



Z-10-04-003

City of Greensboro Planning Department Zoning Staff Report and Plan Amendment Evaluation

Zoning Commission Hearing Date: April 12, 2010

GENERAL INFORMATION

APPLICANT	Triad Math and Science Academy for John H. Harland Company
HEARING TYPE	Rezoning
REQUEST	LI (Light Industrial) to CD-GO-M (Conditional District-General Office-Moderate Intensity)
CONDITIONS	1. Uses shall be limited to the following: a) Elementary and Secondary Schools b) Vocational Schools, or Secretarial Schools c) Administrative or Management Services d) Libraries e) Government Offices f) Economic, Socio., or Educational Research
LOCATION	700 Creek Ridge Road , generally described as north of Creek Ridge Road, west of Interstate 85 N (Business) and south of Interstate 40 W (Business).
PARCEL ID NUMBER (S)	00-00-0470-0-0001-00-001
PUBLIC NOTIFICATION	The notification area for this public hearing was 600 feet (Chapter 30-9-1.2 of the City 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). 34 notices were mailed to those property owners in the mailing area.
TRACT SIZE	~11.49 acres
TOPOGRAPHY	Generally flat
VEGETATION	Institutional landscaping

SITE DATA

Existing Use Industrial/office building

	Adjacent Zoning	Adjacent Land Uses
N	Light Industrial	Interstate 40 -Business
E	Light Industrial	Interstate 85-Business

W	CD-LI (Conditional District-Light Industrial) and RM-18 (Residential-Multi-Family)	Warehouse and manufactured dwellings
S	RM-18 (Residential-Multi-Family)	Multi-Family dwellings

Zoning History

Case #	Date	Request Summary
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This property has been zoned LI since July 1, 1992. Prior to the implementation of the Unified Development Ordinance (UDO), it was zoned IND-L

ZONING DISTRICT STANDARDS

District Summary *

Zoning District Designation:	Existing (LI)	Requested (CD-GO-M)
Max. Density:	N/A	12 dwelling units per acre
Typical Uses	Primarily intended to accommodate limited manufacturing, wholesaling, warehousing, research and development, and related commercial/service activities, which in their normal operations have little or no adverse effect upon adjoining properties.	Primarily intended to accommodate moderate intensity office and institutional uses, moderate density residential uses at a density of 12.0 units per acre or less, and supporting service and retail uses.

*These regulations may not reflect the actual requirements for all situations; see the City of Greensboro Zoning Code for actual regulations for site requirements for this zoning district.

SPECIAL INFORMATION

Overlay District Ordinance/Historic Preservation – N/A

Environmental/Soils

Water Supply Watershed	Site drains to South Buffalo Creek
Floodplains	N/A
Streams	Possible stream onsite, stream must be identified. If stream is either perennial or intermittent, a 50ft buffer, measured from top of bank is required. A 30ft non-encroachment area will also be required.
Other:	If >1acre is to be disturbed, site must meet Phase 2 requirements, i.e. a water quality BMP will be required.

Utilities

Potable Water
Waste Water

Airport Noise Cone

The subject property is not located in the Airport Noise Cone.

Landscaping Requirements

Location	Required Planting Yard Type and Rate
North	Street Yard - minimum width 8'; 2 canopy tree per 100', 17 shrubs per 100'
South	Street Yard - minimum width 8'; 2 canopy tree per 100', 17 shrubs per 100'
East	Street Yard - minimum width 8'; 2 canopy tree per 100', 17 shrubs per 100'
West	Type D Yard – minimum width 5'; 2 understory trees per 100'; 18 shrubs per 100' for Landscaping with a 25' buffer for Tree Preservation

Tree Preservation Requirements

Acreage	Requirements
11.49 ac.	All trees 4" or greater DBH which are located within the required planting yards or within 25' of the side and rear property line, whichever is greater

Transportation

Street Classification:	Creek Ridge Road – Minor Thoroughfare.
Site Access:	Existing. The school indicates that they plan to utilize the existing driveway with an additional right turn lane improvement at the driveway. Creek Ridge Road is planned to be widened to a 3-lane section with construction to begin Fall 2010.
Traffic Counts:	Creek Ridge Road ADT = 10,400 (2007).
Trip Generation:	AM Peak Hour = 742, PM Peak Hour = 424, 24 Hour = 1,218.
Sidewalks:	Sidewalks are a requirement of the Development Ordinance. 5' sidewalk with a 5' grass strip is required along both sides of thoroughfares. 5' sidewalk with a 3' grass strip is required along one side (at a minimum, collectors may require sidewalk on both sides) of all other street types.
Transit in Vicinity:	No transit in the area.
Traffic Impact Study: (TIS)	Yes, required per TIS Ordinance. Please see the end of this staff report for Executive Summary of the TIS report.
Street Connectivity:	N/A.
Other:	N/A.

