



PL(Z) 22-31

City of Greensboro Planning Department Zoning Staff Report

City Council Hearing Date: August 16, 2022

GENERAL INFORMATION

APPLICANT	Amanda Hodierne for Edgefield Road Partners, LLC and Edgefield Road Partners 2, LLC
HEARING TYPE	Annexation and Original Zoning
REQUEST	County AG (Agricultural), County AG-SP (Agricultural with a Special use Permit), County HB (Highway Business) and County RS-40 (Residential Single-family) to City CD-LI (Conditional District Light Industrial)
CONDITIONS	<ol style="list-style-type: none">1. All permitted uses allowed in the LI zoning district, except for the following:<ol style="list-style-type: none">a. Cemeteries;b. Shooting Ranges;c. Funeral Homes and Crematoriums;d. Recycling Processing Centers; ande. Land Clearing and Inert Debris Landfills, Minor
LOCATION	1341, 1353 and 1357 Pleasant Ridge Road and 1025 NC Highway 68 North
PARCEL ID NUMBER(S)	7816461029, 7816552672, 7816550925, and 7816378560
PUBLIC NOTIFICATION	The notification area for this public hearing was 600 feet (Chapter 30-4-1.4 of the Land Development Ordinance requires notification of the owner of that parcel of land and the owners of all parcels of land adjoining and contiguous to that parcel of land as shown on the County tax listing). 43 notices were mailed to those property owners in the mailing area.
TRACT SIZE	97.87 Acres
TOPOGRAPHY	Undulating
VEGETATION	Wooded
<u>SITE DATA</u>	
Existing Use	Undeveloped

	Adjacent Zoning	Adjacent Land Uses
N	City CD-LI (Conditional District – Light Industrial) and City CD-C-M (Conditional District – Commercial - Medium)	Warehouse uses and undeveloped land
E	County AG (Agricultural), County AG-SP (Agricultural with a special use permit), County SC (Shopping Center), County LI (Light Industrial), and City LI (Light Industrial)	Retail uses, trucking terminal, NC Highway 68, and I-73
S	City CD-PI (Conditional District – Public and Institutional) and County RS-40 (Residential Single-family)	Former golf academy and single-family dwellings
W	County RS-40 (Residential Single-family), County AG (Agricultural), and County CZ-RPD (Conditional Zoning – Rural Preservation District)	Single-family dwellings and common elements

Zoning History

Case #	Date	Request Summary
N/A	N/A	The subject property is not currently located in the City's jurisdiction.

ZONING DISTRICT STANDARDS**District Summary ***

Zoning District	Existing	Existing	Existing
Designation:	County AG-SP	County HB	County RS-40
Max. Density:	N/A	N/A	1 unit per acre
Typical Uses	Uses limited to a Day Care for children.	Primarily meant to accommodate auto-oriented retail service and other commercial uses typically located along major thoroughfares.	Primarily intended to accommodate single family residential uses at a density of not less than 1 dwelling unit per acre.

Zoning District	Existing	Requested
Designation:	County AG	City CD-LI
Max. Density:	1 unit per acre	N/A
Typical Uses	This zoning district is primarily intended to accommodate uses of an agricultural nature, including farm residences and farm tenant housing. It also accommodates scattered	Permitted uses include all uses allowed in the LI zoning district except: Cemeteries; Shooting Ranges; Funeral Homes and Crematoriums; Recycling Processing

non-farm residences on large tracts Center; and Land Clearing and Inert Debris
of land. Landfills, Minor (Temporary use)

**These regulations may not reflect all requirements for all situations; see the City of Greensboro Land Development Ordinance for all applicable regulations for site requirements for this zoning district.*

SPECIAL INFORMATION

Overlay District Ordinance/Historic Preservation

The subject site partially (approximately the eastern half) located within the NC Highway 68 Scenic Corridor overlay district. Consult the Scenic Corridor Overlay Districts Design Manual, for detailed applicable requirements and guidelines for architecture, lighting, signage, landscaping and other elements.

