period Beginning At	Liberty Hill Rd (Northbound)				Liberty Hill Rd (Southbound)				Abner Creek Rd (Eastbound)				Abner Creek Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
2:00 PM	0	1	0	0	0	0	0	0	0	16	0	0	0	10	0	0	27	
2:15 PM	1	0	1	0	0	3	0	0	0	9	2	0	1	13	0	0	30	
2:30 PM	1	1	2	0	1	0	0	0	0	7	1	0	0	19	0	0	32	
2:45 PM	0	0	1	0	1	0	0	0	0	11	1	0	1	12	1	0	28	117
3:00 PM	0	2	0	0	1	0	0	0	0	28	1	0	0	15	0	0	47	137
3:15 PM	1	1	0	0	0	0	0	0	0	13	2	0	2	15	1	0	35	142
3:30 PM	0	0	0	0	0	1	0	0	1	18	1	0	1	14	2	0	38	148
3:45 PM	1	2	0	0	0	5	0	0	0	29	1	0	3	12	0	0	53	173

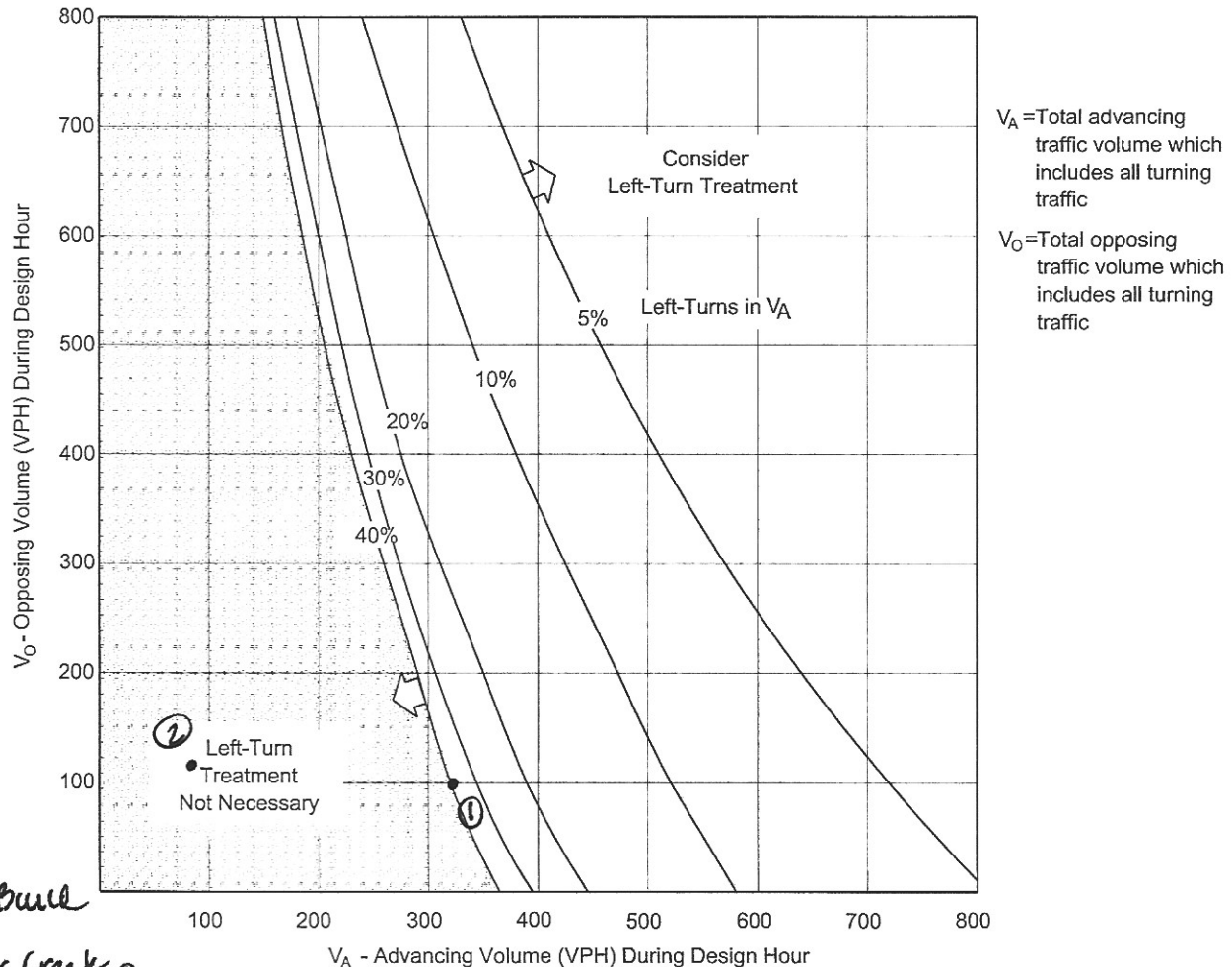
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	8	0	0	0	20	0	0	0	116	4	0	12	48	0	0	212
Heavy Trucks	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Railroad																	
Stopped Buses																	

Comments:

Appendix C

TURN LANE GUIDELINE GRAPHS

Source: SCDOT Roadway Design Manual, 2017



2020 Build

Abner Creek

Liberty Hill

Instructions:

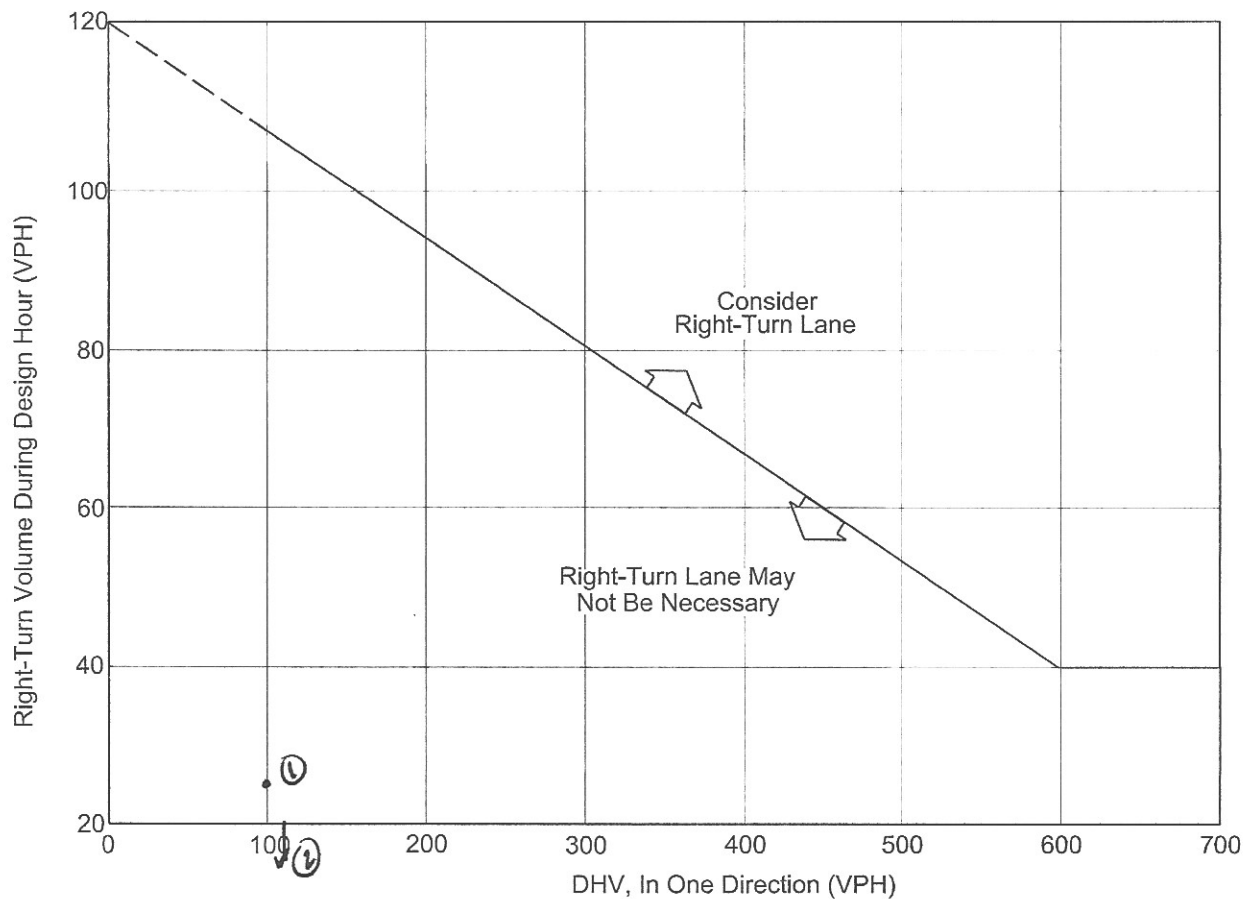
am ① $V_O = 97$; $V_A = 313$; $\% = 11.1$
not necessary

pm ② $V_O = 112$; $V_A = 80$; $\% = 20.1$
not necessary

1. The family of curves represents the percent of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.
2. Read V_A and V_O into the chart and locate the intersection of the two volumes.
3. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is warranted. If the point is to the left of the line, then a left-turn lane is not warranted based on traffic volumes.

**VOLUME GUIDELINES FOR LEFT-TURN LANES AT UNSIGNALIZED
INTERSECTIONS ON TWO-LANE HIGHWAYS (40 mph)**

Figure 9.5-G



Note: For highways with a design speed below 50 miles per hour with a DHV < 300 and where right turns > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.

1020 Build

Abner Creek
Liberty Hill EB

am ① $V_R = 25$ $DHV = 100$

pm ② $V_R = 16$ $DHV = 112$

Example

Given:

Design Speed	=	35 miles per hour
DHV	=	250 vehicles per hour
Right Turns	=	100 vehicles per hour

Problem: Determine if a right-turn lane is necessary.

Solution: To read the vertical axis, use $100 - 20 = 80$ vehicles per hour. The figure indicates that a right-turn lane is not necessary, unless other factors (e.g., high crash rate) indicate a lane is needed.

GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS

Figure 9.5-A

Appendix D

CAPACITY ANALYSIS AND QUEUE REPORT PRINTOUTS

3: Liberty Hill Road & Abner Creek Road GSSA TIS

School Arrival Peak Hour
Existing

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	67	2	11	258	0	4	6	10	2	2	2
Future Vol, veh/h	0	67	2	11	258	0	4	6	10	2	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	1	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	5	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	0	74	2	12	284	0	4	7	11	2	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	284	0	0	76	0	0	385	383	75	392	384	284
Stage 1	-	-	-	-	-	-	75	75	-	308	308	-
Stage 2	-	-	-	-	-	-	310	308	-	84	76	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.7	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1290	-	-	1536	-	-	565	542	990	571	553	760
Stage 1	-	-	-	-	-	-	935	833	-	706	664	-
Stage 2	-	-	-	-	-	-	693	653	-	929	836	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1290	-	-	1536	-	-	558	537	990	556	548	760
Mov Cap-2 Maneuver	-	-	-	-	-	-	558	537	-	556	548	-
Stage 1	-	-	-	-	-	-	935	833	-	706	658	-
Stage 2	-	-	-	-	-	-	682	647	-	911	836	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	10.3	11
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	703	1290	-	-	1536	-	-	607
HCM Lane V/C Ratio	0.031	-	-	-	0.008	-	-	0.011
HCM Control Delay (s)	10.3	0	-	-	7.4	0	-	11
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection: 3: Liberty Hill Road & Abner Creek Road

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	18	31	31
Average Queue (ft)	1	15	4
95th Queue (ft)	9	38	20
Link Distance (ft)	1069	491	1054
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary




Network wide Queuing Penalty: 0

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	72	2	12	279	0	4	6	11	2	2	2
Future Vol, veh/h	0	72	2	12	279	0	4	6	11	2	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	1	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	5	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	0	79	2	13	307	0	4	7	12	2	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	307	0	0	81	0	0	415	413	80	423	414	307
Stage 1	-	-	-	-	-	-	80	80	-	333	333	-
Stage 2	-	-	-	-	-	-	335	333	-	90	81	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.7	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1265	-	-	1529	-	-	539	520	984	545	532	738
Stage 1	-	-	-	-	-	-	929	829	-	685	647	-
Stage 2	-	-	-	-	-	-	671	636	-	922	832	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1265	-	-	1529	-	-	532	515	984	529	527	738
Mov Cap-2 Maneuver	-	-	-	-	-	-	532	515	-	529	527	-
Stage 1	-	-	-	-	-	-	929	829	-	685	641	-
Stage 2	-	-	-	-	-	-	660	630	-	903	832	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	10.4	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	692	1265	-	-	1529	-	-	583
HCM Lane V/C Ratio	0.033	-	-	-	0.009	-	-	0.011
HCM Control Delay (s)	10.4	0	-	-	7.4	0	-	11.2
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	0	0	21	16	45
Future Vol, veh/h	18	0	0	21	16	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	1	-1	-
Peak Hour Factor	70	70	91	91	91	70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	26	0	0	23	18	64

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	73	50	82	0	-	0
Stage 1	50	-	-	-	-	-
Stage 2	23	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	936	1024	1528	-	-	-
Stage 1	978	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	936	1024	1528	-	-	-
Mov Cap-2 Maneuver	936	-	-	-	-	-
Stage 1	978	-	-	-	-	-
Stage 2	1005	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1528	-	936	-	-
HCM Lane V/C Ratio	-	-	0.027	-	-
HCM Control Delay (s)	0	-	9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection: 3: Liberty Hill Road & Abner Creek Road

