



B-40 – SITE HARDSCAPE

Hardscape consists of sidewalks, exterior stairs and ramps, plazas, and service areas. These improvements are included in the contractor’s scope and will be installed by the project.

B-40.1 - Sidewalks

New sidewalks should be carefully planned to connect major destinations and offer pedestrians a safe, accessible, and relatively direct means of travel. The campus goal is to achieve a universally accessible campus using Universal Design principles that create walkways usable by all people to the greatest extent possible. This includes avoiding steps and features hazardous to the visually impaired. Give special consideration to locations where pedestrian pathways cross vehicular routes. New pavements materials should match existing.

Maintain consistent walk widths across the campus where possible. Standard widths are:

1. Major pedestrian corridors: 16 feet wide
2. Major pedestrian walks: 8-14 feet wide
3. Minimum walk width throughout campus: 8 feet wide

The Designer is expected to provide a design that will comply with the current versions of the North Carolina State Building Code and the Americans with Disabilities Act (ADA). The University requires some elements that exceed these codes and standards. They are listed below.

Path of Travel/Curb Cuts/Ramps

- a. Exterior walkways should not exceed a slope of 1:20 in the direction of travel. If this cannot be achieved because of site topography, then a ramp may be used. Use of ramps should be kept to a minimum. Construction tolerances shall be considered in the design of sloped surfaces to ensure they do not exceed the maximum allowed.
- b. Curb Cuts shall be concrete contrasting in color to the adjacent walkway and shall have detectable warnings in the lower 2'-0" for the width of the ramp portion. All curb cuts shall be in the direction of travel. Diagonal curb cuts at intersections should not be used.
- c. Exterior stairs shall be kept to a minimum. They shall be concrete or approved material of contrasting color from the adjacent walkway. A step with a single riser shall not be used. All stairs shall have handrails on both sides.

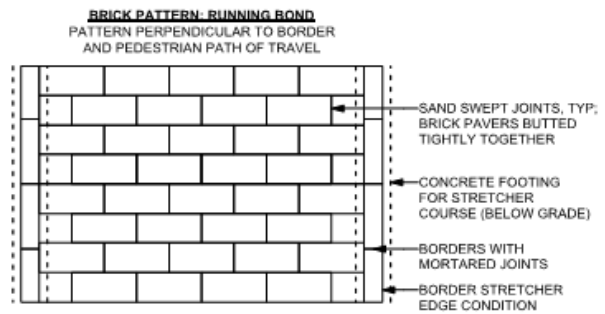
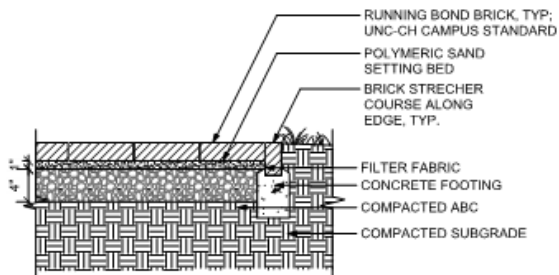
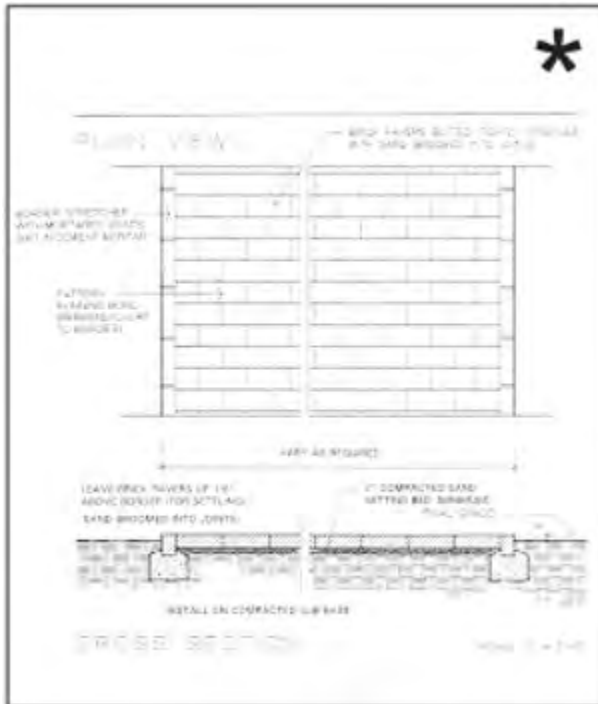
Brick pavement

Red-flashed full range running bond brick pavement is the preferred pavement for campus walks. The typical running bond pattern runs perpendicular to the path of travel. This includes all paved areas. Brick is a local, sustainable material more easily replaced than any other pavement material.