The subject site is not:

- Located in a City of Greensboro Historic District or Heritage Community
- Designated as a Guilford County Landmark Property
- Recognized as a State of North Carolina Historic Site
- Listed in the National Register of Historic Places
- Located in a National Register Historic District

Environmental/Soils

Water Supply Watershed Site drains to Greensboro Watersupply Watershed WS-III, Upper Reedy Fork Creek

Floodplains N/A

Streams Blue Line and Non-Blue Line streams are onsite. Non-Blue Line features must be identified. Blue Line and Non-Blue Line streams require a 50ft stream buffer measured from top of bank on each side. Refer to the City's LDO Chapter 30-12-3.9 for stream buffer requirements. State and Corps permits are required for any stream/wetland disturbance and/or crossings.

Other: In the General Watershed area, Maximum High Density Development with sewer is 70% BUA, Low Density with sewer is 24% BUA. Site must meet current watershed requirements for Water Quality and Water Quantity Control if any new development is proposed. Site is within the PTI 5 statute mile radius. Any proposed water quality device BMP/SCM that holds a normal pool elevation is not allowed unless supporting engineering documentation is provided that clearly explains why a water quality device that holds a normal pool elevation needs to be utilized.

Utilities (Availability)

Water is available on Pleasant Ridge Road. A sewer outfall is available northwest of the properties at 1629 Greenbourne Dr. Private developer will need to extend water and sewer to City of Greensboro's Water and Sewer Design Standards.

Airport Overlay District & Noise Cone

n/a

Landscaping & Tree Conservation Requirements

Landscaping:

Street Yards:

Street planting yards must be installed abutting public street rights-of-way. The required street planting yard must have a minimum width of 10 feet (as measured from the outside edge of the right-of-way or the back of the sidewalk, whichever is further from the street centerline) and include at least 2 canopy trees and 17 shrubs per 100 linear feet of required street planting yard, not including allowed driveways.

Along property lines adjacent to the Hwy 68 right-of-way, must be installed a planting yard with an average width of 30' and a minimum width 20', and a planting rate of 4 canopy trees, 4 understory trees, and 34 shrubs per 100 l.f.

Buffer Yards:

Adjacent to Religious Assembly uses: Type C Buffer yard, with an average width of 15', a minimum width of 10', and a planting rate of 2 canopy trees, 3 understory trees, and 17 shrubs per 100 l.f.

Adjacent to Single-Family residential uses: Type A buffer yard, with an average width of 45', a minimum width of 35', and a planting rate of 4 canopy trees, 10 understory trees and 33 shrubs per 100 linear feet.

Adjacent to vacant lots: Vehicular Use Area buffer yard (see below) between any parking lot or drive aisle and the adjacent property line.

Parking Lots:

When a parking lot or other vehicular use area abuts a vacant site or a site with the same land use classification as the subject site, a planting yard with a minimum width of 5 feet must be provided between the parking lot/vehicular use area and the abutting (interior) property line. This required planting area must be landscaped with at least 2 understory trees and 18 evergreen shrubs per 100 linear feet.

Trees for required parking spaces: 1 canopy tree per 12 spaces, in islands or medians within the parking lot.

Tree Conservation:

For 96.23 acres, 10% of parcel size to be dedicated in critical root zone for Tree Conservation.

Transportation

Street Classification: Pleasant Ridge Road – Major Thoroughfare.
NC 68 – Freeway.

Site Access: All access(s) must be designed and constructed to the City of Greensboro standards.

Traffic Counts: Pleasant Ridge Road AADT = 9,500 (NCDOT, 2019).

Trip Generation: 24 Hour = 2,407, AM Peak Hour = 244, PM Peak Hour = 196.

Sidewalks:	Sidewalks are a requirement of the Development Ordinance and shall be installed per the Streets Design Standards Manual. Sidewalk does not currently exist along the frontage of this property.
Transit in Vicinity:	No.
Traffic Impact Study: (TIS)	Yes, required per TIS Ordinance. Please see the end of this staff report for the Executive Summary of the <u>draft</u> TIS.
Street Connectivity:	Greenbourne Drive shall be extended to Pleasant Ridge Road with the completion of this project.
Other:	N/A.

IMPACT/POLICY ANALYSIS

Land Use Compatibility

The proposed **CD-LI (Conditional District – Light Industrial)** zoning district, as conditioned, would allow land uses that are compatible with the general character of the area.

