

SUBCHAPTER 02C - SECONDARY ROADS SECTION

SECTION .0100 - SECONDARY ROADS

Note: The Department of Transportation publishes a volume entitled "Minimum Design and Construction Criteria for Subdivision Streets" which contains design standards and subdivision street policies. A copy of this volume may be obtained from the Secondary Roads and Economic Development Office at no cost.

19A NCAC 02C .0101 GENERAL DEFINITIONS

The secondary road system within a county for the purpose of this Subchapter consists of those roads maintained by the Department of Transportation that do not carry "NC" or "US" numbers and are outside the boundary of any incorporated municipality. In the development of secondary road plans, these roads fall into several categories which are defined as follows:

- (1) Principal County Routes. These routes serve as the backbone of the rural transportation network within a county. Their major purpose is to move local traffic to community and recreational centers, shopping and industrial areas, to urban areas within the county and to connect together the other secondary roads with the primary highway system. In addition, they serve abutting residential, farming, business and industrial property.
- (2) County Roads. These roads have as their primary purpose serving abutting residential, farming, business, and industrial use. They also carry small to moderate volumes of traffic moving to the principal county routes and the primary highway system. Their dual function of serving traffic and abutting property is variable depending upon their importance as a through route or connecting link.
- (3) Subdivision Streets. A subdivision street is considered to be a street or road which has been dedicated to the public to provide ingress and egress to lots or parcels which have been laid out for the purpose of providing home sites by a person or firm hoping to profit by the sale of such parcels. These lots or parcels are of insufficient size to be used primarily for farming purposes. A subdivision street is primarily for the use and convenience of the abutting property owners and not the general traveling public.
- (4) Collector Roads. Collector roads channel traffic in subdivisions from side roads. They also provide access from other state-maintained roads.

*History Note: Authority G.S. 136-44.2; 143B-350(f) and (g);
Eff. July 1, 1978;
Amended Eff. December 29, 1993;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.*

19A NCAC 02C .0102 MINIMUM STANDARDS FOR SECONDARY ROADS

The minimum standards for secondary roads are as follows:

- (1) The Department of Transportation shall require a right of way width of 50 feet for secondary roads added to the system. The right-of-way width may be such as to provide for expected future improvement and maintenance needs of a particular road. A minimum of 50 feet in width for connecting roads and a minimum of 45 feet in width for dead end roads is required. Construction or maintenance easements beyond the right-of-way may be required, if necessary.
- (2) The DOT may authorize rights of way for secondary roads that are less than the minimum required width upon a determination by the Manager of Secondary Roads, and with the approval of the Board of Transportation, that the minimum required right of way width is not feasible, based upon reasonable engineering principles and costs, or creates unnecessary hardships, and safety is not sacrificed.
- (3) For unpaved roads, a minimum travelway width of at least 20 feet is required. Where feasible, road widths of 32 feet including side ditches shall be required. Where not feasible, the requirement may be reduced to a width applicable to the situation, if safety will not be sacrificed.
- (4) Unpaved roads may be stabilized based upon the level of service that the roads render for acceptable use in all except extreme weather conditions.

- (5) Any secondary road may have drainage established that is adequate to maintain the road in a manner that is justifiable based upon the service that the road renders.

*History Note: Authority G.S. 136-44.7; 143B-350(f) and (g);
Eff. July 1, 1978;
Amended Eff. December 29, 1993; October 1, 1982;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.*

19A NCAC 02C .0103 ADDITION OF ROADS TO THE SECONDARY ROAD SYSTEM

The following requirements must be met before a county road will be added to the secondary road system, provided, however, that the Board of Transportation reserves the right not to add a road to the system if it is evident that the cost of improving said road to minimum standards is excessive within the funds presently available for maintenance and construction within the county:

- (1) Addition of county roads to the system.
 - (a) Property owners must dedicate, free of charge, a right of way sufficient for maintenance and safety purposes. A minimum width of 50 feet for connecting roads and 45 feet for dead end roads is required.
 - (b) Roads one mile or less in length must have at least five occupied residences fronting the road or with direct entrance to the road. These residences must be all-year residences. If a summer resort, each residence counts as one-half a residence.
 - (c) Roads of one or more miles in length must have an average of five occupied residences per mile fronting or having direct entrance to the road.
 - (d) There must be at least two individual property owners on the road.
- (2) Addition of subdivision streets to the system.
 - (a) Developers or property owners must dedicate the following rights of way, free of charge and free of all encumbrances:
 - (i) Connecting Roads. The right of way width for roads which serve as the connecting road system between other roads within the subdivision and the thoroughfare system is 50 feet.
 - (ii) Short Connecting Roads. These roads are one block long or extend on a block-by-block basis and have no collector characteristics. The right-of-way width is 45 feet.
 - (iii) Loop Roads. These are roads which are less than one mile in length and have no collector road characteristics. The right-of-way width is 45 feet.
 - (b) Utilities requiring adjustment or relocation to conform to Department of Transportation's rules which are contained in 19A NCAC 2B .0500 shall be made at no expense to the Department of Transportation. Existing or relocated utilities may remain within the right of way of any subdivision street added to the secondary road system provided the location of same meets Department of Transportation's approval and further provided the utility owner executes an encroachment agreement on forms furnished by the Division of Highways. Utilities are defined as electric power, telephone, television, telegraph, water, sewage, gas, oil, petroleum products, steam, chemicals, drainage, irrigation and similar lines.
 - (c) At least 20 percent of the lots bordering the street must be individually owned.
 - (d) There must be at least two occupied residences for each one-tenth of a mile. Subdivision access roads must provide ingress and egress for at least five occupied residences for roads less than one mile in length and an average of five occupied residences per mile for roads over one mile in length. A subdivision access road is a road built through vacant property to provide access to the property being developed. This road would not have lots platted along it.
 - (e) A minimum of four occupied homes is required for the addition of roads less than two-tenths of a mile in length. Cul-de-sacs less than two-tenths mile in length must serve at least four occupied homes. If four occupied homes are not served, the cul-de-sac may be treated as a private drive. Also see .0112(c) of this Subchapter.