IMPACT ANALYSIS

Land Use Compatibility

The proposed **CD-GO-M** (Conditional District-General Office-Moderate Intensity) zoning would allow land uses that are compatible with the general character of the area.

Connections 2025 Comprehensive Plan Policies

The Generalized Future Land Use Map designates this location as **Industrial/Corporate Park**. The requested **CD-GO-M** (Conditional District-General Office-Moderate Intensity) zoning district is consistent with this GFLUM designation.

Connections 2025 Written Policies

Reinvestment/Infill Goal: Promote sound investment in Greensboro's urban areas, including Center City, commercial and industrial areas, and neighborhoods.

POLICY 4C: Promote new patterns and intensities of use to increase economic competitiveness and enhance quality of life in urban areas.

Housing and Neighborhoods Goal: Meet the needs of present and future Greensboro citizens for a choice of decent, affordable housing in stable, livable neighborhoods that offer security, quality of life, and the necessary array of services and facilities.

POLICY 6A.2: Promote mixed-income neighborhoods.

POLICY 6A.4: Implement measures to protect neighborhoods from potential negative impacts of development, redevelopment, and/or public projects that are inconsistent with the neighborhood's livability, architectural or historical character, and reinvestment potential.

Including protection against incompatible commercial encroachments into residential neighborhoods

Economic Development Goal: Promote a healthy, diversified economy with a strong tax base and opportunities for employment, entrepreneurship and for-profit and non-profit economic development for all segments of the community, including under-served areas such as East Greensboro.

POLICY 7C: Ensure that city land use policies and regulations allow for an adequate supply of land to accommodate economic development.

POLICY 7C.1: Ensure that adequate land is zoned and has infrastructure available for the various stages of business development.

POLICY 7C.3: Identify brownfield sites and underutilized/abandoned properties and buildings and expedite opportunities for development.

Connections 2025 Map Policies

Industrial/Corporate Park: This designation applies to areas where present or anticipated uses include both light and heavy industrial uses, such as manufacturing, assembly, and fabrication; wholesaling and distribution; and corporate office and technology parks, which may be introduced to replace older heavy industrial uses. Although new residential development is discouraged in areas designated for this land use category, pre-existing residential uses may be present in or adjacent to these areas. As established industrial areas redevelop, such residential, institutional, or similar uses should be protected from adverse impacts (heavy truck traffic, significant outside storage, factors such as noise, dust, and glare, etc.) through performance-based standards, buffers, and proper separation from noxious uses.

CONFORMITY WITH OTHER PLANS

City Plans – N/A

Other Plans - N/A

Staff/Agency Comments

Water Resources - N/A

Housing and Community Development

Long-term quality of life for nearby existing residential development would be greatly enhanced by inclusion of appropriate constructed and/or vegetated buffer (such as retaining existing wooded area) along western boundary of subject site. Issues of traffic congestion and transportation access could be partially addressed by installing secure, accessible bicycle parking facilities, and a dedicated pedestrian connection from the required sidewalks to the building's main entrance(s), including appropriate pedestrian crossing treatments as needed.

Planning

The subject property, which currently contains an old office/industrial building, is located south of Interstate 40 (Business), west of Interstate 85 (Business) and north of Creek Ridge Road. To the immediate west of the subject site is a moving and warehousing operation and further west is a manufactured home park. The site is adjoined to the south by single-family and multi-family dwelling units.

The applicant proposes to rezone the 11.49-acre subject site to **CD-GO-M** (Conditional District-General Office-Moderate Intensity) zoning designation to facilitate the redevelopment of the entire site as a Charter School.