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	19	38	30
Average Queue (ft)	1	14	5
95th Queue (ft)	7	39	23
Link Distance (ft)	1069	304	1054
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Liberty Hill Road & Site Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	38
Average Queue (ft)	12
95th Queue (ft)	36
Link Distance (ft)	459
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary




Network wide Queuing Penalty: 0

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	72	25	34	279	0	22	6	29	2	2	2
Future Vol, veh/h	0	72	25	34	279	0	22	6	29	2	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	1	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	5	0	0	3	0	0	0	0	0	0	0
Mvmt Flow	0	79	27	37	307	0	24	7	32	2	2	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	307	0	0	107	0	0	477	474	93	493	488	307
Stage 1	-	-	-	-	-	-	93	93	-	381	381	-
Stage 2	-	-	-	-	-	-	384	381	-	112	107	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.7	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1265	-	-	1497	-	-	489	479	967	490	483	738
Stage 1	-	-	-	-	-	-	914	818	-	645	617	-
Stage 2	-	-	-	-	-	-	629	604	-	898	811	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1265	-	-	1497	-	-	475	465	967	458	469	738
Mov Cap-2 Maneuver	-	-	-	-	-	-	475	465	-	458	469	-
Stage 1	-	-	-	-	-	-	914	818	-	645	598	-
Stage 2	-	-	-	-	-	-	606	586	-	861	811	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.8	11.2	11.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	639	1265	-	-	1497	-	-	529
HCM Lane V/C Ratio	0.098	-	-	-	0.025	-	-	0.012
HCM Control Delay (s)	11.2	0	-	-	7.5	0	-	11.9
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	0	0	21	16	45
Future Vol, veh/h	18	0	0	21	16	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	1	-1	-
Peak Hour Factor	70	70	91	91	91	70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	26	0	0	23	18	64
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	73	50	82	0	-	0
Stage 1	50	-	-	-	-	-
Stage 2	23	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	936	1024	1528	-	-	-
Stage 1	978	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	936	1024	1528	-	-	-
Mov Cap-2 Maneuver	936	-	-	-	-	-
Stage 1	978	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1528	-	936	-	-	
HCM Lane V/C Ratio	-	-	0.027	-	-	
HCM Control Delay (s)	0	-	9	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection: 3: Liberty Hill Road & Abner Creek Road

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	50	37	31
Average Queue (ft)	6	24	7
95th Queue (ft)	32	45	27
Link Distance (ft)	1069	304	1054
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Liberty Hill Road & Site Access

Movement	EB
Directions Served	LR
Maximum Queue (ft)	38
Average Queue (ft)	19
95th Queue (ft)	44
Link Distance (ft)	459
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0

3: Liberty Hill Road & Abner Creek Road GSSA TIS

School Dismissal Peak Hour
Existing

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	88	5	6	56	3	2	5	0	1	6	0
Future Vol, veh/h	1	88	5	6	56	3	2	5	0	1	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	1	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	3	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	107	6	7	68	4	2	6	0	1	7	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	72	0	0	113	0	0	201	200	110	201	201	70
Stage 1	-	-	-	-	-	-	113	113	-	85	85	-
Stage 2	-	-	-	-	-	-	88	87	-	116	116	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.7	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1541	-	-	1489	-	-	753	692	946	762	699	998
Stage 1	-	-	-	-	-	-	891	801	-	928	828	-
Stage 2	-	-	-	-	-	-	920	823	-	894	803	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1541	-	-	1489	-	-	744	688	946	753	695	998
Mov Cap-2 Maneuver	-	-	-	-	-	-	744	688	-	753	695	-
Stage 1	-	-	-	-	-	-	890	800	-	927	824	-
Stage 2	-	-	-	-	-	-	907	819	-	886	802	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.7	10.2	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	703	1541	-	-	1489	-	-	703
HCM Lane V/C Ratio	0.012	0.001	-	-	0.005	-	-	0.012
HCM Control Delay (s)	10.2	7.3	0	-	7.4	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection: 3: Liberty Hill Road & Abner Creek Road





Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	26	31	31
Average Queue (ft)	1	8	11
95th Queue (ft)	8	29	35
Link Distance (ft)	1069	491	1054
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

3: Liberty Hill Road & Abner Creek Road GSSA TIS

School Dismissal Peak Hour
2020 No Build

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	95	5	6	61	3	2	5	0	1	6	0
Future Vol, veh/h	1	95	5	6	61	3	2	5	0	1	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	1	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	3	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	116	6	7	74	4	2	6	0	1	7	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	78	0	0	122	0	0	216	214	119	215	215	76
Stage 1	-	-	-	-	-	-	121	121	-	91	91	-
Stage 2	-	-	-	-	-	-	95	93	-	124	124	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.7	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1533	-	-	1478	-	-	736	679	935	746	686	991
Stage 1	-	-	-	-	-	-	882	794	-	921	823	-
Stage 2	-	-	-	-	-	-	912	818	-	885	797	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1533	-	-	1478	-	-	727	675	935	737	682	991
Mov Cap-2 Maneuver	-	-	-	-	-	-	727	675	-	737	682	-
Stage 1	-	-	-	-	-	-	881	793	-	920	819	-
Stage 2	-	-	-	-	-	-	899	814	-	877	796	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.6			10.3			10.3		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	689	1533	-	-	1478	-	-	689				
HCM Lane V/C Ratio	0.012	0.001	-	-	0.005	-	-	0.012				
HCM Control Delay (s)	10.3	7.4	0	-	7.4	0	-	10.3				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0				

Intersection: 3: Liberty Hill Road & Abner Creek Road

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	17	31	31
Average Queue (ft)	1	7	11
95th Queue (ft)	7	27	35
Link Distance (ft)	1069	491	1054
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary




Network wide Queuing Penalty: 0

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	95	16	16	61	3	14	5	12	1	6	0
Future Vol, veh/h	1	95	16	16	61	3	14	5	12	1	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	3	-	-	-2	-	-	1	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	3	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	116	20	20	74	4	17	6	15	1	7	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	78	0	0	135	0	0	247	245	126	253	253	76
Stage 1	-	-	-	-	-	-	128	128	-	115	115	-
Stage 2	-	-	-	-	-	-	119	117	-	138	138	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.3	6.7	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.3	5.7	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1533	-	-	1462	-	-	701	652	927	704	654	991
Stage 1	-	-	-	-	-	-	874	788	-	895	804	-
Stage 2	-	-	-	-	-	-	884	797	-	870	786	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1533	-	-	1462	-	-	687	642	927	680	644	991
Mov Cap-2 Maneuver	-	-	-	-	-	-	687	642	-	680	644	-
Stage 1	-	-	-	-	-	-	873	787	-	894	793	-
Stage 2	-	-	-	-	-	-	864	786	-	849	785	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.5	10	10.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	754	1533	-	-	1462	-	-	649
HCM Lane V/C Ratio	0.05	0.001	-	-	0.013	-	-	0.013
HCM Control Delay (s)	10	7.4	0	-	7.5	0	-	10.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	0	0	7	17	21
Future Vol, veh/h	24	0	0	7	17	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	1	-1	-
Peak Hour Factor	70	70	82	82	82	70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	34	0	0	9	21	30
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	45	36	51	0	-	0
Stage 1	36	-	-	-	-	-
Stage 2	9	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	970	1042	1568	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	1019	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	970	1042	1568	-	-	-
Mov Cap-2 Maneuver	970	-	-	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	1019	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1568	-	970	-	-	
HCM Lane V/C Ratio	-	-	0.035	-	-	
HCM Control Delay (s)	0	-	8.8	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection: 3: Liberty Hill Road & Abner Creek Road