- (f) Connecting roads with fewer than the required occupied homes for the length involved may be reviewed as to traffic usage for addition purposes. Traffic usage equivalent to the traffic that would be generated by the correct number of occupied homes shall be acceptable.
 - (g) Any subdivision street with a right of way dedicated, recorded or that has preliminary approval from a county planning board dated after September 30, 1975, shall not be added to the state maintained system unless the street is paved to the minimum construction standards of the Department of Transportation for subdivision streets.
 - (h) The Board of Transportation shall consider the addition of streets that serve developments with large lots or parcels that are of the size that the occupied housing requirement of two homes per tenth of a mile cannot be met. The number of occupied homes needed shall be a judgment factor based upon the length and the number of lots or parcels involved. The minimum requirement shall be four occupied homes.
 - (i) Erosion and Sedimentation. All subdivision roads shall have a permanent vegetative cover established and other permanent erosion control measures installed in accordance with Division of Highways' specifications, prior to addition to the State maintained system.
 - (j) Subdivision roads shall meet the minimum design and construction criteria and be maintained prior to addition to the State Highway System when petitioned for State maintenance.
 - (k) All pipe culverts, storm sewers and appurtenances shall be free of all debris and silt build-up and shall be structurally and hydraulically sound, and functioning in a normal manner. All drainage ditches shall be of such a width and depth and with such a slope as to carry the anticipated discharges. Paved ditches or rip rap shall be required where necessary.
- (3) The DOT may accept rights of way for secondary roads that are less than the minimum required width upon a determination by the Manager of Secondary Roads, and with the approval of the Board of Transportation, that the minimum required right of way width is not feasible, based upon reasonable engineering principles and costs, or creates unnecessary hardships, and safety is not sacrificed.

History Note: Authority G.S. 136-44.7; 136-44.10; 136-102.6;
 Eff. July 1, 1978;
 Amended Eff. December 29, 1993; July 1, 1984; October 1, 1982;
 Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.

19A NCAC 02C .0104 IMPROVEMENT OF ROADS ADDED TO THE HIGHWAY SYSTEM

- (a) When a county road is added to the highway system, the road shall be maintained. The addition of the road to the secondary road system does not imply that this road shall be widened, improved, stabilized or paved.
- (b) The general improvement of a road recently added to the system shall be considered in light of the service that the road renders to the general traveling public. Dead end roads for example, may not necessarily receive the same level of maintenance service as connecting roads receive.

History Note: Authority G.S. 136-44.1; 136-44.3; 136-44.7;
 Eff. July 1, 1978;
 Amended Eff. December 29, 1993;
 Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.

19A NCAC 02C .0105 PROPERTY OWNER PARTICIPATION PAVING

- (a) Subdivision-Residential Roads. Those roads which are eligible to be paved on a property owner participating basis will be administered according to the following procedure:
 - (1) The property owners or their representative may contact the division engineer or his representative to determine whether or not the road in question is eligible for paving on a participating basis. If

- all property owners agree to pay four dollars (\$4.00) per linear foot to have the road paved they are determined eligible for paving on a participating basis.
- (2) If the division engineer or his representative determines that the road in question is eligible to be paved on a participating basis, he will so inform the property owners or their representative. He will then make a survey to determine the length of the road in question and will submit to the property owners or their representative a letter stating the cost, at a rate of four dollars (\$4.00) per linear foot, for each side of the road, to the property owners for the road to be paved and the approximate date when the work can be completed.
 - (3) The property owners must then present to the division engineer or his representative a certified check made payable to the Department of Transportation, Division of Highways for the entire amount as stated in Subparagraph (a)(2) of this Rule. Once this has been accomplished, work will proceed as soon as DOT staff and supplemental funds are available.
- (b) Rural Roads. The Board of Transportation shall allow the paving of a rural road on a property owners' participation basis identical in cost of four dollars (\$4.00) per foot along each side as required for unpaved subdivision/residential roads. Property owner participation paving is on a first-come, first-served basis. A section of rural unpaved road to be paved under this rule will be at least 0.30 of a mile in length provided the road is more than 0.30 of a mile in length. The section to be paved can be at the beginning, middle, or end of an unpaved road and need not connect to existing pavement.

