

CHAPEL HILL HS EXPANSION
CIVIL DESIGN DEVELOPMENT NARRATIVE
05/25/2017

1. GENERAL SITE INFORMATION

The site for the proposed Chapel Hill High School Campus is located along High School Road Seawell School Road.

The site is approximately 92.62 acres and the total area of disturbed land for the development of the campus and supporting infrastructure is approximately 20.3 acres.

The site is zoned R-1. There is a 28' street setback, 14' interior (neighboring property lines) setback, and a 17' solar (northern property line) setback.

2. VEHICULAR AND PEDESTRIAN CIRCULATION

A. On-site Driveways

The Chapel Hill HS Campus is accessed by four drives off of High School Road and one drive off of Seawell School Road.

The drives off of High School Road are used for the bus loop, student parking, drop-off areas and access to the southern portion of the school.

The drive off of Seawell School Road is the main drive leading to the front of the school. It is used for the necessary parking and drop-off areas. The student drop-off loop has been designed in accordance to the vehicular stacking guidelines as required by NCDOT's MSTA standards for Urban Charter Schools.

B. Fire Lanes

The Chapel Hill High School Campus allows for fire apparatus vehicles to have access to within 150ft from all parts of the buildings and complies with current IFC and local fire codes.

C. Sidewalks

Concrete sidewalks and crosswalks will be utilized to provide pedestrians with a safe and direct path from parking areas to the main building entrance. A sidewalk network will be used to direct students from the building to the proposed play fields and bus loop.

D. Off-site Roads

A Traffic Impact Analysis will be completed. The extent of off-site road improvements, such as turn lanes, will be determined after the completion of the TIA.

3. PARKING LOTS

Based on the Town of Chapel Hill parking requirements, 441 minimum parking spaces are required for the Lincoln Center Campus. The schematic plan for the Chapel Hill High School Campus provides 584 parking spaces.

4. ATHLETIC FACILITIES

A. New Multi-Purpose Grass Play Fields

One graded multi-purpose grass play field will be provided off of High School Road, near the bus loop. There will be one graded soccer field south of the high school that will be used by the middle school.

5. UTILITIES

A. Water Service

Domestic and fire service for the site will be made by tapping the existing water line located in High School Road. The water main will loop and tie into the main off of Seawell School Road

B. Irrigation

No irrigation system is planned for this project.

C. Sanitary Sewer

Sanitary sewer will be routed to the existing gravity sewer system located at the western side of the site.

D. Electrical Power

There is existing underground and overhead power located throughout the site.

6. SITE GRADING, DRAINAGE AND STORMWATER MANAGEMENT

A. Grading

The site will be graded to provide a low amount of impact to the natural terrain, existing drainage patterns, and environmental features.

B. Drainage

The majority of runoff from impervious surfaces will be conveyed into stormwater management facilities by way of storm sewer and/or grass swales. A combination of grass swales and plastic yard drains will be installed as necessary to help minimize storm sewer costs. A minimum amount of reinforced concrete storm sewer and inlets will be installed in the parking lots.

C. Stormwater Management

The site shall comply with Article 5.4 of the Chapel Hill Land Use Management Ordinance. The site will be designed such that the post-development discharge rate and quantity does not exceed the pre-development discharge rate and quantity for the one-year, two-year, and twenty five-year, 24 hour design storms. Stormwater management facilities will also be used to capture and treat 90% of the average annual rainfall and provide 85% total suspended solids (TSS) removal. It is anticipated that wet detention basin will be used to treat the additional runoff from this site.

7. CONSERVING AND PROTECTING THE NATURAL ENVIRONMENT

A. Erosion and Sedimentation Control

Erosion and sediment control will be provided during the construction in accordance with the requirements of the North Carolina Department of Environmental and Natural Resources Erosion Control Planning and Design Manual and local codes.

NCDENR's Raleigh branch will review the Erosion and Sedimentation portion of this public school project.

B. Environmental Site Conditions

The site was previously developed and contains no wetlands. A phase I ESA was completed for this site will no major concerns. There are buffered, jurisdictional streams that run through the site.

C. FEMA Floodplain

According to FEMA / FIRM Mapping, the site is not located in a mapped 100-year Floodplain.

8. LANDSCAPING

Landscaping will be provided in parking lot islands and around the building to exceed the minimum requirement from the Town of Chapel Hill.