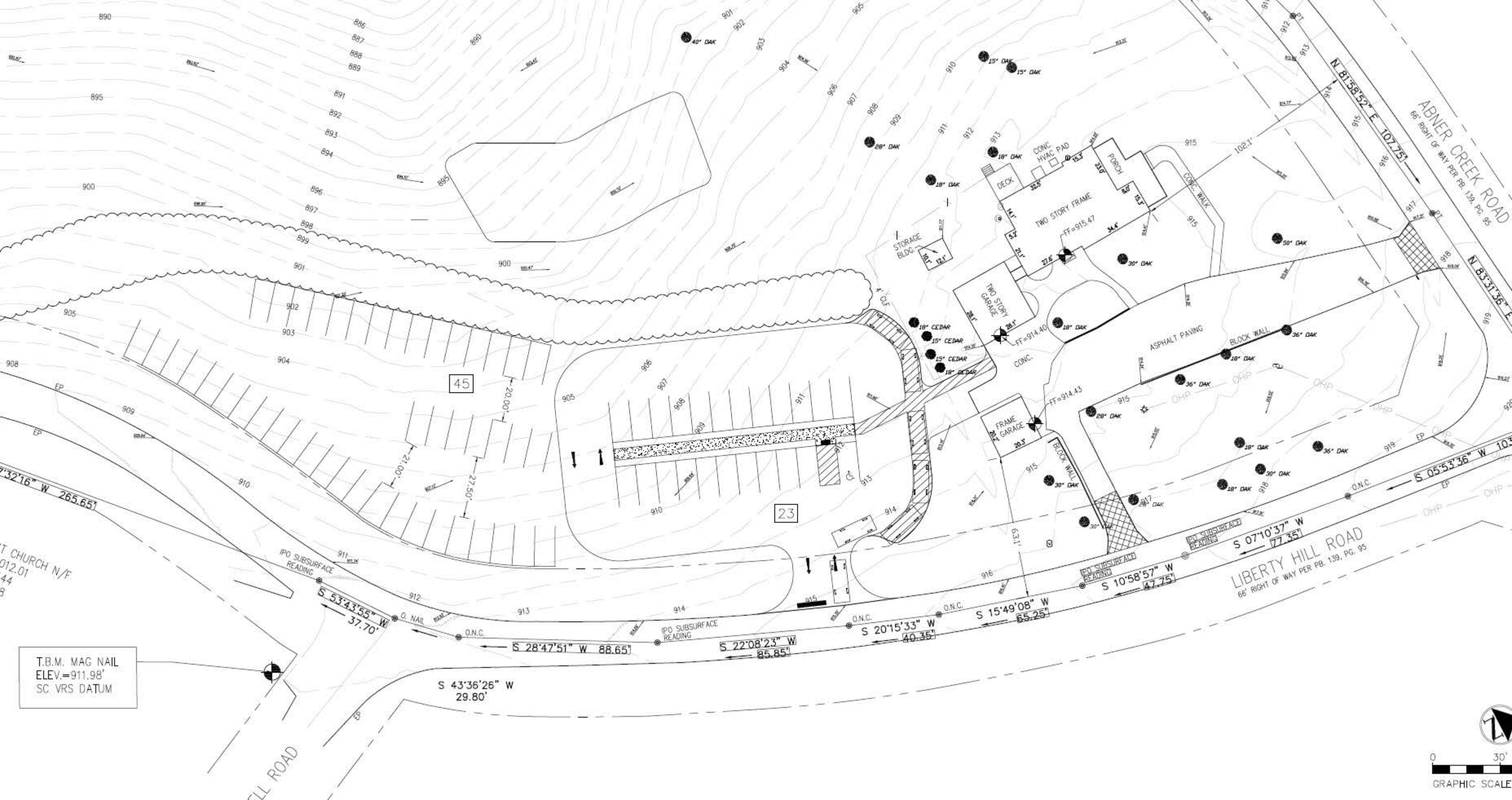
Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	28	31	31
Average Queue (ft)	1	18	7
95th Queue (ft)	9	42	28
Link Distance (ft)	1069	304	1054
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Liberty Hill Road & Site Access

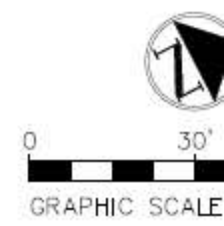
Movement	EB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	16
95th Queue (ft)	41
Link Distance (ft)	459
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 0



T.B.M. MAG NAIL
ELEV.=911.98'
SC VRS DATUM



Chandler Park

+/- 5.42-Acre Residential Development (Design Review District)

Chandler Road & Memorial Drive Extension – Greer, SC

Statement of Intent
December 14th, 2018

Community Development

The development planned for this +/- 5.42-acre tract located at the intersection of Chandler Road & Memorial Drive Extension will utilize the Design Review District (DRD) zoning classification. The community will consist of attached single-family residential townhomes. The roads within the community will be built to public road standards, which will be turned over to the City of Greer. Infrastructure improvements will consist of rolled curb and gutter along internal public roads, public water mains, public sewer mains, storm drainage, and common grounds (open space and community areas) will be owned and maintained by a newly formed Home Owner's Association (HOA). The existing topography & terrain will be utilized to maximize open space and common grounds. The common grounds will be a mixture of undisturbed and disturbed open space. An entrance feature and landscaping will be installed along our proposed entrance off Chandler Road. A stormwater management pond will be installed in the Western boundary of the property to address stormwater runoff and water quality treatment for the community.

Phasing & Density

The project will not exceed 49 single-family townhome units and the overall density of the project will not exceed 9.0 units per acre. The project will be built in one phase. Anticipated completion of community build-out is estimated to be within approximately 3 years of construction start.

Homes & Materials

The townhomes will have a mixture of sizes and all include a minimum 1-car garage. The minimum square footage per townhome is anticipated to be +/- 1,200 SF with an average of +/- 1500 SF. This SF is heated space only. Most townhomes will contain a patio off the rear of the building with end units having the option of fireplaces or a bay window. There is no maximum townhome unit size. Exterior building materials may consist of vinyl siding and trim with stone or brick accent details for all buildings. Exteriors may contain (1) specific material or combination of all materials in some cases.