History Note: Authority G.S. 136-44.1, 136-44.2; 136-44.7; 143B-350(f) and (g);
Eff. July 1, 1978;
Amended Eff. December 29, 1993; November 1, 1991; July 1, 1984; October 1, 1982;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.

19A NCAC 02C .0106 PRIORITY RATINGS FOR PAVING SECONDARY ROADS

- (a) The paving of unpaved roads in any county is based upon the total needs which take into account land use and public service characteristics, traffic characteristics, and general route characteristics.
- (b) A priority rating sheet is developed for each unpaved secondary road in the county as a guide line and the roads are then rated by priority, and as funds are available, the Board of Transportation attempts to meet the needs of the county.

History Note: Authority G.S. 136-44.1, 136-44.4; 136-44.7; 143B-350(f); 143B-350(g);
Eff. July 1, 1978;
Amended Eff. December 29, 1993;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.

19A NCAC 02C .0107 ABANDONMENT OF SECONDARY ROADS

History Note: Authority G.S. 136-44.1, 136-55.1; 136-63; 143B-350(f); 143B-350(g);
Eff. July 1, 1978;
Repealed Eff. December 29, 1993.

19A NCAC 02C .0108 ACQUISITION OF RIGHT OF WAY FOR SECONDARY ROADS

- (a) For the improvement or paving of unpaved secondary roads, the property owners shall dedicate, at no cost to the Department of Transportation, adequate right of way for construction and maintenance. As an exception, the Department of Transportation may acquire by purchase, donation or condemnation, such right of way as may be determined necessary to make safety improvements to unpaved secondary roads, or to construct, improve, or replace structures thereon, to protect the safety of the traveling public. This Section shall not be construed to limit the authority of the Department of Transportation to exercise its power of eminent domain.
- (b) With respect to paved roads on the state maintained secondary road system, the Department of Transportation may acquire by purchase, donation, or condemnation, such right of way as may be determined necessary to make improvements to protect the safety of the traveling public. The terms of Paragraphs (d) and (e) of this Rule shall not apply to this Paragraph.

(c) On existing secondary roads which are part of the state highway system and have been approved for paving or general improvement, the Department of Transportation may pay for the cost of moving any existing fences or buildings within the rights of way.

(d) If one or more property owners refuse to dedicate the necessary right of way in order to pave a secondary road, the Department of Transportation may allow the remaining property owners to post a bond to cover condemnation costs incurred by the Department of Transportation. The Department of Transportation may then condemn the right of way necessary for paving the road.

(e) The amount of the bond to be posted by the property owners that are willing to give the right of way free of cost to the Department of Transportation may be determined in the following manner: The Department of Transportation may require up to two thousand five hundred dollars (\$2,500) for each parcel to be condemned based upon costs incurred for such condemnations during the previous one-year period in the county involved. If no condemnation precedents have occurred in the previous one-year period in that county, the department shall use the latest condemnation cost for the county involved. In addition, the Department of Transportation may require that the estimated amount of funds for appraised damages, if any, be posted along with the amount to cover court costs. For example, if in a previous one-year period, cost incurred in a particular county for condemning one parcel of property is two thousand one hundred dollars (\$2,100), the amount of two thousand one hundred dollars (\$2,100) may be required per parcel. If cost incurred is three thousand dollars (\$3,000) per parcel, two thousand five hundred dollars (\$2,500) may be required for each parcel to be condemned. If the damages for a parcel are one thousand dollars (\$1,000), a total of three thousand one hundred dollars (\$3,100) may be required for that one parcel. If there are two parcels, one having one thousand dollars (\$1,000) damages and the other having two hundred dollars (\$200.00) damages, three thousand one hundred dollars (\$3,100) may be required for one parcel and two thousand three hundred dollars (\$2,300) may be required for the other.

History Note: Authority G.S. 136-18(26); 136-44.1; 136-44.8; 136-44.16; 136-182;
Eff. July 1, 1978;
Amended Eff. January 1, 2004; December 1, 1994; December 29, 1993; October 1, 1982;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.

19A NCAC 02C .0109 RIVER ROAD OR MOUNTAIN DEVELOPMENTS

Many areas have developments that serve seasonal residences mainly even though there may be some year-round occupancy. These type roads are to be added to the state maintained system by the Board of Transportation only if the access road to the development and the roads within the development are paved to the minimum Board of Transportation's construction standards. This is in line with the paved subdivision street or road requirement.

History Note: Authority G.S. 136-44.1, 136-44.10; 143B-350(f); 143B-350(g);
Eff. July 1, 1978;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.