Maintenance of pavement is a primary consideration in the material chosen, as the maintenance capability of the campus is limited. The ability to match materials throughout the life of the pavement is also a primary consideration. Historically, in areas where brick was not used, there are significant problems with the maintenance and repair to these areas. Brick walks should be dry-laid. Construct brick walks, which provide service or emergency vehicle access on a concrete base.



Brick walk detail including edge brick at lawn and landscape beds:



1 CAMPUS STANDARD PEDESTRIAN BRICK PAVING
Scale: 1" = 1'-0"



B-40.2 - Exterior Stairs

Stairs should meet both NC Building Code and ADA requirements. Stair riser material used should provide a 70% visual contrast to paved areas immediately adjacent. Concrete is the preferred material for steps immediately adjacent to brick paths. Other steps materials that may be considered include: bluestone, granite, limestone.

The maintenance of the step material and the ability to patch/repair the material should be considered. Steps should meet all ADA requirements in all locations.

Provide railings and guards at stairwells, steps, loading docks and ramps. Treads and landings are to have positive drainage away from the building. Step groupings of less than 2 risers should not be used.

B-40.3 - Exterior Ramps

Exterior walkways should not exceed a slope of 1:20 in the direction of travel. If this cannot be achieved because of site topography, then a ramp shall be used. Use of ramps should be kept to a minimum. Ramps should meet both NC Building Code and ADA requirements.

Ramps and walking surfaces shall be designed to the following maximum slopes to allow for construction tolerances:

1. Ramp running slope = 7.5% maximum.
2. Walking surfaces running slope = 4.5% maximum.
3. Cross slopes for ramps and walking surfaces = 1.5% maximum.
4. Landings at ramps, stairs, and doors = 1.5% maximum in any direction.

B-40.4 - Plazas

Plazas promote outdoor gatherings of the campus community and are desirable elements where feasible.

Plazas should be ADA accessible, and accommodate programming coordinated with the associated department or community for which they will be built. Tenting as well as seating is often a desired program element.

Plazas at UNC are assumed to be paved. The pavement material is typically brick. Design standards for the creation or adaption of an existing plaza depend upon the programming for the space, consult with the University Architect and the Facilities Planning and Design.



B-40.5 – Building Entries & Access Points

Service Areas

Service areas should be screened. Requirements for service areas are found on the UNC Office of Waste Reduction and Recycling (OWRR) website: <https://facilities.unc.edu/wp-content/uploads/sites/256/2016/03/OWRR-Design-Guidelines.pdf>

Service driveways can serve as vehicular, bicycle, and pedestrian circulation, as well as access to service and service areas for buildings. In areas where the drives serve multiple transportation modes, there is a preference for use of brick as the pavement type. Examples of this include the brick paved driveways between Davie Hall and the Coker Arboretum, and between Hanes Art Center and Kenan Music Building. The brick pavers must be heavy duty brick pavement with adequate paver support beneath.

Vehicular service area (solid waste collection) interior pavement may be asphalt and/or concrete. If brick is to be used, it must meet weight loads required for the area. The pads for dumpster location must be concrete.

Primary Building Entrances

While the preference is for running bond brick pavement, other brick pavement patterns, or other pavement materials may be considered to assist in denoting primary building entrances. Other materials that can be considered include: concrete with special finishes, bluestone, and limestone. Please note that repair and maintenance must be taken into consideration. Pavements other than brick are difficult to match over time, and for this reason, we strongly prefer brick.

Pedestrian Safety

The Design of campus facilities should optimize opportunities for pedestrians, cyclists, and motorists to travel safely. Safe travel for all modes of transportation should be created and maintained at all times, especially during construction. Pedestrian safety planning shall be part of all University construction projects.

The Department of Public Safety and Facilities Planning will review, comment, and approve all pedestrian plans during all phases of a project. The University Pedestrian Safety Committee will also review all plans that affect pedestrian routes where they meet roadways.

Pedestrian safety planning must be part of all University construction projects. Design of campus facilities should optimize opportunities for pedestrians, cyclists, and motorists to behave safely. Safe travel ways for all modes of transportation should be created and maintained at all times, especially during construction.