Staff believes that this request is consistent with the intent and purpose of the Comprehensive Plan policies in that it will:

- promote sound investment in Greensboro's urban areas, including Center City, commercial and industrial areas, and neighborhoods,
- encourage the redevelopment and adaptive reuse of an underutilized/abandoned property,
- provide community facilities, services, and infrastructure in a cost-effective manner to meet citizens' needs, contribute to quality of life, and support desired land use patterns.
- encourage infill opportunities, and
- meet the needs of present and future Greensboro citizens for a choice of decent, affordable housing in stable, livable neighborhoods that offer security, quality of life, and the necessary array of services and facilities,

This rezoning request if approved will help promote a diverse mix of uses, housing types, and densities in the general neighborhood without impacting the overall mix of uses found in this vicinity and will also meet the needs of present and future Greensboro citizens for a choice of decent, affordable housing in stable, livable neighborhoods that offer security, quality of life, and the necessary array of services and facilities.

Staff would, however, encourage the applicant to add a condition to this rezoning to provide a durable, continuous security fence where the site abuts the two Interstate Highways for the safety of the students. Staff would like to point out that the anticipated problem of traffic congestion on Creek Ridge Road during peak hours could be mitigated due to the imminent widening of Creek Ridge Road which is already planned for construction.

Staff believes that this request is consistent with the Generalized Future Land Use Map (GFLUM). Staff is also of the opinion that the request will be compatible with the existing development and trend in the surrounding neighborhood.

STAFF RECOMMENDATION

Staff recommends **approval** of the requested **CD-GO-M** (Conditional District-General Office-Moderate Intensity) zoning district.

Triad Math and Science Academy – Transportation Impact Analysis

Prepared for Triad Math and Science Academy
February 12, 2010

Executive Summary

The Triad Math and Science Academy is currently planning to redevelop a former industrial site into a Charter school. The proposed Triad Math and Science Academy is to be located on Creek Ridge Road in Greensboro, North Carolina, on the southwest quadrant of the I-85 / I-40 interchange.

As currently planned, the Triad Math and Science Academy will have capacity for 282 elementary school students, 216 middle school students, and 228 high school students, totaling 726 students. Additionally, future expansion is planned which would increase the student capacity by 74 to a total of 800 students. The school expects to have 20 staff members for the elementary grades, 15 for the middle school grades, and 15 for the high school grades.

This Charter school expects to attract students from the entirety of Guilford County, as well as a small number from surrounding counties. Access to the site will be provided by one (1) existing driveway on Creek Ridge Road (see Figure 1 - Site Plan).

The build-out analysis year for this project was assumed to be 2010. Six (6) study intersections were analyzed during the Arrival peak (7:00 – 9:00 AM) and the Dismissal peak (2:30 – 4:30 PM). Additionally, during the scoping of this development, GDOT requested an internal circulation review should be carried out to ensure that on-site stacking issues are addressed for the proposed Charter School. The Greensboro Department of Transportation (GDOT) was contacted to obtain background information and to ascertain the elements to be covered in this Traffic Impact Analysis (TIA). Information regarding the property was provided by Triad Math and Science Academy.

Projections from the MSTA school traffic generator were used for the purpose of this study. It is expected that this development will generate a total of 1,218 vehicle trips per day. This is based on a total of 800 students and 50 staff personnel.

Level of Service Analysis

The following Table A represents the summary of the level of service analysis for the existing, no build and future build scenarios.

Table A - Level of Service Summary				
Arrival Peak	2010 Existing	2010 Future No Build	2010 Build	2010 Build with Improvements
Creek Ridge Road @ US 220 Southbound Ramps	B (10.9) NB Right	B (10.9) NB Right	C (15.3) NB Right	
Creek Ridge Road @ US 220 Northbound Ramps	D (33.1) NB Approach	D (33.1) NB Approach	F (735.9) NB Approach	D (35.5) <i>Signalized</i>
Creek Ridge Road @ Rehobeth Church Road	B (10.8)	B (12.6)	B (15.7)	
Creek Ridge Road @ Site Access			F (***) SB Approach	
Creek Ridge Road @ Lynhaven Drive	B (10.9) NB Approach	B (10.9) NB Approach	C (20.7) NB Approach	
Creek Ridge Road @ Randleman Road	B (18.2)	B (19.5)	C (24.0)	
Dismissal Peak	2010 Existing	2010 Future No Build	2010 Build	2010 Build with Improvements
Creek Ridge Road @ US 220 Southbound Ramps	B (11.2) NB Right	B (11.2) NB Right	B (12.0) NB Right	
Creek Ridge Road @ US 220 Northbound Ramps	C (24.3) NB Approach	C (24.3) NB Approach	D (27.4) NB Approach	B (19.9) <i>Signalized</i>
Creek Ridge Road @ Rehobeth Church Road	A (8.7)	A (9.9)	B (10.1)	
Creek Ridge Road @ Site Access			C (22.5) SB Approach	
Creek Ridge Road @ Lynhaven Drive	B (11.8) NB Approach	B (11.4) NB Approach	B (14.2) NB Approach	
Creek Ridge Road @ Randleman Road	C (20.0)	C (21.2)	C (22.4)	
LOS (delay in seconds)				
Note for unsignalized conditions, LOS and delay indicates only minor street approach with longest delay				