19A NCAC 02C .0110 IMPROVEMENTS FOR INDUSTRIAL: MANUFACTURING PROJECTS

(a) The Board of Transportation may review requests for access road improvements to industrial or manufacturing projects as a part of the statewide effort to attract new industry to North Carolina. Projects eligible for assistance from the Department of Transportation may be the construction or expansion of any industrial or manufacturing factory, mill, assembly or fabricating, or industrial research development or laboratory facility, or industrial processing facility. The Board of Transportation may individually review the economic impact of the location of distribution facilities for distributing manufactured goods. The number of employees and the amount of truck traffic shall be primary justification for assistance with road improvements. Approval of such requests shall be based primarily upon the initial number of employees as compared to the road improvement cost. The initial investment in the project and the precedent of past approvals by the Board of Transportation for similar projects will be considered. The particular county involved shall be considered as to current economic development.

(b) In the case of Paragraph (a) of this Rule, the access road alignment shall be determined by the Department of Transportation, and the right-of-way shall be dedicated at no cost to the Department of Transportation. Such access road improvements shall terminate at the property line of the project. The road improvements involved must become a part of the state maintained system as required by G.S. 136-44.2.

(c) The Board of Transportation may consider the addition of an access road constructed by others to the state maintenance system. The construction standards for such a road shall be determined by the Division Engineer based upon the intended use of the roadway.

History Note: Authority G.S. 136-44.1; 136-44.2; 143B-350(f); 143B-350(g);
Eff. July 1, 1978;
Amended Eff. December 29, 1993; November 1, 1991; July 1, 1984;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.

19A NCAC 02C .0111 COUNTY LANDFILL ROADS

(a) The Department of Transportation may assist the individual counties in the construction of roads to serve county supervised landfills by either participating with the financing, by doing the construction on a 100 percent reimbursable basis or by assuming the total construction cost after it has been determined to what degree that secondary road improvement funds allocated to that county may be available. The construction cost of the road to serve the landfill must be of a reasonable nature when compared to the total needs of the county as well as available funds. The road shall become a part of the state maintained system and a right of way width to be determined by the Department of Transportation must be dedicated to the Department of Transportation at no cost and the division of highways must be allowed to utilize the landfill for dumping purposes free of charge.

(b) The initiation of such a project shall be by a resolution from the board of county commissioners recommending the use of county allocated funds to partially or totally fund the road. The resolution must also state that the Division of Highways can utilize the landfill.

History Note: Authority G.S. 136-44.1; 143B-350(f);; 143B-350(g);
Eff. July 1, 1978;
Amended Eff. December 29, 1993; July 1, 1984;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.

19A NCAC 02C .0112 STATEMENT OF POLICY

History Note: Authority G.S. 136-44.1, 136-44.10; 136-102.6; 143B-350(f); 143B-350(g); 153A-205;
Eff. July 1, 1978;
Amended Eff. December 29, 1993; November 1, 1991; October 1, 1982;
Expired Eff. October 1, 2016 pursuant to G.S. 150B-21.3A.

19A NCAC 02C .0113 DESIGN AND CONSTRUCTION CRITERIA - SUBDIVISION STREETS

History Note: Legislative Objection [(a)] Lodged Eff. August 19, 1980;
Legislative Objection [(a)] Removed Eff. April 23, 1981;
Authority G.S. 136-18(1); 136-44.1; 136-102.6; 143B-350(f); 150A-62; 150A-63(c);
Eff. July 1, 1978;
Amended Eff. April 11, 1980;
Repealed Eff. April 3, 1981.

19A NCAC 02C .0114 SCHOOL BUS DRIVES AND SCHOOL BUS PARKING AREAS

The Board of Transportation shall pave a school bus drive and stabilize a school bus parking area at public schools.

History Note: Authority G.S. 136-18(17); 143B-350(f) and (g);
Eff. November 1, 1991;
Amended Eff. December 29, 1993;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.

19A NCAC 02C .0115 RURAL VOLUNTEER FIRE AND RESCUE SQUAD FACILITIES

The Board of Transportation may finance the construction of entrance driveways to the vehicle bays of rural volunteer firehouses approved by the North Carolina Fire Insurance Rating Bureau and the vehicle bays at rural rescue squad facilities approved by the North Carolina State Association of Rescue Squads, Inc. The Board of Transportation may provide maintenance improvements to those areas previously constructed by the Department of Transportation. The cost of the maintenance improvement shall be reasonable in nature and may be subject to availability of funds from the Secondary Road Fund allocation to the counties.