GSO 2040 Comprehensive Plan Policies

The Future Land Use Map of the Western Area Plan designates this location as **Mixed Residential** in support of the **Campus Village Planning Area**. The requested **CD-LI (Conditional District – Light Industrial)** zoning district, as conditioned, would allow uses that are generally consistent with those described in the **Mixed Residential** future land use designation. The GSO 2040 Future Built Form Map designates this location as **Urban General**. The Growth Tiers Map designates the portion of the site to be annexed as being within **Growth Tier 1**.

GSO 2040 Written Policies

Filling In Our Framework – How we arrange our land uses for where we live, work, attend school, shop and enjoy our free time can create a more vibrant and livable Greensboro.

Goal B – Greensboro attracts world-class development to transform underutilized sites and buildings into valued assets that complement their surroundings.

Strategy 1 – Maintain, inventory, and market key underutilized sites and structures to private industry and developers.

Becoming Car Optional – Expand quality transportation options beyond cars and maintain an efficient transportation system that allows people and goods to travel throughout Greensboro.

Goal A – Greensboro has unrivaled pedestrian, biking, transit and road networks that provide safe, comfortable, and convenient transportation options.

Strategy 2 – Encourage new development that is compatible with the intended use of the adjacent roadway.

Goal B – Everyone loves our interconnected green spaces, which provide recreation and transportation opportunities, promote active living, and protect our natural environment.

Strategy 1 – Expand the greenway network to connect all parts of the city as a key element of the transportation system.

Prioritizing Sustainability - Greensboro has a strong leadership role in environmental stewardship, social equity, and a resilient economy

Goal A - Greensboro advances environmental stewardship, taking care of our natural resources and the natural systems that support all living things.

Strategy 1 - Promote resilient, efficient and environmentally beneficial patterns of land use.

Strategy 4 – Enhance proactive stormwater and flood hazard mitigation efforts to address impacts from more frequent high duration and high intensity storm events.

Goal B - Greensboro embraces social equity, ensuring all residents benefit from fair and just treatment in the distribution of public services and have a voice in governance.

Strategy 2 – Work to ensure that all Greensboro residents have meaningful opportunities to participate in public decision-making processes.

Strategy 3 - Promote a just, ethical, and respectful community.

Goal C - Greensboro builds economic resilience, expanding the local economy's ability to withstand and adjust to disruptions and changes at the regional, national and global scales.

Strategy 1 - Consider the impact that growth and development patterns and infrastructure investments have on the City's fiscal health.

Strategy 2 - Cultivate a diverse range of industry sectors and scales of operation in the local economy to help minimize the impacts of major fluctuations within any single sector.

Growing Economic Competitiveness - Greensboro will build a prosperous, resilient economy that creates equitable opportunities to succeed.

Goal A – Strategic public investment in historically underserved areas of Greensboro attracts private investment and sets the stage for revitalization without displacing existing residents.

Strategy 1 – Work with City funded economic development partners to address the needs of economically distressed areas.

Goal B – Increase and preserve the inventory of developable sites compatible with corporate and industrial uses.

Strategy 2 – Ensure that the appropriate sites in the developed, central areas of Greensboro are designated as Industrial on the Future Land Use Map.

Goal C – Investment in cutting edge communications technology enhances the quality of life for all residents and helps businesses thrive.

Strategy 1 – Encourage fiber-ready infrastructure to reduce the need for costly future upfits, increase property values and promote economic growth.

Goal E – Greensboro promotes homegrown businesses, supports entrepreneurship, cultivates industry leaders, and welcomes major corporations and institutions.

Strategy 2 – Provide entrepreneurs at all stages of the business life cycle with connections to education, financing, and other resources and assets that support their growth.

GSO 2040 and Western Area Plan Map Policies

Western Area Plan Future Land Use Map

Village Center: Located at the future intersection of Interstate 73 and NC 68, directly south of the GTCC Campus, the village center will have superior access and visibility from two major thoroughfares. Given its location, the village center will serve both as a gateway into the Western Area and as a retail, restaurant and shopping destination for local residents and the greater regional community. As noted in the Market Analysis, “net growth of retail square footage between 2010 and 2030 is estimated at approximately 67,000 square feet.” Some of this square footage will be absorbed in the Campus Village Center by developing a

supermarket and a variety of other service-oriented uses including restaurants, a pharmacy and small-scale retail.