Amenities and Landscaping

The proposed development will include approximately 2.5 acres of common area. Our entrance drive located off Chandler Road will be landscaped and contain an entrance feature for the neighborhood.

Sewer/Water

An existing 8" sewer main is located on site that is owned and maintained by Greer Commission of Public Works. This sewer will serve our site. An existing 6" public water line is available along Chandler Road & Memorial Drive Extension to serve the development and is owned and maintained by Greer Commission of Public Works. The new sewer and water mains will be built to public standards and turned over to Greer Commission of Public Works.

Setbacks/Buffers

All the proposed setbacks for this project are as follows:

- 30' minimum setback along Chandler Road & Memorial Drive Extension
- 25' minimum setback from exterior property lines (This is intended to be a building setback only, but maximum efforts will be taken to preserve natural vegetation in these areas to buffer surrounding properties.)
- 18' of separation will be provided from the front of any garage to the edge of any internal sidewalks.

Other Public Improvements and Facility Impact

This development will contain a public road that will be built to public road standards and be dedicated to the City of Greer for ownership and maintenance. Street lighting will be provided along all internal roads. The common grounds (open space & community areas), visitor parking areas, the stormwater pond, and entrance features will be owned and maintained by the established Home Owner's Association (HOA). All construction will be in accordance with applicable building codes, zoning ordinances, and all other state and local laws and ordinances.

OPEN SPACE NOTE:
TOTAL PROPERTY AREA: ±5.42 AC.
TOTAL OPEN SPACE PROVIDED: ±2.69 AC.
DENSITY: 7.20 UNITS/AC.

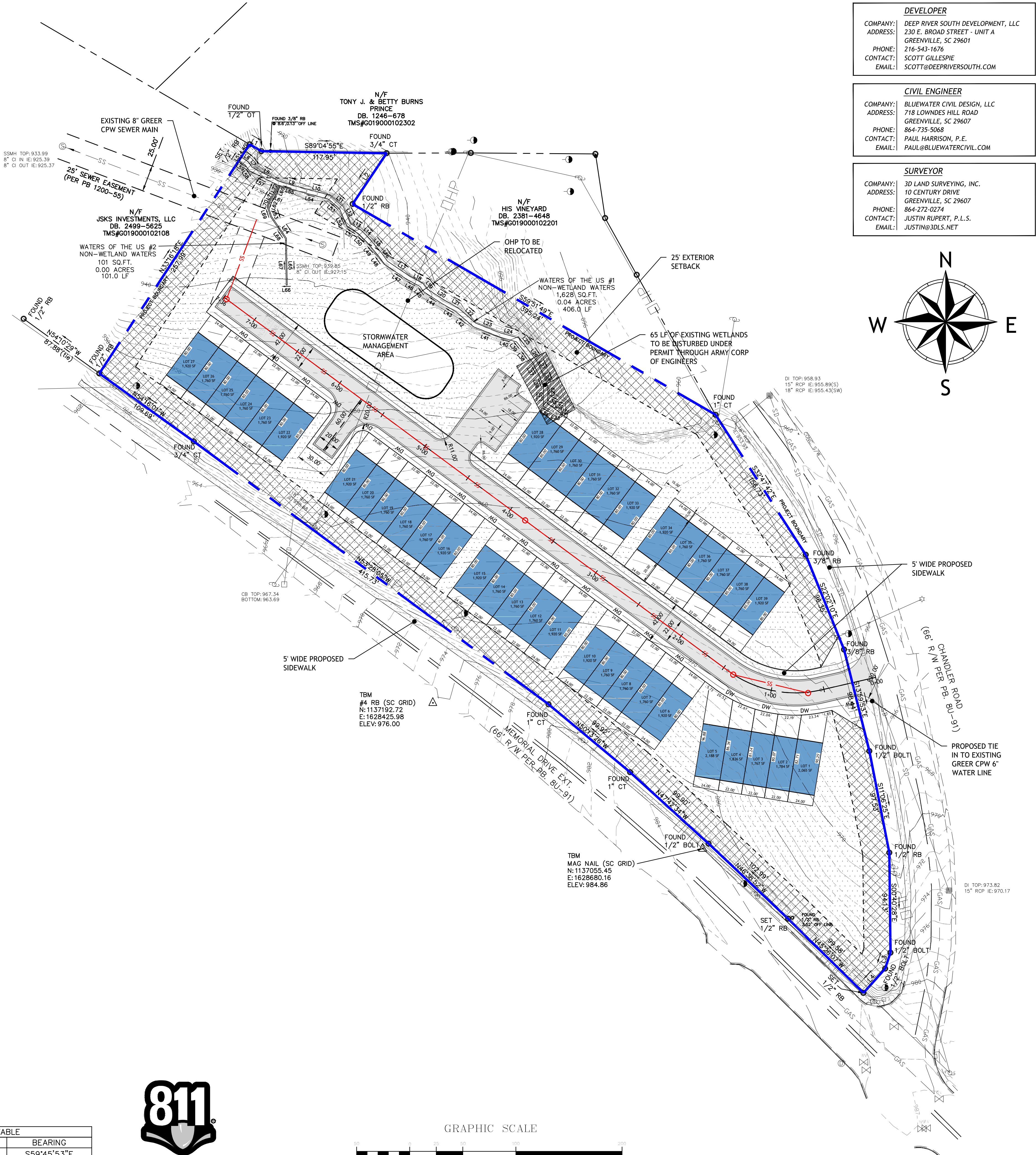
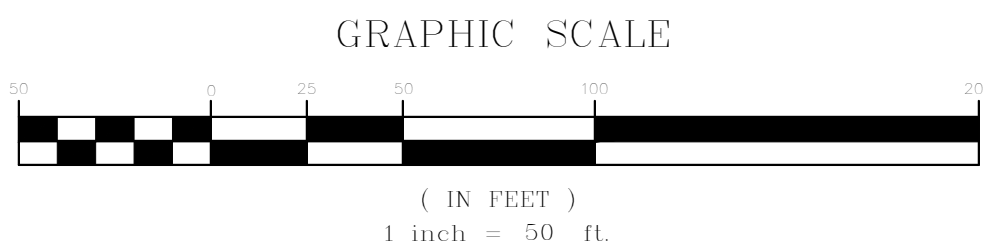
DIMENSION NOTE:
ALL DIMENSIONS SHOWN ON ROADWAY ARE
MEASURED FROM E.O.P. TO E.O.P. UNLESS
OTHERWISE SPECIFIED.

