



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

December 1, 2023
~~November 20, 2023~~

J.R. "JOEY" HOPKINS
SECRETARY

11/20/2023
MEMORANDUM

In reply, refer to
File No. SCH-2023- 066

TO: J. Dwayne Smith – Assistant District Engineer
Jim Evans - Deputy Division Traffic Engineer
Rus Thompson, PE, PTEO – Eastern Regional Field Operations Engineer
Clarence Bunting, PE – East Regional Congestion Management Engineer

FROM: Kimberly Hinton - Project Engineer *kdh*
Municipal and School Transportation Assistance Group

SUBJECT: Riverside Leadership Academy - TIA Review, Craven County, Division 2

Municipal and School Transportation Assistance (MSTA) has performed a review of the Traffic Impact Analysis (TIA) prepared by Kimley-Horn and site plan prepared by Civil Consultants for the proposed Riverside Leadership Academy located west of Old Airport Road and north of Connor Grant Road in New Bern. It is the responsibility of the local school officials to contain all school generated traffic on their campus and to maintain a safe and efficient parent loading operation. The key dates regarding this development are as follows:

Received by This Office 09/25/2023 Date on Sealed TIA 09/25/2023
Date of Non-Sealed Site Plan 08/21/2023

X	The TIA analysis, Synchro and SimTraffic files provide the proper analysis as requested by MSTA with minimal errors. In an interest of time, MSTA applied corrections to this analysis and found no significant traffic impacts to the school driveways and nearby intersections.
✓	The Non-Sealed Site Plan meets our queue length criteria for high demand days.
✓	The Traffic Management Plan and Emergency Traffic Plan are acceptable but provide general direction. Provide instruction for the Student Drivers is needed.

This review is based on a maximum student capacity of 780 students in a charter school, with 520 students in the Lower School and 260 students in the Upper School that will stagger by 45 minutes. The Lower School has grades kindergarten through eighth grade (K-8) and the Upper School has grades ninth through twelfth (9-12). The campus will have two buildings, one for each school. If the school is projected to accommodate a higher number of students than shown, then further review will be required.

The MSTA School Traffic Calculator for Urban Charter Schools is used. It appears Riverside Leadership Academy aligns best with this calculator chosen. The MSTA Urban Charter School Traffic Calculator (STC) queue length for the maximum student capacity on an average day and additional length for high demand days is as follows:

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
TRANSPORTATION MOBILITY & SAFETY DIVISION
1561 MAIL SERVICE CENTER
RALEIGH, NC 27699-1561

Telephone: (919) 814-5000
Fax: (919) 771-2745
Customer Service: 1-877-368-4968

Location:
750 N. GREENFIELD PARKWAY
GARNER, NC 27529

Website: www.ncdot.gov

Staggered Grade Groupings

- Lower School (K-8 – 520 students):
 - 2,219 feet average day and an additional 666 feet (2,885 feet total) for high demand days.
 - The TIA and Site plan state the campus has 3,000 feet of queue for the lower school.
- Upper School (9-12 – 260 students):
 - 936 feet average day and an additional 282 feet for high demand days (1,218 feet total).
 - The TIA and Site plan state the campus has 2,300 feet of queue for the upper school.

Total Student Maximum Capacity (K-12 – 780 students):

- 3,155 feet average day and an additional 947 feet (4,102 feet total) for high demand days.
- The Emergency Transportation plan provides 4,530 feet of queue.

The campus is designed to efficiently process the school's traffic operations.

Comments and Recommendations

Municipal & School Transportation Assistance (MSTA) as part of the final review has the following comments and recommendations.

NCDOT Required Improvements

At Old Airport Road and W Grantham Road there appears to be less than a 2-minute delay for the westbound movement in the am peak period. The TIA states there will be short to moderate delays. Installing a turn lane at this location would be a negative cost to benefit ratio.

At Old Airport Road and W Grantham Road, convert the intersection to an All Way Stop control.

At the Site Driveway: There is no reduction of trips for bus ridership plus Synchro analyzes all school traffic on the campus at one time, which has a potential 5 – 10-minute delay exiting the campus. Utilizing the Transportation Management Plan is highly likely to have a 20% reduction in trips.

At the Site Driveway and Old Airport Road/Hidden Pond Drive, no NCDOT required improvement is suggested. Design the site ingress lane for southbound right turning traffic with a channelized wide radius. In addition, the school could consider 3-grade groupings with a 30-minute staggered bell schedule and/or have a certified traffic director. However, after further review MSTA determined a mini roundabout is suitable for this location.