By orienting small-scale, mixed-use development along an internal network of streets, instead of along NC 68, the village center will provide a meeting place for the community and a walkable, pedestrian-friendly shopping destination. Traditional strip developments, the type found in “anywhere USA”, lack identity and often result in single-destination trips. Alternatively, a destination with a mixture of uses, including restaurants, retail and limited office creates a place where people want to visit and linger.

Residential: As noted in the Market Analysis, the Western Area will continue to be a location of choice for new residents. Shifts in tenure and buyer preferences over time indicate a need to diversify housing options in the area to include a mixture of single family detached, single-family attached and multifamily units. As enrollment at GTCC grows there will be a need for student housing in close proximity to the campus. The design of the housing should be compatible with existing residential neighborhoods and be of appropriate density and scale for the area.

GSO2040 Future Built Form Map

Place Types: Areas that have a consistency of character, identity or purpose and that are most often bounded by corridors, natural features, or parks that create transition or separation from other neighborhoods that may not share the same characteristics.

Urban General should reflect these characteristics:

1. Setbacks, building orientation, building materials, height, and scale of residential buildings are considered within the existing neighborhood context.
2. New housing helps increase the range of choice, supply, and adds additional appropriately-scaled density with: Missing Middle housing; mid-rise multi-family; and high-rise multi-family in Activity Centers and along Mixed-Use Corridors.
3. Transitions between neighborhoods and different land uses provide continuity in scale, density, intensity with adjacent uses.
4. Cut-through traffic is minimized.
5. New freestanding or expanded business areas are created within or adjoining an existing Activity Center or as part of creating a new Activity Center.
6. Exterior building materials are durable, sustainable, and contribute positively to the character of the public realm.
7. The size and impact of surface parking lots is minimized through landscaping, screening, narrow curb-cuts, and use of glare-free, no-spill lighting.
8. New sidewalks contribute to the completion of a sidewalk network.

Growth Tiers Map

Growth Tiers: areas outside Greensboro’s city limits but inside the area in which the City can legally annex property and extend water and sewer services; this is called the Water Sewer Service Area (WSSA). Three tiers are delineated based on the cost to extend City services to the area, primarily water and sewer, solid waste collection, and Police and Fire protection, as well as long-term maintenance of City facilities. In Growth Tier 1, due to the nearby presence of existing City infrastructure, the City is able to extend services currently, if an annexation is requested; Tiers 2 and 3 will require significant City investment to serve.

Growth Tier 1: This is the area where infrastructure systems are in place, can be economically provided and/or will be proactively extended and where continued

annexation and consolidation of the City's development pattern shall be encouraged over the next six years.

CONFORMITY WITH OTHER PLANS

City Plans

Sustainability Action Plan

Element 1) Transportation and Land Use:

Policy 1) Encourage increased density, a mix of land uses and more integrated links between transportation and land use through changes to Greensboro's Comprehensive Plan, Development Ordinance and other related plans.

Element 2) Green Jobs and Buildings:

Policy 3) Develop a coordinated City program to provide technical support, energy audits and education and outreach to increase energy efficiency and conservation in commercial and residential buildings.

Policy 4) Use a combination of code changes, incentives, partnerships and education to promote green building in Greensboro.

Policy 6) Promote more efficient use of water through education, partnerships and pilot projects.

Element 3) Waste Reduction and Recycling:

Policy 7) Employ a combination of expanded recycling infrastructure, regulations and incentives to increase Greensboro's solid waste diversion and recycling rates.

Element 6) Education and Outreach:

Policy 11) Provide technical support, awards and recognition to individuals and organizations furthering Greensboro's energy and sustainability efforts.

Western Area Plan

Campus Village (CV) Recommendations:

CV 1: Create a Campus Village by focusing future retail and commercial development on an internal street network at the proposed I-73 interchange with NC 68.

CV 1.1: Initiate Activity Center Overlay District proceedings for the area designated as the Campus Village in the Plan.

CV 2: Establish the desired character of the place.

CV 2.1: Promote a compact form of development in the Campus Village.

CV 2.2: Develop design guidelines that provide a palette of architectural features and landscape materials including plants, walls and fences consistent with the character described in the Plan.

CV 3: Partner with GTCC planners to ensure strong visual and physical linkage to the commercial Campus Village center.