Creek Ridge Road at Site Access

Our field investigation indicated that this intersection has limited sight distance in the eastbound direction due to the adjacent bridge with an arching vertical profile. GDOT has indicated this existing site access would need to be shifted to the west in order to achieve adequate sight distance.

The turn lane warrant shows that based on traffic volumes, this intersection will warrant a 100 foot westbound right turn lane and a 200 foot eastbound left turn lane on Creek Ridge Road. However, as

mentioned in the Committed Improvements section, the City of Greensboro plans to widen Creek Ridge Road to a 3-lane section with two way left turn lane. The two way left turn lane will allow 300 feet of stacking for eastbound left turn into the site.

With the committed improvement in place and addition of school traffic, this intersection is projected to function at LOS F during the Arrival peak and LOS C during the Dismissal peak period. This LOS F condition is mainly as a result of insufficient gaps created along Creek Ridge Road for vehicles attempting to turn out from the school campus.

We recommend the following improvements to address the capacity and safety issues noted above:

- Construct westbound right turn lane with 100 feet of storage and appropriate taper
- Provide separate left turn and right turn lanes on southbound approach exiting school access
- Install school flashers with an appropriate school zone speed along Creek Ridge Road
- GDOT has indicated this driveway will have to be relocated in order to meet sight distance.
- **Additionally, should a traffic queuing arise at this intersection, as indicated by our analysis, we recommend providing one of the following safety and traffic management options at site access:**

Option 1

We recommend stationing a traffic officer to direct traffic at this intersection during Arrival and Dismissal peaks to control traffic entering and exiting the school campus.

Option 2

As a second option, we recommend restricting exiting southbound left turn from school access and only allow right in/right out/left in to the school site during Arrival and Dismissal peaks.

Option 3

Finally if the above mentioned options do not effectively manage traffic at this intersection, we recommend GDOT closely monitor this intersection for signalization if warranted.

Summary and Conclusion

This analysis has been conducted based on the scope given by the City of Greensboro. We have identified all areas of deficiency and made recommendations for improvements where necessary. Table B below summarizes the recommended improvements for 2010 future build scenarios. In conclusion, should our recommendations be implemented, this project would not have a serious or detrimental effect on transportation capacity within the study area.

Table B - Recommended Improvement Summary	
Creek Ridge Road @ US 220 Southbound Ramps	• No improvements are recommended.
Creek Ridge Road @ US 220 Northbound Ramps	• We recommend GDOT to monitor this intersection for signalization if warranted.
Creek Ridge Road @ Rehobeth Church Road	• No improvements are recommended.

<p>Creek Ridge Road @ Site Access</p>	<ul style="list-style-type: none"> • Construct westbound right turn lane with 100 feet of storage and appropriate taper • Provide separate left turn and right turn lanes on southbound approach exiting school access. • Install school flashers with an appropriate school zone speed along Creek Ridge Road. • GDOT has indicated this driveway will have to be relocated in order to meet sight distance.
<p>Creek Ridge Road at Site Access (<i>Safety Features</i>)</p>	<p>Additionally, should a traffic queuing arise at this intersection, as indicated by our analysis, we recommend providing one of the following safety and traffic management options at site access:</p> <p><u>Option 1</u> We recommend stationing a traffic officer to direct traffic at this intersection during Arrival and Dismissal peaks to control traffic entering and exiting the school campus.</p> <p><u>Option 2</u> As a second option, we recommend restricting exiting southbound left turn from school access and only allow right in/right out/left in to the school site during Arrival and Dismissal peaks.</p> <p><u>Option 3</u> Finally if the above mentioned options do not effectively manage traffic at this intersection, we recommend GDOT closely monitor this intersection for signalization if warranted.</p>
<p>Creek Ridge Road @ Lynhaven Drive</p>	<ul style="list-style-type: none"> • No improvements are recommended.
<p>Creek Ridge Road @ Randleman Road</p>	<ul style="list-style-type: none"> • No improvements are recommended.