WETLAND LINE TABLE		
LINE	LENGTH	BEARING
L5	4.00'	N33°16'18"E
L6	8.17'	S55°56'38"E
L7	6.12'	S33°51'08"E
L8	28.97'	S63°12'13"E
L9	10.68'	S72°53'31"E
L10	39.01'	S75°03'49"E
L11	16.15'	S48°53'57"E
L12	17.52'	S23°07'23"E
L13	11.66'	S57°57'50"E
L14	12.16'	S44°46'22"E
L15	17.40'	S39°54'55"E
L16	8.76'	S35°24'01"E
L17	24.46'	S55°59'52"E
L18	14.73'	S61°32'33"E
L19	6.87'	S37°15'53"E
L20	18.99'	S57°10'29"E
L21	15.66'	S59°58'27"E
L22	21.67'	S49°26'12"E
L23	25.50'	S68°27'37"E
L24	17.34'	S74°26'16"E
L25	9.94'	S39°03'03"E
L26	17.20'	S37°29'27"E
L27	15.52'	S26°04'52"E
L28	11.07'	S19°41'13"E
L29	16.36'	S00°24'19"W
L30	6.52'	S62°24'03"E
L31	7.66'	S76°59'56"E
L32	4.00'	S13°00'04"W
L33	8.17'	N76°59'56"W
L34	9.48'	N62°24'03"W
L35	18.10'	N00°24'19"E
L36	10.13'	N19°41'13"W
L37	14.89'	N26°04'52"W
L38	16.75'	N37°29'27"W
L39	8.61'	N39°03'03"W
L40	16.27'	N74°26'16"W
L41	26.38'	N68°27'37"W
L42	21.97'	N49°26'12"W
L43	15.39'	N59°58'27"W
L44	19.79'	N57°10'29"W
L45	6.71'	N37°15'53"W
L46	14.06'	N61°32'33"W
L47	25.38'	N55°59'52"W
L48	9.33'	N35°24'01"W
L49	17.07'	N39°54'55"W
L50	11.53'	N44°46'22"W
L51	12.45'	N57°57'50"W
L52	17.86'	N23°07'23"W
L53	14.30'	N48°53'57"W
L54	38.16'	N75°03'49"W
L55	10.64'	N72°53'31"W
L56	1.00'	N68°25'34"W
L57	29.81'	N63°12'13"W
L58	6.39'	N33°51'08"W
L59	7.34'	N55°56'38"W
L60	6.77'	S23°18'43"W
L61	10.46'	S29°55'45"W
L62	4.77'	S20°21'13"W
L63	9.87'	S18°33'14"E
L64	25.04'	S34°08'28"E
L65	44.02'	S00°59'02"E
L66	1.00'	S89°00'58"W
L67	43.72'	N00°59'02"W
L68	24.88'	N34°08'28"W
L69	10.36'	N18°33'14"W
L70	5.20'	N20°21'13"E
L71	10.49'	N29°55'45"E
L72	6.69'	N23°18'43"E

LINE TABLE		
LINE	LENGTH	BEARING
L1	12.81'	S59°45'53"E
L2	57.58'	S33°46'09"W
L3	15.86'	S18°28'23"W
L4	30.69'	S41°48'26"W



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DEVELOPER

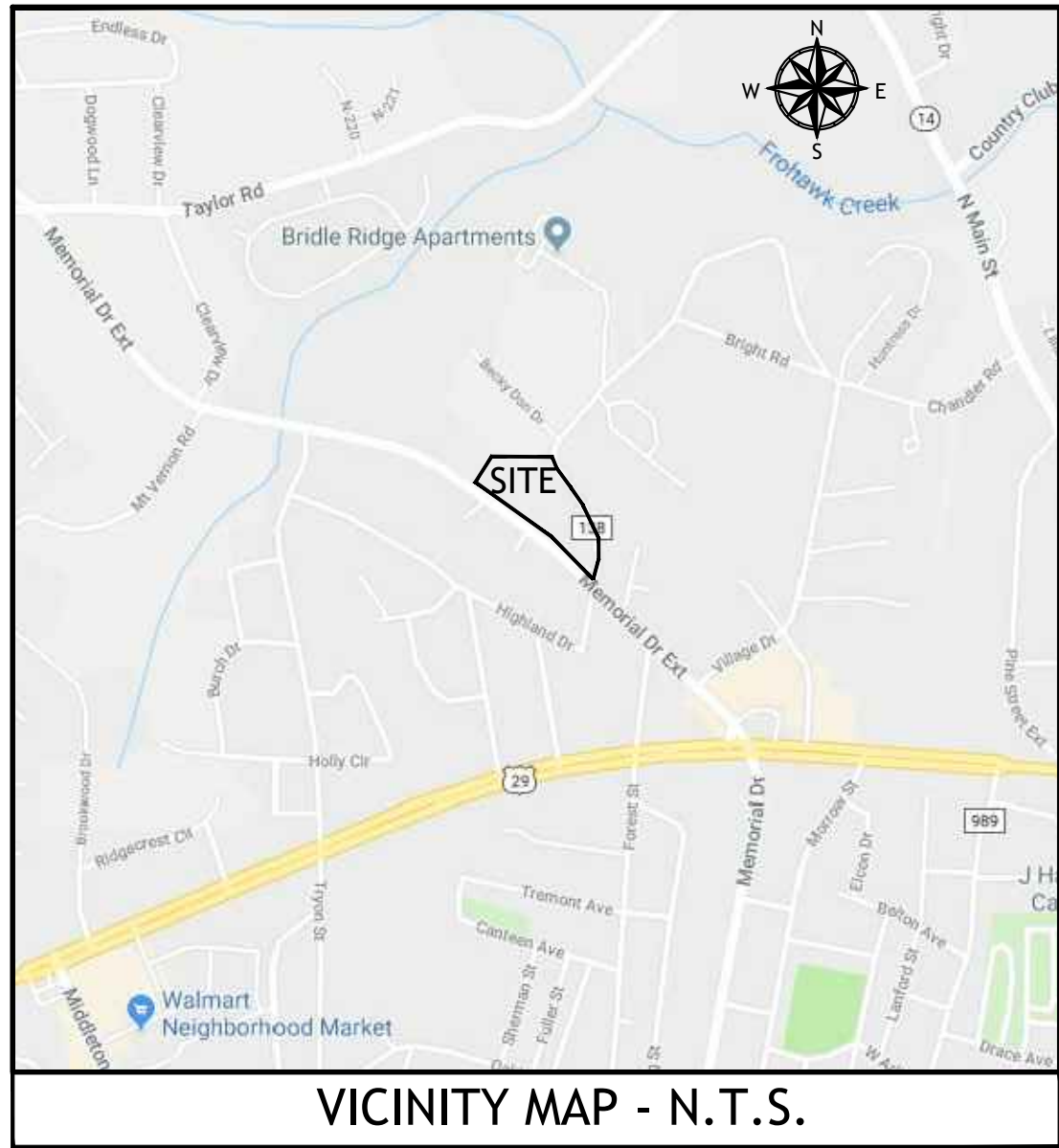
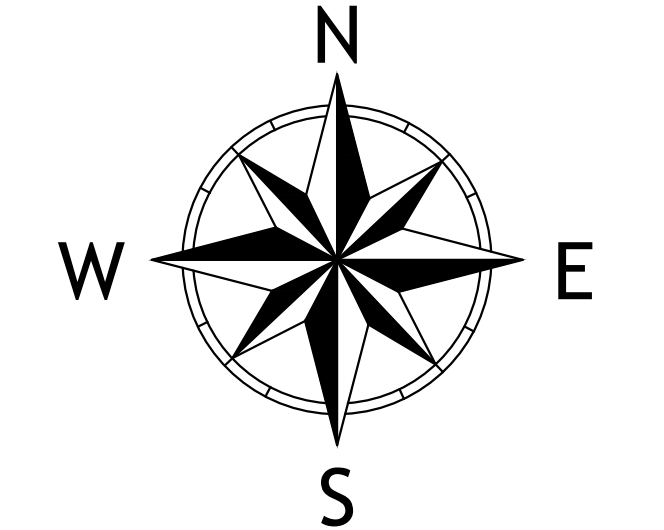
COMPANY: DEEP RIVER SOUTH DEVELOPMENT, LLC
ADDRESS: 230 E. BROAD STREET - UNIT A
GREENVILLE, SC 29601
PHONE: 216-543-1676
CONTACT: SCOTT GILLESPIE
EMAIL: SCOTT@DEEPRIVERSOUTH.COM