CV 3.1: Partner with representatives from GTCC to review and comment on plans within the Campus Village in order to ensure physical connectivity and linkages between individual developments.

CV 4: Promote a variety of housing options.

CV 4.1: Allow for greater density of housing where utility service and transportation infrastructure support it.

CV 4.2: Support small lot single-family, townhouse and apartment developments as transition from the commercial/mixed-use area and the lower-density single-family to the west.

CV 5: Work with Guilford County Schools to find a high school site in close proximity to the Guilford Technical Community College.

CV 5.1: Site the high school so that ball fields provide an additional buffer between existing residential communities and new development.

CV 5.2: Extend joint use agreements for shared facility and recreational field use by community-at-large and school district.

CV 5.3: Encourage partnership between GTCC and Guilford County School District to establish early college program.

Transportation Recommendations:

T 1: Integrate the Western Area Land Use and Infrastructure Plan into the Long Range Transportation Plan.

T 2: Conduct a detailed analysis of any additional proposed major roads and road widenings beyond the current construction program.

T 3: Enhance the internal network of streets.

T 4: Encourage transportation improvements that will respect and support the rural ambiance and character of the Western Area.

T 5: Support plans for transit along West Market Street.

T 6: Develop and implement ongoing, coordinated regional congestion management and operations processes (including Intelligent Transportation System elements and Transportation Demand Management strategies) to maximize the efficient use of existing and planned infrastructure.

T 7: Maintain close coordination with the planning activities of the Piedmont Triad International Airport Authority for the airport and ancillary development.

Gateways & Corridors Recommendations

GC 1: Create a southern gateway into the Western Area.

GC 2: Enhance the appearance of West Market Street.

GC 3: Preserve and enhance the appearance and operation of NC 68 north of Pleasant Ridge Road.

Utilities Recommendations

U 1: Support water extension into Service Area C.

U 2: Upgrade water pumps due to challenges in peak periods.

U 3: Delay sewer service to basin north of West Market Street and west of Pleasant Ridge Road (Service Area C: to preserve rural and agricultural character).

U 4: Encourage coordination among neighboring jurisdictions in the timing and provision of infrastructure.

U 5: Work closely with Guilford County, High Point and Kernersville to track infrastructure upgrades, existing and proposed distribution lines and available capacities for water and wastewater facilities.

Governance Recommendations

G 1: Work closely and cooperatively with the municipalities in and jurisdictions of Guilford and Forsyth Counties so that development can be guided towards areas planned for urban and suburban development and away from areas with valued environmental or rural qualities.

G 3: Establish a Western Area Plan community support committee to shepherd the Western Area Plan through the adoption process at both the City and County level.

G 4: Continually engage surrounding jurisdictions discussions of growth and development.

Cultural & Historic Resources Recommendations

CHR 1: Raise awareness of existing historic and cultural resources and encourage the preservation of such resources that contribute to the character of the area.

CHR 2: Consider creating a Preservation Plan for the Western Area that takes into consideration the important cultural and environmental resources worthy of preservation.

Other Plans

N/A

STAFF ANALYSIS AND RECOMMENDATION**Staff Annexation Analysis**

The subject property is currently located in the County. On September 1, 2020 the Planning and Zoning Commission assumed responsibility for reviewing annexation petitions and making a recommendation to City Council regarding annexation requests. Upon submittal of a valid annexation petition, Planning staff forwards annexation requests to City services providers. These service providers include Water Resources (water and sewer), Fire Marshal's Office, Police Department, and Solid Waste (trash and recycling services). Each service provider has stated that infrastructure is in place or will be in place to provide City services to this location. The Technical Review Committee recommended approval of this annexation request at its June 30, 2022 meeting. This property is located within the Growth Tier 1 Area on the Growth Strategy map in the Comprehensive Plan. Since this property can be served by City utility providers, it is the City of Greensboro's policy to annex the property pending approval of the associated original zoning.

Community Outreach

Applicant is strongly encouraged to discuss this proposed rezoning and development with owners of surrounding properties.