*History Note: Authority G.S. 136-18(24); 143B-350(f) and (g);
Eff. November 1, 1991;
Amended Eff. December 29, 1993;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.*

**19A NCAC 02C .0116 REIMBURSEMENT OF SCHOOLS FOR TRANSPORTATION
IMPROVEMENTS COMPLETED ON THE STATE HIGHWAY SYSTEM**

(a) The school shall consult with the Department by contacting the Division of Highways, Division Office, District Engineer governing the specific area in which the school is located to initiate reimbursement for transportation improvements. Reimbursement of all costs associated with the Department's required transportation improvements shall be assessed for value consistent with Department transportation improvement projects of the same type and size. Contact information for each Division Office may be accessed at <https://www.ncdot.gov/doh/divisions/>. Criteria for reimbursement are as follows:

- (1) The school shall comply with all of the notification provisions to the Department set forth in G.S. 136-18(29a);
- (2) The school shall be open for the general instruction, specialized instruction, administration, or student services and support of children in any grade or combination of grades, from kindergarten through the 12th grade;
- (3) The school shall provide paid itemized invoices from the contractor of the work completed for which the school is requesting reimbursement;
- (4) The Department shall provide to the school the option of securing the written evaluation and written recommendations from the Department within 60 days. In fulfilling this option, the Department may engage a prequalified traffic engineer to provide the written evaluation. However nothing shall preclude the school from securing its own prequalified engineer. Regardless of the option chosen, the written evaluation and recommendations shall be prepared in compliance with G.S. 136-93.1A;
- (5) The school may request the Department to contract with and fund a specific independent traffic engineer chosen by the school, but any such engagement shall be considered for approval on an individual basis and according to the Department's prequalification process. If the requested engineer is not on the prequalified list, the Department may take the time to qualify that engineer and add him or her to the prequalified list prior to the commencing of work on the evaluation. The process to qualify an engineer in this manner will occur when requested in writing by the school, acknowledging that the evaluation period will not start until the requested engineer is qualified;
- (6) If the school hires a prequalified traffic engineer in lieu of an evaluation by the Department, the Department shall only reimburse the costs of a completed independent traffic study that quantifies the extent of a transportation problem or provides an analysis of a proposed transportation solution for the selected school site where the scope of the study is set by the Department prior to commencing work on the study;
- (7) Reimbursement requests that exceed 10 percent of the estimated costs of the improvements as determined by the Department based upon the scope of the requirements for the specific project shall require written justification from the school for the increased cost;
- (8) Reimbursement requests for costs associated with the engineering design and independent traffic engineering evaluation that exceed 15 percent of the construction costs reimbursement request shall require written justification from the school for the increased cost; and
- (9) The Department shall only provide reimbursement for those transportation improvements on a State maintained roadway that are required by the Department. The requirements may include those requested by any other reviewing authority so long as the improvements are confirmed as necessary requirements by the Department. Schools may install improvements that exceed those

required by the Department. However, the school shall agree to pay for the costs of those additional improvements. Nothing herein requires the school to agree to make any improvements beyond those that are required by the Department.

(b) Any independent traffic engineer who is completing this work for the Department or for a school shall be prequalified by the Department in Work Codes 205 – School and Traffic Operations Studies and 252 – Traffic Impact Studies. Information on Department Work Codes and prequalification may be accessed at <https://connect.ncdot.gov/business/Prequal/PrequalApp/Work%20Code%20Descriptions.pdf> and <https://connect.ncdot.gov/business/Prequal/Pages/default.aspx>. The independent traffic engineer must follow all written guidelines and standards for school studies and traffic impact analysis, and any deviation from such standards shall be subject to the review and written approval of the Department's State Traffic Engineer or his or her designee prior to completion of the study. The traffic study shall assess on-campus loading and unloading of both carpoolers and school buses. The study shall have recommendations to manage the school's on-campus traffic queues at the entrance(s) to the school, and locations within the selected school site that impact the State highway system. The independent traffic engineer shall have the scope of the study approved by the Department's District Engineer prior to initiating the study. Pursuant to G.S. 160A-307.1, the independent traffic engineer shall study those improvements that are eligible for reimbursement by the Department or municipalities. The independent traffic engineer shall prepare the study in compliance with the time periods set forth in G.S. 136-93.1A. Any traffic data collection activities will be conducted by a firm who is prequalified in Work Code 309 – Traffic Data Collection. This work may be subcontracted to a qualified firm if the independent traffic engineer is not prequalified in this area.

(c) Any new, relocated, or expanded schools that opened on or after August 1, 2017, and prior to the adoption of this temporary rule, shall contact their respective District Engineer's Office to facilitate the request for reimbursement for transportation improvements to the State highway system.

(d) A "temporary classroom facility" means any facility used for the general instruction, specialized instruction, administration, or student services and support of children in any grade or combination of grades from kindergarten through 12th grade on a temporary basis while awaiting completion of a school facilities project that will permanently house students. Any school that must open a temporary classroom facility shall consult with the District Engineer governing the specific area where the school is located. The District Engineer shall provide a written evaluation and recommendation on whether the selected school site access points to the State highway system are in compliance with G.S. 136-18(29a). Prior to selecting a temporary classroom facility, the school may request and the Department may review each of the prospective temporary classroom facility sites to determine the transportation impacts to off-campus activities. Any analysis performed of the proposed temporary classroom facility sites shall not include transportation impacts associated with on-campus activities.