12/1/2023


Traffic Management Plan

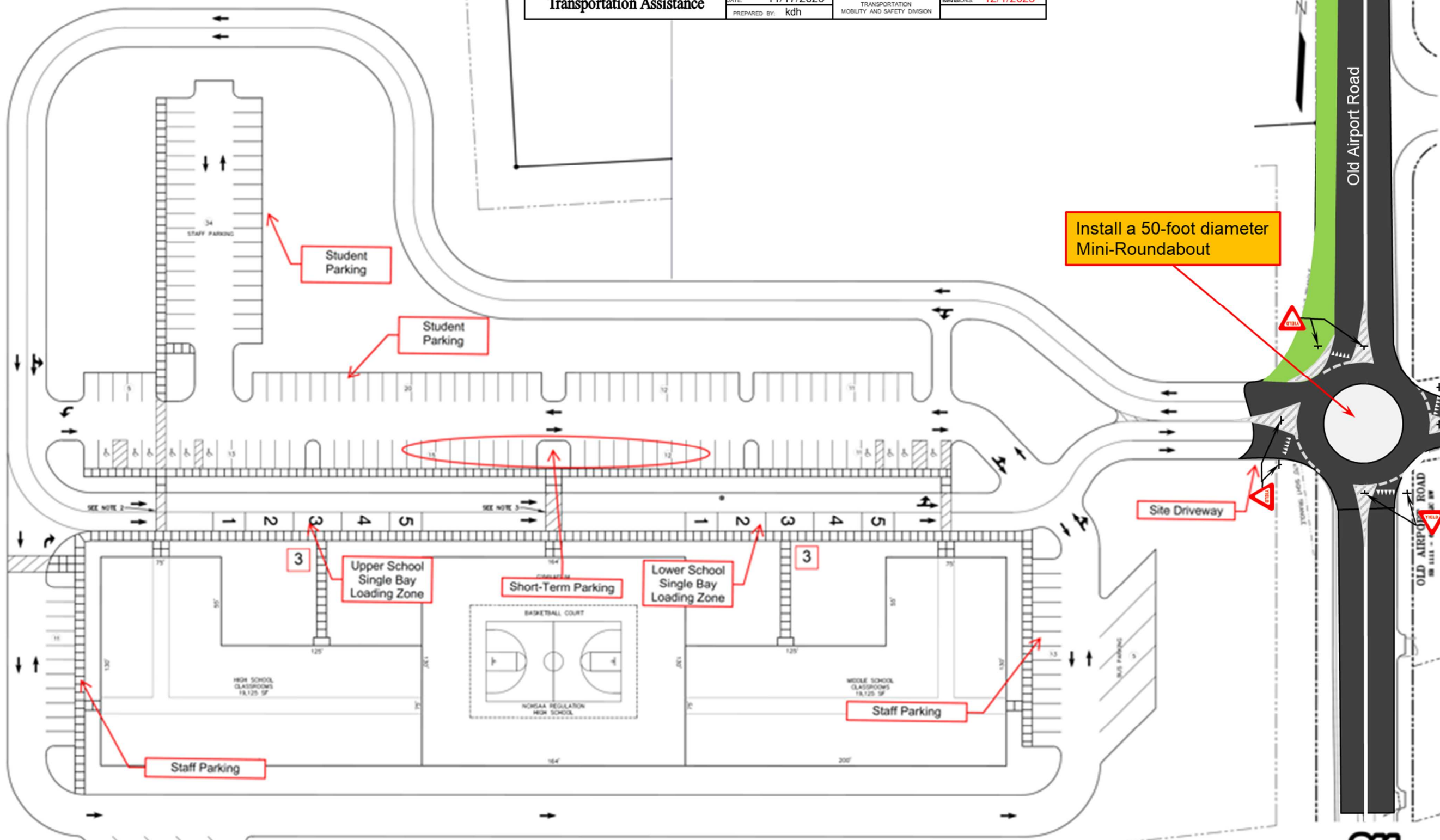
The TIA provides general plans to manage and enforce school traffic. The TMP should inform staff, parents, and visitors how to implement the school traffic operations efficiently. If the school follows these strategies the campus shall operate efficiently. It will be important, as indicated in the TIA, for the buses and staff to arrive before the am loading process and depart after the pm loading process. There are no instructions for the student drivers.

Provide more detailed instructions on how the school traffic operations between the two schools will interact and provide instructions for student drivers in the pm to depart before the upper school loading process begins.

We appreciate the opportunity to serve "Riverside Leadership Academy" and hope you find our services helpful as together we continue to provide "Safe Roads to Safe Schools."

CONCEPT PLAN
NOT FOR CONSTRUCTION

	Figure 1		
	Riverside Leadership Academy MSTA Recommendations		
	Division 2	Craven County	New Bern
	SCALE: NONE	N. C. DEPARTMENT OF TRANSPORTATION	REVIEWED BY: kdh
DATE: 11/17/2023	TRANSPORTATION MOBILITY AND SAFETY DIVISION	DATE: 12/1/2023	
PREPARED BY: kdh			



civil consultants
LAND PLANNERS & CIVIL ENGINEERS
1104 VEEBACH PARKWAY • SUITE 301 • DURHAM, NC 27717
LIC. #C-1028

W. N. SCHOOL
CITY, NORTH CAROLINA
D SITE LAYOUT PLAN

Riverside Leadership Academy
K-8 grades

520 Student Population
2219 Feet Average Queue
666 Feet 30% High Demand
2885 Feet Total Desired Queue

This Design Provides
3000 Feet Total Queue

9-12 grades

260 Student Population
936 Feet Average Queue
282 Feet 30% High Demand
1218 Feet Total Desired Queue

This Design Provides
2300 Feet Total Queue

45-minute Staggered Bell
MEETS

Emergency Management Plan
provides 4530 feet of queue

- Notes:
1. Parents will enter and exit the school via Site Driveway along Old Airport Road.
 2. Staff members will be directed to enter prior and exit after loading procedures. Staff will enter and exit via the school driveway.
 3. The loading zone will be modeled as as single lane in analysis of this site. The second lane is expected to be used as a bypass lane.
 4. Buses are expected to be used by the school. They are expected to enter at Site Driveway and park onsite during school hours.

811
Know what's below.
Call before you dig.
(Or call: 1-800-432-4343)

GRAPHIC SCALE
1" = 30'