Staff Original Zoning Analysis

The subject properties are approximately 97.87 acres and are currently undeveloped. North of the subject properties contains warehouse uses and undeveloped land, zoned City CD-LI (Conditional District – Light Industrial) and City CD-C-M (Conditional District – Commercial - Medium). East of the subject properties contains retail uses, trucking terminal, NC Highway 68, and I-73, zoned County AG (Agricultural), County AG-SP (Agricultural with a special use permit), County SC (Shopping Center), County LI (Light Industrial), and City LI (Light Industrial). South of the subject properties contains a former golf academy and single-family dwellings, zoned City CD-PI (Conditional District – Public and Institutional) and County RS-40 (Residential Single-family). West of the subject properties contains single-family dwellings and common elements, zoned County RS-40 (Residential Single-family), County AG (Agricultural), and County CZ-RPD (Conditional Zoning – Rural Preservation District).

The proposed original zoning request supports the Comprehensive Plan's Growing Economic Competitiveness Big Idea to build a prosperous, resilient economy that creates equitable opportunities to succeed and the Comprehensive Plan's Prioritizing Sustainability Goal to build economic resilience, expanding the local economy's ability to withstand and adjust to disruptions and changes at the regional, national and global scales.

The adopted Western Area Plan Future Land Use Map designates this property as **Mixed Residential** in support of the **Campus Village Planning Area**. Located at the future intersection of Interstate 73 and NC 68, directly south of the GTCC Campus, the village center will have superior access and visibility from two major thoroughfares. Given its location, the village center will serve both as a gateway into the Western Area and as a retail, restaurant and shopping destination for local residents and the greater regional community. As noted in the Market Analysis, “net growth of retail square footage between 2010 and 2030 is estimated at approximately 67,000 square feet.” Some of this square footage will be absorbed in the Campus Village Center by developing a supermarket and a variety of other service-oriented uses including restaurants, a pharmacy and small-scale retail.

By orienting small-scale, mixed-use development along an internal network of streets, instead of along NC 68, the village center will provide a meeting place for the community and a walkable, pedestrian-friendly shopping destination. Traditional strip developments, the type found in “anywhere USA”, lack identity and often result in single-destination trips. Alternatively, a destination with a mixture of uses, including restaurants, retail and limited office creates a place where people want to visit and linger. As noted in the Market Analysis, the Western Area will continue to be a location of choice for new residents. Shifts in tenure and buyer preferences over time indicate a need to diversify housing options in the area to include a mixture of single family detached, single-family attached and multifamily units. As enrollment at GTCC grows there will be a need for student housing in close proximity to the campus. The design of the housing should be compatible with existing residential neighborhoods and be of appropriate density and scale for the area.

This property is designated Urban General on the Future Built Form Map of the Comprehensive Plan. Applicable characteristics of the Urban General classification include the following:

1. Setbacks, building orientation, building materials, height, and scale of residential buildings are considered within the existing neighborhood context.
2. New housing helps increase the range of choice, supply, and adds additional appropriately-scaled density with: Missing Middle housing; mid-rise multi-family; and high-rise multi-family in Activity Centers and along Mixed-Use Corridors.
3. Transitions between neighborhoods and different land uses provide continuity in scale, density, intensity with adjacent uses.
4. Cut-through traffic is minimized.
5. New freestanding or expanded business areas are created within or adjoining an existing Activity Center or as part of creating a new Activity Center.
6. Exterior building materials are durable, sustainable, and contribute positively to the character of the public realm.
7. The size and impact of surface parking lots is minimized through landscaping, screening, narrow curb-cuts, and use of glare-free, no-spill lighting.
8. New sidewalks contribute to the completion of a sidewalk network.

The proposed CD-LI zoning district will allow a variety of warehouse, distribution and limited manufacturing and assembly uses which in their normal operations have little or no adverse effect upon adjoining properties. Care should be taken with respect to building orientation, building materials, building height, and visual buffers to ensure an appropriate transition to nearby lower density residential uses.

Staff Recommendation

Staff recommends **approval** of the requested **CD-LI (Conditional District – Light Industrial)** zoning district.



NC 68 Industrial Site – Transportation Impact Analysis
Guilford County, NC
Prepared for Edgefield Road Partners 2, LLC
May 13, 2022

Executive Summary

The proposed NC 68 Industrial Site is located on the northwest quadrant of the intersection of NC 68 and Pleasant Ridge Road in Guilford County, North Carolina.