(e) The Department shall consider the following non-reimbursable improvement expenses pursuant to G.S. 136-18(29a):

- (1) Improvements that exceed the Department's requirements.
- (2) Any connection not on the State's right-of-way but instead on the school's property.
- (3) Any improvements that the Department would not require as part of G.S. 136-18(29) or G.S. 136-18(29a), such as sidewalks that do not connect to other networks or curb and gutter where the Department has curb and gutter, unless required by the Department on the driveway permit.
- (4) Any on-campus transportation improvements required to manage traffic flow, parking, and routing within the property limits of the school drop-off and pick-up queuing, student and teacher parking, and loading dock expansions or relocations.
- (5) New utilities required for the selected school site that are not directly associated with and impacting its access points to the State highway system. The school shall coordinate with the Department prior to the placement of any utilities in the State right-of-way. If the school chooses to place a new utility at the school site that must be moved for transportation improvements, the Department shall not reimburse for the movement of those utilities. The Department shall only provide reimbursements for existing utilities that require relocation for transportation improvements.
- (6) Any improvements to the State highway system that are part of a mixed-use development site that also include a school where such improvements would be required if a school were not part of the development. The Department shall first analyze the site without considering the school facilities and then analyze the site with the school facilities included. Any improvements that are not necessitated by traffic from the school facilities shall not be reimbursable.

- (7) Improvements made to the State highway system for developments planned for purposes other than a school. Any additional improvement to the State highway system required by the conversion of property to a school shall be eligible; however, an additional school study may be required if the Department has previously been approached and analyzed the site according to a non-school or non-educational land use.

(f) Where a new, relocated, or expanded school is located on a property that is only served by a municipal street that is not State-maintained, the school may request a review and final determination by the Department pursuant to G.S. 160A-307.1 to assess whether the improvements required by the municipality exceed those required by G.S. 136-18(29).

History Note: Authority G.S. 136-18(1); 136-18(29); 136-18(29a); 136-28.1, 136-93.1A; 160A-307.1; Temporary Adoption Eff. February 23, 2018.

SECTION .0200 - MINIMUM DESIGN AND CONSTRUCTION CRITERIA FOR SUBDIVISION STREETS

Note: The Department of Transportation publishes a volume entitled "Subdivision Roads." This volume contains illustrations of typical subdivision cross sections, street connections, intersections, driveway turnout grades and cul-de-sacs. The volume also contains names and addresses of division and district engineers. In general "Subdivision Roads" is a restatement of the information included in this Section. A copy of "Subdivision Roads" may be obtained from the Secondary Roads Department, Division of Highways in Raleigh, or from division and district highway offices across the state without charge.

19A NCAC 02C .0201 DEFINITIONS

The following definitions shall apply in this Section:

- (1) Local residential subdivision road. Either cul-de-sacs, loop roads, or roads that do not connect thoroughfares or serve major traffic generators such as schools or industrial sites.
 - (a) Subdivision dead end roads. These are roads less than 2,500 feet in length, open at one end only without special provision for turning around and have no collector characteristics.
 - (b) Subdivision connecting roads. These roads are one block long or extend on a block-by-block basis and have no collector characteristics.
 - (c) Subdivision loop roads. A road that has its beginning and ending points on the same route. It is less than one mile in length and has no collector characteristics.
 - (d) Other subdivision roads. These roads do not connect thoroughfares or serve major traffic generators and do not have "collector" characteristics.
- (2) Residential collector roads. A road which serves as the connecting road between local residential roads and the thoroughfare system.
 - (a) Collector dead end roads. These roads are more than 2,500 feet in length, open at one end only without special provisions for turning around, and have collector characteristics.
 - (b) Collector connecting roads. The roads which serve as the connecting road system between other roads within the subdivision and the thoroughfare system.
 - (c) Collector loop roads. A road that has its beginning and ending points on the same route. It is more than one mile in length and has collector characteristics.
 - (d) Other collector roads. These are other roads having a "collector" type function in the thoroughfare system.
- (3) A Subdivision road is one that serves a parcel or tract of land that is subdivided into two or more lots, building sites or other divisions for sale or building development for residential purposes where such subdivisions include a new road or change in an existing road. Subdivision roads may be designated public or private. Public designations will be built to minimum construction standards of the North Carolina Department of Transportation as required under G.S. 136-102.6. Private roads need not meet minimum construction requirements, but must meet minimum construction requirements before ever becoming a part of the State-maintained system.

History Note: Authority G.S. 136-18(1); 136-44.1; 136-102.6; Eff. April 3, 1981;

Amended Eff. December 29, 1993; July 1, 1984; October 1, 1982.

Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.