CIVIL ENGINEER

COMPANY: BLUEWATER CIVIL DESIGN, LLC
ADDRESS: 718 LOWNDES HILL ROAD
GREENVILLE, SC 29607
PHONE: 864-735-5068
CONTACT: PAUL HARRISON, P.E.
EMAIL: PAUL@BLUEWATERCIVIL.COM

SURVEYOR

COMPANY: 3D LAND SURVEYING, INC.
ADDRESS: 10 CENTURY DRIVE
GREENVILLE, SC 29607
PHONE: 864-272-0274
CONTACT: JUSTIN RUPERT, P.L.S.
EMAIL: JUSTIN@3DLS.NET



SITE DATA

TAX MAP NO.: G019000102103 & G019000102104

TOTAL AREA: ±5.42-ACRES

ZONING: *C-3 & R-M2 (PROP. DRD)

TOTAL UNITS: 39 UNITS (22' X 80' TYP.) (7.20 UNITS/ACRE)

PROPOSED ROADWAY: ±800 LF (22' PAVED, 42' PUBLIC R.O.W.)

SETBACKS
CHANDLER ROAD: 30'
MEMORIAL DRIVE EXT: 30'
EXTERIOR SETBACK: 25'

*LAYOUT ASSUMES THAT THE PROPERTY WILL BE REZONED TO DESIGN REVIEW DISTRICT (DRD)

LAYOUT SUBJECT TO P.C. APPROVAL

SITE LEGEND

- ASPHALT PAVEMENT SECTION
- PROPOSED LANDSCAPING / SCREENING EASEMENT
- PROPOSED 5' SIDEWALK
- PROPOSED OPEN SPACE
- PROPOSED WETLANDS DISTURBANCE
- PROPERTY LINE
- PROPOSED PUBLIC R.O.W.
- PROPOSED LOT LINE
- PROPOSED E.O.P./CURB LINE
- EXISTING E.O.P.
- PROPOSED C/L ROAD
- PROPOSED 6" POTABLE WATER
- PROPOSED 8" SANITARY SEWER

Project Number: 2018-143
DWG Name: Chandler Road Tract
PDP.dwg
Drawing Scale: 1" = 50'
Date of Project: 10/2018
Engineer of Record:
Paul J. Harrison, P.E.
South Carolina PEF 24224
North Carolina PEF 03871

bluewater civil design
bluewatercivil.com • info@bluewatercivil.com
718 Lowndes Hill Road • Greenville, SC 29607

Certificates of Authorization:
SC C04212 - GA PEF005865
NC P0688 - AL CA40656

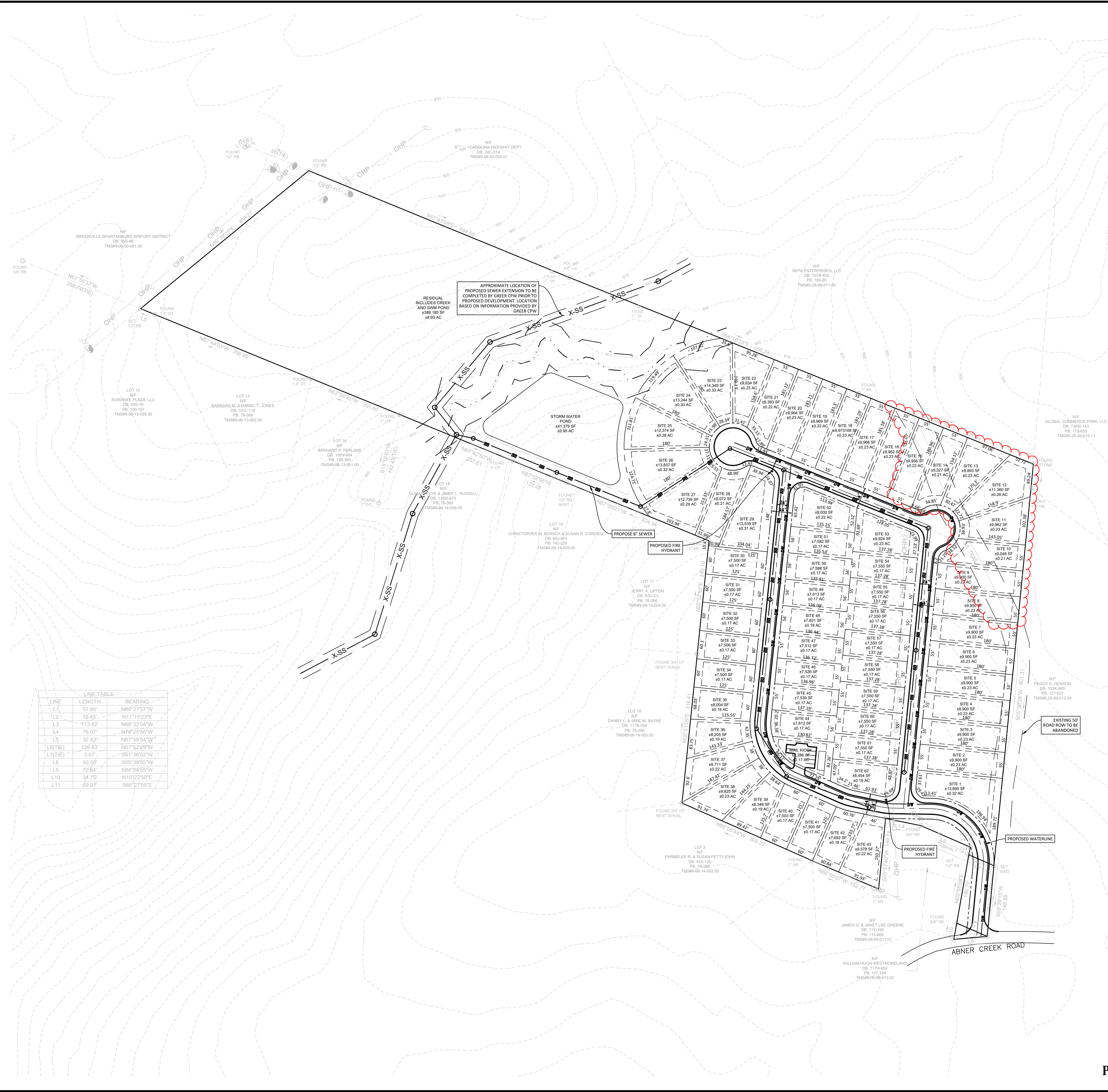
Chandler Park
(SFR Townhome Subdivision)
Chandler Road & Memorial Drive Ext.
Greer, SC