The development is planned to be constructed in two phases with approximately 600,000 square feet of light industrial space as Phase 1. Phase 2 will add approximately 650,000 square feet of light industrial space, for a total of 1,250,000 square feet.

The concept plan shows two (2) accesses to the site: access to NC 68 via Greenbourne Drive (Phase 1), and access to Pleasant Ridge Road via Greenbourne Drive Extension (Phase 2 only). The extension of Greenbourne Drive to Pleasant Ridge Road will occur in Phase 2, and this access point will be right-in/right-out.

The study assumed Phases 1 and 2 will be completed during the years 2024 and 2025, respectively. Per the Greensboro Department of Transportation (GDOT) guidelines, and study years of 2025 and 2026 (build out plus one year) were used for the analysis of Phases 1 and 2, respectively.

Trip Generation

Based on trip generation rates and equations published in Trip Generation (Institute of Transportation Engineers, 11th Edition), Phase 1 of this development has a trip generation potential of 244 trips in the AM peak hour and 196 trips in the PM peak hour. Phase 2 adds the potential of 263 AM peak hour trips and 210 PM peak hour trips. At Full Build, this development has a trip generation potential of 507 trips in the AM peak hour and 406 trips in the PM peak hour.

Capacity Analysis

This TIA was performed to assess the transportation impacts of the proposed site as well as background traffic. This analysis has been conducted based on the NCDOT and GDOT standards. Overall, the analysis indicates LOS D or better can be expected at the study intersections during the future build peak hours with the improvements associated with proposed development except for the following intersections: NC 68 at I-73 Southbound Ramps/Greenbourne Drive (signalized) and Greenbourne Drive at Redbourne Drive (unsignalized).

At the signalized intersection of NC 68 at I-73 Southbound Ramps/Greenbourne Drive, LOS E occurs in the PM peak hour, whether the proposed site is built or not. Signal timing optimization is recommended to reduce delays.



At the intersection of Greenbourne Drive and Redbourne Drive, LOS E/F occurs during AM and PM peak hours, which is not uncommon for stop-controlled approaches during hours of peak activity. It should be noted that those seeking to make southbound left turns from Redbourne Drive have the option to reroute to Leabourne Road, and this is expected to provide a degree of reduction to delays.

At the proposed extension of Greenbourne Drive connecting to Pleasant Ridge Road, a westbound right-turn entry lane is recommended to enhance traffic flow on Pleasant Ridge Road. The recommended improvements are illustrated in Exhibit A for Phase 1 and in Exhibit B for Full Build.

Conclusion

In conclusion, the analysis documented here indicates that with the recommended improvements in place, the anticipated impacts of proposed development traffic can be accommodated. The exact layout of the site will need to be coordinated during the site plan review process. Note that the access points to the site are recommended to be designed according to NCDOT and GDOT standards as applicable.

Table A – Recommended Improvements Summary		
Intersection	Phase 1	Full Build
Leabourne Road at GTCC East Access / Redbourne Drive	No improvements are recommended.	No improvements are recommended.
NC 68 at Leabourne Road / Retreat at 68 Access	No improvements are recommended.	No improvements are recommended.
NC 68 at I-73 Northbound Ramps	No improvements are recommended.	No improvements are recommended.
NC 68 at I-73 Southbound Ramps / Greenbourne Drive	No improvements are recommended.	<ul style="list-style-type: none"> Optimize traffic signal timing
Greenbourne Drive at Redbourne Drive	No improvements are recommended.	No improvements are recommended.
Pleasant Ridge Road at NC 68	No improvements are recommended.	No improvements are recommended.
Pleasant Ridge Road at Brigham Road	No improvements are recommended.	No improvements are recommended.
Pleasant Ridge Road at U-turn Bulb/Golf Academy Driveway	No improvements are recommended.	No improvements are recommended.
Pleasant Ridge Road at Future Greenbourne Drive Extension		<ul style="list-style-type: none"> Provide a westbound right-turn lane on Pleasant Ridge Road with 200 feet of storage and an appropriate taper
All Site Accesses on Greenbourne Drive (Internal)	<ul style="list-style-type: none"> Design the site accesses in accordance with NCDOT and GDOT standards and provide center left turn lane at site accesses 	<ul style="list-style-type: none"> Design the site accesses in accordance with NCDOT and GDOT standards and provide center left turn lane at site accesses