19A NCAC 02C .0202 APPLICATION REQUIREMENTS

Any person or corporation desiring to construct a new subdivision road which is to be dedicated as public, must submit the following information to the District Engineer for proper evaluation in order to obtain a certificate of approval as required by G.S. 136-102.6. If the new subdivision road (to be dedicated as public or private) will connect to a State System road, a permit authorizing construction on State right of way must be obtained from the Division of Highways before beginning any construction. Applications shall be made to the District Engineer having jurisdiction in the area. Applications for new subdivision roads shall include the following information:

- (1) two complete site layouts, including any future expansion anticipated;
- (2) horizontal alignment indicating general curve data on site layout plan;
- (3) vertical alignment indicated by percent grade, P. I. station which is the point of intersecting grades, and vertical curve length on site layout plan. The plotting of the ground profile for roads where special conditions or problems exist may be required;
- (4) typical section indicating the pavement design and width, and the slopes, widths and details for either the curb and gutter or the shoulder and ditch proposed;
- (5) routine drainage facilities and drainage areas;
- (6) vicinity map;
- (7) the number of platted lots on each road shall be reviewed to insure that the minimum housing requirements are served; and
- (8) four copies of the recorded plat after certification or upon application for State Maintenance.

History Note: Authority G.S. 136-18(1); 136-44.1;

Eff. April 3, 1981;

Amended Eff. December 29, 1993; July 1, 1984;

Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.

19A NCAC 02C .0203 REQUIREMENTS/ADDITION OF SUBDIVISION ROADS TO THE SYSTEM

The following conditions must be met before the Division of Highways may consider the addition of a subdivision street to the state highway system:

- (1) The minimum construction standards and other requirements in this Section must be a part of the proposal to be reviewed for approval before the subdivision map is recorded in the county Register of Deeds Office.
- (2) The developer or property owners shall submit a petition for addition (DOT Form SR1) to the Department of Transportation.
- (3) Developers or property owners must dedicate right-of-way free of charge and clear of all encumbrances.
- (4) Utilities requiring adjustment or relocation to conform to Division of Highways requirements (See Rule .0204 of this Section) shall be made at no expense to the Division of Highways. Existing or relocated utilities may remain within the right-of-way of any subdivision street added to the secondary road system provided the location of same meets Division of Highways' approval and further provided the utility owner executes an encroachment agreement on forms furnished by the Division of highways.
- (5) At least 20 percent of the lots bordering the street must be individually owned.
- (6) Subdivision access roads must provide ingress and egress for at least five occupied residences for roads less than one mile in length and an average of five occupied residences per mile for roads over one mile in length. A subdivision access road is a road built through vacant property to provide access to the property being developed. This road would not have lots platted along it.
- (7) A minimum of four occupied homes is required for the addition of roads less than two-tenths of a mile in length. Cul-de-sacs less than two-tenths mile in length must serve at least four occupied homes. If four occupied homes are not served, it shall be treated as a private drive.

- (8) Connecting streets with less than the required occupied homes for the length involved may be reviewed as to traffic usage for addition purposes. Traffic usage equivalent to the traffic that would be generated by the correct number of occupied homes may be acceptable.
- (9) Any subdivision street with a right-of-way dedicated, recorded or that has preliminary approval from a county planning board dated after September 30, 1975 shall not be added to the state maintained system unless the street is paved to the minimum construction standards of the Division of Highways for subdivision streets.
- (10) The Division of Highways may consider the addition of streets that serve developments with large lots or parcels that are of the size that the occupied housing requirement of two homes per tenth of a mile cannot be met. The number of occupied homes needed may be a judgment factor based upon the length and the number of lots or parcels involved. The minimum requirement shall be four occupied homes.
- (11) Erosion and sedimentation. All subdivision roads shall have a permanent vegetative cover established and other permanent erosion control measures installed in accordance with Division of Highways' specifications.
- (12) Prior to addition to the state system, subdivision roads shall be in an acceptable state of maintenance when petitioned for state maintenance.
- (13) All pipe culverts, storm sewers and appurtenances shall be free of all debris and silt build-up and shall be structurally and hydraulically sound, and functioning in a normal manner. All drainage ditches shall be of such a width and depth and with such a slope as to carry the anticipated discharges. Paved ditches or rip rap shall be required where necessary.

*History Note: Authority G.S. 136-18(1); 136-44.1; 136-102.6;
 Eff. April 3, 1981;
 Amended Eff. December 29, 1993; July 1, 1984; October 1, 1982;
 Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.*

19A NCAC 02C .0204 UTILITY REQUIREMENTS FOR SUBDIVISION ROADS

The following conditions must be met for utilities to be added to subdivision roads.