811
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Preliminary Development Plan

PDP-1

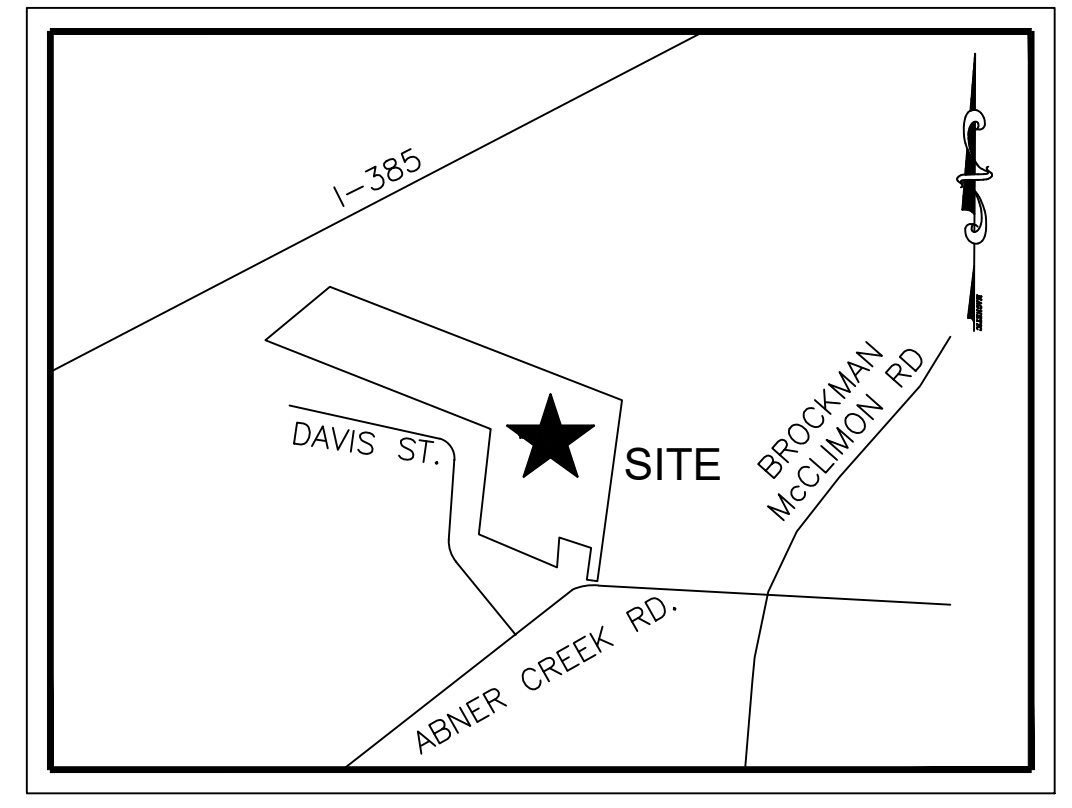
REV	DATE	ISSUE	COMMENT
A	12/13/2017	Issued Preliminary Plat	



LINE TABLE		
LINE	LENGTH	BEARING
L1	57.88'	N66°27'57"W
L2	16.45'	N11°15'23"E
L3	113.62'	N68°32'04"W
L4	76.07'	N78°25'56"W
L5	32.43'	N67°58'54"W
L6(TIE)	139.83'	N67°52'29"W
L7(TIE)	5.67'	S61°36'02"W
L8	50.50'	S05°39'55"W
L9	70.64'	S84°54'55"W
L10	34.75'	N102°25'00"E
L11	69.91'	S66°27'59"E

SITE ANALYSIS	
TAX MAP NUMBER(S):	9-06-00-006.00
TOTAL ACREAGE	±24.99 AC.
ZONING	C-3 REZONED TO R-7.5
MIN. LOT SIZE	7,500 SF
MIN. FRONT SETBACK	20'
MIN. SIDE SETBACK	5'
MIN. REAR SETBACK	15'
PROPOSED LOTS	62

- NOTES:
- EXISTING SEWER LINE IDENTIFIED IS A CAPITAL IMPROVEMENT PROJECT BEING UNDERTAKEN BY GREER CPW. THE ALIGNMENT IS APPROXIMATE BASED ON INFORMATION PROVIDED BY GREER CPW. IT IS ANTICIPATED THAT THE SEWER LINE WILL BE COMPLETED IN ADVANCE OF THE DEVELOPMENT AND PROVISIONS MADE TO ALLOW GRAVITY FLOW FROM THE DEVELOPMENT TO DISCHARGE TO IT.
 - FINISHED GRADING WILL BE DEVELOPED AS PART OF THE OVERALL SUBDIVISION PERMITTING AND CONSTRUCTION DOCUMENTS
 - THE STORMWATER MANAGEMENT POND AS SHOWN IS PRELIMINARY AND WILL BE SIZED PER REGULATORY REQUIREMENTS.



VICINITY MAP



Know what's below.
Call before you dig.

THE UTILITIES SHOWN ARE SHOWN FOR THE CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

**TOPO SURVEY INFORMATION
COMPILED USING:**
GEOGRAPHIC INFORMATION SYSTEMS (GIS)
THIS DOES NOT CONSTITUTE AN ACTUAL FIELD SURVEY. IT IS FOR REFERENCE PURPOSES ONLY.

BOUNDARY SURVEY
PROVIDED BY:
3D LAND SURVEYING, INC.
116 W. STONE AVENUE
GREENVILLE, SC 29609
(864) 272-0274

PRELIMINARY NOT FOR CONSTRUCTION

PRELIMINARY PLAT

ABNER CREEK

OWNER - WESTMORELAND/ EIGHTY-FIVE ASC DEVELOPER - MARK III PROPERTIES 170 - C CAMELOT DRIVE SPARTANBURG, SC 29301 OWNER/DEVELOPER	JAMIE MCCUTCHEEN CCAD, LLC 803 ROPER CREEK DRIVE GREENVILLE, SC 29615 ENGINEER
---	--

No. ACRES: ±24.99 MILES OF NEW ROAD.: ±0.4475 MILES
LOTS: 62 DATE: 07/16/18