- (1) Location.
 - (a) Poles and other above-ground utilities which are to remain inside the right-of-way under an encroachment agreement shall be located at or as near as practical to the right-of-way line.
 - (b) Where there are curbed sections, above-ground utilities may be located as far as practical behind sidewalks. There is no single minimum dimension for setback of poles, fire hydrants, etc., behind curbs; however, where there are curbed sections and no sidewalks, six feet shall be used as design safety concept guide.
- (2) Depth of cover for pipe lines and other utilities:

(a) longitudinal pipe lines and electric power primary	3'
(b) longitudinal electric power secondary, and trenched communication lines	2'
(c) crossings under roadways	3'
(d) crossings under ditches	2'
(e) plowed-in communication lines	18"
- (3) Underground Utilities. For residential subdivision roads and residential collector roads, underground utilities may cross under or run longitudinally under the pavement. For all other roads and highways, underground utilities may cross under but NOT run longitudinally under the pavement except in unusual situations approved by the Division Engineer.
- (4) Acceptable materials for utilities outside pavement shall be the same as covered in (d) of this Rule.
- (5) Any utility to be installed within the right-of-way of a state maintained road will require an encroachment agreement with the North Carolina Department of Transportation in accordance with 19A NCAC 2B .0500.

*History Note: Authority G.S. 136-18(1); 136-44.1; 136-102.6;
 Eff. April 3, 1981;
 Amended Eff. December 29, 1993; July 1, 1984;*

Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.

19A NCAC 02C .0205 DRAINAGE REQUIREMENTS FOR SUBDIVISION ROADS

- (a) The Division of Highways shall review all drainage prior to acceptance of any facility to the state system.
- (b) All storm drainage shall be adequate so that the road may be maintained without excessive cost, and not cause flooding on private property from runoff of an appropriate storm frequency. Permanent drainage easements may be required. The minimum design frequency shall be as follows:
- (1) storm sewer collector -- 10 year frequency;
 - (2) cross drainage -- 25 year frequency.
- (c) In areas where ditch grades or quantities of flow deem it impracticable to establish and maintain vegetation, an erosive resistant lining such as paving or rock rip rap may be required.
- (d) Subsurface drainage shall be adequate to maintain a stable subgrade.
- (e) When road crossings are within areas designated as flood hazard areas under the Federal Flood Insurance Program, the design must be approved by the responsible local governing agency for its consistency with local flood zoning ordinances.

*History Note: Authority G.S. 136-18(1); 136-44.1; 136-102.6;
Eff. April 3, 1981;
Amended Eff. December 29, 1993; July 1, 1984;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.*

19A NCAC 02C .0206 BRIDGE AND DAM REQUIREMENTS FOR SUBDIVISION ROADS
19A NCAC 02C .0207 CURB AND GUTTER REQUIREMENTS FOR SUBDIVISION STREETS

*History Note: Authority G.S. 136-18(1); 136-44.1;
Eff. April 3, 1981;
Amended Eff. July 1, 1984;
Repealed Eff. December 29, 1993.*

19A NCAC 02C .0208 WHEEL CHAIR RAMPS

*History Note: Authority G.S. 136-18(1); 136-44.1;
Eff. April 3, 1981;
Amended Eff. December 29, 1993;
Repealed Eff. December 1, 2013.*

19A NCAC 02C .0209 PAVEMENT DESIGNS FOR SUBDIVISION ROADS
19A NCAC 02C .0210 MINIMUM DESIGN CRITERIA FOR SUBDIVISION ROADS
19A NCAC 02C .0211 STREET INTERSECTIONS FOR SUBDIVISION STREETS

*History Note: Authority G.S. 136-18(1); 136-44.1; 136-102.6;
Eff. April 3, 1981;
Amended Eff. July 1, 1984; October 1, 1982;
Repealed Eff. December 29, 1993.*

19A NCAC 02C .0212 ISLANDS OR SHORT MEDIANS AT SUBDIVISION ENTRANCES

The Department of Transportation may review requests for the allowance of islands or short medians in the right of way desired for aesthetics on State Highway System Secondary Roads at the entrance to a subdivision. The division engineer may allow the island or median sections after review on an individual basis. Approval may be subject to the following conditions:

- (1) The Department of Transportation will not maintain the island or the median section.
- (2) The island or the median section will be removed if not properly maintained by someone involved with the subdivision, i.e. developer, homeowners, etc.

History Note: Authority G.S. 136-18(1); 136-44.1; 136-102.6;
Eff. October 1, 1982;
Amended Eff. December 29, 1993; July 1, 1984;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.

19A NCAC 02C .0213 SUBDIVISION NAME MARKERS

The Department of Transportation may review requests to erect subdivision name markers on an individual basis. The name markers may be allowed to be located within the State Highway System Secondary Road rights of way at the beginning of a subdivision road provided the location of such is outside the line of sight and the normal maintenance limits. The name markers may be approved only at locations which will not sacrifice safety to the general traveling public. Approval to erect subdivision name markers shall be subject to the following conditions:

- (1) All costs shall be the responsibility of the requestor.
- (2) The Department of Transportation will not maintain the marker or the area around the marker.
- (3) The markers may be removed if not properly maintained.

History Note: Authority G.S. 136-18(1); 136-44.1; 136-102.6;
Eff. October 1, 1982;
Amended Eff. December 29, 1993;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 6, 2016.